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.

In June 2010, ASPREN’s laboratory influenza-like illness (ILI) testing was implemented, allowing for viral testing of 25% of ILI patients for a range of respiratory viruses including influenza A, influenza B and influenza A H1N1(2009).

The list of conditions is reviewed annually by the ASPREN management committee. In 2014, 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 2014;38(1):E96.

RESULTS

Sentinel practices contributing to ASPREN were located in all 8 states and territories in Australia. A total of 275 general practitioners contributed data to ASPREN in the 2nd quarter of 2013. Each week an average of 231 general practitioners provided information to ASPREN at an average of 22,309 (range 15,235–27,263) consultations per week and an average of 248 (range 134–356) notifications per week.

ILI rates reported from 1 April to 30 June 2013 averaged 6 cases per 1,000 consultations (range 3–9 cases per 1,000 consultations). This was lower than rates in the same reporting period in 2012, which averaged 8 cases per 1,000 consultations (range 3–14 cases per 1,000 consultations, Figure 1).

The 2013 ILI data was 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.

ILI swab testing continued in 2013. The most commonly reported virus during this reporting period was rhinovirus (20% of all swabs performed, Figure 2), with the 2nd most common virus being respiratory syncytial virus (8% of all swabs performed).

From the beginning of 2013 to the end of week 26, 60 cases of influenza were detected and comprised of influenza A (untyped) (5% of all swabs performed) and influenza B (3% of all swabs performed) (Figure 2).

During this reporting period, consultation rates for gastroenteritis averaged 4 cases per 1,000 consultations (range 3–7 cases per 1,000, Figure 3). This was similar to rates in the same reporting period in 2012 where the average was 4 cases per 1,000 consultations (range 3–6 cases per 1,000).

Varicella infections were reported at a higher rate for the 2nd quarter of 2013 compared with the same period in 2012. From 1 April to 30 June 2013, recorded rates for chickenpox averaged 0.22 cases per 1,000 consultations (range 0.00–0.74 cases per 1,000 consultations, Figure 4).
Figure 2: Influenza-like illness swab testing results, ASPREN, 2012 and 1 January to 30 June 2013, by week of report

Influenza positivity (%)

Number of positive specimens

Week number, 2013

- Influenza A untyped / other
- Influenza B
- Parainfluenza virus type 1
- Parainfluenza virus type 2
- Parainfluenza virus type 3
- Adenovirus
- Rhinovirus
- Mycoplasma pneumoniae
- Pertussis
- Respiratory syncytial virus
- Metapneumovirus
- Proportion positive for influenza
In the 2nd quarter of 2013, reported rates for shingles averaged 0.98 cases per 1,000 consultations (range 0.56–1.92 cases per 1,000 consultations, Figure 5). This was slightly higher than in the same reporting period in 2012 where the average shingles rate was 0.75 case per 1,000 consultations (range 0.46–1.25 cases per 1,000 consultations).