**KEY POINTS**

**INFLUENZA AND INFLUENZA-LIKE ILLNESSES (ILI)**

**Summary:** Influenza activity is at inter-seasonal levels, but a little higher than in recent years.

- ILI presentations at sentinel GPs and EDs are fluctuating at low levels.
- PathWest laboratory detections and percent positivity remain relatively high for this time of year, primarily due to influenza B virus activity.
- Overall non-influenza respiratory virus activity remains low; however respiratory syncytial virus activity increased this week.

**GASTROENTERITIS**

- Gastroenteritis activity at sentinel GPs and EDs is currently around expected levels for this time of year.
- Rotavirus activity remains low and relatively stable, while norovirus activity has increased over summer.

**VARICELLA AND OTHER VACCINE-PREVENTABLE VIRAL DISEASES**

- **Chickenpox** and shingles activity at both sentinel GPs and EDs continues to fluctuate around baseline levels.
- **Rubella:** no cases have been confirmed in WA since two imported cases in early April 2017.
- **Measles:** it is now over a month since the end of the infectious period in an imported case (ex-Thailand) reported in early January, so it appears there was no transmission associated with this case.
- **Mumps:** no cases confirmed this week.

Routine influenza detections decreased this week however the number remains relatively high for this time of year. ILI presentations reported by WA ASPREN sentinel GPs remained low. Of the five samples submitted for influenza testing by sentinel GPs, one (20%) tested positive.

The rate of ILI presentations to WA ASPREN sentinel GPs remains at interseasonal levels.
The following is a summary of current Emergency Department sentinel surveillance (EDSS) data for respiratory viral presentations.

**Viral Respiratory ED Presentations and Admissions**

Respiratory viral presentations and admissions to sentinel EDs decreased slightly this week.

**ED Respiratory Viral Presentations, 2014-2018**

The number of respiratory viral presentations to sentinel EDs remained stable this week, and in the upper range of interseasonal levels.
The number of influenza notifications received by the Department of Health is steady but relatively high for the interseasonal period.

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 29/01/2018 and 04/02/2018. The seasonal threshold defines a value above which indicates epidemic seasonal influenza activity. The threshold value is calculated based on analysis of seasonal influenza data from the past eight years.

The percentage of specimens testing positive for influenza virus at PathWest decreased this week, but remains relatively high for this time of year. Of 159 specimens, 18 (11%) tested positive in the past week.
The graph is a summary of all WA routine and sentinel samples that have been processed by PathWest as of Wednesday 07\textsuperscript{th} February 2018. This number does not include samples referred by other private laboratories for influenza subtyping.

Seventeen routine samples were subtyped by PathWest during this reporting week; 9 (67\%) influenza B; 6 (22\%) influenza A/H3N2; and 2 (11\%) influenza A/H3N2.

The graph is a summary of all WA routine samples that have been recorded as subtyped at PathWest as of Wednesday 07\textsuperscript{th} February 2018. This number does not include sentinel samples or samples referred by other private laboratories for influenza subtyping.

Overall non-influenza respiratory virus activity remains low; however respiratory syncytial virus activity increased this week.
The number of gastroenteritis presentations to sentinel GPs increased, and is now in the mid range of values seen at this time of year.

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, 2013 to week 52, 2017.

Gastroenteritis ED Presentations

Gastroenteritis presentations and admissions to sentinel EDs increased this week.
The number of gastroenteritis presentations to sentinel EDs is in the mid-range of values observed during this time period in recent years.

Rotavirus activity remains low, but there has been an upward trend in norovirus activity over summer.
Shingles activity at WA ASPREN sentinel GPs has been fluctuating around baseline level. Baseline levels for chickenpox and shingles presentations to WA ASPREN GPs per thousand consultations were calculated using the mean of weekly WA ASPREN data from week 1, 2013 to week 52, 2017.

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, 2013 to week 52, 2017.

Shingles at sentinel EDs remained above baseline level this week.