

## NSW Respiratory Surveillance Report - week ending 22 July 2023

**Declines in activity across all indicators for COVID-19, influenza and respiratory syncytial virus were observed in the previous week. Influenza and respiratory syncytial virus (RSV) activity remains at moderate levels.**

### Summary

Influenza continues to dominate respiratory virus notifications however there was a marked decline in activity indicators in the previous week. This included a 27% decrease in notifications, reductions in influenza-like illness presentations to emergency departments across all age groups and a further reduction in the proportion of influenza PCR tests that return a positive result (12.6% this week compared to 17.2% for the week prior). COVID-19 and RSV activity also declined across all indicators.

### Data sources and methods

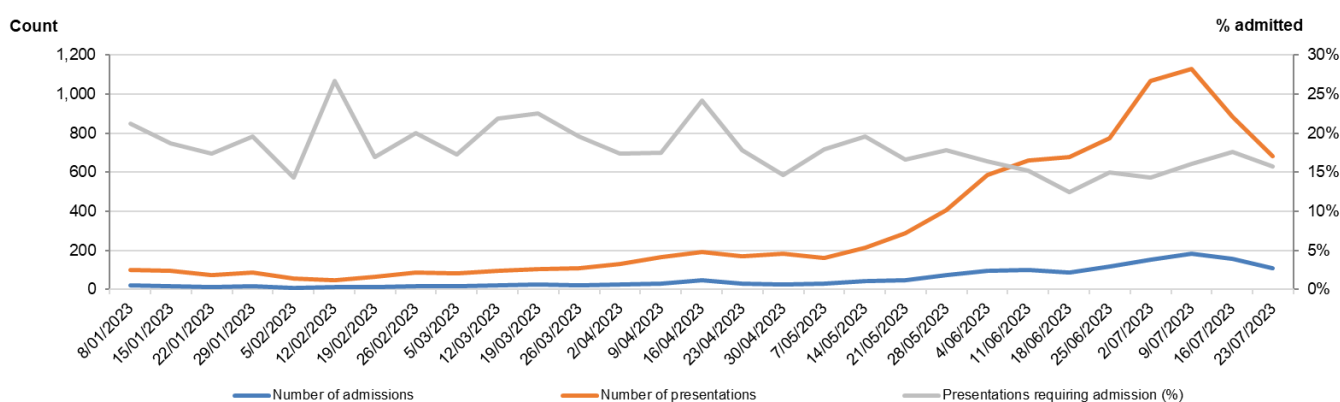
The data source for this report updates as new information becomes available. Therefore, this report cannot be directly compared to previous versions of the NSW Respiratory Surveillance Report or to previous reporting periods. For additional information on the data sources and methods presented within 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 and subsequent admission to hospital categorised by symptom profile. Here we report on COVID-19, influenza-like illness and bronchiolitis in young children (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 proportions in each graph. ED presentations for ILI in all age-groups combined declined in the past week. COVID-19 activity overall continued to decline (Figure 2) however there has been a gradual increase in the proportion of presentations requiring admission. This appears to be driven by an increase in those aged 35 – 64 years. Bronchiolitis presentations and admissions declined and the proportion requiring admission 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.**

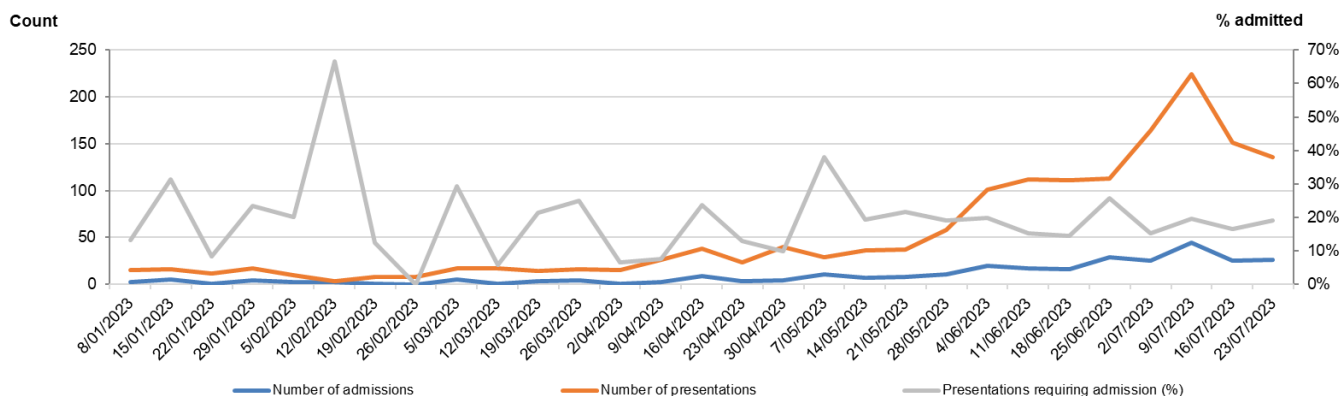


Figure 1c. 'Influenza-like illness' weekly counts of unplanned emergency department (ED) presentations and admission following presentation, 2023, persons aged 5-16 years.

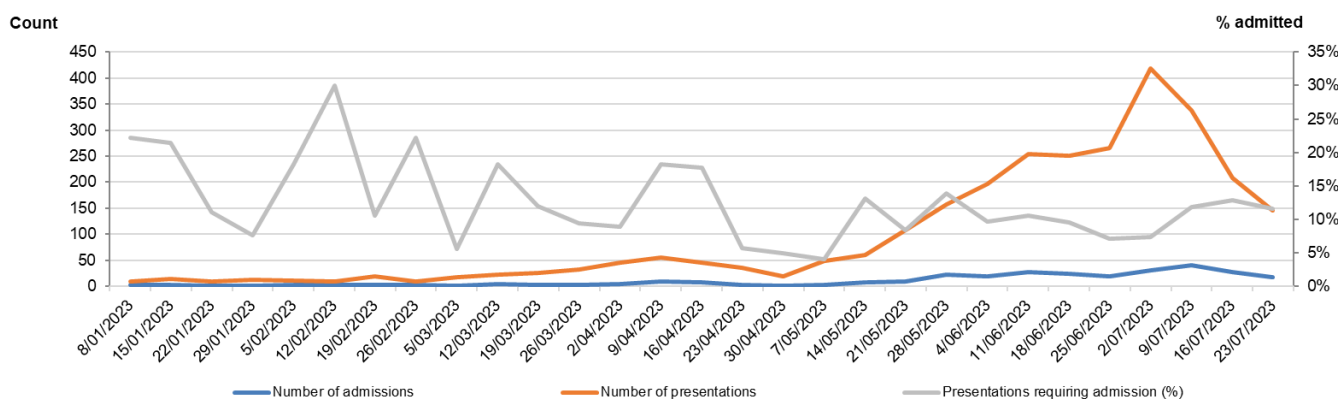


Figure 1d. 'Influenza-like illness' weekly counts of unplanned emergency department (ED) presentations and admission following presentation, 2023, persons aged 17-34 years.

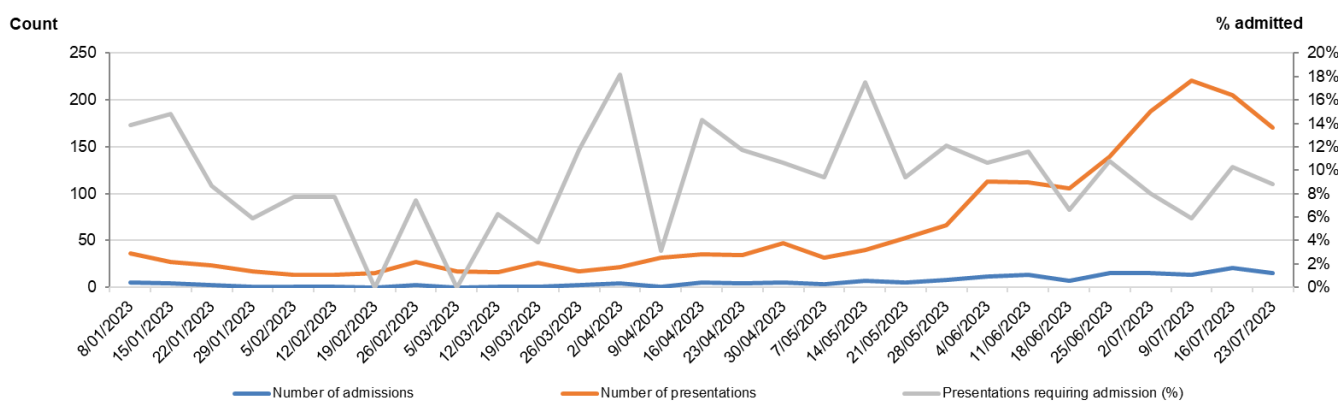
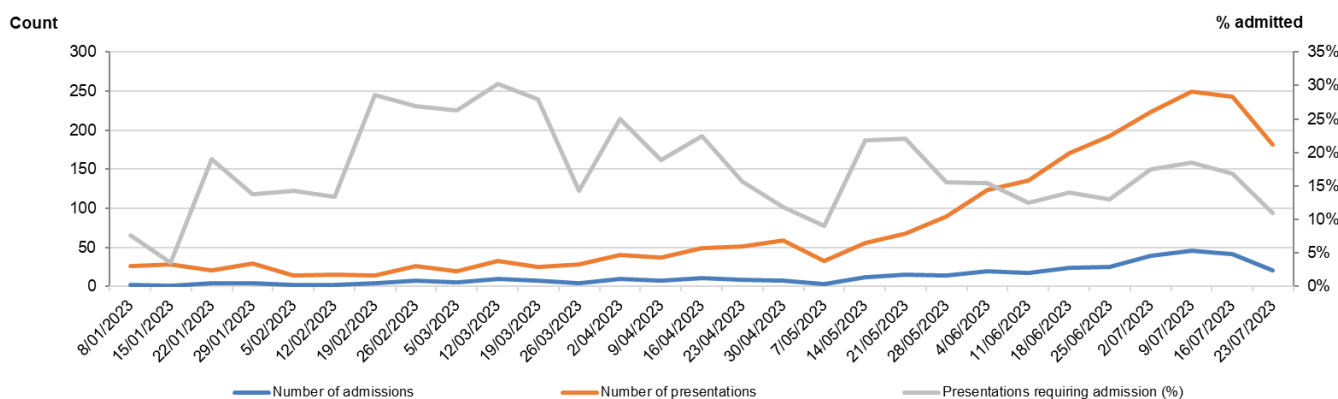
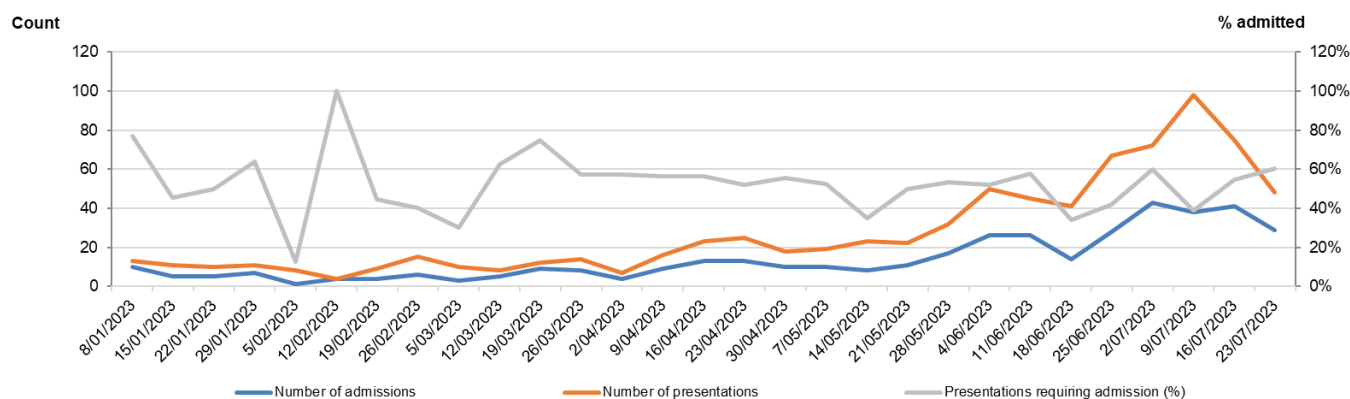


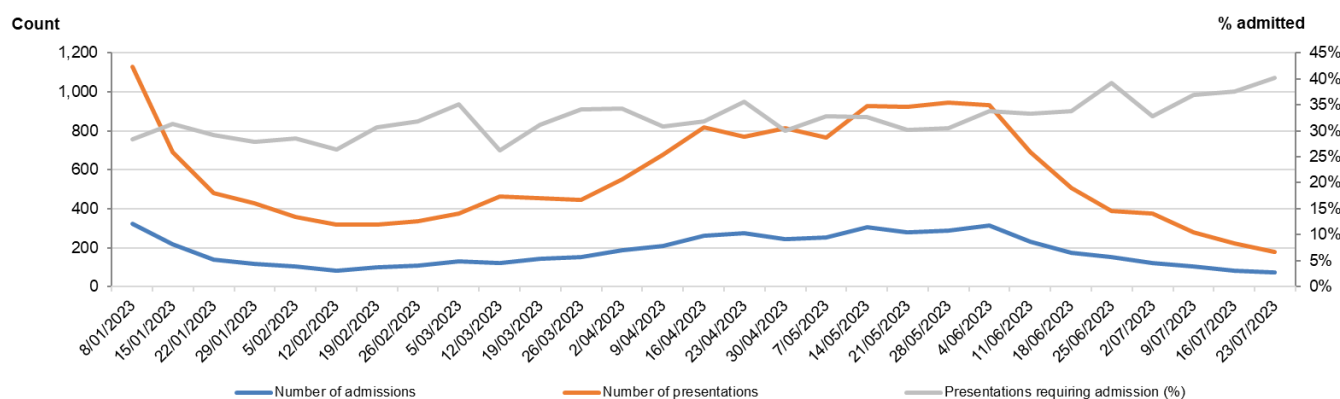
Figure 1e. 'Influenza-like illness' weekly counts of unplanned emergency department (ED) presentations and admission following presentation, 2023, persons aged 35-64 years.



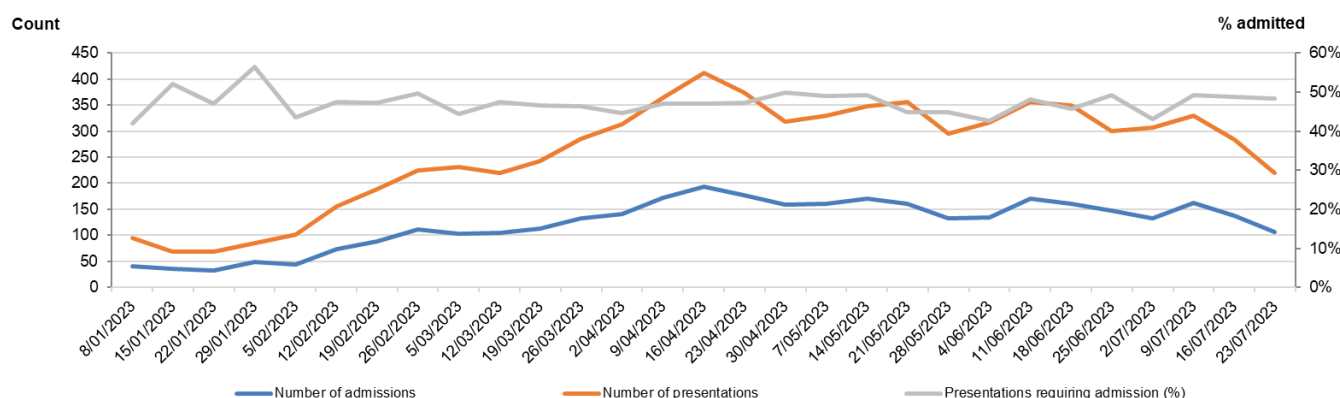
**Figure 1f. 'Influenza-like illness' weekly counts of unplanned emergency department (ED) presentations and admission following presentation, 2023, persons aged 65+ years.**



**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.**



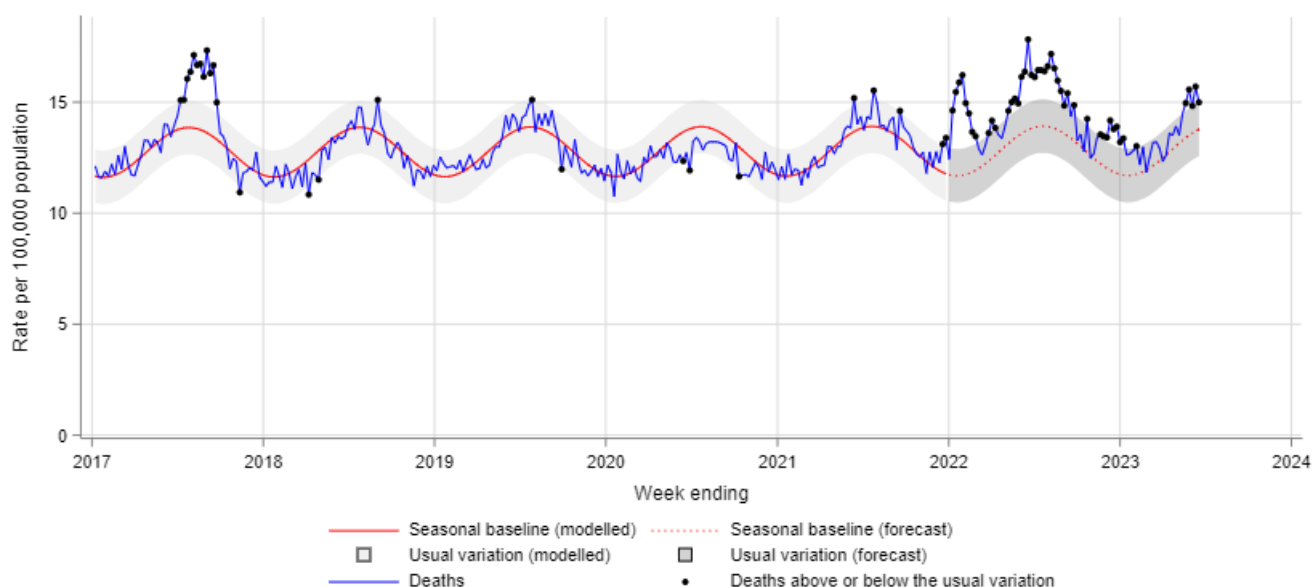
## Death surveillance

### 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 4. 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 ending 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.

## 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.

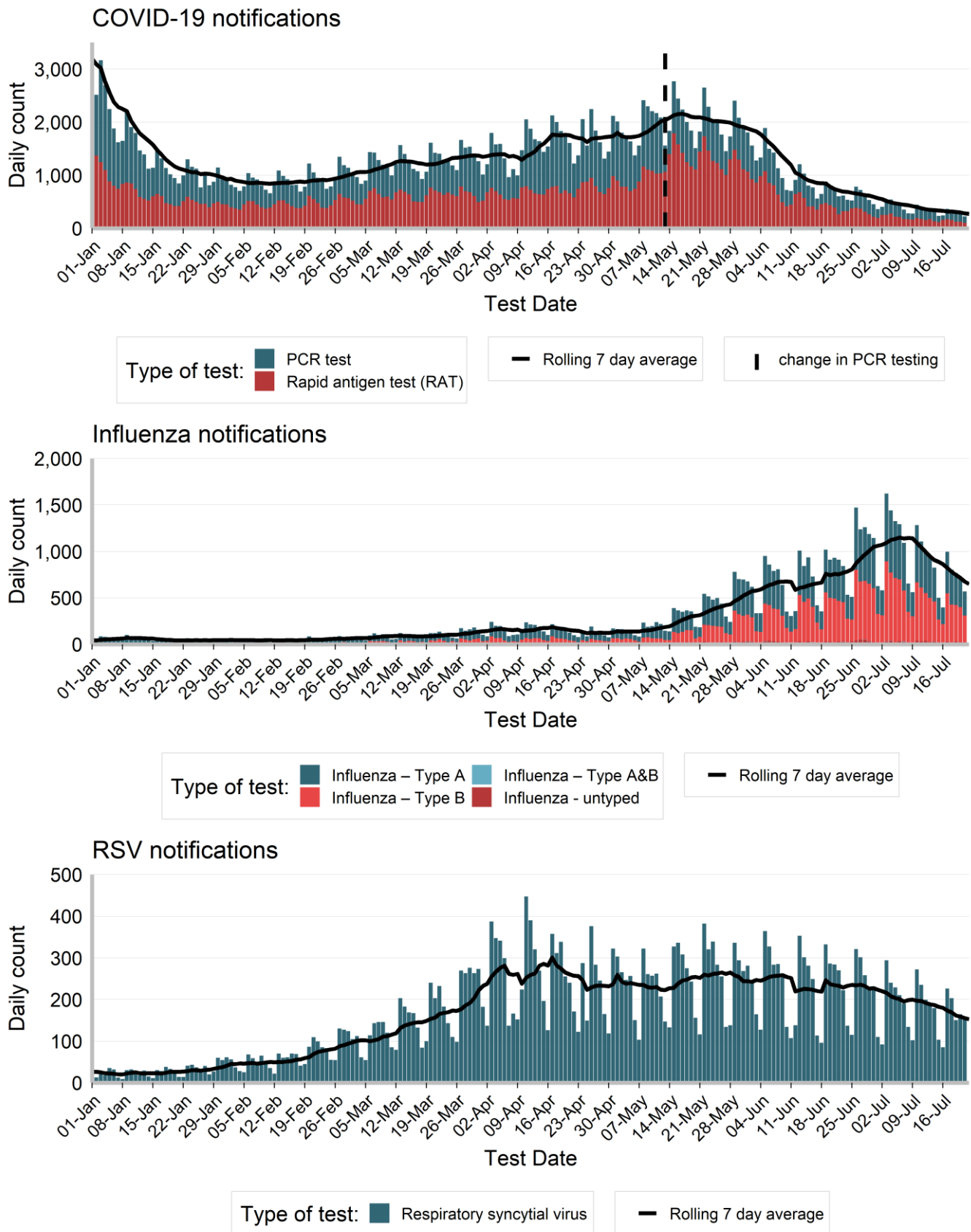
**Interpretation:** Influenza accounted for 60.3% of notifications for COVID-19, influenza and RSV combined in the past week. The distribution of COVID-19, influenza and RSV notifications across gender, age, Local Health District and Aboriginal status in the past week is similar to previous weeks.

**Table 1: Notifications of COVID-19, influenza and RSV, NSW, tested in the week ending 22 July 2023.**

	COVID		Influenza		RSV	
	Week ending 22 July 2023	Year to Date	Week ending 22 July 2023	Year to Date	Week ending 22 July 2023	Year to Date
Gender						
Female	1,084	146,575(58%)	2,256	31,716(51%)	598	17,465(52%)
Male	827	106,853(42%)	2,278	31,017(49%)	469	16,247(48%)
Age group (years)						
0-4	96	8,515(3%)	800	8,776(14%)	422	18,711(55%)
5-9	43	7,819(3%)	694	13,585(22%)	39	1,791(5%)
10-19	86	20,668(8%)	592	12,214(19%)	48	1,420(4%)
20-29	175	28,698(11%)	478	4,691(7%)	44	1,197(4%)
30-39	251	38,101(15%)	708	7,950(13%)	56	1,568(5%)
40-49	272	37,194(15%)	544	6,541(10%)	49	1,193(4%)
50-59	244	34,982(14%)	289	3,458(6%)	88	1,618(5%)
60-69	241	31,960(13%)	183	2,527(4%)	95	1,932(6%)
70-79	228	24,086(9%)	152	1,758(3%)	105	1,923(6%)
80-89	188	15,256(6%)	76	971(2%)	91	1,645(5%)
90+	97	6,411(3%)	17	272(0%)	30	711(2%)
Local Health District of residence						
Central Coast	141	11,908(5%)	158	2,202(4%)	52	1,622(5%)
Far West	8	733(0%)	4	84(0%)	10	158(0%)
Hunter New England	226	33,052(13%)	318	4,793(8%)	144	2,897(9%)
Illawarra Shoalhaven	145	16,062(6%)	255	2,582(4%)	31	1,686(5%)
Mid North Coast	60	5,698(2%)	76	1,664(3%)	32	606(2%)
Murrumbidgee	76	7,915(3%)	86	1,996(3%)	98	1,584(5%)
Nepean Blue Mountains	79	12,432(5%)	339	4,042(6%)	67	2,024(6%)
Northern NSW	83	7,354(3%)	144	2,404(4%)	18	709(2%)
Northern Sydney	243	30,611(12%)	519	7,880(13%)	77	4,421(13%)
South Eastern Sydney	179	26,918(11%)	422	5,278(8%)	92	3,115(9%)
South Western Sydney	166	26,562(10%)	809	9,546(15%)	121	4,888(14%)
Southern NSW	42	6,717(3%)	68	874(1%)	45	615(2%)
Sydney	112	21,165(8%)	261	4,048(6%)	58	2,189(6%)
Western NSW	73	10,211(4%)	166	1,433(2%)	79	1,470(4%)
Western Sydney	236	33,524(13%)	862	13,623(22%)	134	5,634(17%)
Aboriginal status						
Aboriginal and/or Torres Strait Islander	53	8,211(3%)	185	2,154(3%)	51	1,216(4%)
Not Aboriginal or Torres Strait Islander	1,423	186,030(73%)	2,434	32,473(52%)	553	16,199(48%)
Not Stated / Unknown	437	59,482(23%)	1,916	28,145(45%)	463	16,318(48%)
<b>Total</b>	<b>1,913</b>	<b>253,723(100%)</b>	<b>4,535</b>	<b>62,772(100%)</b>	<b>1,067</b>	<b>33,733(100%)</b>

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

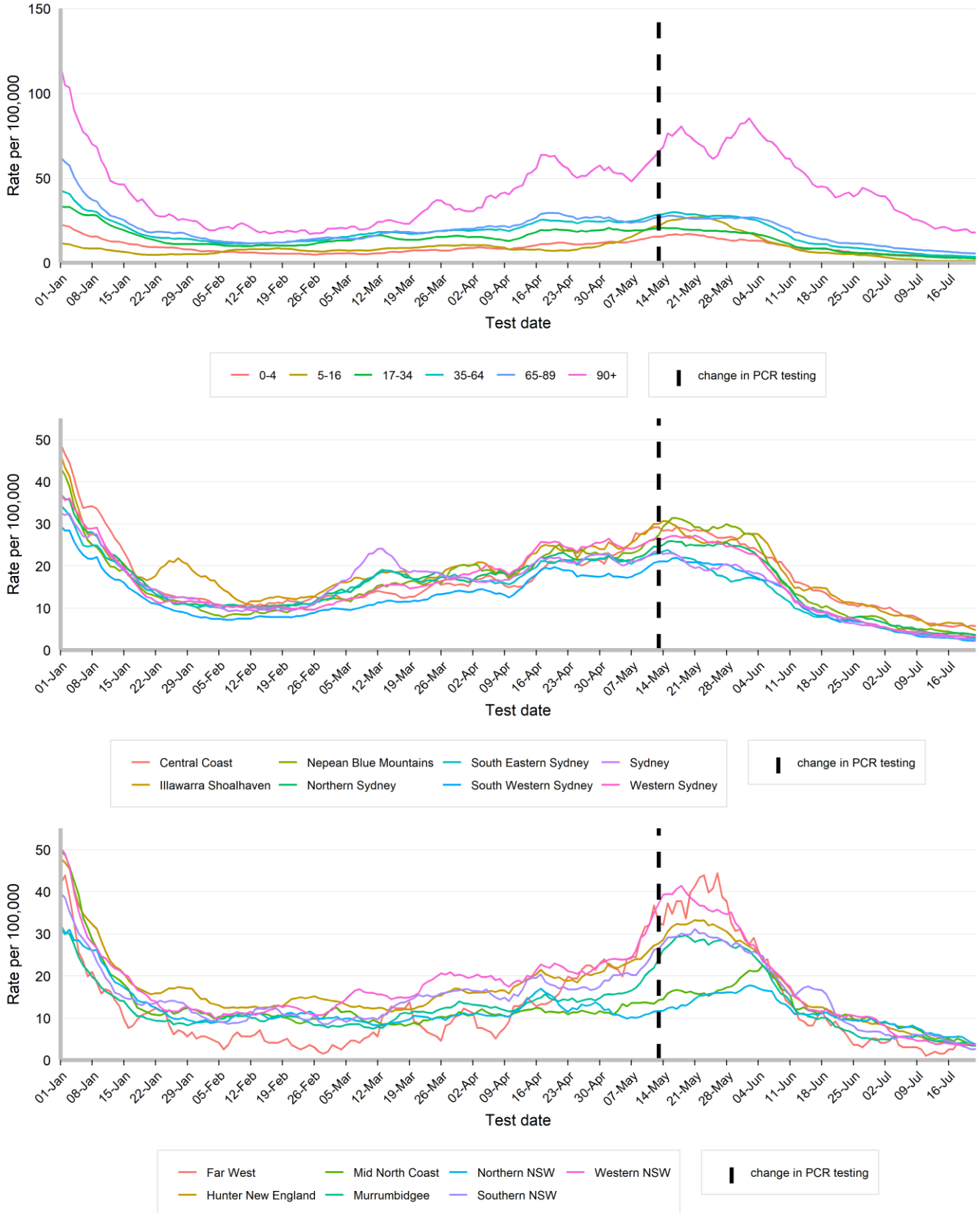
Figure 5. People notified with COVID-19, influenza and RSV, by date of test and type of test performed, NSW, 01 January 2023 to 22 July 2023.



## 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 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 January 2023 to 22 July 2023.**

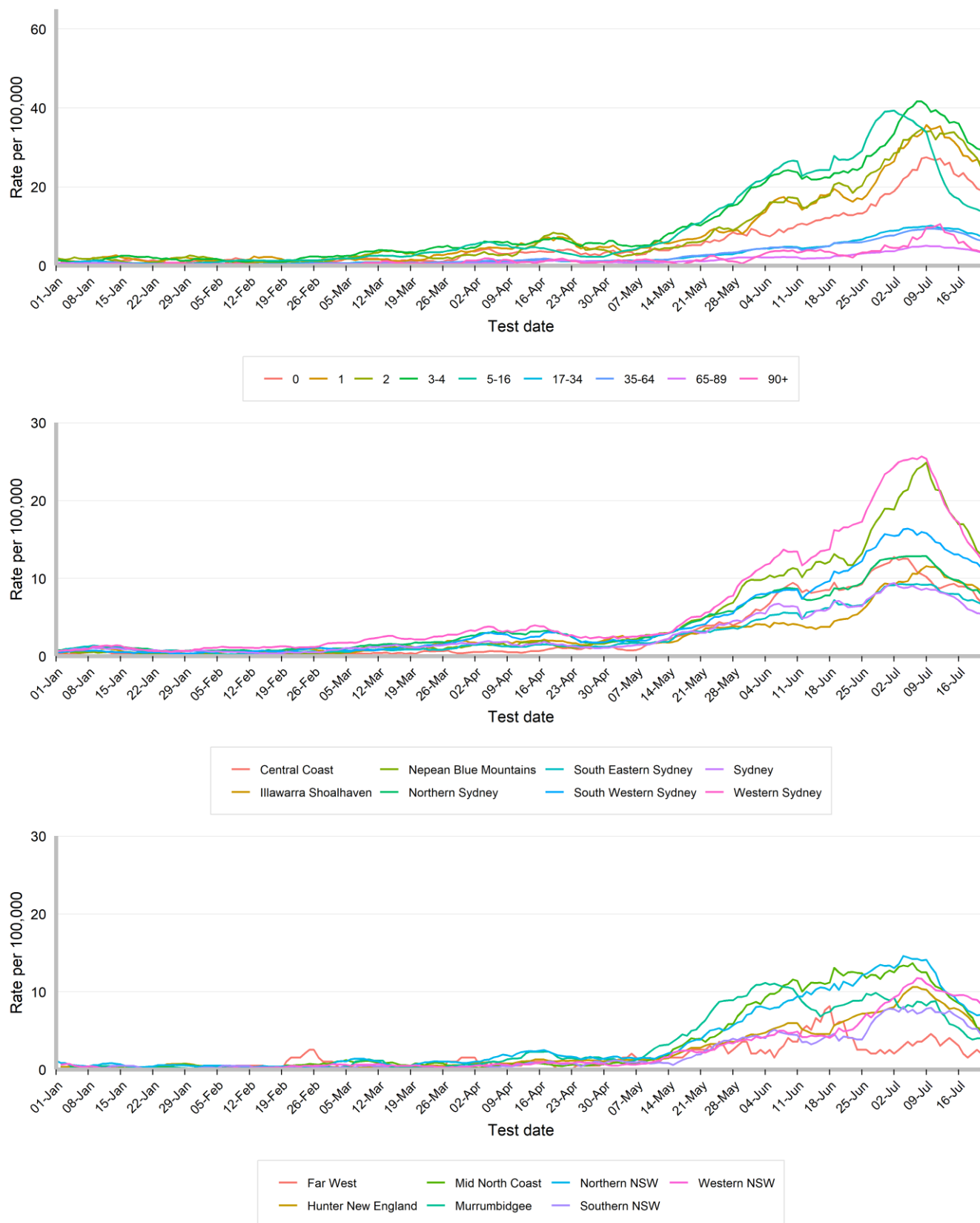




## Rates of influenza notifications per 100,000 population

**Interpretation:** Influenza notification rates declined across all age-groups and most Local Health Districts in the past two weeks. This may partly be due to the school holiday period ending 14 July 2023. As we remain in the winter respiratory season, notification rates may increase again as social mixing and school-based transmission returns to pre-holiday levels.

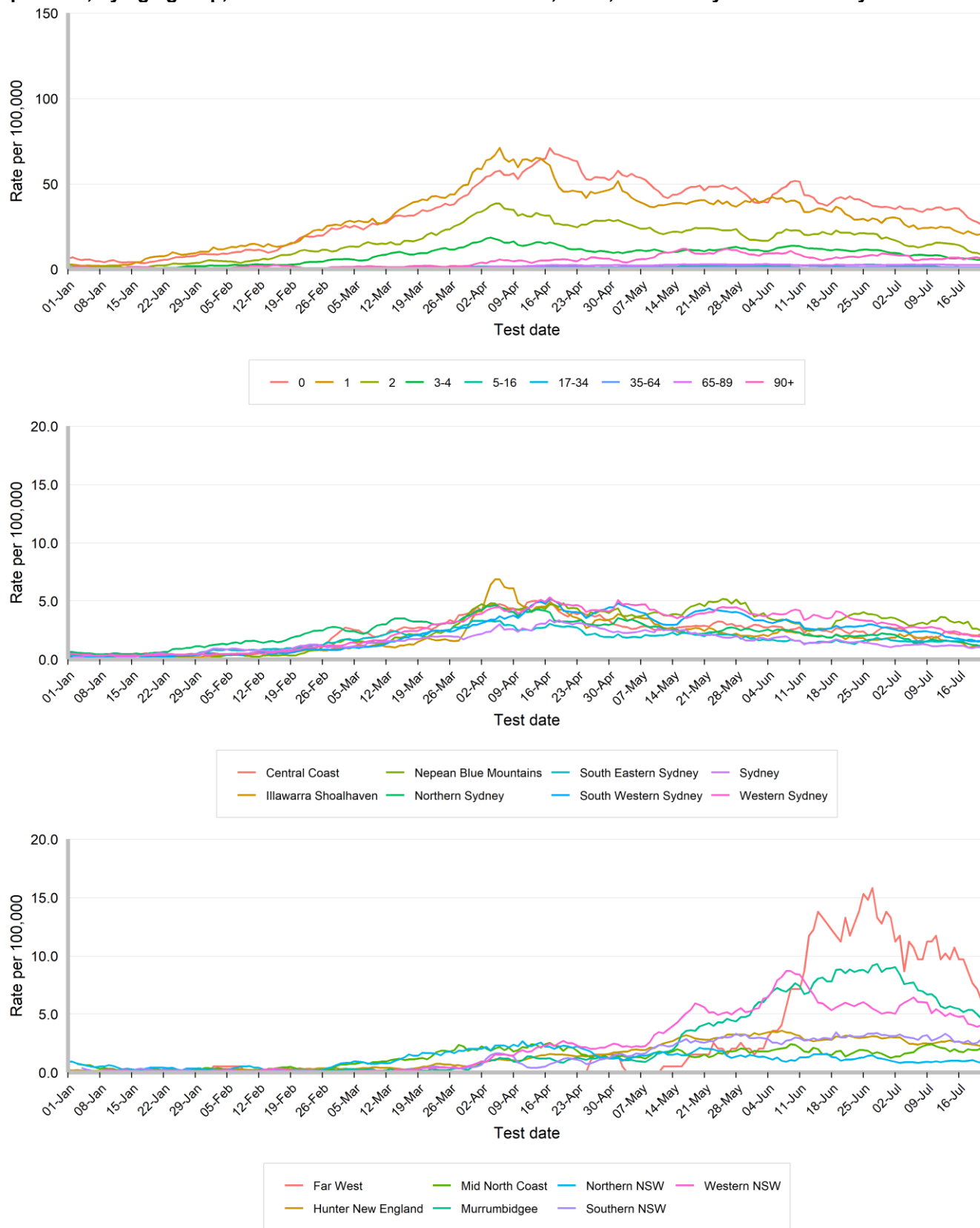
**Figure 7. Daily seven-day rolling average rate of influenza notifications per 100,000 population, by age group, Local Health District and test date, NSW, 01 January 2023 to 22 July 2023.**



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

**Interpretation:** Rates of RSV notifications have declined across most age groups and Local Health Districts.

**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 January 2023 to 22 July 2023.**

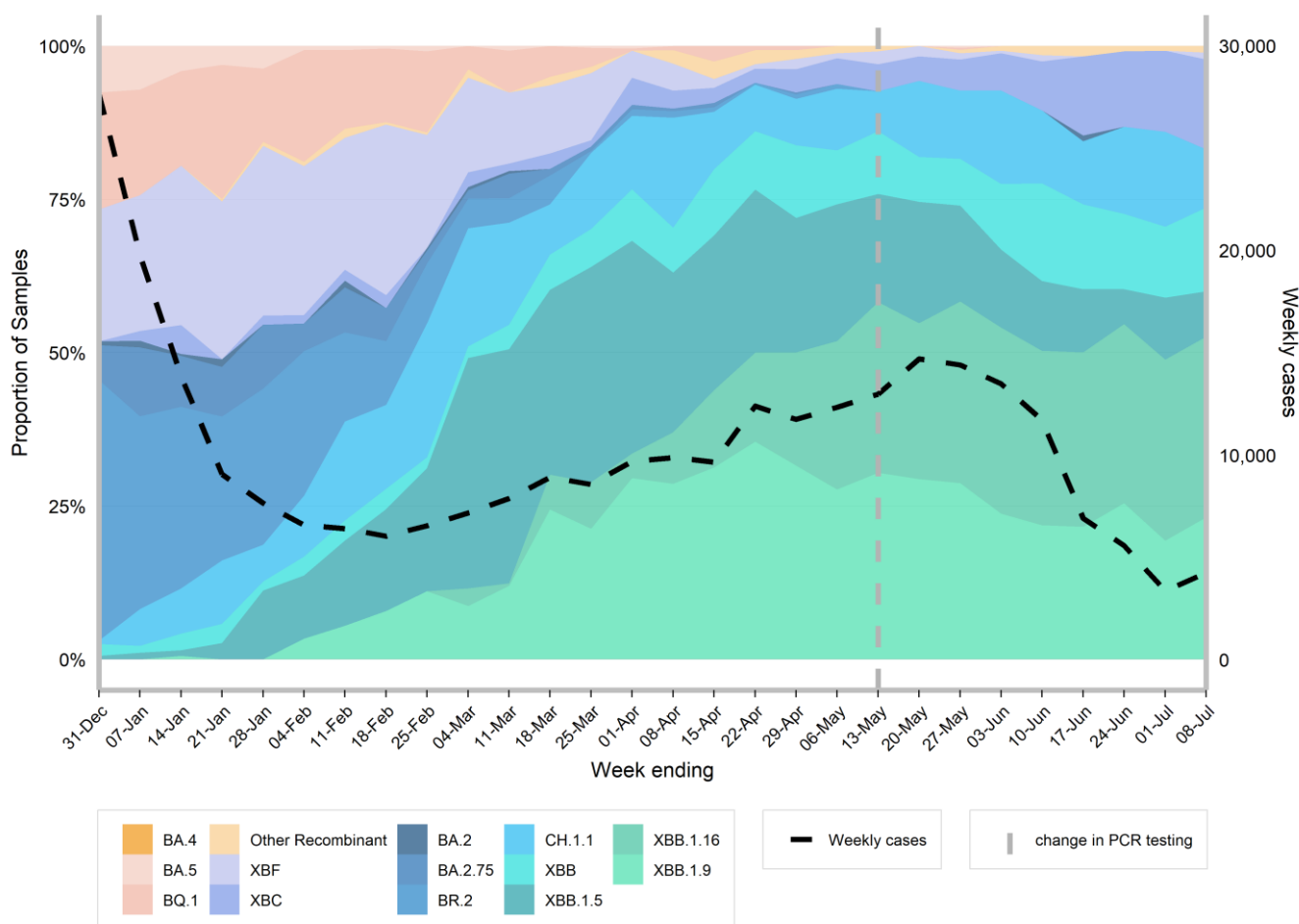


### COVID-19 Whole Genome Sequencing

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. **As the number of samples provided for WGS has declined (95 for the week ending 8 July), the data should be interpreted with caution and WGS data for this report will now be updated every four weeks.**

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

**Figure 9. Estimated distribution of COVID-19 sub-lineages in the community, 01 January 2023 to 08 July 2023.**



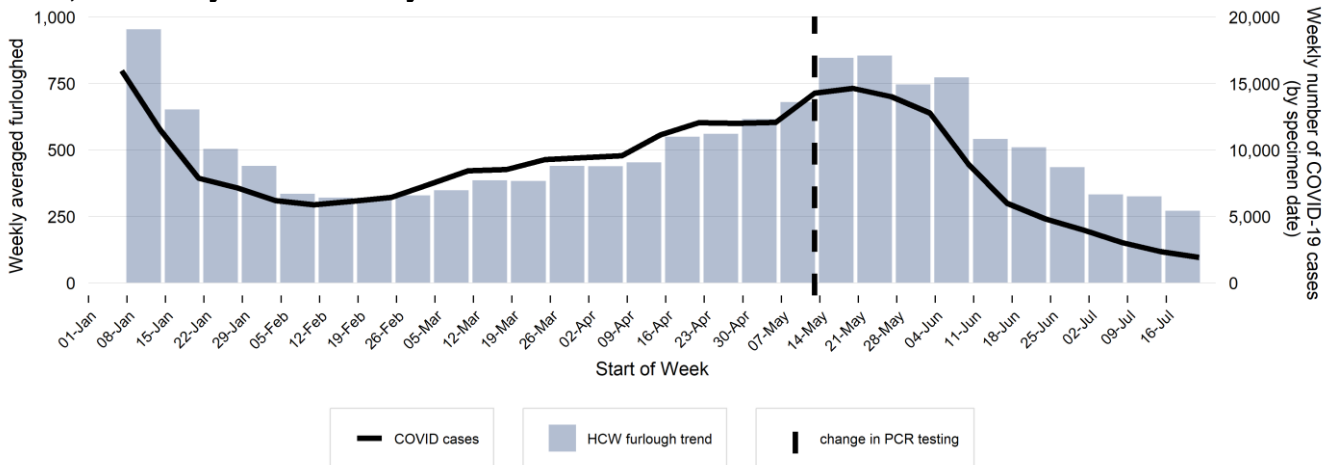
## Other surveillance indicators

### 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:** Healthcare worker furloughing continues to decline consistent with other COVID-19 indicators however this should be interpreted with caution given the changes in reporting requirements.

**Figure 10. Average number of healthcare worker furloughing and number of COVID-19 notifications by week in NSW, 01 January 2023 to 22 July 2023.**

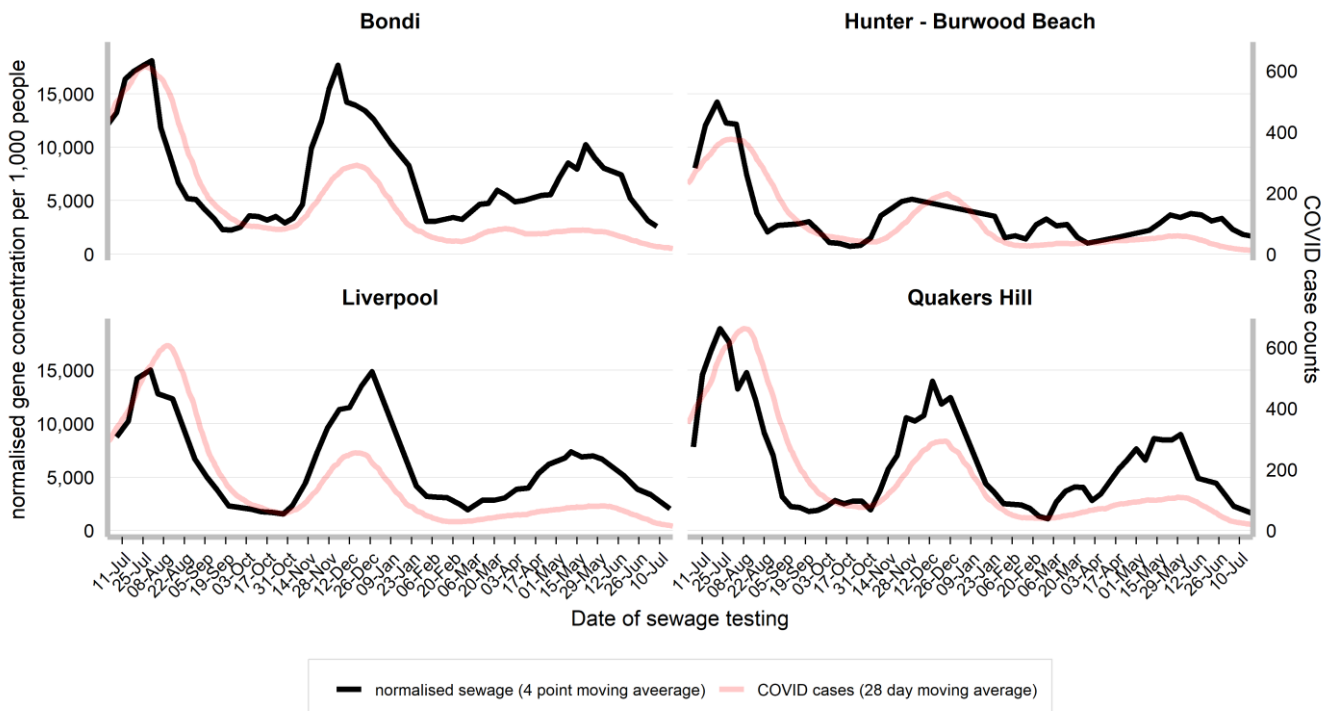


### COVID-19 Sewage surveillance program

Trends are presented for Sydney Bondi, Quakers Hills, Liverpool and Burwood Beach sewage catchments from 5 February 2022 to the week ending 19 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 all sewage testing sites.

**Figure 11. Gene concentration, per 1,000 people in each sewage catchment, 1 January 2023 to 19 July 2023.**

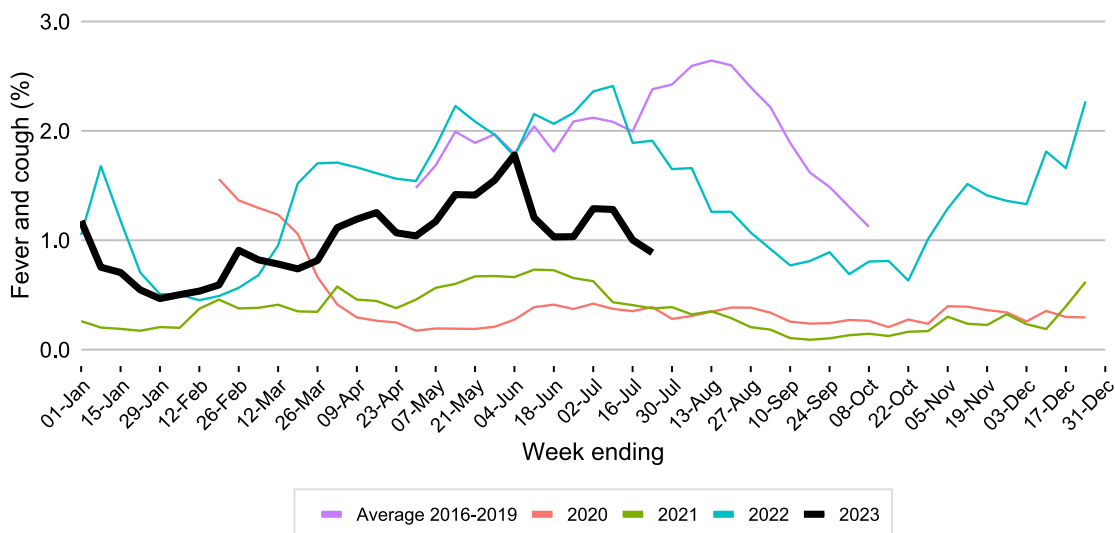


## FluTracking and NSW sentinel laboratory network

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 declined again in the previous week and remains well below the average for 2016 – 2019 and for the same time of year in 2022.

**Figure 12. Proportion of FluTracking participants reporting influenza-like illness, NSW, 1 January to 23 July 2023.**

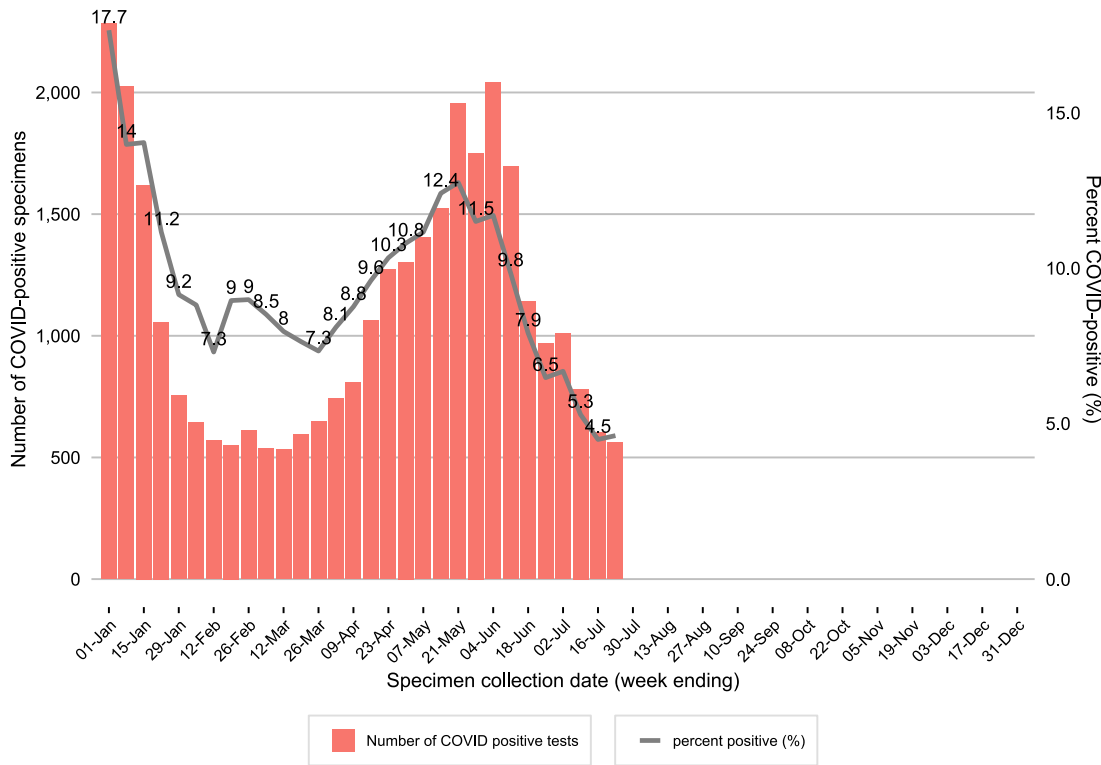


Epidemiological week 29, ending 22 July 2023

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 have been further declines in test positivity at sentinel laboratories for COVID-19, influenza and RSV in the past week. Test positivity for adenovirus, parainfluenza and human metapneumovirus have continued to increase.

**Figure 13. Number and proportion of tests positive for COVID-19 at sentinel NSW laboratories, 1 January 2023 to 23 July 2023.**



**Figure 14. Number and proportion of tests positive for influenza at sentinel NSW laboratories, 1 January 2023 to 23 July 2023.**

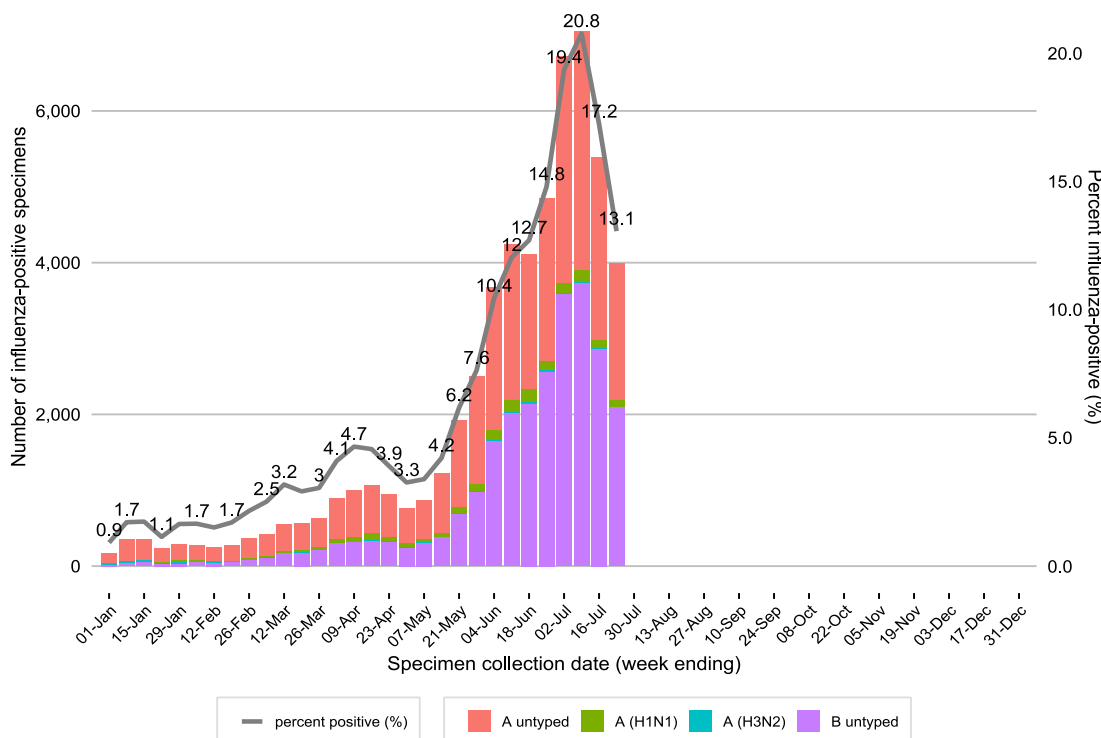


Figure 15. Number of positive PCR test results and proportion of tests positive for other respiratory viruses at sentinel NSW laboratories, 1 January 2023 to 23 July 2023.

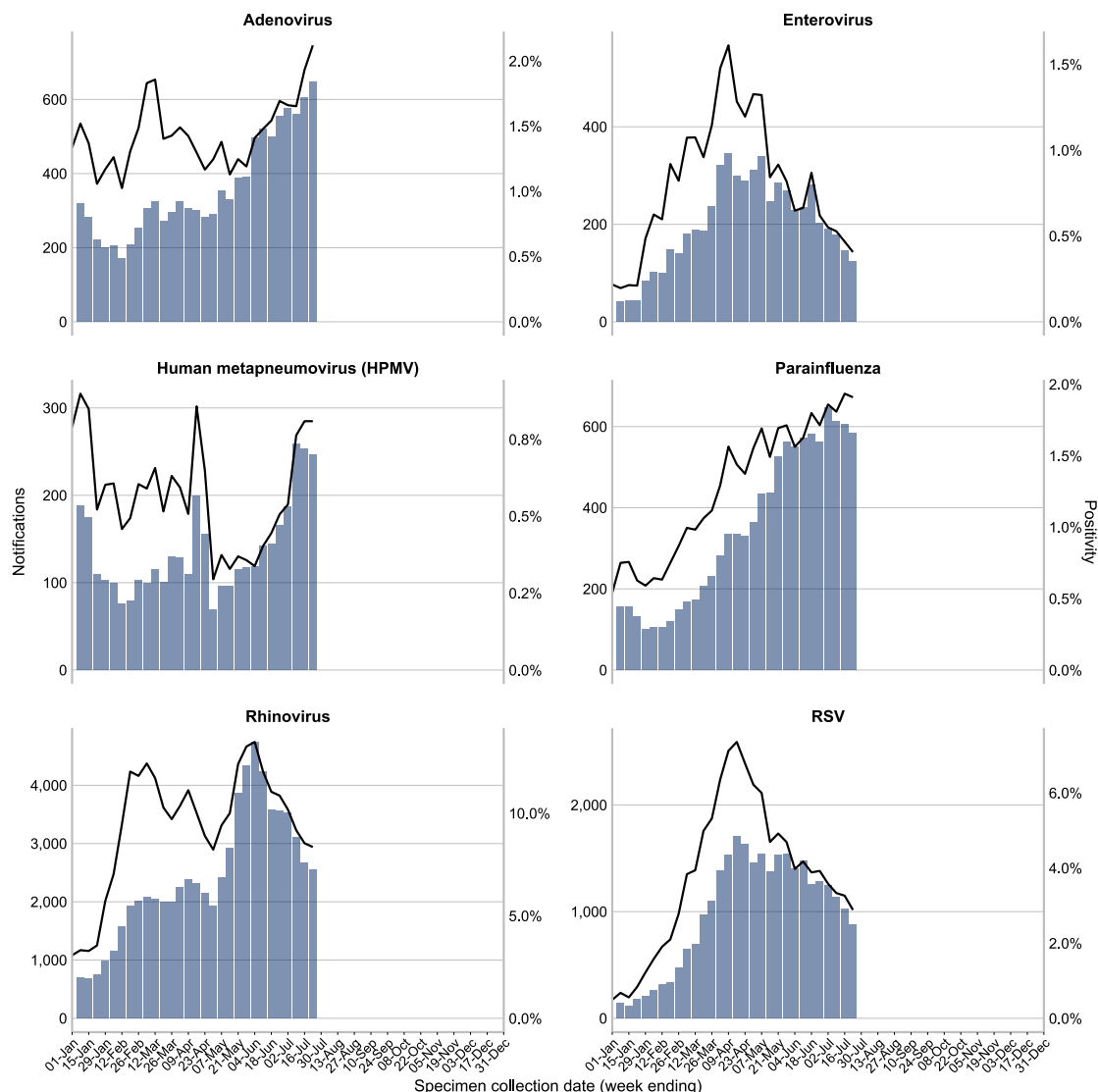


Table 2. Total number of respiratory disease notifications from sentinel laboratories, NSW in the four weeks to 23 July 2023.

	Week ending				Year to date
	02 July	09 July	16 July	23 July	
	n(% pos)	n(% pos)	n(% pos)	n(% pos)	n
Influenza	6,724 (19.4%)	7,047 (20.8%)	5,389 (17.2%)	3,987 (13.1%)	55,937
Adenovirus	577 (1.7%)	561 (1.7%)	604 (1.9%)	647 (2.1%)	10,734
Respiratory syncytial virus (RSV)	1,245 (3.6%)	1,132 (3.3%)	1,021 (3.3%)	881 (2.9%)	28,900
Rhinovirus	3,536 (10.2%)	3,113 (9.2%)	2,669 (8.5%)	2,550 (8.4%)	71,004
Human metapneumovirus (HMPV)	187 (0.5%)	259 (0.8%)	253 (0.8%)	247 (0.8%)	4,128
Enterovirus	191 (0.5%)	179 (0.5%)	146 (0.5%)	124 (0.4%)	5,818
<b>Number of PCR tests conducted</b>	<b>34,743</b>	<b>33,944</b>	<b>31,268</b>	<b>30,530</b>	<b>737,301</b>
SARS-CoV-2	1,008 (6.7%)	781 (5.3%)	603 (4.5%)	562 (4.6%)	33,051
<b>Number of COVID PCR tests</b>	<b>15,078</b>	<b>14,751</b>	<b>13,427</b>	<b>12,178</b>	<b>343,038</b>

Recent data is subject to change. For the week ending 23 July 2023, 11 out of 13 sentinel laboratories provided PCR testing data related to influenza and 4 out of 4 sentinel laboratories provided PCR data related to COVID.