Virus WAtch

WEEK ENDING 26TH JULY 2015

KEY POINTS

INFLUENZA AND INFLUENZA-LIKE ILLNESSES (ILI)

Summary: Taken together, direct and indirect indicators suggest that influenza virus activity may have now peaked, earlier than in recent seasons. Non-influenza virus activity also declined this week.

- ILI presentations to sentinel general practitioners (GPs) decreased this week and presentations to sentinel emergency departments (EDs) were steady.
- Influenza virus detections, notifications and percent positivity appear to have reached a peak. Influenza B (68%) and influenza A/H3N2 (29%) viruses remaining the dominantly detected subtypes. The influenza B strains currently circulating are around 65% Yamagata lineage, matching the trivalent influenza vaccine strain.
- Hospitalisations with confirmed influenza decreased this week, but remain over 10 cases per 1000 admissions. Over 70% of influenza admissions are due to influenza B virus, reflecting overall detections in the community.
- Non-influenza respiratory virus activity decreased this week, primarily due to a drop in respiratory syncytial virus detections.

GASTROENTERITIS

- Gastroenteritis presentations to sentinel GPs and EDs are relatively steady and consistent with levels experienced previously at this time of the year.
- Rotavirus detections declined this week.

VARICELLA AND VIRAL RASHES

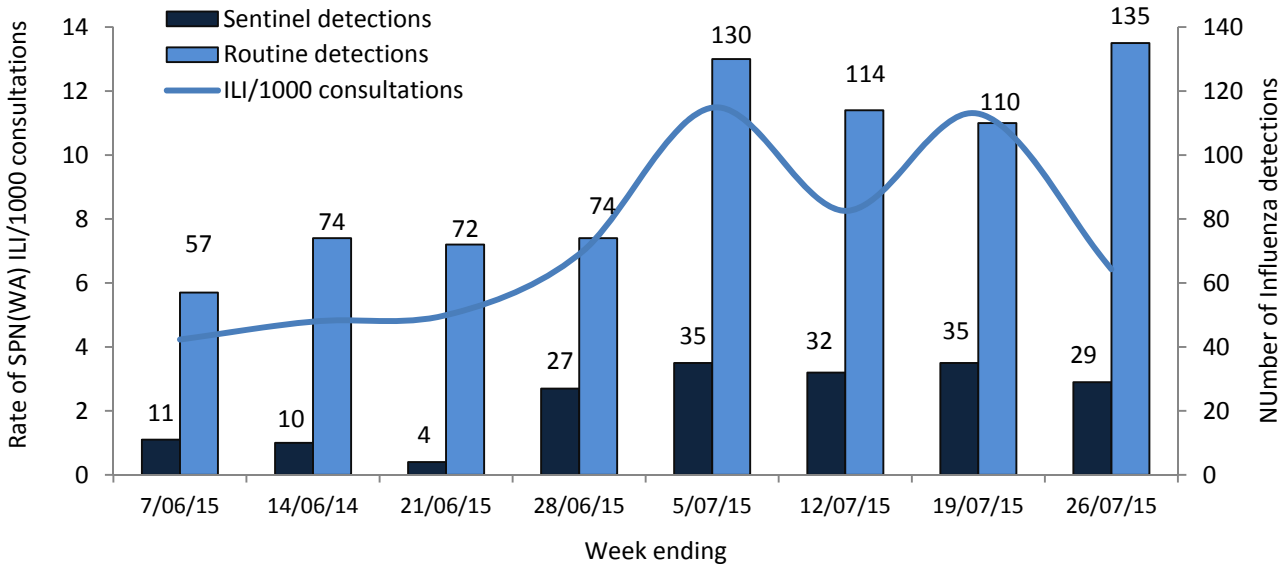
- Chickenpox and shingles presentations to sentinel EDs and GPs are near or below baseline levels.
- No cases of measles or rubella were confirmed.
- Several further cases of mumps have been confirmed in the Kimberley region, primarily among Aboriginal children, teenagers and young adults. Most recent cases are residents of Broome or nearby communities.

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: Fiona Stanley Hospital, Royal Perth 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.

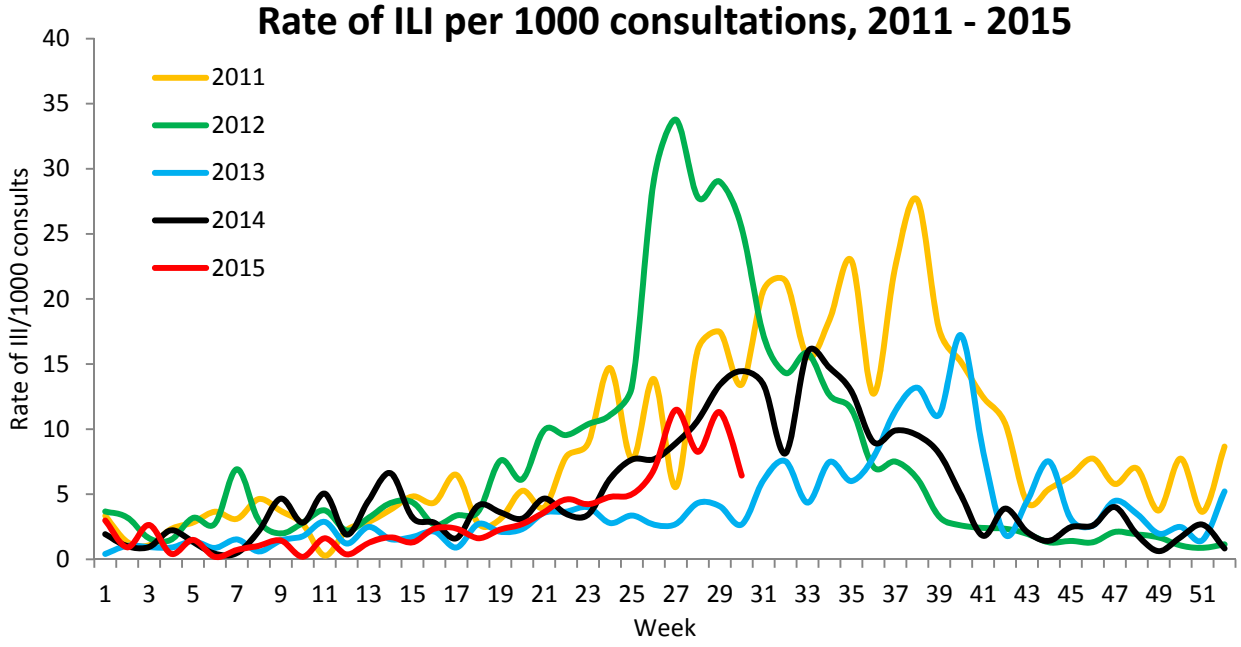
Influenza and Influenza-like Illnesses

Sentinel and Routine Influenza and Influenza-like-Illness detections



The rate of ILI seen at sentinel GPs continues to fluctuate and declined this week. Routine influenza virus detections increased but appear to have reached a plateau; sentinel site detections remain relatively steady. Of 569 routinely collected specimens, 135 (24%) tested positive for influenza virus; 50 specimens were collected at sentinel GP sites, 29 (58%) of which tested positive for influenza virus.

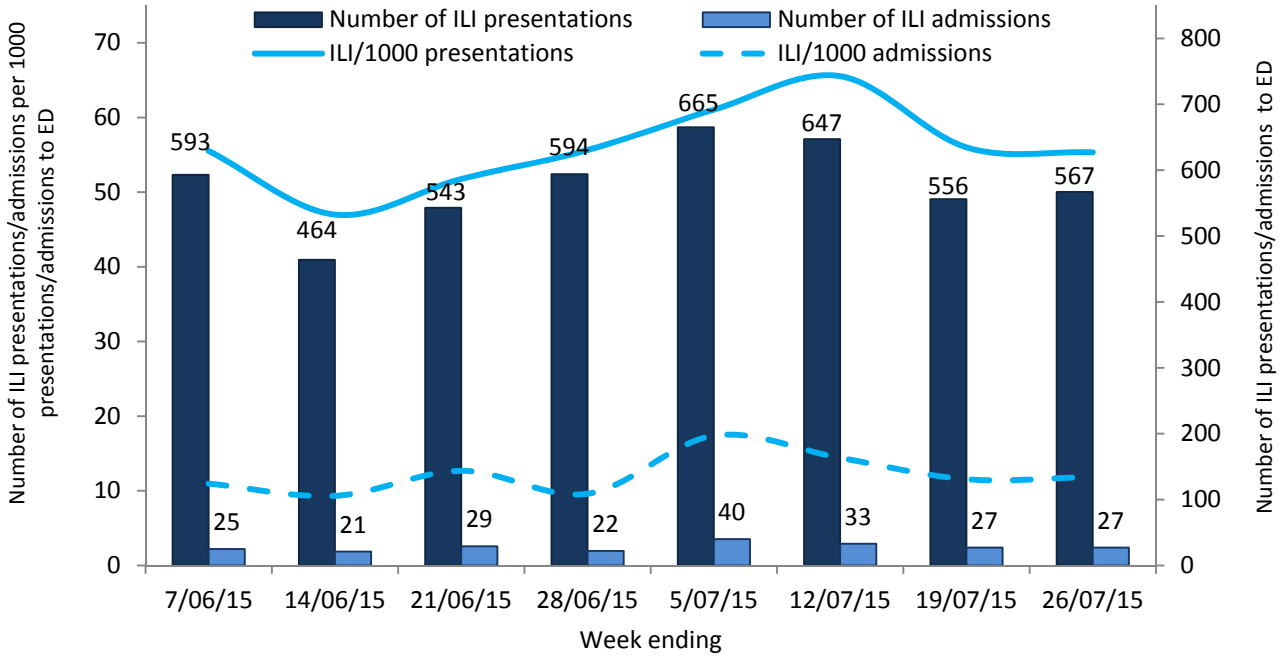
Sentinel Practitioner Network of WA - GP surveillance
Rate of ILI per 1000 consultations, 2011 - 2015



The rate of ILI presentations to SPN(WA) GPs decreased this week, which may reflect a lag in this week's data.

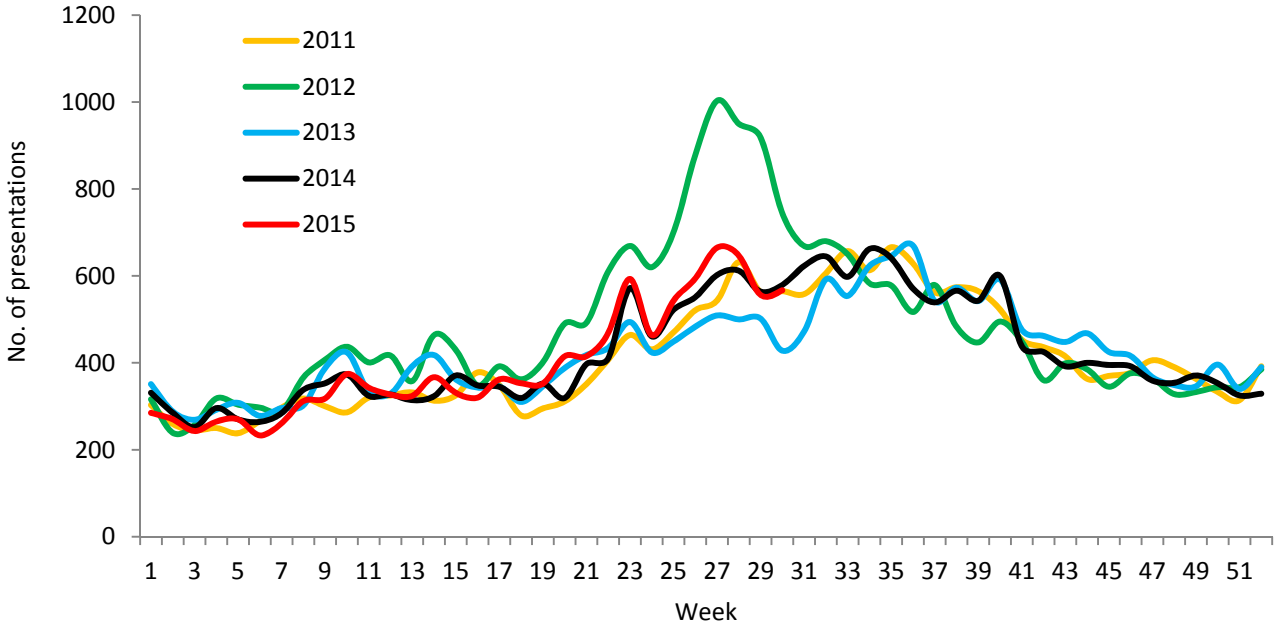
The following is a summary of current Emergency Department sentinel surveillance (EDSS) data for respiratory viral presentations.

Viral Respiratory ED Presentations and Admissions

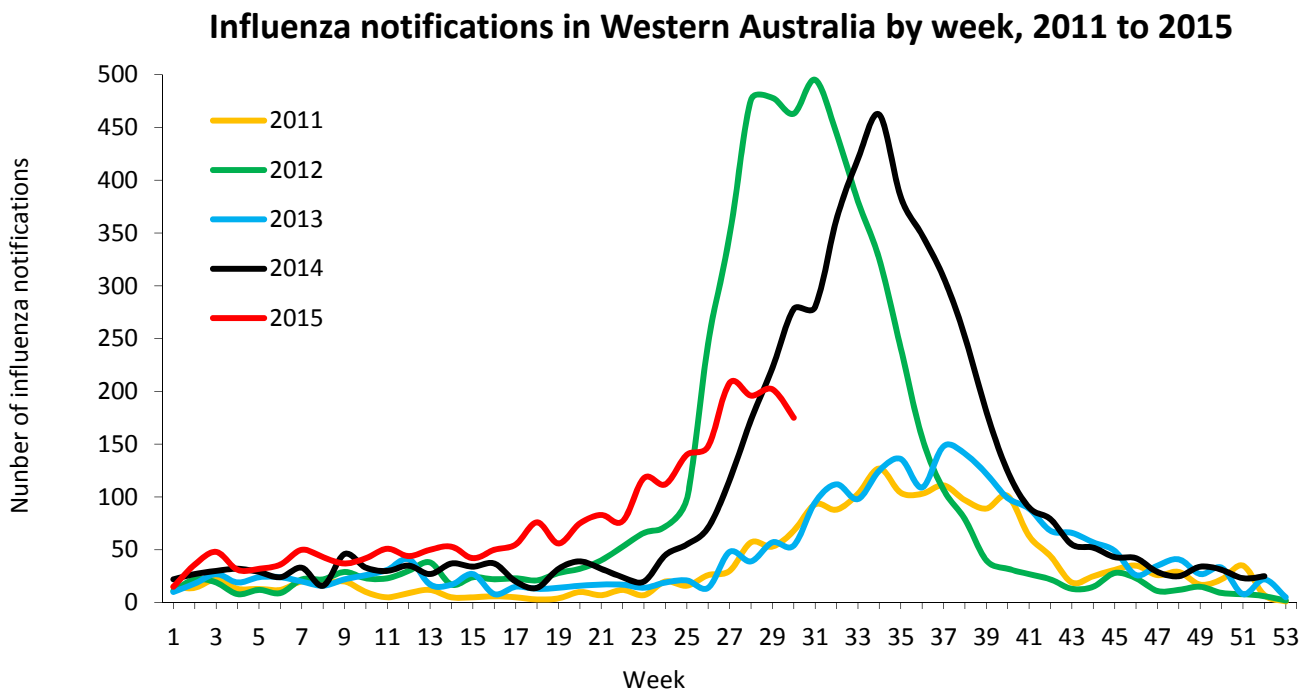


Presentations and admissions to sentinel EDs plateaued this week.

ED Respiratory Viral Presentations, 2011 - 2015

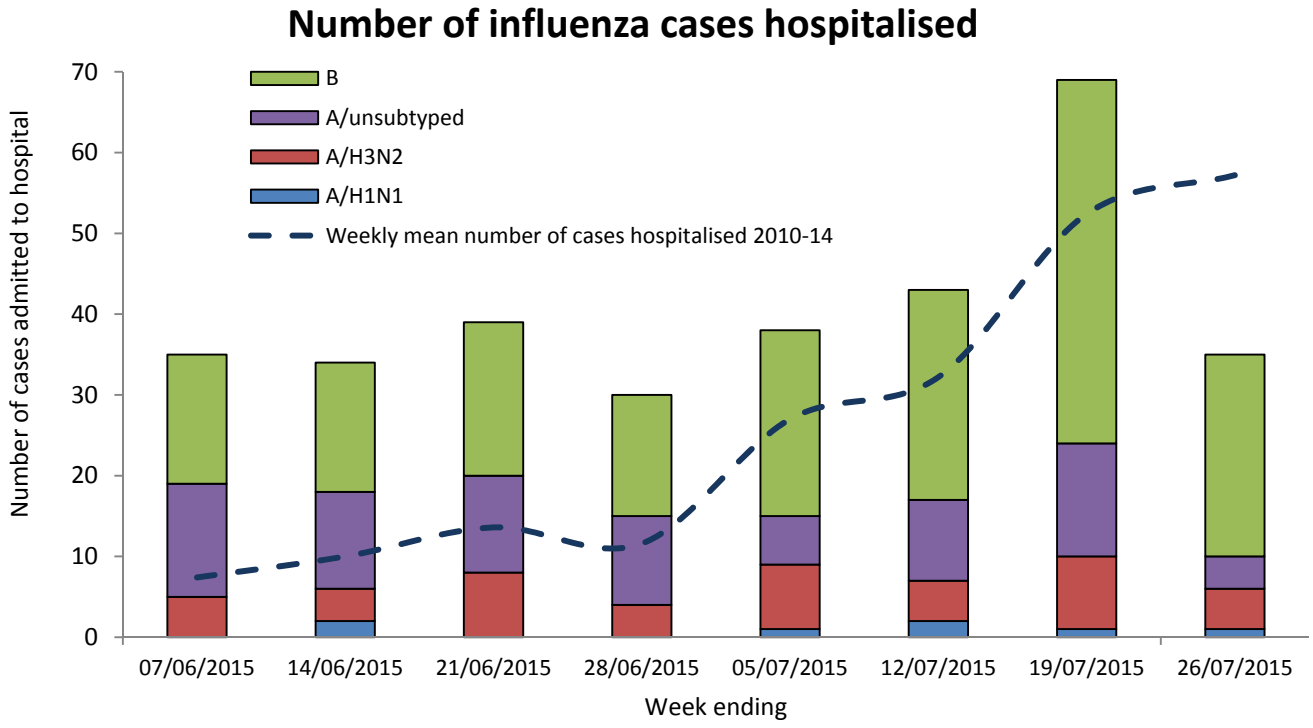


The number of respiratory viral infection presentations to sentinel EDs is consistent with recent mild influenza seasons.



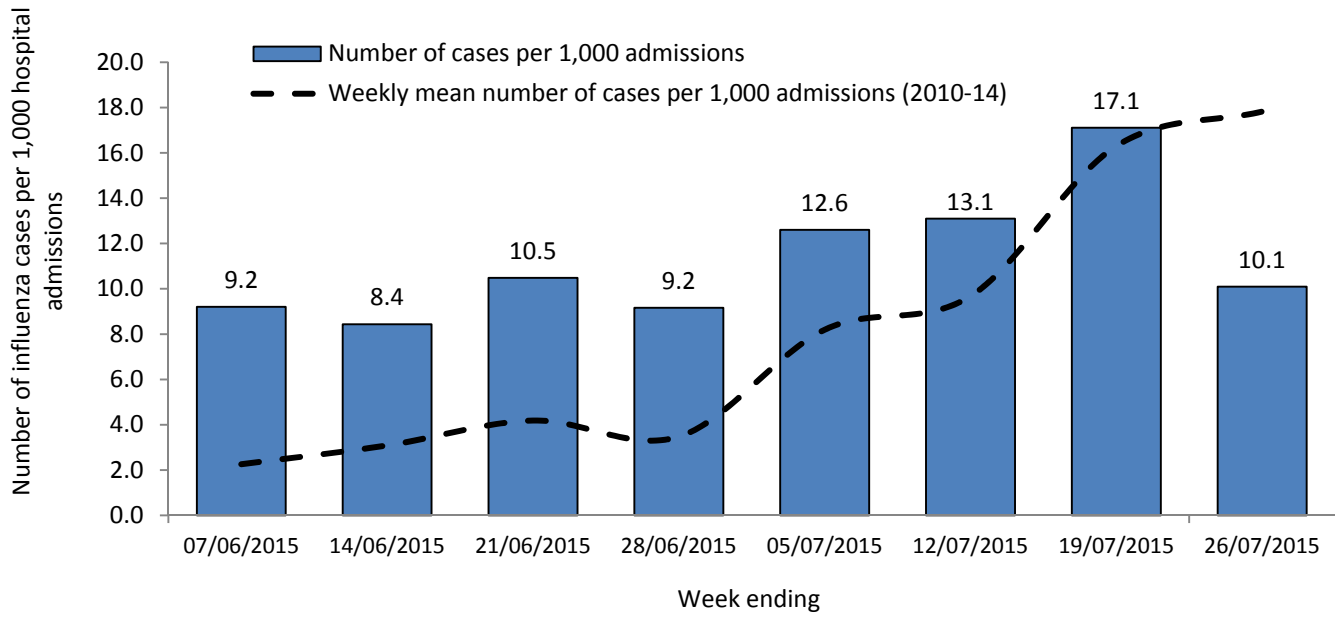
A total of 175 cases of influenza were notified to the Department of Health this week, with the appearance that notifications have peaked and may now be in decline.

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 20/07/2015 and 26/07/2015.



The number of influenza cases hospitalised decreased this week, although this may at least partially reflect reporting lag: 25 (71%) with influenza B, 5 (14%) with influenza A/H3N2, 1 (3%) with influenza A/H1N1, and 4 (12%) with influenza A/unsubtyped.

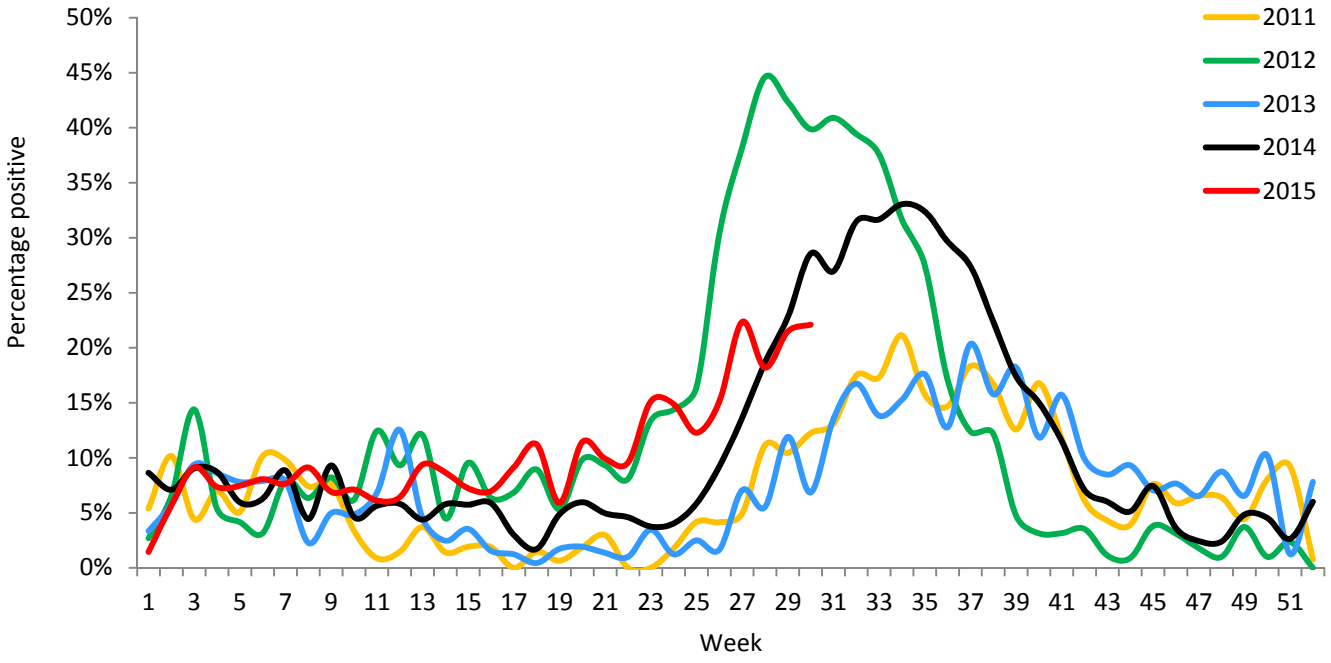
Influenza cases per 1000 hospital admissions



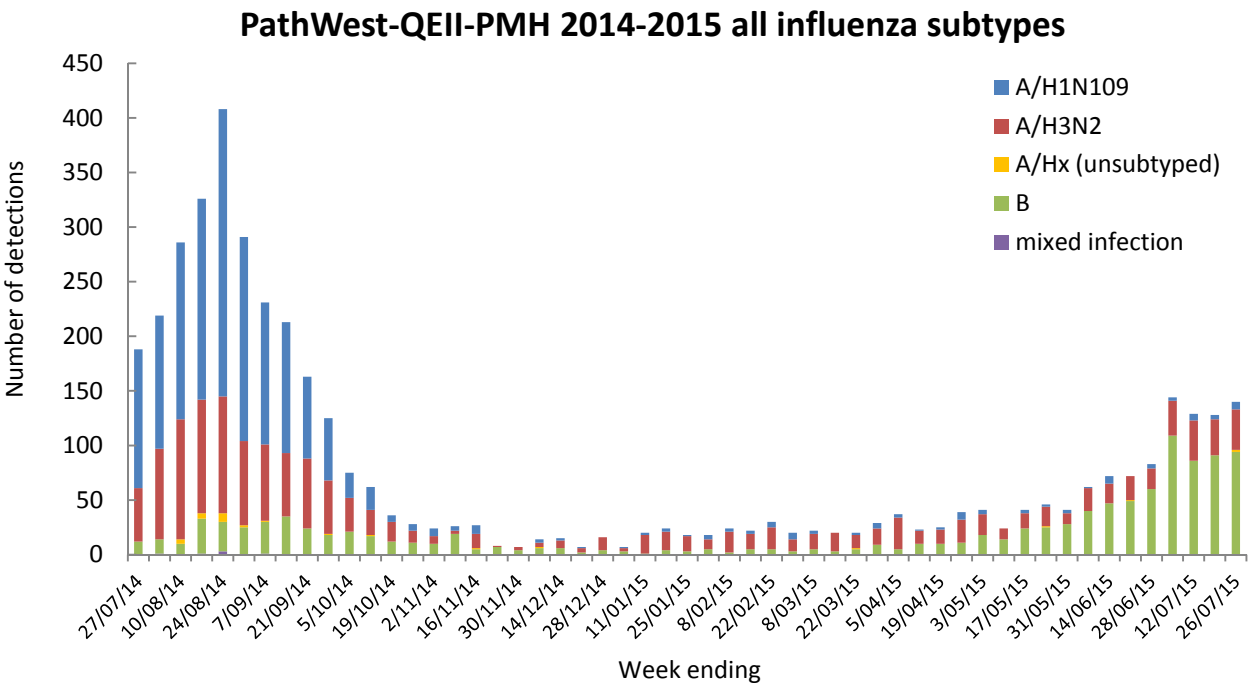
The proportion of hospital admissions notified as having laboratory-confirmed influenza decreased and is below the average rate of hospitalised cases in recent years, although this may at least partially reflect reporting lag for the last week.

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. Data for the current reporting week may be incomplete.

PathWest-QEII-PMH influenza percentage positive 2011-2015

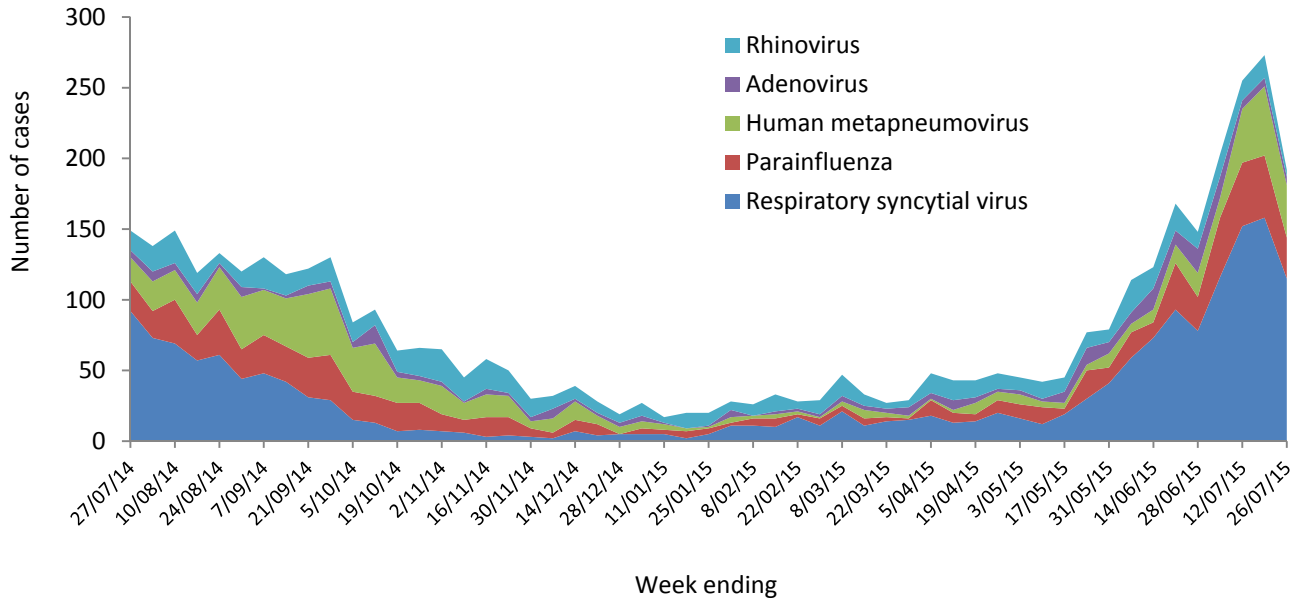


The percentage of specimens tested by PathWest-QEII-PMH positive for influenza virus increased to 22.1% this week, but has been fluctuating around this level over recent weeks, suggesting percent positivity has peaked.



One hundred and forty viruses were subtyped by PathWest, QEII and PMH during this reporting week; 94 (67%) influenza B, 37 (26%) influenza A/H3N2, and 7 (5%) influenza A/H1N1, and 2 (1%) influenza A/unsubtyped. In the past fortnight around 65% of the influenza B strains circulating in WA have been Yamagata lineage, matching the trivalent influenza vaccine strain.

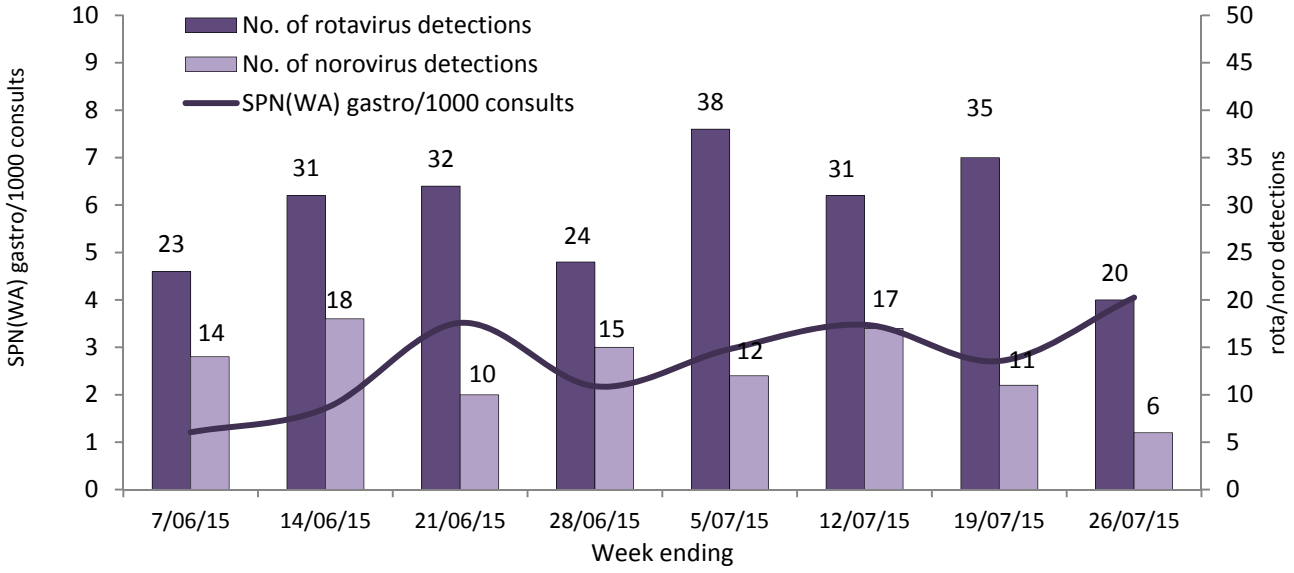
The graph is a summary of all samples that have been recorded as subtyped at PathWest QEII as of 12.01am Wednesday 29th July 2015. The number subtyped may not always correspond to the number of influenza detections.



Non-influenza respiratory virus activity declined this week, primarily due to a drop in respiratory syncytial virus detections.

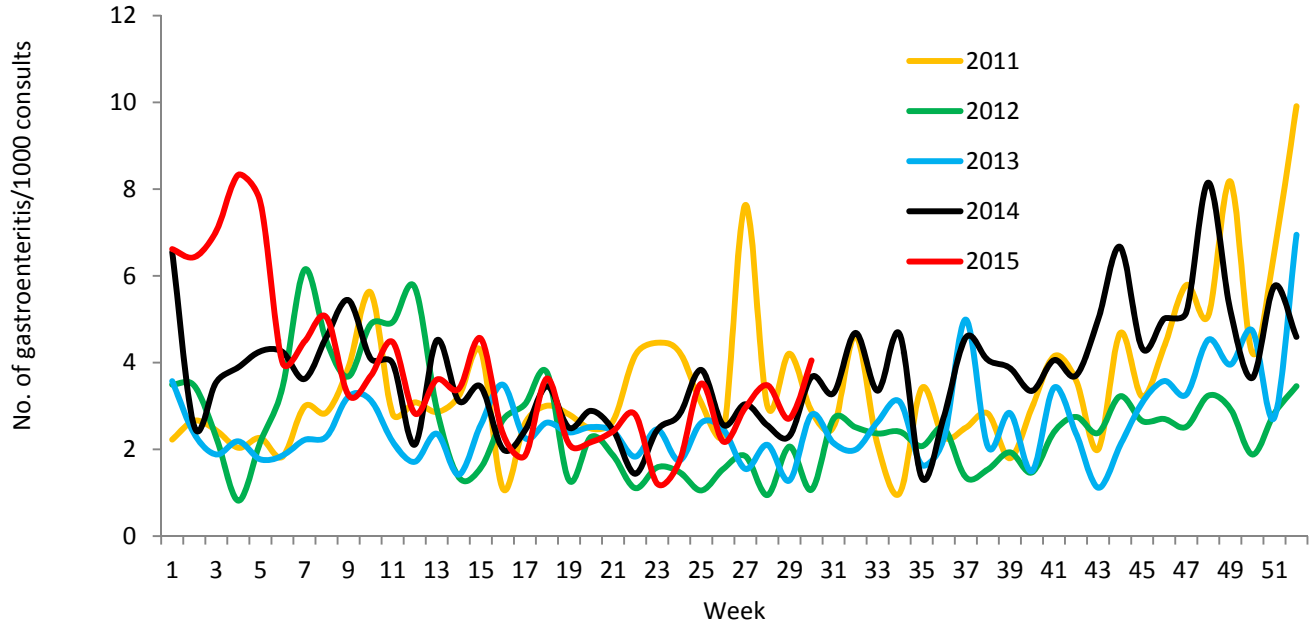
Gastroenteritis

Gastroenteritis virus detections and GP Presentations



Gastroenteritis presentations to SPN(WA) remain between 3-4 cases per 1,000 consultations. Norovirus activity remains relatively low; rotavirus detections decreased this week.

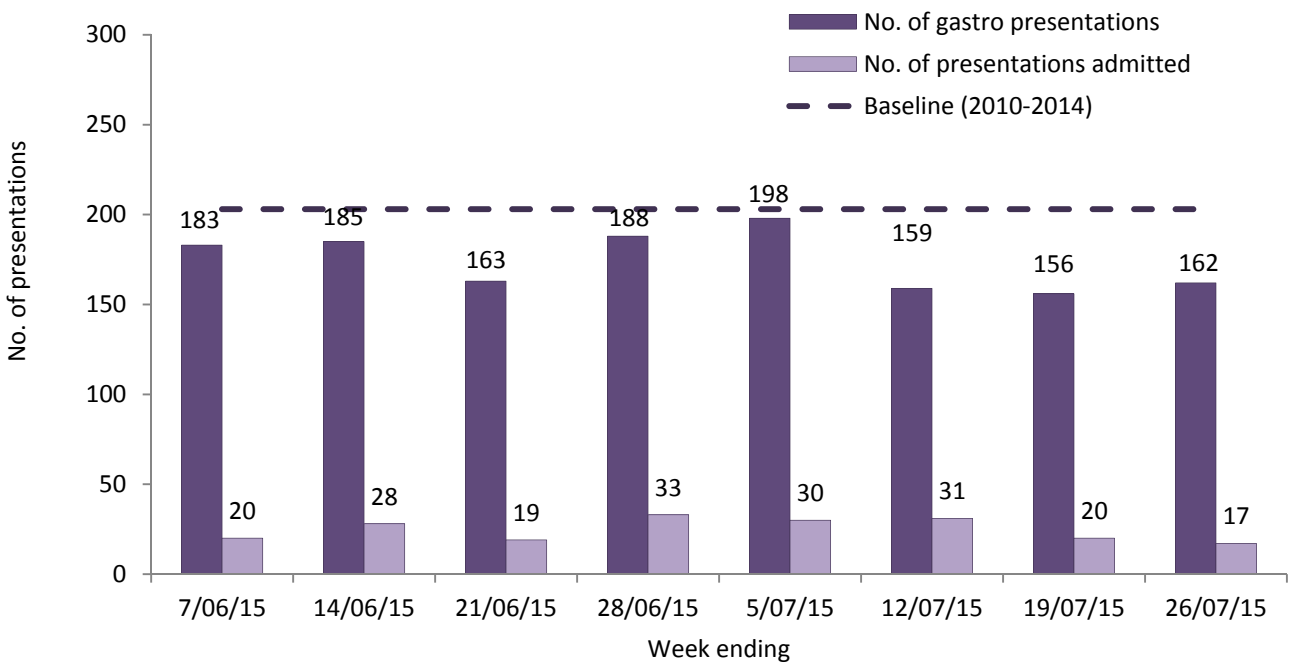
Sentinel Practitioner's Network of WA SPN(WA) - GP surveillance
Rate of gastroenteritis per 1000 consultations, 2011 - 2015



The rate of gastroenteritis presentations to sentinel GPs continues to fluctuate within the levels of presentations seen during this time period in recent years.

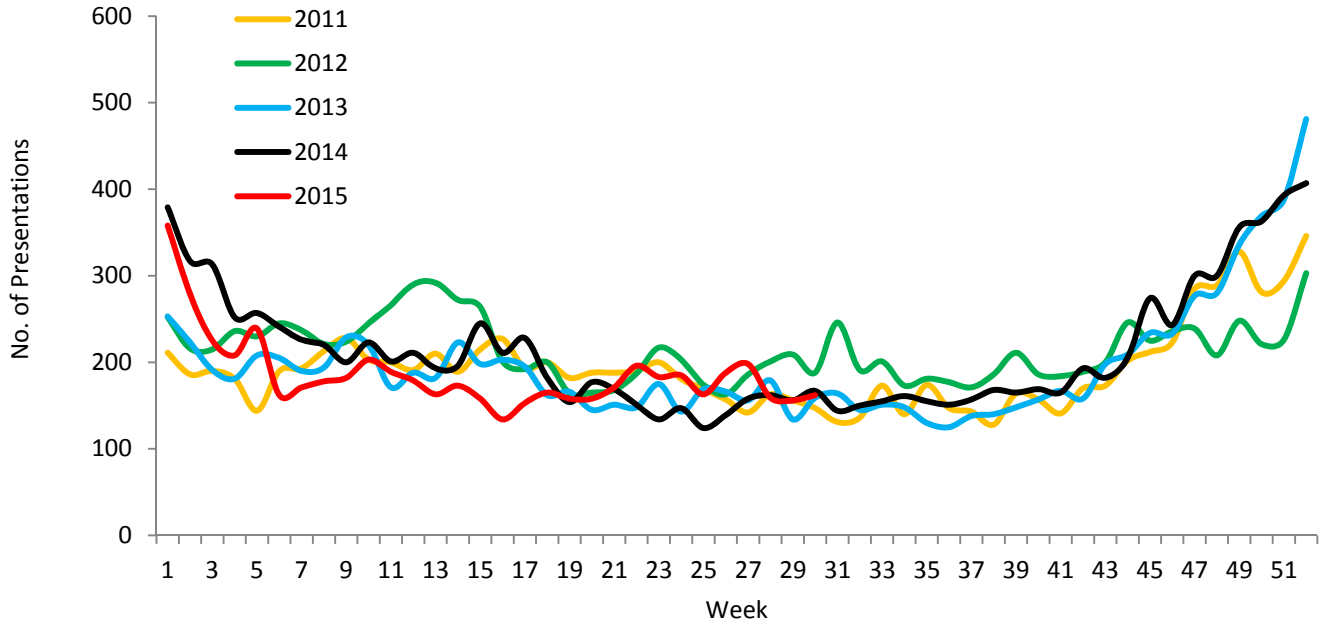
The following is a summary of current Emergency Department Sentinel Surveillance (EDSS) data for gastroenteritis presentations. Baseline levels for gastroenteritis presentations were calculated using the mean of weekly EDIS data from week 1, 2011 to week 52, 2014.

Gastroenteritis ED Presentations



Gastroenteritis presentations to sentinel EDs remain below baseline level.

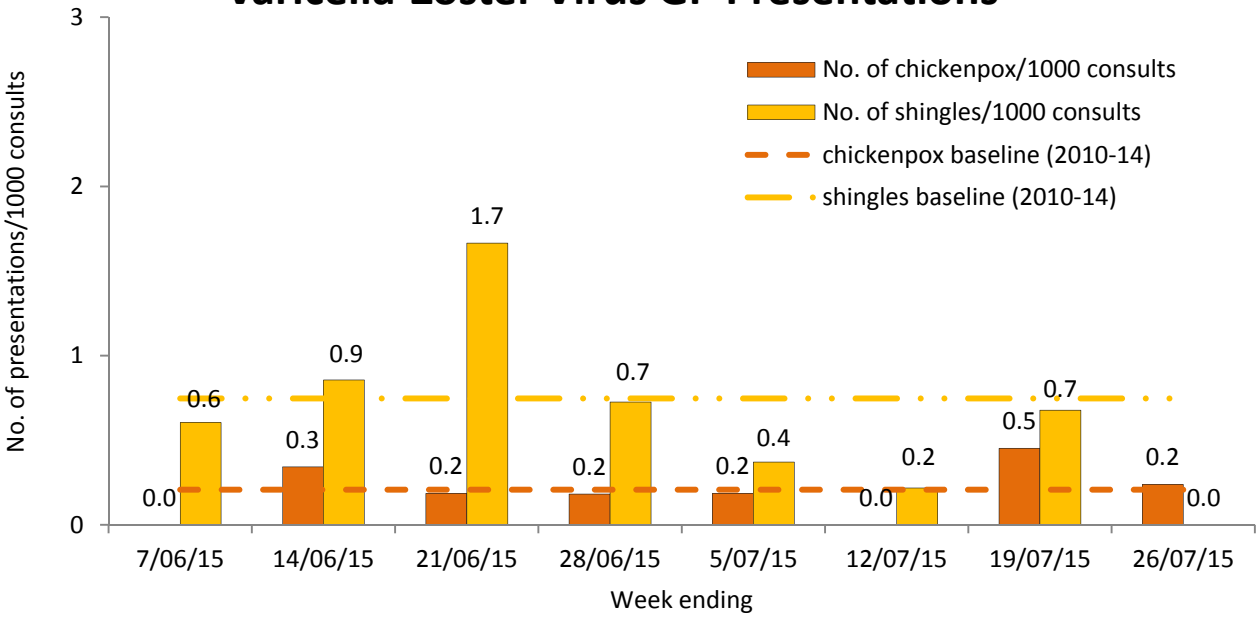
ED Gastroenteritis Presentations 2011 - 2015



The number of gastroenteritis presentations to sentinel EDs remains consistent with values seen during this week in recent years.

Viral Rashes

Varicella-Zoster Virus GP Presentations

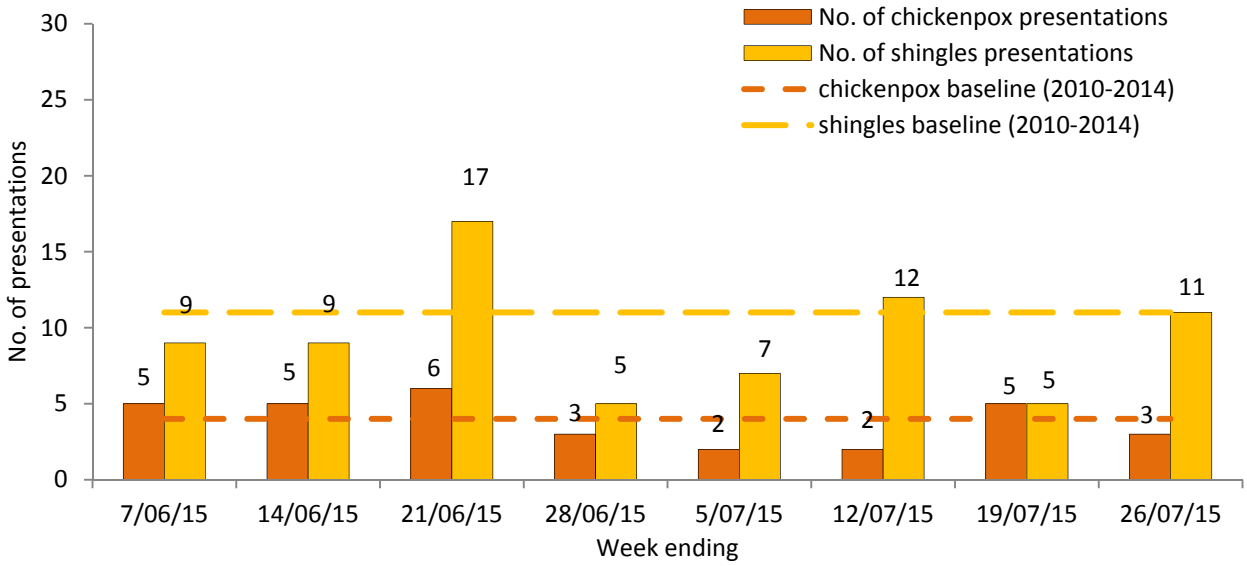


Shingles and chickenpox presentations to sentinel GPs are near or below baseline levels. No cases of measles or rubella were notified. Several further cases of mumps have been confirmed as part of the outbreak among Aboriginal children, teenagers and young adults in the Kimberley region, including in Broome.

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, 2010 to week 52, 2014.

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, 2010 to week 52, 2014**.**

Varicella-Zoster virus ED Presentations



Shingles and chickenpox presentations to sentinel EDs are near or below baseline levels.