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 25% of patients with influenza-like illness (ILI) for a range of respiratory viruses including influenza A and B.

The list of conditions reported is reviewed annually by the ASPREN management committee. In 2013, four 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 2013;37(1):62.

Results

Sentinel practices contributing to ASPREN were located in all 8 states and territories in Australia. A total of 247 general practitioners contributed data to ASPREN in the 1st quarter of 2013. Each week an average of 220 general practitioners provided information to ASPREN at an average of 20,996 (range 14,216–23,505) consultations per week and an average of 288 (range 183–350) notifications per week.

ILI rates reported from 1 January to 31 March 2013 averaged 6 cases per 1,000 consultations (range 4–7 cases per 1,000 consultations). This was higher compared with rates during the same reporting period in 2012, which averaged 4 cases per 1,000 consultations (range 2–6 cases per 1,000 consultations, Figure 1).

The 2013 ILI data is weighted by state to avoid over or under-representation of states in the calculation of the national notification incidence. Weekly observations within each state were weighted according to population estimates from the 2012 census.

Figure 1: Consultation rates for influenza-like illness, ASPREN, 2012 and 1 January to 31 March 2013, by week of report

ILI swab testing continued in 2013. The most commonly reported virus during this reporting period was rhinovirus (19% of all swabs performed, Figure 2), with the second most common virus being influenza A (untyped) (11% of all swabs performed).

From the beginning of 2013 to the end of week 13, 34 cases of influenza were detected comprising of influenza A (untyped) (11% of all swabs performed) and influenza B (3% of all swabs performed) (Figure 2).
Figure 2: Swab testing results for influenza-like illness, ASPREN, 1 January to 31 March 2013, by week of report.
During this reporting period, consultation rates for gastroenteritis averaged 7 cases per 1,000 consultations (range 5–8 cases per 1,000 consultations, Figure 3). This was higher compared with rates during the same reporting period in 2012 where the average was 5 cases per 1,000 consultations (range 4–7 cases per 1,000 consultations).

Varicella infections were reported at a higher rate for the 1st quarter of 2013 compared with the same period in 2012. From 1 January to 31 March 2013, recorded rates for chickenpox averaged 0.24 cases per 1,000 consultations (range 0.07–0.42 cases per 1,000 consultations, Figure 4).

In the 1st quarter of 2013, reported rates for shingles averaged 0.89 cases per 1,000 consultations (range 0.33–1.60 cases per 1,000 consultations, Figure 5). This was slightly higher compared with the same reporting period in 2012 where the average shingles rate was 0.87 case per 1,000 consultations (range 0.55–2.02 cases per 1,000 consultations).