

NSW Respiratory Surveillance Report – two weeks ending 31 December 2022

Note: This report contains data for weeks ending 24 and 31 December 2022.

COVID-19 Summary

- Key indicators for transmission under current settings, including PCR positivity, hospital admissions and admissions from emergency departments are declining.
- There is still a highly mixed group of sub-variants circulating, the BR.2 sub variant is the most common. NSW Health continues to monitor emerging sub-variants including XBB.1.5, of which there have been a small number of detections in the two weeks to 24 December 2022.
- There were 59,652 people diagnosed with COVID-19 in the two weeks to 31 December 2022. COVID-19 cases for week ending 31 December (22,281) decreased 40% compared to the previous week (37,371). PCR testing for COVID-19 has decreased by 42% for week ending 31 December (64,840) compared to the previous week (112,509). The proportion of PCR tests that were positive for COVID-19 has decreased from 20% to 16%.
- The seven-day rolling average of daily hospital admissions decreased to an average of 113 admissions by the end of this week, compared with 141 admissions at the end of the previous week. There were 1779 people with COVID-19 admitted to hospital and 140 people admitted to ICU in the two weeks to 31 December 2022.
- Emergency department presentations for coronaviruses requiring an admission decreased to 482 in week ending 1 January from 562 admissions in the previous week.
- There were 95 COVID-19 deaths reported in the two weeks to 31 December 2022. Of these, 16 (17%) had not received three doses of vaccine. Seven deaths were in people aged under 65 years. Deaths may not have occurred in the week in which they were reported and there may be delays in death registrations due to the holiday period.

Other respiratory viruses summary

- Influenza activity is currently at low levels but shows signs of increasing with PCR positivity around 1% for tests reported by the NSW sentinel laboratory network. Influenza activity in the northern hemisphere remains high and vaccination continues to be recommended.

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. Data in this report are collected for surveillance purposes and are indicative of trends. Data should not be compared between reports as data for previous weeks are updated when new information becomes available.

Future changes

The following changes will be implemented for the weekly report in 2023:

- Vaccination status of cases admitted to hospital, admitted to ICU and those who die will no longer be reported. These data were included from 2021 when vaccines were first rolled out to monitor trends in the relationship between vaccination and outcomes. With most of the population having received at least two doses of vaccine and there being differences in timings of booster dosing across different age groups, the trends between vaccines and outcomes cannot be interpreted using these data.
- We will continue to work closely with the National Centre for Immunisation Research and Surveillance to determine local estimates of vaccine effectiveness through formal data linkage processes and analyses which account for age, previous infection, underlying illness and other factors that impact on these measures.
- Figure 3 will be removed from the weekly respiratory surveillance report. The Agency for Clinical Innovation will continue to report on healthcare setting data.
- Figure 11 will be removed from the weekly respiratory surveillance report. The proportion of S gene target detections is included in Figure 12.

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 70 per cent of people eligible for their third dose have received it. With such high vaccination coverage in the community, a high 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 more likely to suffer severe 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, 01 July to 31 December 2022

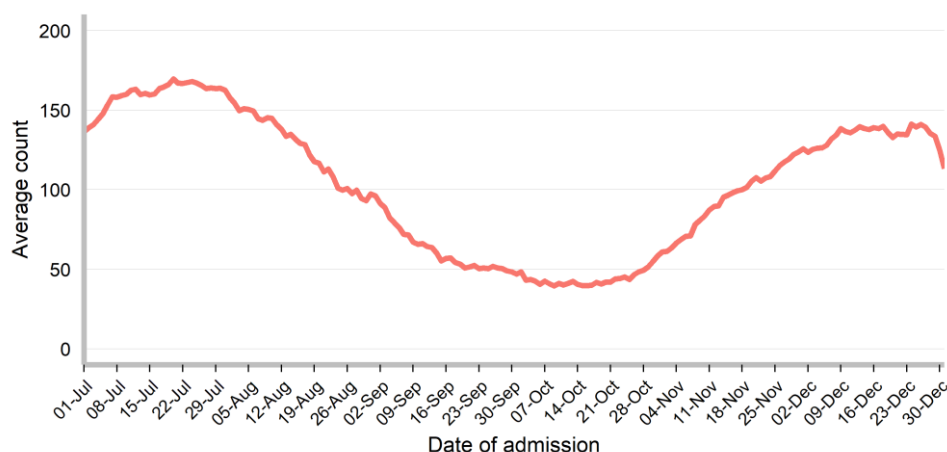


Figure 2. Daily seven-day rolling average of people with COVID-19 admitted to intensive care units, NSW, 01 July to 31 December 2022

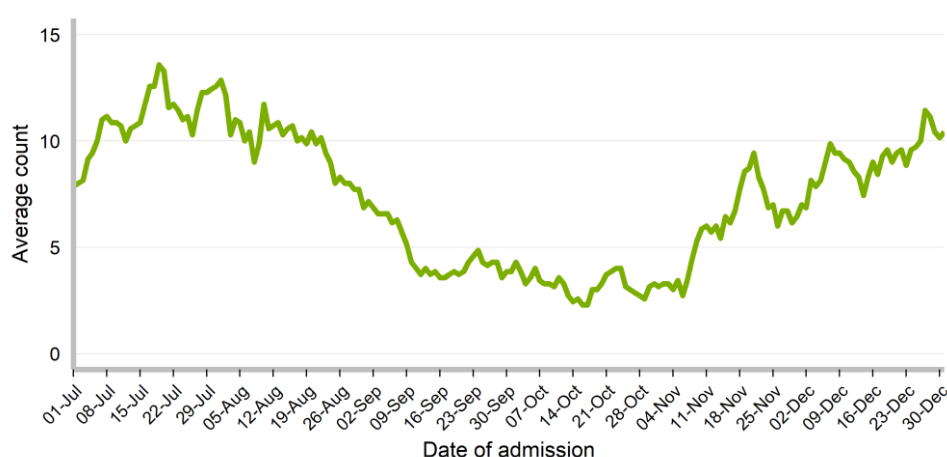
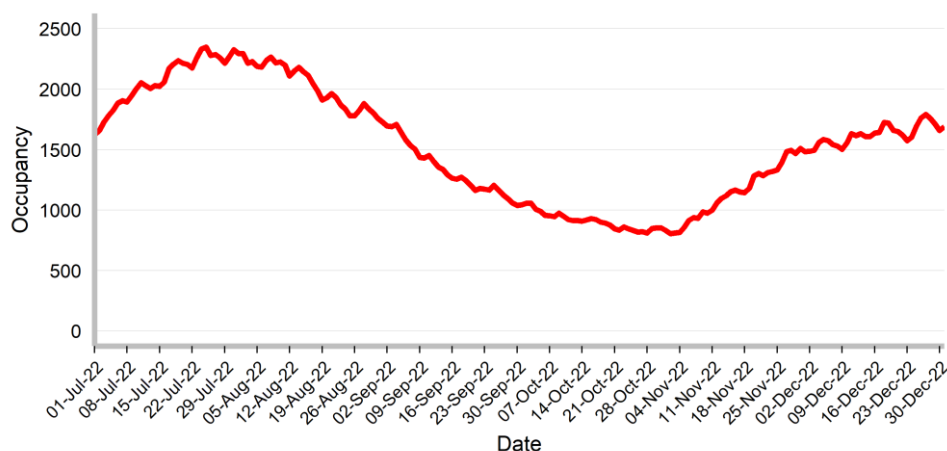


Figure 3. Number of people in hospital with COVID-19 by day, NSW, 01 July to 31 December 2022

- Hospital admissions in people with COVID-19 have decreased in the last week. ICU admissions for people with COVID-19 have increased in the last week
- One thousand, seven hundred seventy nine 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 113 admissions by the end of this week, compared with 141 admissions at the end of the previous week.
- One hundred forty people diagnosed with COVID-19 were admitted to ICU. The seven-day rolling average of daily ICU admissions was 10 by the end of this week, the same as at the end of the previous week.
- The number of people in hospital with COVID-19 has increased to 1,690 at the end of this week compared to 1,602 at the end of last week.

Epidemiological weeks 51 and 52, ending 31 December 2022

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 two weeks ending 31 December 2022

	Admitted to hospital (but not to ICU)	Admitted to ICU	Deaths
Gender			
Female	842	63	42
Indeterminate	1	0	0
Male	936	77	53
Age group (years)			
0-9	85	3	0
10-19	24	3	0
20-29	67	8	1
30-39	79	7	0
40-49	64	6	0
50-59	105	17	3
60-69	199	27	8
70-79	436	42	19
80-89	507	24	31
90+	213	3	33
Local Health District of residence*			
Central Coast	113	3	5
Illawarra Shoalhaven	135	8	7
Nepean Blue Mountains	82	7	2
Northern Sydney	165	12	9
South Eastern Sydney	184	13	11
South Western Sydney	190	18	13
Sydney	157	10	5
Western Sydney	165	26	8
Far West	20	0	0
Hunter New England	176	16	16
Mid North Coast	76	5	3
Murrumbidgee	59	7	1
Northern NSW	77	3	8
Southern NSW	54	2	1
Western NSW	94	6	4
Vaccination status^			
Four or more doses	810	58	53
Three doses	377	29	19
Two doses	218	17	9
One dose	10	1	1
No dose	0	0	6
Unknown	364	35	7
Total	1779	140	95

*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 for vaccination status to be determined. People with unknown vaccination status were those unable to be found in AIR. This may occur when names in AIR are different, for example shortened name or different spelling, to those used for the COVID-19 notification.

- Of the 95 people who were reported to have died with COVID-19, 72 (76%) were known to have received three or more doses of a COVID-19 vaccine, while 9 had received two doses, 1 had received one dose and 6 had received no doses of a COVID-19 vaccine. The vaccination status of the remaining 7 were unable to be determined.¹
- Thirty one were aged care residents. Ten of these people died in hospital and 21 died at an aged care facility.
- Seven of the deaths occurred at home. Of these, seven were diagnosed with COVID-19 prior to death.
- Deaths are identified from the NSW Registry of Births Deaths and Marriages (BDM). If a person dies in NSW, their death must be registered under the Births, Deaths and Marriages Registration Act 1995 (Part 7). NSW Health receives a secure feed from the BDM on a daily basis under the Public Health Act 2010 (Part 129A). Seventy five percent of COVID-19 deaths in 2022 have been registered in less than four weeks of death. Deaths reported to a coroner will be registered with the BDM, however cause of death information may be delayed as it is not recorded until there is a coronial determination. Deaths may be excluded if there was a clear alternative cause of death that was unrelated to COVID-19 (e.g. major trauma).

¹ 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.

Epidemiological weeks 51 and 52, ending 31 December 2022

Notifications of COVID-19

Table 2. Notifications of COVID-19 by gender, age group, Local Health District, NSW, tested in the two weeks ending 31 December 2022

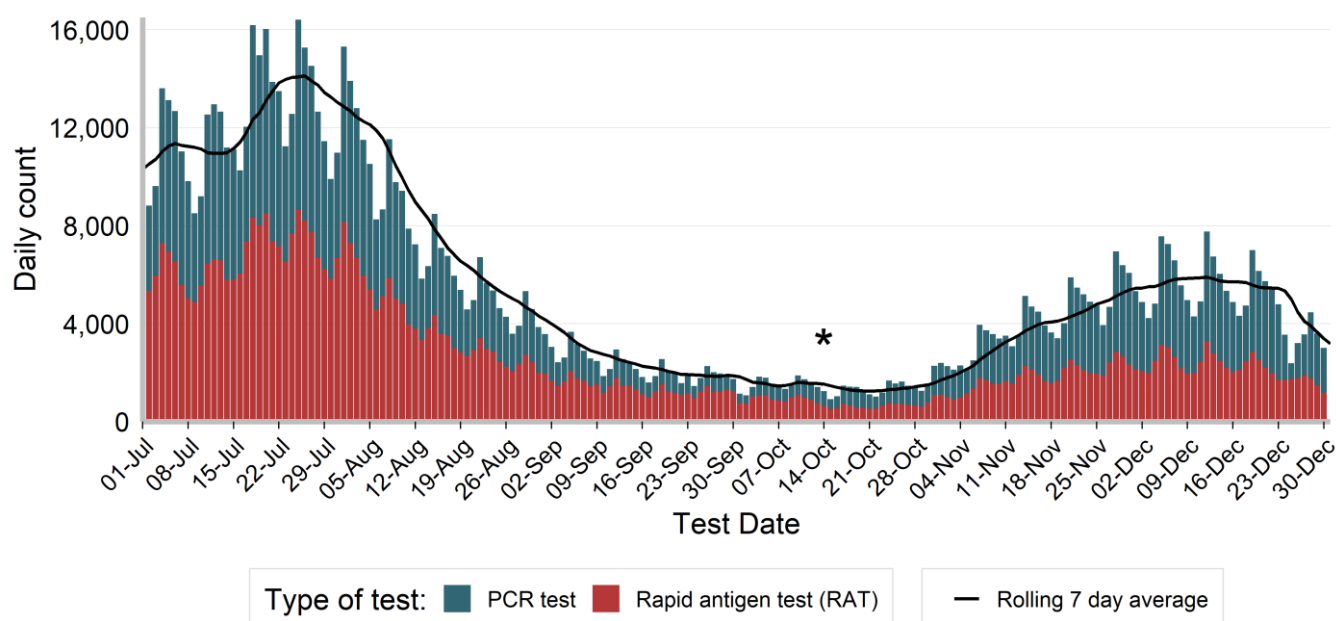
	Two weeks ending 31 December 2022			Year to date*
	PCR	RAT	Total	Total
Gender				
Female	19,281 (55.1%)	14,767 (60.0%)	34,048 (57.1%)	1,783,010 (52.9%)
Male	15,710 (44.9%)	9,831 (39.9%)	25,541 (42.8%)	1,581,376 (46.9%)
Not stated / inadequately described	33 (0.1%)	30 (0.1%)	63 (0.1%)	4,732 (0.1%)
Transgender	0 (0.0%)	0 (0.0%)	0 (0.0%)	9 (0.0%)
Age group (years)				
0-4	1,329 (3.8%)	610 (2.5%)	1,939 (3.3%)	148,616 (4.4%)
5-9	696 (2.0%)	620 (2.5%)	1,316 (2.2%)	203,886 (6.1%)
10-19	1,501 (4.3%)	1,676 (6.8%)	3,177 (5.3%)	455,230 (13.5%)
20-29	4,008 (11.4%)	2,907 (11.8%)	6,915 (11.6%)	538,605 (16.0%)
30-39	4,820 (13.8%)	3,978 (16.2%)	8,798 (14.8%)	582,582 (17.3%)
40-49	4,038 (11.5%)	4,057 (16.5%)	8,095 (13.6%)	494,881 (14.7%)
50-59	4,729 (13.5%)	3,767 (15.3%)	8,496 (14.2%)	395,297 (11.7%)
60-69	5,221 (14.9%)	3,395 (13.8%)	8,616 (14.4%)	285,720 (8.5%)
70-79	4,602 (13.1%)	2,486 (10.1%)	7,088 (11.9%)	167,437 (5.0%)
80-89	2,882 (8.2%)	914 (3.7%)	3,796 (6.4%)	73,198 (2.2%)
90+	1,193 (3.4%)	217 (0.9%)	1,410 (2.4%)	23,417 (0.7%)
Local Health District of residence[#]				
Central Coast	1,712 (5.0%)	1,552 (6.4%)	3,264 (5.6%)	148,865 (4.5%)
Illawarra Shoalhaven	2,518 (7.3%)	1,276 (5.3%)	3,794 (6.5%)	192,106 (5.8%)
Nepean Blue Mountains	1,820 (5.3%)	1,325 (5.5%)	3,145 (5.4%)	171,758 (5.2%)
Northern Sydney	4,536 (13.2%)	2,598 (10.7%)	7,134 (12.2%)	400,836 (12.0%)
South Eastern Sydney	4,064 (11.8%)	2,007 (8.3%)	6,071 (10.3%)	380,734 (11.4%)
South Western Sydney	3,972 (11.5%)	1,922 (7.9%)	5,894 (10.0%)	412,534 (12.4%)
Sydney	2,935 (8.5%)	1,592 (6.6%)	4,527 (7.7%)	283,585 (8.5%)
Western Sydney	5,104 (14.8%)	2,218 (9.1%)	7,322 (12.5%)	448,840 (13.5%)
Far West	71 (0.2%)	154 (0.6%)	225 (0.4%)	10,911 (0.3%)
Hunter New England	4,325 (12.6%)	4,252 (17.5%)	8,577 (14.6%)	406,804 (12.2%)
Mid North Coast	471 (1.4%)	1,140 (4.7%)	1,611 (2.7%)	76,119 (2.3%)
Murrumbidgee	436 (1.3%)	1,196 (4.9%)	1,632 (2.8%)	108,513 (3.3%)
Northern NSW	654 (1.9%)	869 (3.6%)	1,523 (2.6%)	96,352 (2.9%)
Southern NSW	514 (1.5%)	997 (4.1%)	1,511 (2.6%)	80,828 (2.4%)
Western NSW	1,310 (3.8%)	1,146 (4.7%)	2,456 (4.2%)	115,598 (3.5%)
Aboriginal status[^]				
Aboriginal and/or Torres Strait Islander	633 (1.8%)	955 (3.9%)	1,588 (2.7%)	124,349 (3.7%)
Not Aboriginal or Torres Strait Islander	19,307 (55.1%)	21,496 (87.3%)	40,803 (68.4%)	2,689,756 (79.8%)
Not Stated / Unknown	15,084 (43.1%)	2,177 (8.8%)	17,261 (28.9%)	555,022 (16.5%)
Total	35,024 (100%)	24,628 (100%)	59,652 (100%)	3,369,127 (100%)

*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.

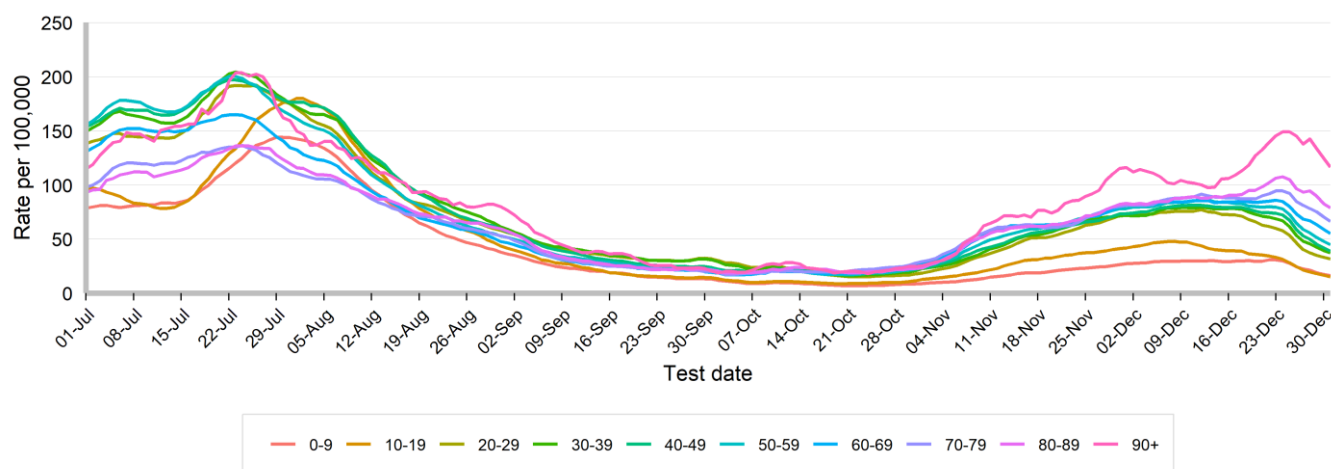
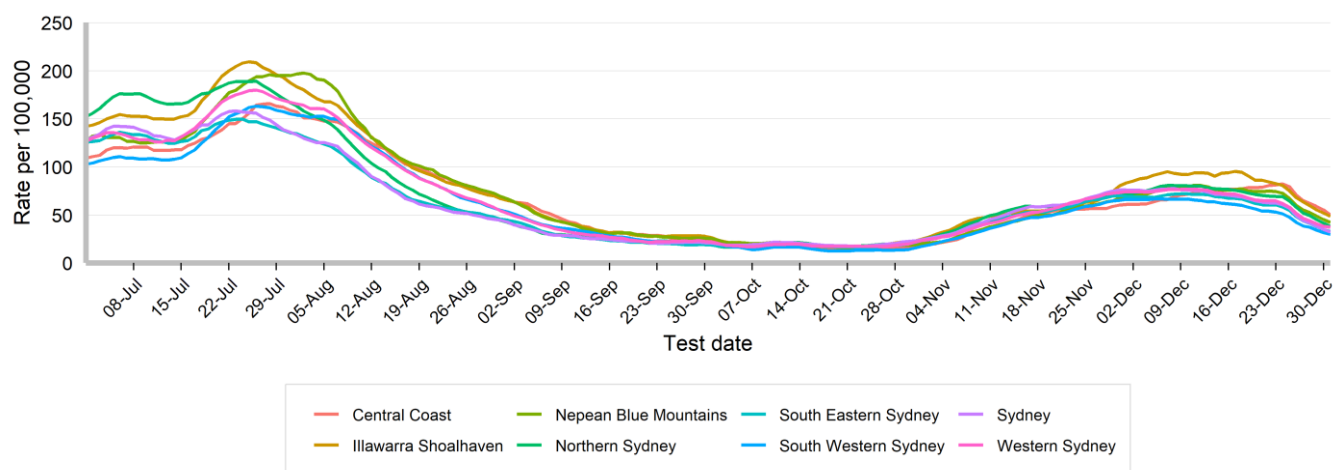
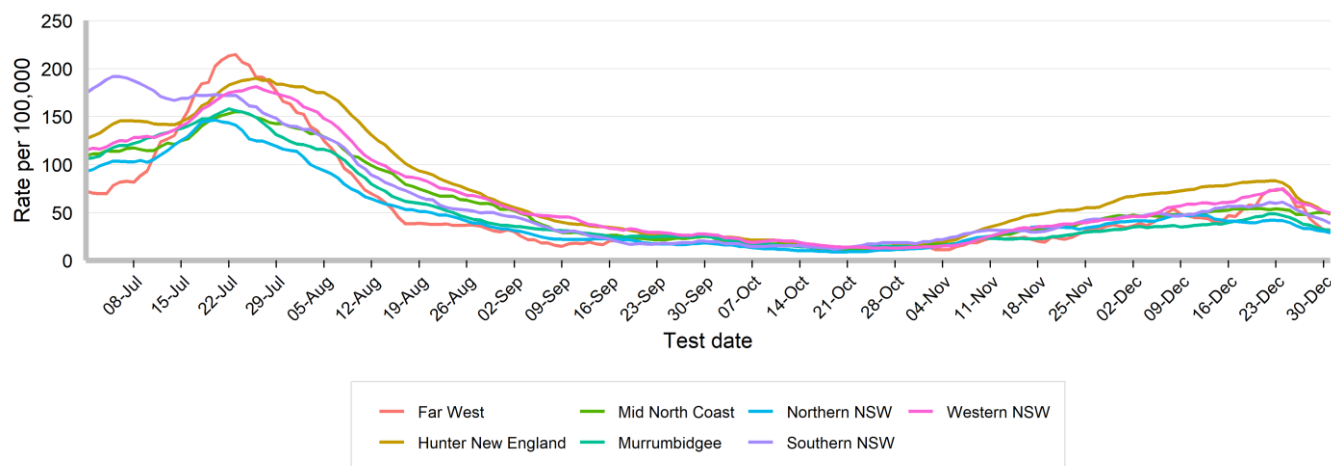
Epidemiological weeks 51 and 52, ending 31 December 2022

Figure 4. People notified with COVID-19, by date of test and type of test performed, NSW, 01 July to 31 December 2022

* from the 14th October RATS were no longer required to be notified

- There were 59,652 people diagnosed with COVID-19 in the two weeks to 31 December 2022. COVID-19 cases for week ending 31 December (22,281) decreased 40% compared to the previous week (37,371).
- On 14 October 2022 the mandatory reporting of positive rapid antigen tests in NSW was removed. PCR testing rates have almost halved from what they were at the beginning of the Omicron BA.4/5 wave in June-August 2022. The changes in COVID-19 testing and reporting means that notification numbers no longer reflect the level of community transmission in the same way as during the BA.4/5 wave.

Epidemiological weeks 51 and 52, ending 31 December 2022

Figure 5. Daily seven-day rolling average rate of COVID-19 notifications per 100,000 population, by age group and test date, NSW, 01 July to 31 December 2022**Figure 6. Daily seven-day rolling average rate of COVID-19 notifications per 100,000 population, by metropolitan Local Health District and test date, NSW, 01 July to 31 December 2022****Figure 7. 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, 01 July to 31 December 2022**

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.

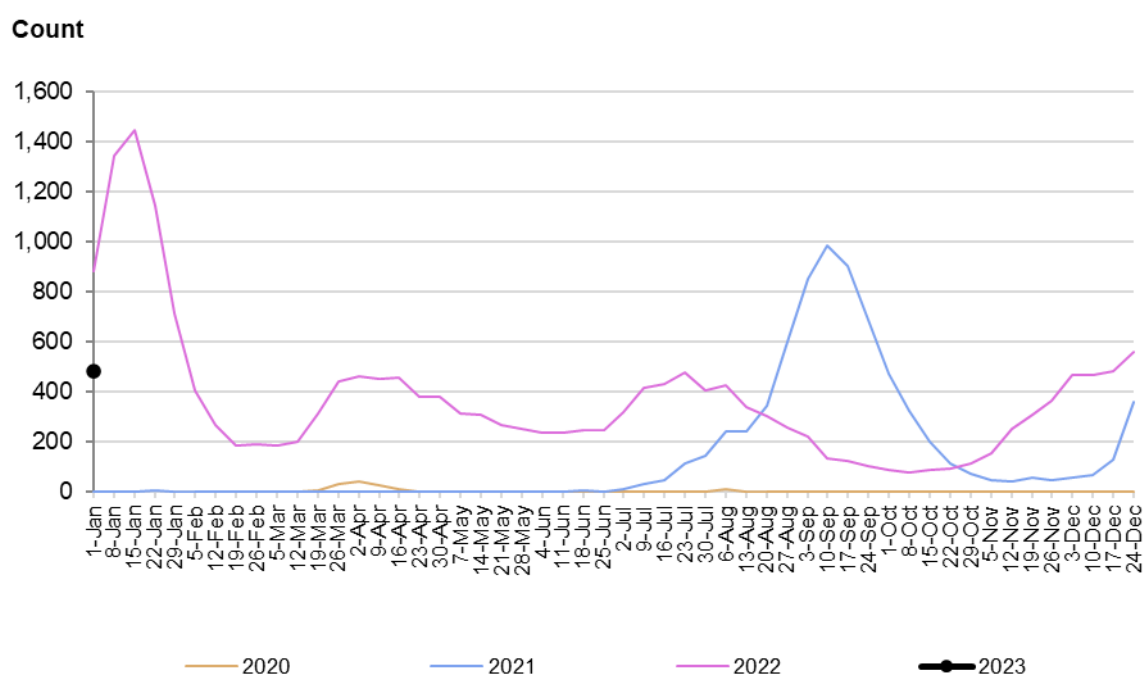
The number of presentations and calls in each category is monitored over time to quickly identify unusual patterns of illness. Unusual patterns could signify an emerging outbreak of disease or issue of public health importance in the population. PHREDSS is also useful for monitoring the impact of seasonal 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 8. 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



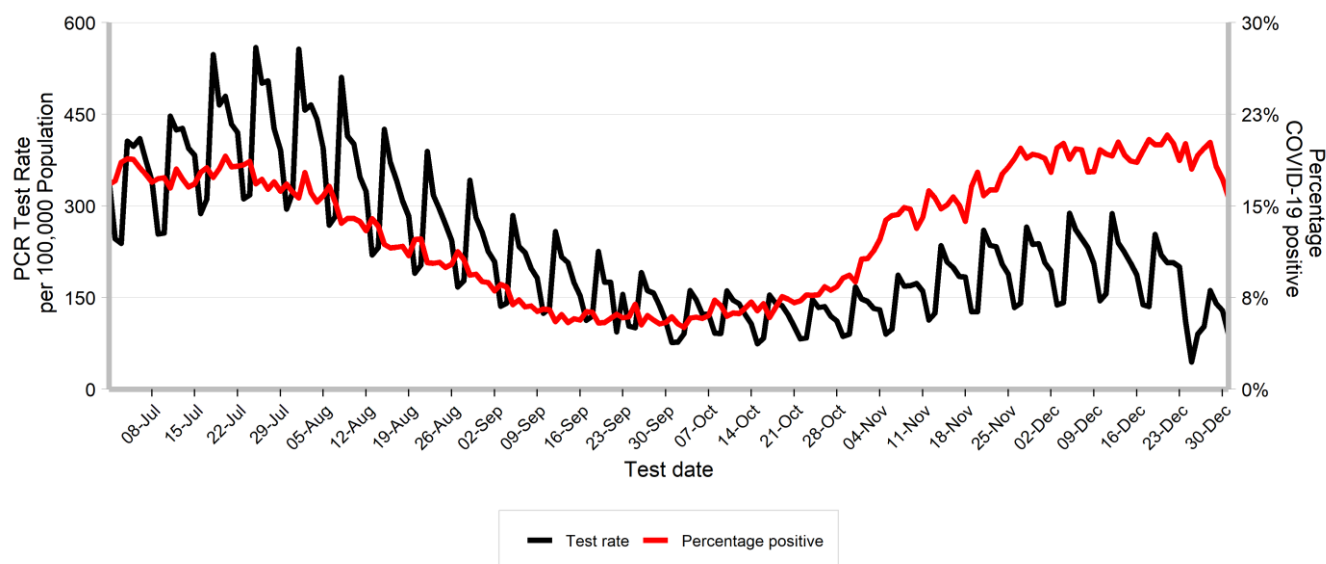
- Emergency department presentations for coronaviruses/SARS requiring an admission have decreased to 482 from 562 admissions in the previous week.

Epidemiological weeks 51 and 52, ending 31 December 2022

Laboratory Surveillance

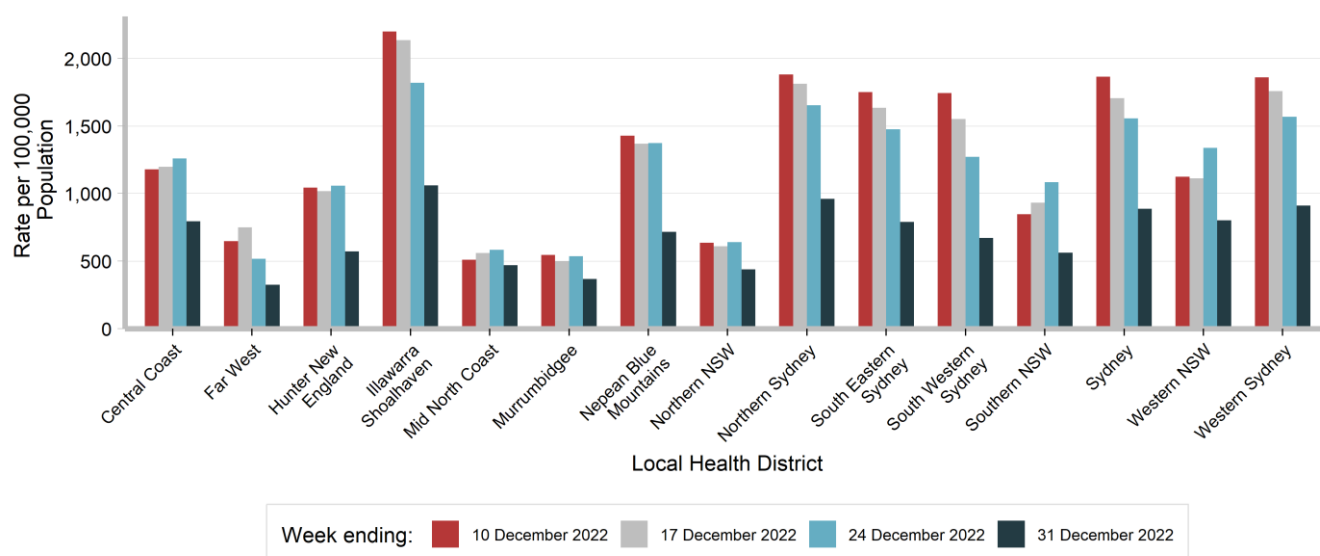
COVID-19 PCR testing

Figure 9. 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, 01 July to 31 December 2022



- There were 177,349 PCR tests reported in the two weeks to 31 December 2022. PCR tests for week ending 31 December (64,840) decreased 42.4% compared to the previous week (112,509).
- The percentage of PCR tests that were positive for COVID-19 has decreased to 15.7% compared to 20.1% at the end of the previous week.

Figure 10. Rate of PCR tests for COVID-19 per 100,000 population by Local Health District and test date, NSW, in the four weeks to 31 December 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 lineages 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 lineages 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 24 December 2022

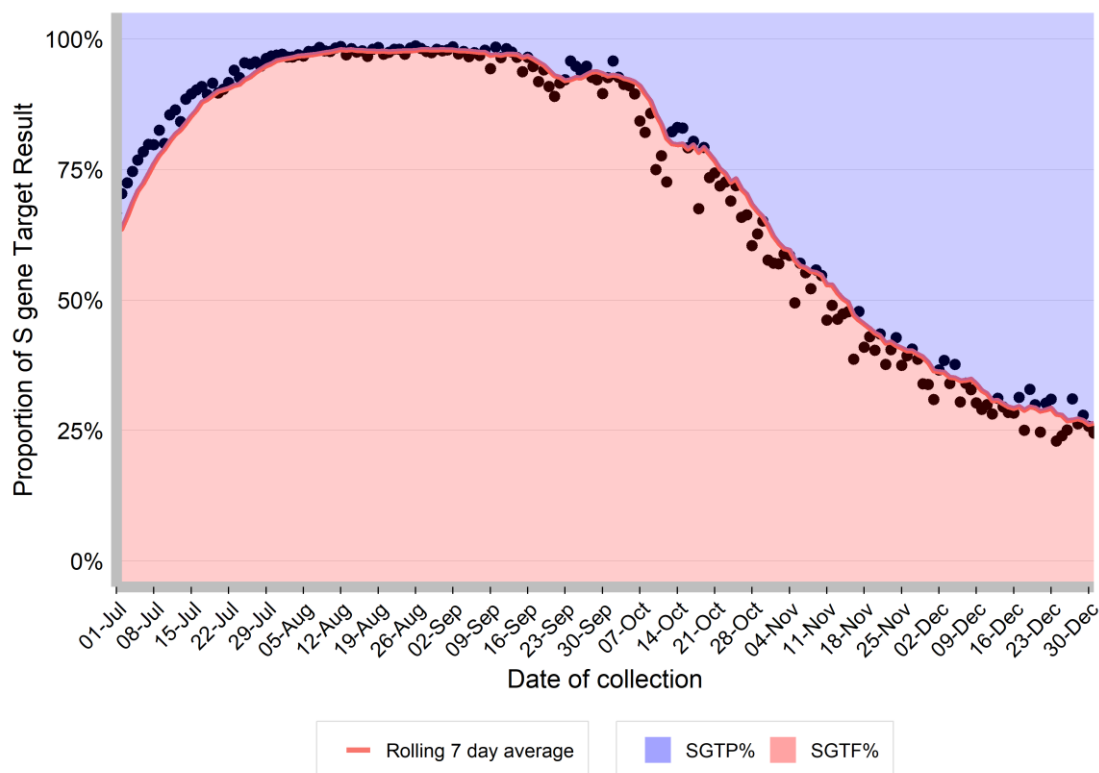
Variant	Week ending			
	03 December	10 December	17 December	24 December
Omicron (BA.2)	10 (1.5%)	11 (1.7%)	6 (1.5%)	4 (2.3%)
Omicron (BA.2.3.20)	0 (0%)	1 (0.2%)	0 (0%)	0 (0%)
Omicron (BA.2.75)	125 (18.7%)	85 (13%)	60 (14.7%)	27 (15.5%)
Omicron (BA.2.75.2)	3 (0.4%)	2 (0.3%)	1 (0.2%)	0 (0%)
Omicron (BA.4.6)	4 (0.6%)	1 (0.2%)	1 (0.2%)	0 (0%)
Omicron (BA.5)	84 (12.5%)	67 (10.2%)	37 (9%)	22 (12.6%)
Omicron (BQ.1)	69 (10.3%)	56 (8.5%)	41 (10%)	9 (5.2%)
Omicron (BQ.1.1)	87 (13%)	102 (15.6%)	53 (13%)	24 (13.8%)
Omicron (BR.2)	203 (30.3%)	227 (34.7%)	139 (34%)	56 (32.2%)
Recombinant (XAZ)	2 (0.3%)	0 (0%)	1 (0.2%)	0 (0%)
Recombinant (XBB)	33 (4.9%)	31 (4.7%)	21 (5.1%)	3 (1.7%)
Recombinant (XBB.1.5)	0 (0%)	0 (0%)	2 (0.5%)	2 (1.1%)
Recombinant (XBC)	9 (1.3%)	9 (1.4%)	6 (1.5%)	5 (2.9%)
Recombinant (XBF)	41 (6.1%)	62 (9.5%)	41 (10%)	22 (12.6%)
Recombinant (XAY)	0 (0%)	1 (0.2%)	0 (0%)	0 (0%)
Total	670	655	409	174

The BA.1, BA.4 and BA.5 lineages of the Omicron variant have a mutation that results in a failure of certain PCR test platforms to detect the S gene (SGTF). This mutation is typically not present in the BA.2 lineage, and therefore the detection of an S gene (SGTP) can be used as a proxy to estimate the prevalence of BA.2 and its sub-lineages in the community (Figure 11).

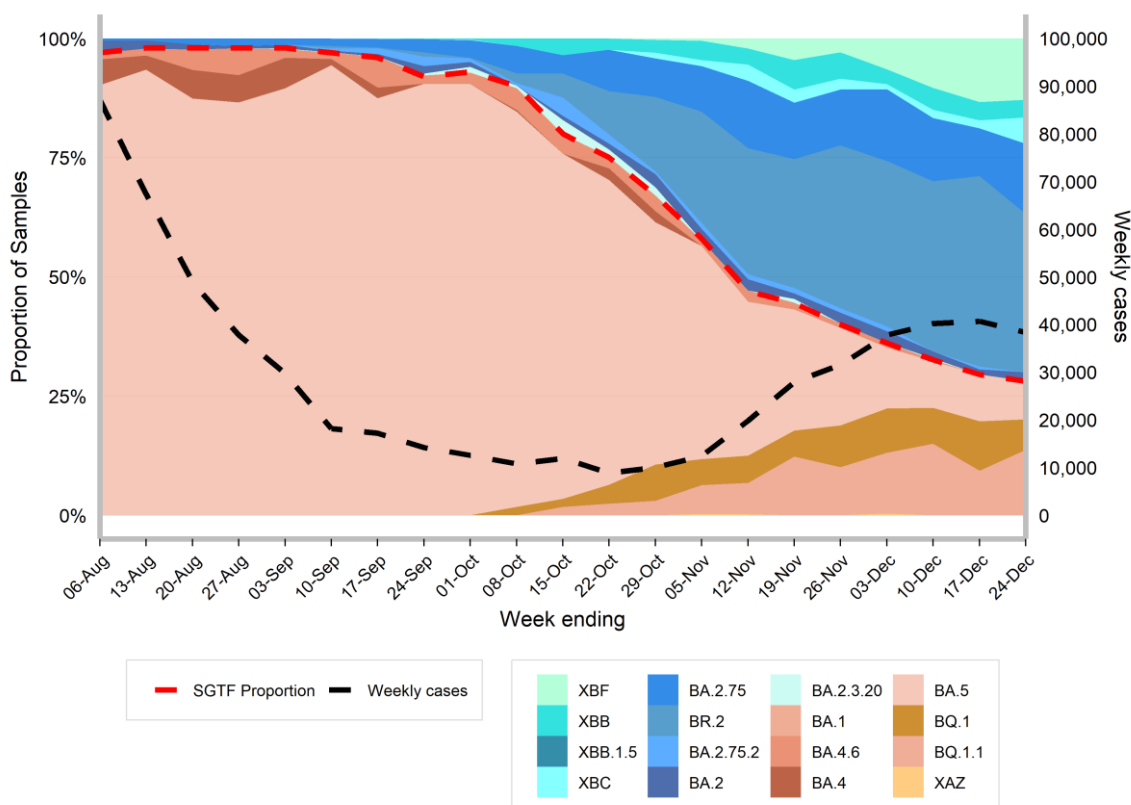
A PCR testing platform used by a large private pathology provider in NSW can routinely report on detection of the S gene in a specimen positive for SARS-CoV-2. Around 76% of SARS-CoV-2 positive specimens currently have an S gene detected (Figure 11). A sample of S gene detected specimens have been prioritised for WGS, with the majority of these now being identified as BA.2.75 and newly emerging recombinants including XBB.

Figure 12 shows the distribution of sub-lineages in the community estimated using the ratio of SGTP/SGTF (Figure 11). This figure provides an indication of the sub-lineages which may be circulating in the community. This sample does not include overseas arrivals, or tests taken from hospitalised cases.

Epidemiological weeks 51 and 52, ending 31 December 2022

Figure 11. Result of S gene target detection (percent positive (P) and negative(F)), 01 July to 31 December 2022

*SGTF is a failure to detect the presence of the S gene likely indicating a BA.1, BA.4 and BA.5 sub-lineage. SGTP is a positive detection of the presence of the S gene likely indicating a BA.2 sub-lineage.

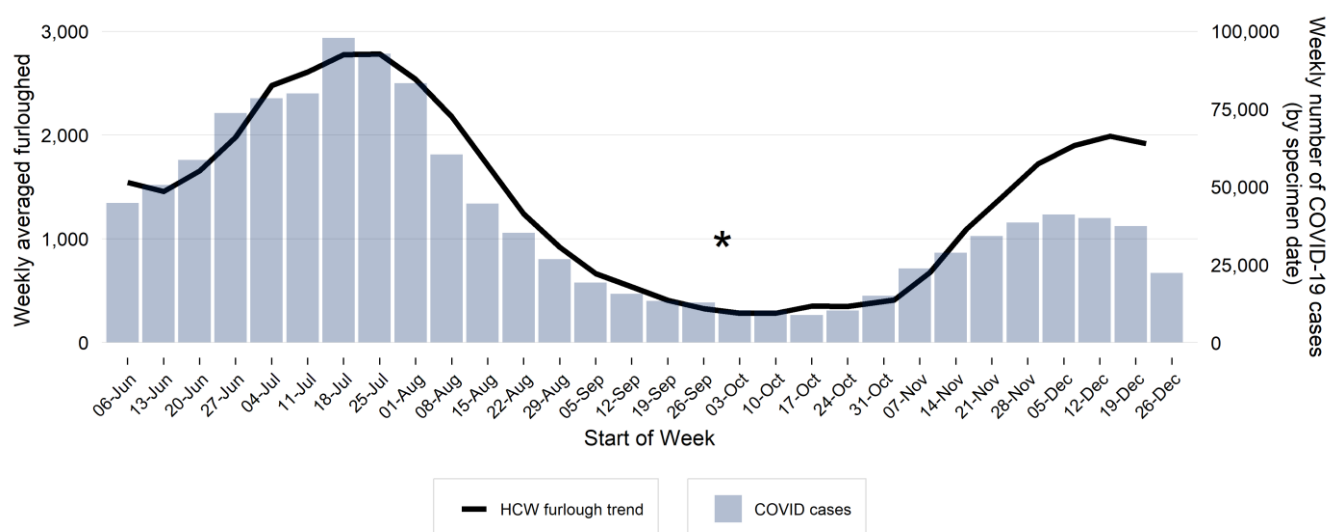
Figure 12. Estimated distribution of COVID-19 sub-lineages in the community, 31 July 2022 to 24 December 2022

Epidemiological weeks 51 and 52, ending 31 December 2022

NSW Healthcare worker furloughing

NSW Health collects data on the workforce impacts of COVID-19 within Local Health Districts. 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. As healthcare workers can be exposed to COVID-19 within the community when the amount of COVID-19 circulating in the community increases the risk of exposure and transmission also increases leading to increased numbers of healthcare workers being furloughed (absent) from work. This indicator is helpful to assess the level of COVID-19 circulating in the community when community testing decreases. These data also provide an insight into the stress experienced within the healthcare system due to reduced staffing capacity.

Figure 13. Average number of healthcare worker furloughing and number of COVID-19 notifications by week in NSW, 1 June to 28 December 2022



* From 30 September 2022 onwards, reporting changed from average number of staff furloughed by week to number of staff furloughed as of Tuesday at 8pm.

Epidemiological weeks 51 and 52, ending 31 December 2022

COVID-19 Sewage surveillance program

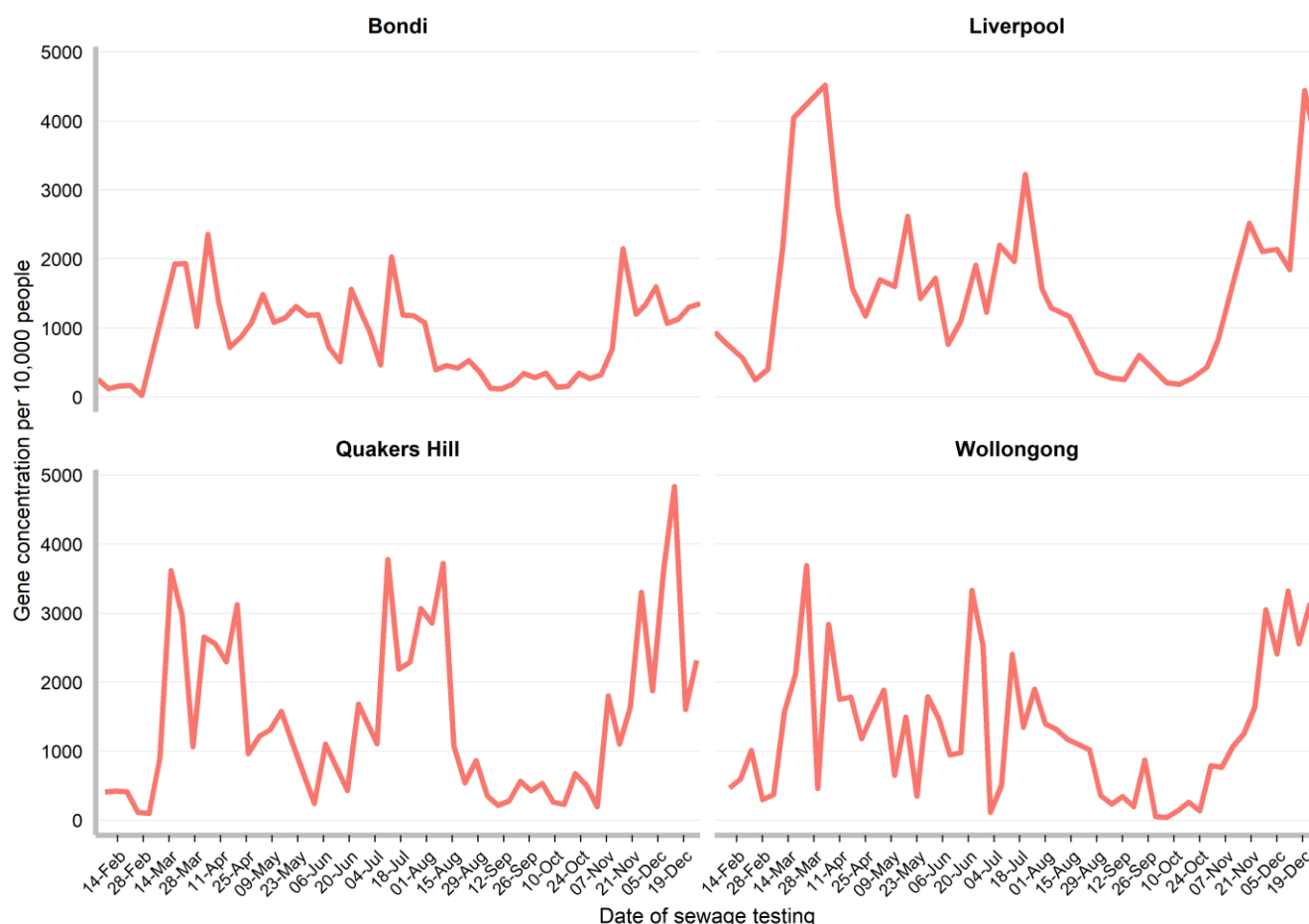
The NSW Sewage Surveillance Program tests untreated sewage for fragments of the SARS-CoV-2 virus that causes COVID-19. Gene copy numbers are influenced by many factors including virus shedding by people (which varies individually and over the course of the infection), dilution of virus within sewage – such as during rain, the period of time over which the sewage sample is collected, and the presence of chemicals and microorganisms in the sewage that affects how well the testing can detect SARS-CoV-2 virus fragments. Gene copy numbers are reported per 10,000 people in the catchment over time. Trends should be interpreted over an extended period to take into account these fluctuations in environmental conditions.

Trends are presented for Sydney Bondi, Quakers Hills, Liverpool and Wollongong sewage catchments from 5 February 2022 to the week ending 31 December 2022. Peaks in gene copy numbers can be seen that relate to peaks in COVID-19 notifications during March and July 2022. Dips in the graph in early April and July are due to heavy rain. Gene copy numbers have stabilised to low levels in recent weeks.

For more results, please see the COVID-19 Sewage Surveillance Program website:

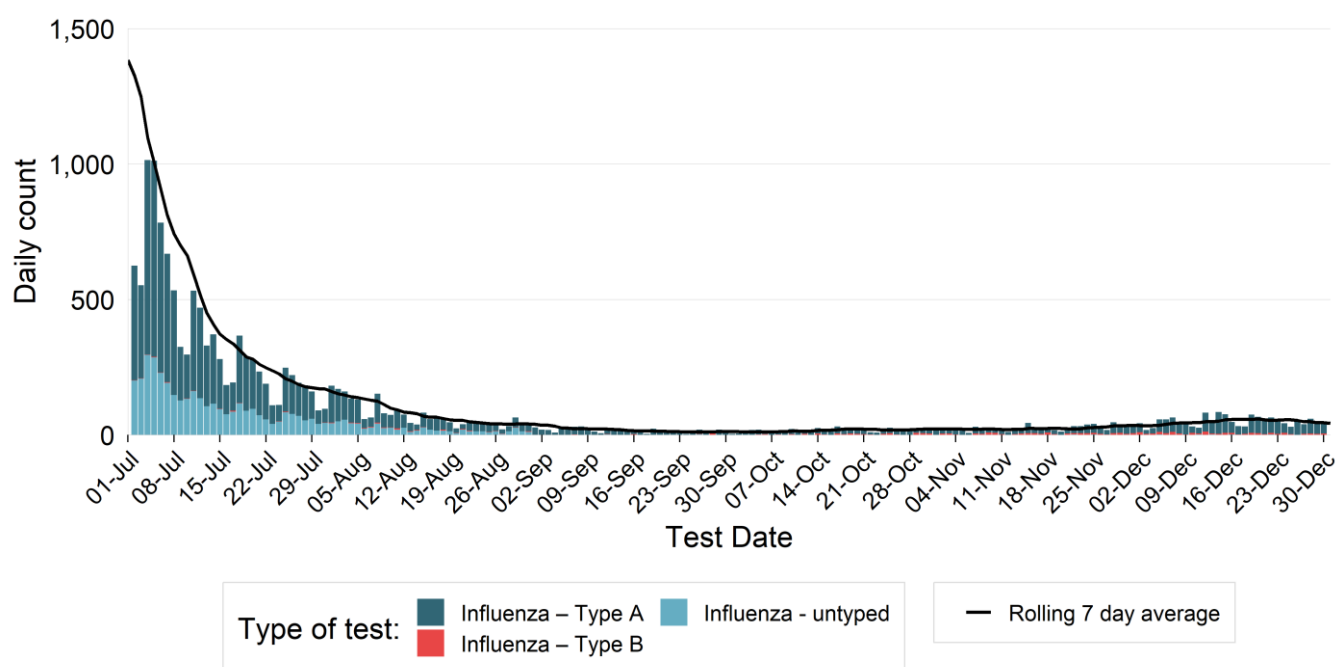
<https://health.nsw.gov.au/Infectious/covid-19/Pages/sewage-surveillance-weekly-result.aspx>.

Figure 14. Gene concentration, per 10,000 people in each sewage catchment, 5 February 2022 to 31 December 2022



Influenza and other respiratory viruses

Figure 15. People notified with influenza, by date of test and virus type, NSW, 01 July to 31 December 2022



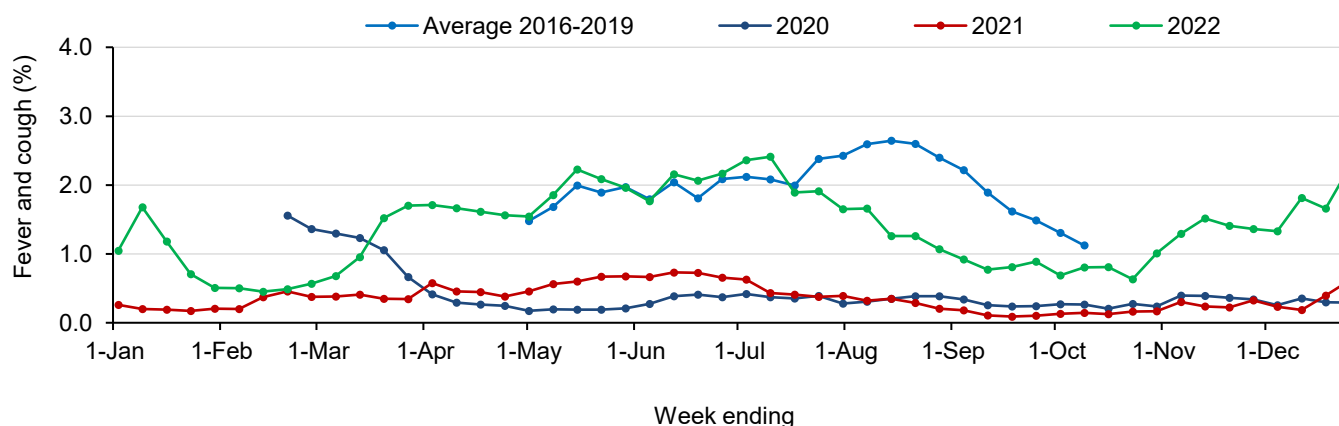
- There were 700 people diagnosed with influenza in the two weeks to 31 December 2022, Influenza cases for week ending 31 December (307) decreased 21.9% compared to the previous week (393).

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.

The FluTracking weekly sample size is currently in a decreased inter-seasonal period. Between 31 October 2022 and 1 April 2023 participants are able to opt out of completing the weekly survey. In previous years roughly two thirds of participants continue to complete the weekly survey. Should there be a surge in COVID-19 or influenza activity, participants who have consented will be asked if they would like to recommence surveys earlier. Additional FluTracking reports are available at: <https://info.flutracking.net/reports-2/australia-reports/>

Figure 16. Proportion of FluTracking participants reporting influenza-like illness, NSW, 1 January to 24 December 2022

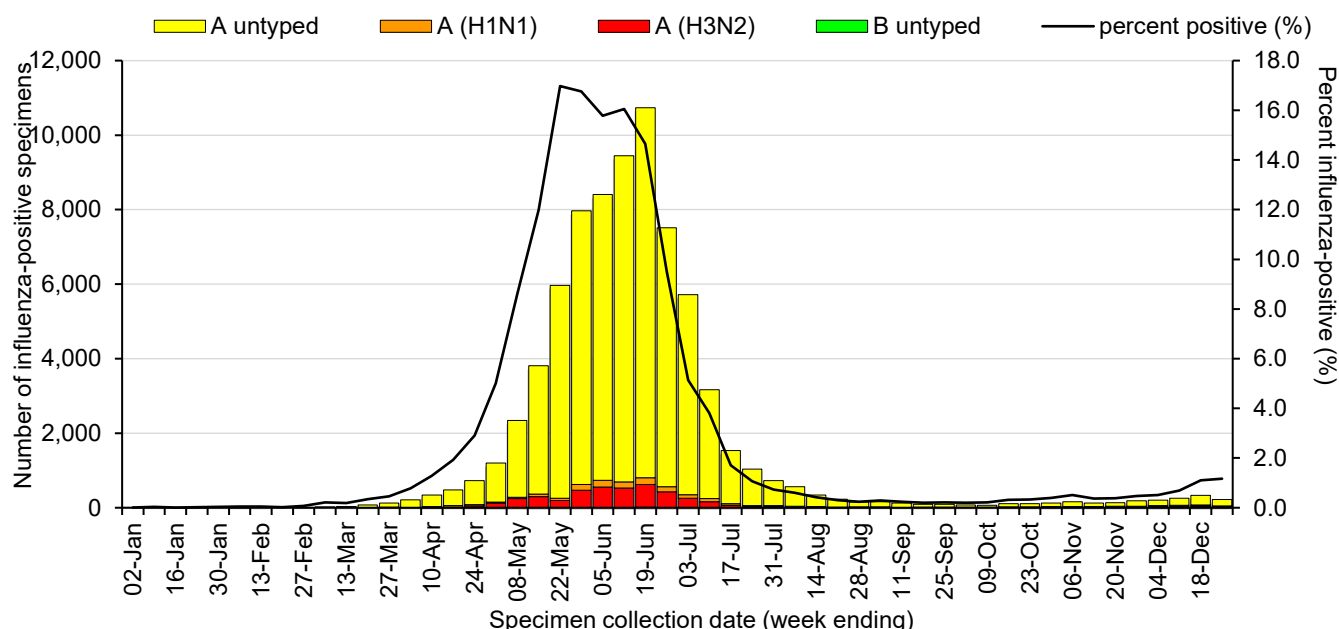


- The proportion of FluTracking participants reporting influenza-like illness increased this week.

Epidemiological weeks 51 and 52, ending 31 December 2022

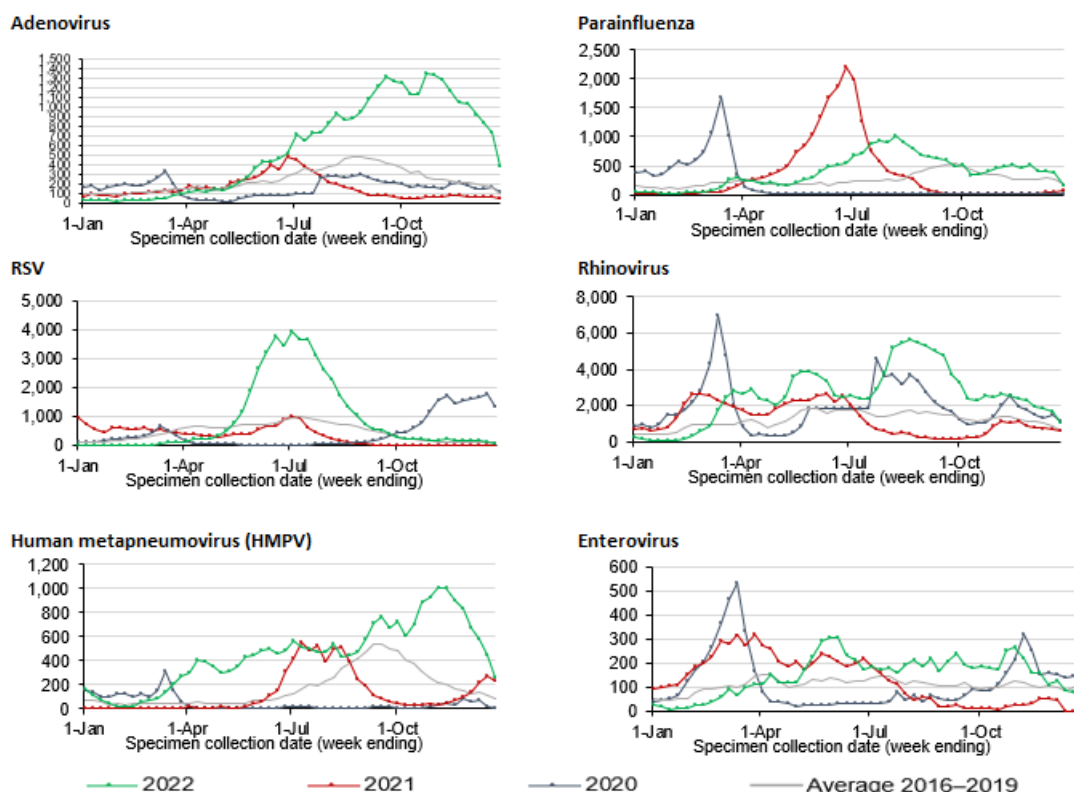
The NSW sentinel laboratory network comprises of 13 public and private laboratories throughout NSW who provide additional data on positive and negative test results. This helps us to understand which respiratory viruses are circulating as well as how much.

Figure 17. Number and proportion of tests positive for influenza at sentinel NSW laboratories, 1 January to 25 December 2022



- Of the 18,725 tests conducted for influenza, the proportion positive has remained stable at around 1%.

Figure 18. Number of positive PCR test results for other respiratory viruses at sentinel NSW laboratories, 1 January to 25 December 2022.



- Recent data is subject to change. For the week ending 25 December 2022, 8 out of 13 sentinel laboratories have provided testing data at the time of reporting.

Epidemiological weeks 51 and 52, ending 31 December 2022

Table 4. Total number of respiratory disease notifications from sentinel laboratories, NSW in the four weeks to 25 December, 2022

	Week ending				Year to date
	4 December	11 December	18 December	25 December	
Adenovirus	925	841	727	381	29,963
Respiratory syncytial virus (RSV)	155	163	136	79	46,918
Rhinovirus	1,896	1,807	1,703	1,005	131,297
Human metapneumovirus (HMPV)	677	577	448	252	23,006
Enterovirus	1292	88	81	38	7,676
Number of PCR tests conducted	40,780	37,280	30,030	18,725	2,144,123

*Recent data is subject to change. For the week ending 25 December 2022, 8 out of 13 sentinel laboratories have provided testing data at the time of reporting.