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 (GPs) 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 213 general practitioners regularly contributed data to ASPREN in the 1st quarter of 2015. Each week an average of 185 general practitioners provided information to ASPREN at an average of 14,919 (range 9,032–16,551) consultations per week and an average of 124 (range 91–171) notifications per week.

ILI rates reported from 1 January to 31 March 2015 averaged 3 cases per 1,000 consultations (range 1–8 cases per 1,000 consultations). This was lower compared with rates in the same reporting period in 2014, which averaged 5 cases per 1,000 consultations (range 3–8 cases per 1,000 consultations, Figure 1).

The ASPREN ILI swab testing program continued in 2015 with 95 tests being undertaken from 1 January to 31 March. The most commonly reported virus during this reporting period was rhinovirus (27.3% of all swabs performed, Figure 2), with the 2nd most common virus being influenza A (5.3% of all swabs performed).

From the beginning of 2015 to the end of week 13, 8 cases of influenza have been detected with five of these typed as influenza A (27.3% of all swabs performed) and the remaining three being influenza B (3.2% of all swabs performed) (Figure 2).

During this reporting period, consultation rates for gastroenteritis averaged 6 cases per 1,000 consultations (range 4–11 cases per 1,000, Figure 3). This was the same compared with rates in the same reporting period in 2014 where the average was 6 cases per 1,000 consultations (range 4–8 cases per 1,000).

Varicella infections were reported at a lower rate for the 1st quarter of 2015 compared with the same period in 2014. From 1 January to 31 March 2015,
Figure 2: Influenza-like illness swab testing results, ASPREN, 1 January to 31 March 2015, by week of report

Number of positive specimens

Week number, 2015

Influenza positivity (%)

- Influenza A untyped / other
- Influenza B
- Parainfluenza virus type 1
- Parainfluenza virus type 2
- Parainfluenza virus type 3
- Adenovirus
- Rhinovirus
- Mycoplasma pneumoniae
- Bordatella pertussis
- Respiratory syncytial virus
- Parainfluenza virus type 3
- Metapneumovirus

Proportion positive for influenza
recorded rates for chickenpox averaged 0.07 cases per 1,000 consultations (range 0.00–0.25 cases per 1,000, Figure 4).

In the 1st quarter of 2015, reported rates for shingles averaged 1.5 cases per 1,000 consultations (range 0.90–2.52 cases per 1,000 consultations, Figure 5), which was higher compared with the same reporting period in 2014 where the average shingles rate was 1.11 cases per 1,000 consultations (range 0.53–2.14 cases per 1,000 consultations).