KEY POINTS

INFLUENZA AND INFLUENZA-LIKE ILLNESSES (ILI)
Summary: Influenza and influenza-like illness activity is increasing towards levels typically seen at this time of year.

- ILI presentations at sentinel GPs and EDs are trending upwards. Influenza notifications, PathWest laboratory detections and percent positivity all increased this week.
- Influenza B and influenza A (both H1N1 and H3N2) viruses have been co-circulating at low levels over recent weeks, however the majority (74%) of influenza detections this week were A/H1N1.
- Overall non-influenza activity increased this week, due to an increase in RSV.

GASTROENTERITIS
- Gastroenteritis activity at sentinel GPs and EDs is currently around expected levels for this time of year.
- Rotavirus activity increased this week, mostly driven by increased activity in the Kimberley.

VARICELLA AND OTHER VACCINE-PREVENTABLE DISEASES
- Shingles and chickenpox activity at sentinel GPs and EDs continues to fluctuate around baseline level.
- Rubella: No cases have been confirmed in WA since two imported cases in early April 2017.
- Mumps: Three cases were notified this week - all locally acquired infections. To date in 2018, sixteen cases have been confirmed, associated with infection acquired overseas or interstate, and with some low grade transmission in adolescents in the Perth metro area.
- Measles: No cases have been notified since early May. Clinicians should remain alert to the possibility of measles in persons with fever and rash illnesses who have recently been overseas. It is recommended that measles vaccine (MMR) be considered for all people travelling overseas, including to Bali, who were born after 1965 and who do not have clear documentation of having previously received two doses of measles vaccine.


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.
Reported routine influenza detections continue to trend upwards. ILI presentations reported by sentinel GPs fell this week; of the nine samples submitted for influenza testing by sentinel GPs, one (11%) tested positive.

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

The rate of ILI presentations to WA ASPREN sentinel GPs fell this week, and is now in the mid-range of values observed during this time period in recent years.
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 continued to increase this week.

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

Relative to recent seasons, the number of respiratory viral presentations to sentinel EDs remains in the higher range of levels reported at this time of the year.
The number of influenza notifications received by the Department of Health is trending upwards in line with levels usually experienced at this time of year.

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 25/06/2018 and 01/07/2018. 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 testing positive for influenza virus at PathWest increased this week, but remains at inter-seasonal levels; of 303 specimens, 23 (8%) 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 4th of July 2018. This number does not include samples referred by other private laboratories for influenza subtyping.
Twenty three routine samples were subtyped by PathWest during this reporting week; 17 (74%) influenza A/H1N1; 4 (18%) influenza A/H3N2; 1 (4%) influenza B; and 1 (4%) influenza A/unsubtyped.

The graph is a summary of all WA routine samples that have been recorded as subtyped at PathWest as of Wednesday 4th July 2018. This number does not include sentinel samples or samples referred by other private laboratories for influenza subtyping.

Overall non-influenza activity increased this week, driven by an increase in RSV.
The number of gastroenteritis presentations to sentinel GPs continues to fluctuate at relatively low levels.

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, 2013 to week 52, 2017.

Gastroenteritis ED Presentations

Gastroenteritis presentations and admissions to sentinel EDs remained below baseline level this week.
The number of gastroenteritis presentations to sentinel EDs remained steady this week.

Rotavirus activity increased this week, mostly driven by increased activity in the Kimberley.
Chickenpox activity at WA ASPREN GPs remained above baseline levels this week, whilst shingles activity remained low. 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.

Varicella-Zoster virus ED Presentations

Shingles presentations at sentinel EDs remained above baseline level this week. Baseline levels for varicella-zoster virus presentations were calculated using the mean of weekly EDIS data from week 1, 2013 to week 52, 2017.