

## NSW Respiratory Surveillance Report - week ending 09 September 2023

**COVID-19 activity is at low levels. Influenza and respiratory syncytial virus (RSV) activity remain at moderate levels. Influenza activity has decreased.**

### Summary

Overall COVID-19 activity remains at low levels despite a 13% increase in notifications in the past week. COVID-19 PCR test positivity at sentinel laboratories rose to 4.8% from 3.9% last week. Influenza notifications decreased by 17% with notification rates stable or declining across all age-groups. RSV activity is stable. Rhinovirus and human metapneumovirus (HMPV) test positivity at sentinel laboratories continues to sharply increase.

### Data sources and methods

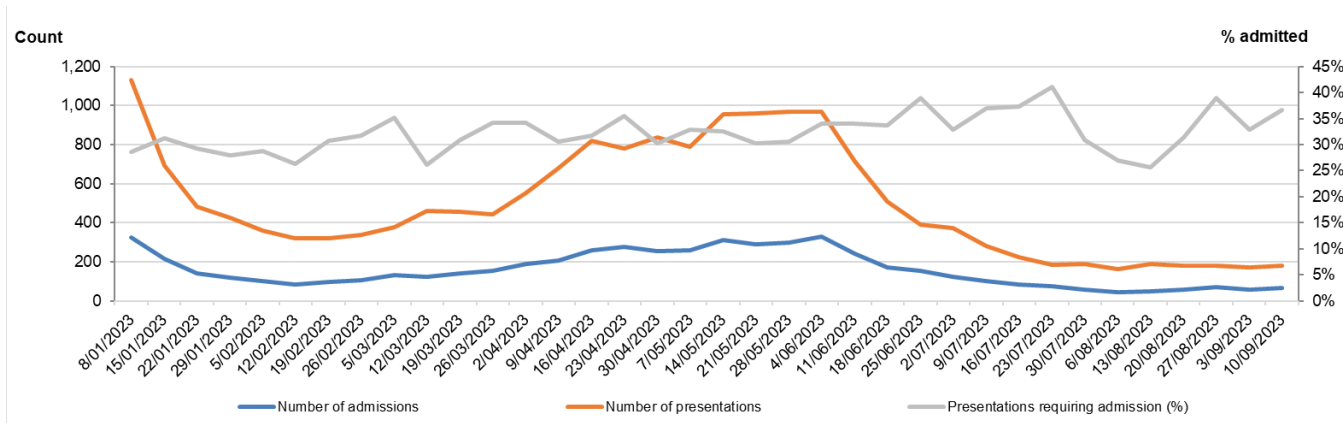
The data source for this report updates as new information becomes available. Therefore, this report cannot be directly compared to previous versions of the NSW Respiratory Surveillance Report or to previous reporting periods. For additional information on the data sources and methods presented within this report please refer to [COVID-19 surveillance report data sources and methodology](#).

## Public Health Rapid, Emergency, Disease and Syndromic Surveillance

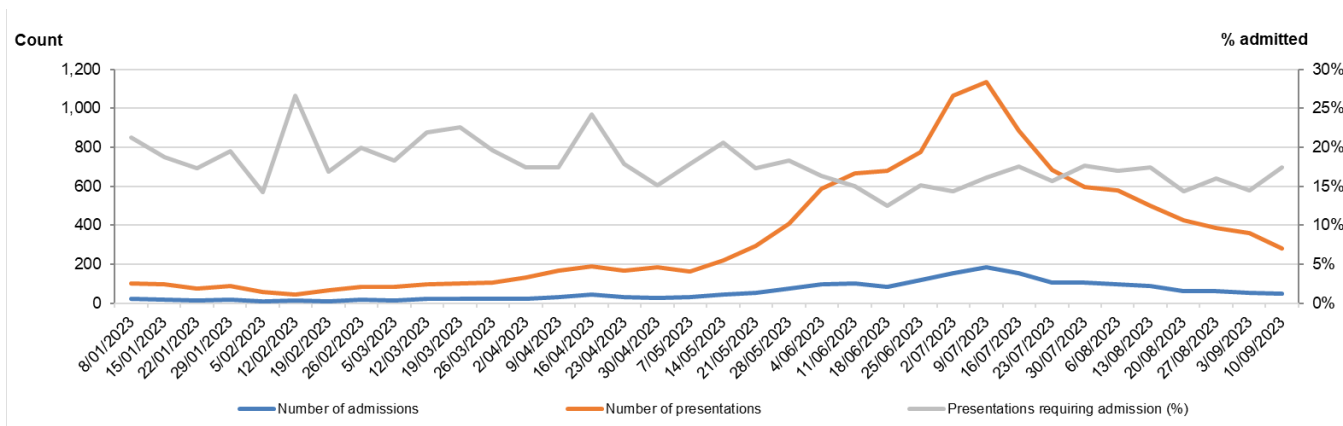
The PHREDSS system provides daily information about presentations to NSW public hospital emergency departments (ED) and subsequent admission to hospital categorised by symptom profile. Here we report on COVID-19, influenza-like illness and bronchiolitis (which is mainly caused by respiratory syncytial virus, RSV). These PHREDSS indicators, particularly the number of people admitted to hospital, are useful for monitoring the severity of illness and impact on the health system.

**Interpretation:** ED activity for COVID-19 and bronchiolitis remains stable. Presentations for influenza-like illness continue to decline.

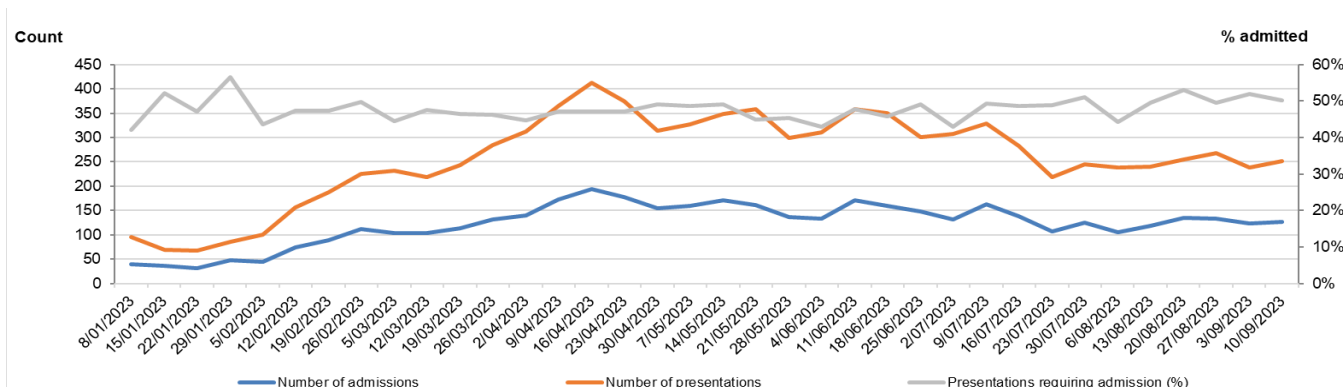
**Figure 1. 'COVID-19' weekly counts of unplanned emergency department (ED) presentations and admission following presentation, 2023, persons of all ages.**



**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.**



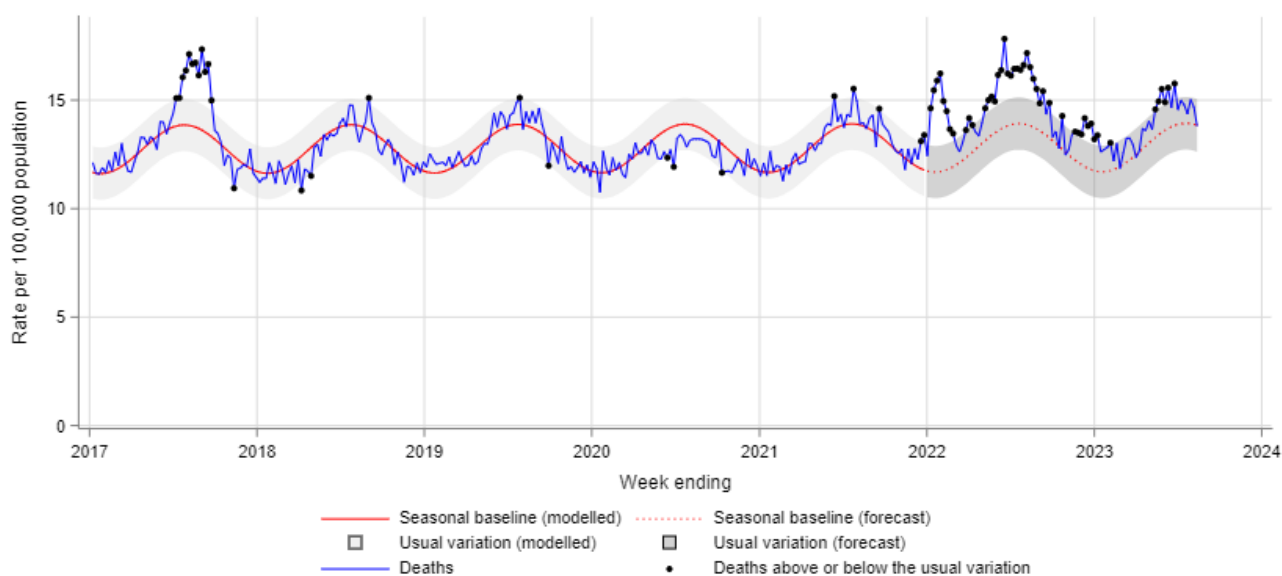
## Death surveillance

### 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:** Weekly lag-adjusted all-cause mortality has now returned to the forecast seasonal baseline.

**Figure 4. All-cause death rate per 100,000 population, all ages, 2017 to 13 August 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 9 July 2023 to 13 August 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 36, ending 09 September 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.

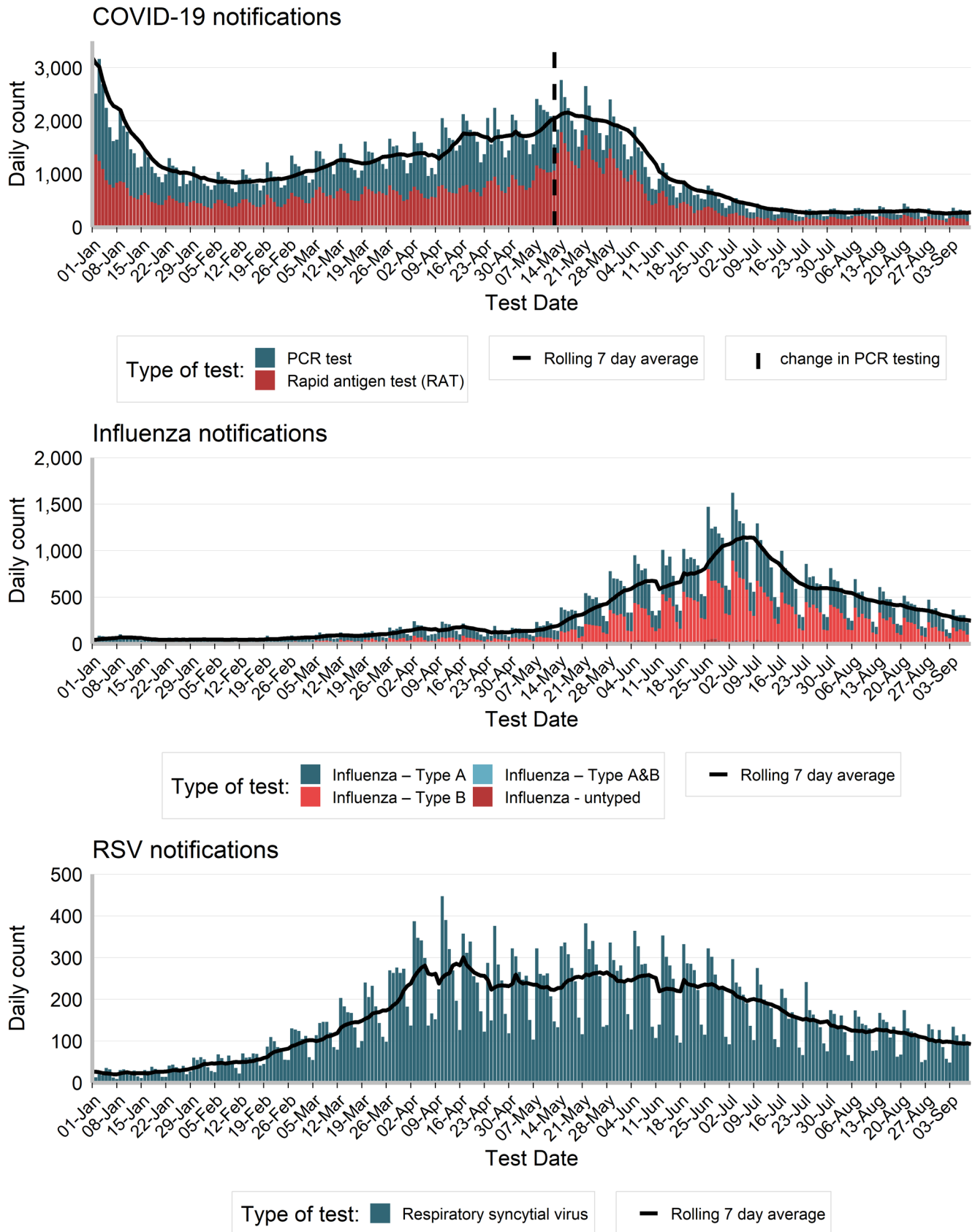
**Interpretation:** Influenza notifications in the past week dropped below those for COVID-19 for the first time since mid-June 2023. COVID-19 notifications increased by 13% and this was distributed across most age-groups. RSV notifications declined by 5% from the previous week and continue to dominate notifications in the 0–4-year-old age-group.

**Table 1: Notifications of COVID-19, influenza and RSV, NSW, tested in the week ending 09 September 2023.**

	COVID		Influenza		RSV	
	Week ending 09 September 2023	Year to Date	Week ending 09 September 2023	Year to Date	Week ending 09 September 2023	Year to Date
Gender						
Female	1,156	154,839(58%)	892	42,162(51%)	347	20,494(52%)
Male	807	112,682(42%)	848	41,191(49%)	297	18,978(48%)
Age group (years)						
0-4	115	9,216(3%)	203	11,505(14%)	304	21,154(54%)
5-9	53	8,331(3%)	344	17,797(21%)	48	2,180(6%)
10-19	153	21,900(8%)	380	16,453(20%)	46	1,820(5%)
20-29	184	30,100(11%)	168	6,584(8%)	28	1,448(4%)
30-39	272	40,127(15%)	239	10,740(13%)	30	1,845(5%)
40-49	311	39,190(15%)	188	8,624(10%)	25	1,441(4%)
50-59	264	36,807(14%)	85	4,510(5%)	41	1,981(5%)
60-69	222	33,569(13%)	70	3,272(4%)	38	2,346(6%)
70-79	192	25,440(9%)	37	2,290(3%)	44	2,377(6%)
80-89	140	16,265(6%)	18	1,250(1%)	26	2,009(5%)
90+	68	6,861(3%)	9	344(0%)	15	873(2%)
Local Health District of residence						
Central Coast	82	12,686(5%)	28	2,711(3%)	27	1,862(5%)
Far West	4	759(0%)	8	155(0%)	3	207(1%)
Hunter New England	192	34,534(13%)	115	6,374(8%)	55	3,553(9%)
Illawarra Shoalhaven	114	16,842(6%)	160	4,018(5%)	41	1,945(5%)
Mid North Coast	23	6,060(2%)	20	1,967(2%)	14	707(2%)
Murrumbidgee	38	8,371(3%)	105	2,666(3%)	24	1,885(5%)
Nepean Blue Mountains	117	13,213(5%)	64	5,179(6%)	24	2,340(6%)
Northern NSW	38	7,708(3%)	51	3,016(4%)	21	845(2%)
Northern Sydney	308	32,677(12%)	214	10,375(12%)	85	5,193(13%)
South Eastern Sydney	260	28,476(11%)	167	7,195(9%)	87	3,719(9%)
South Western Sydney	214	28,094(10%)	259	12,995(16%)	67	5,577(14%)
Southern NSW	61	7,143(3%)	47	1,419(2%)	20	807(2%)
Sydney	157	22,341(8%)	108	5,279(6%)	44	2,511(6%)
Western NSW	71	10,634(4%)	54	2,124(3%)	17	1,690(4%)
Western Sydney	278	35,192(13%)	323	17,572(21%)	111	6,515(16%)
Aboriginal status						
Aboriginal and/or Torres Strait Islander	64	8,666(3%)	55	2,905(3%)	18	1,397(4%)
Not Aboriginal or Torres Strait Islander	1,492	196,756(73%)	963	43,662(52%)	305	19,021(48%)
Not Stated / Unknown	411	62,419(23%)	723	36,847(44%)	323	19,083(48%)
<b>Total</b>	<b>1,967</b>	<b>267,841(100%)</b>	<b>1,741</b>	<b>83,414(100%)</b>	<b>646</b>	<b>39,501(100%)</b>

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

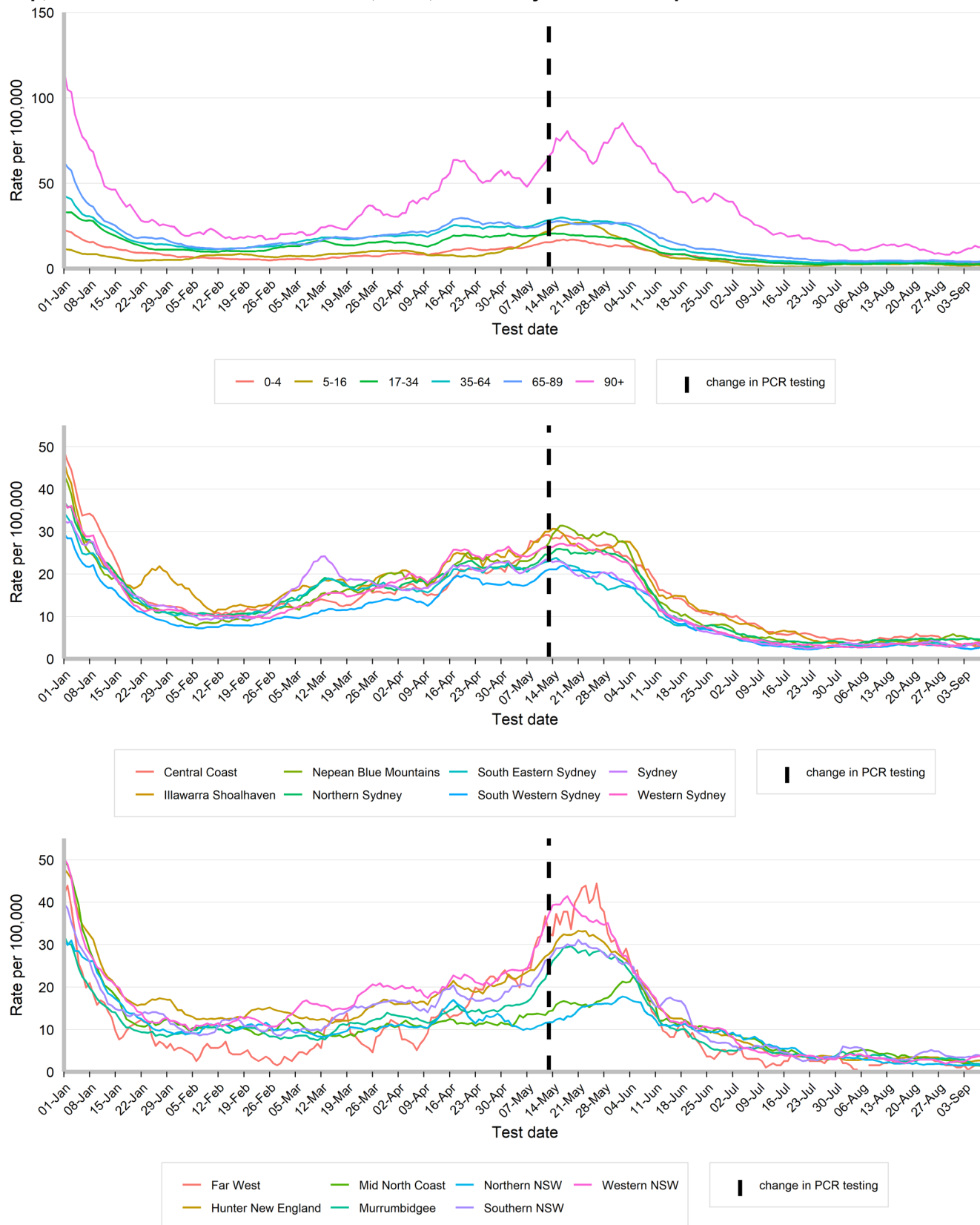
Figure 5. People notified with COVID-19, Influenza and RSV, by date of test and type of test performed, NSW, 01 January 2023 to 09 September 2023.



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

**Interpretation:** COVID-19 notification rates are stable across most age-groups and Local Health Districts (LHD). Those aged 90 years and over continue to experience higher rates.

**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 09 September 2023.**

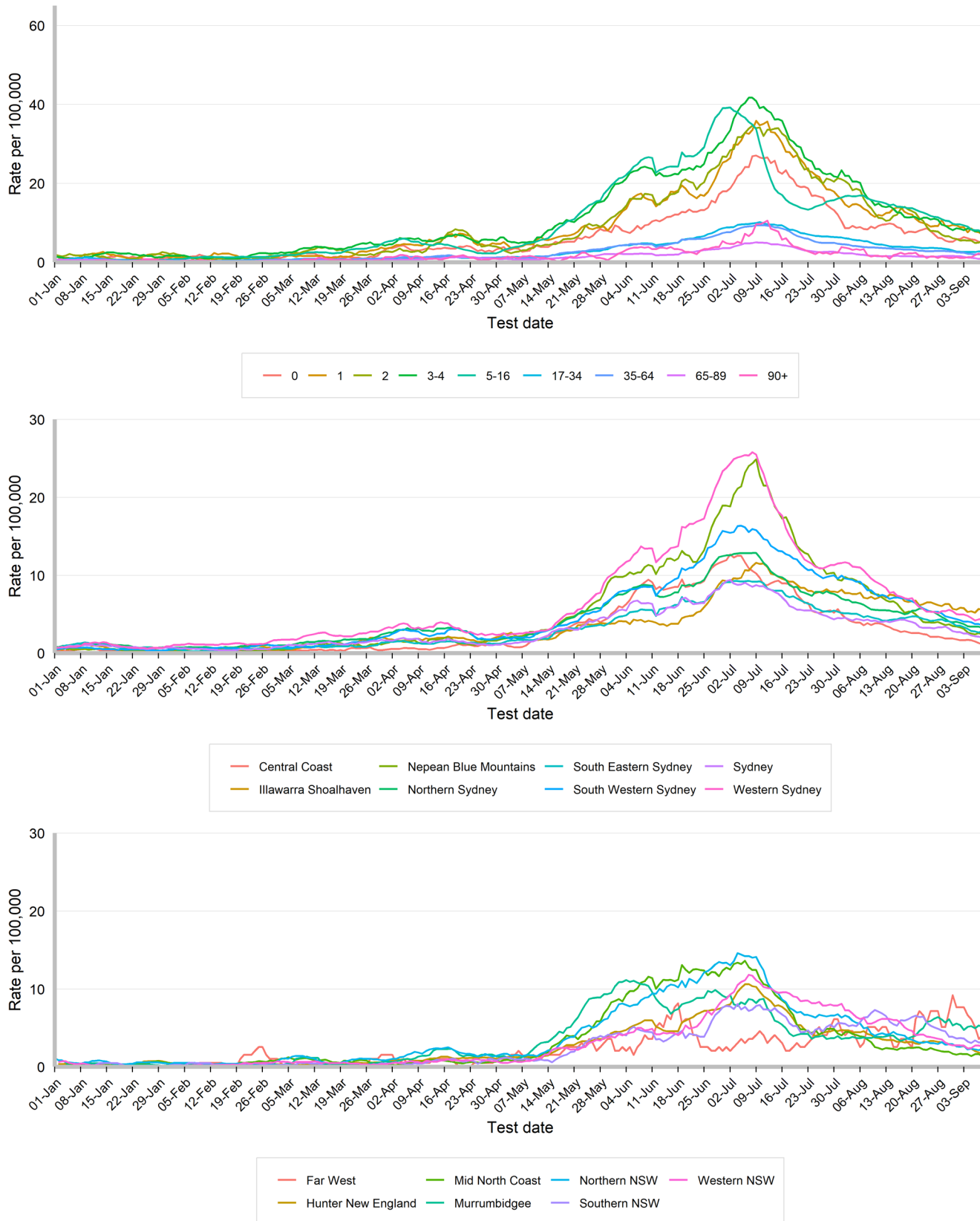




## Rates of influenza notifications per 100,000 population

**Interpretation:** Influenza notification rates are stable or declining across most age-groups and LHDs.

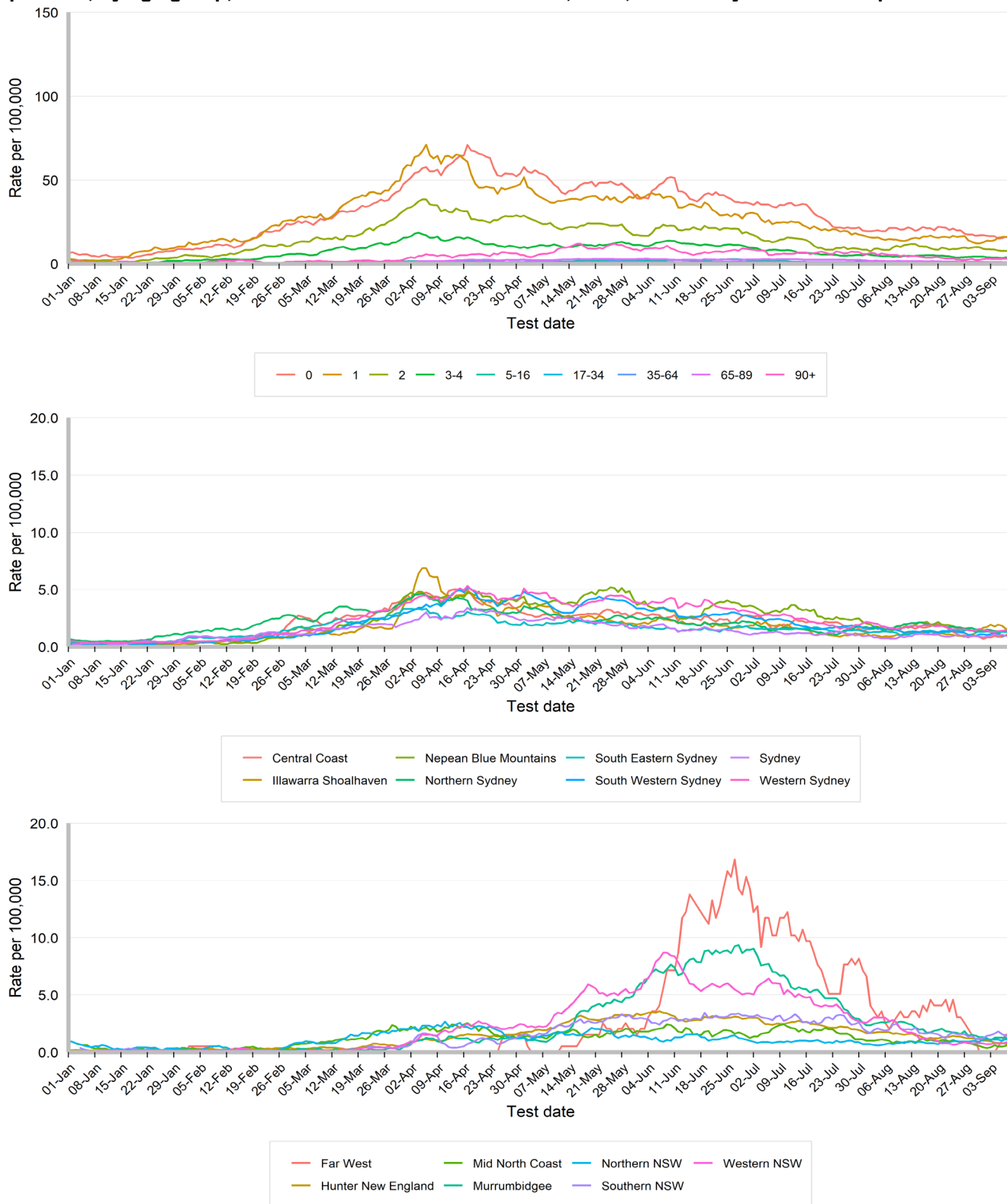
**Figure 7. Daily seven-day rolling average rate of influenza notifications per 100,000 population, by age group, Local Health District and test date, NSW, 01 January 2023 to 09 September 2023.**



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

**Interpretation:** RSV notifications are stable across all age-groups and most LHDs.

**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 09 September 2023.**



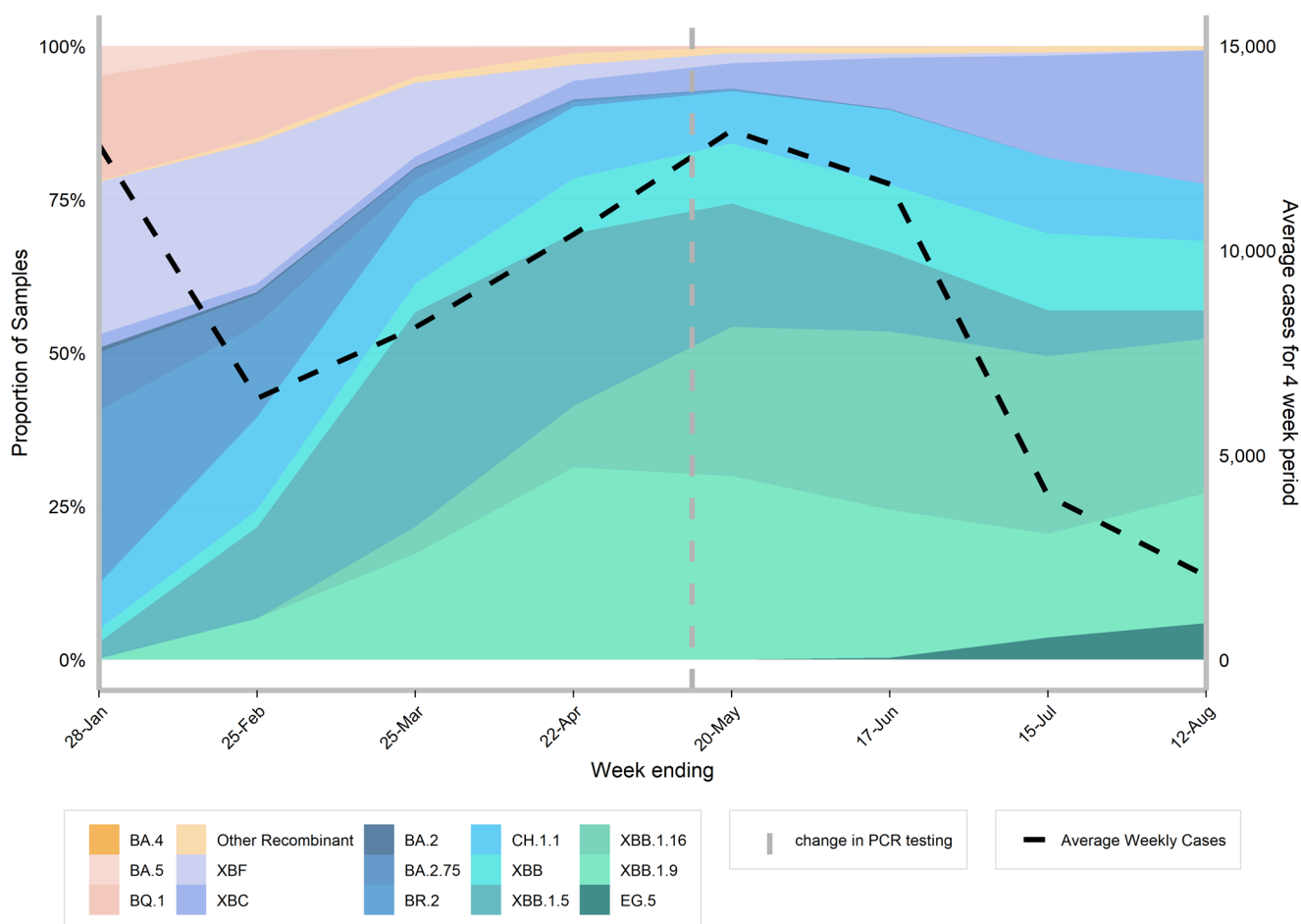


### COVID-19 Whole Genome Sequencing

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.

**Interpretation:** As the weekly number of samples received is now small, the graph has not been updated since 12 August 2023. Increases in receipt of samples is expected in coming weeks. BA.2.86 has been detected in multiple countries but has not been detected in local samples received to date.

**Figure 9. Estimated distribution of COVID-19 sub-lineages in the community, 01 January 2023 to 12 August 2023.**



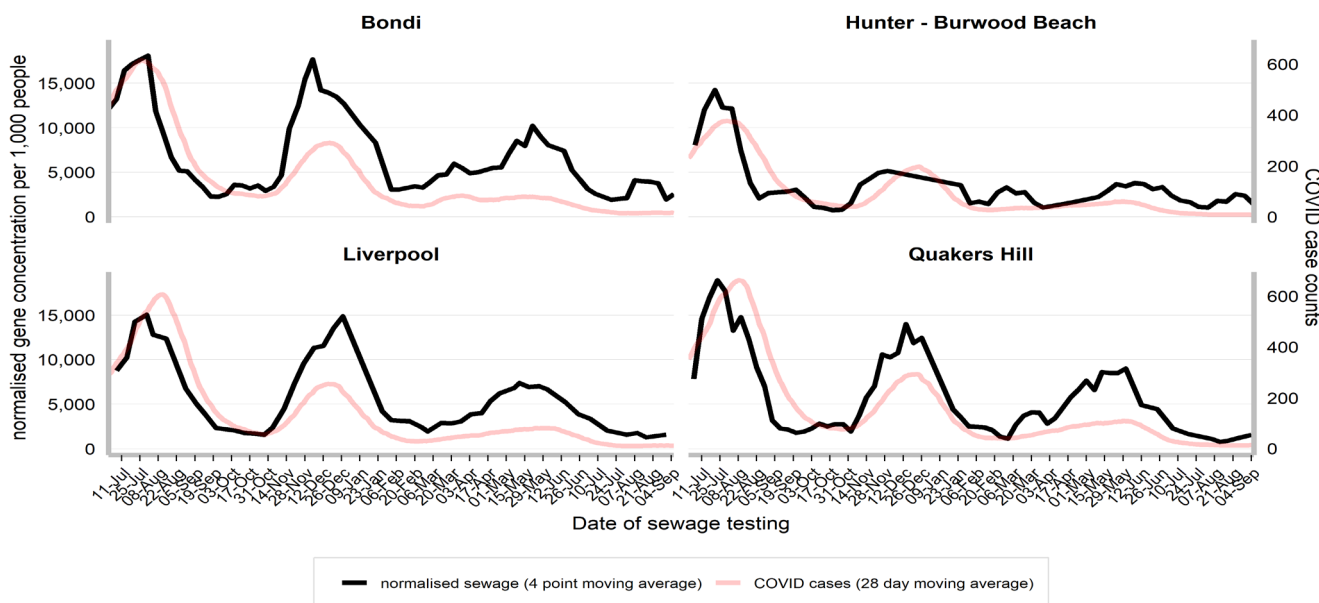
## Other surveillance indicators

### 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 06 September 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 vary across the four sewage surveillance sites. Concentrations indicate COVID-19 transmission is continuing to occur at low levels.

**Figure 10. Gene concentration, per 1,000 people in each sewage catchment, 1 July 2022 to 06 September 2023.**

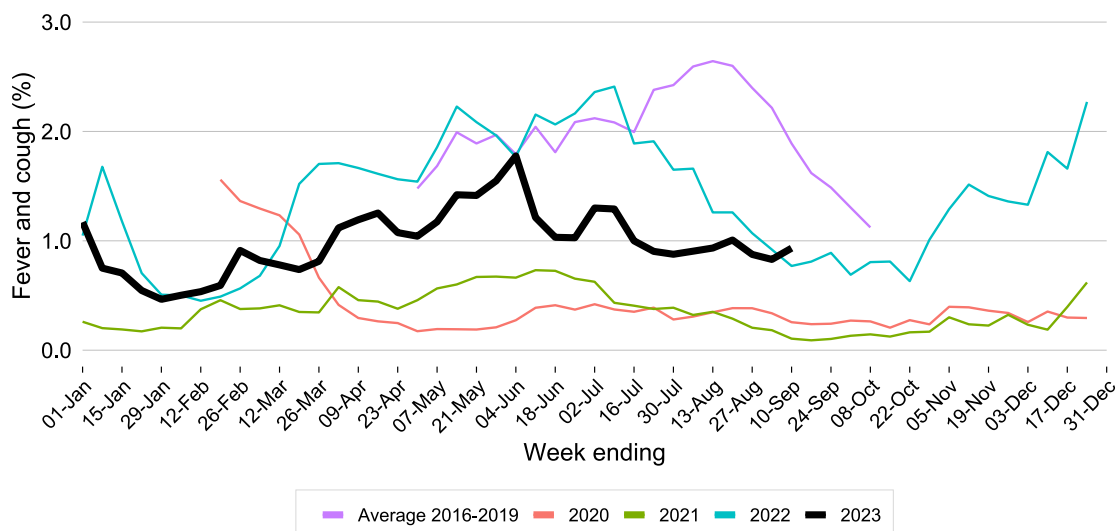


## FluTracking and NSW sentinel laboratory network

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 people reporting fever and cough is remaining at approximately 1% and below the average for 2016 – 2019.

**Figure 11. Proportion of FluTracking participants reporting influenza-like illness, NSW, 1 January to 10 September 2023.**



Epidemiological week 36, ending 09 September 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:** COVID-19 test positivity increased to 4.8% in the past week to levels consistent with mid-July 2023. Rhinovirus test positivity indicates it is now the most common respiratory virus detected at sentinel laboratories and test positivity is at its highest level for 2023 (18.6%). Human metapneumovirus (HMPV) test positivity also continues to increase rapidly, now at 4.5% and the number of positive specimens was nearly double that of respiratory syncytial virus.

Figure 12. Number and proportion of tests positive for COVID-19 at sentinel NSW laboratories, 1 January 2023 to 10 September 2023.

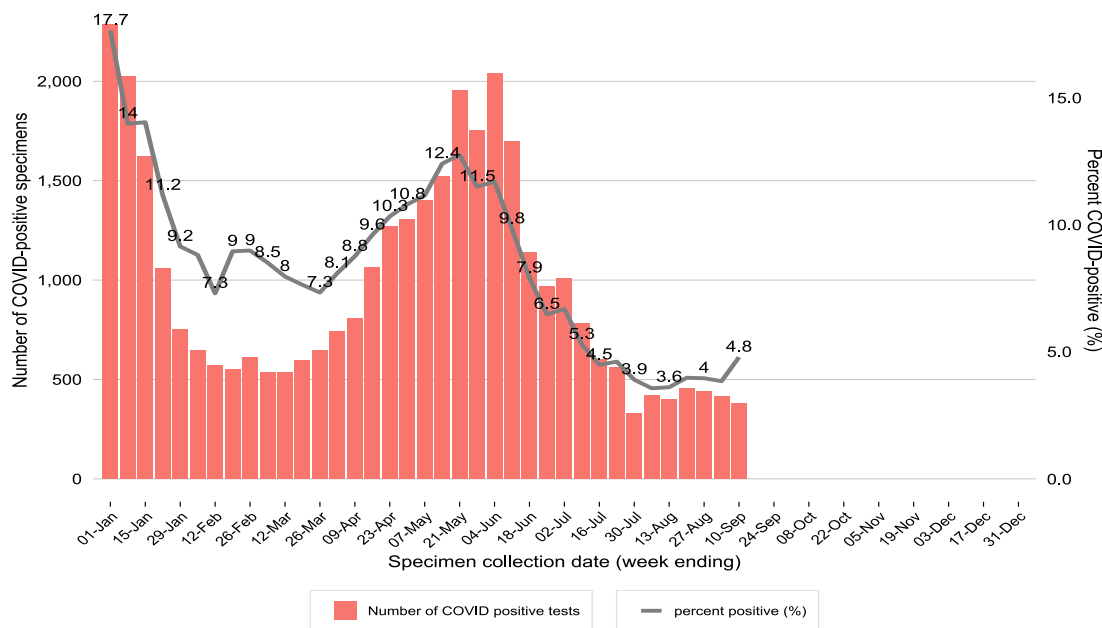
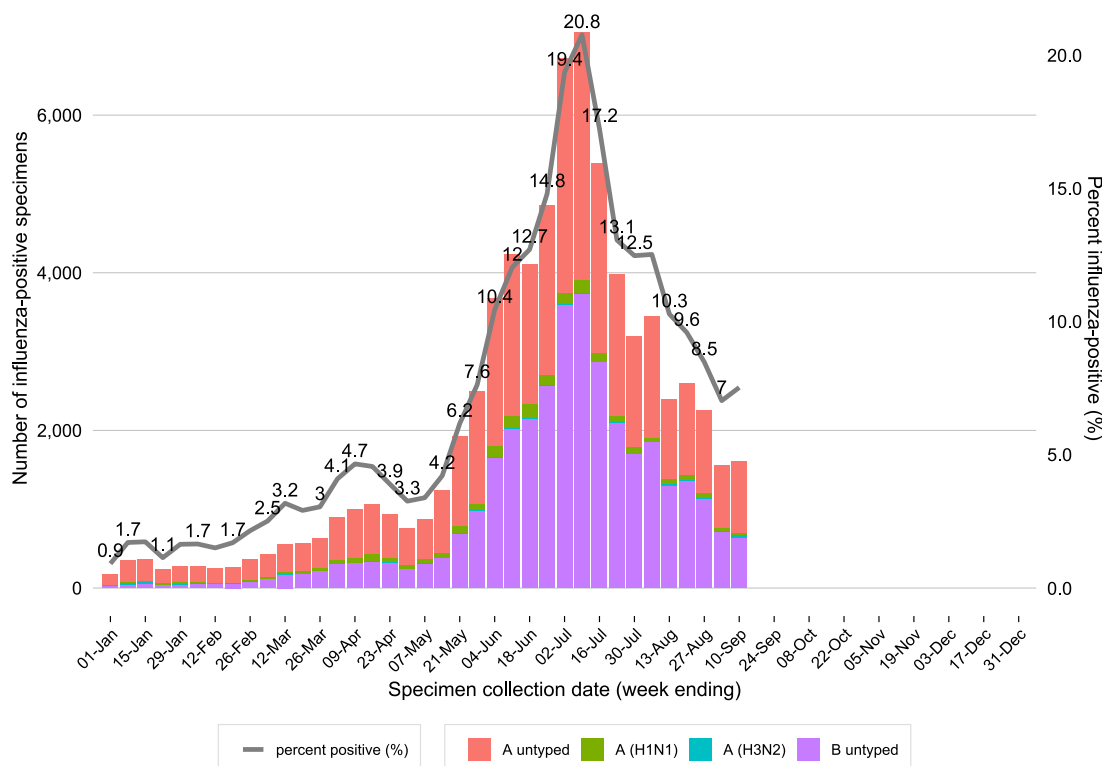
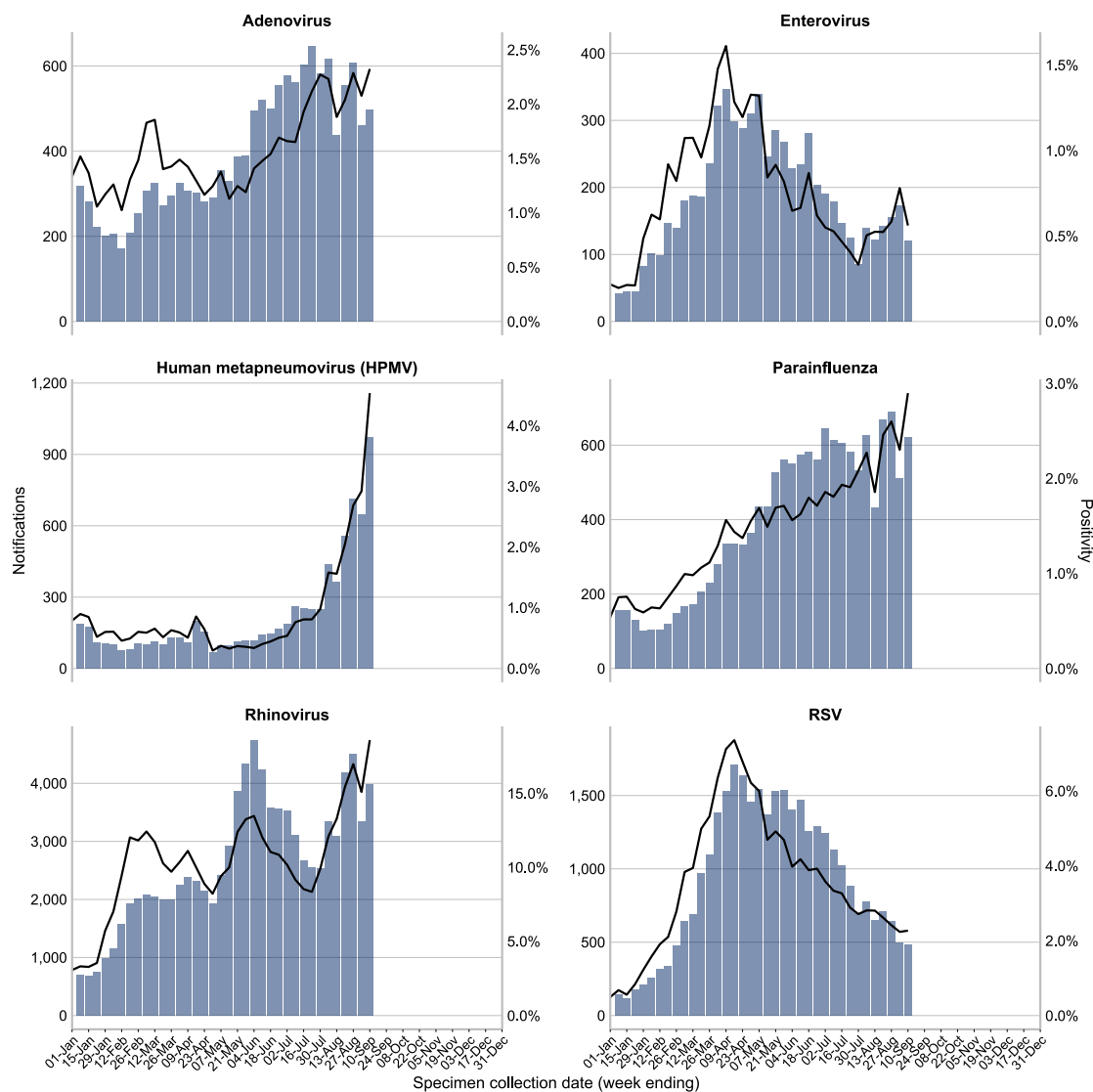


Figure 13. Number and proportion of tests positive for influenza at sentinel NSW laboratories, 1 January 2023 to 10 September 2023.



**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 10 September 2023.**



**Table 2. Total number of respiratory disease notifications from sentinel laboratories, NSW in the four weeks to 10 September 2023.**

	Week ending				Year to date
	20 August	27 August	03 September	10 September	
	n(% pos)	n(% pos)	n(% pos)	n(% pos)	n
Influenza	2,603 (9.6%)	2,250 (8.5%)	1,560 (7.0%)	1,609 (7.5%)	72,996
Adenovirus	554 (2.0%)	607 (2.3%)	461 (2.1%)	497 (2.3%)	14,489
Parainfluenza	668 (2.5%)	690 (2.6%)	511 (2.3%)	620 (2.9%)	14,299
Respiratory syncytial virus (RSV)	710 (2.6%)	640 (2.4%)	496 (2.2%)	485 (2.3%)	33,352
Rhinovirus	4,192 (15.4%)	4,503 (17.0%)	3,349 (15.1%)	3,975 (18.6%)	95,983
Human metapneumovirus (HMPV)	557 (2.1%)	713 (2.7%)	648 (2.9%)	970 (4.5%)	8,065
Enterovirus	142 (0.5%)	155 (0.6%)	173 (0.8%)	120 (0.6%)	6,754
<b>Number of PCR tests conducted</b>	<b>27,147</b>	<b>26,525</b>	<b>22,181</b>	<b>21,376</b>	<b>910,963</b>
SARS-CoV-2	457 (4.0%)	438 (4.0%)	416 (3.8%)	380 (4.8%)	35,893
<b>Number of COVID PCR tests</b>	<b>11,479</b>	<b>11,055</b>	<b>10,813</b>	<b>7,929</b>	<b>415,653</b>

Recent data is subject to change. For the week ending 10 September 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.