

## NSW Respiratory Surveillance Report - week ending 12 August 2023

**COVID-19 transmission continues at low levels, influenza activity has declined further and RSV activity is stable across most indicators.**

### Summary

There was a small increase (+9%) in COVID-19 notifications in the past week however activity remains stable across most other indicators. There was a decline in the proportion of emergency department (ED) presentations for COVID-19 requiring admission to hospital. Influenza notifications declined by 16% in the past week and notification rates have stabilised or declined across all age-groups. ED presentations for influenza-like illness declined. RSV activity is stable.

### Data sources and methods

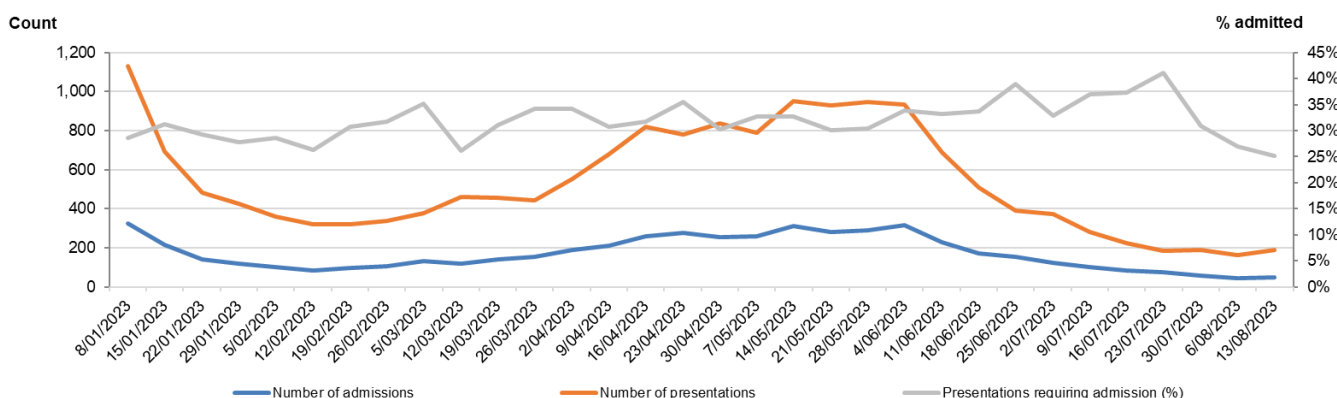
The data source for this report updates as new information becomes available. Therefore, this report cannot be directly compared to previous versions of the NSW Respiratory Surveillance Report or to previous reporting periods. For additional information on the data sources and methods presented within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

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

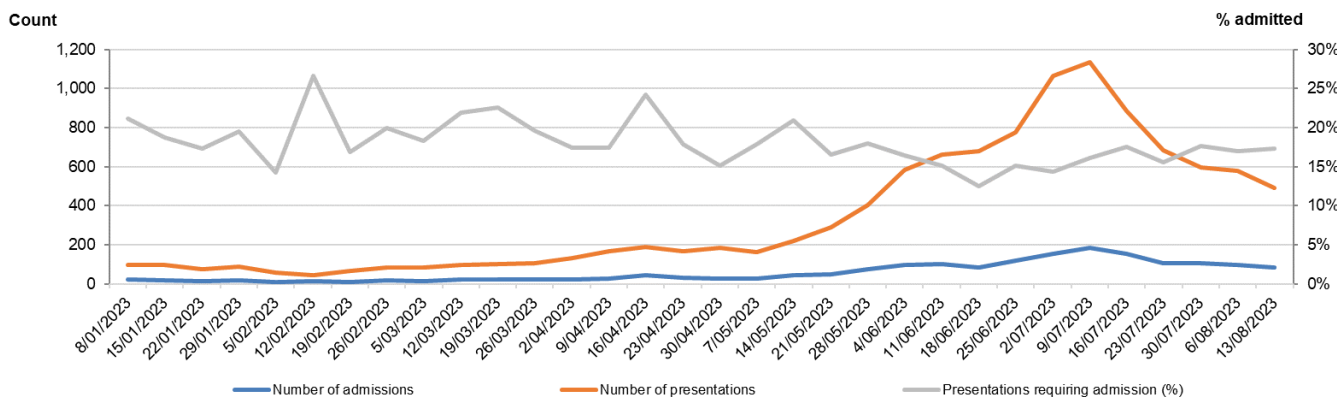
The PHREDSS system provides daily information about presentations to NSW public hospital emergency departments (ED) and subsequent admission to hospital categorised by symptom profile. Here we report on COVID-19, influenza-like illness and bronchiolitis (which is mainly caused by respiratory syncytial 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:** The number of COVID-19 presentations to EDs remains stable however the proportion requiring admission declined further in the past week suggesting a decline in the severity of disease. A further decline in ED presentations for influenza-like illness occurred and bronchiolitis presentations in young children were stable.

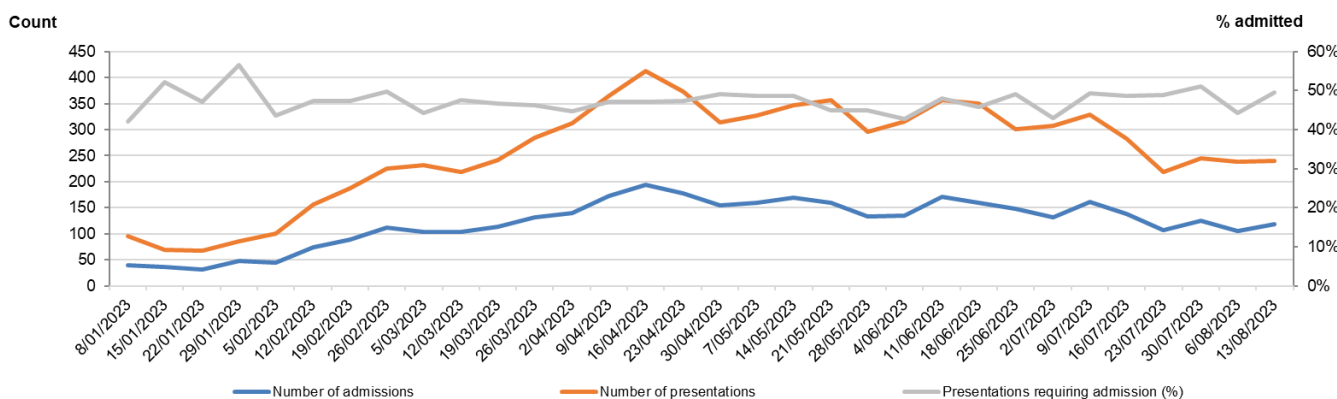
**Figure 1. ‘COVID-19’ weekly counts of unplanned emergency department (ED) presentations and admission following presentation, 2023, persons of all ages.**



**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.**



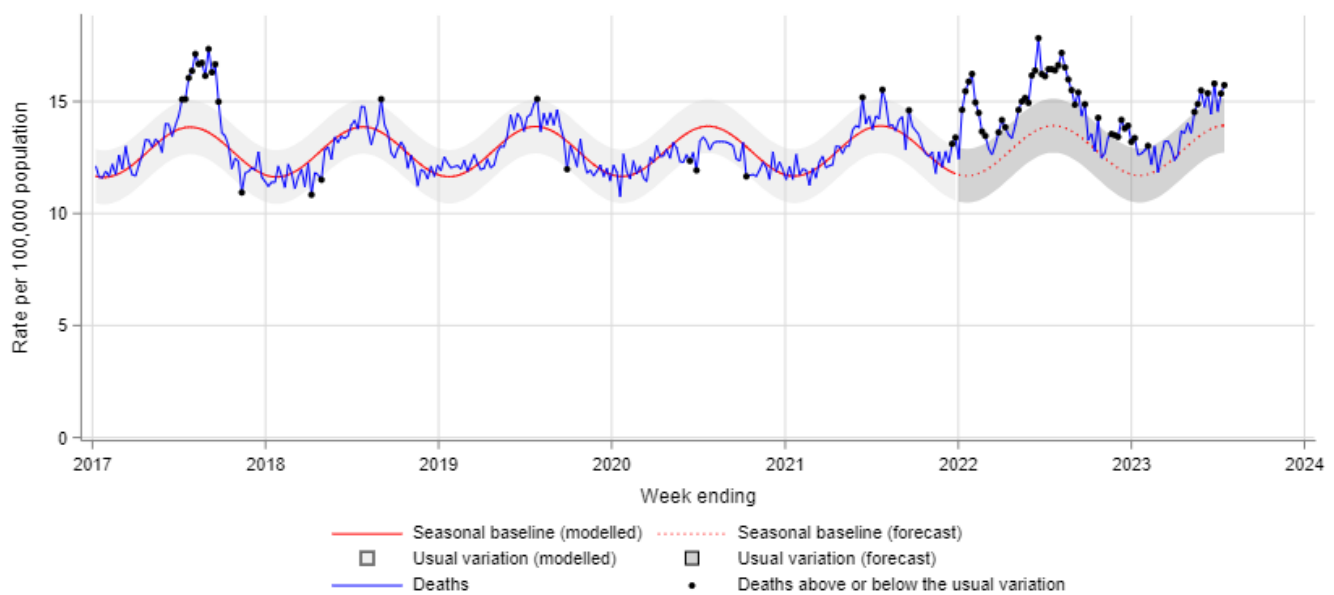
## Death surveillance

### 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:** Weekly lag adjusted all-cause mortality was above 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 16 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 11 June 2023 to 16 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 32, ending 12 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.

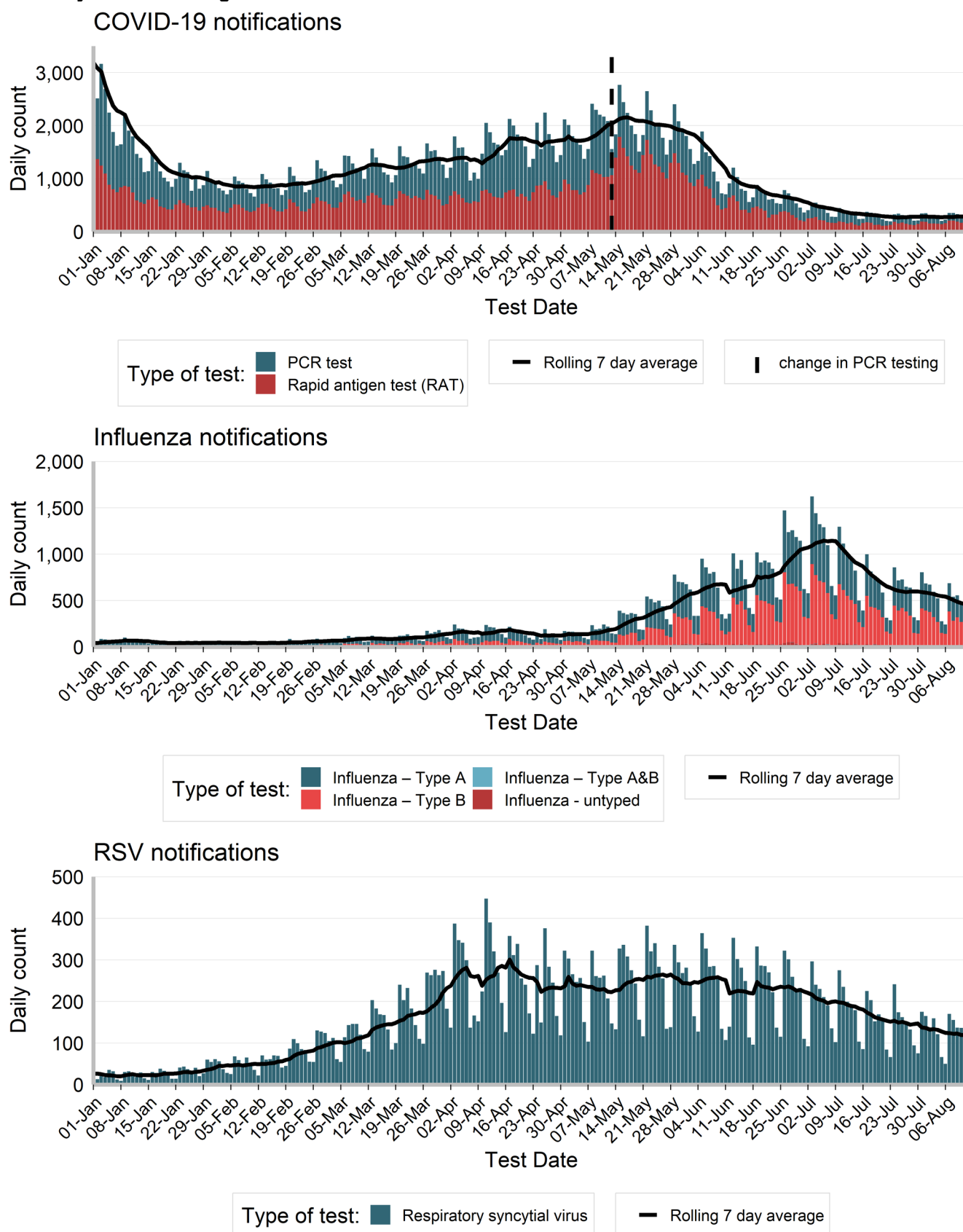
**Interpretation:** There was a 9% increase in the number of notifications for COVID-19 in the past week compared to the week ending 5 August (1982 vs 1822 notifications respectively). Influenza continues to be the most common respiratory virus notified. The distribution of COVID-19, influenza and RSV 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 12 August 2023.**

|   | COVID                      |                      | Influenza                  |                     | RSV                        |                     |
|---|----------------------------|----------------------|----------------------------|---------------------|----------------------------|---------------------|
|   | Week ending 12 August 2023 | Year to Date         | Week ending 12 August 2023 | Year to Date        | Week ending 12 August 2023 | Year to Date        |
| <b>Gender</b>                             |                            |                      |                            |                     |                            |                     |
| Female                                    | 1,121                      | 150,039(58%)         | 1,571                      | 37,392(51%)         | 466                        | 18,988(52%)         |
| Male                                      | 851                        | 109,357(42%)         | 1,607                      | 36,594(49%)         | 376                        | 17,507(48%)         |
| <b>Age group (years)</b>                  |                            |                      |                            |                     |                            |                     |
| 0-4                                       | 92                         | 8,806(3%)            | 394                        | 10,376(14%)         | 361                        | 19,811(54%)         |
| 5-9                                       | 87                         | 8,054(3%)            | 712                        | 15,864(21%)         | 69                         | 1,979(5%)           |
| 10-19                                     | 192                        | 21,211(8%)           | 674                        | 14,436(19%)         | 50                         | 1,584(4%)           |
| 20-29                                     | 196                        | 29,322(11%)          | 282                        | 5,741(8%)           | 36                         | 1,317(4%)           |
| 30-39                                     | 274                        | 38,932(15%)          | 429                        | 9,488(13%)          | 43                         | 1,707(5%)           |
| 40-49                                     | 271                        | 38,008(15%)          | 316                        | 7,671(10%)          | 31                         | 1,319(4%)           |
| 50-59                                     | 241                        | 35,747(14%)          | 157                        | 4,013(5%)           | 47                         | 1,799(5%)           |
| 60-69                                     | 205                        | 32,595(13%)          | 94                         | 2,923(4%)           | 62                         | 2,154(6%)           |
| 70-79                                     | 211                        | 24,664(9%)           | 82                         | 2,065(3%)           | 64                         | 2,154(6%)           |
| 80-89                                     | 141                        | 15,715(6%)           | 30                         | 1,115(2%)           | 57                         | 1,863(5%)           |
| 90+                                       | 75                         | 6,617(3%)            | 8                          | 309(0%)             | 23                         | 806(2%)             |
| <b>Local Health District of residence</b> |                            |                      |                            |                     |                            |                     |
| Central Coast                             | 114                        | 12,257(5%)           | 89                         | 2,524(3%)           | 42                         | 1,743(5%)           |
| Far West                                  | 5                          | 744(0%)              | 10                         | 111(0%)             | 6                          | 187(1%)             |
| Hunter New England                        | 210                        | 33,711(13%)          | 230                        | 5,642(8%)           | 107                        | 3,257(9%)           |
| Illawarra Shoalhaven                      | 118                        | 16,398(6%)           | 227                        | 3,285(4%)           | 38                         | 1,786(5%)           |
| Mid North Coast                           | 65                         | 5,888(2%)            | 36                         | 1,845(2%)           | 15                         | 657(2%)             |
| Murrumbidgee                              | 82                         | 8,149(3%)            | 81                         | 2,237(3%)           | 53                         | 1,757(5%)           |
| Nepean Blue Mountains                     | 118                        | 12,708(5%)           | 184                        | 4,770(6%)           | 46                         | 2,181(6%)           |
| Northern NSW                              | 45                         | 7,549(3%)            | 89                         | 2,760(4%)           | 18                         | 760(2%)             |
| Northern Sydney                           | 279                        | 31,424(12%)          | 358                        | 9,193(12%)          | 130                        | 4,766(13%)          |
| South Eastern Sydney                      | 224                        | 27,564(11%)          | 267                        | 6,222(8%)           | 69                         | 3,368(9%)           |
| South Western Sydney                      | 209                        | 27,186(10%)          | 544                        | 11,515(16%)         | 90                         | 5,235(14%)          |
| Southern NSW                              | 47                         | 6,906(3%)            | 105                        | 1,143(2%)           | 28                         | 713(2%)             |
| Sydney                                    | 158                        | 21,654(8%)           | 189                        | 4,678(6%)           | 39                         | 2,317(6%)           |
| Western NSW                               | 59                         | 10,409(4%)           | 118                        | 1,841(2%)           | 34                         | 1,621(4%)           |
| Western Sydney                            | 222                        | 34,178(13%)          | 622                        | 15,942(22%)         | 124                        | 6,042(17%)          |
| <b>Aboriginal status</b>                  |                            |                      |                            |                     |                            |                     |
| Aboriginal and/or Torres Strait Islander  | 73                         | 8,420(3%)            | 119                        | 2,589(3%)           | 22                         | 1,306(4%)           |
| Not Aboriginal or Torres Strait Islander  | 1,454                      | 190,513(73%)         | 1,665                      | 38,435(52%)         | 376                        | 17,557(48%)         |
| Not Stated / Unknown                      | 455                        | 60,777(23%)          | 1,402                      | 33,017(45%)         | 445                        | 17,654(48%)         |
| <b>Total</b>                              | <b>1,982</b>               | <b>259,710(100%)</b> | <b>3,186</b>               | <b>74,041(100%)</b> | <b>843</b>                 | <b>36,517(100%)</b> |

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

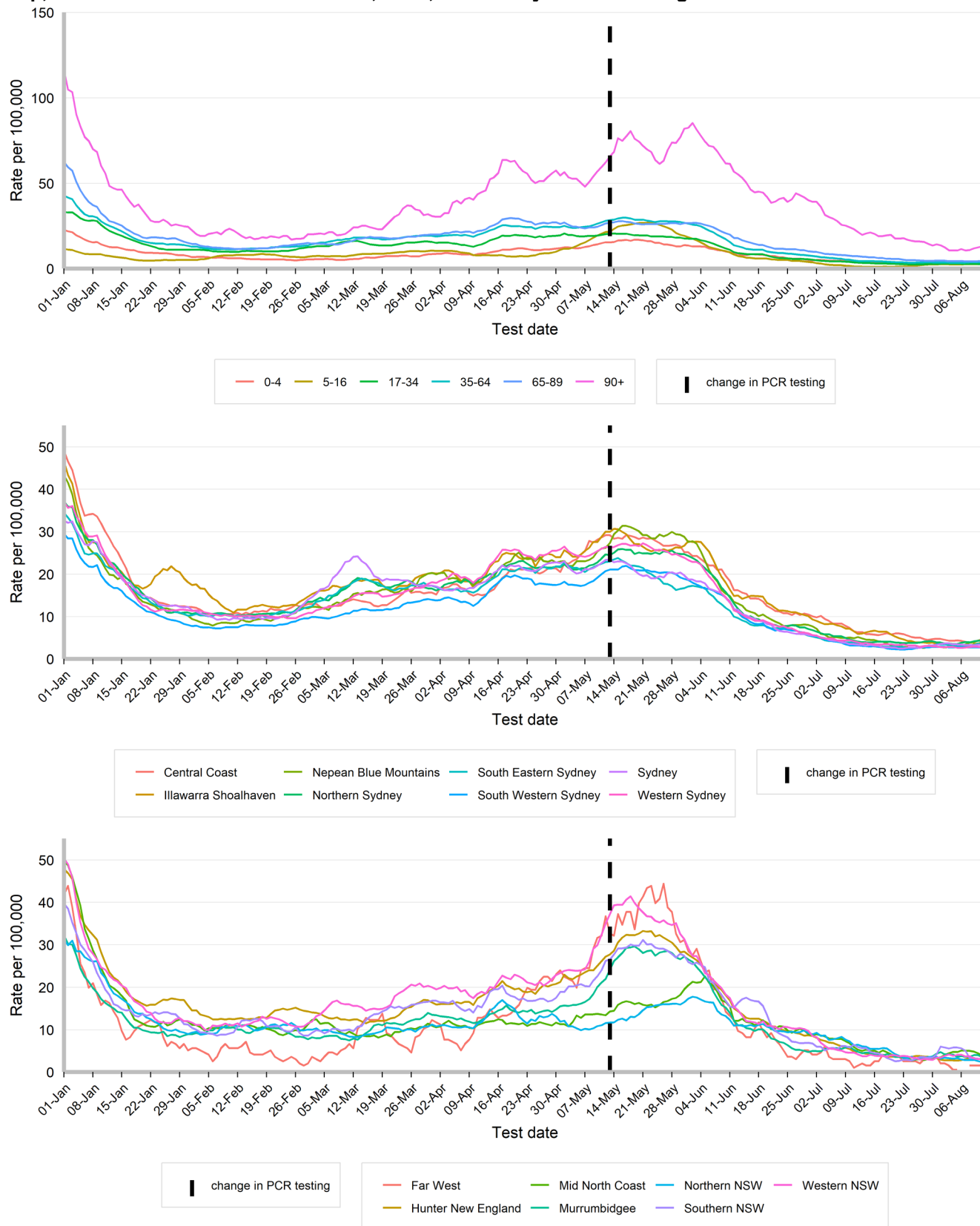
Figure 5. People notified with COVID-19, Influenza and RSV, by date of test and type of test performed, NSW, 01 January 2023 to 12 August 2023.



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

**Interpretation:** COVID-19 notification rates are stable across all ages except for a small increase in those aged 90 and older. Rates for most LHDs are stable.

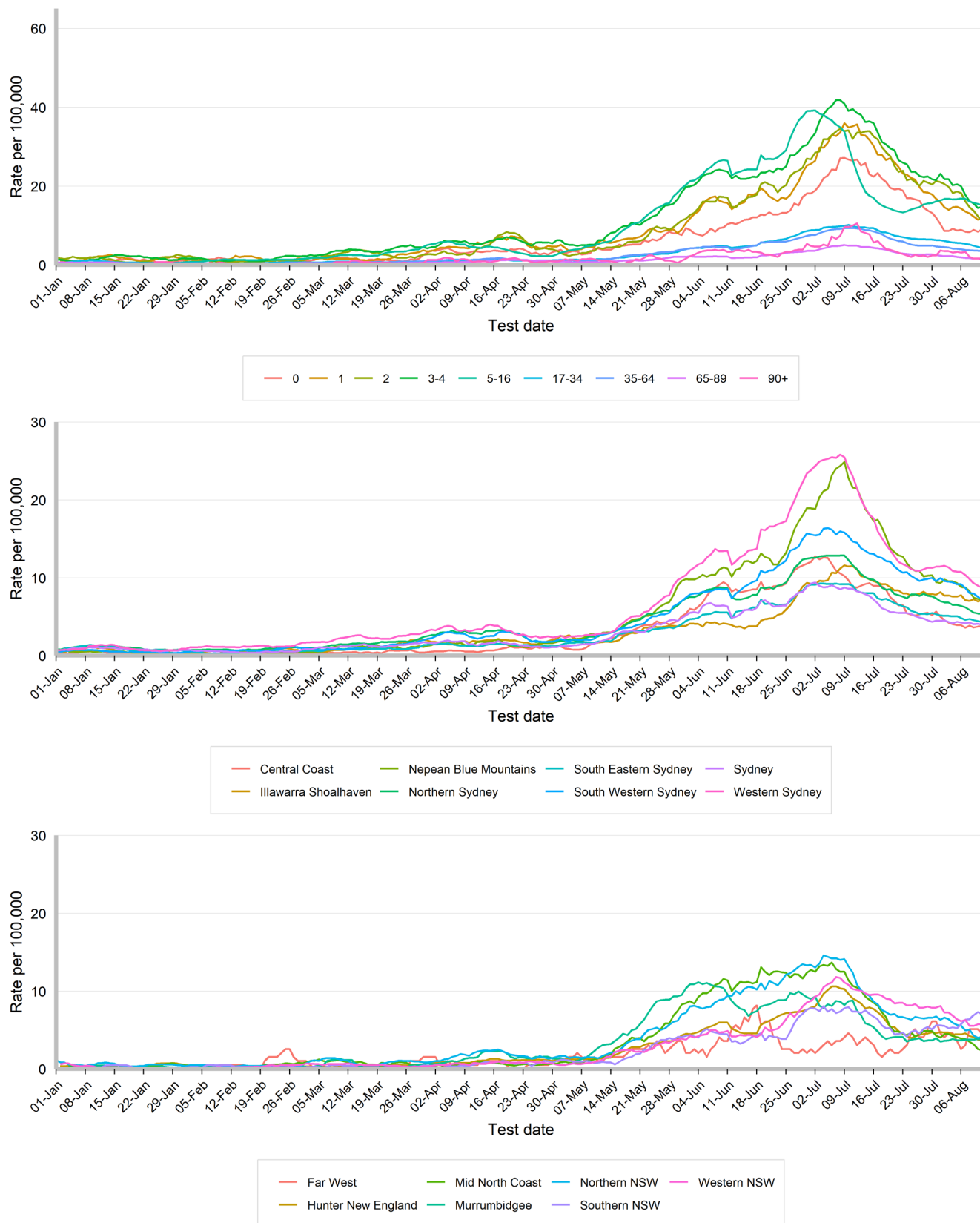
**Figure 6. Daily seven-day rolling average rate of COVID-19 notifications per 100,000 population, by age group, Local Health District and test date, NSW, 01 January 2023 to 12 August 2023.**



## Rates of influenza notifications per 100,000 population

**Interpretation:** Influenza notification rates have declined or are stable across most age groups and LHDs. The increase observed in those aged 5 – 16 years in the previous two weeks has reversed.

**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 12 August 2023.**

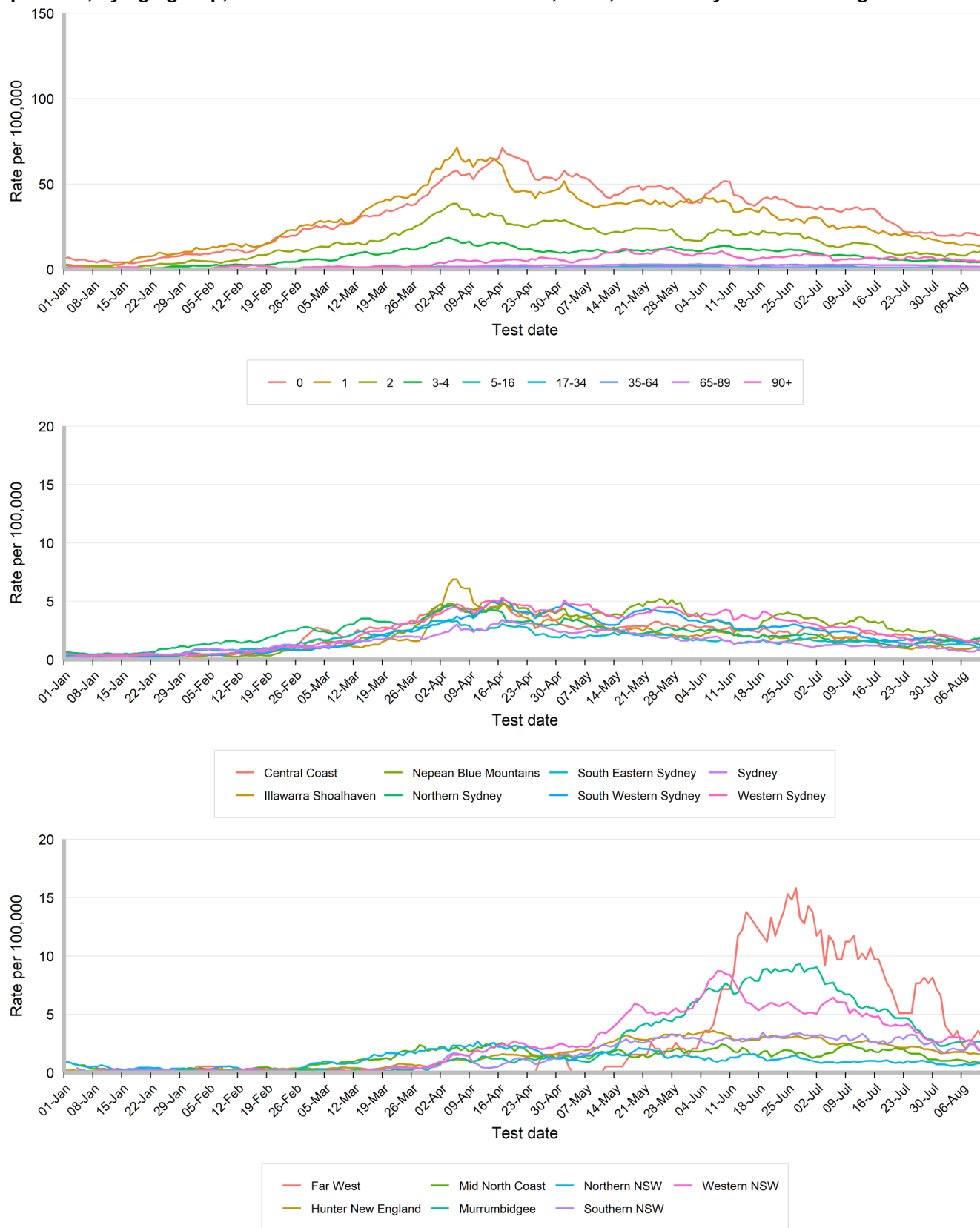




## Rates of respiratory syncytial virus notifications per 100,000 population

**Interpretation:** RSV notification rates most across age-groups and LHDs are stable.

**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 12 August 2023.**



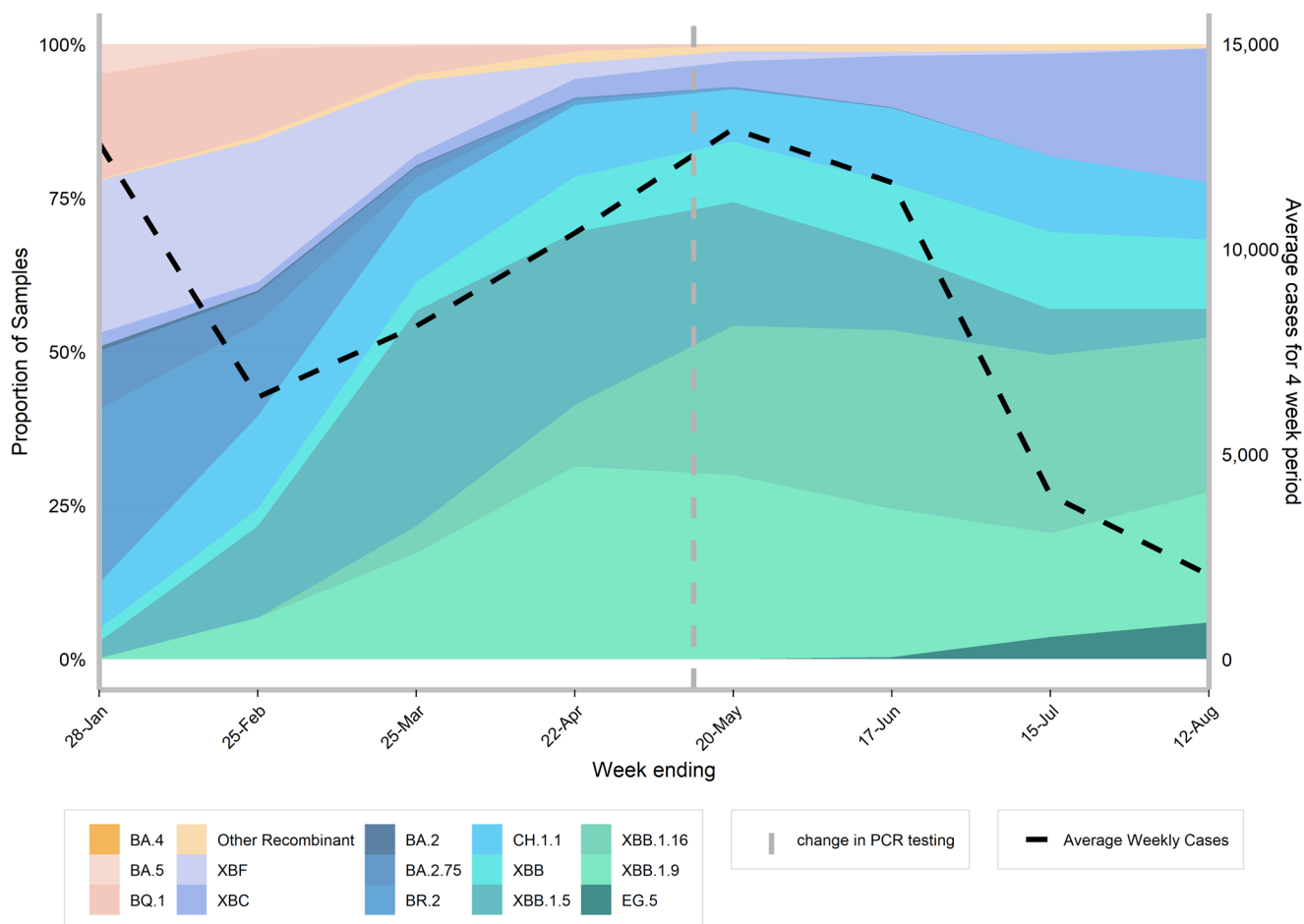


### COVID-19 Whole Genome Sequencing

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 reflect the distribution in all cases across NSW. NSW continues to monitor results from cases who are admitted to 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. Given the decline in WGS sequencing in recent weeks given declining PCR testing, data should be interpreted with caution.

**Interpretation:** XBB sub-lineages continue to dominate the variants circulating in the community. The EG.5 variant was first identified by WGS in May 2023 and there have been 26 detections reported to date.

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



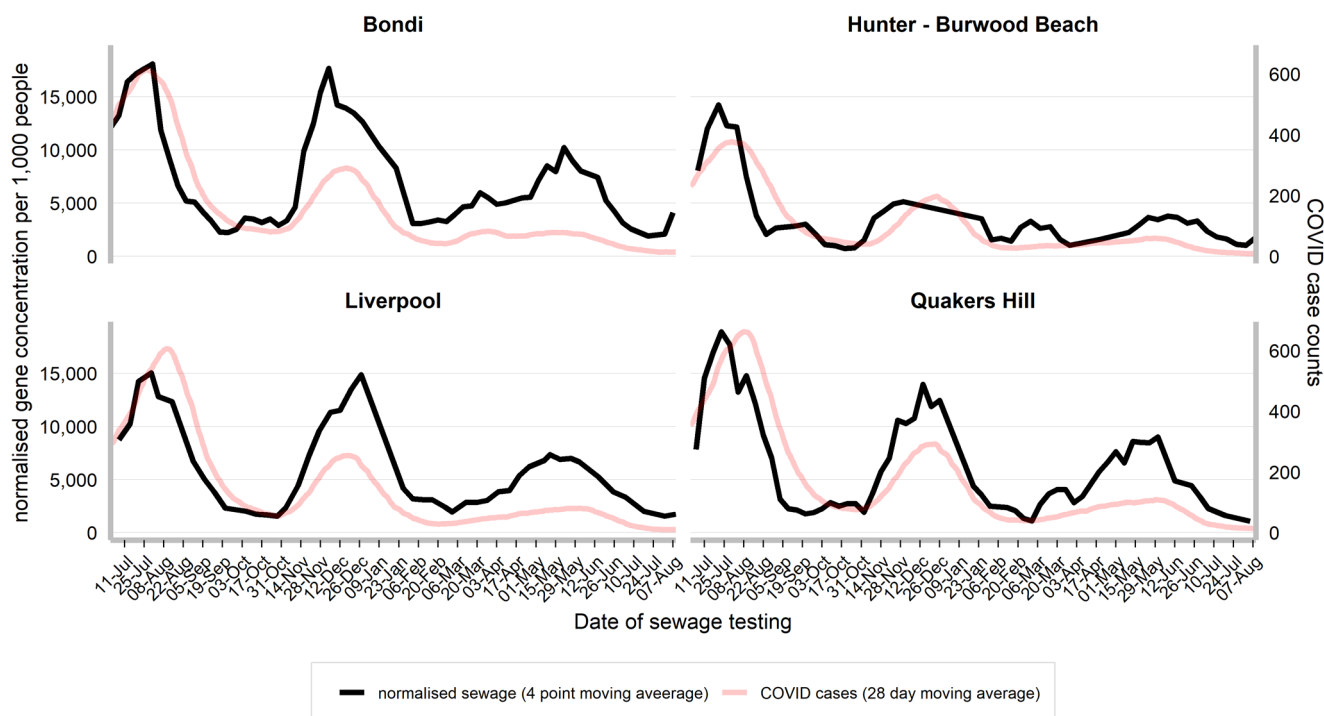
## Other surveillance indicators

### 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 09 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:** Small increases in gene concentrations per 1,000 people were observed in the Sydney Bondi and Burwood Beach catchments. The Liverpool catchment is stable and further declines were observed in Quakers Hill.

**Figure 10. Gene concentration, per 1,000 people in each sewage catchment, 1 January 2023 to 09 August 2023.**

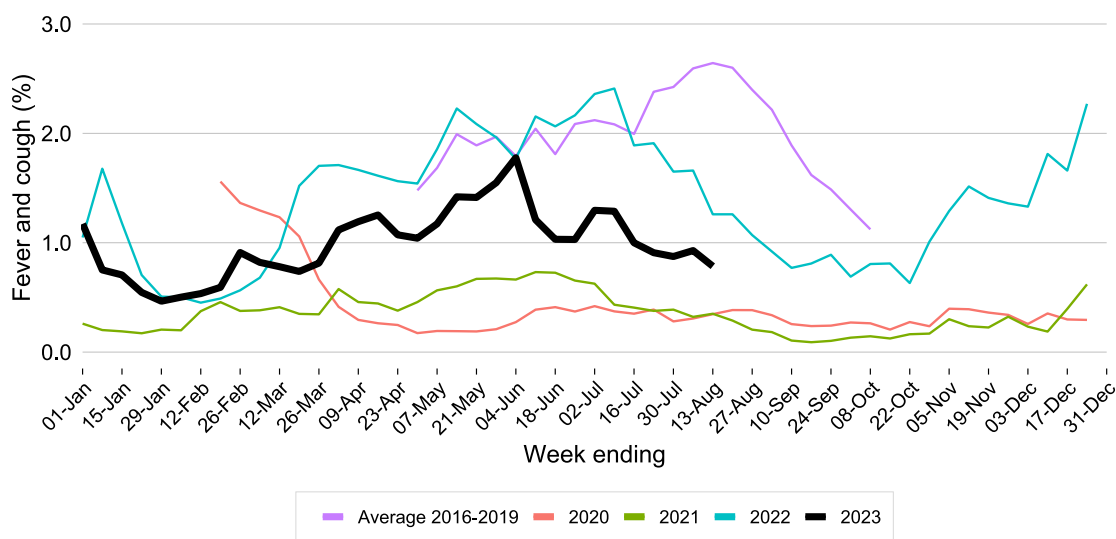


## FluTracking and NSW sentinel laboratory network

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 declined in the past week and remains 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 13 August 2023.**

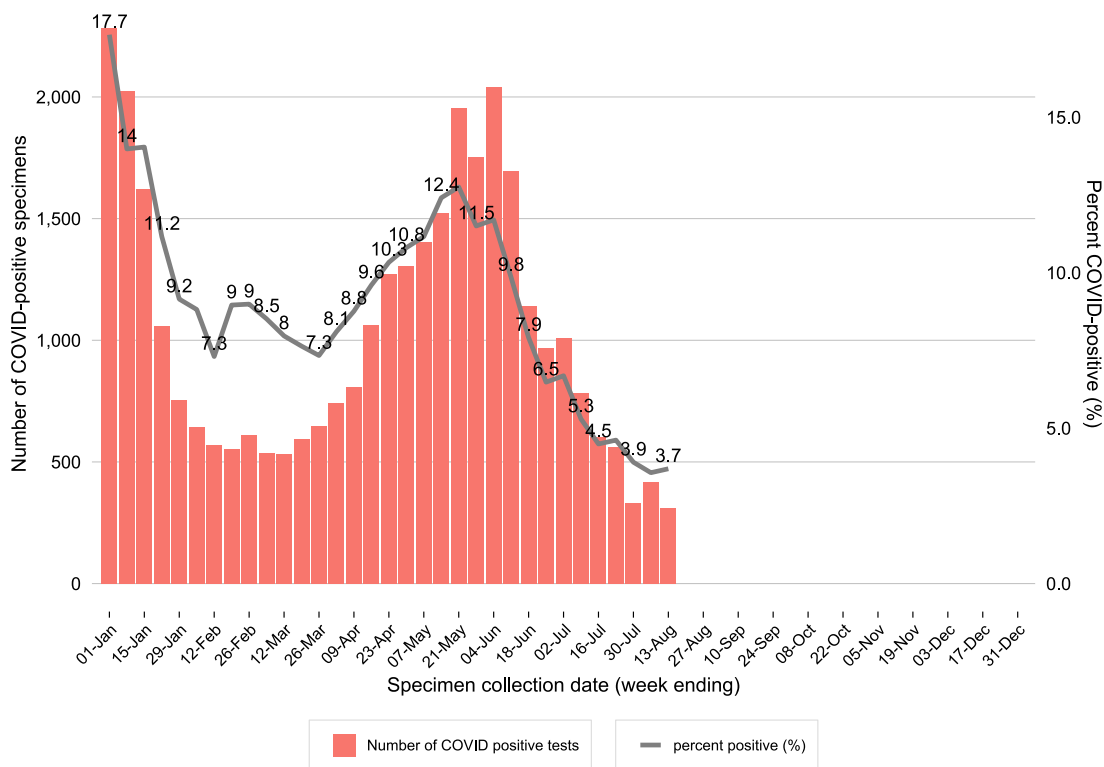


Epidemiological week 32, ending 12 August 2023

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:** The rapid decline in the proportion of tests positive for COVID-19 that have been observed since mid-May 2023 have stabilised. Influenza positivity continues to decline and the proportion of specimens positive for rhinovirus and human metapneumovirus continues to increase.

**Figure 12. Number and proportion of tests positive for COVID-19 at sentinel NSW laboratories, 1 January 2023 to 13 August 2023.**



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

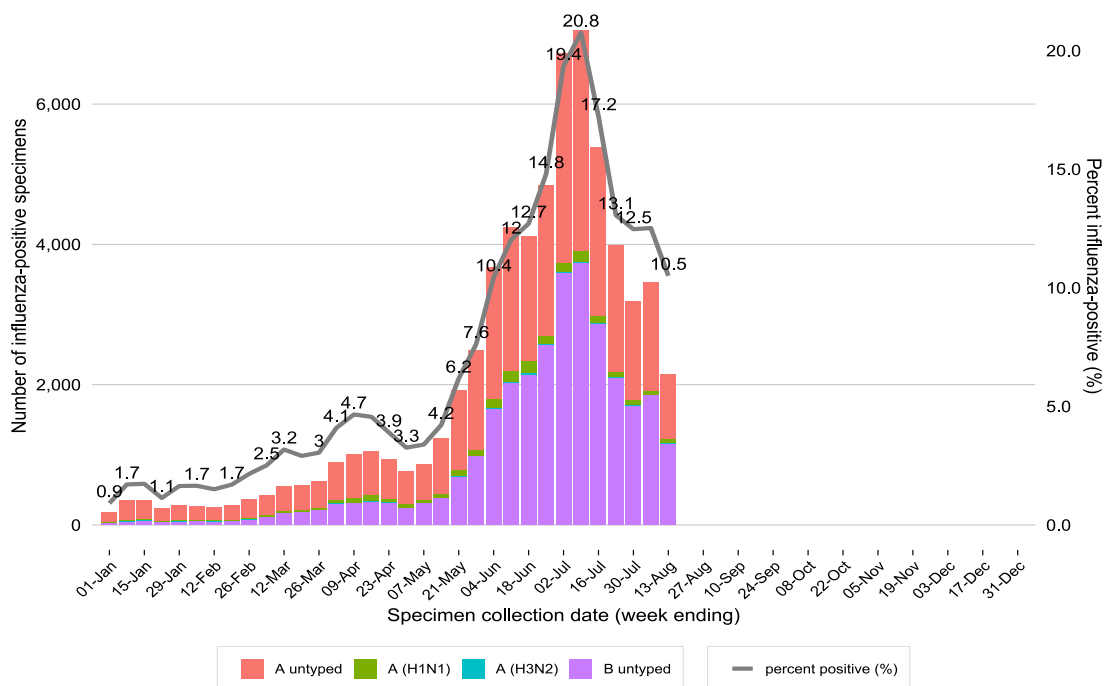


Figure 14. Number of positive PCR test results and proportion of tests positive for other respiratory viruses at sentinel NSW laboratories, 1 January 2023 to 13 August 2023.

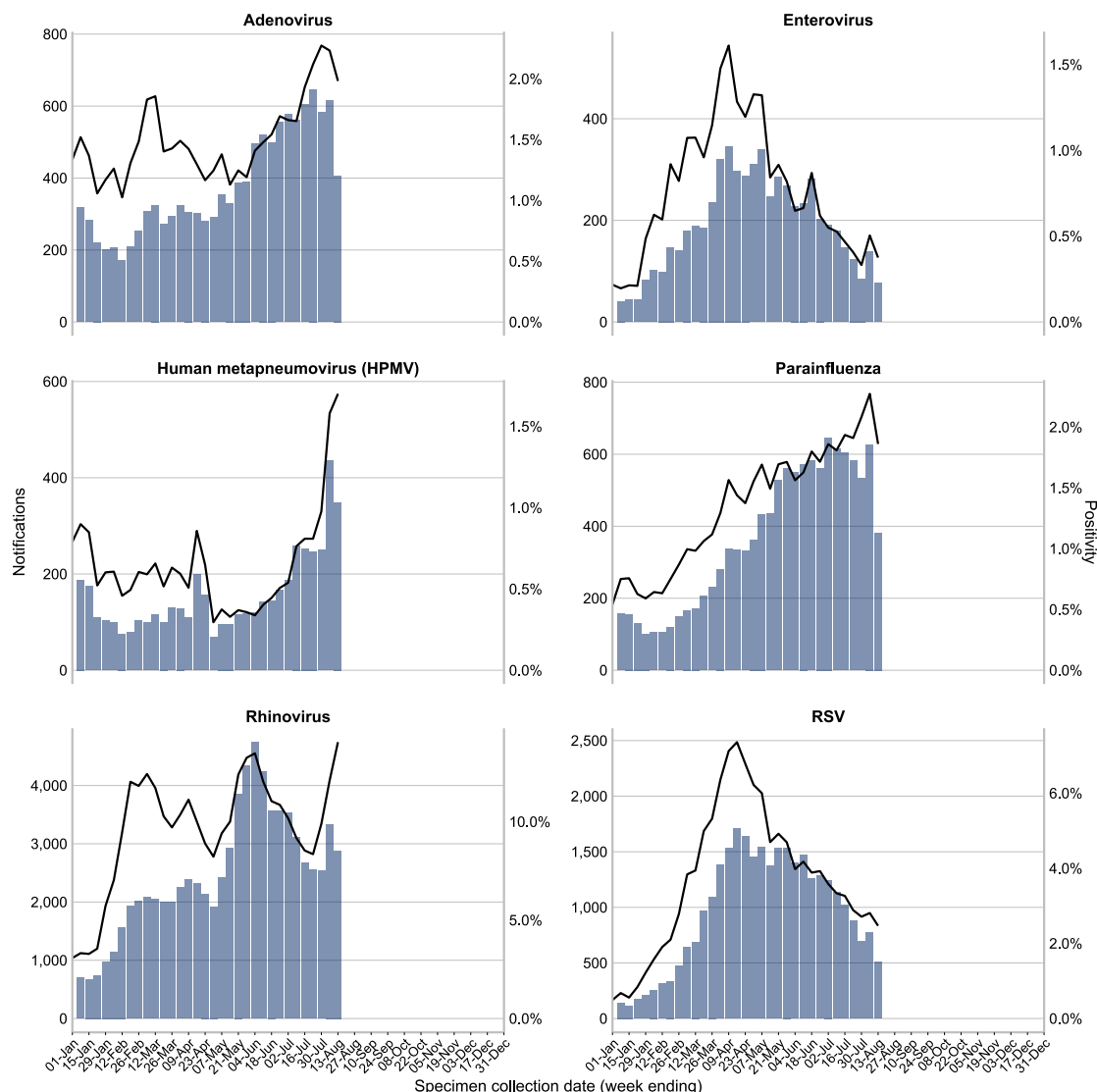


Table 2. Total number of respiratory disease notifications from sentinel laboratories, NSW in the four weeks to 13 August 2023.

|                                      | Week ending   |               |               |               | Year to date   |
|--------------------------------------|---------------|---------------|---------------|---------------|----------------|
|                                      | 23 July       | 30 July       | 06 August     | 13 August     |                |
|                                      | n(% pos)      | n(% pos)      | n(% pos)      | n(% pos)      | n              |
| Influenza                            | 3,987 (13.1%) | 3,192 (12.5%) | 3,454 (12.5%) | 2,157 (10.5%) | 64,740         |
| Adenovirus                           | 647 (2.1%)    | 582 (2.3%)    | 616 (2.2%)    | 407 (2.0%)    | 12,339         |
| Respiratory syncytial virus (RSV)    | 881 (2.9%)    | 694 (2.7%)    | 775 (2.8%)    | 507 (2.5%)    | 30,876         |
| Rhinovirus                           | 2,550 (8.4%)  | 2,532 (9.9%)  | 3,338 (12.1%) | 2,883 (14.0%) | 79,757         |
| Human metapneumovirus (HMPV)         | 247 (0.8%)    | 250 (1.0%)    | 436 (1.6%)    | 349 (1.7%)    | 5,163          |
| Enterovirus                          | 124 (0.4%)    | 85 (0.3%)     | 139 (0.5%)    | 77 (0.4%)     | 6,119          |
| <b>Number of PCR tests conducted</b> | <b>30,530</b> | <b>25,594</b> | <b>27,587</b> | <b>20,528</b> | <b>811,010</b> |
| SARS-CoV-2                           | 562 (4.6%)    | 331 (3.9%)    | 418 (3.6%)    | 311 (3.7%)    | 34,111         |
| <b>Number of COVID PCR tests</b>     | <b>12,178</b> | <b>8,477</b>  | <b>11,718</b> | <b>8,420</b>  | <b>371,653</b> |

Recent data is subject to change. For the week ending 13 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.