Virus WAtch

Week ending 31st January 2021

Key Points

It is important to note that the influenza and ILI surveillance systems in WA have been impacted by the COVID-19 pandemic. Therefore, interpretation of respiratory viral activity should be done with caution and take into account the effects of changes in health seeking behaviour including accessing alternate health services such as telehealth, focused testing for COVID-19 at COVID-19 clinics or specific acute respiratory infection clinics and the impact of physical distancing measures.

Influenza and influenza-like illnesses (ILI)

- **Summary**: Indicators of influenza activity remain below interseasonal levels.
- **ILI activity at Emergency Departments (EDs)** decreased over the past five weeks. ILI activity at sentinel General Practices (GPs) was in the lower range of levels usually seen at this time of year.
- There were no positive influenza samples reported by PathWest in the past week.
- RSV detections continued to decline but remain significantly higher than levels usually reported at this time of year.

Gastroenteritis

- Gastroenteritis presentations at sentinel GPs were in the mid-range of values usually reported at this time of year. Presentations and admissions at EDs were also below baseline levels.
- PathWest laboratory detections of norovirus decreased in the past week and rotavirus notifications remained at low levels.

Other vaccine-preventable diseases

- **Shingles and chickenpox**: Shingles presentations were above baseline levels at sentinel GPs and EDs. Chickenpox presentations at EDs were above baseline levels in the past week.
- **Measles**: No measles cases were notified in the past week.
- **Mumps**: No mumps cases were notified in the past week.
- **Rubella**: No rubella cases were notified in the past week.
- **Invasive meningococcal disease (IMD)**: No IMD cases were notified in the past week.

Other diseases

- **Coronavirus COVID-19**: As of 31 January 2021, a total of 902 COVID-19 cases have been confirmed in WA. See [webpage](http://ww2.health.wa.gov.au/Articles/F_I/Infectious-disease-data/Virus-WAtch) for further information.


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 (GP) data collected by WA members of the Australian Sentinel Practices Research Network (ASPREN)
- Emergency Department (ED) 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 (Western Australian Notifiable Infectious Diseases Database [WANIDD]) 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. As of 1 August 2020, daily reporting of COVID-19 cases include only confirmed cases diagnosed by nose and throat swabs. See [webpage](http://ww2.health.wa.gov.au/Articles/F_I/Infectious-disease-data/Virus-WAtch) for further information.
Influenza and influenza-like illnesses (ILI)

The rate of ILI presentations to sentinel GPs in the past week remained in the lower range of levels usually reported at this time of year (Figure 1). No samples were submitted for influenza testing by sentinel GPs so far this year.

Figure 1. Rate of ILI per 1000 consultations at WA sentinel GP members of the Australian Sentinel Practices Research Network by week, 2017 to 2021

The rate of ILI presentations to EDs decreased over the past five weeks (Figure 2).

Figure 2. Number of ILI* presentations/admissions per 1000 presentations/admissions to Emergency Departments (EDs) in WA in the last 8 weeks

*This graph is a summary of current EDIS data using the ICD codes B34.9 and J06.9, which are consistent with a clinical presentation of a viral illness. This data may differ from that presented in the Winter Respiratory Illness Report provided by the Information and System Performance Directorate.
Respiratory viral presentations to EDs are at mid-range of levels usually reported at this time of year (Figure 3).

**Figure 3. Number of respiratory viral presentations to Emergency Departments in WA by week, 2017 to 2021**

![Graph showing respiratory viral presentations from 2017 to 2021](image)

*This graph is a summary of current EDIS data using the ICD codes B34.9 and J06.9 which are consistent with a clinical presentation of a viral illness. This data may differ from that presented in the Winter Respiratory Illness Report provided by the Information and System Performance Directorate.*

Influenza notifications reported to the Department of Health in the past week were below the seasonal threshold with no notifications received (Figure 4).

**Figure 4. Number of influenza notifications* in Western Australia by week, 2017 to 2021**

![Graph showing influenza notifications from 2017 to 2021](image)

*The graph is a summary of all influenza notifications received by the DoH, Western Australia (through Western Australian Notifiable Infectious Diseases Database [WANIDD]) to the end of the current reporting week for which cases had date of symptom onset or specimen collection between 25/01/2020 and 31/01/2021. 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 was below levels usually reported at this time of year (Figure 5). None of the 577 specimens submitted for influenza testing were positive for influenza in the past week.

**Figure 5. Proportion of PathWest* influenza specimens that tested positive for influenza by week, 2017 to 2021**

![Proportion of PathWest influenza specimens that tested positive for influenza by week, 2017 to 2021](image)

*The graph is a summary of all WA samples reported by PathWest, excluding samples referred by other private laboratories for influenza subtyping.

No PCR positive influenza samples have been reported by PathWest since July 2020 (Figure 6).

**Figure 6. Number of influenza detections PathWest* by types and subtypes by week, 2020 to 2021**

![Number of influenza detections PathWest by types and subtypes by week, 2020 to 2021](image)

*The graph is a summary of all WA samples positive for influenza reported at PathWest, excluding samples referred by other private laboratories for influenza subtyping. *These samples were tested using a rapid testing method that does not determine the influenza subtype (i.e. influenza A/H3N2 or A/H1N1).
RSV increased well beyond usual levels from mid-November 2020 and reached a peak at the end of December 2020 (Figure 7). RSV detections continued to decrease in the past week but remained significantly higher than levels usually reported at this time of the year.

**Figure 7. Number of non-influenza respiratory virus detections at PathWest* by week, 2020 to 2021**

![Graph showing RSV detections from mid-November 2020 to December 2020.](image)

*The graph is a summary of all WA samples positive for a common respiratory virus other than influenza reported at PathWest.*

COVID-19 activity remains low in Western Australia (Figure 8). The majority of cases have been acquired overseas or at sea.

**Figure 8. Number of confirmed* COVID-19 cases in Western Australia by optimal date of onset and place of acquisition, 2020 to 2021**

![Graph showing COVID-19 cases by optimal date of onset and place of acquisition.](image)

*All specimens testing positive for SARS-CoV-2 virus by polymerase chain reaction (PCR) tests at Western Australian pathology laboratories.*
Gastroenteritis

Gastroenteritis presentations to sentinel GPs increased in the past week to the mid-range of levels usually reported at this time of year (Figure 9).

Figure 9. Number of gastroenteritis presentations per 1000 consultations at WA sentinel GP members of the Australian Sentinel Practices Research Network by week, 2017 to 2021

Gastroenteritis presentations and admissions to EDs in the past week remained below baseline levels (Figure 10).

Figure 10. Number of gastroenteritis presentations and admissions to Emergency Departments in WA in the last 8 weeks*

*This graph is a summary of current EDIS data for gastroenteritis presentations and admissions. Baseline levels for gastroenteritis presentations and admissions were calculated using the mean of weekly EDIS data from week 1, 2016 to week 52, 2020.
The number of gastroenteritis presentations at EDs remained well below the range of values usually reported at this time of year (Figure 11).

**Figure 11. Number of gastroenteritis presentations to Emergency Departments* in WA by week, 2017 to 2021**

![Graph showing number of gastroenteritis presentations to Emergency Departments in WA by week, 2017 to 2021.](image)

*This graph is a summary of current EDIS data for gastroenteritis presentations*

**Viral rashes**

Only one chickenpox presentation has been reported by sentinel GPs in the past eight weeks. Shingles presentations in the past week was above baseline levels.

**Figure 12. Number of varicella-zoster presentations per 1000 consultations at WA sentinel GP members of the Australian Sentinel Practices Research Network in the last 8 weeks***

![Graph showing number of varicella-zoster presentations per 1000 consultations at WA sentinel GP members of the Australian Sentinel Practices Research Network in the last 8 weeks.](image)

*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, 2016 to week 52, 2020.*
Shingles and chickenpox presentations at EDs increased above baseline levels in the past week (Figure 13).

**Figure 13. Number of varicella-zoster presentations to Emergency Departments in WA in the last 8 weeks**

*Baseline levels for varicella-zoster virus presentations were calculated using the mean of weekly EDIS data from week 1, 2016 to week 52, 2020.*

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