WEEK ENDING 2ND SEPTEMBER 2018

KEY POINTS

INFLUENZA AND INFLUENZA-LIKE ILLNESSES (ILI)

Summary: Influenza notifications, PathWest detections, test positivity and hospitalisations all decreased this week, and remain low for this time of the year.

- Influenza notifications, PathWest laboratory detections and percent positivity decreased this week.
- ILI presentations at sentinel GPs increased this week, whilst sentinel ED activity remained steady and below the expected levels for this time of year.
- The majority (85%) of PathWest influenza detections this week were influenza A/H1N1, with low levels of influenza A/H3N2 and influenza B reported.
- Influenza-related hospitalisations are below average levels for this time of year; with most hospitalisations for confirmed influenza attributable to A/H1N1.
- Overall non-influenza respiratory viral activity decreased this week, driven by declining RSV detections.

GASTROENTERITIS

- Gastroenteritis activity at sentinel GPs and EDs is currently around expected levels for this time of year.
- PathWest laboratory detections of norovirus and rotavirus remains at low levels.

VARICELLA AND OTHER VACCINE-PREVENTABLE DISEASES

- Shingles and chickenpox: activity at sentinel GPs and EDs continues to fluctuate around baseline level.
- Rubella: No rubella cases were notified this week.
- Mumps: No mumps cases were notified this week. To date in 2018, seventeen 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 new cases notified this week. Since mid-July, there have been 15 confirmed cases aged 15-39 years, five of whom were acquired overseas and 10 local secondary cases in Perth following workplace and healthcare exposures. It is notable that five of the recent measles cases reported two childhood doses of MMR vaccine. Clinicians should continue to remain alert to the possibility of measles in young adults with fever and rash illnesses even if they have received two-doses of measles-containing vaccine.
- Meningococcal: Five cases of meningococcal have been notified in the last two weeks, including three adults and two young children. Four of the cases were infected with meningococcal serogroup W and the remaining case with serogroup B. To date there have been 24 cases notified, comprising 17 serogroup W, five serogroup B and two serogroup Y meningococcal infections.


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 Gardner 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.
Routine PathWest influenza detections are trending downwards this week, while ILI presentations reported by sentinel GPs increased.

The rate of ILI presentations to WA ASPREN sentinel GPs increased sharply this week, and is now in the middle 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 remained stable this week.

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

The number of respiratory viral presentations to sentinel EDs is in the lower-range of levels reported at this time of the year.
The number of influenza notifications received by the Department of Health fell this week, and is still unusually low compared to levels typically 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 27/08/2018 and 02/09/2018. 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 number of influenza cases hospitalised remains lower than recent years. Of the thirty two hospitalised cases in the past week, 21 (66%) were influenza A/H1N1; 6 (19%) influenza A/unsubtyped; 1 (3%) influenza A/H3N2; and 4 (12%) unsubtyped.
The hospital admission rate of laboratory-confirmed influenza remained steady, and well below the average rate for recent years. The rate for the last reporting week is subject to correction due to a lag in reporting.

The graph is a summary of influenza notifications received by the DoH who were recorded as having a hospital admission, expressed per 1,000 admissions. Data for the current reporting week may be incomplete.

The percentage of specimens testing positive for influenza virus at PathWest fell this week, and remains low for this time of year. Of 371 specimens, 41 (11%) tested positive in the past week.

The graph is a summary of all WA samples reported by PathWest as of Wednesday 5th of September 2018, excluding samples referred by other private laboratories for influenza subtyping.
Thirty nine routine samples were subtyped by PathWest during this reporting week; 33 (85%) influenza A/H1N1; 2 (5%) influenza A/H3N2; 1 (2%) influenza A/unsubtyped; and 3 (8%) influenza B.

The graph is a summary of all WA samples positive for influenza reported at PathWest as of Wednesday 5th of September 2018, excluding samples referred by other private laboratories for influenza subtyping.

Overall non-influenza activity decreased this week, mostly driven by 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 5th of September 2018.
The number of gastroenteritis presentations and admissions to sentinel GPs decreased sharply this week, and is now in the lower-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, 2013 to week 52, 2017.

Gastroenteritis ED Presentations

Gastroenteritis presentations to sentinel EDs remained stable this week, and admissions decreased.
The number of gastroenteritis presentations to sentinel EDs decreased this week, and is in the mid-range of levels reported at this time of year.

PathWest laboratory detections of norovirus and rotavirus were low this week.
Shingles and chickenpox activity at WA ASPREN 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.

**Varicella-Zoster Virus GP Presentations**

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Shingles and chickenpox presentations at sentinel EDs continued to fluctuate around 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.