

COVID-19 WEEKLY SURVEILLANCE IN NSW

EPIDEMIOLOGICAL WEEK 33, ENDING 21 August 2021

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Overview

Table 1. Number and proportion of COVID-19 cases in NSW by likely source of infection to week ending 21 August 2021

	2020		2021			
	Jan – Jun	July – Dec	Jan – Jun	last 4 weeks	last 7 days	year to date
Locally acquired	1,236 (39 %)	808 (52 %)	255 (27 %)	10,242 (99 %)	4,650 (>99 %)	12,397 (94 %)
Interstate acquired	67 (2 %)	23 (1 %)	1 (<1 %)	3 (<1 %)	3 (<1 %)	4 (<1 %)
Overseas acquired	1,892 (59 %)	714 (46 %)	673 (72 %)	62 (1 %)	18 (<1 %)	794 (6 %)
Total	3,195 (100 %)	1,545 (100 %)	929 (100 %)	10,307 (100 %)	4,671 (100 %)	13,195 (100 %)
Deaths	51	5	0	66	22	72

Summary for the week 15 August to 21 August 2021

- There were 4,650 locally acquired cases reported in the week ending 21 August 2021. Of these:
 - 948 (20%) cases were residents of Cumberland LGA
 - 802 (17%) cases were residents of Canterbury-Bankstown LGA
 - 636 (14%) cases were residents of Blacktown LGA
 - 1,506 (32%) cases were residents of other 9 LGAs of concern
 - 755 (16%) cases were residents across 47 other LGAs
- There were 18 cases reported in overseas returned travellers in the last week (up 80%).
- There were 22 deaths of people with COVID-19 reported this week including a male in his teens (un-vaccinated), a male in his 40s (un-vaccinated), two males in their 60s (one un-vaccinated and one partially vaccinated), five males and one female in their 70s (two un-vaccinated, three partially vaccinated and one fully vaccinated), six males and four females in their 80s (four un-vaccinated, three partially vaccinated, one fully vaccinated and two with an unknown vaccination status), one male and one female in their 90s (one un-vaccinated and one partially vaccinated).
- In the four weeks ending 21 August 2021, 100% (3,074/3,047) of the locally acquired cases sequenced were the delta variant of concern. For overseas-acquired cases, 96% (22/23) of sequenced cases were COVID-19 variants of concern.
- Since March 2021, 317 (2.6%) locally acquired cases have reported being fully vaccinated. Twenty-four (4.1%) of overseas acquired COVID-19 cases self-reported being fully vaccinated prior to arrival in Australia.
- Testing rates slightly increased compared to the previous week (up 3%) with continued high testing rates in the South Western Sydney, Nepean Blue Mountains, South Western Sydney, and Sydney LHDs, as well as a marked increase in Western NSW and Far West LHDs in response to targeted public health messaging.
- In the week ending 21 August, 207 sewage samples were tested for fragments of SARS-CoV-2. Of these, there were 83 detections. The sewage treatment plants at Singleton, Scone, Gunnedah, Narromine, Broken Hill South, Wilcannia, Coonamble, Gulargambone, Cobar, Inverell, Glen Innes, Forbes, Yass and West Kempsey were added as new sites. Detections from Cobar, Parkes, Bateau Bay, Orange, Gulargambone, Toukley, Broken Hill South, Brewarrina, Port Macquarie, Wollongong, Coonamble, Byron Bay, Queanbeyan, Forster, Lennox Head, Mittagong, Bathurst and Yamba occurred with no known or recent cases in the catchment. Subsequently cases were identified in Orange, Bathurst, Gulargambone, Wollongong and Queanbeyan.

Indicators of effective prevention for COVID-19 in NSW for the week ending 21 August 2021

Cases' community risk

A case is assigned a community exposure risk level based on an initial assessment of their opportunity to transmit the infection in the community during their infectious period. Their infectious period is two days before symptom onset (or specimen collection date if asymptomatic) until the date NSW Health is notified of the infection.

- **Low risk** indicates that the case was in isolation during their infectious period or had stayed at home (with or without household members) with no community exposures.
- **Medium risk** indicates that the case was isolating for part of their infectious period, or only had low risk community exposures and no venue exposures for their entire infectious period.
- **High risk** indicates that the case was active in the community with venue exposures during their infectious period.

Locally acquired cases by risk of community exposure during their infectious period past four weeks

Community exposure risk	Week ending				Total
	21-Aug	14-Aug	07-Aug	31-Jul	
Low risk	2,309	1,315	951	664	5,237 (51.1%)
Medium risk	759	425	299	197	1,678 (16.4%)
High risk	1,242	729	481	477	2,928 (28.6%)
Risk not determined	340	42	11	1	399 (3.9%)
Total	4,650	2,511	1,742	1,339	10,242 (100.0%)

Interpretation: In the week ending 21 August, 49.7% of total cases had low risk community exposures, 16.3% had medium risk, and 26.7% had high risk community exposures. Seven percent (340/4,650) of cases have a risk status that has not yet been determined.

Measures of Public Health Action

	Week ending 21 Aug	Week ending 14 Aug
Proportion locally acquired cases notified to NSW Health by the laboratory within 1 day of specimen collection	64%	71%
Locally acquired cases interviewed by public health staff within 1 day of notification to NSW Health	56%	85%
Locally acquired cases contacted by stop and stay message within 1 day of notification to NSW Health	87%	-

Interpretation: In the week ending 21 August, 64% of cases were notified to NSW Health within a day of test, 56% of cases were fully interviewed within one day of notification and 87% of cases were messaged to advise of their positive result, provide isolation requirements and to identify high risk exposure settings. Cases who do not have a valid phone number are referred to NSW Police to identify alternative contact details.

Where there are many cases, NSW Health may conduct a shorter preliminary interview with some patients upon confirmation of a positive COVID-19 result. In this preliminary interview the patient's result is confirmed, their welfare and medical needs are assessed, their need to isolate is reinforced, and their close contacts are identified to arrange urgent testing.

For those cases who have a short preliminary interview, further details are collected in a follow up interview. Only once the follow up interview is completed will cases be considered interviewed for the measures described in the table above.

In addition, short delays in conducting interviews may be as a result of cases being moved to a different location for the purpose of isolation or deteriorating health, incorrect contact details, or not being able to be reached by phone, in which case escalation processes are put in place.

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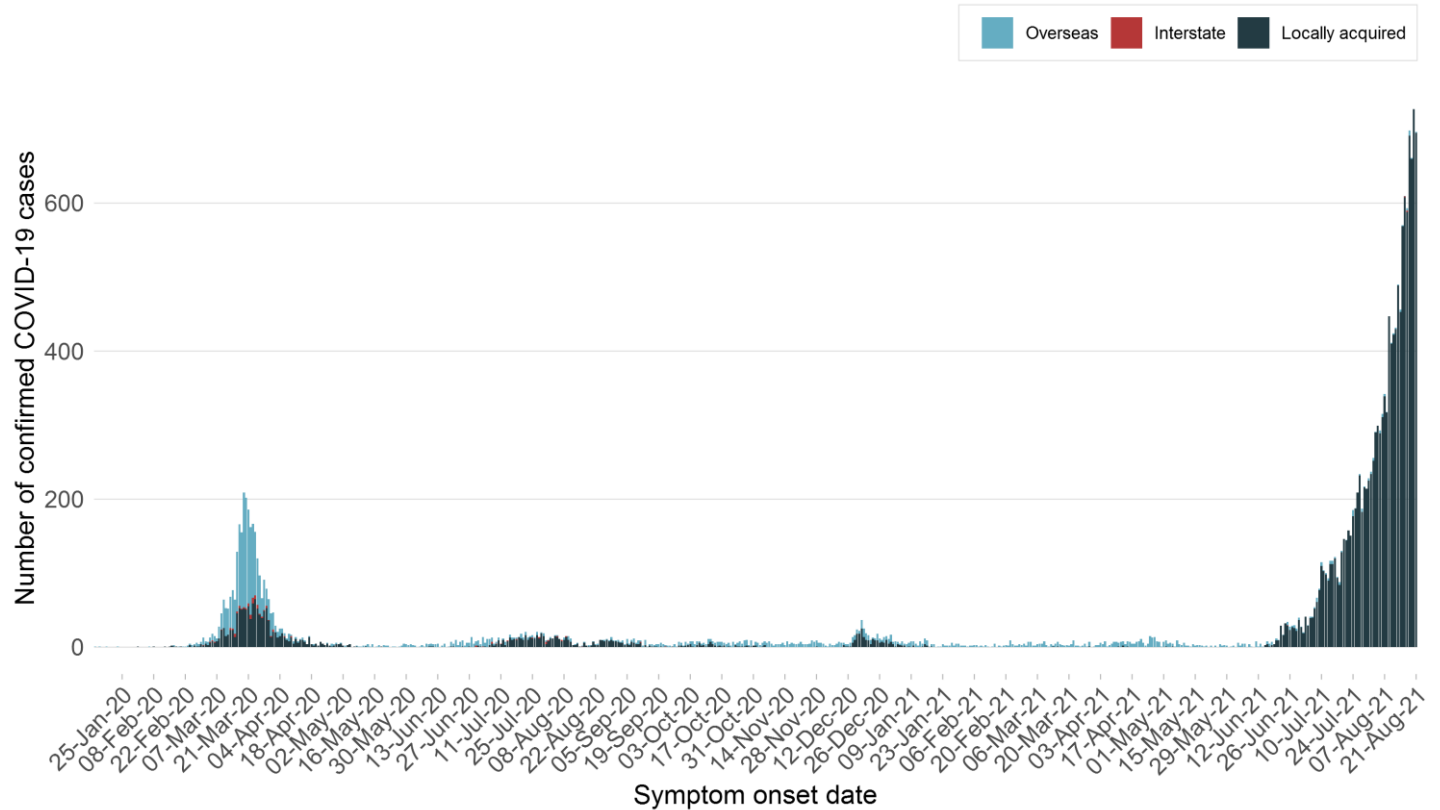
COVID-19 Vaccination program

- Australian Government Department of Health reports the number of vaccine doses administered across Australia — [Daily COVID-19 vaccine rollout numbers](#)
- 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 provided by Vaxtracker, SmartVax and the Victorian Department of Health COVID-19 Vaccine Management System based on surveys sent on Day 3 after the vaccination — [Weekly COVID-19 vaccine safety surveillance report](#)

Section 1: How is the outbreak 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 illness onset, NSW, from 25 January 2020 to 21 August 2021



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

Interpretation: Between 13 January 2020 and 21 August 2021, there were 17,935 confirmed COVID-19 cases. Of those, 3,400 (19%) were overseas acquired, 94 (1%) were interstate acquired, and 14,441 (81%) were locally acquired.

COVID-19 cases reported in 2020

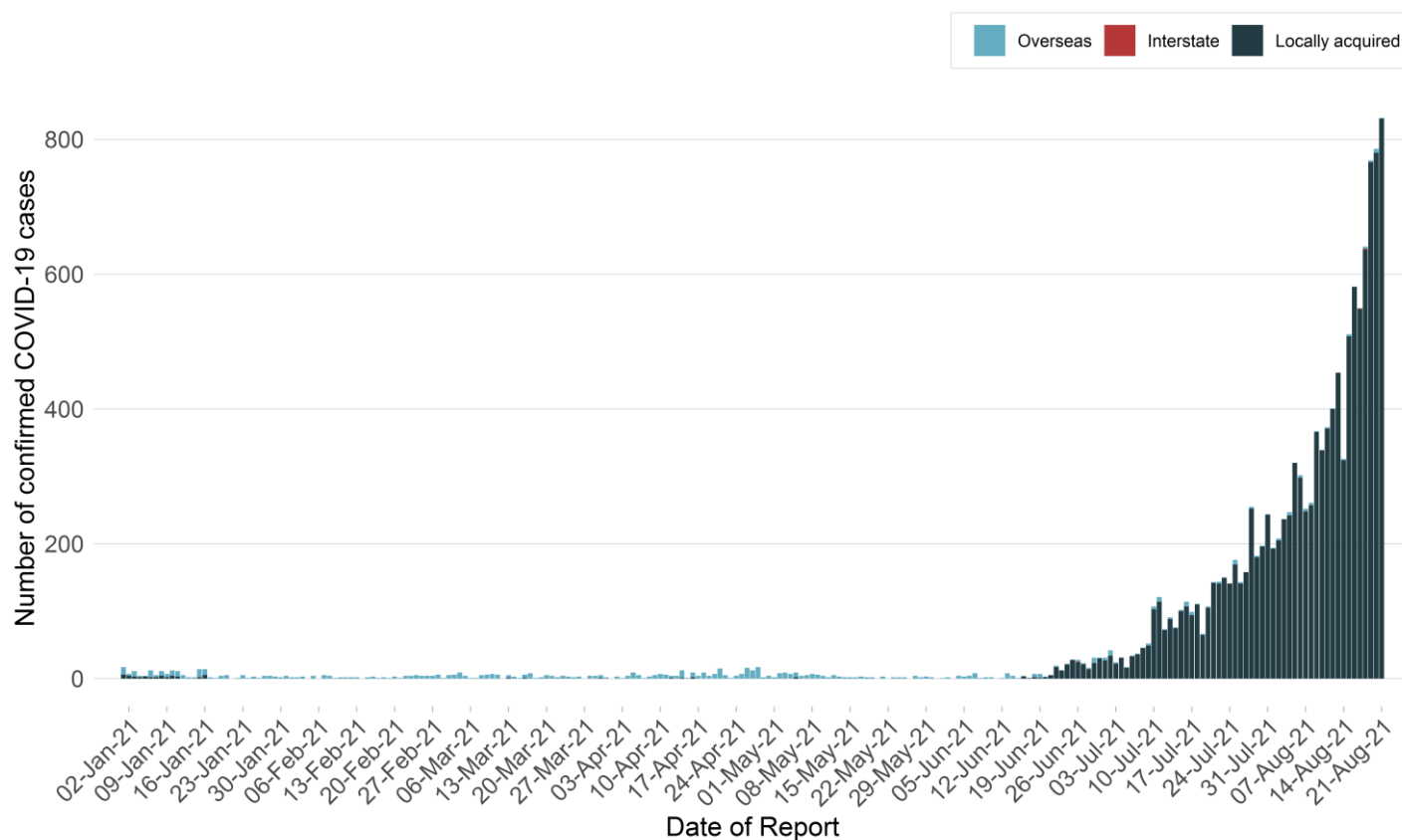
The epidemiology of COVID-19 in NSW continued to evolve since the first three cases were reported in NSW on 25 January 2020 in people who acquired their infection in China. The first locally acquired COVID-19 case in NSW was reported on 2 March 2020 and by mid-March case numbers had increased rapidly 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.

COVID-19 cases reported in 2021

Figure 2. COVID-19 cases by likely infection source and reporting date, NSW, from 1 January 2021 to 21 August 2021



Information from cases who were diagnosed in the last four weeks is used to understand where COVID-19 is spreading in the community. This considers the incubation period and the time it takes for people to seek testing and for the laboratory to perform the test. This section summarises cases based on the date the case was reported to NSW Health.

Table 2. COVID-19 cases and tests reported, NSW, from 1 January 2021 to 21 August 2021

	Week ending 21 Aug	Week ending 14 Aug	% change	Total 2021
Number of cases	4,671	2,521	85 %	13,195
Locally acquired	4,650	2,511	85 %	12,397
Known epidemiological links to other cases or clusters	1,949	1,347	45 %	6,913
No epidemiological links to other cases or clusters	2,701	1,164	132 %	5,484
Overseas acquired	18	10	80 %	794
Interstate acquired	3	0	-	4
Number of tests	1,029,536	998,859	3 %	8,011,409

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 four weeks in NSW were locally acquired (10,242 cases, or 99.4%). Of the 4,650 locally acquired cases reported in the week ending 21 August 2021 84% were from the 12 LGAs of concern (Cumberland, Canterbury-Bankstown, Blacktown, Fairfield, Liverpool, Penrith, Campbelltown, Burwood, Parramatta, Bayside, Georges River, and Strathfield).

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

Table 3. Locally acquired COVID-19 cases by LHD of residence and week reported, NSW, 25 July to 21 August 2021

Local Health District	Week ending				Total	Days since last case reported
	21-Aug	14-Aug	7-Aug	31-Jul		
Western Sydney	1,807	853	513	349	3,522	0
South Western Sydney	1,437	716	649	587	3,389	0
Sydney	410	280	301	268	1,259	0
Nepean Blue Mountains	358	252	115	14	739	0
South Eastern Sydney	227	180	94	78	579	0
Northern Sydney	86	58	32	32	208	0
Illawarra Shoalhaven	8	5	3	7	23	0
Central Coast	7	12	12	2	33	1
Western NSW	208	60	0	1	269	0
Hunter New England	53	88	22	0	163	0
Far West	24	0	0	0	24	0
Southern NSW	2	0	0	1	3	1
Mid North Coast	2	0	0	0	2	2
Northern NSW	0	0	0	0	0	144
Murrumbidgee	0	0	0	0	0	348
Correctional settings	6	4	0	0	10	0
NSW*	4,650	2,511	1,742	1,339	10,242	0

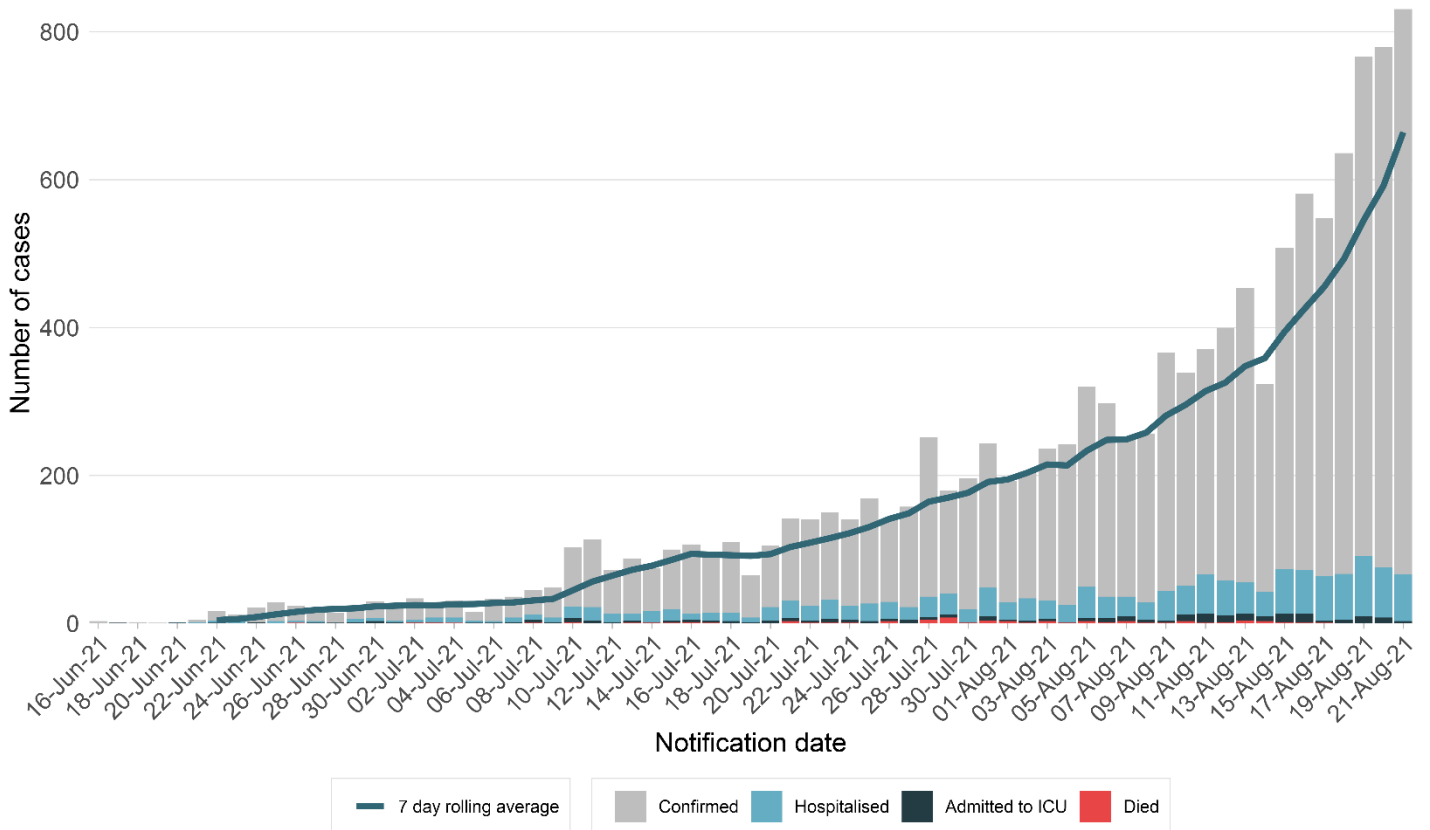
*Includes people with a usual place of residence outside of NSW, and those for whom LHD was not available at the time of data extraction.

Interpretation: There were 4,650 locally acquired cases reported in the week ending 21 August 2021. Most cases were residents of Western Sydney LHD (1807, 39%) followed by South Western Sydney LHD (1437, 31%), and Sydney LHD (410, 9%). Correctional settings include all cases residing in NSW correctional facilities.

Section 3: Epidemiology of local cases with COVID-19 from 16 June 2021 to 21 August 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.

Figure 3. COVID-19 cases by outcome and notification date with 7 day backward rolling average, NSW, from 16 June 2021 to 21 August 2021



Interpretation: Between 16 June and 21 August 1416 local cases have been hospitalised due to COVID-19, of these 200 were admitted to an ICU and 71 have died. Cases are graphed by the notification date, but are grouped by colour on whether they died or required hospitalisation at any time up until 21 August. Because there can be a delay between a person becoming ill with COVID-19 and subsequently requiring a hospitalisation, and because cases in the current outbreak have a median of 11 days between onset and death, hospitalisations and deaths are under-reported for the most recently notified cases.

Local Government Area of concern

During the current fourth wave of COVID-19 in NSW, certain areas of metropolitan Sydney have been designated as areas of concern due to high case rates. Broader restrictions on movement and increased testing requirements were required of residents in these areas. The current areas of concern are the LGAs of Bayside, Blacktown, Burwood, Campbelltown, Canterbury-Bankstown, Cumberland, Fairfield, Georges River, Liverpool, Parramatta, Strathfield, and certain suburbs within the Penrith LGA.

Table 4. Locally acquired COVID-19 cases by LGA of residence and week reported, NSW, 16 June to 21 August 2021

Local Government Area of concern*	Last 7 days		Current NSW outbreak (16 Jun-21 Aug 2021)	
	Cases	Rate per 100,000 population	Cases	Rate per 100,000 population
Cumberland ³	948	393	1,931	800
Canterbury-Bankstown ²	802	212	2,400	635
Blacktown ³	636	170	1,342	358
Fairfield ¹	330	156	1,598	755
Liverpool ²	349	153	950	417
Penrith ⁵	316	148	700	329
Campbelltown ⁴	159	93	445	260
Burwood ⁶	30	74	76	187
Parramatta ⁴	159	62	432	168
Bayside ⁶	79	44	273	153
Georges River ⁴	68	43	273	171
Strathfield ⁶	16	34	83	177

Date became an area of concern: ¹13 July, ²18 July, ³ 24 July, ⁴ 30 July, ⁵ 8 August (selected suburbs including Caddens, Claremont Meadows, Colyton, Erskine Park, Kemps Creek, Kingswood, Mount Vernon, North St Marys, Orchard Hills, Oxley Park, St Clair and St Marys), ⁶ 12 August.

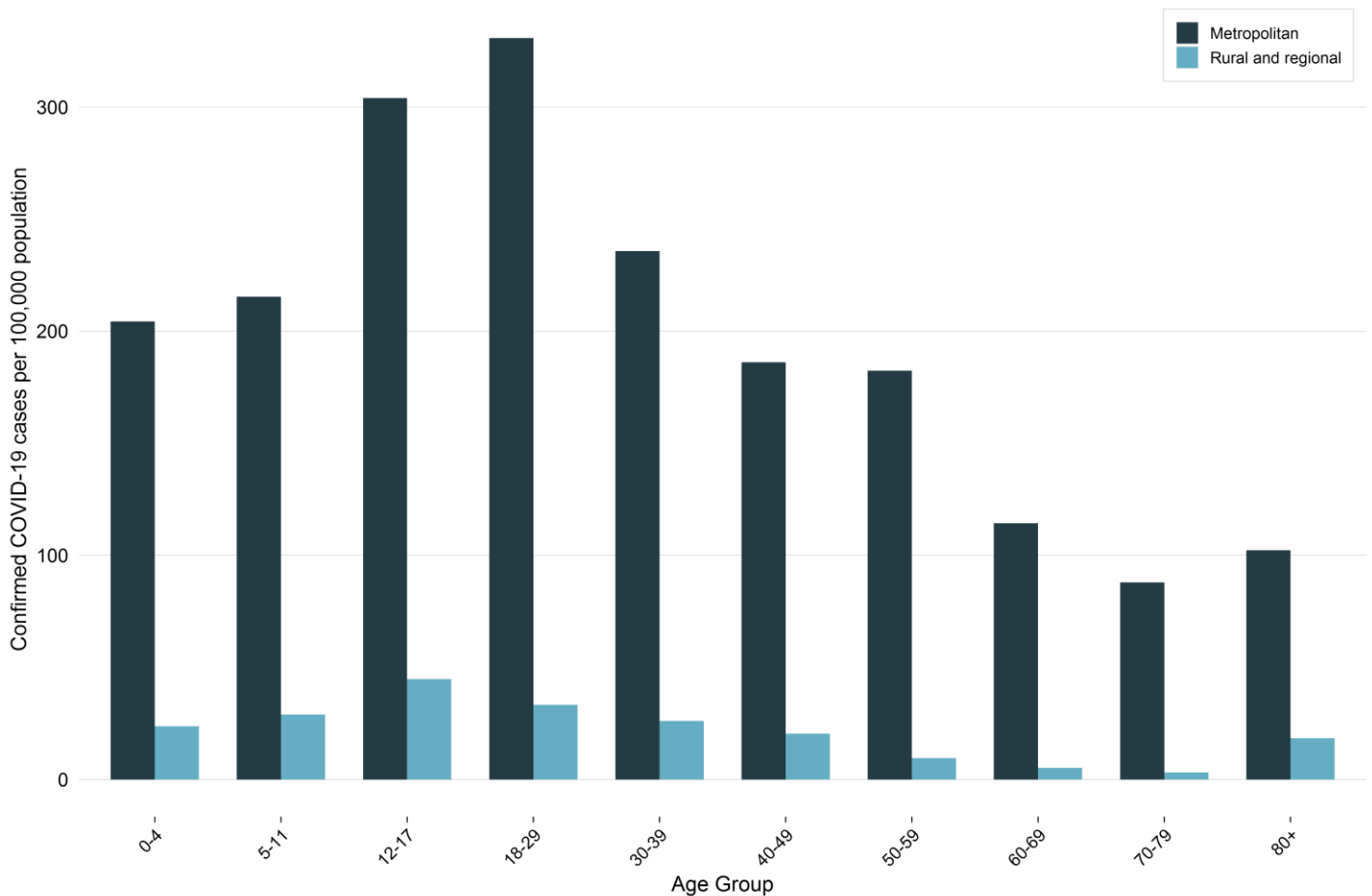
*LGAs of concern are identified by available address information. The method used in calculation could cause potential discrepancy with commonly used postcode concordance LGA allocation.

Interpretation: Case rates remain high in the 12 LGAs of concern, with the highest case rates in the Cumberland and Canterbury-Bankstown Areas. Most areas are showing increasing case rates per 100,000 population; Bayside and Georges River remain relatively stable over the past four weeks, while Strathfield and Fairfield have shown slight declines in the case rate.

Age breakdown of locally acquired cases

Since 16 June 2021, 12,346 locally acquired cases have been diagnosed with COVID-19 in NSW with 11,936 cases residing in nine metropolitan LHD areas*. The rate of COVID-19 diagnosed in each age group allows the risk of infection by age to be compared between areas. The largest number of cases were reported in South Western Sydney LHD (36%, 4,486/12,346). The overall rate of infection in metropolitan LHDs from 16 June to 21 August is 215.5 per 100,000 people compared with 20.7 per 100,000 people in rural and regional LHDs.

Figure 4. Rates of COVID-19 infection by age group, Metropolitan and rural and regional LHDs, NSW, 16 June to 21 August 2021



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

Interpretation: From 16 June to 21 August, the age group with the highest rate of COVID-19 in metropolitan LHDs was 18-29 years, while for rural and regional LHDs the age group with the highest rate was 12-17 years.

*Metropolitan LHDs include: Central Coast LHD, Illawarra Shoalhaven LHD, Nepean Blue Mountains LHD, Northern Sydney LHD, South Eastern Sydney LHD, South Western Sydney LHD, Sydney LHD, Western Sydney LHD, and cases in Justice Health and correctional facilities.

Source of infection for locally acquired cases in NSW

In the week ending 21 August, 32% of cases diagnosed with COVID-19 acquired their infection in a household setting (1,485/4,650) compared with 39% the previous week. Of the 4,346 cases reported this week in metropolitan LHDs, 1,391 (32%) were household contacts, 417 (10%) were epidemiologically linked but not household contacts and 2,538 (58%) were not currently linked to a case or cluster.

There were 289 cases reported this week in rural and regional LHDs. Of these 93 (32%) are household contacts, 46 (16%) were epidemiologically linked but not household contacts and 150 (52%) have not currently been linked to a case or cluster.

Figure 5a. Source of infection for locally acquired cases, Metropolitan LHDs, week ending 19 June to 21 August 2021

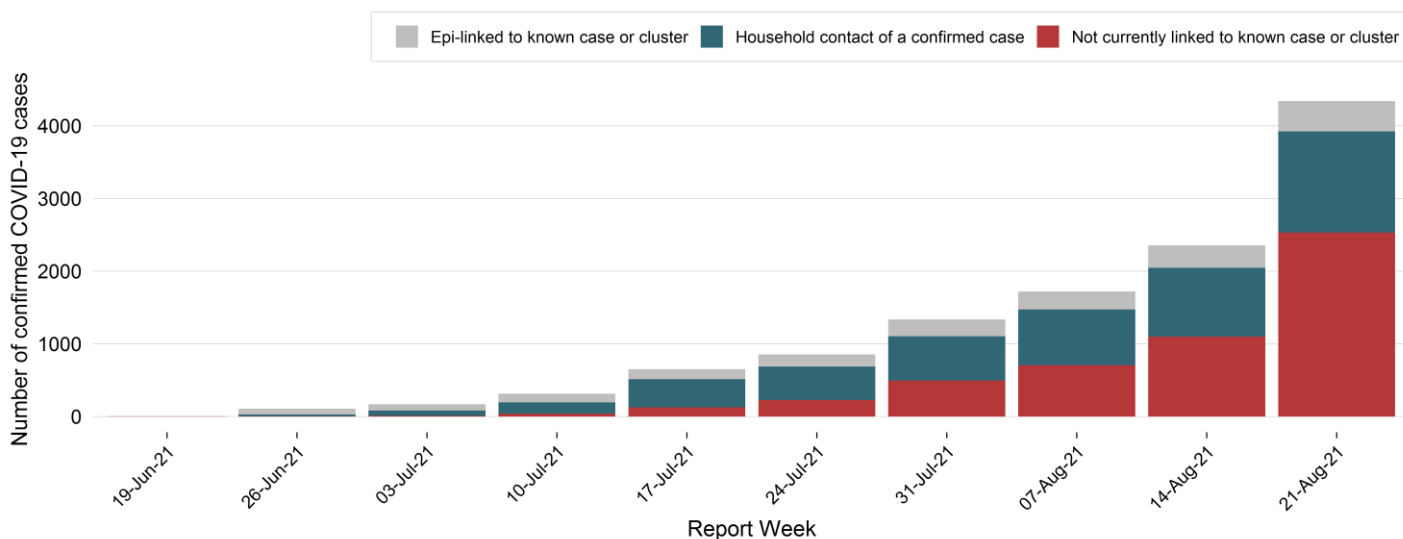
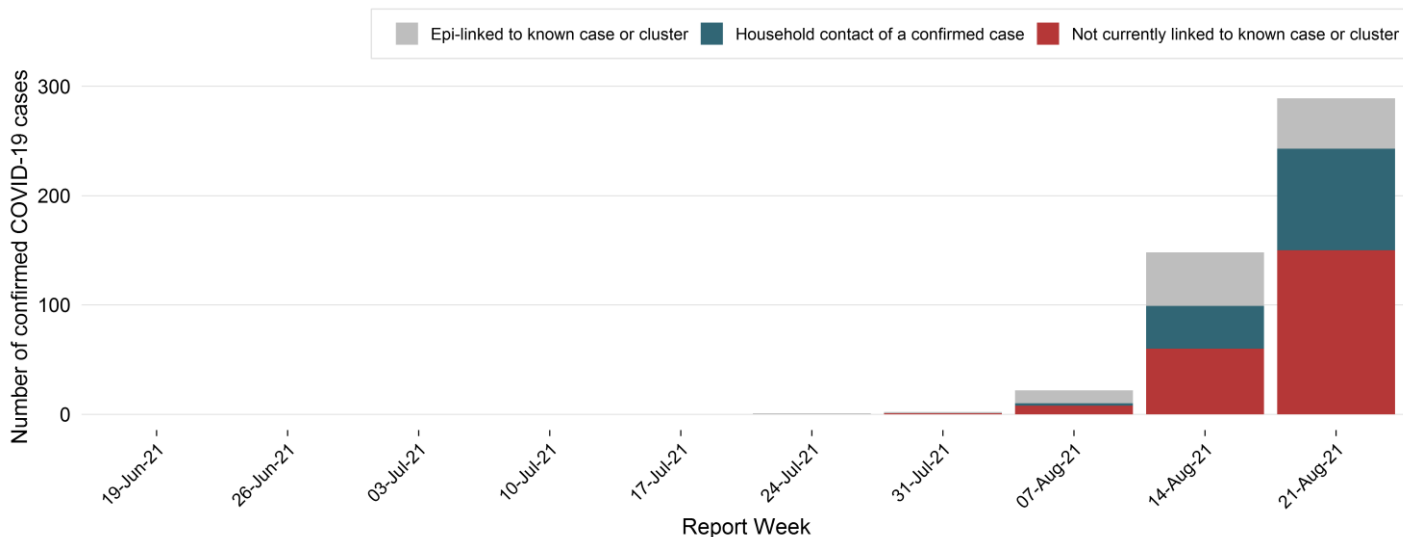


Figure 5b. Source of infection for locally acquired cases, rural and regional LHDs, week ending 19 June to 21 August 2021



Note: 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 21 August, cases almost doubled in both metropolitan LHDs (4,346 compared to 2,360 the previous week) and rural and regional LHDs (289 compared to 148 the previous week).

Measurement of risk of community exposure by LHD

In the week ending 21 August 2,183 (50%) cases were classified as low risk, 704 (16%) as medium risk and 1,169 (27%) as high risk in metropolitan LHDs. This compares to 119 (41%) classified as low risk, 54 (19%) as medium risk and 67 (23%) as high risk in rural LHDs.

Figure 6a. Daily number of locally acquired cases by community risk level, Metropolitan LHDs, 25 July to 21 August 2021

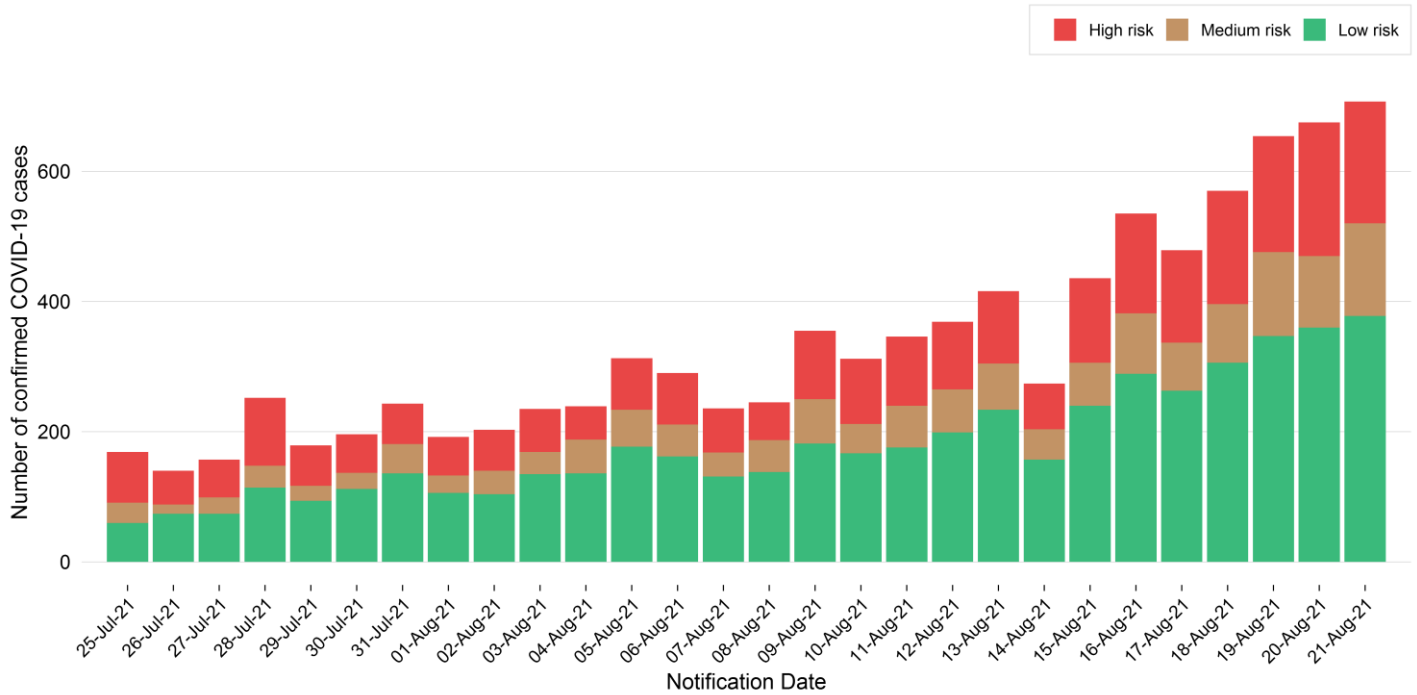
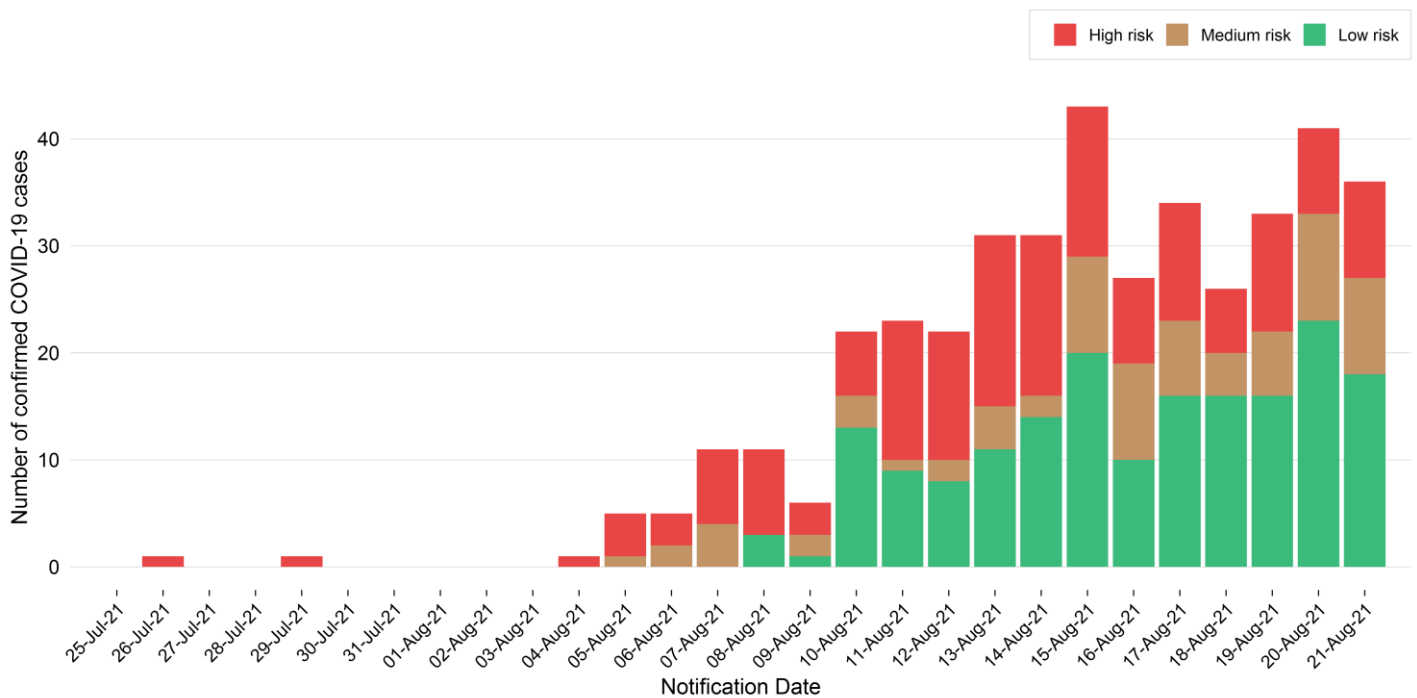


Figure 6b. Daily number of locally acquired cases by community risk level, rural and regional LHDs, 25 July to 21 August 2021



Note: Graph does not include cases where risk has not yet been identified (49 cases (17%) in rural and regional LHDs, and 335 cases (7%) in metropolitan LHDs), 10 cases assigned to Justice Health and correctional facilities, and 21 cases that were not assigned to an LHD at the time of data extraction. Different scales have been used in Figure 6a and 6b.

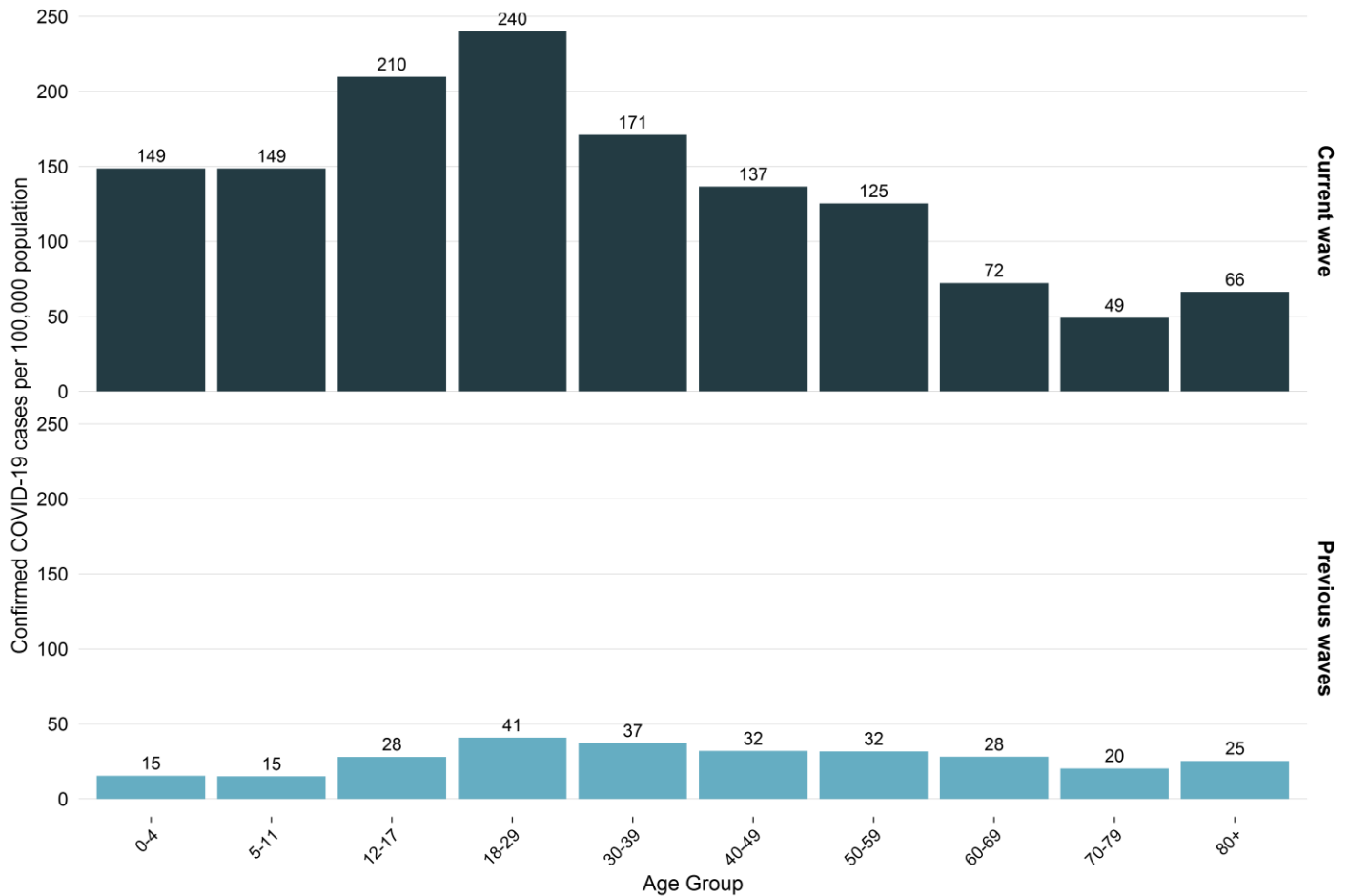
Interpretation: While 50% (2,309/4,650) of cases reported in NSW were considered low or medium risk in the community, at least 43% were infectious in the community for at least part of their infectious period.

Age breakdown of locally acquired cases across four waves, NSW, from 1 January 2020 - 21 August 2021

There have been four distinct waves in reported cases of COVID-19 in NSW since 1 January 2020, characterised by a sharp rise in cases after a prolonged period with very few or no cases. The first wave represents the early 2020 period with residents of South Eastern Sydney LHD mainly affected; the second wave represents outbreaks in mid-2020 with cases mainly in South Western Sydney LHD and Western Sydney LHD. The third wave occurred in December 2020-January 2021 and affected mainly residents of Northern Sydney LHD. The median age of cases to 15 June 2021 was 37 years (IQR = 25-55 years).

The current fourth wave is considered the period between 16 June to present. To 21 August there were 12,346 locally acquired cases in this period with 68% (8,334 /12,346) of cases residing in South Western Sydney and Western Sydney. The median age was 28 years (IQR = 17-44 years).

Figure 7. Rates of COVID-19 infection by age group, current wave and previous waves, NSW, from 25 January 2020 to 21 August 2021



Interpretation: The fourth wave of COVID-19 which has been driven by the more transmissible delta variant has had significantly higher rates of infections across all age groups when compared with previous waves. In this fourth wave the age group with the highest rate of people diagnosed with COVID-19 is those aged 18-29 years (240 per 100,000 people); a high rate is also seen in people aged 12-17 years of age (210 per 100,000 people).

Figure 8a. Current wave locally acquired case percentage (n = 12,305) by age and gender, NSW, from 16 June to 21 August 2021

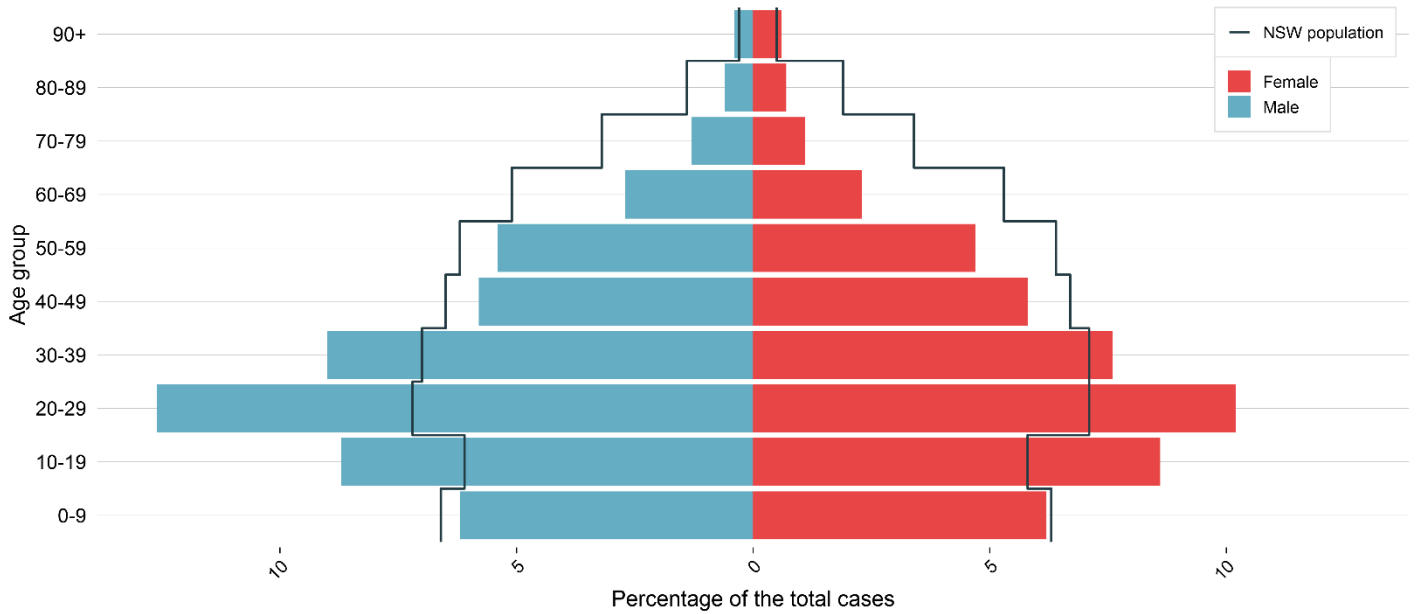
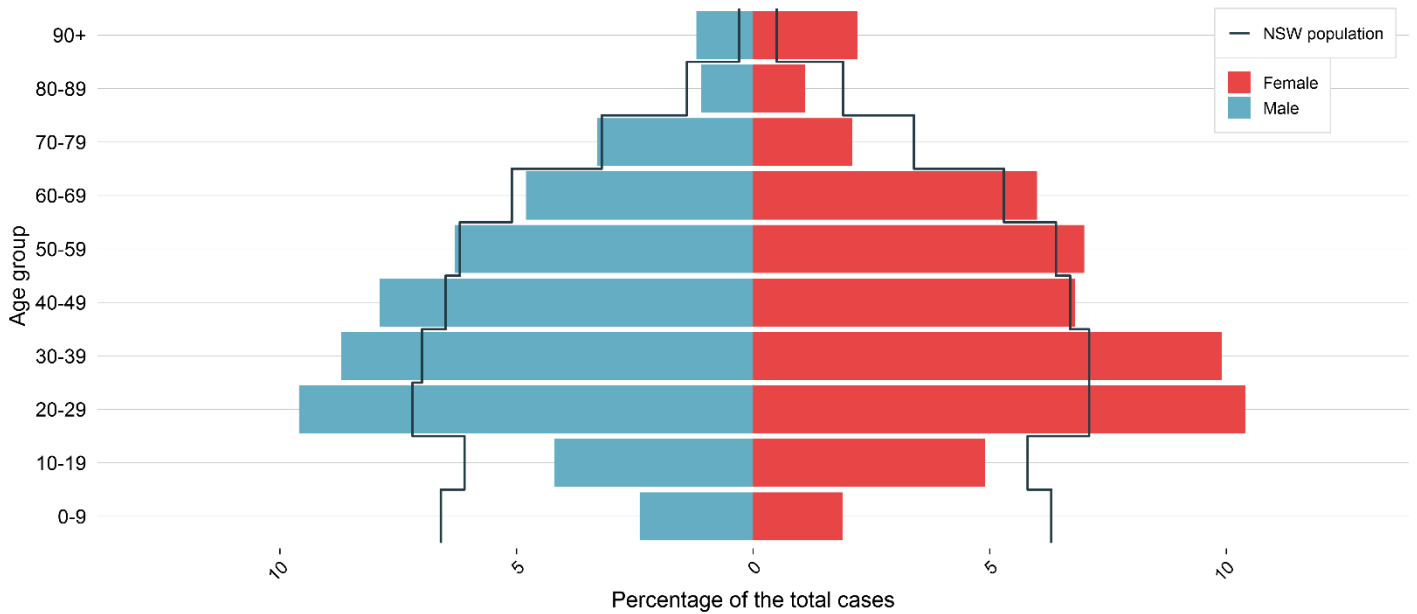


Figure 8b. Previous wave locally acquired case percentage (n = 2,095) by age and gender, NSW, before 16 June 2021



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

Interpretation: In the previous waves prior to 16 June 2021, adults, particularly those aged over 90 years, were over-represented in the case numbers compared to in the general population, while those aged under 20 years were under-represented. In the current fourth wave from 16 June 2021, people aged 10-39 are over-represented among the cases, while those aged 40-89 and 0-9 years are under-represented. People aged under 20 make up approximately double the proportion of cases in the current wave compared to the previous waves. The decrease in the proportion of cases who are over 39 years of age in the current wave is greatest in the oldest age groups, except for those aged over 90 years. This may be due in part to vaccination programs targeted towards older age groups.

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.

There were 220 locally acquired cases of COVID-19 reported in Aboriginal people in the week ending 21 August 2021. Of the 220 cases, one was fully vaccinated. In total there have been 351 Aboriginal people diagnosed with COVID-19 in the current NSW outbreak.

Since the beginning of the pandemic in January 2020, there have been 400 Aboriginal people diagnosed with COVID-19, representing 2% of all cases in NSW. This compares to 3.4% of the NSW population identifying as Aboriginal.

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 21 August, there were 69 healthcare workers diagnosed with COVID-19. Of these, 14 (20%) were potentially infected in a healthcare setting, 19 (28%) were social or household contacts of previously reported cases and 36 (52%) are currently not linked. Eighteen (26%) cases were fully vaccinated and 19 (28%) were partially vaccinated.

In total there have been 310 cases of COVID-19 in health care workers since August 2020. Of these, 69 were potentially infected in healthcare settings. A further 114 cases were linked to social or household contacts, and for 127 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 5. Number of healthcare worker infections by source of infection and proportion fully vaccinated

Healthcare workers	Last 7 days			Current NSW outbreak (16 Jun-21 Aug 2021)		
	Number of HCWs	Fully vaccinated	Partially vaccinated	Number of HCWs	Fully vaccinated	Partially vaccinated
Healthcare acquired	14	4 (29%)	3 (21%)	44	12 (27%)	11 (25%)
Community acquired	19	4 (21%)	4 (21%)	97	24 (25%)	21 (22%)
Not currently linked	36	10 (28%)	12 (33%)	121	32 (26%)	33 (27%)
Total	69	18 (26%)	19 (28%)	262	68 (26%)	65 (25%)

Interpretation: Since 16 June, most healthcare workers cases in the current NSW outbreak have been likely infected in the community and outside of a healthcare setting (218/262, 83%). Of the 262 healthcare workers that have been diagnosed with COVID-19 in the current outbreak, 68 (26%) were fully vaccinated and 65 (25%) were partially vaccinated.

Aged care workers

There were 26 locally acquired cases in aged care workers in the week ending 21 August 2021. Seven cases acquired their infection while working in an aged care facility, eight cases were social or household contacts of a known case and for eleven cases the source of infection is under investigation. Of the seven cases who acquired their infection at work, three (43%) were partially vaccinated and one (14%) was fully vaccinated.

Since 16 June 2021 to 21 August, there have been 89 cases reported in aged care workers. Of these, 47 (53%) people reported being partially vaccinated. There have been 12 aged care workers diagnosed with COVID-19 who were fully vaccinated.

Table 6. Number of aged care worker infections by source of infection and proportion fully vaccinated

Aged care workers	Last 7 days			Current NSW outbreak (16 Jun-21 Aug 2021)		
	Number of ACWs	Fully vaccinated	Partially Vaccinated	Number of ACWs	Fully vaccinated	Partially Vaccinated
Acquired at aged care facility	7	1 (14%)	3 (43%)	22	2 (9%)	13 (59%)
Community acquired	8	2 (25%)	4 (50%)	37	5 (14%)	16 (43%)
Not currently linked	11	2 (18%)	6 (55%)	30	5 (17%)	18 (60%)
Total	26	5 (19%)	13 (50%)	89	12 (13%)	47 (53%)

Interpretation: In the week ending 21 August there were 26 aged care workers diagnosed with COVID-19. Of these, seven (27%) were infected in an aged care facility, eight (31%) were social or household contacts of previously reported cases and eleven (42%) are not currently linked.

Pregnant women

There were 42 cases in a pregnant woman in the week ending 21 August. Since January 2020, 194 pregnant women have been diagnosed with COVID-19 in NSW. As those who test negative are not interviewed, testing rates among pregnant women are not available.

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.

There are a range of vaccines available worldwide. People receiving vaccines are considered fully vaccinated two weeks after they complete the recommended course for that vaccine. Both vaccines being administered in Australia, Pfizer-BioNTech and AstraZeneca, and many from overseas such as Moderna and Sinovac, recommend a two-dose course. In the United States of America, there is one single dose vaccine available, the Johnson & Johnson vaccine.

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 greater than 14 days prior to known exposure to COVID-19 or arrival in Australia.
- Cases reported as **partially vaccinated**:
 - received their first dose of a two-dose vaccination prior to known exposure to COVID-19 or arrival in Australia, or
 - completed their second dose of a two-dose vaccination within 14 days prior to known exposure to COVID-19 or arrival in Australia, or
 - completed a single-dose vaccination course (currently only Johnson & Johnson vaccine) within 14 days prior to known exposure to COVID-19 or arrival in Australia.

Table 7a. Locally acquired COVID-19 cases by vaccination status and week reported, NSW, 1 March to 21 August 2021

Vaccination Status	Week ending				01 Mar to 17 Jul 2021	Total from 1 Mar 2021
	21 Aug 21	14 Aug 21	07 Aug 21	31 Jul 21		
Total locally acquired cases	4650	2511	1742	1339	2113	12355
Fully Vaccinated	126 (2.7%)	93 (3.7%)	42 (2.4%)	30 (2.2%)	26 (1.2%)	317 (2.6%)
Partially Vaccinated	670 (14.4%)	270 (10.8%)	174 (10%)	133 (9.9%)	106 (5.0%)	1353 (11.0%)
None	3058 (65.8%)	1940 (77.3%)	1375 (78.9%)	1073 (80.1%)	1965 (93%)	9411 (76.2%)
Under investigation	796 (17.1%)	208 (8.3%)	151 (8.7%)	103 (7.7%)	16 (0.8%)	1274 (10.3%)

Table 7b. Overseas acquired COVID-19 cases by vaccination status and week reported, NSW, 1 March to 21 August 2021

Vaccination Status	Week ending				01 Mar to 17 Jul 2021	Total from 1 Mar 2021
	21 Aug 21	14 Aug 21	07 Aug 21	31 Jul 21		
Total overseas acquired cases	18	10	18	16	523	585
Fully Vaccinated	0 (0%)	0 (0%)	1 (5.6%)	0 (0%)	23 (4.4%)	24 (4.1%)
Partially Vaccinated	0 (0%)	0 (0%)	0 (0%)	2 (12.5%)	34 (6.5%)	36 (6.2%)
None	0 (0%)	1 (10.0%)	4 (22.2%)	4 (25.0%)	445 (85.1%)	454 (77.6%)
Not reported	18 (100%)	9 (90.0%)	13 (72.2%)	10 (62.5%)	21 (4.0%)	71 (12.1%)

Interpretation: In the past week 2.7% of locally acquired cases were fully vaccinated. This compares with around 31% of the NSW population who had received two doses of vaccine by 21 August. Since 1 March 2021, there have been 317 (2.6%) locally acquired cases reported as being fully vaccinated and 1,353 (11.0%) partially vaccinated. Twenty-four (4.1%) overseas acquired cases reported being fully vaccinated prior to arrival in Australia, although they may not have been fully vaccinated prior to being exposed to COVID-19.

Section 6: COVID-19 hospitalisations and deaths

How many people are in hospital as a result of COVID-19?

In the week ending 21 August 2021, of the 4,650 locally acquired cases, there were 344 people admitted to hospital as a result of being diagnosed with COVID-19. In total, there have been 1,429 people hospitalised as a result of the current NSW outbreak.

Table 8. Hospitalisations as a result of COVID-19, by age group, NSW, 16 of June to 21 August 2021

Age-group (years)	Current outbreak since 16 June (Locally acquired only)			Total since January 2020	
	Hospitalised	Percentage of cases hospitalised*	Hospitalised per 100,000 population	Hospitalised	Percentage of cases hospitalised*
0-4	31	4%	6.2	35	4%
5-11	23	2%	3.2	25	2%
12-17	39	3%	6.9	41	3%
18-29	231	7%	16.8	260	6%
30-39	221	11%	18.9	262	8%
40-49	207	14%	20.0	248	11%
50-59	243	19%	25.0	307	16%
60-69	160	26%	19.0	268	21%
70-79	119	41%	20.4	205	30%
80+	142	61%	41.3	202	51%
Total	1,416	11%	17.5	1,853	10%

* Because there can be a delay between a person becoming ill with COVID-19 and subsequently requiring a hospitalisation, and because cases in the current outbreak have a median of 11 days between onset and death, hospitalisations and deaths are under-reported for the most recently notified cases.

Interpretation: The highest number of cases hospitalised are aged 50-59 years (243, 19%), followed by those aged 18-29 years (231, 7%). In NSW, cases aged 80 years and over have the highest population rate of hospitalisation (41.3 per 100,000 people).

How many people are in ICU as a result of COVID-19?

Table 9. ICU hospitalisations as a result of COVID-19, by age group, NSW, 16 of June to 21 August 2021

Age-group (years)	Current outbreak since 16 June (Locally acquired only)			Total since January 2020	
	Admitted to ICU	Percentage of cases admitted to ICU*	ICU admission per 100,000 population	Admitted to ICU	Percentage of cases admitted to ICU*
0-4	0	0%	0.0	0	0%
5-11	1	<1%	0.1	1	<1%
12-17	6	<1%	1.1	6	<1%
18-29	23	1%	1.7	28	1%
30-39	22	1%	1.9	37	1%
40-49	25	2%	2.4	35	2%
50-59	52	4%	5.3	74	4%
60-69	34	6%	4.0	73	6%
70-79	26	9%	4.5	59	9%
80+	11	5%	3.2	24	6%
Total	200	2%	2.5	337	2%

* Because there can be a delay between a person becoming ill with COVID-19 and subsequently requiring a hospitalisation, and because cases in the current outbreak have a median of 11 days between onset and death, hospitalisations and deaths are under-reported for the most recently notified cases.

Interpretation: The highest number of cases admitted to ICU were 50-59 years (52, 4%). The highest population rate of admission to ICU is for those aged 50-59 years (5.3 per 100,000).

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. Where a Coroner's report is available, these findings are to be observed.

Since the start of the pandemic, 1% of cases (128 people) have died as a result of COVID-19, most of whom were 80 years of age or older, including 32 residents of aged care facilities with known COVID-19 outbreaks. Approximately 10% (13/128) of the deaths were in overseas acquired cases.

There were 22 deaths as a result of COVID-19 reported this week including a male in his teens (un-vaccinated), a male in his 40s (un-vaccinated), two males in their 60s (one un-vaccinated, one partially vaccinated), one female (un-vaccinated) and five males in their 70s (one fully vaccinated, three partially vaccinated, and one un-vaccinated), four females (one partially vaccinated and three un-vaccinated) and six males (one fully vaccinated, two partially vaccinated, one unvaccinated, and two not stated) in their 80s, and one female (partially vaccinated) and one male (un-vaccinated) in their 90s.

Table 10. Deaths as a result of COVID-19, by age group

Age-group (years)	Current outbreak since 16 June (Locally acquired only)		Total since January 2020
	Number of deaths	Fatality rate per 100,000 population	Number of deaths
0-4	0	0.0	0
5-11	0	0.0	0
12-17	1	0.2	1
18-29	1	0.1	1
30-39	2	0.2	2
40-49	3	0.3	3
50-59	2	0.2	3
60-69	8	1.0	12
70-79	14	2.4	29
80+	40	11.6	77
Total	71	0.9	128

Interpretation: Cases older than 80 years of age had both the highest number of deaths and the highest fatality rate.

How many people in hospital with COVID-19 are vaccinated?

Of the 1,692 people hospitalised as a result of COVID-19 in the current outbreak, 248 (15%) people were in ICU of which 211 (85.1%) were unvaccinated or whose vaccination status is unknown, and 35 (14.1%) were partially vaccinated or had a single dose within 14 days. There were 2 (0.8%) fully vaccinated cases admitted to ICU.

Table 11. Hospitalisations and ICU admissions due to COVID-19, by vaccination status, NSW, from 16 June to 21 August 2021

Vaccination status	Hospitalised (%)	Hospitalised and in ICU (%)	Death (%)
Fully Vaccinated	76 (4.5%)	2 (0.8%)	7 (9.7%)
Partially vaccinated	224 (13.2%)	35 (14.1%)	14 (19.4%)
None	1,240 (73.3%)	189 (76.2%)	48 (66.7%)
Not stated	152 (9.0%)	22 (8.9%)	3 (4.2%)
Total	1,692 (100.0%)	248 (100.0%)	72 (100.0%)

Interpretation: Of the 1,692 people hospitalised, 76 (4.5%) were fully vaccinated, 224 (13.2%) were partially vaccinated and 1,240 (73.3%) were not vaccinated. The seven deaths among people fully vaccinated were three people in their 70s, two people in their 80s and two people in their 90s.

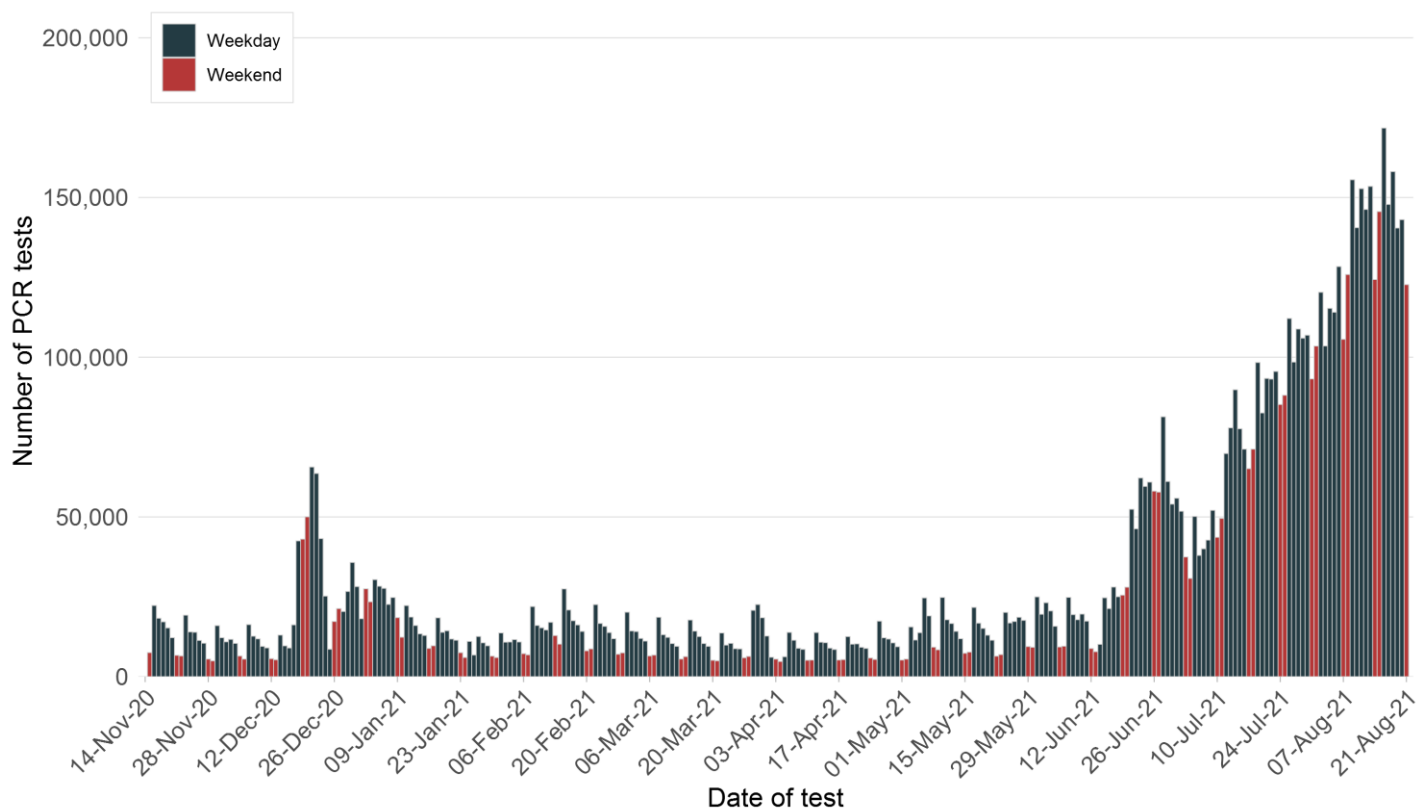
Section 7: COVID-19 testing in NSW

How much testing is happening?

The bars on the graph below show the number of tests by the date a person presented for the test¹. 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.

The PCR testing numbers reported are for tests performed on nose and throat swabs. Saliva PCR tests are not included, these are reported in the “Border and quarantine workers – saliva testing screening program” section.

Figure 9. Number of PCR tests per day, NSW, 8 November 2020 to 21 August 2021

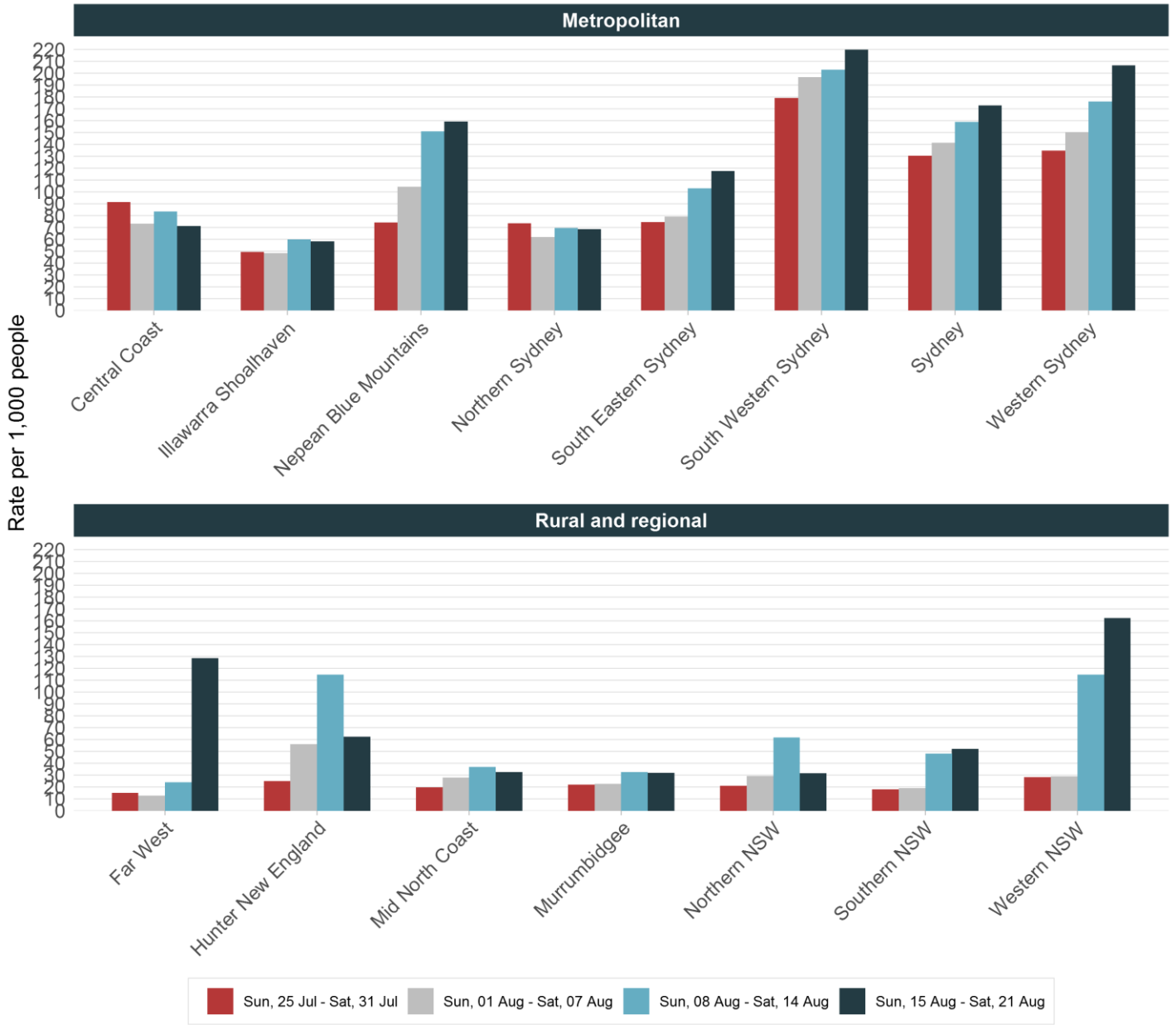


Includes SARS-CoV-2 PCR tests only and excludes repeat positive tests for an individual.

Interpretation: Testing numbers slightly increased in the week ending 21 August 2021 (up 3%) compared to the previous week. The average daily testing rate of 18.2 per 1,000 people in NSW each day increased compared to the previous week of 17.6 per 1,000 people.

Testing by Local Health District and Local Government Areas

Figure 10. Rates of COVID-19 testing by LHD of residence, NSW, 25 July to 21 August 2021

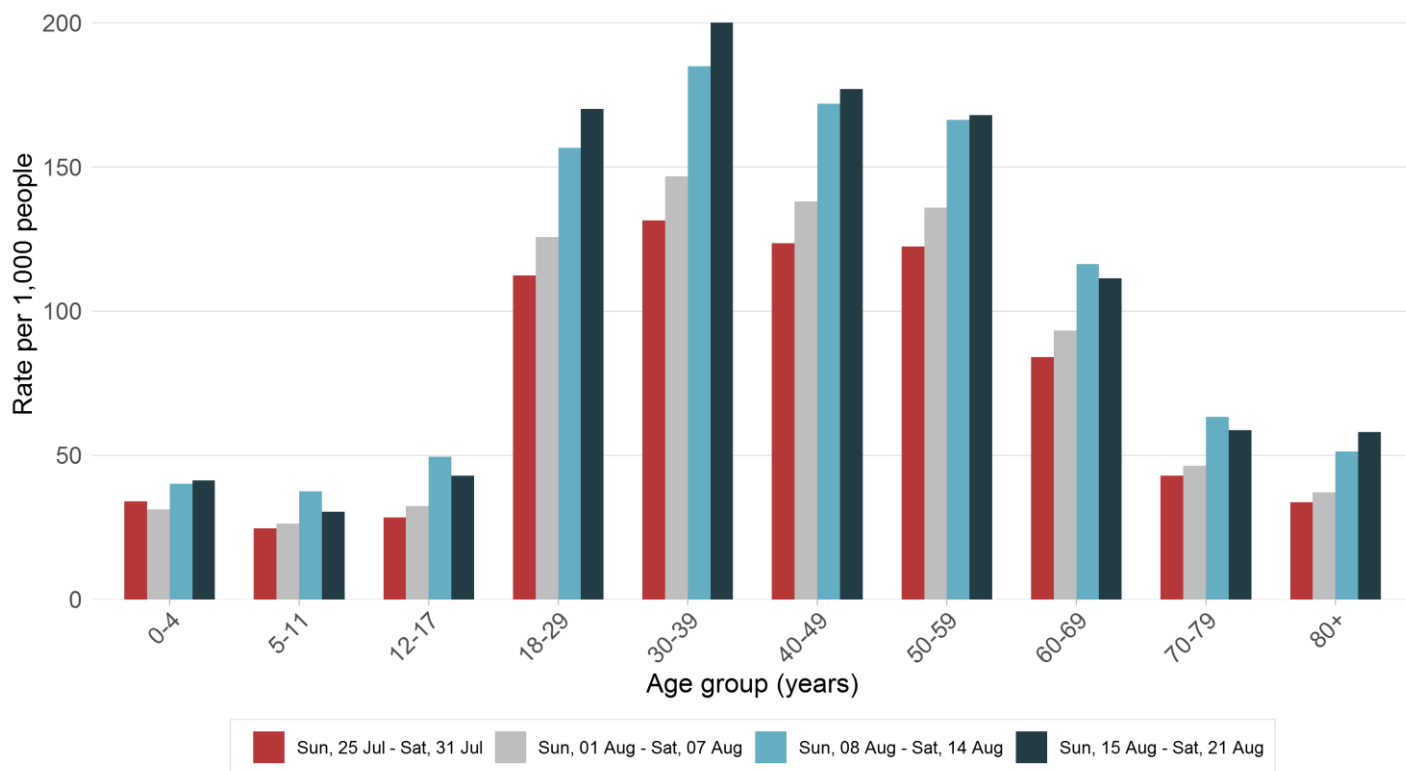


Includes SARS-CoV-2 PCR tests only and excludes notifications with missing postcode of residence.

Interpretation: State-wide weekly testing rates in the week ending 21 August slightly increased in most LHDs compared to the previous week (127.3 per 1,000 people compared to 123.5 per 1,000 people). Sustained high testing rates are observed for Nepean Blue Mountains, South Western Sydney, Sydney, and Western Sydney LHDs. Testing rates increased five-fold in the Far West LHD (128.7 per 1,000 people, compared to 23.9 per 1,000 people in the previous week), and continued to increase in Western NSW (162.3 per 1,000 people compared to 114.6 per 1,000 people).

Testing by age group

Figure 11. Rates of COVID-19 testing by age group and week, NSW, 18 July to 21 August 2021



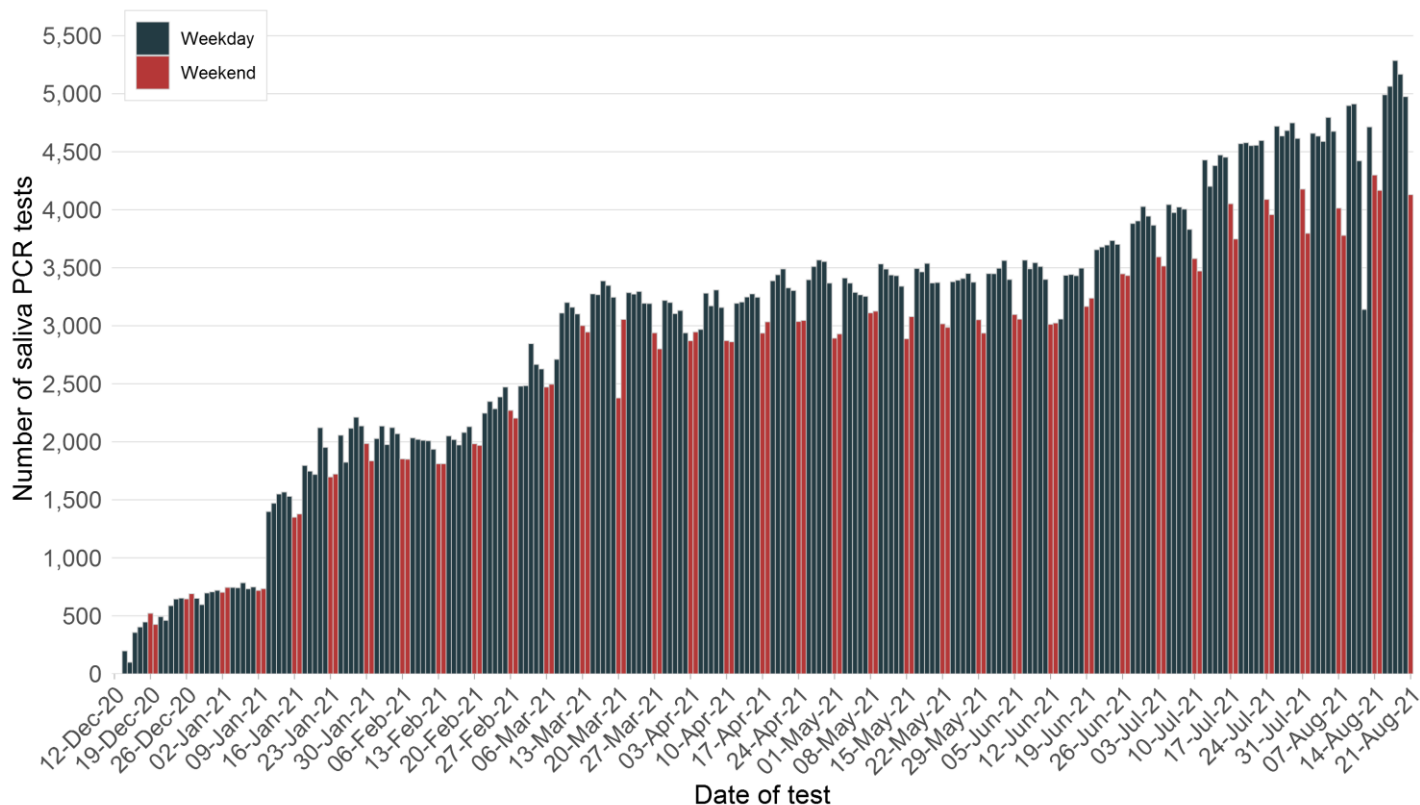
Includes SARS-CoV-2 PCR tests only and excludes notifications with age missing.

Interpretation: In the week ending 21 August 2021, testing rates increased across most age groups with the greatest increase seen in adults aged 18-59.

Border and quarantine workers – saliva testing screening program

The number of COVID-19 infections in people returning to Australia from overseas reflects the number of cases in other parts of the world. Cases in returned overseas travellers are then detected in quarantine facilities. Routine screening of quarantine workers is implemented out of care and caution for staff members who work in NSW quarantine facilities. Screening involves a daily SARS-CoV-2 saliva PCR testing, which is painless and quick (see [NSW hotel quarantine worker surveillance and testing program](#)).

Figure 12. Daily numbers of saliva PCR test results reported for border and quarantine workers, NSW, 12 December 2020 to 21 August 2021



* The number of saliva PCR tests in the most recent days may be incomplete due to delays in reporting negative results.

Interpretation: Since screening of quarantine workers began in December 2020, a total of 727,401 saliva PCR tests have been conducted to 21 August 2021. The number of saliva PCR tests increased significantly on 11 January 2021, which corresponds to the expansion of the NSW quarantine hotel worker surveillance and testing program. The daily number of saliva PCR tests is not included in the total PCR testing numbers reported.

Section 8: Variants of Concern (VoC)

Like other viruses, the SARS-CoV-2 virus that causes COVID-19 acquires mutations over time. Some of these mutations affect parts of the virus, such as the spike protein on the surface of the virus, which play an important role in infection. The spike protein allows the virus to enter human cells during infection. That is why it plays an important role in our own immune response to the virus and is the immune mechanism targeted by many COVID-19 vaccines. Global surveillance is done to monitor the prevalence of mutations in the SARS-CoV-2 virus. The surveillance particularly focuses on mutations affecting the spike protein 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 four internationally recognised VoCs:

- Alpha (B.1.1.7) first identified in the United Kingdom in September 2020 and recognised as a VoC on 18 December 2020.
- Beta (B.1.351) first identified in South Africa in December 2020 and recognised as a VoC on 18 December 2020.
- Gamma (P.1) first identified in Japan among a group of Brazilian travellers in December 2020 and recognised as a VoC on 11 January 2021.
- B.1.617 sub-lineages, including Kappa (B.1.617.1) and Delta (B.1.617.2). The B.1.617 lineage was first detected in India in October 2020. The Delta lineage (B.1.617.2) was internationally recognised as a VoC on 11 May 2021.

In the week ending 21 August 2021, there have been:

- 21 locally acquired cases diagnosed with a VOC. All of these cases have been diagnosed with infection by the Delta variant.
- 0 returned travellers diagnosed with a VoC.
- In the four weeks ending 21 August, the countries of likely acquisition of the 23 returned travellers diagnosed with a VoC are: France, Lebanon and USA (2 each), Japan, Kenya, Netherlands, Scotland, Sri Lanka, United Arab Emirates, United Kingdom, Vietnam and Zimbabwe (1 each), and 8 cases not recorded at the time of data extraction.

Table 12a. Variants identified among locally acquired COVID-19 cases by week reported, NSW, 29 November 2020 to 21 August 2021

Variant	Week ending				29 Nov to 24 Jul	Total since 29 November
	21 Aug*	14 Aug*	7 Aug	31 Jul		
Total variants identified	21	782	1159	1082	1595	4639
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)	21	782	1159	1082	1588	4632

***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 21 August 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.

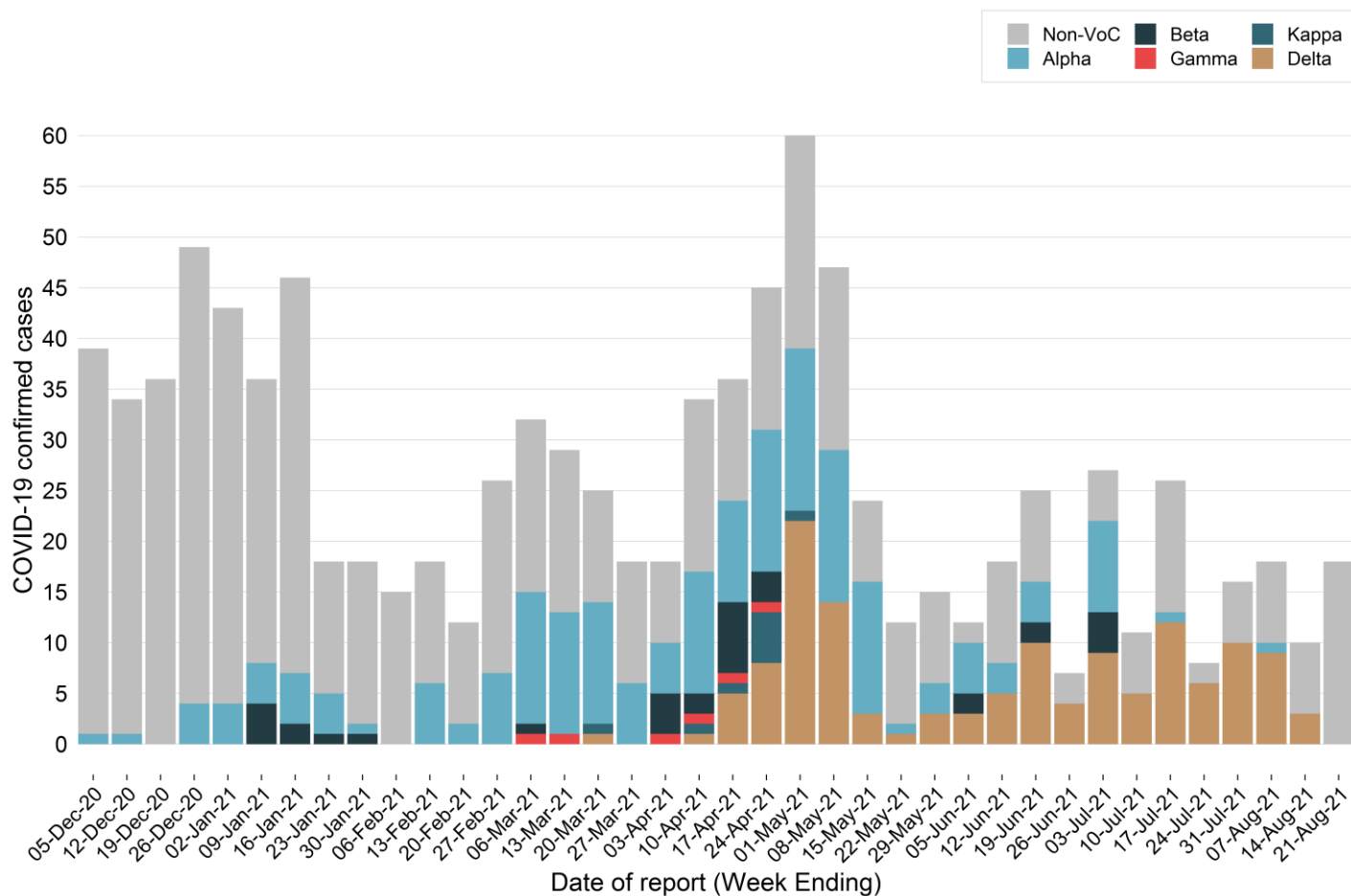
Table 12b. Variants identified among overseas acquired COVID-19 cases by week reported, NSW, 29 November 2020 to 21 August 2021

Variant	Week ending				29 Nov to 24 Jul	Total since 29 November
	21 Aug*	14 Aug*	7 Aug	31 Jul		
Total variants identified	0	3	10	10	353	376
Alpha (B.1.1.7)	0	1	0	0	193	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	3	9	10	112	134

***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: In the last four weeks, the delta variant has been the most commonly detected variant among cases who acquired a variant infection overseas (22/23, 96%). These results are consistent with the increasing incidence of infections caused by the delta variant in many countries.

Figure 13. Overseas acquired COVID-19 cases by VoC and week reported, NSW, 29 November 2020 to 21 August 2021



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

Interpretation: Since 29 November 2020 there have been 376 returned travellers diagnosed with a COVID-19 VoC. In the four weeks ending 21 August 2021, 37% (23/62) of overseas acquired cases have been identified as having COVID-19 variants of concern.

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.

The table below shows results for the last 10 weeks for sites that have had detections. The results from all sites across NSW are available in Appendix C.

Table 13. Locations with SARS-CoV-2 detections in sewage samples in the last 10 weeks, NSW, week ending 19 Jun to 21 August 2021





		19 June	26 June	3 July	10 July	17 July	24 July	31 July	7 August	14 August	21 August
Pop.	Location	24	25	26	27	28	29	30	31	32	33
60,514	Blue Mountains (Winmalee)										
3,700	North Richmond										
13,052	Richmond										
110,114	Penrith										
12,000	Lithgow										
19,000	South Windsor										
8,000	McGraths Hill										
69,245	Warriewood										
1,241	Brooklyn										
31,924	Hornsby Heights										
57,933	West Hornsby										
318,810	Bondi										
233,176	Cronulla										
1,857,740	Malabar 1										
	Malabar 2										
181,005	Liverpool										
98,743	West Camden										
6,882	Wallacia										
161,200	Glenfield										
1,341,986	North Head										
26,997	Castle Hill Cattai										
	Castle Hill Glenhaven										
163,147	Quakers Hill										
119,309	Rouse Hill										
37,061	Riverstone										
163,147	St Marys										
73,686	Shellharbour										
55,000	Wollongong										
68,000	Port Kembla										
93,000	Bellambi										

(Continued). Locations with SARS-CoV-2 detections in sewage samples in the last 10 weeks, NSW, 19 Jun to 21 August 2021

		19 June	26 June	3 July	10 July	17 July	24 July	31 July	7 August	14 August	21 August
		24	25	26	27	28	29	30	31	32	33
Catchment	Location										
Bondi	Paddington										
Bondi	Rozelle										
Cronulla	Caringbah										
Cronulla	Miranda										
Malabar	Earlwood										
Malabar	Marrickville 1										
Malabar	Marrickville 2										
Malabar	Arncliffe 1										
Malabar	Arncliffe 2										
Malabar	Blakehurst										
Malabar	Padstow 1										
Malabar	Padstow 2										
Malabar	Fairfield SPS 1										
Malabar	Fairfield SPS 2										
Malabar	Homebush SPS										
Malabar	Croydon										
Malabar	Dulwich Hill										
Malabar	Canterbury										
Malabar	Botany										
Malabar	Maroubra										
North Head	Camellia SPS - North										
North Head	Camellia SPS - South										
North Head	Auburn										
North Head	Northmead SPS										
North Head	Northmead										
North Head	Tunks Park										
North Head	Vineyard Creek										
North Head	Boronia										
North Head	West Lindfield										
North Head	Lane Cove West Sewage Network										
North Head	Allambie Heights										
North Head	Buffalo Creek Reserve										
Glenfield	Minto										
Liverpool	Ireland Park										
Quakers Hill	Eastern Creek										
St Marys	Ropes Creek										
14,700	Bowral										
14,000	Mittagong										
9,000	Moss Vale										
16,068	Bombo										
18,000	Bomaderry										
139,500	Gosford-Kincumber										
59,060	Charmhaven										
29,300	Wyong-Toukley										
9,000	Manning Park										

Catchment	Location	19 June	26 June	3 July	10 July	17 July	24 July	31 July	7 August	14 August	21 August
		24	25	26	27	28	29	30	31	32	33
38,900	Bateau Bay										
41,300	Woy Woy										
48,000	Queanbeyan										
2,050	Bourke										
40,000	Orange										
12,000	Mudgee										
36,603	Bathurst										
1,700	Molong										
	Walgett										
15,000	Broken Hill										
3,000	Broken Hill South										
790	Wilcannia										
1,100	Brewarrina										
11,600	Parkes										
2,750	Coonamble										
400	Gulargambone										
4,000	Cobar										
3,500	Narromine										
37,000	Dubbo										
24,000	Armidale										
45,000	Tamworth										
12,000	Forster										
225,834	Hunter - Burwood Beach										
60,000	Hunter - Shortland										
115,000	Hunter - Belmont										
60,000	Hunter - Morpeth										
115,000	Hunter - Raymond Terrace										
32,000	Hunter - Dora Creek										
42,000	Hunter - Toronto										
70,000	Hunter - Edgeworth										
21,500	Hunter - Kurri Kurri										
40,000	Hunter - Farley										
15,500	South Lismore										
	Byron Bay										
31,104	Ballina										
7,700	Lennox Head										
8,800	Yamba										
54,370	Port Macquarie										
7,010	Bonny Hills										
50,000	Coffs Harbour										

Sampling commenced week ending 18 July 2020

	not sampled or analysed
	SARS-CoV-2 not detected
	SARS-CoV-2 detected
	site moved to composite sample or ceased
SPS	Sewage Pumping Station
p	result pending, not available at time of reporting

Interpretation: In the week ending 21 August, 207 sewage samples were tested for fragments of SARS-CoV-2. Of these, there were 83 detections. The sewage treatment plants at Singleton, Scone, Gunnedah, Narromine, Broken Hill South, Wilcannia, Coonamble, Gulargambone, Cobar, Inverell, Glen Innes, Forbes, Yass and West Kempsey were added as new sites.

There were sixty one detections outside Sydney taken from the Bateau Bay (2), Bathurst (2), Bourke (2), Brewarrina, Broken Hill, Broken Hill South, Byron Bay, Charmhaven (2), Cobar (2), Coonamble (2), Dubbo, Forster, Gosford-Kincumber, Gulargambone (2), Burwood Beach (2), Dora Creek, Edgeworth (2), Morpeth (2), Raymond Terrace (2), Shortland (2), Toronto, Belmont (2), Farley (2), Lennox Head, Mannering Park (2), Mittagong, Mudgee (2), Narromine, Orange (2), Parkes (2), Port Macquarie, Queanbeyan, Shellharbour (2), Walgett (2), Wilcannia (2), Woy Woy (2), Toukley and Yamba sewage treatment plants.

Results for Sydney sites may be delayed to prioritise analysis of regional sites. Results are updated in the table once available. In Sydney there were detections from the sewage treatment plants in:

- Bombo, Castle Hill-Cattai, Castle Hill-Glenhaven, Lithgow, McGraths Hill, North Richmond, Quakers Hill, Richmond (2), Riverstone, St, Marys, Wallacia, West Hornsby, Wollongong.

There were also detections from the sewage networks and pumping stations within:

- the Malabar catchment including Earlwood, Marrickville 2, Arncliffe 1, Fairfield 1 and Fairfield 2.
- Bellambi (2)
- Port Kembla

Detections from Cobar, Parkes, Bateau Bay, Orange, Gulargambone, Toukley, Broken Hill South, Brewarrina, Port Macquarie, Wollongong, Coonamble, Byron Bay, Queanbeyan, Forster, Lennox Head, Mittagong, Bathurst and Yamba occurred with no known or recent cases in the catchment. Subsequently cases were identified in Orange, Bathurst, Gulargambone, Wollongong and Queanbeyan.

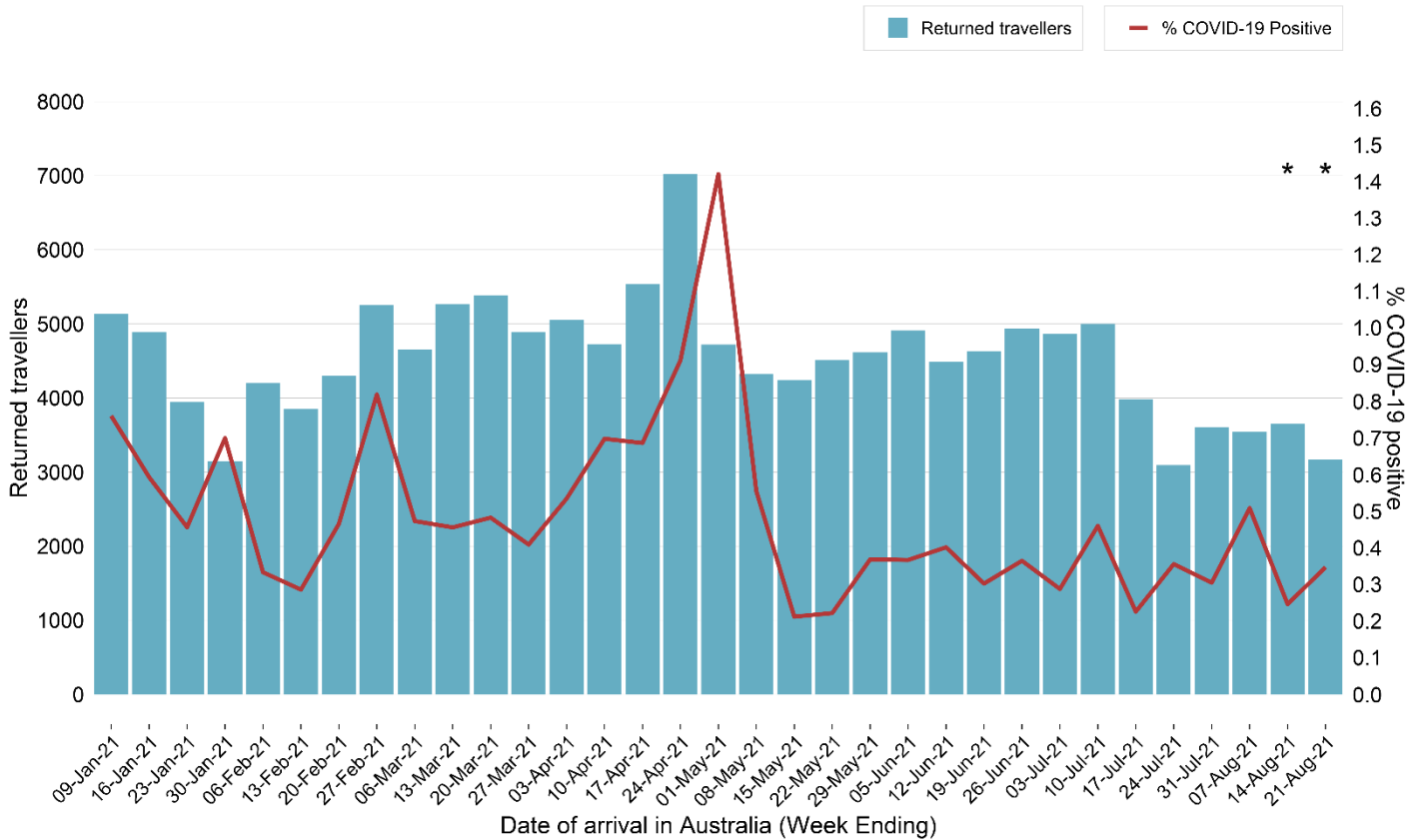
Section 10: COVID-19 in returned travellers

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.

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

Figure 14. Returned travellers screened at Sydney International Airport by week of arrival and percent COVID-19 positive, NSW, 3 January 2021 to 21 August 2021



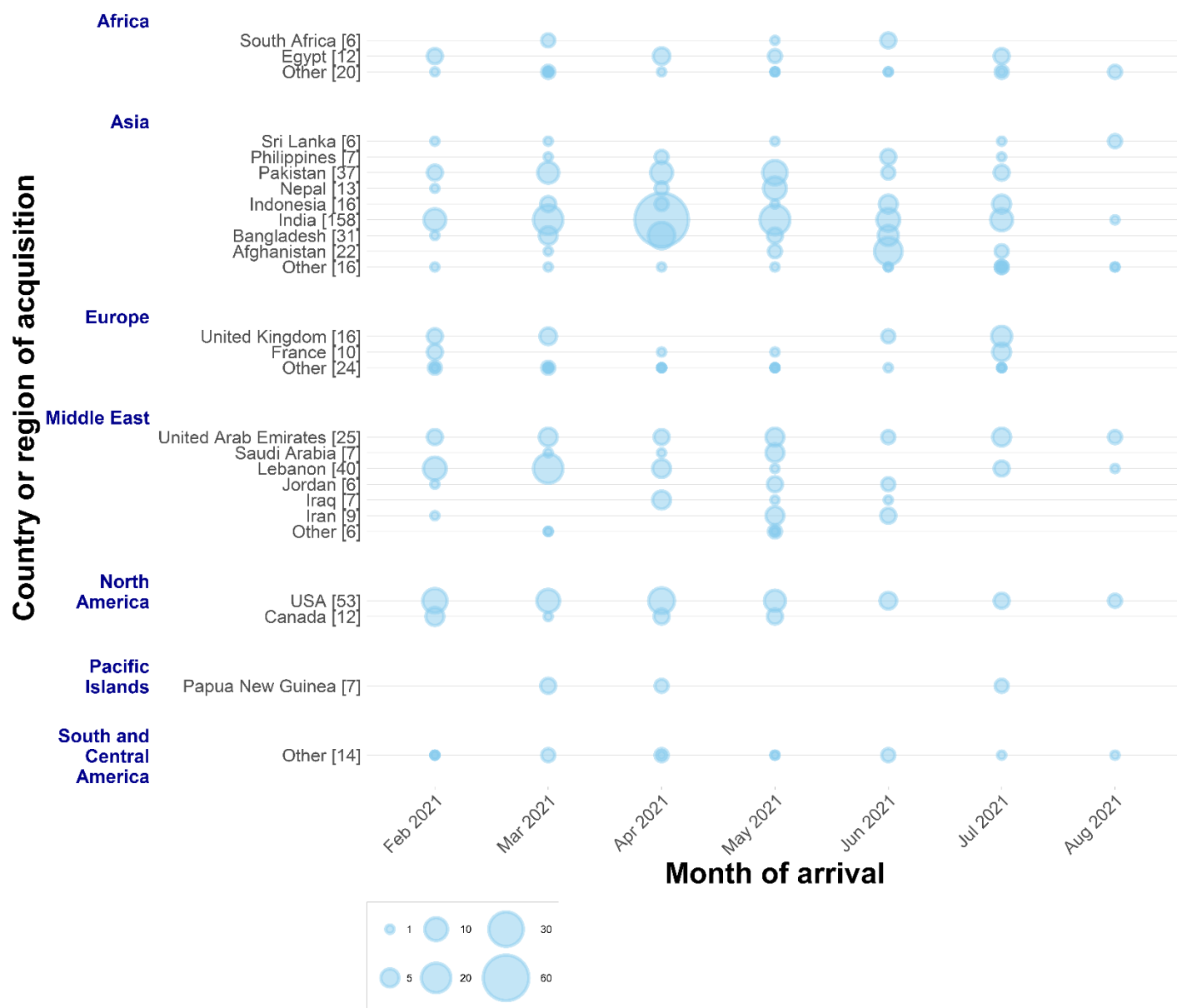
*Returned travellers entering Australia in the past 14 days are still in quarantine and may return a positive result prior to the end of their hotel quarantine period.

Interpretation: Since 3 January 2021, there has been on average 645 people screened on arrival through Sydney International Airport daily. In the last four weeks, 49 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.

Country of acquisition of COVID-19 for returned travellers

The following figure displays the countries and regions with the greatest numbers of returned international travellers diagnosed with COVID-19 in NSW.

Figure 15. Overseas acquired COVID-19 cases by country of acquisition and arrival month, NSW, 1 February 2022 to 21 August 2021*



* Data for current month is incomplete

Interpretation: In April 2021, there was a significant increase in detections of COVID-19 in travellers from India, which subsided following travel restrictions introduced in May. The pattern seen in COVID-positive returned travellers over time reflects the evolving nature of the pandemic in those areas and the country of origin of returned travellers, as well as travel requirements enacted by the Australian Government.

In the last four weeks, there have been 62 COVID-positive returned travellers in NSW. The table below lists countries of acquisition for these travellers.

Table 14. Top countries of acquisition for overseas acquired cases that have tested positive in the last four weeks, 11 July 2021 to 21 August 2021

Country of acquisition of COVID-19	Number (%) of cases in the last four weeks
France	4 (6%)
USA	3 (5%)
United Kingdom	3 (5%)
Lebanon	2 (3%)
Sri Lanka	2 (3%)
United Arab Emirates	2 (3%)
Zimbabwe	2 (3%)
Other	45 (73%)
Total	62 (100%)

Interpretation: In the four weeks to 21 August 2021, travellers returning from France accounted for the largest number of overseas acquired cases (4, 6%).

Cases among returned travellers in quarantine

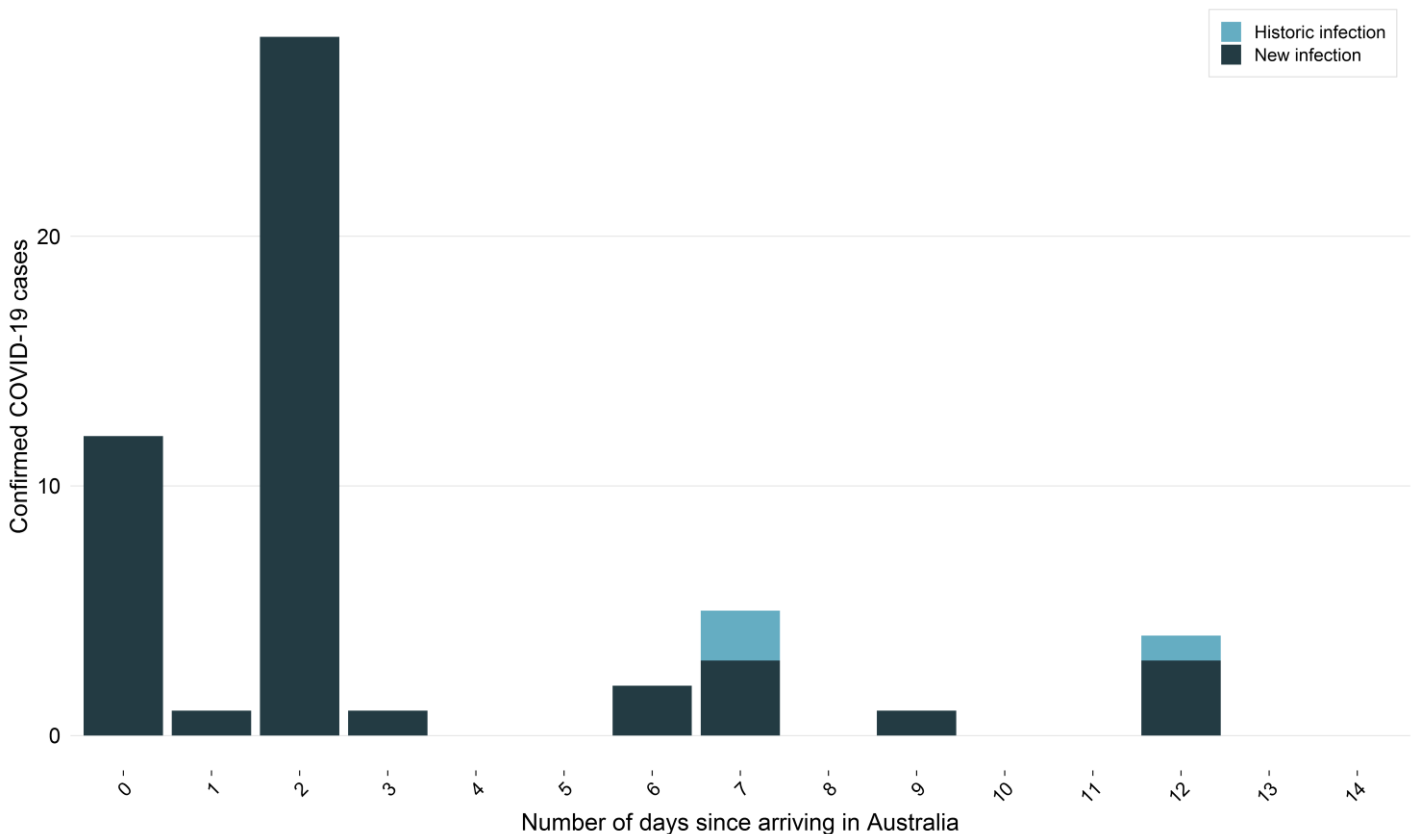
The program of screening all overseas travellers after arrival in NSW commenced on 15 May 2020. From 30 June 2020, the program was extended to include screening of travellers on entry to quarantine, day 2 after arrival, and exit of quarantine. On 11 January 2021, exit screening of travellers was moved from day 10 to day 12 of quarantine. Routine day 7 screening was introduced on 2 June 2021. In addition to these three routine tests, individuals that become symptomatic, or who are symptomatic on arrival, are also tested.

Overseas returned travellers complete their quarantine in several facilities, with the majority in hotels managed by police or hotels managed by NSW Health (known as Special Health Accommodation). Since September 2020 international flight crew are also required to quarantine in police-managed hotels.

The figure below shows the number of overseas acquired cases in returned travellers within the quarantine program, by the number of days since they arrived in Australia. Overseas acquired cases include people with likely exposure overseas, in flight or are co-quarantining with family members who acquired COVID-19 overseas.

Historical COVID-19 infections are a subset of confirmed cases that have been infected sometime in the past and are not considered infectious at the time of diagnosis. An historic case requires laboratory evidence to support historic infection and must be asymptomatic in the 14 days prior to the positive test.

Figure 16. Number of overseas acquired cases in the last four weeks who tested positive for SARS-CoV-2 within 14 days since arrival in NSW by COVID-19 infection status, 11 Jul to 21 August 2021



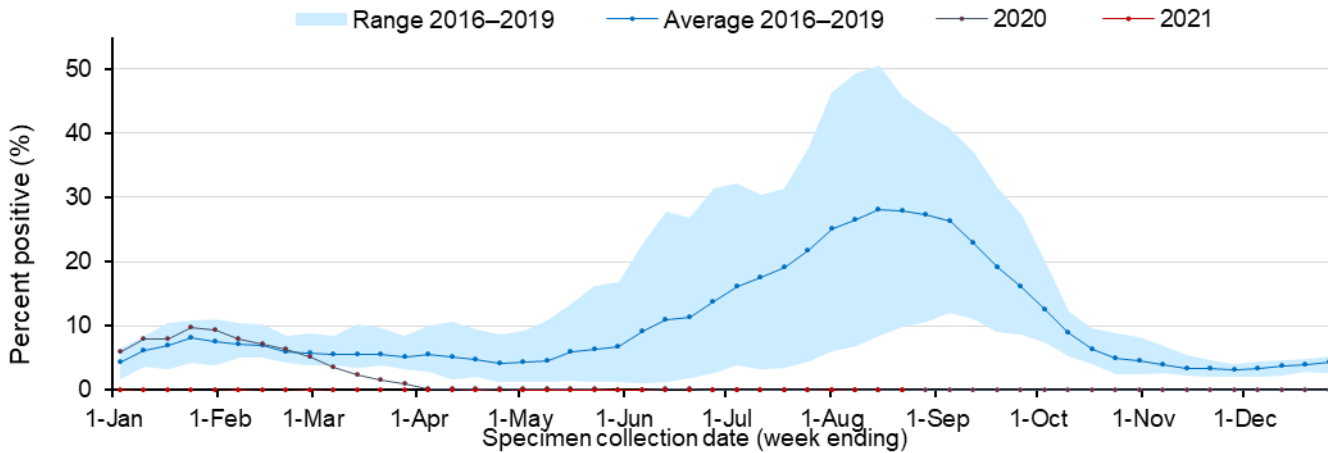
Interpretation: In the four weeks ending 21 August 2021, 66% of overseas acquired COVID-19 cases have tested positive within two days of arriving to Australia, with most people testing positive on day two screening.

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 17. Proportion of tests positive for influenza, NSW, 1 January 2016 to 22 August 2021

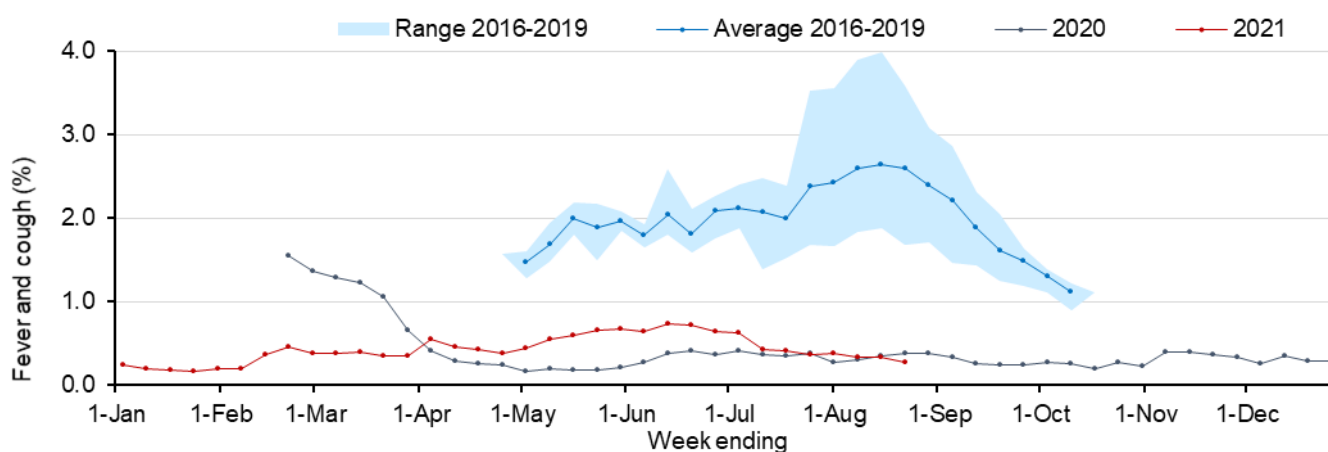


Interpretation: In the week ending 22 August, the percent of influenza tests that were positive continued to be very low (<0.01%), indicating limited influenza transmission in the community. Since early March 2020, this percentage has remained far lower than the usual range for the time of year. There have been 14 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 18. Proportion of FluTracker participants reporting influenza-like illness, NSW, 1 January 2016 to 22 August 2021



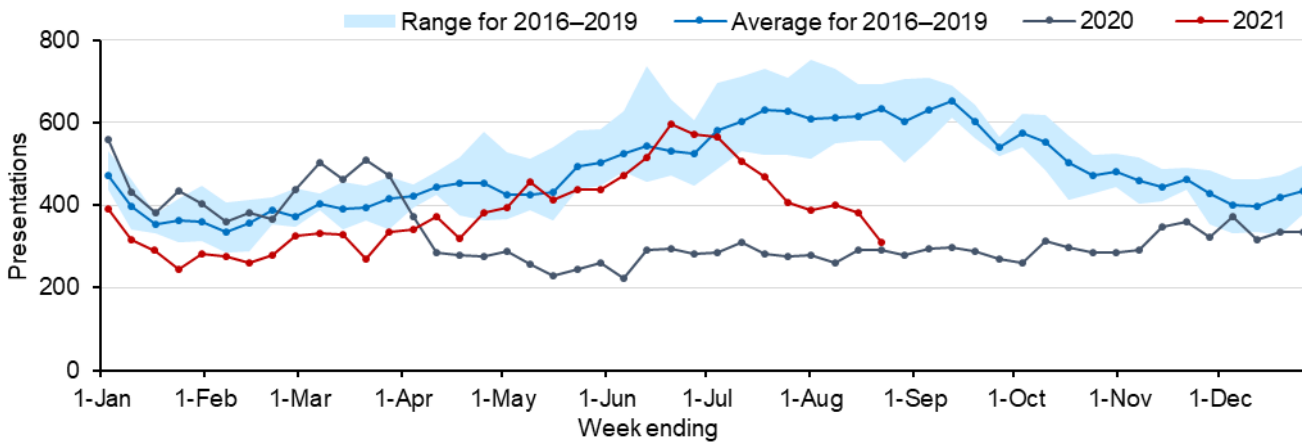
Interpretation: In NSW in the week ending 22 August July 2021, of the 23,950 people surveyed, 66 people (0.28%) reported flu-like symptoms. In the last four weeks, 62% (175/316) of new cases of flu-like illness reported having a COVID-19 test. The proportion of people with flu-like symptoms being tested for COVID-19 has decreased since January 2021, when 80% reported being tested, and has remained at around 50% since early April 2021.

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.

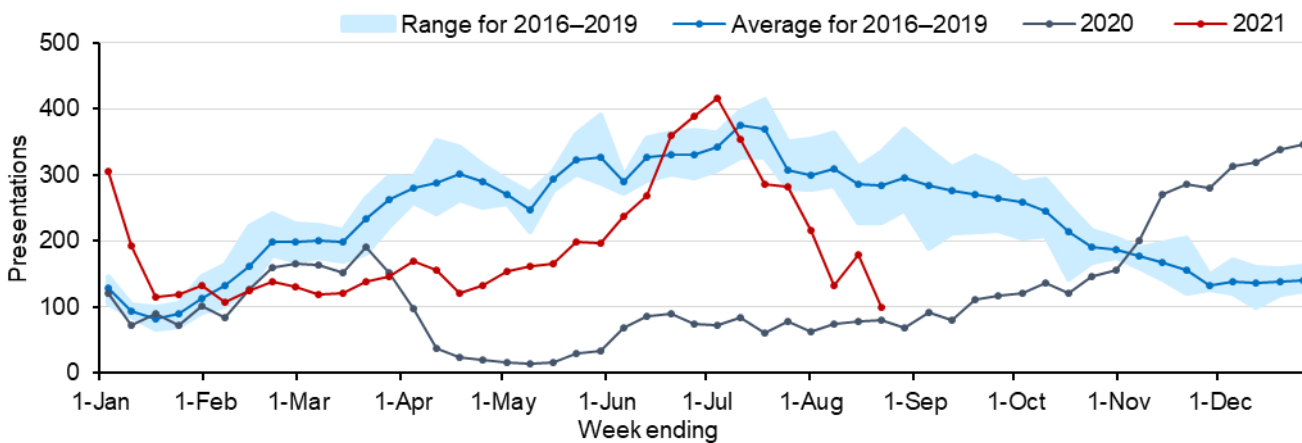
The figures below show weekly pneumonia and bronchiolitis presentations to Emergency Departments in NSW, using PHREDSS¹. The red line shows the weekly counts for 2021, the dark blue line showing counts for 2020, the light blue line showing the average for 2016 to 2019 and the shaded area showing the range recorded for 2016 to 2019.

Figure 19. Emergency Department pneumonia presentations, NSW, 1 January 2016 to 22 August 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. In the week ending 22 August, pneumonia presentations have continued to decline, and remain significantly below the seasonal range for this time of year.

Figure 20. Emergency Department bronchiolitis presentations, NSW, 1 January 2016 to 22 August 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. In the week ending 22 August 2021, bronchiolitis presentations have declined following a rise in the previous week and remain below the seasonal range for this time of year.

¹ 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 5 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	
		21-Aug		14-Aug			
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	<i>LHD Total</i>	25111	71.16	29413	83.36	416134	1179.31
	Balranald	133	56.89	32	13.69	1270	543.2
	Broken Hill	2774	158.7	506	28.95	15646	895.13
Far West	Central Darling	692	376.29	107	58.18	1553	844.48
	Wentworth	279	39.56	76	10.78	5321	754.43
	<i>LHD Total</i>	3878	128.65	721	23.92	23790	789.21
Hunter New England	Armidale Regional	1335	43.37	6057	196.79	29600	961.69
	Cessnock	2454	40.91	3619	60.33	37866	631.26
	Dungog	366	38.84	674	71.53	6233	661.47
	Glen Innes Severn	183	20.63	851	95.93	4711	531.06
	Gunnedah	445	35.09	1377	108.59	8535	673.05
	Gwydir	92	17.19	300	56.04	1992	372.13
	Inverell	455	26.94	1477	87.45	10752	636.59
	Lake Macquarie	15368	74.64	27236	132.28	244133	1185.68
	Liverpool Plains	265	33.53	536	67.82	5032	636.72
	Maitland	10211	119.9	13580	159.45	113454	1332.15
	Mid-Coast	3078	32.8	3902	41.58	56788	605.18
	Moree Plains	394	29.71	808	60.93	9295	700.93
	Muswellbrook	518	31.63	824	50.31	10899	665.51
	Narrabri	356	27.1	948	72.17	6434	489.84
	Newcastle	14638	88.41	28515	172.22	226988	1370.94
	Port Stephens	4215	57.36	6853	93.26	67884	923.83
	Singleton	1306	55.67	1656	70.59	21988	937.21
	Tamworth Regional	3014	48.19	7718	123.41	57731	923.09
	Tenterfield	116	17.59	249	37.76	2593	393.24
	Upper Hunter Shire	520	36.67	806	56.84	9777	689.49
Uralla	159	26.45	728	121.09	3599	598.64	
Walcha	107	34.14	479	152.84	2428	774.73	
	<i>LHD Total</i>	59574	62.55	109166	114.62	938186	985.1
Illawarra Shoalhaven	Kiama	1321	56.49	1887	80.69	26915	1150.9
	Shellharbour	6897	94.18	7284	99.46	89275	1219.05
	Shoalhaven	3490	33.03	4195	39.71	85111	805.61
	Wollongong	12739	58.41	11780	54.01	258961	1187.27
	<i>LHD Total</i>	24447	58.26	25146	59.93	460262	1096.87
Mid North Coast	Bellingen	368	28.32	586	45.09	9263	712.76
	Coffs Harbour	1739	22.5	2948	38.15	50070	647.93
	Kempsey	1662	55.87	1112	37.38	21429	720.42
	Nambucca	421	21.26	566	28.58	11281	569.6
	Port Macquarie-Hastings	3188	37.72	3112	36.82	62516	739.62
	<i>LHD Total</i>	7378	32.69	8324	36.89	154559	684.9
Murrumbidgee	Albury	1581	29.09	1475	27.14	42351	779.18
	Berrigan	155	17.71	144	16.46	3638	415.77
	Bland	192	32.15	230	38.51	3258	545.55
	Carrathool	118	42.16	41	14.65	865	309.04

		Week ending				Total since January 2021	
		21-Aug		14-Aug			
Local Health District	Local Government Area	No.	Tests per 1,000 population	No.	Tests per 1,000 population	No.	Tests per 1,000 population
	Coolamon	135	31.1	142	32.71	2888	665.28
	Cootamundra-Gundagai Regional	399	35.51	397	35.34	7501	667.65
	Edward River	188	20.7	174	19.15	4959	545.9
	Federation	300	24.12	264	21.23	6942	558.17
	Greater Hume Shire	329	30.56	335	31.12	7890	733
	Griffith	810	29.97	858	31.74	19901	736.28
	Hay	61	20.68	59	20.01	1185	401.83
	Hilltops	845	45.18	941	50.31	12700	679
	Junee	155	23.19	197	29.48	3391	507.41
	Lachlan ¹	374	61.56	232	38.19	2502	411.85
	Leeton	273	23.85	302	26.39	6021	526.08
	Lockhart	108	32.88	125	38.05	1975	601.22
	Murray River	46	3.8	36	2.97	1772	146.23
	<i>LHD Total²</i>	107	27.32	105	26.81	1847	471.53
	Narrandera	107	18.14	122	20.68	2380	403.46
	Snowy Valleys	412	28.46	400	27.63	8720	602.25
	Temora	152	24.1	139	22.04	2726	432.22
	Wagga Wagga	2904	44.5	3221	49.36	61275	938.97
	<i>LHD Total²</i>	9559	32.07	9744	32.69	205012	687.71
	Nepean Blue Mountains	Blue Mountains	6361	80.4	6277	79.34	111764
Hawkesbury		12115	180.03	8578	127.47	97297	1445.81
Lithgow		924	42.77	714	33.05	14160	655.4
Penrith		43838	205.83	44331	208.15	357758	1679.8
<i>LHD Total²</i>		62289	159.31	59052	151.03	574304	1468.85
Northern NSW	Ballina	1825	40.89	2960	66.33	45716	1024.38
	Byron	1629	46.44	4894	139.51	39291	1120.01
	Clarence Valley	1549	29.98	1976	38.25	27441	531.16
	Kyogle	140	15.92	392	44.57	4290	487.72
	Lismore	1312	30.03	3164	72.42	37144	850.13
	Richmond Valley	770	32.81	1655	70.53	17632	751.42
	Tenterfield	116	17.59	249	37.76	2593	393.24
	Tweed	2600	26.8	4091	42.17	61842	637.54
	<i>LHD Total²</i>	9851	31.74	19167	61.76	233911	753.67
Northern Sydney	Hornsby	8569	56.35	7547	49.63	176846	1163.01
	Hunters Hill	1977	131.98	1871	124.9	41488	2769.56
	Ku-ring-gai	7841	61.67	7528	59.2	223588	1758.42
	Lane Cove	3913	97.45	3641	90.67	109604	2729.52
	Mosman	1397	45.09	1420	45.83	45393	1465.19
	North Sydney	3090	41.19	3092	41.22	87864	1171.19
	Northern Beaches	17042	62.31	20184	73.8	562393	2056.29
	Parramatta ¹	35520	138.1	30994	120.51	348030	1353.17
	Ryde	14549	110.83	14276	108.75	204070	1554.57
	Willoughby	3054	37.62	3322	40.92	88989	1096.07
	<i>LHD Total²</i>	65713	68.74	66685	69.76	1600034	1673.82

		Week ending				Total since January 2021	
		21-Aug		14-Aug			
Local Health District	Local Government Area	No.	Tests per 1,000 population	No.	Tests per 1,000 population	No.	Tests per 1,000 population
South Eastern Sydney	Bayside	32427	181.77	24891	139.53	256946	1440.31
	Georges River	26277	164.78	24994	156.73	234579	1470.98
	Randwick	17309	111.21	12761	81.99	295774	1900.26
	Sutherland Shire	20193	87.56	19169	83.12	341680	1481.63
	Sydney ¹	22810	92.59	21223	86.15	437744	1776.97
	Waverley	5961	80.23	6652	89.53	168268	2264.86
	Woollahra	3899	65.65	4025	67.78	132430	2229.95
	<i>LHD Total²</i>	112715	117.52	98734	102.94	1582815	1650.31
South Western Sydney	Camden	16944	167.04	15821	155.97	204100	2012.09
	Campbelltown	34403	201.25	32684	191.2	302536	1769.81
	Canterbury-Bankstown ¹	119651	316.61	108987	288.39	808444	2139.21
	Fairfield	56923	268.89	52623	248.58	464621	2194.77
	Liverpool	51549	226.5	47116	207.03	437098	1920.59
	Wingecarribee	2886	56.44	3002	58.71	64130	1254.16
	Wollondilly	4950	93.13	4638	87.26	56930	1071.14
	<i>LHD Total²</i>	228391	219.92	210939	203.11	1925640	1854.19
Southern NSW	Bega Valley	795	23.06	1038	30.11	21151	613.5
	Eurobodalla	1186	30.83	1408	36.6	30230	785.75
	Goulburn Mulwaree	1743	55.99	2049	65.82	27093	870.26
	Queanbeyan-Palerang Regional	5160	84.45	3219	52.68	37827	619.1
	Snowy Monaro Regional	844	40.59	1302	62.61	15169	729.45
	Upper Lachlan Shire	361	44.79	475	58.94	5843	725.03
	Yass Valley	1204	70.46	979	57.3	9354	547.43
	<i>LHD Total²</i>	11297	52.04	10481	48.28	146755	676.07
Sydney	Burwood	6128	150.89	4505	110.93	48518	1194.67
	Canada Bay	9741	101.39	10692	111.29	149208	1553.05
	Canterbury-Bankstown ¹	119651	316.61	108987	288.39	808444	2139.21
	Inner West	17223	85.77	17797	88.63	327663	1631.7
	Strathfield	14584	310.79	10826	230.7	96667	2059.99
	Sydney ¹	22810	92.59	21223	86.15	437744	1776.97
	<i>LHD Total²</i>	120346	172.72	110700	158.88	1304674	1872.46
Western NSW	Bathurst Regional	3526	80.84	2735	62.7	43881	1006.03
	Blayney	376	50.96	351	47.57	7671	1039.57
	Bogan	181	70.16	518	200.78	2083	807.36
	Bourke	1133	437.45	362	139.77	2679	1034.36
	Brewarrina	263	163.25	157	97.45	945	586.59
	Cabonne	458	33.59	547	40.12	8686	637.08
	Cobar	276	59.25	516	110.78	2758	592.1
	Coonamble	262	66.2	622	157.15	2617	661.19
	Cowra	402	31.55	414	32.49	7790	611.32
	Dubbo Regional	23212	432.1	13767	256.28	75098	1397.98
	Forbes	394	39.77	419	42.3	5720	577.43
	Gilgandra	663	156.4	769	181.41	3231	762.21
	Lachlan ¹	374	61.56	232	38.19	2502	411.85
	Mid-Western Regional	6871	272.11	2686	106.37	26995	1069.07

		Week ending				Total since January 2021	
		21-Aug		14-Aug		No.	Tests per 1,000 population
Local Health District	Local Government Area	No.	Tests per 1,000 population	No.	Tests per 1,000 population		
	Narromine	917	140.71	1472	225.87	5853	898.11
	Oberon	253	46.76	196	36.22	3599	665.13
	Orange	3514	82.78	2821	66.45	55668	1311.35
	Parkes	1216	81.96	970	65.38	10602	714.56
	Walgett	515	86.51	1019	171.17	4180	702.17
	Warren	858	318.13	970	359.66	4303	1595.48
	Warrumbungle Shire	629	67.79	1033	111.34	6704	722.57
	Weddin	145	40.13	128	35.43	1955	541.1
	<i>LHD Total²</i>	46262	162.32	32670	114.63	284810	999.29
Western Sydney	Blacktown	79705	212.86	68643	183.32	640949	1711.7
	Cumberland	81291	336.58	66687	276.11	505025	2091.02
	Parramatta ¹	35520	138.1	30994	120.51	348030	1353.17
	The Hills Shire	22068	124	20234	113.69	324454	1823.09
	<i>LHD Total²</i>	217678	206.64	185655	176.24	1779836	1689.56
NSW Total³		1029536	127.26	998859	123.47	8011409	990.31

Source - Notifiable Condition Information Management System, accessed as at 8pm 21 Aug 2021

1 Local Government Area (LGA) spans multiple Local Health Districts.

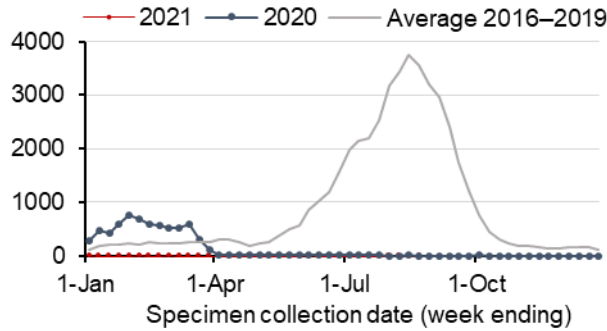
2 Local Health District total counts and rates includes tests for LHD residents only. Murrumbidgee includes Albury LGA residents.

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.

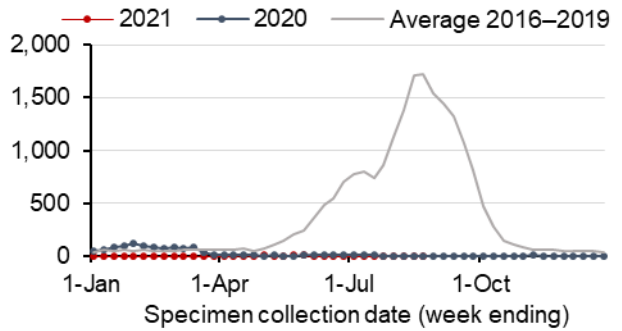
Appendix B: Number of positive PCR test results for influenza and other respiratory viruses at sentinel NSW laboratories, January 2020 to 22 August 2021

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

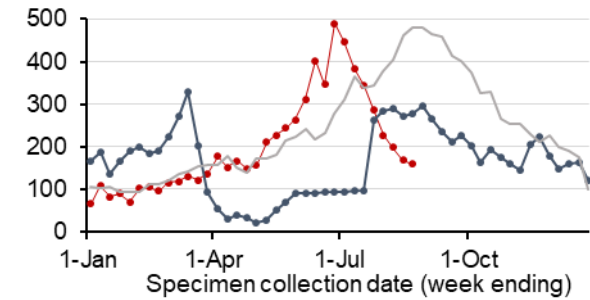
Influenza A



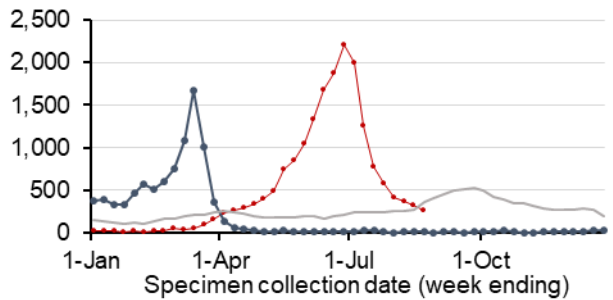
Influenza B



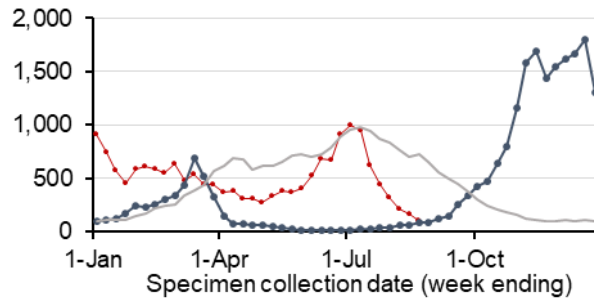
Adenovirus



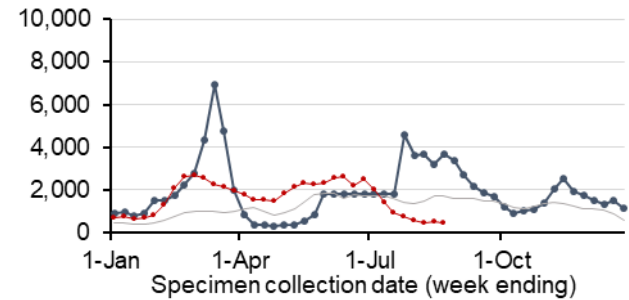
Parainfluenza



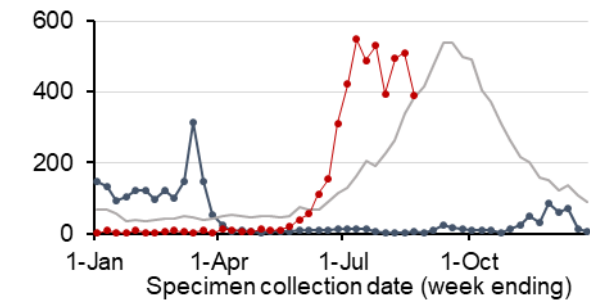
Respiratory syncytial virus (RSV)



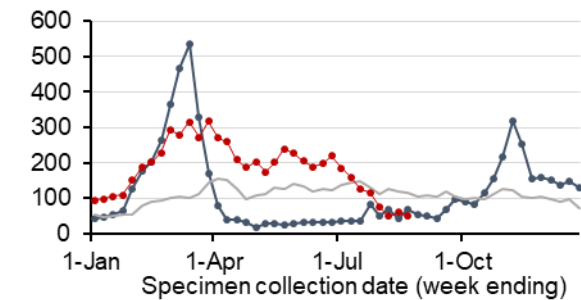
Rhinovirus



Human metapneumovirus (HMPV)



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.

Appendix C: SARS-CoV-2 testing in sewage samples collected in the previous 10 weeks, week ending 21 Aug 2021

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. The table below shows results for the last 10 weeks of samples collected across all sites in NSW.

Sydney Sites		19-Jun	26-Jun	3-Jul	10-Jul	17-Jul	24-Jul	31-Jul	7-Aug	14-Aug	21-Aug
Pop.	Location	24	25	26	27	28	29	30	31	32	33
60,514	Blue Mountains (Winmalee)	Green	Green	Green	Green	Red	Red	Red	Red	Green	Green
4,681	North Richmond	Green	Green	Green	Green	Green	Green	Green	Green	Green	Red
13,052	Richmond	Green	Green	Green	Green	Green	Green	Green	Green	Red	Red
110,114	Penrith	Green	Green	Red	Red	Red	Red	Red	Red	Red	Green
12,000	Lithgow	Green	Green	Green	Green	Green	Green	Green	Green	Green	Red
19,000	South Windsor	Green	Green	Green	Green	Green	Green	Red	Green	Green	Green
8,000	McGraths Hill	Green	Green	Green	Green	Red	Red	Red	Red	Green	Red
69,245	Warriewood	Green	Green	Green	Green	Green	Red	Red	Red	Green	Green
1,241	Brooklyn	Red	Red	Green	Green	Green	Green	Green	Green	Red	Green
31,924	Hornsby Heights	Green	Green	Red	Red	Red	Red	Green	Green	Red	Green
57,933	West Hornsby	Green	Green	Green	Green	Green	Green	Red	Red	Red	Red
318,810	Bondi	Green	Red	Red	Red	Red	Red	Red	Red	Red	Green
233,176	Cronulla	Green	Red	Red	Red	Red	Red	Red	Red	Red	Green
1,857,740	Malabar 1	Red	Red	Red	Red	Red	Red	Red	Red	Red	Green
	Malabar 2	Green	Red	Red	Red	Red	Red	Red	Red	Red	Green
181,005	Liverpool	Green	Green	Green	Green	Green	Green	Green	Green	Red	Green
98,743	West Camden	Green	Red	Red	Green	Red	Green	Green	Green	Red	Green
6,882	Wallacia	Green	Green	Green	Green	Green	Green	Green	Green	Red	Red
14,600	Picton	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
161,200	Glenfield	Green	Green	Red	Red	Red	Red	Red	Red	Red	Green
1,341,986	North Head	Green	Red	Red	Red	Red	Red	Red	Red	Red	Green
26,997	Castle Hill Cattai	Green	Green	Green	Red	Green	Green	Red	Red	Red	Red
	Castle Hill Glenhaven	Green	Red	Green	Green	Green	Green	Green	Green	Green	Red
163,374	Quakers Hill	Green	Green	Green	Green	Red	Red	Red	Red	Red	Red
119,309	Rouse Hill	Green	Red	Red	Green	Red	Red	Red	Red	Red	Green
37,61	Riverstone	Green	Green	Green	Green	Green	Green	Green	Green	Red	Red
163,147	St Marys	Green	Red	Red	Green	Red	Red	Red	Red	Red	Red
73,686	Shellharbour	Green	Green	Green	Green	Green	Green	Green	Green	Red	Red
55,000	Wollongong	Green	Green	Green	Green	Red	Red	Red	Red	Red	Red
68,000	Port Kembla	Green	Red	Red	Red	Red	Red	Red	Red	Green	Red
93,000	Bellambi	Green	Red	Red	Green	Green	Red	Red	Red	Red	Red

Sydney Network Sites		19-June	26-June	3-July	10-July	17-July	24-July	31-July	7-Aug	14-Aug	21-Aug
Network	Location	24	25	26	27	28	29	30	31	32	33
Bondi	Paddington Sewage Network	Red	Red	Red	Red	Red	White	Red	White	Red	White
Bondi	Rozelle Sewage Network	Green	Green	Green	Green	Green	Red	Red	Green	Red	White
Cronulla	Caringbah Sewage Network	Green	Red	Red	Red	Red	Red	Red	White	Red	White
Cronulla	Miranda Sewage Network	Green	Green	Green	Green	Green	Red	Green	Red	Red	White
Malabar	Earlwood Sewage Network	Green	Green	Red	Red	Red	Red	White	Red	White	Red
Malabar	Marrickville Sewage Network 1	Green	Green	Green	Red	Red	Red	Red	White	Red	White
Malabar	Marrickville Sewage Network 2	Green	Green	Green	Red	Red	Red	Red	White	Red	Red
Malabar	Bardwell Creek Sewage Network	Green	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey
Malabar	Arncliffe Sewage Network 1	Green	Green	Red	Red	Red	Red	White	Red	White	Red
Malabar	Arncliffe Sewage Network 2	Green	Green	Red	Red	Red	Red	Red	White	Red	White
Malabar	Blakehurst Sewage Network	Green	Green	Red	Red	Red	Red	White	Red	White	White
Malabar	Padstow Sewage Network 1	Green	Green	Red	Red	Red	Red	White	Red	White	White
Malabar	Padstow Sewage Network 2	Green	Green	Red	Red	Red	Red	Red	White	Red	White
Malabar	Fairfield SPS 1	Green	Green	Red	Red	Red	Red	White	Red	White	Red
Malabar	Fairfield SPS 2	Green	Green	Red	Red	Red	Red	White	Red	White	Red
Malabar	Homebush SPS	Green	Green	Red	Red	Red	Red	Red	White	Red	White
Malabar	Olympic Park	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey
Malabar	Croydon Sewage Network	Green	Green	Red	Green	Green	Green	Green	Red	Red	White
Malabar	Dulwich Hill Sewage Network	Green	Green	Red	Red	Red	Red	White	Red	White	White
Malabar	Canterbury Sewage Network	Green	Green	Red	Red	Red	Red	Red	White	Red	White
Malabar	Botany Sewage Network	Red	Red	Red	Red	Red	Red	Red	White	Red	White
Malabar	Maroubra Sewage Network	Green	Red	Red	Red	Red	Red	White	Red	White	White
North Head	Camellia SPS - North	Red	Red	Red	Red	Red	Red	Red	White	Red	White
North Head	Camellia SPS - South	Red	Red	Red	Red	Red	Red	Red	White	Red	White
North Head	Auburn Sewage Network	Green	Red	Red	Green	Red	White	Red	White	Red	White
North Head	Northmead SPS	Green	Green	Green	Red	Red	Red	Red	White	Red	White
North Head	Northmead Sewage Network	Green	Green	Green	Green	Green	Red	Red	White	Red	White
North Head	Tunks Park Sewage Network	Green	Green	Red	Red	Red	Red	White	Red	White	White
North Head	Vineyard Creek Sewage Network	Green	Green	Green	Red	Red	Red	Red	White	Red	White
North Head	Boronia Park Sewage Network	Green	Green	Red	Green	Red	Red	Red	White	Red	White
North Head	West Lindfield Sewage Network	Green	Green	Green	Green	Green	Red	Green	Red	Red	White
North Head	Lane Cove West Sewage Network	Green	Green	Green	Green	Green	Green	Red	Red	Red	White
North Head	Allambie Heights Sewage Network	Green	Green	Green	Green	Green	Red	Red	White	Red	White
North Head	Buffalo Creek Reserve Sewage Network	Green	Green	Green	Green	Green	Green	Red	Red	Red	White
Glenfield	Minto Sewage Network	Green	Green	Green	Red	Red	Red	White	Red	White	White
Liverpool	Ireland Park Sewage Network	Green	Red	Red	Red	Red	White	Red	White	Red	White
Quakers Hill	Eastern Creek Sewage Network	Green	Green	Green	Green	Red	Red	White	Red	White	White
St Marys	Ropes Creek Sewage Network	Green	Green	Green	Green	Red	Red	White	Red	White	White

Regional Sites		19-June	26-June	3-July	10-July	17-July	24-July	31-July	7-Aug	14-Aug	21-Aug
Pop.	Location	24	25	26	27	28	29	30	31	32	33
14,700	Bowral										
14,000	Mittagong										
9,000	Moss Vale										
1,000	Berrima										
2,000	Bundanoon										
900	Robertson										
16,68	Bombo										
7,200	Gerringong/Gerroa										
32,000	Ulladulla										
18,000	Bomaderry										
37,500	Nowra										
14,000	Vincentia										
16,000	St Georges Basin										
11,000	Cullburra Beach										
139,500	Gosford-Kincumber										
59,60	Charmhaven										
29,300	Wyong-Toukley										
15,800	Gwandalan-Mannering										
	Gwandalan										
	Mannering Park										
40,500	Wyong South										
38,900	Bateau Bay										
41,300	Woy Woy										
5,000	Perisher										
8,400	Thredbo										
3,000	Jindabyne										
8,000	Cooma										
500	Gunning										
500	Charlottes Pass										
51,750	Albury composite										
	Albury Kremer St										
	Albury Waterview										
22,419	Goulburn										
21,000	Batemans Bay										
18,000	Moruya										
17,000	Narooma										
8,000	Eden										
15,500	Merimbula										
5,000	Bermagui										
7,800	Deniliquin										
5,600	Moama										
48,000	Queanbeyan										
6,500	Yass										

Regional Sites (continued)		19-June	26-June	3-July	10-July	17-July	24-July	31-July	7-Aug	14-Aug	21-Aug
Pop.	Location	24	25	26	27	28	29	30	31	32	33
50,000	Wagga Wagga composite	C	C	C	C	C	C	C	C	C	C
	Wagga Wagga- inlet 1										
	Wagga Wagga- inlet 2										
	Wagga Wagga -Koorinal STP										
2,300	Gundagai										
2,800	Hay										
5,000	Narrandera										
2,050	Griffith										
2,050	Bourke										
2,500	Nyngan										
40,000	Orange										
12,000	Mudgee										
36,603	Bathurst										
3,300	Oberon										
3,700	Blayney										
1,700	Molong										
8,000	Forbes										
2,500	Coonabarabran										
1,100	Balranald										
2,000	Walgett										
15,000	Broken Hill										
3,000	Broken Hill South										
790	Wilcannia										
1,100	Brewarrina										
500	Dareton										
1,100	Buronga										
1,200	Wentworth										
11,600	Parkes										
2,750	Coonamble										
400	Gulargambone										
4,000	Cobar										
3,500	Narromine										
37,000	Dubbo										
24,000	Armidale										
1,900	Guyra										
2,700	Uralla										
10,300	Inverell										
6,100	Glen Innes										
9,700	Gunnedah										
45,000	Tamworth										
11,000	Muswellbrook										
Regional Sites (continued)		19-June	26-June	3-July	10-July	17-July	24-July	31-July	7-Aug	14-Aug	21-Aug

Pop.	Location	24	25	26	27	28	29	30	31	32	33
7,400	Narrabri										
3,300	Tenterfield										
750	Urbenville										
10,000	Moree										
26,394	Taree										
12,000	Forster										
7,582	Hallidays Point										
5,180	Harrington										
10,715	Hawks Nest										
5,000	Scone										
15,000	Singleton										
225,834	Hunter - Burwood Beach										
60,000	Hunter - Shortland										
115,000	Hunter - Belmont										
60,000	Hunter - Morpeth										
58,300	Hunter - Boulder Bay										
35,000	Hunter - Raymond Terrace										
32,000	Hunter - Dora Creek										
42,000	Hunter - Toronto										
70,000	Hunter - Edgeworth										
2,500	Hunter - Karuah										
3,000	Hunter - Dungog										
21,500	Hunter - Kurri Kurri										
32,000	Hunter - Cessnock										
40,000	Hunter - Farley										
32500	Lismore composite	C		C	C	C	C	C	C		
17,000	East Lismore										
15,500	South Lismore										
9,900	Casino										
1,500	Nimbin										
18,958 (both plants total)	Byron Bay - Ocean Shores										
	Byron Bay										
2,000	Bangalow										
3,500	Mullumbimby										
31,104	Ballina										
7,700	Lennox Head										
16,000	Tweed - Murwillumbah										
75,000	Tweed - Banora Point										
25,000	Tweed - Kingscliff										
18,000	Tweed - Hastings Point										

Regional Sites (continued)	19- June	26- June	3- July	10- July	17- July	24- July	31- July	7- Aug	14- Aug	21- Aug
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Pop.	Location	24	25	26	27	28	29	30	31	32	33
18,550	Grafton composite	c	c	c	c	c	c	c	c	c	c
12,250	North Grafton										
6,300	South Grafton										
6,500	Yamba										
8,730	Nambucca Heads										
54,370	Port Macquarie										
7,010	Bonny Hills										
8,540	Dunbogan										
5,887	West Kempsey										
12,105	South West Rocks										
4,052	Crescent Head										
12,000	Urunga										
14,000	Woolgoolga										
50,000	Coffs Harbour										

Sampling commenced week ending 18 July 2020

	not sampled or analysed
	SARS-CoV-2 not detected
	SARS-CoV-2 detected
	site moved to composite or ceased
c	composite of the separate influent samples
n	result from network sites

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.