Key Points

Please note that the influenza and ILI surveillance systems in Western Australia (WA) have been impacted by the COVID-19 pandemic. Therefore, respiratory viral activity should be interpreted 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)

- Indicators of influenza activity remain below interseasonal levels.
- ILI activity at Emergency Departments (EDs) increased in the past week and ILI activity at sentinel General Practices (GPs) remained below the range of values usually seen at this time of year.
- There were no positive influenza samples reported by PathWest in the past week.
- RSV detections increased in the past week and remained above the range of values usually seen at this time of year.

Gastroenteritis

- Gastroenteritis presentations at sentinel GPs were comparable to the range of values usually reported at this time of year. Presentations and admissions at EDs were below baseline levels.
- PathWest laboratory detections of norovirus and rotavirus remained at low levels.

Other vaccine-preventable diseases

- **Shingles and chickenpox**: Chickenpox and shingles presentations were below baseline levels at sentinel GPs, and above baseline levels at EDs.
- **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.

Other diseases

- **Coronavirus COVID-19**: As of 21 March 2021, a total of 932 confirmed COVID-19 cases have been notified in WA. See webpage for further information.

Virus WAth 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 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 (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 for further information

Influenza and influenza-like illnesses (ILI)

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

Figure 1. Rate of ILI per 1000 consultations at sentinel GPs (Australian Sentinel Practices Research Network) in WA by week, 2017 to 2021

There has been a gradual increase in the rate of ILI presentations to EDs in the past three weeks, while the rate of ILI admissions decreased (Figure 2).

Figure 2. Number and rate of ILI presentations/admissions to Emergency Departments in WA in the last eight 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.*
There was an increase in number of respiratory viral presentations to EDs in the past week, but presentations remained below the range of values 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**

*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.*

There were no influenza notifications reported to the Department of Health in the past week (Figure 4).

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

*The graph is a summary of all influenza notifications, by week of onset, received by the DoH, Western Australia (through Western Australian Notifiable Infectious Diseases Database [WANIDD]) to the end of the current reporting week. 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.*
None of the 535 specimens submitted for influenza testing at PathWest were positive for influenza in the past week (Figure 5).

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

![Proportion of PathWest Tests Positive for Influenza 2017-2021](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 at PathWest* by type, subtype and week, 2020 to 2021**

![Influenza Types and Subtypes, 2020-2021](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).*
The number of RSV detections slightly increase in the past week and remained above the range of values usually reported at this time of year (Figure 7).

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

![Non-Influenza Respiratory Viruses, 2020-2021](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. The majority of cases have been acquired overseas or at sea (Figure 8).

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

![WA notified COVID-19 cases by optimal date of onset and place of acquisition](image)

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

The number of gastroenteritis presentations to sentinel GPs in the past week decreased and remained in the lower range of values usually reported at this time of year (Figure 9).

**Figure 9. Number of gastroenteritis presentations per 1000 consultations at sentinel GPs (Australian Sentinel Practices Research Network) in WA 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 eight 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**

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

**Viral rashes**

One chickenpox presentation has been reported by sentinel GPs in the past eight weeks. Shingles presentations were below baseline levels in the past two weeks (Figure 12).

**Figure 12. Number of varicella-zoster presentations per 1000 consultations at sentinel GPs (Australian Sentinel Practices Research Network) in WA in the last eight weeks**

*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.*
Chickenpox and shingles presentations at EDs in the past week were above baseline levels (Figure 13).

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