

Summary

Public Health Services produces the fluTAS Report to inform healthcare organisations and the public about the current level of influenza (flu) in Tasmania. Multiple data sources are used to obtain measures of flu activity in the community.

This report describes flu activity in Tasmania up to Sunday **31 May 2015**. Available data over this period indicate:

- Despite more notified cases than is usual for the first 5 months of the year, other measures of influenza activity do not suggest a significant increase in community disease.
- A sharp and sustained increase in cases indicative of the start of the 2015 winter flu season has not yet occurred.
- Influenza A virus is responsible for the majority of recent influenza infections.

Flu Notifications

Tasmanian laboratories are required to notify the Director of Public Health of evidence of influenza infection (flu) in specimens collected from patients. These specimens are usually nose or throat swabs, less often a blood sample. The best test for flu involves PCR¹ to detect influenza virus RNA present in a nose or throat swab.

Since the last fluTAS report 29 notifications of laboratory-diagnosed flu in Tasmanian residents have been notified to the Director of Public Health. A **total of 99 notifications of flu** have been notified since the start of 2015. The overall trend is typical of “inter-seasonal” activity (see Figure 1).

Flu notifications during May 2015 were almost equal in each of the three regions of Tasmania (see Table 1).

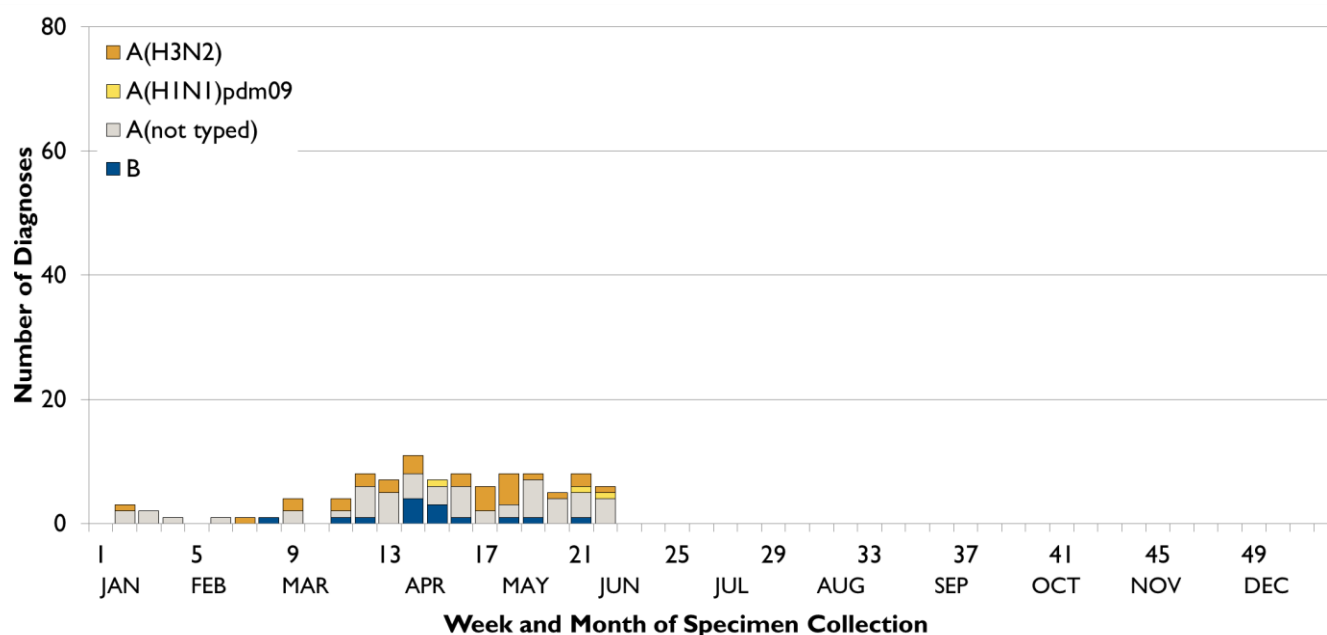
Table 1: Flu Notifications by Region of Tasmania, 31 May 2015

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	TOTAL
North	1	1	3	5	9	-	-	-	-	-	-	-	19
North-West	2	2	2	5	10	-	-	-	-	-	-	-	21
South	3	4	19	22	11	-	-	-	-	-	-	-	59

Taking into account the age-distribution of the Tasmanian population, the rate of flu notification since the start of the 2015 has been greater in older Tasmanians. Persons aged 65 years or older account for 17% of the Tasmanian population but 37% of notifications (37 cases).

¹ Polymerase Chain Reaction.

Figure 1: Laboratory-diagnosed Influenza by subtype and week of specimen collection up to 31 May 2015 (week 22)



Of the 29 flu notifications since the last fluTas report, the majority (27) have been due to infections with the Influenza A virus. Influenza A virus is the most commonly detected virus responsible for flu in Tasmania (see Table 2). Compared to the January to May period of previous years there have been more Influenza A notifications in 2015: 85 this year compared with 76 in 2014 and an average of 38 for the years 2010-14. The 14 Influenza B notifications so far in 2015 are also more than typically occur between January and May (an average of 5 for the years 2010-14). These increases may represent better-targeted testing during the “inter-seasonal” period.

Some flu laboratory isolates undergo further testing to identify subtypes. To date 29 Influenza A notifications have been identified as being an A(H3N2) subtype² while 3 have been identified as the A(H1N1) subtype³.

Table 2: Laboratory-diagnosed Influenza, Tasmania, 31 May 2015

	2007	2008	2009	2010	2011	2012	2013	2014	2015 ⁽⁴⁾
Influenza A	389	208	1,294	95	189	1,008	206	590	85
Influenza B	26	176	1	12	174	85	90	81	14
Total Influenza	415	384	1,295	107	363	1,093	296	671	99
Predominant subtype of Influenza A	unknown	unknown	H1N1	H1N1	H1N1	H3N2	H1N1	H1N1 & H3N2	H3N2

Laboratory Testing

Laboratory Testing Effort

A wide range of pathogens (mostly viruses) commonly cause winter coughs, colds and influenza-like illnesses. Some people with these symptoms will visit their doctor. The decision whether to test someone for influenza rests with their treating doctor, and depends on their symptoms. The best test for flu is a PCR test, which detects influenza virus RNA in a nose or throat swab. The number of these tests being performed by the majority of Tasmanian laboratories is a useful indicator of the level of respiratory illness in the community.

Since the start of 2015 the majority of flu has been diagnosed by PCR tests (79%).

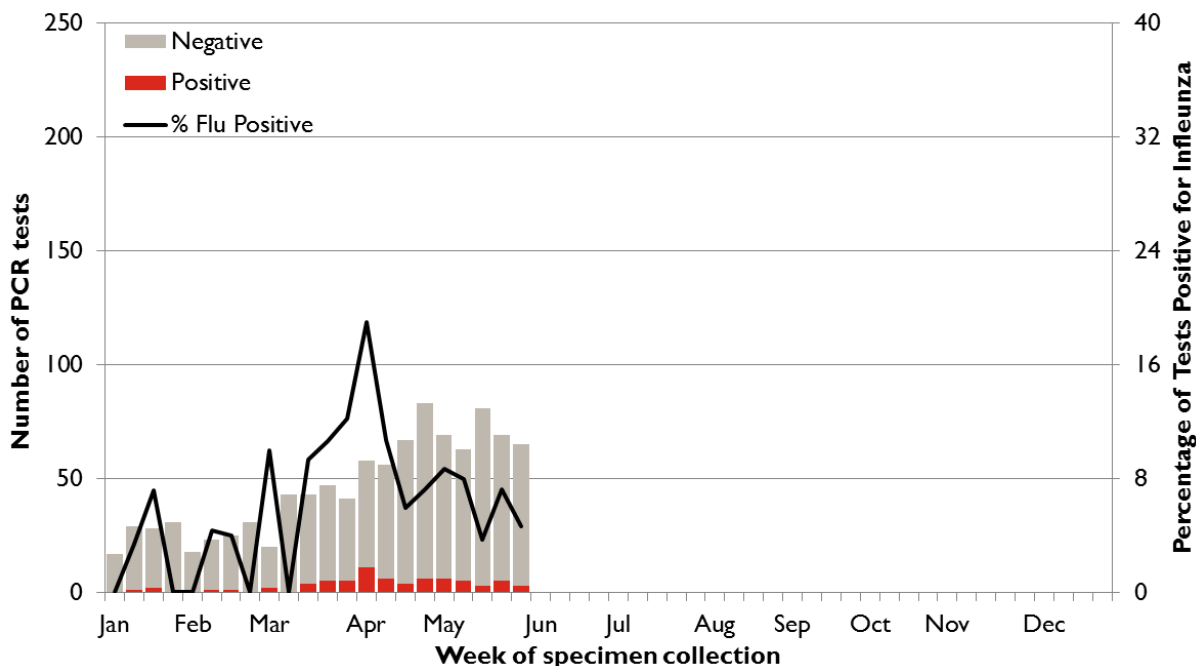
² Where the Influenza Neuraminidase (“N”) typing of an A(H3) isolate is not reported this is assumed to be N2 i.e. A(H3N2).

³ This subtype was first associated with the 2009 swine influenza pandemic. It continues to circulate globally as a typical seasonal influenza subtype.

⁴ Current number of diagnoses up to and including 31 May 2015

The average number influenza PCR tests conducted during May 2015 (69 per week) was similar to April 2015 (67 per week) but more than May 2014 (44 tests per week). The proportion of tests positive for flu declined after a spike in early April (see Figure 2).

Figure 2: Influenza tests via PCR by week during 2015 (at 31 May)

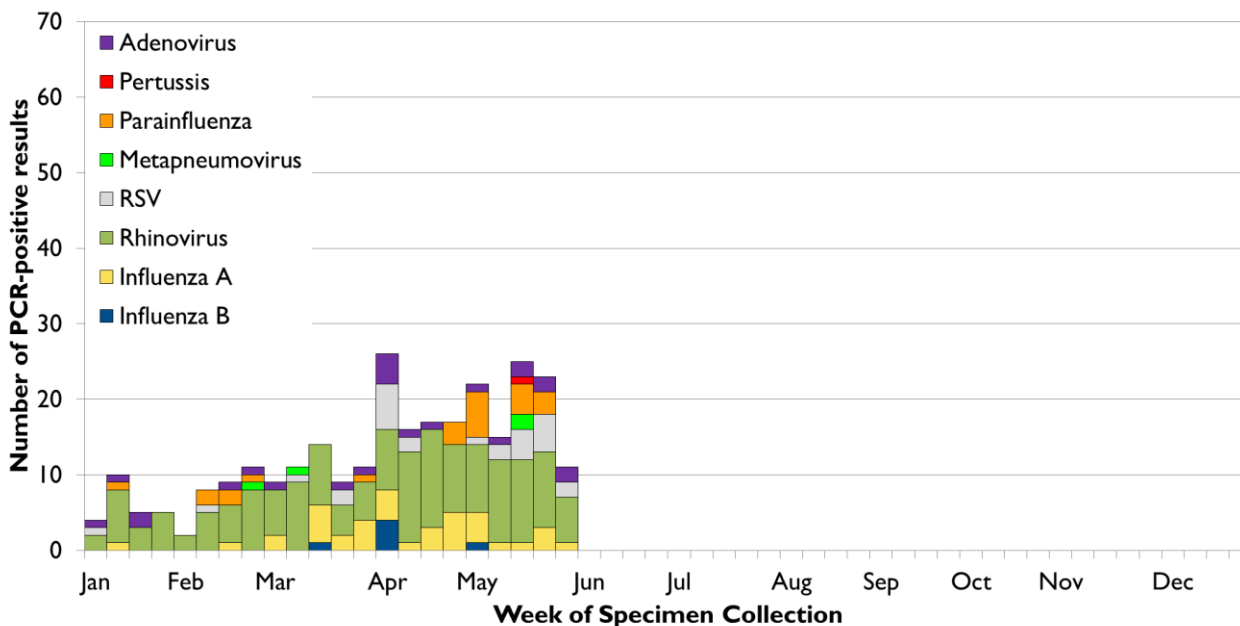


Other Respiratory Pathogens

The Royal Hobart Hospital (RHH) performs PCR tests on nose and throat swabs that detect influenza and multiple non-influenza respiratory pathogens which cause illness. These specimens have been collected state-wide mostly from Emergency Department and hospitalised patients. The monitoring of non-influenza respiratory pathogen activity can assist the interpretation of testing activity and Syndromic Surveillance trends.

The amount of respiratory pathogen testing during May was similar to April. Rhinovirus and Respiratory Syncytial Virus (RSV) were most frequently detected during testing in May, with some Influenza A detections (see Figure 3).

Figure 3: Respiratory pathogen detections, 2015 (at 31 May)



Influenza-Like Illnesses (Syndromic Surveillance)

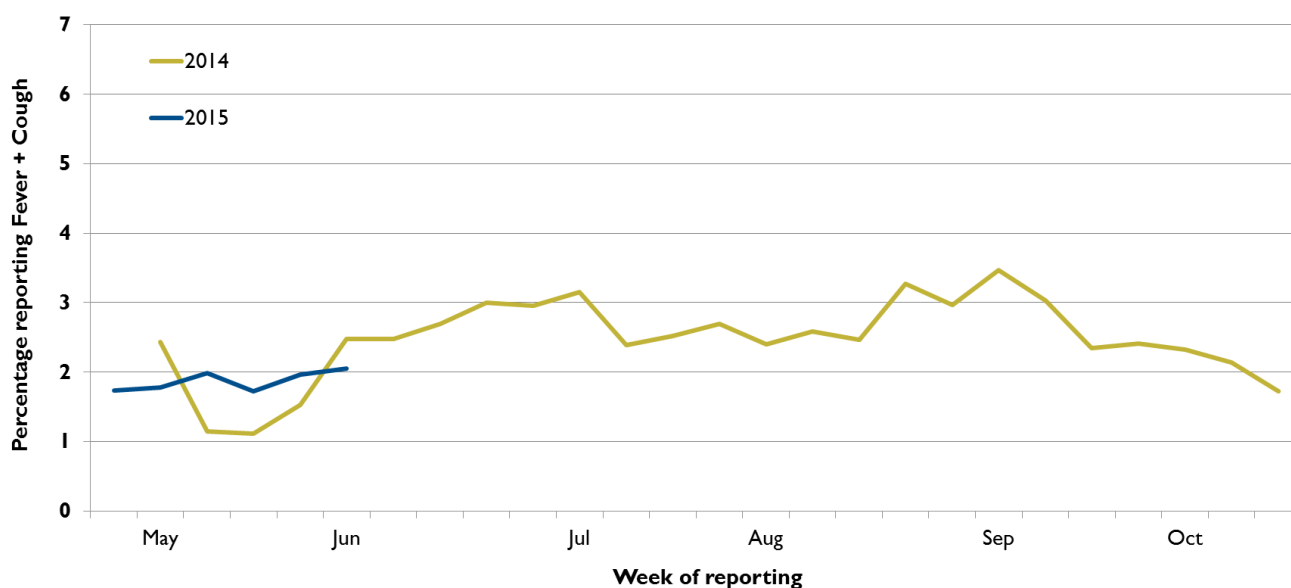
Influenza-like illness (ILI) is much more common than laboratory-diagnosed flu. For much of the year, common colds and other respiratory illnesses make up most of the ILI occurring in the community. During the annual flu season, the proportion of the population experiencing symptoms of ILI who have influenza usually increases. It is therefore useful to monitor the proportion of people reporting ILI, regardless of the cause.

FluTracking

FluTracking is a weekly online survey that asks participants to report whether they have had fever and 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.

To date in 2015, a low and stable proportion of Tasmanian participants have reported ILI each week (see Figure 4).

Figure 4: Percentage of Tasmanian FluTracking participants reporting fever and cough, 31 May 2015



General Practice surveillance

ASPREN is a network of registered sentinel GPs throughout the state who report fortnightly on the number and proportion of presentations of patients with fever, cough and fatigue. 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.

The latest Tasmanian data (to 31 May 2015) from participating General Practices shows the proportion of consultations due to influenza-like illness (ILI) were low (<1% of consultations) and similar to the levels of previous years during periods outside of winter flu-seasons.

Other Measures of Flu Activity

FluCAN

The Influenza Complications Alert Network (FluCAN) reports on influenza related hospitalisations and complications in sentinel hospitals in each state including Tasmania. On 25 May 2015 FluCAN continued to report low influenza activity.

Interstate activity

The Australian Influenza Surveillance Report is compiled from a number of data sources, including laboratory-confirmed notifications to NNDSS, sentinel influenza-like illness reporting from general practitioners and emergency departments, workplace absenteeism, and laboratory testing. The current national report is available at <http://www.health.gov.au/internet/main/publishing.nsf/content/cda-surveil-ozflu-flucurr.htm>.

The report for the week ending 22 May was of a continuing low level of flu activity in Australia indicative of the current inter-seasonal period. Activity at the State and Territory level varied, with Influenza A the predominant virus in circulation and A(H3N2) the most common subtype. Flu viruses circulating in Australia appear to be a good match with the 2015 seasonal trivalent (three) and quadrivalent (four) flu vaccines.

Annual Flu Vaccine

The contents of the annual influenza vaccine are reviewed late each year, aiming to produce vaccines for the following year that provide protection from flu strains likely to be common during winter. Advice on the formulation of annual influenza vaccines is provided by the Australian Influenza Vaccine Committee (AIVC): <http://www.tga.gov.au/committee/australian-influenza-vaccine-committee-aivc>. The formulation of the 2015 vaccine is described at <http://www.tga.gov.au/aivc-recommendations-composition-influenza-vaccine-australia>.

Annual vaccination is recommended in the National Immunisation Program and is free* for Tasmanians at risk of severe flu, including:

- anyone aged 65 and over
- Indigenous children aged 6 months to 5 years
- Indigenous people who are aged 15 years or over
- pregnant women
- any person six months of age and over with a chronic condition predisposing to severe influenza illness that requires regular medical follow-up or hospitalisation such as: cardiac disease, respiratory disease including severe asthmatics, kidney disease, diabetes, impaired immunity, neuromuscular disease.

* The cost of the vaccine is covered for these groups; there may be a consultation fee for the medical provider to administer the vaccine.



To provide feedback on the fluTAS Report, email the [Communicable Disease Prevention Unit](#) or call the Public Health Hotline on 1800 671 738.