Australian Sentinel Practices Research Network, 1 April to 30 June 2015

Monique B-N Chilver, Daniel Blakeley, Nigel P Stocks for the Australian Sentinel Practices Research Network

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 20% of influenza-like illness (ILI) patients for a range of respiratory viruses including influenza A, influenza B and A(H1N1) pdm09.

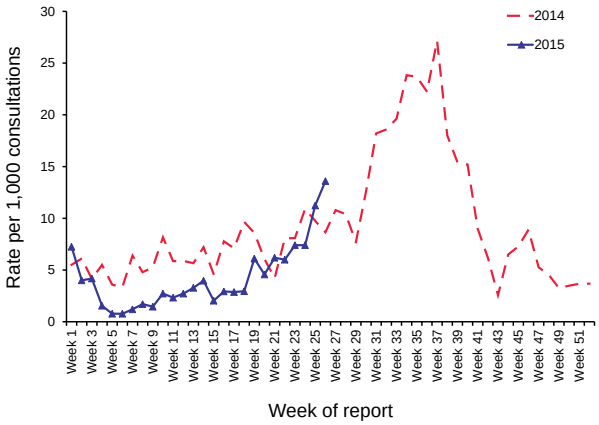
The list of conditions reported is reviewed annually by the ASPREN management committee. In 2015, 4 conditions are being monitored. They include ILI, gastroenteritis and varicella infections (chickenpox and shingles). Definitions of these conditions are described in Surveillance systems reported in CDI, 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 241 general practitioners regularly contributed data to ASPREN in the 2nd quarter of 2015. Each week an average of 201 general practitioners provided information to ASPREN at an average of 16,862 (range 13,411 to 18,560) consultations per week and an average of 163 (range 96 to 262) notifications per week.

ILI rates reported from 1 April to 30 June 2015 averaged 6 cases per 1,000 consultations (range 2–13 cases per 1,000 consultations). This was lower compared with rates in the same reporting period in 2014, which averaged 8 cases per 1,000 consultations (range 4–11 cases per 1,000 consultations, Figure 1). ILI rates sharply increased above baseline in week 25.

Figure 1: Consultation rates for influenza-like illness, ASPREN, 2014 and 1 January to 30 June 2015, by week of report



The ASPREN ILI swab testing program continued in 2015 with 746 tests being undertaken from 1 April to 30 June. The most commonly reported virus during this period was rhinovirus (16.1% of all swabs performed, Table), with the 2nd most common virus being influenza B (10.3% of all swabs performed).

From the beginning of 2015 to the end of week 27, 132 cases of influenza were detected with 84 of these typed as influenza B (9.1% of all swabs performed) and the remaining 48 being influenza A (5.2% of all swabs performed) (Table). Overall respiratory virus positivity was 52% compared to 43% for the same period last year.

During this reporting period, consultation rates for gastroenteritis averaged 3 cases per 1,000 consultations (range 2–5 cases per 1,000, Figure 2). This was slightly lower than the rates in the same reporting period in 2014 where the average was 5 cases per 1,000 consultations (range 3–6 cases per 1,000).

Table: Influenza-like illness swab testing results, ASPREN, 1 January to 30 June 2015, by week of report

Week ending	Influenza A %	Influenza B %	RSV %	Para-influenza virus type 1 %	Para-influenza virus type 2 %	Para--influenza virus type 3 %	Adenovirus %	Rhinovirus %	Metapneumovirus %	*Mycoplasma pneumoniae* %	Pertussis %	Proportion positive for Influenza %
4 Jan	0	0	0	0	0	0	0	25	0	0	0	0
11 Jan	50	0	0	0	50	0	0	0	0	0	0	50
18 Jan	0	13	13	0	0	13	0	0	0	0	0	13
25 Jan	0	11	0	0	0	33	0	11	11	0	0	11
1 Feb	13	38	0	0	13	0	13	0	0	0	0	50
8 Feb	0	0	0	0	0	0	50	25	0	0	0	0
15 Feb	14	0	0	0	14	0	0	7	7	0	0	14
22 Feb	10	0	0	0	10	0	0	14	0	0	0	10
1 Mar	8	15	8	0	0	8	0	23	0	0	0	23
8 Mar	14	0	0	0	9	0	0	18	5	5	0	14
15 Mar	10	0	0	0	10	5	0	10	0	5	0	10
22 Mar	13	0	0	4	4	0	0	22	4	0	0	13
29 Mar	0	0	0	0	0	0	0	23	5	0	0	0
5 Apr	15	0	5	0	10	0	0	5	10	5	0	15
12 Apr	10	0	0	0	5	5	5	25	0	0	0	10
19 Apr	0	9	14	0	0	5	5	9	0	0	0	9
26 Apr	3	0	0	3	0	0	0	20	0	0	0	3
3 May	8	3	5	0	3	3	0	14	0	3	0	11
10 May	4	11	9	0	2	5	5	13	2	0	0	14
17 May	7	20	5	2	5	5	4	14	2	2	0	27
24 May	0	13	3	0	2	5	0	20	2	0	0	13
31 May	0	10	10	0	2	5	5	23	3	0	0	10
7 Jun	4	9	6	0	4	10	6	19	3	1	0	13
14 Jun	6	13	4	1	4	6	7	17	1	1	0	20
21 Jun	6	7	9	0	2	1	4	14	3	0	0	13
28 Jun	3	15	10	0	2	12	4	14	2	1	0	18
Total proportion positive by virus	5.2	9.2	5.8	0.4	3.4	5.3	3.5	15.9	2.3	0.9	0.0	14

Figure 2: Consultation rates for gastroenteritis, ASPREN, 2014 and 1 January to 30 June 2015, by week of report

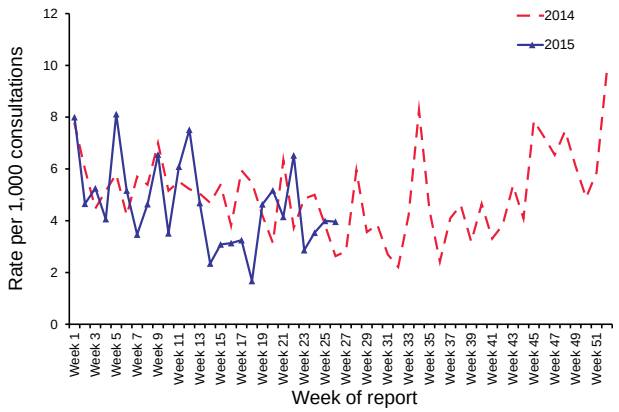
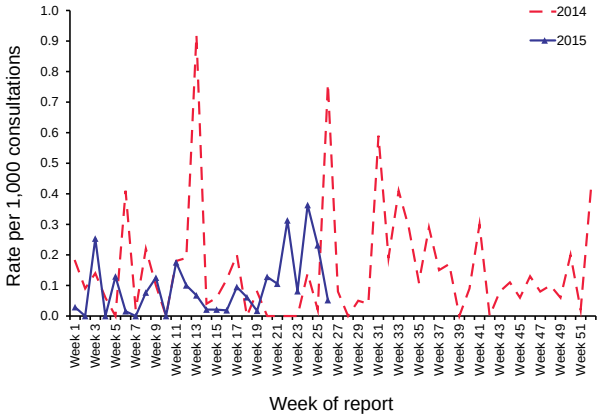


Figure 3: Consultation rates for chickenpox, ASPREN, 2014 and 1 January to 30 June 2015, by week of report



Varicella infections were reported at a similar rate for the 2nd quarter of 2015 compared with the same period in 2014. From 1 April to 30 June 2015, recorded rates for chickenpox averaged 0.11 cases per 1,000 consultations (range 0.02–0.31 cases per 1,000 consultations, Figure 3).

In the 2nd quarter of 2015, reported rates for shingles averaged 0.92 cases per 1,000 consultations (range 0.46–2.49 cases per 1,000 consultations, Figure 4), which was slightly higher compared with the same reporting period in 2014 where the average shingles rate was 0.89 cases per 1,000 consultations (range 0.29–3.13 cases per 1,000 consultations).

Figure 4: Consultation rates for shingles, ASPREN, 2014 and 1 January to 30 June 2015, by week of report