Australian Sentinel Practices Research Network, 1 October to 31 December 2015

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Introduction

The Australian Sentinel Practices Research Network (ASPREN) is a national surveillance system that is funded by the Australian Government Department of Health, owned and operated by the Royal Australian College of General Practitioners and directed through the Discipline of General Practice at the University of Adelaide.

The network consists of general practitioners who report presentations on a number of defined medical conditions each week. ASPREN was established in 1991 to provide a rapid monitoring scheme for infectious diseases that can alert public health officials of epidemics in their early stages as well as play a role in the evaluation of public health campaigns and research of conditions commonly seen in general practice. Electronic, web-based data collection was established in 2006.

Since 2010, ASPREN GPs have been collecting nasal swab samples for laboratory testing, allowing for viral testing of 20% of influenza-like illness (ILI) patients for a range of respiratory viruses including influenza A, influenza B and A(H1N1) pdm09.

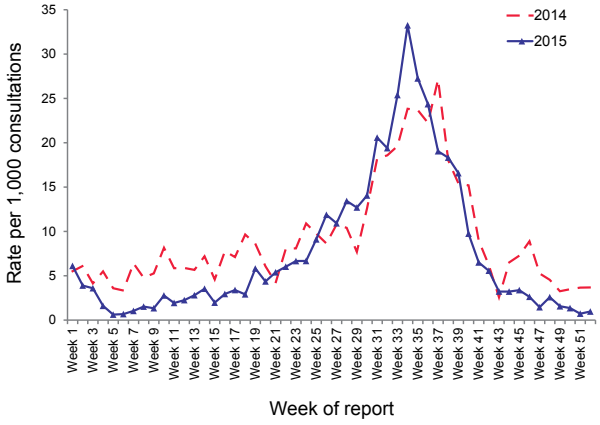
The list of conditions reported is reviewed annually by the ASPREN management committee. In 2015, 4 conditions are being monitored. They include ILI, gastroenteritis and varicella infections (chickenpox and shingles). Definitions of these conditions are described in Surveillance systems reported in CDI, published in *Commun Dis Intell* 2015;39(1):E180.

Results

Sentinel practices contributing to ASPREN were located in all 8 states and territories in Australia. A total of 240 general practitioners regularly contributed data to ASPREN in the 4th quarter of 2015. Each week an average of 224 general practitioners provided information to ASPREN at an average of 17,017 (range 10,834 to 18,362) consultations per week and an average of 152 (range 63 to 235) notifications per week.

ILI rates reported from 1 October to 31 December 2015 averaged 3.3 cases per 1,000 consultations (range 0.7 to 9.8 cases per 1,000 consultations). This was lower compared with rates in the same reporting period in 2014, which averaged 6.1 cases per 1,000 consultations (range 2.6 to 15.2 cases per 1,000 consultations, Figure 1). ILI rates peaked in week 34 at a rate of 33.2 ILI cases per 1,000 consultations.

Figure 1: Weighted* consultation rates for influenza-like illness, ASPREN, 2014 and 1 January to 31 December 2015, by week of report



* Results are weighted to account for population size differences between jurisdictions, using population estimates from the Australian Bureau of Statistics 2011 Census.

The ASPREN ILI swab testing program continued in 2015 with 241 tests being undertaken from 1 October to 31 December. The most commonly reported virus during this reporting period was influenza A (12.0% of all swabs performed, Figure 2), with the second most common virus being influenza B (7.1% of all swabs performed).

From the beginning of 2015 to the end of week 52, 831 cases of influenza were detected with 522 of these typed as influenza B (18.7% of all swabs performed) and the remaining 309 being influenza A (11.1% of all swabs performed) (Figure 2).

During this reporting period, consultation rates for gastroenteritis averaged 5.7 cases per 1,000 consultations (range 3.2 to 8.1 cases per 1,000, Figure 3). This was similar to the rates in the same reporting period in 2014 where the average was 5.9 cases per 1,000 consultations (range 3.3 to 9.8 cases per 1,000).

Figure 2: Influenza-like illness swab testing results, ASPREN, 1 January to 31 December 2015, by week of report

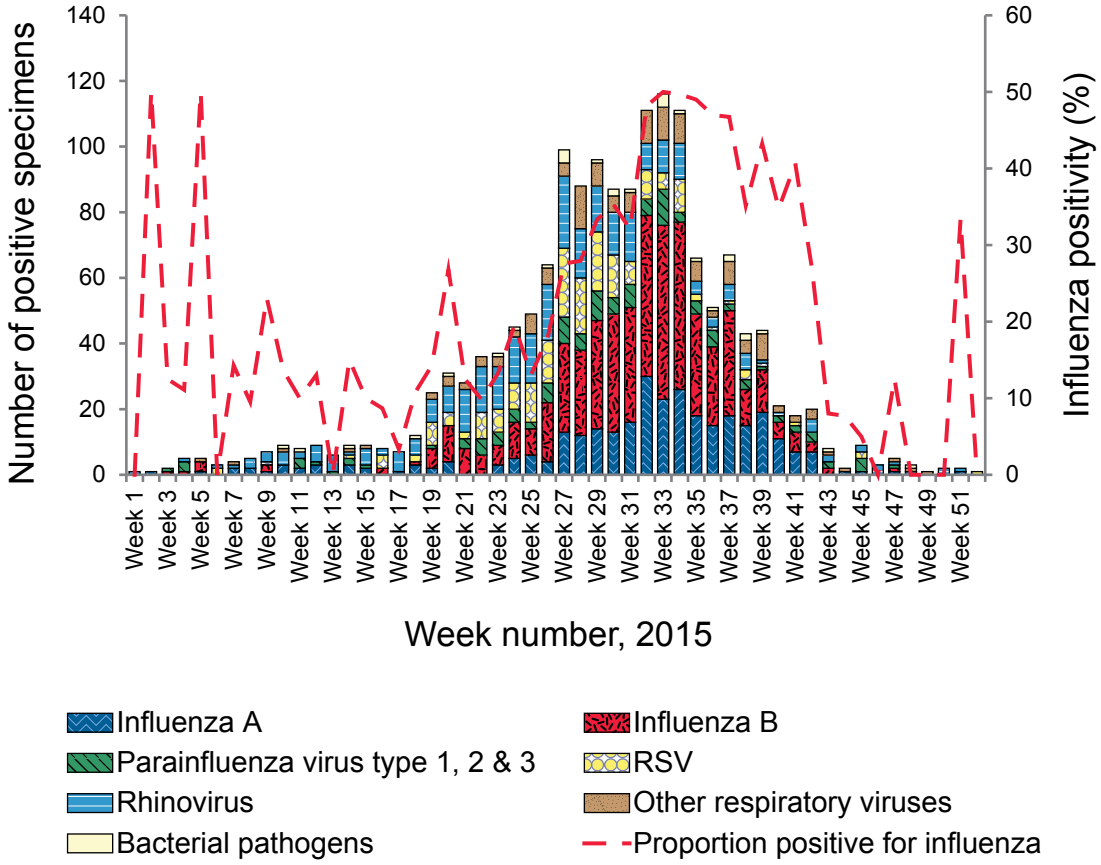


Figure 3: Consultation rates for gastroenteritis, ASPREN, 2014 and 1 January to 31 December 2015, by week of report

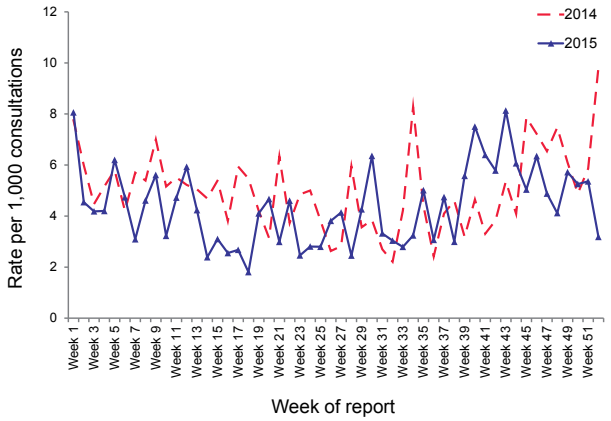
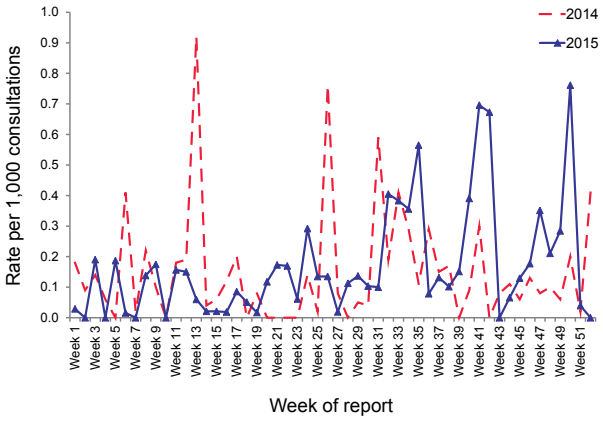


Figure 4: Consultation rates for chickenpox, ASPREN, 2014 and 1 January to 31 December 2015, by week of report



Varicella infections were reported at a higher rate for the 4th quarter of 2015 compared with the same period in 2014. From 1 October to 31 December 2015, recorded rates for chickenpox averaged 0.3 cases per 1,000 consultations (range 0.0 to 0.8 cases per 1,000 consultations, Figure 4).

In the 4th quarter of 2015, reported rates for shingles averaged 1.2 cases per 1,000 consultations (range 0.4 to 1.8 cases per 1,000 consultations, Figure 5) This was similar to the rates in the same reporting period in 2014 where the average shingles rate was 1.3 cases per 1,000 consultations (range 0.4 to 3.2 cases per 1,000 consultations).

Figure 5: Consultation rates for shingles, ASPREN, 2014 and 1 January to 31 December 2015, by week of report