Australian Government
Department of Health and Aged Care

Australian Centre for Disease Control

Australian Respiratory Surveillance Report

Viral Respiratory Diseases Epidemiology and Surveillance Section

Report 15, 2024

Key messages

This report presents a national epidemiological update for coronavirus disease 2019 (COVID-19), influenza and respiratory syncytial virus (RSV) with a focus on the current reporting period (7 October to 20 October 2024) and earlier severity reporting periods (up to 6 October 2024).

Activity: In recent weeks, respiratory illness activity (self-reported new fever and cough symptoms) in the community has decreased and is currently lower than the levels of activity observed in the same period in previous years. General practice consultation rates for respiratory illnesses (new fever and cough symptoms) monitored through sentinel surveillance sites have decreased in the last fortnight but remain similar to consultation rates observed in the same period in previous years. Nationally, COVID-19 activity has been decreasing since early June 2024, but has plateaued across September and October 2024. Influenza activity has decreased considerably since July 2024, and activity has now returned to interseasonal levels. RSV activity has been decreasing since late May 2024.

Severity: The number of patients hospitalised with COVID-19 and influenza monitored through sentinel hospital-based surveillance has been decreasing since reaching apparent peaks in May 2024 and July 2024, respectively. Whereas the number of patients hospitalised with RSV monitored through sentinel hospital-based surveillance peaked in April 2024 and have been decreasing since that time. The proportion of those patients with a severe acute respiratory infection (SARI) who were admitted directly to an intensive care, monitored through sentinel hospital-based surveillance, has remained low and stable in 2024. Nationally, the number of patients admitted to sentinel intensive care surveillance sites with COVID-19, influenza and RSV has been decreasing across September 2024. Patients with COVID-19 have accounted for the majority of all SARI admissions at sentinel intensive care surveillance sites this year.

At-risk populations: For patients admitted with a SARI to sentinel intensive care sites, the largest proportion of in-hospital mortality has been in those aged 60 years or over. Nationally, this year, age-specific mortality rates for COVID-19, influenza and RSV cases have been highest among those aged 70 years or over.

Impact: The proportion of people taking time off work due to respiratory illness (self-reported new fever and cough symptoms) decreased last fortnight, compared with the previous fortnight. Nationally, the mean number of COVID-19 cases in intensive care this fortnight increased compared with the previous fortnight, while the average number of intensive care staff unavailable due to COVID-19 illness or exposure has declined over the past two weeks.

Genomic surveillance and virology: Nationally, the Omicron BA.2.86 sublineage, JN.1, remains the dominant circulating sub-lineage (which includes the KP, JN.1.17, and JN.1.8 sub-sub-lineages). The KP.3 sub-sub-lineage represents the most common JN.1 sub-lineage in AusTrakka, followed by KP.2. There has been an increasing proportion of the recombinant lineage XEC sequenced recently, with the lineage XEC attracting recent attention due to its estimated growth rate. This year, influenza A has accounted for most influenza notifications nationally.

Vaccine coverage, effectiveness and match: It is too early to assess influenza vaccine effectiveness for the 2024 influenza season. COVID-19 and RSV vaccination data will be included in future iterations of the Australian Respiratory Surveillance Report.

Introduction

This Australian Respiratory Surveillance Report was prepared by Jenna Hassall, Gizem Bilgin, Anna Rafferty and Caitlin Trenorden on behalf of the interim Australian Centre for Disease Control. We thank the staff and participants from the surveillance systems who contribute data for acute respiratory illness surveillance across Australia.

The Australian Respiratory Surveillance Reports present a national overview of acute respiratory infections in Australia, drawing information from several different surveillance systems. Our surveillance systems help us to understand the distribution of acute respiratory illness activity in the community, the severity of disease, which populations might be at risk of severe disease, and the impact of acute respiratory illness on the community and health system in Australia. Surveillance indicators presented in this report are based on the Australian National Surveillance Plan for COVID-19, Influenza, and RSV.

A summary of data considerations for this Australian Respiratory Surveillance Report are provided below. Please refer to the Technical Supplement – Australian Respiratory Surveillance Report for further detail on our surveillance sources and data considerations, including the considerable impact of the COVID-19 pandemic on acute respiratory infection surveillance in Australia.

Data considerations

- Due to the dynamic nature of the surveillance systems used in this report, surveillance data are considered preliminary and subject to change as updates are received, with the most recent weeks considered particularly incomplete. Data in this report may vary from data reported in other national reports and reports by states and territories. Data in this report are presented by *International Organization for Standardization (ISO) 8601* weeks, where the week ends on a Sunday.
- In Australia, states and territories report notified cases to the **National Notifiable Diseases Surveillance System (NNDSS)** based on the Australian national surveillance case definitions. From 1 July 2024, only laboratory-confirmed COVID-19 cases are notified to the NNDSS and included in this report (except where specified otherwise). NNDSS data are analysed and reported based on diagnosis date, which is the true onset date of a case if known, otherwise it is the earliest of the specimen date, the notification date, or the notification received date. NNDSS data were extracted on 23 October 2024.
- To account for the lag in collection and provision of severity data from some surveillance systems, and for the time delay between illness onset and the development of severe disease outcomes, cases with an admission date or a diagnosis date in the last two weeks are excluded from severity analyses, which includes analyses of hospitalisations, intensive care admissions and deaths. As such, the severity reporting periods are two weeks behind the current reporting period. For this report, severity reporting includes data up to 6 October 2024.
- While every care has been taken in preparing this report, the Australian Government Department of Health and Aged Care does not accept liability for any injury or loss or damage arising from the use of, or reliance upon, the content of the report or Technical Supplement. For further information about this report please refer to the Technical Supplement – Australian Respiratory Surveillance Report or contact respiratory.surveillance@health.gov.au.

1. Activity

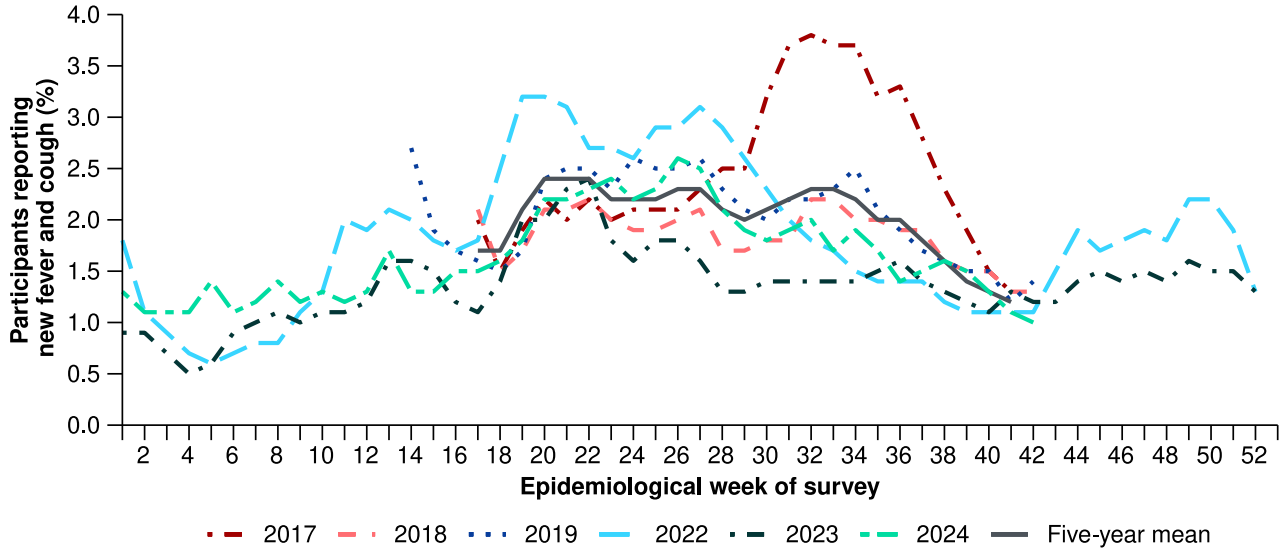
Activity measures the capacity of the circulating respiratory viruses to spread from person to person and may be measured indirectly through systems that monitor acute respiratory illnesses and more directly through systems that monitor cases.

1.1 Community-based surveillance

FluTracking

- This fortnight (7 October to 20 October 2024), the mean incidence of new fever and cough among FluTracking participants was 1.0%, a decrease compared with the mean incidence of 1.4% in the previous fortnight (Figure 1).
- In the year to date, the incidence of new fever and cough symptoms reported to FluTracking has fluctuated, peaking at 2.6% in late June 2024 (Figure 1).
- This fortnight, 13.7% (108/791) of FluTracking participants who reported new fever and cough symptoms reported testing for severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) with a polymerase chain reaction (PCR) test and 58.7% (464/791) reported testing with a rapid antigen test (RAT).
  - This fortnight, the self-reported percent positivity among participants with new fever and cough symptoms increased for SARS-CoV-2 PCR tests (11.1%; 12/108) and increased for RATs (28.4%; 132/464) compared with the previous fortnight (4.8% [8/165] and 24.1% [145/601] respectively).
- This fortnight, 18.5% (146/791) of FluTracking participants with new fever and cough symptoms reported testing for influenza with a PCR test.
  - This fortnight, the self-reported percent positivity among participants with new fever and cough symptoms decreased for influenza PCR tests (11.6%; 17/146), compared with the previous fortnight (17.5%; 39/223).

Figure 1: Age standardised percentage of FluTracking participants reporting new fever and cough symptoms compared with the five-year mean by year and week of report*, Australia, 2017 to 20 October 2024

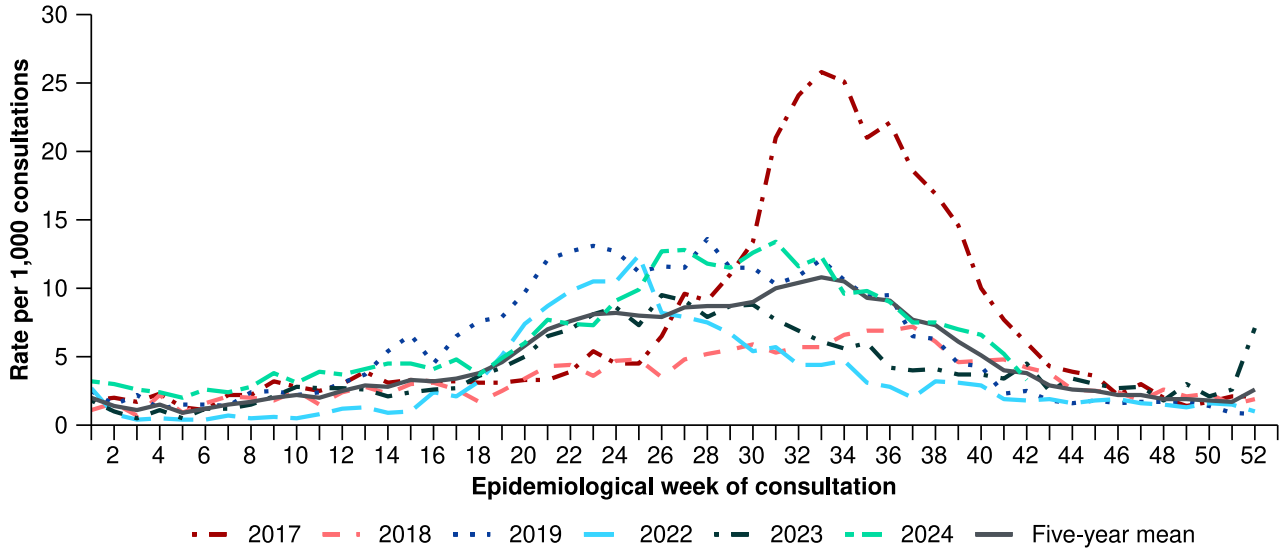


* FluTracking has expanded the reporting period from 2020 onwards due to COVID-19. As such, five-year historical comparisons are not available for data reported before May and after October for any year before 2020. The years 2020 and 2021 are excluded when comparing the current season to historical periods when influenza virus has circulated without public health restrictions. As such, the five-year mean includes the years 2017 to 2019 and 2022 to 2023. Please refer to the Technical Supplement for interpretation of the five-year mean and for notes on impact of COVID-19 on FluTracking data.

Australian Sentinel Practice Research Network (ASPREN)

- This fortnight (7 October to 20 October 2024), a mean rate of 4.2 per 1,000 consultations per fortnight due to new fever and cough symptoms were reported by ASPREN sentinel general practitioners and nurse practitioners. This is a decrease compared with 6.8 per 1,000 consultations in the previous fortnight (Figure 2).
- This fortnight, 62.0% (44/71) of people who presented with new fever and cough symptoms tested positive for a respiratory pathogen. Among those positive for a respiratory pathogen, the most common respiratory pathogen reported was rhinovirus (36.4%; 16/44). Other respiratory pathogens detected included human metapneumovirus (27.3%; 12/44), influenza (11.4%; 5/44), and SARS-CoV-2 (9.1%; 4/44).
- In the year to date, 67.2% (1,635/2,434) of people who presented with new fever and cough symptoms tested positive for a respiratory pathogen. Among those positive for a respiratory pathogen, the most common respiratory pathogen reported has been rhinovirus (30.0%; 490/1,635). Other respiratory pathogens detected included influenza (23.5%; 384/1,635), SARS-CoV-2 (11.5%; 188/1,635), RSV (8.8%; 144/1,635), human metapneumovirus (6.9%; 113/1,635) and *mycoplasma pneumoniae* (6.6%; 108/1,635).

Figure 2: Rate of new fever and cough symptoms per 1,000 consultations per week with ASPREN sentinel general practitioners and nurse practitioners compared with the five-year mean by year and week of consultation*†, Australia, 2017 to 20 October 2024



* The years 2020 and 2021 are excluded when comparing the current season to historical periods when influenza virus has circulated without public health restrictions. As such, the five-year mean includes the years 2017 to 2019 and 2022 to 2023. Please refer to the Technical Supplement for interpretation of the five-year mean.
† Please refer to the Technical Supplement for notes on impact of COVID-19 on ASPREN data.

1.2 Case-based surveillance

NNDSS

- Nationally, COVID-19 activity has been decreasing since early June 2024, but activity has plateaued across September and October 2024. All jurisdictions experienced relatively consistent timing of apparent peaks in COVID-19 activity across late May and June 2024.
- Nationally, influenza activity has decreased considerably since July 2024, and influenza activity has now returned to interseasonal levels. The peak of influenza activity in each jurisdiction varied across Australia, generally occurring between May and early August 2024. This trend has been observed across most jurisdictions, with the exception of the Northern Territory where another smaller increase in influenza activity was observed in early September 2024, following earlier peaks in April and May 2024.
- Nationally, RSV activity has been decreasing since late May 2024. As with influenza, this trend in RSV activity has not been consistent across all jurisdictions. Some jurisdictions reached a peak in April 2024, while other jurisdictions did not reach an apparent peak until either July or August 2024. Most jurisdictions have observed a consistent decrease in RSV activity since mid-July 2024, except Western Australia where RSV activity began decreasing after mid-August 2024.

Table 1: Notifications to the NNDSS and notification rate per 100,000 population by disease, five-year age group, and jurisdiction*†, Australia, 1 January to 20 October 2024

	COVID-19			Influenza			RSV	
	Reporting fortnight (n)	Year to date (n)	Year to date (rate)	Reporting fortnight (n)	Year to date (n)	Year to date (rate)	Reporting fortnight (n)	Year to date (n)	Year to date (rate)
Age group (years)									
0–4	580	19,767	1,303.9	285	47,519	3,134.5	981	80,870	5,334.4
5–9	163	5,762	357.8	275	50,775	3,152.9	130	13,744	853.5
10–14	165	5,918	357.1	199	32,763	1,976.8	106	6,976	420.9
15–19	214	7,145	444.1	163	21,853	1,358.3	54	3,703	230.2
20–24	273	8,112	468.4	155	16,878	974.5	50	2,683	154.9
25–29	328	10,375	539.9	175	19,022	989.9	51	3,038	158.1
30–34	354	12,392	625.0	193	21,078	1,063.2	61	3,939	198.7
35–39	389	13,519	697.6	204	22,931	1,183.3	62	4,011	207.0
40–44	380	12,930	726.3	195	20,584	1,156.3	53	3,418	192.0
45–49	339	11,803	731.2	159	15,829	980.6	81	3,319	205.6
50–54	354	12,607	750.3	145	14,859	884.3	94	4,140	246.4
55–59	349	12,326	809.0	110	12,829	842.0	74	4,024	264.1
60–64	367	13,149	866.9	148	12,493	823.7	93	4,659	307.2
65–69	408	13,850	1,043.7	119	10,106	761.6	99	4,561	343.7
70+	2,299	84,227	2,607.7	400	30,552	945.9	473	19,818	613.6
Jurisdiction									
ACT	105	3,984	853.4	48	4,659	998.0	24	2,636	564.7
NSW	2,854	108,144	1,296.8	810	156,769	1,879.9	881	69,125	828.9
NT	47	2,339	926.4	47	3,223	1,276.6	24	1,409	558.1
Qld	1,432	55,868	1,023.3	498	77,003	1,410.5	741	37,510	687.1
SA	402	15,608	842.9	366	21,281	1,149.3	181	11,578	625.3
Tas.	148	3,871	675.8	105	3,784	660.6	68	2,572	449.0
Vic.	1,807	41,499	609.2	741	67,541	991.4	314	29,484	432.8
WA	303	12,889	447.8	311	15,843	550.4	231	8,610	299.1
Total	**7,098**	**244,202**	**916.7**	**2,926**	**350,103**	**1,314.3**	**2,464**	**162,924**	**611.6**

* Rate per 100,000 population for the given time period. Population data are based on the Australian Bureau of Statistics (ABS) Estimated Resident Population (ERP) as at June 2023.
† Total includes cases with missing age.

- This year to date, COVID-19 notifications followed an increasing trend from late March to an apparent peak in early June 2024. COVID-19 notifications decreased from June to August, but have plateaued across September and October 2024 (Figure 3). This trend has been observed across all jurisdictions with little variation in the timing of peaks (Figure 4).
- In the year to date, there have been 244,202 COVID-19 notifications reported to the NNDSS. This is lower than the number of laboratory-confirmed notifications in the same period in 2023; however, this trend should be interpreted with caution due to a reduction in case ascertainment and reporting in all jurisdictions (Figure 3).
- In the year to date, COVID-19 notification rates have been highest in people aged 70 years or over years, followed by people aged 0–4 years (Table 1).
  - The trend for older age groups is likely to be a reflection of higher case ascertainment due to targeted testing strategies in place for populations at-risk of severe disease and who live in a high-risk setting, such as a residential aged care facility.
- This fortnight, minor increases in COVID-19 notification rates have been observed across most jurisdictions compared with the previous fortnight, except in the New South Wales and Western Australia where slight decreases in COVID-19 notification rates were observed compared with the previous fortnight (Figure 4).

Figure 3: COVID-19 cases notified to the NNDSS showing (A) laboratory-confirmed and probable cases in all pandemic years 2020–2024 and (B) laboratory-confirmed cases in recent pandemic years 2023 and 2024 by year and week of diagnosis, Australia, 1 January 2020 to 20 October 2024

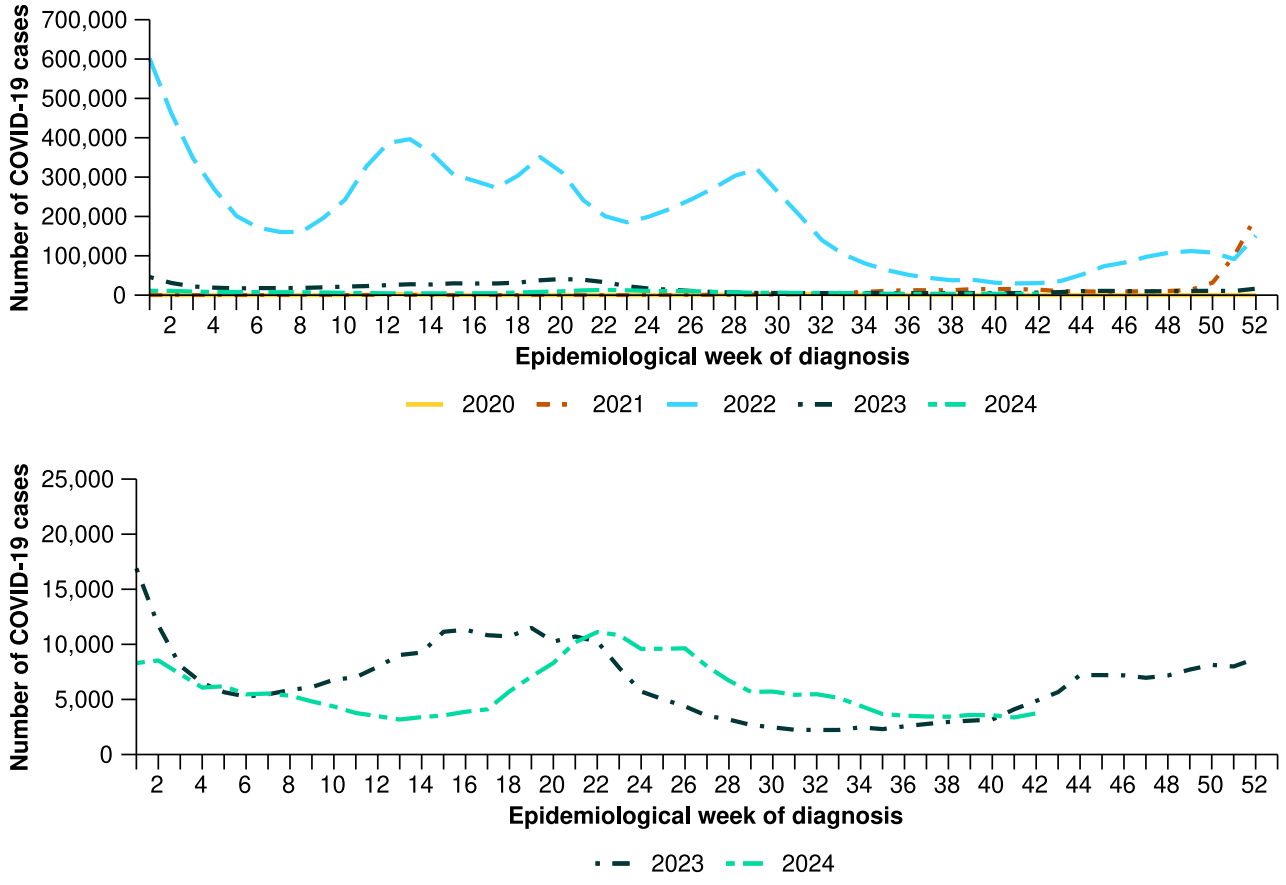
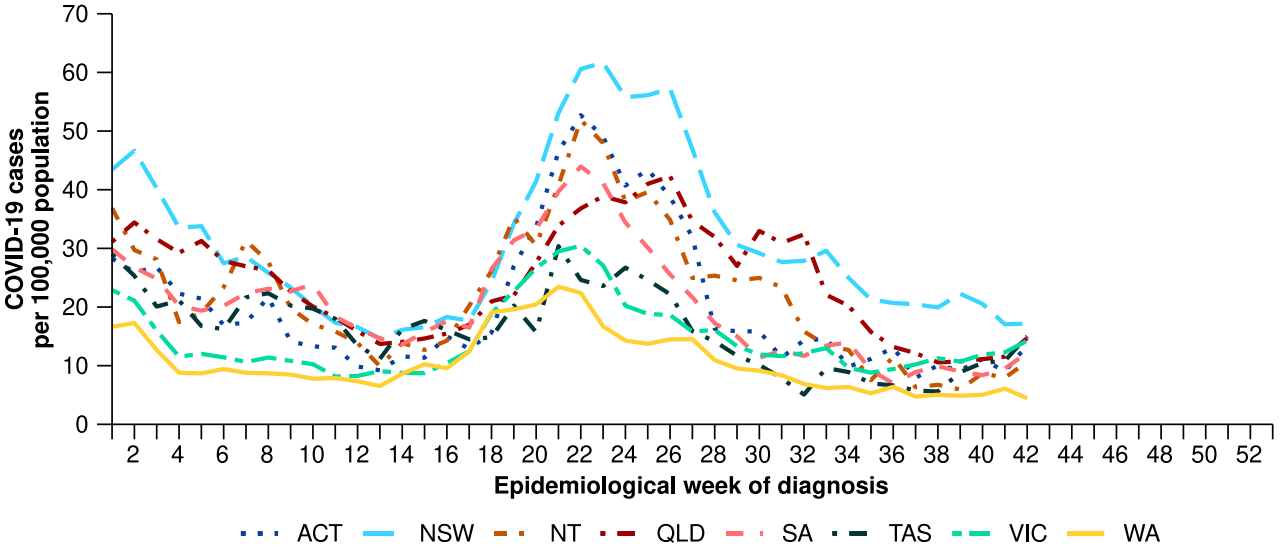


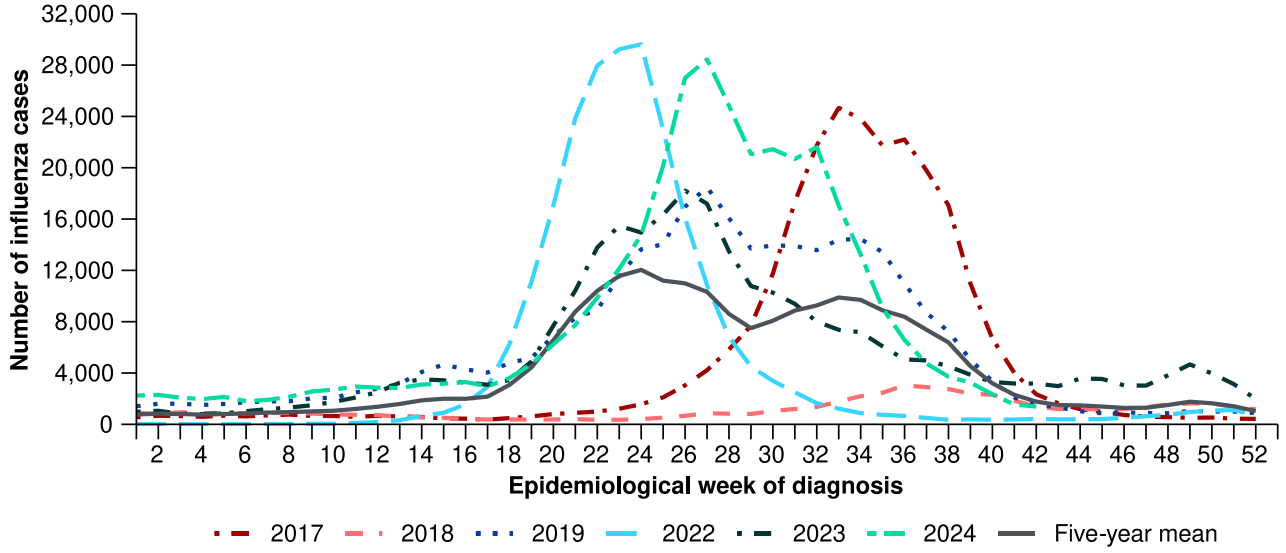
Figure 4: Notification rates per 100,000 population for COVID-19 cases notified to the NNDSS* by state or territory and week of diagnosis, Australia, 1 January to 20 October 2024



* Rate per 100,000 population for the given time period. Population data are based on the ABS ERP as at June 2023.

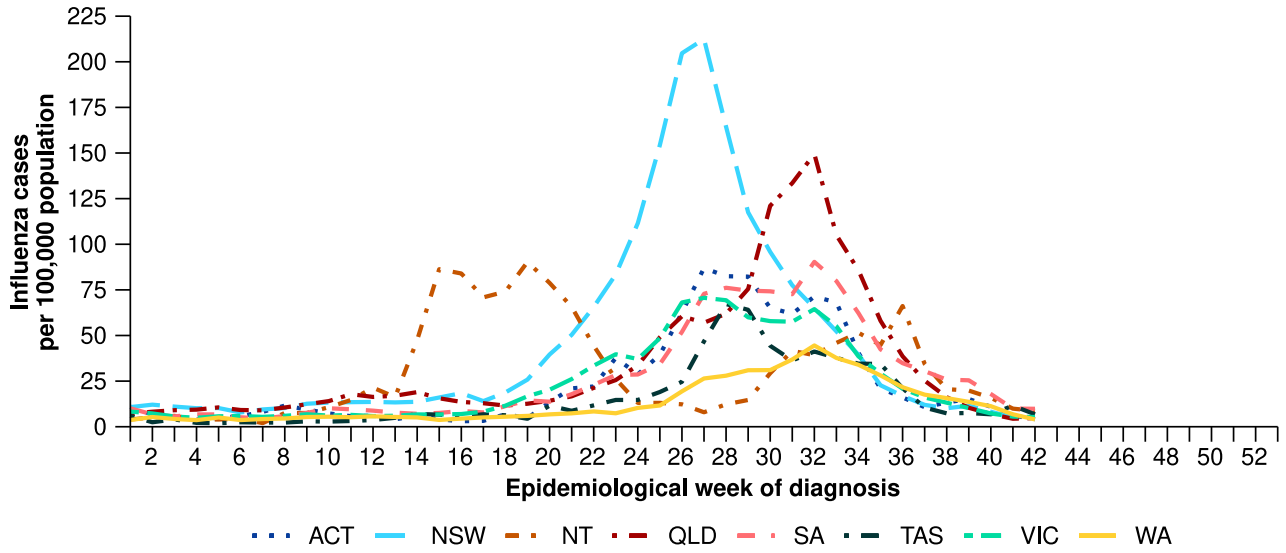
- Nationally, there has been an increase in influenza notifications from late April to a peak in early July 2024 (Figure 5). This trend, however, has not been consistent with the timing of peaks in notifications varying across jurisdictions, occurring between May and early August 2024 (Figure 6).
- Since July 2024, influenza notifications have decreased considerably and have now returned to interseasonal levels (Figure 5). This trend has been observed across most jurisdictions, with the exception of the Northern Territory where another smaller increase in influenza notifications was observed in early September 2024, following earlier peaks in April and May 2024 (Figure 6).
- In the year to date, there have been 350,103 influenza notifications reported to the NNDSS, which is higher than the number of notifications in the same period in all other years and the five-year mean (Figure 5).
- In the year to date, influenza notification rates have been highest in children aged 5–9 years, followed closely by children aged 0–4 years (Table 1).
- This fortnight, influenza notification rates have continued to decrease or plateau across most jurisdictions compared with the previous fortnight, except in Tasmania where a slight increase was observed compared with the previous fortnight (Figure 6).

Figure 5: Influenza cases notified to the NNDSS and five-year mean* by year and week of diagnosis, Australia, 2017 to 20 October 2024



* The years 2020 and 2021 are excluded when comparing the current season to historical periods when influenza virus has circulated without public health restrictions. As such, the five-year mean includes the years 2017 to 2019 and 2022 to 2023. Please refer to the Technical Supplement for interpretation of the five-year mean.

Figure 6: Notification rates per 100,000 population for influenza cases notified to the NNDSS* by state or territory and week of diagnosis, Australia, 1 January to 20 October 2024



* Rate per 100,000 population for the given time period. Population data are based on the ABS ERP as at June 2023.

- This year to date, RSV notifications increased from January through to a peak in late May 2024, after which notifications have followed a decreasing trend (Figure 7). This trend in RSV notifications has not been consistent across all jurisdictions. Some jurisdictions (the Northern Territory) reached a peak in April 2024, while other jurisdictions (South Australia, Tasmania and Western Australia) did not reach a peak until either July or August 2024 (Figure 8).
- Most jurisdictions have observed a consistent decrease in RSV notifications since mid-July 2024, except Western Australia where RSV notifications began decreasing after mid-August 2024 (Figure 8).

- In the year to date, there have been 162,924 RSV notifications reported to the NNDSS, which is almost 1.4 times the number of RSV notifications in the same period in 2023 (Figure 7).
- In the year to date, RSV notification rates have been highest in children aged 0–4 years, followed by children aged 5–9 years (Table 1).
- This fortnight, RSV notification rates appear to be decreasing across all jurisdictions compared with the previous fortnight (Figure 8).

Figure 7: RSV cases notified to the NNDSS by year and week of diagnosis*, Australia, 2023 to 20 October 2024

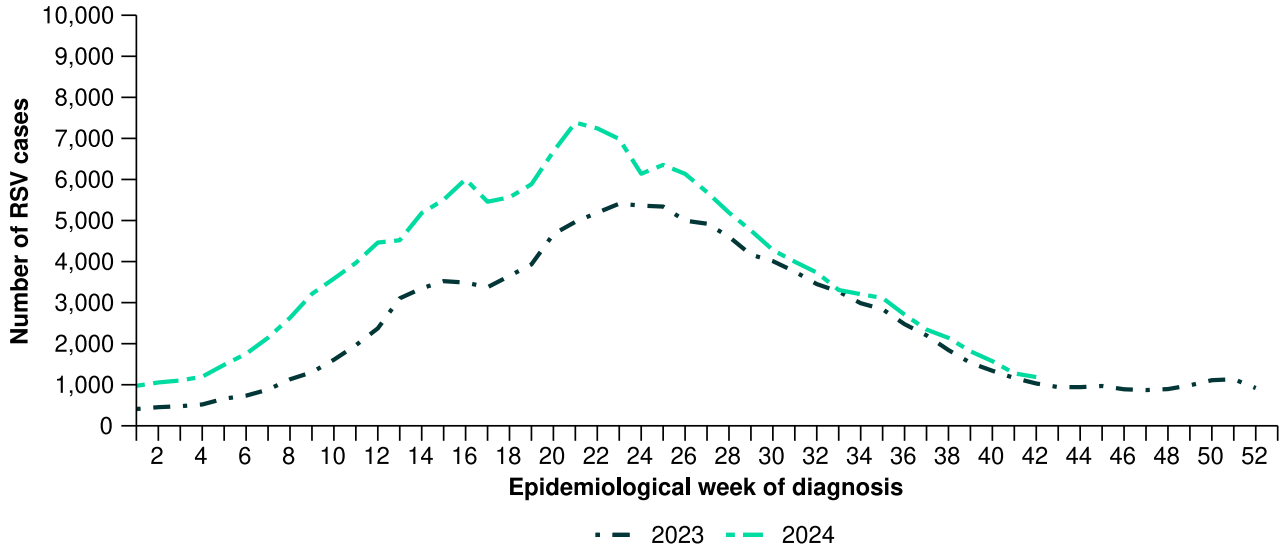
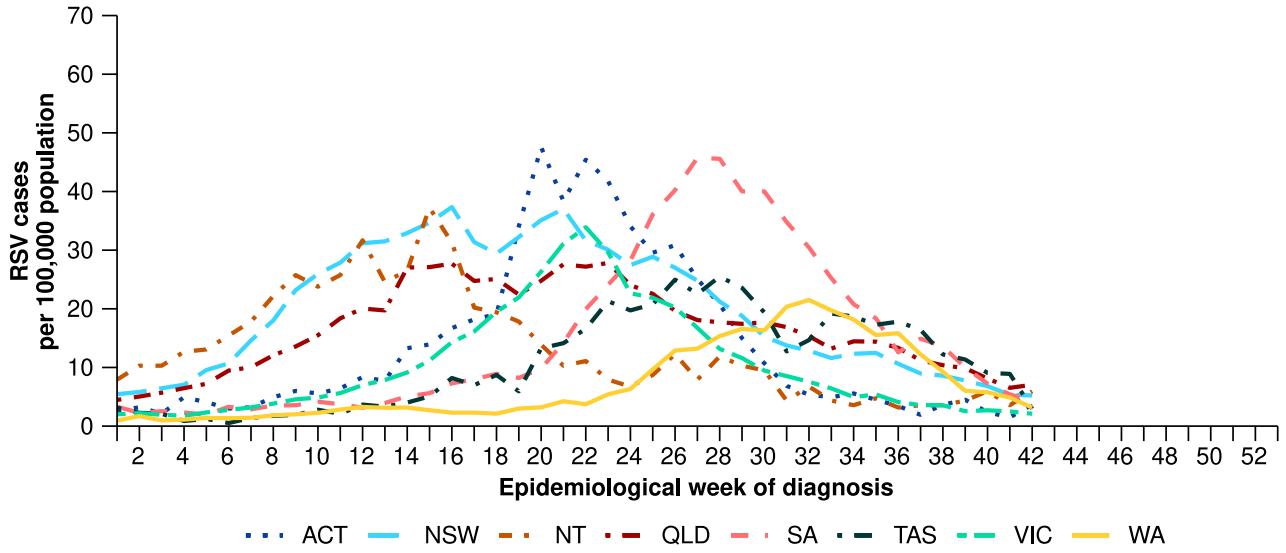


Figure 8: Notification rates per 100,000 population for RSV cases notified to the NNDSS* by state or territory and week of diagnosis, Australia, 1 January to 20 October 2024



* Rate per 100,000 population for the given time period. Population data are based on the ABS ERP as at June 2023.

2. Severity*

The severity of acute respiratory infections is measured as those who are hospitalised, admitted to intensive care, or have died. Measuring and understanding severity quantifies the most significant health impacts of circulating respiratory viruses.

2.1 Hospital-based surveillance

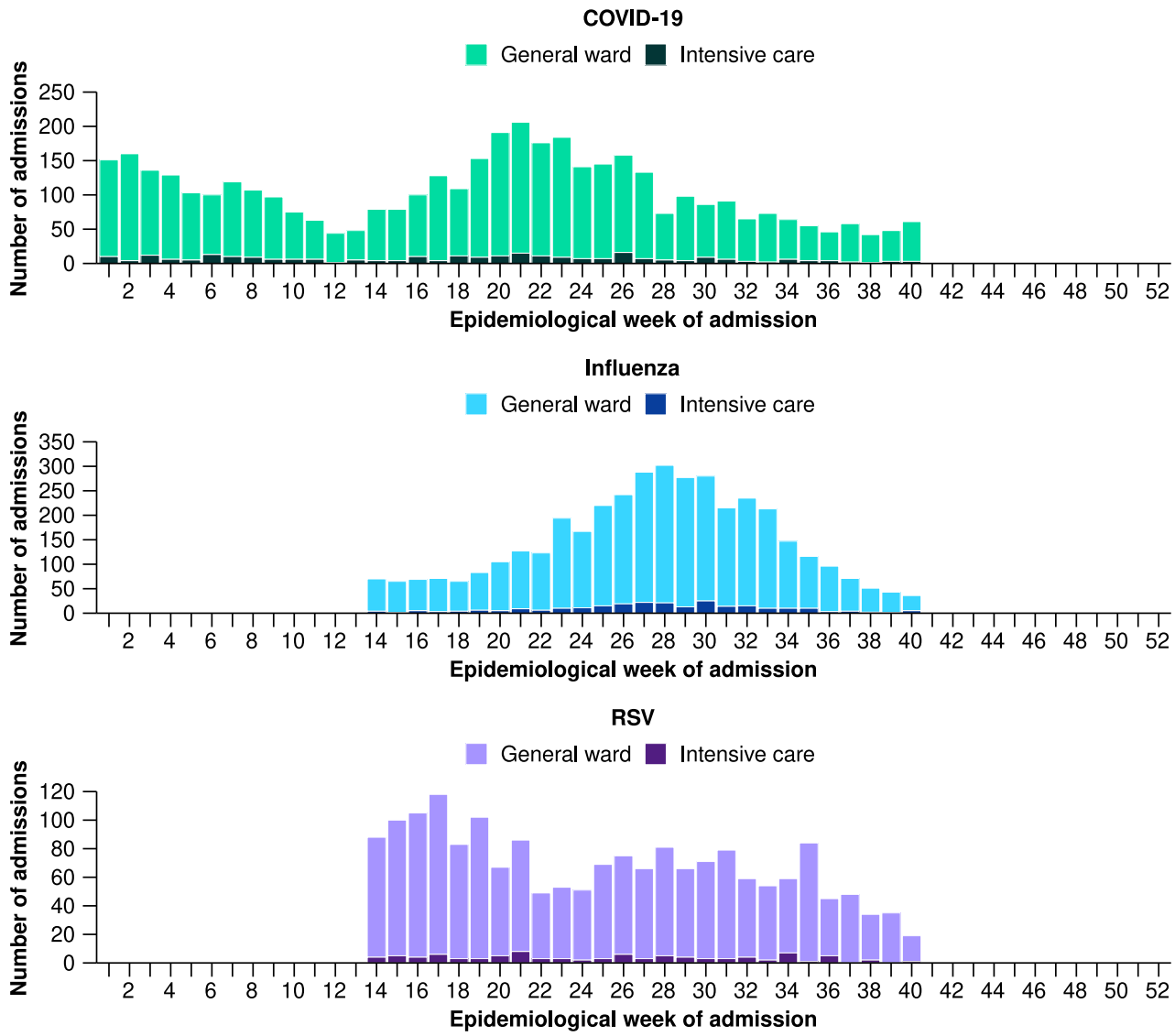
In interpreting data from hospital-based sentinel systems, it is important to note these data reflect the sickest patients with severe acute respiratory infections who are hospitalised or admitted to intensive care; data are therefore not generalisable to all cases or patients in hospital.

Influenza Complications Alert Network (FluCAN)

- In this fortnight for FluCAN severity reporting (23 September to 6 October 2024), there were 242 patients admitted with a severe acute respiratory infection (SARI) to FluCAN sentinel hospitals, of whom 5.4% (13/242) were admitted directly to intensive care (Figure 9).
- In the year to date for FluCAN severity reporting (1 January to 6 October 2024), 6.2% (618/9,991) of patients admitted with a SARI to FluCAN sentinel hospitals have been admitted directly to intensive care (Figure 9).
- In the year to date for FluCAN severity reporting, 6.5% (270/4,174) of patients admitted with COVID-19 to FluCAN sentinel hospitals have been admitted directly to intensive care (Figure 9). This excludes one patient with COVID-19 admitted to FluCAN sentinel hospitals with a missing admission location.
  - For patients admitted with COVID-19 to FluCAN sentinel hospitals, the median length of stay in hospital was 3 days (interquartile range [IQR]: 2–7 days).
- Since influenza surveillance commenced on 1 April 2024 to date for FluCAN severity reporting, 6.4% (253/3,971) of patients admitted with influenza to FluCAN sentinel hospitals have been admitted directly to intensive care (Figure 9).
  - For patients admitted with influenza to FluCAN sentinel hospitals, the median length of stay in hospital was 2 days (IQR: 1–4 days).
- Since RSV surveillance commenced on 1 April 2024 to date for FluCAN severity reporting, 5.1% (95/1,846) of patients admitted with RSV to FluCAN sentinel hospitals have been admitted directly to intensive care (Figure 9).
  - For patients admitted with RSV to FluCAN sentinel hospitals, the median length of stay in hospital was 2 days (IQR: 1–4 days).

* To account for the lag in collection and provision of severity data from some surveillance systems, and for the time delay between illness onset and the development of severe disease, cases with a diagnosis date in the last two weeks are excluded from severity analyses which include analyses of hospitalisations, intensive care admissions and deaths. For this reason, the severity reporting periods are two weeks behind the current reporting period.

Figure 9: Number of patients admitted with a severe acute respiratory infection to FluCAN sentinel hospitals by disease, admission location and week of admission*†‡, Australia, 1 January to 6 October 2024



* Axis varies between disease groups.
† Excludes one patient with a severe acute respiratory infection admitted to FluCAN sentinel hospitals with a missing admission location.
‡ Admission location reflects the initial admission ward; some patients may be initially admitted to general ward then later admitted to an intensive care and this is not reflected here.

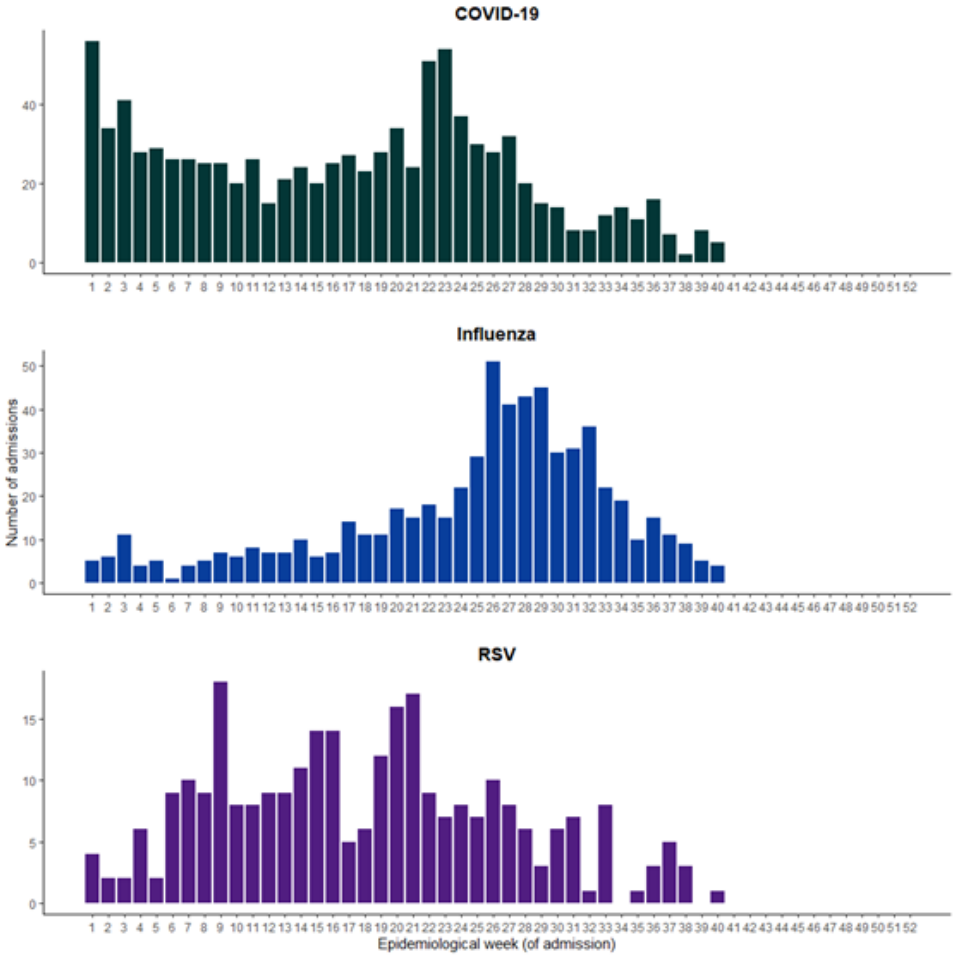
Short Period Incidence Study of Severe Acute Respiratory Infection (SPRINT-SARI) Australia

- In the most recent 28-day period for SPRINT-SARI severity reporting (9 September to 6 October 2024), there were 126 patients admitted with a SARI to a SPRINT-SARI sentinel intensive care (Figure 10).
- In the year to date for SPRINT-SARI severity reporting (1 January to 6 October 2024), there have been 2,399 patients admitted with a SARI to a SPRINT-SARI sentinel intensive care (Figure 10). This includes:
  - 39.6% (949/2,399) patients with SARS-CoV-2
  - 26.0% (623/2,399) patients with influenza

  - 11.8% (284/2,399) patients with RSV
  - 24.8% (594/2,399) patients with other respiratory pathogens including parainfluenza and rhinovirus.

- Approximately 2.0% (49/2,399) of patients had co-infections of multiple pathogens; therefore, the sum of pathogen-specific totals above may not equal the total number of patients.
- In the year to date for SPRINT-SARI severity reporting, for all patients admitted with a SARI to a SPRINT-SARI sentinel intensive care, the median duration of mechanical ventilation was 3.6 days (IQR: 1.4–7.9 days), the median length of stay in intensive care was 3.0 days (IQR: 1.7–5.7 days), and the median length of stay in hospital was 8.2 days (IQR: 4.7–15.7 days).
- In the year to date for SPRINT-SARI severity reporting, most patients admitted with a SARI (71.7%; 1,719/2,399) have been discharged home, 7.8% (188/2,399) died in intensive care and 3.7% (88/2,399) died within a general hospital ward after intensive care admission, with an overall in-hospital mortality rate of 11.5% (276/2,399) for all patients admitted with a SARI to a SPRINT-SARI sentinel intensive care.
  - Note, deaths in patients admitted with a SARI to a SPRINT-SARI sentinel intensive care may not necessarily represent a death due to SARI.

Figure 10: Number of patients admitted with severe acute respiratory infections to a SPRINT-SARI sentinel intensive care by disease*† and week of admission, Australia, 1 January to 6 October 2024



* Axis varies between disease groups.
† Includes 13 patients with viral co-infection of SARS-CoV-2/influenza/RSV in the year to date for severity reporting.

Table 2: Outcomes for patients admitted with a severe acute respiratory infection(s) to a SPRINT-SARI sentinel intensive care by disease*†‡, Australia, 1 January to 6 October 2024

	COVID-19		Influenza		RSV		Other	
	Severity reporting period (n=22)	Year to date for severity reporting (n=949)	Severity reporting period (n=29)	Year to date for severity reporting (n=623)	Severity reporting period (n=9)	Year to date for severity reporting (n=284)	Severity reporting period (n=68)	Year to date for severity reporting (n=594)
Received invasive mechanical ventilation								
Number (%)	5 (22.7%)	302 (31.8%)	14 (48.3%)	230 (36.9%)	2 (22.2%)	72 (25.4%)	21 (30.9%)	183 (30.8%)
Duration of invasive mechanical ventilation (days)								
Median [IQR]	2.6 [0.7–6.7]	2.7 [1.0–7.4]	2.8 [1.1–5.7]	5.2 [1.8–10]	N/A	3.5 [1.7–5.9]	1.9 [0.8–4.8]	3.5 [1.5–6.5]
Length of intensive care stay (days)								
Median [IQR]	2.3 [1.7–4.0]	3.0 [1.7–5.6]	3.5 [2.0–7.7]	3.6 [2.0–7.0]	2.5 [1.8–3.0]	2.6 [1.6–4.6]	2.4 [1.5–4.1]	2.7 [1.5–5.5]
Length of hospital stay (days)								
Median [IQR]	8.2 [5.2–11]	9.6 [5.2–18]	9.8 [5.4–18]	8.9 [5.2–16]	7.5 [6.1–8.8]	6.7 [4.0–12]	5.3 [3.9–7.8]	6.7 [3.5–13]
Patient outcome								
Ongoing care in intensive care	7 (31.8%)	21 (2.2%)	2 (6.9%)	14 (2.2%)	1 (11.1%)	4 (1.4%)	8 (11.8%)	11 (1.9%)
Ongoing care in hospital ward*	2 (9.1%)	11 (1.2%)	1 (3.4%)	9 (1.4%)	Nil	4 (1.4%)	9 (13.2%)	10 (1.7%)
Transfer to other hospital or facility	0 (0%)	84 (8.9%)	2 (6.9%)	48 (7.7%)	Nil	23 (8.1%)	2 (2.9%)	41 (6.9%)
Transfer to rehabilitation	1 (4.5%)	65 (6.8%)	3 (10.3%)	28 (4.5%)	Nil	4 (1.4%)	Nil	18 (3.0%)
Discharge home	8 (36.4%)	608 (64.1%)	19 (65.5%)	456 (73.2%)	8 (88.9%)	230 (81.0%)	45 (66.2%)	467 (78.6%)
Death† – intensive care†	3 (13.6%)	94 (9.9%)	1 (3.4%)	52 (8.3%)	Nil	14 (4.9%)	3 (4.4%)	33 (5.6%)
Death† – hospital ward†	1 (4.5%)	57 (6.0%)	1 (3.4%)	14 (2.2%)	Nil	4 (1.4%)	1 (1.5%)	13 (2.2%)
Missing‡	Nil	9 (0.9%)	Nil	2 (0.3%)	Nil	1 (0.4%)	Nil	1 (0.2%)

Note: Includes two patients with viral co-infection of multiple pathogens in the 28-day severity reporting period and 49 patients with viral co-infection of multiple pathogens in the year to date for severity reporting. For patients whom are still receiving treatment in intensive care data may not be complete; therefore, data are not included in the duration of ventilation or length of intensive care stay.
* Patients who have been admitted in intensive care/hospital wards with no discharge information for less than 90 days have been assumed to have ongoing care in the hospital.
† Death may not necessarily represent a death due to the disease.
‡ Patients who have no outcome entered or have been admitted to intensive care/hospital wards for more than 90 days with no discharge information have been treated as missing.

2.2 Case-based surveillance

NNDSS

- In the year to date for severity reporting (1 January to 6 October 2024), mortality rates for COVID-19, influenza and RSV associated deaths in cases notified to the NNDSS have been highest in those aged 70 years or over (Table 3).

Table 3: Notifications of deaths to the NNDSS and mortality rates per 100,000 population by disease and ten-year age groups*†‡, Australia, 1 January to 6 October 2024

	COVID-19		Influenza		RSV	
Age group (years)	Year to date (n)	Year to date (rate)	Year to date (n)	Year to date (rate)	Year to date (n)	Year to date (rate)
0–9	–	–	7	0.2	–	–
10–19	–	–	–	–	–	–
20–29	–	–	–	–	–	–
30–39	8	0.2	–	–	–	–
40–49	18	0.5	11	0.3	–	–
50–59	50	1.6	23	0.7	8	0.2
60–69	128	4.5	50	1.8	12	0.4
70+	1,695	52.5	361	11.2	127	3.9
Total	**1,903**	**7.1**	**461**	**1.7**	**155**	**0.6**

Note: To reduce the risk of re-identification, primary cell suppression has been applied to cells with a count of < 5.
* Rate per 100,000 population for the given time period. Population data are based on the ABS ERP as at June 2023.
† Notified deaths are reported based on diagnosis date not date of death, as date of death data are not collected for influenza or RSV in the NNDSS. Death may not necessarily represent a death due to the disease and notified deaths are likely to be an underrepresentation of the true mortality associated with COVID-19, influenza and RSV. In addition, notified deaths may not be representative of deaths in each jurisdiction as data is sourced in different ways by state and territories based on their local surveillance system capabilities, definitions, priorities, and needs. For more detail, please refer to reports and data considerations published by individual jurisdictions, or the Technical Supplement – Australian Respiratory Surveillance Report.
‡ Total may include cases with missing age.

3. At-risk populations*

At-risk populations are people who may be more susceptible to infection with circulating respiratory viruses and/or who may be more likely to experience severe disease associated with their infection.

3.1 Hospital-based surveillance

In interpreting data from hospital-based sentinel systems, it is important to note these data reflect the sickest patients with severe acute respiratory infections who are hospitalised or admitted to intensive care; data are therefore not generalisable to all cases or patients in hospital.

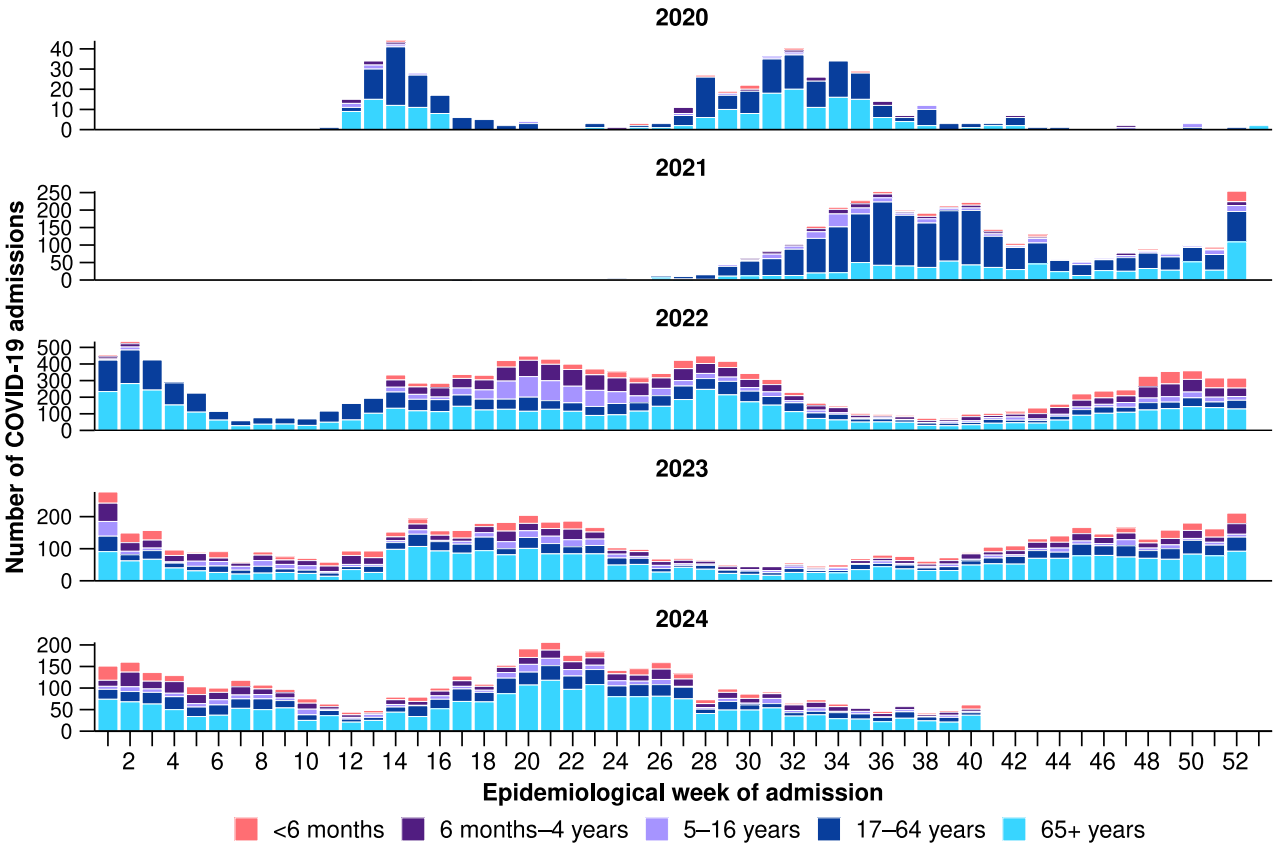
FluCAN

There are a higher proportional number of paediatric hospitals that contribute to the FluCAN dataset. Hospital admissions in children 16 years of age or less are over-represented to provide enhanced surveillance on this at-risk population. For this reason, paediatric (16 years of age or less) and adult (> 16 years of age) patients in the FluCAN dataset are reported on separately, though all age groups are displayed together in figures. Please note, the age distribution of hospital admissions in the FluCAN sentinel surveillance system may not reflect the age distribution of admissions nationally.

- In the year to date for FluCAN severity reporting (1 January to 6 October 2024), there have been 1,247 paediatric patients admitted with COVID-19 to FluCAN sentinel hospitals (Figure 11). The median age at admission was 1 years (IQR: 0–4 years) and 6.8% (85/1,247) of admissions were among Aboriginal and Torres Strait Islander people.
    - The highest proportion of paediatric patients admitted with COVID-19 to FluCAN sentinel hospitals with a direct admission to intensive care has been in those aged 5–16 years.
- In the year to date for FluCAN severity reporting, there have been 2,928 adult patients admitted with COVID-19 to FluCAN sentinel hospitals (Figure 11). The median age at admission was 75 years (IQR: 63–84 years) and 3.6% (105/2,928) of admissions were among Aboriginal and Torres Strait Islander people.
    - The highest proportion of adult patients admitted with COVID-19 to FluCAN sentinel hospitals with a direct admission to intensive care has been in those aged 65+ years.

* To account for the lag in collection and provision of severity data from some surveillance systems, and for the time delay between illness onset and the development of severe disease, cases with a diagnosis date in the last two weeks are excluded from severity analyses which include analyses of hospitalisations, intensive care admissions and deaths. For this reason, the severity reporting periods are two weeks behind the current reporting period.

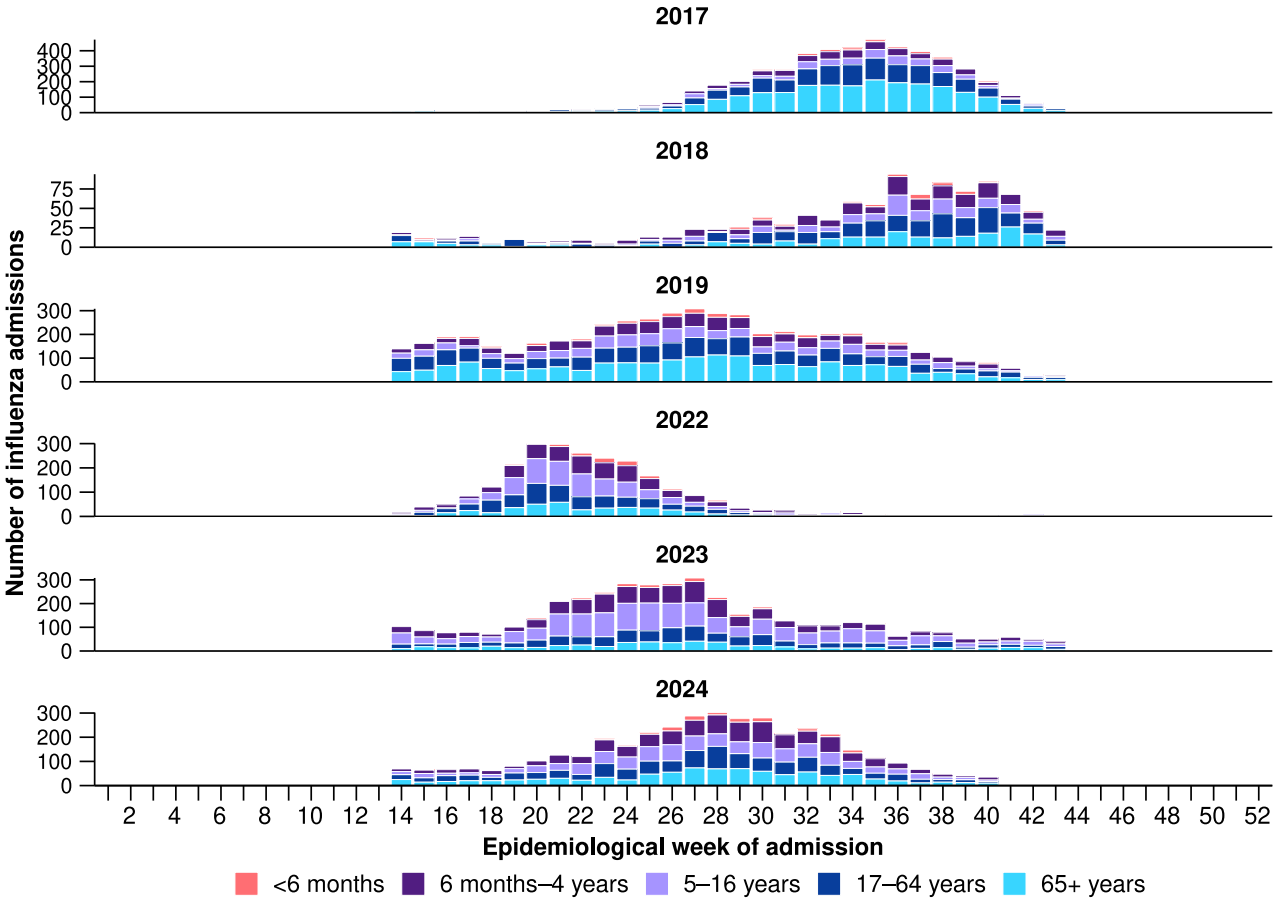
Figure 11: Number of patients admitted with confirmed COVID-19 to FluCAN sentinel hospitals by age group, year and week of admission*, Australia, 2020 to 6 October 2024



* Axis varies between years.

- Since influenza surveillance commenced on 1 April 2024 to date for FluCAN severity reporting (6 October 2024), there have been 2,087 paediatric patients admitted with influenza to FluCAN sentinel hospitals (Figure 12). The median age at admission was 4 years (IQR: 1–7 years) and 7.6% (159/2,087) of admissions were among Aboriginal and Torres Strait Islander people.
  - The highest proportion of paediatric patients with influenza admitted to FluCAN sentinel hospitals with a direct admission to intensive care has been in those aged 5–16 years.
- Since influenza surveillance commenced on 1 April 2024 to date for FluCAN severity reporting, there have been 1,884 adult patients admitted with influenza to FluCAN sentinel hospitals (Figure 12). The median age at admission was 64 years (IQR: 47–77 years) and 11.6% (219/1,884) of admissions were among Aboriginal and Torres Strait Islander people.
  - The highest proportion of adult patients with influenza admitted to FluCAN sentinel hospitals with a direct admission to intensive care has been in those aged 17–64 years.

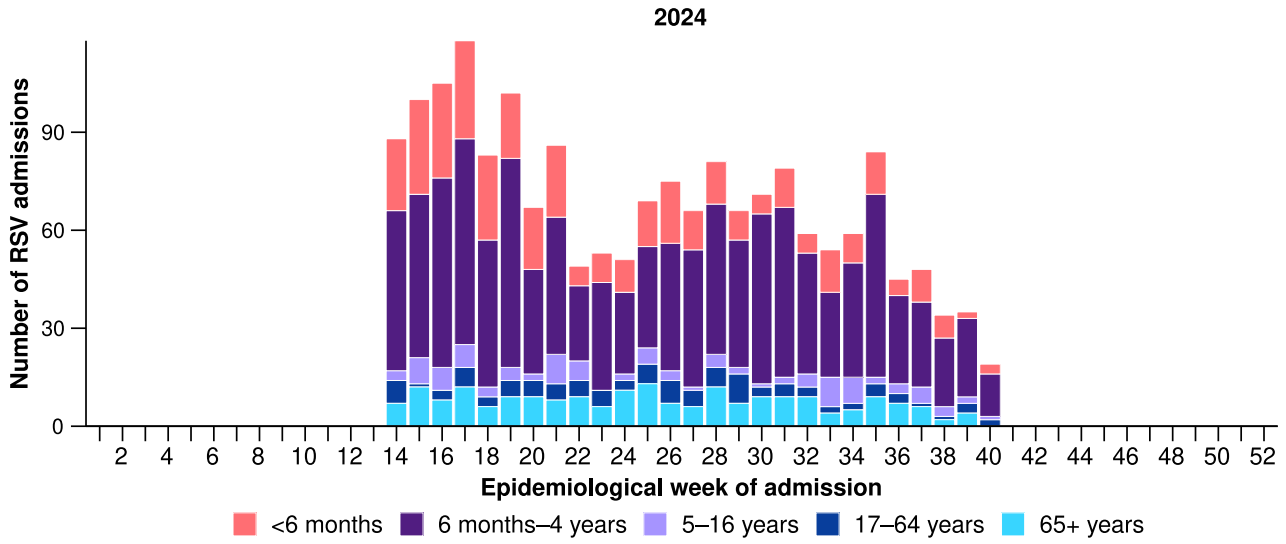
Figure 12: Number of patients admitted with confirmed influenza to FluCAN sentinel hospitals by age group, year and week of admission*†, from April to October, 2017 to 6 October 2024



* Axis varies between years.
† The years 2020 and 2021 are excluded when comparing the current season to historical periods when influenza virus has circulated without public health restrictions. Please refer to the Technical Supplement for further detail.

- Since RSV surveillance commenced on 1 April 2024 to date for FluCAN severity reporting (6 October 2024), there have been 1,531 paediatric patients admitted with RSV to FluCAN sentinel hospitals (Figure 13). The median age at admission was 1 years (IQR: 0–2 years) and 6.0% (92/1,531) of admissions were among Aboriginal and Torres Strait Islander people.
  - The highest proportion of paediatric patients with RSV admitted to FluCAN sentinel hospitals with a direct admission to intensive care has been in those aged 6 months–4 years.
- Since RSV surveillance commenced on 1 April 2024 to date for FluCAN severity reporting, there have been 315 adult patients admitted with RSV to FluCAN sentinel hospitals (Figure 13). The median age at admission was 71 years (IQR: 56–82 years) and 15.2% (48/315) of admissions were among Aboriginal and Torres Strait Islander people.
  - The highest proportion of adult patients with RSV admitted to FluCAN sentinel hospitals with a direct admission to intensive care has been in those aged 17–64 years.

Figure 13: Number of patients admitted with confirmed RSV to FluCAN sentinel hospitals by age group, year and week of admission, Australia, 1 April to 6 October 2024



Paediatric Active Enhanced Disease Surveillance (PAEDS)

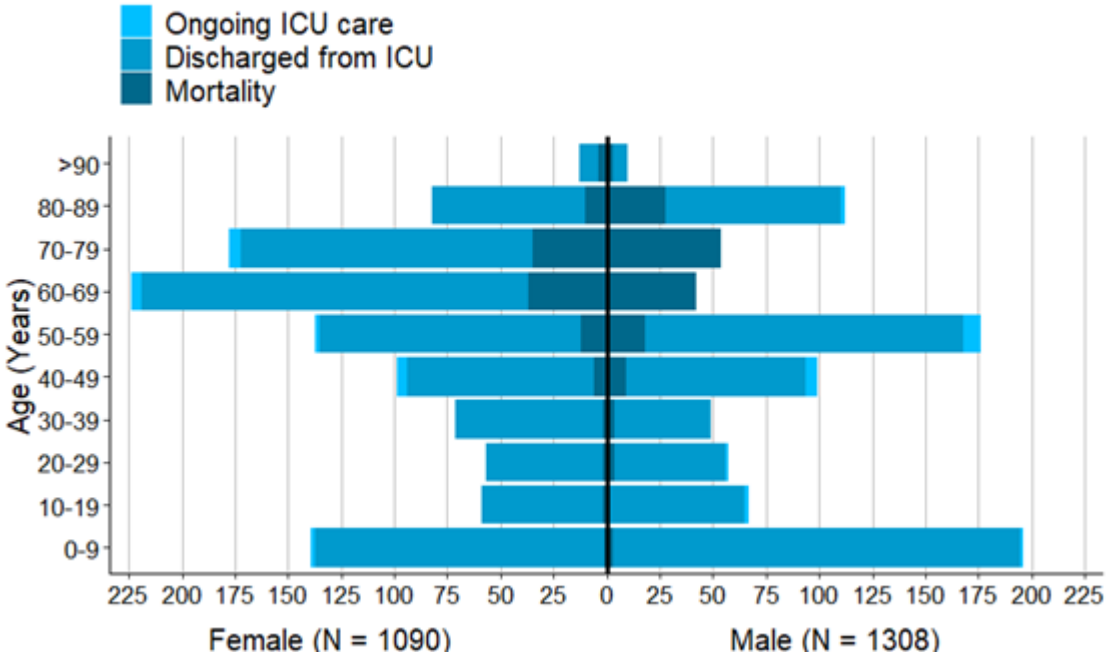
- Since the start of the COVID-19 pandemic to date for PAEDS severity reporting (1 January 2020 to 6 October 2024), there have been 203 cases of possible, probable, or confirmed paediatric inflammatory multisystem syndrome – temporally associated with SARS-CoV-2 (PIMS-TS) admitted to PAEDS sentinel hospitals. To date for severity reporting, there have been no PIMS-TS associated deaths.
- Since the start of the COVID-19 pandemic to date for PAEDS severity reporting, the highest proportion of PIMS-TS cases occurred in 2022 (65.0%; 132/203), followed by 2021 (14.8%; 30/203). In the year to date for PAEDS severity reporting there have been 13 PIMS-TS cases reported, with the last PIMS-TS case reported in August 2024.
- The majority of PIMS-TS cases have occurred in those aged 5 to < 12 years (52.7%; 107/203), followed by those aged 6 months to < 5 years (27.6%; 56/203). Approximately 5.4% (11/203) of PIMS-TS cases occurred among Aboriginal and Torres Strait Islander people.

SPRINT-SARI Australia

- In this 28-day period for SPRINT-SARI severity reporting (9 September to 6 October 2024), there have been 126 patients admitted with a SARI to a SPRINT-SARI sentinel intensive care. The median age at admission was 62 years (IQR: 38–73 years) and 7.9% (10/126) of patients admitted with a SARI were among Aboriginal and Torres Strait Islander people.
- In the year to date for SPRINT-SARI severity reporting (1 January to 6 October 2024), there have been 2,399 patients admitted with a SARI to a SPRINT-SARI sentinel intensive care. The median age at admission was 59 years (IQR: 31–71 years) and 54.5% (1,308/2,399) of patients admitted with a SARI have been male. Of the patients admitted with a SARI to a SPRINT-SARI sentinel intensive care, 7.0% (168/2,399) have been among Aboriginal and Torres Strait Islander people.
- In the year to date for SPRINT-SARI severity reporting, there have been 276 patients admitted with a SARI to a SPRINT-SARI sentinel intensive care who died in hospital. The majority of deaths were in patients aged 60 years or over: 28.6% (79/276) were aged 60–69

years, 32.2% (89/276) were aged 70–79 years, 13.8% (38/276) were aged 80–89 years, and 2.5% (7/276) were aged 90 years or over (Figure 14).

Figure 14: Number of patients admitted with severe acute respiratory infections to a SPRINT-SARI sentinel intensive care by age group, sex and outcome*†‡, Australia, 1 January to 6 October 2024



* The age and sex distribution of severe acute respiratory infection (SARI) intensive care admissions in the SPRINT-SARI Australia sentinel surveillance system may not reflect the age or sex distribution of all patients admitted with a SARI nationally. In addition, if data are missing or a patient does not identify as either female or male, the sum of gender-specific totals above may not equal the total number of patients.
† Ongoing care reflects the need for ongoing care in intensive care. Where a patient has been discharged from intensive care, the patient may still be receiving ongoing care in a hospital ward.
‡ Death may not necessarily represent a death due to the disease.

3.2 Case-based surveillance

NNDSS

The ascertainment of Indigenous status in the NNDSS for influenza and RSV, and more recently for COVID-19, remains insufficient for accurate epidemiological assessments or meaningful interpretation. This is due to a number of factors, including: most laboratory notifications do not include Indigenous status, case follow-ups are not routinely conducted and are not a requirement of notification, and data linkage systems that have been used to help capture Indigenous status for COVID-19 cases have not been extended for COVID-19 in the post emergency climate, and have not been comprehensively extended to influenza or RSV cases. For this reason, data are not currently analysed by Indigenous status.

4. Impact

Impact measures how circulating respiratory viruses adversely affect the community and the healthcare system.

4.1 Community-based surveillance

FluTracking

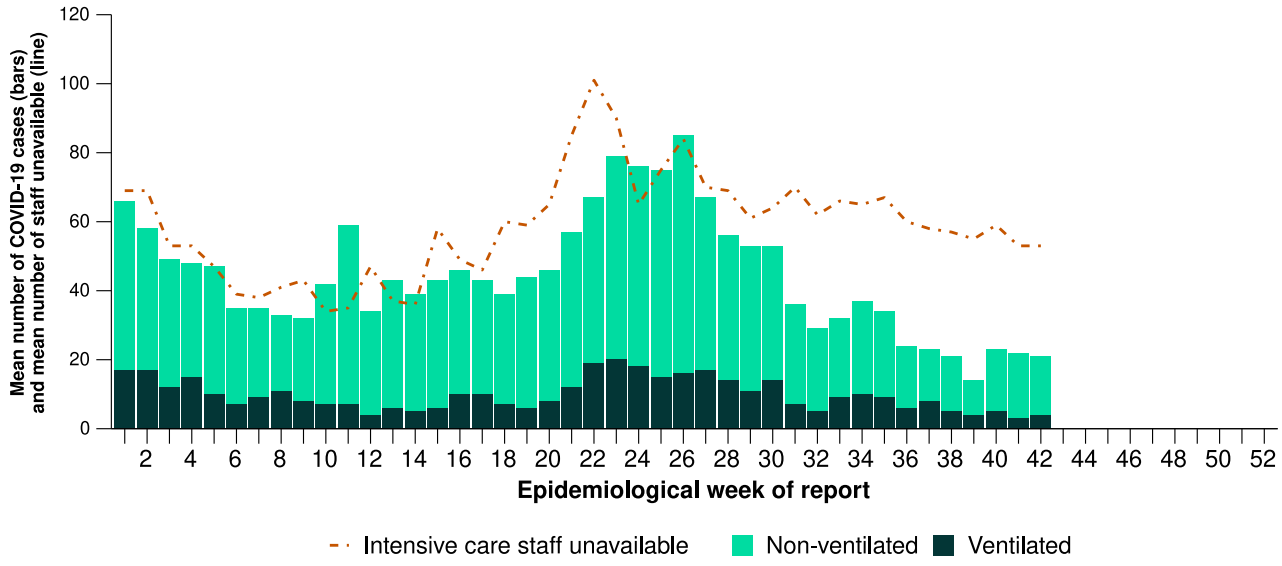
- This fortnight (7 October to 20 October 2024), 44.1% (349/791) of FluTracking participants reported taking three or more days off work or normal duties due to fever and cough symptoms, a decrease compared with 47.4% (493/1,040) in the previous fortnight.

4.2 Hospital-based surveillance

Critical Health Resource Information System (CHRIS)

- As at 21 October 2024, 1.0% (19/1,843) of total staffed intensive care beds were occupied by COVID-19 patients.
- This fortnight (7 October to 20 October 2024), the mean number of COVID-19 cases in intensive care across Australia has increased compared with the previous fortnight (Figure 15). This fortnight, the mean number of intensive care staff unavailable to work due to COVID-19 exposure or illness across Australia has decreased compared with the previous fortnight (Figure 15).

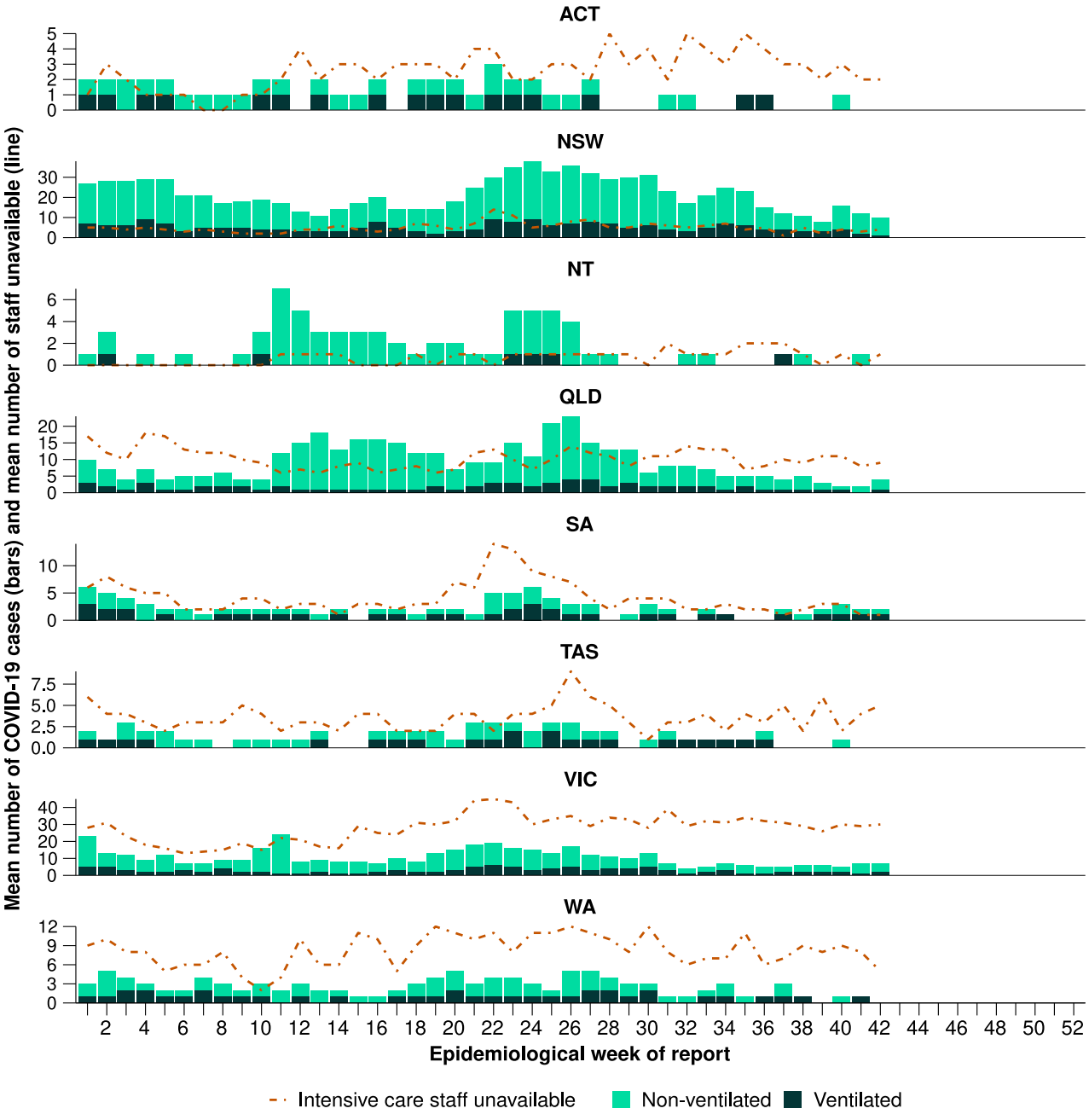
Figure 15: Mean number of COVID-19 cases in intensive care and the mean number of intensive care staff unavailable to work due to COVID-19 exposure or illness reported to CHRIS by week of report*†, Australia, 1 January to 20 October 2024



* Mean number of ventilated and non-ventilated COVID-19 cases in intensive care includes only active COVID-19 cases (those in isolation) and does not include cleared COVID-19 cases.
† Intensive care staff include both medical and nursing staff.

- This fortnight, the mean number of COVID-19 cases in intensive care has increased or remained stable across most jurisdictions, except in New South Wales and Queensland, where a decrease was observed compared with the previous fortnight (Figure 16).
- This fortnight, the mean number of intensive care staff unavailable to work due to COVID-19 exposure or illness has remained stable or decreased across most jurisdictions, except in Victoria, where staff unavailability has increased compared with the previous fortnight (Figure 16).

Figure 16: Mean number of COVID-19 cases in intensive care and the mean number of intensive care staff unavailable to work due to COVID-19 exposure or illness reported to CHRIS by jurisdiction and week of report*†‡, Australia, 1 January to 20 October 2024



* Axis varies between jurisdictions.
† Mean number of ventilated and non-ventilated COVID-19 cases in intensive care includes only active COVID-19 cases (those in isolation) and does not include cleared COVID-19 cases.
‡ Intensive care staff include both medical and nursing staff.

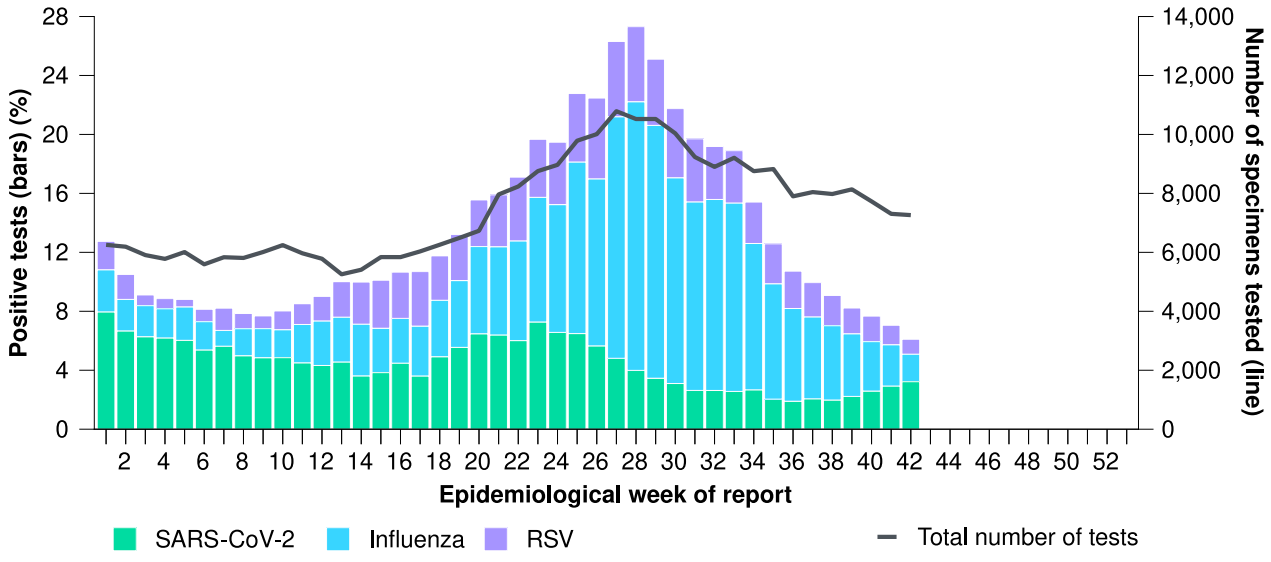
5. Genomic surveillance and virology

5.1 Laboratory-based surveillance

Sentinel laboratories, including National Influenza Centres

- This fortnight (7 October to 20 October 2024), 3.1% (447/14,569) of samples tested for SARS-CoV-2 across sentinel laboratories have been positive for SARS-CoV-2, an increase in positivity compared with the previous fortnight (2.4%; 381/15,866) (Figure 17).
- This fortnight, 2.5% (437/17,741) of the samples tested for influenza across sentinel laboratories have been positive for influenza, a decrease in positivity compared with the previous fortnight (4.5%; 874/19,364) (Figure 17).
- This fortnight, 1.2% (171/14,569) of the samples tested for RSV across sentinel laboratories have been positive for RSV, a decrease in positivity compared with the previous fortnight (1.7%; 277/15,866) (Figure 17).
- This fortnight, the most commonly detected respiratory viruses were rhinovirus (New South Wales, South Australia and Tasmania), influenza A (Western Australia), human metapneumovirus & picornavirus (Victoria), and SARS-CoV-2 (Western Australia).
- In the year to date, 4.4% (13,738/314,106) of samples tested for SARS-CoV-2 have been positive for SARS-CoV-2, 7.2% (26,783/371,790) of samples tested for influenza have been positive for influenza and 2.9% (9,264/314,106) of samples tested for RSV have been positive for RSV (Figure 17).

Figure 17: Total number of specimens tested by sentinel laboratories and proportion of positive sentinel laboratory tests by pathogen and week of report*†, 1 January to 20 October 2024



* Number of specimens tested excludes data from Western Australia as testing denominator data are different for the three pathogens in Western Australia.

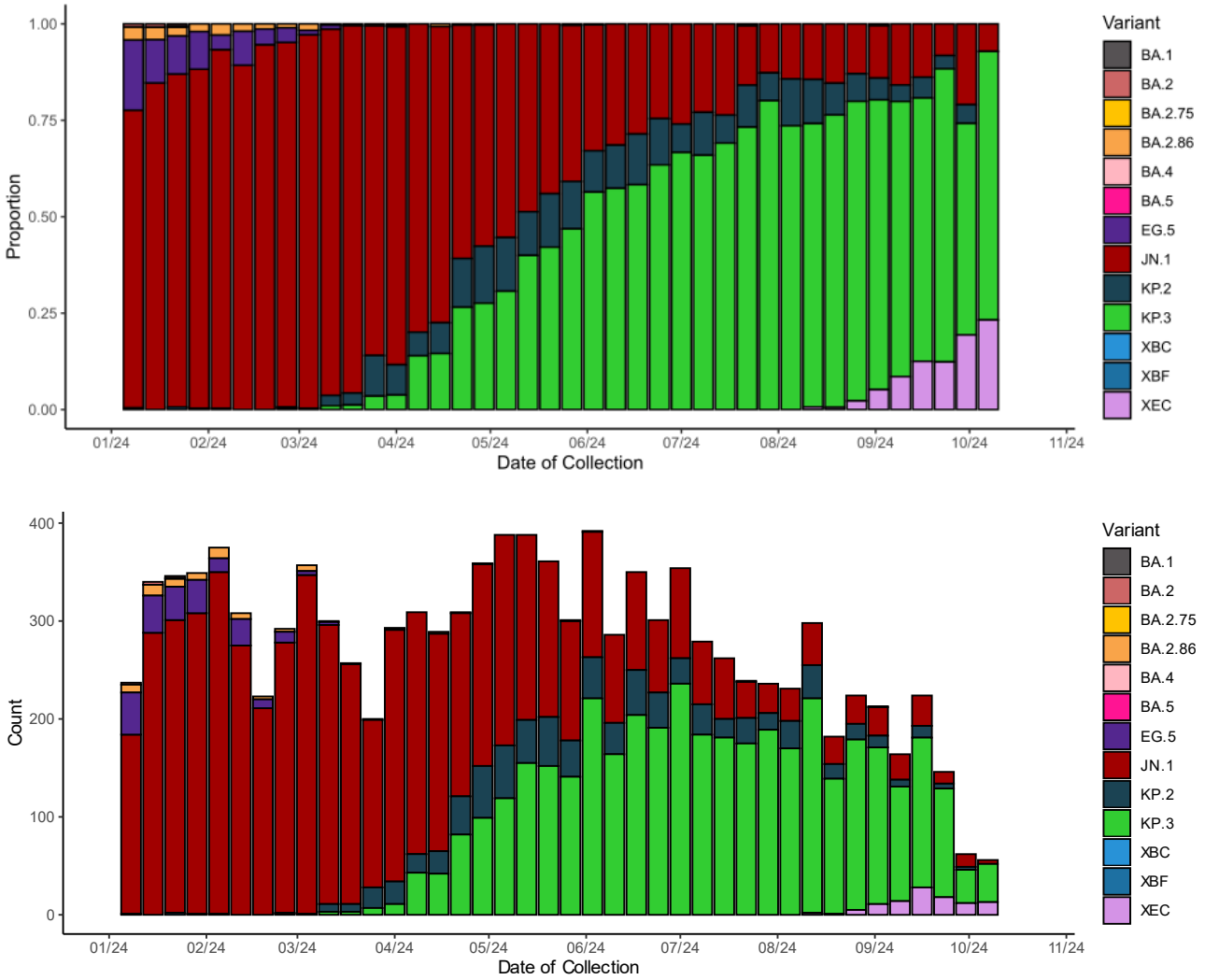
† A small minority of total samples from Victoria are tested only by respiratory panel (influenza, parainfluenza, adenovirus, human metapneumovirus, seasonal coronaviruses, RSV, and some picornaviruses) but not for SARS-CoV-2. These minority samples include only forensic materials; all other samples are tested by respiratory panel and SARS-CoV-2 assay.

AusTrakka

Data on SARS-CoV-2 genomics should be interpreted with caution as SARS-CoV-2 sequencing strategies have changed significantly, and the representativeness of sequences uploaded to AusTrakka may be limited by the different sample referral pathways for each jurisdiction and a significant reduction in sequencing across the country. Sequences are reported based on date of sample collection, not date of sequencing.

- As of 21 October 2024, jurisdictions that have samples with dates of collection during the past 28 days New South Wales, Queensland, South Australia, Tasmania and Western Australia, with the most recent collection date 8 October 2024.
- As of 21 October 2024, 271 sequences have been uploaded to AusTrakka with dates of collection within the past 28-day period (23 September to 20 October 2024). All sequences were assigned to the BA.2.86 sub-lineage within B.1.1.529 (Omicron) or recombinants consisting of one or more Omicron sub-lineages. There were no BA.1, BA.3, BA.4, BA.5 or other BA.2 sub-sub-lineage sequences identified in the past 28 days (Figure 18).
- Of the 271 sequences collected in the past 28 days, 81.5% (221/271) were BA.2 sub-lineages, specifically from the sub-sub-lineage JN.1 (BA.2.86.1.1), including from the VUMs KP.2 (8/221) and KP.3 (184/221), (Figure 20). The remaining 18.5% (50/271) were recombinant or recombinant sub-lineages. The recombinant lineages included XEC, a recombinant between KS.1.1 (JN.1.13.1.1.1) and KP.3.3.
- JN.1 and associated sub-lineages continue to dominant the variants identified in AusTrakka with a very low proportion of recombinant sequences seen each month (Figure 18).
- The World Health Organization (WHO) have identified certain sub-sub-lineages and recombinants as variants under monitoring (VUM) or variants of interest (VOI) because of their epidemiological, pathological, or immunological features of concern. A select number of designated VUM or VOI are highlighted below due to their relevance in the Australian context:
  - On 24 September 2024, the WHO designated the recombinant lineage XEC a VUM. The recombinant lineage XEC has attracted recent attention due to its estimated growth rate. A total of 104 XEC lineages have been identified in AusTrakka, including 43 collected in past 28 days.
  - Across June and July 2024, LB.1 and KP.3.1.1 were designated as a VUM by the WHO. There is limited evidence to suggest LB.1 and KP.3.1.1 may exhibit higher infectivity and greater immune evasion than KP.2 and KP.3.
  - A total of 191 sequences of LB.1 are identified in AusTrakka, with 14 sequences identified in the past 28 days.
  - A total of 781 sequences of KP.3.1.1 have been identified in AusTrakka, with 136 sequences identified in the past 28 days.
  - The proportion of JN.1 sequences has decreased slightly (81.5% (221/271) in the past 28 days, compared with the previous 28-day period, with an increase in the proportion of recombinant lineages.

Figure 18: Omicron sub-lineage*^ sequences in AusTrakka by sample collection date, showing (A) proportions and (B) count per week^†, Australia, 1 January to 20 October 2024



* Some sub-sublineages are shown alongside their parent lineage, but not included in the parent lineage totals. For instance KP.2 and KP.3 are sub-sub lineages of JN.1, so the total of JN.1 sequences will be higher than shown in the corresponding colour alone, and should include the KP.2 and KP.3 totals.
^ Sequences in AusTrakka aggregated by epidemiological week. Sequences are reported based on date of sample collection, not date of sequencing.
† Proportions in Figure 18A may not be representative when sequence numbers are small; refer to Figure 18B. Data for earlier epidemiological weeks may change between reporting periods as sequences with older collection dates are uploaded. These numbers are not equivalent to number of cases, as there are many cases which may not be sequenced. Non-VOI and non-VUM Omicron sub-lineages have been collapsed into parent lineages BA.1, BA.2, BA.3, BA.4 and BA.5.

NNDSS

- This fortnight (7 October to 20 October 2024), of the 2,926 influenza notifications reported to the NNDSS, 76.3% (2,234/2,926) were influenza A(Unsubtyped), 20.2% (591/2,926) were influenza B; 2.4% (70/2,926) were influenza A(H3N2); and 1.0% (28/2,926) were influenza A(H1N1). There were no influenza A&B co-detections this fortnight (Figure 19).
- In the year to date, influenza A has accounted for the majority of influenza notifications across all jurisdictions (Figure 20).

Figure 19: Influenza notifications to the NNDSS by subtype and week of diagnosis, Australia, 1 January to 20 October 2024

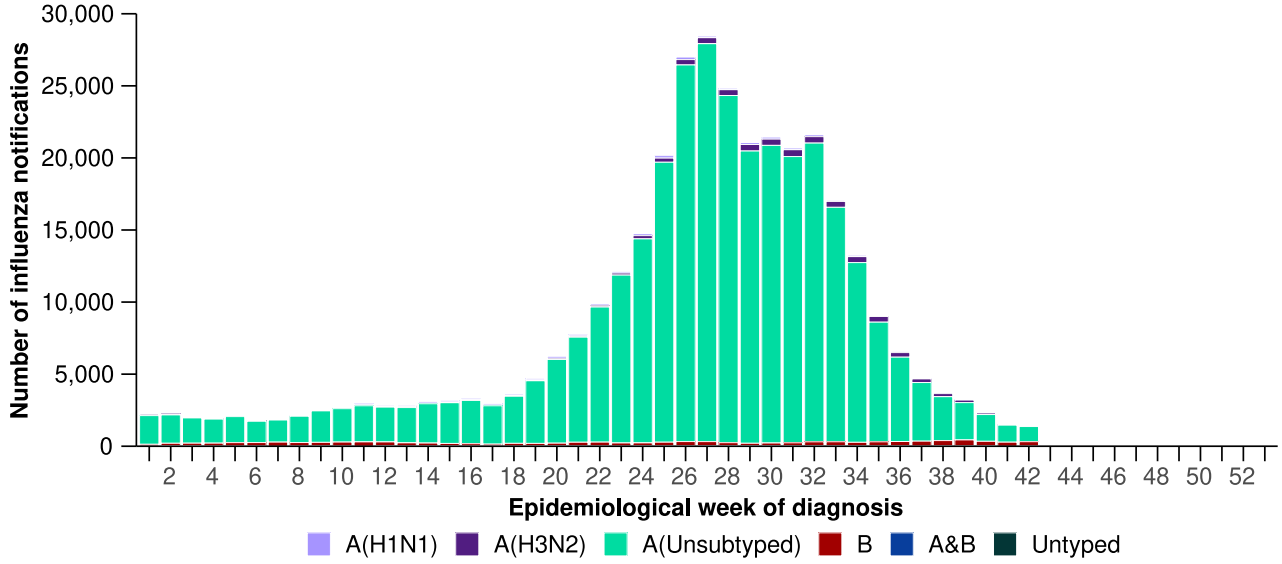
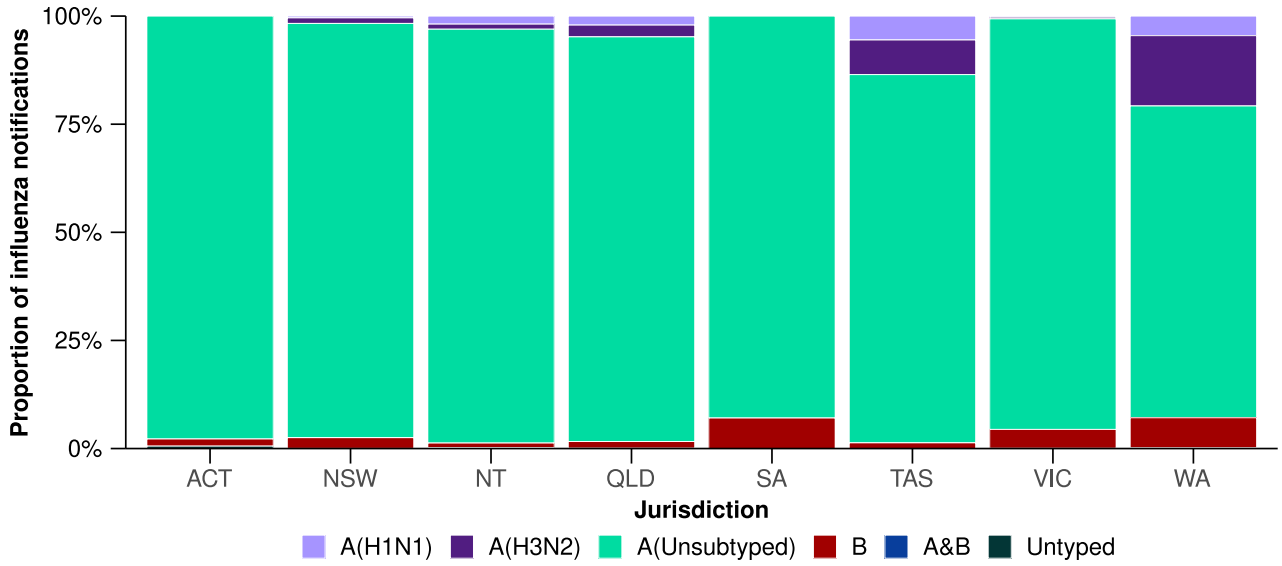


Figure 20: Proportion of influenza notifications to the NNDSS by subtype and jurisdiction*, Australia, 1 January to 20 October 2024



World Health Organization Collaborating Centre (WHOCC) for Reference and Research on Influenza

- In the year to date, the WHOCC has characterised 2,926 influenza viruses, of which 48.2% (1,410/2,926) have been influenza A(H1N1), 47.4% (1,387/2,926) have been influenza A(H3N2), and 4.4% (129/2,926) have been influenza B/Victoria. In the year to date, there have been no influenza B/Yamagata viruses characterised by the WHOCC (Table 4).
- Of the influenza A(H1N1) samples tested for neuraminidase inhibitor resistance 0.85% (8/939) demonstrated reduced inhibition to Oseltamivir. Of the influenza A(H3N2) samples tested for neuraminidase inhibitor resistance, 0.11% (1/930) demonstrated reduced inhibition to Oseltamivir. None of the influenza B/Victoria samples tested for neuraminidase inhibitor

resistance demonstrated reduced inhibition to Oseltamivir or Zanamivir.

Table 4: Australian influenza viruses typed by the WHOCC for Reference and Research on Influenza by haemagglutination inhibition assay and jurisdiction*†, 1 January to 20 October 2024

Strain	ACT	NSW	NT	Qld	SA	Tas.	Vic.	WA	Total
A(H1N1)	83	230	335	55	42	103	470	92	**1,410**
A(H3N2)	77	253	390	55	47	46	419	100	**1,387**
B/Victoria lineage	13	4	9	5	10	3	53	32	**129**
B/Yamagata lineage	0	0	0	0	0	0	0	0	**0**
Total	**173**	**487**	**734**	**115**	**99**	**152**	**942**	**224**	**2,926**

*Viruses tested by the WHOCC for Reference and Research on Influenza are not necessarily a random sample of all those in the community and early-year data may be based on limited samples received. There may be up to a month delay on reporting of samples.
† Jurisdiction indicates the residential location for the individual tested, not the submitting laboratory.

FluCAN

- Since influenza surveillance commenced on 1 April 2024 to date for FluCAN severity reporting (6 October 2024), 97.6% (3,877/3,971) of patients admitted with influenza to FluCAN sentinel hospitals have been due to influenza A and 2.3% (93/3,971) have been due to influenza B.
  - Of the hospital admissions due to influenza A: 85.0% (3,297/3,877) were A(Unsubtyped), 8.5% (330/3,877) were A(H3N2) and 6.4% (250/3,877) were A(H1N1).
- Since influenza surveillance commenced on 1 April 2024 to date for FluCAN severity reporting, of the 253 patients who have been admitted directly to intensive care in a FluCAN sentinel hospital with influenza, 99.6% (252/253) have been due to influenza A and 0.39% (1/253) have been due to influenza B.
  - Of the intensive care admissions due to influenza A: 77.9% (197/252) were A(Unsubtyped), 12.6% (32/252) were A(H3N2) and 9.1% (23/252) were A(H1N1).

6. Vaccine coverage, effectiveness and match

In the present report, data reported on vaccine coverage, effectiveness and match relate to influenza vaccinations. COVID-19 and RSV vaccination data will be included in future iterations of the Australian Respiratory Surveillance Report. Refer to the Technical Supplement – Australian Respiratory Surveillance Report for further detail on relevant vaccine terminology.

6.1 Vaccine coverage

- Data on vaccine coverage is currently unavailable.

6.2 Vaccine effectiveness

- It is too early to assess vaccine effectiveness for the 2024 influenza season.

6.3 Vaccine match

WHOCC for Reference and Research on Influenza

- In the year to date, of the 2,926 samples referred to the WHOCC, 98.7% (1,391/1,410) of influenza A(H1N1) isolates, 91.4% (1,268/1,387) of influenza A(H3N2) isolates and 100% (129/129) of influenza B/Victoria isolates have been antigenically similar to the corresponding vaccine components.

Australian Influenza Vaccines Composition 2024

- All 2024 southern hemisphere seasonal influenza vaccinations registered for use in Australia are quadrivalent influenza vaccines.
- The influenza virus strains included in egg-based quadrivalent influenza vaccines in Australia in 2024 are:
  - A/Victoria/4897/2022 (H1N1)pdm09-like virus
  - A/Thailand/8/2022 (H3N2)-like virus
  - B/Austria/1359417/2021 (B/Victoria lineage)-like virus
  - B/Phuket/3073/2013 (B/Yamagata lineage)-like virus.
- The influenza virus strains included in cell-based quadrivalent influenza vaccines in Australia in 2024 are:
  - A/Wisconsin/67/2022 (H1N1)pdm09-like virus
  - A/Massachusetts/18/2022 (H3N2)-like virus
  - B/Austria/1359417/2021 (B/Victoria lineage)-like virus
  - B/Phuket/3073/2013 (B/Yamagata lineage)-like virus.