Australian Sentinel Practices Research Network, 1 April to 30 June 2016

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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 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.

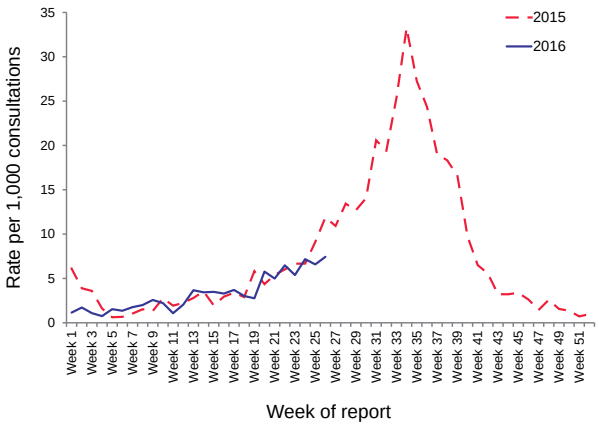
The list of conditions reported is reviewed annually by the ASPREN management committee. In 2016, 4 conditions are being monitored. They include ILI, gastroenteritis and varicella infections (chickenpox and shingles). Definitions of these conditions are described in Surveillance systems reported in CDI, published in *Commun Dis Intell* 2016;40(1):E14.

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 2nd quarter of 2016. Each week an average of 217 general practitioners provided information to ASPREN at an average of 17,481 (range 16,128 to 18,770) consultations per week and an average of 153 (range 118 to 202) notifications per week (all conditions).

ILI rates reported from 1 April to 30 June 2016 averaged 4.9 cases per 1,000 consultations (range 2.8 to 7.5 cases per 1,000 consultations) weighted / 5.5 cases per 1,000 consultations (range 3.0 to 6.6 cases per 1,000 consultations) unweighted. This was similar to the rates in the same reporting period in 2015, which averaged 5.4 cases per 1,000 consultations (range 2.0 to 11.9 cases per 1,000 consultations, Figure 1) weighted / 5.5 cases per 1,000 consultations (range 2.2 to 10.5 cases per 1,000 consultations, Figure 1) unweighted. ILI rates started to increase at the end of the reporting period with rates in week 26 being 7.4 ILI cases per 1,000 consultations weighted / 6.4 ILI cases per 1,000 consultations unweighted.

Figure 1: Consultation rates for influenza-like illness, ASPREN, 2015 and 1 January to 30 June 2016, by week of report



The ASPREN ILI swab testing program continued in 2016 with 487 tests being undertaken from 1 April to 30 June. The most commonly reported virus during this reporting period was respiratory syncytial virus (9.4% of all swabs performed, Figure 2), with the 2nd most common virus being rhinovirus (9.2% of all swabs performed).

From the beginning of 2016 to the end of week 26, 62 cases of influenza were detected with 32 of these typed as influenza B (5.2% of all swabs performed) and the remaining 30 being influenza A (4.9% of all swabs performed) (Figure 2).

During this reporting period, consultation rates for gastroenteritis averaged 3.8 cases per 1,000 consultations (range 2.7 to 5.6 cases per 1,000, Figure 3). This was slightly higher than the rate in

Figure 2: Influenza-like illness swab testing results, ASPREN, 1 January to 30 June 2016, by week of report

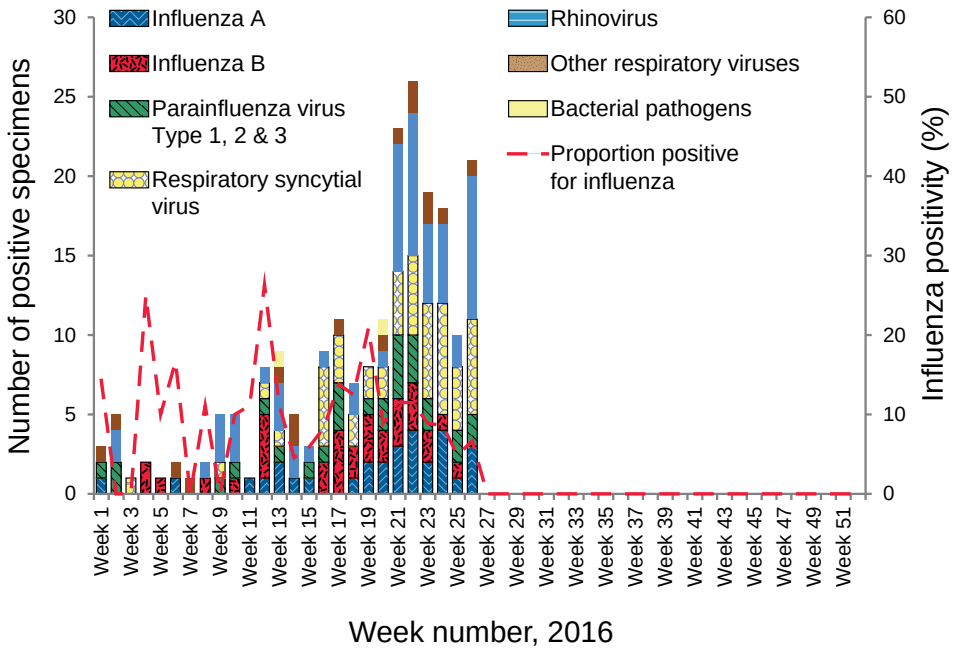


Figure 3: Consultation rates for gastroenteritis, ASPREN, 2015 and 1 January to 30 June 2016, by week of report

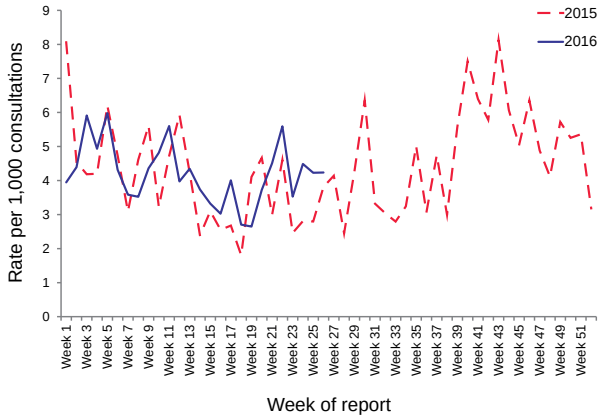
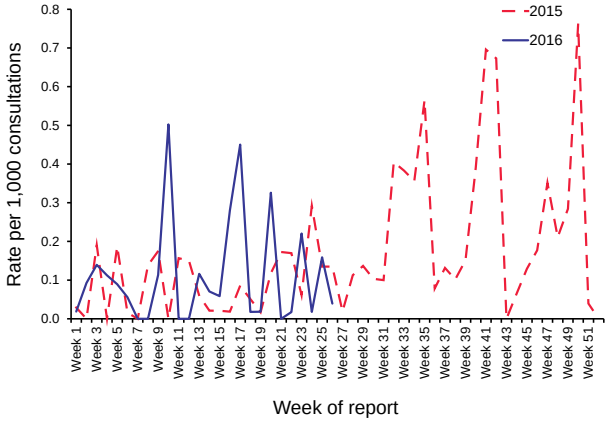


Figure 4: Consultation rates for chickenpox, ASPREN, 2015 and 1 January to 30 June 2016, by week of report



the same reporting period in 2015 where the average was 3.1 cases per 1,000 consultations (range 1.8 to 4.7 cases per 1,000).

Varicella infections were reported at a similar rate for the 2nd quarter of 2016 compared with the same period in 2015. From 1 April to 30 June 2016, recorded rates for chickenpox averaged 0.1 cases per 1,000 consultations (range 0.0 to 0.5 cases per 1,000 consultations, Figure 4).

In the 2nd quarter of 2016, reported rates for shingles averaged 0.9 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 2015 where the average shingles rate was 0.9 cases per 1,000 consultations (range 0.5 to 2.1 cases per 1,000 consultations).

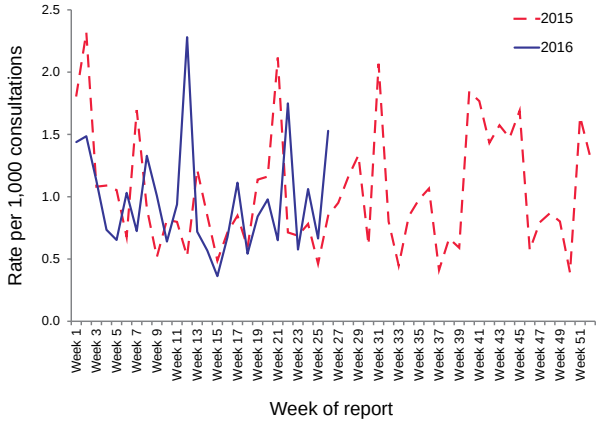



Figure 5: Consultation rates for shingles, ASPREN, 2015 and 1 January to 30 June 2016, by week of report