

NSW COVID-19 WEEKLY DATA OVERVIEW

Epidemiological week 8, ending 26 February 2022

Summary

- Hospital admissions and intensive care unit (ICU) admissions in people with COVID-19 continued to decline. People with COVID-19 may be admitted to hospital or ICU for reasons other than COVID-19.
- Overall, reported case numbers plateaued over the last four weeks. Reported case rates were highest in people aged 10-19 years and 0-9 years, with higher case ascertainment in these age groups as a result of the school rapid antigen test (RAT) surveillance program.
- PCR testing rates continue to decline. Most cases were identified by RAT, particularly in regional areas.
- The Omicron variant (B.1.1.529) is currently the dominant COVID-19 variant of concern circulating in the NSW community, with both of the main sub-lineages of the Omicron variant (BA.1 and BA.2) circulating in NSW.

Section 1: Hospital and intensive care unit admissions

Figure 1. Daily number of people with COVID-19 admitted to hospital, in the four weeks to 26 February 2022

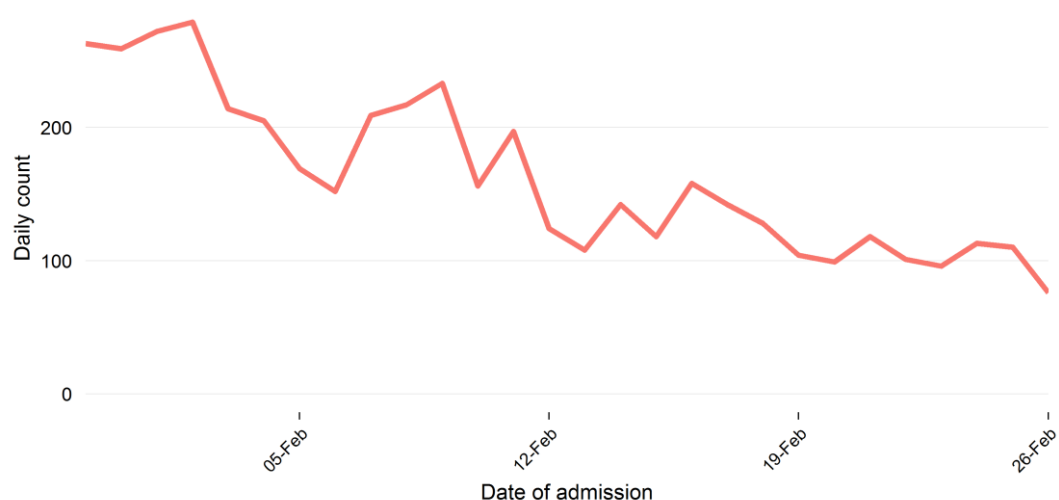
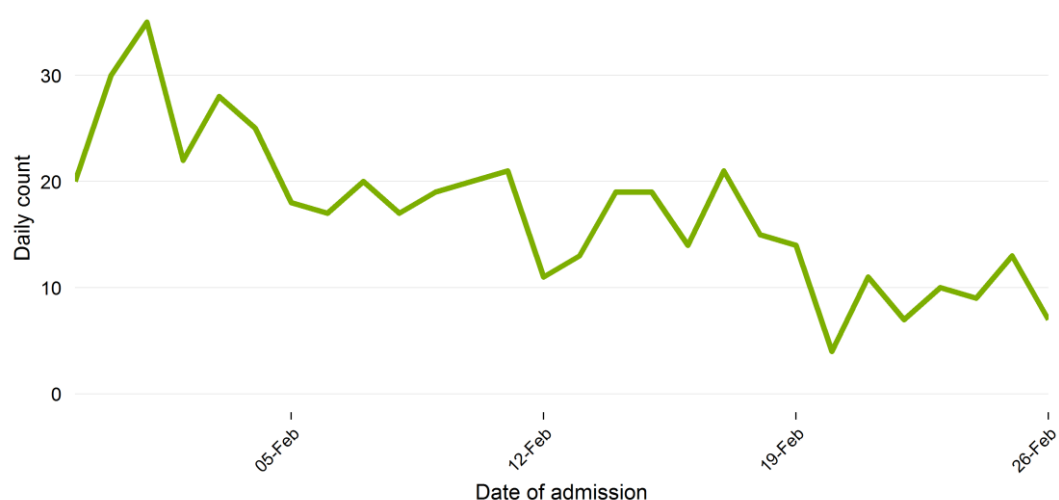


Figure 2. Daily number of people with COVID-19 admitted to intensive care units, in the four weeks to 26 February 2022



- Daily hospital admissions and ICU admissions in people with COVID-19 have decreased in the last four weeks.
- The median time between test date and hospitalisation was four days.

Table 1. Vaccination status of people with COVID-19 who were being cared for in hospital in the week ending 26 February 2022

Vaccination status	Admitted to hospital (but not to ICU) (%)	Admitted to ICU (%)	Total
Three or more doses	79 (27%)	4 (13%)	83 (26%)
Two doses	92 (31%)	11 (37%)	103 (32%)
One dose	13 (4%)	3 (10%)	16 (5%)
No dose/Unknown	109 (37%)	12 (40%)	121 (37%)
Total	293 (100%)	30 (100%)	323 (100%)

- COVID-19 vaccines are very effective in preventing people from the severe impacts of infections with the virus. More than 93 per cent of people aged 12 and over in NSW have received two doses of a COVID-19 vaccine, while almost 60 per cent of people eligible for their third dose have received it. With such high vaccination coverage in the community, this means a greater proportion of people admitted to hospital or ICU with COVID-19 are now vaccinated. However, when the size of the vaccinated and unvaccinated populations in NSW are considered, people who are not vaccinated remain far more likely to suffer severe COVID-19. NSW Health will continue to present this analysis in its monthly epidemiological reports. Analysis to date shows the minority of the overall population who have not been vaccinated are significantly overrepresented among patients in hospitals and ICUs with COVID-19.

Table 2. Age group of people with COVID-19 who were being cared for in hospital in the week ending 26 February 2022

Age group (years)	Admitted to hospital (but not to ICU) (%)	Admitted to ICU (%)	Total
0-9	30 (10%)	0 (0%)	30 (9%)
10-19	19 (7%)	2 (7%)	21 (7%)
20-29	29 (10%)	3 (10%)	32 (10%)
30-39	27 (9%)	0 (0%)	27 (8%)
40-49	13 (4%)	2 (7%)	15 (5%)
50-59	29 (10%)	2 (7%)	31 (10%)
60-69	33 (11%)	5 (17%)	38 (12%)
70-79	48 (16%)	9 (30%)	57 (18%)
80-89	48 (16%)	6 (20%)	54 (17%)
90+	17 (6%)	1 (3%)	18 (6%)
Total	293 (100%)	30 (100%)	323 (100%)

- People with COVID-19 were included in the hospitalisation data if their admission date was within 14 days of their COVID-19 diagnosis. The reason for admission may be unrelated to COVID-19.

Section 2: Reported deaths of people with COVID-19

- 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).
- NSW Health does not report deaths under investigation by the Coroner until the Coroner issues their findings on the cause of death.

Table 3. Reported deaths of people with COVID-19, by age group, in the week ending 26 February 2022

Age-group (years)	Number of deaths
0-9	0
10-19	0
20-29	0
30-39	0
40-49	1
50-59	1
60-69	7
70-79	13
80-89	19
90+	10
Total	51

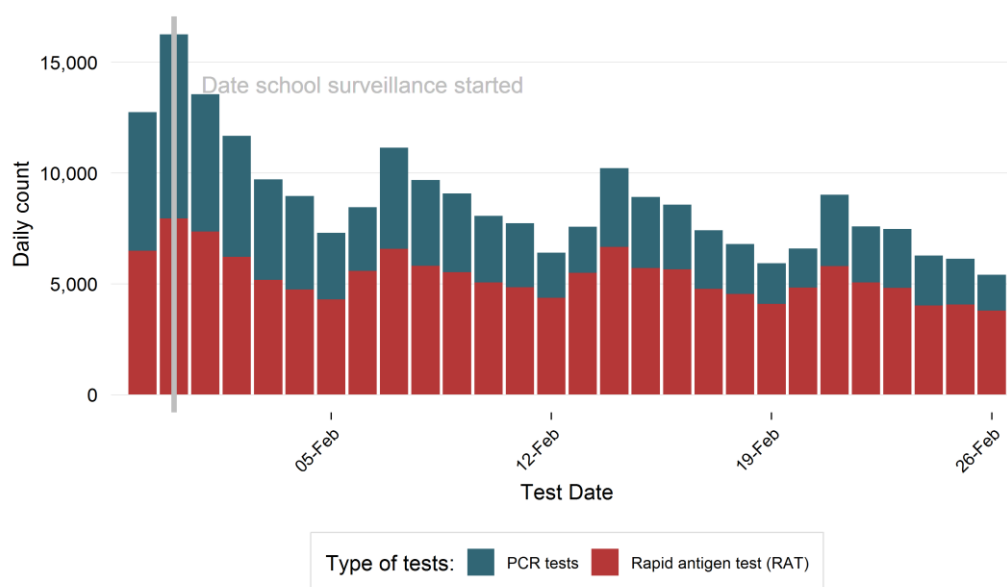
Table 4. Reported deaths of people with COVID-19, by vaccination status, in the week ending 26 February 2022

Vaccination status	Number of deaths
Three or more doses	11
Two doses	28
One dose	0
No dose/Unknown	12
Total	51

- COVID-19 vaccines are very effective in preventing people from the severe impacts of infection with the virus. More than 93 per cent of people aged 12 and over in NSW have received two doses of a COVID-19 vaccine, while almost 60 per cent of people eligible for their third dose have received it. With such high vaccination coverage in the community, this means a greater proportion of people admitted to hospital or ICU with COVID-19 are now vaccinated. However, when the size of the vaccinated and unvaccinated populations in NSW are considered, people who are not vaccinated remain far more likely to suffer severe COVID-19. NSW Health will continue to present this analysis in its monthly epidemiological reports. Analysis to date shows the minority of the overall population who have not been vaccinated are significantly overrepresented among patients in hospitals and ICUs with COVID-19.
- 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.
- Ten of the people who died with COVID-19 were aged care facility residents. Six of these people died in hospital and four died at an aged care facility.
- No deaths occurred at home in the community.
- Two people aged under 65 years died with COVID-19. One person had received two vaccine doses and one had received three vaccine doses. Both had significant preexisting comorbidities.

Section 3: Number of people diagnosed with COVID-19

Figure 3. The number of people diagnosed with COVID-19, by date of test and type of test performed, in the four weeks to 26 February 2022



- Mandatory registration of positive RAT results commenced on 12 January 2022, with people encouraged to register their results from 1 January onwards.
- The School RAT Surveillance Program commenced at the beginning of school term 1 2022 (31 January 2022). All school students and staff were requested to undertake two RATs per week during this reporting period.

Table 5. Number of people diagnosed with COVID-19, by test type, age group and Local Health District, reported in the week ending 26 February 2022

	People diagnosed by a PCR test	People diagnosed by rapid antigen test	Total
Age group (years)			
0-9	2,796 (30%)	6,522 (70%)	9,318 (100%)
10-19	3,050 (26%)	8,838 (74%)	11,888 (100%)
20-29	2,212 (32%)	4,673 (68%)	6,885 (100%)
30-39	2,693 (35%)	4,997 (65%)	7,690 (100%)
40-49	2,344 (36%)	4,123 (64%)	6,467 (100%)
50-59	1,337 (42%)	1,830 (58%)	3,167 (100%)
60-69	850 (50%)	863 (50%)	1,713 (100%)
70-79	531 (59%)	373 (41%)	904 (100%)
80-89	223 (70%)	95 (30%)	318 (100%)
90+	71 (81%)	17 (19%)	88 (100%)
All ages	16,107 (33%)	32,331 (67%)	48,438 (100%)
Local Health District (LHD)*			
Central Coast	689 (31%)	1,528 (69%)	2,217 (100%)
Illawarra Shoalhaven	1,190 (34%)	2,320 (66%)	3,510 (100%)
Nepean Blue Mountains	991 (33%)	2,002 (67%)	2,993 (100%)
Northern Sydney	1,687 (37%)	2,925 (63%)	4,612 (100%)

	People diagnosed by a PCR test	People diagnosed by rapid antigen test	Total
South Eastern Sydney	1,792 (38%)	2,965 (62%)	4,757 (100%)
South Western Sydney	1,985 (37%)	3,352 (63%)	5,337 (100%)
Sydney	1,224 (37%)	2,104 (63%)	3,328 (100%)
Western Sydney	2,357 (41%)	3,397 (59%)	5,754 (100%)
Total metropolitan LHDs	11,915 (37%)	20,593 (63%)	32,508 (100%)
Far West	60 (18%)	266 (82%)	326 (100%)
Hunter New England	1,999 (29%)	4,793 (71%)	6,792 (100%)
Mid North Coast	122 (9%)	1,163 (91%)	1,285 (100%)
Murrumbidgee	275 (16%)	1,446 (84%)	1,721 (100%)
Northern NSW	299 (18%)	1,323 (82%)	1,622 (100%)
Southern NSW	417 (29%)	1,000 (71%)	1,417 (100%)
Western NSW	700 (30%)	1,663 (70%)	2,363 (100%)
Total rural and regional LHDs	3,872 (25%)	11,654 (75%)	15,526 (100%)

* Excludes cases in correctional settings and hotel quarantine.

- There was variation in the proportion of people reported with COVID-19 by test type and Local Health District (LHD). In the week ending 26 February 2022, the proportion of cases reported by RAT for regional LHDs (75%) was higher than for metropolitan LHDs (63%).
- The proportion of people reported with COVID-19 who were diagnosed by PCR test increased with age. The high proportion of reported children with COVID-19 who were diagnosed by RAT in the week ending 26 February 2022 was due to the school RAT surveillance program.

Figure 4. Rate of reported people with COVID-19 per 100,000 population, by age group and test date, in the four weeks to 26 February 2022

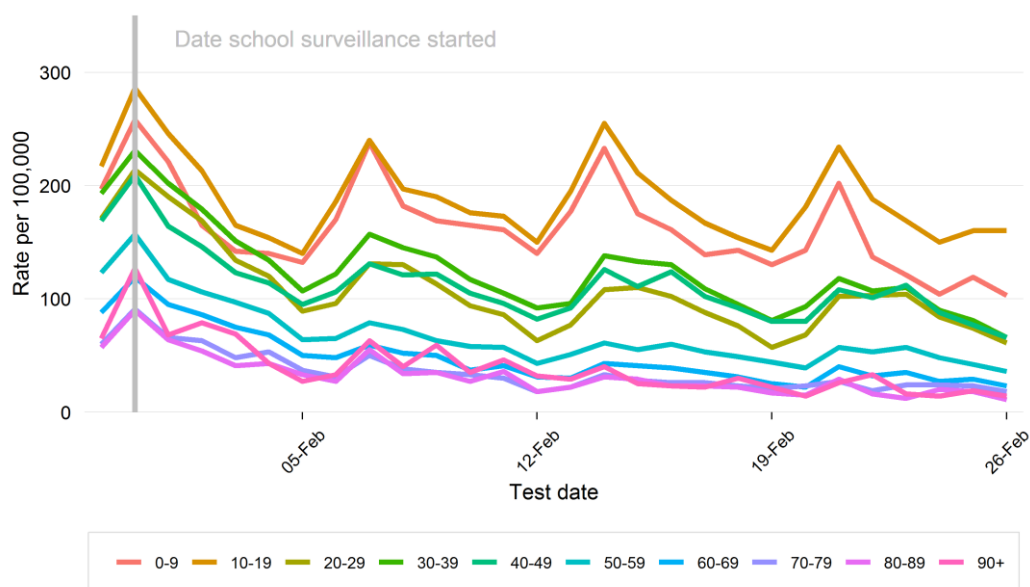


Figure 5. Reported rate of people with COVID-19 per 100,000 population, by metropolitan Local Health District and test date, in the four weeks to 26 February 2022

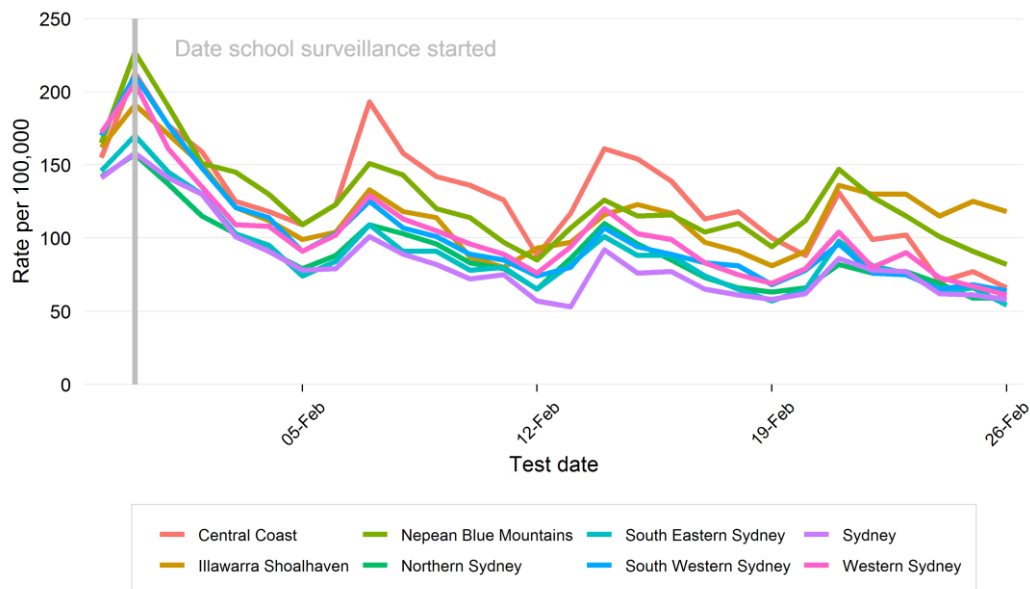
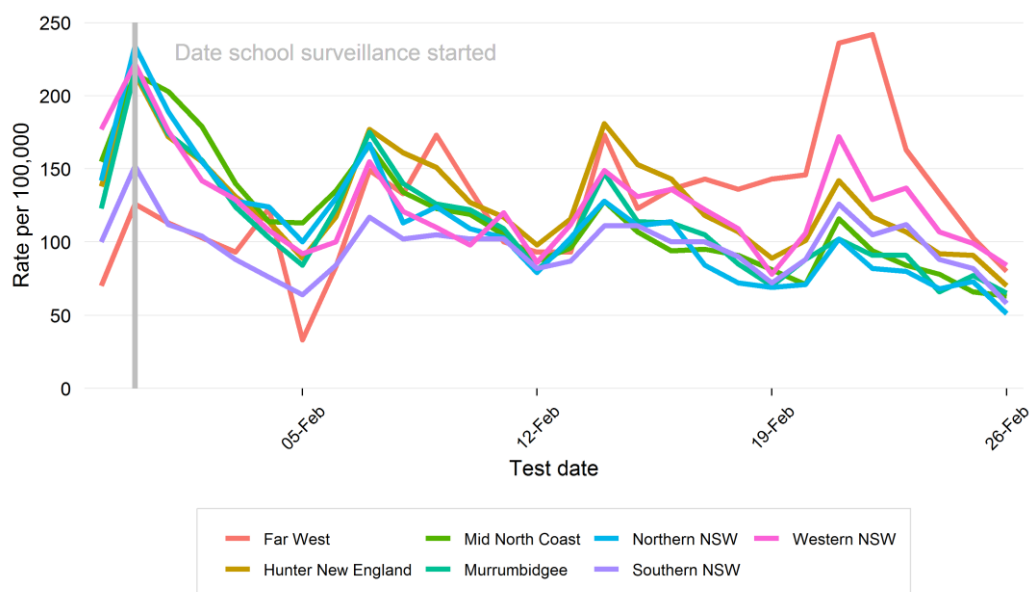


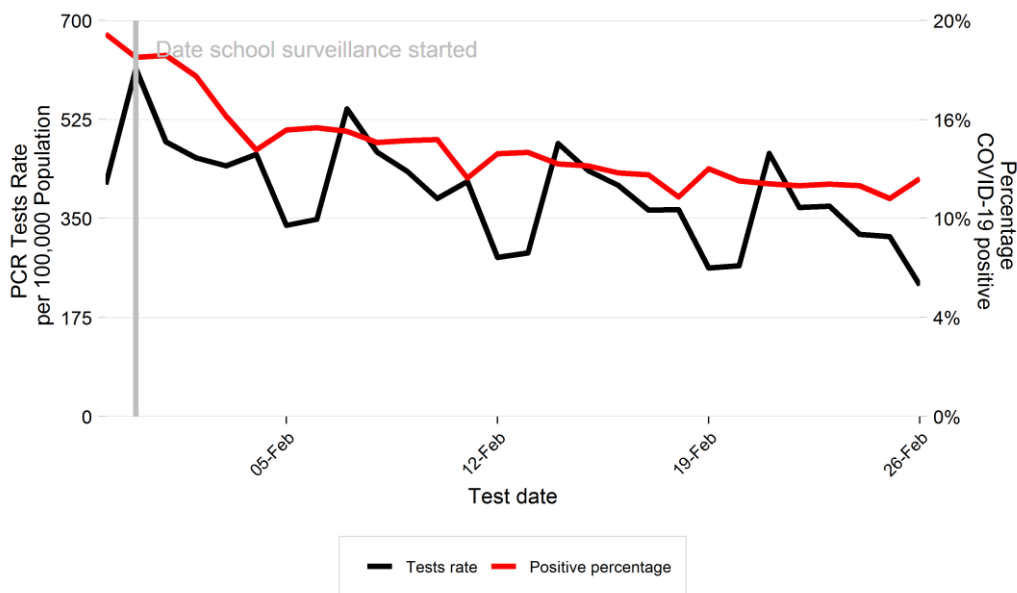
Figure 6. Reported rate of people with COVID-19 per 100,000 population by rural and regional Local Health District and test date, in the four weeks to 26 February 2022



- Far West Local Health District (LHD) shows greater variation in the reported rate of people with COVID-19 than other LHDs due to its smaller population.
- Cases of influenza and other respiratory viral infections were generally below the seasonal average. More detail in relation to other respiratory viruses will be available in the monthly epidemiological report.

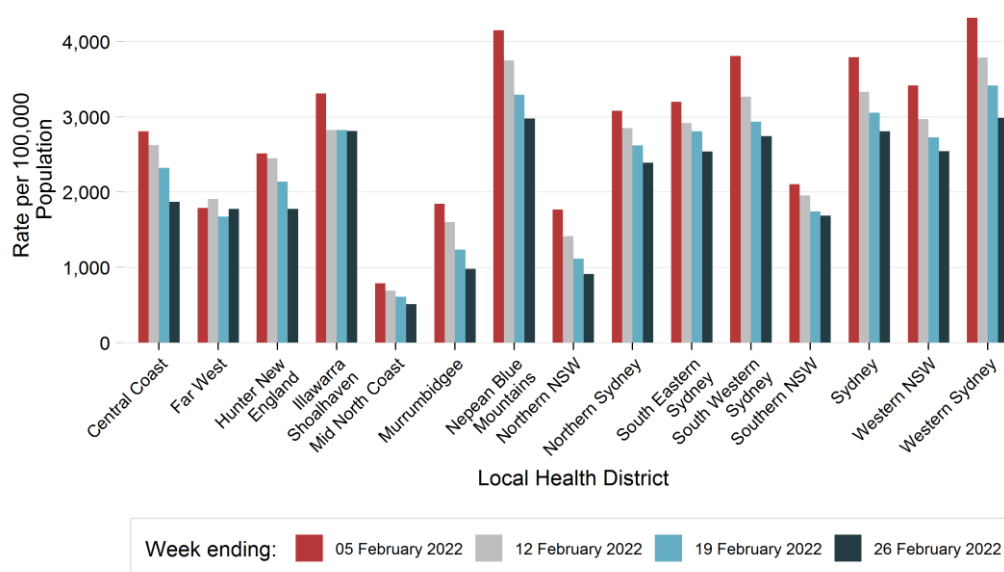
Section 4: Testing

Figure 7. Daily rate of PCR tests for COVID-19 per 100,000 population, and daily percentage of PCR tests which were positive for COVID-19, by test date, in the four weeks to 26 February 2022



- There were 175,202 PCR tests reported in the week ending 26 February 2022.
- The percentage of PCR tests that were positive for COVID-19 declined over the last four weeks from 19% on 30 January 2022 to 12% on 26 February 2022.
- The proportion of people with PCR confirmed COVID-19 who were notified to NSW Health by the laboratory within 24 hours of specimen collection was 90% (17,220/19,138) in the week ending 26 February 2022.

Figure 8. Rate of PCR tests for COVID-19 per 100,000 population by Local Health District and test date, in the four weeks to 26 February 2022



- The rate of PCR testing for COVID-19 has decreased each week for the last four weeks in most Local Health Districts.
- The rate of PCR testing is higher in metropolitan LHDs.

Table 6. Variants of concern (VOCs) identified by whole genome sequencing (WGS) in people with COVID-19 diagnosed by PCR, by test date, in the four weeks to 26 February 2022

Variant	Week ending			
	5 February	12 February	19 February	26 February
Delta (B.1.617.2)	8	2	0	0
Omicron (BA.1)	454	230	223	40
Omicron (BA.2)	19	54	122	17
Total	481	286	345	57

- Variants that pose an increased risk to global public health are designated as variants of concern (VOCs) by the World Health Organization.
- VOCs are identified by WGS, which can only be conducted on PCR positive tests.
- 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 VOCs for recent dates will increase over time.
- The Omicron variant (B.1.1.529) is currently the dominant COVID-19 VOC circulating in the NSW community. The two main sub-lineages of the Omicron variant (BA.1 and BA.2) are both circulating in NSW.
- WGS is conducted on a sample of PCR positive tests. This is not a random sample, therefore the proportion of VOCs identified is not necessarily reflective of their distribution in the community.
- Specimens are prioritised for WGS for people admitted to hospital and ICU, people in correctional settings and people who have recently returned from overseas.
- The BA.1 sub-lineage has a mutation that results in a failure of certain tests to detect the S Gene. This mutation is not present in the BA.2 sub-lineage or the Delta variant, therefore specimens with the S Gene detected are prioritised for WGS to determine whether they are the BA.2 sub-lineage or the Delta variant.