Government of Western Australia
Department of Health

PathWest
LABORATORY MEDICINE WA

Virus WAtch

Week ending 09th July 2023

Key Points

Influenza and influenza-like illnesses (ILI)

- The rate of ILI presentations at sentinel GPs and at emergency departments (EDs) increased in the past week.
- Influenza notifications to the Department of Health remained stable in the past week and in the higher range of values usually reported at this time of year.
- Non-influenza respiratory virus detections at PathWest Laboratory Medicine (PathWest) increased in the past week.
- COVID-19 cases decreased by 17% in the past week to 1,089 cases. See COVID-19 Weekly surveillance report (health.wa.gov.au)

Gastroenteritis

- The rate of gastroenteritis presentations to sentinel GPs decreased in the past week.
- Rotavirus notifications to the Department of Health and norovirus detections at PathWest remained relatively stable in the past week.

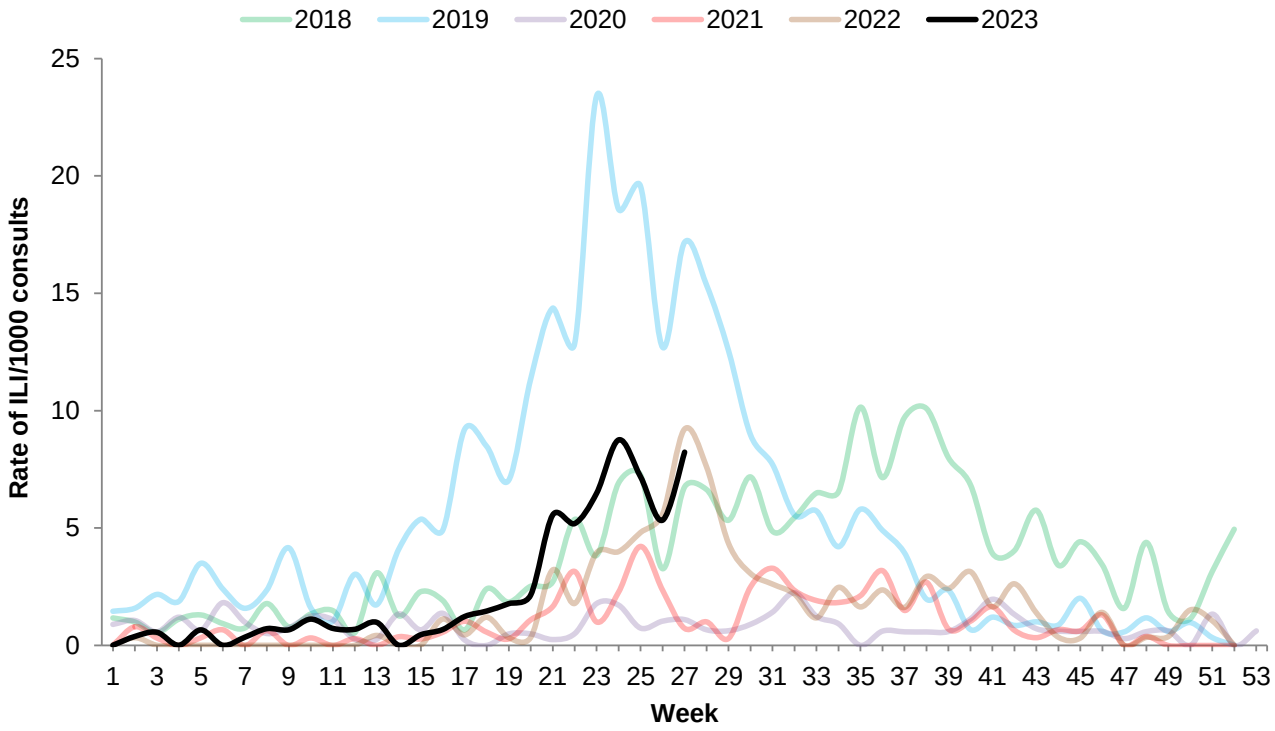
Other vaccine-preventable diseases

- **Chickenpox and shingles**: In the past week there were no chickenpox presentations to sentinel GPs and presentations to EDs increased. Shingles presentations to GPs decreased and presentations to EDs remained stable.
- **Measles**: No measles cases were notified in the past week.
- **Mumps**: No mumps cases was 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)

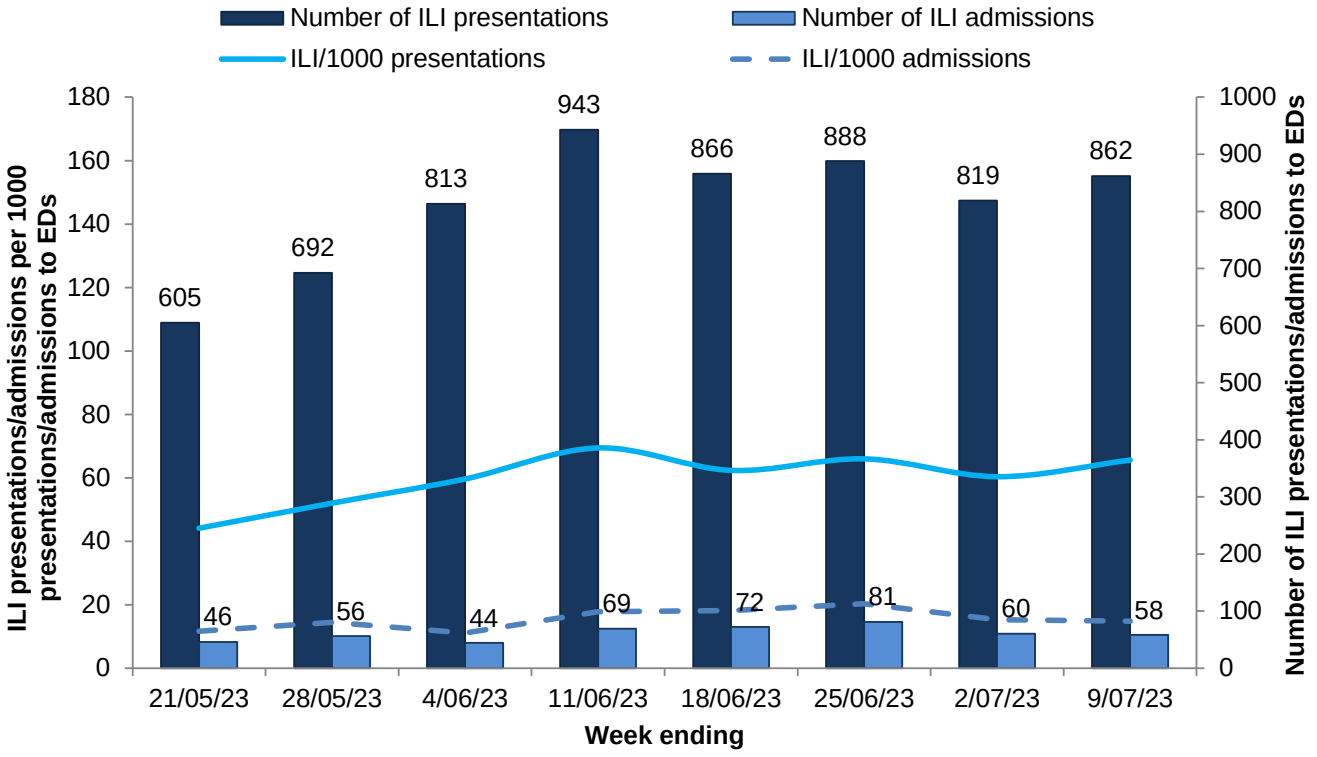
The rate of ILI presentations to sentinel GPs increased in the past week (Figure 1).

Figure 1. Rate of ILI per 1000 consultations at sentinel GPs (Australian Sentinel Practices Research Network) in WA by week, 2018 to 2023 YTD



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

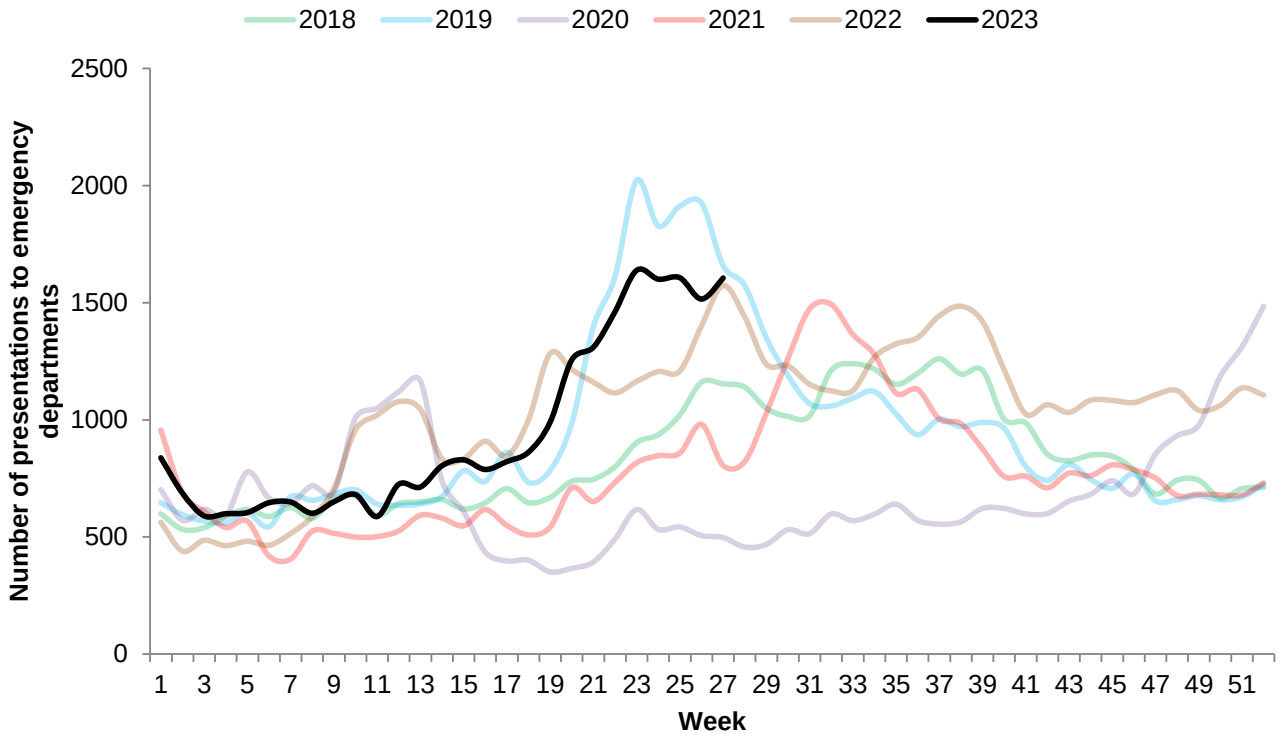
Figure 2. Number and rate of ILI presentations/admissions to emergency departments in WA in the past eight weeks



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.

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

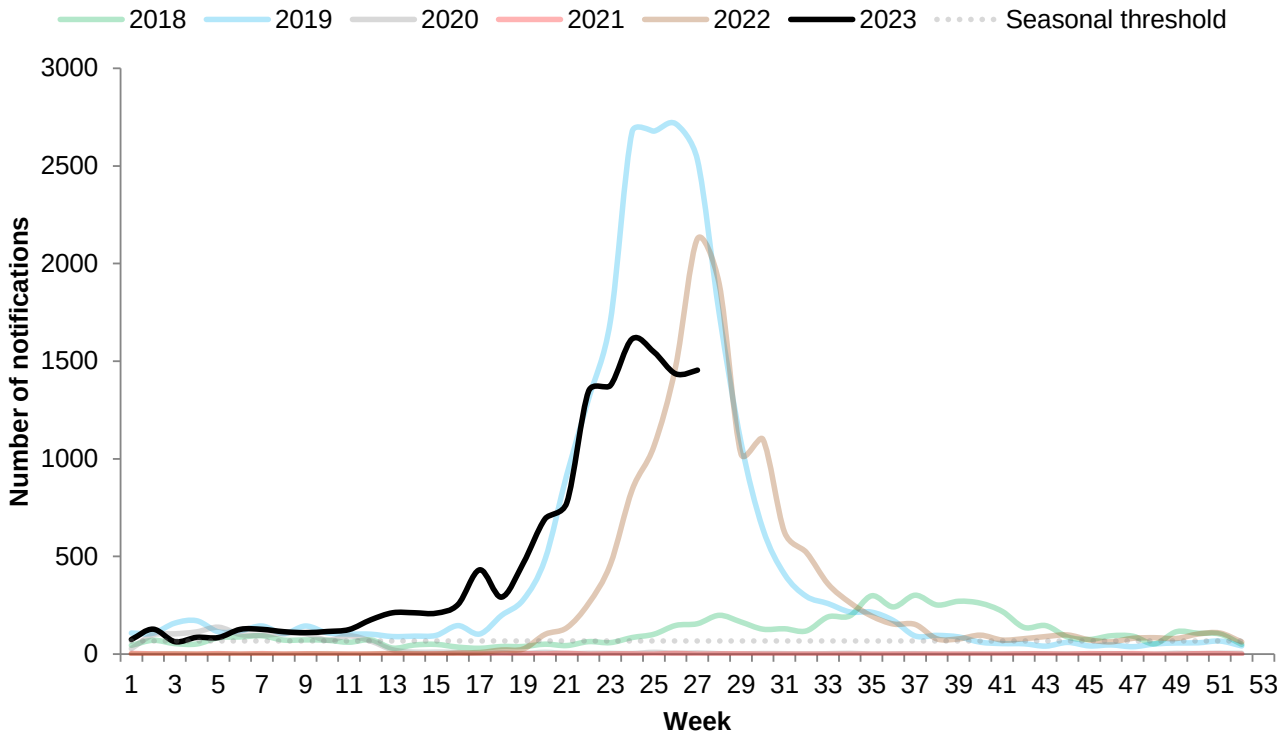
Figure 3. Number of respiratory illness presentations to emergency departments in WA by week, 2018 to 2023 YTD



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.

In the past week, there were 1,454 influenza cases reported to the Department of Health, which was comparable to the previous week (Figure 4).

Figure 4. Number of influenza notifications in WA by week, 2018 to 2023 YTD



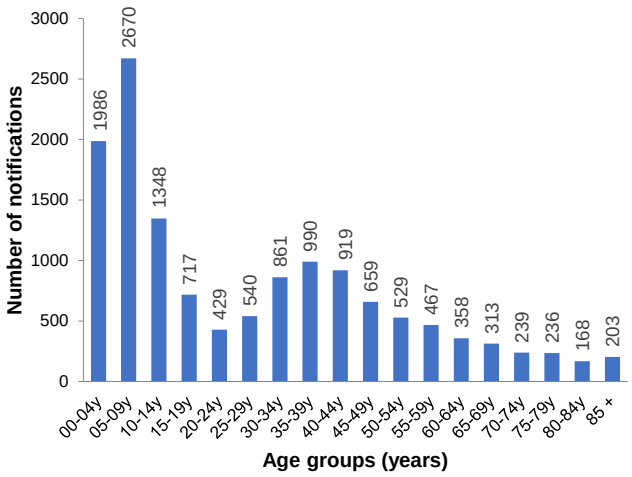
Note: This graph is a count of all influenza notifications by week of receipt by the DoH, WA (through WANIDD) to the end of the current reporting week. The seasonal threshold defines a value above which may indicate seasonal influenza activity. The threshold value is calculated based on analysis of inter-seasonal influenza data from 2015 to 2018.

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 highest in the ≥ 65 year age group (Table 1). The majority of notifications have been in those aged less than 10 years (Figure 5).

Table 1. Influenza notifications and vaccination coverage in WA, 2023 YTD

Notifications	Category	2023 Year to Date	5 yr average
Influenza infections extracted by optimal date of onset	Notifications	13,632	5,648
	Hospitalisations	1,503	884
	Reported Deaths	3	21
Vaccinations	**Age group**	**2023 Year to Date**	**5 yr average**
Influenza vaccinations as recorded in the Australian Immunisation Register	6mo-< 5 yrs	23.2%	NA
	5-<15 yrs	17.1%	NA
	15-<50 yrs	20.5%	NA
	50-<65 yrs	36.1%	NA
	≥ 65 yrs	63.4%	NA

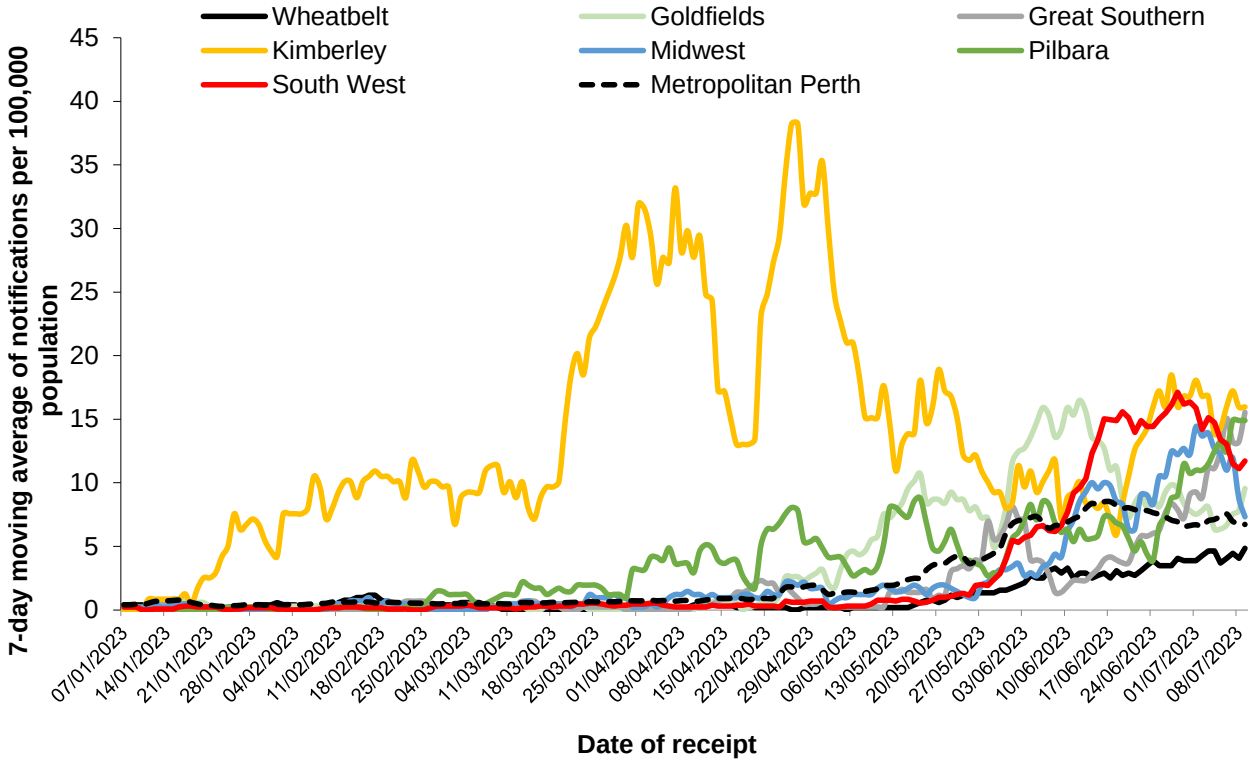
Figure 5. Influenza notifications by age group in WA, 2023 YTD



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

In the past week, the greatest increase in the seven-day moving average for influenza notification rates occurred in the Great Southern and Pilbara regions. The rates increased in all regions except the Kimberley, South West and Midwest, where rates decreased (Figure 6).

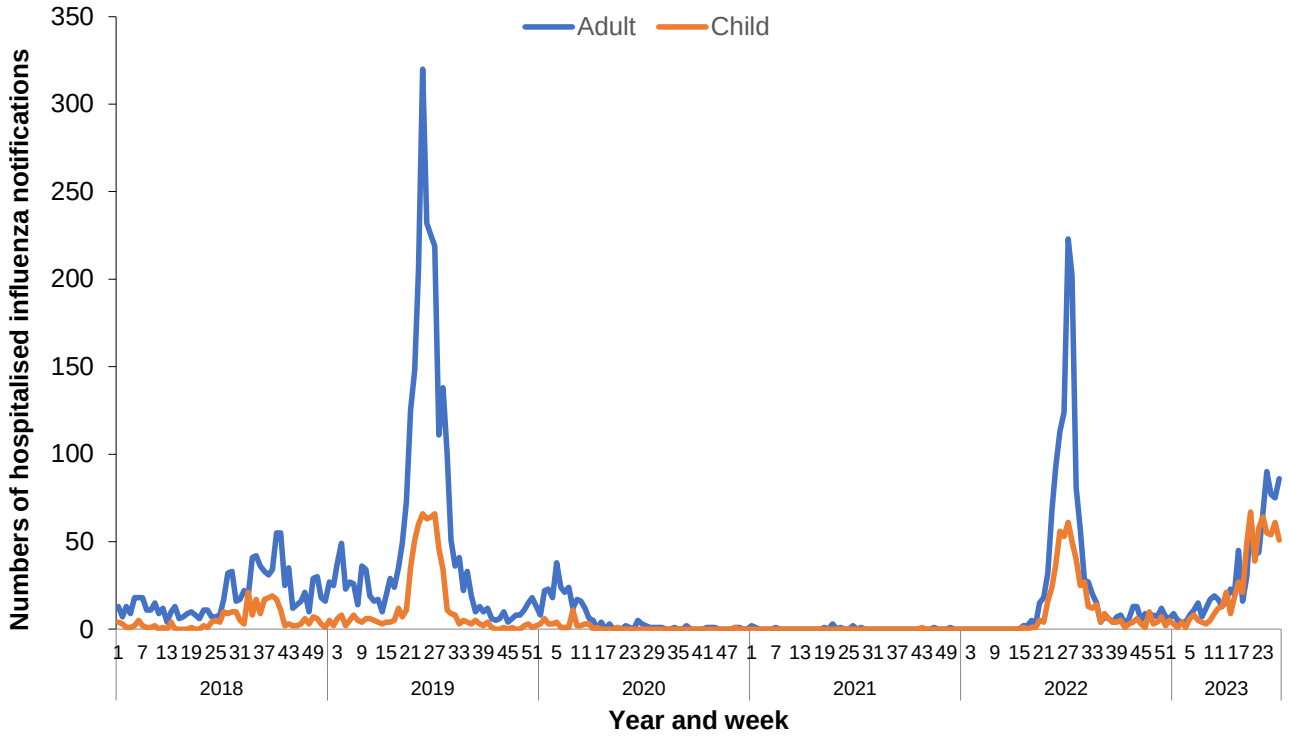
Figure 6. 7-day moving average of influenza notifications per 100,000 people in WA by health region, 2023 YTD



Note: This graph shows the 7-day moving average of influenza cases per 100,000 people in the WA health regions for 2023 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 amongst adults and decreased amongst children (Figure 7).

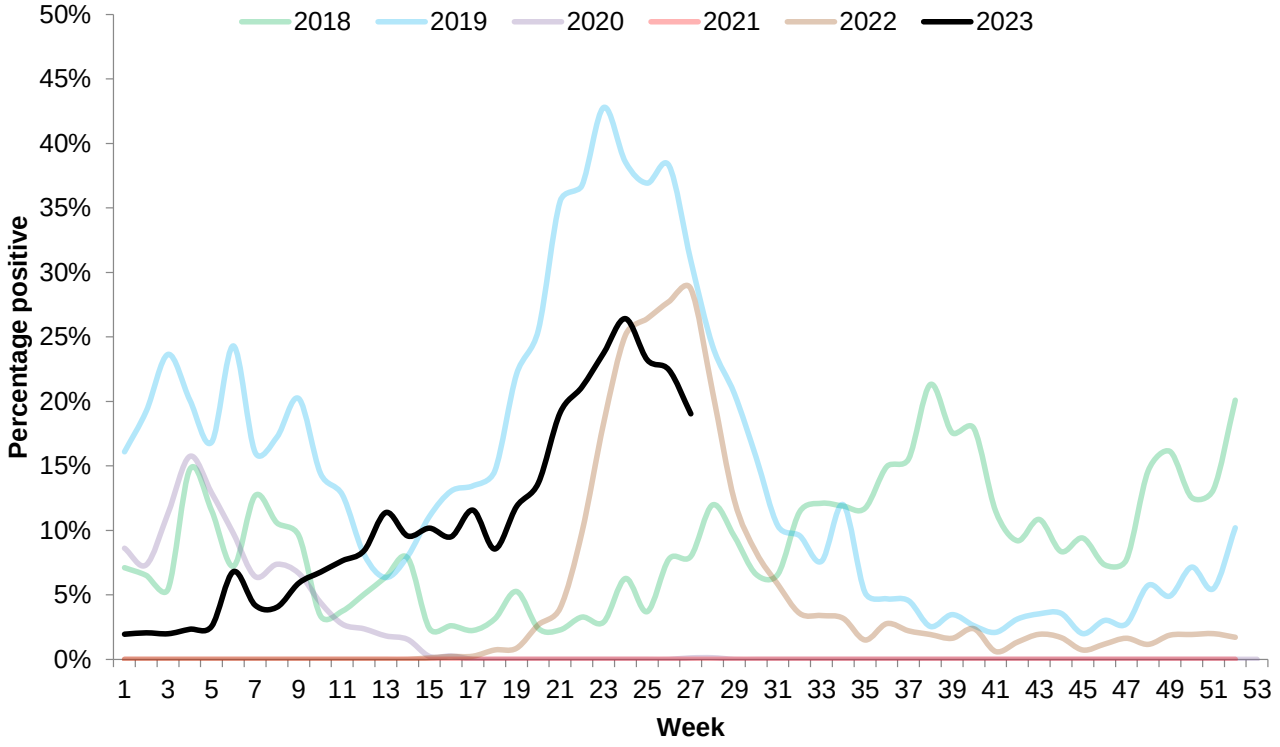
Figure 7. Number of notified influenza cases hospitalised in WA by week, 2018 to 2023 YTD



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 percentage positivity of influenza PCR testing at PathWest decreased to 19% (365 detections) in the last week. (Figure 8).

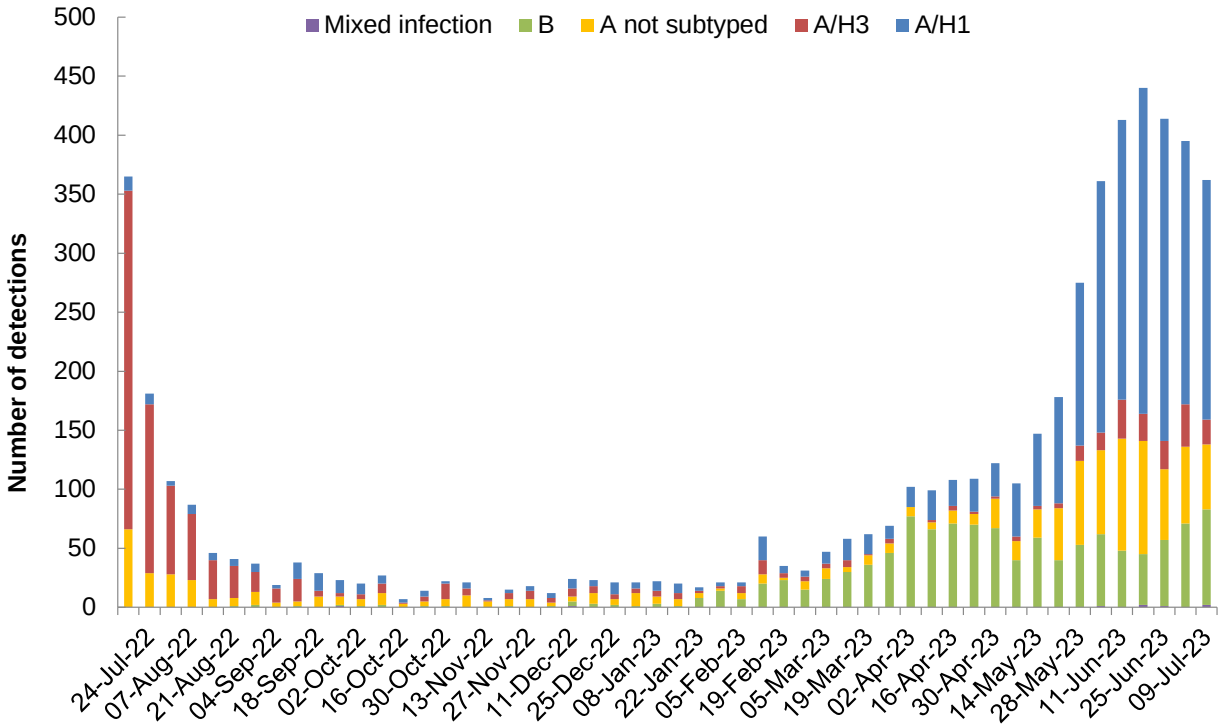
Figure 8. Proportion of PCR positive influenza detections at PathWest by week, WA, 2018 to 2023 YTD



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 365 influenza detections at PathWest in the past week, 281 (77%) were influenza A (which included 205 A/H1, 21 A/H3 and 55 influenza A cases not yet subtyped); 82 (22%) were influenza B (Figure 9). Of the 1,454 influenza notifications reported to the Department of Health, 69% were influenza A and 31% were influenza B.

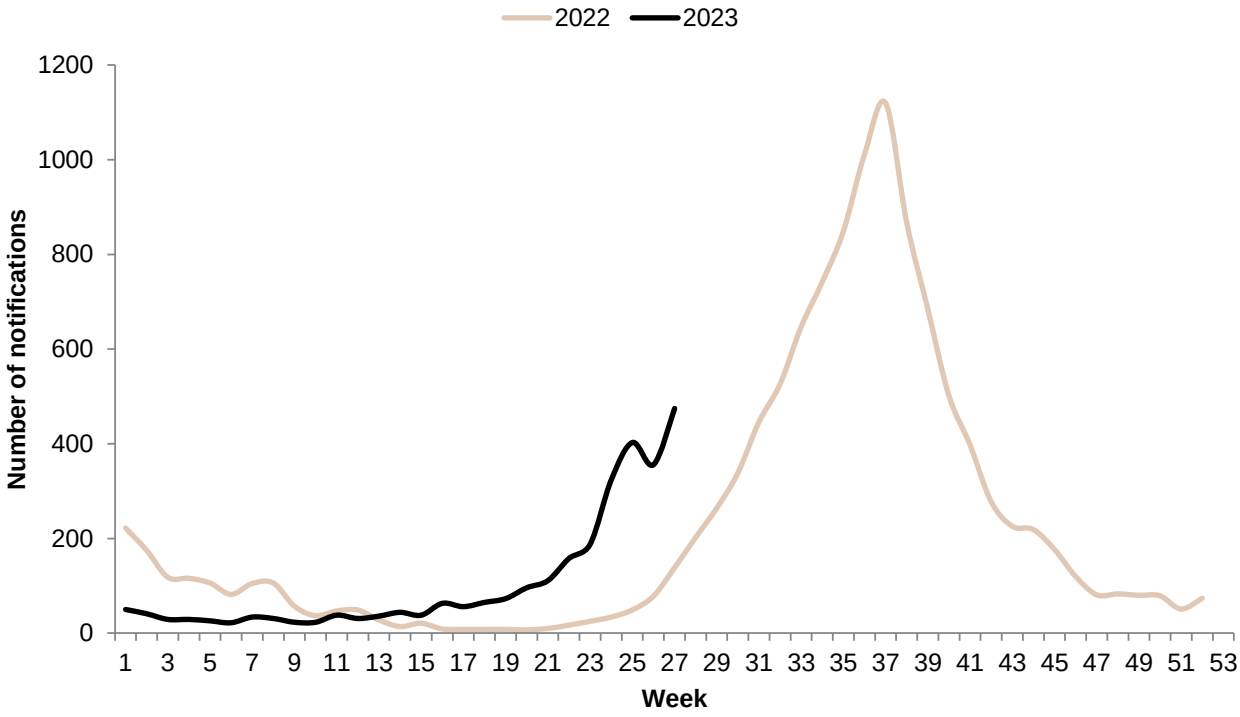
Figure 9. Number of PCR positive influenza detections at PathWest by type, subtype and week, WA, 2022 to 2023 YTD



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).

In the past week, there were 475 respiratory syncytial virus (RSV) cases reported to the Department of Health, which was 33% higher compared to the previous week (Figure 10).

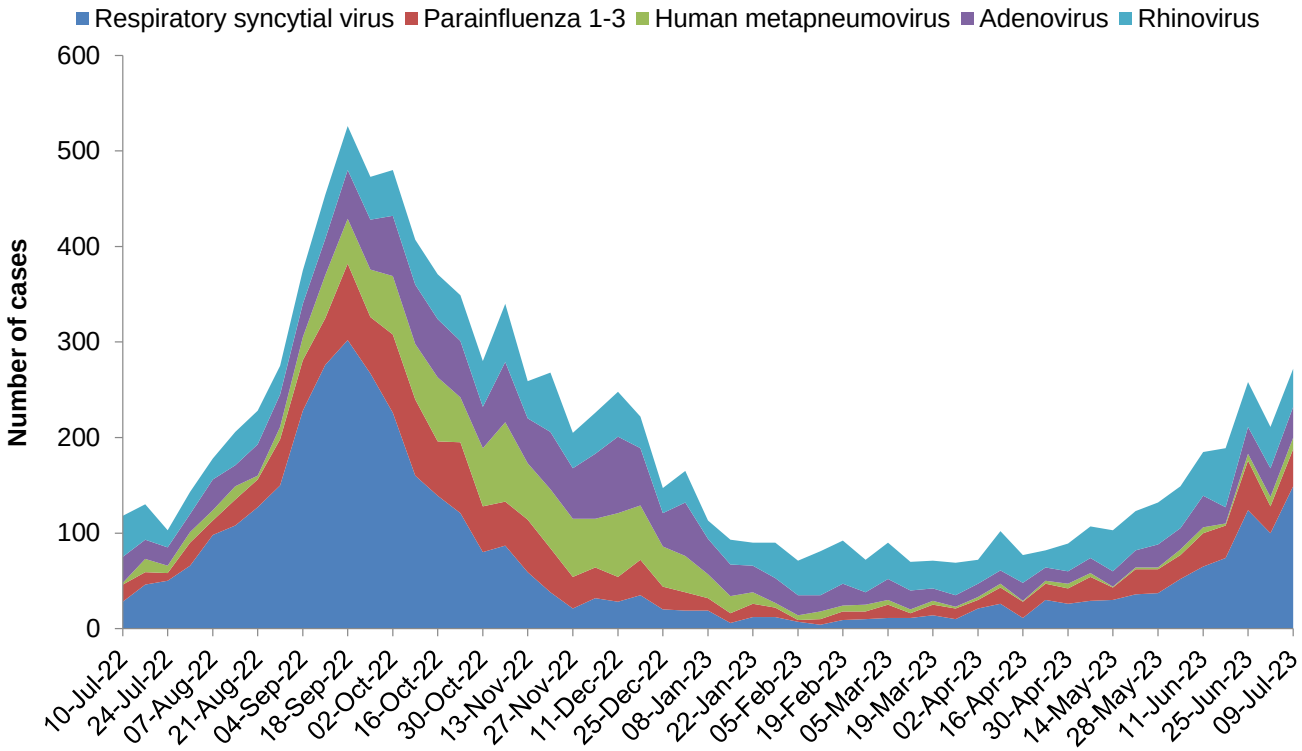
Figure 10. Number of respiratory syncytial virus (RSV) notifications by week, WA, 2022 to 2023 YTD



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.

Excluding SARS-CoV-2, non-influenza respiratory virus detections at PathWest increased in the past week (Figure 11). The most common non-influenza respiratory virus detected was RSV (149 cases).

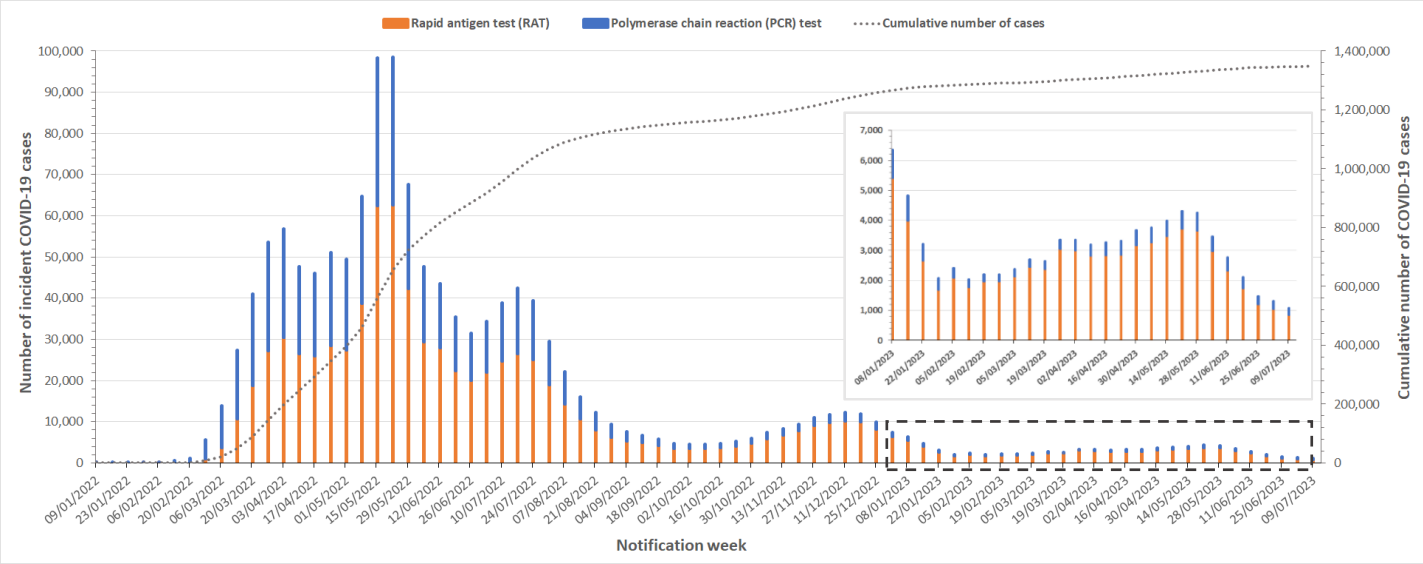
Figure 11. Number of non-influenza respiratory virus detections at PathWest by week, WA, 2022 to 2023 YTD



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 1,089 COVID-19 cases reported in WA, which was 17% lower compared to the previous week. Of these, 22% were diagnosed by PCR test and 78% were diagnosed by rapid antigen test (Figure 13).

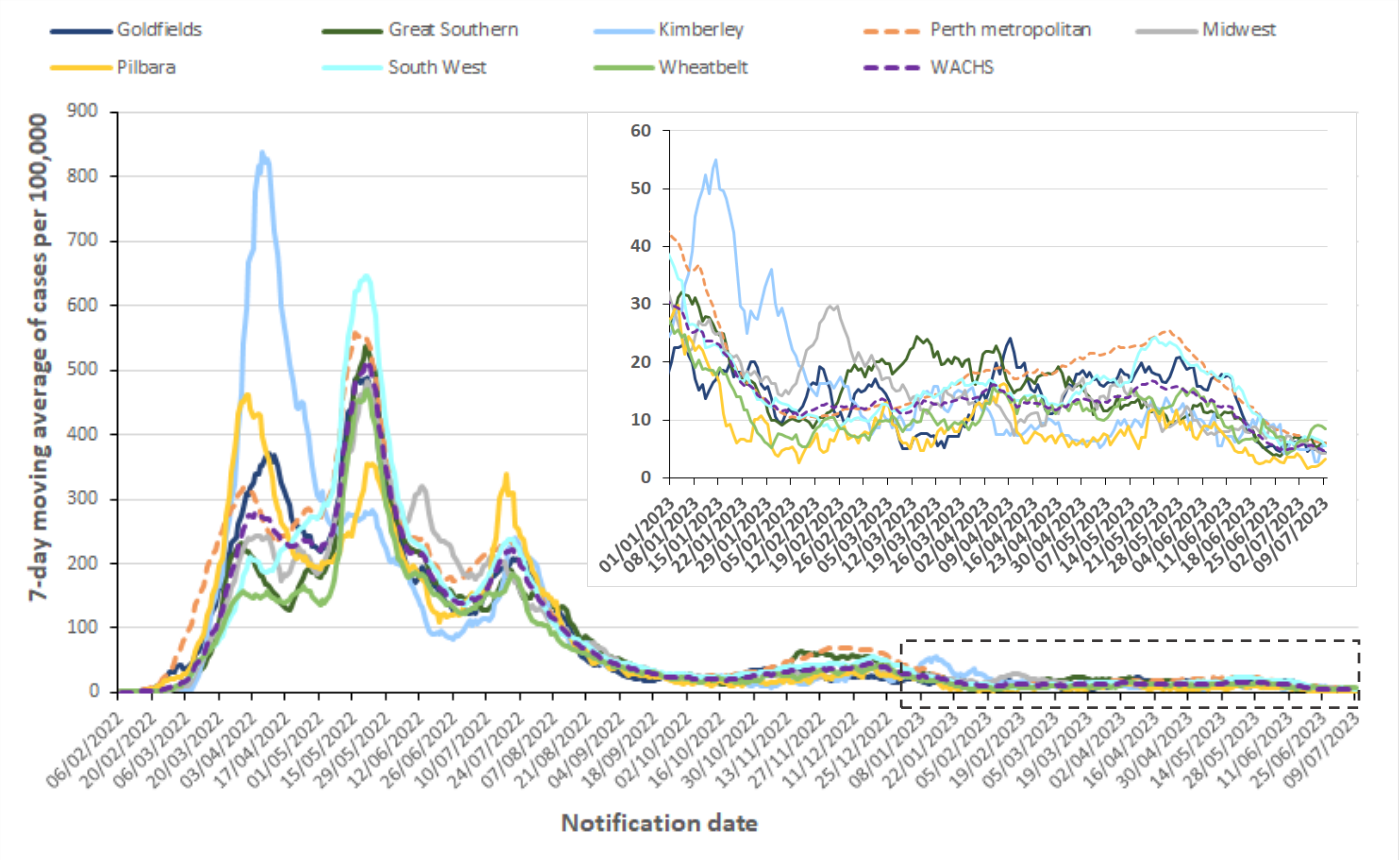
Figure 13. Number of COVID-19 cases in WA by test type and notification date, 2022 to 2023 YTD



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

The seven-day moving average of COVID-19 notifications per 100,000 population increased in the Kimberley and Wheatbelt regions and decreased or stabilised in all remaining regions (Figure 14).

Figure 14. Seven-day moving average of COVID-19 notifications per 100,000 people in WA by health region, 2022 to 2023 YTD

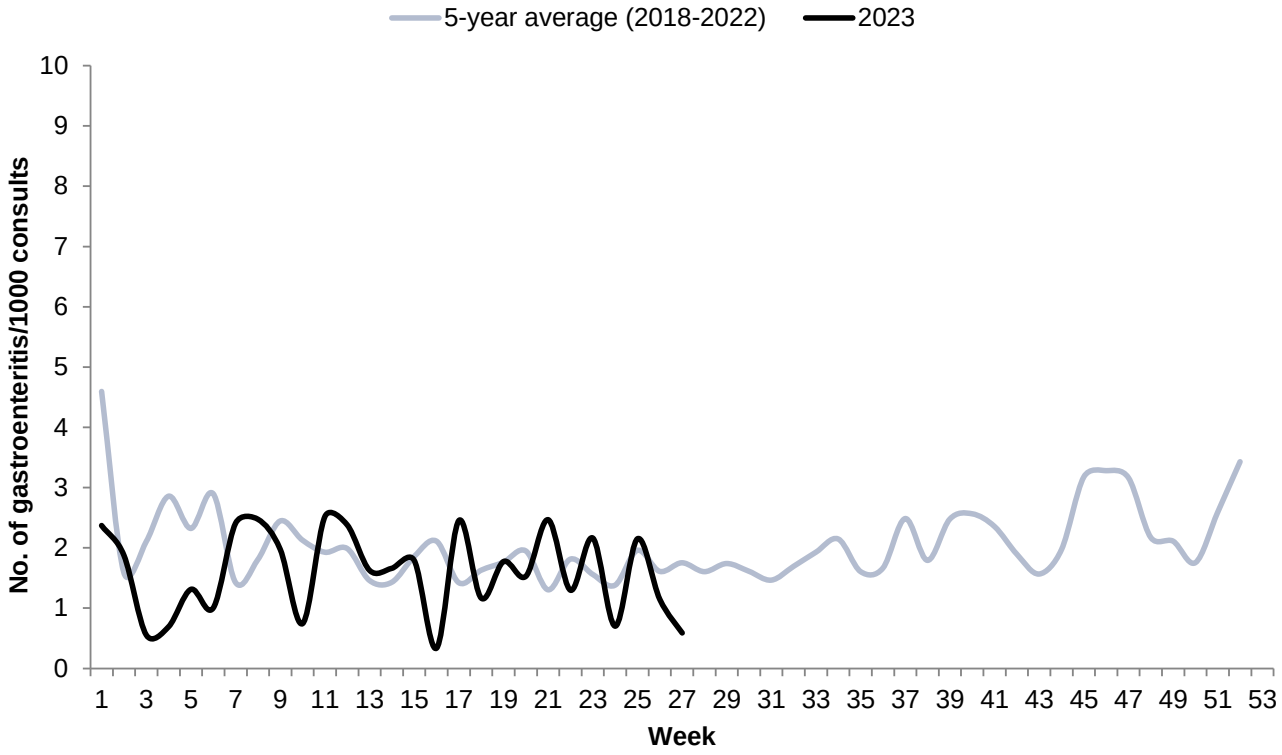


Note: Data sourced from Public Health Operations COVID-19 Unified System (PHOCUS). Western Australia Country Health Service (WACHS) region includes all non-metropolitan health regions: Central-Wheatbelt, Goldfields, Great Southern, Kimberley, Midwest, Pilbara and South West. Perth metropolitan region includes East Metropolitan Health Service, North Metropolitan Health Service and South Metropolitan Health Service. Population denominator sourced from Australian Bureau of Statistics 2020 estimates. See also the WA COVID-19 Weekly surveillance report for further epidemiological analysis and the Australian Government Dept of Health and Aged Care for immunisation coverage data.

Gastroenteritis

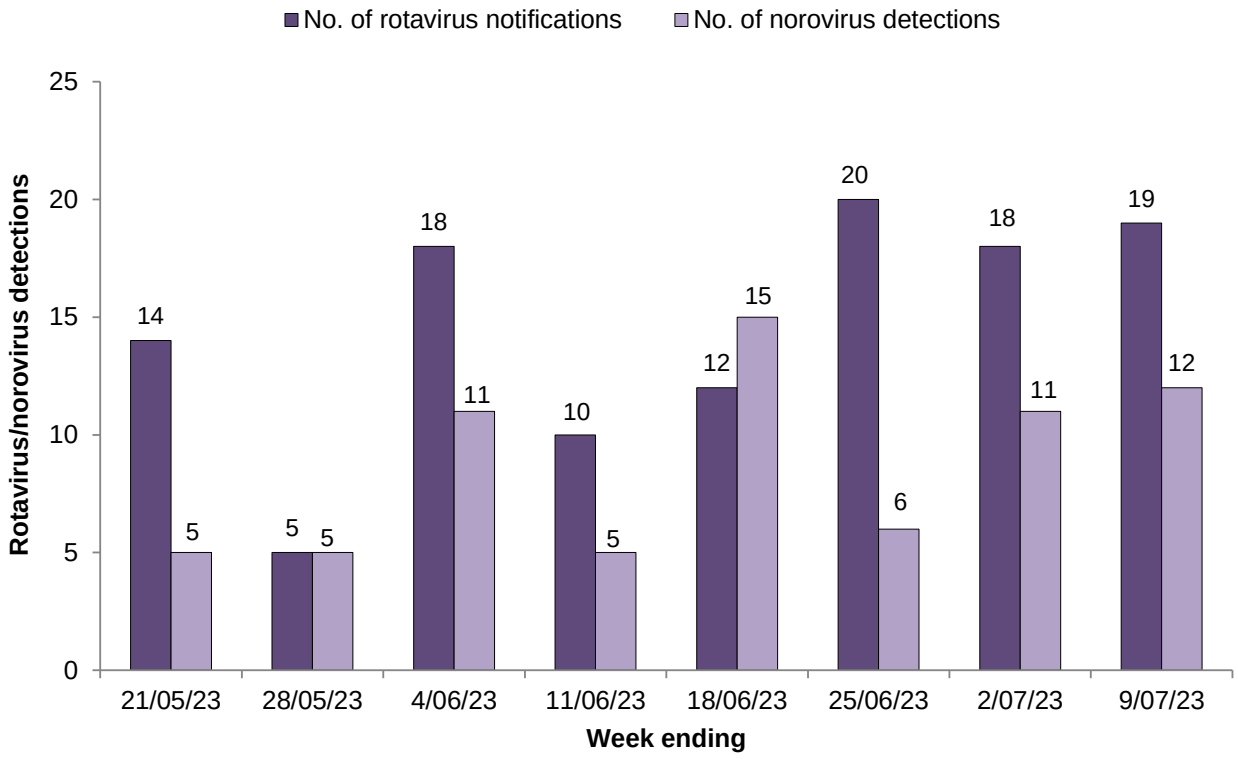
The rate of gastroenteritis presentations to sentinel GPs continued to decrease below the baseline in the past week (Figure 15).

Figure 15. Number of gastroenteritis presentations per 1000 consultations at sentinel GPs (Australian Sentinel Practices Research Network) in WA by week, 2018 to 2023 YTD



Rotavirus notifications to the Department of Health and norovirus detections at PathWest remained relatively stable in the past week (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

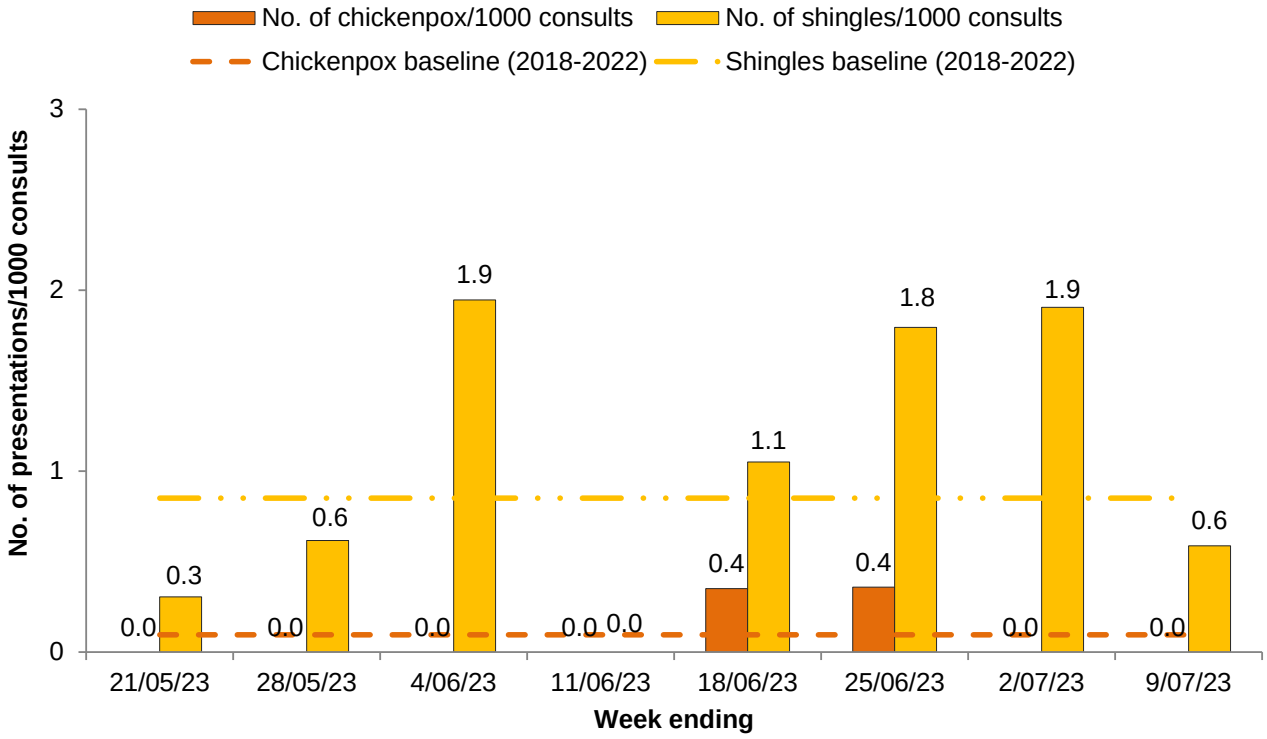


Note: Rotavirus notifications reported to the Department of Health include detections from all WA pathology laboratories. Norovirus detections are from PathWest only.

Viral rashes

There were no chickenpox presentations to sentinel GPs in the past week and the rate of shingles presentations decreased (Figure 17).

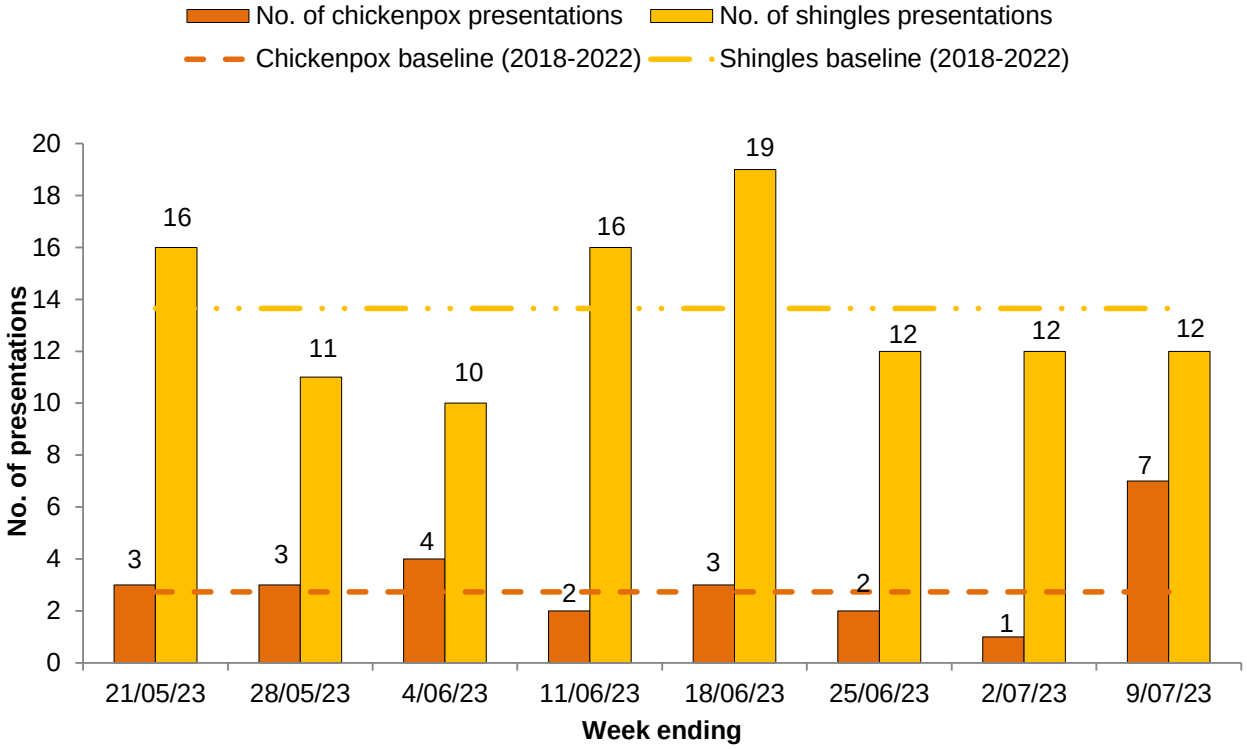
Figure 17. Number of varicella-zoster presentations per 1000 consultations at sentinel GPs (Australian Sentinel Practices Research Network) in WA in the past eight weeks



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, 2018 to week 52, 2022.

Chickenpox presentations to EDs increased in the past week while shingles presentations remained stable (Figure 18).

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



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, 2018 to week 52, 2022.

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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