



Virus Watch

Week ending 11th December 2022

Key Points

Influenza and influenza-like illnesses (ILI)

- The rate of ILI presentations decreased at emergency departments (EDs) and remained stable at sentinel GPs in the past week.
- There was a slight decrease in the number of influenza cases reported to the Department of Health.
- Non-influenza detections at PathWest Laboratory Medicine (PathWest) increased in the past week.
- COVID-19 cases increased by 4% in the past week to 12,250 cases.

Gastroenteritis

- Gastroenteritis presentations to sentinel GPs increased in the past week.
- Notifications for rotavirus decreased while detections of norovirus at PathWest increased in the past week.

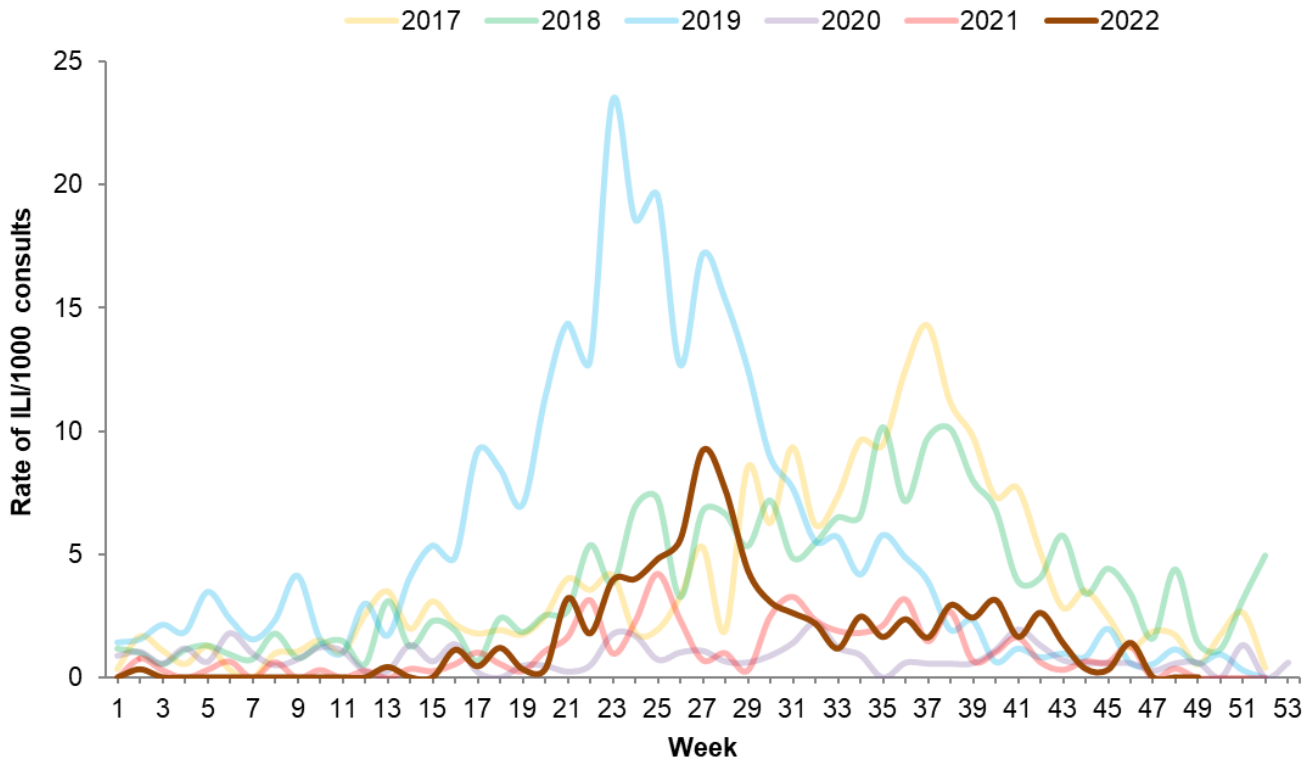
Other vaccine-preventable diseases

- **Chickenpox and shingles:** In the past week, there were no chickenpox presentations to sentinel GPs and presentations to EDs slightly decreased. Shingles presentations decreased at sentinel GPs and increased 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.
- **Invasive meningococcal disease (IMD):** No IMD cases were notified in the past week.

Influenza and influenza-like illnesses (ILI)

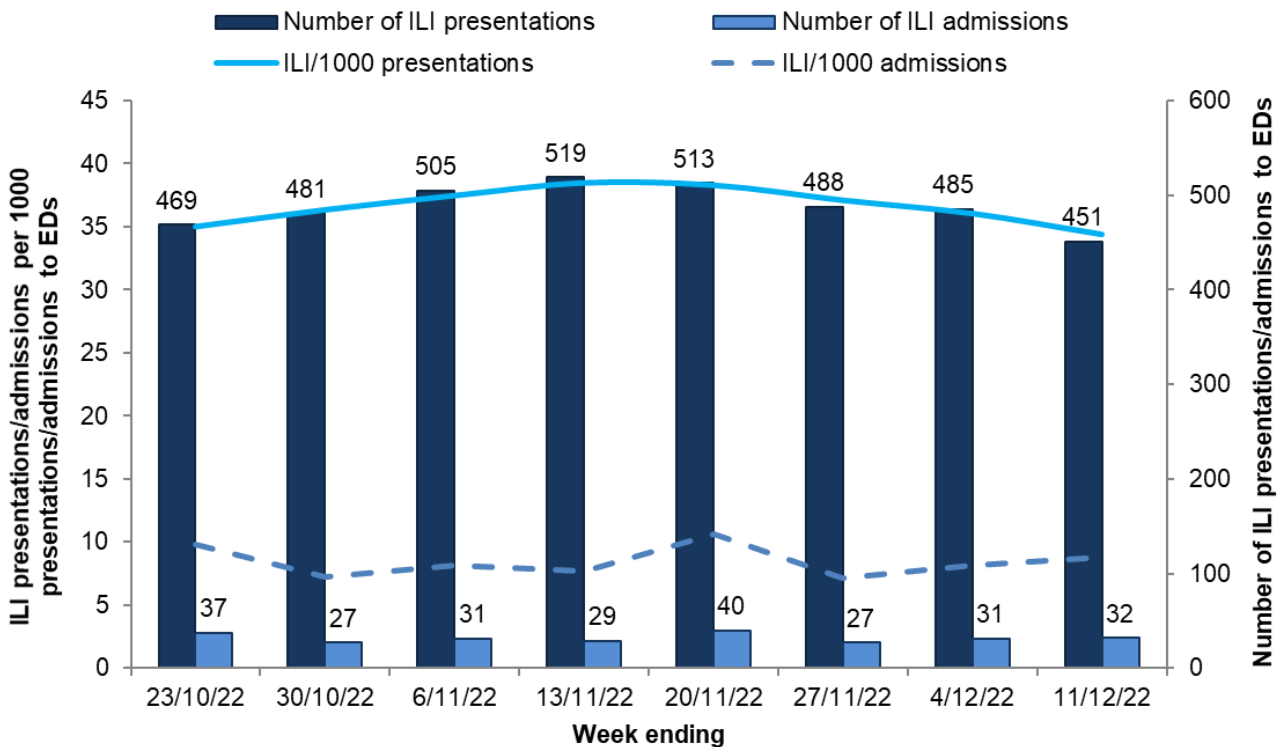
The rate of ILI presentations to sentinel GPs remained in the low-range of values usually reported at this time of year (Figure 1).

Figure 1. Rate of ILI per 1000 consultations at sentinel GPs (Australian Sentinel Practices Research Network) in WA by week, 2017 to 2022 YTD



The rate of ILI-related presentations to EDs decreased in the past week while the rate of admissions slightly increased (Figure 2).

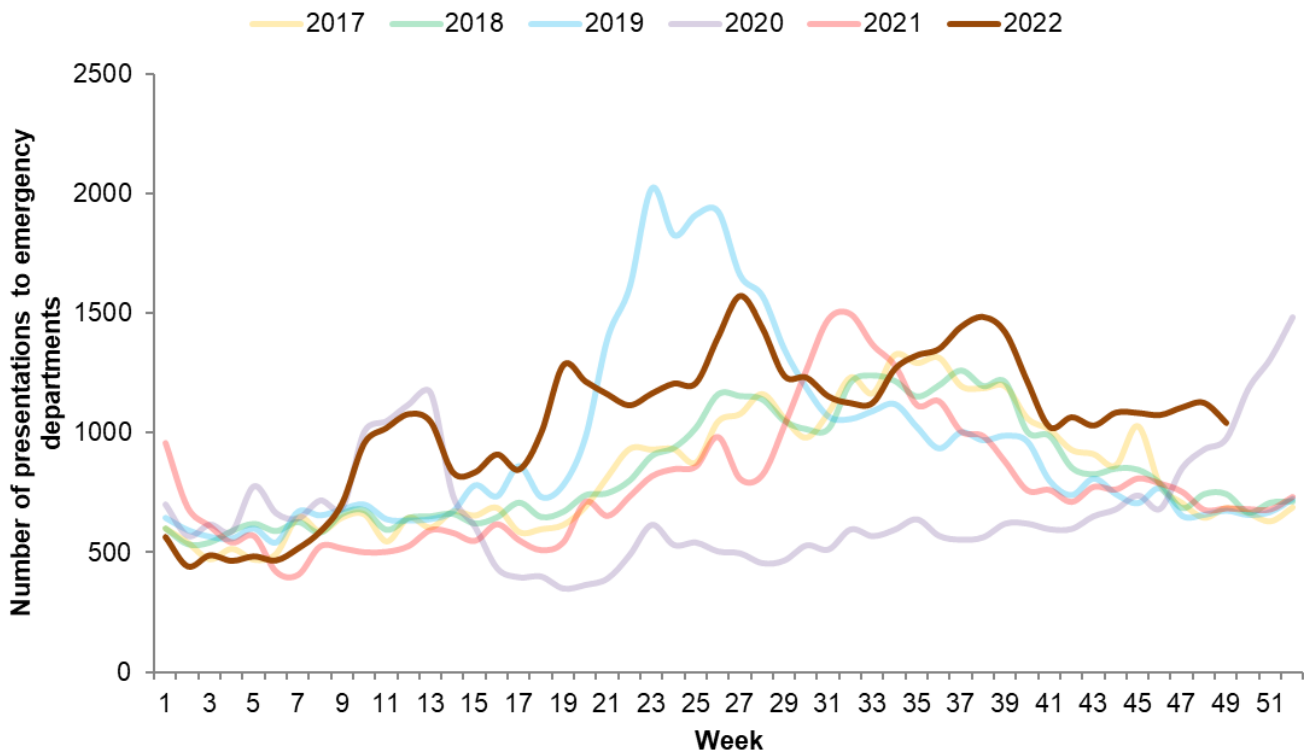
Figure 2. Number and rate of ILI presentations/admissions to emergency departments in WA in the past eight weeks of 2022



Note: This graph is a count 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, DoH.

The number of respiratory illness presentations to EDs decreased in the past week but remained in the higher-range of values usually reported at this time of year (Figure 3).

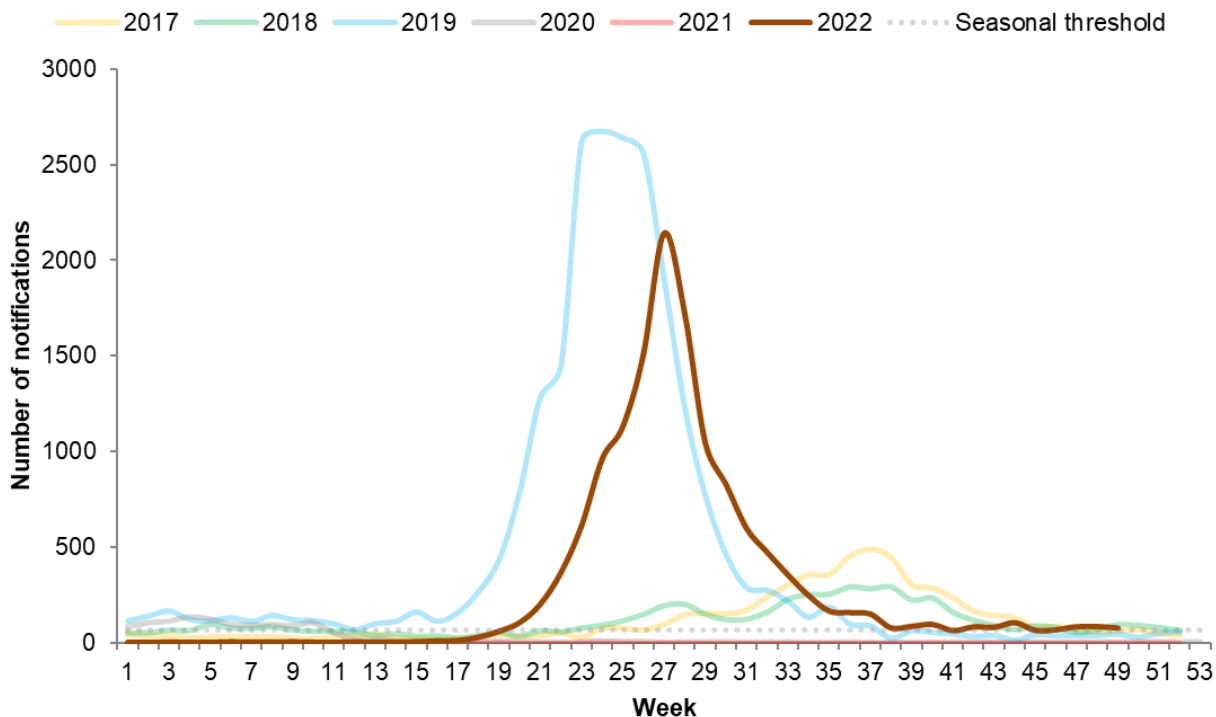
Figure 3. Number of respiratory illness presentations to emergency departments in WA by week, 2017 to 2022 YTD



Note: This graph is a count of current EDIS data using the ICD codes B34.9, H66.9, J00, J06.9, J09.0, J10.0, J10.1, J10.8, J11.0, J11.1, J11.8, J12.9, J18.0, J18.1, J18.8, J18.9, J20.9, J21.9, J22, J40, J44.0, J44.1, J44.9, J45.9, J46.0, J98.8, J98.9, R05 and COVID-19 code U07.1, which are consistent with a clinical presentation of all respiratory-like illness. This data is different to Figure 3 but similar to that presented in the Winter Respiratory Illness Report provided by the Information and System Performance Directorate, DoH.

The number of influenza cases notified to the Department of Health slightly decreased to 75 cases in the past week (Figure 4).

Figure 4. Number of influenza notifications in WA by week, 2017 to 2022 YTD



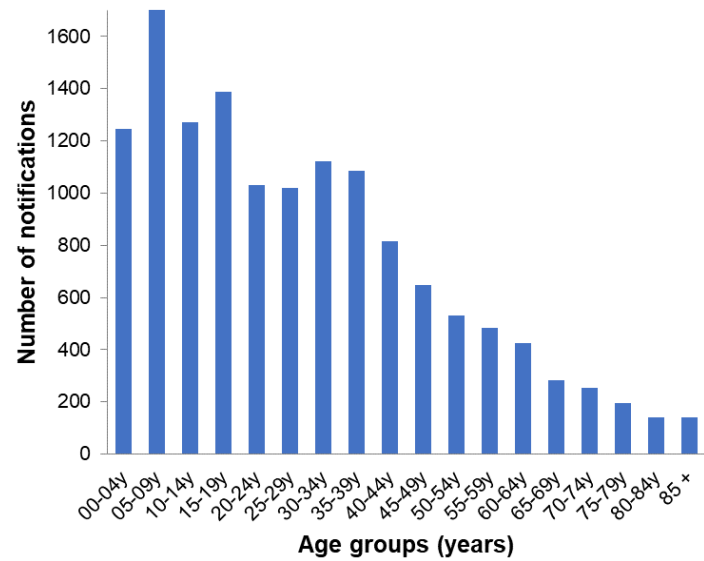
Note: This graph is a count of all influenza notifications by week of onset, received by the DoH, WA (through WANIDD) to the end of the current reporting week. The seasonal threshold defines a value above which may indicate seasonal influenza activity. The threshold value is calculated based on analysis of inter-seasonal influenza data from the past four years. It cannot be used to interpret data from 2019 in this graph.

In the year to date, the number of influenza notifications and hospitalisations are higher than the previous five-year average, while the number of reported deaths is lower. Vaccination coverage to date is 35.8% (Table 1). The majority of notifications have been in those aged less than 30 years (Figure 5).

Table 1. Influenza notifications and vaccination coverage in WA, 2022 YTD

| Notifications | Category | 2022 Year to Date | 5 yr average |
|--|------------------|-------------------|--------------|
| Influenza infections extracted by optimal date of onset | Notifications | 13,810 | 7,211 |
| | Hospitalisations | 1,821 | 1,246 |
| | Reported Deaths | 8 | 33 |
| Vaccinations | Age group | 2022 Year to Date | 5 yr average |
| Influenza vaccinations as recorded in the Australian Immunisation Register | 6mo-< 5 yrs | 28.0% | NA |
| | 5-<15 yrs | 19.6% | NA |
| | 15-<50 yrs | 25.5% | NA |
| | 50-<65 yrs | 44.4% | NA |
| | ≥ 65 yrs | 69.2% | NA |
| | Total (≥6mo) | 35.8% | NA |

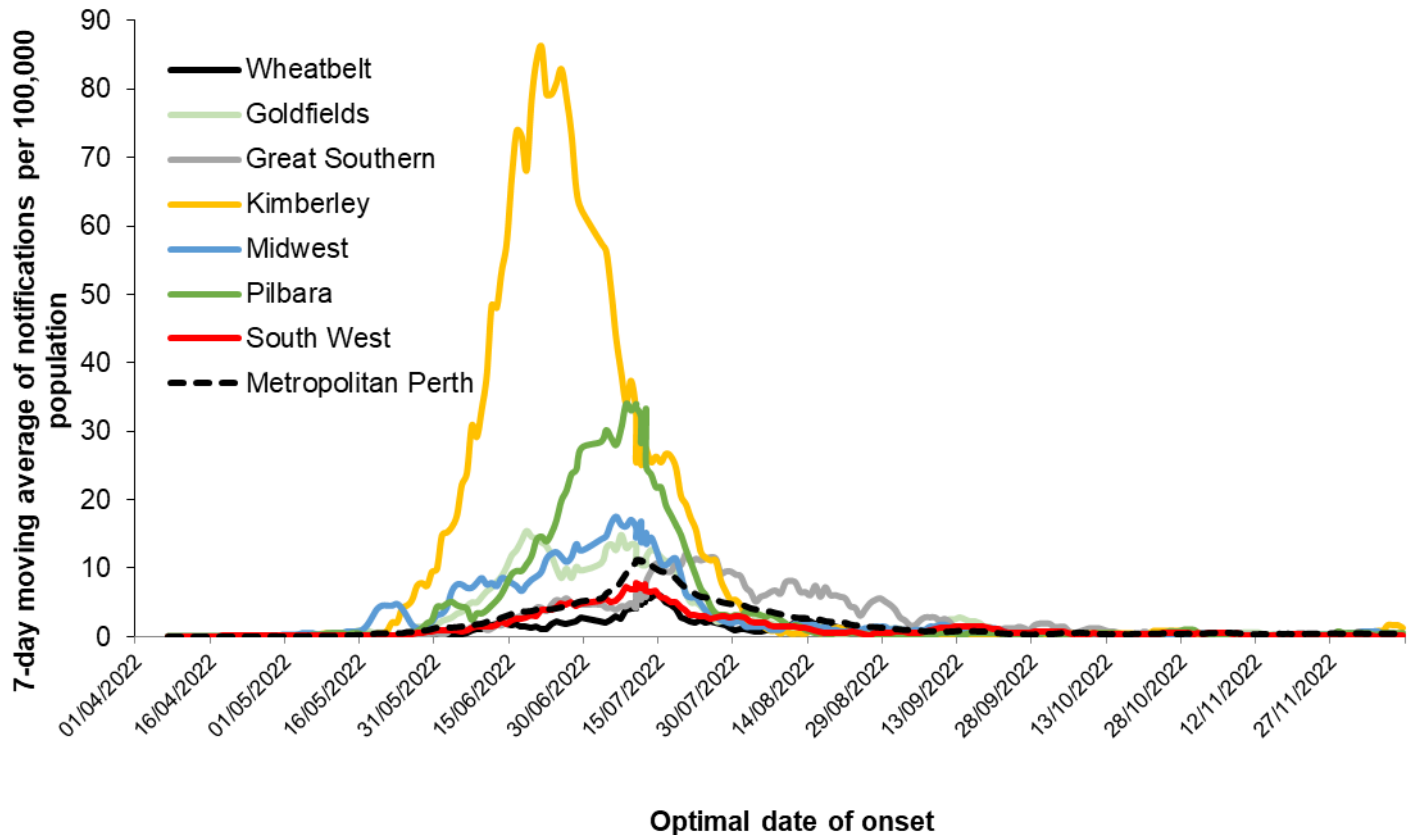
Figure 5. Influenza notifications by age group in WA, 2022 YTD



Note: NA: data not available. Notification data source: WANIDD. Vaccination data source: AIR data downloaded from [National Centre for Immunisation Research and Surveillance](#)

The influenza notification rate remained low and stable in all regions in the past week (Figure 6).

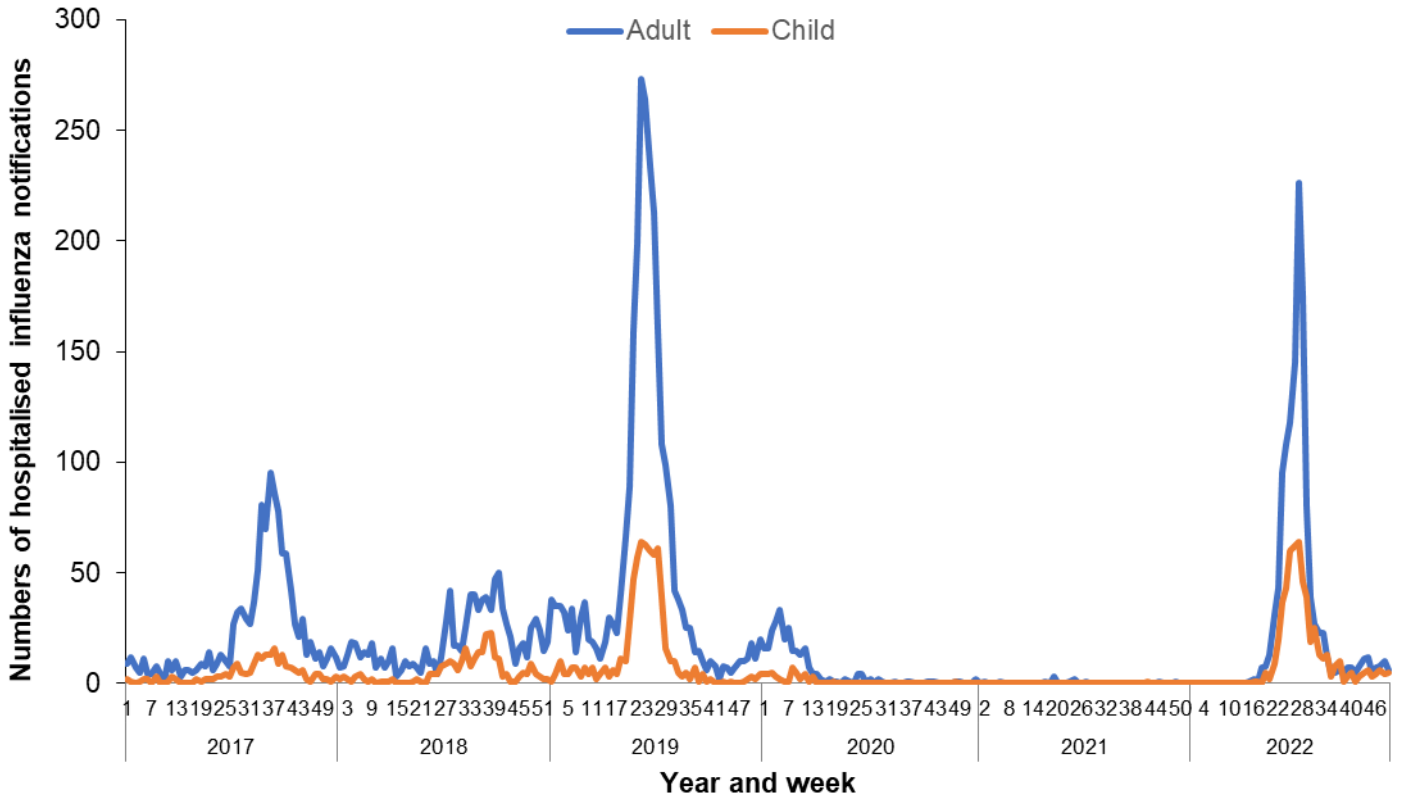
Figure 6. 7-day moving average of influenza notifications per 100,000 people in WA by health region, 2022 YTD



Note: This graph shows the 7-day moving average of influenza cases per 100,000 people in the WA health regions for 2022 by date of onset, received by the DoH, WA (through WANIDD) to the end of the current reporting week.

The number of influenza cases reported as hospitalised in the past week decreased among adults and slightly increased among children (Figure 7).

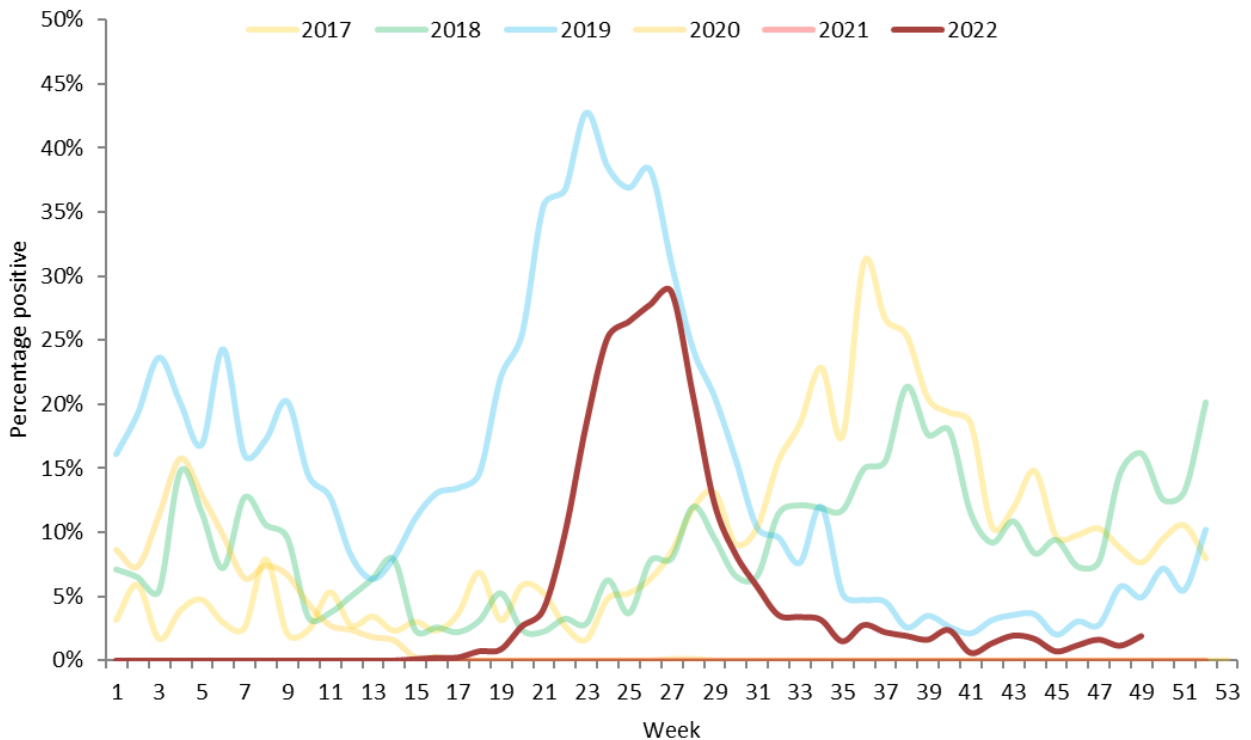
Figure 7. Number of notified influenza cases hospitalised in WA by week, 2017 to 2022 YTD



Note: This graph shows the number of all notified influenza cases that have been hospitalised, by week of onset, received by the DoH, WA (through WANIDD) to the end of the current reporting week. Child notifications were defined as individuals less than 18 years of age.

Of the 1,276 specimens submitted for influenza PCR testing at PathWest in the past week, 24 (1.9%) tested positive (Figure 8).

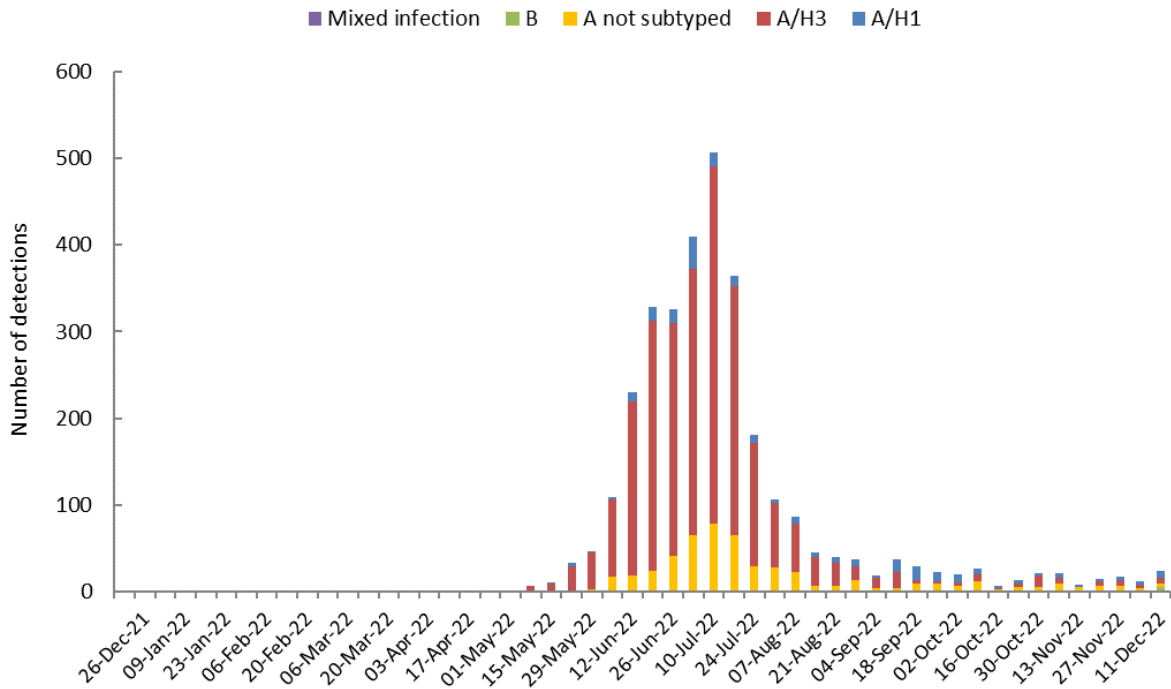
Figure 8. Proportion of PCR positive influenza detections at PathWest by week, WA, 2017 to 2022 YTD



Note: This graph is a count of all WA samples reported by PathWest, excluding samples referred by other private laboratories for influenza subtyping.

Of the 24 influenza detections at PathWest in the past week, 8 were influenza A/H1, 7 were influenza A/H3, 4 were influenza A cases yet to be subtyped, 4 were influenza B and one case of mixed infection (Figure 9).

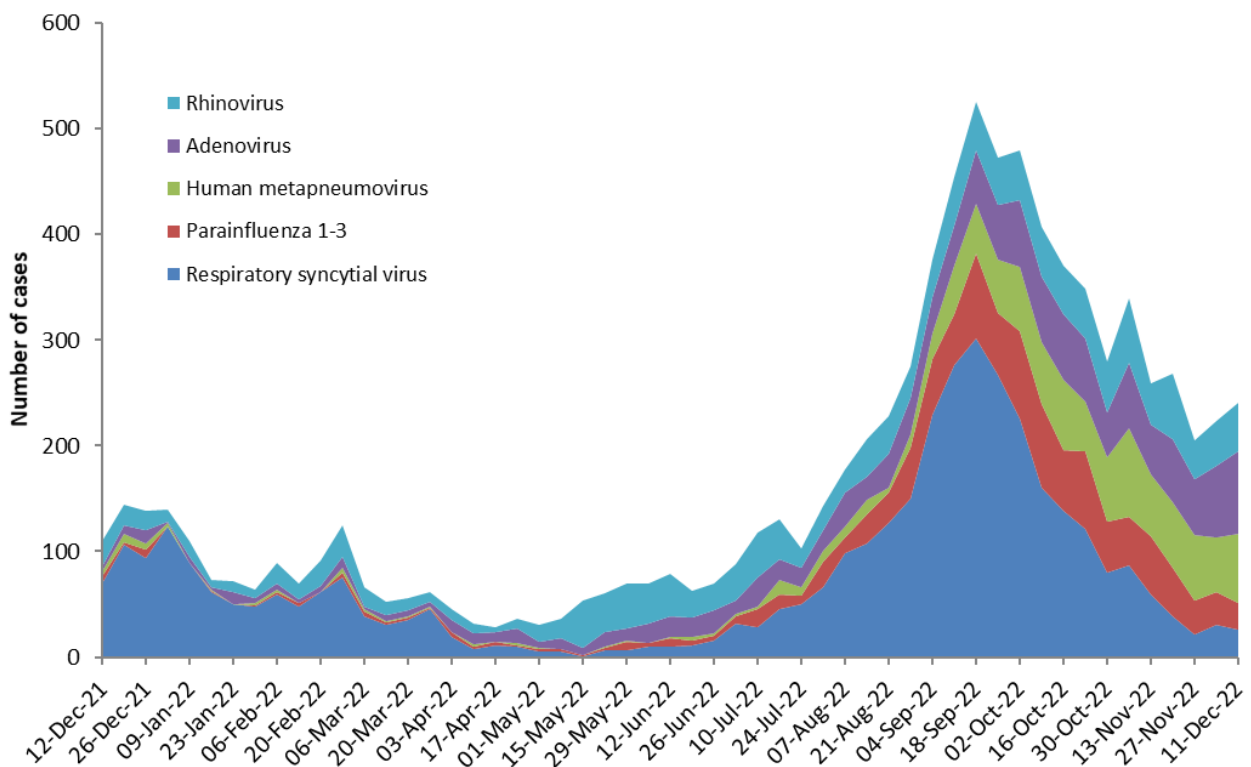
Figure 9. Number of PCR positive influenza detections at PathWest by type, subtype and week, WA, 2021 to 2022 YTD



Note: 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).

There was an overall increase in non-influenza virus detections at PathWest in the past week (Figure 10). The most common non-influenza respiratory virus detected was adenovirus (78 cases).

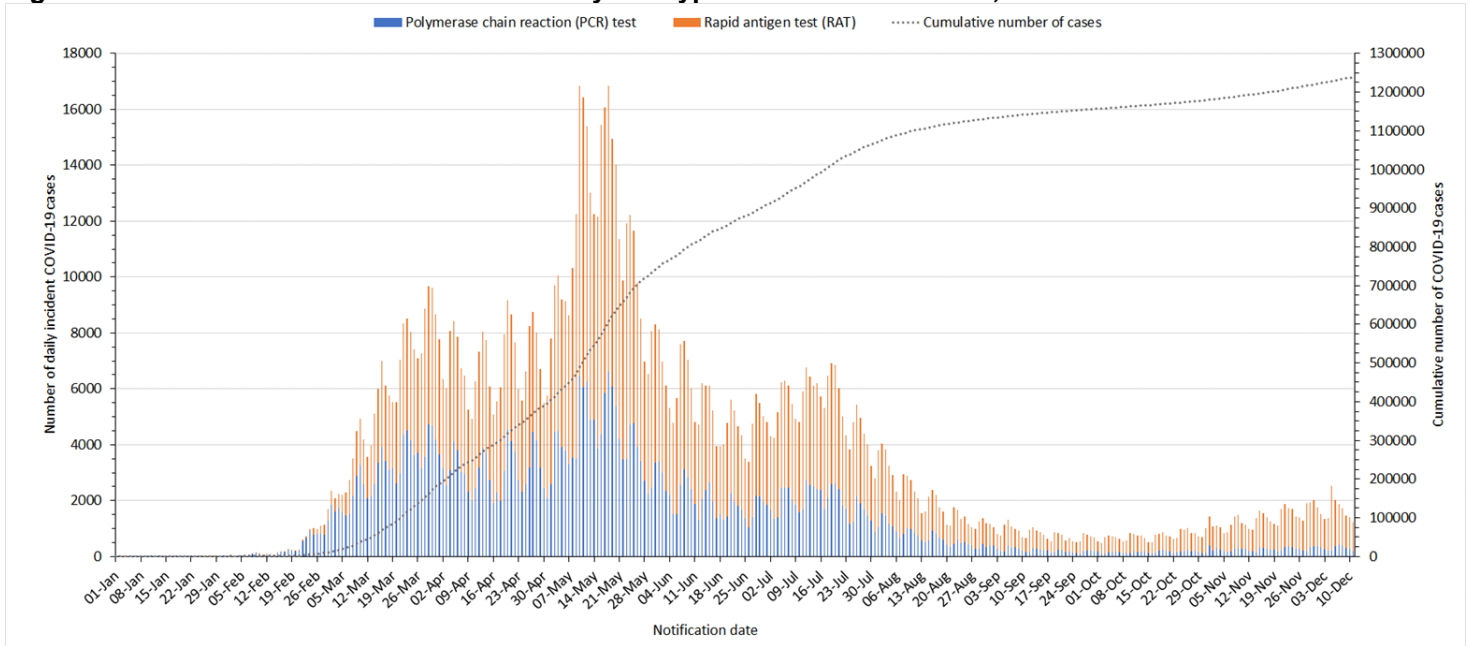
Figure 10. Number of non-influenza respiratory virus detections at PathWest by week, WA, 2021 to 2022 YTD



Note: This graph is a count of all WA samples positive for a common respiratory virus other than influenza reported by PathWest.

In the past week, there were 12,250 COVID-19 cases reported in WA, which was 4% higher than the previous week. Of these, 17% were diagnosed by PCR test and 83% were diagnosed by rapid antigen test (Figure 11).

Figure 11. Number of COVID-19 cases in WA by test type and notification date, 2022 YTD



Note: Data sourced from Public Health Operations COVID-19 Unified System (PHOCUS); Notification date is to the 6pm reporting period

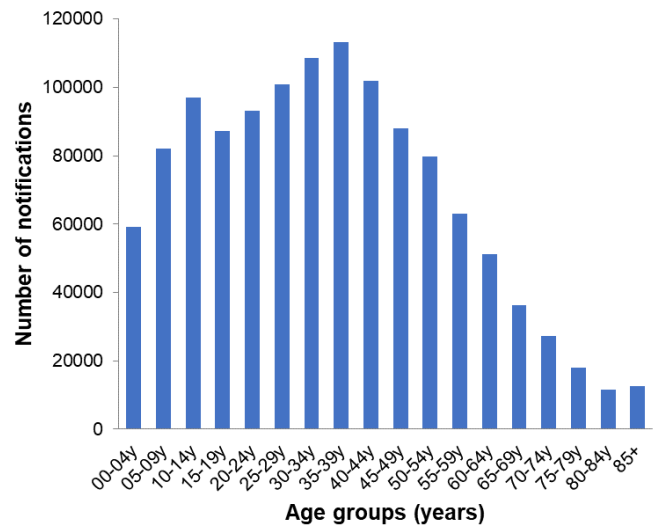
The number of COVID-19 notifications, hospitalisations and deaths to date are all significantly higher than reported in the same period in 2021. Vaccination has been highest among those aged 16 years or older (Table 2). The majority of notifications have been reported in those aged less than 40 years (Figure 12).

Table 2. COVID-19 notifications and vaccination coverage in WA, 2022 YTD

| Notifications | Category | 2022 Year to Date | 2021 Same Period |
|--|------------------|-------------------|------------------|
| COVID-19 infections extracted by date of receipt of notification | Notifications | 1,237,371 | 260 |
| | Hospitalisations | 9,129 | 21 |
| | Reported Deaths | 786 | 0 |
| Vaccinations | Age group | Two doses | Three doses |
| Number of people vaccinated with COVID-19 vaccines as recorded in the Australian Immunisation Register | 5-11 years | 40.4% | N/A |
| | 12-15 years | 73.6% | N/A |
| | 16+ years | 94.9% | 79.2% |

Note: NA: data not available. Notification data source: Public Health Operations COVID-19 Unified System (PHOCUS). Vaccination data source: [Australian Government Dept of Health and Aged Care](#) Hospitalisation data source: WANIDD.

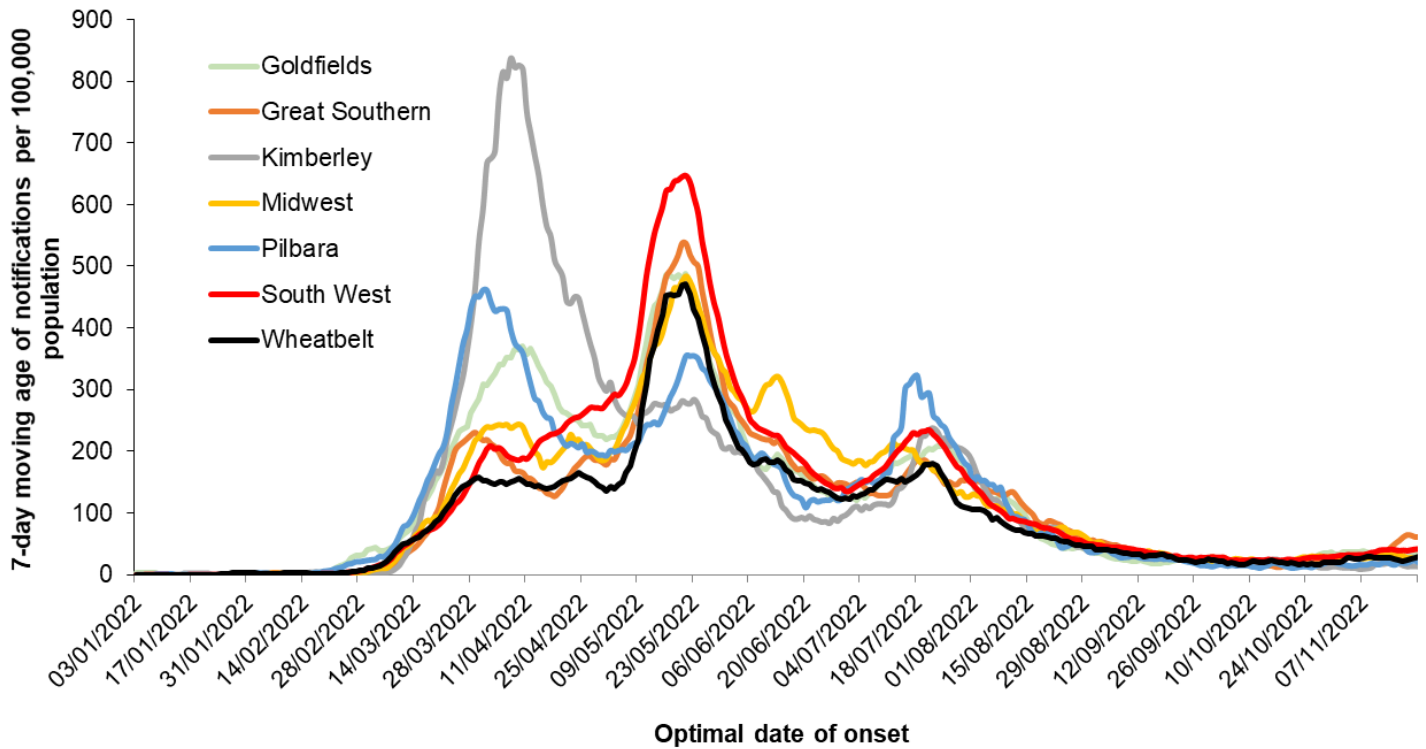
Figure 12. COVID-19 notifications by age group in WA, 2022 YTD



Note: Data source: Public Health Operations COVID-19 Unified System (PHOCUS).

The COVID-19 notification rate was stable in all WA regions in the past week (Figure 13).

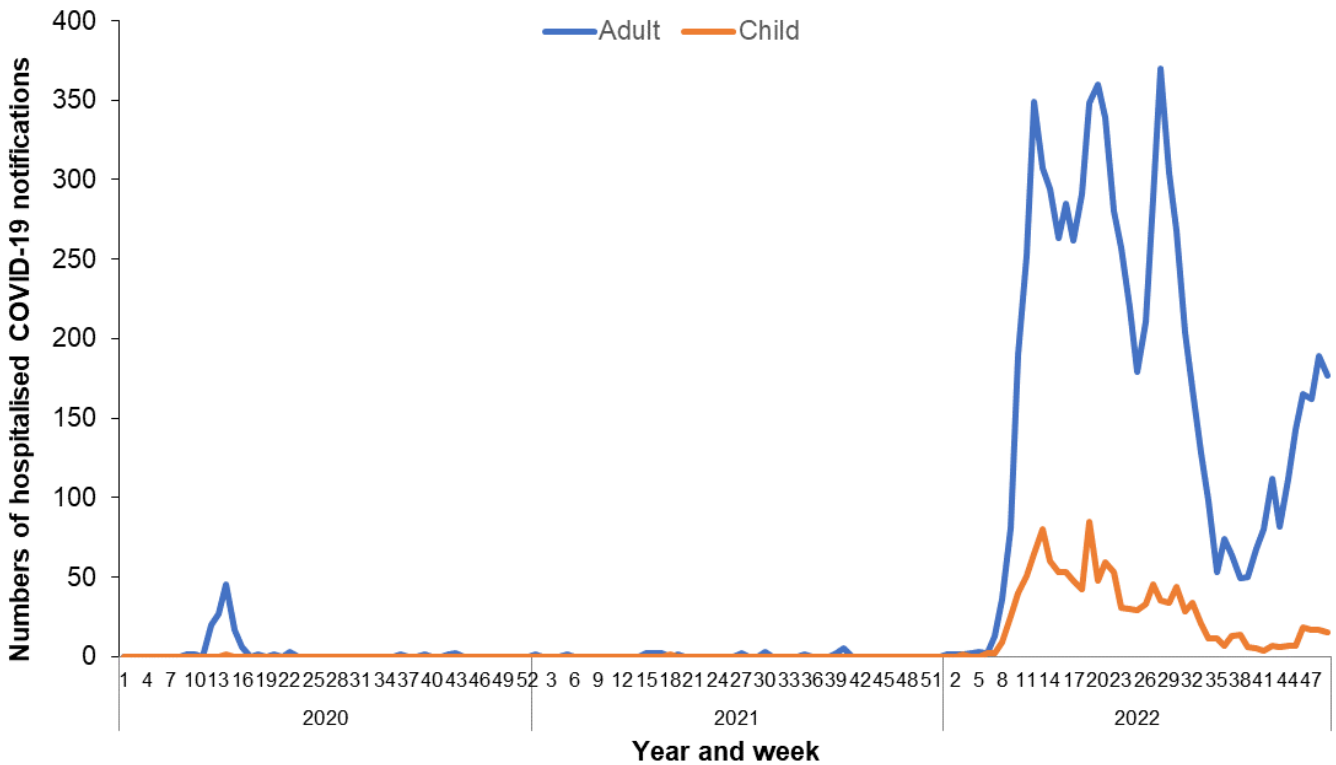
Figure 13. 7-day moving average of COVID-19 notifications per 100,000 people in WA by health region, 2022 YTD.



Note: Data sourced from Public Health Operations COVID-19 Unified System (PHOCUS).

The number of COVID-19 cases reported as hospitalised in the past week decreased among adults and children (Figure 14).

Figure 14. Number of notified COVID-19 cases hospitalised in WA by week, 2020 to 2022 YTD

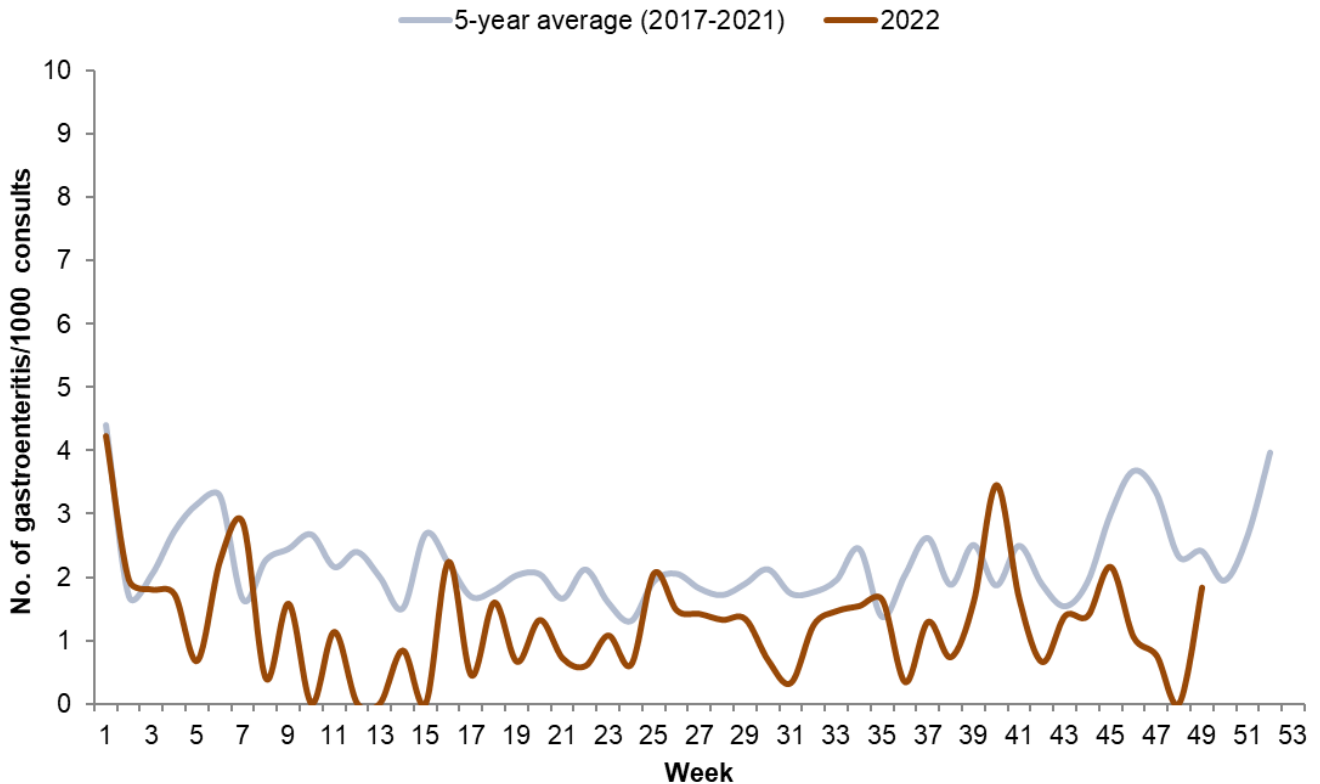


Note: Data source: WANIDD. A child is defined as less than 18 years of age.

Gastroenteritis

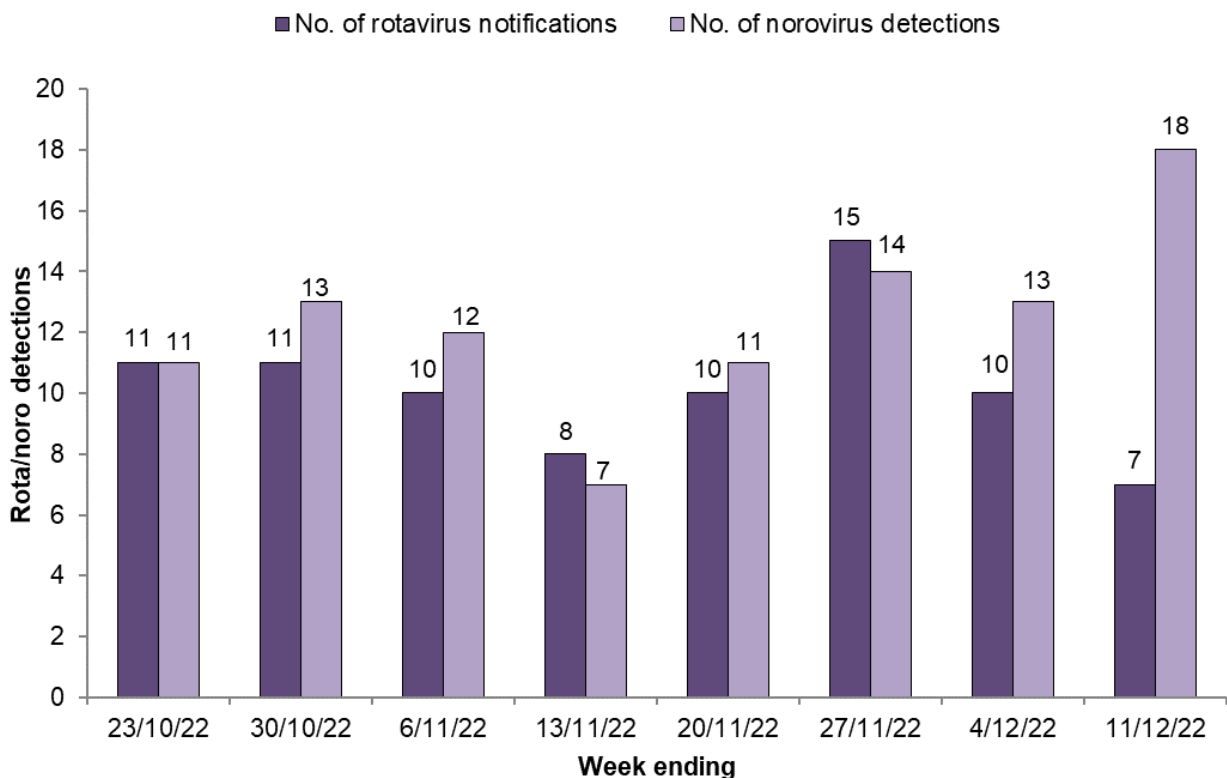
The rate of gastroenteritis presentations to sentinel GPs increased in the past week (Figure 15).

Figure 15. Number of gastroenteritis presentations per 1000 consultations at sentinel GPs (Australian Sentinel Practices Research Network) in WA by week, 2017 to 2022 YTD



Rotavirus notifications to the Department of Health decreased in the past week while norovirus detections at PathWest increased (Figure 16).

Figure 16. Number of rotavirus notifications to the Department of Health and norovirus detections at PathWest in WA in the past eight weeks of 2022

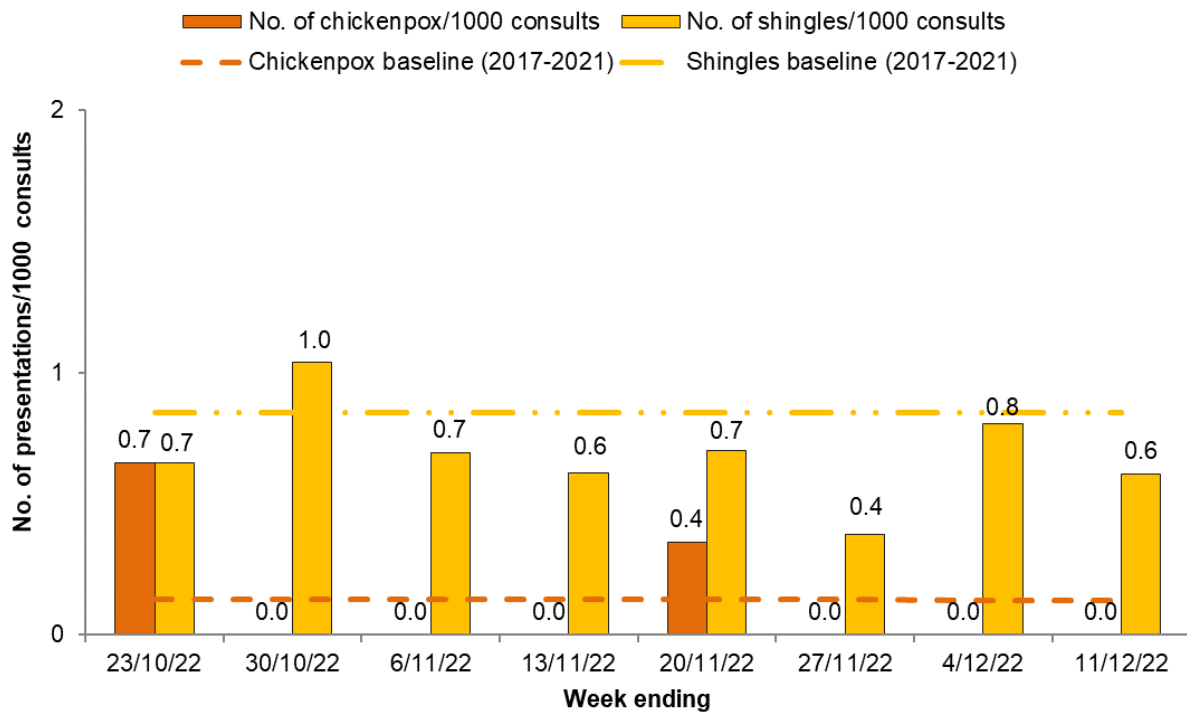


Note: Rotavirus notifications reported to the Department of Health include detections from all WA pathology laboratories. Norovirus detections are from PathWest only.

Viral rashes

Shingles presentation to sentinel GPs decreased in the past week and there were no chickenpox presentations (Figure 17).

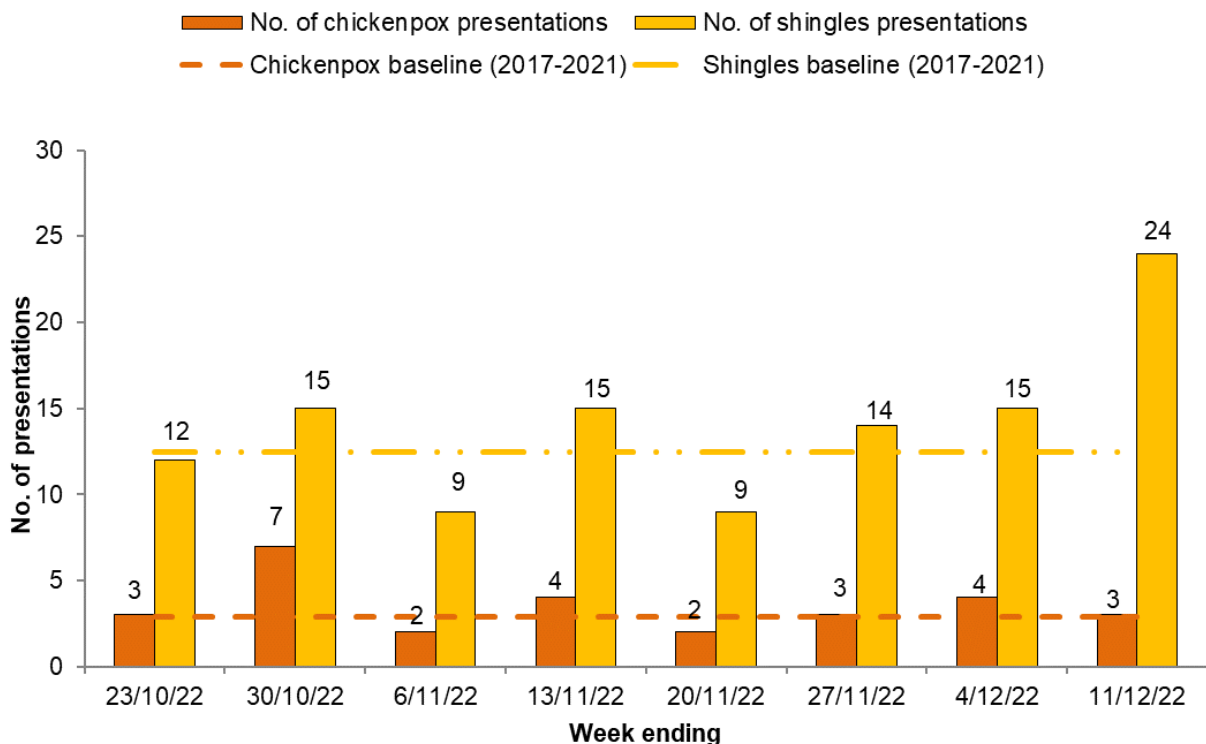
Figure 17. Number of varicella-zoster presentations per 1000 consultations at sentinel GPs (Australian Sentinel Practices Research Network) in WA in the past eight weeks of 2022



Note: 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, 2017 to week 52, 2021.

The number of chickenpox presentations to EDs slightly decreased in the past week while shingles presentations increased (Figure 18).

Figure 18. Number of varicella-zoster presentations to Emergency Departments in WA in the past eight weeks of 2022



Note: Baseline levels for varicella-zoster virus presentations to Emergency Departments in WA were calculated using the mean of weekly EDIS data from week 1, 2017 to week 52, 2021.

Report Notes

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 about important circulating viruses. All figures and data were accurate at time of publication, but subject to change. 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, increased testing for other respiratory viruses and the impact of international border closures. 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.
- Disease notification data are sourced from the Western Australian Notifiable Infectious Diseases Database (WANIDD). These data are received by CDCD, WA Department of Health from medical providers and public or private laboratories in WA. 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 January 2022, the definition of a confirmed influenza case has changed to remove 'Single high titre by CFT or HAI to influenza virus' from the list of [laboratory definitive evidence](#).
- As of March 2022, this report includes COVID-19 cases diagnosed by Polymerase Chain Reaction (PCR) test and Rapid Antigen Test (RAT) sourced from Public Health Operations COVID-19 Unified System (PHOCUS).
- Current and archived issues of Virus Watch http://ww2.health.wa.gov.au/Articles/F_I/Infectious-disease-data/Virus-WAtch.

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