



Influenza activity – as at 8 July 2015

ASSESSMENT

PURPOSE: To provide an assessment of current influenza activity in Australia, as at 8 July 2015.

- There are indications that the 2015 influenza season has started.
- While laboratory confirmed influenza notifications reported so far this year are twice the number reported for the same period in previous years, they are still at low levels when considering the peak of last year's season.
- As yet, there is no clear indication of the overall scale and severity of the season ahead.

ANALYSIS

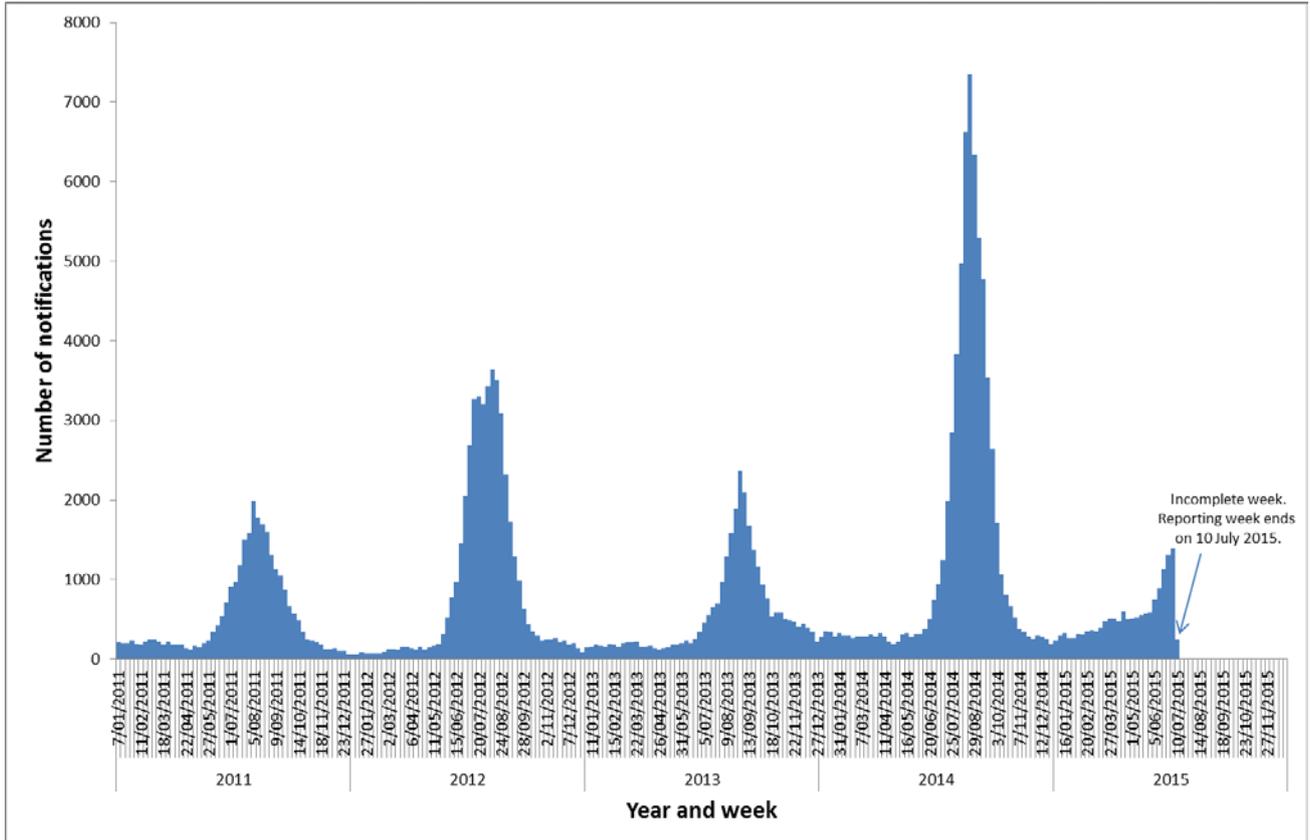
CURRENT ACTIVITY

- There are indications that the 2015 influenza season has started, with notifications of laboratory confirmed influenza to the NNDSS increasing in recent weeks (Figure 1).
- All jurisdictions, excluding the NT, have reported increasing activity (Figure 2).
- While laboratory confirmed influenza notifications reported so far this year are twice the number reported for the same period in previous years, they are still at low levels when considering the peak of last year's season.
- The number of notifications, and the onset and peak of the influenza season may be influenced by a range of factors, including immunity to circulating strains, increased public awareness, the healthcare seeking behaviours of patients and testing and notification practices of medical practitioners.
- Nationally, notifications have been highest among those aged over 85 years with a secondary peak in those aged between 5 and 14 years.
- Systems that monitor influenza-like illness (ILI) show variable activity levels. FluTracking is reporting low levels of ILI in the community (Figure 3), while ILI levels detected through calls to the National Health Call Centre Network (NHCCN, Figure 4) and through presentation to sentinel GPs (Figure 5) are increasing.
- Influenza B is currently the predominant influenza virus type circulating in Australia (Figure 6). Infection due to influenza B virus is often thought to be milder than influenza A virus infection; however recent studies do not support this widely held view.[1, 2]
- The seasonal influenza vaccines appear to be a good match for circulating strains.

SEVERITY OF THE 2015 SEASON

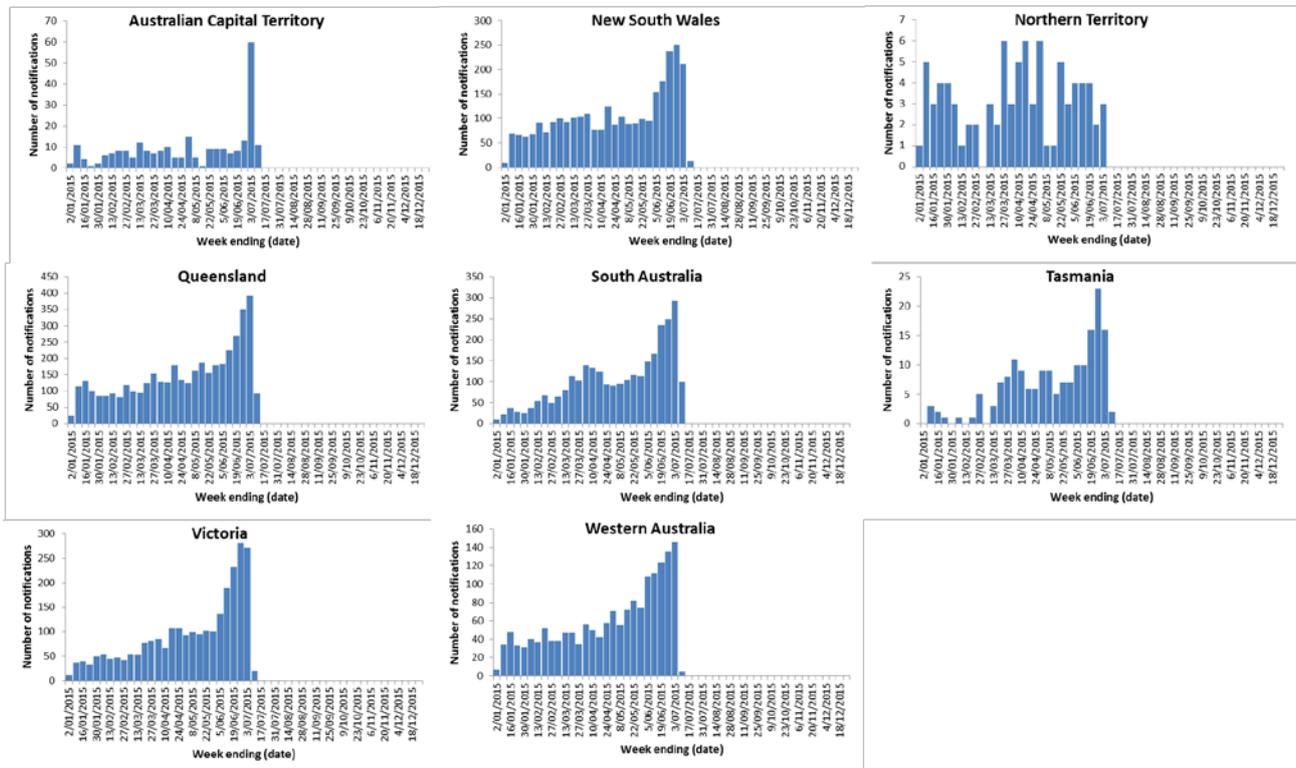
- The timing and peak of influenza notifications and clinical severity of infected cases varies from year to year.
- The overall scale and clinical severity of this year's influenza season will become apparent as it progresses.
- So far in 2015, 36 influenza associated deaths have been notified to the NNDSS.

Figure 1. Notifications of laboratory confirmed influenza, Australia, 1 January 2011 to 8 July 2015, by week.



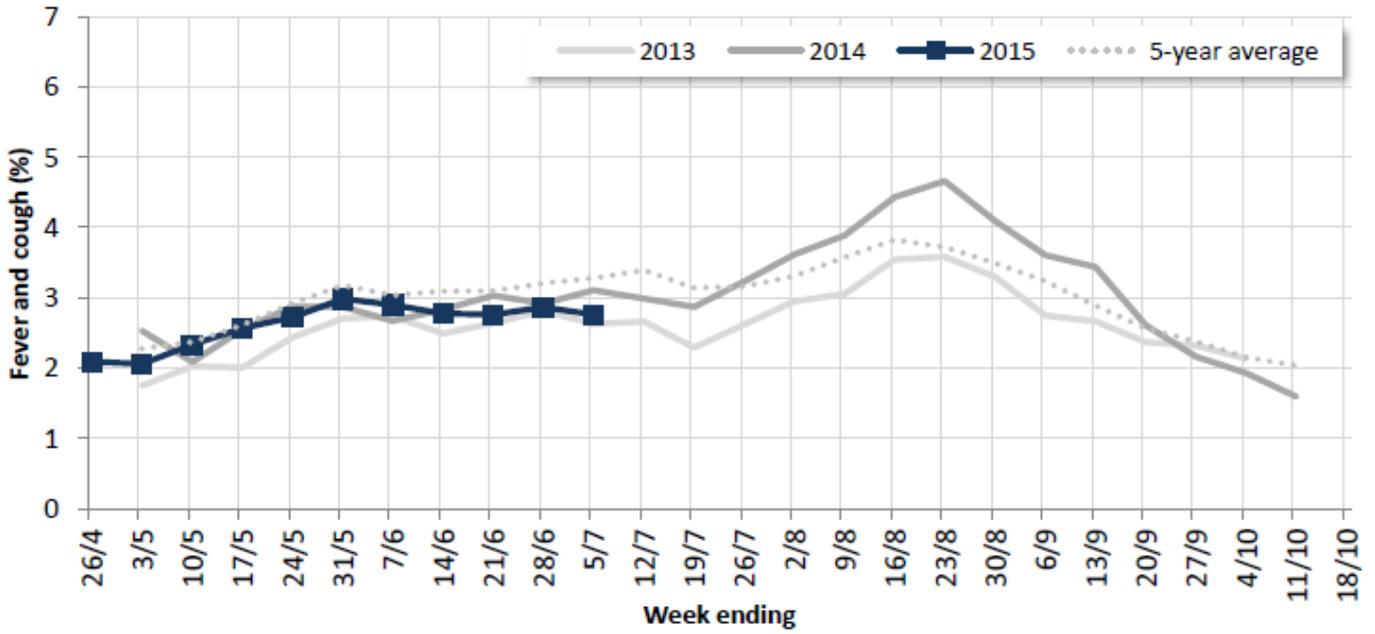
Source: NNDSS, extracted 8 July 2015

Figure 2. Notifications of laboratory confirmed influenza, 1 January to 8 July 2015, by state or territory and week.



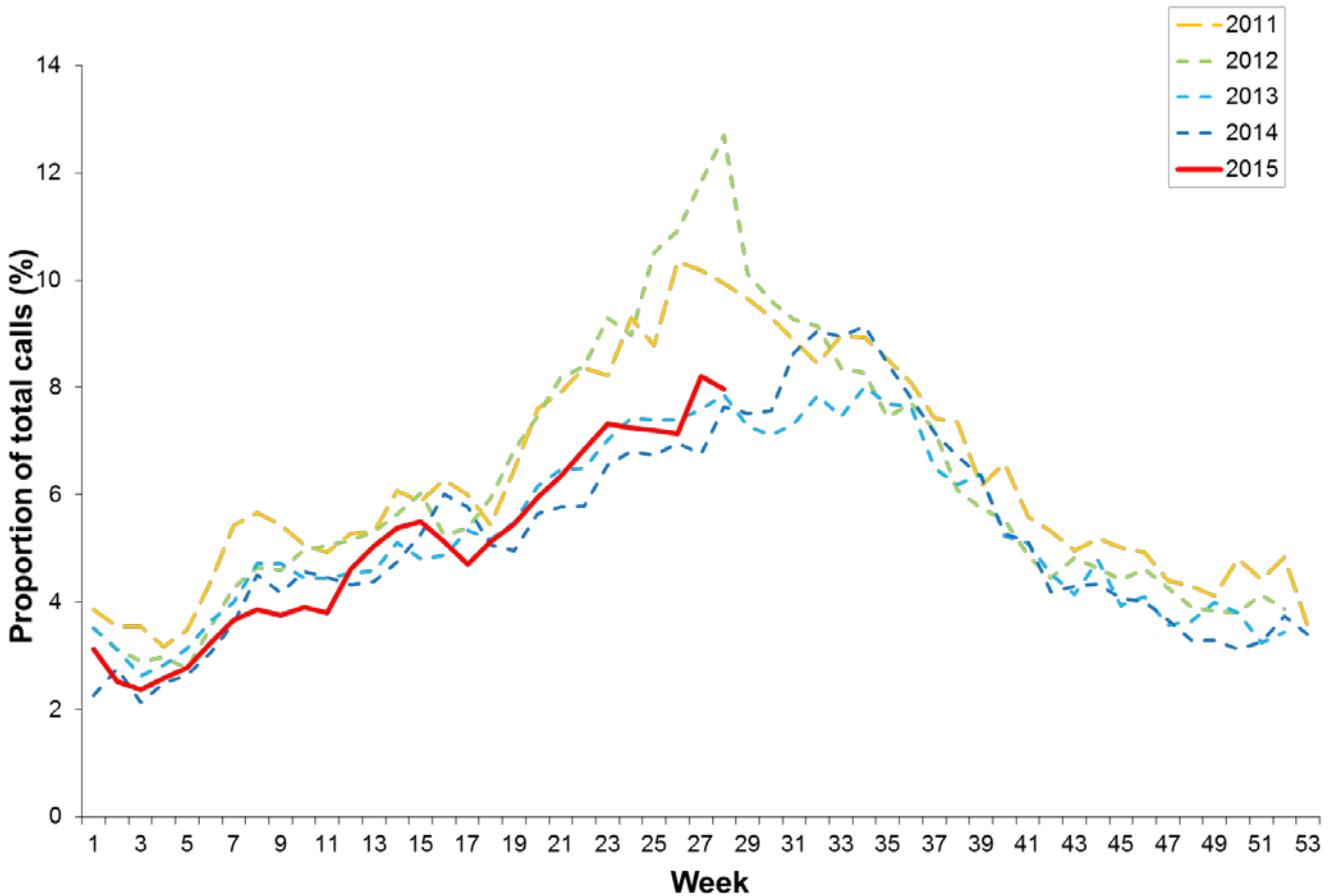
Source: NNDSS, extracted 8 July 2015

Figure 3. Proportion of fever and cough among FluTracking participants, between April and October, 2013 to 2015, by week



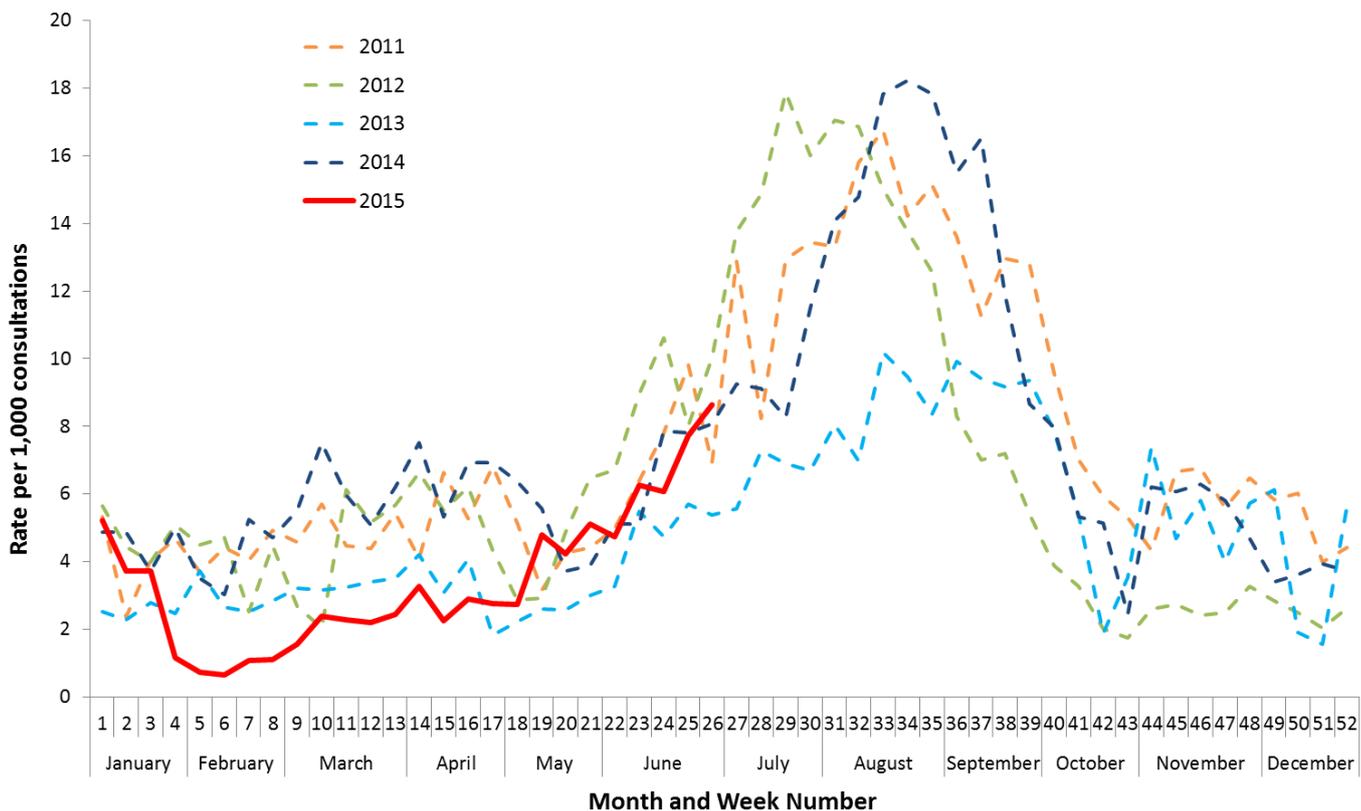
Source: FluTracking, Weekly Interim report, week ending 5 July 2015

Figure 4. Proportion of total calls to the NHCCN related to ILI, Australia, January to December, 2011 to 2015, by week



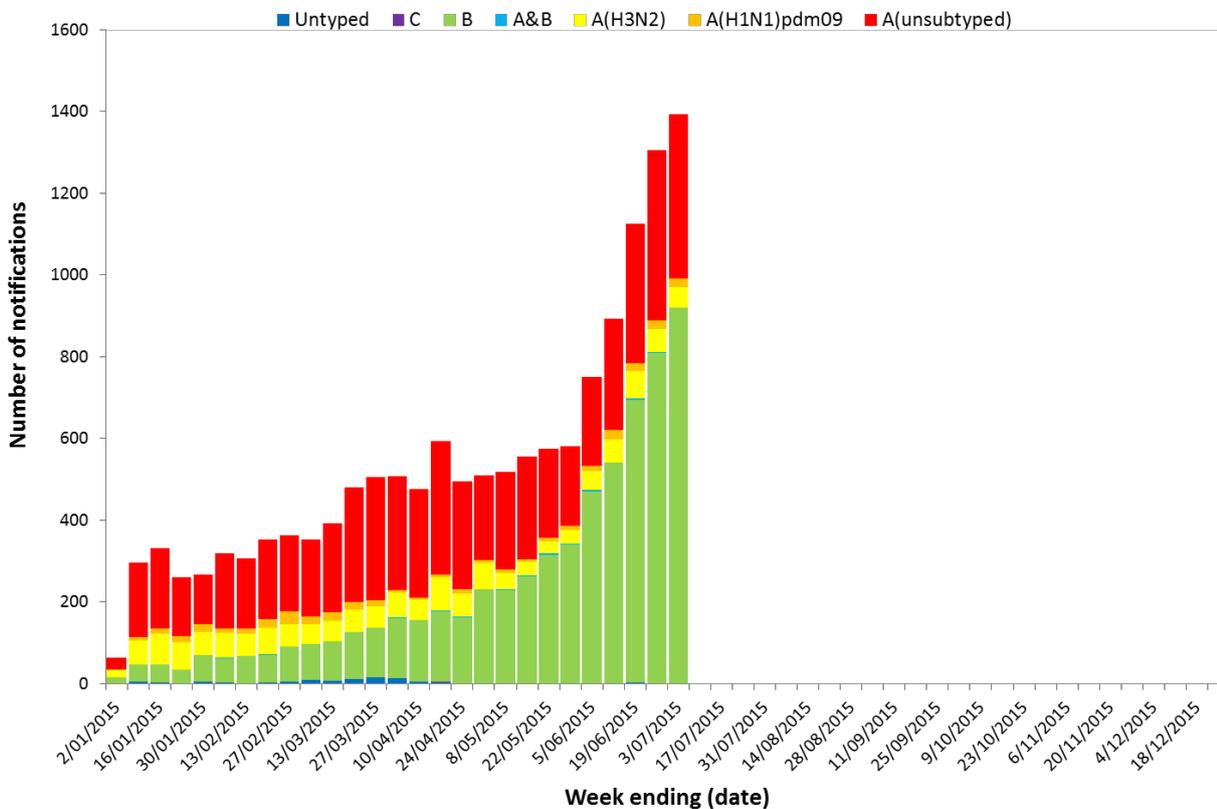
Source: National Health Call Centre Network, extracted 8 July 2015

Figure 5. Weekly rate of ILI reported from GP ILI surveillance systems, January to December, 2011 to 2015, by week



Source: ASPREN and VIDRL; Data up until 28 June, extracted 8 July 2015

Figure 6. Notifications of laboratory confirmed influenza, Australia, 1 January to 7 July 2015, by subtype and week.



Source: NNDSS, extracted 8 July 2015

REFERENCES

1. Su, S., et al., *Comparing clinical characteristics between hospitalized adults with laboratory-confirmed influenza A and B virus infection*. *Clinical Infectious Diseases*, 2014. **59 Brief Report**.
2. Paddock, C.D., et al., *Myocardial Injury and Bacterial Pneumonia Contribute to the Pathogenesis of Fatal Influenza B Virus Infection*. *Journal of Infectious Diseases*, 2012. **205(6)**: p. 870-872.