



Virus Watch

Week ending 29th September 2024

Key Points

Influenza and influenza-like illnesses (ILI)

- In the past week, most indicators of ILI activity decreased or remained stable, except for the rate of ILI-related presentations to EDs which increased slightly.
- Influenza notifications decreased in the past week but remained above the seasonal threshold.
- Respiratory syncytial virus (RSV) notifications decreased in the past week.
- Total non-influenza respiratory virus detections at PathWest Laboratory Medicine (PathWest) decreased in the past week.
- In the past week, COVID-19 PCR positive cases were stable at 137 notifications. The SARS-CoV-2 concentration in wastewater from the Perth metropolitan area increased slightly this week. Genomic sequencing of clinical samples and SARS-CoV-2 fragments indicated SARS-CoV-2 Omicron sub-lineage KP.3.X continues to predominate. See [COVID-19 wastewater dashboard](#).

Gastroenteritis

- Rotavirus notifications to the Department of Health and norovirus detections at PathWest increased in the past week.

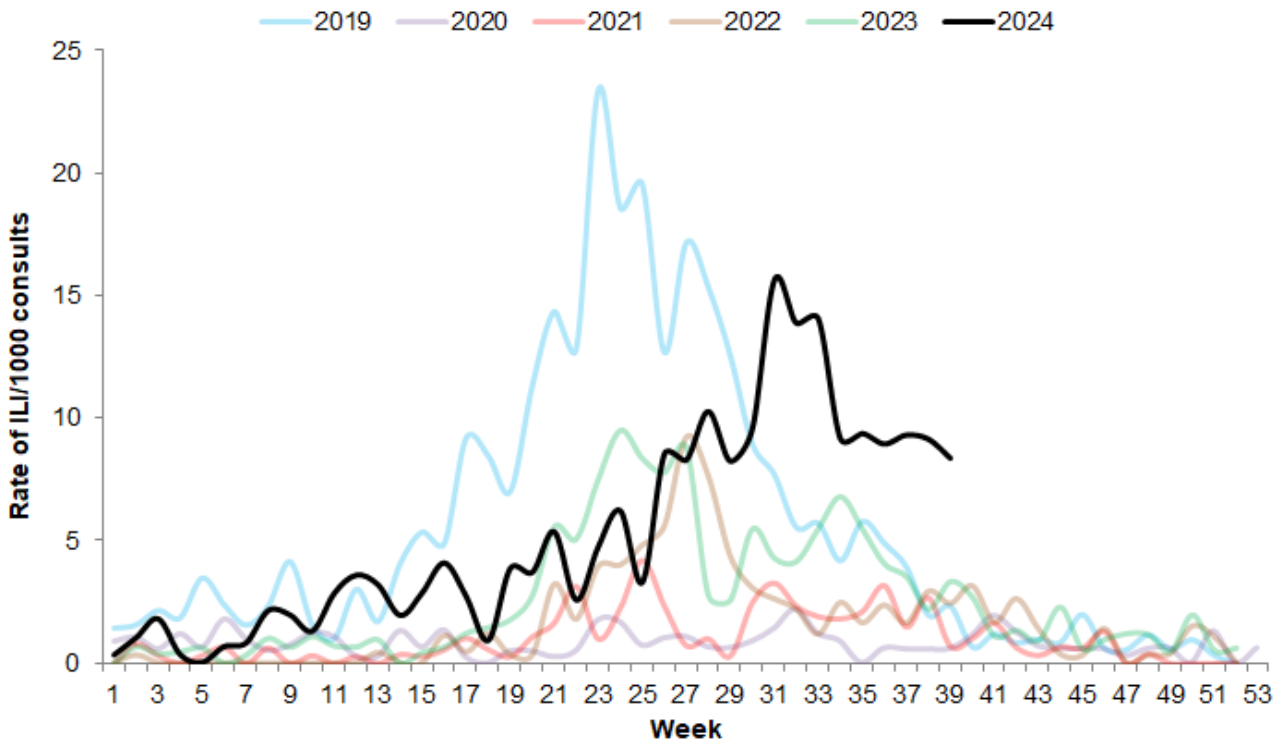
Other vaccine-preventable diseases

- **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):** One serogroup B IMD case was notified in the past week. [See media release](#).

Influenza and influenza-like illnesses (ILI)

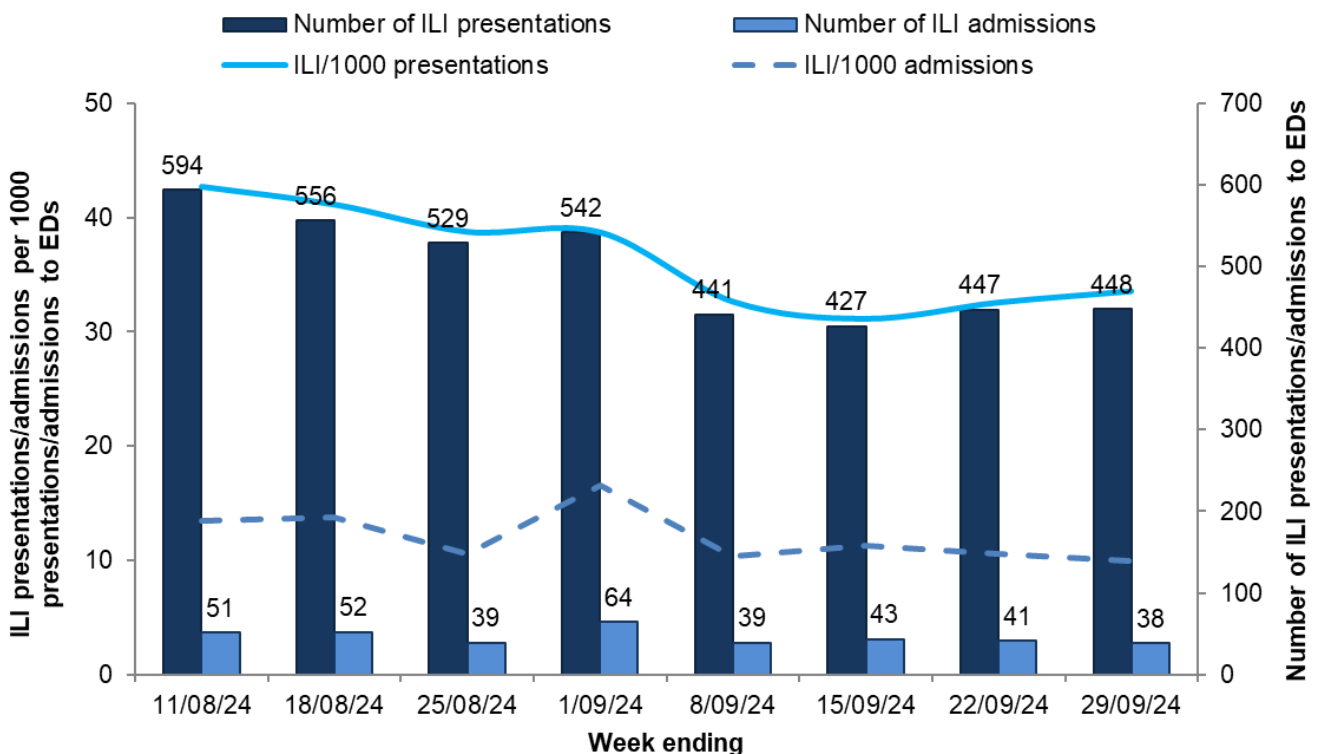
The rate of ILI presentations to sentinel GPs decreased but remained in the upper range of values usually reported at this time of year (Figure 1).

Figure 1. Rate of ILI per 1000 consultations at sentinel GPs (Australian Sentinel Practices Research Network) by week, WA, 2019 to 2024 YTD



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

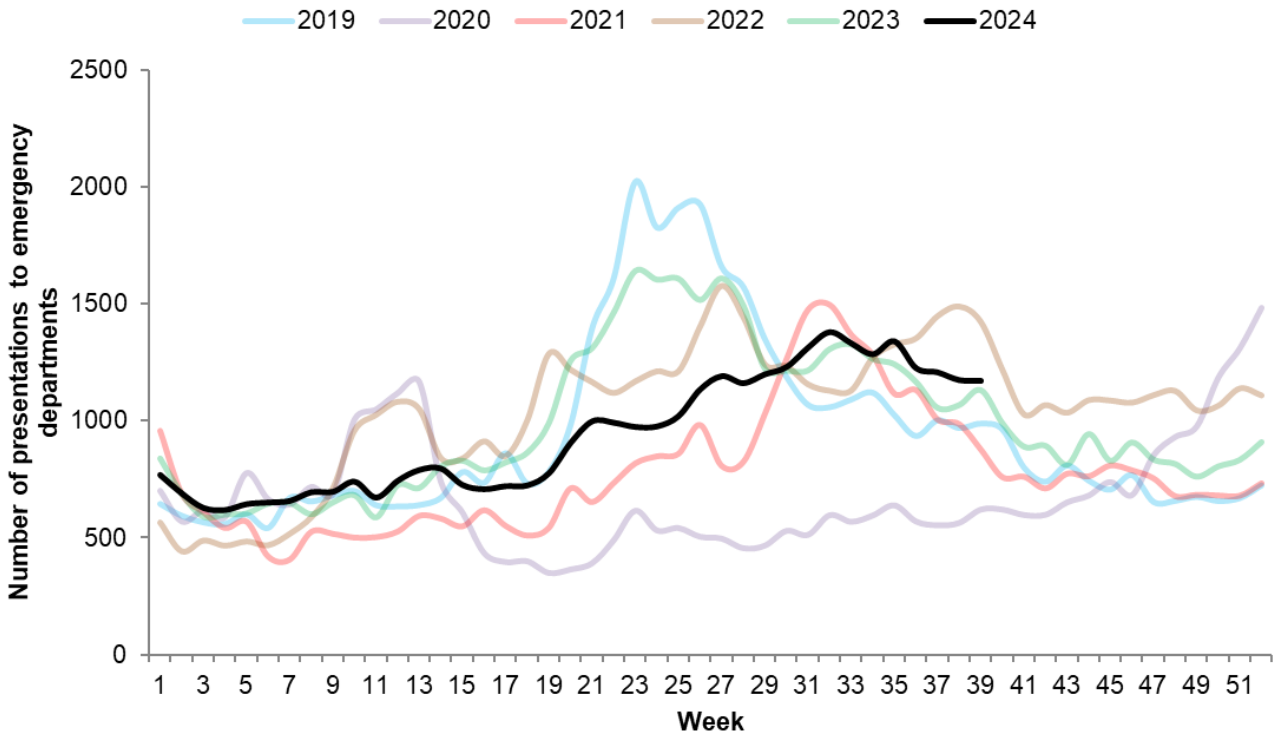
Figure 2. Number and rate of ILI presentations/admissions to emergency departments in the past eight weeks, WA



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 influenza-like illness. This data may differ from that presented in the Winter Respiratory Illness Report provided by the Information and System Performance Directorate, DoH.

In the past week, the number of respiratory illness presentations to EDs was stable and remained in the mid- to higher range of values usually reported at this time of year (Figure 3).

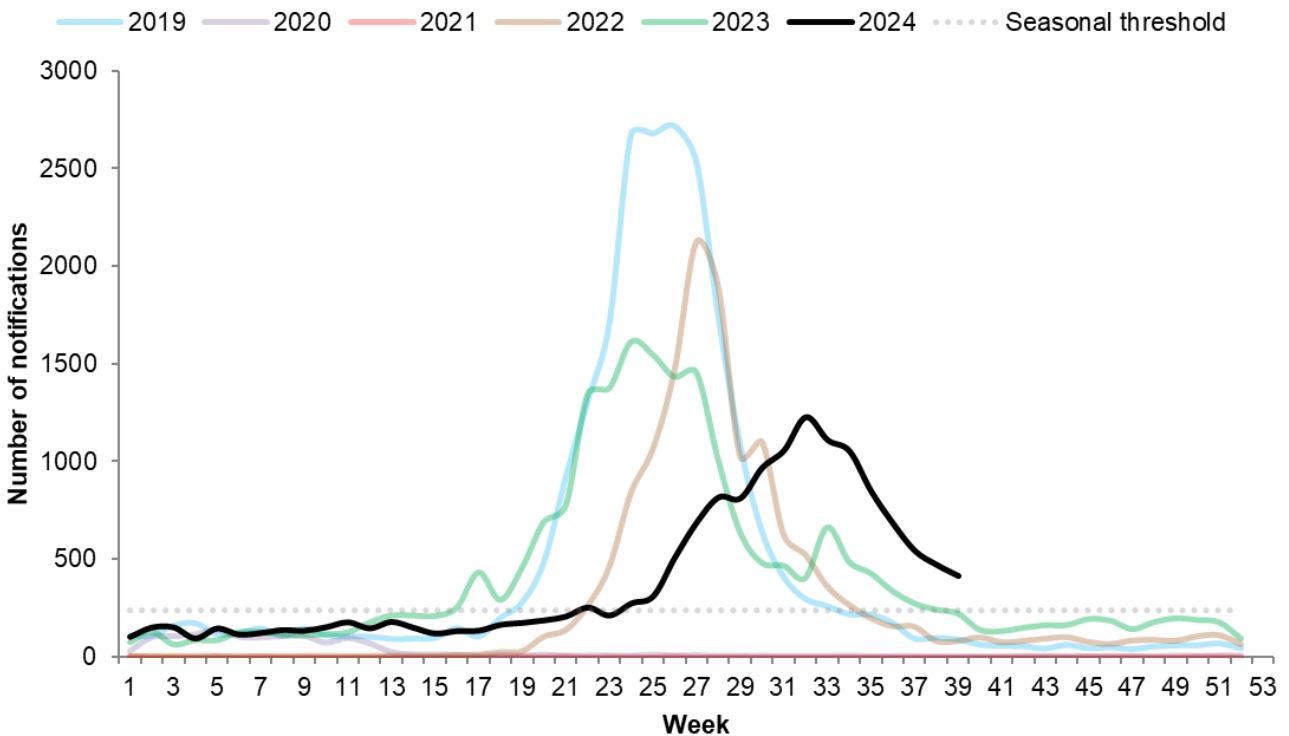
Figure 3. Number of respiratory illness presentations to emergency departments by week, WA, 2019 to 2024 YTD



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 2 but similar to that presented in the Winter Respiratory Illness Report provided by the Information and System Performance Directorate, DoH.

In the past week the number of influenza cases notified to the Department of Health decreased by 12% to 413 cases but remained above the seasonal threshold (Figure 4).

Figure 4. Number of influenza notifications by week, WA, 2019 to 2024 YTD



Note: This graph is a count of all influenza notifications by week of receipt 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 2016 to 2019 and 2023.

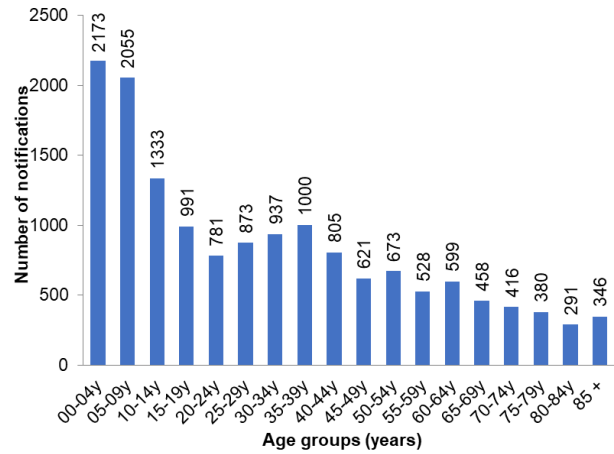
In the year to date, the number of influenza notifications and hospitalisations were higher than the previous five-year average, while the number of deaths* was lower (Table 1). Thirty-six percent of notifications were in those aged less than 15 years (Figure 5).

Table 1. Influenza notifications and vaccination coverage, WA, 2024 YTD compared to the 5-year average for the same period

Notifications	Category	2024 Year to Date	5-year average
Influenza infections extracted by date of receipt	Notifications	15,260	11,321
	Hospitalisations	2,768	2,000
	Reported deaths	11	40
Vaccinations	Age group	2024 Year to Date	5-year average
Influenza immunisations administered	6mo-< 5 yrs	41,815	NA
	5-64 yrs	489,107	NA
	≥ 65 yrs	313,899	NA
	Total	844,821	NA

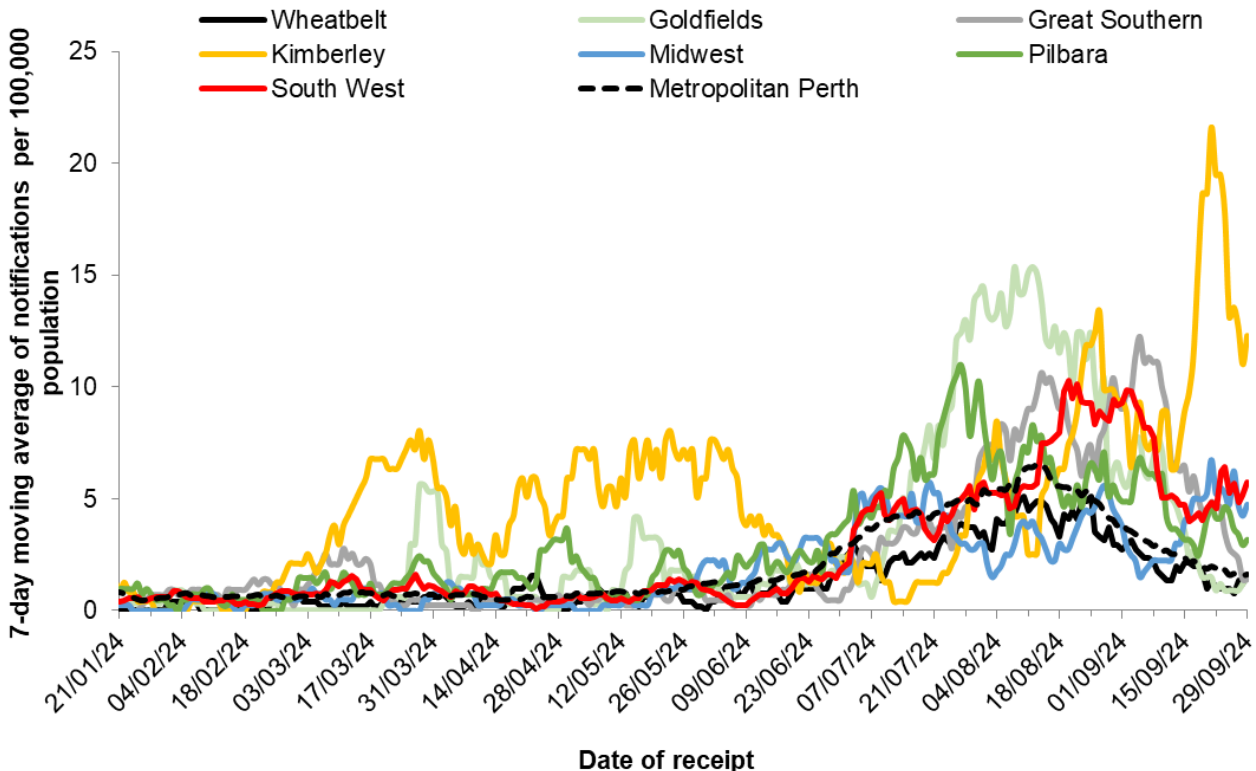
Note: NA: data not available. Note: 5-year average is calculated using the years 2016-2019 and 2023. Notification data source: WANIDD. Immunisation data source: Department of Health and Aged Care [Influenza \(flu\) immunisation data](#) | Australian Government Department of Health and Aged Care. Doses administered from 1 March. * Reported deaths may include historical deaths that occurred prior to the current reporting period.

Figure 5. Influenza notifications by age group, WA, 2024 YTD



In the past week, the seven-day moving average for influenza notification rates decreased in all regions, except for the Wheatbelt, Goldfields and South West regions where the rate increased (Figure 6).

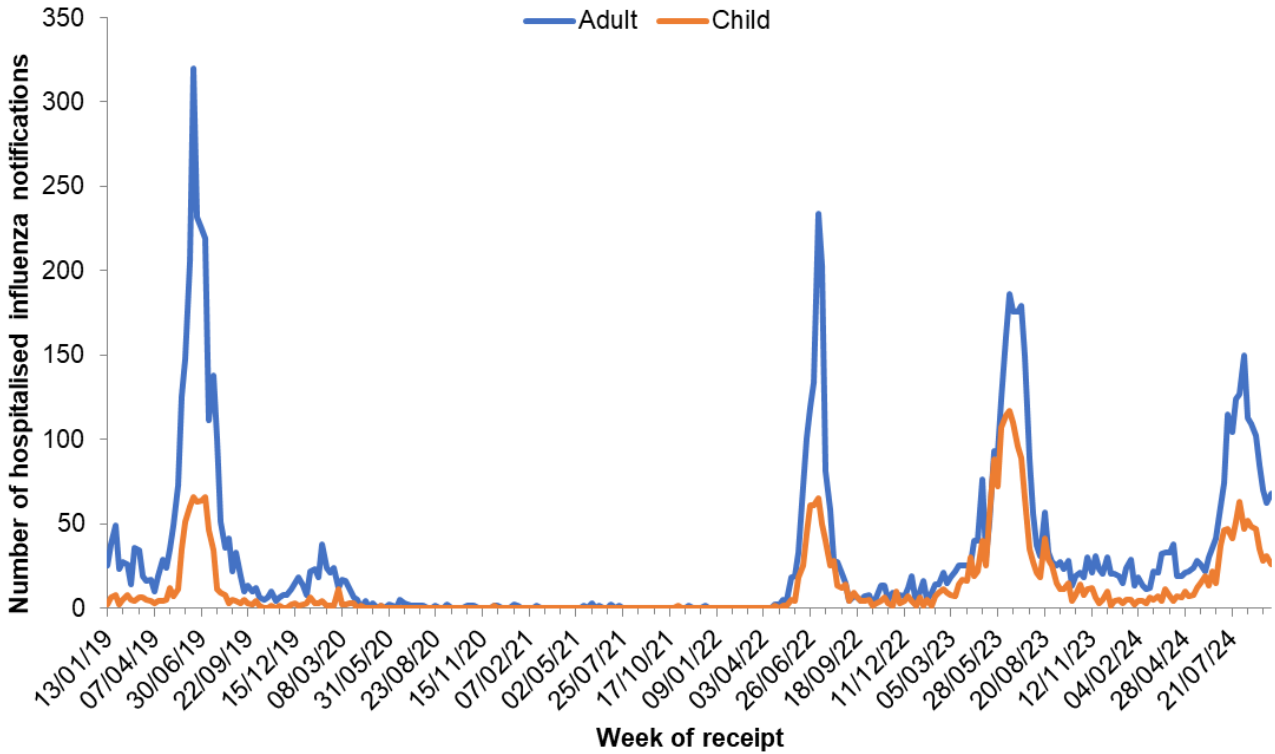
Figure 6. 7-day moving average of influenza notification rates per 100,000 people by health region, WA, 2024 YTD



Note: This graph shows the 7-day moving average of influenza cases per 100,000 people in the WA health regions for 2024 by date of receipt, 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 increased in adults and decreased in children (Figure 7).

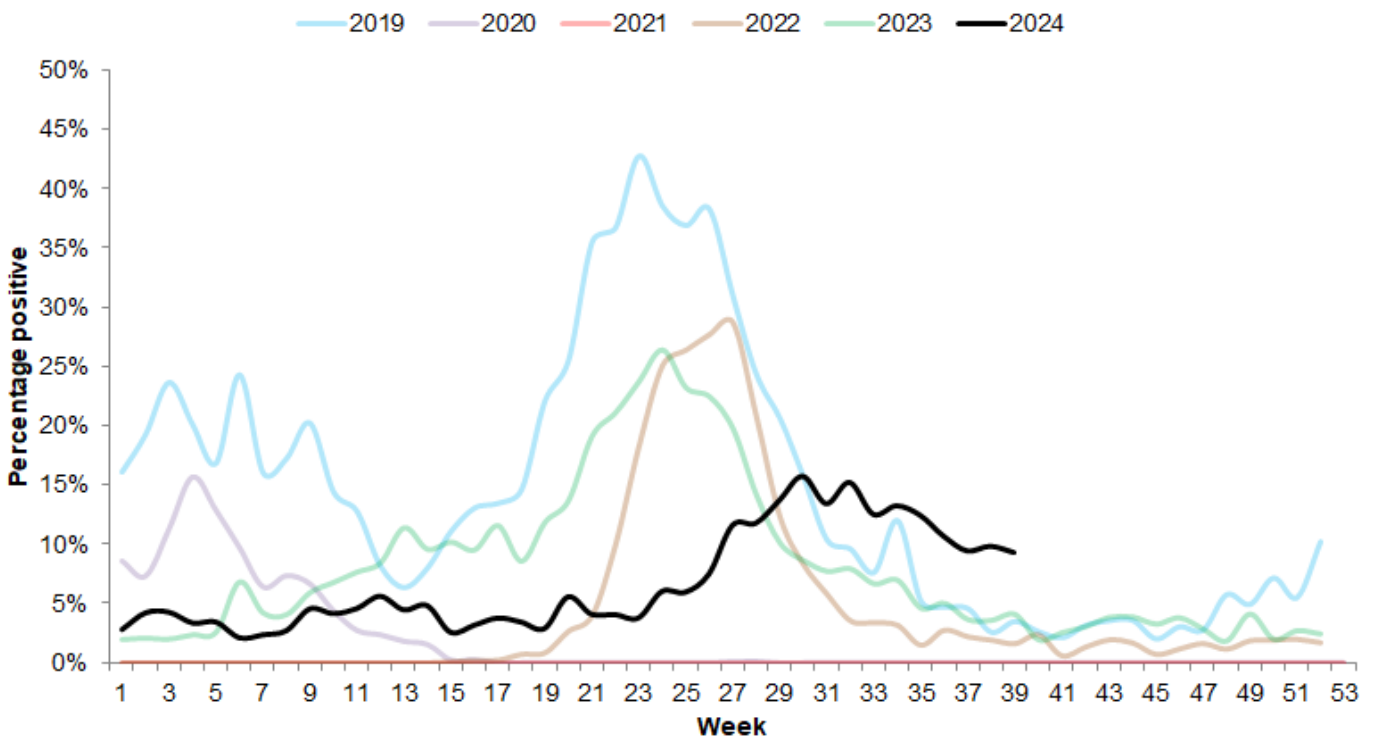
Figure 7. Number of notified influenza cases hospitalised by week, WA, 2019 to 2024 YTD



Note: This graph shows the number of all notified influenza cases that have been hospitalised, by week of notification receipt, 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.

The influenza PCR test positivity at PathWest decreased to 9.2% (146 detections) in the past week. (Figure 8).

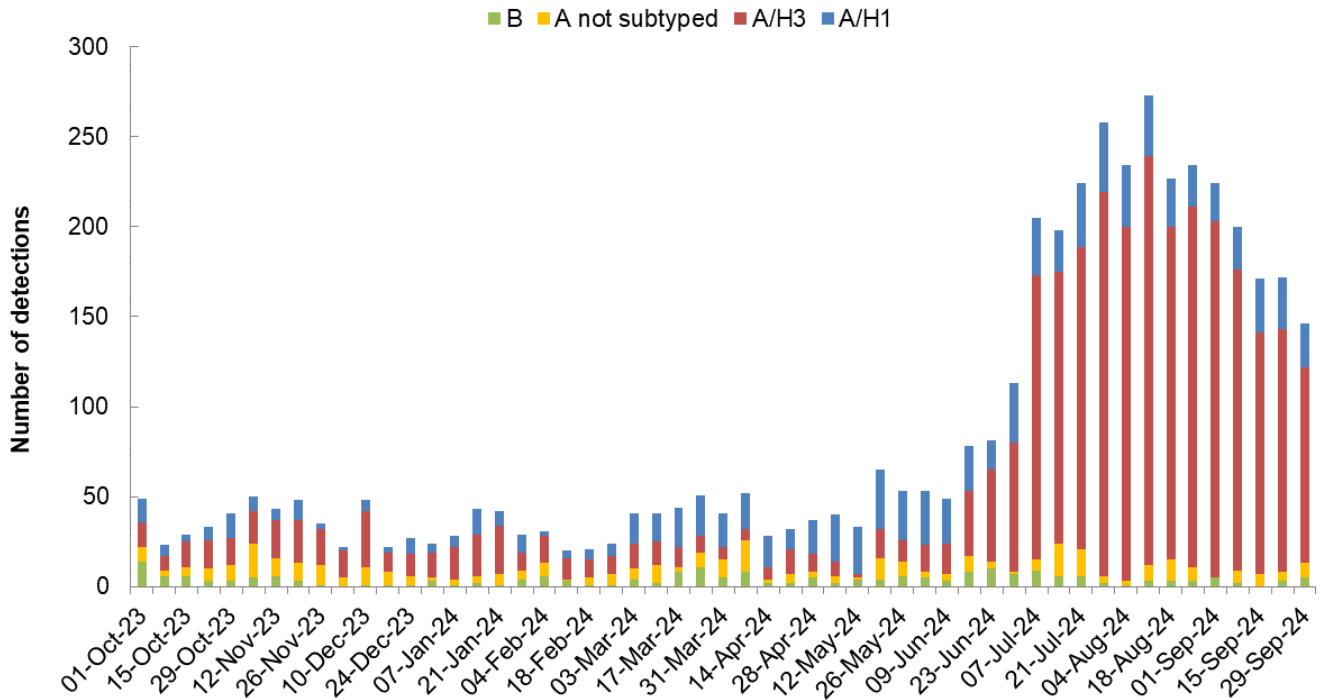
Figure 8. Proportion of PCR positive influenza detections at PathWest by week, WA, 2019 to 2024 YTD



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

PathWest reported 146 influenza detections in the past week, which included 24 A/H1, 109 A/H3, 8 influenza A not yet subtyped and 5 influenza B (Figure 9).

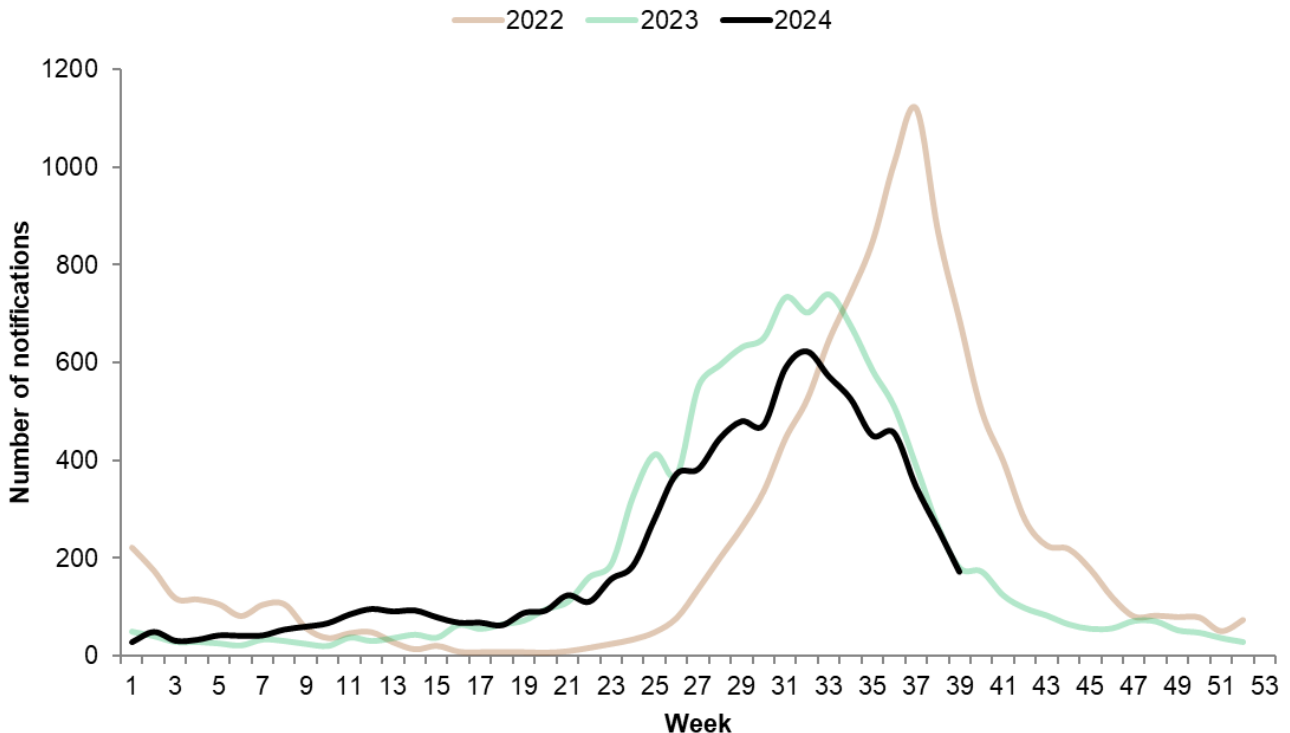
Figure 9. Number of PCR positive influenza detections at PathWest by type, subtype and week, WA, 2023 to 2024 YTD



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)

The number of respiratory syncytial virus (RSV) cases notified to the Department of Health decreased to 171 cases in the past week (Figure 10).

Figure 10. Number of respiratory syncytial virus (RSV) notifications by week, WA, 2022 to 2024 YTD



Note: Respiratory syncytial virus (RSV) was made a notifiable infectious disease in WA in July 2021. This graph is a count of all RSV by week of onset by the DoH, WA (through WANIDD) to the end of the current reporting week.

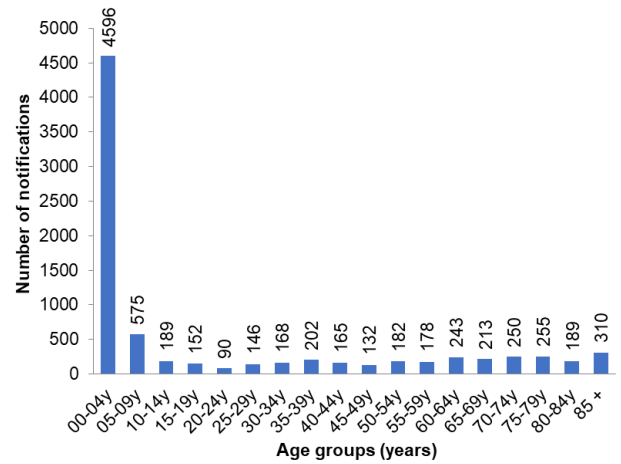
In the year to date, the number of RSV notifications, hospitalisations, and deaths* were lower compared to the same period in 2023. To date, 22,669 children have received a dose of RSV immunisation (Table 2). The majority of RSV notifications were in those aged less than 5 years (Figure 11).

Table 2. RSV notifications and child immunisation coverage, WA, 2024 YTD compared to 2023 for the same period

Notifications		2024 Year to Date	2023
RSV infections extracted by optimal date of onset	Notifications	8,235	9,459
	Hospitalisations	2,223	2,827
	Reported deaths	6	14
Number of children receiving a dose of RSV immunisation		2024 Year to Date	2023
Persons		22,669	N/A

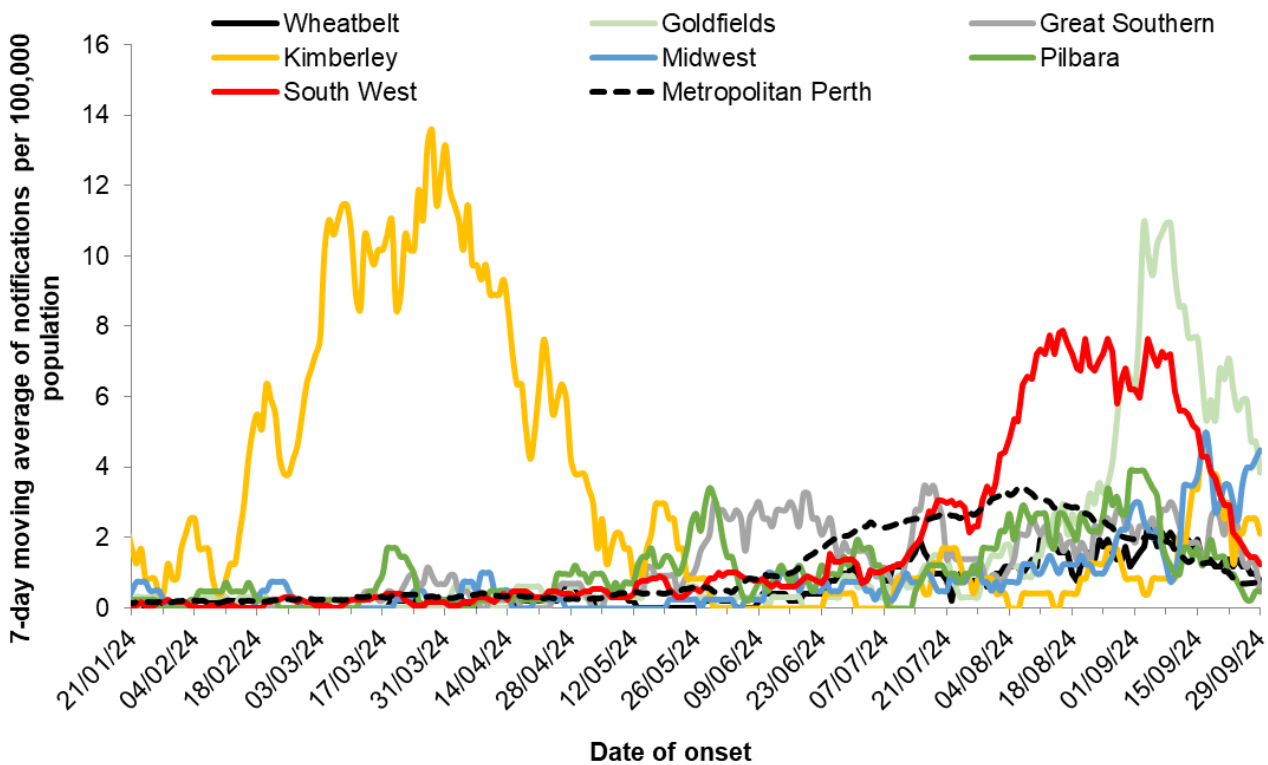
Note: N/A: data not available. Notification data source: WANIDD. Immunisation data source: Australian Immunisation Register accessed by WA Department of Health. From 30 July, data quality improvements for the recording of newborn immunisations to the AIR were applied. Immunisation data does not include adult doses of RSV containing vaccine. * Reported deaths may include historical deaths that occurred prior to the current reporting period.

Figure 11. RSV notifications by age group, WA, 2024 YTD



In the past week, the seven-day moving average for influenza notification rates decreased in all regions, except for the Midwest region where the rate increased (Figure 12).

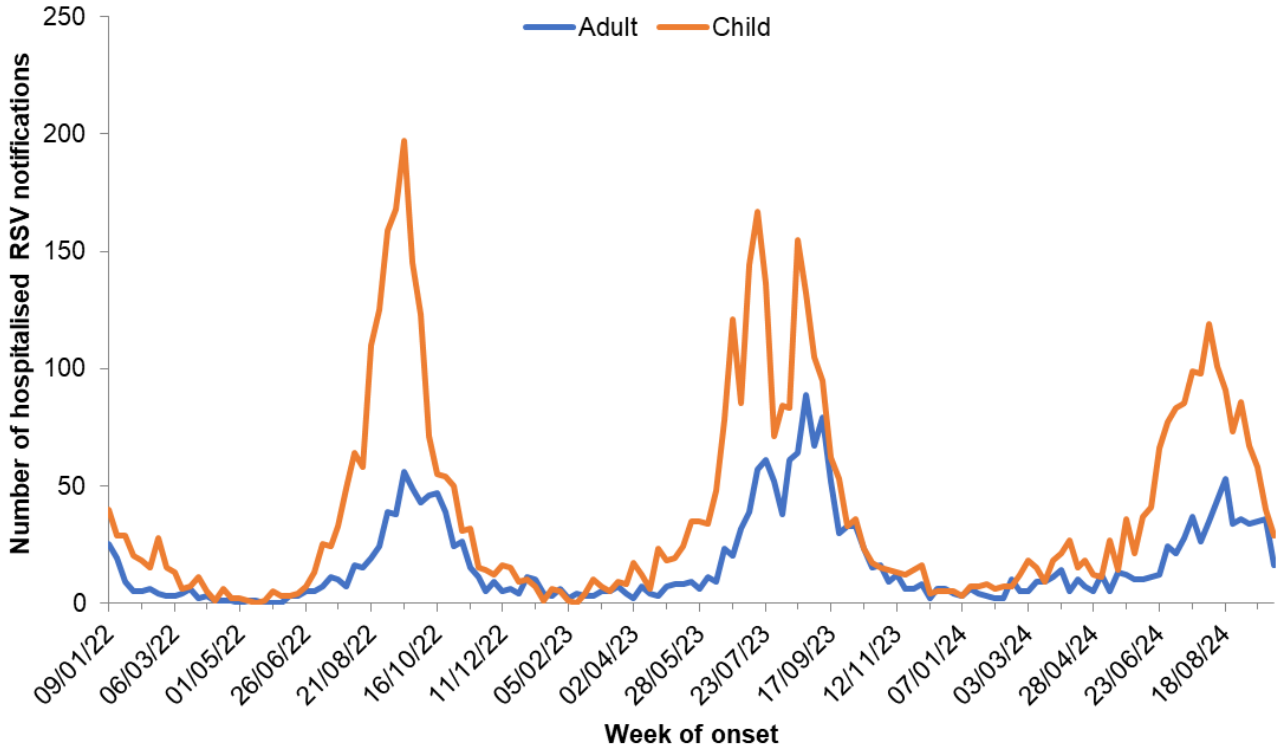
Figure 12. 7-day moving average of RSV notification rates per 100,000 people by health region, WA, 2024 YTD



Note: This graph shows the 7-day moving average of RSV cases per 100,000 people in the WA health regions for 2024 by optimal date of onset, received by the DoH, WA (through WANIDD) to the end of the current reporting week.

The number of RSV cases reported as hospitalised in the past week decreased in adults and children (Figure 13).

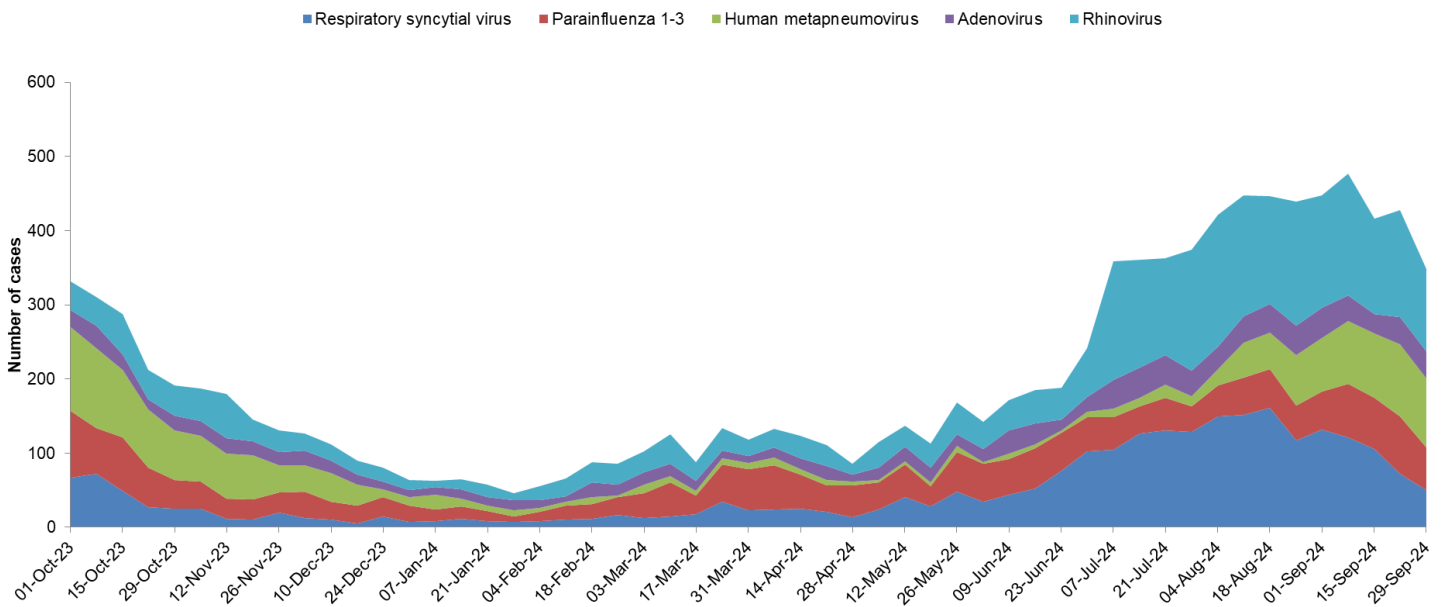
Figure 13. Number of notified RSV cases hospitalised by week, WA, 2022 to 2024 YTD



Note: This graph shows the number of all notified RSV 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.

Non-influenza respiratory virus detections at PathWest decreased in the past week (Figure 14). The most common non-influenza respiratory virus detected was rhinovirus (111 cases) followed by human metapneumovirus (93 cases).

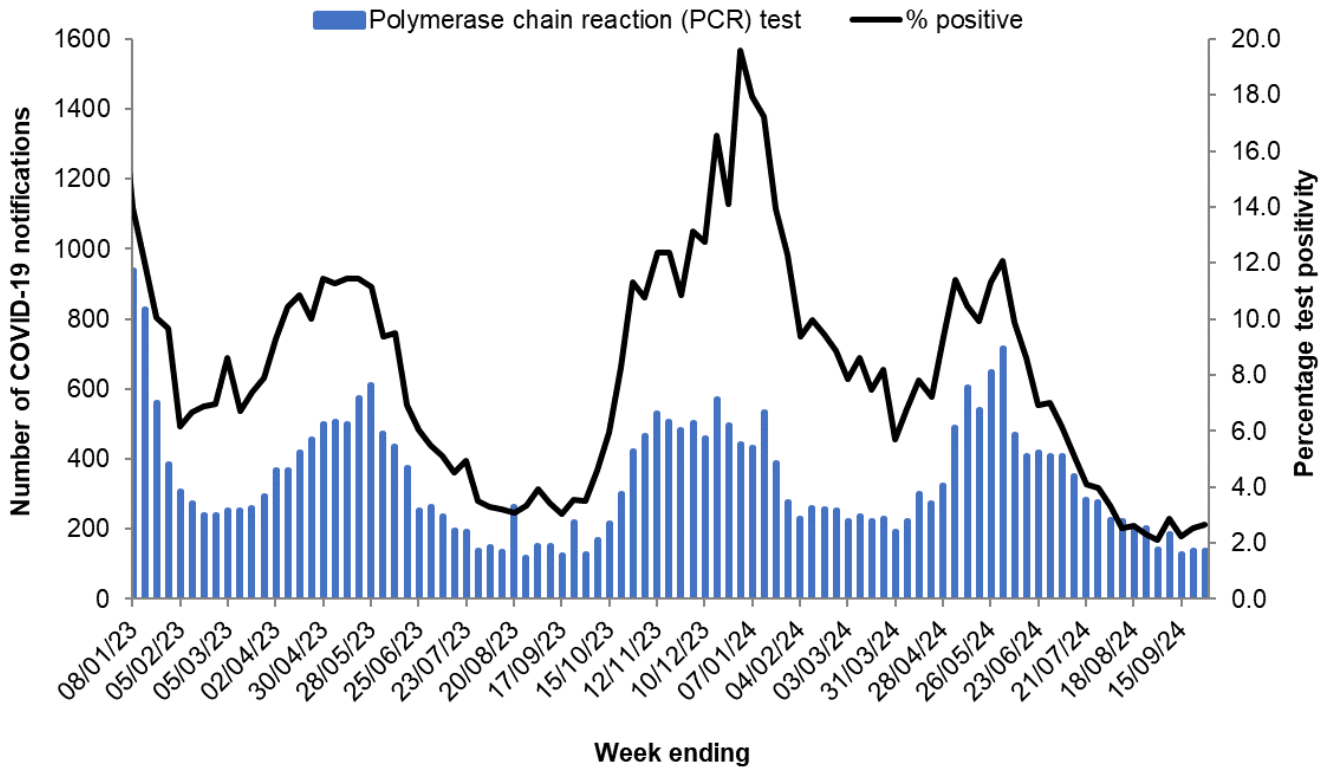
Figure 14. Number of non-influenza respiratory virus detections at PathWest by week, WA, 2023 to 2024 YTD



Note: This graph is a count of all WA samples positive for a common respiratory virus other than influenza reported by PathWest. Rhinovirus detections have increased since July 2024. This reflects a change in laboratory testing scope which has increased the number of Rhinovirus tests performed and does not necessarily reflect increasing incidence of this virus.

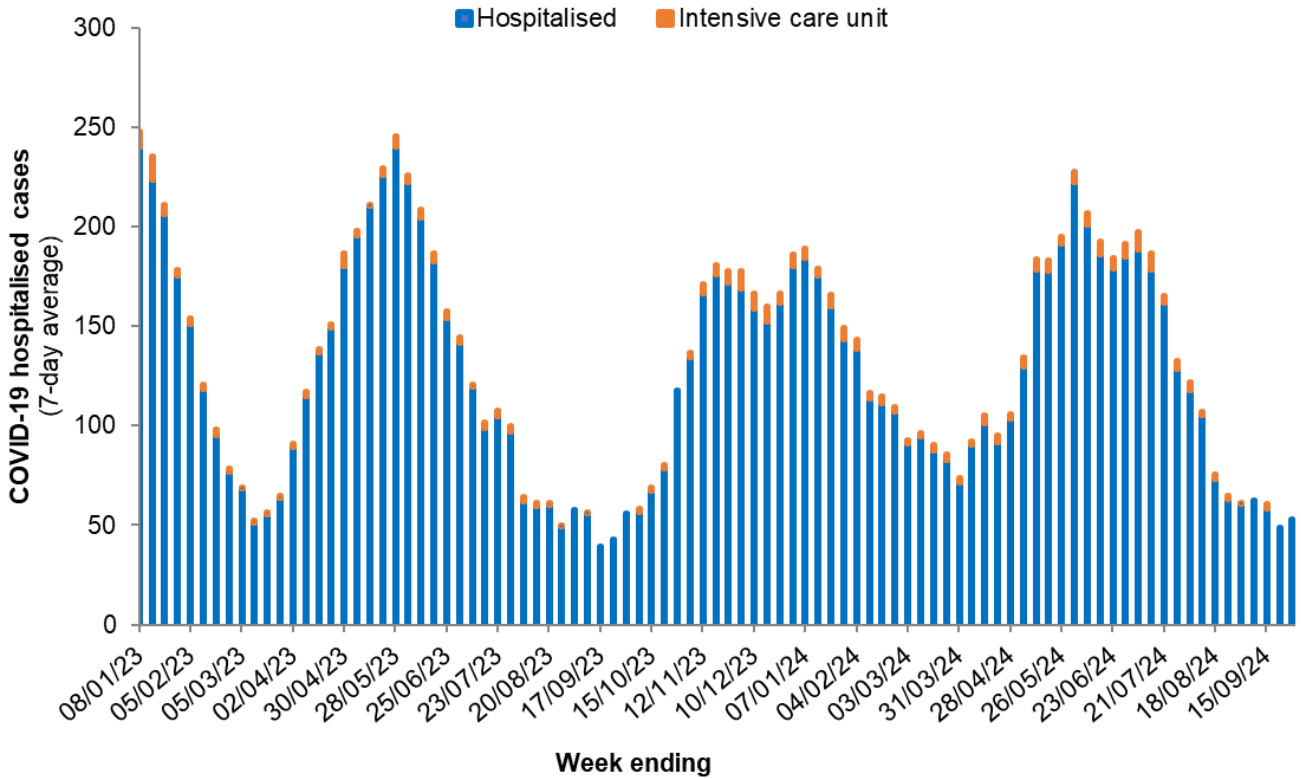
In the past week, the number of COVID-19 notifications to the Department of Health remained stable at 137 notifications (Figure 15).

Figure 15. COVID-19 notifications and test positivity by notification week, WA, 2023 to 2024 YTD



In the past week, currently hospitalised cases increased with an average of 53 per day. The 7-day average for cases currently in intensive care units remained at zero (Figure 16).

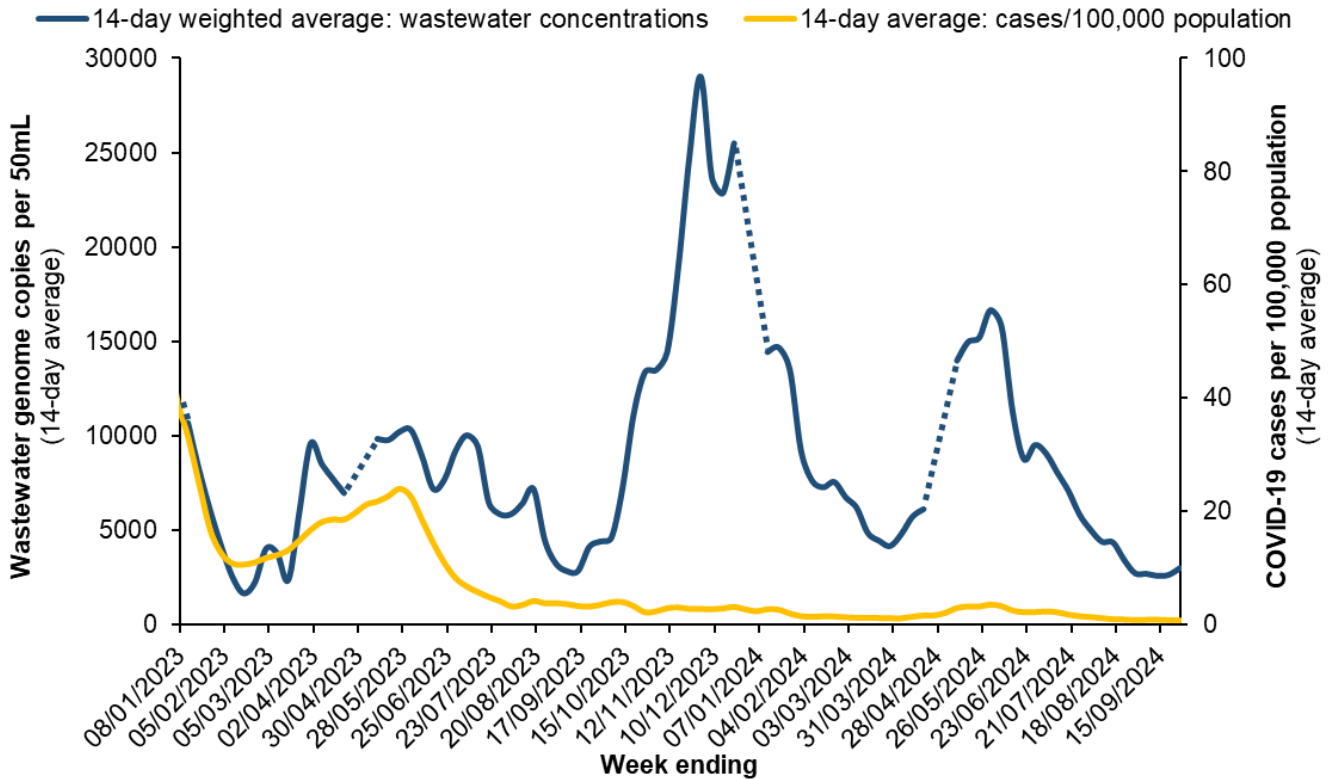
Figure 16. 7-day average of COVID-19 cases currently in hospital or in ICU, WA, 2023 to 2024 YTD



Note: 'Hospitalised' relates to active and cleared (>5 days after the first positive COVID-19 PCR test) COVID-19 cases that are current hospital inpatients. 'Intensive care unit' (ICU) is a subset of hospitalised and relates to active/cleared COVID-19 cases that are currently in an ICU. The reason for admission may be unrelated to COVID-19 for some people.

The SARS-CoV-2 concentration in wastewater from the Perth metropolitan area increased slightly this week (Figure 17).

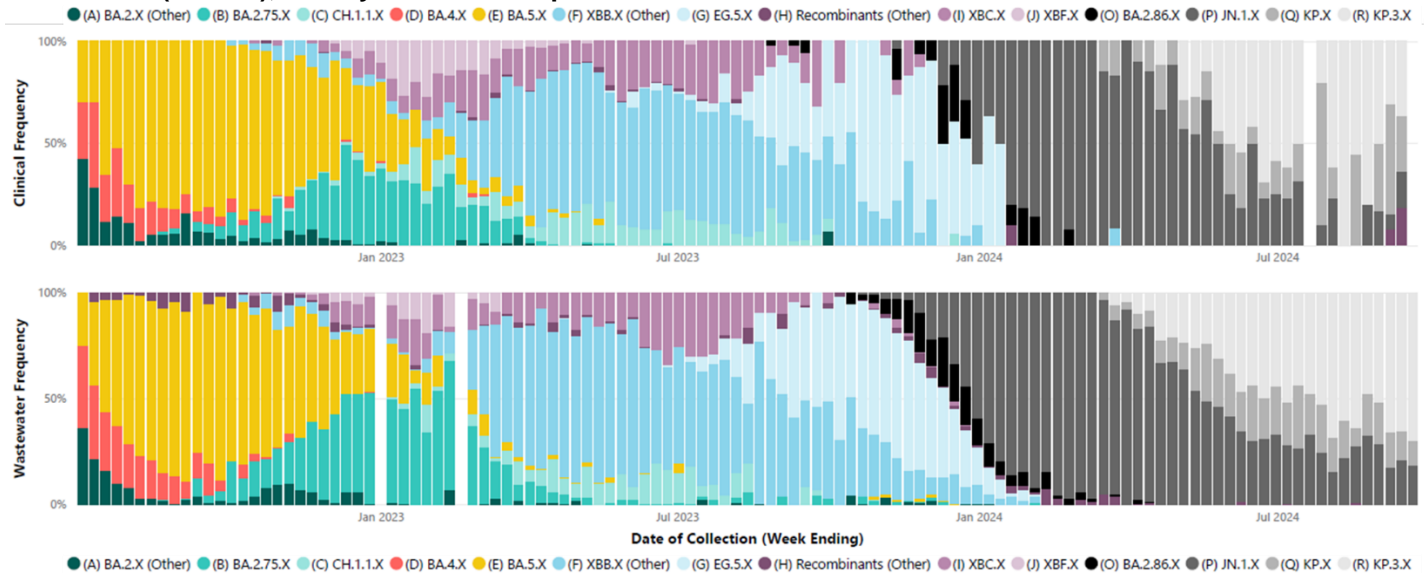
Figure 17. SARS-CoV-2 concentration in wastewater and COVID-19 notification rate, Perth metropolitan area, WA, 2023 to 27 September 2024.



Note: Wastewater is sourced from three wastewater treatment plants in the Perth metropolitan area (Subiaco, Woodman Point and Beenyup). Dotted lines in wastewater concentration represents missing results that could not be determined due to no sample collection or sample analysis failure.

Genomic sequencing of clinical samples and SARS-CoV-2 fragments indicated SARS-CoV-2 Omicron sub-lineage KP.3.X continues to predominate. (Figure 18).

Figure 18. Distribution of SARS-CoV-2 variants in clinical samples (top) and metropolitan wastewater catchments (bottom), 03 July 2022 to 22 September 2024.

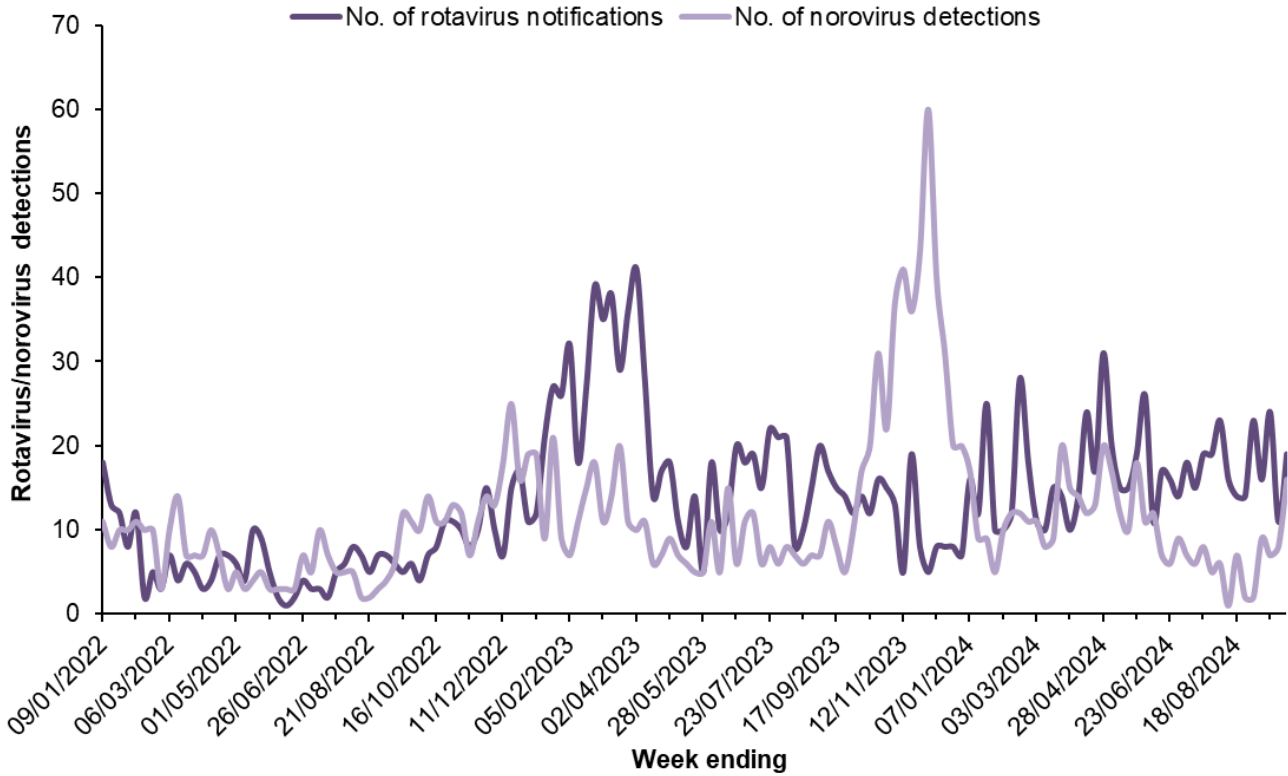


Note: The X following the lineage name indicates the inclusion of all descendant lineages. The distribution of variants in wastewater is largely representative of the distribution of variants in clinical cases, although for most recent weeks is slightly skewed due to the small number and lag in sequencing of clinical cases. Therefore, the most recent week of clinical sequencing has been removed to minimise the possibility of misinterpretation and the distribution in wastewater samples provides a more representative indication of the community distribution of SARS-CoV-2 variants for this period.

Gastroenteritis

In the past week, statewide rotavirus notifications to the Department of Health and norovirus detections at PathWest both increased (Figure 19).

Figure 19. Number of rotavirus notifications to the Department of Health and norovirus detections at PathWest, WA, 2022 to 2024 YTD



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

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 and gastroenteritis, 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.
- Reported deaths may include historical deaths that occurred prior to the current reporting period.
- 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 sourced from Public Health Operations COVID-19 Unified System (PHOCUS).
- From 9 October 2023, it is no longer a requirement to register positive COVID-19 Rapid Antigen Test (RAT) results to the WA Department of Health. Therefore, probable COVID-19 cases diagnosed by RAT will not be reported from that date.
- From 14 January 2024, the methodology for calculating the influenza seasonal threshold has changed. The threshold value is calculated based on analysis of inter-seasonal influenza data from 2016 to 2019 and 2023.
- 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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