

Summary

The **fluTAS report** is a monthly update on the influenza season produced by the Communicable Diseases Prevention Unit to inform healthcare organisations and the public about the current level of influenza activity within Tasmania. Multiple data sources are used to obtain measures of influenza activity in the community.

This report describes **influenza** activity within Tasmanian during the first four months of 2014 up to and including 27 April 2014. Available data indicate:

- Following the 2013 influenza season weekly notifications of laboratory-diagnosed influenza have persisted at a level above the historic baseline. This trend has continued through 2014 with more notifications than expected.
- Weekly counts of influenza notifications since the start of 2014 have been relatively consistent and are well below the levels associated with an active influenza season.
- The level of influenza testing since the start of the year is only slightly greater than for the same period in 2013.

Influenza notifications

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

The 2013 influenza season when compared to recent years was one of longer duration and with a later peak. While notifications of laboratory-diagnosed influenza declined following this peak, weekly notifications for the remainder of the year remained greater than historic levels for the same period (see Figure 1). That trend has continued into 2014 with notifications remaining elevated above the historic baseline up to the timing of this report (see Figure 2).

During the first 17 weeks of 2014 there were **66 notifications of laboratory-diagnosed influenza** in Tasmanian residents. This number exceeds the number for the same period during 2013 (13 notifications) and the mean of the four years 2010 to 2013 (20 notifications).

Of the 66 influenza notifications during this time, 60 (91%) were due to **Influenza A virus** infections (see Table 1). The remaining 6 (9%) notifications are associated with **Influenza B virus** infections. To date few Influenza A laboratory isolates have undergone further typing; 13 were Influenza A H1N1 (the 2009 pandemic strain) and 9 were Influenza A H3N2. Influenza A H1N1 was the most common strain during 2013.

Table 1: Laboratory-diagnosed Influenza, Tasmania

	2007	2008	2009	2010	2011	2012	2013	2014 ²
Influenza A	389	208	1,294	95	189	1,008	206	60
Influenza B	26	176	1	12	174	85	90	6
Total Influenza	415	384	1,295	107	363	1,093	296	66
Most common subtype of Influenza A	unknown	unknown	A/H1N1	A/H1N1	A/H1N1	A/H3N2	A/H1N1	-

¹ Polymerase Chain Reaction.

² Current number of diagnoses up to and including 27 April 2014

Figure 1: Laboratory-diagnosed influenza by subtype and week of specimen collection, Tasmania, 2013

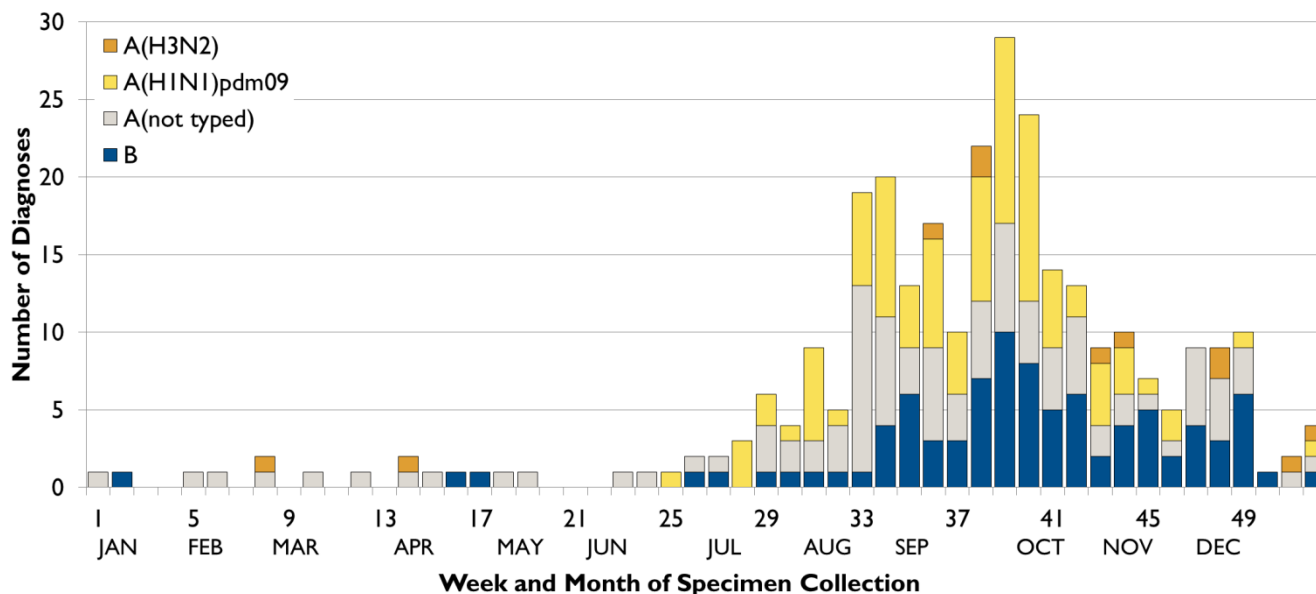
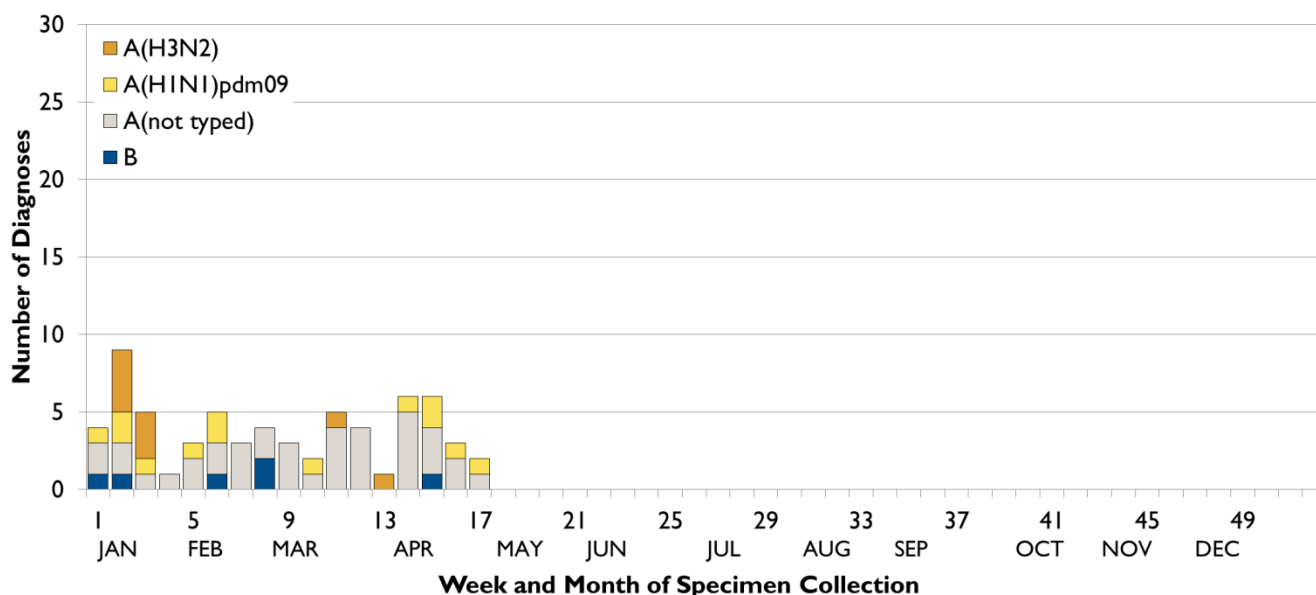


Figure 2: Laboratory-diagnosed influenza by subtype and week of specimen collection up to 27 April 2014 (week 17)



Residents from the more populous southern region of Tasmania make up the largest proportion (59%) of the 66 influenza notifications since the start of 2014. Adults aged 30-34 years represent the 5-year age group recording the greatest number of notifications since the start of 2014. A similar pattern of elevated notification rates in that age range was observed in Influenza A laboratory-diagnoses during the four years 2010 to 2013.

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 influenza is a PCR test, which detects influenza virus RNA in a nose or throat swab. The number of these tests being performed in public and private Tasmanian laboratories is a useful indicator of the level of respiratory illness in the community.

Since the start of 2014 the majority of influenza cases have been diagnosed by PCR tests (62%). The total number of influenza PCR tests performed by Tasmanian laboratories during the first 17 weeks of 2014 is 17% greater than the number conducted during the same period in 2013. The number of these tests positive for influenza is substantially greater when compared to last year; 38 PCR positive results compared with 8 during 2013 (see Figures 3 and 4).

Figure 3: Influenza Tests via PCR by week during 2013

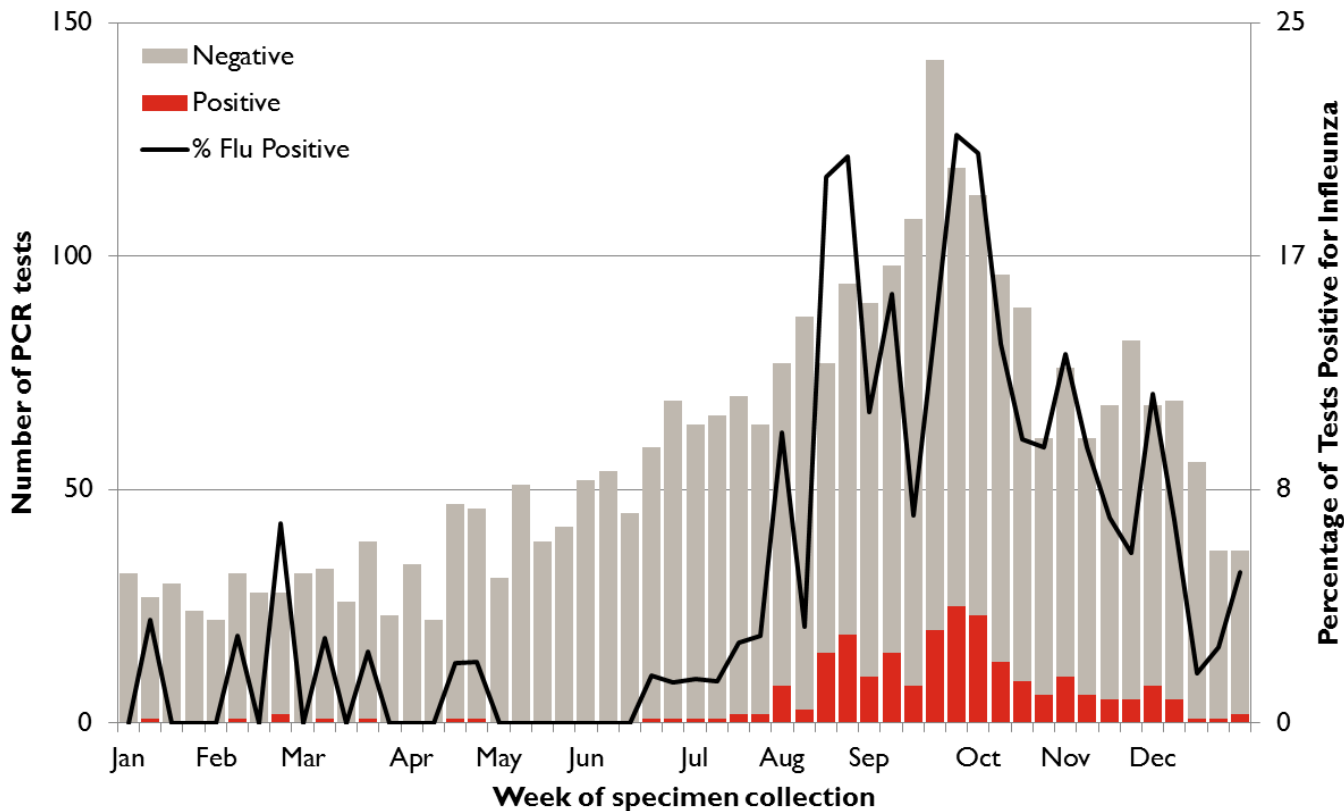
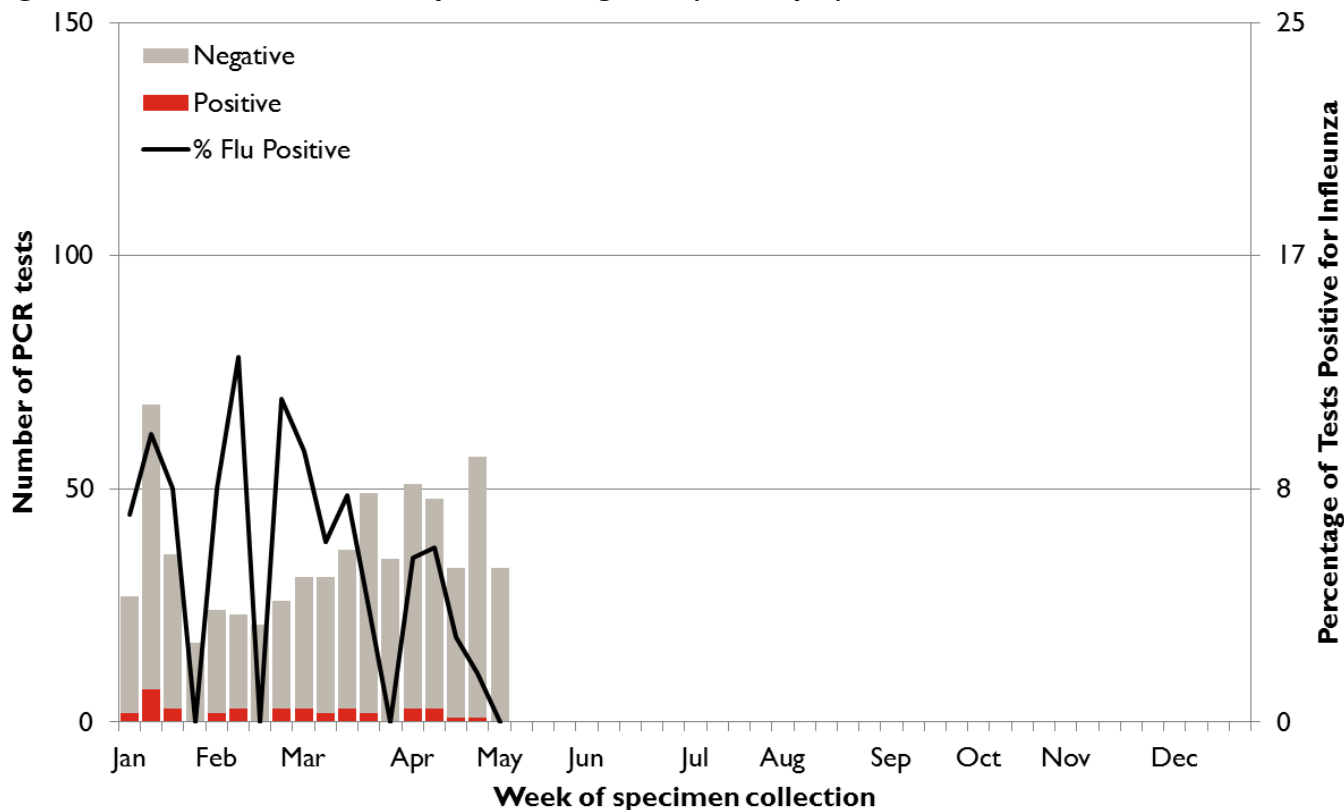


Figure 4: Influenza tests via PCR by week during 2014 (at 27 April)



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 mostly been collected from state-wide Emergency Departments or hospitalised patients across the Tasmania. The monitoring of non-influenza respiratory pathogen activity can assist the interpretation of Testing Effort and Syndromic Surveillance trends.

Respiratory pathogen testing conducted during the first 17 weeks of 2014 is 21% greater than the same period in 2013. There has been a larger number of influenza positive results in 2014 (27 compared with 5). Rhinovirus continues to be the most commonly detected respiratory pathogen during this period (see Figures 5 and 6).

Figure 5: Respiratory Pathogen detections, 2013

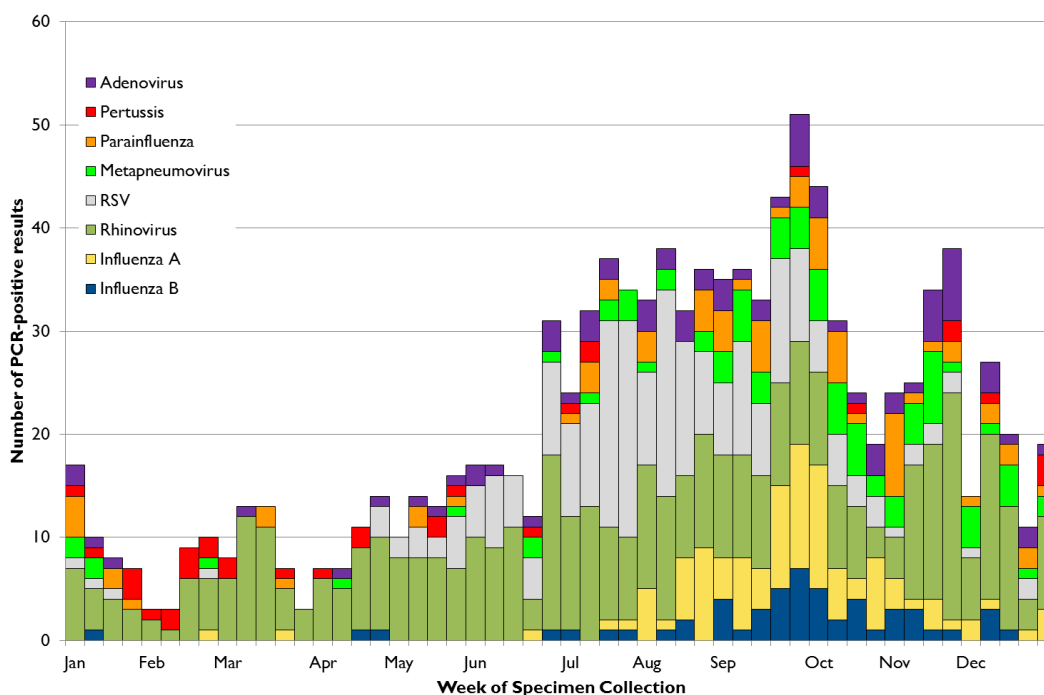
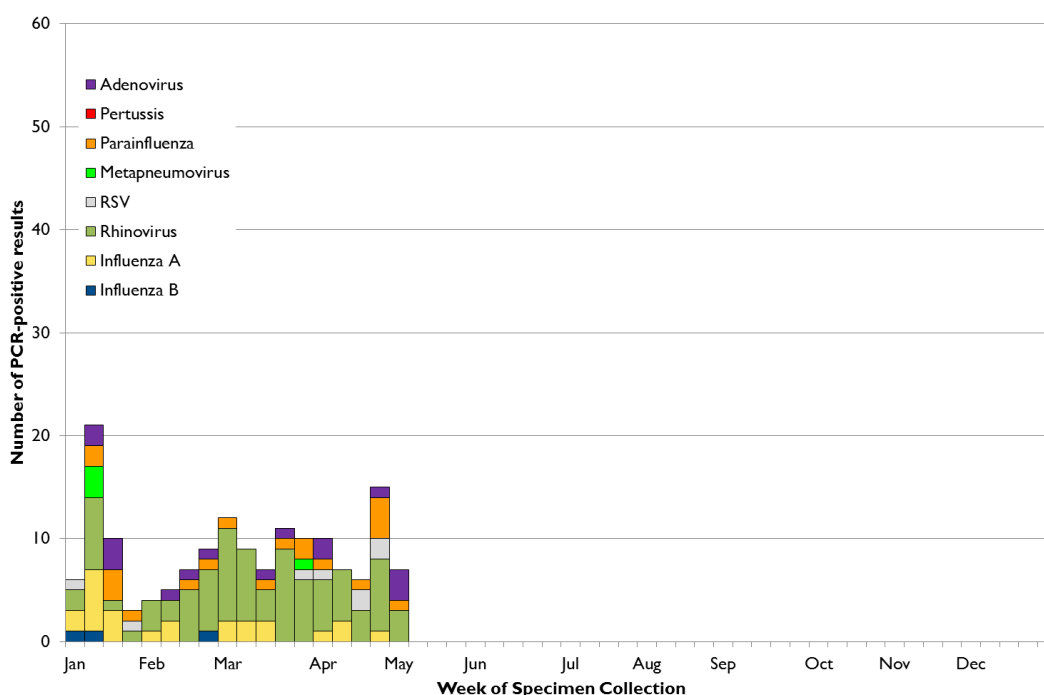


Figure 6: Respiratory pathogen detections, 2014 (at 4 May)



Influenza-like illnesses (Syndromic Surveillance)

Influenza-like illness (ILI) is much more common than laboratory diagnosed influenza. For much of the year, common colds and other respiratory illnesses make up most of the ILI occurring in the community. However, during the annual influenza 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

The annual *FluTracking* online survey of influenza-like illness recommenced in May 2014. *FluTracking* information is available at www.flutracking.net.

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.

Tasmanian data from participating General Practices up to fortnight ending 23 March 2014 indicated very few influenza-like illness (ILI) presentations. Similarly few ILI presentations were reported during the same period of 2013.

Other measures of influenza activity

FluCAN

The Influenza Complications Alert Network (FluCAN) reports on influenza related hospitalisations and complications in sentinel hospitals in each state including Tasmania. At 30 April 2014 FluCAN reported low pre-season 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 25 April indicates activity consistent with an inter-seasonal period. Nationally influenza levels are low and stable but higher than at the same time in previous years. Influenza A remains the predominant influenza virus type.

Annual Influenza Vaccine

The contents of the annual influenza vaccine are reviewed late each year with the aim to produce vaccines for the following year that provide protection from influenza strains likely to be common during winter. The recommended formulation of the 2014 vaccine was put forward in October 2013 and is described at

<http://www.tga.gov.au/about/committees-aivc.htm>.

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

- anyone aged 65 and over
- 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.



The **fluTAS Report** is a fortnightly flu season update produced by the DHHS Public and Environmental Health Service to inform healthcare organisations and the public about the current level of flu activity in Tasmania.

Alongside routine surveillance of diseases in Tasmania, the report combines multiple data sources to obtain a measure of flu activity in the community, which can be used by our health system to prepare and respond.

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