

## NSW Respiratory Surveillance Report - week ending 09 March 2024

COVID-19 activity is moderate. Influenza activity is low. Respiratory syncytial virus activity is high.

### Summary

COVID-19 activity continues to decrease across all indicators. Influenza activity is low though there is still evidence of continued community circulation. Presentations to emergency departments for children with bronchiolitis continue to increase though admissions have stabilized. Respiratory syncytial virus (RSV) notifications have increased by 14% since last week.

### Data sources and methods

NSW Health continually reviews the methods used to monitor respiratory virus activity in New South Wales. This is due to changes in testing, notification patterns and levels of respiratory virus, including COVID-19, in the community. These changes affect the usefulness of notifications for monitoring virus activity and community transmission over time. The Public Health, Rapid, Emergency and Syndromic Surveillance (PHREDSS) data, COVID-19 sewage surveillance program, whole genome sequencing (WGS) data and sentinel laboratory respiratory virus test results are currently of most value for monitoring COVID-19 and other respiratory viruses of importance in the community. Registration of positive COVID-19 rapid antigen tests (RAT) in NSW ceased on 30 September 2023 and notifications now only reflect cases referred by a doctor for PCR. NSW Health also monitors COVID-19 [outbreaks in residential aged-care facilities](#) that are published by the Australian Government and COVID-19 antiviral prescriptions dispensed in NSW.

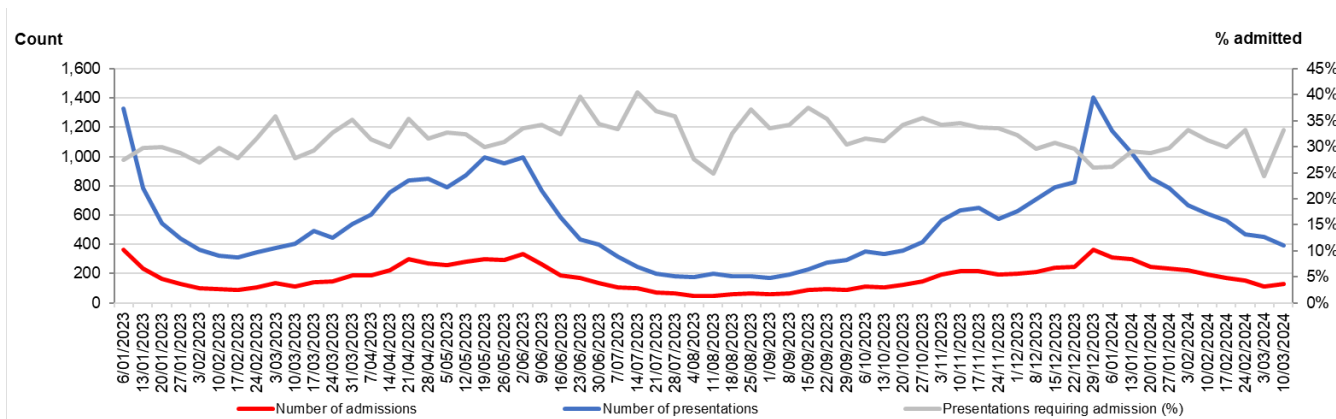
The data source for this report updates as new information becomes available. Therefore, this report cannot be directly compared to previous versions of the NSW Respiratory Surveillance Report or to previous reporting periods. For additional information on the data sources and methods presented within this report please refer to [COVID-19 surveillance report data sources and methodology](#).

## Public Health Rapid, Emergency, Disease and Syndromic Surveillance

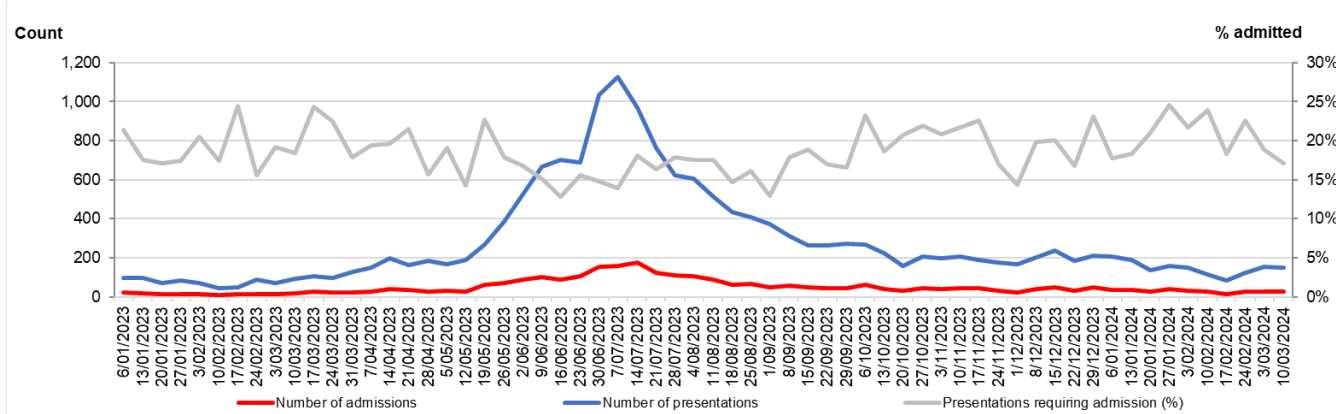
The PHREDSS system provides daily information about presentations to NSW public hospital emergency departments and subsequent admission to hospital categorised by symptom profile. Here we report on COVID-19, influenza-like illness and bronchiolitis (which is mainly caused by respiratory syncytial virus, RSV). These PHREDSS indicators, particularly the number of people admitted to hospital, are useful for monitoring the severity of illness and the impact on the health system.

Interpretation: Presentations EDs for COVID-19 have declined and admissions are stable. Influenza-like illness presentations and admissions are relatively stable. Presentations for bronchiolitis in young children increased while admissions have plateaued at a high level.

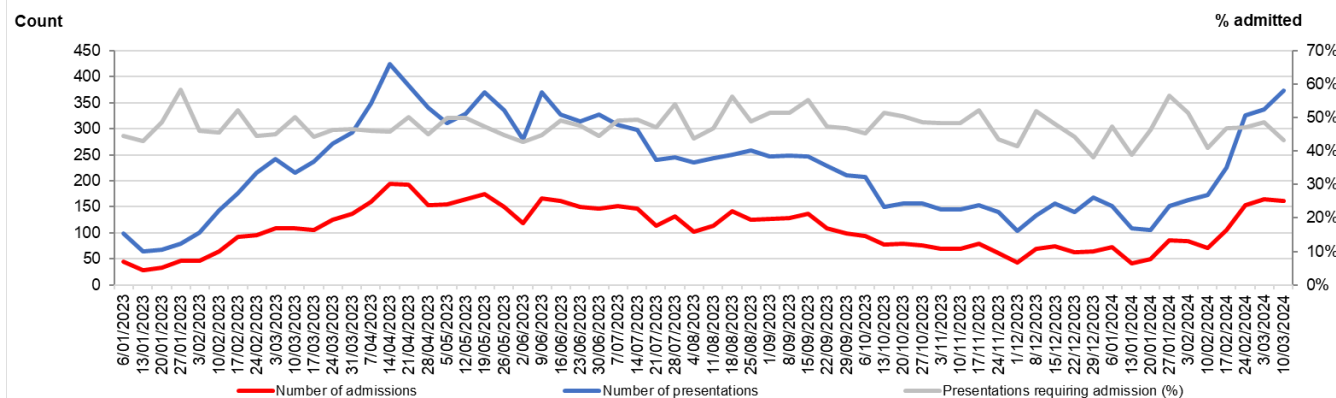
**Figure 1. 'COVID-19' weekly counts of unplanned emergency department (ED) presentations and admission following presentation, 2023-2024, persons of all ages.**



**Figure 2. 'Influenza-like illness' weekly counts of unplanned emergency department (ED) presentations and admission following presentation, 2023-2024, persons of all ages.**



**Figure 3. Bronchiolitis weekly counts of unplanned emergency department (ED) presentations and admission following presentation, 2023-2024, children aged 0-4 years.**



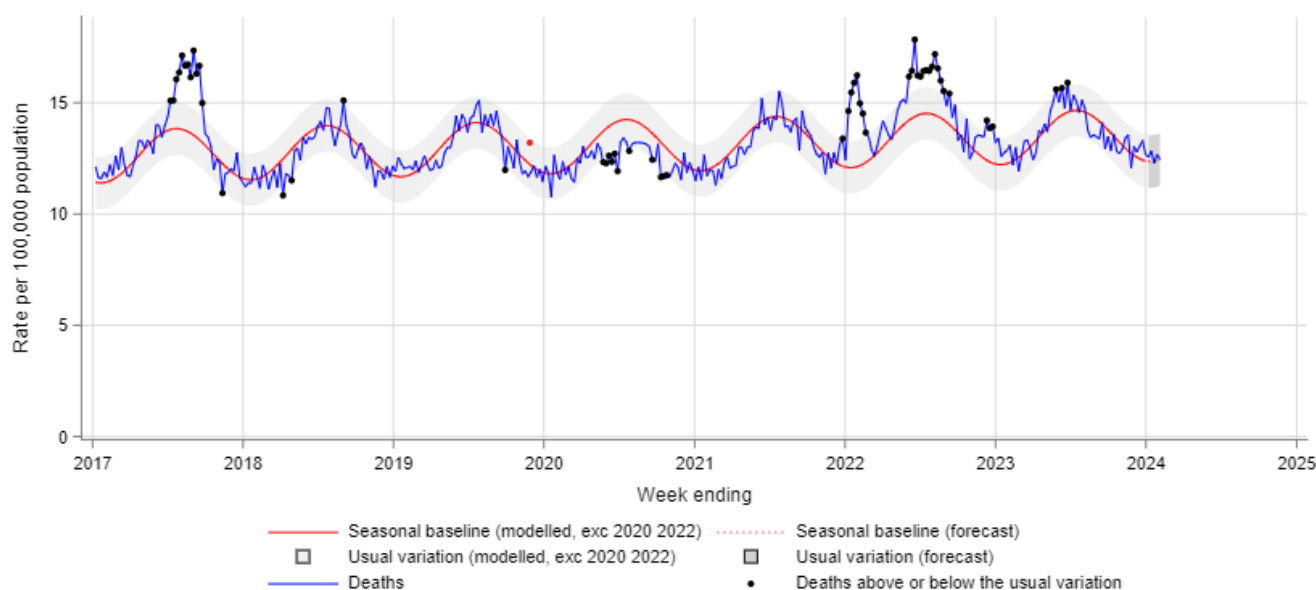
## Death surveillance

### All-cause mortality

The model for rapid surveillance of excess all-cause mortality in NSW is updated annually, and has a focus on surveillance for increased mortality in recent months. The model outputs for the current year should not be directly compared to previous years' outputs, due to a change in the baseline of the model. The NSW model supports surveillance of the impact of circulating viruses such as COVID-19 and influenza on all-cause mortality. This is not the same approach as that used by the [ABS](#) or by the [Actuaries Institute](#) to examine excess mortality associated with COVID-19 during the pandemic period. These approaches modelled excess mortality in the absence of COVID-19.

Interpretation: Weekly lag adjusted all-cause mortality is within the usual variation.

**Figure 4. All-cause death rate per 100,000 population, all ages, 2017 to 4 February 2024**



#### Notes:

In this report, due to the time interval between a death occurring and the date on which the death is registered, only deaths reported 4 weeks prior to the date of analysis are used. Deaths are lag adjusted for the weeks ending 31 December 2023 to 4 February 2024. For additional information see [COVID-19 surveillance report data sources and methodology](#) for details.

Epidemiological week 10, ending 09 March 2024

**Notifications of COVID-19, influenza and RSV**

Notification data is obtained from laboratory tests for infections. This indicator provides information about community infection.

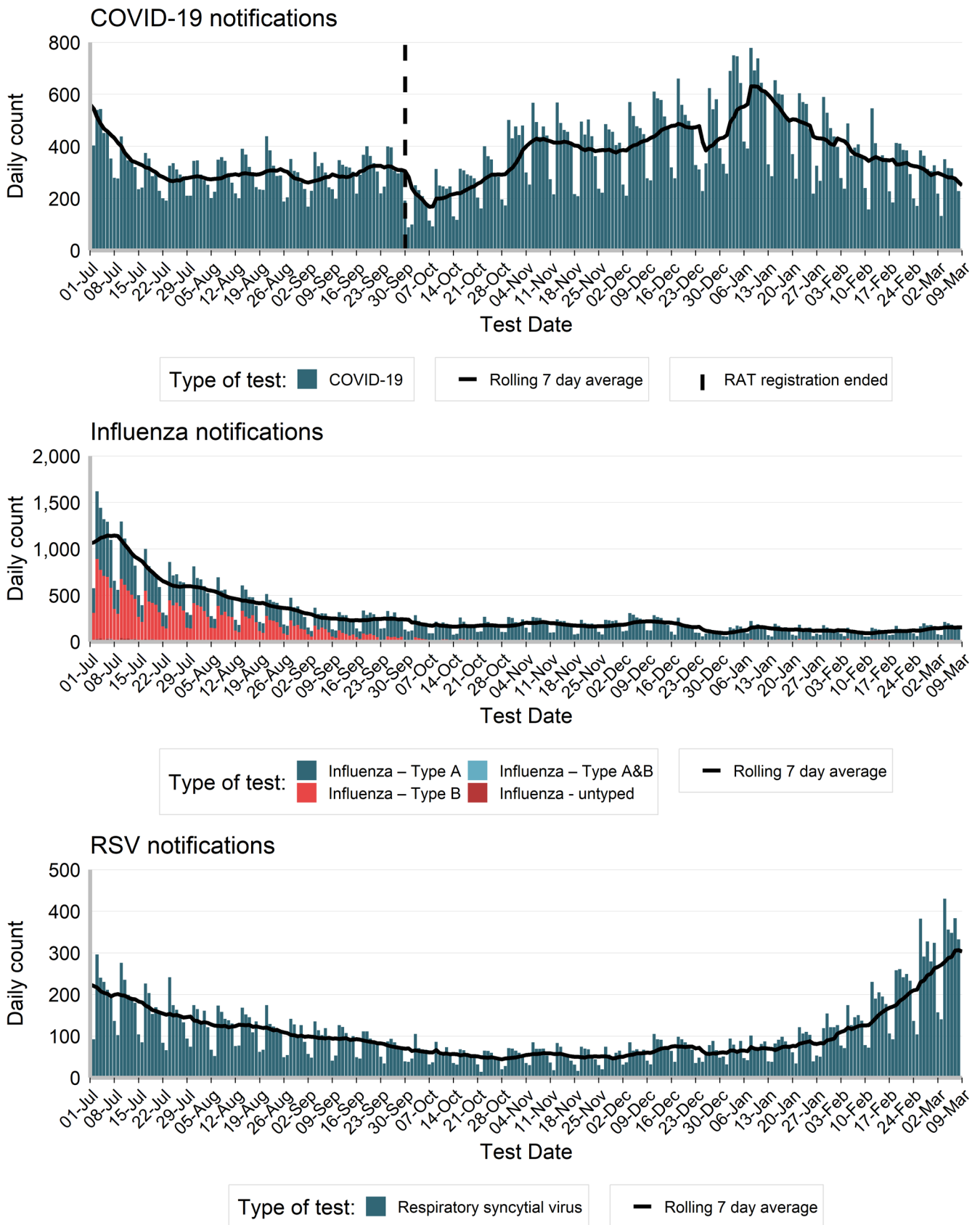
Interpretation: In the past week there was decrease of 15.7% in COVID notifications, an increase of 6.0% in influenza notifications, and an increase of 14.2% in RSV notifications. Most RSV notifications are for children under 5 years of age.

**Table 1: Notifications of COVID-19, influenza and RSV, NSW, tested in the week ending 09 March 2024.**

	COVID		Influenza		RSV	
	week ending 09 March 2024	Year to Date	week ending 09 March 2024	Year to Date	week ending 09 March 2024	Year to Date
Gender						
Female	986	15,478(55%)	570	4,551(52%)	1,079	5,244(51%)
Male	765	12,764(45%)	508	4,268(48%)	1,042	5,020(49%)
Age group (years)						
0-4	172	2,950(10%)	136	1,130(13%)	1,435	6,733(66%)
5-9	32	536(2%)	137	907(10%)	149	531(5%)
10-19	119	1,263(4%)	183	1,187(13%)	64	322(3%)
20-29	127	2,298(8%)	106	1,118(13%)	51	306(3%)
30-39	185	3,161(11%)	138	1,173(13%)	103	476(5%)
40-49	172	2,824(10%)	131	1,026(12%)	69	318(3%)
50-59	181	2,784(10%)	103	823(9%)	67	354(3%)
60-69	200	3,113(11%)	64	616(7%)	68	398(4%)
70-79	246	3,755(13%)	56	518(6%)	53	423(4%)
80-89	233	3,712(13%)	17	242(3%)	48	307(3%)
90+	93	1,849(7%)	7	86(1%)	16	106(1%)
Local Health District of residence						
Central Coast	94	1,036(4%)	26	286(3%)	151	582(6%)
Far West	11	90(0%)	1	13(0%)	1	3(0%)
Hunter New England	169	2,084(7%)	71	376(4%)	125	686(7%)
Illawarra Shoalhaven	85	1,205(4%)	42	406(5%)	91	439(4%)
Mid North Coast	39	766(3%)	16	119(1%)	14	134(1%)
Murrumbidgee	45	586(2%)	25	130(1%)	9	66(1%)
Nepean Blue Mountains	82	1,227(4%)	60	334(4%)	126	505(5%)
Northern NSW	77	1,014(4%)	12	161(2%)	34	216(2%)
Northern Sydney	242	3,285(12%)	240	1,750(20%)	286	1,723(17%)
South Eastern Sydney	167	3,119(11%)	120	1,133(13%)	214	1,192(12%)
South Western Sydney	207	4,253(15%)	154	1,272(14%)	456	1,774(17%)
Southern NSW	34	474(2%)	10	95(1%)	16	75(1%)
Sydney	149	2,463(9%)	79	728(8%)	129	728(7%)
Western NSW	34	539(2%)	15	115(1%)	24	97(1%)
Western Sydney	314	5,824(21%)	209	1,862(21%)	441	2,031(20%)
Aboriginal status						
Aboriginal and/or Torres Strait Islander	47	583(2%)	25	164(2%)	50	241(2%)
Not Aboriginal or Torres Strait Islander	946	15,695(56%)	553	4,856(55%)	873	4,422(43%)
Not Stated / Unknown	760	11,983(42%)	504	3,810(43%)	1,200	5,612(55%)
<b>Total</b>	<b>1,753</b>	<b>28,261(100%)</b>	<b>1,082</b>	<b>8,830(100%)</b>	<b>2,123</b>	<b>10,275(100%)</b>

Note: Total includes all cases including those with missing gender, age, LHD; or who are interstate or overseas residents.

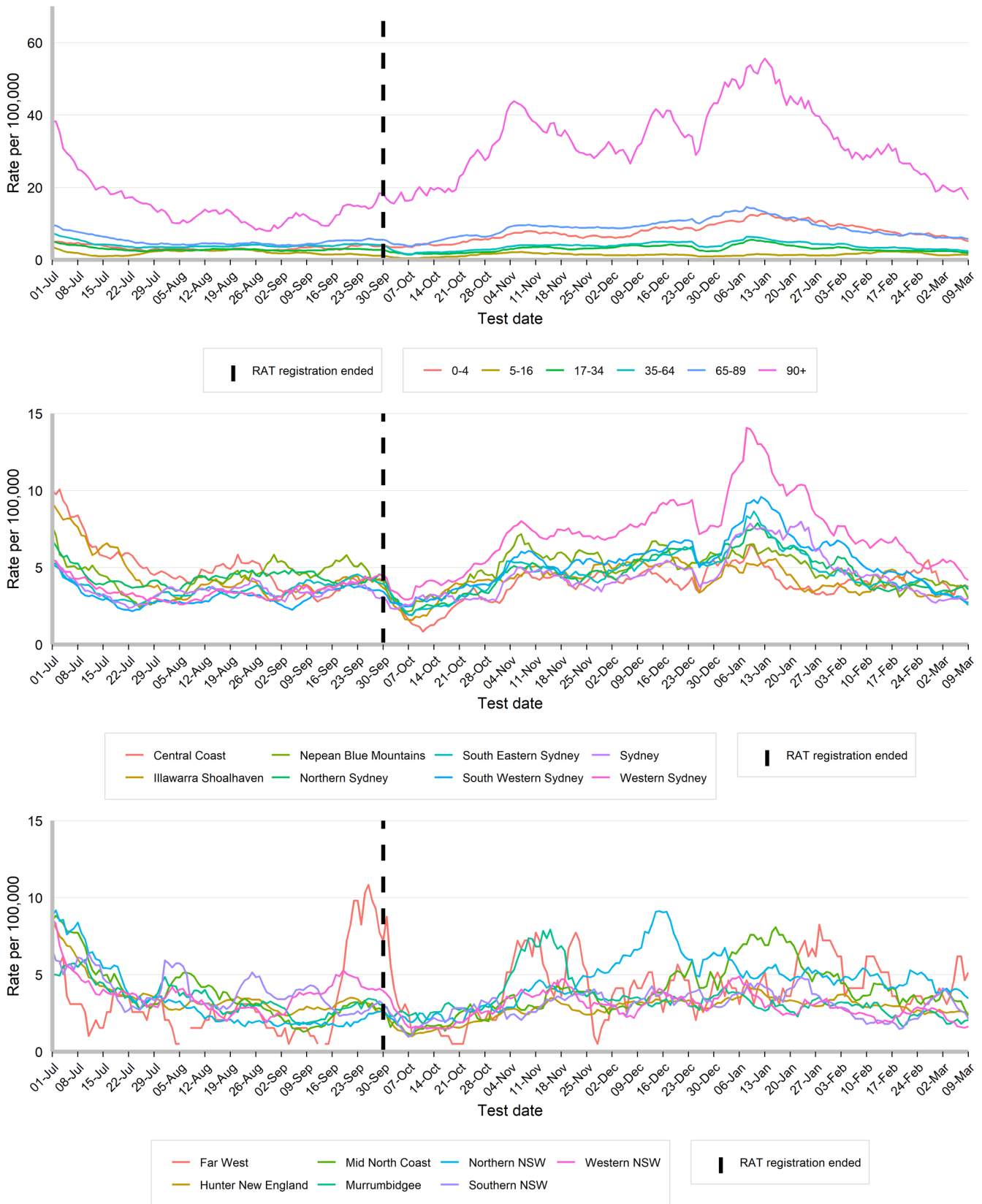
Figure 5. People notified with COVID-19, Influenza and RSV, by date of test and type of test performed, NSW, 01 July 2023 to 09 March 2024.



### Rates of COVID-19 notifications per 100,000 population

**Interpretation:** Rates of COVID-19 notifications are declining across all ages.

**Figure 6. Daily seven-day rolling average rate of COVID-19 notifications per 100,000 population, by age group, Local Health District and test date, NSW, 01 July 2023 to 09 March 2024.**

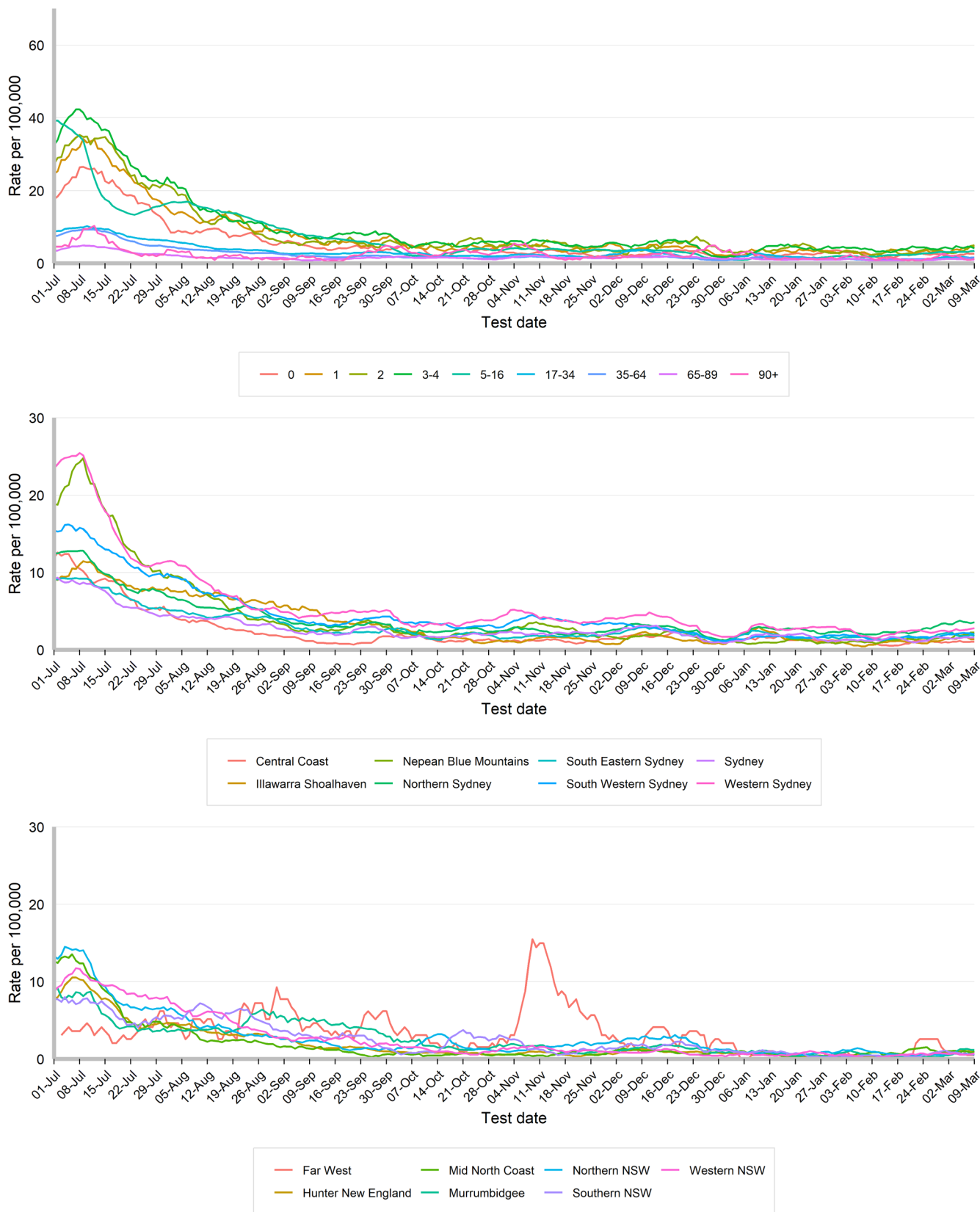




## Rates of influenza notifications per 100,000 population

**Interpretation:** Rates of influenza notifications are low and stable.

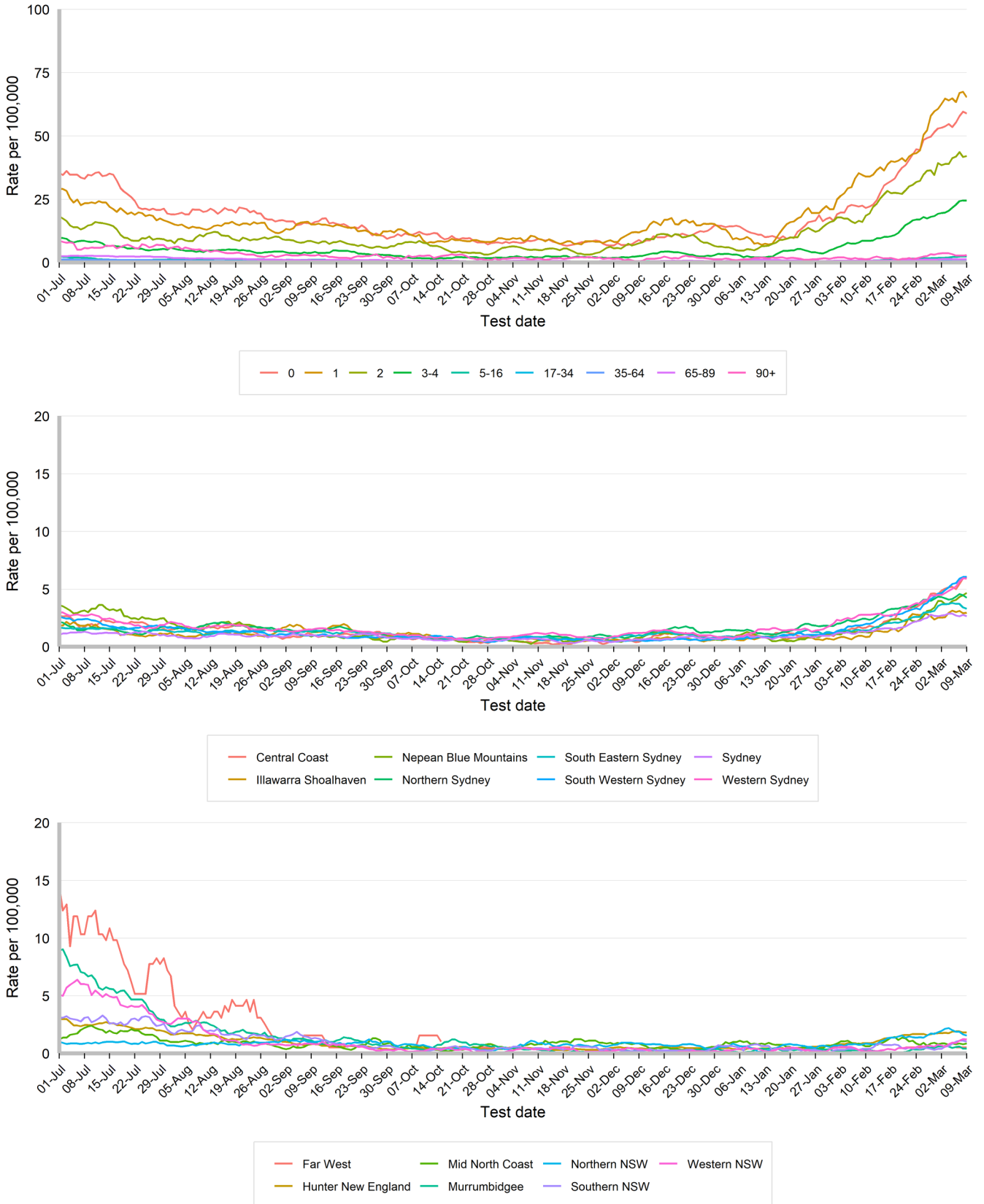
**Figure 7. Daily seven-day rolling average rate of influenza notifications per 100,000 population, by age group, Local Health District and test date, NSW, 01 July 2023 to 09 March 2024.**



### Rates of respiratory syncytial virus notifications per 100,000 population

**Interpretation:** Rates of RSV notifications are increasing in children under 5 years of age with the highest rates in the youngest children.

**Figure 8. Daily seven-day rolling average rate of respiratory syncytial virus notifications per 100,000 population, by age group, Local Health District and test date, NSW, 01 July 2023 to 09 March 2024.**



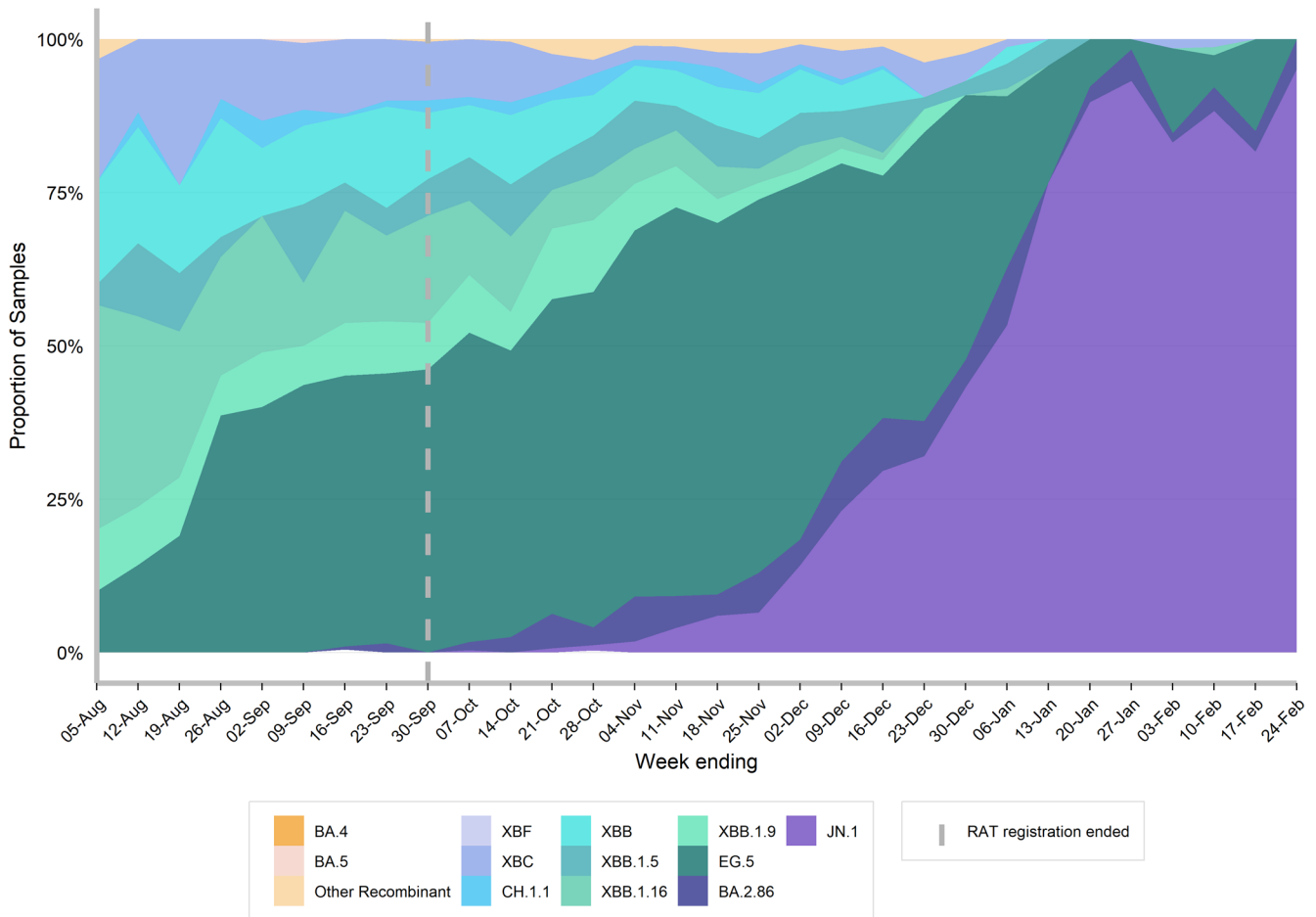


### COVID-19 Whole Genome Sequencing

Specimens from people with COVID-19 undergo whole genome sequencing to identify and understand the behaviour of circulating variants. Community samples are sourced from cases who test via PCR at community pathology services, and may not necessarily reflect the distribution in all cases across NSW. NSW continues to monitor results from cases who are admitted from ICU to monitor for increased disease severity and from cases who return from overseas to monitor for new variants introduced into NSW. There is a lag between the date a PCR test is taken and the date that the results of WGS are reported.

**Interpretation:** JN.1 now dominates sub-lineages circulating in the community.

Figure 9. Estimated distribution of COVID-19 sub-lineages in the community, 5 August 2023 to 24 February 2024.



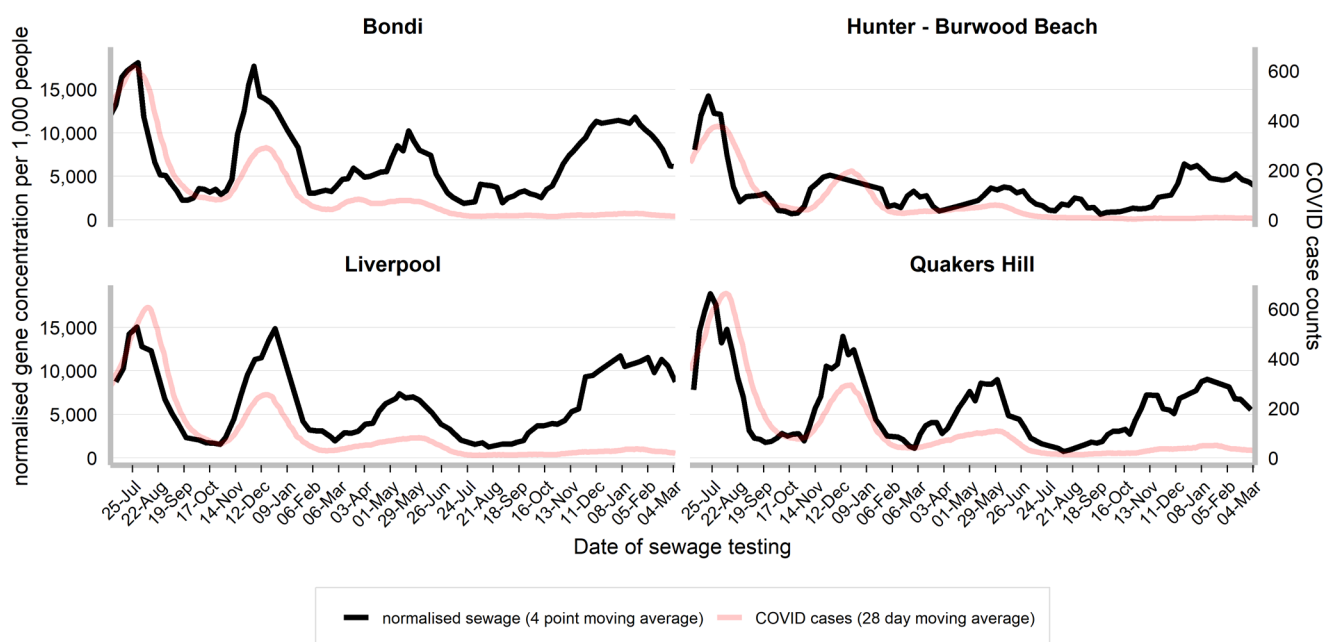
## Other surveillance indicators

### COVID-19 Sewage surveillance program

Trends are presented for Sydney Bondi, Quakers Hills, Liverpool and Burwood Beach sewage catchments from 5 February 2022 to the week ending 06 March 2024. For more information, please see the COVID-19 Sewage Surveillance Program website: <https://www.health.nsw.gov.au/Infectious/covid-19/Pages/sewage-surveillance.aspx>.

**Interpretation:** Gene concentrations per 1,000 people in the Bondi and Quakers Hill catchment areas continue to decline.

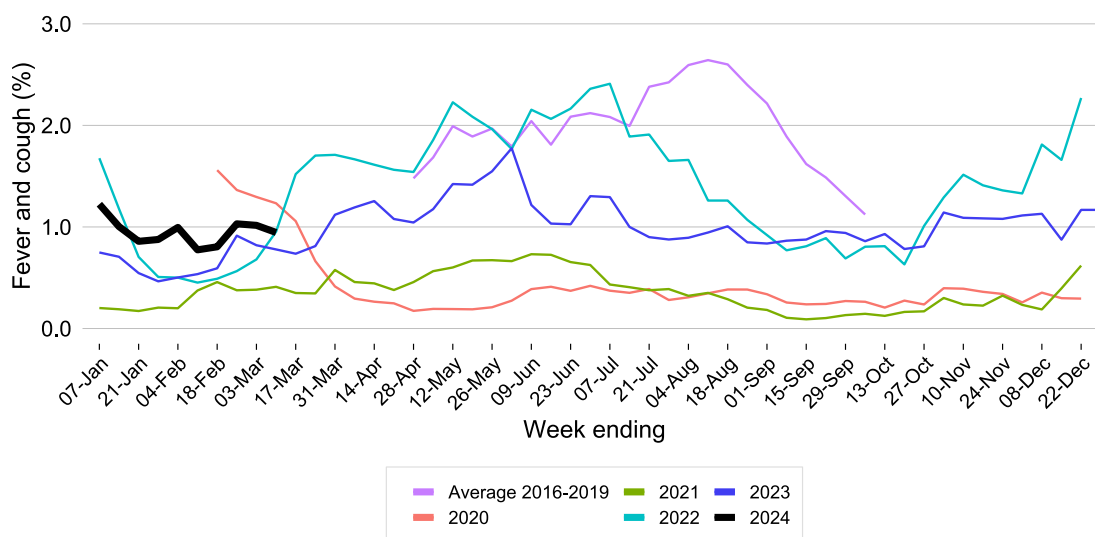
**Figure 10. Gene concentration, per 1,000 people in each sewage catchment, 1 July 2022 to 6 March 2024.**



### FluTracking and NSW sentinel laboratory network

FluTracking is an online health surveillance system used to detect epidemics of influenza across Australia and New Zealand. Participants complete an online survey each week to provide community level influenza-like illness surveillance, consistent surveillance of influenza activity across all jurisdictions over time, and year to year comparisons of the timing, attack rates and seriousness of influenza in the community. More information about FluTracking and ways to be involved are available here: <https://info.flutracking.net/about/>

**Figure 11. Proportion of FluTracking participants reporting influenza-like illness, NSW, 1 January to 3 December 2023.**

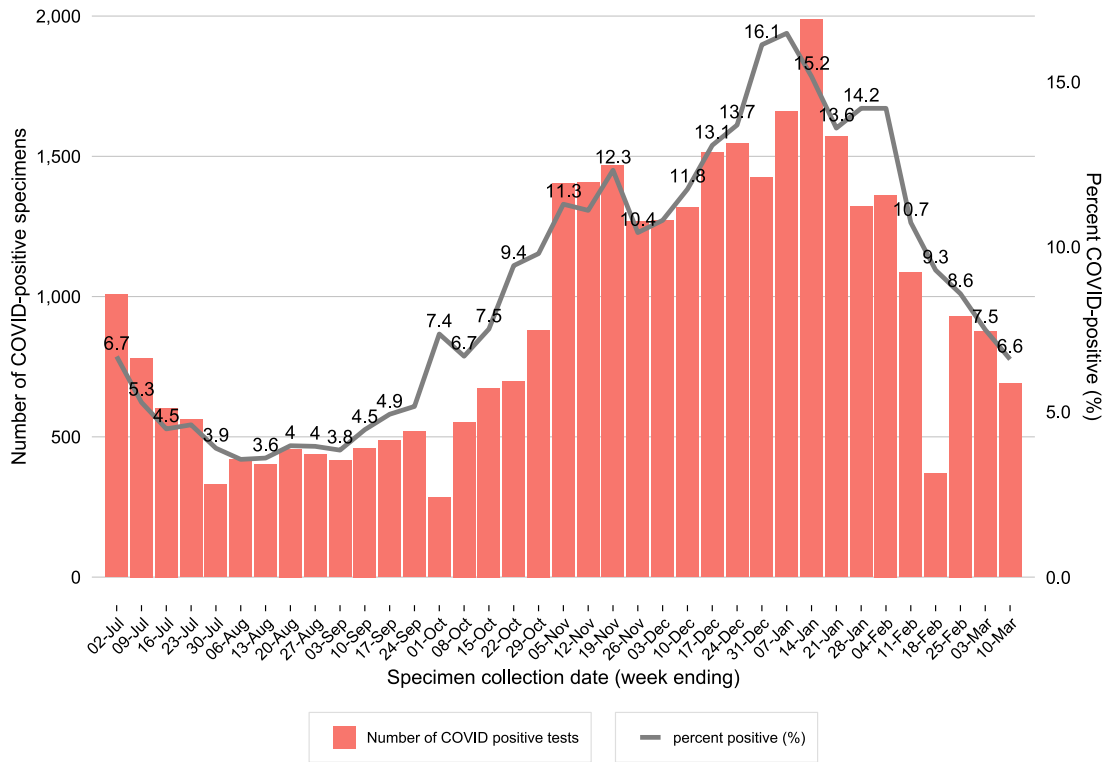


Epidemiological week 10, ending 09 March 2024

The NSW sentinel laboratory network comprises of 13 public and private laboratories throughout NSW who provide additional data on positive and negative test results. This helps us to understand which respiratory viruses are circulating as well as how much.

**Interpretation:** COVID-19 PCR positivity decreased, and influenza positivity is stable.

**Figure 12. Number and proportion of tests positive for COVID-19 at sentinel NSW laboratories, 1 July 2023 to 10 March 2024.**



**Figure 13. Number and proportion of tests positive for influenza at sentinel NSW laboratories, 1 July 2023 to 10 March 2024.**

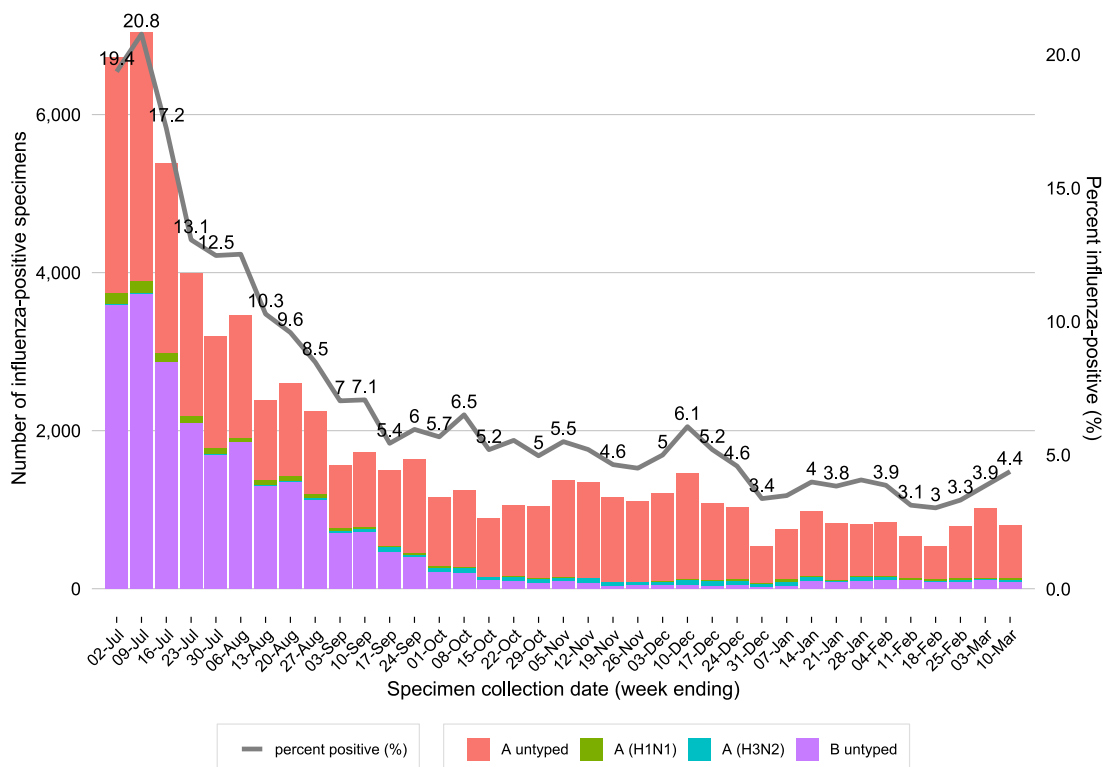


Figure 14. Number of positive PCR test results and proportion of tests positive for other respiratory viruses at sentinel NSW laboratories, 1 July 2023 to 10 March 2024.

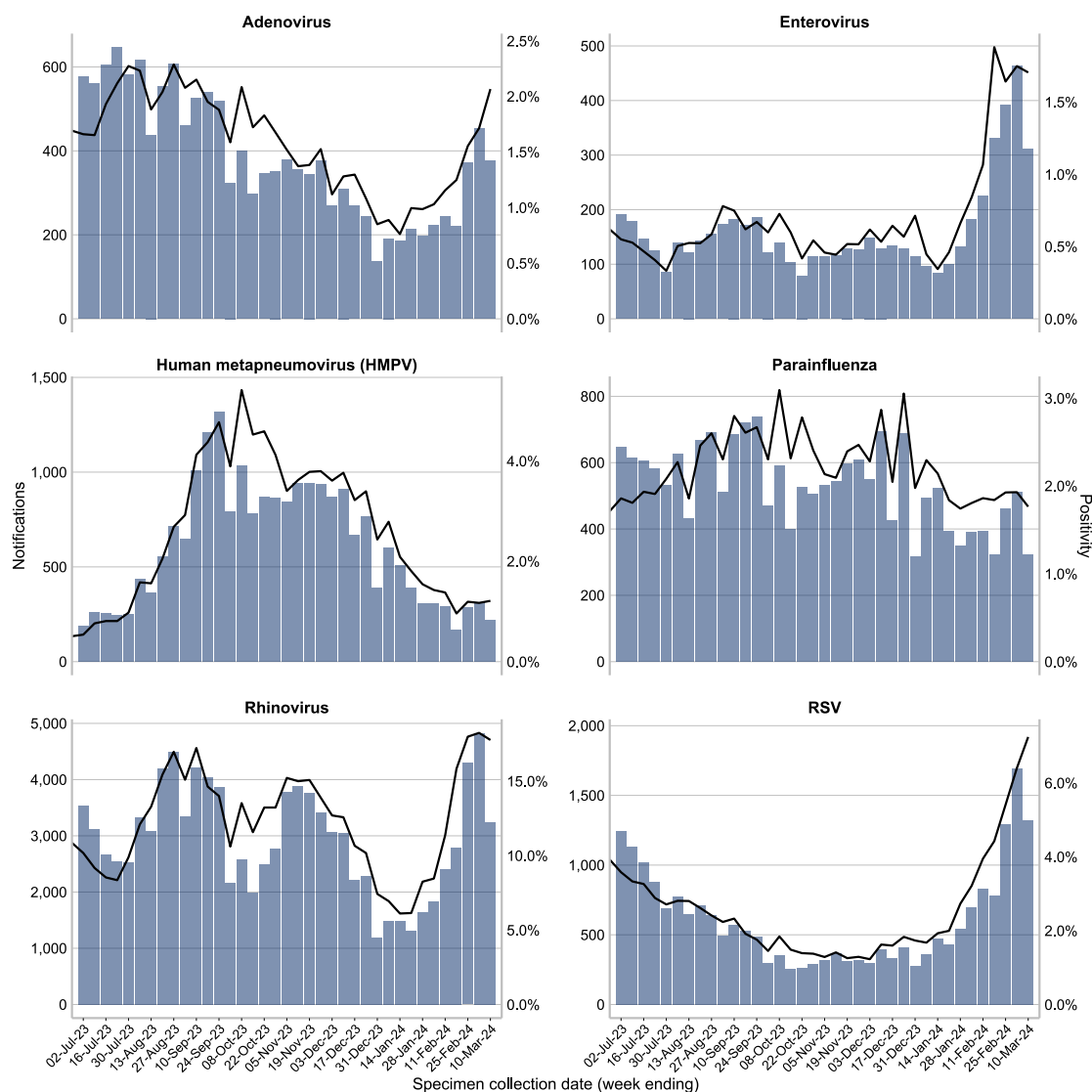


Table 2. Total number of respiratory disease notifications from sentinel laboratories, NSW in the four weeks to 10 March 2024.

	Week ending				Year to date n
	18 February	25 February	03 March	10 March	
	n(% pos)	n(% pos)	n(% pos)	n(% pos)	
Influenza	533 (3.0%)	792 (3.3%)	1,020 (3.9%)	800 (4.4%)	8,005
Adenovirus	220 (1.2%)	371 (1.6%)	454 (1.7%)	377 (2.1%)	2,677
Parainfluenza	324 (1.8%)	460 (1.9%)	511 (1.9%)	322 (1.8%)	4,160
Respiratory syncytial virus (RSV)	779 (4.4%)	1,292 (5.4%)	1,696 (6.4%)	1,322 (7.2%)	8,424
Rhinovirus	2,788 (15.8%)	4,295 (18.0%)	4,831 (18.2%)	3,241 (17.8%)	25,337
Human metapneumovirus (HMPV)	169 (1.0%)	285 (1.2%)	310 (1.2%)	221 (1.2%)	3,390
Enterovirus	331 (1.9%)	392 (1.6%)	463 (1.7%)	311 (1.7%)	2,315
<b>Number of PCR tests conducted</b>	<b>17,606</b>	<b>23,872</b>	<b>26,475</b>	<b>18,238</b>	<b>216,283</b>
SARS-CoV-2	369 (9.3%)	931 (8.6%)	875 (7.5%)	690 (6.6%)	11,854
<b>Number of COVID PCR tests</b>	<b>3,967</b>	<b>10,842</b>	<b>11,673</b>	<b>10,454</b>	<b>100,672</b>
Number of laboratories reporting	11	11	12	8	-
Number of laboratories reporting COVID	3	4	4	3	-

Recent numbers are subject to change

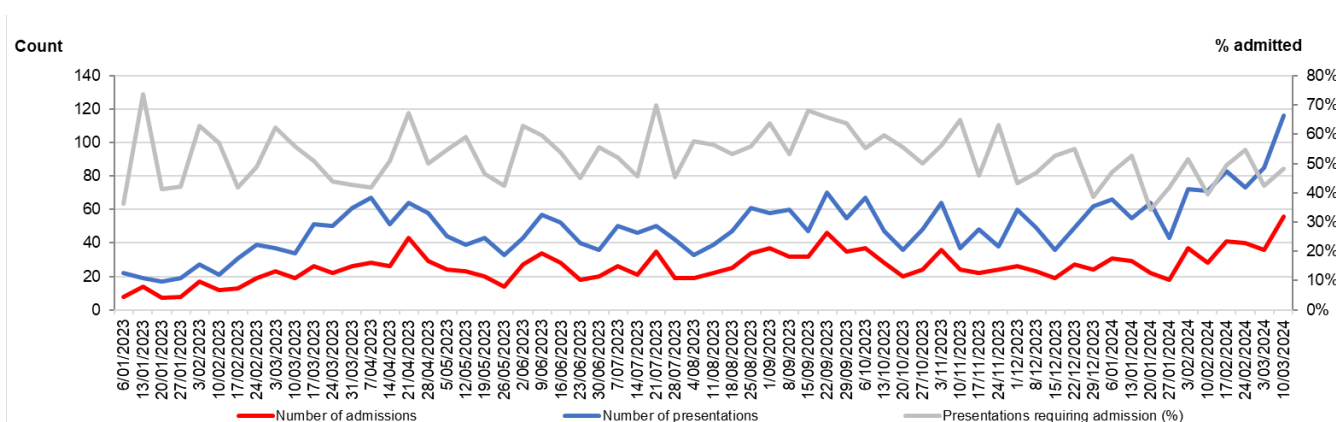
## In Focus

This section of the report will be provided when NSW Health is investigating a particular aspect of respiratory illness activity.

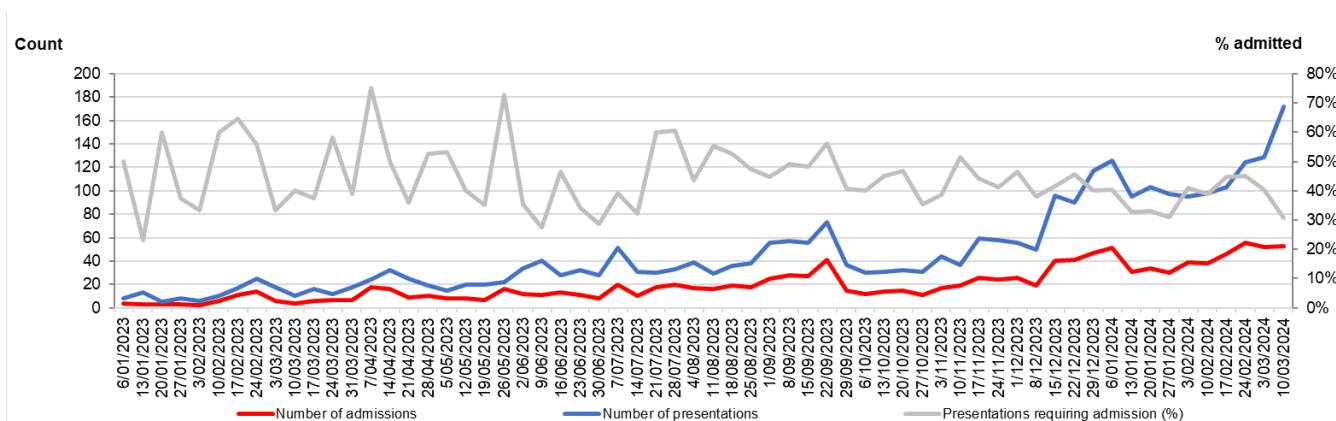
### Pneumonia in children and young adults in NSW

There have been unseasonably high presentations to emergency departments (ED) with subsequent hospital admissions in NSW for children and young adults with pneumonia. In recent weeks, presentations and admissions for children 0–4 years have continued to increase with no change in the proportion admitted. For children aged 5–16 years there was a continued increase in presentations to ED, however the proportion who were admitted to hospital decreased to 31%. Most ED presentations for pneumonia have unspecified pneumonia diagnoses, that is, a specific cause of the pneumonia has not yet been identified.

**Figure 15. Pneumonia weekly counts of unplanned emergency department (ED) presentations and admission following presentation, 2023-2024, persons aged 0 – 4 years.**



**Figure 16. Pneumonia weekly counts of unplanned emergency department (ED) presentations and admission following presentation, 2023-2024, persons aged 5 – 16 years.**



**Figure 17. Pneumonia weekly counts of unplanned emergency department (ED) presentations and admission following presentation, 2023-2024, persons aged 17 – 34 years.**

