

# THE AUSTRALIAN SENTINEL PRACTICES RESEARCH NETWORK, 1 OCTOBER TO 31 DECEMBER 2016

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## Introduction

The Australian Sentinel Practices Research Network (ASPREN) is a national influenza and infectious diseases surveillance system that is funded by the Australian Government Department of Health. ASPREN was established by the Royal Australian College of General Practitioners in 1991 and is currently directed through the Discipline of General Practice at the University of Adelaide.

The network consists of general practitioners and nurse practitioners, Australia wide, who report syndromic 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 inform public health officials of the epidemiology of pandemic threats in the early stages of a pandemic, as well as play a role in the evaluation of public health campaigns and research of conditions commonly seen in general practice. Reporters currently submit data via automated data extraction from patient records, web-based data collection or paper form.

In 2010, virological surveillance was established allowing ASPREN practitioners to collect nasal swab samples for laboratory viral testing of a proportion of influenza-like illness (ILI) patients for a range of respiratory viruses including influenza A and influenza B. In 2016, practitioners are instructed to swab 20% of all patients presenting with an ILI.

The list of conditions reported is reviewed annually by the ASPREN management committee. In 2016, 4 conditions were being monitored. They included 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* 2016;40(1):11.

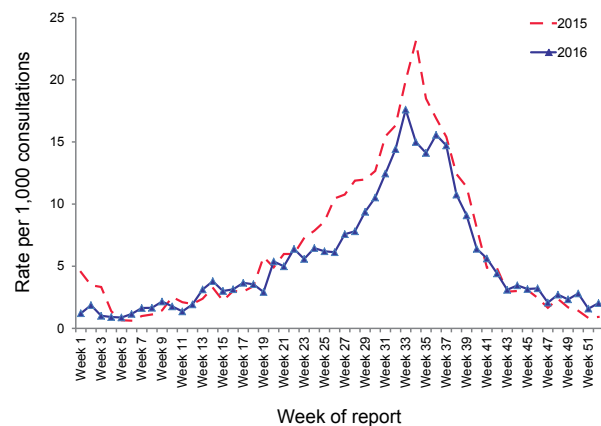
## Results

Sentinel practices contributing to ASPREN were located in all 8 states and territories in Australia. A total of 203 general practitioners regularly contributed data to ASPREN in the 4th quarter of 2016.

Each week an average of 176 general practitioners provided information to ASPREN at an average of 13,435 (range 5,901 to 15,461) consultations per week and an average of 113 (range 51 to 151) notifications per week (all conditions).

ILI rates reported from 1 October to 31 December 2016 averaged 3.3 cases per 1,000 consultations (range 1.6 to 6.4 cases). This was similar to the rates in the same reporting period in 2015, which averaged 2.9 cases per 1,000 consultations (range 0.8 to 8.1 cases, Figure 1). Overall, ILI rates reported in 2016 were lower than in 2015.

**Figure 1: Consultation rates for influenza-like illness, ASPREN, 1 January 2015 to 31 December 2016, by week of report**



The ASPREN ILI swab testing program continued in 2016 with 196 tests being undertaken from 1 October to 31 December. The most commonly reported virus during this reporting period was rhinovirus (20.4% of all swabs performed), with the second most common virus being influenza A (11.2% of all swabs performed, Figure 2). It is important to note that virological data from week 34 (week ending 4 September 2016) onwards is inclusive of data from the Sentinel Practitioners Network of Western Australia, who were formally merged into ASPREN.

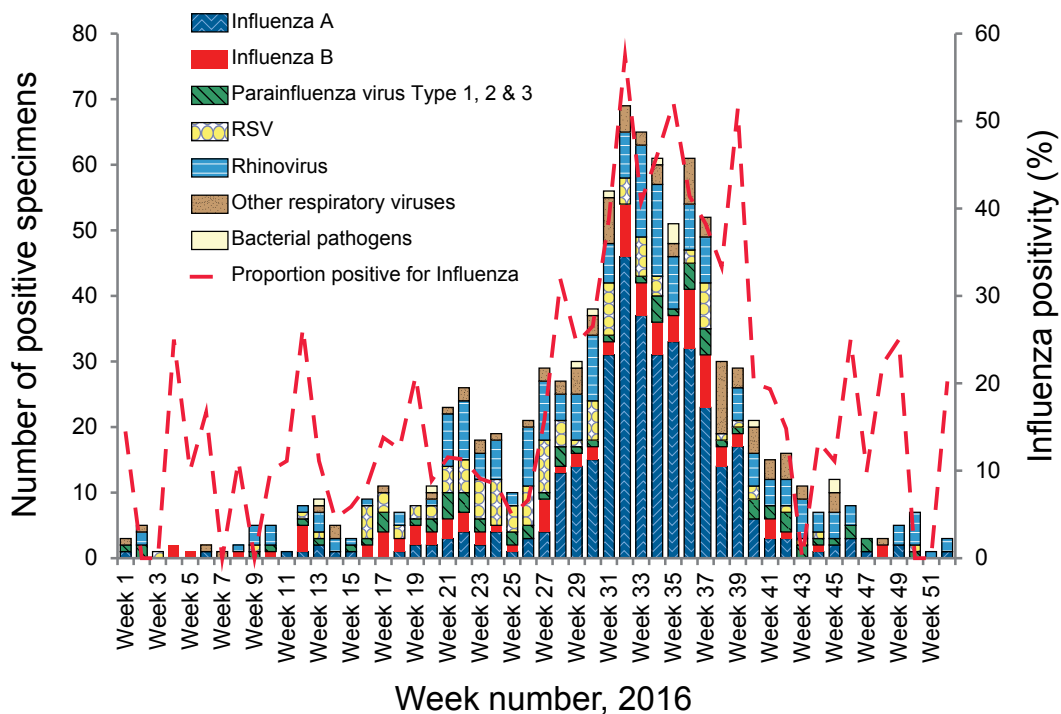
In 2016, a total of 457 cases of influenza were detected with 362 of these typed as influenza A (20.8% of all swabs performed) and the remaining 95 being influenza B (5.5% of all swabs performed) (Figure 2).

During this reporting period, consultation rates for gastroenteritis averaged 4 cases per 1,000 consultations (range 2.2 to 6.9 cases per 1,000, Figure 3). This was lower than the rates in the same reporting period in 2015 where the average was 5.7 cases per 1,000 consultations (range 3.2 to 8.1 cases).

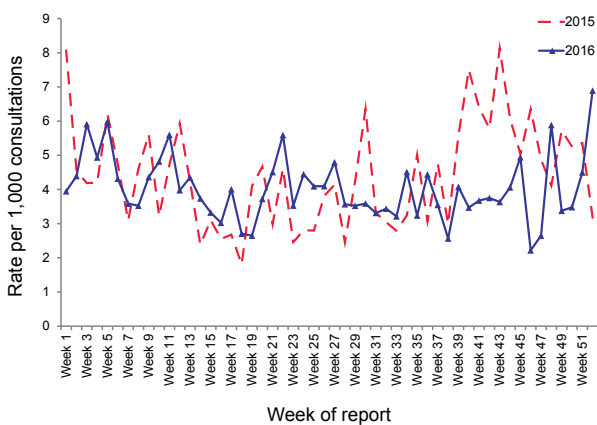
Varicella infections were reported at a lower rate for the 4th quarter of 2016 compared with the same period in 2015. From 1 October to 31 December 2016, recorded rates for chickenpox averaged 0.1 case per 1,000 consultations (range 0.0 to 0.4 cases, Figure 4).

In the 4th quarter of 2016, reported rates for shingles averaged 1 case per 1,000 consultations (range 0.4 to 2 cases, Figure 5). This was slightly lower than the rates in the same reporting period in 2015 where the average shingles rate was 1.2 cases per 1,000 consultations (range 0.4 to 1.8 cases).

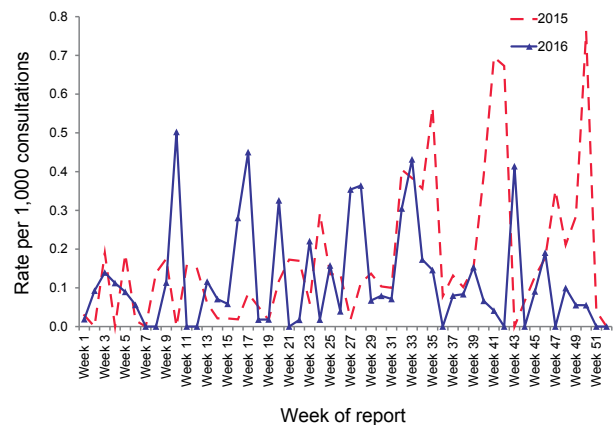
**Figure 2: Influenza-like illness swab testing results, ASPREN, 1 January to 31 December 2016, by week of report**



**Figure 3: Consultation rates for gastroenteritis, ASPREN, 2015 and 1 January to 31 December 2016, by week of report**



**Figure 4: Consultation rates for chickenpox, ASPREN, 2015 and 1 January to 31 December 2016, by week of report**



**Figure 5: Consultation rates for shingles, ASPREN, 2015 and 1 January to 31 December 2016, by week of report**

