

## NSW Respiratory Surveillance Report - fortnight ending 02 March 2024

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

### Summary

COVID-19 activity has decreased across all indicators. Influenza activity is low and remains at inter-seasonal levels. Over the past fortnight there has been a continued increase in presentations and admissions to emergency departments for children with bronchiolitis, an increase in respiratory syncytial virus (RSV) notifications with the highest rates in the youngest children, and the RSV sentinel test positivity is greater than 5%.

From next week the NSW Respiratory Surveillance Report will be produced every 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 sources for this report update 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 and admission to EDs for COVID-19 have declined. Influenza-like illness presentations and admissions are relatively stable. Presentations and admissions for bronchiolitis in young children increased.

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

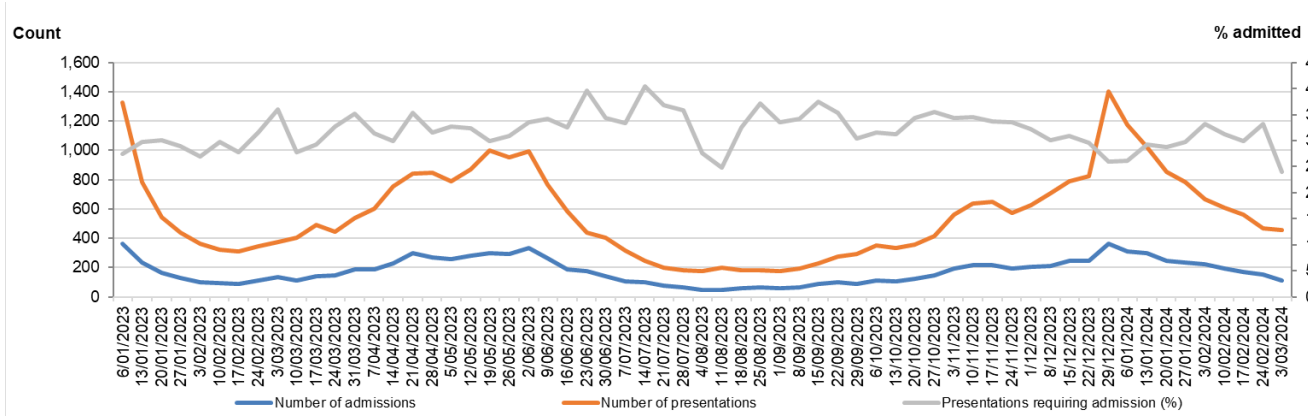


Figure 2. 'Influenza-like illness' weekly counts of unplanned emergency department (ED) presentations and admission following presentation, 2023-2024, persons of all ages.

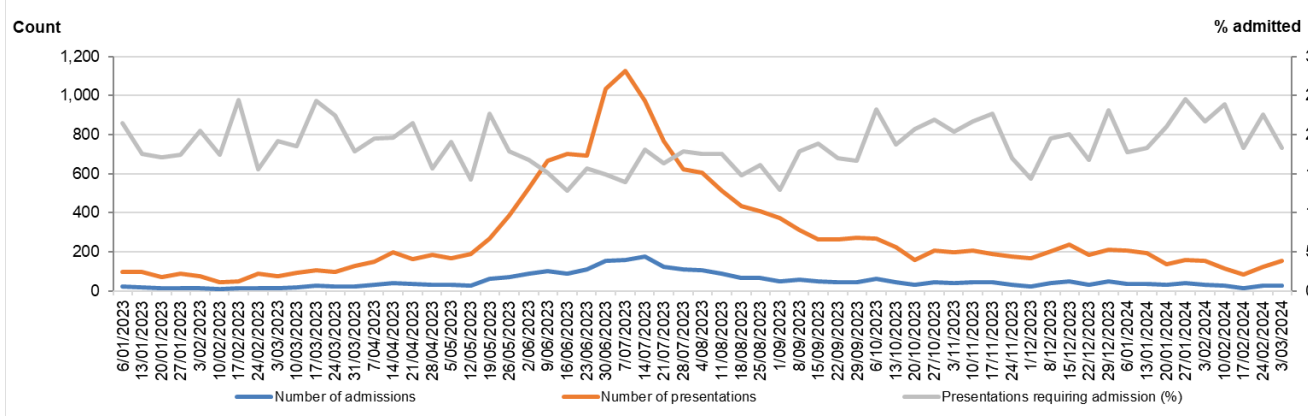
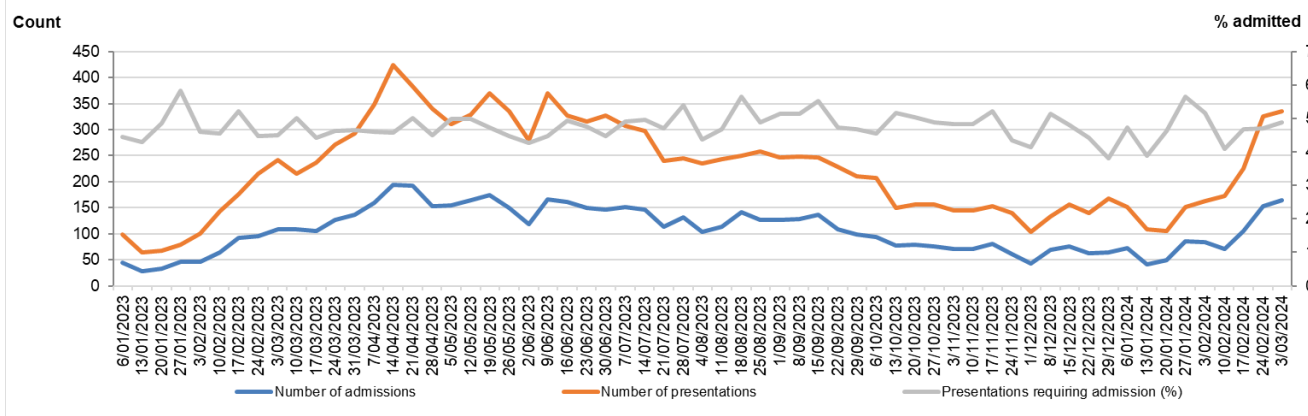


Figure 3. Bronchiolitis weekly counts of unplanned emergency department (ED) presentations and admission following presentation, 2023-2024, children aged 0-4 years.



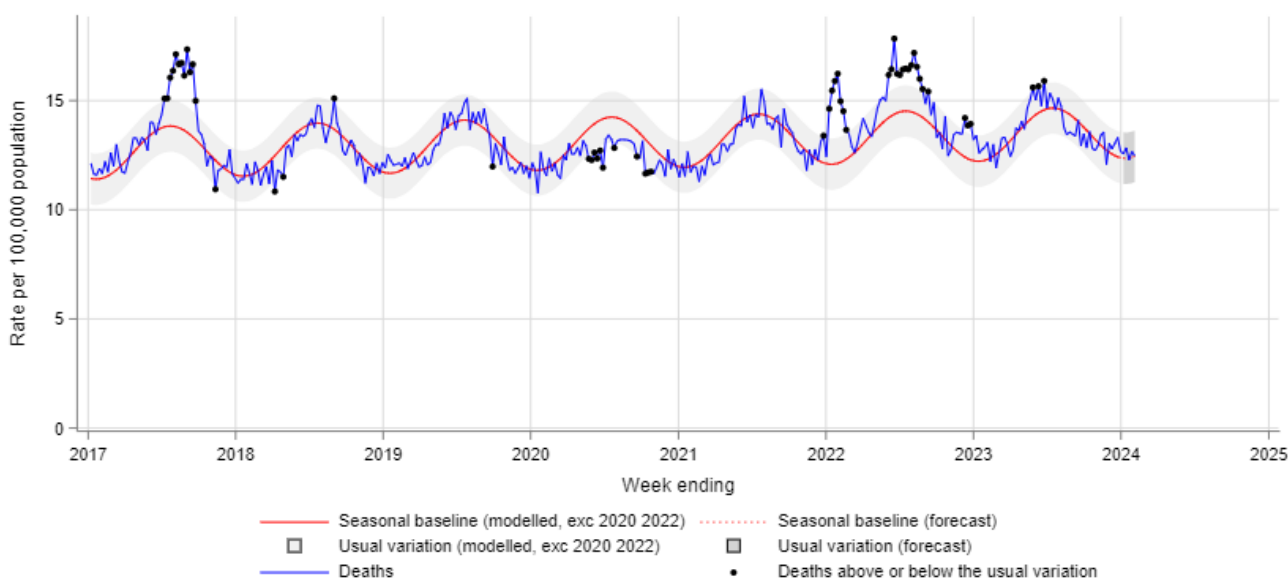
## Death surveillance

### 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 weeks 8 &amp; 9, ending 02 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.

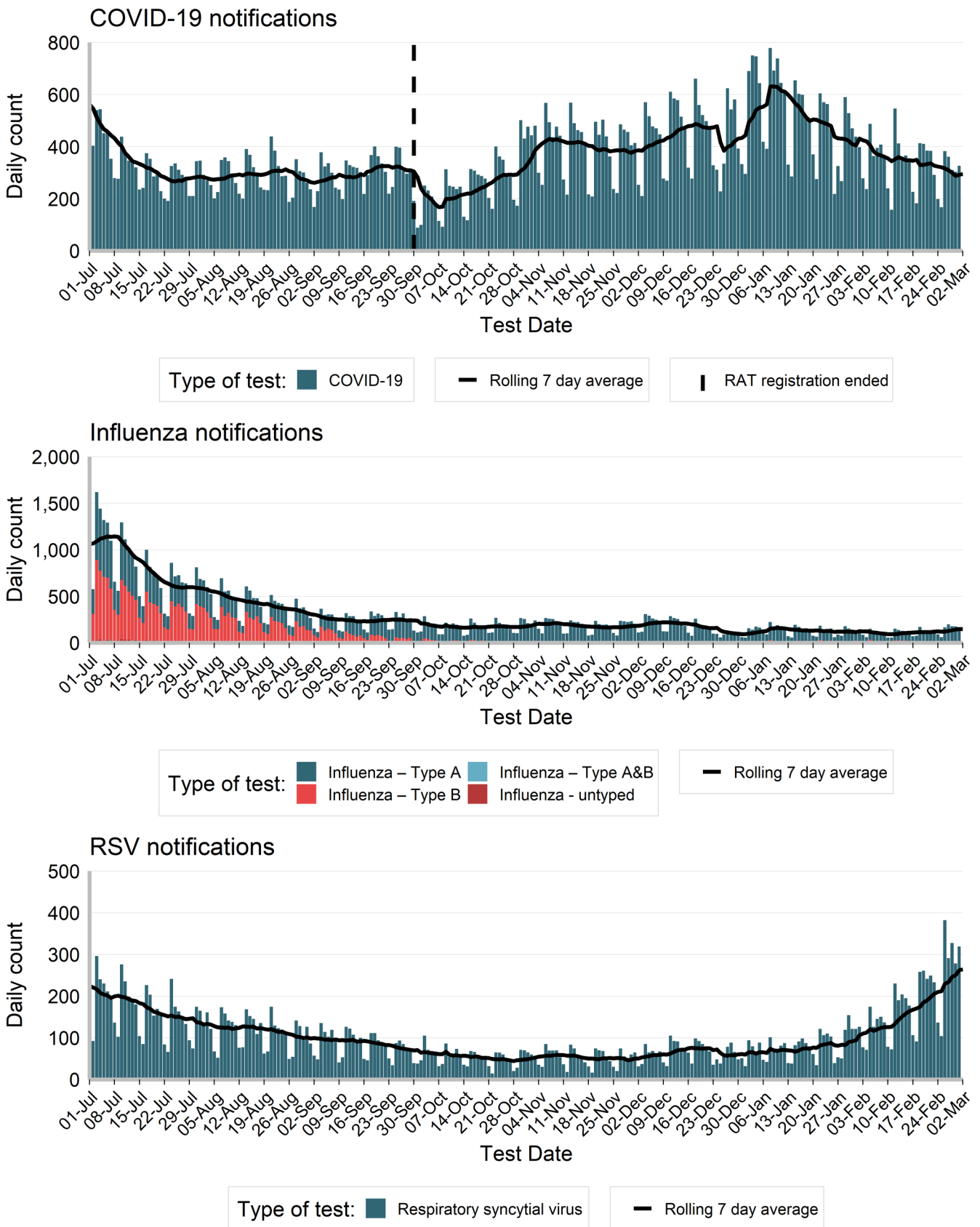
**Interpretation:** In the past fortnight there was decrease of 10.9% in COVID notifications, an increase of 34.0% in influenza notifications, and an increase of 62.2% in RSV notifications. Most RSV notifications are for children under 5 years of age.

**Table 1: Notifications of COVID-19, influenza and RSV, NSW, tested in the fortnight ending 02 March 2024.**

	COVID		Influenza		RSV	
	Fortnight ending 02 March 2024	Year to Date	Fortnight ending 02 March 2024	Year to Date	Fortnight ending 02 March 2024	Year to Date
Gender						
Female	2,318	14,476(55%)	1,014	3,981(51%)	1,704	4,156(51%)
Male	2,007	11,987(45%)	868	3,762(49%)	1,610	3,970(49%)
Age group (years)						
0-4	457	2,777(10%)	231	994(13%)	2,305	5,285(65%)
5-9	113	505(2%)	260	774(10%)	198	381(5%)
10-19	276	1,144(4%)	299	1,003(13%)	117	258(3%)
20-29	355	2,171(8%)	203	1,011(13%)	88	255(3%)
30-39	460	2,974(11%)	242	1,036(13%)	128	372(5%)
40-49	434	2,650(10%)	200	892(12%)	83	249(3%)
50-59	406	2,598(10%)	159	722(9%)	79	286(4%)
60-69	457	2,910(11%)	112	553(7%)	104	329(4%)
70-79	576	3,505(13%)	107	461(6%)	113	370(5%)
80-89	536	3,477(13%)	54	225(3%)	74	259(3%)
90+	248	1,755(7%)	17	79(1%)	29	90(1%)
Local Health District of residence						
Central Coast	216	943(4%)	56	261(3%)	205	430(5%)
Far West	14	79(0%)	7	12(0%)	1	2(0%)
Hunter New England	362	1,915(7%)	101	305(4%)	233	561(7%)
Illawarra Shoalhaven	201	1,121(4%)	73	364(5%)	164	348(4%)
Mid North Coast	117	727(3%)	40	103(1%)	28	120(1%)
Murrumbidgee	96	540(2%)	17	105(1%)	20	57(1%)
Nepean Blue Mountains	222	1,146(4%)	80	274(4%)	167	379(5%)
Northern NSW	192	932(4%)	29	153(2%)	72	181(2%)
Northern Sydney	494	3,042(11%)	409	1,510(19%)	534	1,435(18%)
South Eastern Sydney	485	2,952(11%)	248	1,011(13%)	407	977(12%)
South Western Sydney	568	4,044(15%)	275	1,118(14%)	596	1,315(16%)
Southern NSW	90	432(2%)	22	85(1%)	13	59(1%)
Sydney	309	2,313(9%)	130	649(8%)	239	599(7%)
Western NSW	109	506(2%)	28	100(1%)	23	71(1%)
Western Sydney	810	5,510(21%)	356	1,652(21%)	611	1,583(19%)
Aboriginal status						
Aboriginal and/or Torres Strait Islander	112	535(2%)	27	137(2%)	78	187(2%)
Not Aboriginal or Torres Strait Islander	2,459	14,735(56%)	1,000	4,266(55%)	1,364	3,524(43%)
Not Stated / Unknown	1,756	11,211(42%)	857	3,347(43%)	1,876	4,424(54%)
<b>Total</b>	<b>4,327</b>	<b>26,481(100%)</b>	<b>1,884</b>	<b>7,750(100%)</b>	<b>3,318</b>	<b>8,135(100%)</b>

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

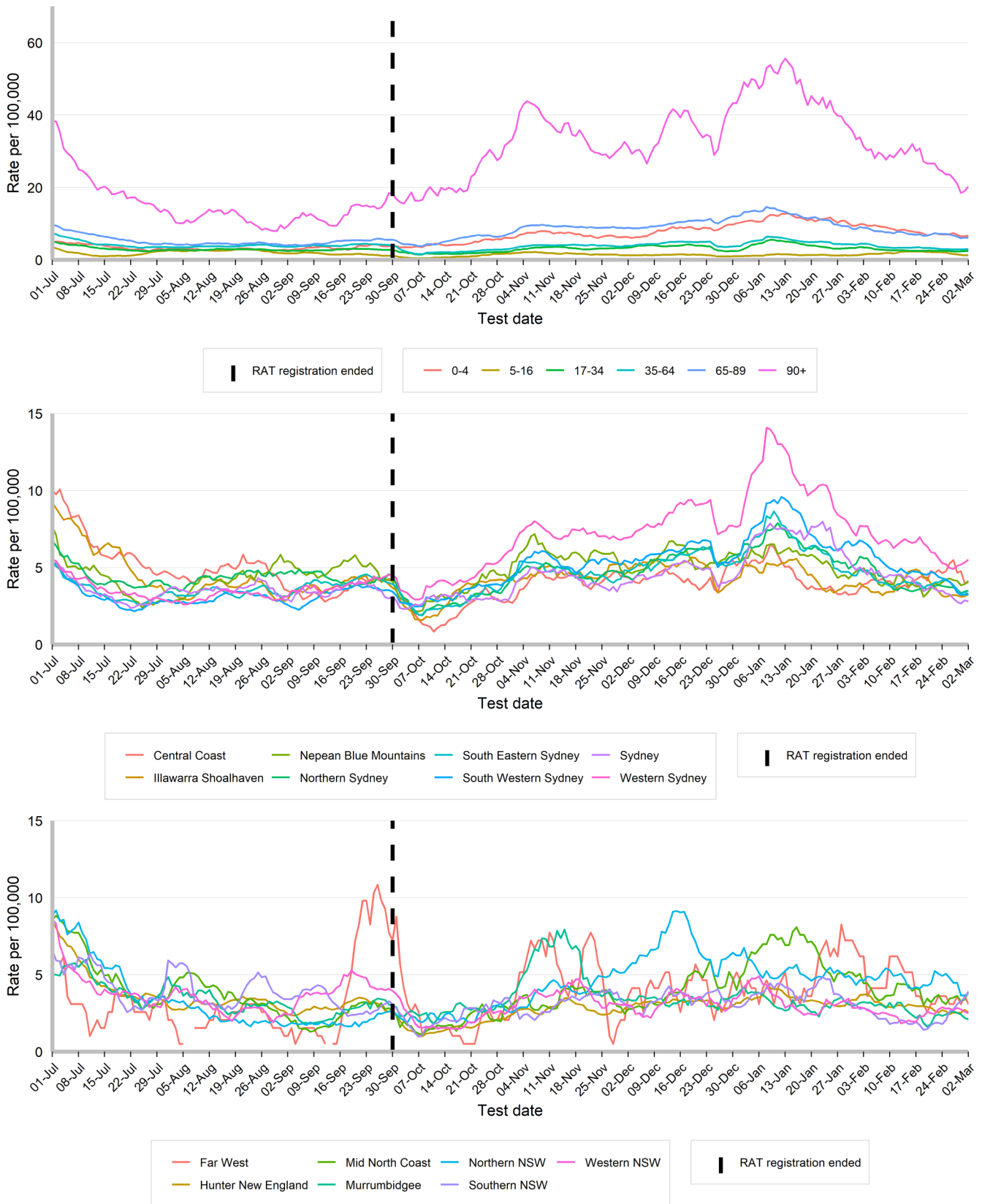
Figure 5. People notified with COVID-19, Influenza and RSV, by date of test and type of test performed, NSW, 01 July 2023 to 02 March 2024.



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

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

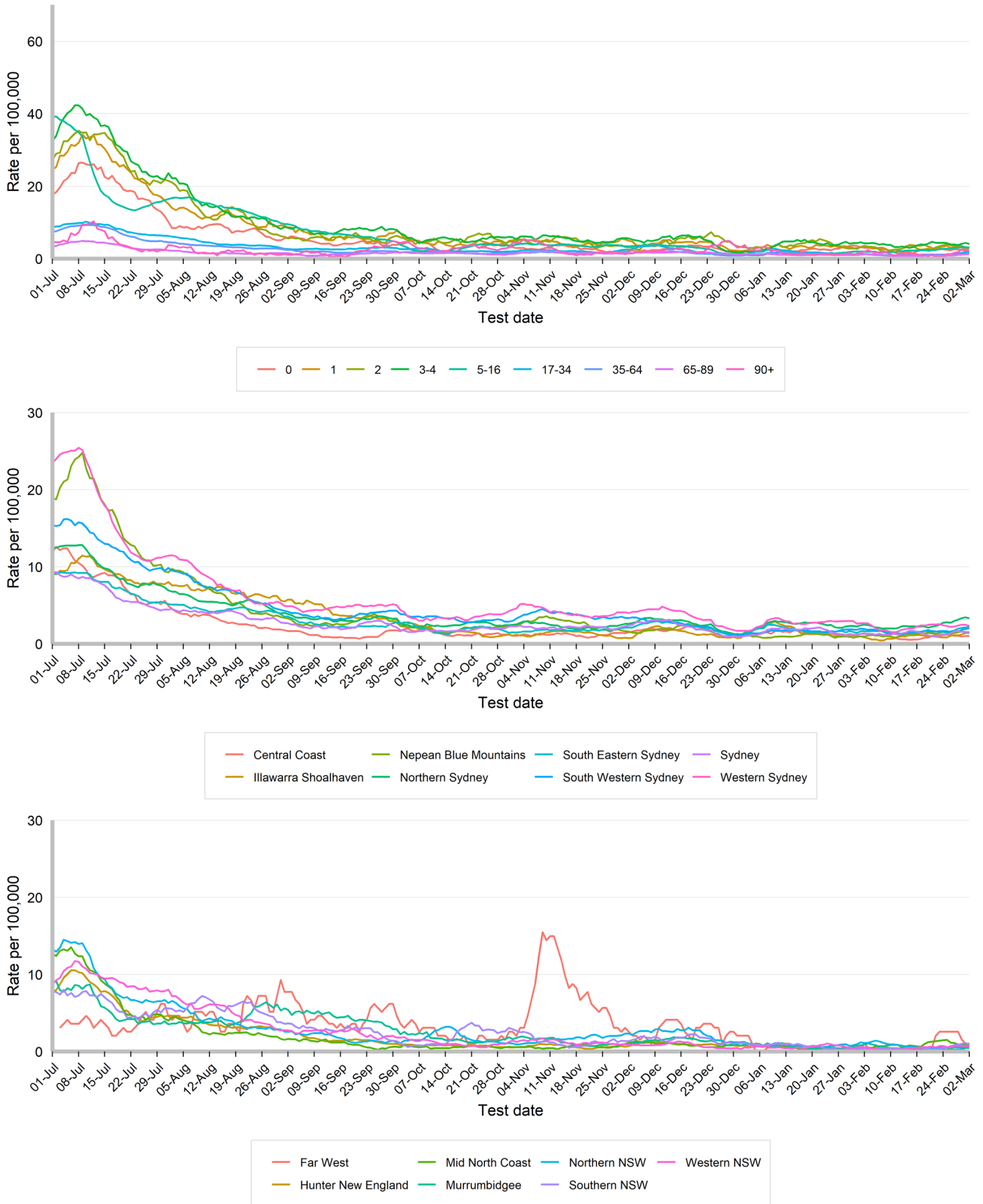
**Figure 6. Daily seven-day rolling average rate of COVID-19 notifications per 100,000 population, by age group, Local Health District and test date, NSW, 01 July 2023 to 02 March 2024.**



## Rates of influenza notifications per 100,000 population

**Interpretation:** Rates of influenza notifications are low and stable across all ages

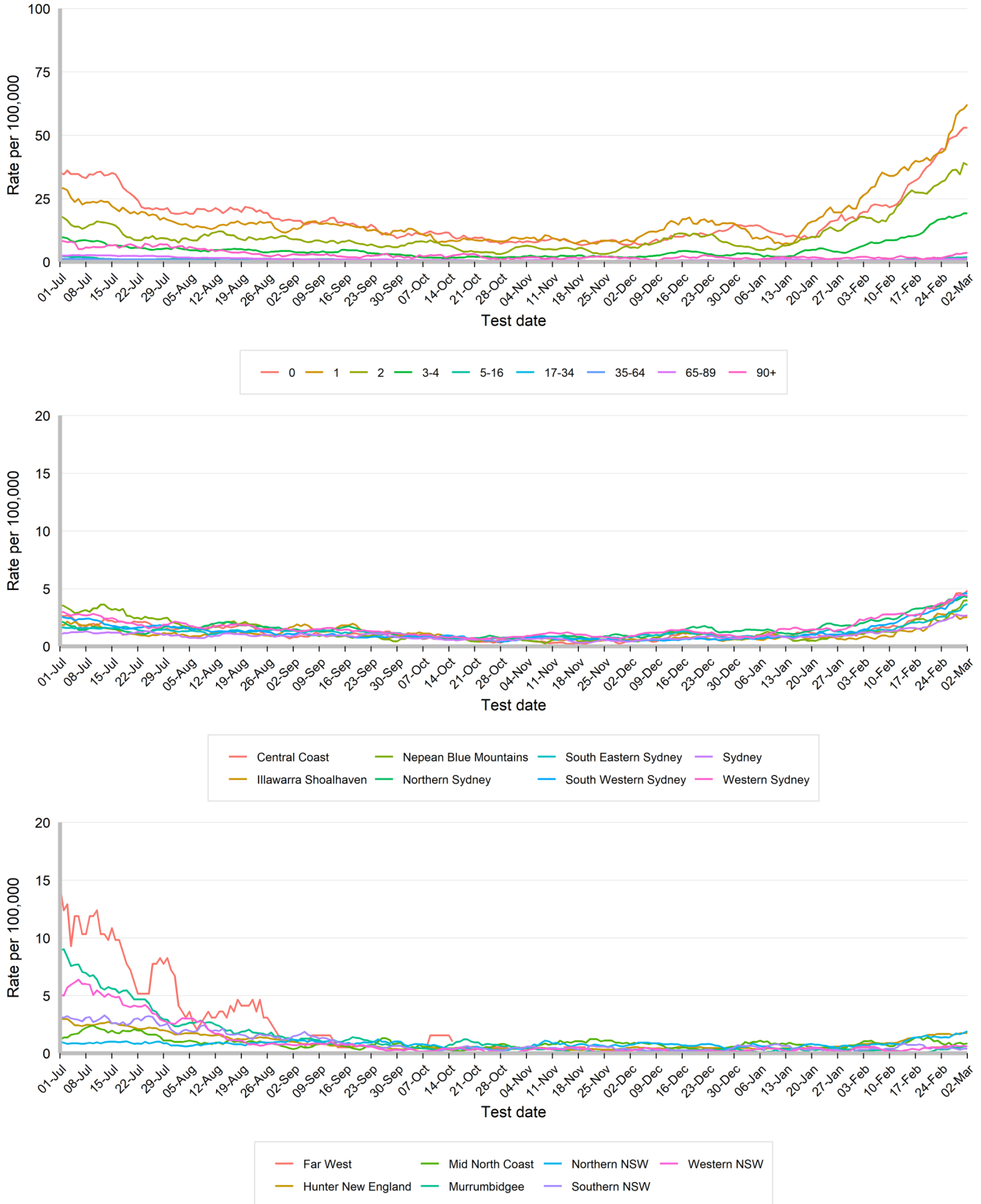
**Figure 7. Daily seven-day rolling average rate of influenza notifications per 100,000 population, by age group, Local Health District and test date, NSW, 01 July 2023 to 02 March 2024.**



### 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 02 March 2024.**



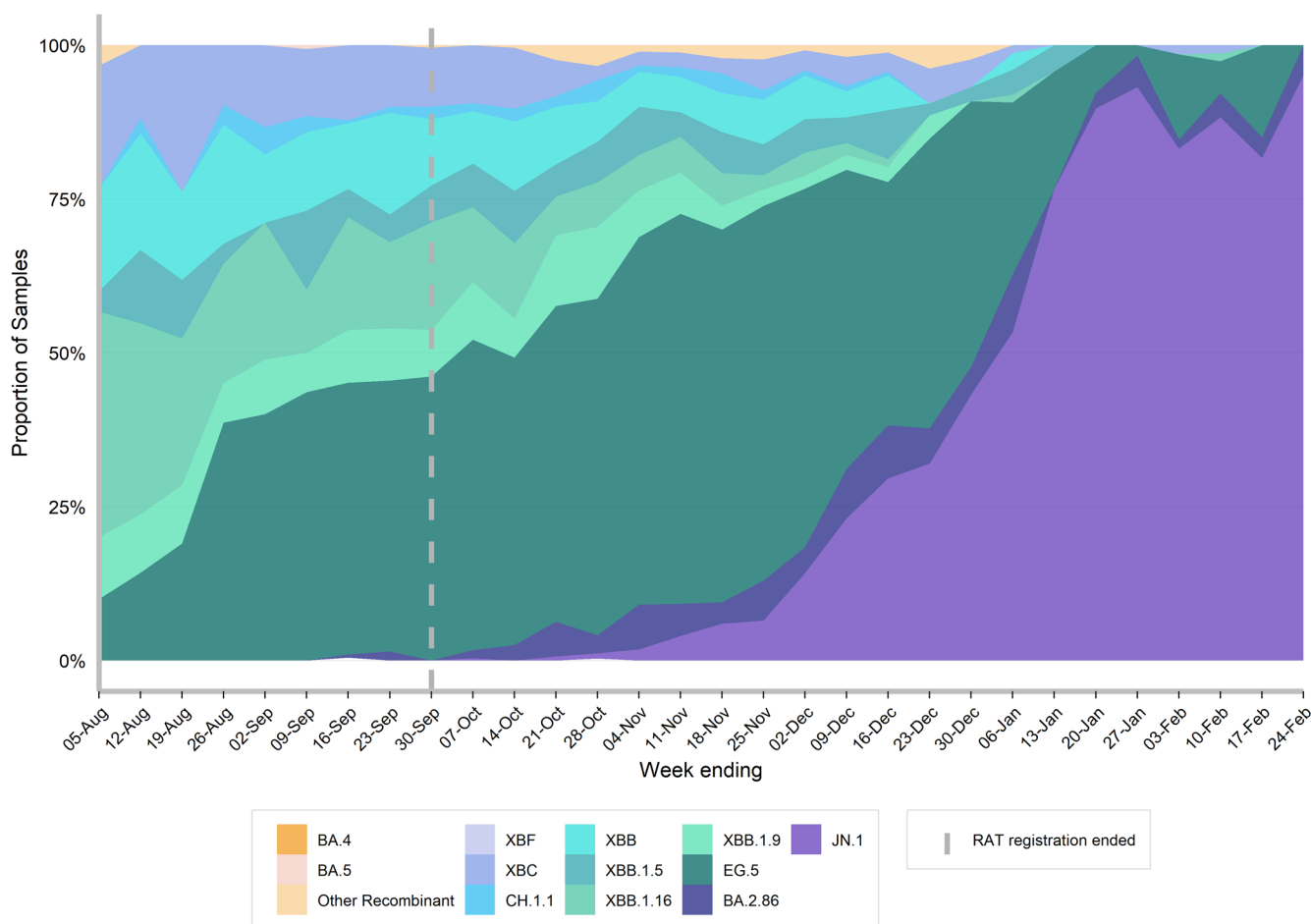


### COVID-19 Whole Genome Sequencing

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, 05 August 2023 to 24 February 2024.



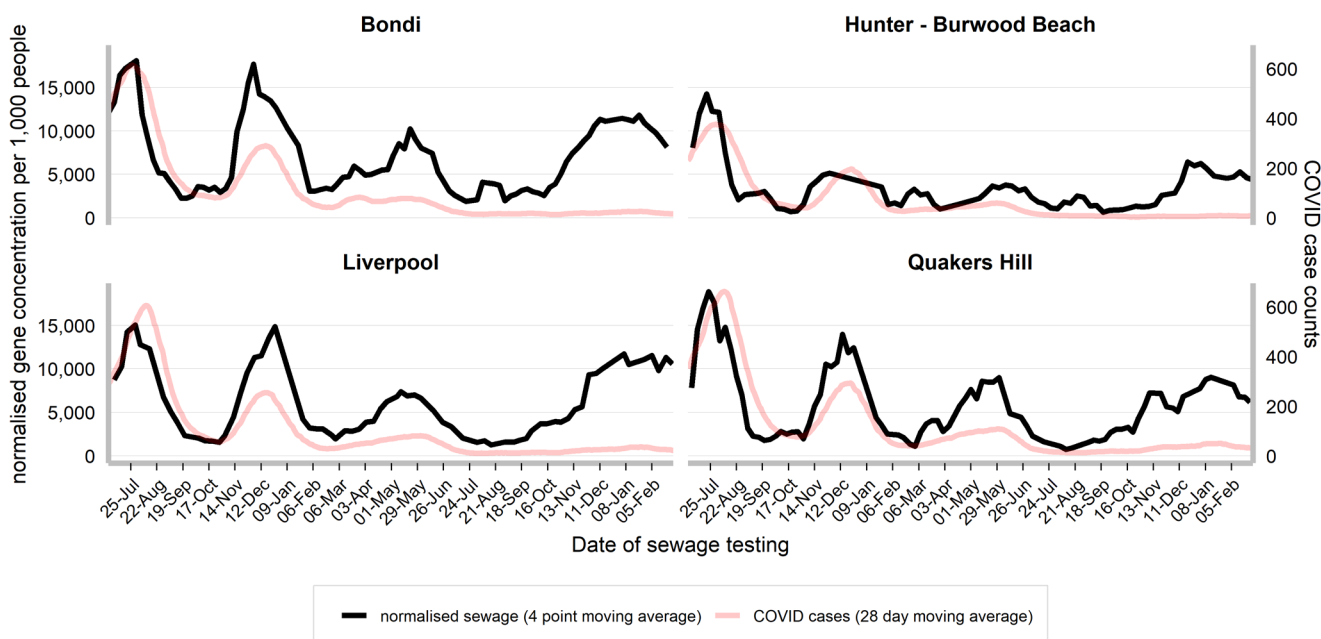
## Other surveillance indicators

### 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 28 February 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 have started to decline.

**Figure 10. Gene concentration, per 1,000 people in each sewage catchment, 1 July 2022 to 28 February 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/>

Over the summer period there is a small sample size for FluTracking, as participants have been given the option to opt-out until April 2024. Reporting of FluTracker data for NSW participants has been suspended until an adequate number of participants are reporting each fortnight.

Epidemiological weeks 8 & 9, ending 02 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. RSV test positivity has increased. Rhinovirus and enterovirus test positivity increased.

Figure 11. Number and proportion of tests positive for COVID-19 at sentinel NSW laboratories, 1 January 2023 to 03 March 2024.

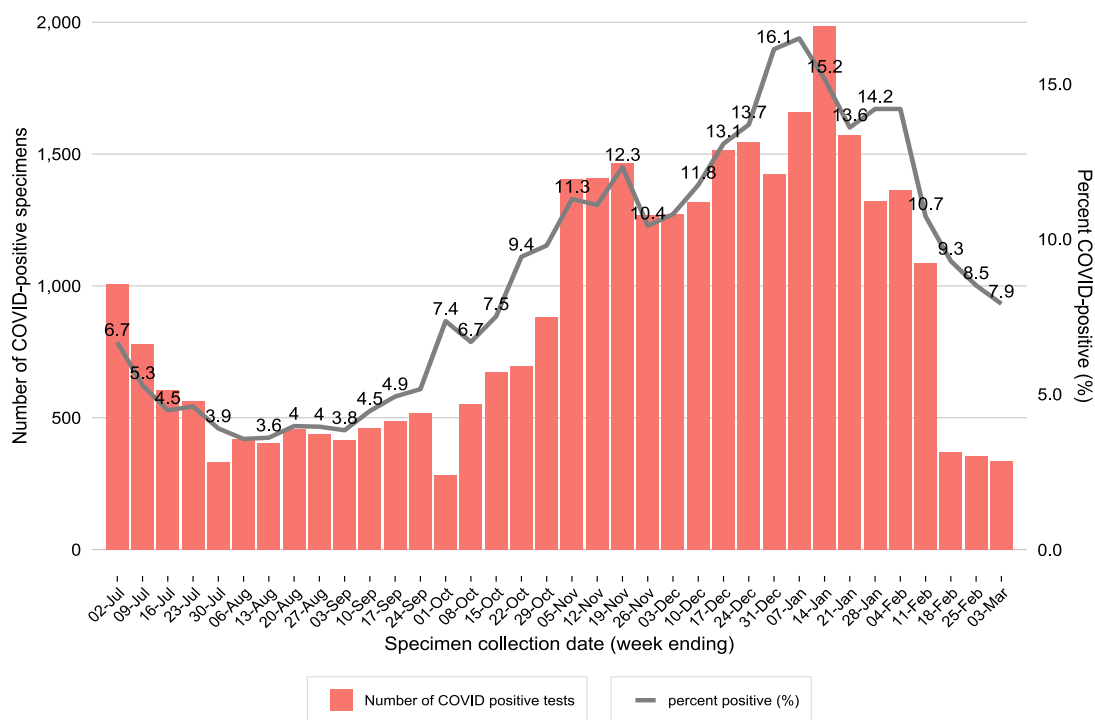


Figure 12. Number and proportion of tests positive for influenza at sentinel NSW laboratories, 1 January 2023 to 03 March 2024.

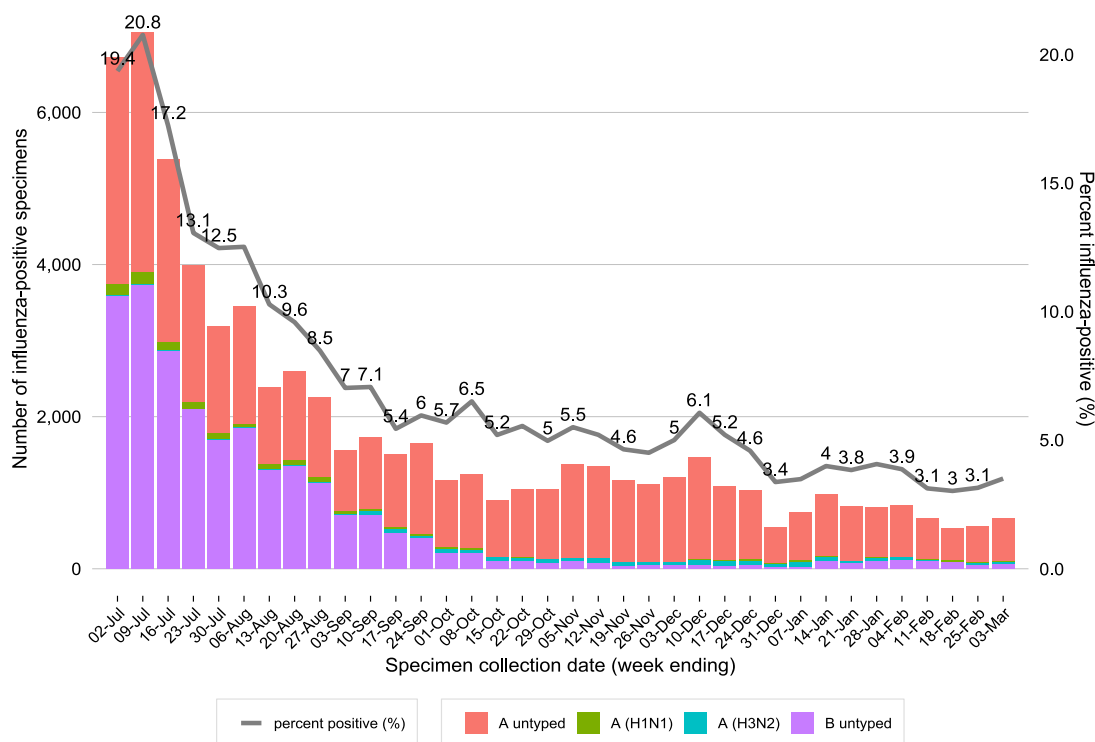


Figure 13. Number of positive PCR test results and proportion of tests positive for other respiratory viruses at sentinel NSW laboratories, 1 January 2023 to 03 March 2024.

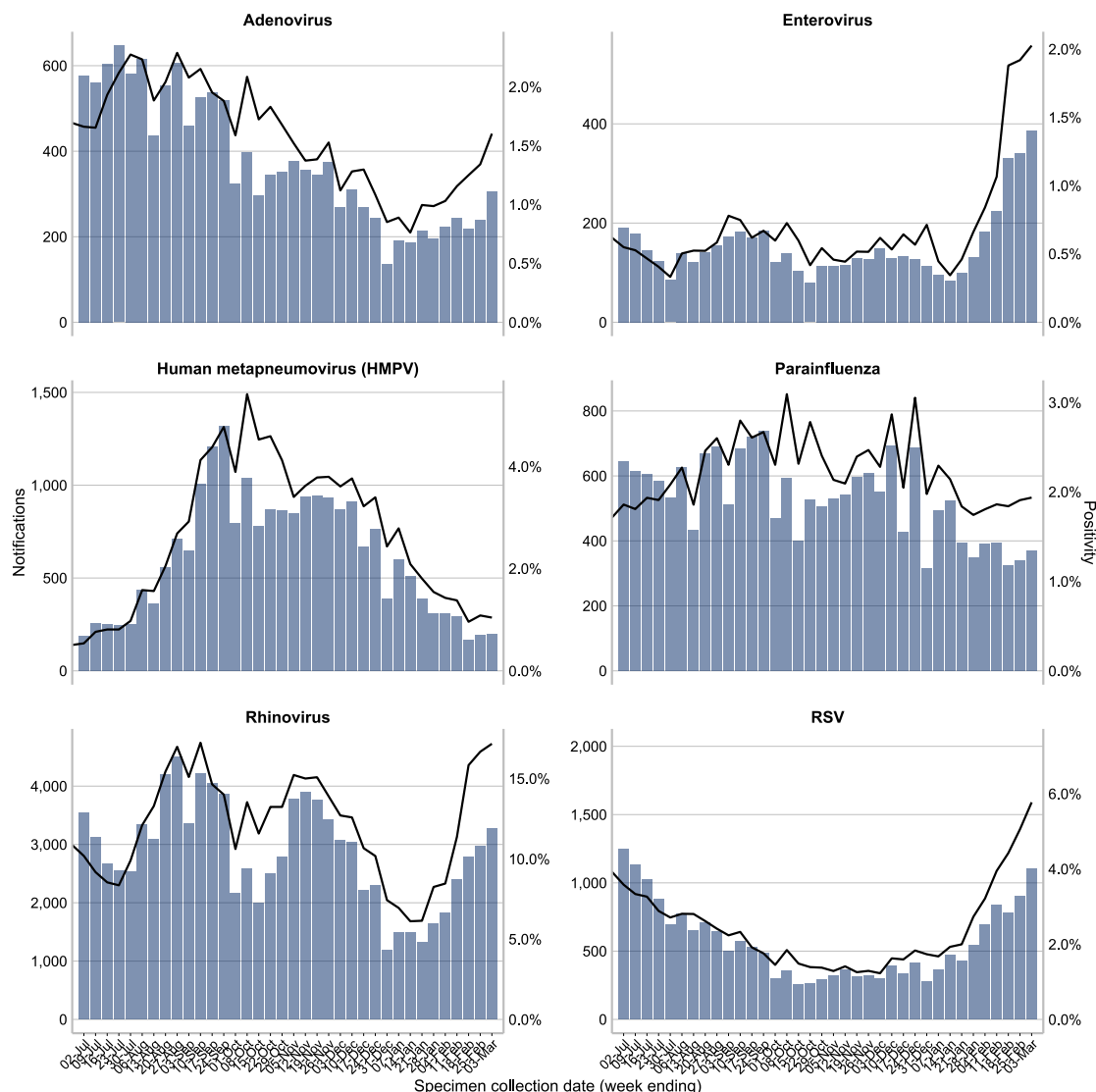


Table 2. Total number of respiratory disease notifications from sentinel laboratories, NSW in the four weeks to 03 March 2024.

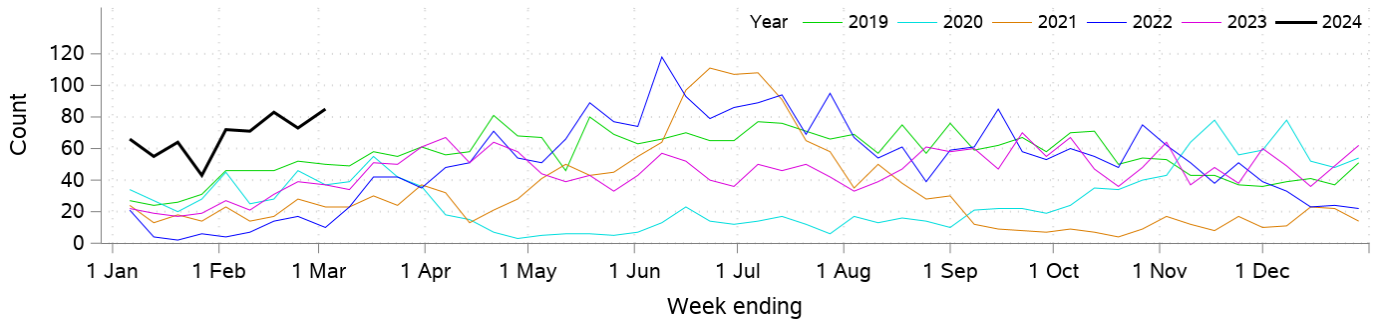
	Week ending				Year to date n
	11 February n(% pos)	18 February n(% pos)	25 February n(% pos)	03 March n(% pos)	
Influenza	660 (3.1%)	533 (3.0%)	561 (3.1%)	670 (3.5%)	6,624
Adenovirus	244 (1.2%)	220 (1.2%)	239 (1.3%)	306 (1.6%)	2,020
Parainfluenza	393 (1.9%)	324 (1.8%)	340 (1.9%)	370 (1.9%)	3,577
Respiratory syncytial virus (RSV)	834 (4.0%)	779 (4.4%)	901 (5.1%)	1,103 (5.8%)	6,118
Rhinovirus	2,400 (11.4%)	2,788 (15.8%)	2,970 (16.7%)	3,279 (17.2%)	19,219
Human metapneumovirus (HMPV)	291 (1.4%)	169 (1.0%)	193 (1.1%)	199 (1.0%)	2,966
Enterovirus	225 (1.1%)	331 (1.9%)	342 (1.9%)	387 (2.0%)	1,878
<b>Number of PCR tests conducted</b>	<b>21,109</b>	<b>17,606</b>	<b>17,815</b>	<b>19,102</b>	<b>184,615</b>
SARS-CoV-2	1,087 (10.7%)	369 (9.3%)	354 (8.5%)	337 (7.9%)	10,049
<b>Number of COVID PCR tests</b>	<b>10,119</b>	<b>3,967</b>	<b>4,157</b>	<b>4,253</b>	<b>76,113</b>
Number of laboratories reporting	12	11	9	9	-
Number of laboratories reporting COVID	4	3	3	3	-

Recent data is subject to change.

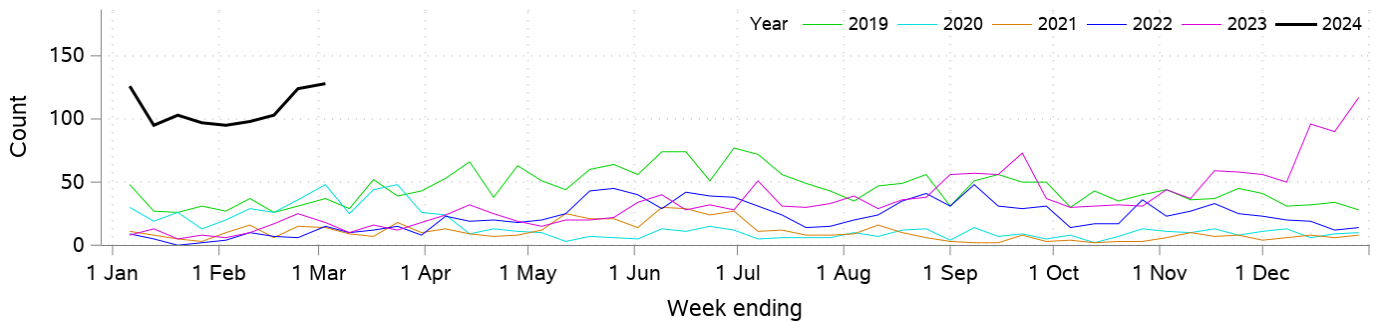
## Pneumonia in children and young adults in NSW

There have been unseasonably high presentations to emergency departments (ED) in NSW for children and young adults with pneumonia, particularly in those aged 5 – 16 years over late spring and summer. Within the ED, most pneumonia presentations are classified as unspecified pneumonia, that is, a specific cause of the pneumonia has not yet been identified. This information may become available later in the admission or following discharge from hospital.

**Figure 14. Unplanned emergency department (ED) presentations with a diagnosis of pneumonia, 1 January to 03 March 2024 and comparison with the previous 5 years, persons aged 0 – 4 years.**



**Figure 15. Unplanned emergency department (ED) presentations with a diagnosis of pneumonia, 1 January to 03 March 2024 and comparison with the previous 5 years, persons aged 5 – 16 years.**



**Figure 16. Unplanned emergency department (ED) presentations with a diagnosis of pneumonia, 1 January to 03 March 2024 and comparison with the previous 5 years, persons aged 17 – 34 years.**

