WEEK ENDING 16TH JUNE 2019

KEY POINTS

INFLUENZA AND INFLUENZA-LIKE ILLNESSES (ILI)

Summary: All indicators of influenza and ILI activity decreased this week following sharp increases since early May, but remain well above levels usually reported at the peak of the influenza season in WA.

- ILI activity at sentinel GPs and EDs declined but still remain well above levels normally reported during influenza season.
- PathWest influenza detections and test percent positivity continue to be above levels usually seen at this time of year.
- Influenza A/H3N2 comprised the largest proportion of influenza detections at Pathwest this week (61%) followed by influenza A/unsubtyped (22%), and influenza B (17%).
- Overall non-influenza activity decreased this week, mostly due to a decrease in RSV detections.

GASTROENTERITIS

- The number of gastroenteritis presentations to sentinel EDs is in the higher range of values normally reported at this time of year.
- PathWest laboratory detections of norovirus and rotavirus remain at low levels.

OTHER VACCINE-PREVENTABLE DISEASES

- **Shingles and chickenpox**: Chickenpox activity at sentinel GPs was above baseline levels this week.
- **Measles**: No measles cases confirmed this week.
- **Mumps**: No mumps cases notified this week.
- **Rubella**: No rubella cases notified this week.
- **Invasive meningococcal disease (IMD)**: No IMD cases notified this week.


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. All figures and data were accurate at time of publication, but subject to change. The data collections used to create this publication include:

- Sentinel General Practice data collected by WA members of the Australian Sentinel Practices Research Network (ASPREN)
- Emergency Department data provided by the Emergency Department Information System (EDIS), which currently incorporates data from the following hospitals: Fiona Stanley Hospital, Sir Charles Gardiner Hospital, Royal Perth Hospital, Perth Children’s Hospital, King Edward Memorial Hospital, St John of God Midland, Bunbury Hospital, Armadale Hospital, Joondalup Health Campus, and Rockingham General Hospital.
- Notification data derived from disease notifications received by CDCD, WA Department of Health from medical providers and public or private laboratories in WA. These data are updated routinely to include admission status for all public and public/private hospitals in WA and hospitalisation data are included in the report during the influenza season.
- Viral laboratory data obtained from PathWest laboratories at QEII Medical Centre, as well as via notification data sent by all WA laboratories to CDCD, WA Department of Health.
The number of routine PathWest influenza detections fell this week. Sixteen of the 26 samples (62%) submitted for influenza testing by sentinel GPs tested positive.

The rate of ILI presentations declined this week but remains above levels usually reported during this time of year.
The following is a summary of current Emergency Department sentinel surveillance (EDSS) data for respiratory viral presentations.

Respiratory presentations and admissions to sentinel EDs decreased for the first time in six weeks.

The number of respiratory viral presentations to sentinel EDs decreased but remains well above levels normally reported during influenza season.

This graph is a summary of presentations at Emergency Department sentinel surveillance (EDSS) sites. This data may differ from hospital attendance and admission data prepared by the Information and Performance Governance Unit using different ICD codes.
The number of influenza hospitalisations has been substantially higher than expected for this time of year and is now at levels experienced at the peak of previous high activity seasons.

The graph is a summary of influenza notifications received by the DoH who were recorded as having a hospital admission to the end of the current reporting week, for which cases had a specimen collection date between 10/06/2019 and 16/06/2019. Paediatric notifications were defined as individuals less than 18 years of age.

Influenza notifications reported to the Department of Health decreased following sharp increases over past weeks and remain much higher than peaks of previous seasons.

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 10/06/2019 and 16/06/2019. The seasonal threshold defines a value above which may indicate epidemic seasonal influenza activity. The threshold value is calculated based on analysis of seasonal influenza data from the past four years.
The percentage of specimens positive for influenza virus at PathWest remains above levels typically reported at this time of year. Of 930 specimens, 349 (38%) tested positive in the past week.

The graph is a summary of all WA samples reported by PathWest as of Wednesday 19th of June 2019, excluding samples referred by other private laboratories for influenza subtyping.

Three hundred and forty-nine samples were subtyped by PathWest during this reporting week; 214 (61%) influenza A/H3N2; 77 (22%) influenza A/unsubtyped; 58 (17%) influenza B.

The graph is a summary of all WA samples positive for influenza reported at PathWest as of Wednesday 19th of June 2019, excluding samples referred by other private laboratories for influenza subtyping.
Overall non-influenza activity fell again this week, mostly due to a decrease in RSV detections. The graph is a summary of all WA samples positive for a common respiratory virus other than influenza reported at PathWest as of Wednesday 19th of June 2019.

Gastroenteritis

Australian Sentinel Practices Research Network - GP surveillance
Rate of gastroenteritis per 1000 consultations, 2015-2019

The number of gastroenteritis presentations to sentinel GPs is in the mid-range of values normally reported 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 and admissions were calculated using the mean of weekly EDIS data from week 1, 2015 to week 52, 2018.

Gastroenteritis ED Presentations

![Bar chart showing weekly gastroenteritis presentations and admissions from 28/04/19 to 16/06/19.]

Gastroenteritis presentations and admissions to sentinel EDs fell this week, but remained above baseline level.

ED Gastroenteritis Presentations 2015-2019

![Line graph showing weekly gastroenteritis presentations from 2015 to 2019.]

The number of gastroenteritis presentations to sentinel EDs remains in the higher range of values normally reported at this time of year.
Chickenpox activity reported by WA ASPREN GPs this week was above baseline this week.
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, 2015 to week 52, 2018.

The following is a summary of current Emergency Department sentinel surveillance (EDSS) data for varicella-zoster virus presentations.

**Varicella-Zoster Virus ED Presentations**

Chickenpox presentations at sentinel EDs were at baseline levels this week.
Baseline levels for varicella-zoster virus presentations were calculated using the mean of weekly EDIS data from week 1, 2015 to week 52, 2018.