fluTAS REPORT

Issue 2 | 13 June 2014

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 May 2014 up to and including 8 June 2014. Available data indicate:

- During the past 6 weeks notifications of laboratory-diagnosed influenza have remained at a level consistent with the historic baseline. The current rate of notifications does not indicate the beginning of the 2014 influenza season.
- The majority of influenza notifications since the start of 2014 have been Influenza A infections.
- The level of state-wide influenza testing undertaken has increased over the past 6 weeks despite there being few influenza detections. Respiratory pathogen testing indicates increasing detection of non-influenza viruses.

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 PCR[1] to detect influenza virus RNA present in a nose or throat swab.

In the 6 weeks since the last report a further 20 cases of laboratory-diagnosed influenza have been notified, taking the 2014 total to 86 notifications. This number exceeds the number of notifications during the same period of 2013 (16 notifications) and the mean of the four years 2010 to 2013 (33 notifications). The incidence of influenza notifications remains low and is consistent with past inter-seasonal periods (see Figure 1).

Of the 86 influenza notifications received since the start of 2014, 76 (88%) were due to Influenza A virus infections. The remaining 10 (12%) notifications were infections of Influenza B virus (see Table 1). To date few Influenza A laboratory isolates have undergone further typing; 15 were Influenza A H1N1 (the 2009 pandemic strain) and 11 were Influenza A H3N2. Influenza A H1N1 was the most common strain during 2013.

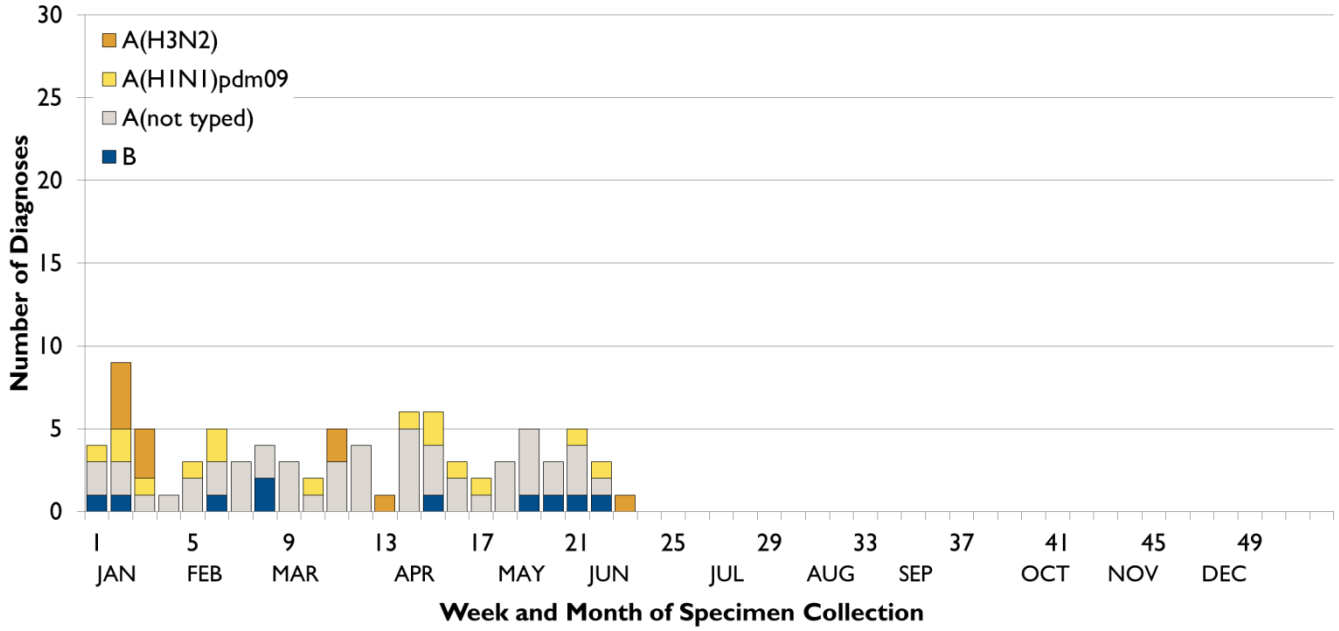
Table 1: Laboratory-diagnosed Influenza, Tasmania

	2007	2008	2009	2010	2011	2012	2013	2014[2]
Influenza A	389	208	1,294	95	189	1,008	206	76
Influenza B	26	176	1	12	174	85	90	10
Total Influenza	**415**	**384**	**1,295**	**107**	**363**	**1,093**	**296**	**86**
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 8 June 2014

Residents from the more populous southern region of Tasmania make up the largest proportion (57%) of the 86 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.

Figure 1: Laboratory-diagnosed influenza by subtype and week of specimen collection up to 8 June 2014 (week 23)



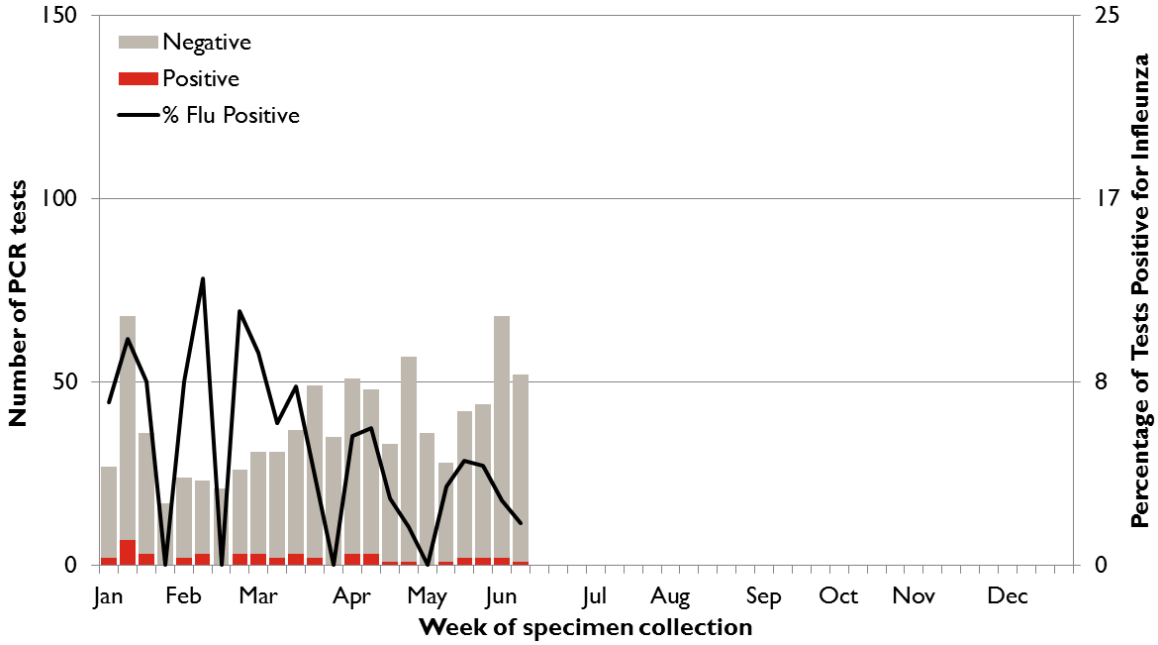
Laboratory Testing

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 a majority of influenza cases have been diagnosed via PCR tests (57%). During the 6 weeks ending 8 June the mean number of weekly tests performed by Tasmanian laboratories has been 25% greater than earlier weeks back to the start of 2014; 45 tests per week compared with 36. There has been no increase in the number of positive tests for influenza, with only 1-2 PCR positive results notified per week (see Figure 2).

Figure 2: Influenza tests via PCR by week during 2014 (at 8 June)

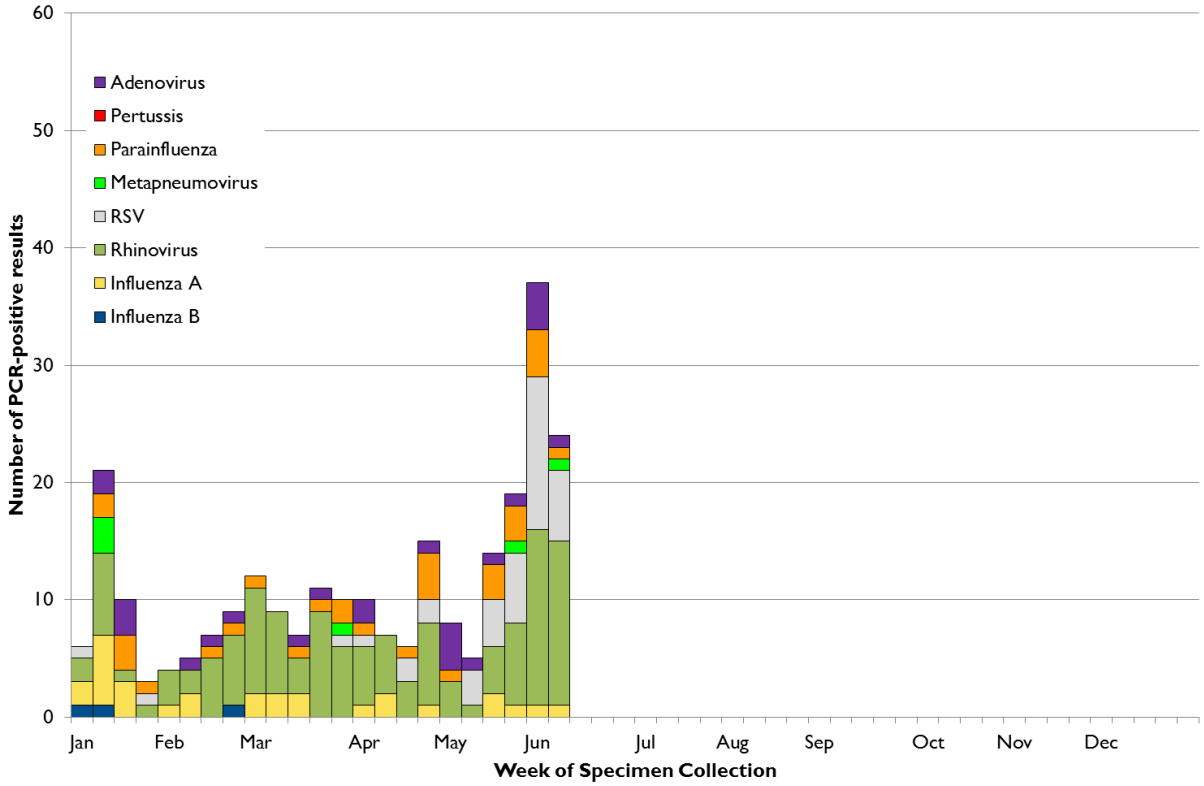


Other Respiratory Pathogens

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.

Weekly detections of rhinovirus and respiratory syncytial virus (RSV) have increased during the 6-weeks ending 8 June (see Figure 3). Influenza detections during this time have remained low. The average amount of weekly testing conducted was 30% more than the average of testing conducted earlier in the year.

Figure 3: Respiratory pathogen detections, 2014 (at 8 June)



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

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.

The 2014 *FluTracking* survey recommenced during May. To date few Tasmanian participants have reported ILI symptoms, with the current percentage at a baseline level.

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 18 May 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 6 June 2014 FluCAN continues to report 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 23 May indicates activity that continues to be 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.