

## NSW Respiratory Surveillance Report - week ending 23 July 2022

### COVID-19 Summary

- NSW is continuing to experience the wave of transmission driven by the BA.4 and BA.5 COVID-19 subvariants. In the last week there was an increase in the number of cases notified, although COVID-19 notifications are likely to underestimate true incidence in the community. Current projections indicate that NSW will reach a peak in cases and hospitalisations in mid to late August.
- PCR testing for COVID-19 has increased, with 247,985 PCR tests reported this week, a 13% increase compared to the previous week. The proportion of PCR tests that were positive for COVID-19 has remained stable at 19%.
- The rate of COVID-19 notifications per 100,000 population is increasing across all Local Health Districts and all age groups with the greatest increase seen in people aged over 90 years. The 0 to 9 year and 10 to 19 year age groups currently have the lowest rate per 100,000 population, which have increased in the last week coinciding with return to school.
- The number of people in hospital with COVID-19 has increased by 10% to 2,263 at the end of this week compared to 2,058 at the end of last week. There were 918 people with COVID-19 admitted to hospital and 77 people admitted to ICU this week. The seven-day rolling average of daily hospital admissions decreased by 6.4% to an average of 131 daily admissions from 140 last week. Daily ICU admissions decreased to an average of 11 daily admissions by the end of this week, compared with 12 admissions at the end of the previous week. Hospital admissions include people with COVID-19 who are admitted for other reasons.
- 146 COVID-19 deaths were reported this week, a 3% increase from 142 reported last week. All 146 people who died were eligible for a third dose of COVID-19 vaccine and 100 (68%) had received a third dose. Five deaths were in people aged under 65 years. Deaths may not have occurred in the week in which they were reported.
- BA.4 and BA.5 Omicron subvariants are currently the dominant strains, rising to 94% at the end of this week compared to 90% at the end of the previous week. There is no evidence of a difference in disease severity, but this is being closely monitored.
- To help reduce severe disease from Omicron BA.4 and BA.5 subvariant infections, adults aged 50 to 64 years are now recommended to receive a winter booster dose of a COVID-19 vaccine, adults aged 30 to 49 years can also receive a winter booster dose. Public health measures such as indoor mask wearing, good ventilation, testing and isolation are also effective at reducing spread of COVID-19 in the community. It is important that people at risk of severe disease discuss a testing and treatment plan with their doctor should they develop symptoms of COVID-19.

### Influenza summary

- Notifications of influenza cases decreased this week. The recent trend in reported influenza cases indicates that the influenza season peaked in early June and continues to decline. However, there could be subsequent peaks given the early start to the 2022 influenza season. Influenza vaccination is strongly advised.
- Hospitalisations and the percentage of tests that are positive are the most useful indicators for comparison of influenza activity across years. These indicators are not impacted by overall testing in the community, which is currently elevated due to increased respiratory virus testing.
- Of the 66,317 tests conducted for influenza at sentinel laboratories, the proportion of positive tests decreased to 1% from a peak of 17% in late May.
- Emergency department presentations for 'influenza-like illness' (ILI) requiring an admission have decreased to 18 this week compared to 43 in the previous week. 11% of all ILI emergency department presentations required a hospital admission this week, which is a slight decrease from 17% in the previous week. The proportion of presentations that were admitted to hospital was highest for people aged 65 years and over (44%), 35-64 years (22%) and children aged 0-4 years (28%).
- Influenza A is the dominant circulating strain.

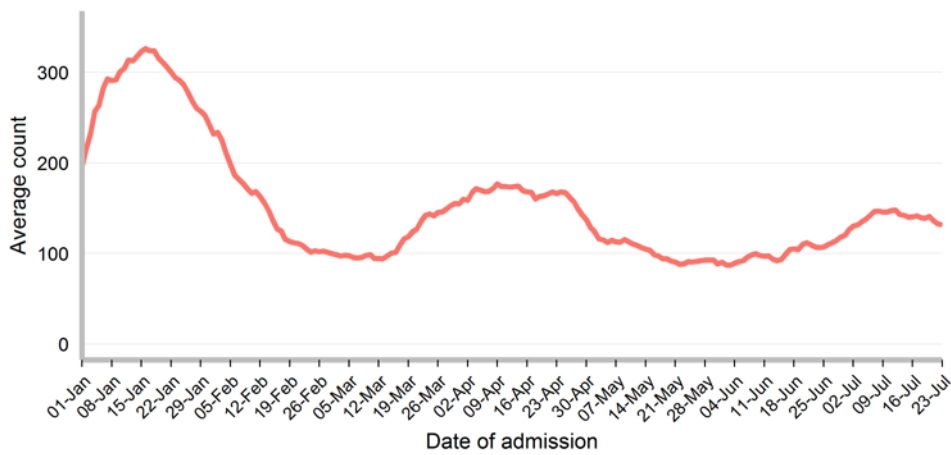
### Other respiratory viruses summary

- Detections of respiratory syncytial virus (RSV) have decreased this week but remain high. Data from sentinel laboratories show 2,406 cases detected this week, compared to 3,589 cases detected last week.
- Detections of RSV are likely impacted by increased levels of testing for respiratory viruses compared to previous years.
- Emergency department presentations for bronchiolitis (often caused by RSV) continue to be above the usual seasonal level but are decreasing after a peak in early July.
- Sentinel NSW laboratory testing indicates high numbers of positive tests for respiratory viruses, which may reflect an increase in testing behaviors.

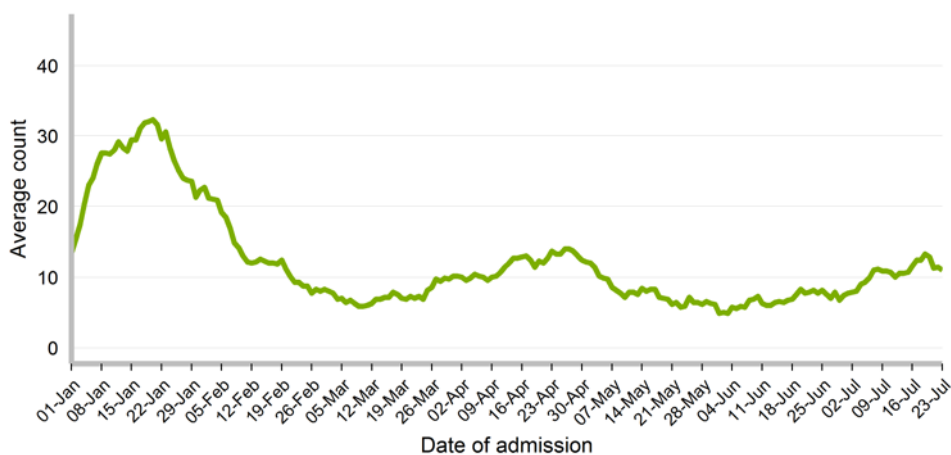
### COVID-19 hospital admissions, intensive care unit admissions, and deaths

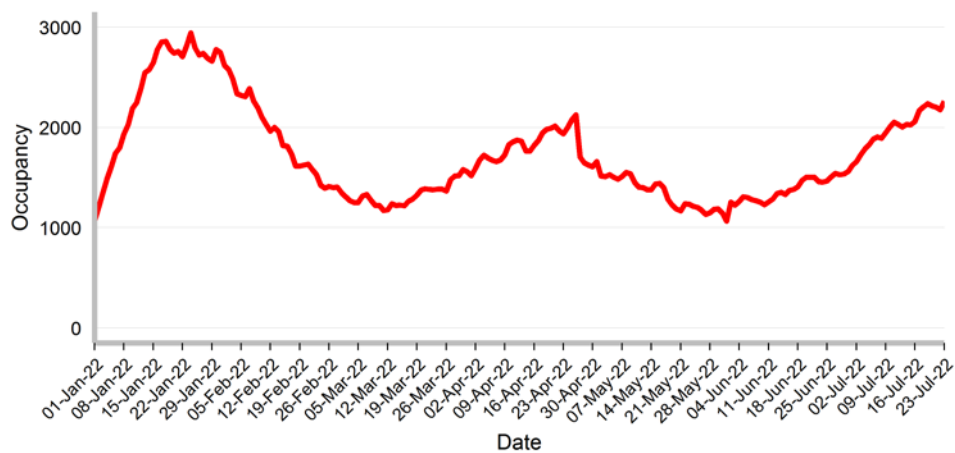
- COVID-19 vaccines are very effective in preventing the severe impacts of infections with the virus. Over 95 per cent of people aged 16 and over in NSW have received two doses of a COVID-19 vaccine, while more than 68 per cent of people eligible for their third dose have received it. With such high vaccination coverage in the community, a greater proportion of people admitted to hospital or intensive care unit (ICU) with COVID-19 are now vaccinated with two or three doses. However, people who are not vaccinated remain far more likely to suffer severe COVID-19. The minority of the overall population who have not been vaccinated are significantly overrepresented among patients in hospitals and ICUs with COVID-19. Note that some people with COVID-19 who are admitted to hospital or ICU are admitted for conditions unrelated to their COVID-19 infection, and these admissions will not be prevented by vaccination.
- Despite the substantial protection from COVID-19 provided by vaccination, older age remains a significant risk factor for serious illness and death with COVID-19, particularly when combined with significant underlying health conditions.

**Figure 1. Daily seven-day rolling average of people with COVID-19 admitted to hospital within 14 days of their diagnosis, NSW, 1 January to 23 July 2022**



**Figure 2. Daily seven-day rolling average of people with COVID-19 admitted to intensive care units, NSW, 1 January to 23 July 2022**



**Figure 3. Number of people in hospital with COVID-19 by day, NSW, 1 January to 23 July 2022**

- Hospital admissions in people with COVID-19 have decreased in the last week. ICU admissions for people with COVID-19 have decreased in the last week
- Nine hundred and eighteen people diagnosed with COVID-19 in the previous 14 days were admitted to a NSW public hospital. The seven-day rolling average of daily hospital admissions decreased to an average of 131 admissions by the end of this week, compared with 140 admissions at the end of the previous week.
- Seventy seven people diagnosed with COVID-19 were admitted to ICU. The seven-day rolling average of daily ICU admissions decreased to an average of 11 admissions by the end of this week, compared with 12 admissions at the end of the previous week
- The number of people in hospital with COVID-19 has increased to 2263 at the end of this week compared to 2058 at the end of last week.

**Table 1. People with a COVID-19 diagnosis in the previous 14 days who were admitted to hospital, admitted to ICU or reported as having died in the week ending 23 July 2022**

	Admitted to hospital (but not to ICU)	Admitted to ICU	Deaths
<b>Gender</b>			
Female	447	32	65
Male	470	45	81
Not stated / inadequately described	1	0	0
<b>Age group (years)</b>			
0-9	68	1	0
10-19	19	1	0
20-29	56	3	0
30-39	68	6	0
40-49	42	4	0
50-59	54	9	1
60-69	109	16	10
70-79	169	25	30
80-89	218	12	63
90+	115	0	42
<b>Local Health District of residence*</b>			
Central Coast	37	2	4
Illawarra Shoalhaven	58	5	14
Nepean Blue Mountains	20	0	3
Northern Sydney	109	12	18
South Eastern Sydney	108	8	15
South Western Sydney	131	6	17
Sydney	72	6	7
Western Sydney	104	8	12
Far West	8	0	2
Hunter New England	97	7	15
Mid North Coast	19	2	13
Murrumbidgee	31	8	7
Northern NSW	44	1	12
Southern NSW	19	3	3
Western NSW	47	7	4
<b>Vaccination status^</b>			
Four or more doses	221	12	45
Three doses	292	28	55
Two doses	165	10	22
One dose	14	3	5
No dose	1	1	15
Unknown	225	23	4
<b>Total</b>	<b>918</b>	<b>77</b>	<b>146</b>

\*Excludes cases in correctional settings

^Vaccination status is determined by matching to Australian Immunisation Register (AIR) data. Name and date of birth need to be an exact match to that recorded in AIR. People with unknown vaccination status were unable to be found in AIR, though may have vaccination details recorded in AIR under a shortened name or different spelling.

- Of the 146 people who were reported to have died with COVID-19, all were eligible for a third dose of COVID-19 vaccine and 100 (68%) had received a third dose.<sup>1</sup>
- Seventy two were aged care residents. Nineteen of these people died in hospital and 53 died at an aged care facility.
- Six of the deaths occurred at home. Of these, one was diagnosed after death.
- Five people aged under 65 years died with COVID-19. All five had records of significant underlying health conditions that increase the risk of severe disease from COVID-19.
  - 4 had received two doses of vaccine.
  - 1 was not vaccinated.
- Reported deaths were classified as COVID-19 deaths if they met the surveillance definition in the Communicable Diseases Network of Australia's COVID-19 National Guidelines for Public Health Units. Under this definition, deaths are considered COVID-19 deaths for surveillance purposes if the person died with COVID-19, not necessarily because COVID-19 was the cause of death. Deaths may be excluded if there was a clear alternative cause of death that was unrelated to COVID-19 (e.g. major trauma).
- COVID-19 related deaths are notified to NSW Health from a range of sources, including public and private hospitals, aged care facilities, and the Coroner. Not all deaths reported by NSW Health occurred in the week in which they are reported as there is sometimes a delay between a death occurring and it being reported to NSW Health. NSW Health does not report deaths under investigation by the Coroner until the Coroner issues their findings on the cause of death.

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<sup>1</sup> The Australian Technical Advisory Group on Immunisation (ATAGI) recommends that everyone aged 16 years and over has three doses of a COVID-19 vaccine, with an additional winter dose recommended for other people at increased risk of severe illness.

## Notifications of COVID-19 and Influenza

**Table 2. Notifications of COVID-19 and Influenza, by gender, age group, Local Health District, NSW, reported in the week ending 23 July 2022**

	Week ending 23 July 2022		Year total	
	COVID-19	Influenza	COVID-19*	Influenza
<b>Gender</b>				
Female	49,352 (52.9%)	898 (54.3%)	1,381,608 (52.4%)	57,507 (52.6%)
Male	43,773 (46.9%)	754 (45.6%)	1,253,098 (47.5%)	51,676 (47.3%)
Not stated / inadequately described	139 (0.1%)	2 (0.1%)	3,778 (0.1%)	153 (0.1%)
Transgender	1 (0.0%)	0 (0.0%)	4 (0.0%)	0 (0.0%)
<b>Age group (years)</b>				
0-4	3,907 (4.2%)	290 (17.5%)	121,738 (4.6%)	15,339 (14.0%)
5-9	4,134 (4.4%)	171 (10.3%)	173,143 (6.6%)	18,767 (17.2%)
10-19	8,575 (9.2%)	172 (10.4%)	384,815 (14.6%)	20,844 (19.1%)
20-29	13,908 (14.9%)	232 (14.0%)	433,913 (16.4%)	12,861 (11.8%)
30-39	16,349 (17.5%)	275 (16.6%)	461,319 (17.5%)	15,261 (14.0%)
40-49	13,746 (14.7%)	177 (10.7%)	390,554 (14.8%)	10,559 (9.7%)
50-59	13,281 (14.2%)	114 (6.9%)	299,705 (11.4%)	6,336 (5.8%)
50-69	9,854 (10.6%)	100 (6.0%)	204,453 (7.7%)	4,669 (4.3%)
70-79	5,755 (6.2%)	78 (4.7%)	109,292 (4.1%)	2,855 (2.6%)
80-89	2,680 (2.9%)	29 (1.8%)	45,227 (1.7%)	1,381 (1.3%)
90+	1,035 (1.1%)	16 (1.0%)	14,150 (0.5%)	452 (0.4%)
<b>Local Health District of residence<sup>#</sup></b>				
Central Coast	3,385 (3.7%)	68 (4.1%)	114,710 (4.4%)	7,058 (6.5%)
Illawarra Shoalhaven	5,805 (6.3%)	165 (10.0%)	146,996 (5.6%)	6,062 (5.5%)
Nepean Blue Mountains	4,612 (5.0%)	82 (5.0%)	131,500 (5.0%)	6,120 (5.6%)
Northern Sydney	12,108 (13.1%)	198 (12.0%)	313,940 (12.0%)	11,389 (10.4%)
South Eastern Sydney	9,567 (10.4%)	129 (7.8%)	302,699 (11.6%)	11,450 (10.5%)
South Western Sydney	10,663 (11.6%)	174 (10.5%)	322,211 (12.3%)	16,334 (14.9%)
Sydney	7,402 (8.0%)	76 (4.6%)	225,225 (8.6%)	6,915 (6.3%)
Western Sydney	12,366 (13.4%)	162 (9.8%)	350,108 (13.4%)	16,035 (14.7%)
Far West	434 (0.5%)	1 (0.1%)	8,957 (0.3%)	256 (0.2%)
Hunter New England	11,832 (12.8%)	295 (17.8%)	312,786 (12.0%)	13,941 (12.8%)
Mid North Coast	2,261 (2.5%)	42 (2.5%)	58,987 (2.3%)	1,576 (1.4%)
Murrumbidgee	3,062 (3.3%)	40 (2.4%)	89,444 (3.4%)	3,085 (2.8%)
Northern NSW	2,837 (3.1%)	52 (3.1%)	78,093 (3.0%)	2,163 (2.0%)
Southern NSW	2,518 (2.7%)	58 (3.5%)	64,860 (2.5%)	1,817 (1.7%)
Western NSW	3,349 (3.6%)	103 (6.2%)	90,975 (3.5%)	4,820 (4.4%)
<b>Aboriginal status<sup>^</sup></b>				
Aboriginal and/or Torres Strait Islander	3,182 (3.4%)	77 (4.7%)	94,803 (3.6%)	3,545 (3.2%)
Not Aboriginal or Torres Strait Islander	76,622 (82.2%)	745 (45.0%)	2,128,863 (80.7%)	51,292 (46.9%)
Not Stated / Unknown	13,461 (14.4%)	832 (50.3%)	414,822 (15.7%)	54,499 (49.8%)
<b>Total</b>	<b>93,265 (100%)</b>	<b>1,654 (100%)</b>	<b>2,638,488 (100%)</b>	<b>109,336 (100%)</b>

\*Excludes 180,433 positive RATs registered up to 19 January 2022 for whom demographic information is not available.

#Excludes cases in correctional settings

^Aboriginal status is reported by COVID-19 cases when completing their RAT registration or responding to a short text message survey sent to cases detected by PCR. Not all cases respond to the question. For influenza cases, Aboriginal status is only known if it is collected and reported by the laboratory, which is not routine.

Figure 4. People notified with COVID-19, by date of test and type of test performed, NSW, 1 January to 23 July 2022

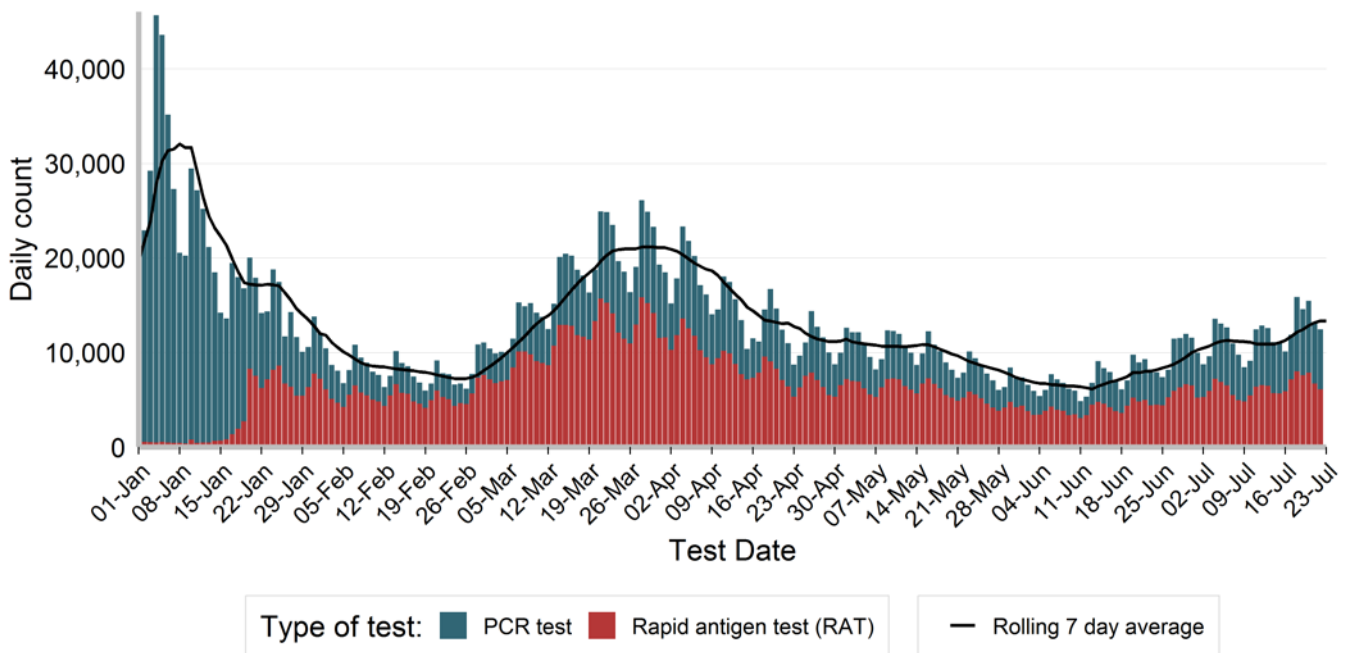
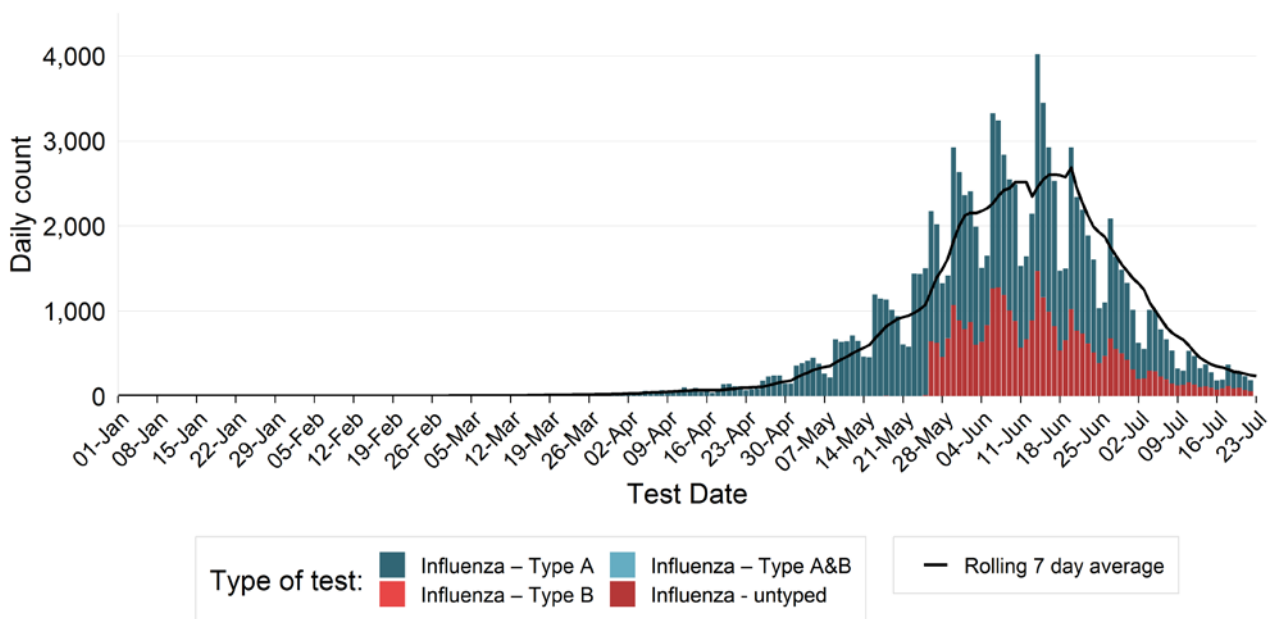
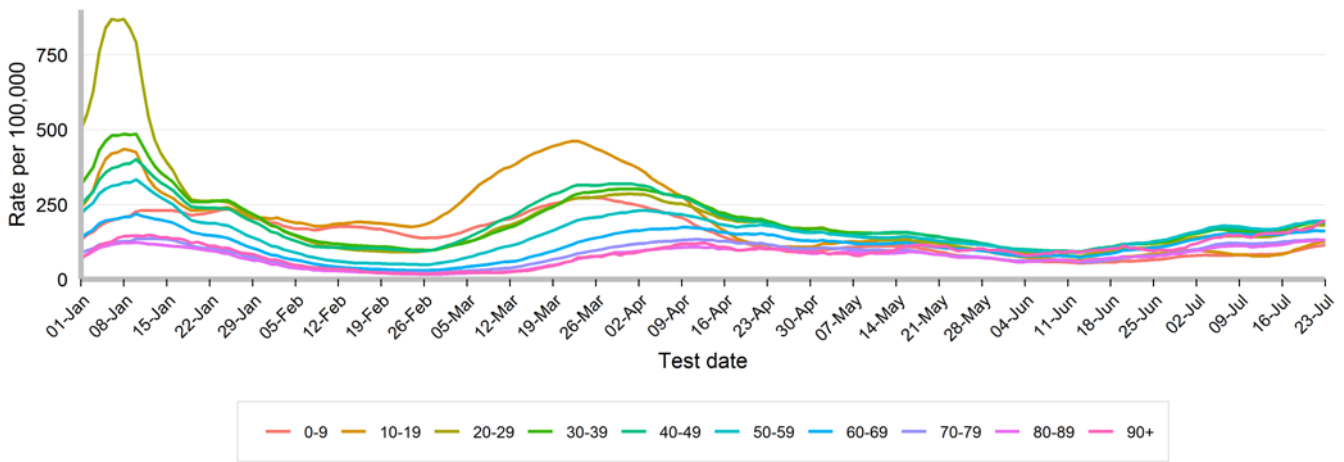


Figure 5. People notified with influenza, by date of test and virus type, NSW, 1 January to 23 July 2022

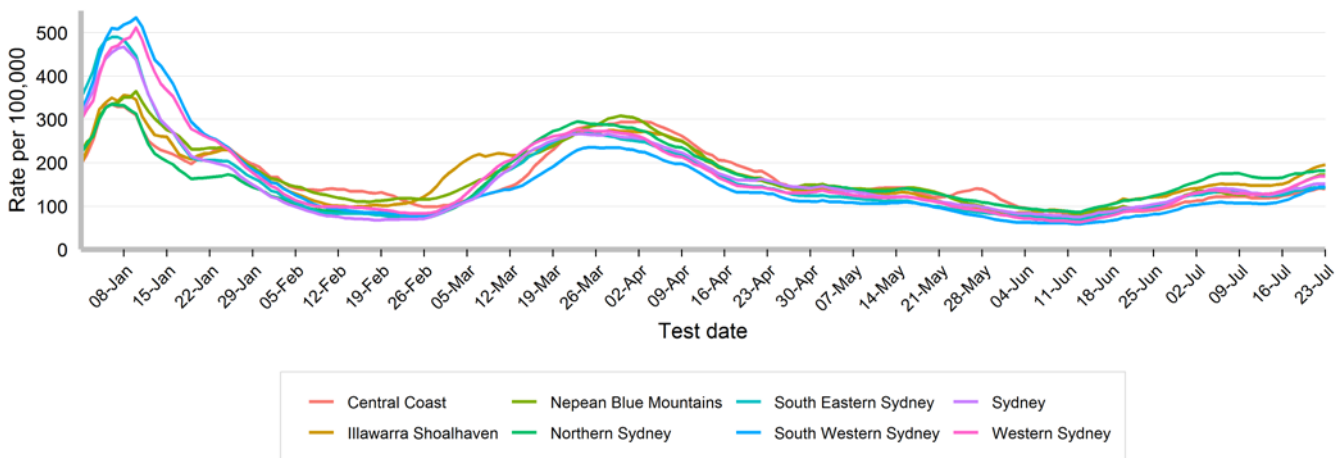


- There were 93,265 people diagnosed with COVID-19 this week, an increase of 18% since the previous week.
- There were 1,654 people diagnosed with influenza this week, a decrease of 33% since the previous week.

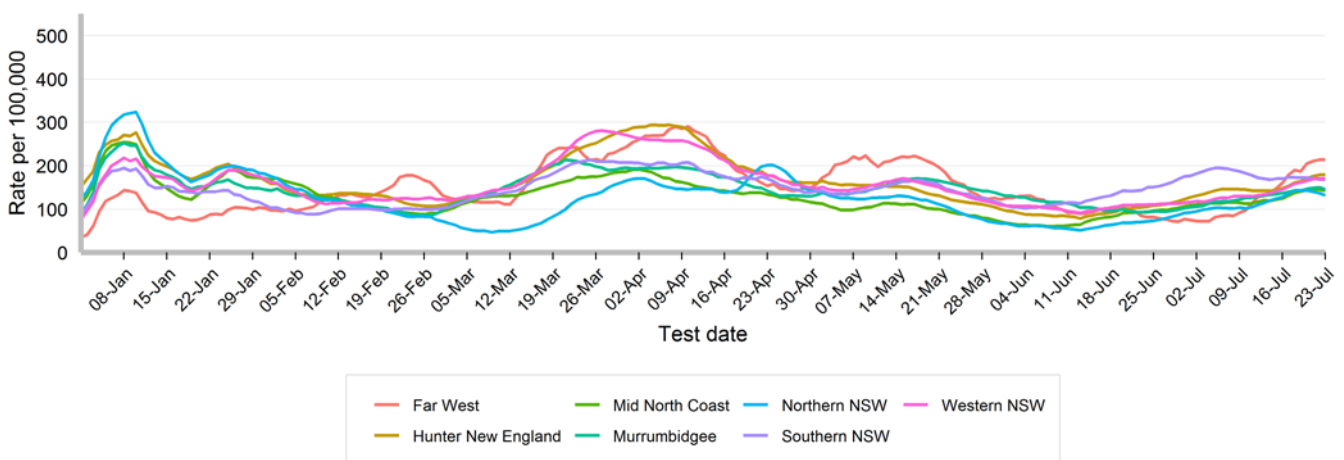
**Figure 6. Daily seven-day rolling average rate of COVID-19 notifications per 100,000 population, by age group and test date, NSW, 1 January to 23 July 2022**



**Figure 7. Daily seven-day rolling average rate of COVID-19 notifications per 100,000 population, by metropolitan Local Health District and test date, NSW, 1 January to 23 July 2022**



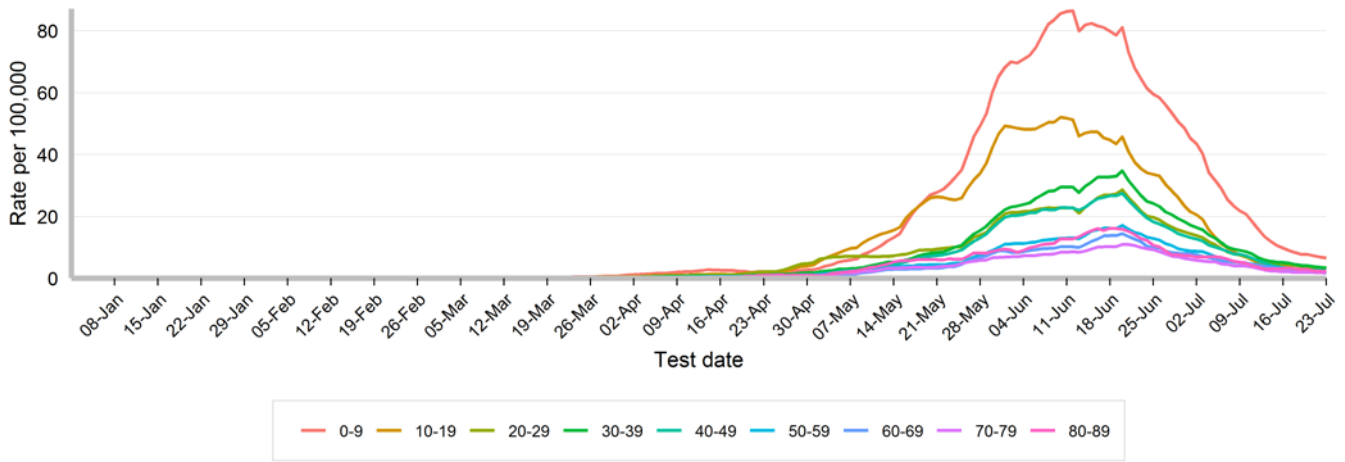
**Figure 8. Daily seven-day rolling average rate of COVID-19 notifications per 100,000 population, by rural and regional Local Health District and test date, NSW, 1 January to 23 July 2022**



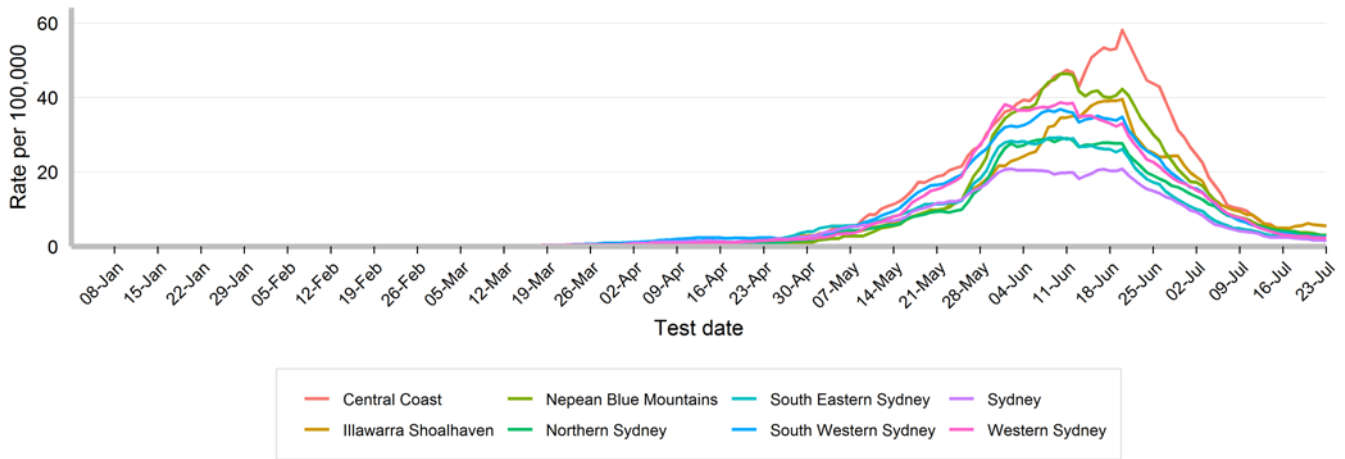
- The rate of COVID-19 notifications per 100,000 population has been increasing across all Local Health Districts.
- The rate of COVID-19 notifications per 100,000 population has been increasing in all age groups with the greatest increase in those aged 90 and over and those aged 20 years of age.



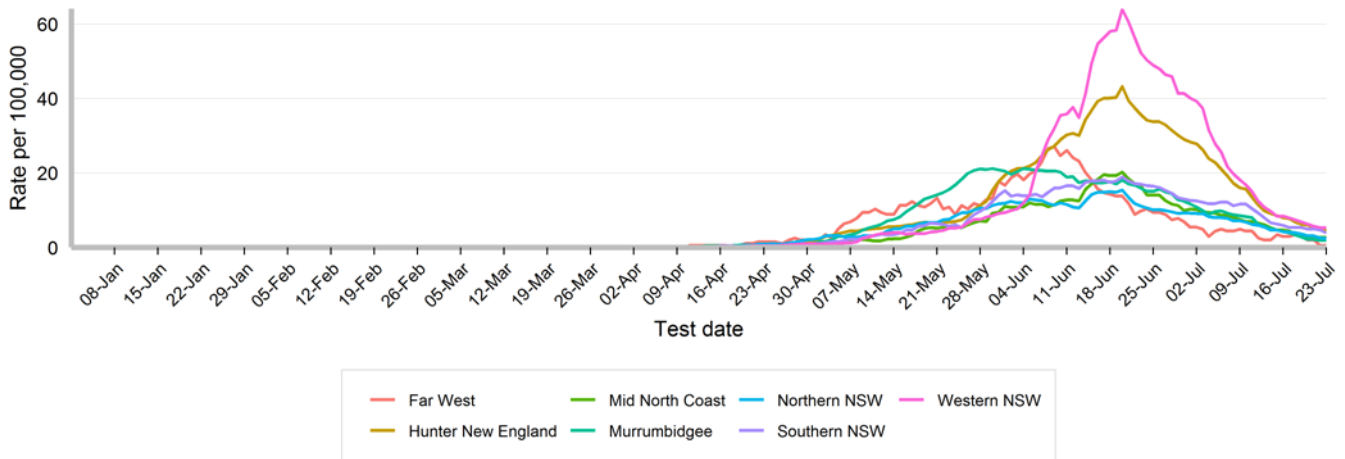
**Figure 9. Daily seven-day rolling average rate of influenza notifications per 100,000 population, by age group and test date, NSW, 1 January to 23 July 2022**



**Figure 10. Daily seven-day rolling average rate of influenza notifications per 100,000 population, by metropolitan Local Health District and test date, NSW, 1 January to 23 July 2022**



**Figure 11. Daily seven-day rolling average rate of influenza notifications per 100,000 population, by rural and regional Local Health District and test date, NSW, 1 January to 23 July 2022**



- The rate of influenza notifications per 100,000 population has been decreasing across all Local Health Districts and across all age groups.

## Emergency department and community surveillance

### Public Health Rapid, Emergency, Disease and Syndromic Surveillance (PHREDSS) system

The NSW Public Health Rapid, Emergency, Disease and Syndromic Surveillance (PHREDSS) system provides daily monitoring of most unplanned presentations to NSW public hospital emergency departments (EDs) and all emergency Triple Zero (000) calls to NSW Ambulance. Emergency hospital presentations and ambulance calls are grouped into related acute illness and injury categories.

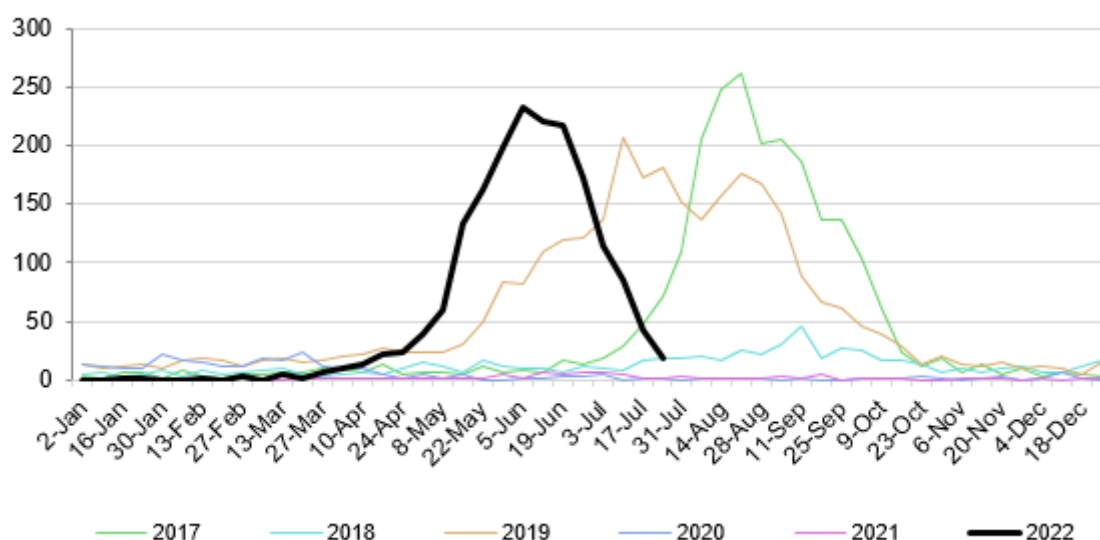
The number of presentations and calls in each category is monitored over time to quickly identify unusual patterns of illness. Unusual patterns could signify an emerging outbreak of disease or issue of public health importance in the population. PHREDSS is also useful for monitoring the impact of seasonal and known disease outbreaks, such as seasonal influenza or gastroenteritis, on the NSW population.

The 88 NSW public hospital EDs used in PHREDSS surveillance account for 95% of all ED activity in NSW public hospitals in 2020-2021, including most major metropolitan public hospitals (99%) and rural public hospitals (89%).

The emergency department '*influenza-like illness*' surveillance syndrome includes provisional diagnoses of ILI, influenza, including pneumonia with influenza and avian and other new influenza viruses. Influenza-like illness does not include COVID-19. The number of emergency department presentations for ILI reflects only a fraction of the impact of influenza on emergency departments but it is a useful marker of seasonal timing and trends. The number of presenting patients requiring an admission also provides an indication of severity.

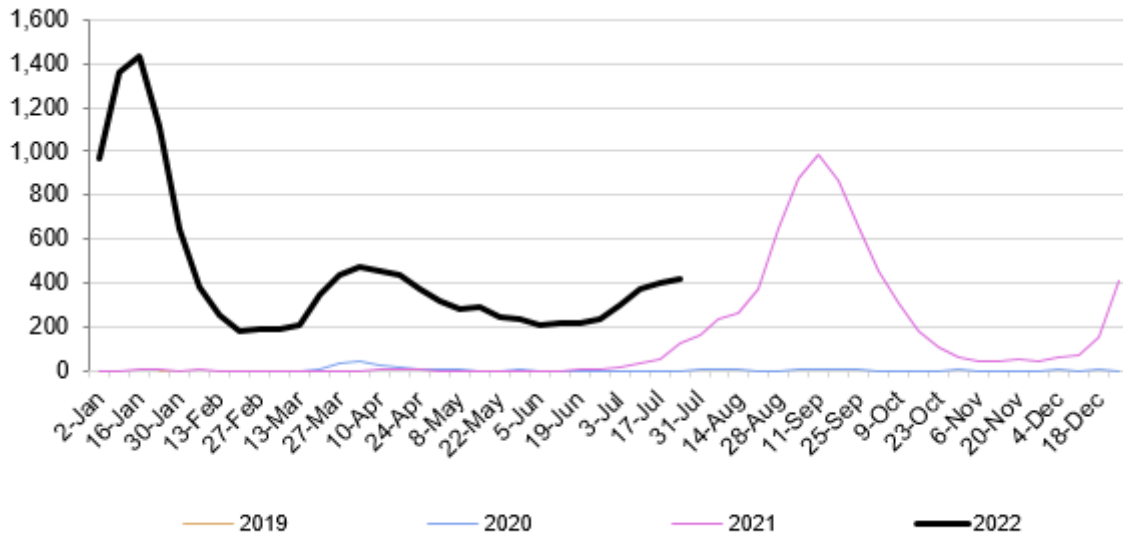
The emergency department '*coronaviruses/SARS*' surveillance syndrome includes provisional diagnoses (SNOMEDCT and ICD-10-AM codes) for coronavirus infections SARS, MERS, COVID-19 or other coronaviruses, or clinical condition of Severe Acute Respiratory Syndrome (SARS). It excludes testing and suspected coronavirus codes. There are no IDC-9 codes for COVID-19, so COVID-19 ED presentations at Albury Hospital will be mapped to the fever/unspecified infection surveillance syndrome. A person with COVID-19 may be admitted for reasons other than COVID-19, and of this the number of admissions from ED with a diagnosis of coronaviruses/SARS will be less than the number of confirmed cases of COVID-19 who are in hospital.

**Figure 12. Weekly counts of unplanned emergency department (ED) presentations for '*influenza-like illness*', that were admitted, for 2022 (black line), compared with the previous five years (coloured lines), persons of all ages, 88 NSW hospitals**



Emergency department presentations for '*influenza-like illness*' (ILI) requiring an admission have decreased to 18 compared to 43 admissions in the previous week. This represents 11% of all ILI emergency department presentations this week, which is a slight decrease from 17% in the previous week.

**Figure 13. Weekly counts of unplanned emergency department (ED) presentations for ‘coronaviruses/SARS’, that were admitted, for 2022 (black line), compared with the previous two years (coloured lines), persons of all ages, 88 NSW hospitals**



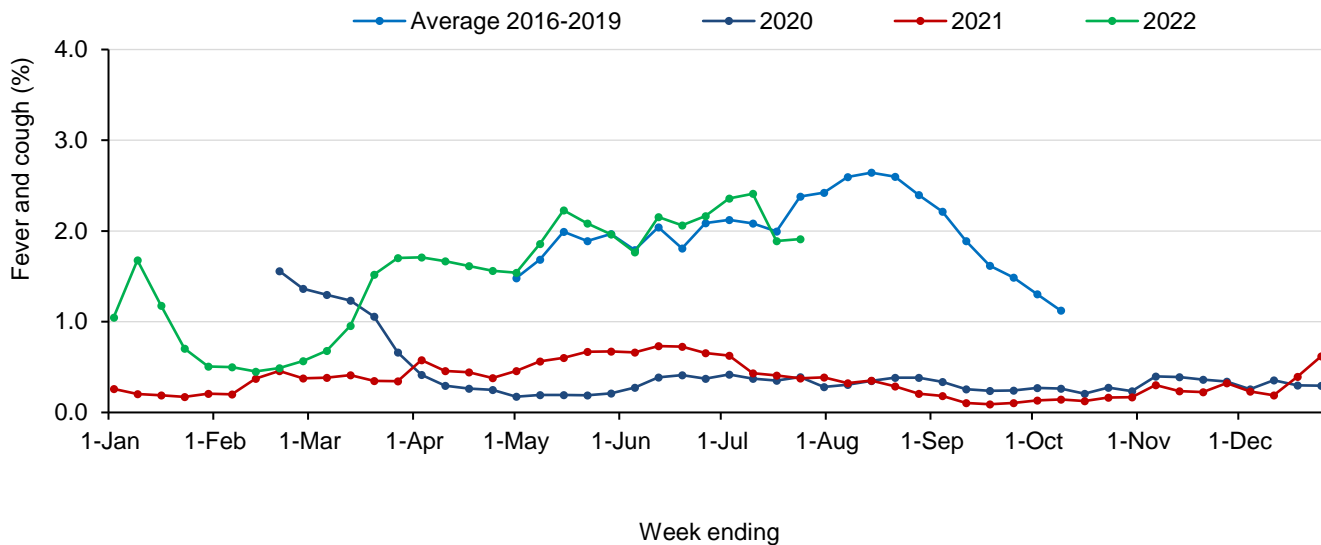
- Emergency department presentations for coronaviruses/SARS requiring an admission have increased to 421 from 398 admissions in the previous week.

Epidemiological week 29, ending 23 July 2022

## FluTracking

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/>

**Figure 14. Proportion of FluTracking participants reporting influenza-like illness, NSW, 1 January to 23 July 2022.**

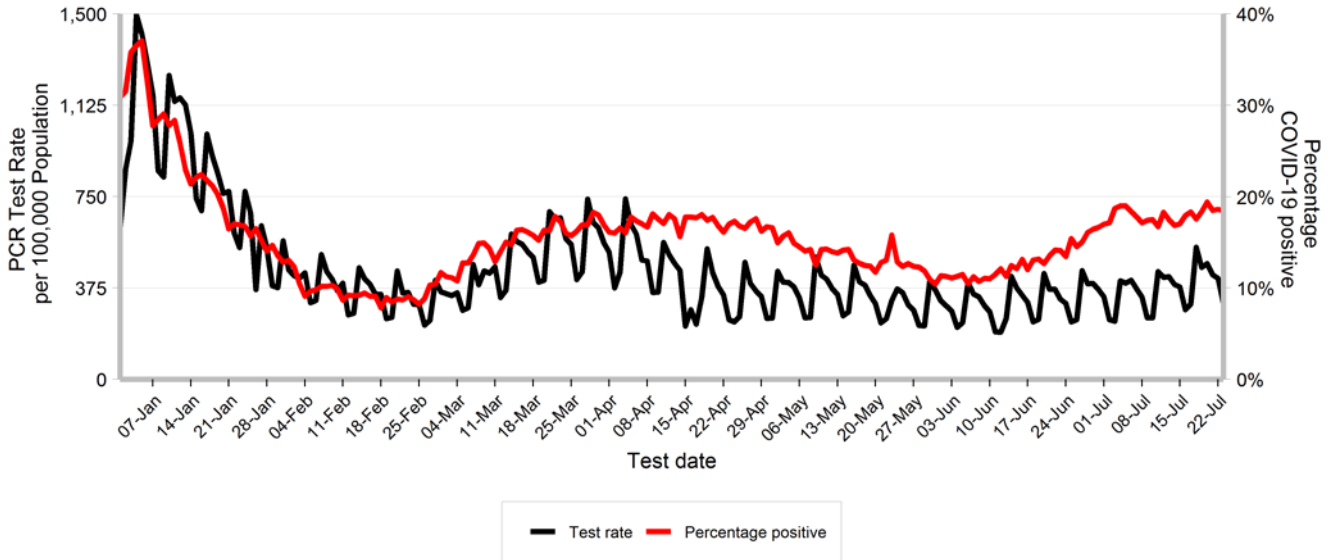


- The proportion of FluTracking participants reporting influenza-like illness remained stable this week.
- Additional FluTracking reports are available at: <https://info.flutracking.net/reports-2/australia-reports/>

## LABORATORY SURVEILLANCE

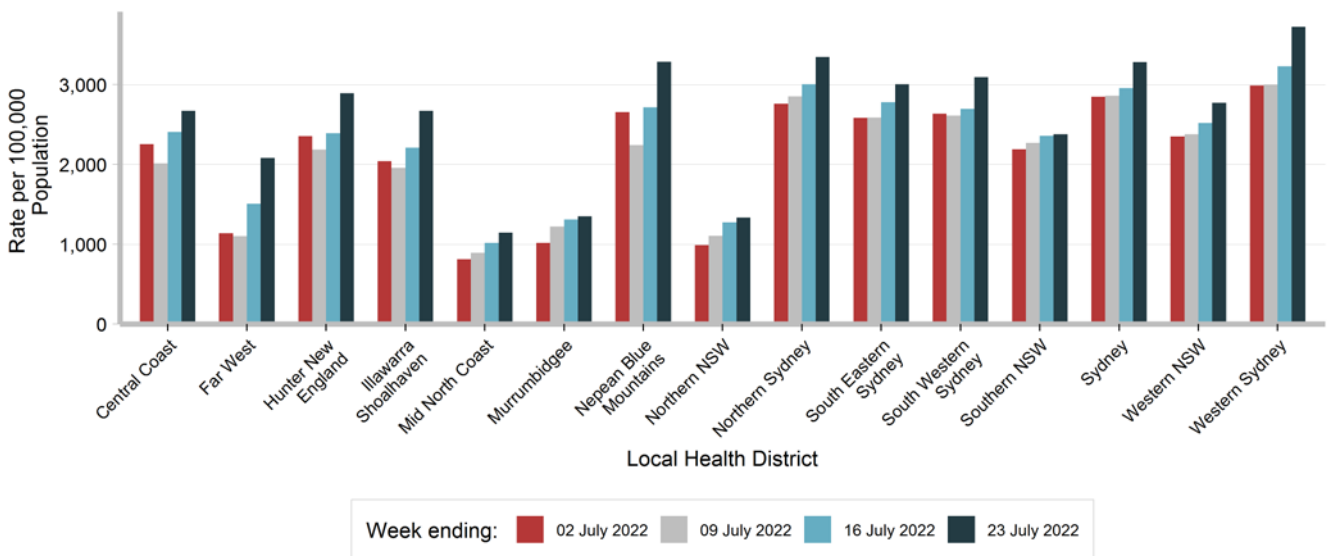
### COVID-19 PCR testing

Figure 15. Rate of PCR tests for COVID-19 per 100,000 population per day, and percentage of PCR tests which were positive for COVID-19, by test date, NSW, 1 January to 23 July 2022



- There were 247,985 PCR tests reported this week. This is a 13% increase compared to 219,463 PCR tests reported in the previous week.
- The percentage of PCR tests that were positive for COVID-19 has increased to 19% compared to 18% at the end of the previous week admissions by the end of this week.

Figure 16. Rate of PCR tests for COVID-19 per 100,000 population by Local Health District and test date, NSW, in the four weeks to 23 July 2022



## COVID-19 Whole Genome Sequencing

Whole genome sequencing (WGS) is a laboratory procedure that identifies the genetic profile of an organism. WGS can help understand how a virus transmits, responds to vaccination and the severity of disease it may cause. It can also help to monitor the spread of the virus by identifying specimens that have are genomically similar. WGS has been used in NSW since the start of the COVID-19 pandemic to inform epidemiological investigations, and to monitor for and analyse the behaviour of new SARS-CoV-2 variants circulating in the community. WGS is conducted at three NSW reference laboratories. Prior to August 2021, low community transmission meant that most positive specimens were able to be sequenced. However, since that time high case numbers have required prioritisation of specimens for sequencing.

Specimens from people with COVID-19 who are admitted to hospital, or an ICU are prioritised to identify and understand variants with increased disease severity. Specimens from overseas arrivals are also prioritised to monitor for the introduction of new variants into the community. This is not a random sample, therefore the proportion of sequences identified is not necessarily reflective of their distribution in the community. There is a lag between the date a PCR test is taken and the date that the results of WGS are reported, therefore the count of sequences for recent dates will increase over time.

### Variants of Concern

- Like all viruses, the SARS-CoV-2 virus changes over time. The World Health Organization monitors these changes and classifies variants according to the risk that they pose to global public health. Those that they identify as having changes that increase transmissibility, increase virulence, or decrease the effectiveness of vaccines or treatments are designated as variants of concern (VOCs).

**Table 3. Variants of concern (VOCs) identified by whole genome sequencing (WGS) of virus from people who tested positive for SARS CoV-2 by PCR, by test date, NSW, in the four weeks to 16 July 2022**

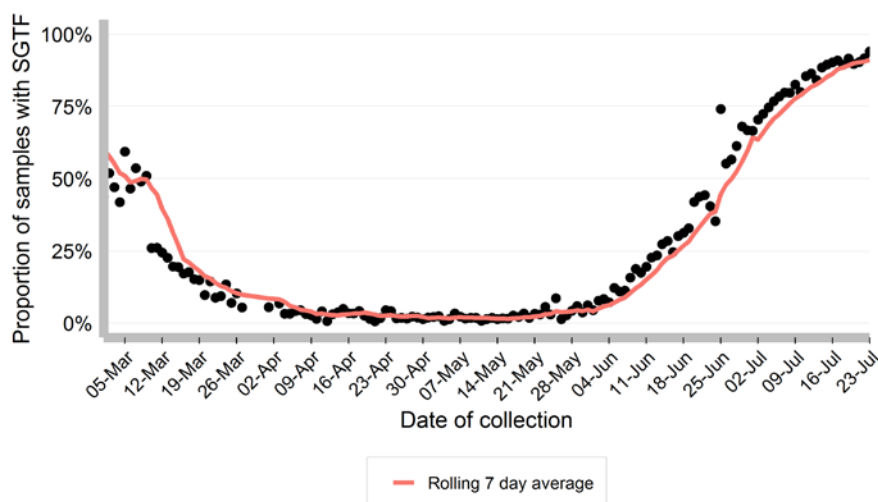
Variant	Week ending			
	25 June	02 July	09 July	16 July
Omicron (BA.2)	198 (28.1%)	199 (24.3%)	122 (16.8%)	39 (8.9%)
Omicron (BA.2.12.1)	63 (8.9%)	41 (5%)	35 (4.8%)	8 (1.8%)
Omicron (BA.2.75)	0 (0%)	1 (0.1%)	4 (0.6%)	4 (0.2%)
Omicron (BA.4)	80 (11.3%)	102 (12.4%)	82 (11.3%)	48 (11%)
Omicron (BA.5)	360 (51.1%)	472 (57.6%)	482 (66.4%)	339 (77.4%)
Recombinant (XAG)	1 (0.1%)	0 (0%)	0 (0%)	0 (0%)
Dual infection	0 (0%)	2 (0.2%)	0 (0%)	0 (0%)
Total	705	820	726	438

- The Omicron variant is currently the dominant COVID-19 variant circulating in the NSW community. Most recent specimens have been identified as the BA.2 subvariant, however the proportion of specimens identified as BA.4 and BA.5 has been increasing in recent weeks, with BA.5 increasing more than BA.4.

### S Gene detection as a proxy for the BA.2 omicron subvariant

- The BA.1, BA.4 and BA.5 subvariant of the Omicron variant have a mutation that results in a failure of certain PCR test platforms to detect the S gene. This mutation is typically not present in the BA.2 subvariant, and therefore the detection of an S gene can be used as a proxy to estimate the prevalence of BA.2 in the community.
- A PCR testing platform used by a large private pathology provider in NSW can routinely report on detection of the S gene in a specimen positive for SARS-CoV-2. Around 6% of SARS-CoV-2 positive specimens currently have an S gene detected. This indicates that the BA.2 subvariant likely makes up around 6% of the SARS-CoV-2 detected in NSW. The S gene failure specimens have been prioritised for WGS, with the majority of these now being identified as BA.4 and BA.5, rather than BA.1.

Figure 17. Proportion of samples with S gene target failure (SGTF), 1 March 2022 to 23 July 2022



### Reported SARS-CoV-2 reinfections

The Communicable Diseases Network of Australia (CDNA) currently defines a SARS-CoV-2 reinfection as anyone who has a confirmed or probable infection more than 4 weeks after being released from isolation from their first infection. As the COVID-19 isolation period is typically 7 days, re-infection has been defined as notification of a positive test 36 days or more after the first positive test. All people with a first infection in January 2022 were checked for subsequent notifications at three time periods over five months to calculate the proportion of people reinfected. It is estimated that of the 639,430 people who were infected for the first time January 2022, 20,460 (3.2%) were infected again within 150 days. The likelihood of reinfection will be influenced by the characteristics of the variants and subvariants particularly their ability to escape immunity, the immune profile of the community and the level of infection in the community

Month of initial infection	Number of cases	Number of reported reinfections*		
		Within 90 days	Within 120 days	Within 150 days
January	639,430	10,846 (1.7%)	16,207 (2.5%)	20,460 (3.2%)

\*reinfection must be at least 36 days after the initial infection, periods are cumulative meaning that those within 150 days also includes those with 120 and 90 days.

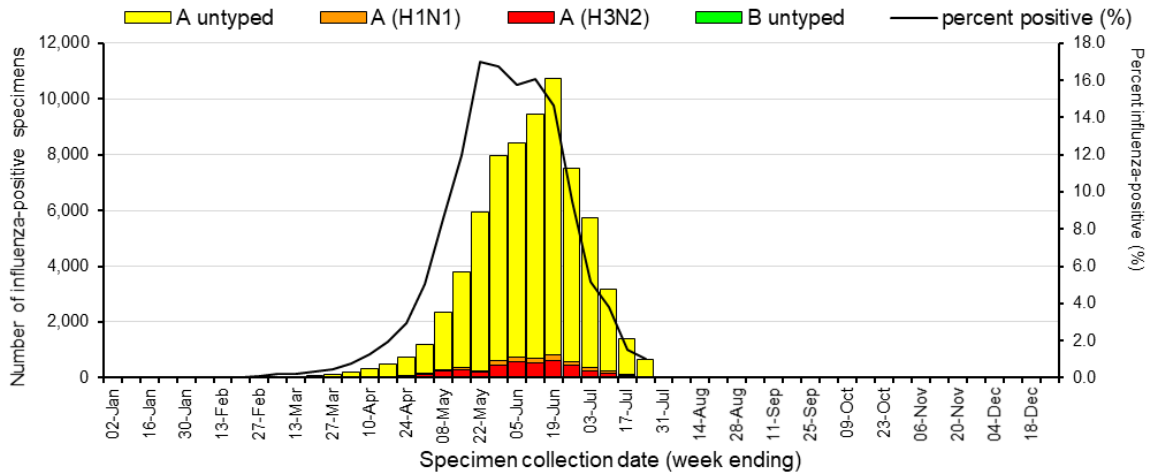
The following limitations need to be considered when interpreting this data:

- Reinfections have been determined by matching name and date of birth, which can sometimes be inaccurate.
- If a person is not tested then a reinfection will not be reported.
- Some people (particularly those who are immunocompromised) can continue to test positive for a considerable time after their initial infection despite not acquiring a new infection. These people may be incorrectly included as having a reinfection.
- This data covers a period where the subvariants of COVID-19 in the community were changing. The risk of reinfection for a person is influenced by the subvariant, and the timing and sequence of prior infections as well as their vaccination history.

### Influenza and other respiratory viruses

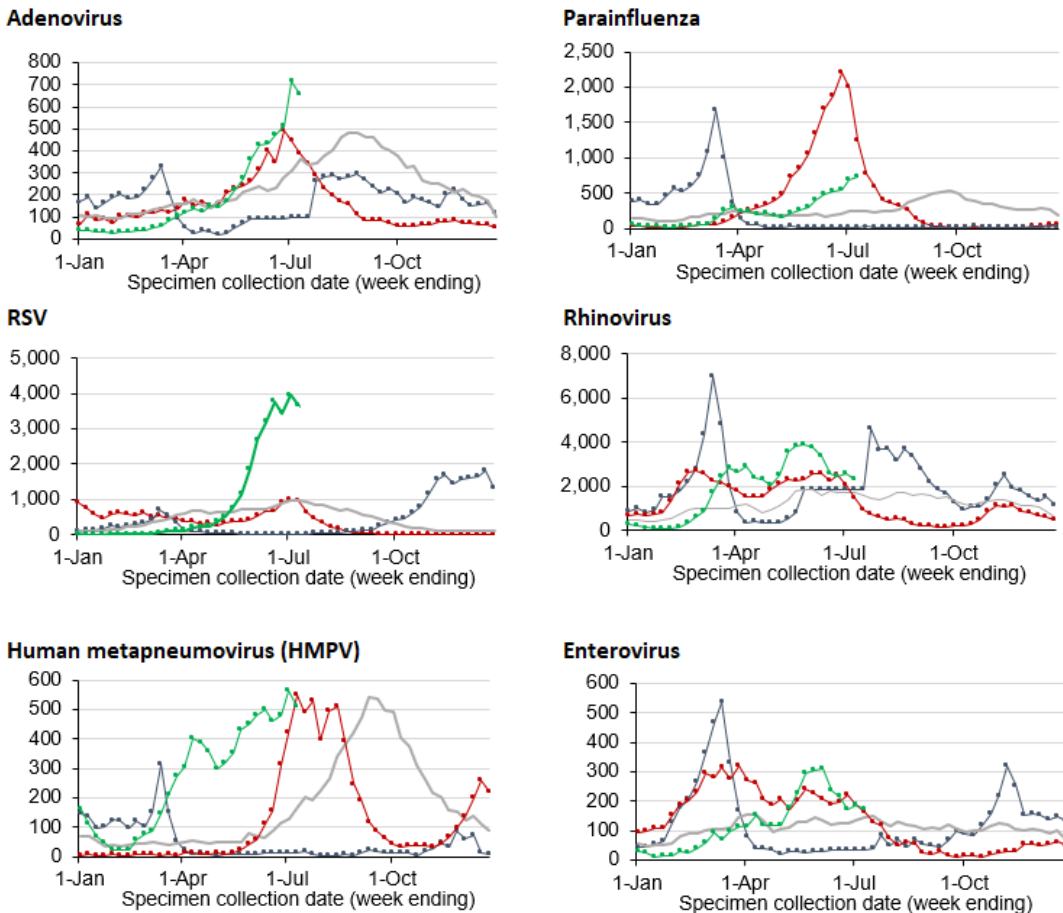
The NSW sentinel laboratory network comprises of 13 public and private laboratories throughout NSW who provide additional data on positive and negative test results. This helps us to understand which respiratory viruses are circulating as well as how much

**Figure 18. Number and proportion of tests positive for influenza at sentinel NSW laboratories, 1 January to 24 July 2022**



- Of the 66,317 tests conducted for influenza, the proportion positive has decreased to 1% from 2% in the previous week.

**Figure 19. Number of positive PCR test results for other respiratory viruses at sentinel NSW laboratories, 1 January to 24 July 2022.**





**Table 4. Total number of respiratory disease notifications from sentinel laboratories, NSW in the four weeks to 24 July 2022**

	Week ending				Year to date
	03 July	10 July	17 July	24 July*	
Adenovirus	716	656	745	659	6,902
Respiratory syncytial virus (RSV)	3,949	3,652	3,589	2,644	32,724
Rhinovirus	2,566	2,330	2,267	2,487	57,312
Human metapneumovirus (HMPV)	566	509	470	412	8,307
Enterovirus	186	172	176	118	3,779
Number of PCR tests conducted	111,243	83,168	91,903	66,317	1,069,000

\*Recent data is subject to change. For the week ending 24 July 2022, 9 out of 13 sentinel laboratories have provided testing data at the time of reporting.

## Data sources

The NSW Respiratory Surveillance Report consolidates data from a range of sources to provide an understanding of what is happening in the community. This data includes laboratory results, hospital administrative data, emergency department syndromic surveillance, death registrations and community surveys.