

NSW Respiratory Surveillance Report - week ending 05 August 2023

COVID-19, influenza and respiratory syncytial virus (RSV) activity was stable across most indicators in the past week.

Summary

COVID-19 transmission continues at low levels. In the past week, there were small declines in influenza (-8%) and RSV (-12%) notifications. Emergency department (ED) presentations and subsequent admissions for influenza-like illness and bronchiolitis were stable. There was a decline in the proportion of ED presentations for COVID-19 requiring admission. Influenza positivity on PCR testing remained close to 13%. There is increasing PCR test positivity for other respiratory viruses including rhinovirus, adenovirus, parainfluenza and human metapneumovirus.

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: ED presentations and subsequent admissions declined in the past week for COVID-19, influenza-like illness and bronchiolitis.

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

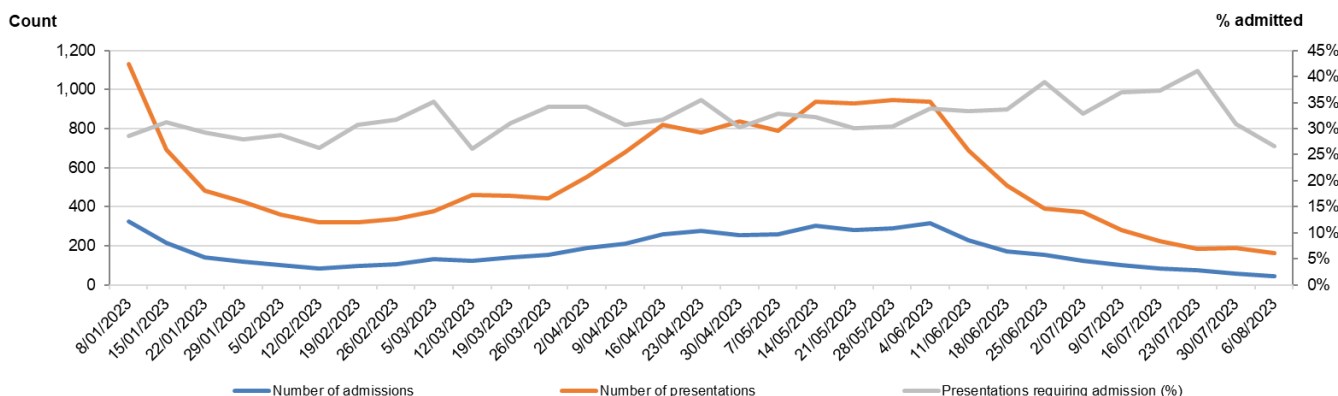


Figure 2. 'Influenza-like illness' weekly counts of unplanned emergency department presentations and admission following presentation, 2023, persons of all ages.

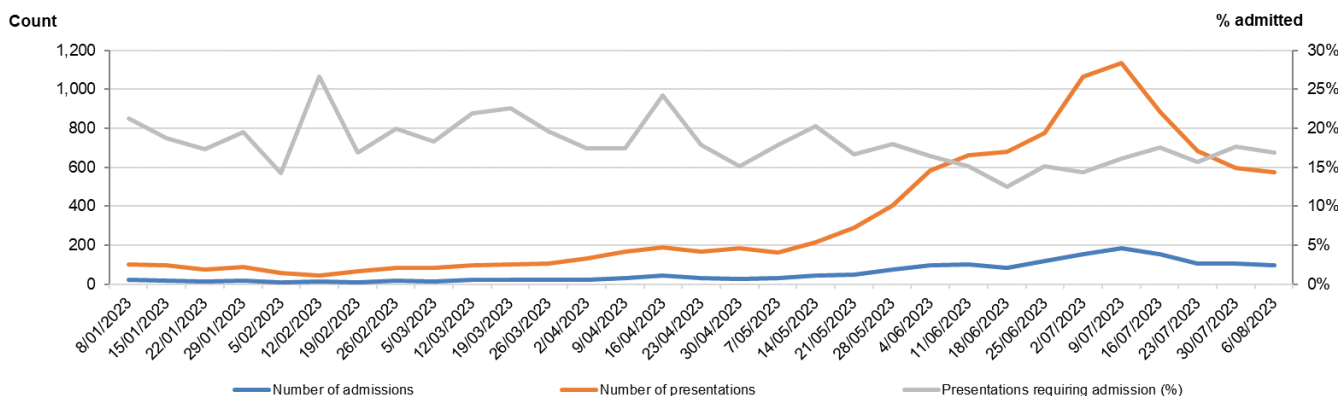
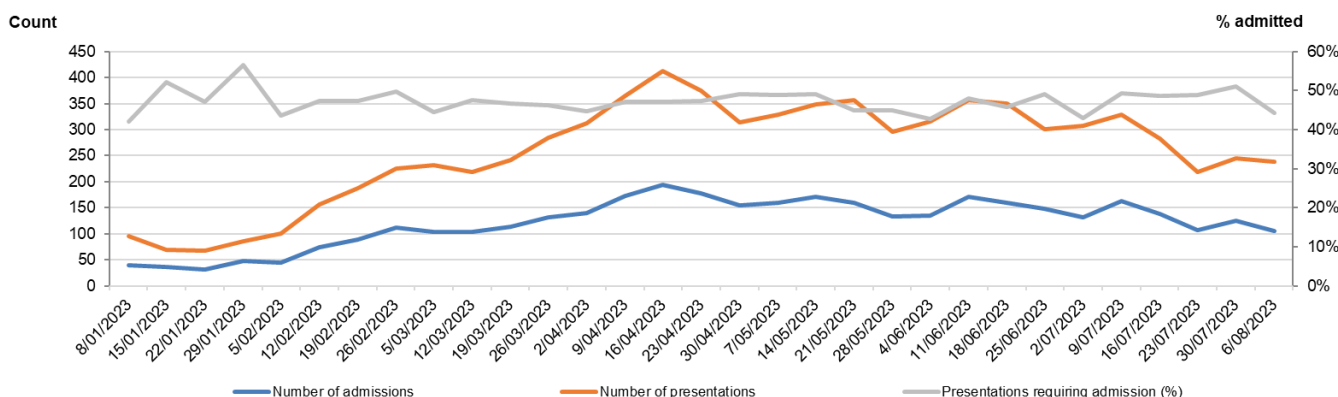


Figure 3. Bronchiolitis weekly counts of unplanned emergency department presentations and admission following presentation, 2023, children aged 0-4 years.



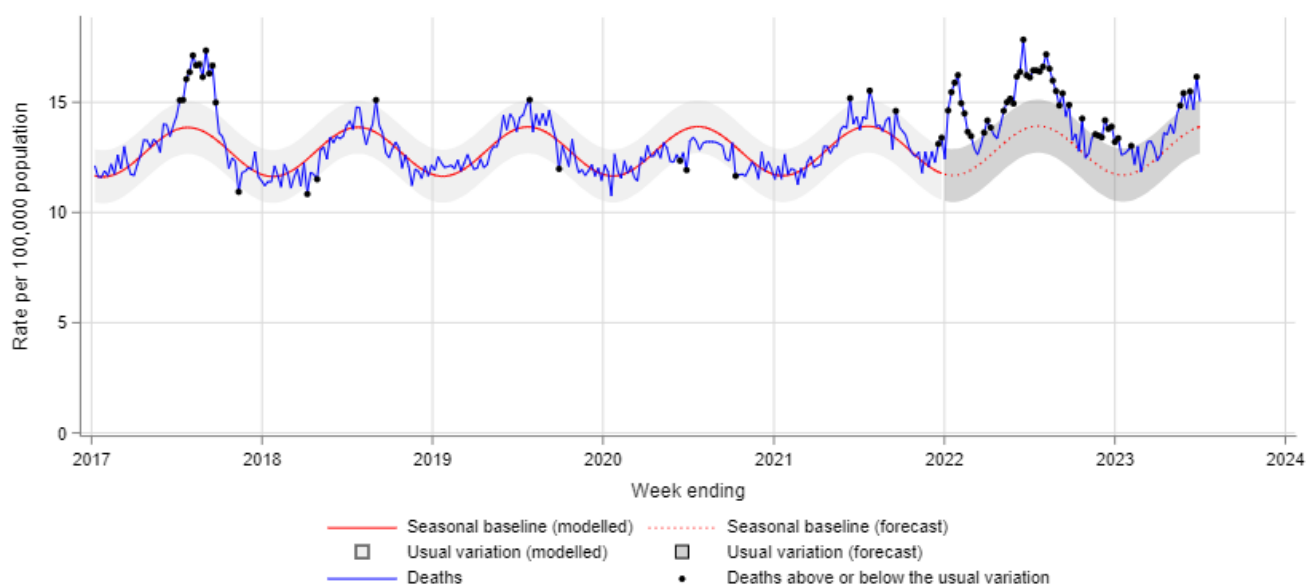
Death surveillance

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 at the upper limit of the interval for usual variation based on the seasonal baseline for 2017 – 2021.

Figure 4. All-cause death rate per 100,000 population, all ages, 2017 to 02 July 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 28 May 2023 to 2 July 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 31, ending 05 August 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.

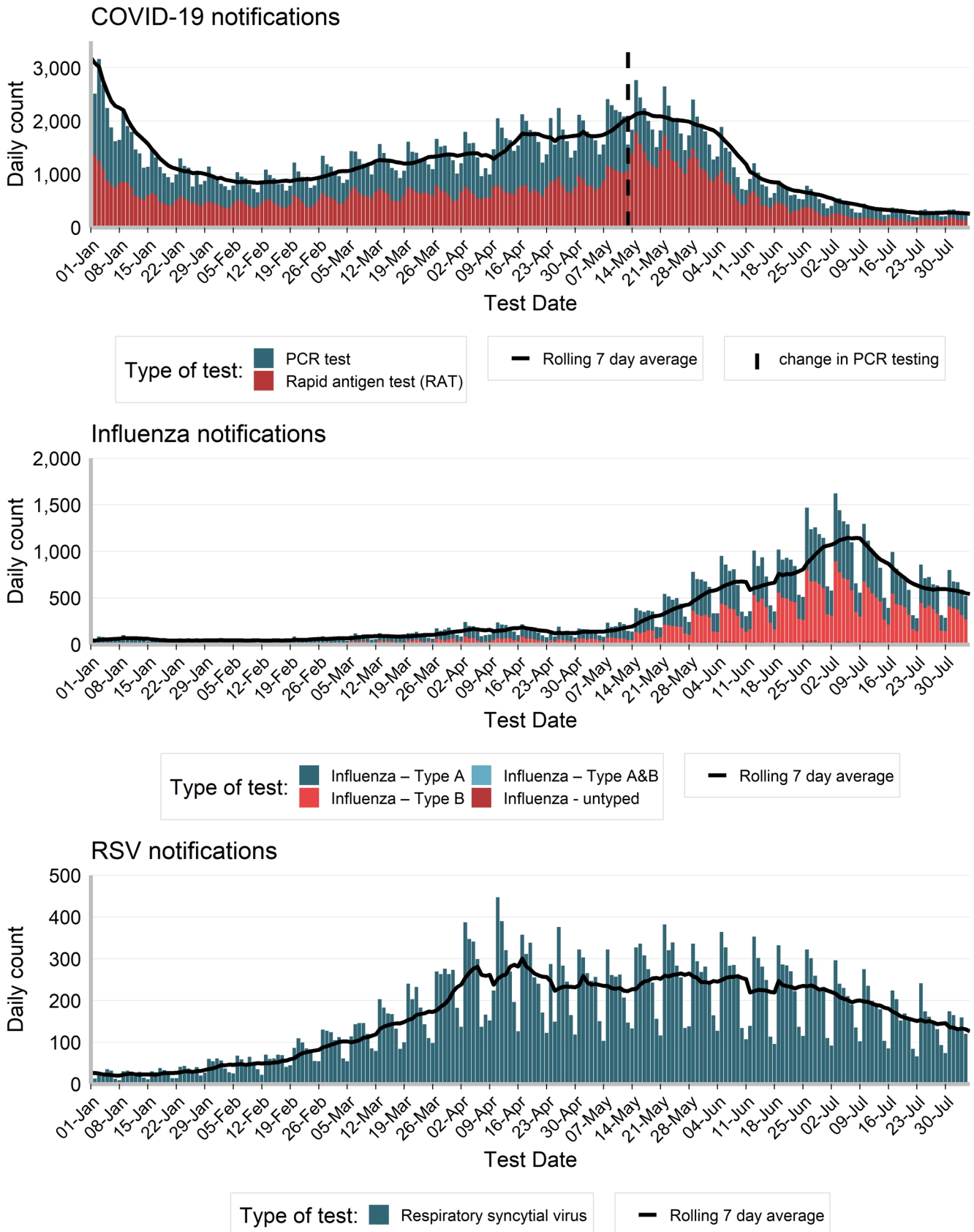
Interpretation: Influenza continues to be the most notified of the three respiratory viruses. The distribution of COVID-19, influenza and RSV notifications by gender, age, Local Health District and Aboriginal status in the past week was similar to previous weeks.

Table 1: Notifications of COVID-19, influenza and RSV, NSW, tested in the week ending 05 August 2023.

	COVID		Influenza		RSV	
	Week ending 05 August 2023	Year to Date	Week ending 05 August 2023	Year to Date	Week ending 05 August 2023	Year to Date
Gender						
Female	1,076	148,848(58%)	1,892	35,781(51%)	472	18,510(52%)
Male	740	108,466(42%)	1,897	34,949(49%)	412	17,124(48%)
Age group (years)						
0-4	100	8,713(3%)	538	9,966(14%)	337	19,444(55%)
5-9	72	7,966(3%)	803	15,139(21%)	59	1,907(5%)
10-19	150	21,000(8%)	768	13,751(19%)	54	1,532(4%)
20-29	185	29,107(11%)	348	5,449(8%)	34	1,279(4%)
30-39	270	38,639(15%)	492	9,048(13%)	55	1,664(5%)
40-49	251	37,722(15%)	365	7,349(10%)	46	1,286(4%)
50-59	225	35,494(14%)	188	3,850(5%)	51	1,751(5%)
60-69	189	32,374(13%)	121	2,825(4%)	84	2,091(6%)
70-79	177	24,446(9%)	97	1,982(3%)	66	2,088(6%)
80-89	151	15,577(6%)	54	1,085(2%)	66	1,806(5%)
90+	58	6,545(3%)	18	301(0%)	32	783(2%)
Local Health District of residence						
Central Coast	104	12,136(5%)	96	2,435(3%)	42	1,700(5%)
Far West	2	740(0%)	7	101(0%)	7	181(1%)
Hunter New England	177	33,495(13%)	289	5,399(8%)	118	3,150(9%)
Illawarra Shoalhaven	86	16,269(6%)	232	3,058(4%)	26	1,748(5%)
Mid North Coast	75	5,822(2%)	66	1,809(3%)	18	642(2%)
Murrumbidgee	75	8,066(3%)	79	2,155(3%)	55	1,702(5%)
Nepean Blue Mountains	74	12,586(5%)	247	4,566(6%)	43	2,133(6%)
Northern NSW	71	7,503(3%)	123	2,671(4%)	13	742(2%)
Northern Sydney	225	31,130(12%)	435	8,833(12%)	101	4,636(13%)
South Eastern Sydney	195	27,326(11%)	325	5,950(8%)	85	3,297(9%)
South Western Sydney	202	26,971(10%)	668	10,958(15%)	116	5,141(14%)
Southern NSW	86	6,855(3%)	80	1,038(1%)	29	684(2%)
Sydney	153	21,478(8%)	203	4,480(6%)	35	2,275(6%)
Western NSW	80	10,350(4%)	127	1,723(2%)	60	1,587(4%)
Western Sydney	188	33,948(13%)	792	15,301(22%)	128	5,913(17%)
Aboriginal status						
Aboriginal and/or Torres Strait Islander	56	8,342(3%)	144	2,466(3%)	28	1,282(4%)
Not Aboriginal or Torres Strait Islander	1,341	188,941(73%)	1,992	36,703(52%)	436	17,160(48%)
Not Stated / Unknown	425	60,335(23%)	1,656	31,608(45%)	420	17,213(48%)
Total	1,822	257,618(100%)	3,792	70,777(100%)	884	35,655(100%)

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

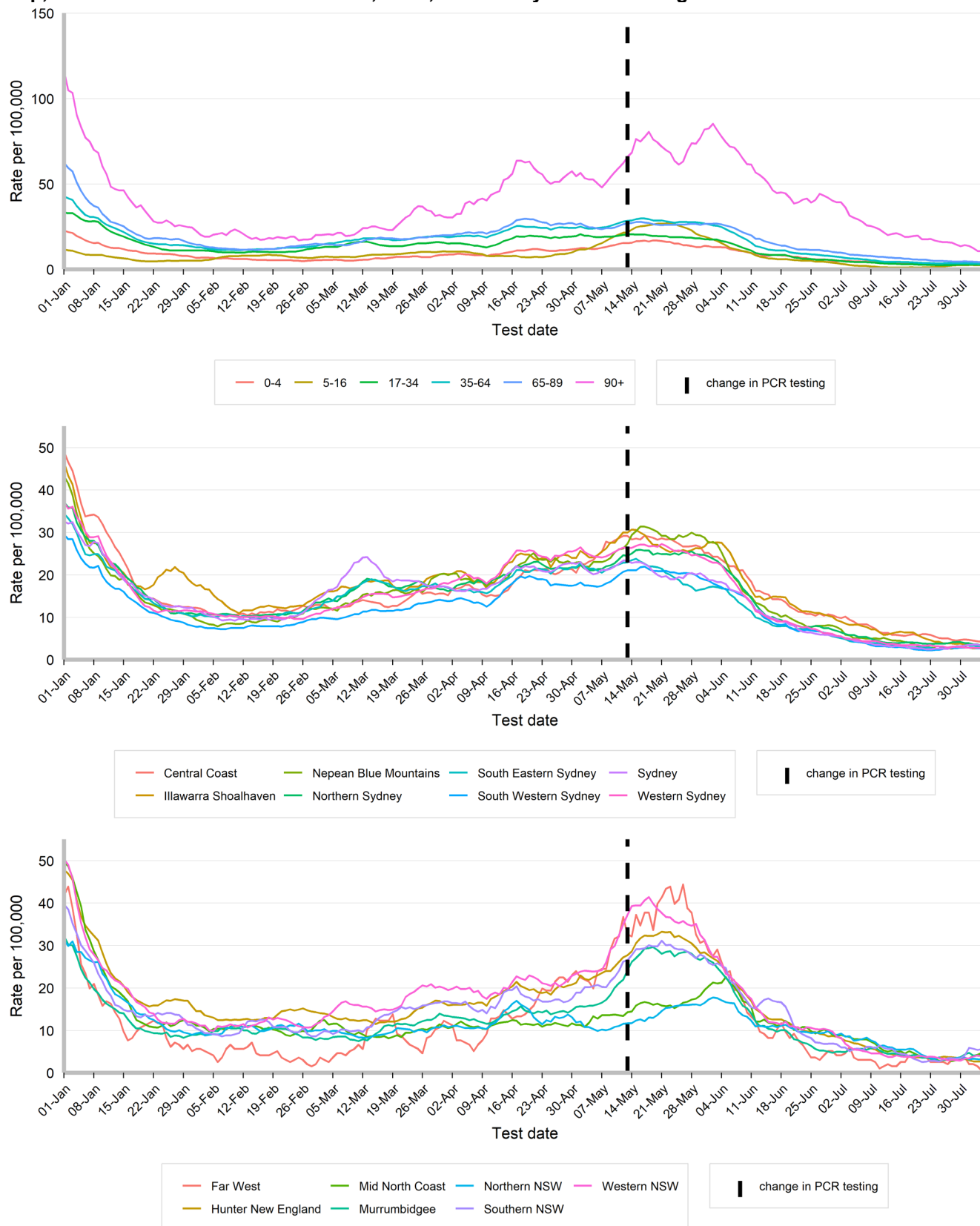
Figure 5. People notified with COVID-19, Influenza and RSV, by date of test and type of test performed, NSW, 01 January 2023 to 05 August 2023.



Rates of COVID-19 notifications per 100,000 population

Interpretation: COVID-19 notification rates are stable across most age-groups and Local Health Districts. Rates for those aged 90-years and older continue to decline.

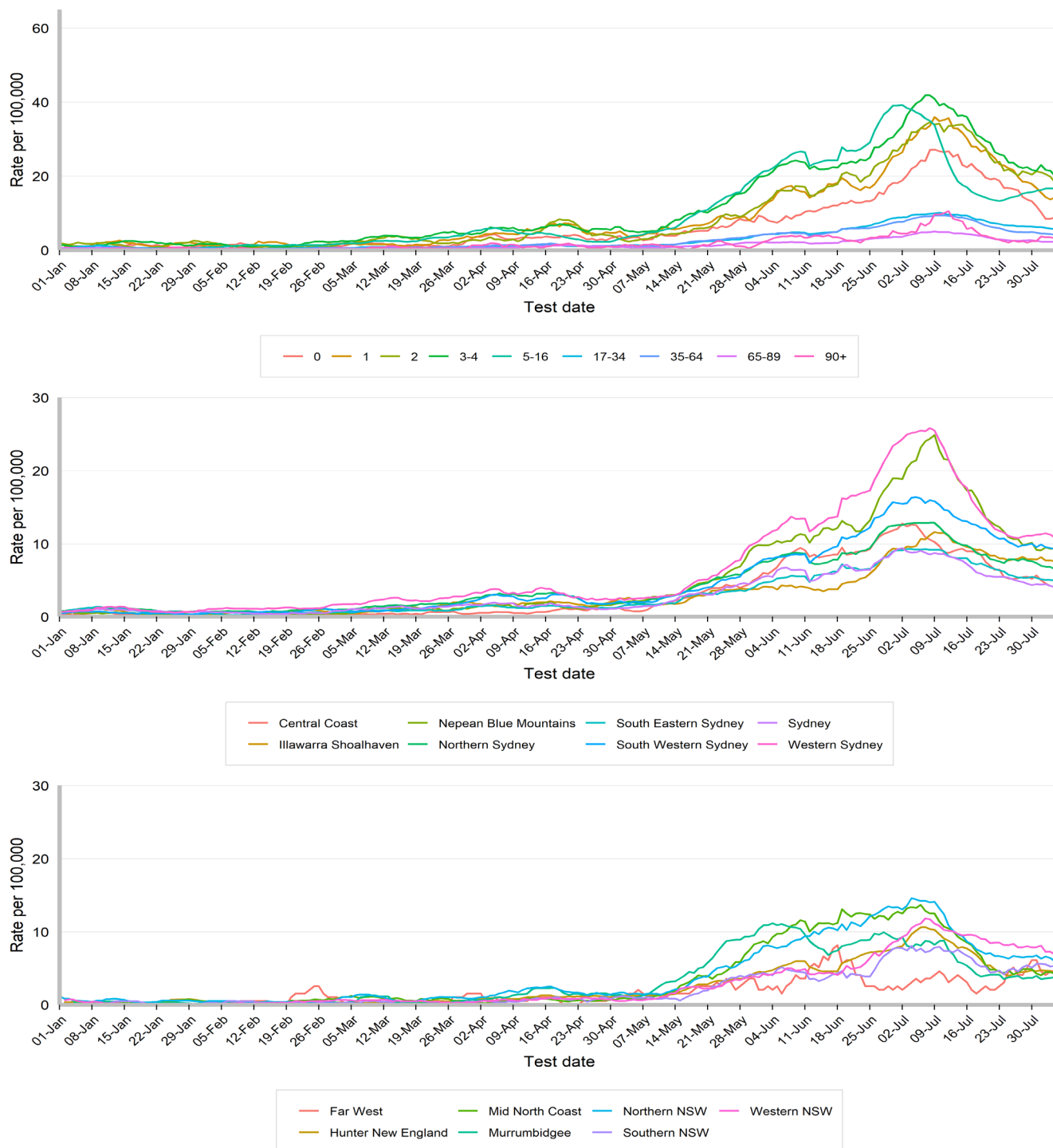
Figure 6. Daily seven-day rolling average rate of COVID-19 notifications per 100,000 population, by age group, Local Health District and test date, NSW, 01 January 2023 to 05 August 2023.



Rates of influenza notifications per 100,000 population

Interpretation: Influenza notification rates have stabilised across most age groups and Local Health Districts.

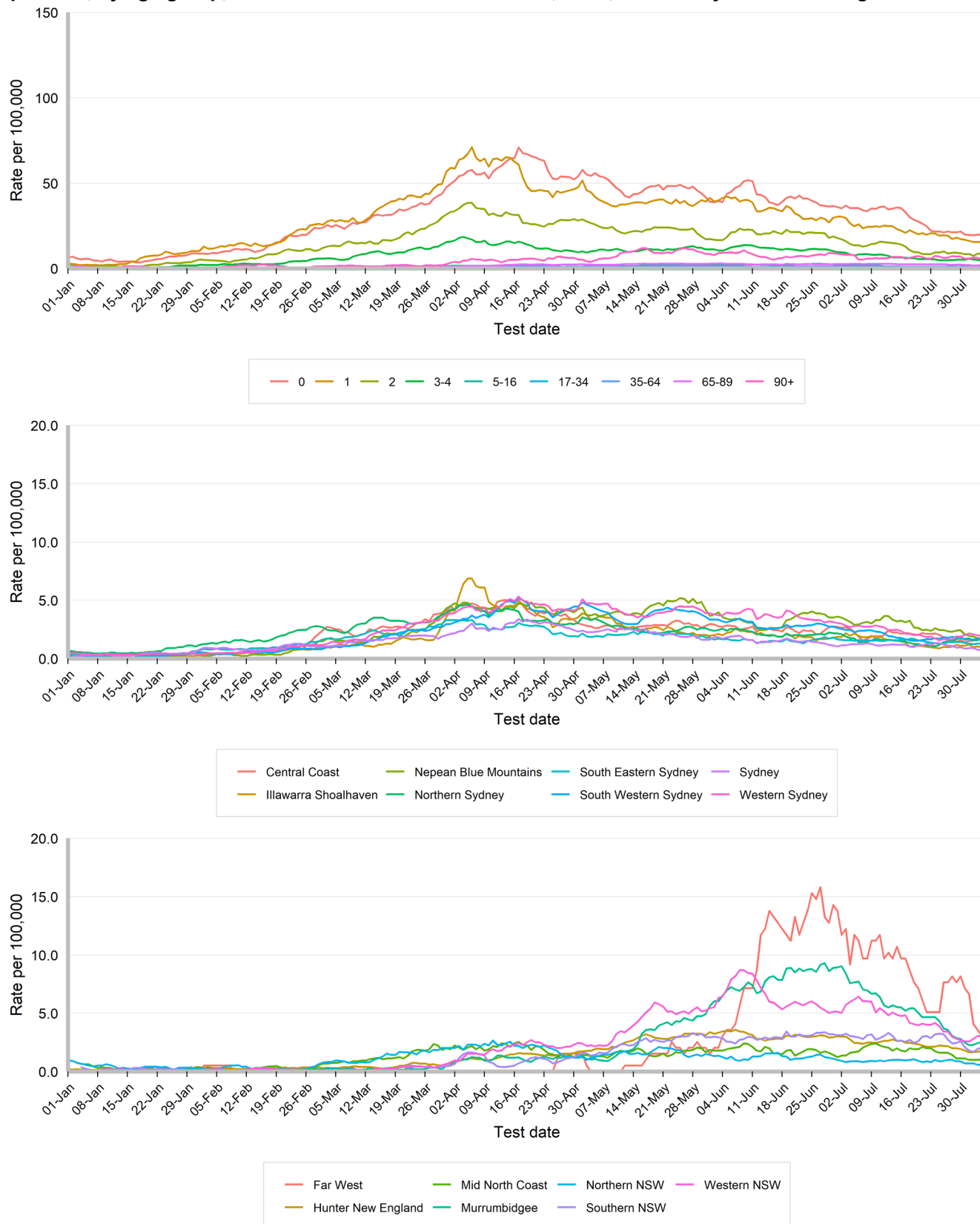
Figure 7. Daily seven-day rolling average rate of influenza notifications per 100,000 population, by age group, Local Health District and test date, NSW, 01 January 2023 to 05 August 2023.



Rates of respiratory syncytial virus notifications per 100,000 population

Interpretation: RSV notification rates are stable across all 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 05 August 2023.

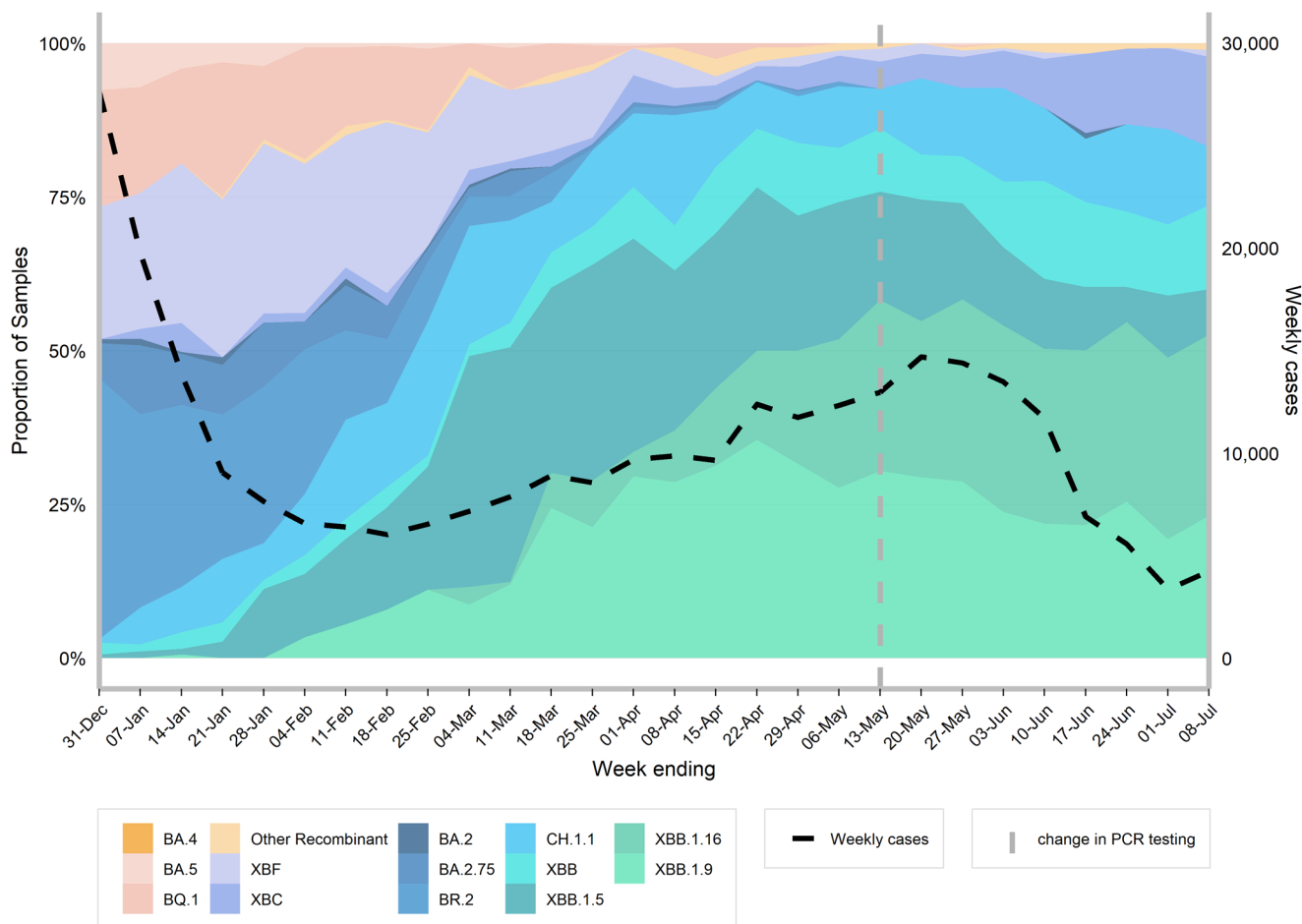


COVID-19 Whole Genome Sequencing

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 considerably, the data should be interpreted with caution. WGS data for this report is now updated every four weeks, next due in the week ending 12 August 2023

Interpretation: There was minimal change in the distribution of circulating sub-lineages up to 8 July 2023

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



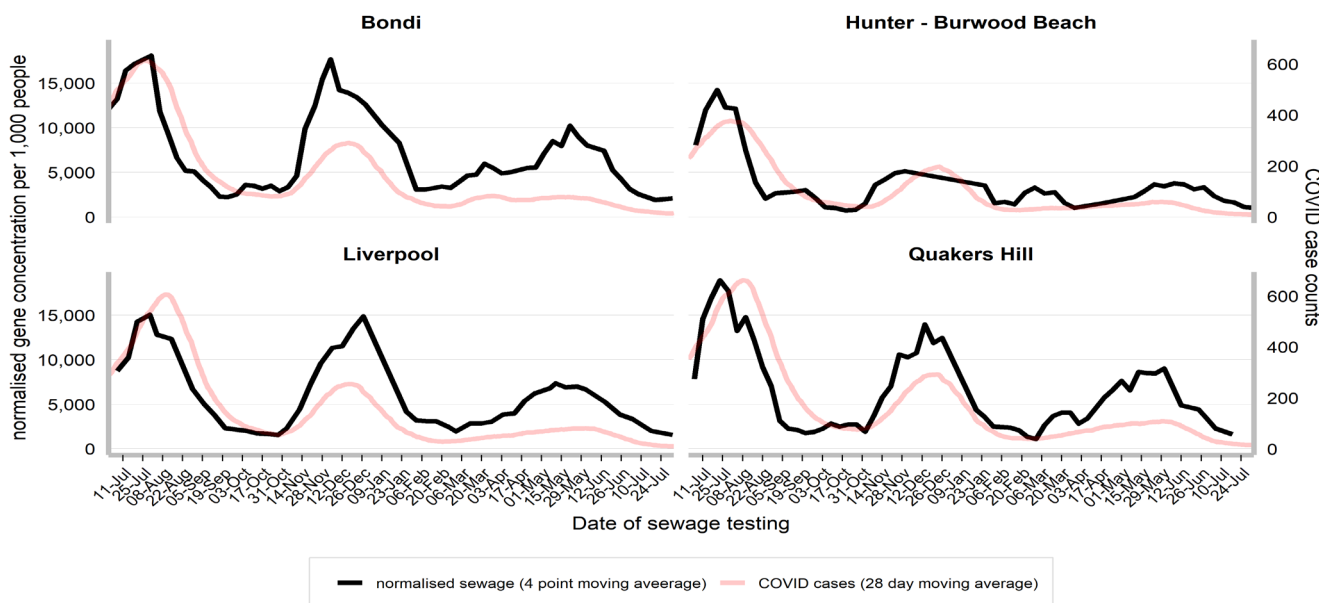
Other surveillance indicators

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 02 August 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 stabilised or declined in all sewage testing sites.

Figure 10. Gene concentration, per 1,000 people in each sewage catchment, 1 January 2023 to 02 August 2023.

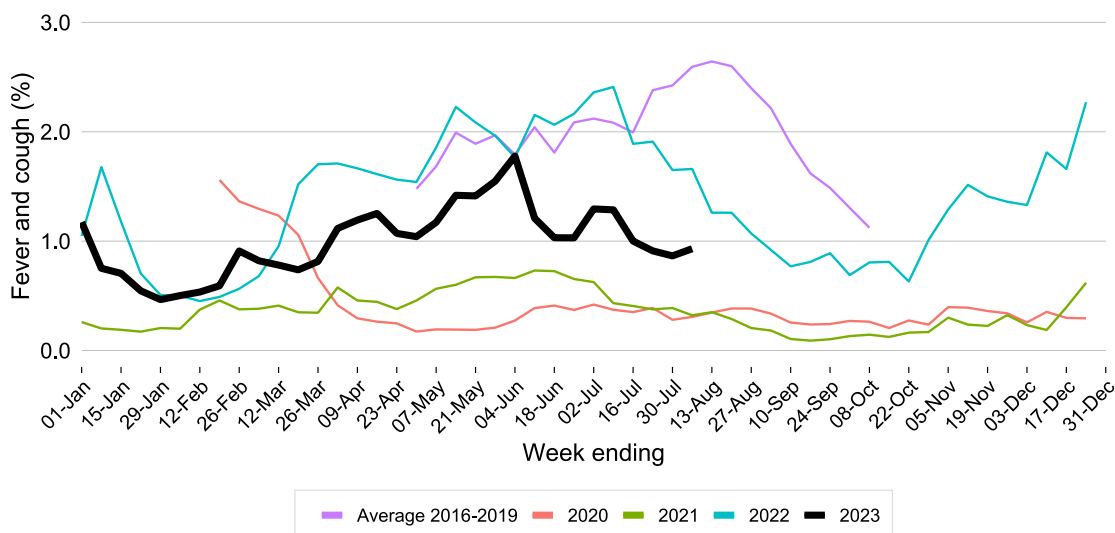


FluTracking and NSW sentinel laboratory network

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 average for 2016 – 2019 and for the same time of year in 2022.

Figure 11. Proportion of FluTracking participants reporting influenza-like illness, NSW, 1 January to 06 August 2023.



Epidemiological week 31, ending 05 August 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 and the previous declines in the proportion of tests positive for rhinovirus have reversed.

Figure 12. Number and proportion of tests positive for COVID-19 at sentinel NSW laboratories, 1 January 2023 to 06 August 2023.

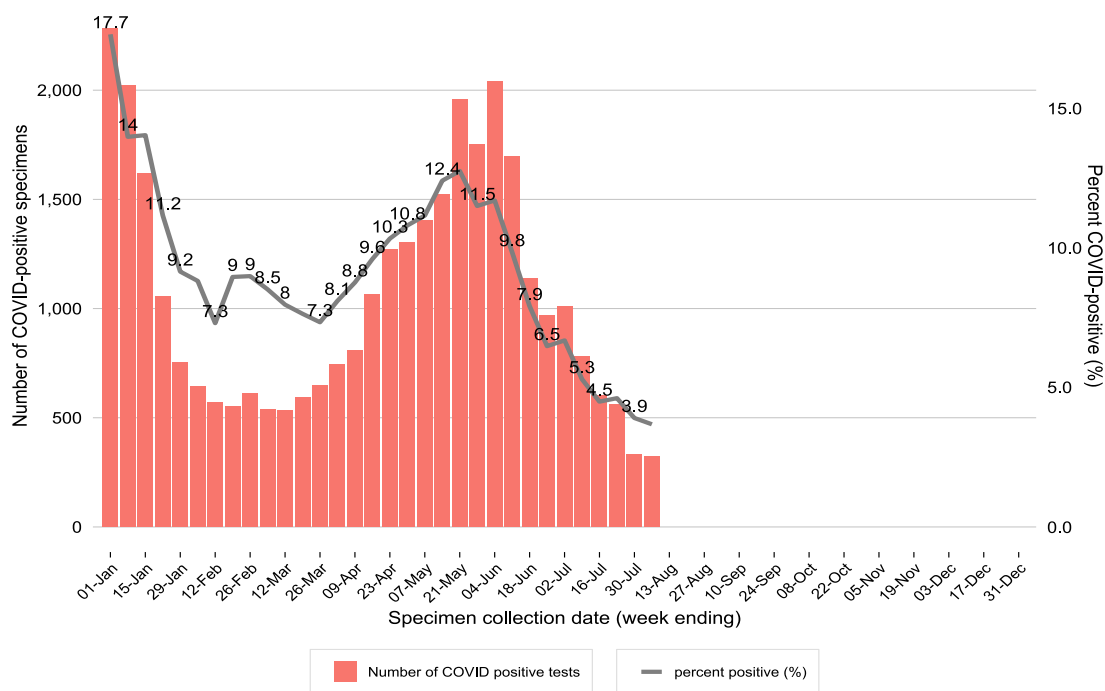


Figure 13. Number and proportion of tests positive for influenza at sentinel NSW laboratories, 1 January 2023 to 06 August 2023.

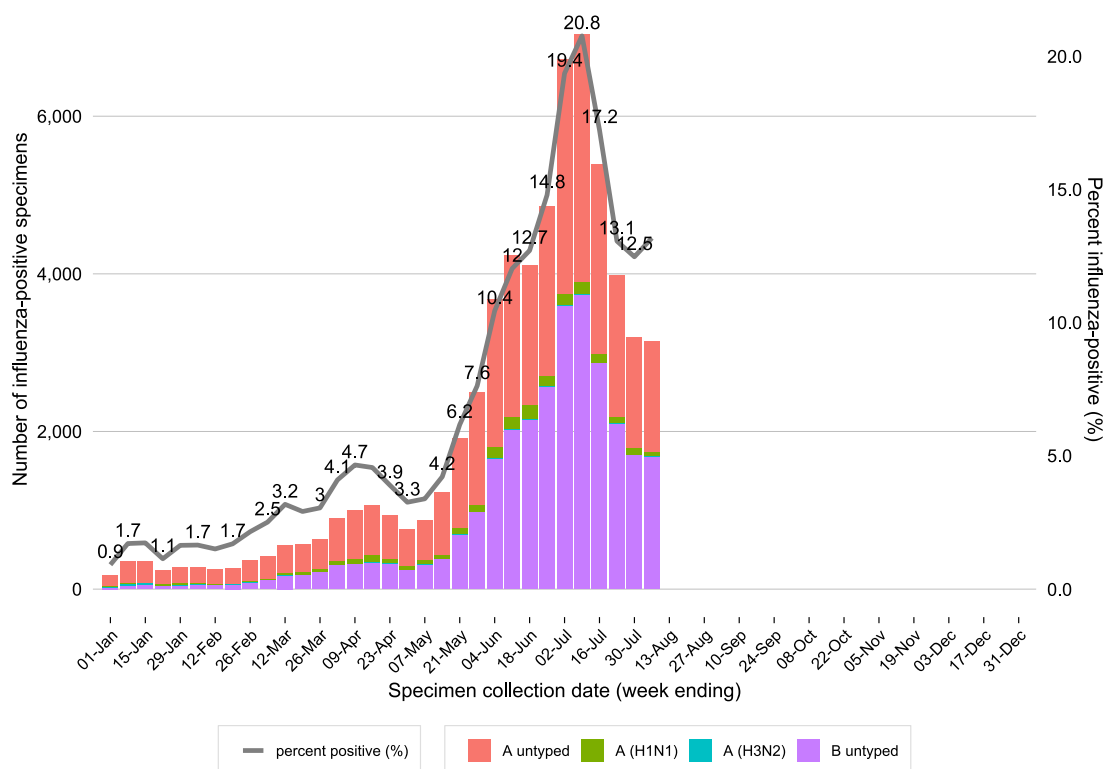


Figure 14. Number of positive PCR test results and proportion of tests positive for other respiratory viruses at sentinel NSW laboratories, 1 January 2023 to 06 August 2023.

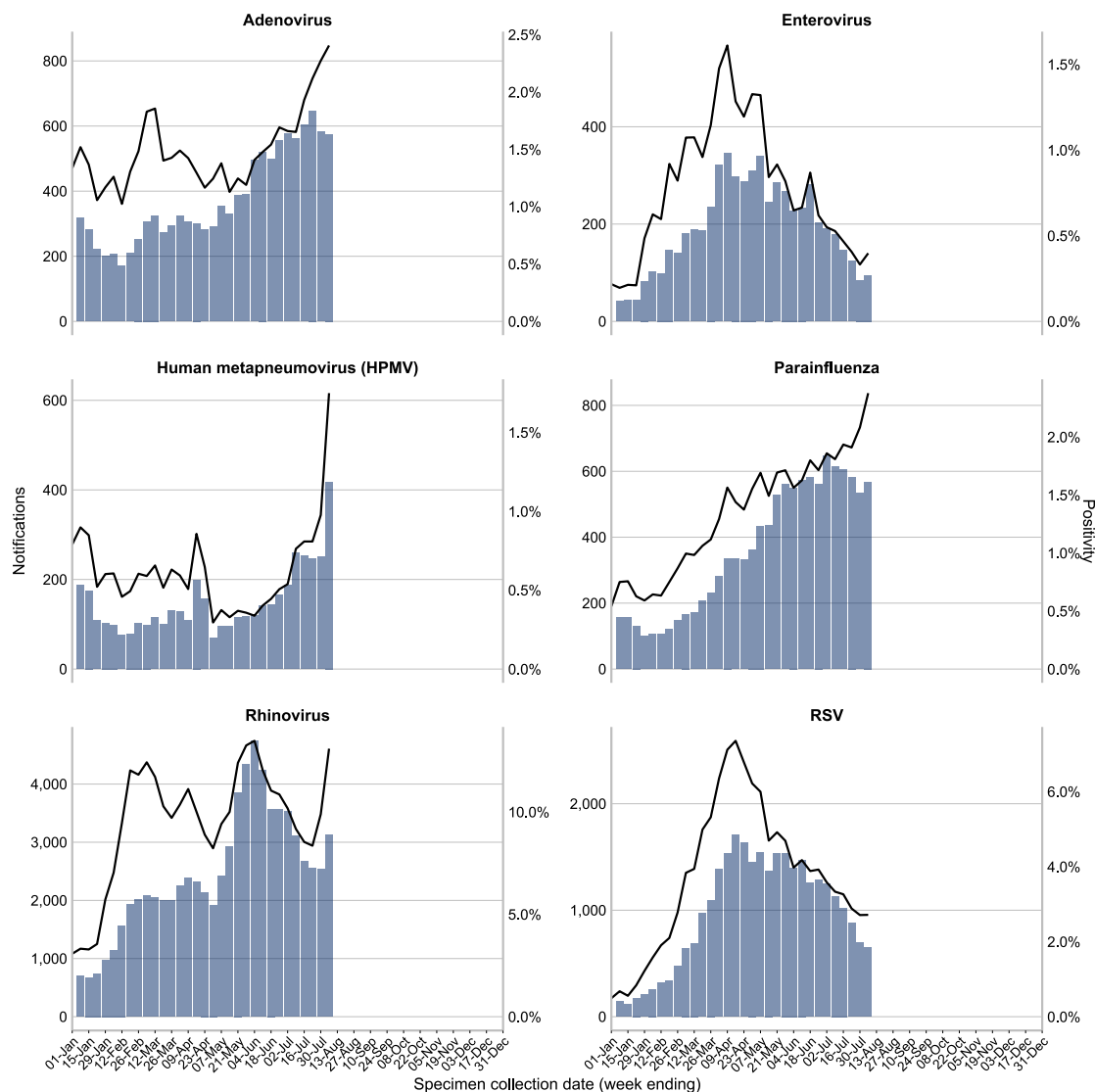


Table 2. Total number of respiratory disease notifications from sentinel laboratories, NSW in the four weeks to 06 August 2023.

	Week ending				Year to date
	16 July	23 July	30 July	06 August	
	n(% pos)	n(% pos)	n(% pos)	n(% pos)	n
Influenza	5,389 (17.2%)	3,987 (13.1%)	3,192 (12.5%)	3,147 (13.2%)	62,276
Adenovirus	604 (1.9%)	647 (2.1%)	582 (2.3%)	575 (2.4%)	11,891
Respiratory syncytial virus (RSV)	1,021 (3.3%)	881 (2.9%)	694 (2.7%)	649 (2.7%)	30,243
Rhinovirus	2,669 (8.5%)	2,550 (8.4%)	2,532 (9.9%)	3,127 (13.1%)	76,663
Human metapneumovirus (HMPV)	253 (0.8%)	247 (0.8%)	250 (1.0%)	418 (1.7%)	4,796
Enterovirus	146 (0.5%)	124 (0.4%)	85 (0.3%)	95 (0.4%)	5,998
Number of PCR tests conducted	31,268	30,530	25,594	23,887	786,782
SARS-CoV-2	603 (4.5%)	562 (4.6%)	331 (3.9%)	324 (3.7%)	33,706
Number of COVID PCR tests	13,427	12,178	8,477	8,806	360,321

Recent data is subject to change. For the week ending 06 August 2023, 9 out of 13 sentinel laboratories provided PCR testing data related to influenza and 3 out of 4 sentinel laboratories provided PCR data related to COVID.