

NSW COVID-19 WEEKLY DATA OVERVIEW

Epidemiological week 15 ending 16 April 2022

Summary

- Omicron transmission in NSW has plateaued.
- The seven-day rolling average of daily hospital admissions decreased compared to the previous week (142 compared to 162), and increased for ICU admissions (13 compared to 10).
- There were 94,608 people diagnosed with COVID-19 this week, a decrease of 24% since the previous week.
- The rate of people diagnosed with COVID-19 per 100,000 population decreased amongst younger age groups and was stable in older age groups this week.
- The rate of people diagnosed with COVID-19 per 100,000 population decreased in all local health districts this week. Data for this week should be interpreted with caution due to the impact of public holidays on testing.
- There were 203,064 PCR tests reported this week, a 23% decrease since the previous week. The percentage of PCR tests that were positive for COVID-19 remains stable at 18%.
- There were 83 deaths reported this week in people who died with COVID-19. Seven of the deaths reported this week were in people aged under 65 years. Some deaths may not have occurred in the week in which they were reported.
- The number of cases of influenza A notified has increased above the 2016-2019 average for the equivalent week, with 339 cases identified, noting that influenza testing practice may not be comparable. Of 24,985 PCR tests conducted for influenza the proportion positive has increased to 1.4%.

Section 1: Hospital admissions, intensive care unit (ICU) admissions and reported deaths

Figure 1. Daily seven-day rolling average of people with COVID-19 admitted to hospital within 14 days of their diagnosis, NSW, in the four weeks to 16 April 2022

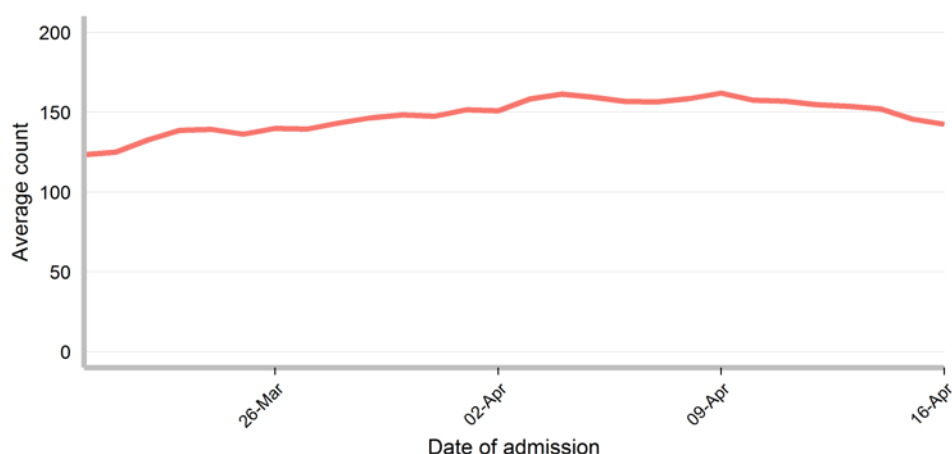
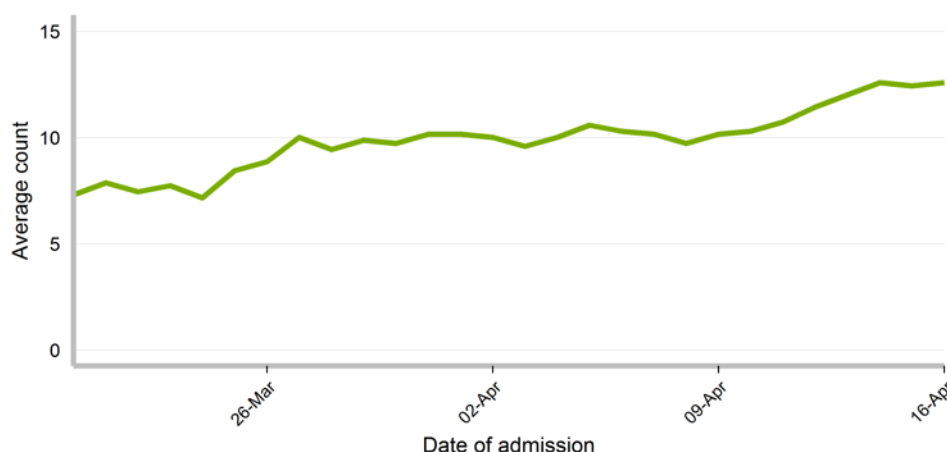


Figure 2. Daily seven-day rolling average of people with COVID-19 admitted to intensive care units, NSW, in the four weeks to 16 April 2022



*a seven-day rolling average uses the average of the previous seven days of data to smooth daily variations in data and make it easier to observe trends over time.

- In the last week, 953 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 142 admissions by the end of this week. This compares to 162 admissions at the end of the previous week (data updated since last week's report).
- In the last week 94 people diagnosed with COVID-19 were admitted to ICU. The seven-day rolling average of daily intensive care unit (ICU) admissions increased to an average of 13 admissions by the end of this week, compared to with 10 admissions at the end of the previous week.
- The median length of stay for people discharged from a hospital admission in the week ending 16 April was two days, the same as in the previous week.
- The median length of stay for people discharged from an ICU admission in the week ending 16 April was three days, which decreased from four days in the previous week.

Table 1. Vaccination status of people with a COVID-19 diagnosis in the previous 14 days who were admitted to hospital in the week ending 16 April 2022, NSW

Vaccination status	Admitted to hospital (but not to ICU) (%)	Admitted to ICU (%)	Total
Three or more doses	432 (45%)	35 (37%)	467 (45%)
Two doses	249 (26%)	27 (29%)	276 (26%)
One dose	19 (2%)	0 (0%)	19 (2%)
No dose/Unknown	253 (27%)	32 (34%)	285 (27%)
Total	953 (100%)	94 (100%)	1047 (100%)

Table 2. Reported deaths of people with COVID-19, by vaccination status, NSW, in the week ending 16 April 2022

Vaccination status	Number of deaths
Three or more doses	40
Two doses	19
One dose	0
No dose/Unknown	24
Total	83

- 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 60 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 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 small minority of the population who have not been vaccinated are significantly overrepresented among patients in hospitals and ICUs with COVID-19. Note that because some people with COVID-19 who are admitted to hospital or ICU are admitted for conditions unrelated to their COVID-19 infection, these admissions will not be prevented by vaccination.

Table 3. Age group of people with a COVID-19 diagnosis in the previous 14 days who were admitted to hospital in the week ending 16 April 2022, NSW

Age group (years)	Admitted to hospital (but not to ICU) (%)	Admitted to ICU (%)	Total
0-9	67 (7%)	3 (3%)	70 (7%)
10-19	42 (4%)	2 (2%)	44 (4%)
20-29	95 (10%)	5 (5%)	100 (10%)
30-39	127 (13%)	12 (13%)	139 (13%)
40-49	59 (6%)	10 (11%)	69 (7%)
50-59	97 (10%)	10 (11%)	107 (10%)
60-69	93 (10%)	17 (18%)	110 (11%)
70-79	140 (15%)	22 (23%)	162 (15%)
80-89	159 (17%)	12 (13%)	171 (16%)
90+	74 (8%)	1 (1%)	75 (7%)
Total	953 (100%)	94 (100%)	1047 (100%)

Table 4. Reported deaths of people with COVID-19, by age group, NSW, in the week ending 16 April 2022

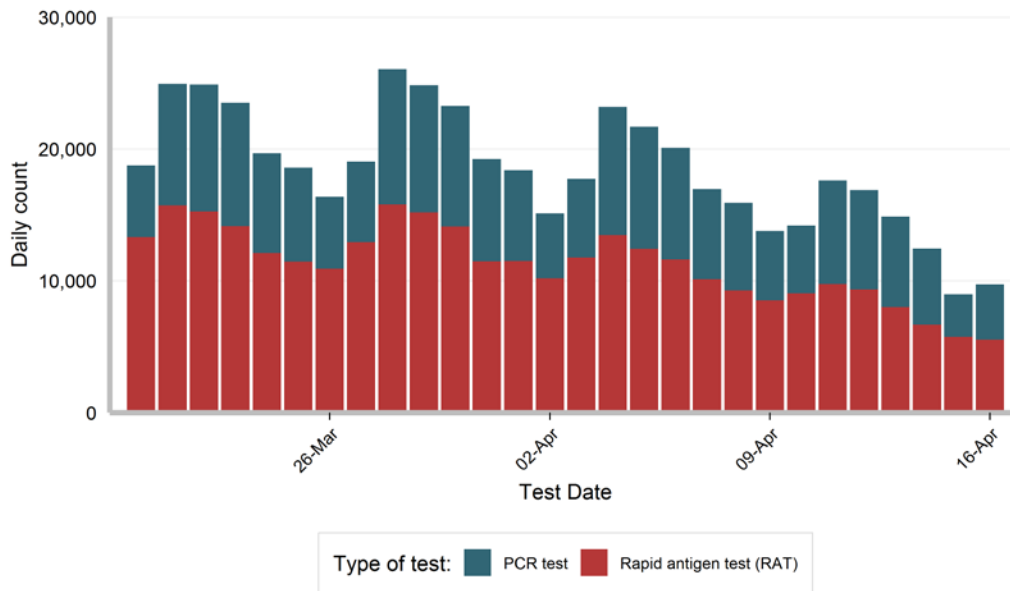
Age-group (years)	Number of deaths
0-9	0 (0%)
10-19	0 (0%)
20-29	0 (0%)
30-39	0 (0%)
40-49	0 (0%)
50-59	6 (7%)
60-69	7 (8%)
70-79	14 (17%)
80-89	32 (39%)
90+	24 (29%)
Total	83 (100%)

- 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.
- Of the 83 people who were reported to have died with COVID-19, 43 were aged care residents. Fifteen of these people died in hospital and 28 died at an aged care facility.
- There was one death at home.
- Seven people aged under 65 years died with COVID-19. Of these, three were unvaccinated, two had received two doses and two had received three doses. All had significant underlying health conditions that increase the risk of severe disease from 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.
- 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.

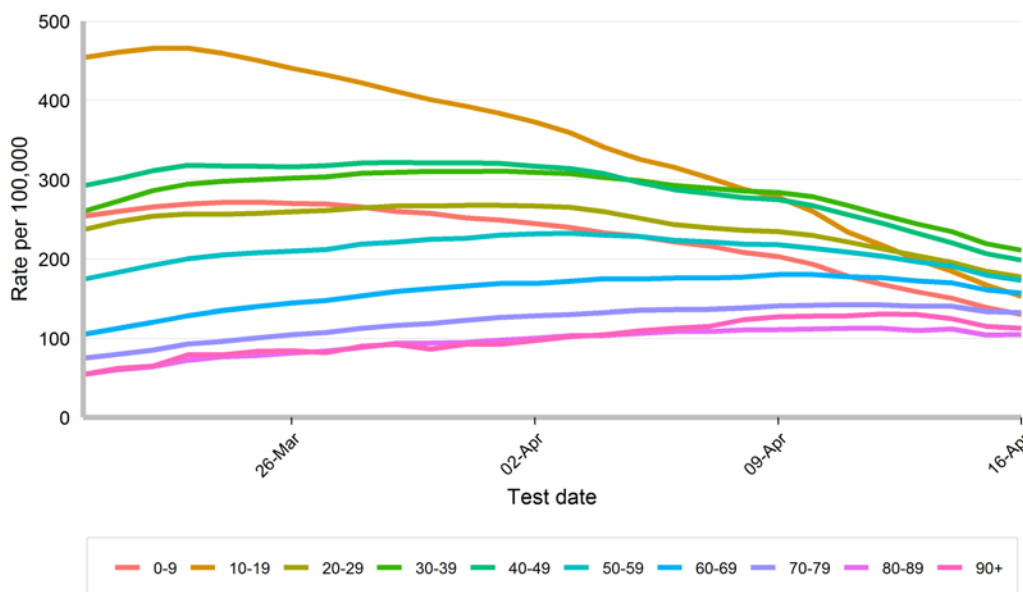
Section 2: Number of people diagnosed with COVID-19

Figure 3. Number of people diagnosed with COVID-19, by date of test and type of test performed, NSW, in the four weeks to 16 April 2022



- There were 94,609 people diagnosed with COVID-19 this week, a decrease of 27% since the previous week.
- 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). Under this program, all school students and staff were requested to undertake two RATs per week. From Monday 28 February, all students and staff were provided with an allocation of RATs to use at their discretion, such as if they were experiencing COVID-19 symptoms.

Figure 4. Daily seven-day rolling average rate of people reported with COVID-19 per 100,000 population, by age group and test date, NSW, in the four weeks to 16 April 2022



- In the last week the rate of people diagnosed with COVID-19 per 100,000 population plateaued or decreased in all age groups. The rate has decreased most noticeably in people under 20 years of age.

Figure 5. Daily seven-day rolling average rate of people reported with COVID-19 per 100,000 population, by metropolitan Local Health District and test date, NSW, in the four weeks to 16 April 2022

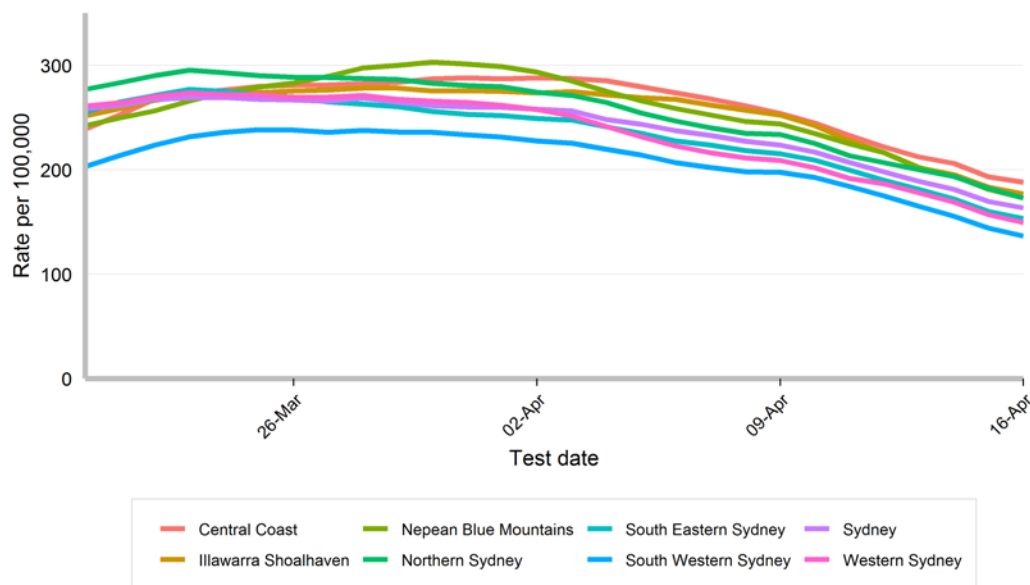
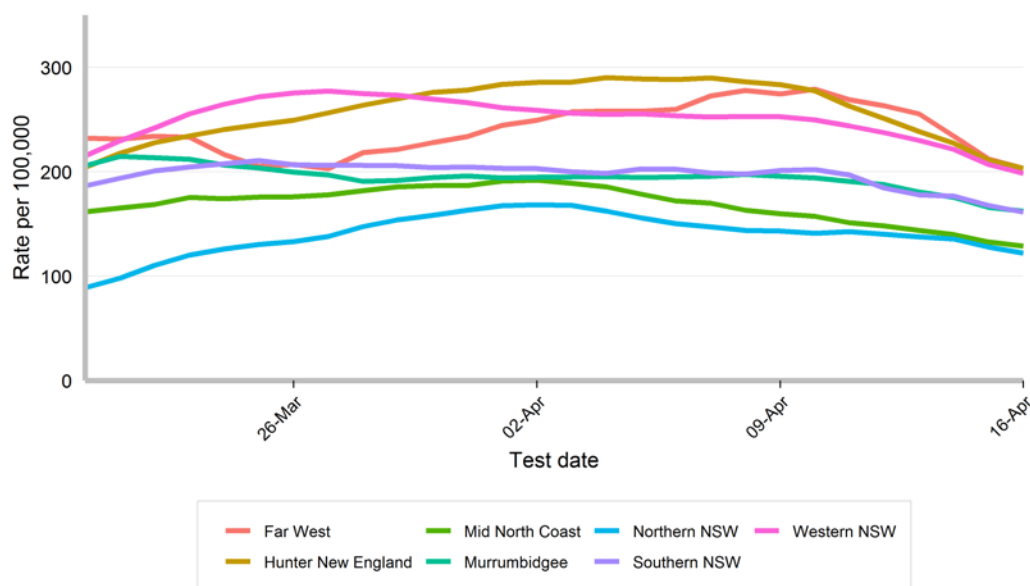


Figure 6. Daily seven-day rolling average rate of people reported with COVID-19 per 100,000 population, by rural and regional Local Health District and test date, NSW, in the four weeks to 16 April 2022



- In the last week the rate of people diagnosed with COVID-19 per 100,000 population decreased in all local health districts, however the public holidays may have impacted testing practice.

Table 5. Number of people diagnosed with COVID-19, by test type, age group and Local Health District, NSW, reported in the week ending 16 April 2022

	People diagnosed by a PCR test	People diagnosed by rapid antigen test	Total
Age group (years)			
0-9	3,627 (39%)	5,566 (61%)	9,193 (100%)
10-19	3,311 (32%)	6,997 (68%)	10,308 (100%)
20-29	5,894 (41%)	8,626 (59%)	14,520 (100%)
30-39	6,893 (40%)	10,398 (60%)	17,291 (100%)
40-49	5,720 (40%)	8,610 (60%)	14,330 (100%)
50-59	5,604 (48%)	6,169 (52%)	11,773 (100%)
60-69	4,779 (52%)	4,439 (48%)	9,218 (100%)
70-79	2,993 (55%)	2,418 (45%)	5,411 (100%)
80-89	1,291 (64%)	726 (36%)	2,017 (100%)
90+	417 (76%)	130 (24%)	547 (100%)
All ages	40,529 (43%)	54,079 (57%)	94,608 (100%)
Local Health District (LHD)*			
Central Coast	1,607 (35%)	3,036 (65%)	4,643 (100%)
Illawarra Shoalhaven	2,314 (45%)	2,884 (55%)	5,198 (100%)
Nepean Blue Mountains	1,841 (39%)	2,888 (61%)	4,729 (100%)
Northern Sydney	5,365 (46%)	6,212 (54%)	11,577 (100%)
South Eastern Sydney	5,329 (52%)	4,948 (48%)	10,277 (100%)
South Western Sydney	5,073 (51%)	4,827 (49%)	9,900 (100%)
Sydney	4,292 (54%)	3,685 (46%)	7,977 (100%)
Western Sydney	5,855 (53%)	5,157 (47%)	11,012 (100%)
Total metropolitan LHDs	31,676 (48%)	33,637 (52%)	65,313 (100%)
Far West	86 (20%)	343 (80%)	429 (100%)
Hunter New England	4,488 (33%)	9,056 (67%)	13,544 (100%)
Mid North Coast	284 (14%)	1,753 (86%)	2,037 (100%)
Murrumbidgee	652 (19%)	2,729 (81%)	3,381 (100%)
Northern NSW	588 (22%)	2,056 (78%)	2,644 (100%)
Southern NSW	802 (33%)	1,646 (67%)	2,448 (100%)
Western NSW	1,295 (33%)	2,663 (67%)	3,958 (100%)
Total rural and regional LHDs	8,195 (29%)	20,246 (71%)	28,441 (100%)

*Excludes cases in correctional settings and hotel quarantine.

- In the week ending 16 April 2022, the majority of cases were notified by RAT compared to PCR. The difference was higher for regional LHDs (71%) than for metropolitan LHDs (52%).
- The proportion of people notified with COVID-19 by PCR test generally increased with age. The high proportion of children notified with COVID-19 who were diagnosed by RAT may be due to school RAT programs.

Table 6. Rate per 100,000 population of people diagnosed with COVID-19, by Aboriginal status, age group and Local Health District, NSW, reported in the week ending 16 April 2022

	Case rate in Aboriginal people	Case rate in non-Aboriginal people	Total case rate#
Age group (years)			
0-9	506	948	920
10-19	842	1140	1121
20-29	1799	1292	1313
30-39	2138	1577	1592
40-49	1562	1404	1408
50-59	1342	1209	1212
60-69	1363	1136	1140
70-79	905	1061	1060
80+	1051	799	801
All ages	1213	1223	1222
Local Health District (LHD)*			
Central Coast	1204	1393	1385
Illawarra Shoalhaven	1390	1277	1282
Nepean Blue Mountains	1344	1283	1286
Northern Sydney	1407	1266	1266
South Eastern Sydney	1081	1125	1124
South Western Sydney	1194	1023	1027
Sydney	1261	1215	1215
Western Sydney	1013	1163	1161
Total metropolitan LHDs	1223	1185	1186
Far West	1474	1433	1438
Hunter New England	1307	1498	1485
Mid North Coast	849	948	941
Murrumbidgee	1042	1160	1403
Northern NSW	677	904	892
Southern NSW	1235	1191	1193
Western NSW	1374	1423	1416
Total rural and regional LHDs	1189	1280	1304

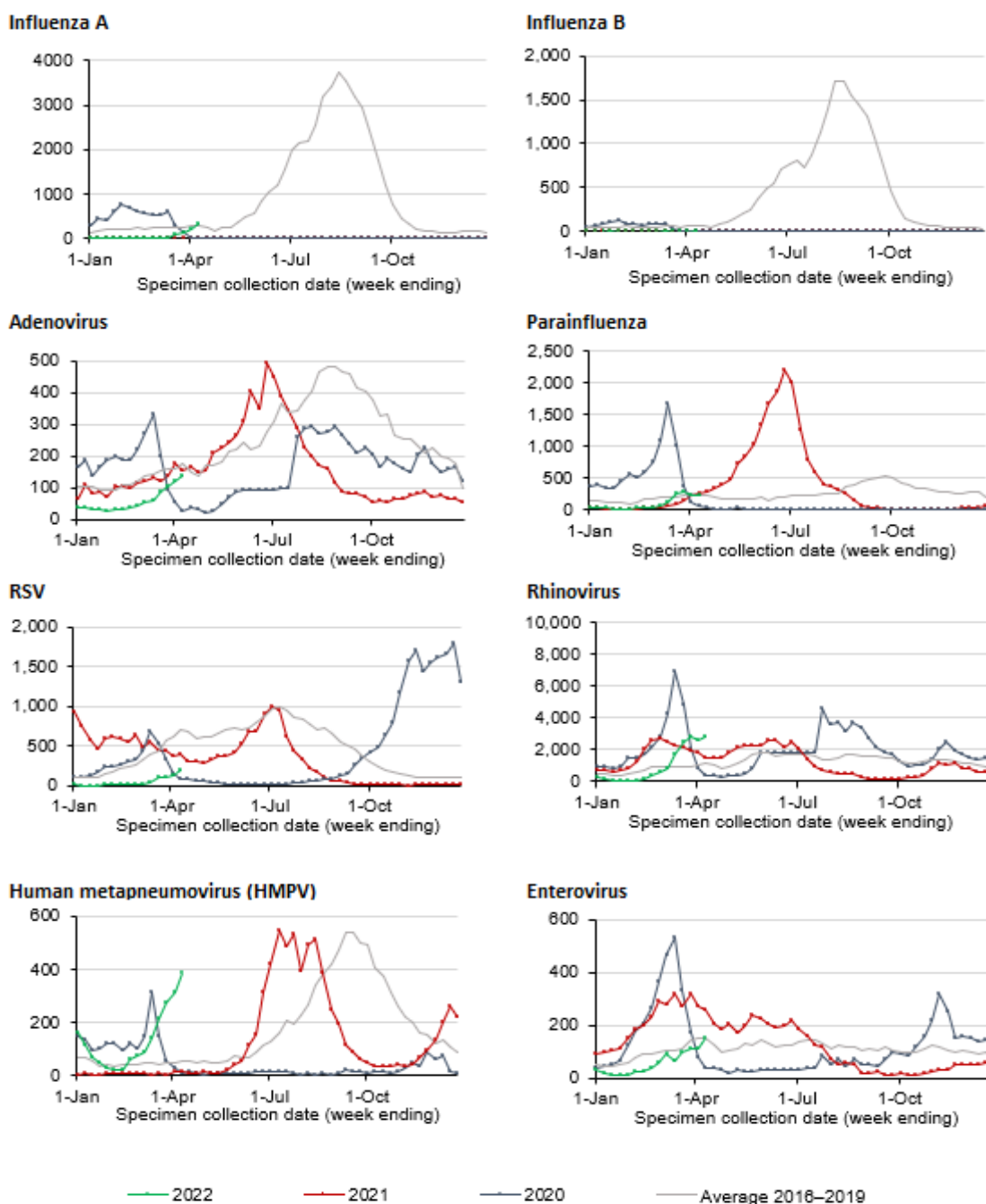
#Total includes cases where Aboriginal status is unknown. *Excludes cases in correctional settings and hotel quarantine.

- Aboriginal and Torres Strait Islander communities are recognised as a priority group due to key drivers of increased risk of transmission and severity of COVID-19 which include mobility, remoteness, barriers to healthcare access which may include institutional racism and mistrust of mainstream health services, crowded and inadequate housing, and burden of disease.
- The case rate per 100,000 population was broadly similar for people who identify as Aboriginal and/or Torres Strait Islander and people who non-Aboriginal. The rate was highest in the 30-39 year age group for both groups and higher for Aboriginal people compared to non-Aboriginal people.
- Data on Aboriginal cases needs to be interpreted cautiously. NSW Health is no longer interviewing every case and Aboriginal status is now recorded through the short text message survey sent at the time of notification. However, not all cases respond to this message and hence Aboriginality may be under-reported (complete data is available for 85% of cases).

Section 3: Number of people reported to be diagnosed with influenza and other respiratory viral infections

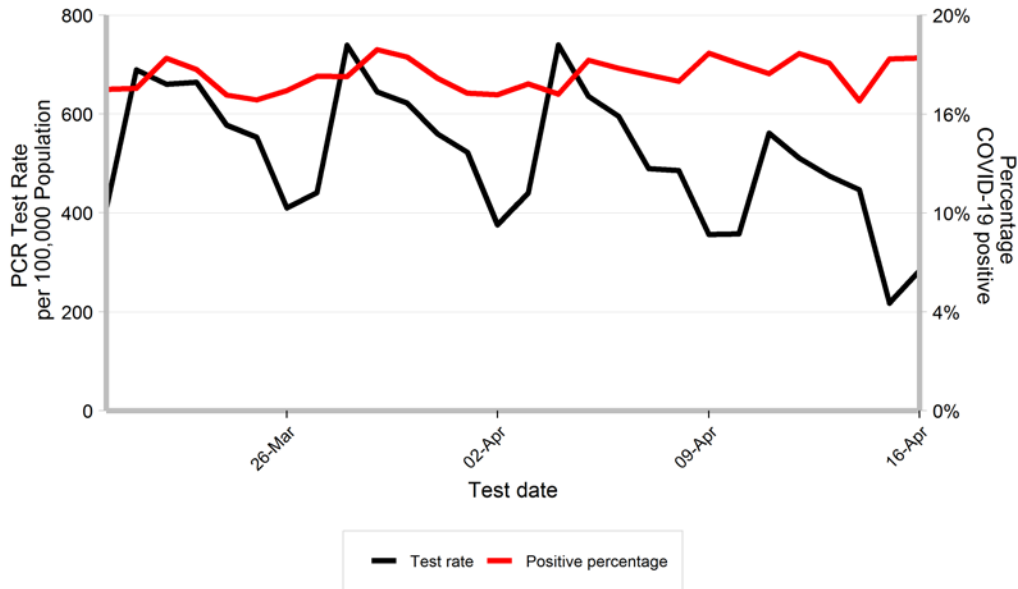
- In the week ending 10 April 2022, 339 cases of influenza A were identified. In comparison, between 2016-2019 the average number of cases identified in the same week was 301 cases. There was one case of influenza B identified, in comparison to the 2016-2019 average of 56 cases for the same week.
- The proportion of positive PCR tests for influenza A has increased. Of 24,985 PCR tests conducted for influenza, 1.4% were positive for influenza A.
- Cases of adenovirus, RSV, rhinovirus, human metapneumovirus and enterovirus have all increased. All remain within the 2016-2019 average with the exception of human metapneumovirus which is well above the average for this time of year.

Figure 7. Number of positive PCR test results for influenza and other respiratory viruses at sentinel NSW laboratories, January 2020 to 10 April 2022



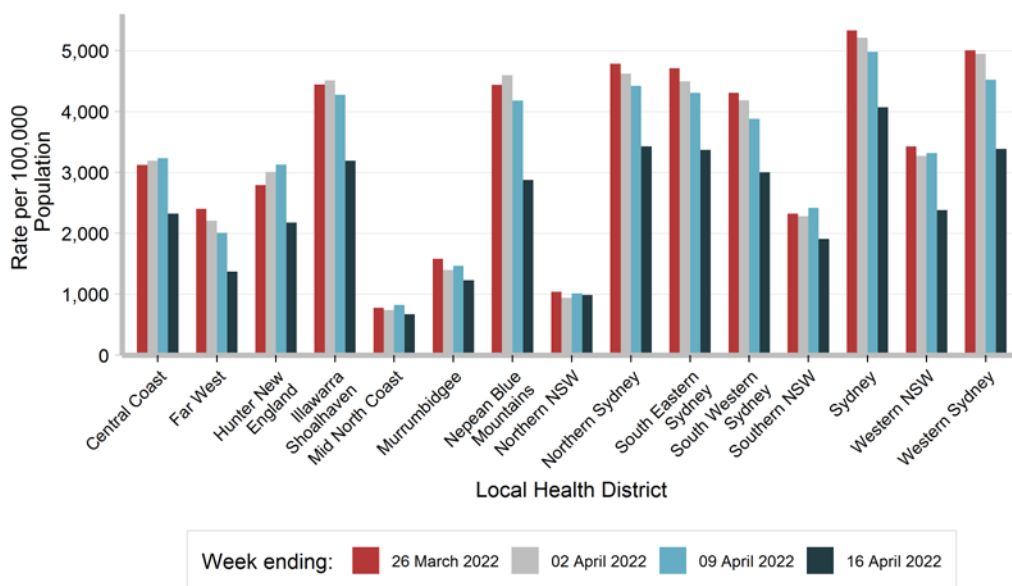
Section 4: Testing

Figure 8. 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, in the four weeks to 16 April 2022



- There were 203,064 PCR tests reported in the week ending 16 April 2022. This is a 23% decrease compared to 264,655 PCR tests reported in the previous week.
- The percentage of PCR tests that were positive for COVID-19 has remained stable at 18%.
- 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 98% (43091/44072) in the week ending 16 April 2022.

Figure 9. Rate of PCR tests for COVID-19 per 100,000 population by Local Health District and test date, NSW, in the four weeks to 16 April 2022



- There have been substantial decreases in the rate of PCR testing across all local health districts except for Mid North Coast, Murrumbidgee and Northern NSW which generally have a higher proportion of RAT compared to PCR testing.

Table 7. 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 April 2022

Variant	Week ending			
	26 March	02 April	09 April	16 April
Omicron (BA.1)	60	23	13	0
Omicron (BA.2)	624	585	337	5
Mixed BA.1/BA.2*	2	1	1	0
Recombinant BA.1/BA.2 (XE)^	0	0	4	1
Total	686	609	355	6

* Mixed infections occur when two separate virus sequences are detected at the same time in a single specimen. ^ Recombinant virus sequences occur when two separate virus strains merge, forming a new, single strain that contains genomic regions of both co-infecting strains.

- 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 conducted at three NSW reference laboratories. WGS can only be conducted on PCR positive tests. Specimens are prioritised for WGS for people admitted to hospital and ICU. This is not a random sample, therefore the proportion of VoCs 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 VOCs for recent dates will increase over time.
- The Omicron variant (B.1.1.529) is currently the dominant COVID-19 variant circulating in the NSW community. Two sub-lineages of the Omicron variant (BA.1 and BA.2) are both circulating with BA.2 the dominant sub-lineage.
- Four additional recombinant XE specimens are reported this week, one collected in the most recent week, and three collected in the week ending 9 April. All four specimens were collected from household members of the returned traveller with the XE variant reported last week. Enhanced surveillance around this household has not detected any further spread of the XE variant.

S Gene detection as a proxy for the BA.2 Omicron sub-lineage

- The BA.1 sub-lineage of the Omicron variant has a mutation that results in a failure of certain PCR test platforms to detect the S gene. This mutation is not present in the BA.2 sub-lineage, and therefore in a region where there is little Delta variant circulating the detection of an S gene can be used as a proxy to distinguish between the two Omicron sub-lineages.
- The PCR test 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. The proportion of SARS-CoV-2 positive specimens with an S gene has increased and was around 99% by 16 April 2022. This indicates that the BA.2 sub-lineage may have made up around 99% of the SARS-CoV-2 detected in NSW by 16 April 2022.
- The Delta (B.1.617.2) variant also results in detection of an S gene in SARS-CoV-2 positive specimens. However, recent whole genome sequencing (WGS) of NSW specimens has identified very few Delta sequences, and so it is very likely that the specimens with S gene detected are the BA.2 Omicron sub-lineage.