Virus WAtch

WEEK ENDING 10TH AUGUST 2014

KEY POINTS

INFLUENZA AND INFLUENZA-LIKE ILLNESSES (ILI)

Summary: Most indicators of influenza activity increased this week, but this was largely due to an epidemic of influenza A/H3N2 in the West Kimberley region, with relatively steady activity elsewhere. Overall non-influenza respiratory virus activity is declining.

- Indicators of influenza activity, including notifications, proportion of positive laboratory tests for influenza and influenza-associated hospitalisations increased this week.
- ILI presentations to sentinel general practitioners (GPs) decreased, but data were incomplete.
- The majority of influenza viruses subtyped were influenza A/H1N1, but there was an increase in A/H3N2 detections (primarily in the West Kimberley region). Influenza B continues to circulate at a low level.
- Overall detections of non-influenza respiratory viruses decreased this slightly week.

GASTROENTERITIS

- Gastroenteritis presentations to sentinel GPs increased while ED presentations remain steady and below baseline.

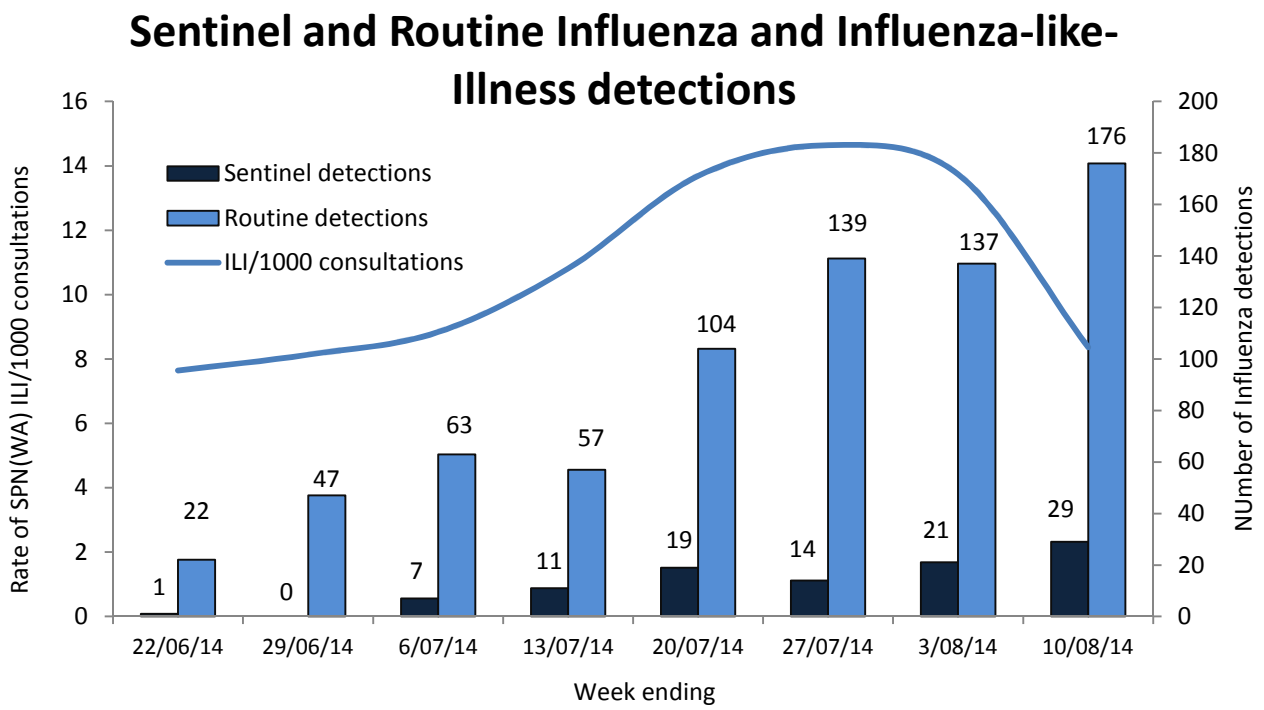
VARICELLA AND VIRAL RASHES

- Shingles presentations to sentinel GPs and EDs remain at or just above expected levels, but chickenpox presentations remain low.
- Four cases of measles were confirmed in Albany adolescents with uncertain vaccination status who were contacts of an overseas-acquired case No confirmed cases of rubella or mumps were reported.

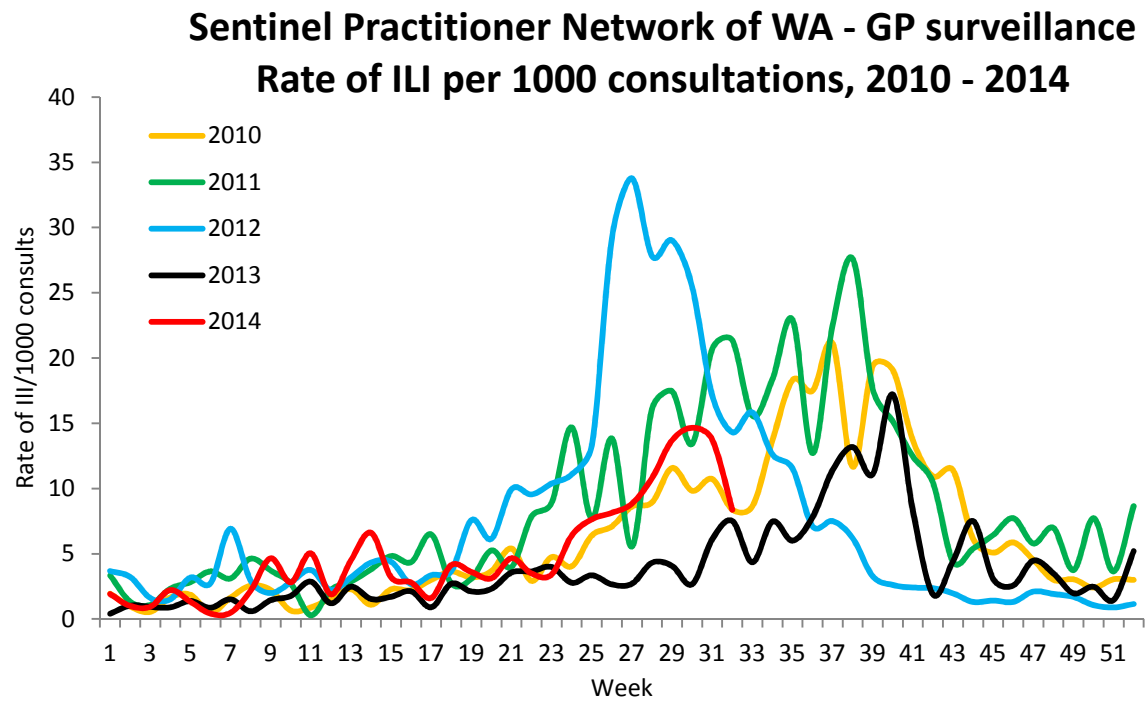
Current and archived issues of Virus Watch http://www.public.health.wa.gov.au/3/487/3/virus_watch.pm

Virus WAtch is a weekly electronic publication by the Communicable Disease Control Directorate (CDCD) and key collaborators. It provides a brief summary of General Practice and Hospital Emergency Department sentinel surveillance data on influenza-like illness, gastroenteritis and varicella-zoster disease, together with relevant laboratory information, to alert health care workers in WA to important circulating viruses. General Practice data are collected by members of the Sentinel Practitioners Network of Western Australia - SPN(WA). Emergency Department data are provided by the Emergency Department Information System (EDIS), which incorporates data from the following hospitals: Royal Perth Hospital, Sir Charles Gairdner Hospital, Fremantle Hospital, Princess Margaret Hospital, King Edward Memorial Hospital, Bunbury Hospital, Armadale Hospital, Joondalup Health Campus, Swan District Hospital and Rockingham General Hospital . Viral laboratory data are obtained from PathWest laboratories at QEII Medical Centre and Princess Margaret Hospital for Children, as well as via notification data sent by all WA laboratories to CDCD, WA Department of Health. All figures and data were accurate at time of publication, but subject to change.

Influenza and Influenza-like Illnesses



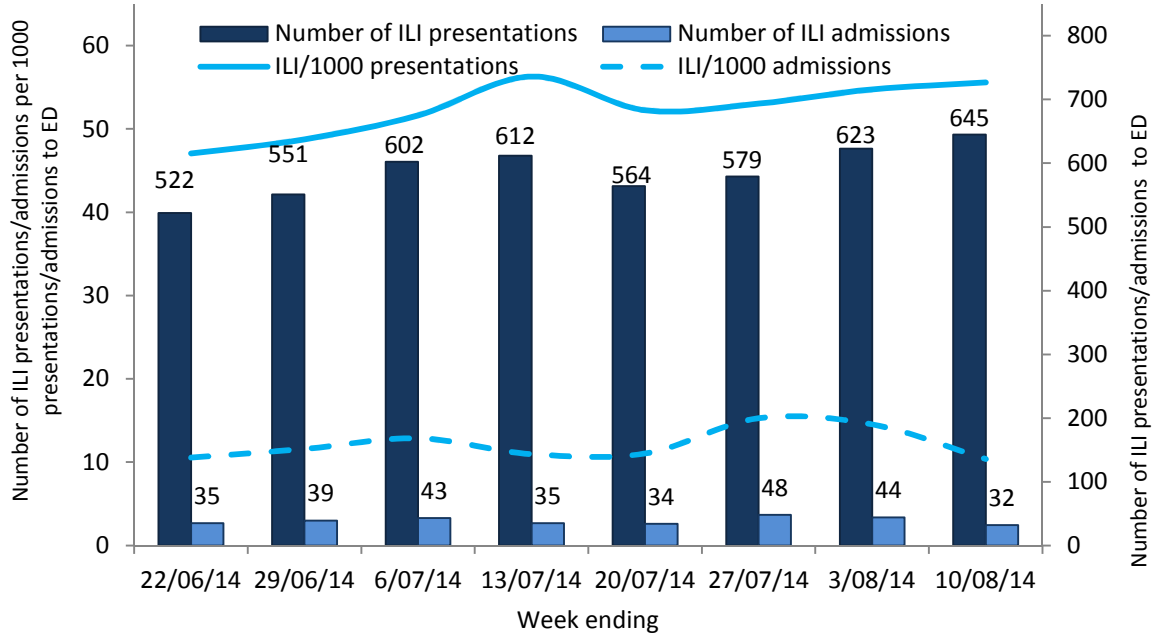
ILI presentations to sentinel GPs decreased this week, but the significance of this is unclear as data were not submitted by several practices. Conversely, overall and SPN(WA) detections of influenza virus increased. Twenty nine (54%) of 54 swabs collected at sentinel practices tested positive for influenza virus. Of 590 routinely collected specimens, 176 (30%) tested positive.



The rate of ILI presentations to SPN(WA) GPs decreased to 8 cases per 1000 consultations, but may be unreliable because of missing data.

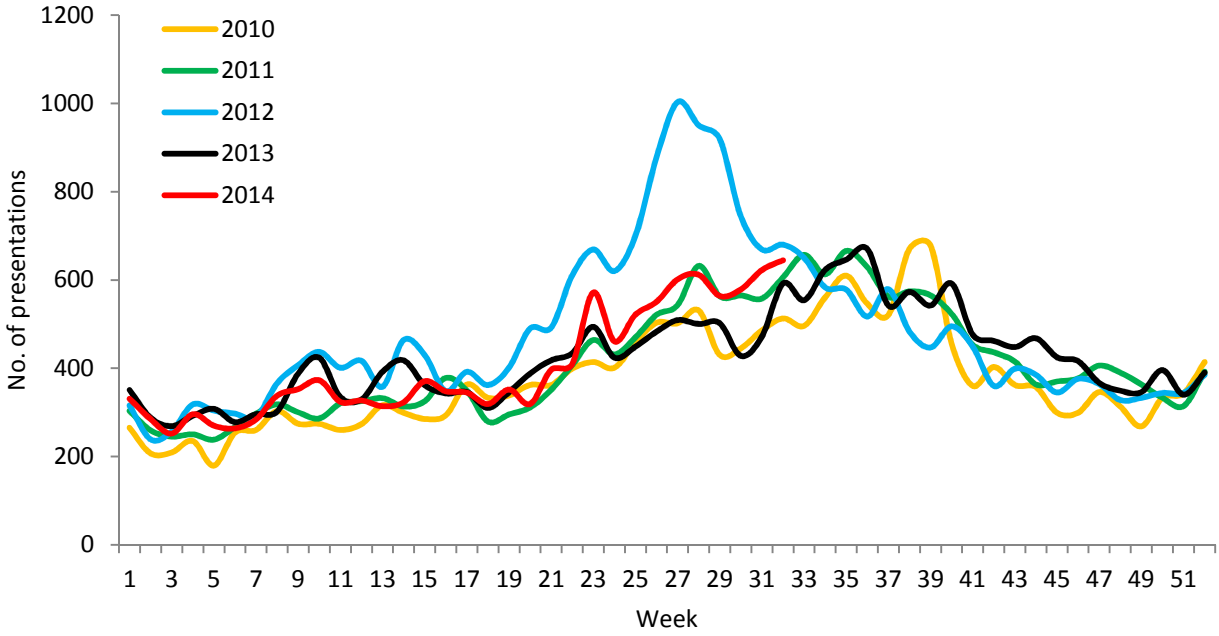
The following is a summary of current Emergency Department sentinel surveillance (EDSS) data for respiratory viral presentations.

Viral Respiratory ED Presentations and Admissions



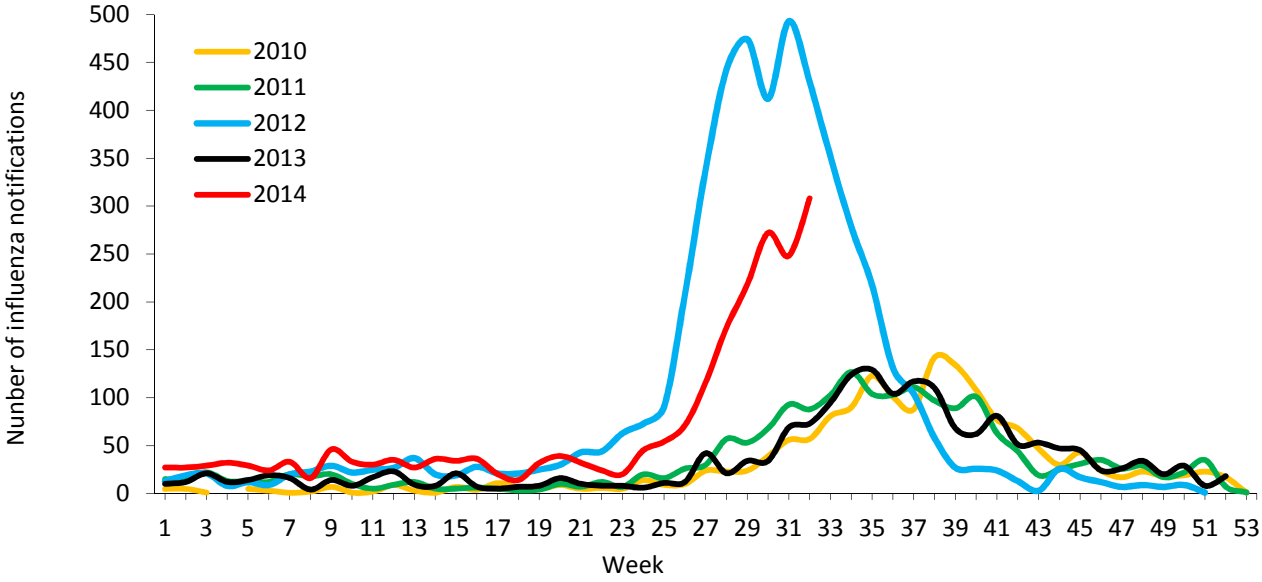
ED presentations for viral respiratory illness increased this week. The number of ILI admissions declined.

ED Respiratory Viral Presentations, 2010 - 2014



The number of respiratory viral presentations to sentinel EDs increased this week and is now at the upper margin of values for this time period in recent years.

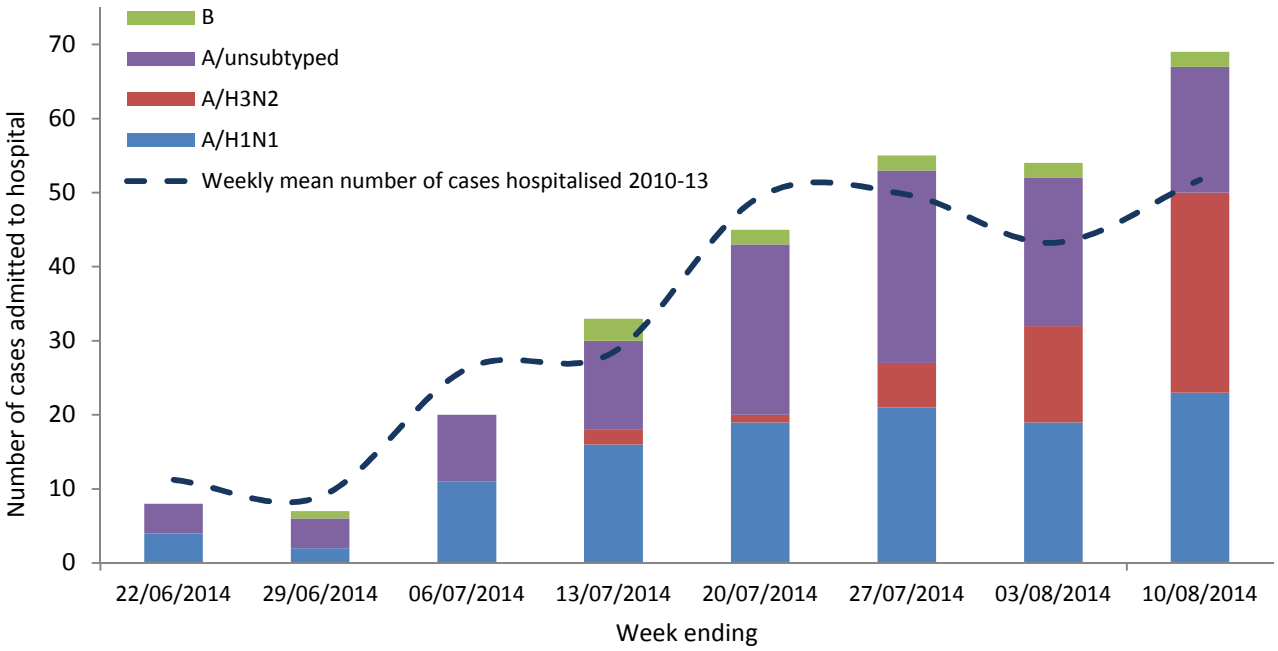
Influenza notifications in Western Australia by week, 2010 to 2014



Notifications of confirmed influenza to the Department of Health increased this week and are significantly higher than levels at this time in recent mild seasons, but below the level reported in 2012. Most of the recent increase is attributed to epidemic influenza A/H3N2 activity in the West Kimberley region.

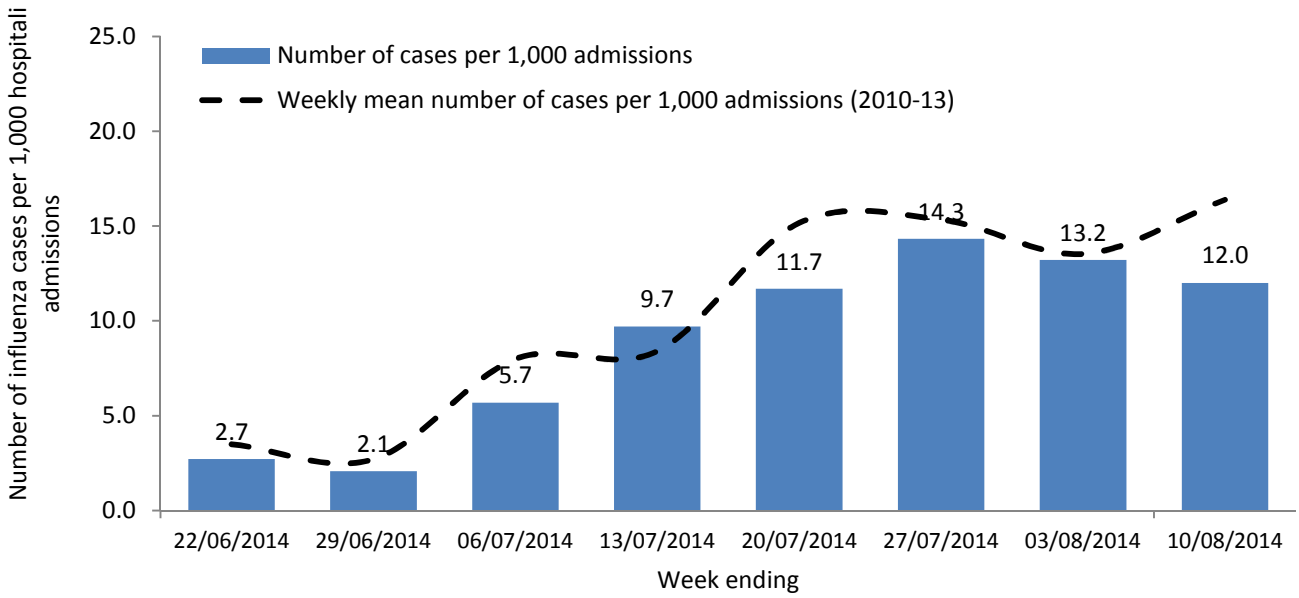
The graph is a summary of all influenza notifications received by the DoH, Western Australia to the end of the current reporting week, for which cases had date of symptom onset or specimen collection between 04/08/2014 and 10/08/2014.

Number of influenza cases hospitalised



69 notified influenza cases were hospitalised, an increase from the previous week; 20 (39%) were influenza A/H3N2, which is a substantial increase from previous weeks, 19 (33%) were influenza A/H1N1, 13 (25%) were influenza A/unsubtyped, and 2 (3%) were influenza B.

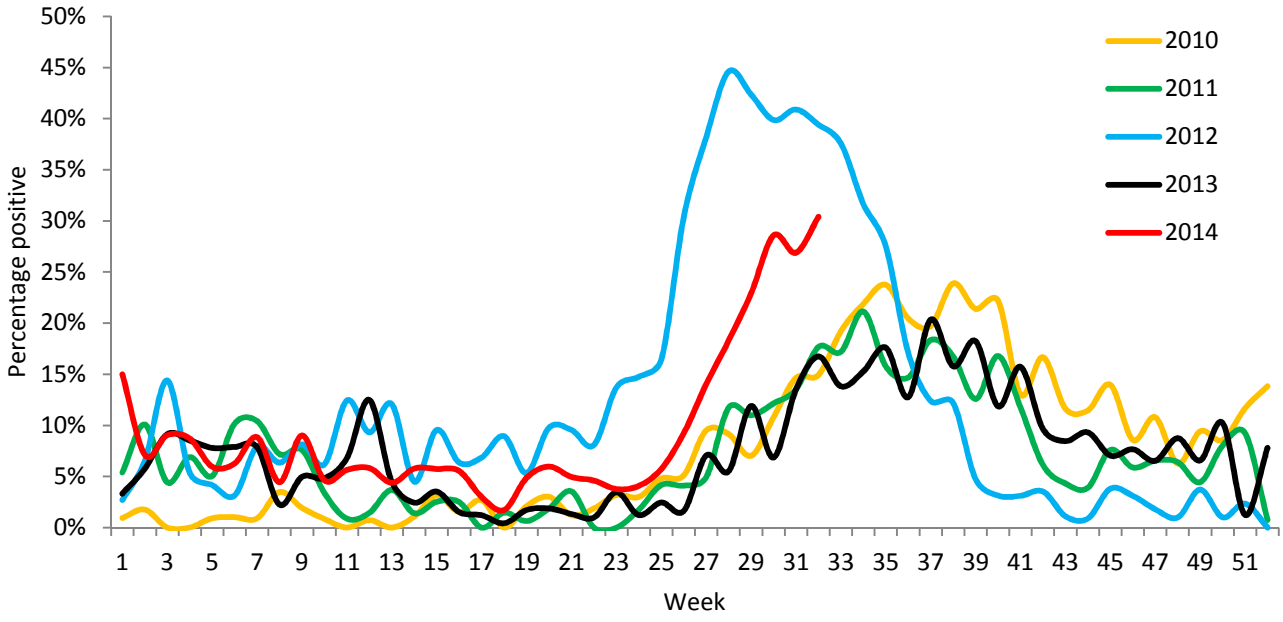
Influenza cases per 1000 hospital admissions



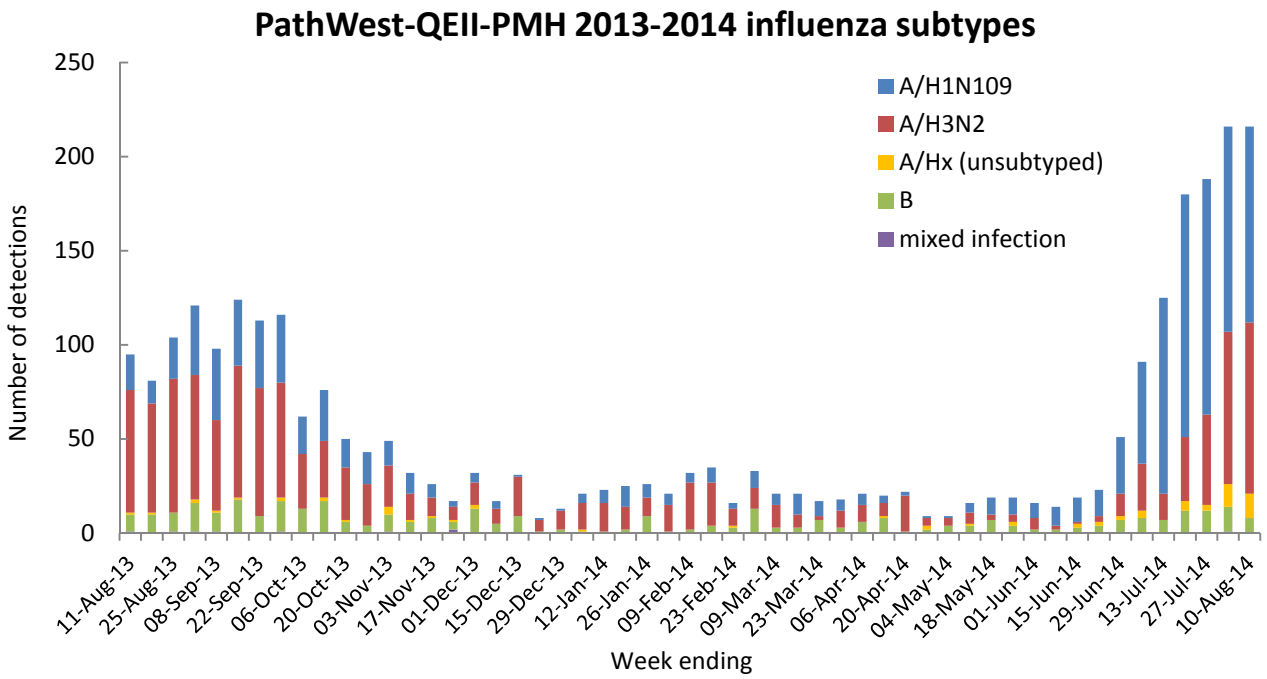
The proportion of hospital admissions notified as having laboratory-confirmed influenza decreased slightly to 12 cases per 1,000 admissions this week which is lower than the average from recent years.

The graph is a summary of influenza notifications received by the DoH who were recorded as having a hospital admission, expressed per 1,000 admissions.

PathWest-QEII-PMH influenza percentage positive 2010 - 2014

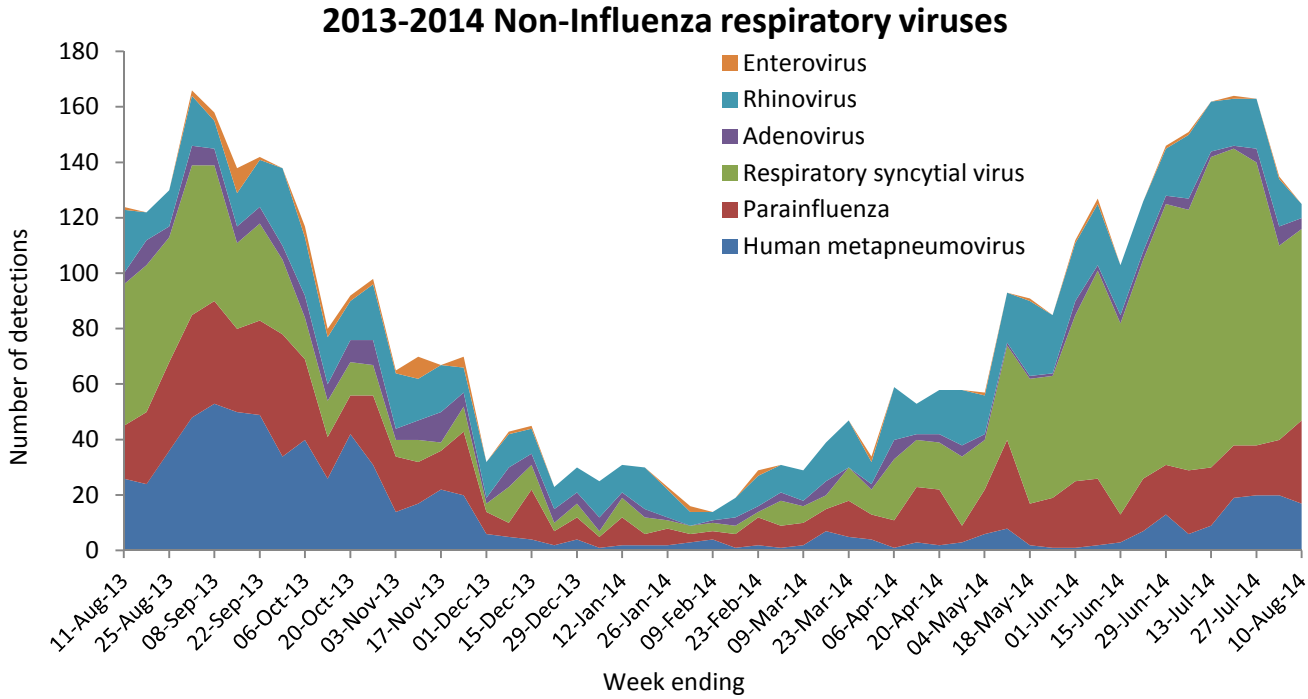


Among samples tested at PathWest-QEII-PMH this week, 32% were positive for influenza virus, which is the highest reported proportion this season, and higher than levels reported at this time during recent mild influenza seasons.



Two hundred and sixteen influenza viruses were characterised by PathWest, QEII and PMH during this reporting week. The proportion of A/H3N2 cases continues to increase, with 104 (48%) influenza A/H1N1, 91 (42%) influenza A/H3N2, 13 (6%) influenza A/unsubtyped, and 8 (4%) influenza B. The increase in A/H3N2 activity has been driven by a large epidemic in the West Kimberley region, and A/H1N1 continues to predominate elsewhere in the state.

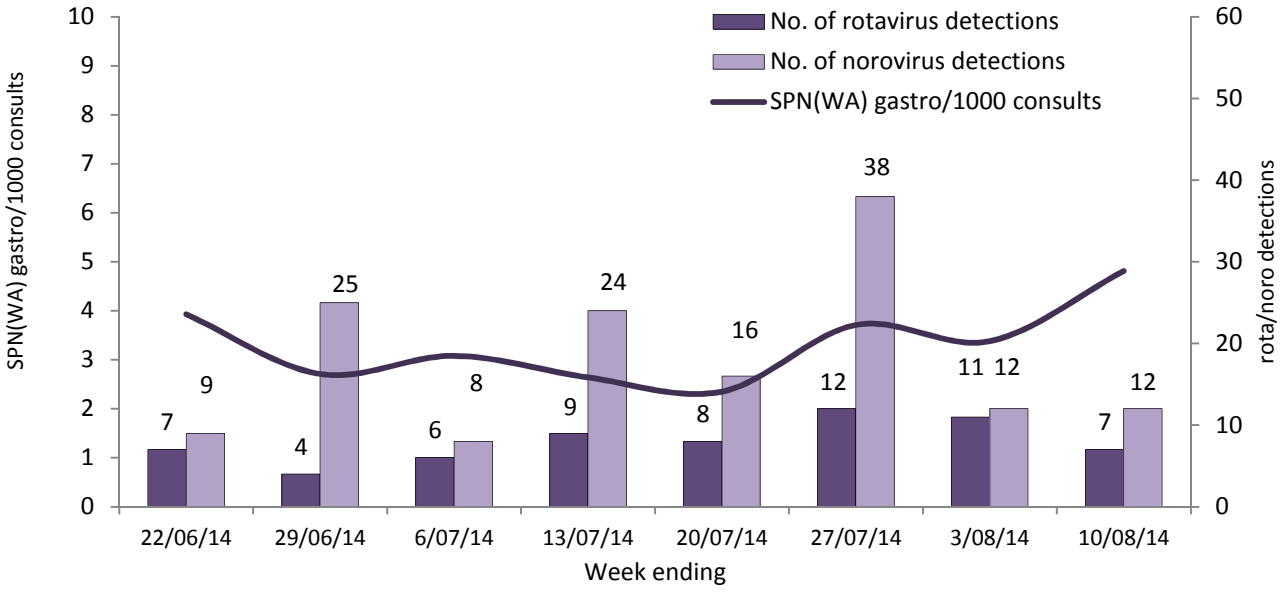
The graph is a summary of all samples that have been recorded as subtyped at PathWest QEII as of 12.01am Wednesday 13th August 2014.



Enterovirus, rhinovirus and human metapneumovirus activity decreased this week, while adenovirus, respiratory syncytial virus and parainfluenza virus activity increased.

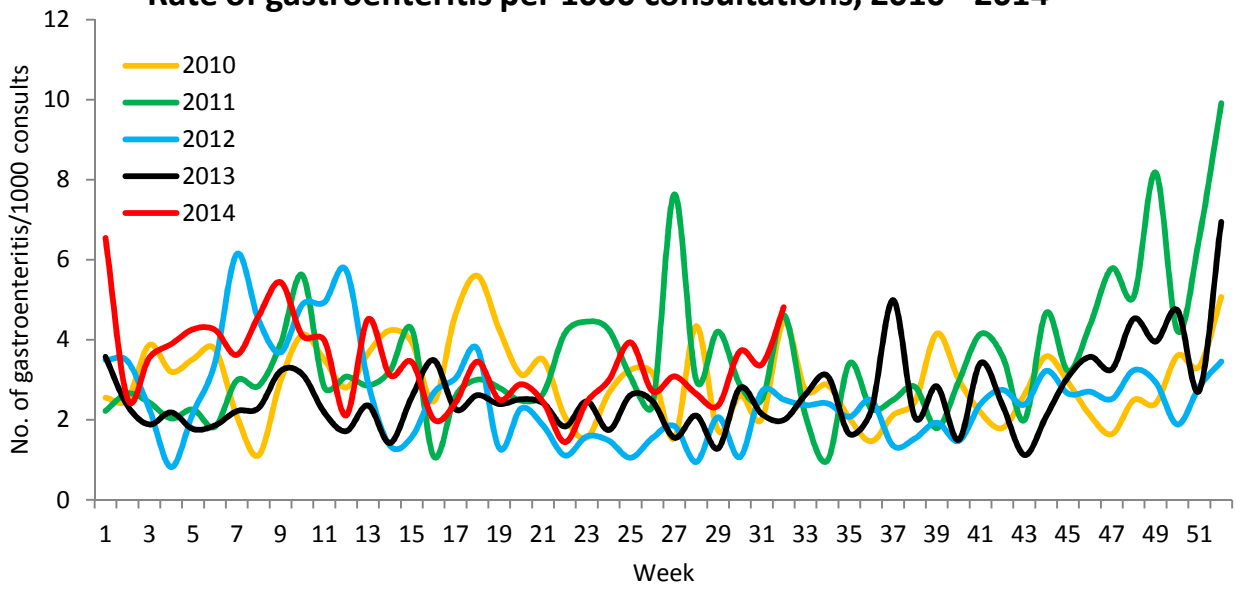
Gastroenteritis

Gastroenteritis GP Presentations



Gastroenteritis presentations to SPN(WA) GPs increased this week to 4.8 per 1,000 consultations. Rotavirus detections decreased this week and norovirus remained stable.

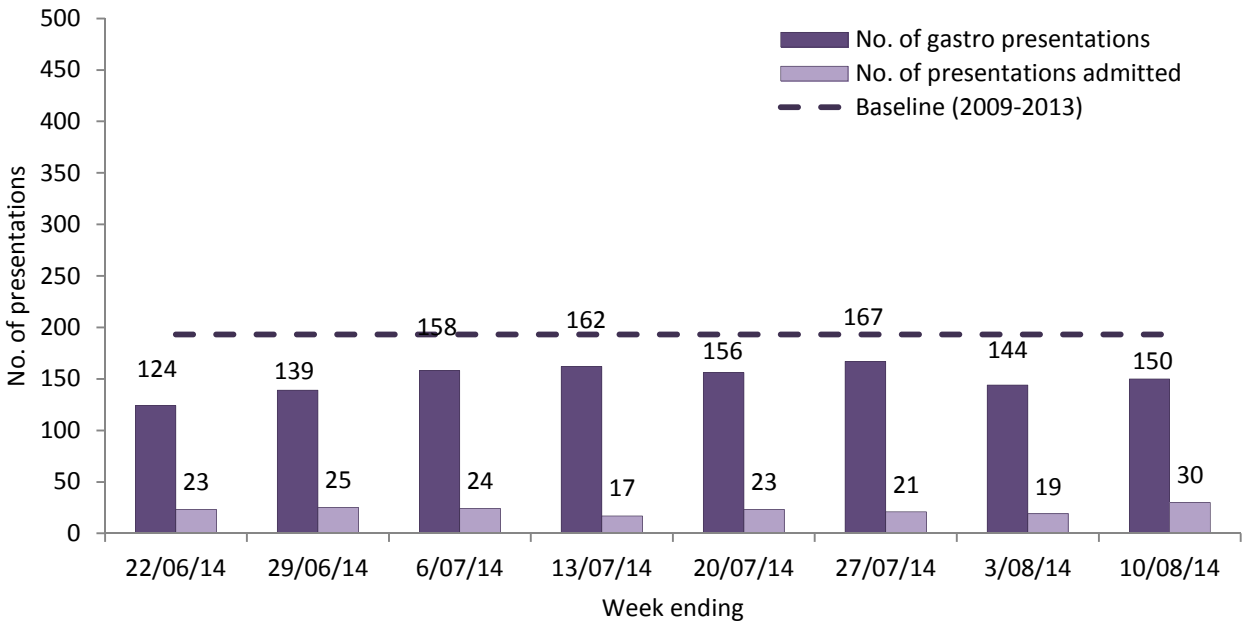
Sentinel Practitioner's Network of WA SPN(WA) - GP surveillance
Rate of gastroenteritis per 1000 consultations, 2010 - 2014



The rate of gastroenteritis presentations to sentinel GPs increased this week, and is at the upper margin of rates seen in the same time period in recent years.

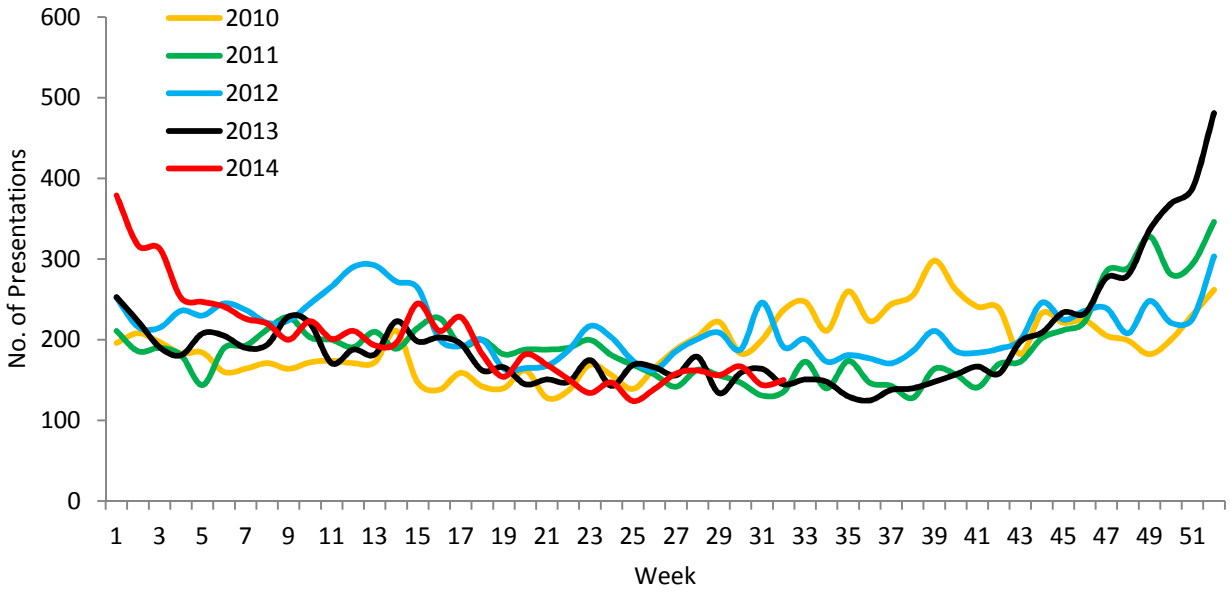
The following is a summary of current Emergency Department Sentinel Surveillance (EDSS) data for gastroenteritis presentations. Baseline levels for gastroenteritis presentations were calculated using the mean of weekly EDIS data from week 1, 2009 to week 52, 2013.

Gastroenteritis ED Presentations



Gastroenteritis presentations to sentinel EDs remain below baseline this week.

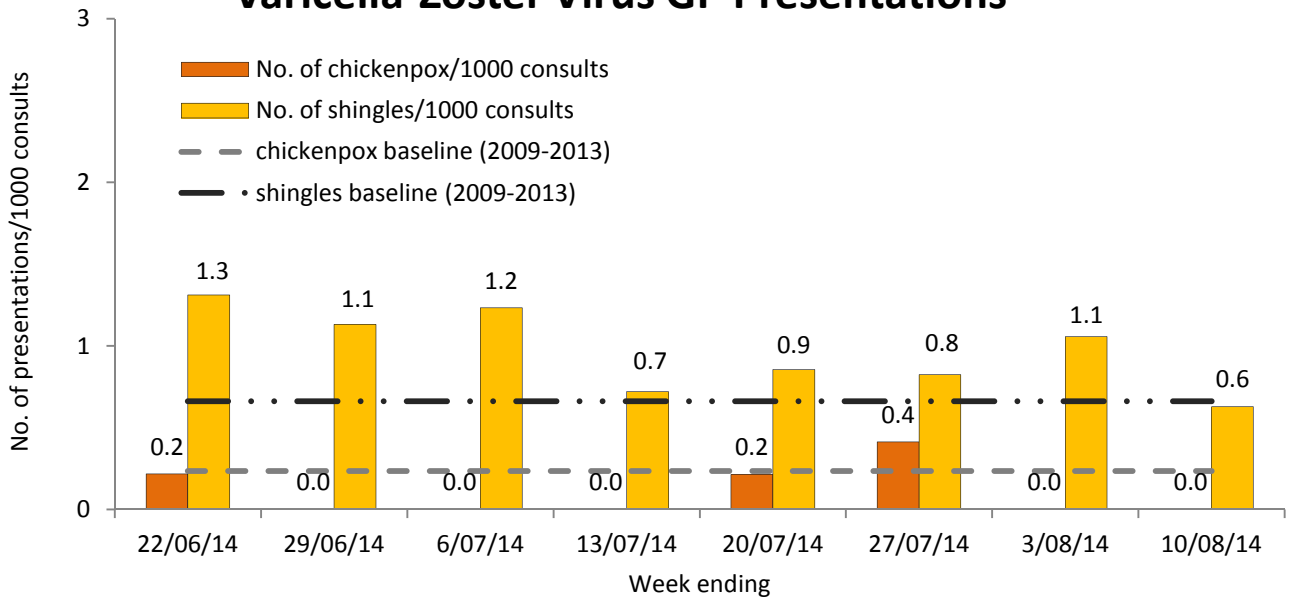
ED Gastroenteritis Presentations 2010 - 2014



The number of gastroenteritis presentations to sentinel EDs is in the lower range of values experienced at the same time period in recent years.

Viral Rashes

Varicella-Zoster Virus GP Presentations

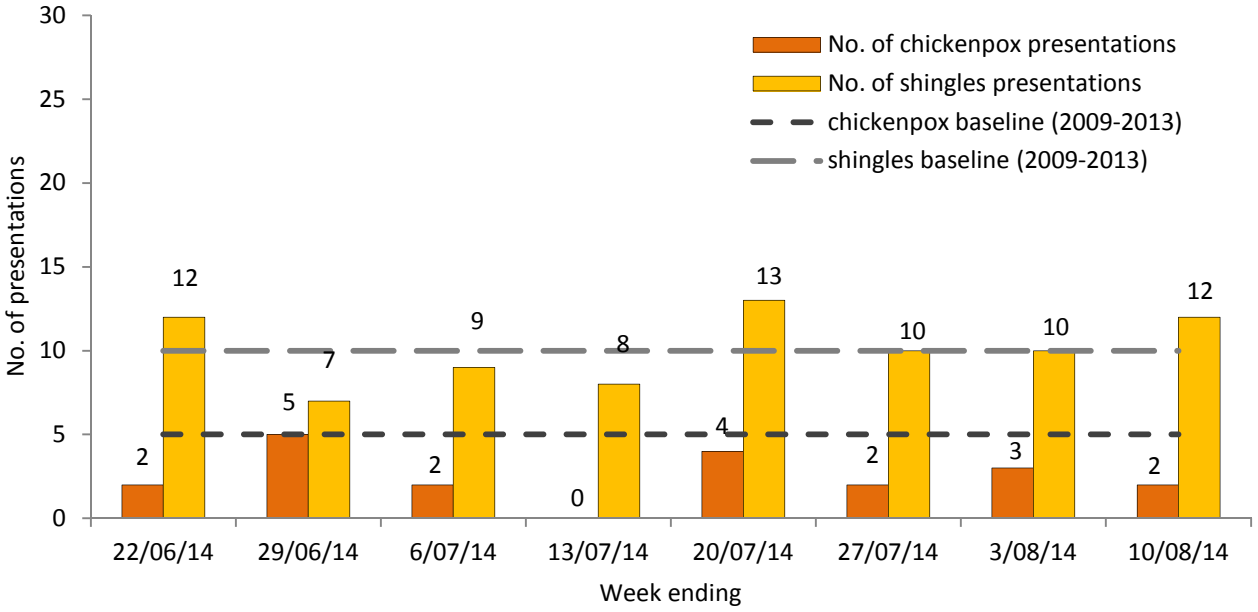


The rate of shingles presentations to sentinel GPs declined to baseline level, but no chickenpox was reported. Four cases of measles were confirmed in Albany in adolescents with uncertain vaccination status who were contacts of an overseas-acquired case. No confirmed cases of rubella or mumps were reported.

Baseline levels for chickenpox and shingles presentations to SPN(WA) GPs per thousand consultations were calculated using the mean of weekly WA ASPREN data from week 1, 2009 to week 52, 2013.

The following is a summary of current Emergency Department sentinel surveillance (EDSS) data for varicella-zoster virus presentations. Baseline levels for varicella-zoster virus presentations were calculated using the mean of weekly EDIS data from week 1, 2009 to week 52, 2013.

Varicella-Zoster virus ED Presentations



Shingles presentations to sentinel EDs are just above baseline levels. Chickenpox presentations remain below baseline.