INFLUENZA AND INFLUENZA-LIKE ILLNESSES (ILI)

Summary: All indicators of influenza activity are or approaching inter-seasonal levels.
- ILI presentations at sentinel GPs and EDs are fluctuating at low levels.
- PathWest laboratory detections continued to decrease this week, whilst percent positivity increased slightly, but is overall trending downwards. There is ongoing late season influenza B virus activity; currently comprising 64% of detections, complemented by A/H3N2 (18%) and A/H1N1 (18%) activity.
- Overall non-influenza respiratory virus activity decreased this week; however parainfluenza virus detections increased slightly.

GASTROENTERITIS
- Gastroenteritis activity at sentinel GPs and EDs decreased this week; and remains around expected levels for this time of year.
- Rotavirus and norovirus activity was low this week. Several norovirus outbreaks in residential aged care facilities have been reported in recent weeks.

VARICELLA AND OTHER VACCINE-PREVENTABLE VIRAL DISEASES
- Shingles activity at sentinel GPs and EDs has been above baseline levels for the past fortnight, but chickenpox activity remains low.
- Rubella: no cases have been confirmed in WA since two imported cases in early April.
- Measles: no cases have been confirmed since August.
- Mumps: there has been only one confirmed cases - acquired overseas - in the past two months.


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, Princess Margaret 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 receive 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.
Routine influenza detections continued to decline this week, whilst influenza detections and ILI presentations reported by WA ASPREN sentinel GPs increased slightly. Three of the four (75%) samples submitted for influenza testing by sentinel GPs tested positive this week.

The rate of ILI presentations to WA ASPREN sentinel GPs is at interseasonal level.
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, 2013-2017

The number of respiratory viral presentations to sentinel EDs decreased this week, and is overall trending downwards towards interseasonal levels.
The number of influenza notifications received by the Department of Health continues to decline after peaking in mid-September and has crossed the interseasonal threshold level.

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 11/12/2017 and 17/12/2017. 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 (excluding the pandemic year in 2009).

The percentage of specimens testing positive for influenza virus at PathWest increased slightly this week, although overall is trending downwards. Of 190 specimens, 20 (10%) 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 20th December 2017. This number does not include samples referred by other private laboratories for influenza subtyping.
Nineteen routine samples were subtyped by PathWest during this reporting week; 11 (64%) influenza B; 3 (18%) influenza A/H3N2 and 3 (18%) influenza A/H1N1.

The graph is a summary of all WA routine samples that have been recorded as subtyped at PathWest as of Wednesday 20th December 2017. This number does not include sentinel samples or samples referred by other private laboratories for influenza subtyping.

Overall non-influenza respiratory virus activity decreased this week, however parainfluenza virus detections increased slightly.
The number of gastroenteritis presentations to sentinel GPs is in the low 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, 2011 to week 52, 2016.

Gastroenteritis ED Presentations

Gastroenteritis presentations to sentinel EDs decreased slightly, however remains above baseline level for the sixth consecutive week.
The number of gastroenteritis presentations to sentinel EDs, although showing a seasonal increase over recent weeks, remains in the mid-range of values observed during this time period in recent years.

Rotavirus activity remained low and stable this week activity whilst norovirus detections decreased.
Viral Rashes

Varicella-Zoster Virus GP Presentations

Shingles activity at WA ASPREN sentinel GPs remained above baseline level 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, 2012 to week 52, 2016.

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, 2012 to week 52, 2016.

Varicella-Zoster virus ED Presentations

Shingles activity at sentinel EDs remained above baseline level this week. Chickenpox activity continues to fluctuate around baseline levels.