COVID-19 WEEKLY SURVEILLANCE IN NSW

EPIDEMIOLOGICAL WEEK 45 ENDING 13 NOVEMBER 2021

Published 22 November 2021

Overview

Table 1. Number and proportion of COVID-19 cases in NSW by likely source of infection to week ending 13 November 2021

	2020		2021			Total
	Jan – Jun	July – Dec	01 Jan - 15 Jun	16 Jun - 31 Oct	01 Nov - 13 Nov	
Locally acquired	1,236 (39 %)	807 (52 %)	51 (7 %)	69,523 (100 %)	2,972 (99 %)	74,589 (95 %)
Interstate acquired	67 (2 %)	23 (1 %)	0 (0 %)	28 (<1 %)	9 (<1 %)	127 (<1 %)
Overseas acquired	1,892 (59 %)	714 (46 %)	641 (93 %)	240 (<1 %)	18 (1 %)	3,505 (4 %)
Total	3,195 (100 %)	1,544 (100 %)	692 (100 %)	69,791 (100 %)	2,999 (100 %)	78,221 (100 %)
Deaths	51	5	0	521	34	611

Summary for the week 7 November to 13 November 2021 (inclusive)

In the week ending 13 November October 2021:

- There were 1,601 total cases reported, with 1,580 locally acquired
- The ten LGAs with the highest number of cases were:
    - Canterbury-Bankstown LGA with 241 (15%) cases
    - Albury LGA with 99 (6%) cases
    - Cumberland LGA with 79 (5%) cases
    - Mid-Coast LGA with 73 (5%) cases
    - Blacktown LGA with 66 (4%) cases
    - Liverpool LGA with 64 (4%) cases
    - Moree Plains LGA with 64 (4%) cases
    - Fairfield LGA with 63 (4%) cases
    - Sydney LGA with 44 (3%) cases
    - Inverell LGA with 38 (2%) cases
    - 757 (48%) cases were residents across 69 other LGAs
- There were 14 cases in overseas returned travellers (compared with 4 the previous week).
- There were 12 deaths in people diagnosed with COVID.
- 47.0% of all cases aged 12 and over were fully vaccinated. This compares with around 86.3% of the NSW population aged 12 and over who had been fully vaccinated (that is, had completed their recommended vaccine schedule more than 2 weeks before, by 30 October).
- Testing rates decreased compared to the previous week (down 10%), with the highest testing rates in the South Western Sydney, Nepean Blue Mountains, Sydney and Western Sydney LHDs.
- 339 sewage samples were tested for fragments of SARS-CoV-2. Of these, there were 141 detections. Detections from Dungog, Wardell, Banora Point, Lennox Head, Scotts Head, Narromine, Blayney, Cobar, Gulgong, Grenfell, Wilcannia, Bermagui, Tocumwal, Deniliquin, West Wyalong, Young, Tomakin, Batemans Bay, Jindabyne, Cooma, Muswellbrook, Quirindi, Gunnedah, Uralla and Barraba occurred with no known or recent cases in the catchment. Cases were also identified in Inverell, Quirindi, Wilcannia, Merimbula and Manilla following recent sewage detections. Note that cases may have been identified in these catchments after 13 November.

Indicators of effective prevention for COVID-19 in NSW for the week ending 13 November 2021

On receipt of a laboratory notification diagnosis of COVID-19, NSW Health now sends a text message to the case informing them that they and their close contacts are required to isolate and asking them to answer a short questionnaire.

Where a mobile number is not available, NSW Health works with the NSW Police to locate and inform the case as soon as possible.

Table 2. Measures of public health action, NSW, for the period from 31 October to 13 November 2021

	Week ending 13 Nov	Week ending 6 Nov
Proportion total cases notified to NSW Health by the laboratory within 1 day of specimen collection	84% (1,343/1,600)	83% (1,282/1,540)
Total cases contacted by text message within 1 day of notification to NSW Health	98% (1568/1601)	97% (1501/1540)
Number of high-risk cases fully interviewed by public health staff within 1 day of responding to the NSW Health text message	90% (472/524)	88% (440/498)
Total cases fully interviewed by public health staff within 1 day of notification to NSW Health	94% (1,501/1,600)	94% (1,451/1,540)

Interpretation: In the week ending 13 November, 84% of cases were notified to NSW Health within a day of test, 94% of cases were fully interviewed within one day of notification and 98% of cases were sent a text message to advise of their positive result, provide isolation requirements and to identify high risk exposure settings. Of those who responded to this message and were identified as high-risk cases, 90% were interviewed within one day of notification. The results indicate that the public health response is contacting the majority of cases with sufficient speed to isolate cases. NSW Health uses this information to adjust methods and prioritisation of cases.

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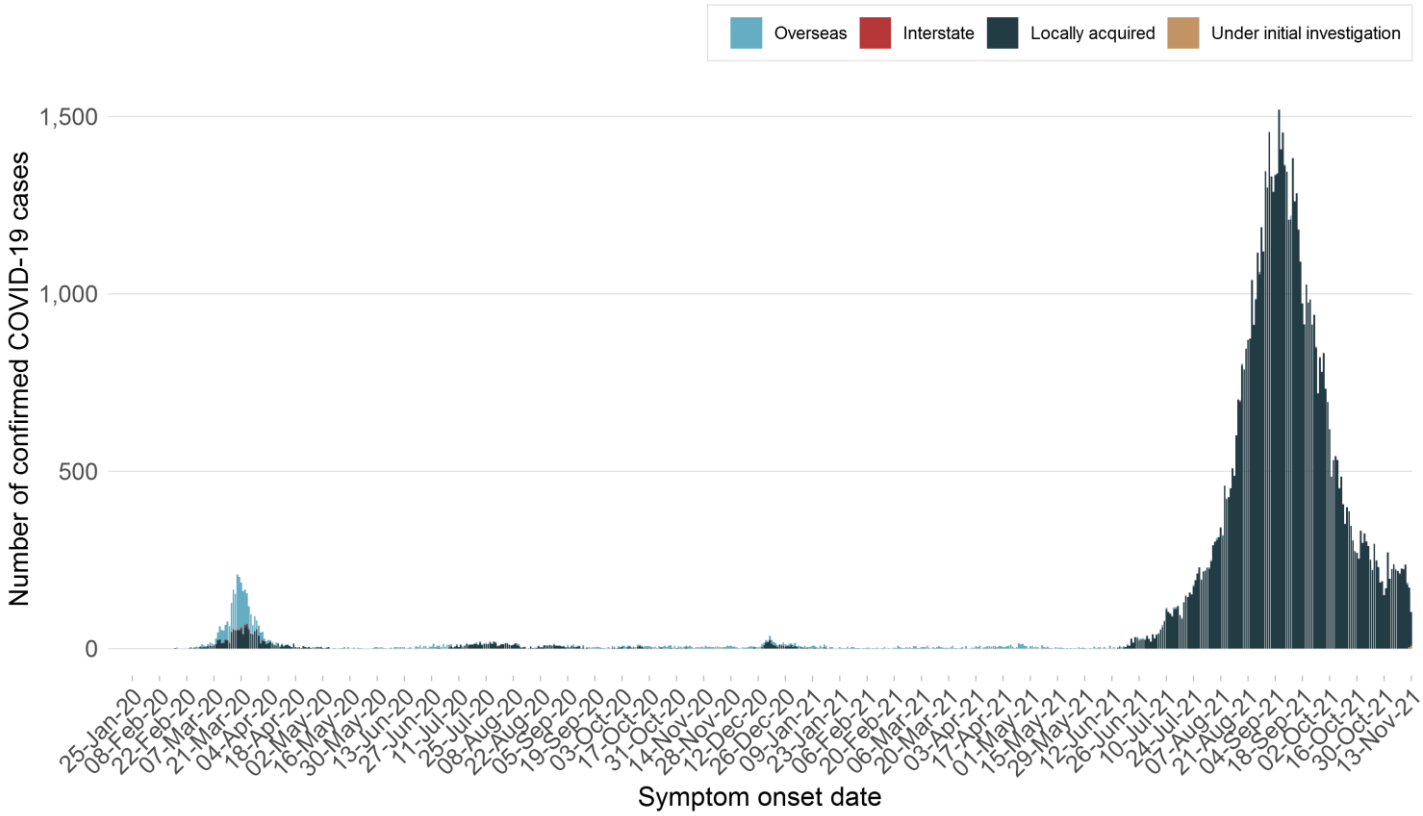
COVID-19 Vaccination program

- Australian Government Department of Health reports the number of vaccine doses administered across Australia — Daily COVID-19 vaccine rollout numbers
- Australian Government Department of Health also reports the percentage of fully vaccinated individuals by LGA — Vaccination rate by LGA
- Therapeutic Goods Administration (TGA) report data on received reports of suspected side effects (also known as adverse events) and other safety information from Australia and overseas — Weekly COVID-19 vaccine safety report
- AusVaxSafety is conducting active vaccine safety surveillance of the vaccines in use. Surveillance data have been

Section 1: How is the pandemic tracking in NSW?

To understand how the outbreak is tracking we look at how many new cases are reported each day and the number of people being tested. Each bar in the graph below represents the number of new cases based on the date of symptom onset.

Figure 1. COVID-19 cases by likely infection source and reported illness onset, NSW, from 13 January 2020 to 13 November 2021



The date of the first positive test is used for cases who did not report symptoms.

Interpretation: Between 13 January 2020 and 13 November 2021, there were 78,221 confirmed COVID-19 cases in NSW. Of those, 3,505 (5%) were overseas acquired, 127 (<1%) were interstate acquired, and 74,589 (95%) were locally acquired. Cases who tested positive by 13 November are included, but are plotted by earliest symptom onset date. As cases typically develop symptoms prior to being notified, the number of cases reported by symptom onset date will appear to decline in more recent days, even if the total number of cases reported on that day does not.

Major waves of COVID-19 cases

The epidemiology of COVID-19 in NSW continued to evolve since the first three cases were reported in NSW on 25 January 2020 in people who acquired their infection in China. The first locally acquired COVID-19 case in NSW was reported on 2 March 2020 and by mid-March case numbers had increased rapidly in overseas returned travellers and their contacts and within localised community outbreaks. In NSW, the number of reported daily cases peaked on 27 March 2020 at 213 cases. Public health action and the introduction of a range of stringent control measures, including the closure of international borders, 14-day mandatory quarantine for returned travellers and restrictions of movement within NSW lead to a decline in cases. Community transmission was interrupted by the end of May 2020.

In early July seeding of SARS-CoV-2 into South Western Sydney from an outbreak in Melbourne led to a second wave of infection. Following intensive public health action community transmission was again interrupted by the end of November 2020.

In December 2020 two new introductions of SARS-CoV-2 caused outbreaks in Sydney's Northern Beaches and Berala in Sydney's West. Community transmission was again interrupted by the end of January 2021.

The fourth outbreak across NSW began in mid-June 2021 in Sydney's east, and spread from there to West and South Western Sydney. Clusters have developed in the Central Coast, Hunter New England, Western NSW, Far Western NSW, and Southern NSW regions.

From October 11, 2021, in the context of high vaccination rates and declining case numbers, restrictions were gradually lifted for NSW residents, and from 1 November 2021, only unvaccinated travellers are required to quarantine in hotels for a 14-day period. Fully vaccinated international travellers are not required to quarantine in hotels or at home. All international travellers are still required to return a negative COVID-19 PCR test at the time of check-in. These changes form a natural boundary for the delta period from 16 June to 31 October. From this point, overseas-acquired cases will include those who test positive in hotel quarantine, and those who have travelled internationally and are deemed by public health interviewers to be overseas-acquired cases, based on symptom onset.

Section 2: COVID-19 in NSW in the last four weeks

Table 3. Total COVID-19 cases by LHD of residence and week reported, NSW, 17 October to 13 November 2021

	Local Health District	Week ending				Total	Days since last case reported
		13 Nov	6 Nov	30 Oct	23 Oct		
Metropolitan Local Health Districts	South Western Sydney	300	254	276	468	1,298	0
	Western Sydney	188	94	154	247	683	0
	Sydney	161	106	138	140	545	0
	South Eastern Sydney	153	91	122	142	508	0
	Northern Sydney	50	30	47	54	181	0
	Nepean Blue Mountains	33	40	53	85	211	0
	Illawarra Shoalhaven	24	40	64	100	228	0
	Central Coast	17	26	32	83	158	0
Rural and Regional Local Health Districts	Hunter New England	339	457	409	432	1,637	0
	Murrumbidgee	159	171	244	230	804	0
	Mid North Coast	61	115	129	93	398	0
	Southern NSW	38	33	37	20	128	0
	Northern NSW	28	23	8	18	77	0
	Far West	24	8	9	11	52	0
	Western NSW	13	45	32	40	130	0
	Correctional settings	5	6	5	12	28	0
	NSW*	1,601	1,540	1,762	2,183	7,086	

*Includes people with a usual place of residence outside of NSW, and those for whom LHD was not available at the time of data extraction.

Interpretation: There were 1,601 cases reported in the week ending 13 November 2021. The largest proportion of cases were residents of Hunter New England LHD (339, 21%) followed by South Western Sydney LHD (300, 19%), Western Sydney LHD (188, 12%) and Murrumbidgee LHD (159, 10%). Correctional settings include all cases diagnosed while residing in NSW correctional facilities. Case numbers in some metropolitan LHDs have increased this week after a sustained decrease over the last four weeks, while some regional LHDs are experiencing continued outbreaks (Hunter New England, Murrumbidgee and Mid North Coast LHDs).

Section 3: Epidemiology of cases with COVID-19 from 16 June 2021 to 13 November 2021

Since 16 June 2021, NSW has experienced a cluster of COVID-19 infections caused only by the delta variant of the SARS-CoV-2 virus. This section describes some of the epidemiological features of this cluster.

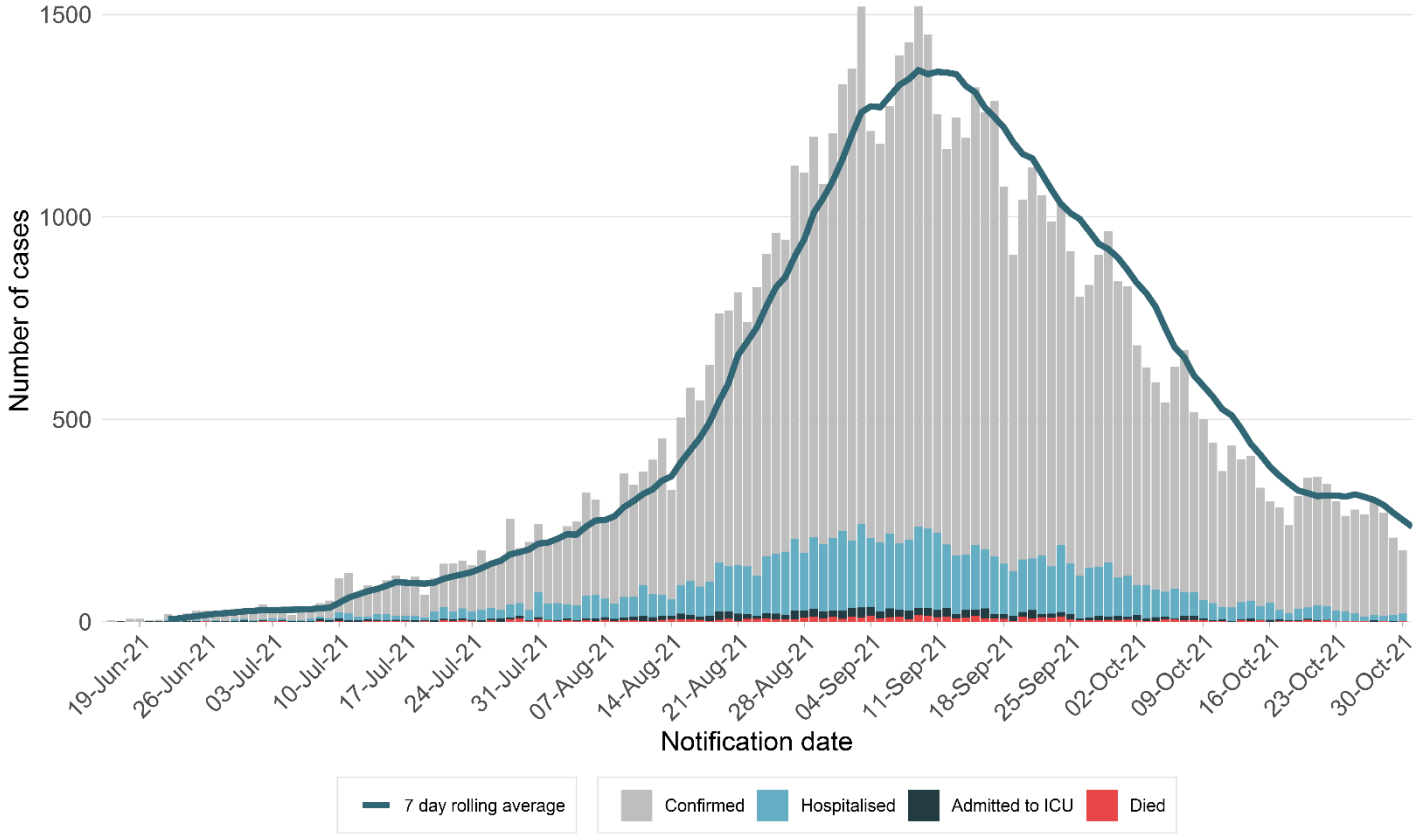
Table 4. COVID-19 cases and tests reported, NSW, from 16 June 2021 to 13 November 2021

	Week ending 13 Nov	Week ending 6 Nov	% change	16 Jun to 31 Oct 2021	Since 1 Nov 2021
Number of cases	1,601	1,540	4 %	69,791	2,999
Locally acquired	1,580	1,534	3 %	69,523	2,972
Known epidemiological links to other cases or clusters	1,170	1,176	-1 %	37,076	2,243
No epidemiological links to other cases or clusters	410	358	15 %	32,447	729
Overseas acquired	14	4	250 %	240	18
Interstate acquired	7	2	250 %	28	9
Number of tests	490,641	543,677	-10 %	13,989,637	960,214

Note: The case numbers reported for previous weeks is based on the most up to date information from public health investigations.

Interpretation: Almost all cases reported in the last two weeks in NSW were locally acquired (3,114/3,141 cases, or 99.1%).

Figure 2. COVID-19 cases by outcome and notification date with 7 day backward rolling average, NSW, from 16 June 2021 to 30 October 2021



Interpretation: This graph shows the number of COVID-19 cases notified each day to NSW Health, as of 30 October and their outcome. All dates are based on the date of the case's notification rather than the date they were hospitalised, admitted to ICU or died. Because there can be a delay between a person becoming ill with COVID-19 and when they may require hospitalisation (currently, a median of 5 days) or between becoming ill and dying (currently, a median of 11 days), data is provided to 30 October, allowing sufficient time to capture the development of severe illness or death among the most recently notified cases. Since mid-September, there has been a steady decline in the number of cases, and the number of hospitalised cases. See Section 6 for further details on hospitalisations over time.

Local Government Areas

Table 5a. Top 20 metropolitan LGAs of residence, ordered by total COVID-19 cases in the last 7 days, per 100,000 population rate, NSW, 16 June to 13 November 2021

LGA name	Last 7 days		16 Jun-13 Nov 2021	
	Cases	Cases per 100,000 population	Cases	Cases per 100,000 population
Canterbury-Bankstown	241	64	11,624	3,076
Burwood	17	42	332	817
Waverley	27	36	404	544
Cumberland	79	33	9,037	3,742
Fairfield	63	30	4,716	2,228
Mosman	9	29	31	100
Liverpool	64	28	5,751	2,527
Woollahra	16	27	207	349
Randwick	29	19	1,352	869
Blacktown	66	18	6,971	1,862
Sydney	44	18	2,087	847
Bayside	29	16	1,579	885
Campbelltown	20	12	2,799	1,637
Penrith	26	12	3,262	1,532
Parramatta	25	10	1,987	773
Inner West	19	9	935	466
Camden	8	8	1,062	1,047
Georges River	13	8	1,342	842
Shoalhaven	8	8	307	291
Sutherland Shire	19	8	676	293

Table 5b. Top 20 regional and rural LGAs of residence, ordered by total COVID-19 cases in the last 7 days, per 100,000 population rate, NSW, 16 June to 13 November 2021

LGA name	Last 7 days		16 Jun-13 Nov 2021	
	Cases	Cases per 100,000 population	Cases	Cases per 100,000 population
Central Darling	18	979	169	9,190
Moree Plains	64	483	151	1,139
Inverell	38	225	97	574
Albury	99	182	667	1,227
Federation	17	137	30	241
Murray River	11	91	46	380
Mid-Coast	73	78	317	338
Kempsey	19	64	235	790
Cessnock	31	52	492	820
Tamworth Regional	32	51	201	321
Queanbeyan-Palerang Regional	29	47	266	435
Kyogle	4	45	21	239
Port Macquarie-Hastings	35	41	135	160
Armidale Regional	12	39	31	101
Wagga Wagga	25	38	45	69
Broken Hill	6	34	140	801
Hay	1	34	1	34
Dungog	3	32	19	202
Clarence Valley	13	25	59	114
Port Stephens	17	23	262	357

Interpretation: The top 20 metropolitan LGAs contributed 51% of all cases in the week ending 13 November, while the top 20 regional and rural LGAs contributed another 34% of cases. The 7 LGAs with the highest case rates per 100,000 population are in a rural and regional area and are associated with known clusters. Although case numbers in most regional LGAs are relatively small, because the population is also small, the case rate is substantially higher than observed in some metropolitan LGAs.

Source of infection for locally acquired cases in NSW

Figure 3a. Source of infection for locally acquired cases, Metropolitan LHDs, from 16 June to 13 November 2021

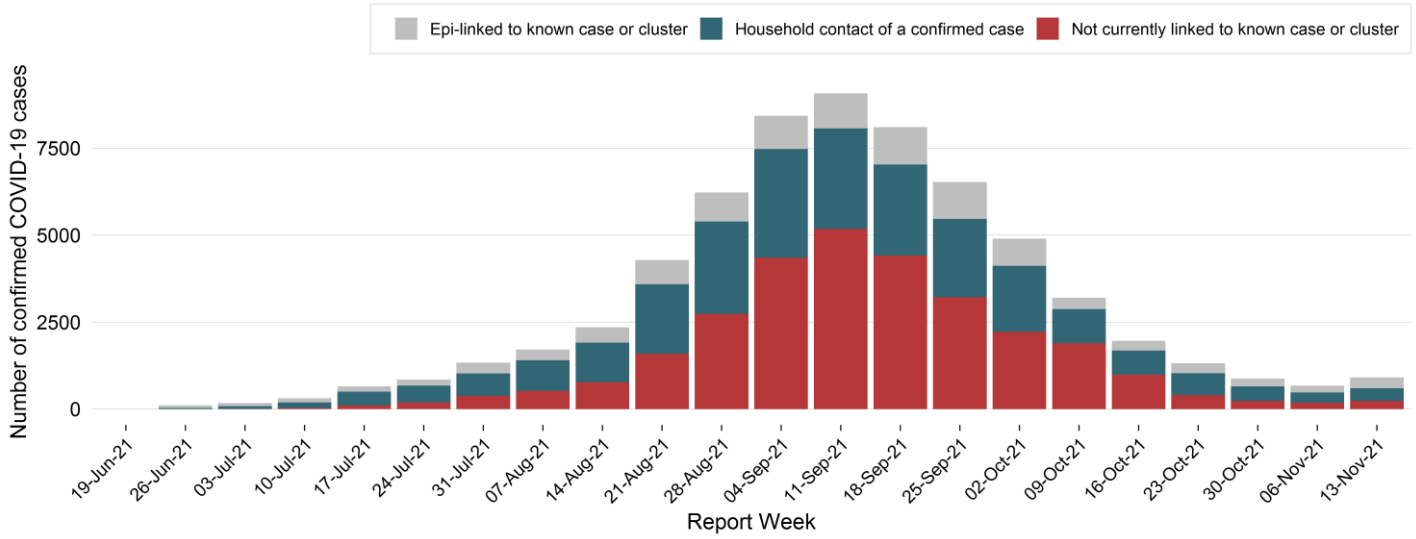
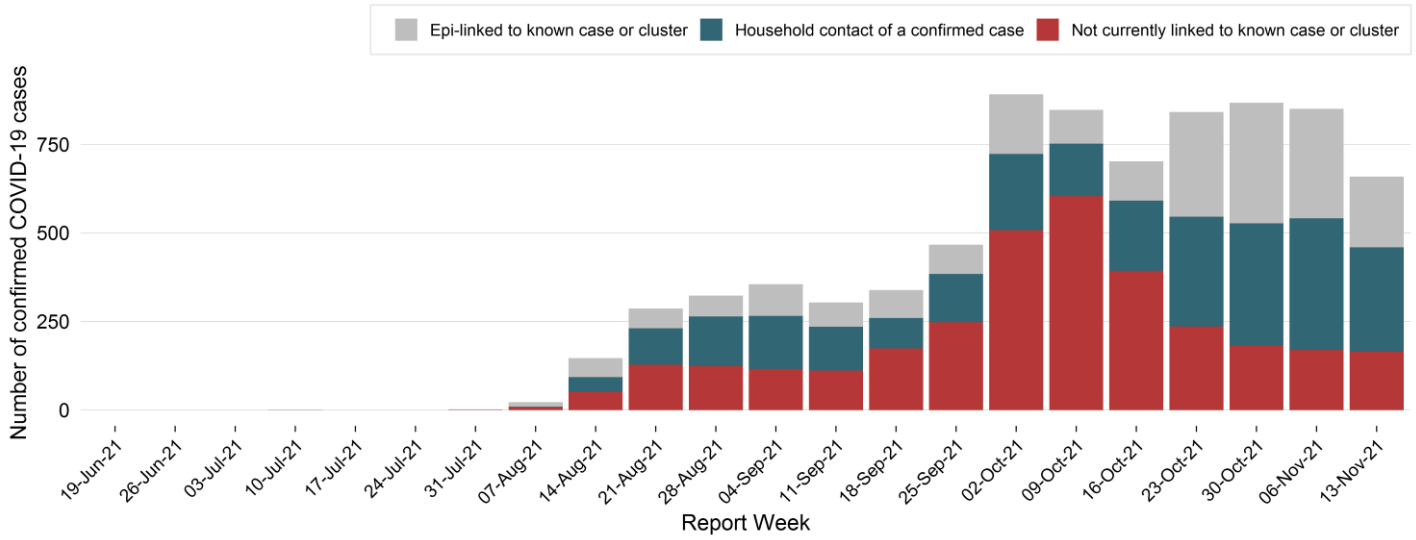


Figure 3b. Source of infection for locally acquired cases, rural and regional LHDs, from 16 June to 13 November 2021



Note: This graph does not include cases in Justice Health and correctional facilities and those for whom LHD was not available at the time of data extraction.

Interpretation: In the week ending 13 November, cases increased by 34% in metropolitan LHDs (908 compared to 677 the previous week), and decreased by 22% in rural and regional LHDs (659 compared to 850 the previous week). Of the 908 cases reported this week in metropolitan LHDs, 367 (40%) were household contacts, 307 (34%) were epidemiologically linked but not household contacts and 234 (26%) were not currently linked to a case or cluster. There were 659 cases reported this week in rural and regional LHDs. Of these, 294 (45%) are household contacts, 200 (30%) are epidemiologically linked but not household contacts and 165 (25%) have not currently been linked to a case or cluster. Unlinked cases are the minority in both metropolitan and regional and rural LHDs, suggesting that contact tracing efforts are identifying the source of infection for the majority of cases.

Age breakdown of total cases, NSW, from 16 June - 13 November 2021

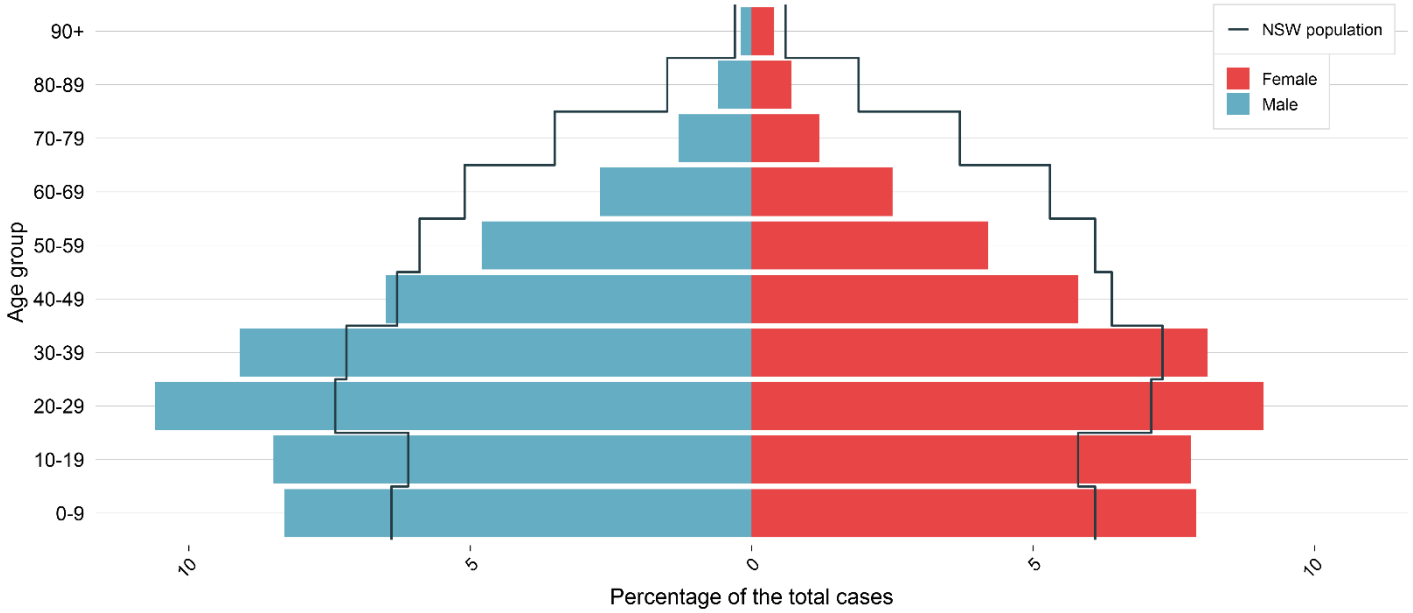
The median age of cases between 1 January 2020 and 15 June 2021 was 37 years (interquartile range (IQR) = 25-55 years). By contrast, between 16 June and 13 November 2021, there have been 72,790 cases with a median age of 28 years (IQR = 15-44 years).

Table 6. Demographics of infections among total cases by gender and age, NSW, 16 June to 13 November 2021

	Week ending				16 Jun to 13 Nov 2021
	13 Nov 2021	6 Nov 2021	30 Oct 2021	23 Oct 2021	
Gender					
Female	797 (49.8%)	785 (51.0%)	858 (48.7%)	1059 (48.5%)	34,608 (47.5%)
Male	800 (50.0%)	755 (49.0%)	904 (51.3%)	1124 (51.5%)	38,136 (52.4%)
Non-specified or non-binary	4 (0.2%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	46 (0.1%)
Age group					
0-9	423 (26.4%)	419 (27.2%)	455 (25.8%)	477 (21.9%)	11,804 (16.2%)
10-19	292 (18.2%)	290 (18.8%)	297 (16.9%)	384 (17.6%)	11,861 (16.3%)
20-29	236 (14.7%)	236 (15.3%)	261 (14.8%)	362 (16.6%)	14,365 (19.7%)
30-39	237 (14.8%)	233 (15.1%)	289 (16.4%)	349 (16.0%)	12,495 (17.2%)
40-49	193 (12.1%)	178 (11.6%)	194 (11.0%)	239 (10.9%)	8,981 (12.3%)
50-59	105 (6.6%)	81 (5.3%)	121 (6.9%)	155 (7.1%)	6,550 (9.0%)
60-69	62 (3.9%)	57 (3.7%)	84 (4.8%)	114 (5.2%)	3,749 (5.2%)
70-79	34 (2.1%)	32 (2.1%)	36 (2.0%)	58 (2.7%)	1,835 (2.5%)
80-89	16 (1.0%)	12 (0.8%)	14 (0.8%)	30 (1.4%)	917 (1.3%)
90+	3 (0.2%)	2 (0.1%)	11 (0.6%)	15 (0.7%)	233 (0.3%)
Vaccination status*					
Fully vaccinated	500 (31.2%)	361 (23.4%)	377 (21.4%)	391 (17.9%)	5,889 (8.1%)
Partially vaccinated	83 (5.2%)	104 (6.8%)	165 (9.4%)	265 (12.1%)	6,613 (9.1%)
No effective dose	339 (21.2%)	444 (28.8%)	545 (30.9%)	793 (36.3%)	35,633 (49.0%)
Under investigation*	142 (8.9%)	113 (7.3%)	136 (7.7%)	167 (7.7%)	10,501 (14.4%)
Not eligible for vaccination (aged 0-11 years)	537 (33.5%)	518 (33.6%)	539 (30.6%)	567 (26.0%)	14,154 (19.4%)
Total	1,601 (100%)	1,540 (100%)	1,762 (100%)	2,183 (100%)	72,790 (100%)

* Vaccination status is updated regularly using both the Australian Immunisation Register and the patient's interview; see Section 5 for more detail.

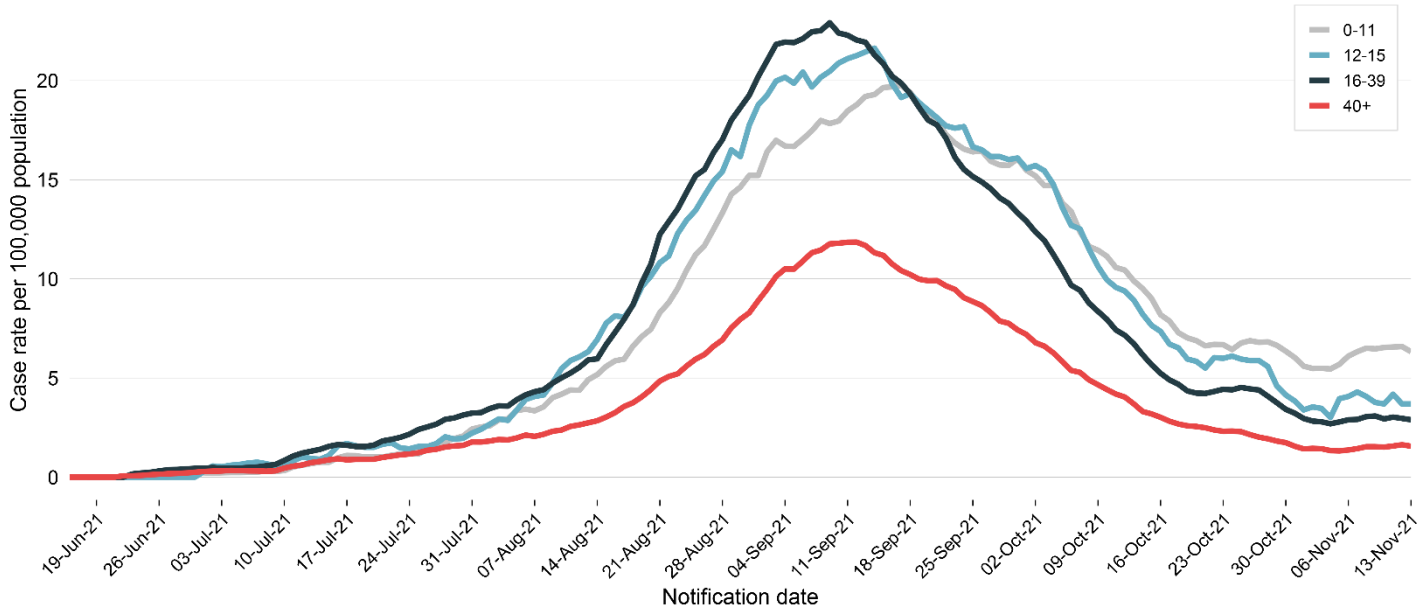
Figure 4. Current wave total case percentage (n = 72,744) by age and gender, NSW, from 16 June to 13 November 2021



Note that the figure does not include cases for whom gender is non-specified or non-binary.

Interpretation: Since 16 June 2021, the majority of cases are aged 20-29 years, and all age groups under 40 are over-represented among the cases, relative to their proportion in the NSW population. The over-representation of younger age group and under-representation among older groups may be due to increased social mixing amongst younger groups and higher vaccination rates in older groups.

Figure 5. Seven day backward rolling average of COVID-19 cases rate per 100,000 population by age and notification date, NSW, from 16 June 2021 to 13 November 2021



Interpretation: The graph shows the rolling average of the rate of cases notified per day by age group. The peak of infections per day for those aged 40+ and those aged 16-39 occurs around 10 September and has steadily declined since that time. People aged 12-15 became eligible for vaccination from 13 September and children aged 11 years and under are not yet eligible for vaccination in Australia. Rates of cases in all groups peaked in mid-September, and have been decreasing, except for children under 16 years whose rates have flattened since mid-October.

Section 4: COVID-19 in specific populations

Aboriginal people

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 access including institutional racism and mistrust of mainstream health services, crowded and inadequate housing, and burden of disease.

In the week ending 13 November 2021 there were 318 total cases of COVID-19 reported in Aboriginal people. Of the 318 cases, 32 (10.1%) were fully vaccinated (see Section 5 for a full description of vaccination status). Since 16 June 2021 there have been 6,525 Aboriginal people diagnosed with COVID-19, representing 9.0% of all cases in that time. This is an over-representation among Aboriginal and Torres Strait Islander people, who represent 3.4% of the NSW population, according to the Australian Bureau of Statistics.

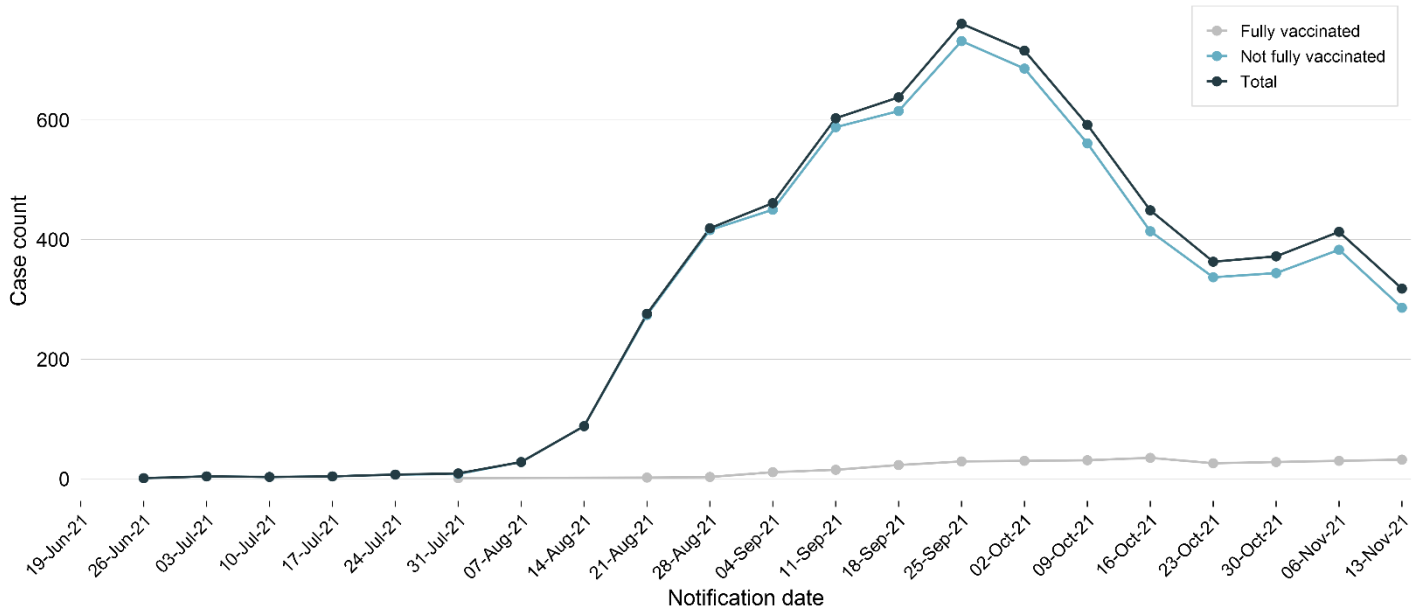
Table 7. Demographics of infections among Aboriginal people by gender, age, and vaccination status, NSW, 16 June to 13 November, 2021

	Week ending				16 Jun to 13 Nov 2021
	13 Nov 2021	6 Nov 2021	30 Oct 2021	23 Oct 2021	
Gender					
Female	180 (56.6%)	221 (53.5%)	180 (48.4%)	183 (50.4%)	3,314 (50.8%)
Male	138 (43.4%)	192 (46.5%)	192 (51.6%)	180 (49.6%)	3,210 (49.2%)
Non-specified or non-binary					1 (<0.1%)
Age group					
0-9	117 (36.8%)	134 (32.4%)	123 (33.1%)	91 (25.1%)	1,695 (26.0%)
10-19	78 (24.5%)	113 (27.4%)	105 (28.2%)	114 (31.4%)	1,508 (23.1%)
20-29	41 (12.9%)	69 (16.7%)	43 (11.6%)	59 (16.3%)	1,176 (18.0%)
30-39	35 (11.0%)	53 (12.8%)	43 (11.6%)	44 (12.1%)	923 (14.1%)
40-49	19 (6.0%)	28 (6.8%)	31 (8.3%)	31 (8.5%)	620 (9.5%)
50-59	17 (5.3%)	6 (1.5%)	14 (3.8%)	9 (2.5%)	370 (5.7%)
60+	11 (3.5%)	10 (2.4%)	13 (3.5%)	15 (4.1%)	233 (3.6%)
Vaccination status					
Fully vaccinated	32 (10.1%)	30 (7.3%)	28 (7.5%)	26 (7.2%)	296 (4.5%)
Partially vaccinated	22 (6.9%)	25 (6.1%)	32 (8.6%)	37 (10.2%)	454 (7.0%)
No effective dose	102 (32.1%)	180 (43.6%)	148 (39.8%)	165 (45.5%)	3,037 (46.5%)
Under investigation*	17 (5.3%)	21 (5.1%)	17 (4.6%)	16 (4.4%)	716 (11.0%)
Not eligible for vaccination (aged 0-11 years)	145 (45.6%)	157 (38.0%)	147 (39.5%)	119 (32.8%)	2,022 (31.0%)
Total	318 (100%)	413 (100%)	372 (100%)	363 (100%)	6,525 (100%)

* Vaccination status is updated regularly using both the Australian Immunisation Register and the patient's interview.

Interpretation: Since 16 June, more than a quarter of cases of COVID-19 among Aboriginal people have been in children aged 0-9 years. The Aboriginal population in NSW is younger than the non-Aboriginal population, and therefore a higher proportion of the Aboriginal population are too young to be eligible for vaccination.

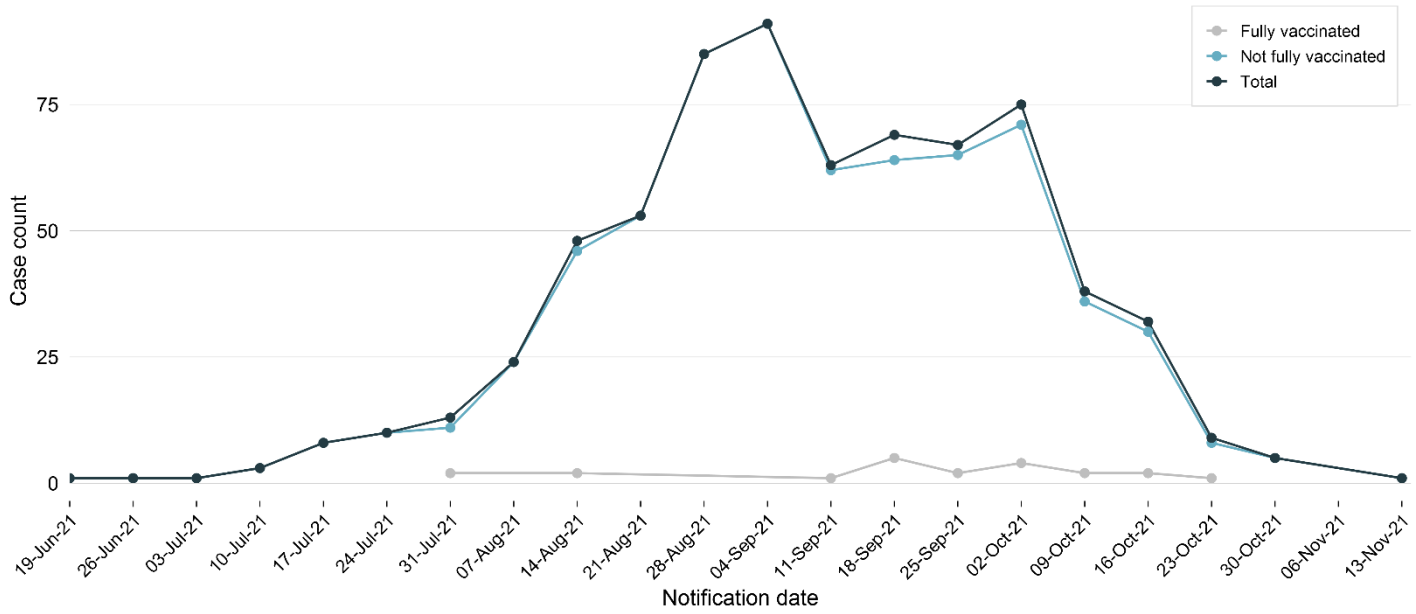
Figure 6. Number of confirmed COVID-19 infections among Aboriginal people by date, NSW, 16 June to 13 November 2021



Pregnant women

In the week ending 13 November 2021 there was 1 case of COVID-19 reported in pregnant women. Since 16 June 2021 there have been 741 pregnant women diagnosed with COVID-19, representing 1% of total cases during this period.

Figure 7. Number of confirmed COVID-19 infections among pregnant women by date, NSW, 16 June to 13 November 2021



Correctional settings

In the week ending 13 November there were 5 cases of COVID-19 reported in people residing in correctional settings. Of the 5 cases, none were fully vaccinated. Since 16 June 2021 there have been 477 people residing in correctional settings diagnosed with COVID-19, representing 0.7% of all cases. Note that cases in correctional settings may have been acquired prior to entry into the setting.

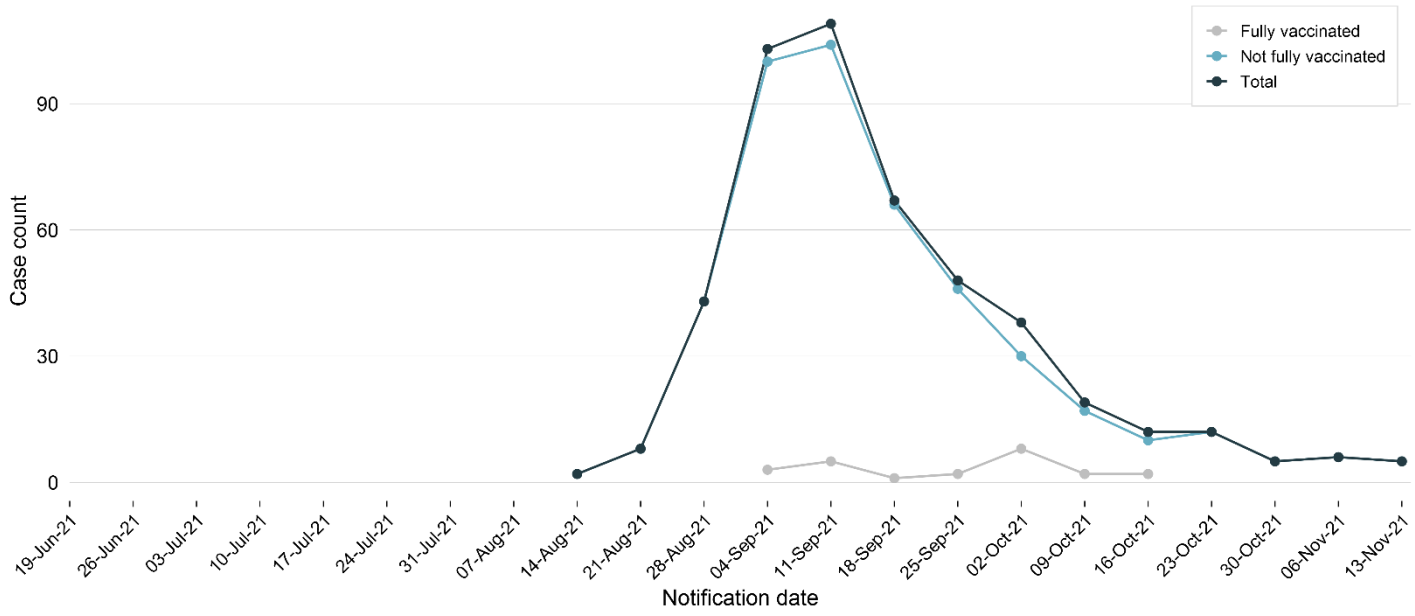
Table 8. Demographics of infections in correctional settings by gender, age, and vaccination status, NSW, 16 June to 13 November, 2021

	Week ending				16 Jun to 13 Nov 2021
	13 Nov 2021	6 Nov 2021	30 Oct 2021	23 Oct 2021	
Gender					
Female	2 (40.0%)	0 (0%)	1 (20.0%)	2 (16.7%)	27 (5.7%)
Male	3 (60.0%)	6 (100%)	4 (80.0%)	10 (83.3%)	450 (94.3%)
Age group					
10-19	0 (0%)	1 (16.7%)	1 (20.0%)	2 (16.7%)	28 (5.9%)
20-29	2 (40.0%)	3 (50.0%)	3 (60.0%)	2 (16.7%)	140 (29.4%)
30-39	1 (20.0%)	1 (16.7%)	0 (0%)	2 (16.7%)	169 (35.4%)
40-49	2 (40.0%)	1 (16.7%)	1 (20.0%)	4 (33.3%)	95 (19.9%)
50-59	0 (0%)	0 (0%)	0 (0%)	2 (16.7%)	34 (7.1%)
60-69	0 (0%)	0 (0%)	0 (0%)	0 (0%)	7 (1.5%)
70-79	0 (0%)	0 (0%)	0 (0%)	0 (0%)	3 (0.6%)
80-89	0 (0%)	0 (0%)	0 (0%)	0 (0%)	1 (0.2%)
Vaccination status					
Fully vaccinated	0 (0%)	0 (0%)	0 (0%)	0 (0%)	23 (4.8%)
Partially vaccinated	1 (20.0%)	2 (33.3%)	0 (0%)	5 (41.7%)	58 (12.2%)
No effective dose	1 (20.0%)	1 (16.7%)	2 (40.0%)	4 (33.3%)	249 (52.2%)
Under investigation*	3 (60.0%)	3 (50.0%)	3 (60.0%)	3 (25.0%)	147 (30.8%)
Total	5 (100%)	6 (100%)	5 (100%)	12 (100%)	477 (100%)

* Vaccination status is updated regularly using both the Australian Immunisation Register and the patient's interview.

Interpretation: Since 16 June, most cases of COVID-19 among people residing in correctional settings were male and aged 30-39 years, consistent with the demographics of correctional populations generally.

Figure 8. Number of confirmed COVID-19 infections among people residing in correctional settings by date, NSW, 16 June to 13 November 2021



Healthcare workers

The following describes infections of COVID-19 in healthcare workers (HCWs). HCWs in this section includes roles such as doctor, nurse, orderly, paramedic, laboratory technician, pharmacist, administrative staff, cleaners, and other support staff. Public health units routinely undertake investigations of COVID-19 cases in healthcare workers to identify ongoing risks in healthcare settings.

In the week ending 13 November, there was 1 healthcare worker diagnosed with COVID-19. This person was a contact of previously reported cases, and was partially vaccinated.

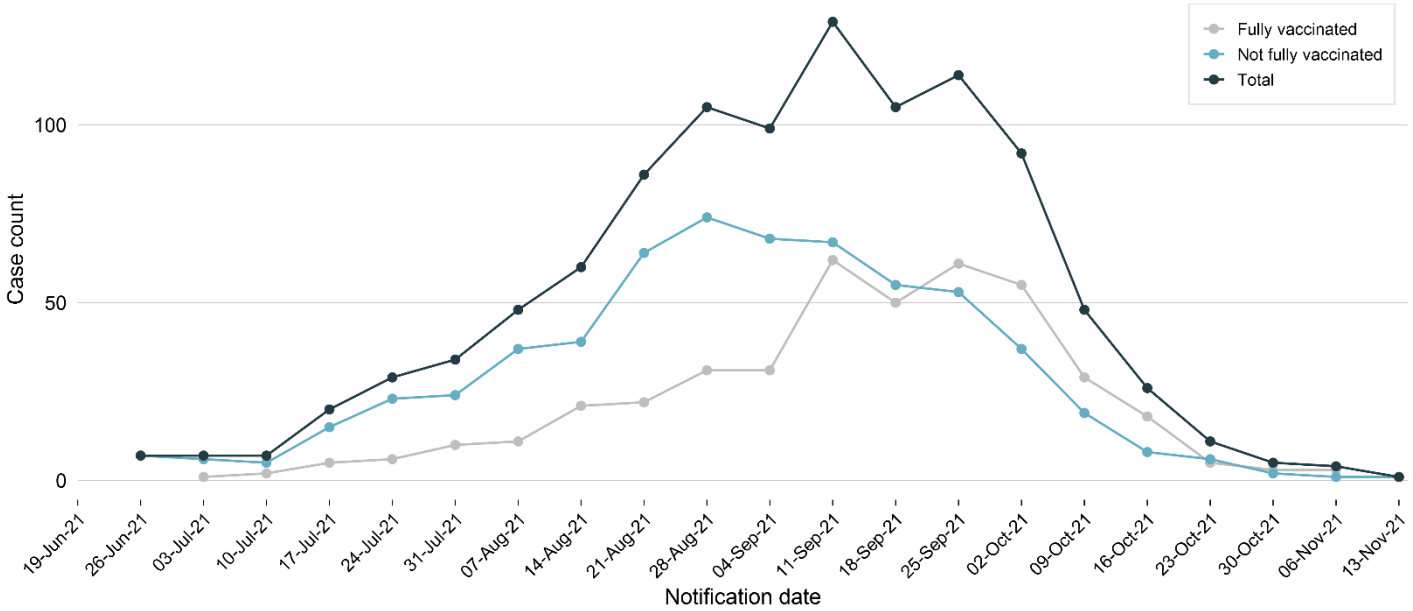
In total there have been 1,097 cases of COVID-19 in health care workers since August 2020. Of these, 217 were potentially infected in healthcare settings. A further 403 cases were linked to social or household contacts, and for 477 cases the source of infection is either unknown or under investigation. Prior to August 2020, there were 35 cases identified in HCWs who had worked in a health facility in the 14 days prior to symptom onset or date of testing (see COVID-19 in healthcare workers in NSW).

Table 9. Number of healthcare worker infections by source of infection and proportion fully vaccinated, NSW, 16 June to 13 November, 2021

Healthcare workers	Last 7 days			Current NSW outbreak (16 Jun-13 Nov 2021)		
	Number of HCWs	Fully vaccinated	Partially vaccinated	Number of HCWs	Fully vaccinated	Partially vaccinated
Healthcare acquired	0	-	-	192	75 (39%)	21 (11%)
Community acquired	1	0 (0%)	1 (100%)	386	157 (41%)	49 (13%)
Not currently linked	0	-	-	459	194 (42%)	50 (11%)
Total	1	0 (0%)	1 (100%)	1037	426 (41%)	120 (12%)

Interpretation: Since 16 June, most healthcare workers associated with the current NSW outbreak have been infected in the community and outside of a healthcare setting (745/1037, 72%). Of the 1,037 healthcare workers that have been diagnosed with COVID-19 in the current outbreak, 426 (41%) have been fully vaccinated and 120 (12%) have been partially vaccinated.

Figure 9. Number of confirmed COVID-19 infections among healthcare workers by date, NSW, 16 June to 13 November 2021



Aged care workers

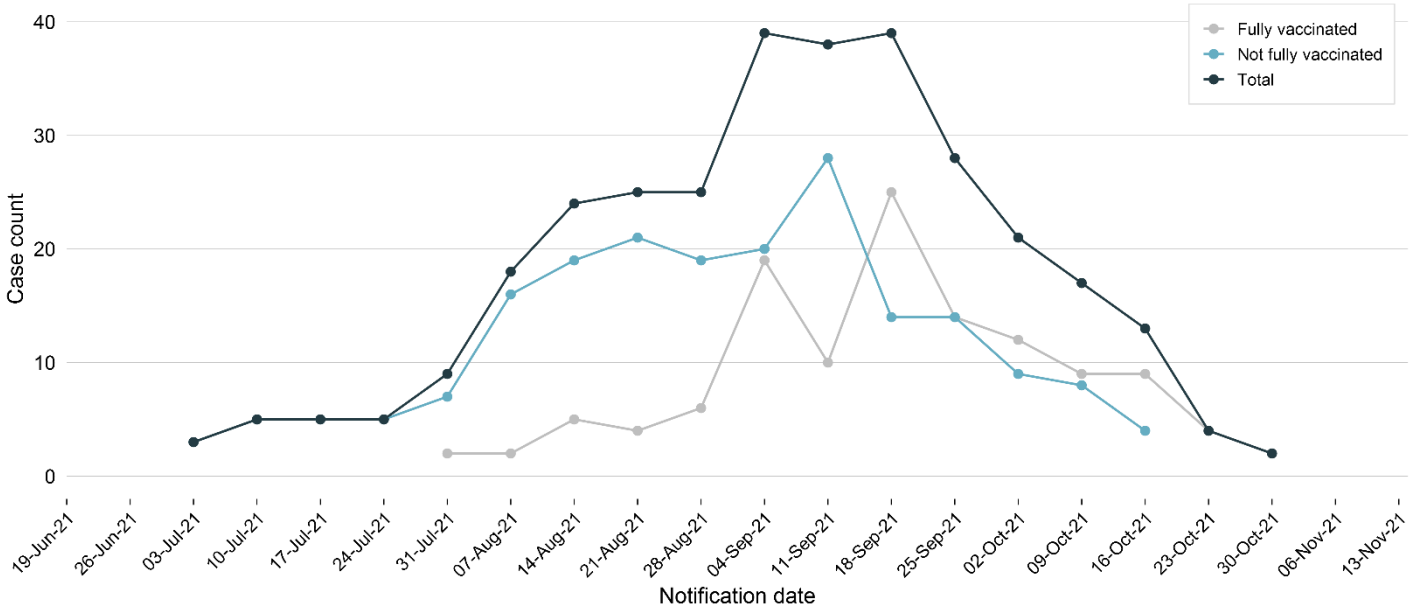
Since 16 June 2021, there have been 320 cases reported in aged care workers. Of these, 123 (38%) were fully vaccinated, and 67 (21%) people had received one effective dose.

Table 10. Number of aged care worker infections by source of infection and proportion fully vaccinated, NSW, 16 June to 13 November 2021

Aged care workers	Last 7 days			Current NSW outbreak (16 Jun-13 Nov 2021)		
	Number of ACWs	Fully vaccinated	Partially Vaccinated	Number of ACWs	Fully vaccinated	Partially Vaccinated
Acquired at aged care facility	0	-	-	69	21 (30%)	18 (26%)
Community acquired	0	-	-	129	53 (41%)	24 (19%)
Not currently linked	0	-	-	122	49 (40%)	25 (20%)
Total	0	-	-	320	123 (38%)	67 (21%)

Interpretation: In the week ending 13 November there were no aged care workers diagnosed with COVID-19. Most aged care workers since 16 June have acquired their infection outside of an aged care facility (251/320, 78%), and many were fully vaccinated, indicating that efforts to stop transmission within aged care facilities, including high vaccination rates among staff, have been successful.

Figure 10. Number of confirmed COVID-19 infections among aged care workers by date, NSW, 16 June to 13 November 2021



Section 5: COVID-19 vaccination status

COVID-19 vaccinations began in Australia on 22 February 2021. The first people to receive the COVID-19 vaccines were priority groups at a higher risk of COVID-19 infection, including quarantine and border workers, frontline healthcare workers, and aged and disability care residents and staff. People receiving vaccines are considered fully vaccinated two weeks after they complete the recommended course for that vaccine. All the vaccines being administered in Australia, and most from overseas, recommend a two-dose course.

The tables below show the number of COVID-19 cases by their COVID-19 vaccination status. Definitions of status are as follows:

- Cases reported as **fully vaccinated** completed the recommended vaccine course at least 14 days prior to known exposure to COVID-19 or arrival in Australia.
- Cases reported as **partially vaccinated** (one effective dose)**:**
  - received their first dose of a two-dose vaccination course at least 21 days prior to known exposure to COVID-19 or arrival in Australia, or
  - received their second dose of a two-dose vaccination course less than 14 days prior to known exposure to COVID-19 or arrival in Australia, or
  - received a single-dose vaccination course (currently only Johnson & Johnson vaccine) less than 14 days prior to known exposure to COVID-19 or arrival in Australia.
- Cases reported as **no effective dose:**
  - received their first dose of a two-dose vaccination course less than 21 days prior to known exposure to COVID-19 or arrival in Australia, or
  - have not received any vaccine dose.
- Cases reported as **under investigation:**
  - vaccination status could not be determined, either through interview or searching the Australian Immunisation Register, suggesting they were unlikely to have been vaccinated in Australia, or that their Medicare registration is outside NSW.

Using the phrase “no effective dose” indicates that an insufficient period of time has elapsed to allow for maximal immune response provided by the vaccine. It does not indicate that vaccines are ineffective.

Table 11. Total COVID-19 cases by vaccination status and week reported, NSW, 16 June to 13 November 2021

Vaccination Status	Week ending				16 Jun to 16 Oct 2021	Total from 16 Jun 2021
	13 Nov 21	6 Nov 21	30 Oct 21	23 Oct 21		
Fully Vaccinated	500 (31.2%)	361 (23.4%)	377 (21.4%)	391 (17.9%)	4,260 (6.5%)	5,889 (8.1%)
Partially Vaccinated	83 (5.2%)	104 (6.8%)	165 (9.4%)	265 (12.1%)	5,996 (9.1%)	6,613 (9.1%)
No effective dose	339 (21.2%)	444 (28.8%)	545 (30.9%)	793 (36.3%)	33,512 (51.0%)	35,633 (49.0%)
Under investigation*	142 (8.9%)	113 (7.3%)	136 (7.7%)	167 (7.7%)	9,943 (15.1%)	10,501 (14.4%)
Not eligible for vaccination (aged 0-11 years)	537 (33.5%)	518 (33.6%)	539 (30.6%)	567 (26.0%)	11,993 (18.3%)	14,154 (19.4%)
Total	1,601	1,540	1,762	2,183	65,704	72,790

* Vaccination status is updated regularly using both the Australian Immunisation Register and the patient’s interview.

Interpretation: In the past week 500 total cases were fully vaccinated. This represents 31.2% of all cases, and 47.0% of all 1,064 cases who were eligible for vaccination (aged 12 years and over). This compares with around 86.3% of the NSW population aged 12 and over who had been fully vaccinated (that is, had completed their recommended vaccine schedule by 30 October). The proportion of cases who are fully or partially vaccinated will continue to increase as the rates of vaccination continue to increase in the community.

Clinical severity and COVID-19 vaccination

The COVID-19 vaccines available in Australia are very effective with evidence showing that people who are fully vaccinated are 70–95% less likely to get sick with COVID-19 compared with those who are not vaccinated. However, a small proportion of fully vaccinated people may still get the disease. As the proportion of the population who are vaccinated increases, the numbers of cases who are fully vaccinated will increase but this does not mean the vaccines are not working.

Table 12. Hospitalisations, ICU admissions and deaths among cases diagnosed with COVID-19, by vaccination status, NSW, from 16 June to 13 November 2021

Vaccination status	Hospitalised (%)	Hospitalised and in ICU (%)	Death (%)
Fully Vaccinated	734 (6.8%)	54 (3.9%)	79 (14.2%)
Partially vaccinated	881 (8.2%)	92 (6.6%)	69 (12.4%)
No effective dose	6,545 (60.7%)	967 (69.0%)	398 (71.7%)
Under investigation	1,999 (18.5%)	280 (20.0%)	9 (1.6%)
Not eligible for vaccination (aged 0-11 years)	632 (5.9%)	9 (0.6%)	0 (0.0%)
Total	10,791[1] (100.0%)	1,402* (100.0%)	555 (100.0%)

Interpretation: Vaccination is protective against hospitalisation, admission to an intensive care unit, and death. While unvaccinated cases represent 49.0% of all cases since 16 June (see Table 11), they account for 60.7% of hospitalisations, 69.0% of ICU admissions, and 71.7% of deaths. Further, the table demonstrates that COVID-19 is relatively mild in most young children; despite children aged 0-11 years accounting for 19.4% of cases since 16 June (see Table 11), they account for only 5.9% of hospitalisations, 0.6% of ICU admissions, and no deaths.

Table 13. Proportion of cases with a severe outcome (ICU and/or death) amongst all cases, by age, time of infection, and vaccination status

Age-group (years)	% cases with severe outcomes (ICU and/or death)		
	Jan 2020 - 15 Jun 2021	16 Jun - 13 Nov 2021: Fully vaccinated	16 Jun – 13 Nov 2021: Un-vaccinated
0-9	0% (0 / 251)	- -	<1% (10 / 11,804)
10-19	<1% (1 / 325)	0% (0 / 109)	<1% (29 / 9,234)
20-29	<1% (4 / 1,115)	<1% (1 / 850)	1% (96 / 9,566)
30-39	1% (15 / 1,098)	<1% (4 / 1,178)	2% (150 / 7,601)
40-49	2% (12 / 718)	<1% (4 / 1,116)	3% (172 / 5,224)
50-59	4% (30 / 710)	1% (15 / 1,022)	7% (250 / 3,595)
60-69	7% (44 / 656)	2% (16 / 714)	13% (219 / 1,689)
70-79	12% (46 / 394)	6% (32 / 509)	24% (157 / 668)
80-89	21% (26 / 122)	11% (30 / 278)	36% (125 / 346)
90+	38% (16 / 42)	20% (23 / 113)	47% (28 / 60)
Total	4% (194 / 5,431)	2% (125 / 5,889)	2% (1,236 / 49,787)

Interpretation: Prior to 15 June 2021, 4% of cases had a severe outcome, with an increasing risk of severe outcome with increasing age. Although vaccination was available in Australia for elderly groups before 15 June, there were very few cases between February 22 (when vaccination began) and 15 June. Since 16 June, the likelihood of a severe outcome for un-vaccinated individuals (including those with no effective dose, and not yet eligible for vaccination) is similar to the pre-delta period, while the likelihood of a severe outcome is substantially reduced amongst fully vaccinated individuals. Increased age remains a significant predictor of increased risk of a severe outcome, but the protective effects of vaccination are also more apparent as age increases. The total proportion of cases with a severe outcome is lower (2%) since 16 June 2021 compared to before this date; this is because infections have been in a younger cohort since 16 June (see Section 3). Further, the total proportions are similar between fully vaccinated and un-vaccinated groups because the fully vaccinated group contains a greater proportion of elderly people, who have greater risk of severe outcomes, while the un-vaccinated group contains many young people, with a much lower risk of severe outcomes, resulting in a similar overall risk. The analysis does not take into account the reduced risk of contracting COVID-19 amongst fully-vaccinated individuals.

[1] The weekly report relies on public health surveillance data which is continually cleaned and updated during an investigation. The number of cases hospitalised has reduced in recent weeks due to removing cases who were hospitalised but unlikely to have been hospitalised because of experiencing illness due to COVID (for example emergency department presentations without admission). These types of data cleaning activities have occurred throughout the pandemic and the differences are most noticeable when case numbers are declining or stable.

Section 6: COVID-19 hospitalisations and deaths

How many people were in hospital each day with COVID-19?

Figure 11a. Estimated active cases (number of cases notified last 14 days), number of cases in hospital, in ICU and ventilated by date, NSW, from 16 June to 13 November 2021

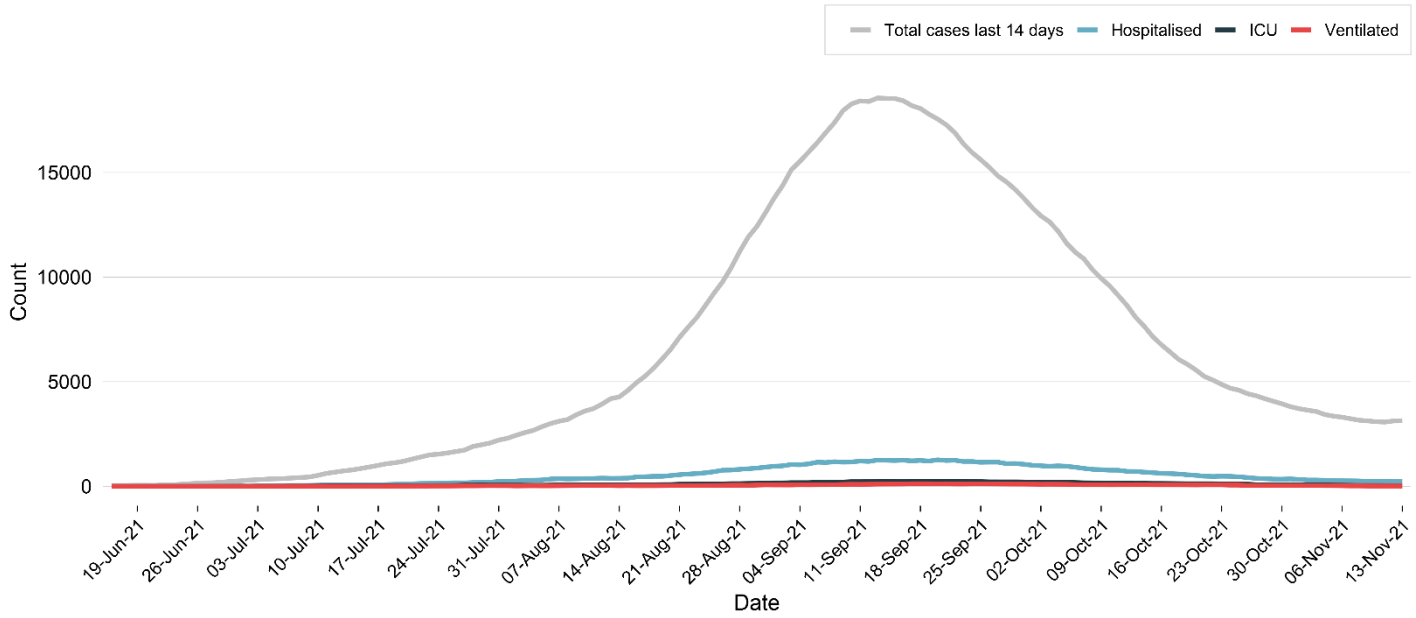
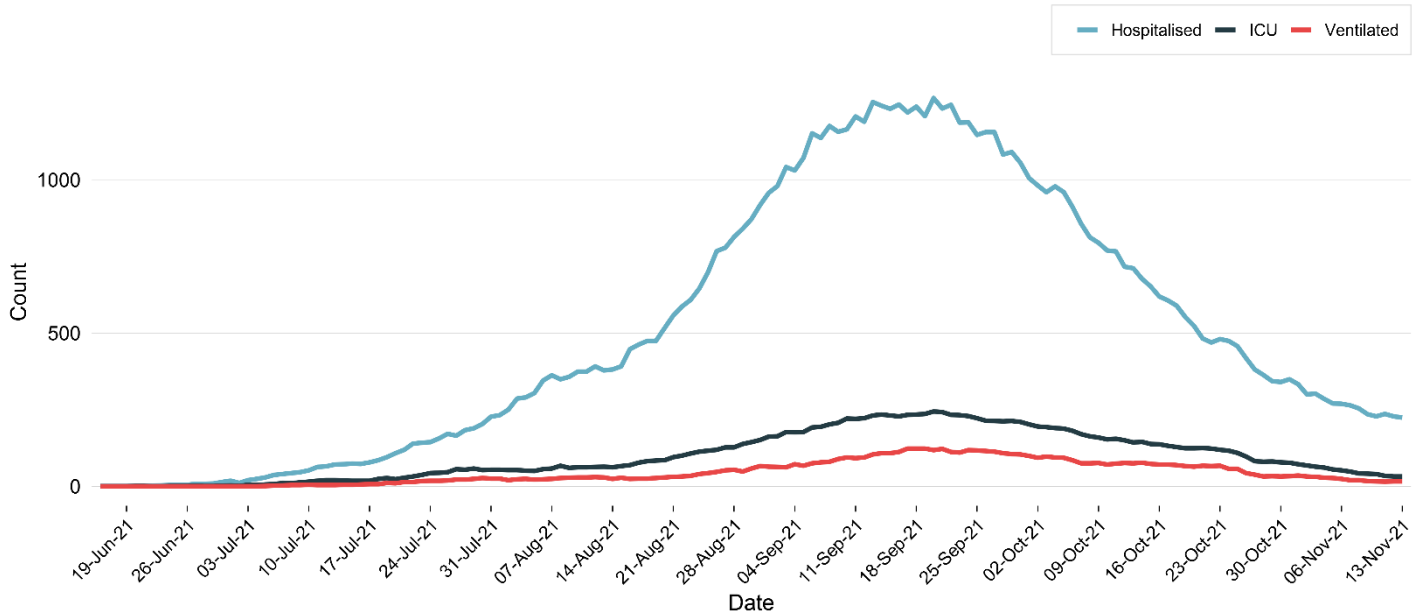


Figure 11b. Number of cases in hospital, in ICU and ventilated by date, NSW, from 16 June to 13 November 2021



Interpretation: Cases are considered active for 14 days from symptom onset; during this time a person may become increasingly ill and require hospitalisation. The top panel shows the total number of COVID-19 cases in the last 14 days, the number currently hospitalised, the number in ICU and the number ventilated. The bottom panel shows the number of COVID-19 cases in hospital each day, the number of cases in ICU each day and the number requiring ventilation each day. There can be a delay between a person becoming ill with COVID-19 and subsequently requiring a hospitalisation and people may be hospitalised before becoming cases. Additionally, people may require hospitalisation for long periods of time therefore reporting the number of cases hospitalised on any given date does not reflect the true proportion that will require hospitalisation. Currently there is a median delay of 5 days between a person becoming ill with COVID-19 and being admitted to hospital, and 11 days between becoming ill and dying.

How many people with a COVID-19 diagnosis were admitted to hospital wards?

People with COVID-19 can be hospitalised because of the disease but may also be hospitalised for other reasons not related to their COVID-19 diagnosis. For the purposes of surveillance, reported hospitalisation counts include all people who were admitted to any hospital ward, including emergency departments, around the time of their COVID-19 diagnosis. This does not mean that all the hospitalisations reported are due to a worsening of COVID-19 symptoms. The count does not include people managed in the community (e.g. including Hospital in the Home schemes).

In the week ending 13 November 2021, of the 1,601 total cases, there were 140 people who had a diagnosis of COVID-19 who were also admitted to a hospital ward, and 3 of those were admitted to ICU. In total, there have been 10,791 people with COVID-19 who were also hospitalised since the beginning of the current NSW outbreak*.

Table 14. Hospitalisations among people diagnosed with COVID-19, by age group, NSW

Age-group (years)	Since 16 Jun 2021			Jan 2020 – 15 Jun 2021	
	Hospitalised	Percentage of cases hospitalised[2]	Hospitalised per 100,000 population	Hospitalised	Percentage of cases hospitalised[1]
0-9	554	5%	54.8	4	2%
10-19	661	6%	68.6	10	3%
20-29	1,670	12%	142.5	27	2%
30-39	1,858	15%	158.7	46	4%
40-49	1,713	19%	165.8	48	7%
50-59	1,577	24%	162.2	78	11%
60-69	1,218	32%	144.9	117	18%
70-79	840	46%	144.2	92	23%
80-89	556	61%	202.7	52	43%
90+	144	62%	207.6	16	38%
Total	10,791*	15%	133.4	490	9%

Interpretation: The highest number of cases hospitalised are aged 30-39 years (1,858, 15% of cases in that age range), followed by those aged 40-49 years (1,713, 19%). In NSW, cases aged 90 years and over have the highest rate of hospitalisation (207.6 per 100,000 people), followed by those aged 80-89 years (202.7 per 100,000 people).

How many people with a COVID-19 diagnosis admitted to ICU wards?

Table 15. ICU hospitalisations among people diagnosed with COVID-19, by age group, NSW

Age-group (years)	Since 16 Jun 2021			Jan 2020 – 15 Jun 2021	
	Admitted to ICU	Percentage of cases admitted to ICU[1]	ICU admission per 100,000 population (keep)	Admitted to ICU	Percentage of cases admitted to ICU[1]
0-9	7	<1%	0.7	0	0%
10-19	34	<1%	3.5	1	<1%
20-29	114	1%	9.7	4	<1%
30-39	174	1%	14.9	15	1%
40-49	222	2%	21.5	12	2%
50-59	319	5%	32.8	29	4%
60-69	278	7%	33.1	43	7%
70-79	199	11%	34.2	39	10%
80-89	54	6%	19.7	13	11%
90+	1	<1%	1.4	0	0%
Total	1402*	2%	17.3	156	3%

Interpretation: The highest number of cases in ICU are aged 50-59 years (319, 5%). The highest rate of admission to ICU is for those aged 70-79 years (199 cases, 34.2 per 100,000 people).

[2] There is often a delay between a person becoming ill with COVID-19 and subsequently requiring a hospitalisation or dying. In the current outbreak the median time between onset and hospitalisation is 5 days and between onset and death is 11 days. Therefore hospitalisations and deaths are under-reported for the most recently notified cases.

*Note: The weekly report relies on public health surveillance data which is continually cleaned and updated during an investigation. The number of cases hospitalised has reduced in recent weeks due to removing cases who were hospitalised but unlikely to have been hospitalised because of experiencing illness due to COVID (for example emergency department presentations without admission). These types of data cleaning activities have occurred throughout the pandemic and the differences are most noticeable when case numbers are declining or stable.

How many people have died following recent infection with COVID-19?

A COVID-19 death is defined for surveillance purposes as a death in a confirmed COVID-19 case, unless there is a clear alternative cause of death that cannot be related to COVID-19 (e.g., trauma). There should be no period of complete recovery from COVID-19 between illness and death.

Since the start of the pandemic, 1% of cases (611 people) have died following a recent infection with COVID-19, most of whom were 80 years of age or older, including 95 residents of aged care facilities with known COVID-19 outbreaks. Approximately 2% (14/611) of the deaths were in overseas acquired cases.

There were 12 deaths in people diagnosed with COVID-19 reported this week including 2 people who were fully vaccinated, 2 who were partially vaccinated, and 8 who were unvaccinated (see Section 5 for the definitions of vaccination status).

Table 16. Deaths following recent infection with COVID-19, by age group

Age-group (years)	Since 16 Jun 2021			Jan 2020 – 15 Jun 2021	
	Number of deaths	Case fatality rate	Fatality rate per 100,000 population[3]	Number of deaths	Case fatality rate[2]
0-9	0	0%	0.0	0	0%
10-19	1	0%	0.1	0	0%
20-29	6	0%	0.5	0	0%
30-39	15	0%	1.3	0	0%
40-49	25	0%	2.4	0	0%
50-59	61	1%	6.3	1	0%
60-69	98	3%	11.7	4	1%
70-79	130	7%	22.3	15	4%
80-89	158	17%	57.6	20	16%
90+	61	26%	87.9	16	38%
Total	555	1%	6.9	56	1%

Interpretation: Cases aged 80-89 years of age had the highest number of deaths, while those aged over 90 had the highest case fatality rate. Note that most of the deaths (72%) in the period since 16 June have been unvaccinated (see Table 12); Table 13 provides further details on the risk of severe outcomes (ICU admission and death) by vaccination status and age.

Table 17. Deaths following recent infection with COVID-19, by age group and location, from 16 June to 13 November 2021

Age-group (years)	Health care facility	Aged care facility	Home
0-9	0	0	0
10-19	1	0	0
20-29	4	0	2
30-39	11	0	4
40-49	19	0	6
50-59	53	0	8
60-69	86	1	11
70-79	122	5	3
80-89	141	10	7
90+	45	16	0
Total	482	32	41

Interpretation: The majority of deaths following recent COVID-19 infection have occurred in hospital (482/555, 87%). Thirty-two deaths in aged care facilities have been among people aged 60 years and over, while 41 deaths occurring at home have been in a younger cohort aged 20-89, and 25 (61%) of the deaths at home were tested forensically for infection (following death).

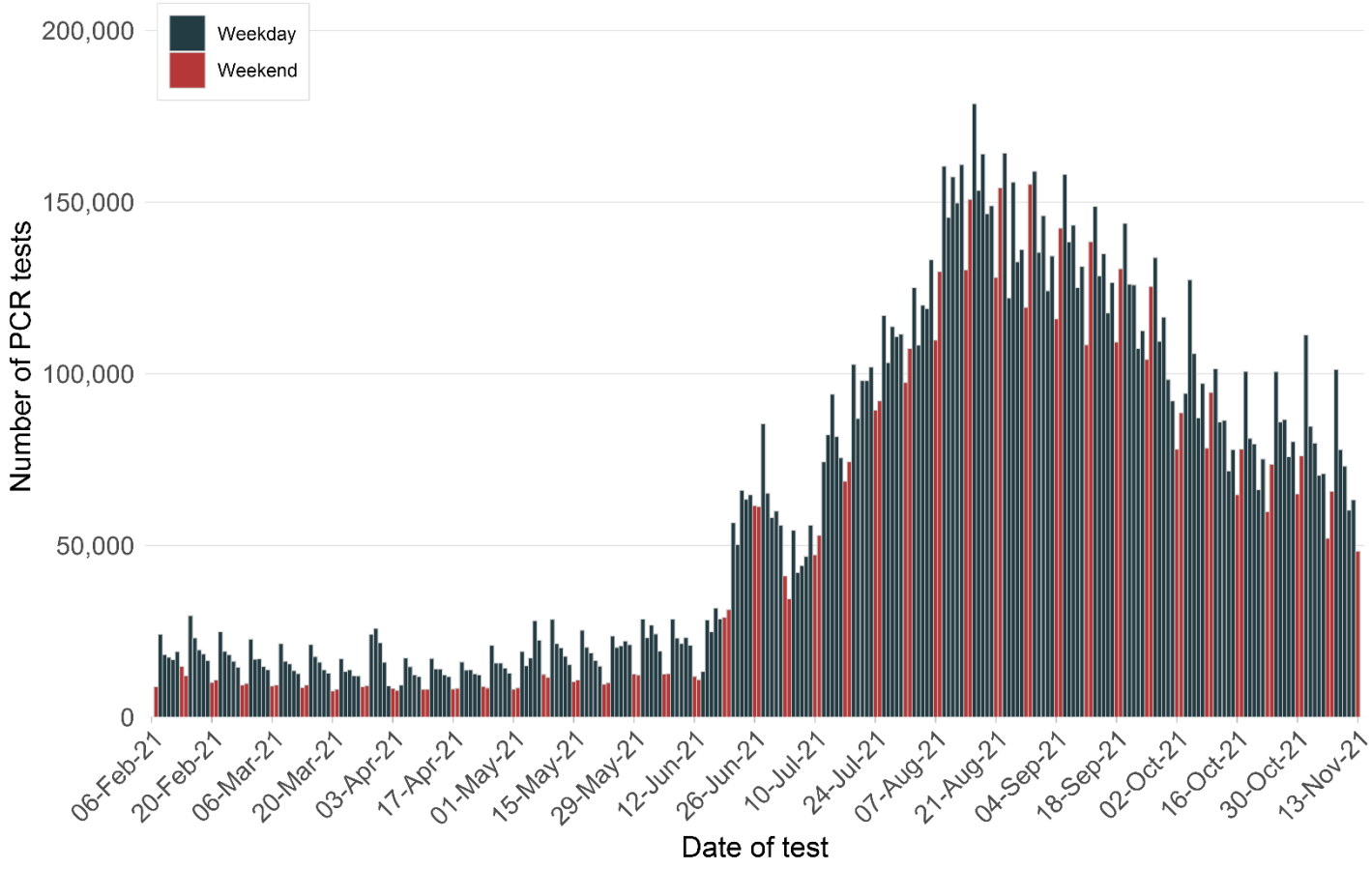
[3] There is often a delay between a person becoming ill with COVID-19 and subsequently requiring a hospitalisation or dying. In the current outbreak the median time between onset and hospitalisation is 5 days and between onset and death is 11 days. Therefore hospitalisations and deaths are under-reported for the most recently notified cases.

Section 7: COVID-19 testing in NSW

How much testing is happening?

The bars on the graph below show the number of negative tests by the date a person presented for the test.[4] While public health facilities are generally open seven days a week, there may be less demand and availability for testing through GPs and private collection centres on weekends and public holidays. This likely explains lower testing numbers on weekends.

Figure 12. Number of negative PCR tests per day, NSW, 9 January 2021 to 13 November 2021



Includes SARS-CoV-2 PCR tests only and excludes repeat positive tests for an individual.

Interpretation: Testing numbers decreased in the week ending 13 November 2021 (down 10%) compared to the previous week. The average daily testing rate of 8.5 per 1,000 people in NSW each day decreased compared to the previous week of 9.4 per 1,000 people.

[4] The number of tests per day displayed is different to the 24 hour increase in tests reported each day as there are delays in some laboratories providing negative results to NSW Health.

Testing and positivity rates by Local Health District

Figure 13a. Cases, testing rates per 1000 population, and percentage of tests which were positive for COVID-19, by LHD of residence, metropolitan LHDs, NSW, 16 June to 13 November 2021

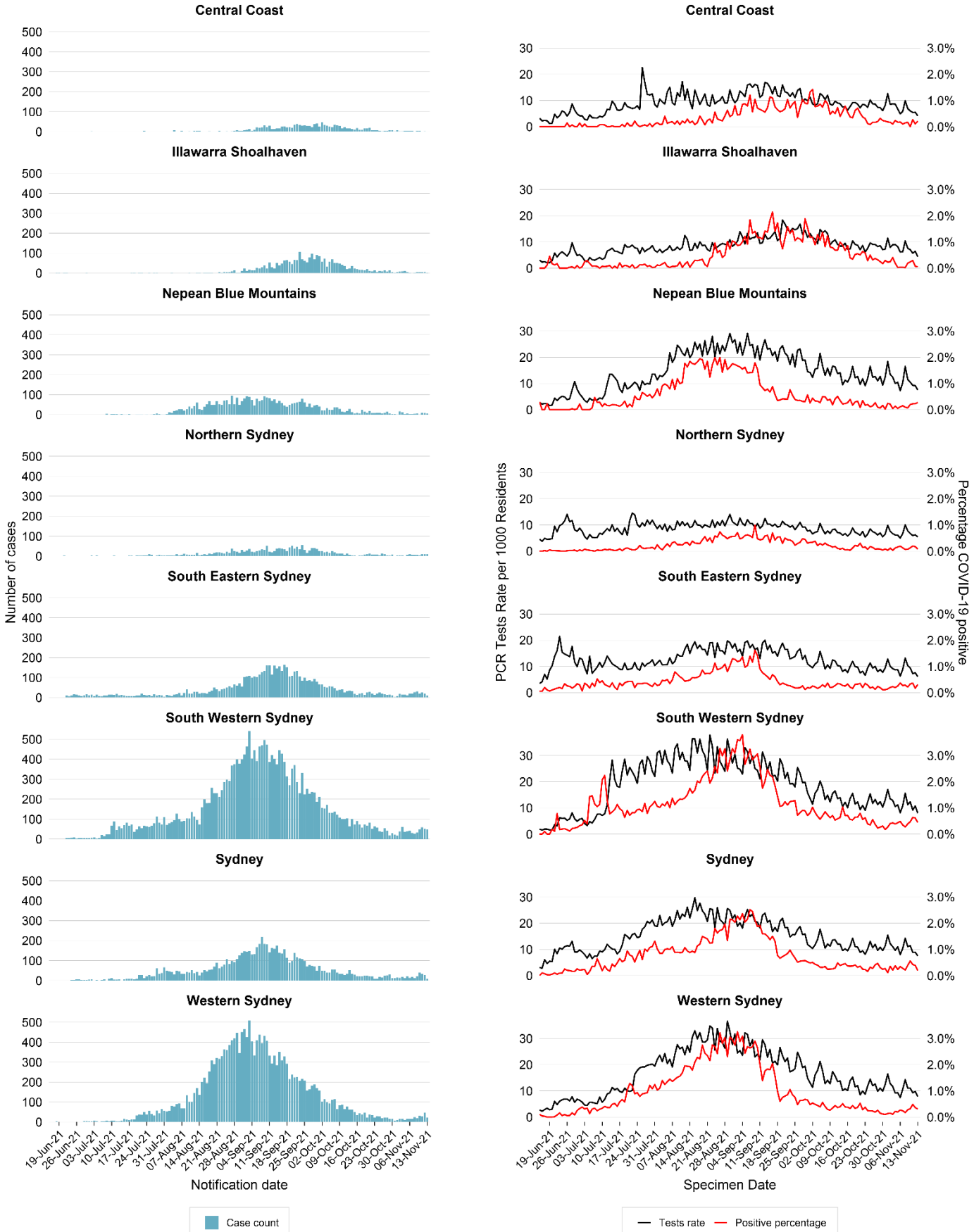
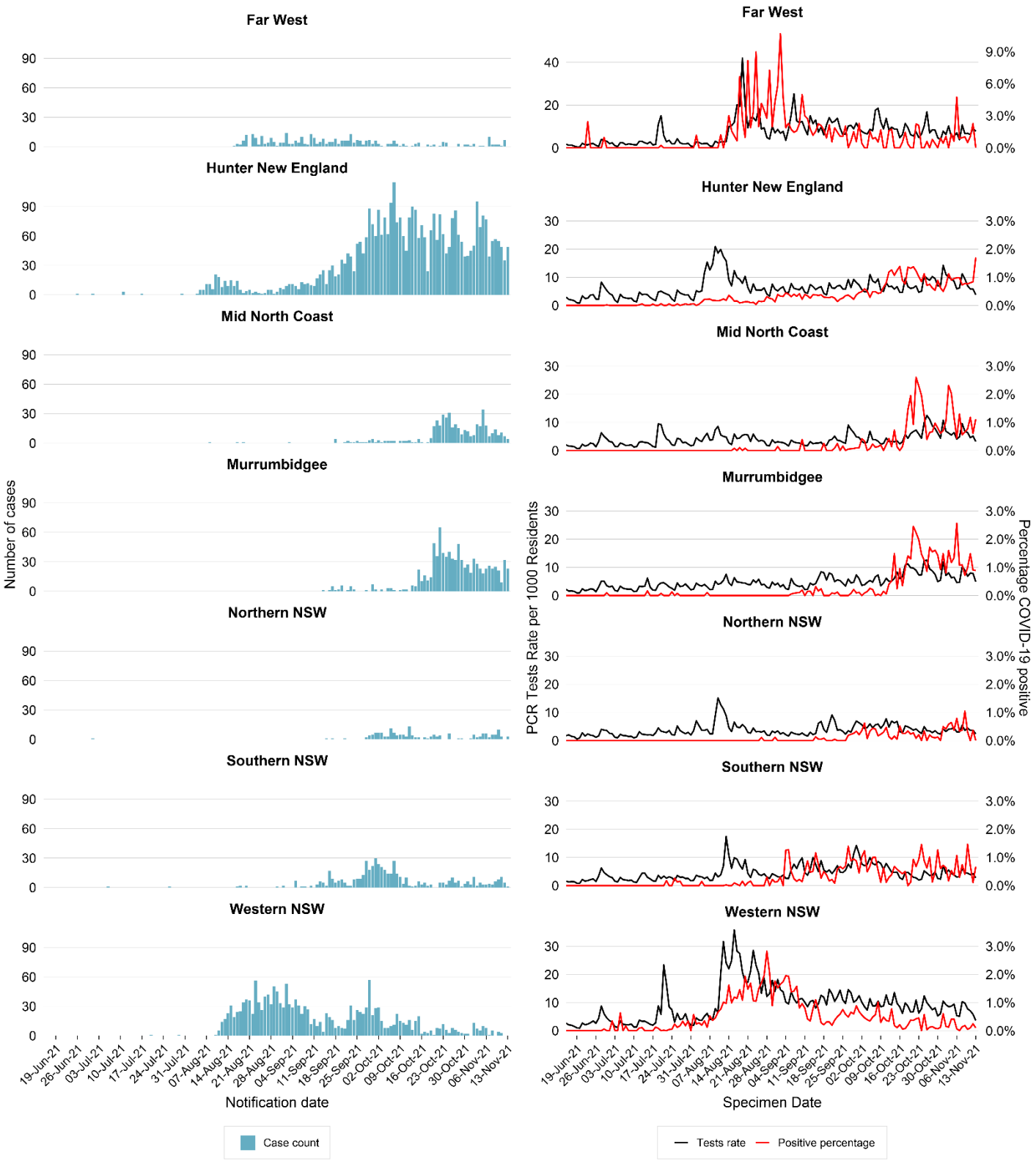


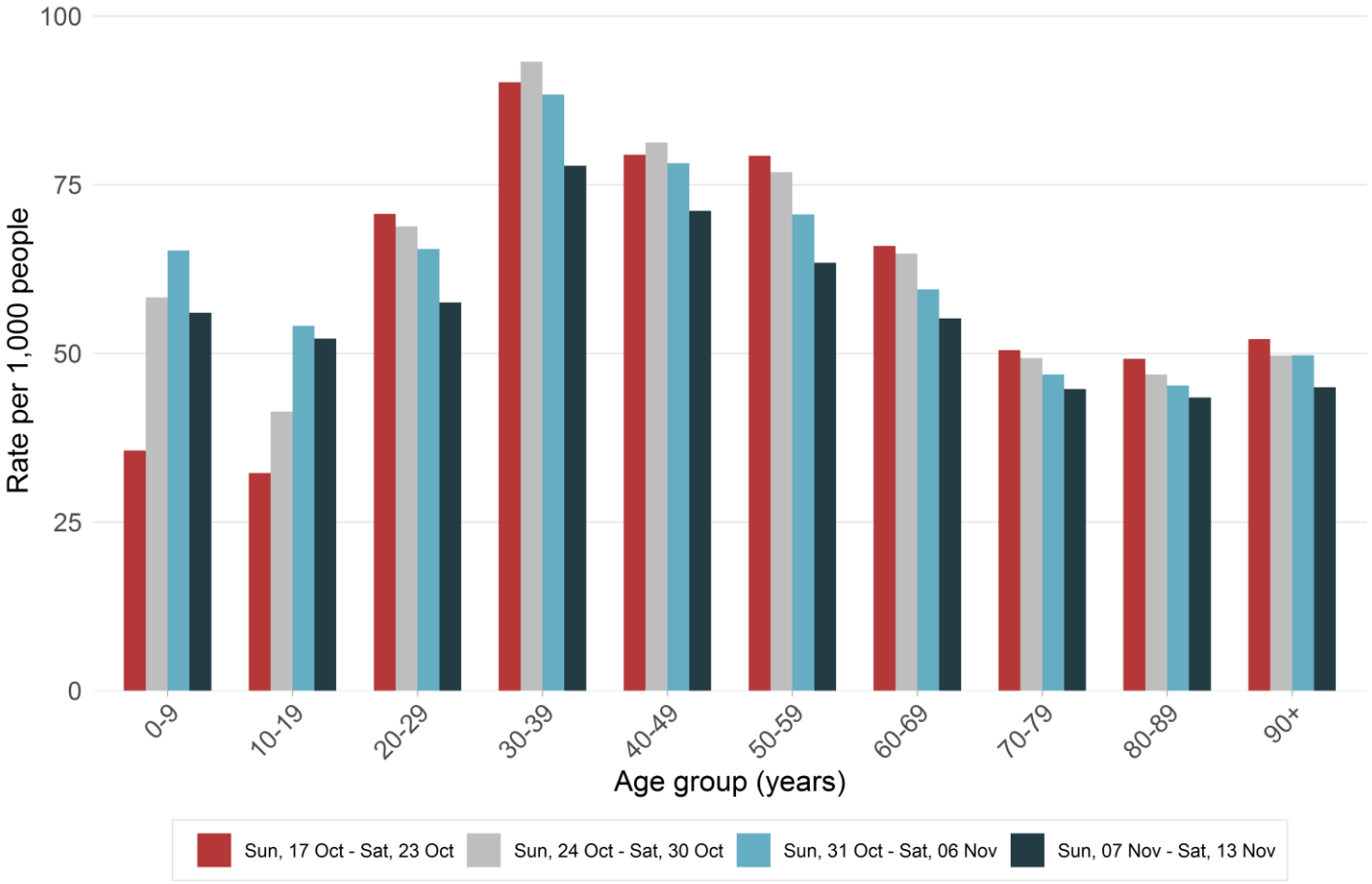
Figure 13b. Cases, testing rates per 1000 population, and percentage of tests which were positive for COVID-19, by LHD of residence, rural and regional LHDs, NSW, 16 June to 13 November 2021



Interpretation: The left panel shows the number of cases by notification date for each LHD, while the right panel shows the testing rate per 1,000 population (black line and left axis) and the percentage of tests which were positive (red line and right axis) for each LHD, from 16 June to 13 November 2021. Note that the axes differ within and between Figure 13a (metropolitan LHDs) and 13b (rural and regional LHDs). Percent positivity has generally been well below 3%, reflecting a high surveillance capacity and rapid case identification. Positivity generally follows the same trend as testing rates however where testing rates decrease and positivity remains stable or increases it may indicate higher number of cases in the community or be a result of more specific and targeted testing programs. Although case numbers in most regional LHDs are relatively small, because the population is also small, testing rates and positivity rates appear to show larger deviations than observed in some metropolitan LHDs.

Testing by age group

Figure 14. Rates of COVID-19 testing by age group and week, NSW, 17 October to 13 November 2021



Includes SARS-CoV-2 PCR tests only and excludes notifications with age missing.

Interpretation: In the week ending 13 November 2021, testing rates remained highest overall among those aged 30-39. All age groups except 0-9 and 10-19 years showed a steady decrease in testing rates over the past month; sustained increases in testing were seen in those aged 0-9 and 10-19 years.

Section 8: Variants of Concern (VoC)

Global surveillance monitors the prevalence of mutations in the SARS-CoV-2 virus, focusing particularly on mutations that may reduce vaccine effectiveness or enable re-infection. This report reflects the recommendations of Australia's Communicable Diseases Genomics Network (CDGN) for reporting of Variants of Concern (VoC) in NSW.

The CDGN reports on the Alpha (B.1.1.7), Beta (B.1.351), Gamma (P.1), Kappa (B.1.617.1) and Delta (B.1.617.2) internationally recognised VoCs. The first recognised VoC was the Alpha variant, in December 2020. The Delta lineage (B.1.617.2) was internationally recognised as a VoC on 11 May 2021 and is responsible for almost all cases in the NSW outbreak from 16 June 2021.

Table 18. Variants identified among locally acquired COVID-19 cases by week reported, NSW, 29 November 2020 to 13 November 2021

Variant	Week ending				29 Nov 2020 to 16 Oct 2021	Total since 29 Nov 2020
	13 Nov*	6 Nov*	30 Oct	23 Oct		
Total variants identified	0	27	542	701	12,541	13,811
Alpha (B.1.1.7)	0	0	0	0	6	6
Beta (B.1.351)	0	0	0	0	1	1
Gamma (P.1)	0	0	0	0	0	0
Kappa (B.1.617.1)	0	0	0	0	0	0
Delta (B.1.617.2)	0	27	542	701	12,534	13,804

***Note:** identification of variants of concern is through whole genome sequencing. Results for reported cases in the most recent weeks may not be available at the time of reporting. All locally acquired cases sequenced in the week ending 06 November have been the Delta variant of concern.

Interpretation: Only the delta variant has been detected in recent weeks among locally acquired cases, and this is associated with the cluster that emerged in Sydney from 16 June 2021.

Table 19. Variants identified among overseas acquired COVID-19 cases by week reported, NSW, 29 November 2020 to 13 November 2021

Variant	Week ending				29 Nov 2020 to 16 Oct 2021	Total since 29 Nov 2020
	13 Nov*	6 Nov*	30 Oct	23 Oct		
Total variants identified	0	0	1	1	411	413
Alpha (B.1.1.7)	0	0	0	0	194	194
Beta (B.1.351)	0	0	0	0	33	33
Gamma (P.1)	0	0	0	0	6	6
Kappa (B.1.617.1)	0	0	0	0	9	9
Delta (B.1.617.2)	0	0	1	1	169	171

***Note:** identification of variants of concern is through whole genome sequencing. Results for reported cases in the most recent weeks may not be available at the time of reporting.

Interpretation: Only the delta variant has been detected in recent weeks among overseas acquired cases.

Section 9: NSW Sewage Surveillance Program

The NSW Sewage Surveillance Program tests untreated sewage for fragments of the COVID-19 (SARS-CoV-2) virus at sewage treatment plant locations across NSW. In Sydney, testing is undertaken from both the sewage treatment plant (inlet sites) and sites within the network (network sites). Testing sewage can help track infections in the community and provide early warning of an increase in infections. These tests provide data to support NSW Health's response to COVID-19.

An infected person can shed virus in their faeces even if they do not have symptoms, and shedding can continue for several weeks after they are no longer infectious. The NSW sewage surveillance for SARS-CoV-2 is in the preliminary stages of analysis and work is progressing to assess the significance of the results. For example, it is not currently known the minimum number of cases that can be detected in a catchment. A small number of cases in a large sewage catchment may not be detected by sewage surveillance due to factors such as dilution, inhibition, reduction in shedding over the infection period or movement of cases.

In the week ending 13 November, 339 sewage samples were tested for fragments of SARS-CoV-2. Of these, there were 141 detections:

- Detections outside Sydney

There were 121 detections outside Sydney taken from the sewage treatment plants at Albury, Alstonville, Armidale, Ballina, Barraba, Bateau Bay, Batemans Bay, Bathurst, Bega, Bermagui (2), Blayney, Boggabilla, Bomaderry, Bombo, Bonny Hills, Bourke, Broken Hill, Broken Hill South (2), Byron Bay, Casino, Charmhaven (2), Cobar, Coffs Harbour, Coolah, Cooma, Corowa, Cowra, Dareton, Deniliquin, Dubbo, Dunbogan, East Lismore, Finley, Forster, Gerroa, Gladstone/Smithtown, Googong, Gosford – Kincumber (2), Grenfell, Gulgong, Gunnedah, Gwandalan (2), Hallidays Point, Hawks Nest, Hunter - Boulder Bay, Burwood Beach, Dora Creek, Morpeth, Raymond Terrace, Shortland, Toronto, Belmont, Cessnock, Dungog, Farley, Kurri Kurri and Tanilba Bay, Inverell, Jindabyne, Kew Kendall (2), Lennox Head, Macksville, Merimbula (2), Mittagong, Moama, Moree, Mulwala, Mungindi, Muswellbrook, Nambucca Heads, Narromine (2), Oberon, Old Bar, Orange, Port Macquarie, Queanbeyan, Quirindi, Scotts Head, Singleton, South Kempsey, South Lismore, South West Rocks, St Georges Basin, Tamworth, Taree, Temora, Tocumwal, Tomakin, Tweed - Banora Point and Kingscliff, Uralla (2), Wagga Wagga - Kooringal (2), Narrung SBR (2) and Narrung Orbal, Wardell (2), Wauchope, Wellington, West Kempsey, West Wyalong (2), Wilcannia, Wingham, Woolgoolga, Woy Woy (2), Wyong – Toukley, Wyong South (2), Yass and Young.

- Sydney detections

Results for Sydney sites may be delayed to prioritise analysis of regional sites. In Sydney there were detections from the sewage treatment plants at Bondi, Lithgow, McGraths Hill, South Windsor, Wallacia, and West Camden. There were also detections from the sewage networks and pumping stations at Caringbah (2), Eastern Creek (2), Fairfield 1 (2), Miranda (2), Padstow 1 (2), Ropes Creek, Rozelle (2), and Tunks Park.

- Detections with no known cases

Detections from Dungog, Wardell, Banora Point, Lennox Head, Scotts Head, Narromine, Blayney, Cobar, Gulgong, Grenfell, Wilcannia, Bermagui, Tocumwal, Deniliquin, West Wyalong, Young, Tomakin, Batemans Bay, Jindabyne, Cooma, Muswellbrook, Quirindi, Gunnedah, Uralla and Barraba occurred with no known or recent cases in the catchment. Cases were also identified in Inverell, Quirindi, Wilcannia, Merimbula and Manilla following sewage detections in recent weeks.

- Sampled sites with no SARS-CoV-2 fragment detections

There were no detections in the following catchments: Aberdeen, Ashford, Balranald, Bangalow, Baradine, Barooga, Bellingen, Bingara, Bodalla, Boggabri, Boorowa, Bowral, Bowraville, Brewarrina, Brooklyn, Bulahdelah, Buronga, Canowindra, Condobolin, Coolamon, Coonabarabran, Coonamble, Cootamundra, Coraki, Crescent Head, Crookwell, Culburra Beach, Darlington Point, Delungra, Denman, Dorrigo, Dunedoo, Eden, Evans Head , Forbes, Frederickton, Gilgandra, Griffith, Gulargambone, Gundagai, Guyra, Harden, Harrington, Hay, Holbrook, Hunter - Branxton, Edgeworth and Karuah, Jerilderie, Junee, Kyogle, Lake Cargelligo, Leeton, Lockhart, Manilla, Mannering Park, Molong, Moonee, Moruya, Moss Vale, Mullumbimby, Murrurundi, Narooma, Narrabri, Narrandera, Nowra, Ocean Shores, Parkes, Scone, Tenterfield, Trangie, Tumut, Tuross, Tweed - Hastings Point and Murwillumbah, Ulladulla, Urunga, Vincentia, Walcha, Warialda, Warren, Wee Waa, Wentworth, Werris Creek, and Woodenbong.

- New collection sites

The sewage treatment plants at Barooga and Finley were added as new sites

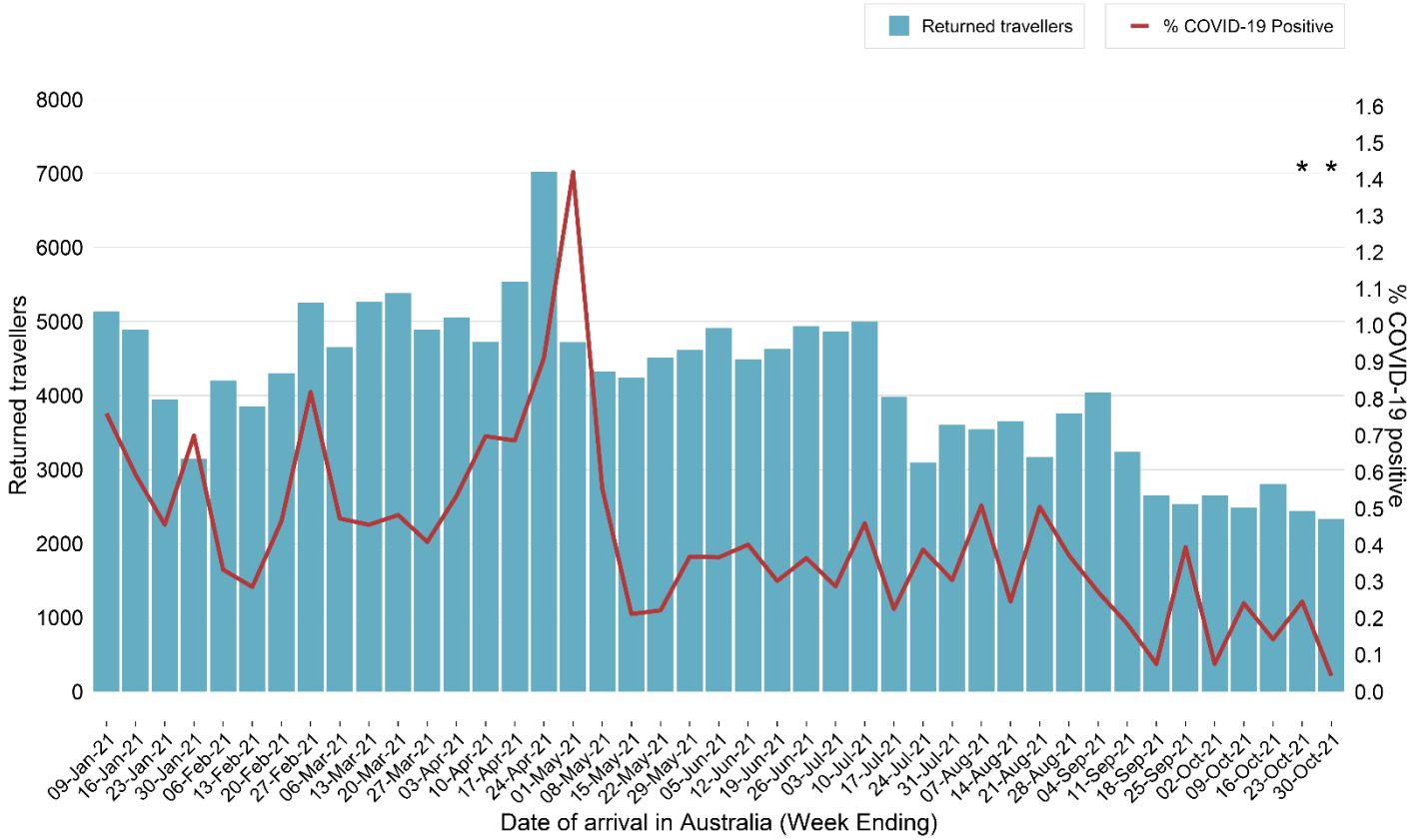
Section 10: COVID-19 in returned travellers until 30 October 2021

To limit the spread of COVID-19 into NSW, travel restrictions were introduced for all non-Australian citizens and permanent residents in mid-March 2020. In addition:

- From 29 March 2020 returned travellers have been quarantined in hotels for a 14-day period and travellers who develop symptoms are isolated until no longer infectious. Returned travellers are screened on entry and exit from quarantine and following release from quarantine.
- From 22 January 2021 (local time at departure point) all people travelling to Australia on flights must provide proof of a negative COVID-19 PCR test result at the time of check-in.
- From 1 November 2021, only unvaccinated travellers are required to quarantine in hotels for a 14-day period. Fully vaccinated international travellers are not required to quarantine in hotels or at home. All international travellers are still required to return a negative COVID-19 PCR test at the time of check-in.

The figure below shows the number of returned travellers screened at Sydney International Airport until 30 October 2021. Returned travellers include international flight crew who are required to be tested before leaving the airport.

Figure 15. Returned travellers screened at Sydney International Airport by week of arrival and percent COVID-19 positive, NSW, 3 January 2021 to 30 October 2021



*Returned travellers entering Australia in the past 14 days are still in quarantine and may return a positive result prior to the end of their hotel quarantine period.

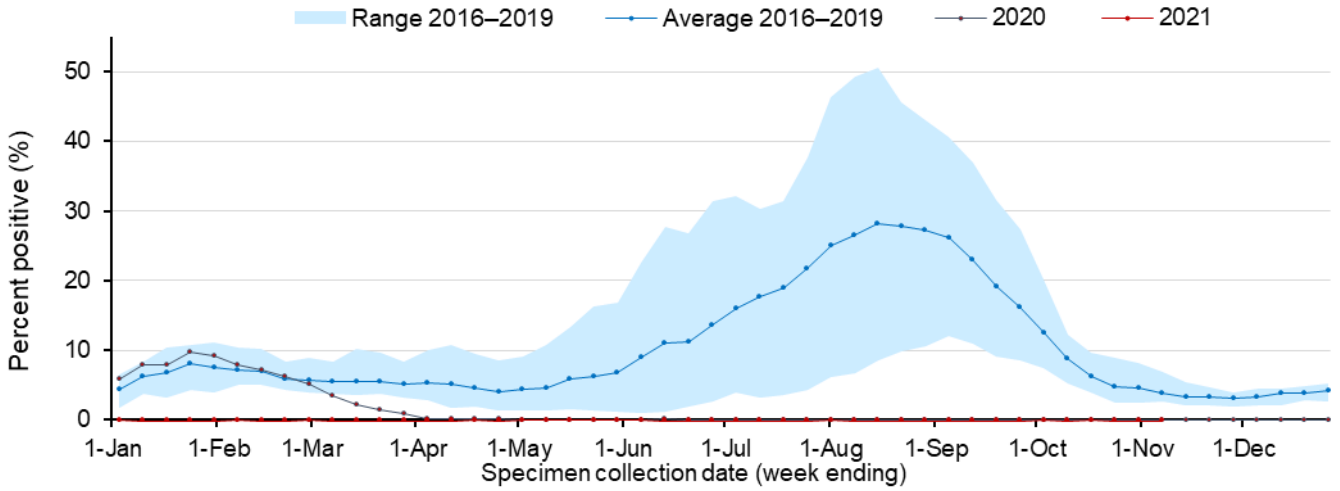
Interpretation: Between 3 January 2021 and 30 October, there has been on average 595 people screened on arrival through Sydney International Airport daily. In the four weeks to October 30, 17 returned travellers have subsequently tested positive for COVID-19 while completing quarantine. The proportion of returned travellers who test positive for COVID-19 has been low. In the week ending 1 May 2021 the proportion increased to over 1% (1.4%) of returned travellers testing positive, but this has subsequently fallen back to lower levels.

Section 11: Other respiratory infections in NSW

How much influenza is circulating?

The graph below shows the proportion of tests found to be positive for influenza with the red line showing weekly counts for 2021, the dark blue line showing counts for 2020, the light blue line showing the average for 2016 to 2019 and the shaded area showing the range recorded for 2016 to 2019.

Figure 16. Proportion of tests positive for influenza, NSW, 1 January 2016 to 7 November 2021

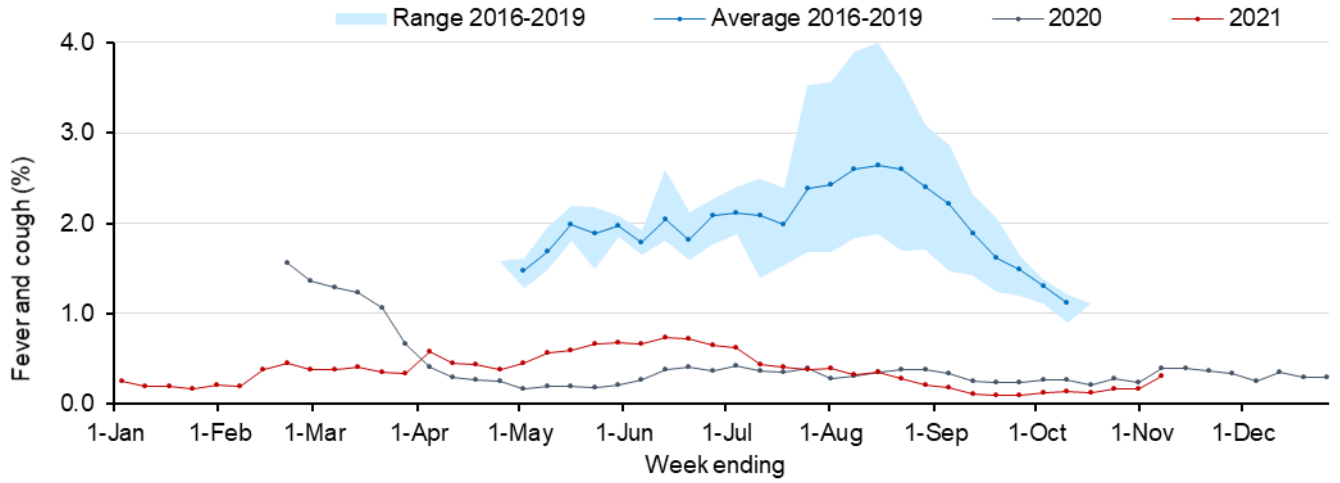


Interpretation: In the week ending 7 November, the percent of influenza tests that were positive continued to be very low (0.0%), indicating limited influenza transmission in the community. Since early March 2020, this percentage has remained far lower than the usual range for the time of year. There have been 20 influenza cases reported in 2021.

How many people have flu-like symptoms in the community?

FluTracking is an online survey that asks participants to report flu-like symptoms, such as fever or cough, in the last week. Across NSW approximately 25,000–30,000 people participate each week. The survey usually commences at the beginning of May in line with the flu season but has continued throughout the year due to the COVID-19 outbreak.

Figure 17. Proportion of FluTracker participants reporting influenza-like illness, NSW, 1 January 2016 to 7 November 2021



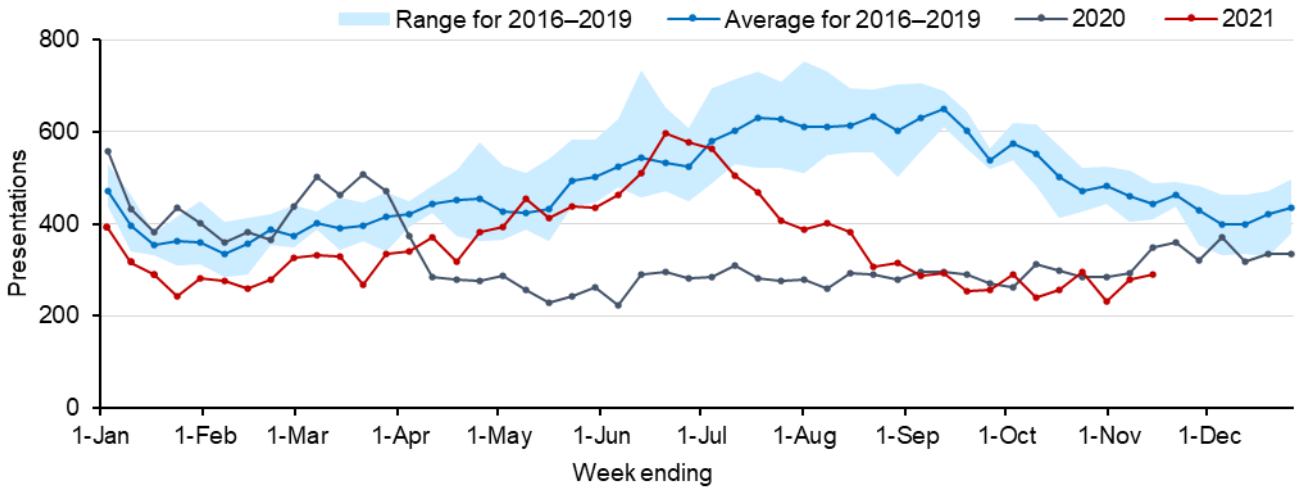
Interpretation: In NSW in the week ending 7 November 2021, of the 16,783 people surveyed, 53 people (0.32%) reported flu-like symptoms. In the last four weeks, 71% (110/154) of new cases of flu-like illness reported having a COVID-19 test. The proportion of people with flu-like symptoms being tested for COVID-19 decreased from January 2021, when 80% reported being tested, to around 50% between April and June 2021, and then increased to around 60% from June 2021 onwards.

How are emergency department presentations tracking?

Improved hygiene and social distancing measures implemented during the COVID-19 pandemic have impacts on a broad range of other viral and bacterial infections.

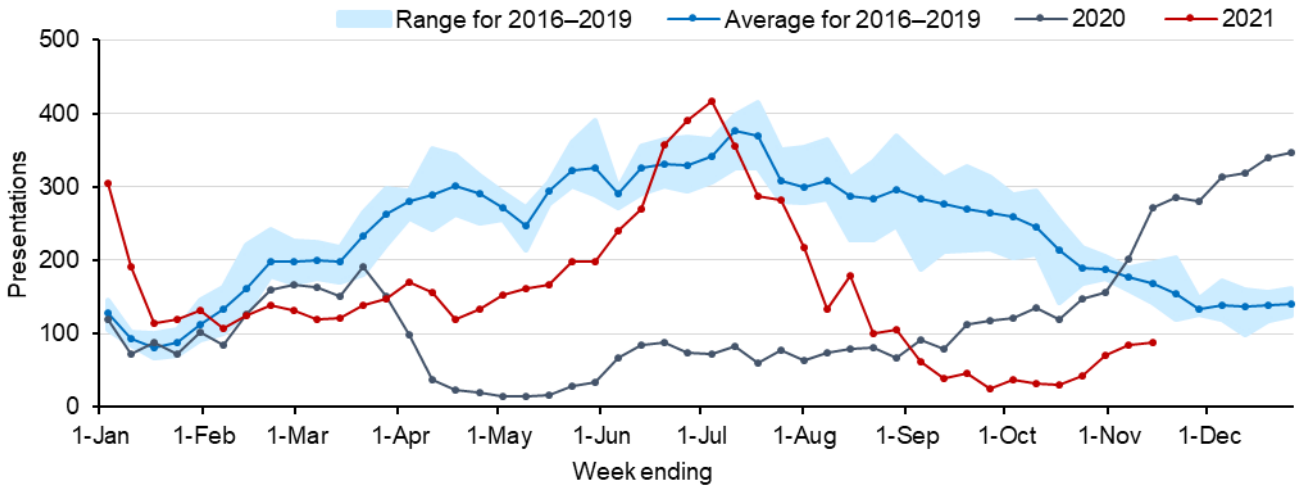
The figures below show weekly pneumonia and bronchiolitis presentations to Emergency Departments in NSW, using PHREDSS[5]. The red line shows the weekly counts for 2021, the dark blue line showing counts for 2020, the light blue line showing the average for 2016 to 2019 and the shaded area showing the range recorded for 2016 to 2019.

Figure 18. Emergency Department pneumonia presentations, NSW, 1 January 2016 to 14 November 2021



Interpretation: Pneumonia presentations include people with diagnoses of viral, bacterial, atypical or unspecified pneumonia, and Legionnaires' disease, but excludes 'pneumonia with influenza' and provides an indicator of more severe respiratory conditions. Since the beginning of the current outbreak from 16 June 2021, there has been a steady decline in pneumonia presentations, with the number of presentations in the week ending 14 November remaining significantly below the seasonal range for this time of year.

Figure 19. Emergency Department bronchiolitis presentations, NSW, 1 January 2016 to 14 November 2021



Interpretation: Bronchiolitis is a common disease of infants often caused by respiratory syncytial virus (RSV). Public health measures introduced last year around social distancing and improved hygiene practices coincided with a large decrease in bronchiolitis presentations for the majority of 2020. A rise in bronchiolitis presentations in the later part of 2020 corresponds to an increase in RSV detections (see Appendix C). Since the beginning of the current outbreak from 16 June 2021, there has again been a steady decrease in bronchiolitis presentations, with the number of presentations in the week ending 14 November remaining well below the seasonal range for this time of year.

[5] NSW Health Public Health Rapid, Emergency Disease and Syndromic Surveillance (PHREDSS) system, CEE, NSW Ministry of Health. Comparisons are made with data for the preceding 4 years. Includes unplanned presentations to 67 NSW emergency departments (accounts for 87% of total public ED activity).

Appendix A: COVID-19 PCR tests in NSW by Local Government Area

		Week ending				Total since January 2021	
		13 Nov		6 Nov			
Local Health District	Local Government Area	No.	Tests per 1,000 population	No.	Tests per 1,000 population	No.	Tests per 1,000 population
Central Coast	*LHD Total*[2]	15,414	6.2	20,499	8.3	565,702	229.0
Illawarra Shoalhaven	Kiama	931	5.7	965	5.9	30,527	186.5
	Shellharbour	3,367	6.6	4,070	7.9	130,744	255.1
	Shoalhaven	4,359	5.9	4,603	6.2	106,970	144.6
	Wollongong	11,365	7.4	15,047	9.9	371,130	243.1
	LHD Total[2]	20,022	6.8	24,685	8.4	639,371	217.7
Nepean Blue Mountains	Blue Mountains	4,652	8.4	5,405	9.8	141,118	254.8
	Hawkesbury	6,349	13.5	6,794	14.4	183,716	390.0
	Lithgow	537	3.6	678	4.5	18,034	119.2
	Penrith	17,911	12.0	20,386	13.7	608,213	408.0
	LHD Total[2]	29,166	10.7	32,933	12.0	939,488	343.3
Northern Sydney	Hornsby	6,428	6.0	6,259	5.9	193,977	182.2
	Hunters Hill	1,303	12.4	1,597	15.2	47,677	454.7
	Ku-ring-gai	7,150	8.0	6,530	7.3	211,142	237.2
	Lane Cove	3,086	11.0	3,128	11.1	108,094	384.6
	Mosman	1,341	6.2	1,221	5.6	42,510	196.0
	North Sydney	2,780	5.3	2,500	4.8	87,709	167.0
	Northern Beaches	12,678	6.6	12,360	6.5	501,335	261.9
	Parramatta[1]	13,232	7.4	14,642	8.1	516,453	286.9
	Ryde	6,819	7.4	7,182	7.8	263,251	286.5
	Willoughby	2,779	4.9	2,632	4.6	89,001	156.6
	LHD Total[2]	46,614	7.0	45,701	6.8	1,621,470	242.3
South Eastern Sydney	Bayside	11,072	8.9	12,396	9.9	427,501	342.3
	Georges River	9,257	8.3	10,170	9.1	363,201	325.4
	Randwick	12,036	11.1	12,291	11.3	386,738	355.0
	Sutherland Shire	13,688	8.5	13,985	8.7	425,144	263.4
	Sydney[1]	14,645	8.5	15,539	9.0	534,450	309.9
	Waverley	5,299	10.2	5,322	10.2	182,887	351.7
	Woollahra	4,173	10.0	3,809	9.2	136,844	329.2
	LHD Total[2]	59,981	8.9	62,429	9.3	2,095,924	312.2
South Western Sydney	Camden	8,175	11.5	12,006	16.9	302,150	425.5
	Campbelltown	13,493	11.3	16,666	13.9	488,378	408.1
	Canterbury-Bankstown[1]	33,186	12.5	34,239	12.9	1,318,291	498.3
	Fairfield	17,828	12.0	17,354	11.7	749,426	505.7
	Liverpool	19,025	11.9	20,962	13.2	716,258	449.6
	Wingecarribee	2,139	6.0	1,975	5.5	65,883	184.1
	Wollondilly	2,133	5.7	2,486	6.7	83,375	224.1
	LHD Total[2]	80,532	11.1	89,224	12.3	3,071,310	422.5
Sydney	Burwood	2,301	8.1	2,550	9.0	77,903	274.0
	Canada Bay	6,339	9.4	7,492	11.1	188,522	280.3
	Canterbury-Bankstown[1]	33,186	12.5	34,239	12.9	1,318,291	498.3
	Inner West	12,412	8.8	12,969	9.2	384,350	273.4
	Strathfield	4,270	13.0	4,744	14.4	168,092	511.7
	Sydney[1]	14,645	8.5	15,539	9.0	534,450	309.9

		Week ending				Total since January 2021	
		13 Nov		6 Nov			
Local Health District	Local Government Area	No.	Tests per 1,000 population	No.	Tests per 1,000 population	No.	Tests per 1,000 population
	LHD Total[2]	50,285	10.3	54,674	11.2	1,807,123	370.5
Western Sydney	Blacktown	31,876	12.2	33,102	12.6	1,095,084	417.8
	Cumberland	21,080	12.5	23,037	13.6	915,300	541.4
	Parramatta[1]	13,232	7.4	14,642	8.1	516,453	286.9
	The Hills Shire	12,678	10.2	13,996	11.2	422,288	339.0
	LHD Total[2]	77,580	10.5	83,447	11.3	2,909,347	394.5
Far West	Balranald	66	4.0	47	2.9	1,812	110.7
	Broken Hill	712	5.8	799	6.5	24,290	198.5
	Central Darling	365	28.4	138	10.7	3,990	310.0
	Wentworth	376	7.6	370	7.5	7,961	161.3
	LHD Total[2]	1,519	7.2	1,354	6.4	38,053	180.3
Hunter New England	Armidale Regional	1,329	6.2	1,666	7.7	28,891	134.1
	Cessnock	2,903	6.9	4,176	10.0	56,470	134.5
	Dungog	180	2.7	297	4.5	6,596	100.0
	Glen Innes Severn	243	3.9	189	3.0	5,103	82.2
	Gunnedah	206	2.3	282	3.2	9,787	110.3
	Gwydir	137	3.7	133	3.6	2,365	63.1
	Inverell	2,473	20.9	1,600	13.5	13,487	114.1
	Lake Macquarie	9,789	6.8	14,853	10.3	284,028	197.1
	Liverpool Plains	169	3.1	274	5.0	5,425	98.1
	Maitland	5,439	9.1	9,149	15.4	144,265	242.0
	Mid-Coast	4,473	6.8	3,830	5.8	68,925	104.9
	Moree Plains	1,968	21.2	2,868	30.9	14,385	155.0
	Muswellbrook	263	2.3	419	3.7	11,731	102.3
	Narrabri	223	2.4	184	2.0	6,885	74.9
	Newcastle	8,142	7.0	11,344	9.8	240,995	207.9
	Port Stephens	3,734	7.3	5,388	10.5	81,053	157.6
	Singleton	885	5.4	1,534	9.3	26,930	164.0
	Tamworth Regional	3,293	7.5	3,515	8.0	72,144	164.8
	Tenterfield	134	2.9	184	4.0	3,068	66.5
	Upper Hunter Shire	275	2.8	256	2.6	9,418	94.9
	Uralla	163	3.9	114	2.7	3,620	86.0
	Walcha	67	3.1	66	3.0	2,292	104.5
	LHD Total[2]	46,451	7.0	62,286	9.3	1,097,329	164.6
Mid North Coast	Bellingen	225	2.5	260	2.9	8,128	89.4
	Coffs Harbour	1,585	2.9	1,980	3.7	46,997	86.9
	Kempsey	1,278	6.1	2,655	12.8	35,822	172.0
	Nambucca	338	2.4	899	6.5	11,295	81.5
	Port Macquarie-Hastings	5,615	9.5	4,023	6.8	68,432	115.7
	LHD Total[2]	9,041	5.7	9,817	6.2	170,674	108.1
Murrumbidgee	Albury	4,075	10.7	6,146	16.2	68,244	179.4
	Berrigan	154	2.5	226	3.7	3,899	63.7
	Bland	103	2.5	114	2.7	3,559	85.1
	Carrathool	58	3.0	31	1.6	990	50.5
	Coolamon	171	5.6	137	4.5	3,356	110.4

		Week ending				Total since January 2021	
		13 Nov		6 Nov			
Local Health District	Local Government Area	No.	Tests per 1,000 population	No.	Tests per 1,000 population	No.	Tests per 1,000 population
	Cootamundra-Gundagai Regional	270	3.4	254	3.2	7,975	101.4
	Edward River	336	5.3	324	5.1	7,634	120.1
	Federation	767	8.8	521	6.0	9,703	111.5
	Greater Hume Shire	415	5.5	579	7.7	10,904	144.7
	Griffith	1,507	8.0	1,045	5.5	18,309	96.8
	Hay	164	7.9	51	2.5	1,474	71.4
	Hilltops	520	4.0	576	4.4	21,255	162.3
	Junee	131	2.8	166	3.6	4,147	88.7
	Lachlan[1]	84	2.0	73	1.7	3,329	78.3
	Leeton	226	2.8	237	3.0	5,951	74.3
	Lockhart	120	5.2	145	6.3	2,613	113.6
	Murray River	522	6.2	343	4.0	3,957	46.7
	Murrumbidgee	103	3.8	157	5.7	2,211	80.6
	Narrandera	167	4.0	118	2.9	2,539	61.5
	Snowy Valleys	255	2.5	335	3.3	7,995	78.9
	Temora	137	3.1	95	2.2	3,374	76.4
	Wagga Wagga	4,931	10.8	3,083	6.8	69,975	153.2
	LHD Total[2]	15,158	7.3	14,703	7.1	261,140	125.1
Northern NSW	Ballina	1,128	3.6	969	3.1	46,580	149.1
	Byron	734	3.0	625	2.6	34,524	140.6
	Clarence Valley	1,845	5.1	1,432	4.0	33,933	93.8
	Kyogle	127	2.1	150	2.4	5,352	86.9
	Lismore	1,391	4.6	1,541	5.0	40,542	132.6
	Richmond Valley	882	5.4	1,156	7.0	22,238	135.4
	Tenterfield	134	2.9	184	4.0	3,068	66.5
	Tweed	1,947	2.9	1,861	2.7	62,882	92.6
	LHD Total[2]	8,091	3.7	7,789	3.6	246,797	113.6
Southern NSW	Bega Valley	719	3.0	651	2.7	21,194	87.8
	Eurobodalla	602	2.2	535	2.0	25,607	95.1
	Goulburn Mulwaree	885	4.1	883	4.1	35,532	163.1
	Queanbeyan-Palerang Regional	2,830	6.6	3,566	8.3	53,633	125.4
	Snowy Monaro Regional	413	2.8	439	3.0	22,621	155.4
	Upper Lachlan Shire	155	2.8	136	2.4	6,080	107.8
	Yass Valley	675	5.6	353	3.0	13,501	112.9
	LHD Total[2]	6,279	4.1	6,565	4.3	178,281	117.3
Western NSW	Bathurst Regional	2,613	8.6	4,310	14.1	66,338	217.3
	Blayney	266	5.2	332	6.4	9,734	188.5
	Bogan	55	3.1	48	2.7	2,503	138.6
	Bourke	194	10.7	185	10.2	6,446	355.5
	Brewarrina	38	3.4	52	4.6	2,334	207.0
	Cabonne	249	2.6	308	3.2	11,411	119.6
	Cobar	121	3.7	148	4.5	3,866	118.6
	Coonamble	49	1.8	87	3.1	3,470	125.2

		Week ending				Total since January 2021	
		13 Nov		6 Nov			
Local Health District	Local Government Area	No.	Tests per 1,000 population	No.	Tests per 1,000 population	No.	Tests per 1,000 population
	Cowra	507	5.7	970	10.9	18,626	208.8
	Dubbo Regional	6,334	16.8	5,314	14.1	152,150	404.6
	Forbes	147	2.1	151	2.2	6,883	99.3
	Gilgandra	105	3.5	131	4.4	4,654	156.8
	Lachlan[1]	84	2.0	73	1.7	3,329	78.3
	Mid-Western Regional	499	2.8	573	3.2	29,090	164.6
	Narromine	311	6.8	315	6.9	10,951	240.1
	Oberon	202	5.3	295	7.8	7,563	199.7
	Orange	1,492	5.0	2,150	7.2	73,958	248.9
	Parkes	276	2.7	249	2.4	12,885	124.1
	Walgett	125	3.0	190	4.6	8,217	197.2
	Warren	154	8.2	172	9.1	6,331	335.4
	Warrumbungle Shire	189	2.9	286	4.4	7,401	114.0
	Weddin	65	2.6	76	3.0	2,653	104.9
	LHD Total[2]	14,049	7.0	16,399	8.2	449,825	225.5
NSW Total	**NSW Total**[3]	**480,182**	**8.5**	**532,505**	**9.4**	**16,092,476**	**284.2**

Source - Notifiable Condition Information Management System, accessed as at 8pm 15 Nov 2021

[1] Local Government Area (LGA) spans multiple Local Health Districts.
[2] Local Health District total counts and rates includes tests for LHD residents only. Murrumbidgee includes Albury LGA residents.
[3] NSW Total counts and rates since January 2021 include tests where residential information is incomplete. See https://www.health.nsw.gov.au/Infectious/covid-19/Pages/counting-tests.aspx for detail on how tests are counted.

Appendix B: Number of positive PCR test results for influenza and other respiratory viruses at sentinel NSW laboratories, January 2021 to 7 November 2021

The reported testing numbers reflect the number of influenza PCR tests conducted. Not all samples are tested for all of the other respiratory viruses. Therefore, data presented may tend to under-represent current respiratory virus activity in NSW.

Testing numbers in NSW from 28 December 2020– 7 November 2021

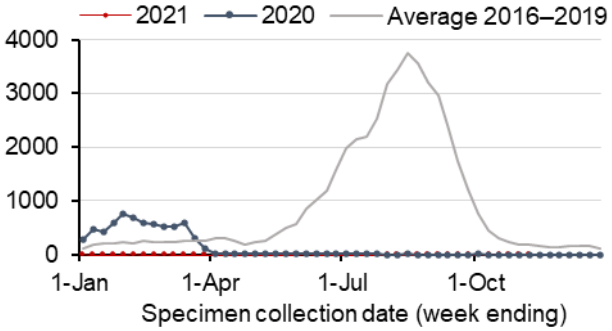
Specimen collection date	PCR tests conducted	Influenza A		Influenza B		Adeno-virus	Para-influenza	RSV	Rhino-virus	HMPV	Entero-virus
		No.	%Pos.	No.	%Pos.						
Total	725,380	10	<0.01%	10	<0.01%	7,674	18,611	17,543	59,204	5,524	6,467
Month ending											
31 January*	63,814	1	<0.01%	0	-	416	88	3,275	3,541	23	560
28 February	54,010	2	<0.01%	0	-	419	106	2,386	8,667	22	910
28 March	42,760	0	-	0	-	507	354	1,909	8,891	18	1,187
2 May*	53,506	0	-	3	<0.01%	802	1,515	1,653	8,141	48	1,128
30 May	52,445	0	-	6	<0.01%	946	3,129	1,491	8,982	78	843
27 June	73,605	1	< 0.01%	0	-	1,551	7,104	2,794	9,915	635	811
26 July	78,704	0	-	0	-	1,463	4,603	3,014	5,089	1,991	587
29 August*	126,147	0	-	1	< 0.01%	869	1,497	852	2,252	2,035	259
26 September	75,074	0	-	0	-	321	151	124	715	454	93
Week ending											
3 October	20,048	1	< 0.01%	0	-	56	11	14	176	44	16
10 October	17,657	0	-	0	-	60	13	8	221	34	13
17 October	15,687	5	0.03%	0	-	57	17	6	239	35	10
24 October	16,284	0	-	0	-	63	7	6	434	37	18
31 October	18,892	0	-	0	-	68	11	6	828	38	25
7 November	16,747	0	-	0	-	76	5	5	1,113	32	30

Notes: Preliminary laboratory data is provided by participating sentinel laboratories on a weekly basis and are subject to change. Serological diagnoses are not included.
HMPV – Human metapneumovirus
RSV - Respiratory syncytial virus
*Five-week period

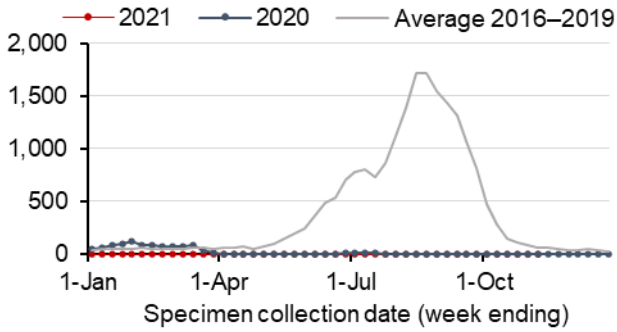
Appendix C: Number of positive PCR test results for influenza and other respiratory viruses at sentinel NSW laboratories, January 2020 to 7 November 2021

Not all samples are tested for all respiratory viruses. Therefore, data presented may tend to under-represent current respiratory virus activity in NSW.

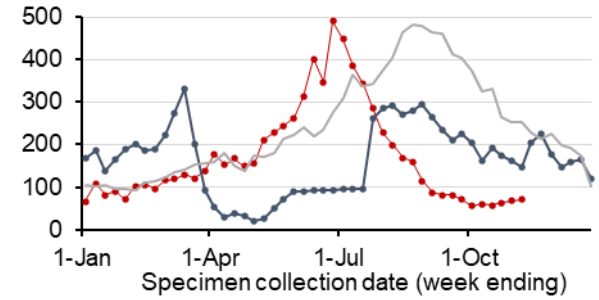
Influenza A



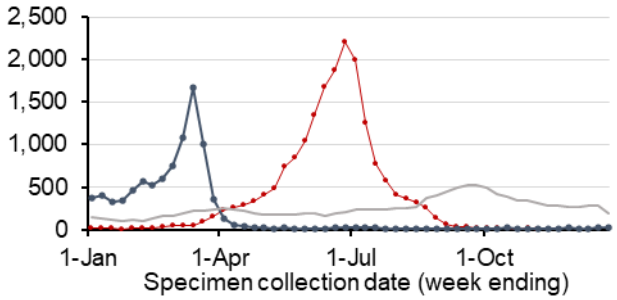
Influenza B



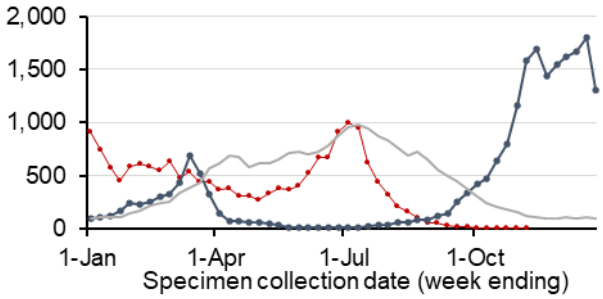
Adenovirus



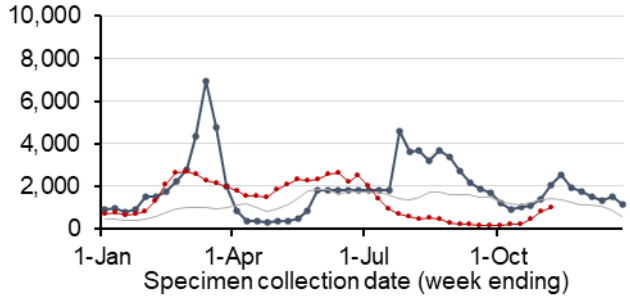
Parainfluenza



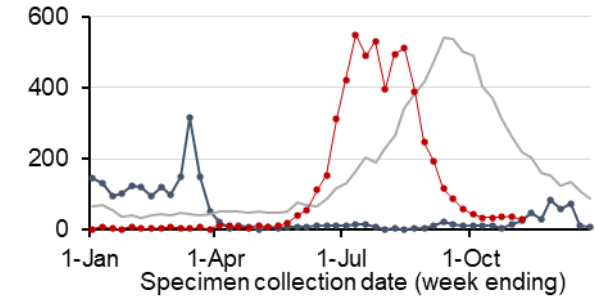
Respiratory Syncytial Virus



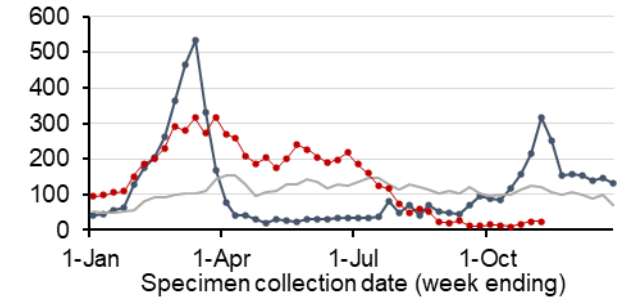
Rhinovirus



Human metapneumovirus



Enterovirus



Note: Preliminary laboratory data is provided by participating sentinel laboratories on a weekly basis and are subject to change. Serological diagnoses are not included.

Glossary

Term	Description
Case	A person infected who has tested positive to a validated specific SARS-CoV-2 nucleic acid test or has had the virus identified by electron microscopy or viral culture. Blood tests (serology) is only used in special situations following a public health investigation and require other criteria to be met in addition to the positive serology result (related to timing of symptoms and contact with known COVID-19 cases). Case counts include: - NSW residents diagnosed in NSW who were infected overseas or in Australia (in NSW or interstate), and - interstate or international visitors diagnosed in NSW who were under the care of NSW Health at the time of diagnosis
Health care workers	Individuals who work within a hospital or other healthcare settings, including staff in direct or indirect contact with patients or infectious materials.
Incubation period	The time in which the case was infected. The incubation period for COVID-19 is between 1 and 14 days prior to symptom onset.
Overseas acquired case	Case who travelled overseas during their incubation period. While testing rates in NSW are high and case counts are low, cases who have travelled overseas in their incubation period are considered to have acquired their infection overseas.
Interstate acquired case	Case who travelled interstate during their infection and the public health investigation concludes the infection was likely acquired interstate.
Cluster	Group of cases sharing a common source of infection or are linked to each other in some way.

Dates used in COVID-19 reporting

Event	Date name	Source
Person first starts to feel unwell	Date of symptom onset	Public health staff interview all cases at the time of diagnosis. This is the date provided to NSW Health by the case.
Person has a swab taken	Date of test	This date is provided to NSW Health by the laboratory when the test result (positive or negative) is notified.
Laboratory notifies NSW Health of result	Date of notification	This date is provided to NSW Health by the laboratory. Laboratories prioritise notification of positive results to allow prompt public health action. Positive cases: The date of notification is collected by NSW Health on the day of notification. Cases are informed of their diagnosis by their doctor or public health staff as soon as the result is available. The date of notification to NSW Health is usually the same day as the date the case finds out about the result. Negative cases: Some laboratories notify NSW Health of negative results in batches at regular intervals. For these laboratories the date of notification to NSW Health does not reflect the date the negative result was available at the laboratory. NSW Health does not collect information on the date the person was informed of the result.