

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 Tasmania during July 2014 up to and including **Sunday 27 July 2014**. Available data indicate:

- More notifications of laboratory-diagnosed influenza within Tasmania were received in July than any month to date in 2014. The rate of notification is consistent with typical recent influenza seasons.
- Most notifications continue to be Influenza A infections. The most frequently reported Influenza A subtype is A(H1N1)pdm09.
- Statewide influenza testing levels remained increased during July. The proportion of tests positive for influenza was greater than the average inter-seasonal baseline.
- General respiratory pathogen testing indicates the non-influenza viruses RSV and Rhinovirus are continuing to contribute to influenza-like illness within Tasmania.

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.

Since the last report a further 70 notifications of laboratory-diagnosed influenza have been notified, taking the 2014 total to 194 notifications. Weekly notification of influenza cases during 2014 has increased since the last week of June (see Figure 1). The current level of notification within Tasmania is consistent with levels during a typical winter influenza season.

Of the 194 influenza notifications received since the start of 2014, 178 (92%) were due to Influenza A virus infections. The remaining 16 (8%) notifications were infections with Influenza B virus (see Table 1). Some influenza laboratory isolates undergo further testing to identify subtypes. The most frequently identified Influenza A subtype of 2014 is currently the A(H1N1)pdm09 subtype².

Residents from the more populous southern region of Tasmania made up the largest proportion (60%) of influenza notifications since the last report.

Adults aged 30-34 years are the five-year age group with the greatest number of notifications since the start of 2014.

¹ Polymerase Chain Reaction.

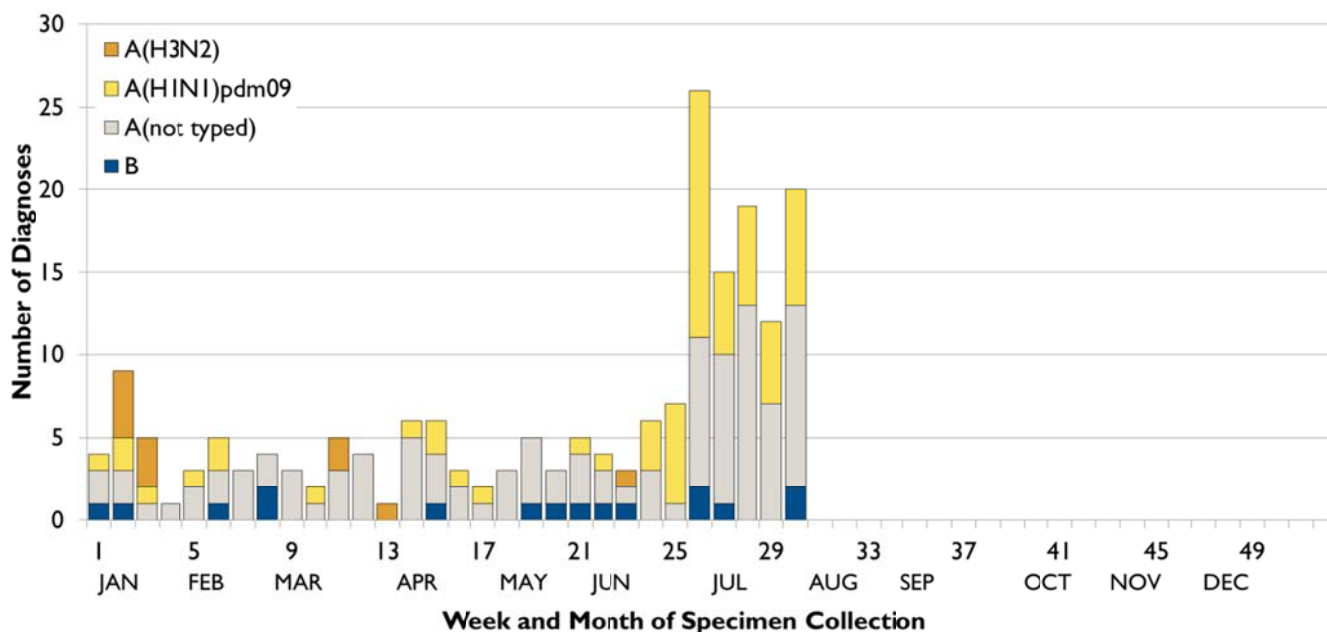
² This subtype was first associated with the 2009 swine influenza pandemic. It continues to circulate globally as a typical seasonal influenza subtype.

Table 1: Laboratory-diagnosed Influenza, Tasmania, 27 July 2014

	2007	2008	2009	2010	2011	2012	2013	2014 ³
Influenza A	389	208	1,294	95	189	1,008	206	178
Influenza B	26	176	1	12	174	85	90	16
Total Influenza	415	384	1,295	107	363	1,093	296	194
Predominant subtype of Influenza A	unknown	unknown	H1N1	H1N1	H1N1	H3N2	H1N1	H1N1

Note: H1N1 from 2009 onwards refers to the specific subtype A(H1N1)pdm09

Figure 1: Laboratory-diagnosed influenza by subtype and week of specimen collection up to 27 July 2014 (week 30)



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.

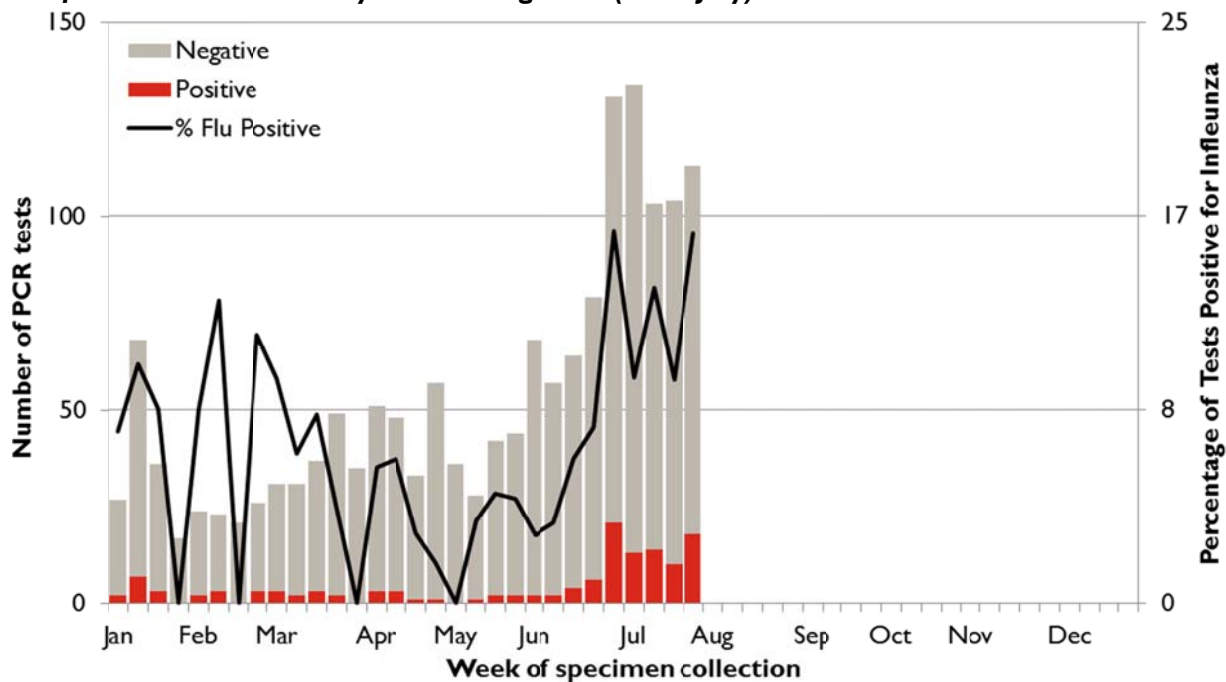
Since the start of 2014 most influenza has been diagnosed via PCR tests (75%).

The weekly number of tests for influenza using the PCR method has remained elevated during July 2014. The average weekly number of tests was three times greater than during the period of January to May 2014.

The proportion of tests positive for influenza also remained elevated during July (see Figure 2). This level of positive detections is consistent with levels observed during typical recent Tasmanian influenza seasons.

³ Current number of diagnoses up to and including 27 July 2014

Figure 2: Influenza tests via PCR by week during 2014 (at 27 July)

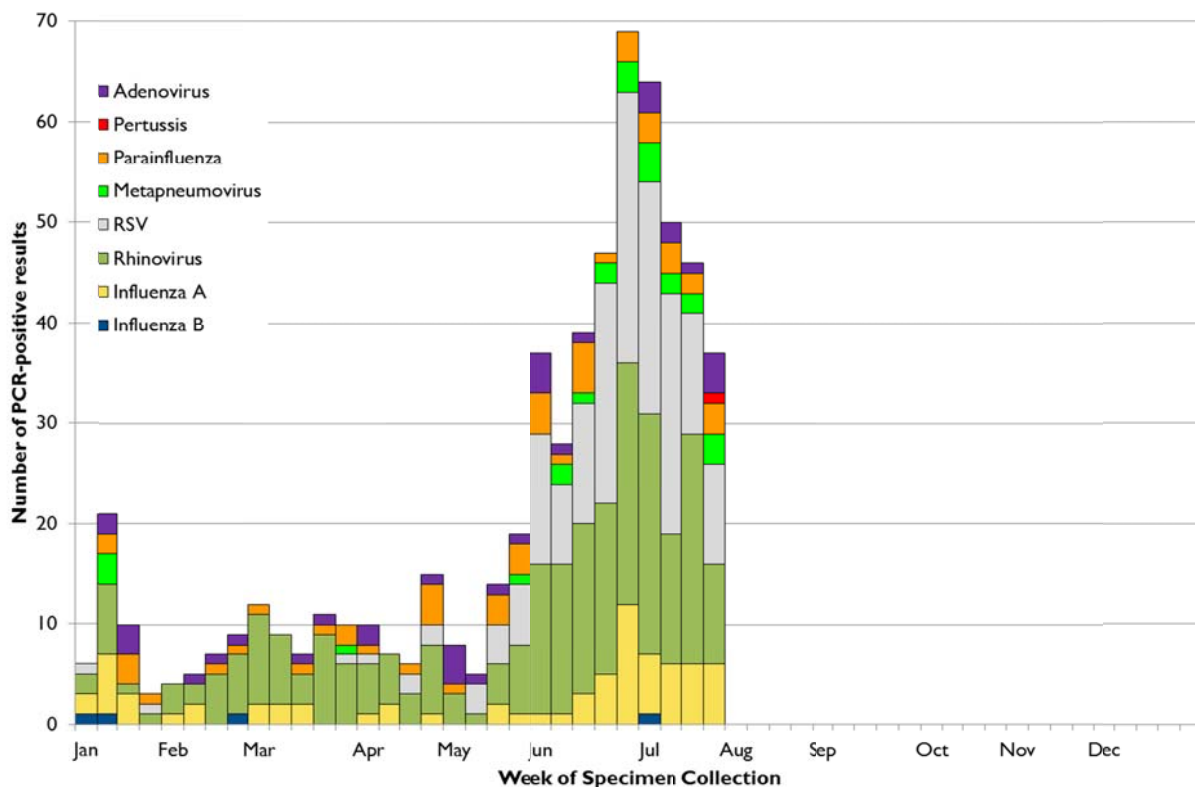


Other Respiratory Pathogens

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

Despite a trend of declining positive test numbers, the detection of respiratory pathogens remained increased during July (see Figure 3). Rhinovirus and respiratory syncytial virus (RSV) were more frequently identified as the cause of ILI in addition to influenza.

Figure 3: Respiratory pathogen detections, 2014 (at 27 July)



Influenza-like illnesses (Syndromic Surveillance)

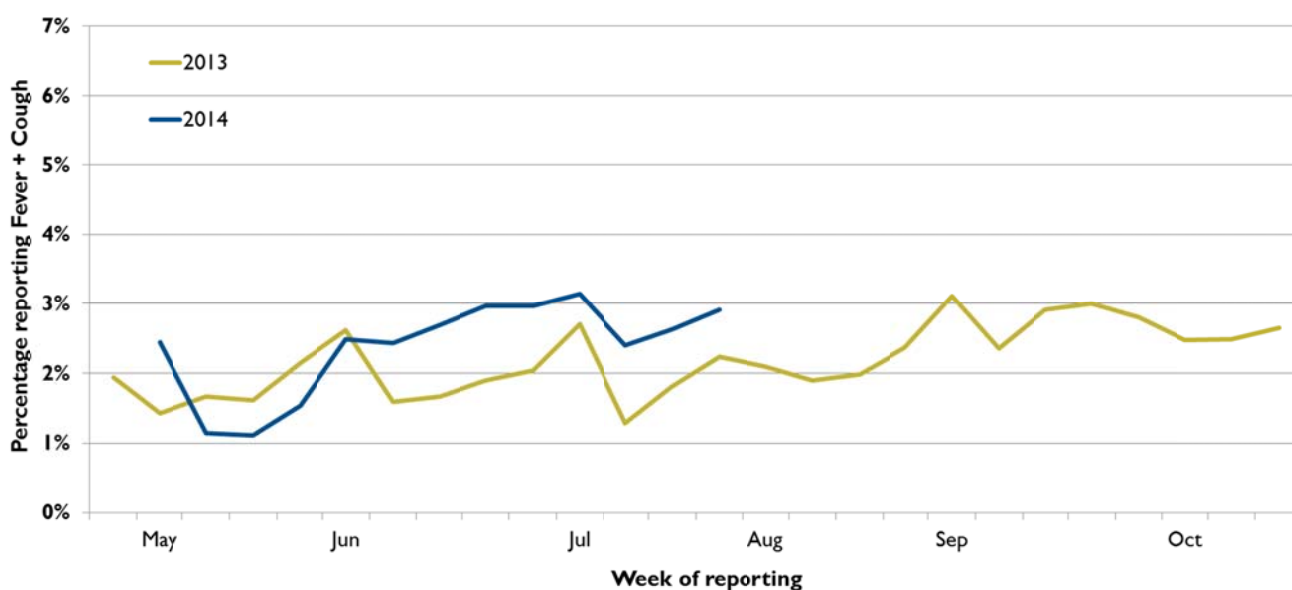
Influenza-like illness (ILI) is much more common than laboratory diagnosed influenza. For much of the year, common colds and other respiratory illnesses make up most of the ILI in the community. However, during the annual influenza season, the proportion of the population experiencing symptoms of ILI 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 proportion of Tasmanian participants reporting ILI has continued at a moderately increased level during the past four weeks ending Sunday 27 July (see Figure 4).

Figure 4: Percentage of Tasmanian *FluTracking* participants reporting fever and cough, 27 July 2014



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 from participating general practices indicates an increase in influenza-like illness (ILI) presentations during the fortnight ending 15 June 2014.

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 28 July 2014 the national FluCAN data showed evidence of a continuing increase in influenza hospitalisation in a number of participating hospitals in mainland states.

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 fortnight ending 18 July indicated increased influenza activity in almost all jurisdictions. Influenza A remains the predominant influenza virus type nationally. Available subtyping data indicate A(H1N1)pdm09 as the most common subtype in jurisdictions other than New South Wales and the ACT, where A(H3N2) is circulating at higher levels. Influenza strains circulating within Australia are similar to the strains included in the 2014 vaccine.

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 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 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.