

NSW Respiratory Surveillance Report - week ending 15 July 2023

Influenza activity remains moderate to high although declined in the past 2 weeks, coinciding with school holidays. COVID-19 activity continues to decline, and RSV activity is stable.

Summary

There were 6,187 people notified with influenza this week, a decrease of 14% since the previous week. Declines in influenza-notification rates were most marked in the 5 – 16-year-old age group. Decreases in presentations to emergency departments for influenza-like illness were also observed. This likely reflects the impact of the NSW school holidays on transmission and presentation to healthcare. The proportion of PCR tests at sentinel laboratories that were positive for influenza declined from 21 to 17%. COVID-19 activity continues to decline across all indicators. RSV activity, including presentations to EDs for bronchiolitis in young children, remain stable.

Data sources and methods

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 (ED) 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 number of people admitted to hospital, are useful for monitoring the severity of illness and impact on the health system.

Interpretation: In this week's report we provide further breakdown of ED presentations and subsequent hospitalisations for influenza-like illness by age group to reflect different risk groups (Figures 1a to 1g). Note there are different scales for counts and proportion in each graph. ED presentations for ILI in all age-groups combined declined in the past week, largely driven by declines in children and young people aged less than 17 years, coinciding with the school holidays. The proportion of presentations requiring admission amongst those aged 5 – 16 years stabilised in the past week (Figure 1c). COVID-19 activity continued to decline (Figure 2) although approximately one-third of presentations continue to result in admission. Bronchiolitis activity is stable (Figure 3).

Figure 1a. 'Influenza-like illness' weekly counts of unplanned emergency department (ED) presentations and admission following presentation, 2023, persons of all ages.

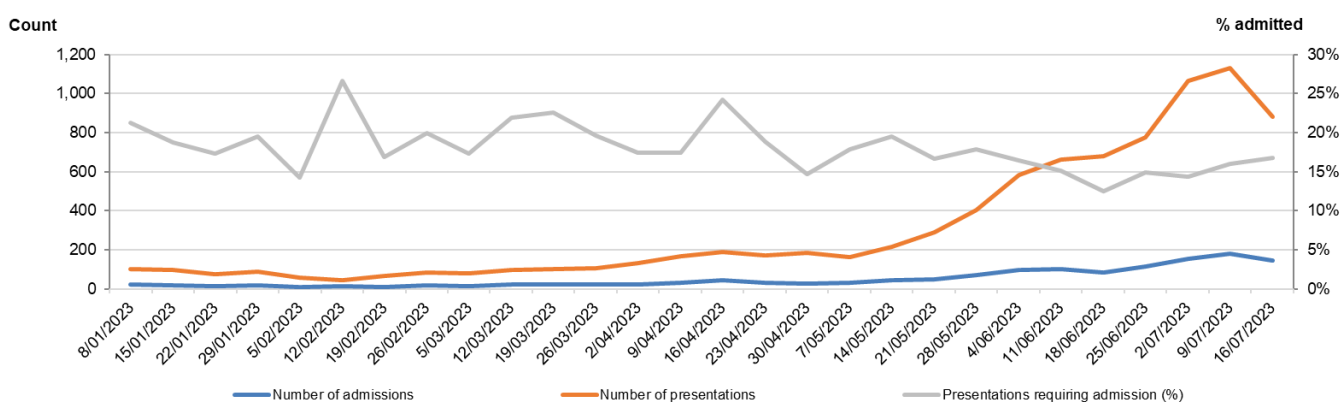


Figure 1b. 'Influenza-like illness' weekly counts of unplanned emergency department (ED) presentations and admission following presentation, 2023, children aged 0-4 years.

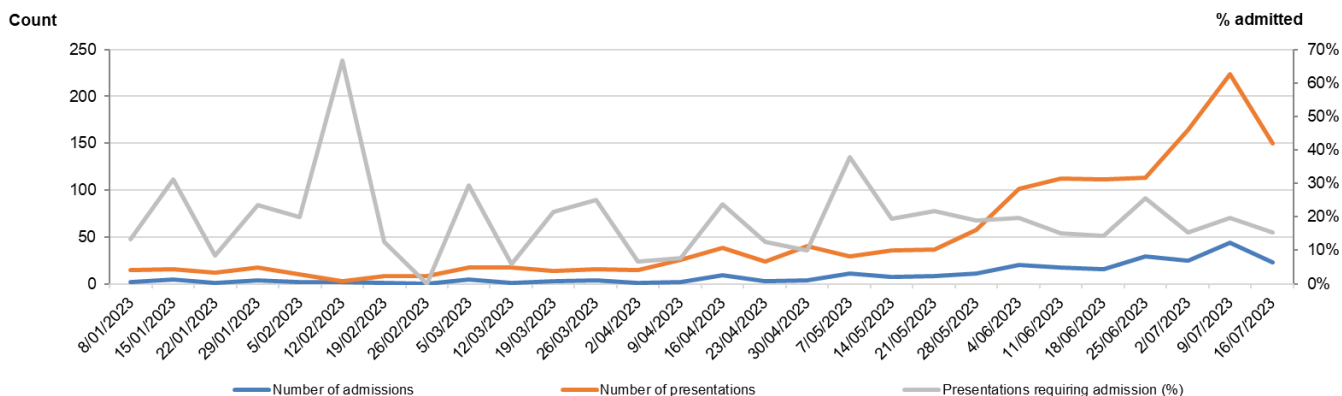


Figure 1c. 'Influenza-like illness' weekly counts of unplanned emergency department (ED) presentations and admission following presentation, 2023, persons aged 5-16 years.

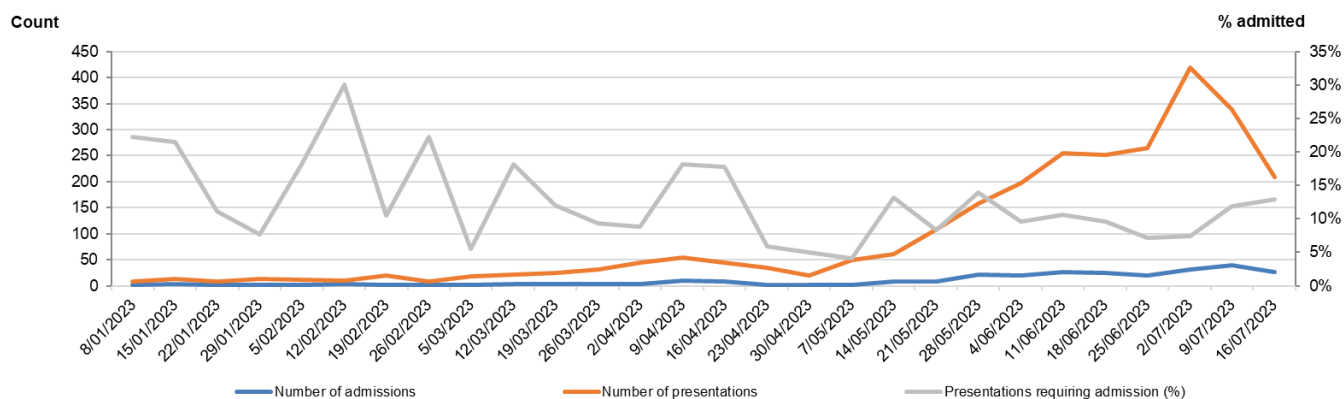


Figure 1e. 'Influenza-like illness' weekly counts of unplanned emergency department (ED) presentations and admission following presentation, 2023, persons aged 17-34 years.

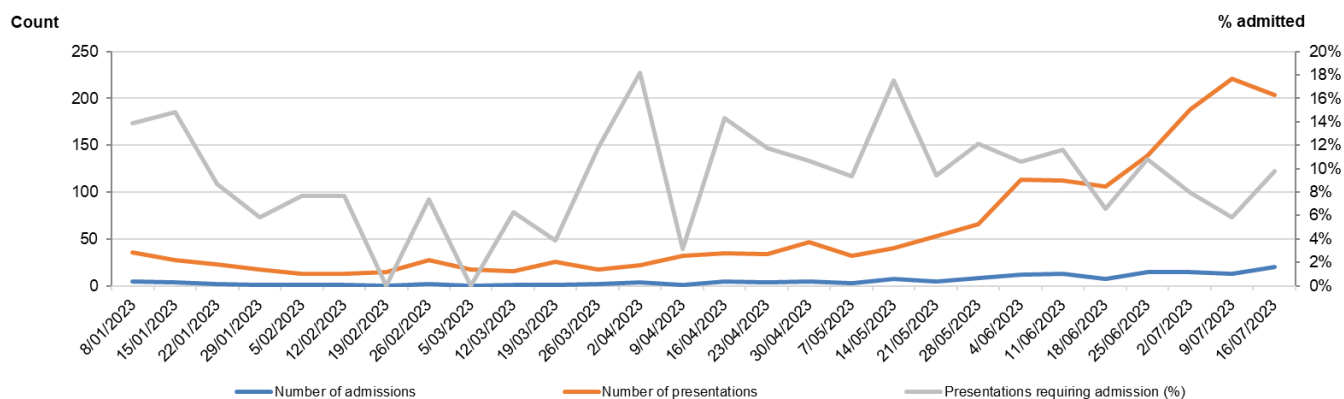


Figure 1f. 'Influenza-like illness' weekly counts of unplanned emergency department (ED) presentations and admission following presentation, 2023, persons aged 35-64 years.

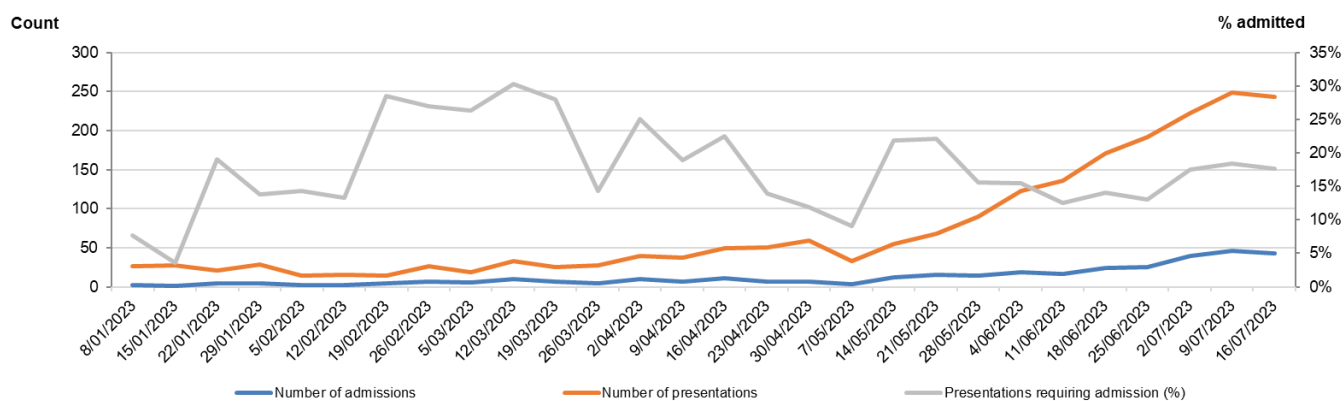


Figure 1g. 'Influenza-like illness' weekly counts of unplanned emergency department (ED) presentations and admission following presentation, 2023, persons aged 65+ years.

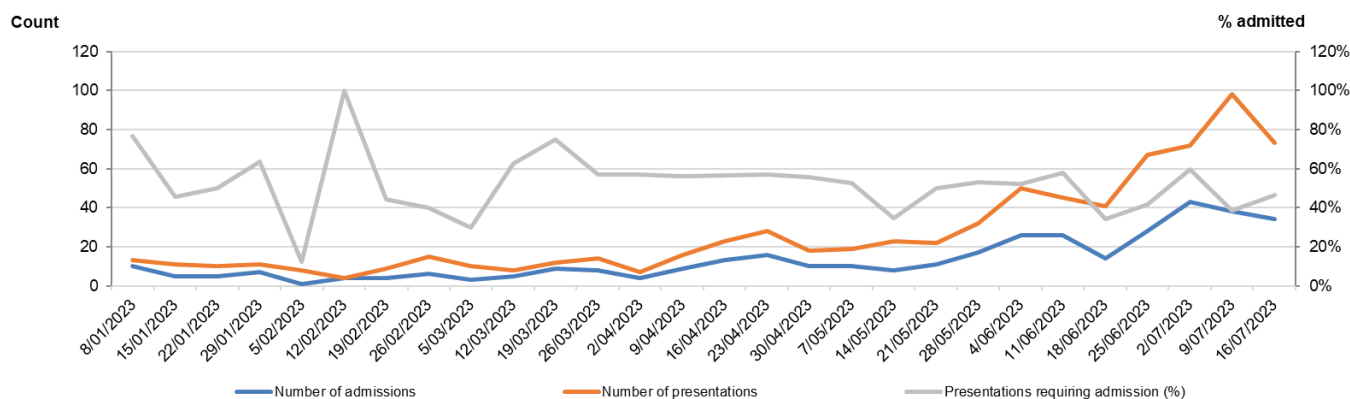


Figure 2. 'COVID-19' weekly counts of unplanned emergency department (ED) presentations and admission following presentation, 2023, persons of all ages.

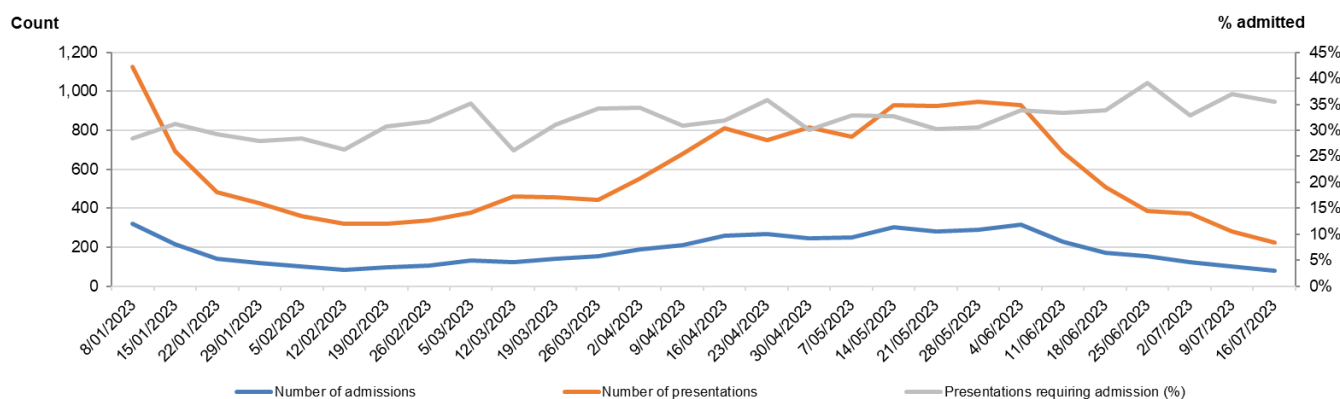
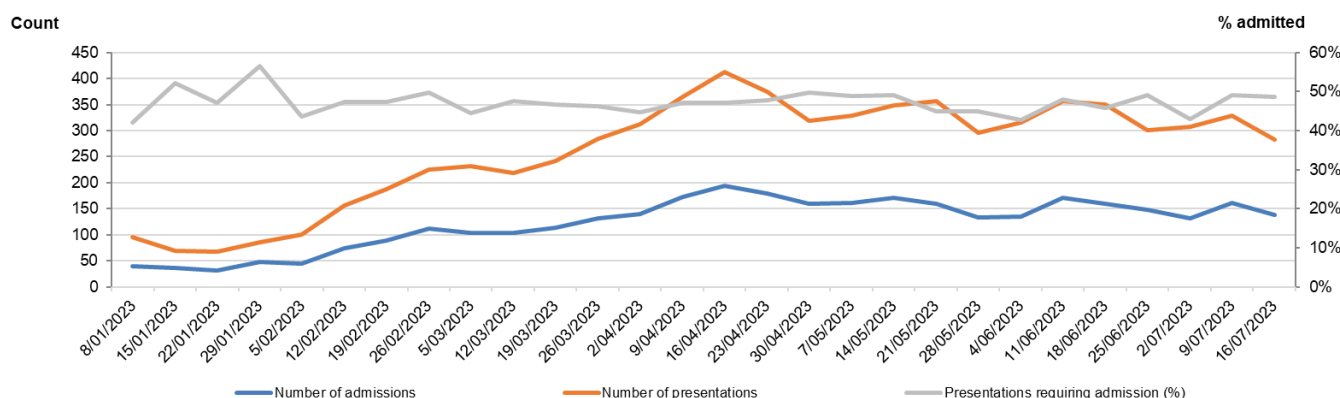


Figure 3. Bronchiolitis weekly counts of unplanned emergency department (ED) presentations and admission following presentation, 2023, children aged 0-4 years.



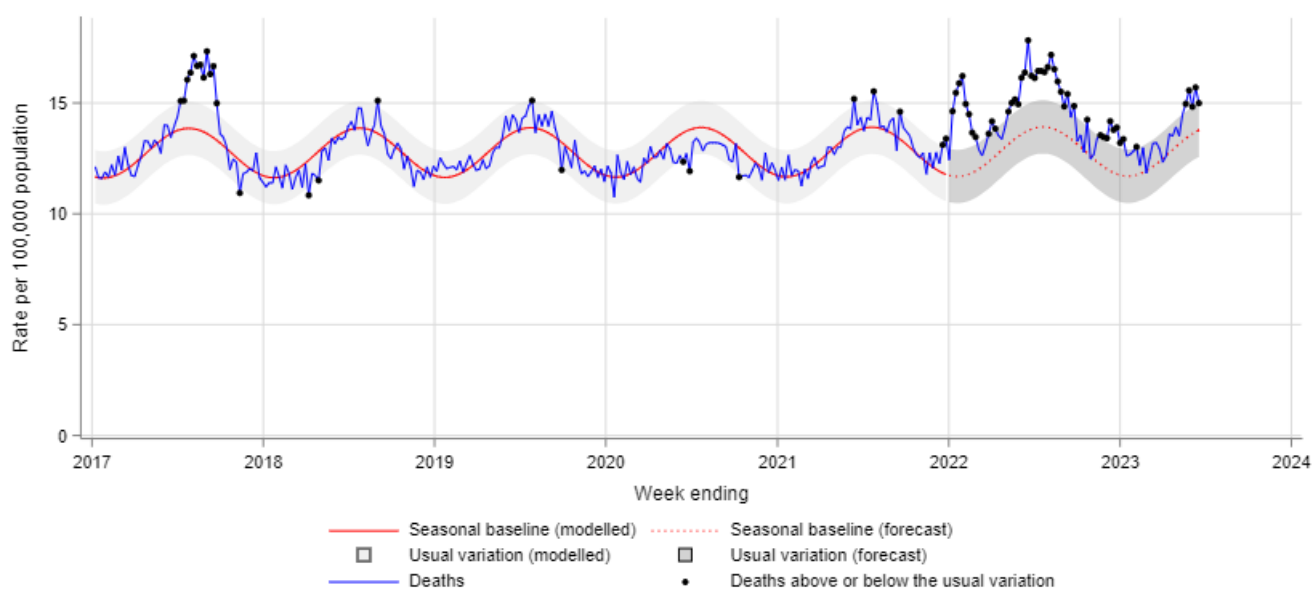
Death surveillance

All-cause mortality

All-cause mortality provides a comprehensive measure of total impact of health threats, such as severe influenza period, COVID-19 and heatwaves, by counting both deaths directly attributable and indirectly associated with the threat. Monitoring all-cause mortality allows rapid assessment of changing patterns of mortality, and whether the number of deaths in a period is more or less than expected. In this report mortality is determined from counts of deaths in the NSW Registry of Births Deaths & Marriages. The rate of death per week is presented with the seasonal baseline, which summarises the historic (2017-2021) rate of deaths for corresponding week (red dashed line, grey shading indicates the 95% confidence interval). This indicator provides a signal of the impact from any significant and prolonged cause on the NSW population.

Interpretation: Weekly lag adjusted all-cause mortality is higher than the usual variation based on the seasonal baseline for 2017 – 2021.

Figure 9. All-cause death rate per 100,000 population, all ages, 2017 to 18 June 2023.



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 14 May 2023 to 18 June 2023. For additional information see data sources and methods for details.

Death rates presented in this report are not directly translatable to analyses in the [ABS Provisional Mortality Statistics and Actuaries Institute COVID-19 Working Group](#) reports which make specific comparisons of mortality in the pre and during pandemic periods.

Epidemiological week 28, ending 15 July 2023

Notifications of COVID-19, influenza and RSV

Notification data is obtained from laboratory tests for infections, and for COVID-19 only includes tests reported by the public to NSW Health. This indicator provides information about community infection.

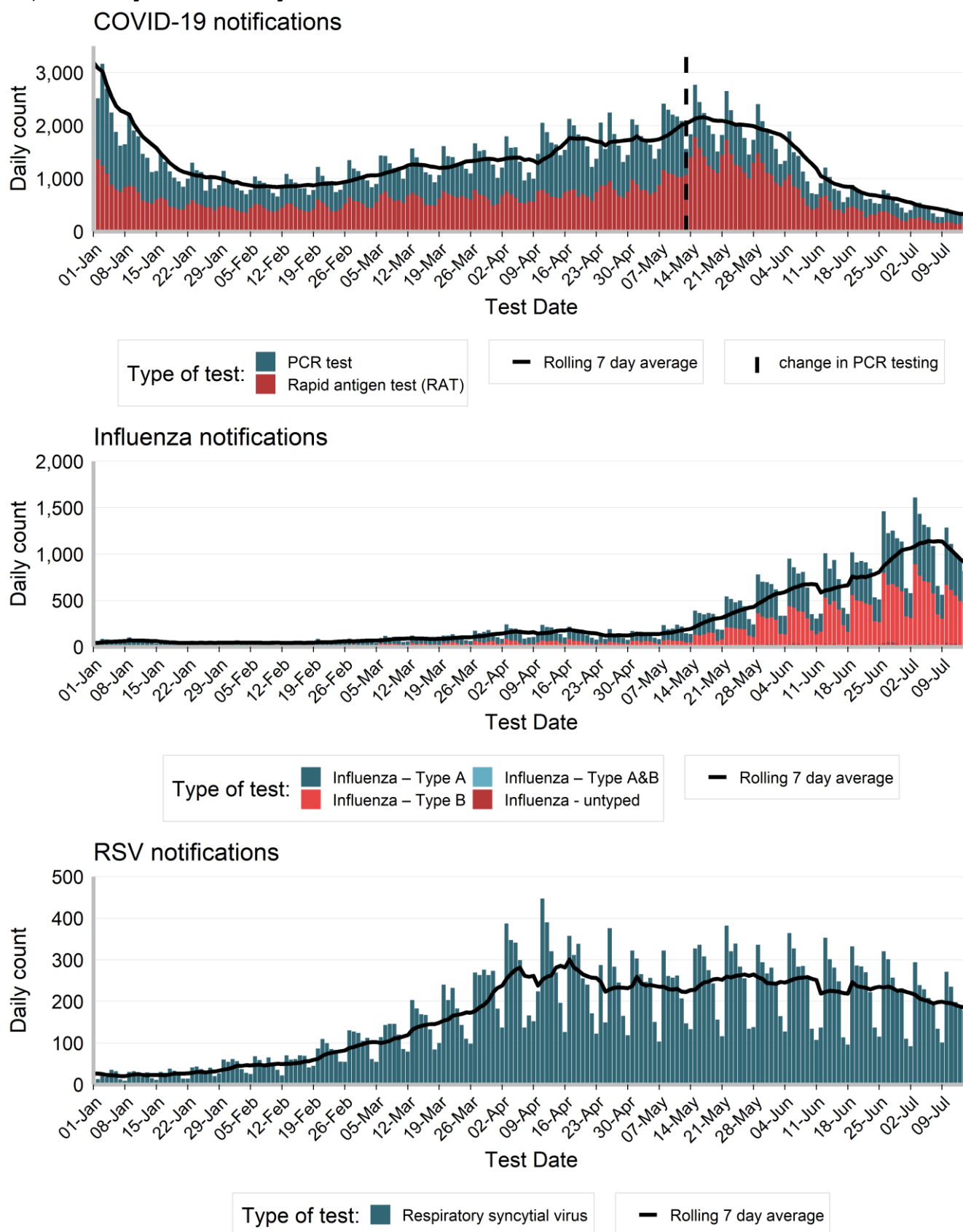
Interpretation: Influenza accounted for 64% of notifications for COVID-19, influenza and RSV combined in the past week. The distribution of COVID-19, influenza and RSV notifications across gender, age, Local Health District and Aboriginal status in the past week is similar to previous weeks.

Table 1: Notifications of COVID-19, influenza and RSV, NSW, tested in the week ending 15 July 2023.

	COVID		Influenza		RSV	
	Week ending 15 July 2023	Year to Date	Week ending 15 July 2023	Year to Date	Week ending 15 July 2023	Year to Date
Gender						
Female	1,304	145,400(58%)	3,233	29,397(51%)	693	16,857(52%)
Male	928	105,963(42%)	2,951	28,692(49%)	571	15,768(48%)
Age group (years)						
0-4	129	8,414(3%)	1,069	7,968(14%)	566	18,286(56%)
5-9	35	7,773(3%)	913	12,868(22%)	51	1,751(5%)
10-19	92	20,572(8%)	785	11,602(20%)	57	1,369(4%)
20-29	223	28,499(11%)	585	4,204(7%)	58	1,153(4%)
30-39	292	37,821(15%)	1,011	7,222(12%)	71	1,512(5%)
40-49	279	36,903(15%)	792	5,978(10%)	58	1,144(4%)
50-59	288	34,715(14%)	387	3,164(5%)	69	1,528(5%)
60-69	277	31,702(13%)	288	2,343(4%)	100	1,833(6%)
70-79	282	23,844(9%)	192	1,604(3%)	99	1,815(6%)
80-89	231	15,066(6%)	122	894(2%)	99	1,551(5%)
90+	114	6,314(3%)	40	252(0%)	36	680(2%)
Local Health District of residence						
Central Coast	134	11,755(5%)	234	2,057(4%)	55	1,570(5%)
Far West	4	725(0%)	7	78(0%)	21	148(0%)
Hunter New England	270	32,803(13%)	522	4,455(8%)	178	2,753(8%)
Illawarra Shoalhaven	190	15,910(6%)	299	2,327(4%)	47	1,655(5%)
Mid North Coast	76	5,633(2%)	143	1,594(3%)	31	573(2%)
Murrumbidgee	93	7,835(3%)	119	1,905(3%)	118	1,486(5%)
Nepean Blue Mountains	119	12,345(5%)	477	3,671(6%)	86	1,953(6%)
Northern NSW	111	7,256(3%)	203	2,259(4%)	24	693(2%)
Northern Sydney	251	30,358(12%)	659	7,359(13%)	102	4,342(13%)
South Eastern Sydney	201	26,735(11%)	518	4,853(8%)	101	3,023(9%)
South Western Sydney	208	26,388(10%)	966	8,724(15%)	127	4,759(15%)
Southern NSW	70	6,660(3%)	109	806(1%)	40	570(2%)
Sydney	156	21,049(8%)	366	3,777(6%)	53	2,125(7%)
Western NSW	80	10,135(4%)	189	1,266(2%)	96	1,389(4%)
Western Sydney	249	33,267(13%)	1,298	12,698(22%)	176	5,497(17%)
Aboriginal status						
Aboriginal and/or Torres Strait Islander	69	8,152(3%)	244	1,945(3%)	74	1,162(4%)
Not Aboriginal or Torres Strait Islander	1,596	184,442(73%)	3,155	29,909(51%)	605	15,623(48%)
Not Stated / Unknown	571	59,062(23%)	2,788	26,271(45%)	585	15,861(49%)
Total	2,236	251,656(100%)	6,187	58,125(100%)	1,264	32,646(100%)

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

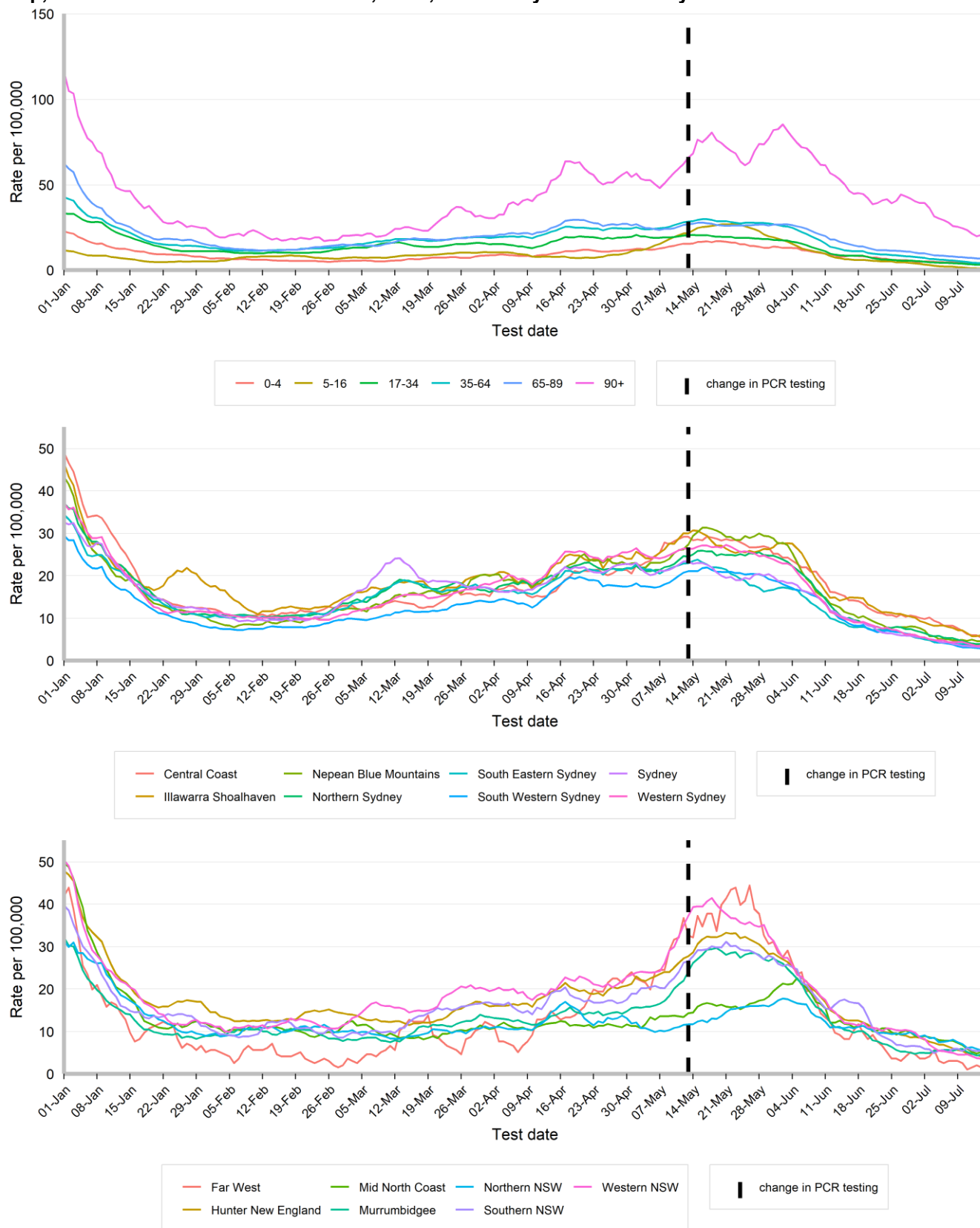
Figure 10. People notified with COVID-19, Influenza and RSV, by date of test and type of test performed, NSW, 01 January 2023 to 15 July 2023.



Rates of COVID-19 notifications per 100,000 population

Interpretation: COVID-19 notification rates continue to decline across all age groups and the majority of Local Health Districts.

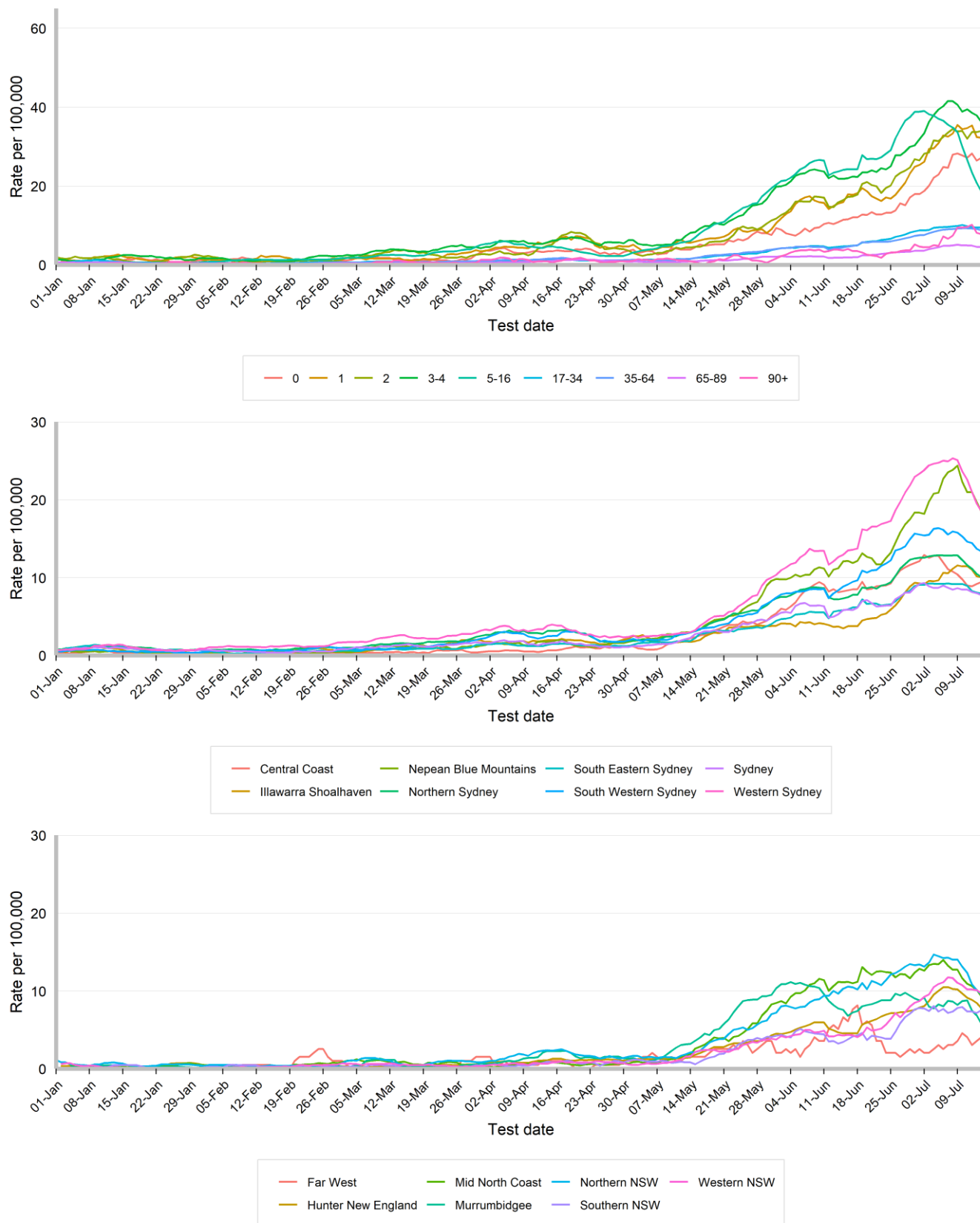
Figure 11. Daily seven-day rolling average rate of COVID-19 notifications per 100,000 population, by age group, Local Health District and test date, NSW, 01 January 2023 to 15 July 2023.



Rates of influenza notifications per 100,000 population

Interpretation: Declines in influenza notification rates were observed across most paediatric age-groups in the past two weeks; they were stable in adults. Declines also occurred across most Local Health Districts.

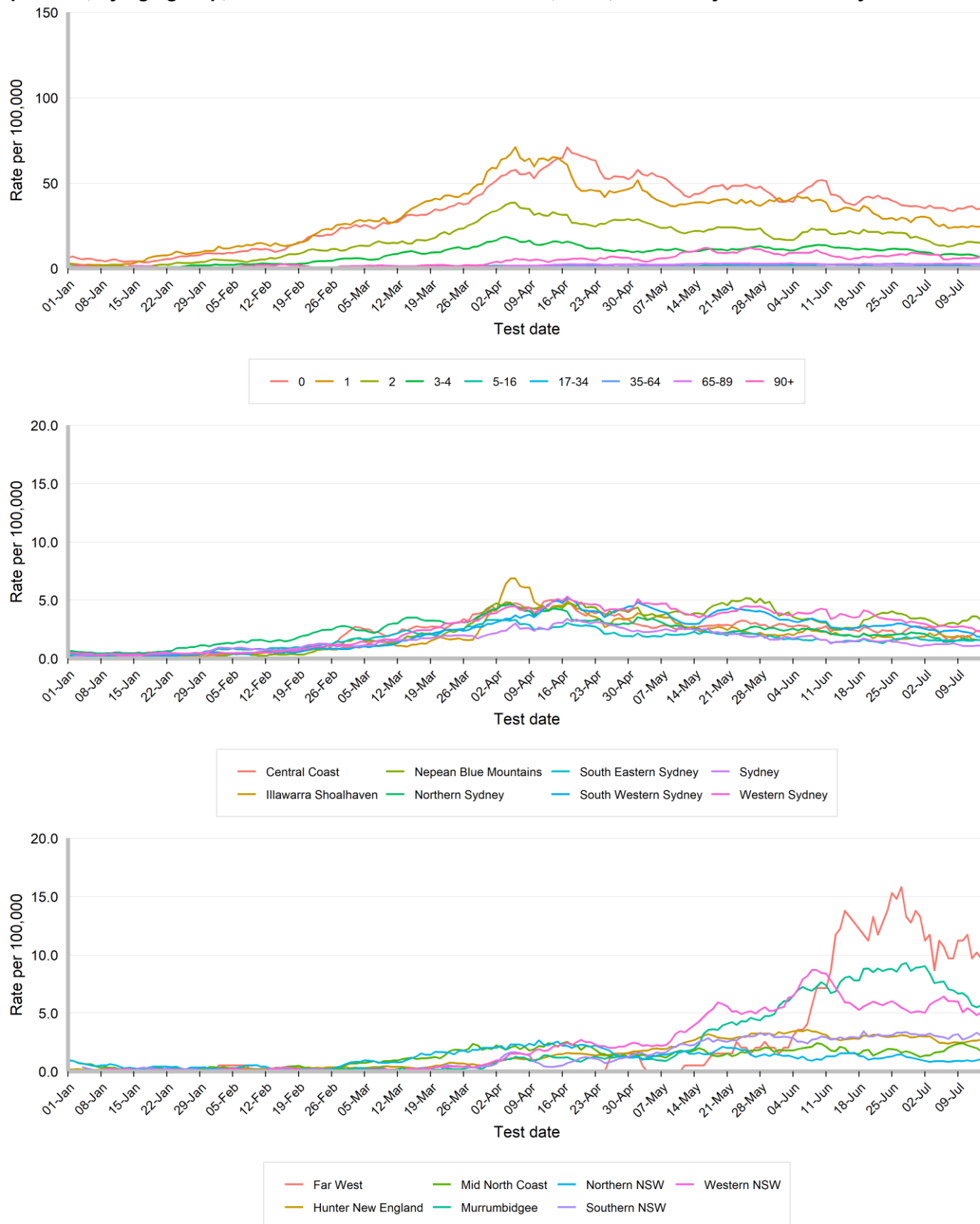
Figure 12. Daily seven-day rolling average rate of influenza notifications per 100,000 population, by age group, Local Health District and test date, NSW, 01 January 2023 to 15 July 2023.



Rates of respiratory syncytial virus notifications per 100,000 population

Interpretation: RSV notification rates are stable across all age-groups and most Local Health Districts.

Figure 13. 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 January 2023 to 15 July 2023.

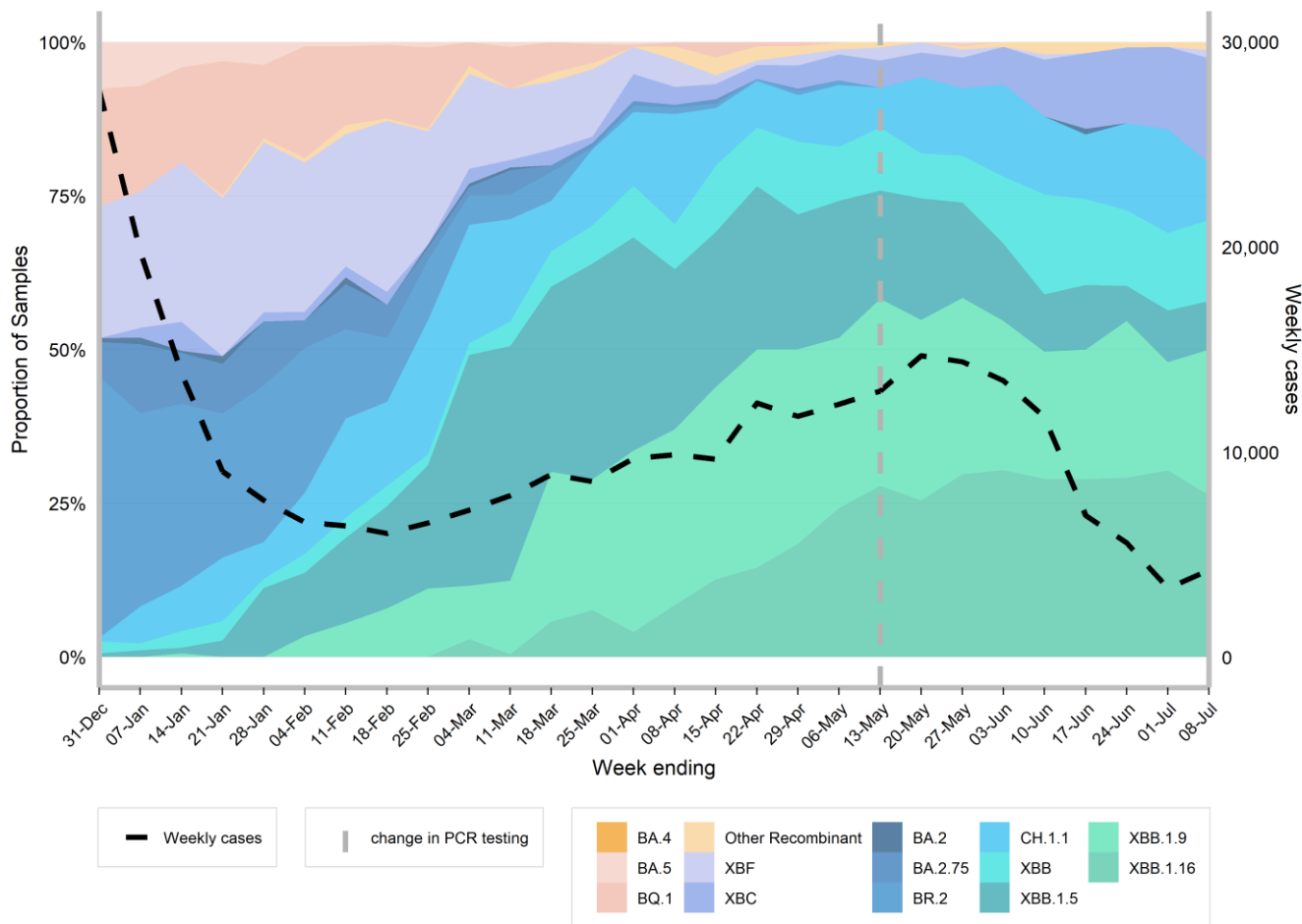


COVID-19 Whole Genome Sequencing

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. **For this week's report, the number of samples available for WGS were small (n = 76) and the data should be interpreted with caution.**

Interpretation: There has been minimal change in the distribution of circulating sublineages in recent weeks.

Figure 14. Estimated distribution of COVID-19 sub-lineages in the community, 01 January 2023 to 08 July 2023.



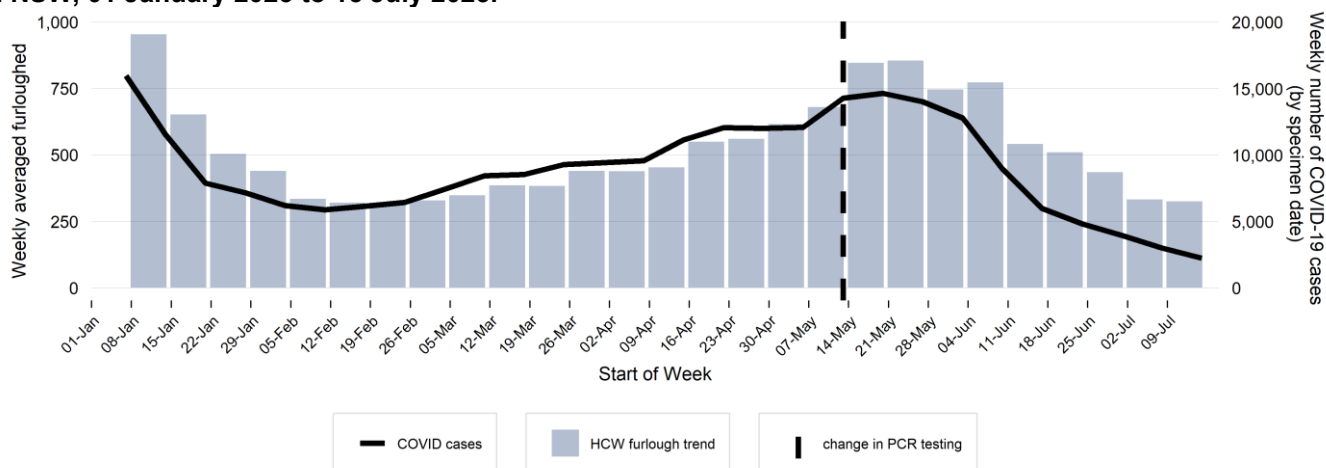
Other surveillance indicators

NSW Healthcare worker furloughing

Healthcare workers are included in these statistics if they are in isolation and unable to work due to testing positive to COVID-19, exposure to COVID-19, and/or whilst waiting a negative test result. This indicator is helpful to assess the level of COVID-19 circulating in the community when community testing decreases.

Interpretation: The number of healthcare workers furloughed due to COVID-19 illness or exposure continues to decrease.

Figure 15. Average number of healthcare worker furloughing and number of COVID-19 notifications by week in NSW, 01 January 2023 to 15 July 2023.

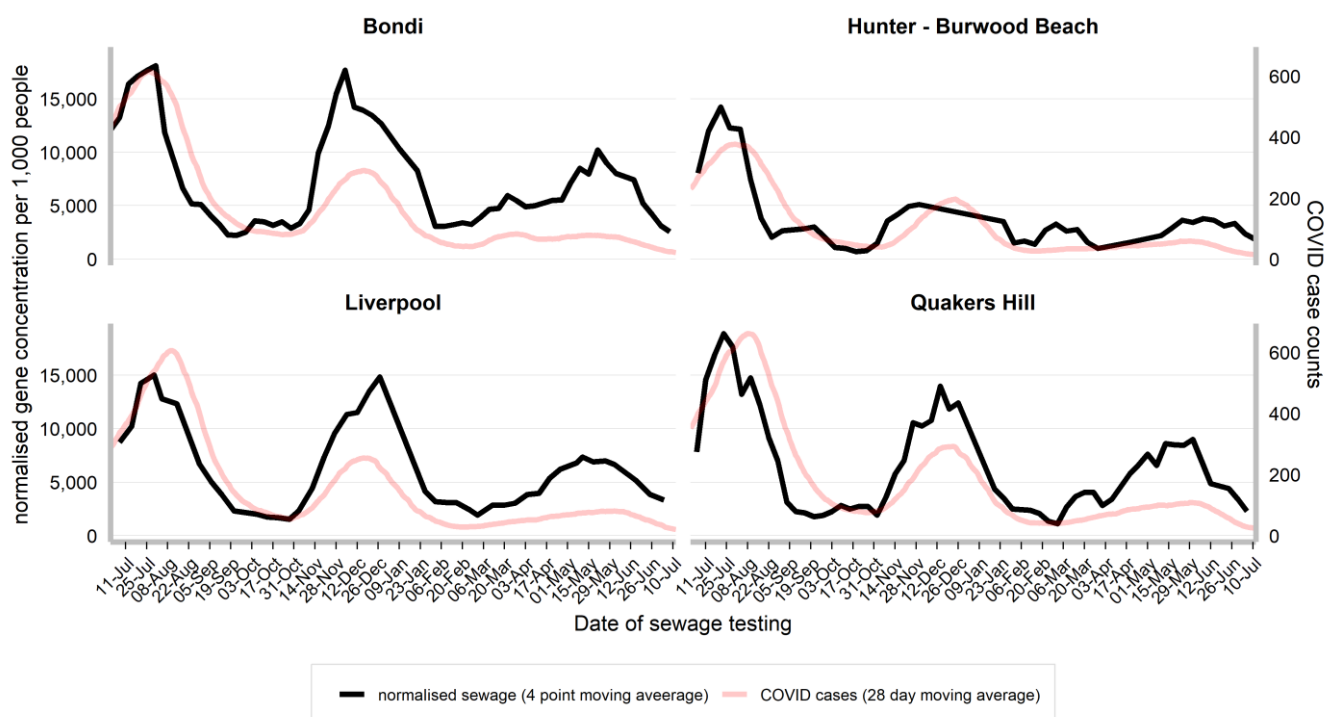


COVID-19 Sewage surveillance program

Trends are presented for Sydney Bondi, Quakers Hills, Liverpool and Burwood Beach sewage catchments from 5 February 2022 to the week ending 12 July 2023. 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 have declined in sewage testing sites however still reflect ongoing community transmission.

Figure 16. Gene concentration, per 1,000 people in each sewage catchment, 1 January 2023 to 12 July 2023.

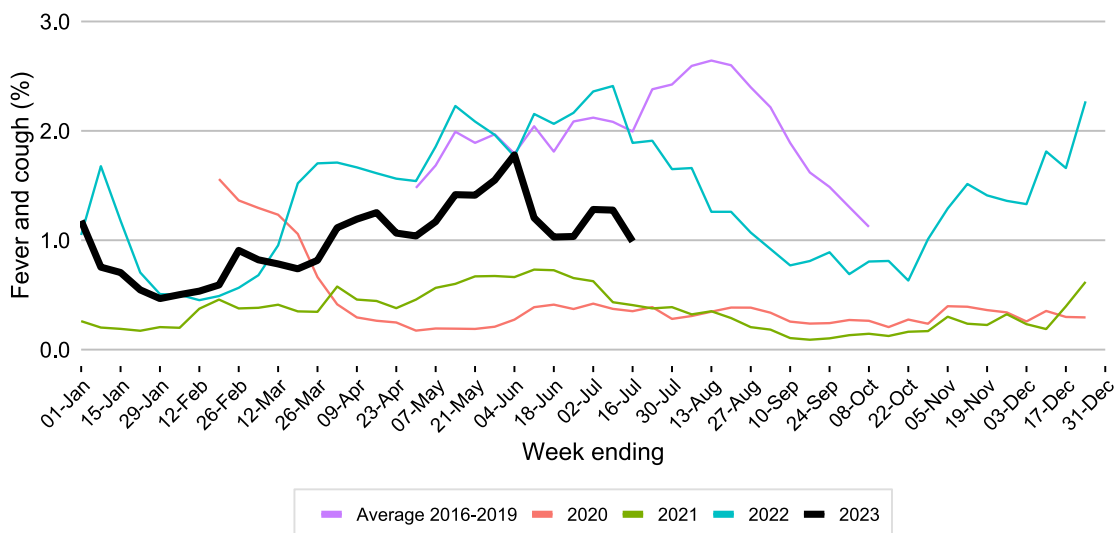


FluTracking and NSW sentinel laboratory network

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/>

Interpretation: The proportion of FluTracking participants reporting influenza-like illness remains well below the 2022 peak and the average for the same time of year for the period 2016 – 2019.

Figure 17. Proportion of FluTracking participants reporting influenza-like illness, NSW, 1 January to 16 July 2023.



Epidemiological week 28, ending 15 July 2023

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: There was a decrease in the number of people having PCR tests over the past two weeks and test positivity for COVID-19, influenza and respiratory syncytial virus declined.

Figure 18. Number and proportion of tests positive for COVID-19 at sentinel NSW laboratories, 1 January 2023 to 16 July 2023.

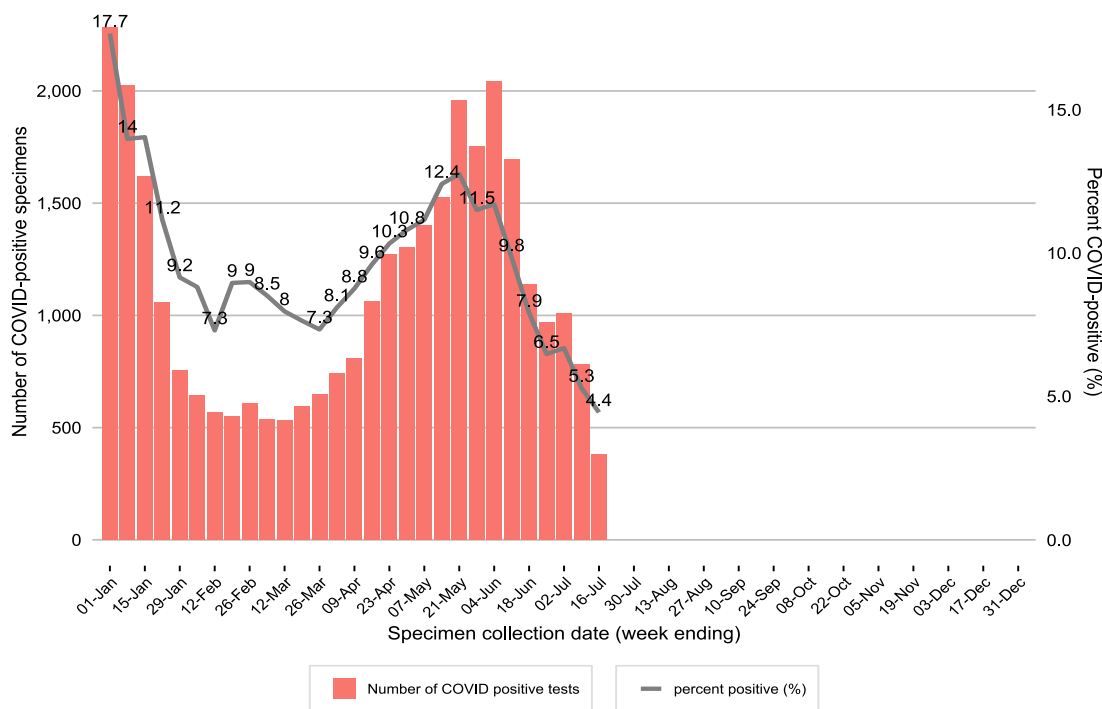


Figure 19. Number and proportion of tests positive for influenza at sentinel NSW laboratories, 1 January 2023 to 16 July 2023.

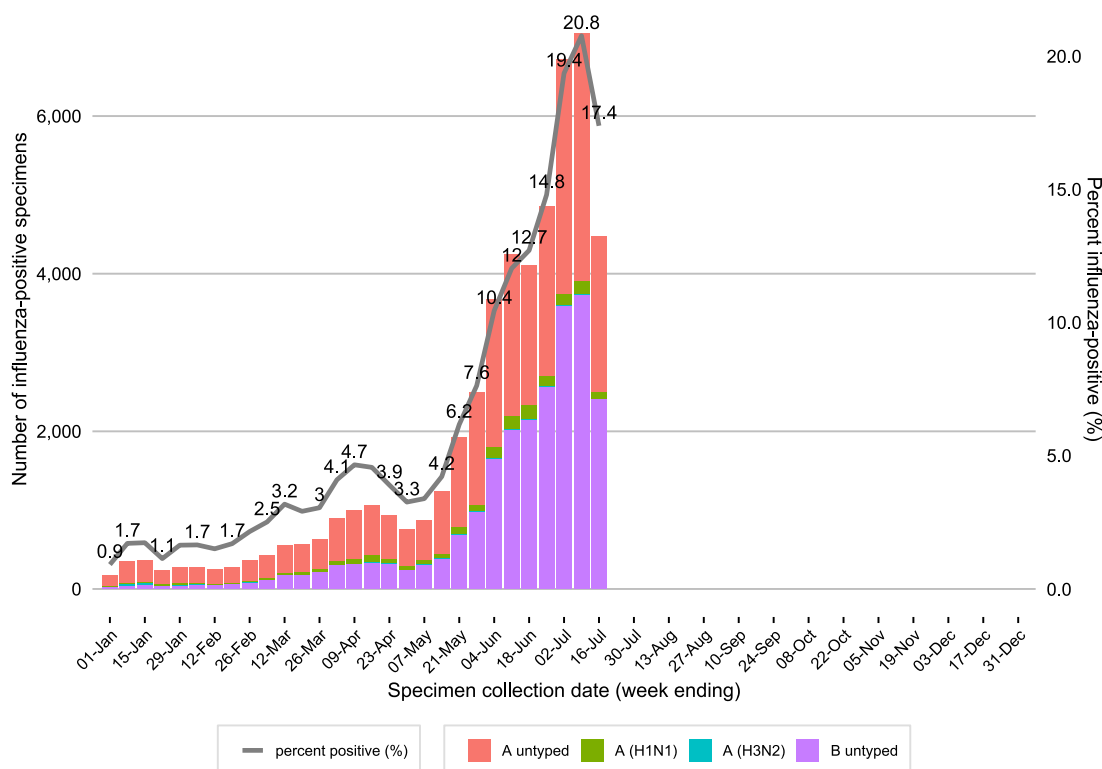


Figure 20. Number of positive PCR test results and proportion of tests positive for other respiratory viruses at sentinel NSW laboratories, 1 January 2023 to 16 July 2023.

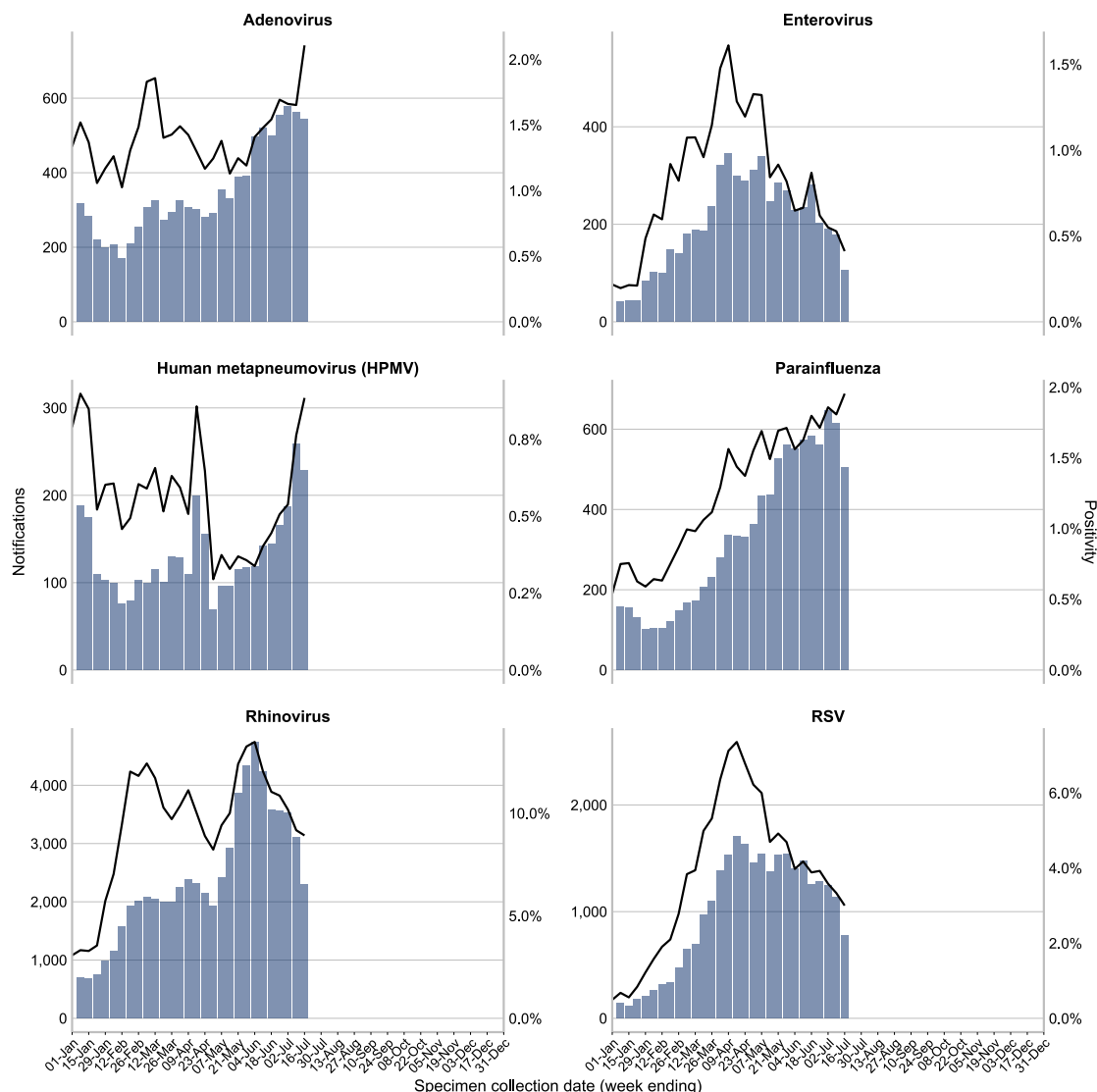


Table 2. Total number of respiratory disease notifications from sentinel laboratories, NSW in the four weeks to 16 July 2023.

	Week ending				Year to date
	25 June	02 July	09 July	16 July	
	n(% pos)	n(% pos)	n(% pos)	n(% pos)	n
Influenza	4,850 (14.8%)	6,724 (19.4%)	7,047 (20.8%)	4,479 (17.4%)	51,040
Adenovirus	555 (1.7%)	577 (1.7%)	561 (1.7%)	543 (2.1%)	10,026
Respiratory syncytial virus (RSV)	1,287 (3.9%)	1,245 (3.6%)	1,132 (3.3%)	774 (3.0%)	27,772
Rhinovirus	3,560 (10.9%)	3,536 (10.2%)	3,113 (9.2%)	2,298 (8.9%)	68,083
Human metapneumovirus (HMPV)	166 (0.5%)	187 (0.5%)	259 (0.8%)	228 (0.9%)	3,856
Enterovirus	203 (0.6%)	191 (0.5%)	179 (0.5%)	106 (0.4%)	5,654
Number of PCR tests conducted	32,788	34,743	33,944	25,770	701,273
SARS-CoV-2	967 (6.5%)	1,008 (6.7%)	781 (5.3%)	380 (4.4%)	32,266
Number of COVID PCR tests	14,924	15,078	14,751	8,548	325,981

Recent data is subject to change. For the week ending 16 July 2023, 8 out of 13 sentinel laboratories provided PCR testing data related to influenza and 2 out of 4 sentinel laboratories provided PCR data related to COVID.