

## NSW COVID-19 WEEKLY DATA OVERVIEW

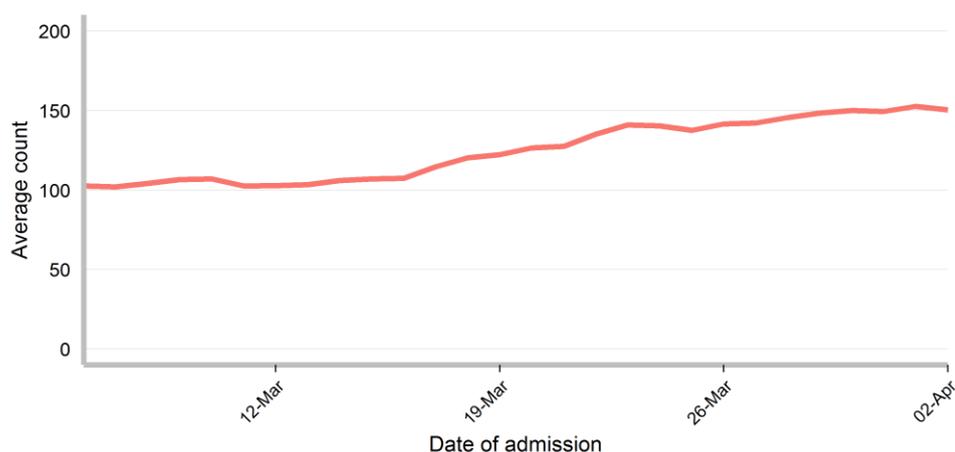
### Epidemiological week 13, ending 2 April 2022

#### Summary

- The seven-day rolling average of daily hospital admissions increased to an average of 150 admissions by the end of this week, compared to 141 admissions at the end of the previous week. The seven-day rolling average of daily Intensive Care Unit (ICU) admissions also increased to an average of 12 admissions by the end of this week, compared to 10 admissions at the end of the previous week. Some people with COVID-19 may be admitted to hospital or ICU for reasons other than COVID-19.
- There were 139,483 people diagnosed with COVID-19 this week, a 5% decrease since the previous week.
- The rate of people diagnosed with COVID-19 per 100,000 population remained highest in people aged 10-19 years but has decreased in people aged under 20 years this week.
- The rate of people diagnosed with COVID-19 per 100,000 population increased across rural and regional Local Health Districts (LHDs) this week but trended slightly downwards in metropolitan LHDs.
- There were 335,673 PCR tests, a 2% decrease since the previous week. The percentage of PCR tests that were positive was 21% on 2 April 2022, the same as at the end of the previous week.
- The BA.2 sub-lineage of the Omicron variant (B.1.1.529) is currently dominant, making up around 97% of SARS-CoV-2 detected in NSW. The BA.1 sub-lineage was also circulating in NSW but at lower levels.
- There were 73 deaths reported this week in people who died with COVID-19. Nine 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. Identification of COVID-19 related deaths from Registry of Births, Deaths and Marriages (RBDM) data has been incorporated into existing reporting processes this week.
- Cases of influenza and other respiratory viral infections increased this week but the percentage of PCR tests that were positive remains low.

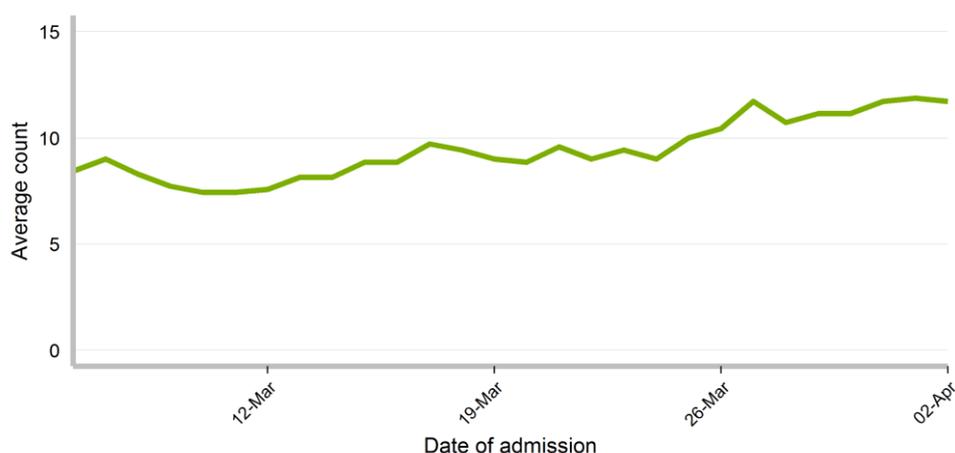
#### Section 1: Hospital admissions, intensive care unit (ICU) admissions and reported deaths

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 2 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.

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



- Hospital admissions and ICU admissions in people with COVID-19 have increased in the last week. The reason for admission may be unrelated to COVID-19.
- In the last week, 1,089 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 increased to an average of 150 admissions by the end of this week, compared to 141 admissions at the end of the previous week.
- In the last week, 83 people diagnosed with COVID-19 were admitted to ICU. The seven-day rolling average of daily ICU admissions increased to an average of 12 admission by the end of this week, compared to 10 admissions at the end of 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 2 April 2022, NSW

Vaccination status	Admitted to hospital (but not to ICU) (%)	Admitted to ICU (%)	Total
Three or more doses	401 (37%)	37 (45%)	425 (37%)
Two doses	334 (31%)	29 (35%)	357 (31%)
One dose	31 (3%)	0 (0%)	31 (3%)
No dose/Unknown	323 (30%)	17 (20%)	336 (29%)
Total	1,089 (100%)	83 (100%)	1,149 (100%)

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

Vaccination status	Number of deaths
Three or more doses	27 (37%)
Two doses	26 (36%)
One dose	1 (1%)
No dose/Unknown	19 (26%)
Total	73 (100%)

- COVID-19 vaccines are very effective in preventing the severe impacts of infections with the virus. Almost 95 per cent of people aged 16 and over in NSW have received two doses of a COVID-19 vaccine, almost 65 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 minority of the overall 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 2 April 2022, NSW**

Age group (years)	Admitted to hospital (but not to ICU) (%)	Admitted to ICU (%)	Total
0-9	105 (10%)	2 (2%)	107 (9%)
10-19	65 (6%)	2 (2%)	66 (6%)
20-29	113 (10%)	11 (13%)	123 (11%)
30-39	157 (14%)	10 (12%)	162 (14%)
40-49	96 (9%)	8 (10%)	104 (9%)
50-59	84 (8%)	13 (16%)	93 (8%)
60-69	106 (10%)	8 (10%)	111 (10%)
70-79	149 (14%)	16 (19%)	160 (14%)
80-89	157 (14%)	12 (14%)	165 (14%)
90+	57 (5%)	1 (1%)	58 (5%)
Total	1,089 (100%)	83 (100%)	1,149 (100%)

**Table 4. Reported deaths of people with COVID-19, by age group, NSW, in the week ending 2 April 2022**

Age-group (years)	Number of deaths
0-9	0 (0%)
10-19	0 (0%)
20-29	0 (0%)
30-39	2 (3%)
40-49	0 (0%)
50-59	3 (4%)
60-69	6 (8%)
70-79	15 (21%)
80-89	30 (41%)
90+	17 (23%)
Total	73 (100%)

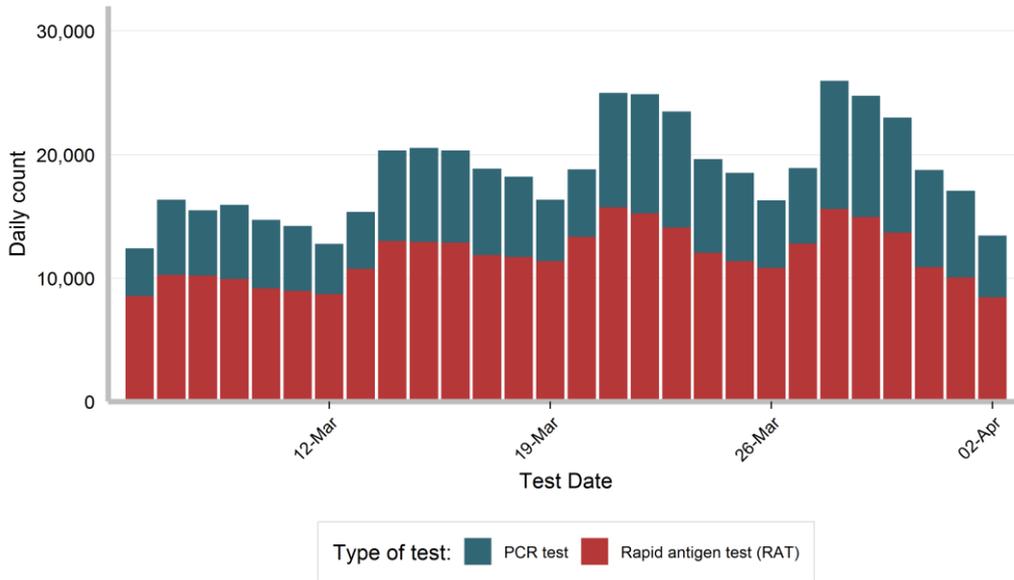
- Despite the substantial protection from COVID-19 provided by vaccination, older age remains a significant risk factor for serious illness and death with COVID-19, particularly when combined with significant underlying health conditions.
- Of the 73 people who were reported to have died with COVID-19, 28 were aged care residents. Six of these people died in hospital and 22 died at an aged care facility.
- Seven of the deaths occurred at home. Among these, one was diagnosed after death. All seven had significant underlying health conditions.
- Of the nine people aged under 65 years who died with COVID-19, one was unvaccinated, five had received two vaccine doses and three had received three vaccine doses. Eight of these people had significant underlying health conditions.
- 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.

- Following an analysis comparing reported deaths from January 2020 to March 2022 with all those identified in death certificates by the NSW Registry of Births, Deaths and Marriages (RBDM), NSW Health reported an additional 331 COVID-19 related deaths this week. A report providing details of these deaths is available on the [NSW Health website](#). Information available from death certificates provided by RBDM have now been incorporated into daily reporting processes.

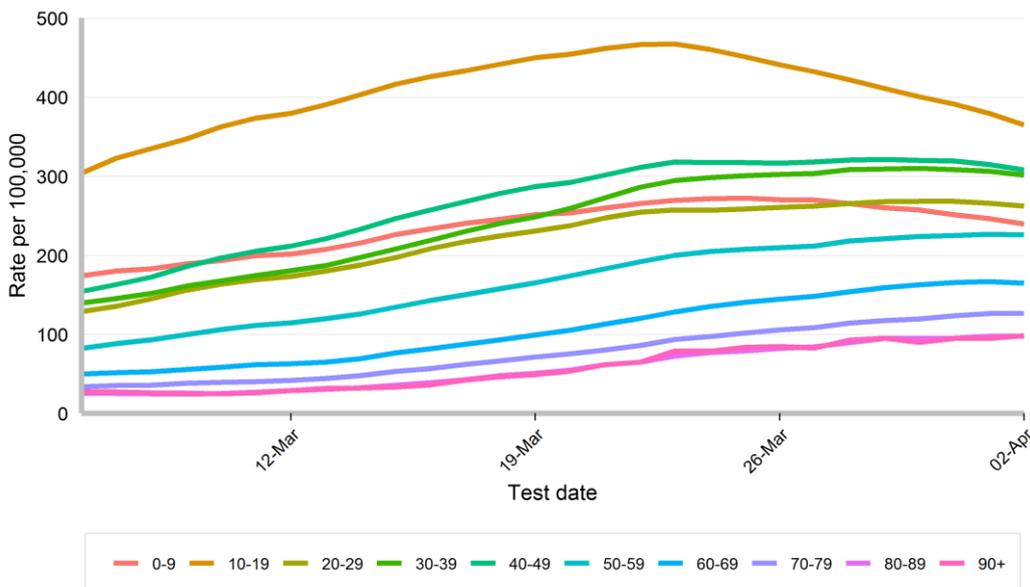
## Section 2: Number of people diagnosed with COVID-19

Figure 3. Number of people diagnosed with COVID-19, by date of test and type of test performed, NSW, in the four weeks to 2 April 2022



- There were 139,483 people diagnosed with COVID-19 this week, a 5% decrease compared to 145,907 people diagnosed with COVID-19 in 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.

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 2 April 2022



- The rate of people diagnosed with COVID-19 per 100,000 population decreased this week in people aged under 20 years. The rate in all other age groups increased or remained stable.
- The rate remains highest in people aged 10-19 years.

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 02 April 2022

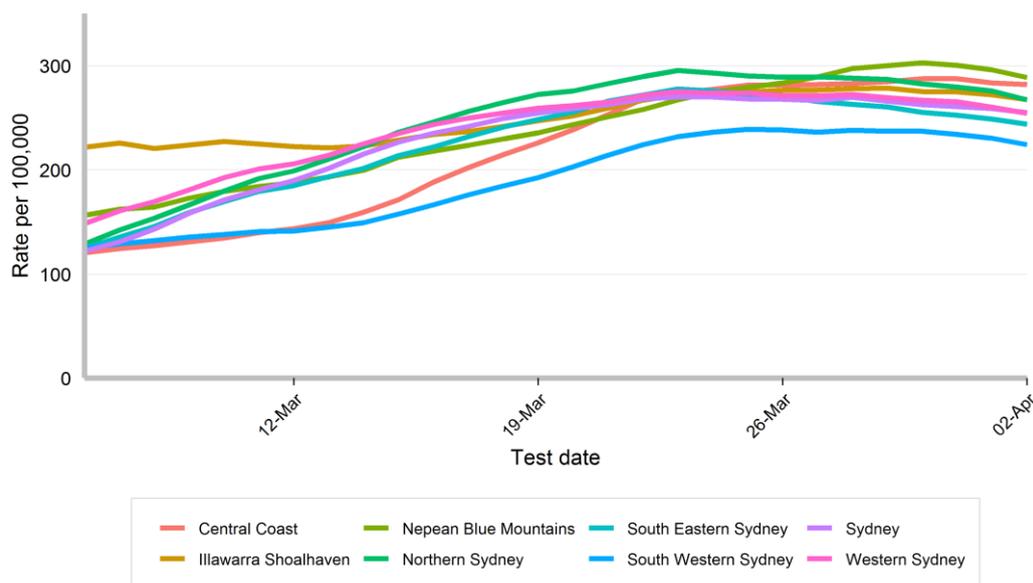
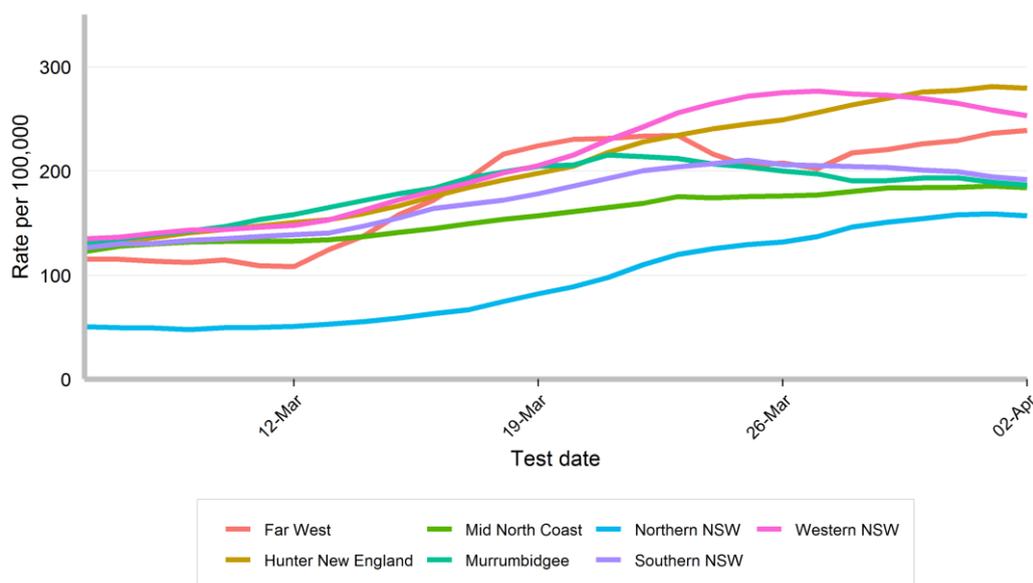


Figure 6. Daily seven-day rolling average rate of people reported with COVID-19 per 100,000 population, by rural and regional Local Health District and test date, NSW, in the four weeks to 2 April 2022



- The rate of people diagnosed with COVID-19 per 100,000 population increased across rural and regional Local Health Districts (LHDs) in the week ending 2 April 2022 but trended slightly downwards in metropolitan LHDs.

Table 5. Number of people diagnosed with COVID-19, by test type, age group and Local Health District, NSW, in the week ending 2 April 2022

	People diagnosed by a PCR test	People diagnosed by rapid antigen test	Total
Age group (years)			
0-9	5,654 (34%)	10,907 (66%)	16,561 (100%)
10-19	7,129 (30%)	16,945 (70%)	24,074 (100%)
20-29	8,217 (39%)	12,597 (61%)	20,814 (100%)
30-39	9,478 (39%)	14,633 (61%)	24,111 (100%)
40-49	8,543 (39%)	13,286 (61%)	21,829 (100%)
50-59	6,790 (45%)	8,335 (55%)	15,125 (100%)
60-69	4,826 (50%)	4,739 (50%)	9,565 (100%)
70-79	2,750 (54%)	2,329 (46%)	5,079 (100%)
80-89	1,104 (59%)	756 (41%)	1,860 (100%)
90+	319 (69%)	143 (31%)	462 (100%)
<b>All ages<sup>^</sup></b>	<b>54,810 (39%)</b>	<b>84,670 (61%)</b>	<b>139,480 (100%)</b>
Local Health District (LHD)*			
Central Coast	2,117 (31%)	4,666 (69%)	6,783 (100%)
Illawarra Shoalhaven	3,180 (41%)	4,517 (59%)	7,697 (100%)
Nepean Blue Mountains	2,865 (37%)	4,888 (63%)	7,753 (100%)
Northern Sydney	7,162 (41%)	10,365 (59%)	17,527 (100%)
South Eastern Sydney	7,467 (47%)	8,523 (53%)	15,990 (100%)
South Western Sydney	6,994 (44%)	8,816 (56%)	15,810 (100%)
Sydney	5,826 (48%)	6,290 (52%)	12,116 (100%)
Western Sydney	8,829 (48%)	9,503 (52%)	18,332 (100%)
<b>Total metropolitan LHDs</b>	<b>44,440 (44%)</b>	<b>57,568 (56%)</b>	<b>102,008 (100%)</b>
Far West	104 (21%)	393 (79%)	497 (100%)
Hunter New England	5,599 (31%)	12,661 (69%)	18,260 (100%)
Mid North Coast	323 (11%)	2,520 (89%)	2,843 (100%)
Murrumbidgee	784 (21%)	3,025 (79%)	3,809 (100%)
Northern NSW	522 (16%)	2,797 (84%)	3,319 (100%)
Southern NSW	855 (30%)	2,021 (70%)	2,876 (100%)
Western NSW	1,475 (30%)	3,478 (70%)	4,953 (100%)
<b>Total rural and regional LHDs</b>	<b>9,662 (26%)</b>	<b>26,895 (74%)</b>	<b>36,557 (100%)</b>

<sup>^</sup>Excludes cases where date of birth is unknown.

\*Excludes cases in correctional settings and hotel quarantine.

- In the week ending 2 April 2022, the proportion of cases reported by RAT for regional LHDs (74%) was higher than for metropolitan LHDs (61%).
- The proportion of people reported with COVID-19 who were diagnosed by PCR test generally increased with age. The high proportion of reported children with COVID-19 who were diagnosed by RAT may in part be due to families of school children being given a supply of RATs.

Table 6. Rate per 100,000 population of people diagnosed with COVID-19, by Aboriginal status, age group and Local Health District, NSW, in the week ending 2 April 2022

	Case rate in Aboriginal people	Case rate in non-Aboriginal people <sup>#</sup>	Total case rate
Age group (years)			
0-9	833	1,713	1,657
10-19	1,504	2,692	2,619
20-29	2,538	1,854	1,882
30-39	3,162	2,194	2,220
40-49	2,041	2,148	2,145
50-59	1,588	1,557	1,557
60-69	1,363	1,180	1,183
70-79	1,169	993	995
80+	817	725	725
<b>All ages<sup>^</sup></b>	<b>1,744</b>	<b>1,804</b>	<b>1,802</b>
Local Health District (LHD)*			
Central Coast	1,893	2,029	2,023
Illawarra Shoalhaven	1,792	1,903	1,898
Nepean Blue Mountains	2,149	2,106	2,108
Northern Sydney	1,876	1,917	1,917
South Eastern Sydney	1,709	1,750	1,749
South Western Sydney	2,059	1,631	1,639
Sydney	2,111	1,843	1,846
Western Sydney	2,045	1,931	1,933
<b>Total metropolitan LHDs</b>	<b>1,968</b>	<b>1,850</b>	<b>1,853</b>
Far West	1,474	1,695	1,666
Hunter New England	1,845	2,013	2,001
Mid North Coast	1,111	1,329	1,314
Murrumbidgee	1,478	1,289	1,581
Northern NSW	820	1,136	1,119
Southern NSW	1,570	1,394	1,401
Western NSW	1,687	1,785	1,773
<b>Total rural and regional LHDs</b>	<b>1,577</b>	<b>1,642</b>	<b>1,676</b>

<sup>#</sup> Includes all cases who did not identify as Aboriginal and/or Torres Strait Islander.

<sup>^</sup>Excludes cases where date of birth is unknown.

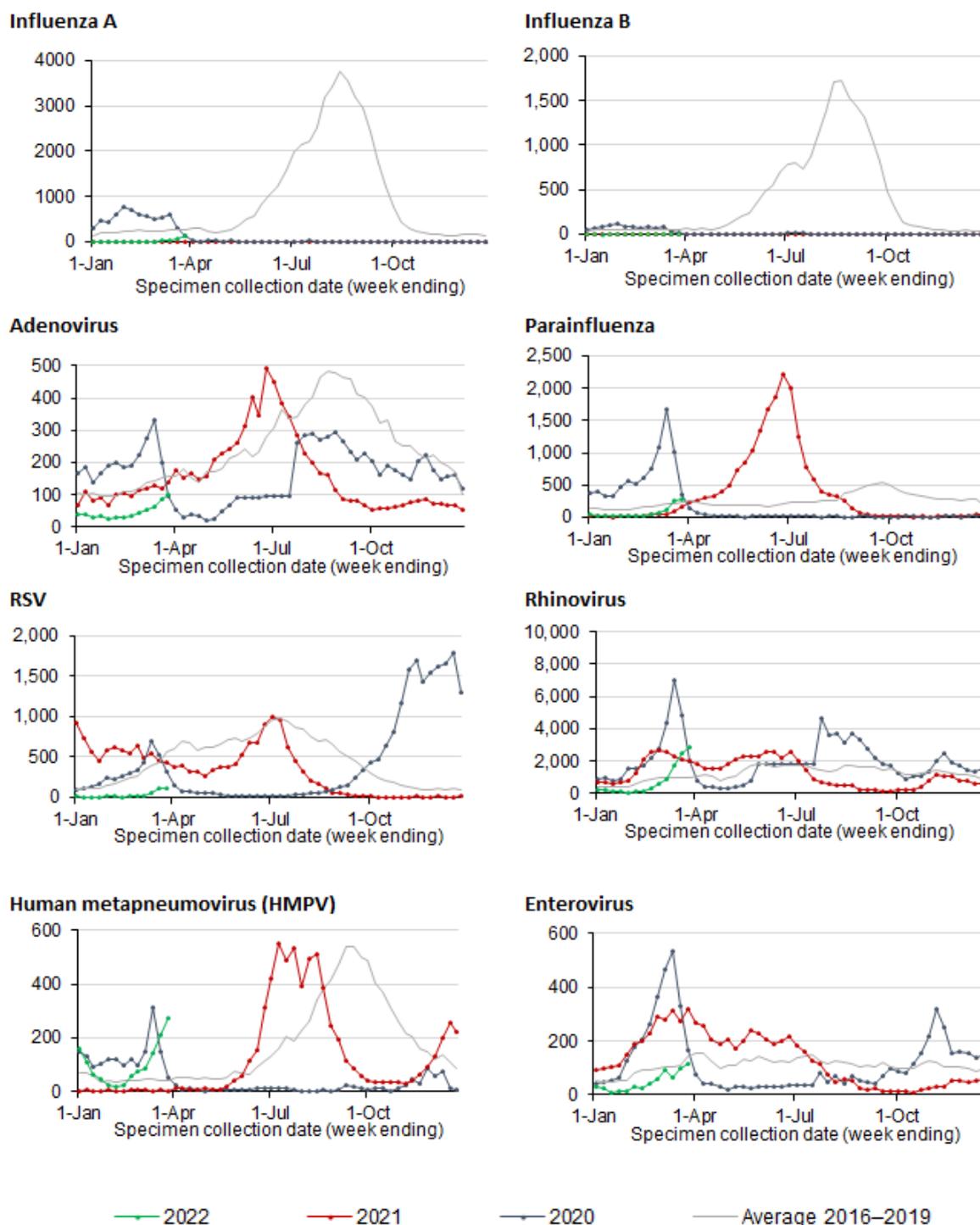
\*Excludes cases in correctional settings and hotel quarantine.

- 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.
- Overall, the case rate per 100,000 population was lower for people who are Aboriginal and/or Torres Strait Islander compared to people who are non-Aboriginal, but in metropolitan LHDs the rate for people who are Aboriginal and/or Torres Strait Islander was higher. The rate was highest in the 30-39 year age group for people who are Aboriginal and/or Torres Strait Islander, whereas the rate was highest in the 10-19 year age group for people who are non-Aboriginal.
- 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 or the RAT registration form. However, not all cases answer the question and hence Aboriginality may be under-reported (complete data is available for approximately 80% of cases).

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

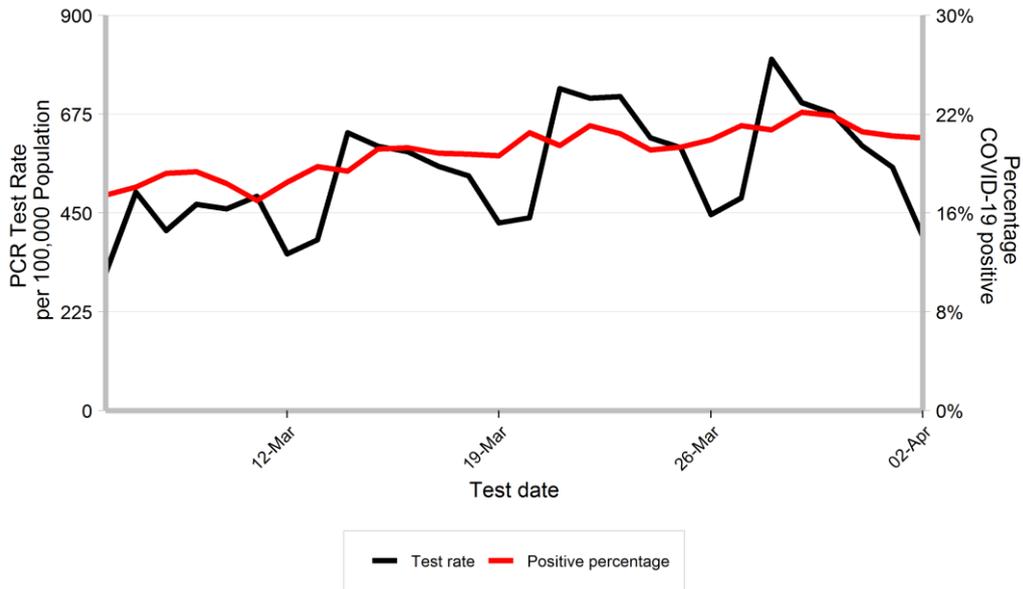
- In the week ending 27 March 2022, 129 cases of influenza A were identified. No cases of influenza B were identified.
- The proportion of positive PCR tests for influenza A or B remained very low. Of 24,517 PCR tests conducted for influenza, 0.53% were positive for influenza A and 0.00% were positive for influenza B.
- Cases of other respiratory viral infections have also increased this week.

Figure 7. Number of positive PCR test results for influenza at sentinel NSW laboratories, January 2020 to 2 April 2022



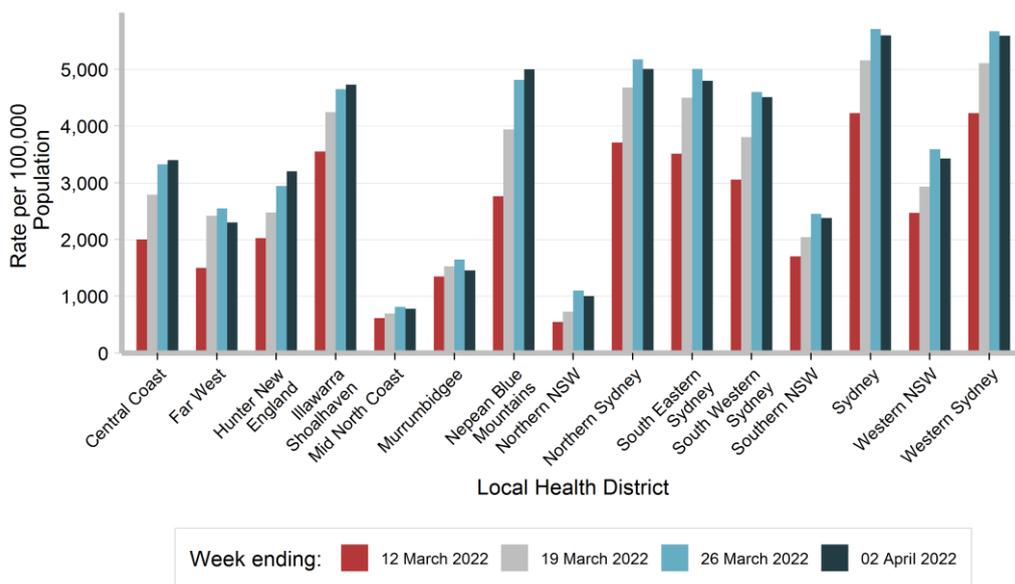
### Section 4: Testing

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 2 April 2022



- There were 335,673 PCR tests in the week ending 2 April 2022. This is a 2% decrease compared to 341,241 PCR tests in the previous week.
- The percentage of PCR tests that were positive for COVID-19 was stable at 21% on 2 April 2022, compared to 21% at the end of the previous week.
- 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 97% (59,130/60,903) in the week ending 2 April 2022.
- NSW Health has reinforced messages that PCR tests are preferred for people at higher risk of severe illness.

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 2 April 2022



- The rate of PCR tests per 100,000 population decreased slightly in most LHDs this week, with the exception of Central Coast, Hunter New England, Illawarra Shoalhaven and Nepean Blue Mountains LHDs where the rate increased.

**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 2 April 2022**

Variant	Week ending			
	12 March	19 March	26 March	02 April
Delta (B.1.617)	0	0	0	0
Omicron (BA.1)	152	103	51	9
Omicron (BA.2)	264	418	524	141
Total	416	521	575	150

- 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 the only COVID-19 variant to be identified by WGS in the NSW community in recent weeks. Two sub-lineages of the Omicron variant (BA.1 and BA.2) are both circulating, with the BA.2 being the dominant sub-lineage.

#### **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 97% by 31 March 2022. This indicates that the BA.2 sub-lineage made up around 97% of the SARS-CoV-2 detected in NSW by 31 March 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.

#### **Mixed and recombinant infections**

- 'Mixed' infections occur when two separate virus sequences are detected at the same time in a specimen.
- Two Omicron BA.1/BA.2 mixed infections were identified by WGS this week. Neither were in specimens collected this week. Before this week, three specimens have been identified as having a Delta/Omicron BA.1 mixed infection and four specimens have been identified as having an Omicron BA.1/BA.2 mixed infection.
- Recombinant virus sequences occur when a case has previously been carrying two separate virus strains that merge, forming a new, single strain that contains genomic regions of both co-infecting strains.
- No new recombinant infections were identified this week. Before this week, one Delta/Omicron BA.1 and one Omicron BA.1/BA.2 recombinant infection have been identified.