



Australian Respiratory Surveillance Report

Key messages

This report presents a national epidemiological update for acute respiratory infections, including coronavirus disease 2019 (COVID-19), influenza and respiratory syncytial virus (RSV), with a focus on the current reporting period (27 January to 23 February 2025) and earlier severity reporting periods (up to 9 February 2025).

In the community: Respiratory illness activity (self-reported new fever and cough symptoms) is currently consistent with the same time in previous years; however, slightly more people reported taking time off work due to respiratory illness (self-reported new fever and cough symptoms) this month, compared with the previous month. This month the number of COVID-19 cases remains low. The number of influenza cases this month is slightly higher than the five-year average and the number of cases seen in the same period in previous years; however, influenza case numbers remain at interseasonal levels. This month, the number of RSV cases is increasing but is consistent with the number of cases seen at the same time last year.

In general practice: There were slightly fewer influenza-like-illness (new fever and cough symptoms) consultations in sentinel surveillance sites this month; however, similar to 2024, influenza-like-illness rates this month remain slightly higher than observed at the same time in previous years and than the five-year average.

In hospitals: Sentinel hospital-based surveillance shows the proportion of patients with severe acute respiratory infections has remained low and stable this severity reporting period. Most patients were admitted with COVID-19. The length of hospital stay varies only slightly between illnesses. The proportion of those patients with a severe acute respiratory infection who were admitted directly to an intensive care within a sentinel hospital has remained low. More children (those aged 16 years and younger) were admitted with influenza or RSV than with COVID-19 at sentinel hospitals, while considerably more adults were admitted with COVID-19 than with influenza or RSV. Sentinel intensive care surveillance shows the overall number of patients with severe acute respiratory infections has decreased. The duration of intensive care stay varies slightly between illnesses. The average number of COVID-19 cases in intensive care and the average number of intensive care staff unavailable due to COVID-19 illness or exposure has decreased this month.

Deaths: COVID-19 has been the leading cause of acute respiratory infection mortality across 2023–2025. All three acute respiratory infections (COVID-19, influenza and RSV) under surveillance are more likely to cause death in older age groups than younger age groups.

In laboratories: Test positivity for SARS-CoV-2, influenza and RSV remained low and stable this month, though a slight increase in RSV test positivity was observed. The recombinant lineage XEC is the dominant SARS-CoV-2 variant in Australia, outnumbering JN.1 sub-lineage sequences. On 24 January 2025, the World Health Organization designated LP.8.1 as a variant under monitoring. Small numbers of LP.8.1 sub-lineage sequences have been observed in Australia.

Vaccine coverage, effectiveness and match: It is too early to assess or report vaccine data for 2025.

Australian Respiratory Surveillance Report

This report was prepared by Lauren Kutzner, Suzie Whitehead, Jenna Hassall, 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 report presents a national overview of acute respiratory infections in Australia, drawing information from several different surveillance systems. These surveillance systems help us to understand the distribution of acute respiratory illnesses in the community, the severity of infections including which populations might be at risk, and the impact of acute respiratory illnesses on the community and health system in Australia.

Surveillance indicators presented in this report are based on the <u>Australian National Surveillance Plan for COVID-19</u>, <u>Influenza</u>, <u>and RSV</u>. Please refer to the <u>Technical Supplement – Australian Respiratory Surveillance Report</u> for information on our surveillance sources and data considerations, including the considerable impact of the COVID-19 pandemic on acute respiratory infection surveillance in Australia. A summary of data considerations for this report are provided below:

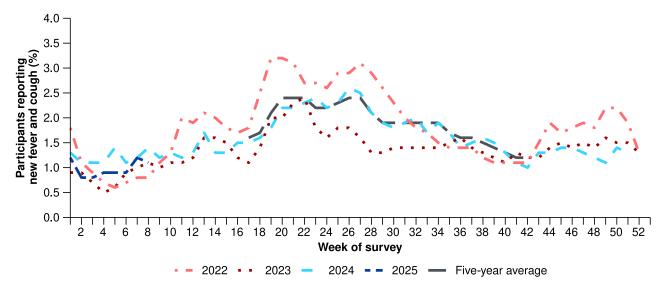
- Due to the dynamic nature of the surveillance systems used in this report, surveillance data are
 considered preliminary and subject to change as updates are received, with the most recent weeks
 considered particularly incomplete. Data in this report may vary from data reported in other national
 reports and reports by states and territories.
- Data in this report are presented by date of event (diagnosis, admission or death) or by the
 International Organization for Standardization (ISO) week date system, with weeks defined as sevenday periods which begin on a Monday and end on a Sunday. The ISO week date system is used to
 support trends comparisons over time more effectively. The current reporting period this month
 includes 27 January to 23 February 2025 and where comparisons to the previous month are made
 this includes 30 December 2024 to 26 January 2025.
- In Australia, states and territories report notified cases to the National Notifiable Diseases Surveillance System (NNDSS) based on the <u>Australian national surveillance case definitions</u>. 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. The NNDSS data for this report were extracted on 26 February 2025.
- 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 for hospitalisations and intensive care admissions. As such, the severity reporting periods are two weeks behind the end of the current reporting period. For this report, severity reporting includes data from 13 January to 9 February 2025 and where comparisons to the previous severity month are made this includes 16 December 2024 to 12 January 2025.
- Death registrations from the Australian Bureau of Statistics (ABS) Provisional Mortality Statistics are
 now used as the primary data source for measuring acute respiratory infection associated deaths. The
 ABS mortality data is sourced from the Registry of Births, Deaths and Marriages and is separate from
 the NNDSS. Registration-based mortality data needs time to be received and processed. For this
 reason, mortality statistics in this report may lag by at least two months.
- Analysis and reporting outputs were produced using R Statistical Software v4.3.1. 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 refer
 to the <u>Technical Supplement Australian Respiratory Surveillance Report</u> or contact
 respiratory.surveillance@health.gov.au.

Community surveillance

Community surveillance monitors respiratory illnesses in the community, providing information on the number of people reporting respiratory symptoms, testing practices, and the impact of respiratory illnesses. Community surveillance includes notification data obtained from laboratory tests for infections. Infections that are diagnosed and notified are only a subset of the total number of infections occurring in the community.

- Community surveys indicate respiratory illness symptoms and test positivity remain low and stable this month, consistent with interseasonal levels in previous years.
- This month (27 January to 23 February 2025), slightly more survey participants reported new fever and cough symptoms (1.0%), than in the previous month (0.9%) (Figure 1).
- This month, more survey participants with new fever and cough symptoms used a rapid antigen test (RAT) (60.6%; 662/1,092) than a polymerase chain reaction (PCR) test (11.3%; 123/1,092) to test for severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2).
 - Self-reported SARS-CoV-2 RAT positivity was lower this month (32.6%; 216/662) than in the previous month (41.6%; 223/536). Likewise, self-reported SARS-CoV-2 PCR positivity was slightly lower this month (20.3%; 25/123) than in the previous month (21.3%; 26/122).
- This month, 10.2% (111/1,092) of survey participants with new fever and cough symptoms used a PCR test to test for influenza.
 - Self-reported influenza PCR positivity was lower this month (16.2%; 18/111), than in the previous month (18.7%; 28/150).
- In the year to date, the proportion of survey participants with new fever and cough symptoms has been consistent with the proportions observed at the same time in previous years (Figure 1)

Figure 1: Age standardised percentage of survey participants reporting new fever and cough symptoms compared with the five-year average* by year and week of report, Australia, 2022 to 23 February 2025



Source: FluTracking

• This month, slightly more survey participants reported taking three or more days off work or normal duties due to fever and cough symptoms (46.2%; 504/1,092), than in the previous month (45.6%; 375/823).

^{*} From 2020, FluTracking expanded their data capture period to year-round. Data before May and after October for any year before 2020 are not available for historical comparisons. 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 average includes the years 2018 to 2019 and 2022 to 2024. Please refer to the <u>Technical Supplement</u> for interpretation of the five-year average.

• This month (27 January to 23 February 2025), there was a 34.6% decrease in COVID-19 notifications, a 9.9% increase in influenza notifications, and a 33.9% increase in RSV notifications.

Table 1: Notified COVID-19, influenza and RSV cases and notification rate per 100,000 population by disease, five-year age group, and jurisdiction*†, Australia, 1 January to 23 February 2025

	COVID-19			In	fluenza		RSV			
	Reporting period (n)	Year to date (n)	Year to date (rate)	Reporting period (n)	Year to date (n)	Year to date (rate)	Reporting period (n)	Year to date (n)	Year to date (rate)	
Age group	(years)									
0–4	1,576	3,435	228	1,398	2,617	173	3,284	4,988	331	
5–9	469	770	48	1,459	2,345	146	282	437	27	
10–14	469	719	43	1,077	1,571	94	147	245	15	
15–19	502	950	57	714	1,254	75	138	229	14	
20–24	466	1,134	63	576	1,107	62	121	225	13	
25–29	584	1,383	69	508	1,085	54	148	269	13	
30–34	666	1,616	79	664	1,411	69	146	271	13	
35–39	806	1,867	94	920	1,777	90	132	267	13	
40–44	774	1,703	92	984	1,804	97	150	246	13	
45–49	694	1,565	96	740	1,571	96	142	262	16	
50–54	655	1,603	95	740	1,540	91	173	330	20	
55–59	596	1,525	99	645	1,322	86	207	375	24	
60–64	681	1,712	112	669	1,274	83	219	387	25	
65–69	727	1,807	133	586	1,114	82	204	393	29	
70+	4,126	10,910	327	1,773	3,280	98	812	1,622	49	
Jurisdictio	n									
ACT	174	443	93	171	324	68	65	101	21	
NSW	5,739	13,037	154	5,096	9,528	112	2,872	4,485	53	
NT	176	414	162	252	382	150	59	123	48	
Qld	3,626	8,980	161	3,009	5,325	95	2,066	3,666	66	
SA	763	1,902	101	719	1,386	74	204	366	19	
Tas.	204	470	82	114	283	49	37	110	19	
Vic.	2,117	5,367	77	2,742	5,510	79	733	1,208	17	
WA	996	2,095	71	1,351	2,335	79	269	487	16	
Total	13,795	32,708	120	13,454	25,073	92	6,305	10,546	39	

^{*} Rate per 100,000 population for the given time period. Population data are based on the Australian Bureau of Statistics (ABS) <u>Estimated Resident Population (ERP) for the reference period June 2024, released 12 December 2024</u>.

[†] Total includes cases with missing age.

- This month the number of COVID-19 cases remains low. Following an increase in COVID-19 cases in late 2024 and early 2025; an overall decreasing trend was observed in the past month. The number of COVID-19 cases this month is lower than the number of cases at the same time last year and less than half the number of cases reported in the June 2024 peak (Figure 2).
- In the year to date, COVID-19 notification rates remain highest in people aged 70 years or over, likely due to higher case ascertainment from targeted testing strategies for populations at-risk of severe disease or who live in a high-risk setting such as a residential aged care home (Table 1).
- This month, COVID-19 notification rates decreased and then remained stable across all jurisdictions (Figure 3).
- In the year to date, COVID-19 notification rates are highest in the Northern Territory, Queensland and New South Wales and lowest in Western Australia (Table 1).

Figure 2: Notified COVID-19 cases (laboratory-confirmed only) by year and week of diagnosis, Australia, 2022 to 23 February 2025

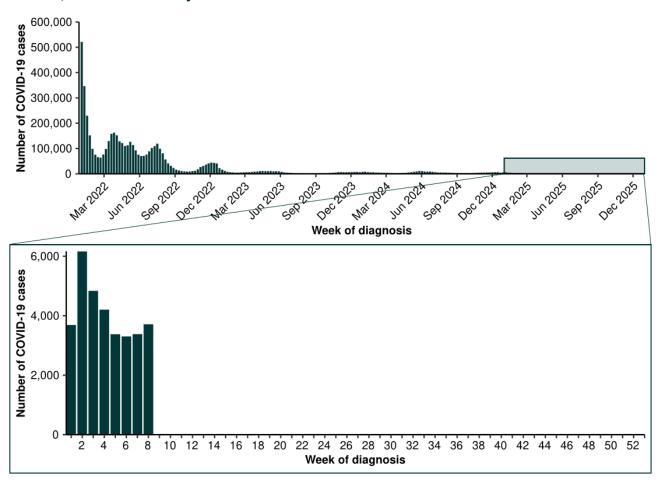


Figure 3: Notification rates* per 100,000 population for COVID-19 cases by state or territory and week of diagnosis, Australia, 1 January to 23 February 2025

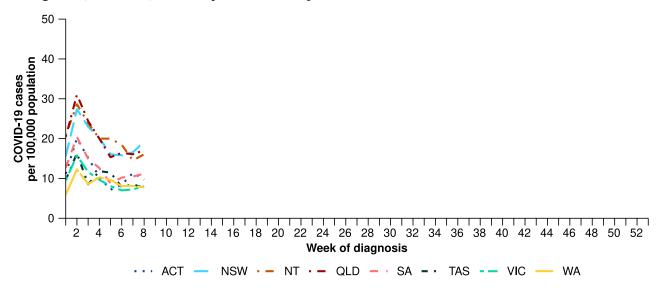
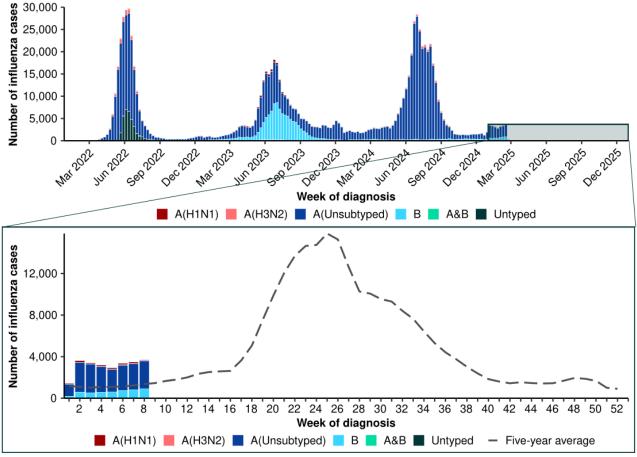


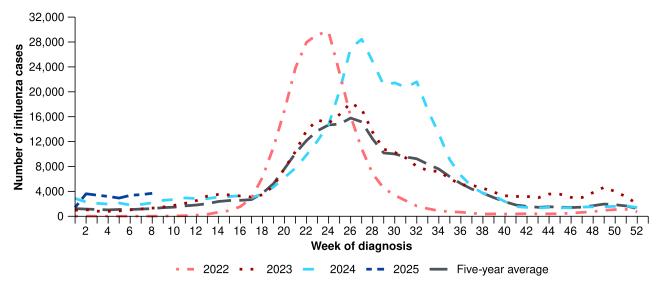
Figure 4a: Notified influenza cases and five-year average* by influenza subtype, year, week of diagnosis, Australia, 2022 to 23 February 2025



^{*} Rate per 100,000 population for the given time period. Population data are based on the Australian Bureau of Statistics (ABS) <u>Estimated Resident Population (ERP)</u> for the reference period June 2024, released 12 <u>December 2024</u>

^{*} 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 average includes the years 2018 to 2019 and 2022 to 2024. Please refer to the <u>Technical Supplement</u> for interpretation of the five-year average.

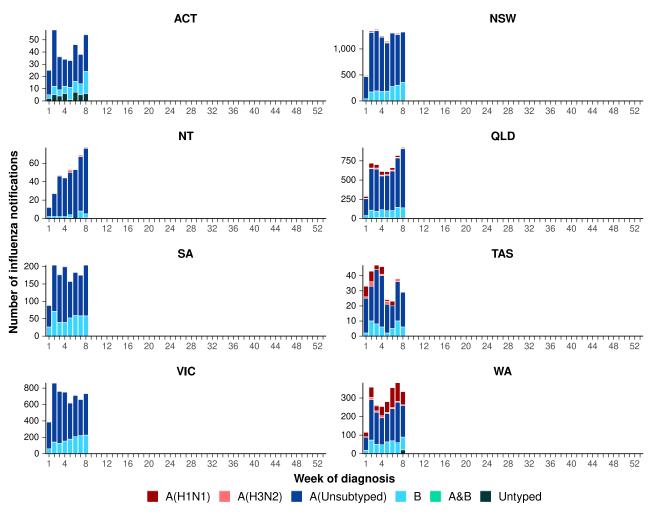




- This month, the number of influenza cases remains relatively low. The number of influenza cases this month is slightly higher than last month, the five-year average and the number of cases seen in the same period in previous years; however, case numbers remain at interseasonal levels (Figure 4a; Figure 4b).
 - The increase in the number of influenza cases this month is consistent with increases observed in previous summer periods (Figure 4a; Figure 4b). This increase could be due to increased influenza circulating in the community; however, could also be influenced by a number of factors:
 - increased population mixing due to social mixing within the holiday period, and returned travellers from overseas, particularly those who have been to the northern hemisphere.
 - changes in health-seeking behaviour (increased testing) associated with increases in COVID-19 circulation in the summer period, or as a result of public concern over media reports in January about human metapneumovirus (hMPV) cases in China.
- In the year to date, influenza notification rates are highest in children aged 0–4 years and children aged 5–9 years (Table 1).
- This month, 22.1% (2,967/13,454) of influenza notifications were influenza B, 3.7% (499/13,454) were influenza A(H1N1) and 0.9% (119/13,454) were influenza A(H3N2). There were seven influenza A&B co-detections (Figure 5).
 - Most influenza notifications were influenza A(Unsubtyped) (72.7%; 9,786/13,454) (Figure 5).
- In the year to date, influenza A has accounted for the majority of influenza notifications across all jurisdictions, however some jurisdictions are seeing an increase in the proportion of influenza B notifications (Figure 5).
- This month, influenza notification rates increased considerably in the Northern Territory and Queensland, with notification rates fluctuating in other jurisdictions (Figure 6).
- In the year to date, influenza notification rates are highest in New South Wales and the Northern Territory and lowest in Tasmania (Table 1).

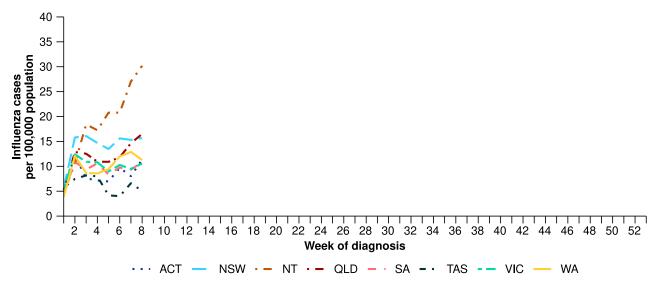
^{*} The years 2020 and 2021 are excluded when comparing the current season to historical periods when influenza virus has circulated without public health restrictions. As such, the five-year average includes the years 2018 to 2019 and 2022 to 2024. Please refer to the <u>Technical Supplement</u> for interpretation of the five-year average.

Figure 5: Notified influenza cases by influenza subtype, jurisdiction*, and week of diagnosis, Australia, 1 January to 23 February 2025



Source: National Notifiable Diseases Surveillance System (NNDSS) * Axis varies between jurisdictions.

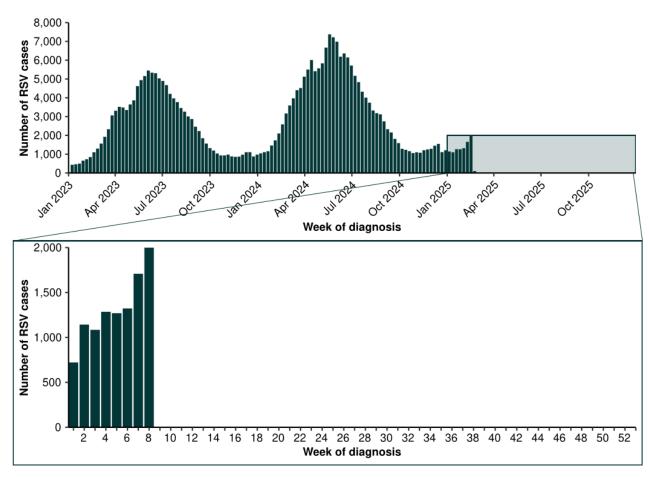
Figure 6: Notification rates* per 100,000 population for influenza cases by state or territory and week of diagnosis, Australia, 1 January to 23 February 2025



^{*} 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) for the reference period June 2024, released 12 December 2024.

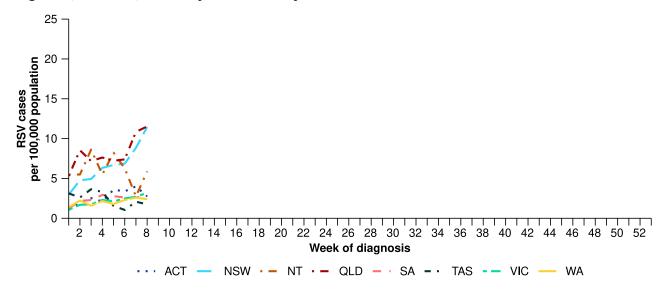
- This month, the number of RSV cases have been increasing compared with the previous month; however, remains consistent with the number of cases seen in the same interseasonal period last year (Figure 7).
 - Similar to influenza notification trends, the recent increase in RSV cases could be due to increased RSV circulating in the community; however, could also be influenced by the changes in health-seeking behaviour (increased testing) described above.
- In the year to date, RSV notification rates remain considerably higher in children aged 0–4 years than in other age groups (Table 1).
- This month, RSV notification rates increased considerably in New South Wales and Queensland, with notification rates fluctuating or remaining low and stable in other jurisdictions (Figure 8).
- In the year to date, RSV notification rates are highest in New South Wales and Queensland, and lowest Western Australia (Table 1).

Figure 7: Notified RSV cases by year and week of diagnosis*, Australia, 2023 to 23 February 2025



Source: National Notifiable Diseases Surveillance System (NNDSS). Please note, RSV became notifiable in all states and territories on 1 September 2022 and comprehensive national notification data became available after this point. For this reason, RSV notification trends are only presented from 1 January 2023.

Figure 8: Notification rates* per 100,000 population for RSV cases by state or territory and week of diagnosis, Australia, 1 January to 23 February 2025



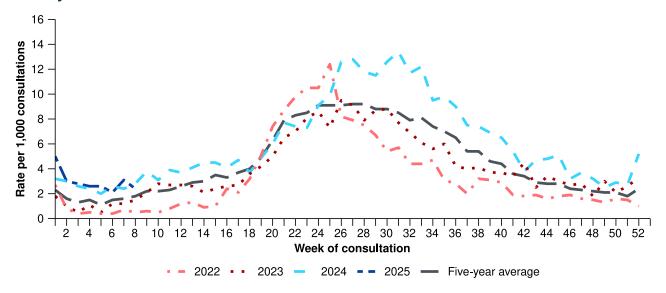
^{*} Rate per 100,000 population for the given time period. Population data are based on the Australian Bureau of Statistics (ABS) <u>Estimated Resident Population (ERP)</u> for the reference period June 2024, released 12 <u>December 2024</u>.

Primary care surveillance

Primary care surveillance monitors the number and characteristics of people who have presented to their general practitioner with influenza-like-illness and provides insight on the different respiratory pathogens that are causing illness in the community.

- Sentinel general practice surveillance indicates medical attendance for respiratory illness has decreased, though a variety of respiratory pathogens continue to circulate in the community, with rhinovirus and influenza being the most common.
- This month (27 January to 23 February 2025), there were fewer general practice consultations for influenza-like illness (2.6 per 1,000 consultations per month) than in the previous month (3.3 per 1,000 consultations per month) (Figure 9).
- The rate of influenza-like-illness was above four per 1,000 consultations in the first weeks of 2025; however, has since decreased and is now consistent with the rate of influenza-like-illness observed at the same time last year (Figure 9).
- Like the same period in 2024, influenza-like-illness rates this month remain slightly higher than observed in at the same time in previous years and the five-year average (Figure 9).

Figure 9: Rate of influenza-like-illness per 1,000 consultations per week with sentinel general practice sites compared with the five-year average by year and week of consultation*†, Australia, 2022 to 23 February 2025



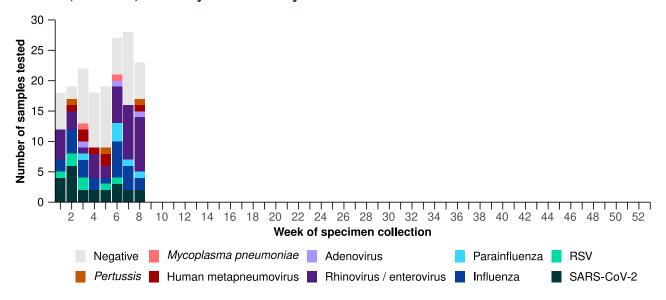
Source: Australian Sentinel Practice Research Network (ASPREN)

^{*} 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 average includes the years 2018 to 2019 and 2022 to 2024. Please refer to the <u>Technical Supplement</u> for interpretation of the five-year average.

[†] Please refer to the Technical Supplement for notes on impact of COVID-19 on ASPREN data.

- In the year to date, 65.5% (114/174) of people attending general practice with influenza-like-illness have then tested positive for a respiratory pathogen.
- Rhinovirus (34.2%; 39/114) was the most commonly detected pathogen, followed by influenza (21.1%; 24/114), SARS-CoV-2 (20.2%; 23/114), RSV (6.1%; 7/114), and human metapneumovirus (6.1%; 7/114) (Figure 10).

Figure 10: Number of samples tested for respiratory pathogens among people with influenza-likeillness attending sentinel general practice sites by respiratory pathogen and week of specimen collection, Australia, 1 January to 23 February 2025



Source: Australian Sentinel Practice Research Network (ASPREN)

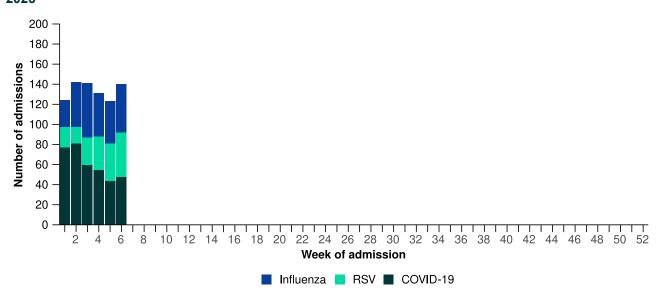
Note: All ASPREN swab samples are transported to the SA Pathology laboratory in Adelaide to be tested for viral and bacterial respiratory pathogens via a multiplex real-time reverse transcription polymerase chain reaction (RT-PCR) assay using in-house primers.

Hospital-based surveillance

Hospital-based surveillance monitors persons with more severe illness who have been admitted to hospital for their respiratory illness (severe acute respiratory infections). Hospital-based surveillance also measures the ability of the health system to cope with the number of severe acute respiratory infection admissions to ensure delivery of safe, timely and quality health care.

- Sentinel hospital-based surveillance shows the number of patients admitted with severe acute
 respiratory infections has remained low and stable. The length of hospital stay varies only slightly
 between illnesses and the proportion of patients with a severe acute respiratory infection who were
 admitted directly to an intensive care has remained low.
- In this severity reporting period (13 January to 9 February 2025), fewer patients were admitted to a sentinel hospital with a severe acute respiratory infection (n = 535), than in the previous severity reporting period (n = 682).
- In the year to date for severity reporting (1 January to 9 February 2025), most patients with a severe acute respiratory infection were admitted to a sentinel hospital with COVID-19 (Figure 11). Patients admitted to sentinel hospitals with influenza have mostly been admitted with influenza A (83.8%; 217/259), while 16.2% (42/259) were admitted with influenza B.
 - Most hospital admissions with influenza A have been with influenza A(Unsubtyped) (92.6%; 201/217), followed by influenza A(H1N1) (5.5%; 12/217), and influenza A(H3N2) (1.8%; 4/217).

Figure 11: Total number of patients (children and adults) admitted with a severe acute respiratory infection to sentinel hospitals by disease and week of admission*†‡, Australia, 1 January to 9 February 2025



Source: Influenza Complications Alert Network (FluCAN)

- In the year to date for severity reporting, slightly more children (those aged 16 years and younger) were admitted with influenza and RSV than with COVID-19 at sentinel hospitals (Table 2a).
- Children admitted to sentinel hospitals with influenza tended to be older than children admitted with COVID-19 or RSV, who were predominately aged four years or younger (Table 2a).
- There was no notable difference in the length of stay or admission location (general ward or intensive care) between children admitted with COVID-19, influenza and RSV (Table 2a).

Table 2a: Demographic characteristics and outcomes for children admitted with a severe acute respiratory infection to a sentinel hospital by disease, Australia, 1 January to 9 February 2025

	COVID-19	Influenza	RSV
	Year to date for severity reporting (n=142)	Year to date for severity reporting (n=157)	Year to date for severity reporting (n=150)
Age (years)			
Median [IQR]	<1 [0–2]	4 [2–8]	1 [0–2]
Age group (years)			
< 6 months	54 (38.0%)	4 (2.5%)	33 (22.0%)
6 months – 4 years	64 (45.1%)	80 (51.0%)	104 (69.3%)
5–16 years	24 (16.9%)	73 (46.5%)	13 (8.7%)
Indigenous status			
Aboriginal and Torres Strait Islander	17 (12.0%)	4 (2.5%)	12 (8.0%)
Length of hospital stay (days)†			
Median [IQR]	1 [1–2]	1 [1–2]	2 [1–3]
Patient admission location‡			
Admitted to hospital ward	134 (94.4%)	152 (96.8%)	144 (96.0%)
Admitted to intensive care directly	8 (5.6%)	5 (3.2%)	6 (4.0%)
Discharge status†			
Alive	101 (71.1%)	130 (82.8%)	100 (66.7%)
Died	-	-	- -
Incomplete/missing	41 (28.9%)	27 (17.2%)	50 (33.3%)

Source: Influenza Complications Alert Network (FluCAN)

The Paediatric Active Enhanced Disease Surveillance (PAEDS) network carries out enhanced sentinel hospital surveillance for some acute respiratory infections or conditions in children. PAEDS data for acute respiratory infections in children are presented in the Australian Respiratory Surveillance Reports in the Influenza Complications Alert Network (FluCAN) data. For additional information on COVID-19 in children, Paediatric Inflammatory Multisystem Syndrome (PIMS-TS) following COVID-19, or influenza in children please visit the PAEDS webpages and dashboards.

^{*} Does not include patients with missing age; therefore, the sum of age-specific totals above may not equal the total number of patients.

[†] For patients who are still in hospital data may not be complete; therefore, these data are not included in the length of stay or discharge status. In addition, length of stay data excludes patients that acquired their infection in hospital.

[‡] 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. Does not include patients with missing admission location; therefore, the sum of admission location specific totals above may not equal the total number of patients.

- In the year to date for severity reporting, the number of adults (those aged 16 years and over) admitted with COVID-19 to sentinel hospitals was much higher than for either influenza or RSV (Table 2b).
- Adults admitted to sentinel hospitals with COVID-19 or RSV were predominantly 65 years and over.
 Influenza admissions were similar across both the 17–64 and 65 years and over age groups(Table 2b).
- Adults with COVID-19 and influenza admitted to sentinel hospitals were more unwell than adults with RSV. The length of stay for adults admitted with COVID-19 was longer than for influenza and RSV, and the proportion of adults admitted directly to an intensive care was considerably higher for influenza (Table 2b).

Table 2b: Demographic characteristics and outcomes for adults admitted with a severe acute respiratory infection to a sentinel hospital by disease, Australia, 1 January to 9 February 2025

	COVID-19	Influenza	RSV	
	Year to date for severity reporting (n=223)	Year to date for severity reporting (n=102)	Year to date for severity reporting (n=27)	
Age (years)				
Median [IQR]	75 [62–82]	64 [51–76]	67 [54–77]	
Age group (years)				
17–64 years	68 (30.5%)	53 (52.0%)	10 (37.0%)	
65 years and over	155 (69.5%)	49 (48.0%)	17 (63.0%)	
Indigenous status				
Aboriginal and Torres Strait Islander	19 (8.5%)	3 (2.9%)	1 (3.7%)	
Length of hospital stay (days)†				
Median [IQR]	4 [2–6]	3 [1–5]	3 [1–4]	
Patient admission location‡				
Admitted to hospital ward	209 (93.7%)	89 (87.3%)	25 (92.6%)	
Admitted to intensive care directly	14 (6.3%)	13 (12.7%)	2 (7.4%)	
Discharge status†				
Alive	140 (62.8%)	69 (67.6%)	13 (48.1%)	
Died	5 (2.2%)	1 (1.0%)	2 (7.4%)	
Incomplete/missing	78 (35.0%)	32 (31.4%)	12 (44.4%)	

Source: Influenza Complications Alert Network (FluCAN)

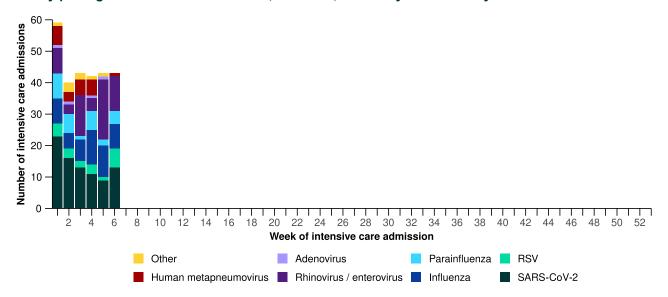
^{*} Does not include patients with missing age; therefore, the sum of age-specific totals above may not equal the total number of patients.

[†] For patients who are still in hospital data may not be complete; therefore, these data are not included in the length of stay or discharge status. In addition, length of stay data excludes patients that acquired their infection in hospital.

[‡] 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. Does not include patients with missing admission location; therefore, the sum of admission location specific totals above may not equal the total number of patients.

- Sentinel intensive care surveillance shows the number of patients with severe acute respiratory
 infections has remained low and stable this month. The duration of intensive care stay varies slightly
 between illnesses.
- In this severity reporting period, fewer patients have been admitted to a sentinel intensive care with a severe acute respiratory infection (n=165), than in the previous severity reporting period (n=218) (Figure 12).
- In the year to date for severity reporting, most patients were admitted to sentinel intensive care with COVID-19 (Figure 12; Table 3).
 - Some patients (3.7%; 14/383) had co-infections of multiple respiratory pathogens; therefore, the sum of pathogen-specific totals may not equal the total number of patients (Figure 12; Table 3).

Figure 12: Number of patients admitted with severe acute respiratory infections to a sentinel intensive care by pathogen and week of admission, Australia, 1 January to 9 February 2025



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

Note: There are a range of diagnostic testing procedures utilised across public and private hospitals within Australia. Diagnostic testing can be by nucleic acid
amplification tests (NAATs), including PCR tests, or immunoassays (rapid antigen tests). Each sentinel hospital site will use these diagnostic methods
variably and there are multiple manufacturers. SPRINT-SARI does not specify which diagnostic testing method should be utilised as this is the domain for the
participating hospital site and treating clinicians. For this reason, virological data from SPRINT-SARI should be interpreted with caution.

- In the year to date for severity reporting, people admitted to a sentinel intensive care with COVID-19, hMPV or influenza were more likely to be older, while people admitted with rhinovirus or RSV were younger (Table 3).
- The length of intensive care stay for people admitted to a sentinel intensive care was similar across pathogens, though was slightly higher for COVID-19 and influenza (Table 3).
- Most patients admitted to a sentinel intensive care with a severe acute respiratory infection have been
 discharged home, while a small proportion remain in hospital. Sadly, a small number of patients
 admitted to a sentinel intensive care with a severe acute respiratory infection have died in hospital
 (Table 3).

Table 3: Demographic characteristics and outcomes of patients admitted with a severe acute respiratory infection to a sentinel intensive care by disease, Australia, 1 January to 9 February 2025

	COVID-19		Influenza	Parainfluenza	Rhinovirus	RSV	Other			
	Year to date for severity reporting (n=80)	Year to date for severity reporting (n=18)	Year to date for severity reporting (n=47)	Year to date for severity reporting (n=23)	Year to date for severity reporting (n=56)	Year to date for severity reporting (n=18)	Year to date for severity reporting (n=11)			
Age (years)										
Median [IQR]	64 [48–74]	66 [3–72]	61 [46–70]	43 [9–69]	14 [4–45]	24 [8–62]	57 [28–72]			
Indigenous status										
Aboriginal and Torres Strait Islander	14 (17.5%)	1 (5.6%)	5 (10.6%)	(8.7%)	8 (14.3%)	-	-			
Non-Indigenous	66 (82.5%)	17 (94.4%)	42 (89.4%)	21 (91.3%)	48 (85.7%)	18 (100.0%)	11 (100.0%)			
Received invasive m	echanical ventila	tion								
Number (%)	31 (38.8%)	5 (27.8%)	13 (27.7%)	11 (47.8%)	13 (23.2%)	1 (5.6%)	2 (18.2%)			
Duration of invasive	Duration of invasive mechanical ventilation (days)*									
Median [IQR]	4 [1–6]	2 [2–6]	2 [0–8]	1 [0–3]	4 [2–6]	-	8 [5–11]			
Length of intensive of	care stay (days)*									
Median [IQR]	3 [2–5]	2 [1–5]	3 [2–6]	2 [1–6]	2 [2–6]	2 [1–6]	2 [1–7]			
Length of hospital st	ay (days)*									
Median [IQR]	7 [4–12]	7 [4–9]	7 [5–12]	6 [3–9]	5 [2–9]	8 [3–9]	17 [12–22]			
Patient outcome [†]										
Ongoing care in intensive care	4 (5.0%)	3 (16.7%)	6 (12.8%)	3 (13.0%)	5 (8.9%)	-	-			
Ongoing care in hospital ward*	8 (10.0%)	1 (5.6%)	4 (8.5%)	1 (4.3%)	6 (10.7%)	1 (5.6%)	1 (9.1%)			
Transfer to other hospital or facility, including rehabilitation	8 (10.0%)	-	4 (8.5%)	2 (8.7%)	5 (8.9%)	1 (5.6%)	2 (18.2%)			
Discharged home	42 (52.5%)	12 (66.7%)	29 (61.7%)	15 (65.2%)	38 (67.9%)	15 (83.3%)	6 (54.5%)			
Died in hospital	18 (22.5%)	2 (11.1%)	4 (8.5%)	1 (4.3%)	(3.6%)	1 (5.6%)	2 (18.2%)			

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

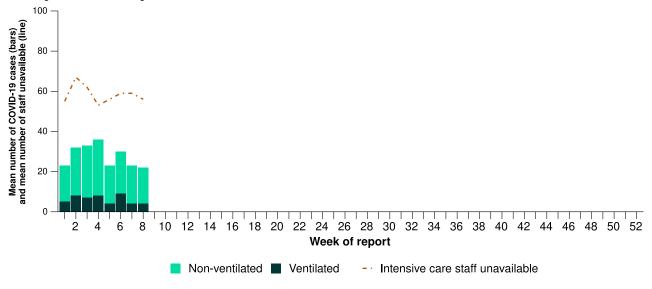
Note: Multiple patients had co-infections of respiratory pathogens; therefore, the sum of pathogen-specific totals above may not equal the total number of severe acute respiratory infection patients. For patients whom are still receiving treatment in intensive care data may not be complete; therefore, 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.

[†] Patients who have no outcome entered or have been admitted for more than 90 days with no discharge information have been treated as missing.

- This month, there has been fewer COVID-19 cases in intensive care across Australia than in the previous month (Figure 13).
- This month, there have been fewer intensive care staff unavailable to work due to COVID-19 exposure or illness across Australia than in the previous month (Figure 13).

Figure 13: Average number of COVID-19 cases in intensive care and the average number of intensive care staff unavailable to work due to COVID-19 exposure or illness by week of report*†, Australia, 1 January to 23 February 2025



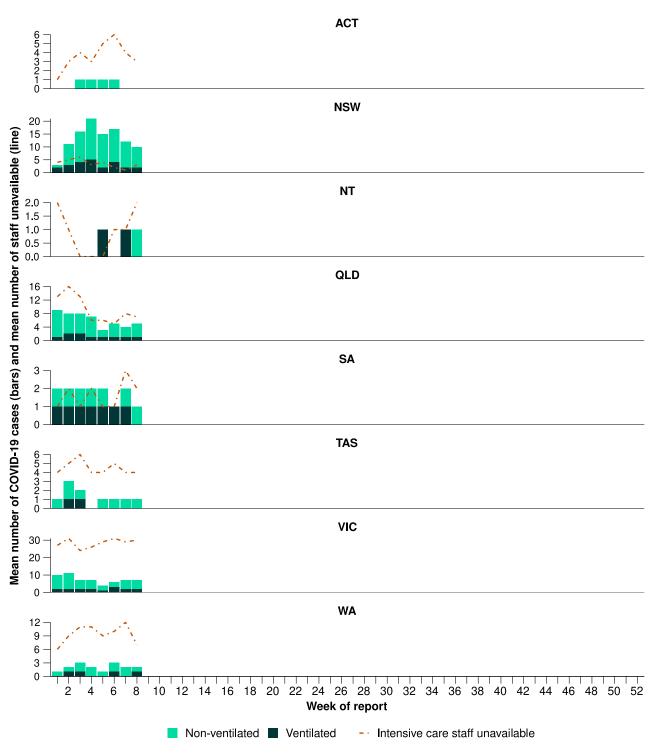
Source: Critical Health Resource Information System (CHRIS)

- This month, COVID-19 cases in intensive care decreased in Queensland and Victoria compared with the previous month, while the number of cases in intensive care have remained stable across all other jurisdictions (Figure 14).
- This month, the number of intensive care staff unavailable to work due to COVID-19 exposure or illness decreased in New South Wales and Queensland; however, increased in the Australian Capital Territory and Victoria compared with the previous month. The number of intensive care staff unavailable to work due to COVID-19 exposure or illness has remained stable in the Northern Territory, South Australia, Tasmania, and Western Australia (Figure 14).

^{*} Average 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.

Figure 14: Average number of COVID-19 cases in intensive care and the average number of intensive care staff unavailable to work due to COVID-19 exposure or illness by jurisdiction and week of report*†‡, Australia, 1 January to 23 February 2025



Source: Critical Health Resource Information System (CHRIS)

^{*} Axis varies between jurisdictions.

[†] Average 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.

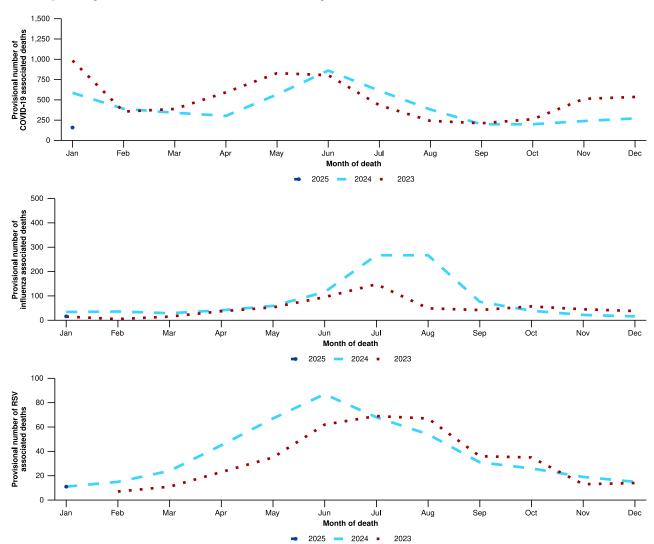
[‡] Intensive care staff include both medical and nursing staff.

Mortality surveillance

Death registrations can provide information on the scale and severity of disease associated with acute respiratory infections. For more information on death registrations, including completeness and timeliness, refer to the Technical Supplement.

- COVID-19 has been the leading cause of acute respiratory infection mortality across 2023–2025.
- Deaths involving COVID-19 have increased slightly in November and December 2024 but remain lower than deaths at the same point in 2023.
- Deaths involving influenza remained low in November and December 2024. Influenza-related mortality in 2024 was 67.3% higher than those recorded in 2023 (1,002 deaths compared to 599).
- Deaths involving RSV have been at comparable levels to those recorded in 2023 since July.
- All three of these acute respiratory infections are more likely to cause death in older age groups than younger age groups.

Figure 15: Provisional numbers of acute respiratory infection associated deaths*†‡ by month, year and respiratory infection, Australia, 2023 – January 2025



Source: Australian Bureau of Statistics, Provisional Mortality Statistics, Jan - Nov 2024, released 28 February 2025.

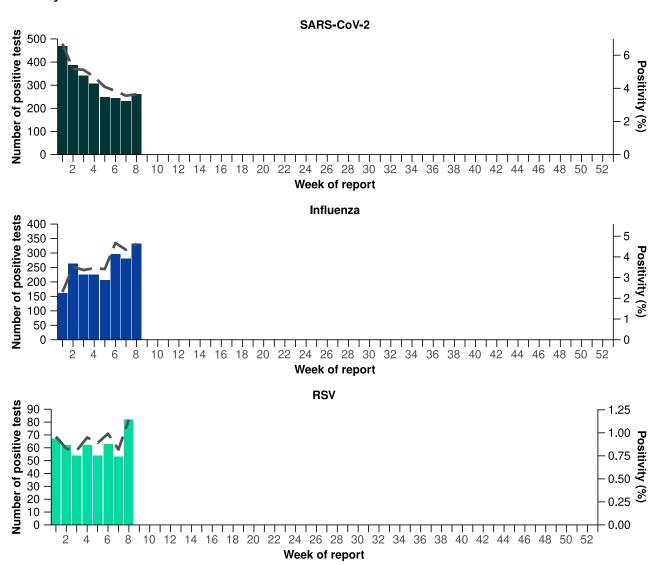
^{*} Axis varies between acute respiratory associated deaths. An acute respiratory associated death is one where the disease has either directly caused the death or the person has died with the virus (a person has died from another cause but the disease still contributed significantly to death).
† Data is provisional and subject to change. It can take several weeks for death registrations to be reported, processed, coded, validated, and tabulated. Therefore, the data shown here may be incomplete, and will likely not include all deaths that occurred during a given time. Data includes all deaths (both doctor and coroner certified) that occurred and were registered by 31 January 2025. Please refer to the <u>Technical Supplement</u> for more information.
‡ All deaths involving COVID-19 in this report have been coded to ICD-10 codes U07.1-U07.2, U10.9 or U09.9. All deaths involving influenza have been coded to J09-J11. All deaths involving RSV have been coded to J12.1, J20.5, J21.0, B97.4.

Laboratory surveillance

Sentinel laboratory surveillance monitors and characterises respiratory pathogens to provide information on what pathogens are circulating, potential changes in the pathogens that might affect their infectiousness, severity, ability to evade vaccine and/or infection-acquired immunity, or resistance to antivirals.

This month (27 January to 23 February 2025), SARS-CoV-2 test positivity has decreased to 3.5% (733/20,872), influenza test positivity has increased slightly to 4.3% (1,117/26,066), and RSV test positivity has increased to 0.9% (188/20,872) (Figure 16).

Figure 16: Number of tests positive (bars) and test positivity (line) for SARS-CoV-2, influenza or RSV of those specimens tested by sentinel laboratories by week of report*†, Australia, 1 January to 23 February 2025

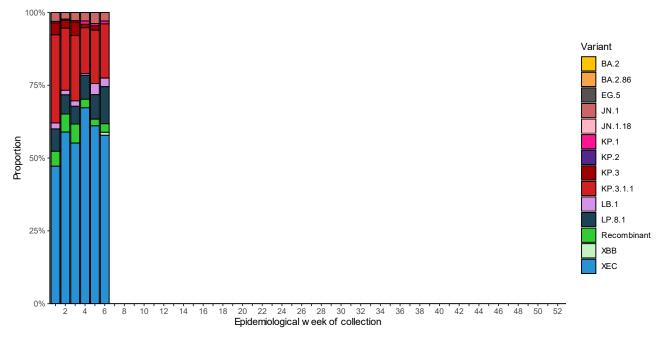


Source: Sentinel laboratories, including National Influenza Centres

^{*} 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.

- There were 233 sequences uploaded to AusTrakka with dates of collection in the past 28 days (27 January to 23 February 2025). These sequences were from New South Wales, Queensland, South Australia, Tasmania, and Western Australia, with the most recent collection date 6 February 2025.
- 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 (Figure 17). There were no BA.1, BA.3, BA.4, BA.5
 or other BA.2 sub-sub-lineage sequences. In the past 28 days:
 - 37.3% (87/233) of sequences were from the sub-sub-lineages JN.1 (BA.2.86.1.1), including from KP.3 (45/87)
 - 62.7% (146/233) of sequences were recombinant or recombinant sub-lineages, including XEC, a recombinant between KS.1.1 (JN.1.13.1.1.1) and KP.3.3
- XEC is now the dominant circulating variant, followed by JN.1 and associated sub-lineages (Figure 17).
- 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:
 - There are 169 LP.8.1 sequences in AusTrakka, with 24 collected in the past 28 days. LP.8.1 was designated as a VUM as of 24 January 2025.
 - There are 1,841 XEC sequences in AusTrakka, including 139 collected in past 28 days.
 - There are 320 LB.1 sequences in AusTrakka, with eight sequences identified in the past 28 days.
 - There are 2,315 KP.3.1.1 sequences in AusTrakka, with 43 sequences identified in the past 28 days.

Figure 17a: Omicron sub-lineage* sequences by sample collection date, showing the proportions of sequences per week¹, Australia, 1 January to 23 February 2025



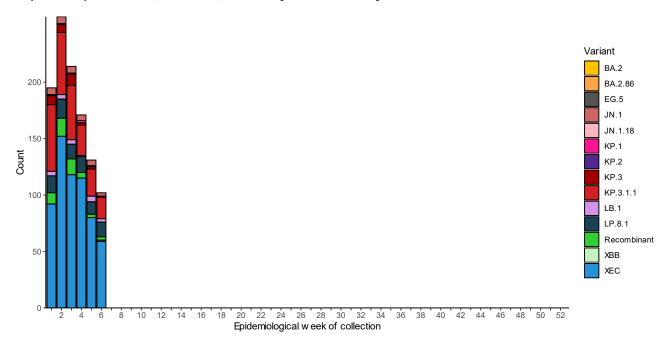
Source: AusTrakka

^{*} 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 week and reported based on date of sample collection, not date of sequencing.

[†] Proportions in Figure 17a may not be representative when sequence numbers are small; refer to Figure 17b. Data for earlier 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.

Figure 17b: Omicron sub-lineage* sequences by sample collection date, showing the count of sequences per week^†, Australia, 1 January to 23 February 2025



Source: AusTrakka

- In the year to date, 51.7% (121/234) of influenza viruses characterised by the WHO Collaborating Centre for Reference and Research on Influenza have been influenza A(H1N1), 26.5% (62/234) have been influenza A(H3N2) and 21.8% (51/234) have been influenza B/Victoria (Table 4).
- In the year to date, there have been no influenza B/Yamagata viruses characterised by the WHO Collaborating Centre (Table 4).
- Currently, no samples have been tested yet for neuraminidase inhibitor resistance to Oseltamivir or Zanamivir.

Table 4: Australian influenza viruses typed by haemagglutination inhibition assay and jurisdiction*†, 1 January to 23 February 2025

Strain	ACT	NSW	NT	Qld	SA	Tas.	Vic.	WA	Total
A(H1N1)	45	8	32	1	2	5	28	0	121
A(H3N2)	6	4	24	3	0	2	21	2	62
B/Victoria lineage	14	2	3	1	6	2	21	2	51
B/Yamagata lineage	0	0	0	0	0	0	0	0	0
Total	65	14	59	5	8	9	70	4	234

Source: World Health Organization (WHO) Collaborating Centre for Reference and Research on Influenza

^{*} 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. A Sequences in AusTrakka aggregated by week and reported based on date of sample collection, not date of sequencing.

[†] Proportions in Figure 17a may not be representative when sequence numbers are small; refer to Figure 17b. Data for earlier 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.

^{*}Viruses tested by the WHO Collaborating Centre 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.

Vaccine coverage, effectiveness and match

Vaccine coverage, effectiveness and match for acute respiratory infections are monitored from several data sources in Australia. Refer to the <u>Technical Supplement</u> for more information.

Vaccine coverage

Data on vaccine coverage is currently unavailable, but will be included in future reports.

Vaccine effectiveness

• It is too early to assess vaccine effectiveness for the 2025 influenza season.

Vaccine match

- Refer to the <u>Technical Supplement</u> for information on the 2025 southern hemisphere influenza vaccines composition.
- In the year to date, 98.3% (119/121) of influenza A(H1N1) isolates, 100% (62/62) of influenza A(H3N2) isolates and 100% (51/51) of influenza B/Victoria lineage isolates characterised have been antigenically similar to the corresponding 2025 vaccine components.