WEEK ENDING 21ST JANUARY 2018

KEY POINTS

INFLUENZA AND INFLUENZA-LIKE ILLNESSES (ILI)
Summary: All indicators of influenza activity are at inter-seasonal levels.
- ILI presentations at sentinel GPs and EDs are fluctuating at low levels.
- PathWest laboratory detections and percent positivity are overall trending downwards. Only small numbers of influenza A and B viruses are currently being detected.
- Overall non-influenza respiratory virus activity remains low and stable.

GASTROENTERITIS
- Gastroenteritis activity at sentinel GPs and EDs is currently around expected levels for this time of year.
- Rotavirus and norovirus activity remained stable this week.

VARICELLA AND OTHER VACCINE-PREVENTABLE VIRAL DISEASES
- Chickenpox and shingles activity at both sentinel GPs and EDs was at or above baseline level this week.
- Rubella: no cases have been confirmed in WA since two imported cases in early April 2017.
- Measles: no other reports associated with a case notified in early January. Perth residents might potentially have been exposed on an incoming Thai airways flight on 2nd January, at Perth Airport, at several shopping areas in the northern suburbs between 2nd and 6th January, and at Joondalup Health Campus on 7th and 8th January.
- Mumps: Two cases were reported this week – both acquired overseas. Since December 2017, there have been six confirmed cases in Perth residents, two acquired in WA and four acquired overseas.


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.
Influenza and Influenza-like Illnesses

Sentinel and Routine Influenza and Influenza-like-Illness detections

Routine influenza detections overall trending downwards. ILI presentations reported by WA ASPREN sentinel GPs remained low. The sole sample submitted for influenza testing by sentinel GPs this week did not test positive.

Australian Sentinel Practices Research Network - GP surveillance
Rate of ILI per 1000 consultations, 2014-2018

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**

![Chart showing respiratory viral presentations and admissions to sentinel EDs increased this week.]

Respiratory viral presentations and admissions to sentinel EDs increased this week.

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

![Chart showing the number of respiratory viral presentations to sentinel EDs increased this week, and is in the upper range of interseasonal levels.]

The number of respiratory viral presentations to sentinel EDs increased this week, and is in the upper range of interseasonal levels.
The number of influenza notifications received by the Department of Health is at interseasonal levels.

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 15/01/2018 and 21/01/2018. 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.

PathWest-QEI influenza percentage positive 2014-2018

The percentage of specimens testing positive for influenza virus at PathWest is within the interseasonal range. Of 149 specimens, 7 (5%) 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 24th January 2018. This number does not include samples referred by other private laboratories for influenza subtyping.
Seven routine samples were subtyped by PathWest during this reporting week; 4 (57%) influenza B; and 3 (43%) influenza A/H3N2.

The graph is a summary of all WA routine samples that have been recorded as subtyped at PathWest as of Wednesday 24th January 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.
The number of gastroenteritis presentations to sentinel GPs remains in the lower 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**

No. of gastro presentations | No. of presentations admitted | Baseline gastro presentations (2013-2017)
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Week ending 3/12/17 | 243 | 40
Week ending 10/12/17 | 259 | 44
Week ending 17/12/17 | 250 | 37
Week ending 24/12/17 | 234 | 40
Week ending 31/12/17 | 336 | 52
Week ending 7/01/18 | 272 | 56
Week ending 14/01/18 | 183 | 34
Week ending 21/01/18 | 212 | 44

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

Rotavirus activity was low this week, and there has been a general upward trend in norovirus activity since late 2017, however this is not unexpected for this time of year.
Shingles and chickenpox activity at WA ASPREN sentinel GPs rose 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, 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.

Varicella-Zoster Virus GP Presentations

Varicella-Zoster virus ED Presentations

Shingles and chickenpox activity at sentinel EDs was at baseline levels this week.