

NSW Respiratory Surveillance Report - week ending 17 June 2023

COVID-19 activity has continued to decline in the previous week and RSV activity is showing early signs of decreasing. Influenza transmission is continuing at moderate levels.

Summary

COVID activity including notifications, presentations to emergency departments (EDs), test positivity and healthcare worker furloughing has continued to decline in the previous week. There was a 24.3% decline in COVID-19 notifications and notification rates declined in all age-groups and most Local Health Districts. There were 4,551 people diagnosed with influenza this week, a small increase of 0.5% since the previous week, however presentations to EDs remain at moderate levels. There was a 10.2% decrease in RSV notifications and RSV test positivity continues to decline; presentations of young children to EDs for bronchiolitis are 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 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: Emergency department presentations and admissions for coronavirus continue to decrease; the proportion requiring admission is stable. The previously observed steep increases for influenza-like illness presentations slowed with the proportion requiring admission declining. Bronchiolitis activity is stable.

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

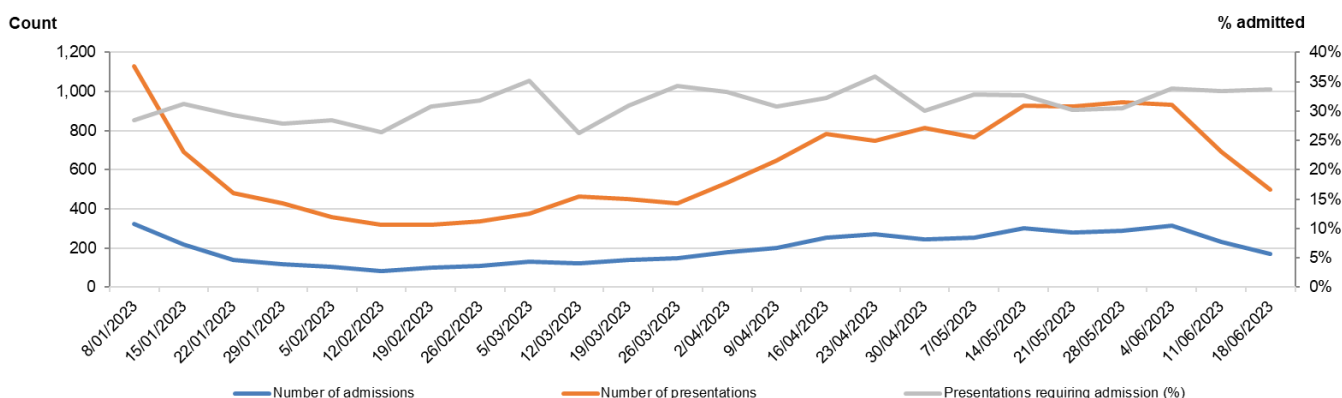


Figure 2. ‘Influenza-like illness’ weekly counts of unplanned emergency department (ED) presentations and admission following presentation, 2023, persons of all ages.

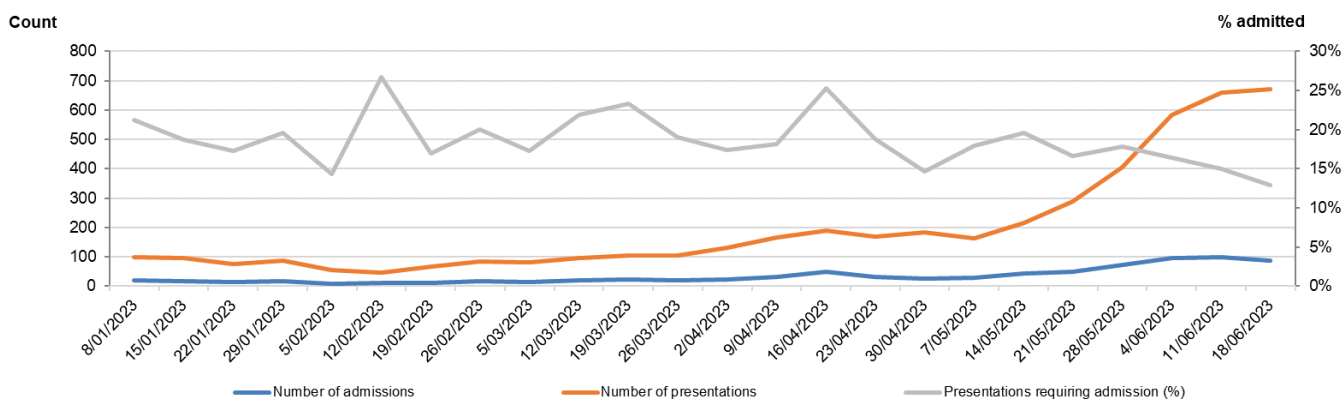
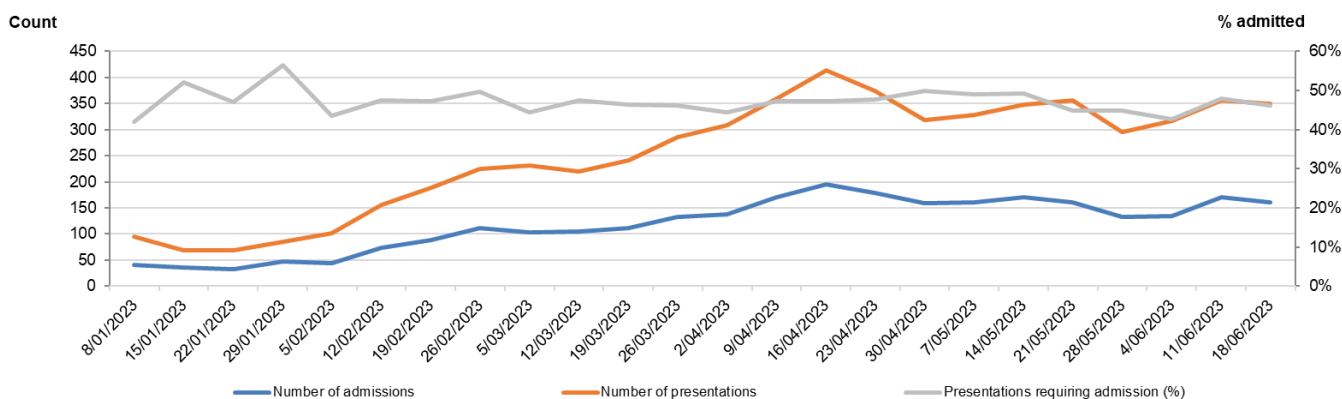


Figure 3. Bronchiolitis weekly counts of unplanned emergency department (ED) presentations and admission following presentation, 2023, children aged 0-4 years.



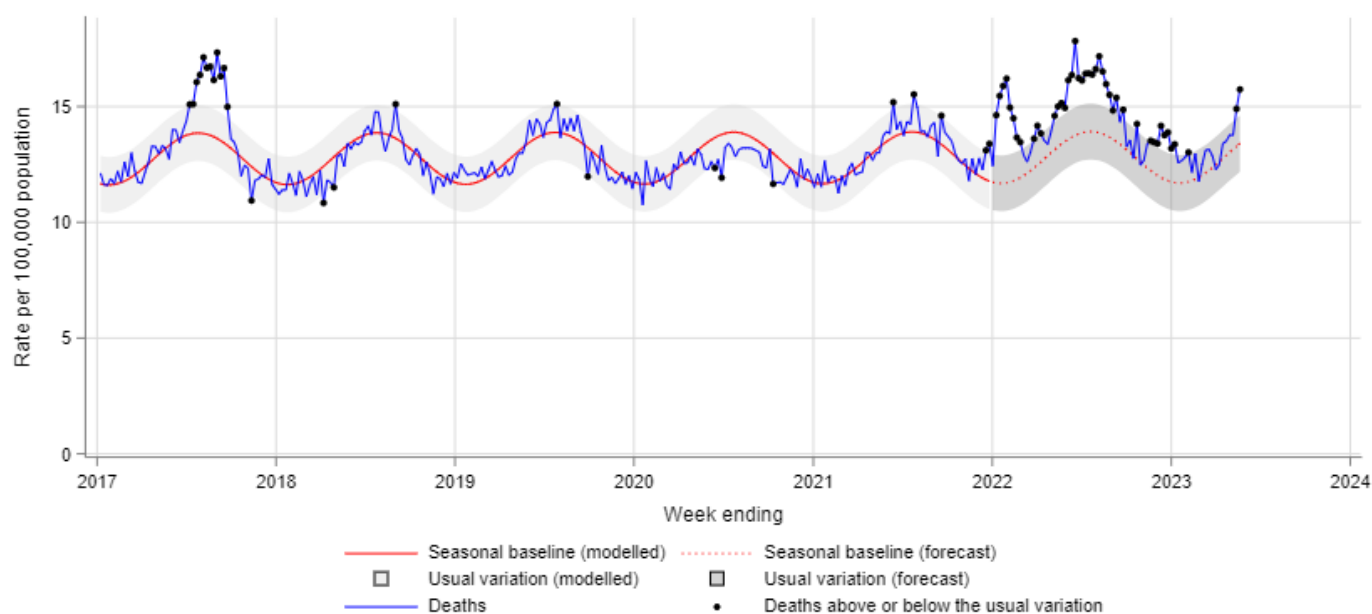
Death surveillance

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: All-cause mortality in mid-May 2023 was above the seasonal baseline and usual variation for mortality rates based on the period 2017 to 2021.

Figure 4. All-cause death rate per 100,000 population, all ages, 2017 to 21 May 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 16 April 2023 to 21 May 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.

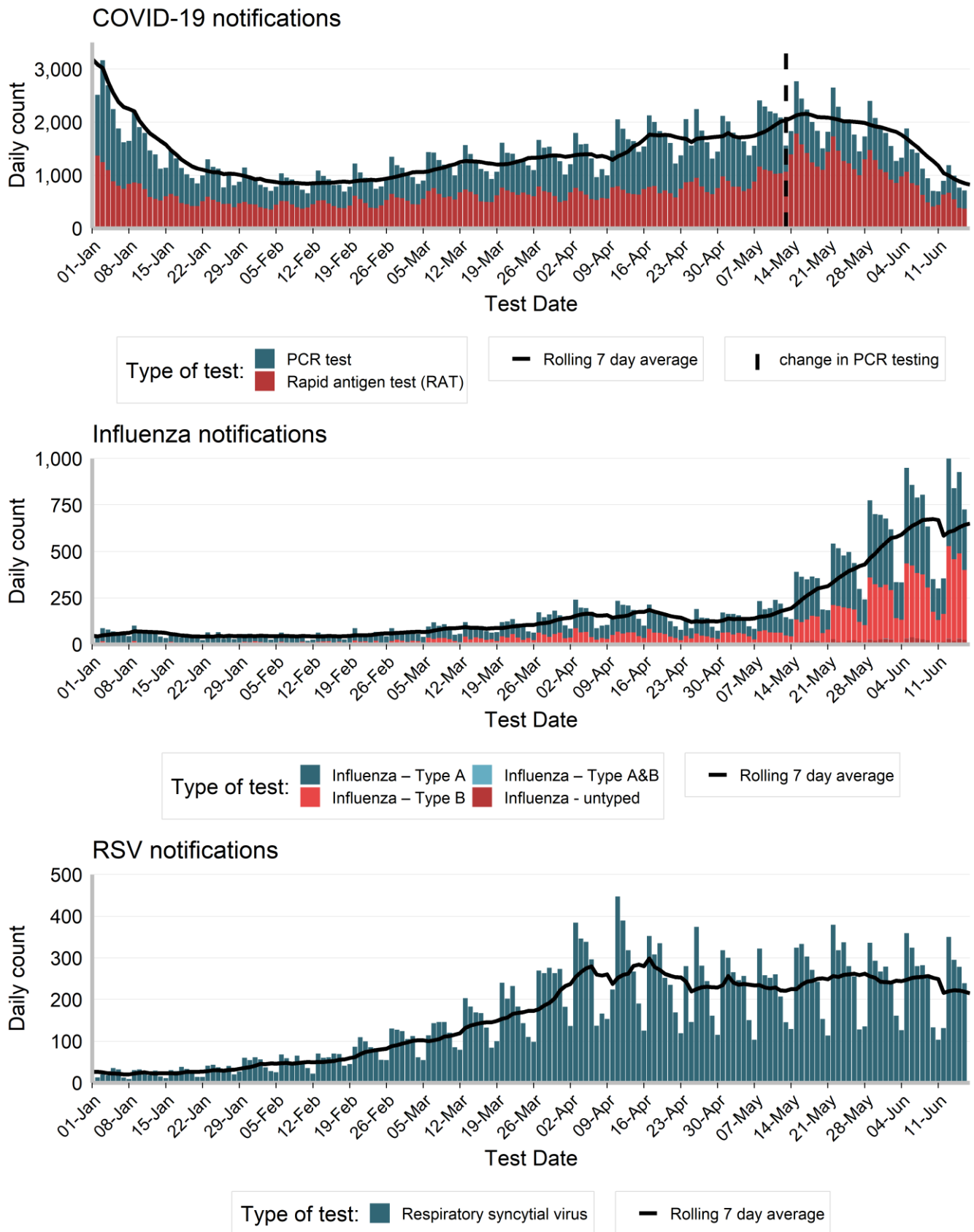
Interpretation: There have been minimal changes in the distribution of COVID-19, influenza and RSV notifications across gender, age, Local Health District and Aboriginal status in the past week compared to previous weeks.

Table 1: Notifications of COVID-19, influenza and RSV, NSW, tested in the week ending 17 June 2023.

	COVID		Influenza		RSV	
	Week ending 17 June 2023	Year to Date	Week ending 17 June 2023	Year to Date	Week ending 17 June 2023	Year to Date
Gender						
Female	3,381	136,847(58%)	2,244	15,560(50%)	778	13,671(51%)
Male	2,354	100,134(42%)	2,307	15,438(50%)	724	12,927(49%)
Age group (years)						
0-4	271	7,743(3%)	605	4,168(13%)	744	15,598(59%)
5-9	182	7,378(3%)	1,069	7,059(23%)	99	1,339(5%)
10-19	450	19,673(8%)	1,134	6,323(20%)	104	1,043(4%)
20-29	544	27,119(11%)	283	2,111(7%)	56	912(3%)
30-39	801	35,852(15%)	508	3,583(12%)	75	1,201(5%)
40-49	774	34,974(15%)	457	3,127(10%)	49	883(3%)
50-59	708	32,810(14%)	207	1,796(6%)	76	1,178(4%)
60-69	686	29,948(13%)	129	1,324(4%)	89	1,372(5%)
70-79	592	22,333(9%)	88	910(3%)	106	1,388(5%)
80-89	507	13,778(6%)	49	473(2%)	73	1,159(4%)
90+	236	5,618(2%)	19	132(0%)	32	523(2%)
Local Health District of residence						
Central Coast	330	10,882(5%)	208	1,037(3%)	59	1,347(5%)
Far West	20	698(0%)	14	56(0%)	25	55(0%)
Hunter New England	816	30,833(13%)	304	2,237(7%)	190	2,002(8%)
Illawarra Shoalhaven	434	14,823(6%)	114	1,236(4%)	58	1,439(5%)
Mid North Coast	169	5,108(2%)	176	838(3%)	25	455(2%)
Murrumbidgee	197	7,355(3%)	151	1,224(4%)	161	836(3%)
Nepean Blue Mountains	279	11,658(5%)	317	1,717(6%)	71	1,588(6%)
Northern NSW	223	6,548(3%)	227	1,209(4%)	35	601(2%)
Northern Sydney	617	28,750(12%)	522	4,383(14%)	125	3,860(15%)
South Eastern Sydney	496	25,431(11%)	395	2,721(9%)	97	2,614(10%)
South Western Sydney	594	24,935(11%)	693	4,506(15%)	177	3,881(15%)
Southern NSW	253	6,265(3%)	63	403(1%)	45	387(1%)
Sydney	446	20,097(8%)	276	2,236(7%)	67	1,876(7%)
Western NSW	227	9,558(4%)	85	558(2%)	110	953(4%)
Western Sydney	636	31,677(13%)	995	6,550(21%)	256	4,646(17%)
Aboriginal status						
Aboriginal and/or Torres Strait Islander	196	7,666(3%)	151	958(3%)	67	896(3%)
Not Aboriginal or Torres Strait Islander	4,246	173,905(73%)	2,232	16,106(52%)	734	12,671(48%)
Not Stated / Unknown	1,301	55,681(23%)	2,168	13,959(45%)	702	13,049(49%)
Total	5,743	237,252(100%)	4,551	31,023(100%)	1,503	26,616(100%)

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

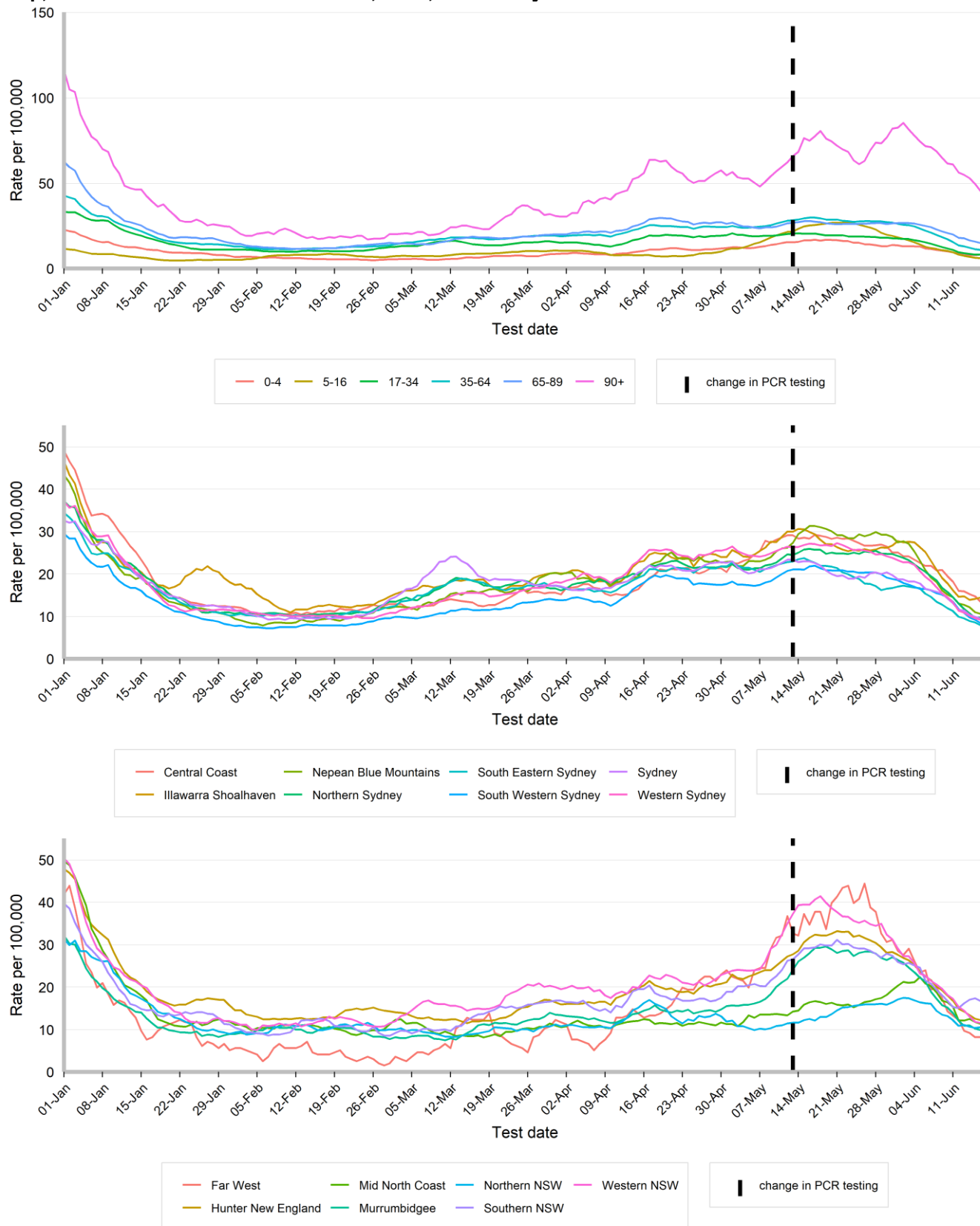
Figure 5. People notified with COVID-19, Influenza and RSV, by date of test and type of test performed, NSW, 01 January 2023 to 17 June 2023.



Rates of COVID-19 notifications per 100,000 population

Interpretation: Rates of COVID-19 notifications are declining across all age groups and most Local Health Districts. Notification rates continue to be highest in those aged 90 years and older.

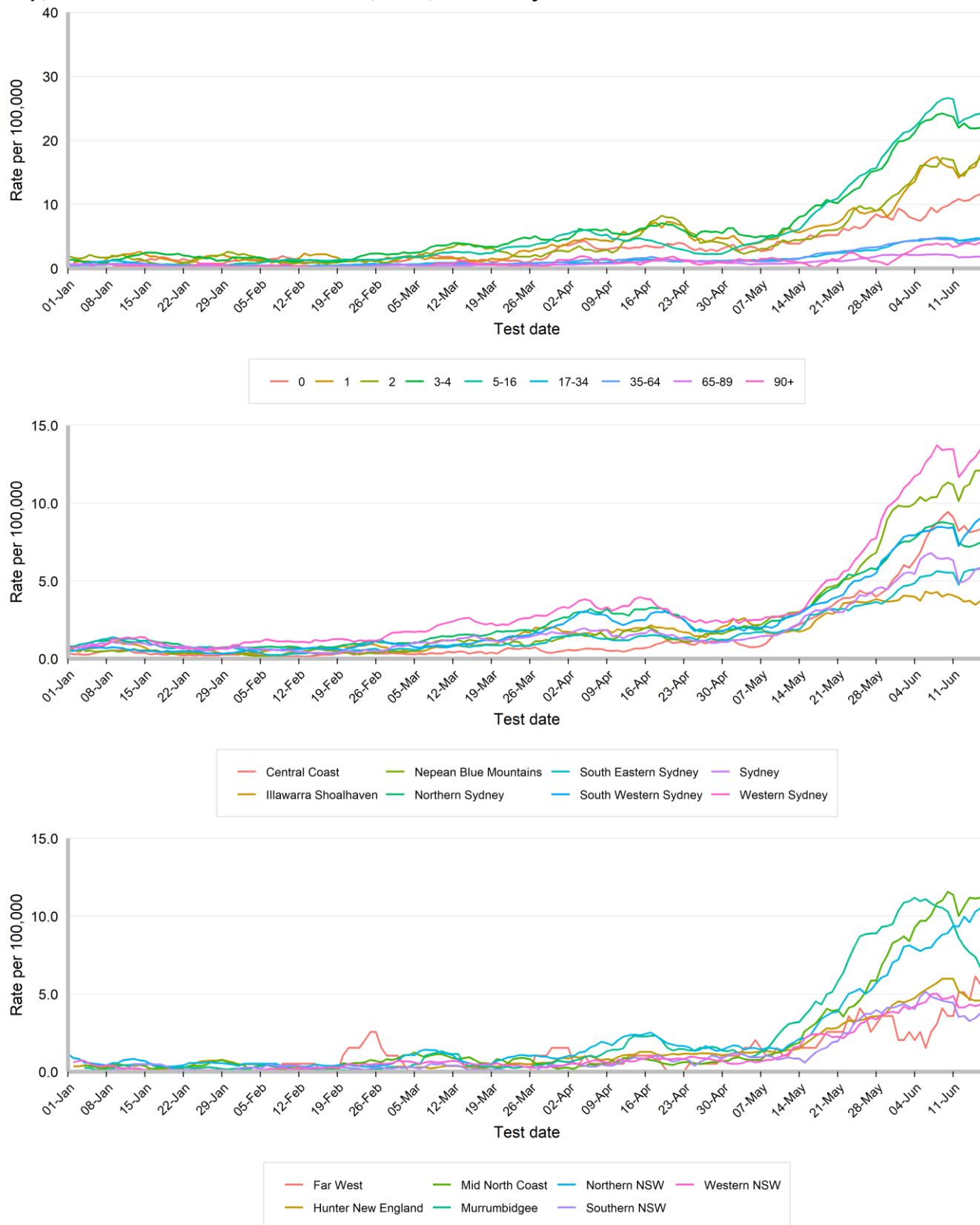
Figure 6. Daily seven-day rolling average rate of COVID-19 notifications per 100,000 population, by age group, Local Health District and test date, NSW, 01 January 2023 to 17 June 2023.



Rates of influenza notifications per 100,000 population

Interpretation: Influenza notification rates continue to be highest in children and young people aged less than 17 years. This likely reflects transmission in childcare centres and schools, lower vaccination rates and patterns of testing if unwell.

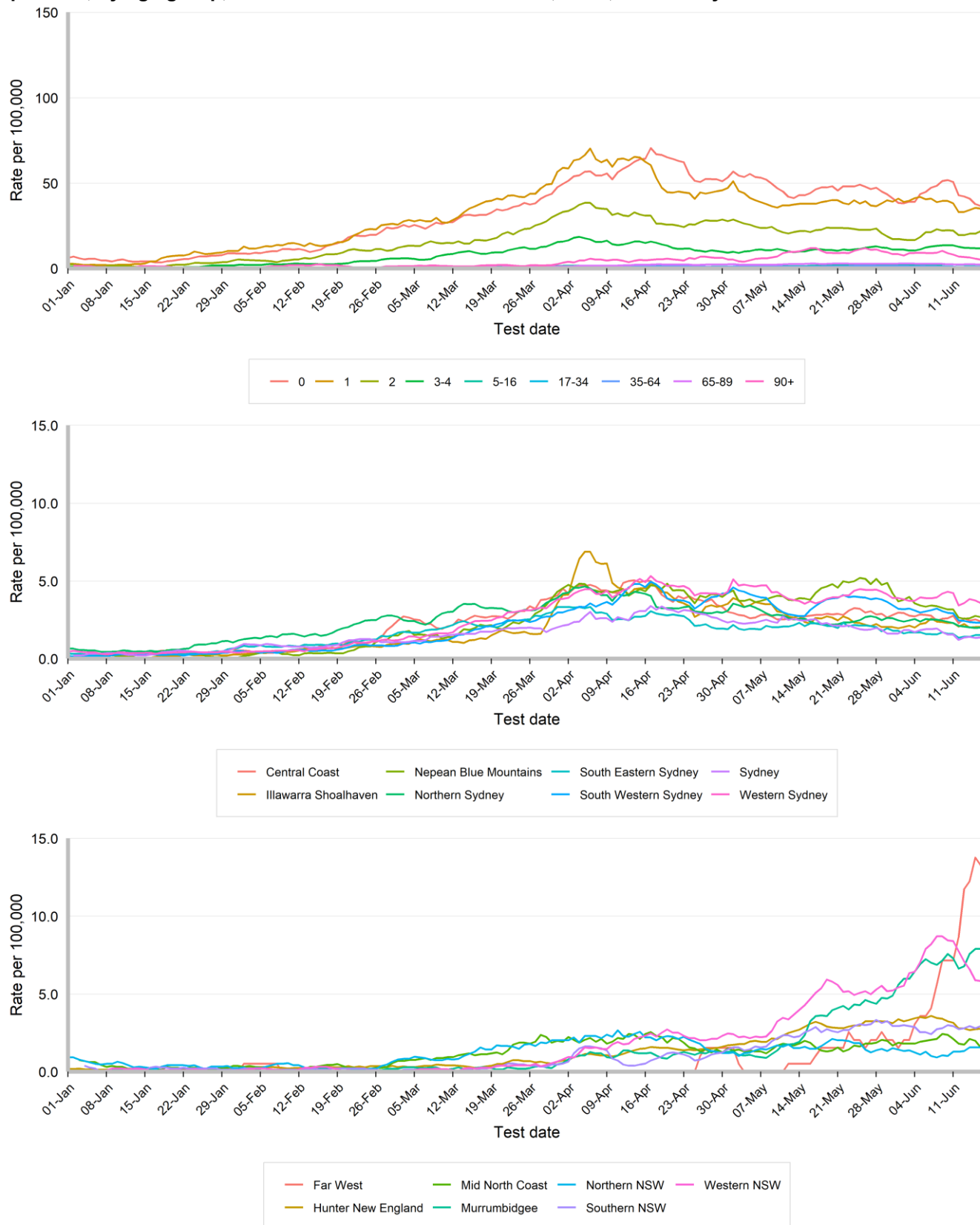
Figure 7. Daily seven-day rolling average rate of influenza notifications per 100,000 population, by age group, Local Health District and test date, NSW, 01 January 2023 to 17 June 2023.



Rates of respiratory syncytial virus notifications per 100,000 population

Interpretation: Rates of RSV notifications are relatively stable across all ages. Notification rates in infants aged less than 12 months and in people aged 90 years and older are declining. Notification rates are highest in the Far West Local Health District.

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 17 June 2023.

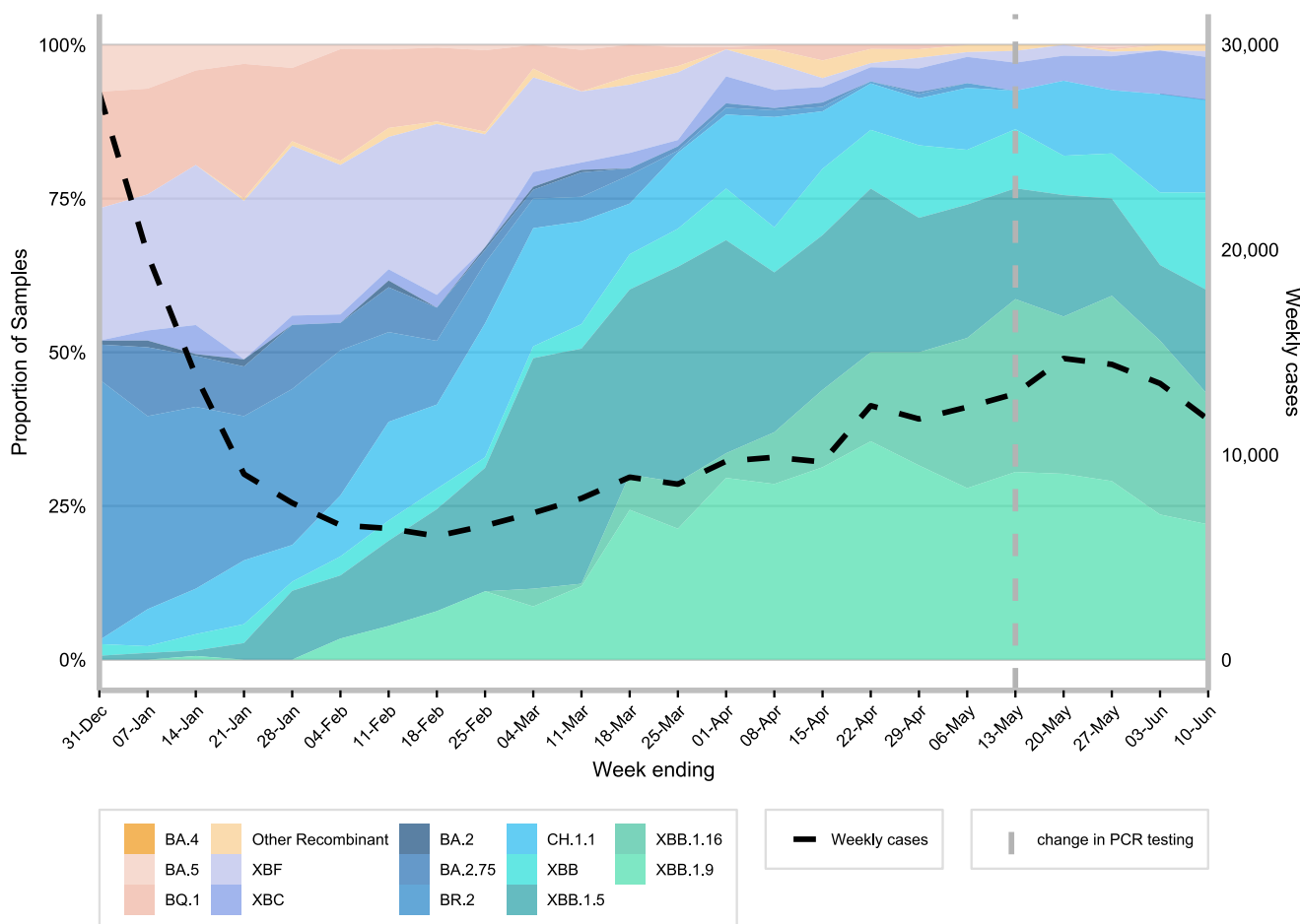


COVID-19 Whole Genome Sequencing

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. S genes were detected in 98.2% of SARS-CoV-2 positive specimens.

Interpretation: XBB sub-lineages account for most variants circulating in the community.

Figure 9. Estimated distribution of COVID-19 sub-lineages in the community, 01 January 2023 to 10 June 2023.



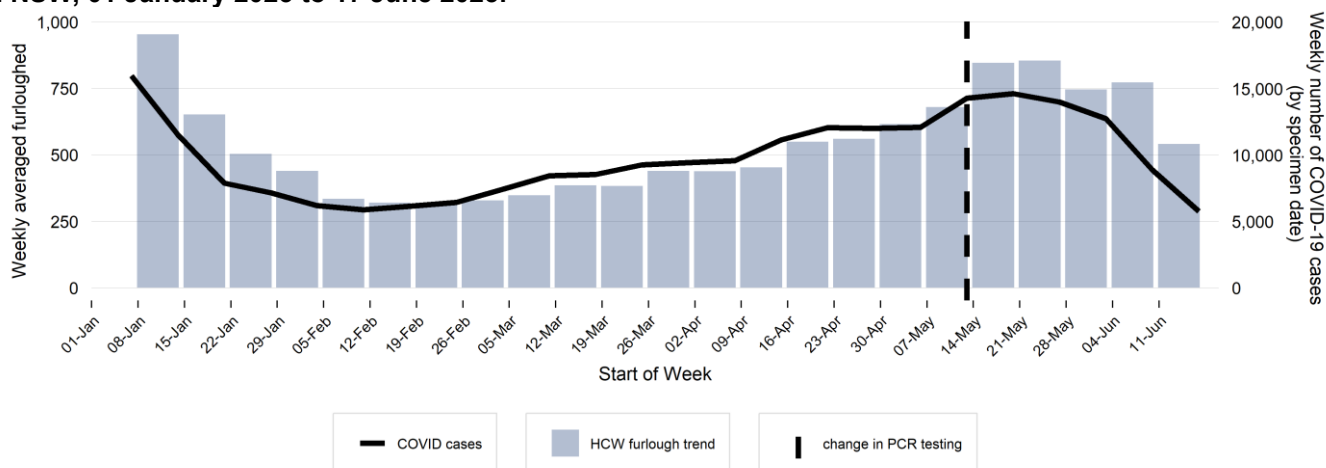
Other surveillance indicators

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 has begun to decrease, consistent with the declines in COVID activity in the community.

Figure 10. Average number of healthcare worker furloughing and number of COVID-19 notifications by week in NSW, 01 January 2023 to 17 June 2023.

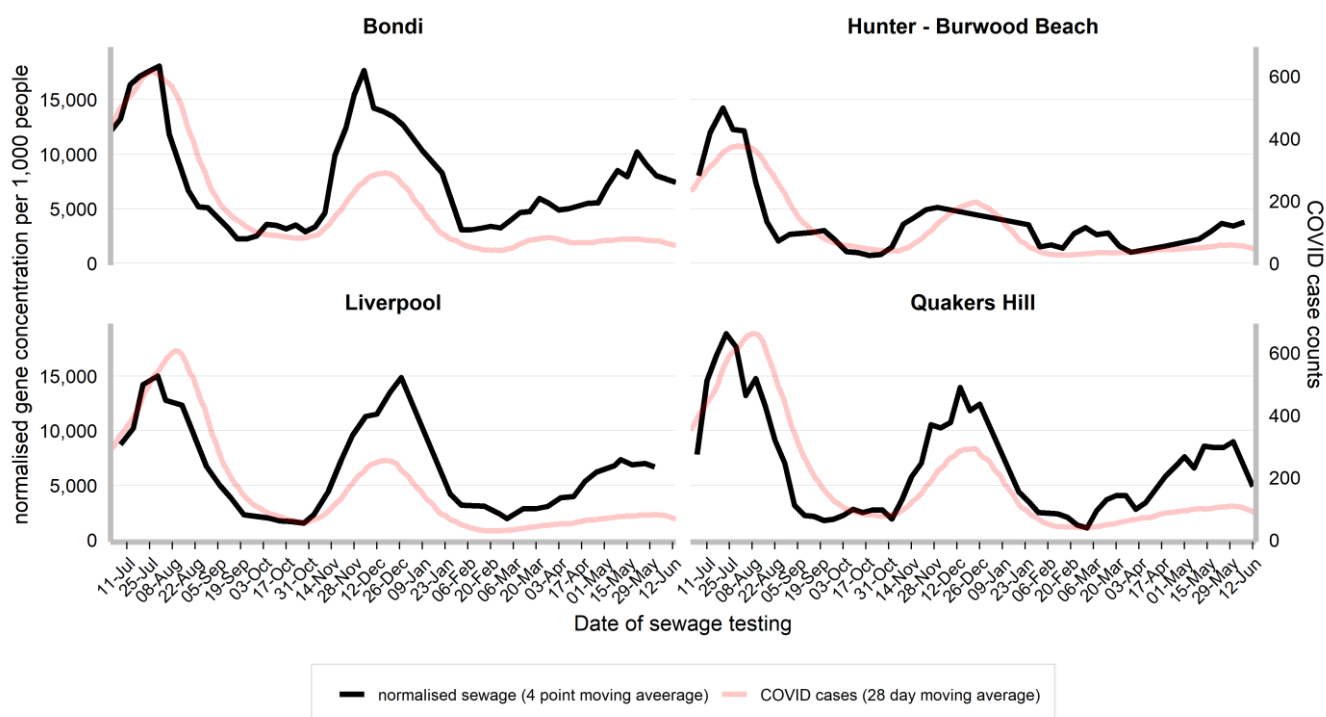


COVID-19 Sewage surveillance program

Trends are presented for Sydney Bondi, Quakers Hills, Liverpool and Burwood Beach sewage catchments from 5 February 2022 to the week ending 14 June 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 continue to fluctuate indicating transmission continues to occur in the community despite decreases in case notifications.

Figure 11. Gene concentration, per 1,000 people in each sewage catchment, 1 January 2023 to 14 June 2023.

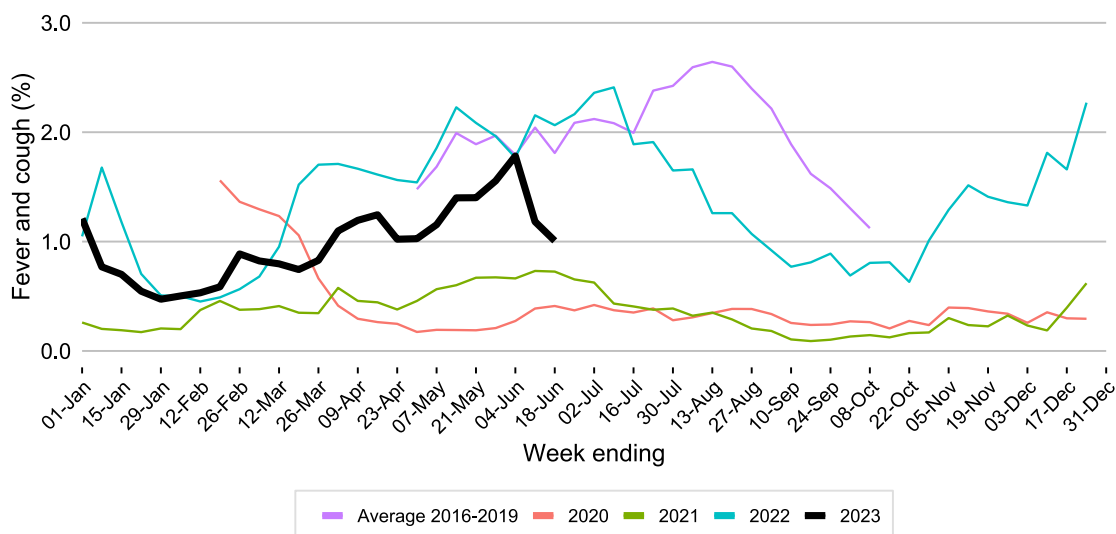


FluTracking and NSW sentinel laboratory network

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 decline in FluTracking participants reporting fever and cough (influenza-like illness) observed in the previous report has been sustained. The lack of a decline in other indicators of influenza activity in NSW suggests the FluTracking data reflects recent declines in COVID-19, for which symptoms of fever and cough are common.

Figure 12. Proportion of FluTracking participants reporting influenza-like illness, NSW, 1 January to 18 June 2023.



Epidemiological week 24, ending 17 June 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: Influenza positive remains high despite a decline in the number of tests performed in the past week whereas the downward trajectory in positivity for COVID-19 and RSV tests continues.

Figure 13. Number and proportion of tests positive for influenza at sentinel NSW laboratories, 1 January 2023 to 18 June 2023.

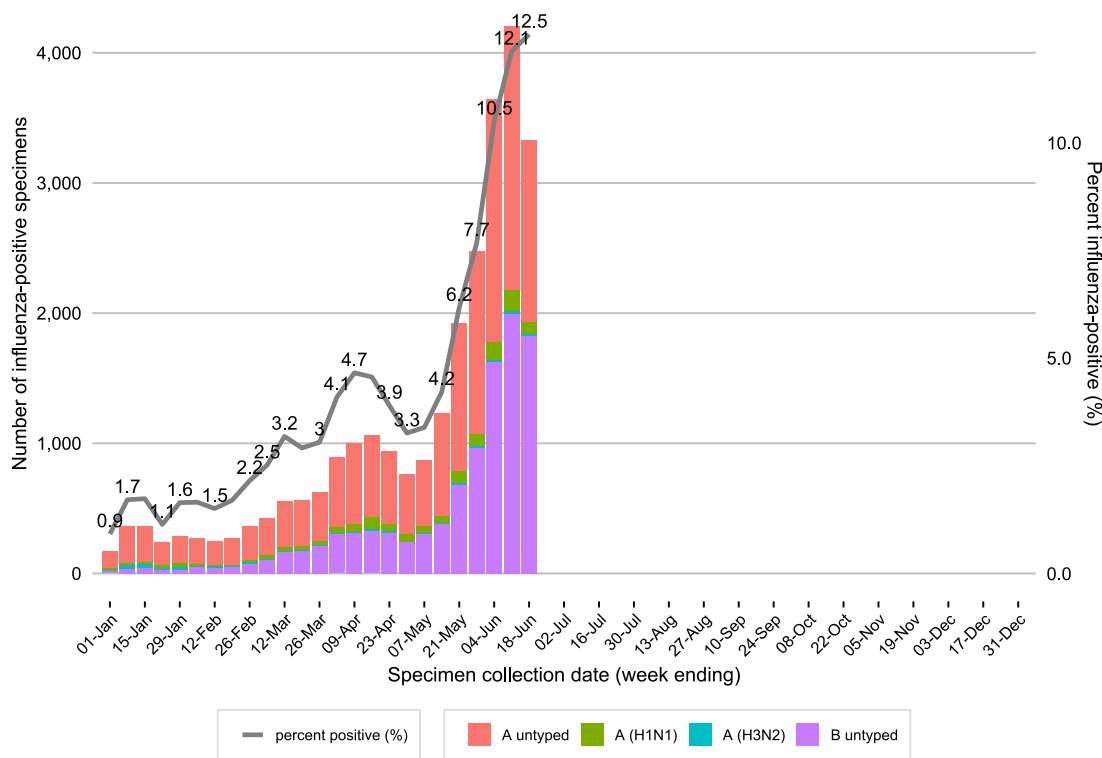


Figure 14. Number and proportion of tests positive for COVID-19 at sentinel NSW laboratories, 1 January 2023 to 18 June 2023.

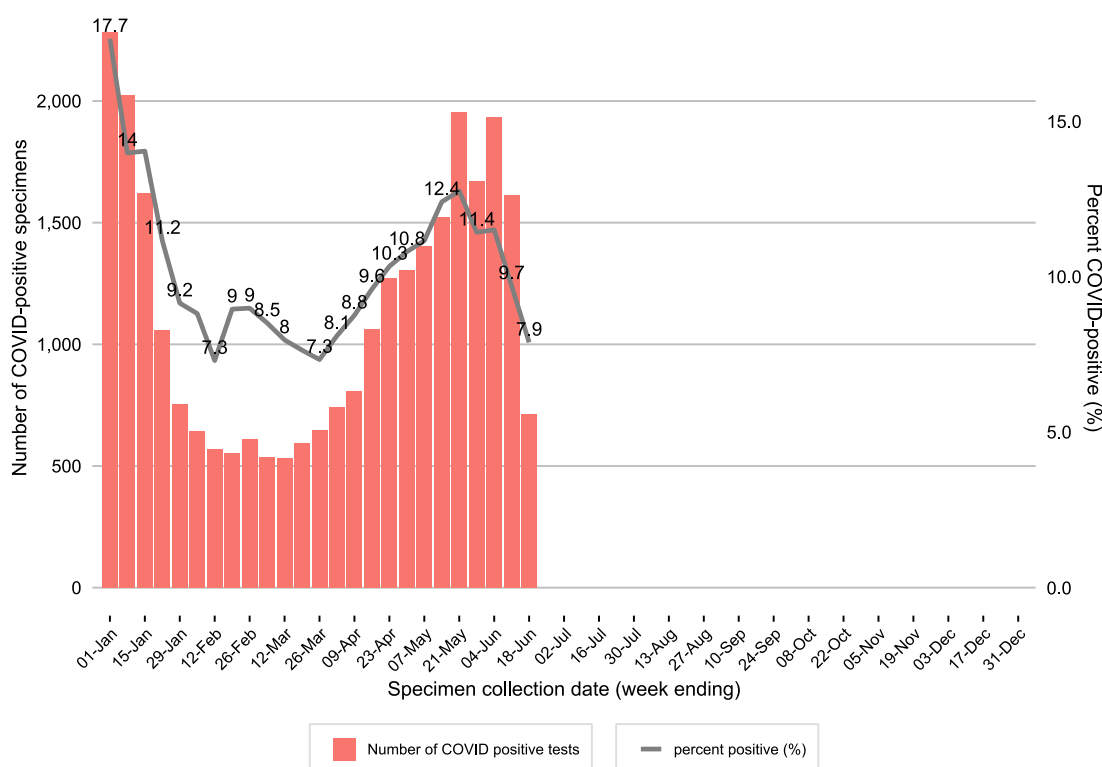


Figure 15. Number of positive PCR test results and proportion of tests positive for other respiratory viruses at sentinel NSW laboratories, 1 January 2023 to 18 June 2023.

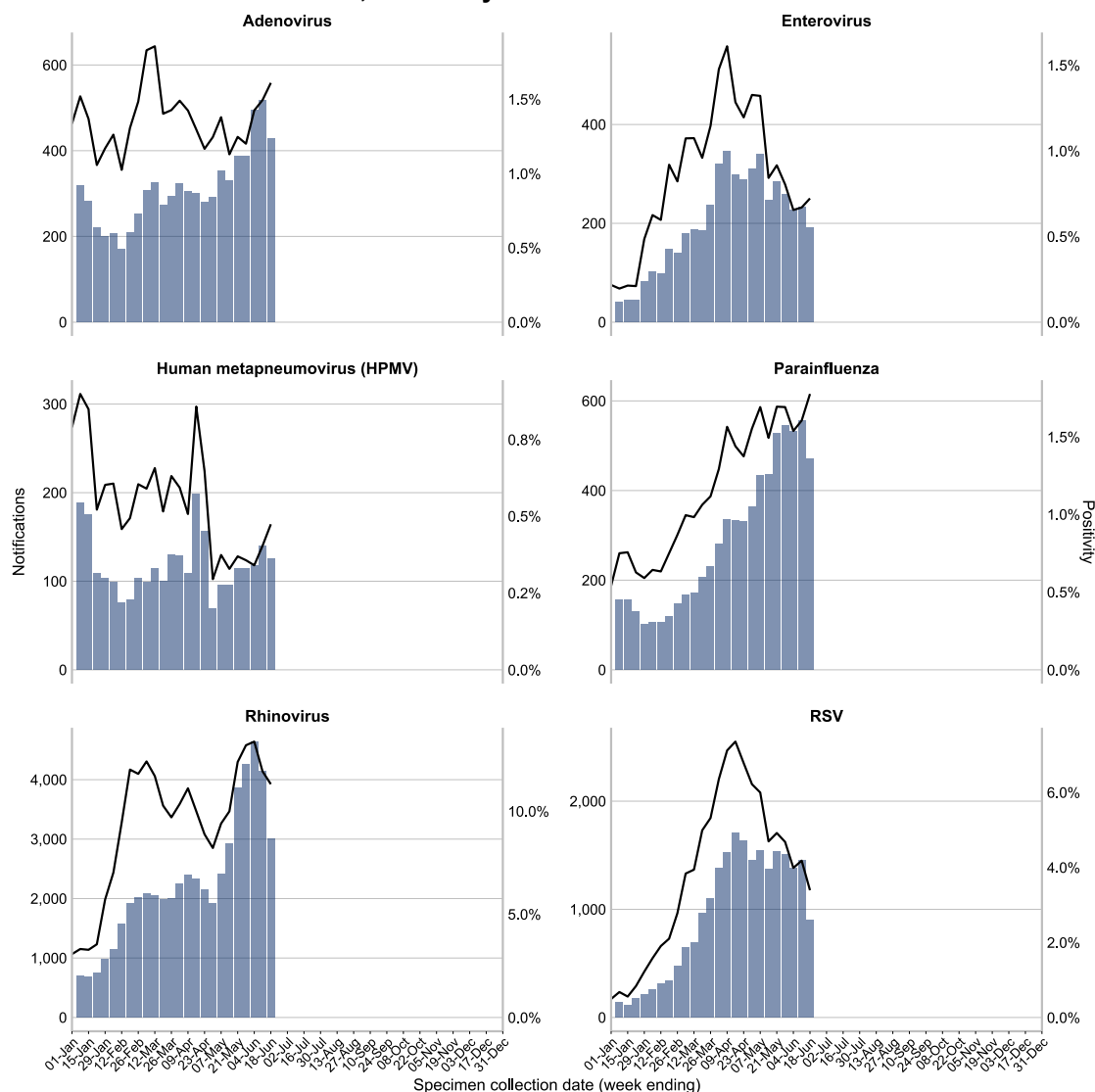


Table 2. Total number of respiratory disease notifications from sentinel laboratories, NSW in the four weeks to 18 June 2023.

	Week ending				Year to date
	28 May	04 June	11 June	18 June	
	n(% pos)	n(% pos)	n(% pos)	n(% pos)	n
Influenza	2,474 (7.7%)	3,641 (10.5%)	4,203 (12.1%)	3,328 (12.5%)	27,061
Adenovirus	387 (1.2%)	494 (1.4%)	518 (1.5%)	428 (1.6%)	7,711
Respiratory syncytial virus (RSV)	1,509 (4.7%)	1,383 (4.0%)	1,450 (4.2%)	902 (3.4%)	22,912
Rhinovirus	4,256 (13.2%)	4,641 (13.4%)	4,139 (11.9%)	3,009 (11.3%)	54,724
Human metapneumovirus (HMPV)	115 (0.4%)	118 (0.3%)	140 (0.4%)	126 (0.5%)	2,993
Enterovirus	259 (0.8%)	227 (0.7%)	232 (0.7%)	192 (0.7%)	4,874
Number of PCR tests conducted	32,222.0	34,664.0	34,656.0	26,577.0	566,603
SARS-CoV-2	1,671 (11.4%)	1,935 (11.5%)	1,614 (9.7%)	713 (7.9%)	28,433
Number of COVID PCR tests	14,618	16,811	16,627	9,038	265,454

Recent data is subject to change. For the week ending 18 June 2023, 8 out of 13 sentinel laboratories provided PCR testing data related to influenza and 1 out of 4 sentinel laboratories provided PCR data related to COVID.