

COVID-19 WEEKLY SURVEILLANCE IN NSW

EPIDEMIOLOGICAL WEEK 35, ENDING 4 September 2021

Published 17 September 2021

Overview

Table 1. Number and proportion of COVID-19 cases in NSW by likely source of infection to week ending 4 September 2021

	2020		2021		Total
	Jan – Jun	July – Dec	01 Jan – 15 Jun	16 Jun – 04 Sep	
Locally acquired	1,236 (39 %)	807 (52 %)	51 (7%)	28,075 (99 %)	30,169 (90 %)
Interstate acquired	67 (2 %)	23 (1 %)	0 (0%)	6 (< 1 %)	96 (< 1 %)
Overseas acquired	1,892 (59 %)	714 (46 %)	641 (93%)	182 (1 %)	3,429 (10 %)
Total	3,195 (100 %)	1,544 (100 %)	692 (100%)	28,263 (100 %)	33,694 (100 %)
Deaths	51	5	0	129	185

Summary for the week 29 August to 4 September 2021 (inclusive)

- There were 9,124 locally acquired cases reported in the week ending 4 September 2021. Of these:
 - 1,836 (20%) cases were residents of Canterbury-Bankstown LGA
 - 1,697 (19%) cases were residents of Cumberland LGA
 - 998 (11%) cases were residents of Blacktown LGA
 - 2,872 (31%) cases were residents of other 9 LGAs of concern
 - 1,721 (19%) cases were residents across 54 other LGAs
- There were 12 cases reported in overseas returned travellers in the last week (down 29%).
- There were 38 deaths in people diagnosed with COVID-19 reported this week.
- In the four weeks ending 4 September 2021, 100% (2,726/2,726) of the locally acquired cases sequenced were the delta variant of concern.
- Since March 2021, 842 (3.0%) locally acquired cases have reported being fully vaccinated.
- Testing rates decreased compared to the previous week (down 3%), with continued high testing rates in the Nepean Blue Mountains, South Eastern Sydney, South Western Sydney, Sydney, and Western Sydney LHDs.
- In the week ending 4 September, 232 sewage samples were tested for fragments of SARS-CoV-2. Of these, there were 87 detections. The sewage treatment plants at Alstonville, Wardell, Coraki, Evans Head, Googong, Warren, Wauchope, Kyogle, Woodenbong, Mungindi, Cootamundra, Junee, Leeton, West Wyalong, Young, Googong and Tumut were added as new sites. Detections from Bega, Brooklyn, Blayney, Bonny Hills, Bomaderry, Byron Bay, Cooma, Dunbogan, Tamworth, Glen Innes, Gunnedah, Jindabyne, Merimbula, Molong, Port Macquarie, Temora, Thredbo, Warren, Wauchope and West Kempsey, occurred with no known or recent cases in the catchment. Subsequently cases were identified in Bomaderry.

Indicators of effective prevention for COVID-19 in NSW for the week ending 4 September 2021

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 fully interviewed for the measures described in the table below.

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.

Table 2. Measures of public health action, NSW, for the period from 22 August to 04 September 2021

	Week ending 04 Sep	Week ending 28 Aug
Proportion locally acquired cases notified to NSW Health by the laboratory within 1 day of specimen collection	66% (6046/9124)	68% (4531/6652)
Locally acquired cases contacted by text message within 1 day of notification to NSW Health	90%	91%
Locally acquired cases fully interviewed by public health staff within 1 day of notification to NSW Health	27% (2482/9124)	35% (2327/6652)

Interpretation: In the week ending 4 September, 66% of cases were notified to NSW Health within a day of test, 27% of cases were fully interviewed within one day of notification and 90% 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 mobile phone number are contacted by case management teams and where no phone number exists are referred to NSW Police to identify alternative contact details.

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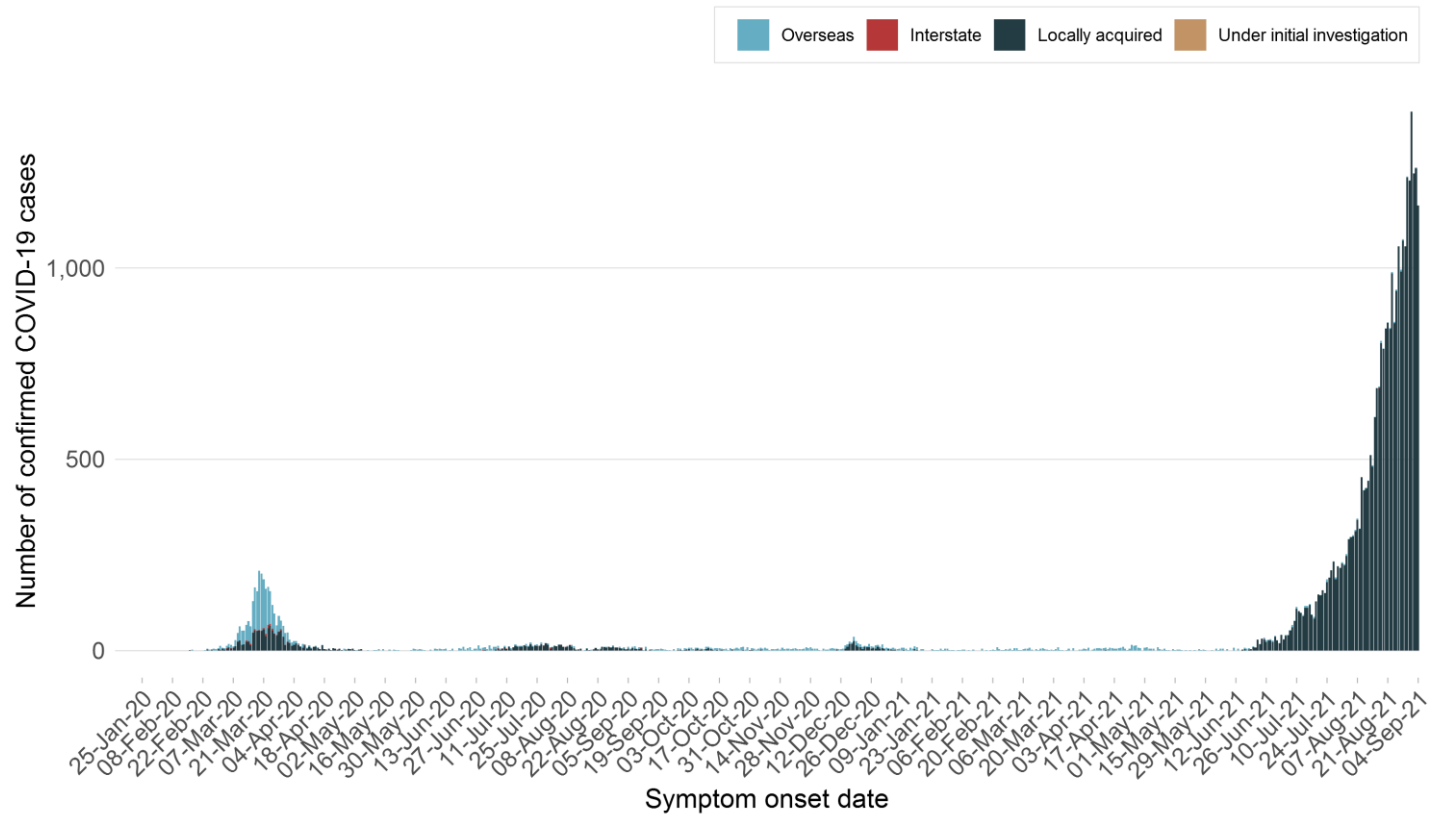
COVID-19 Vaccination program

- 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 4 September 2021



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

Interpretation: Between 13 January 2020 and 4 September 2021, there were 33,694 confirmed COVID-19 cases. Of those, 3,429 (10%) were overseas acquired, 96 (<1%) were interstate acquired, and 30,169 (90%) were locally acquired.

Four 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 current 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.

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, 8 August to 4 September 2021

Local Health District	Week ending				Total	Days since last case reported
	04 Sep	28-Aug	21-Aug	14-Aug		
Western Sydney	3,114	2,606	1,792	856	8,368	0
South Western Sydney	3,083	2,078	1,438	716	7,315	0
Sydney	974	605	407	278	2,264	0
South Eastern Sydney	609	340	223	179	1,351	0
Nepean Blue Mountains	547	443	354	253	1,597	0
Northern Sydney	188	151	83	58	480	0
Illawarra Shoalhaven	84	41	6	5	136	0
Central Coast	49	15	7	12	83	0
Western NSW	272	255	207	60	794	0
Hunter New England	48	19	53	87	207	0
Far West	35	51	23	0	109	0
Southern NSW	2	0	2	0	4	3
Mid North Coast	0	0	2	0	2	16
Northern NSW	0	0	0	0	0	158
Murrumbidgee	0	0	0	0	0	362
Correctional settings	101	45	9	3	158	0
NSW*	9,124	6,652	4,608	2,508	22,892	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 9,124 locally acquired cases reported in the week ending 4 September 2021. Most cases were residents of Western Sydney LHD (3,114, 34%) followed by South Western Sydney LHD (3,083, 34%), and Sydney LHD (974, 11%). Correctional settings include all cases residing in NSW correctional facilities.

Section 3: Epidemiology of local cases with COVID-19 from 16 June 2021 to 4 September 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.

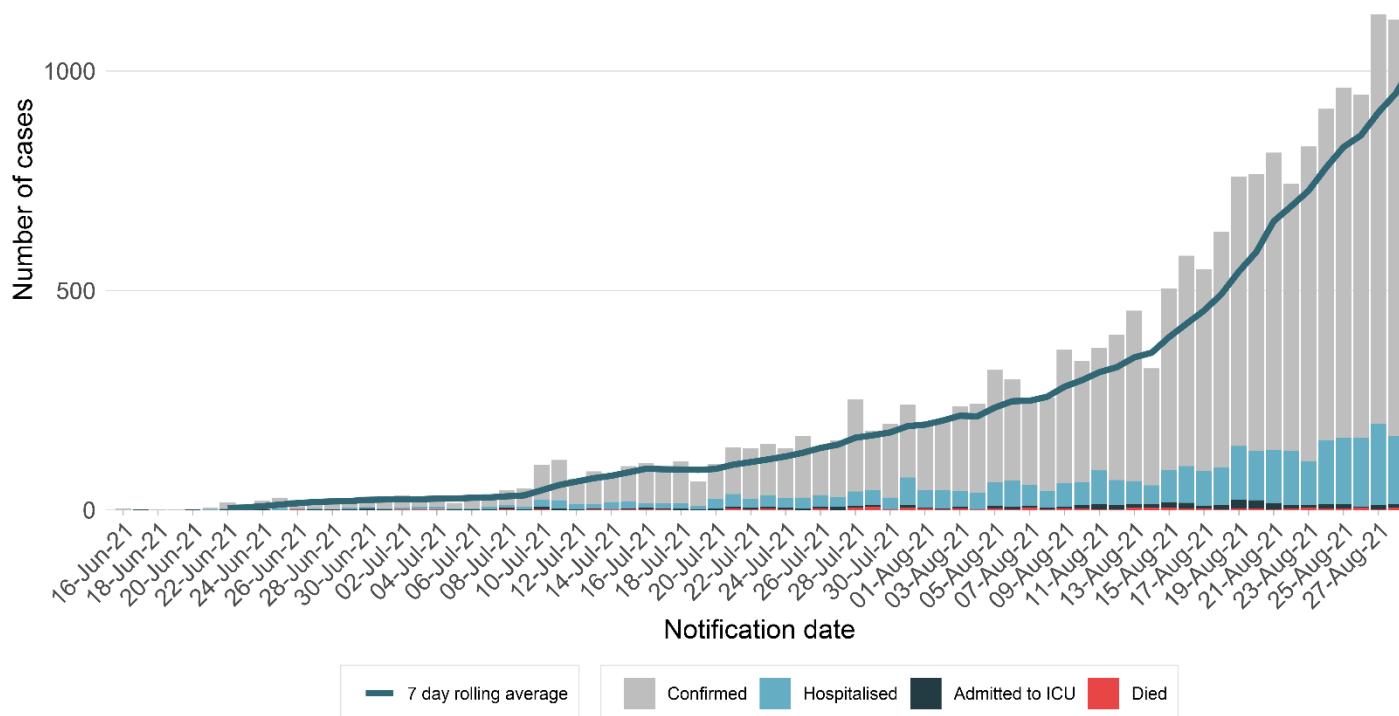
Table 4. COVID-19 cases and tests reported, NSW, from 1 January 2021 to 4 September 2021

	Week ending 4 Sep	Week ending 28 Aug	% change	Total 2021
Number of cases	9,137	6,670	37 %	28,955
Locally acquired	9,124	6,652	37 %	28,126
Known epidemiological links to other cases or clusters	2,003	2,498	-20 %	11,593
No epidemiological links to other cases or clusters	7,121	4,154	71 %	16,533
Overseas acquired	12	17	-29 %	823
Interstate acquired	1	1	0 %	6
Number of tests	924,635	948,850	-3 %	9,892,994

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 (22,892/22,954 cases, or 99.7%). Of the 9,124 locally acquired cases reported in the week ending 4 September 2021, 81% were from the 12 LGAs of concern (Cumberland, Canterbury-Bankstown, Blacktown, Fairfield, Liverpool, Penrith, Campbelltown, Burwood, Parramatta, Bayside, Georges River, and Strathfield).

Figure 2. COVID-19 cases by outcome and notification date with 7 day backward rolling average, NSW, from 16 June 2021 to 28th August September 2021



Interpretation: This graph shows the number of COVID-19 cases notified each day to NSW Health, and their outcome as of 28 August. The grey bar represents the number of cases notified on a given day and the blue bar is the number of those same cases that were subsequently hospitalised. Because there can be a delay between a person being notified as a COVID-19 case and when they may require hospitalisation (currently, a median of 5 days), data is provided to 28 August, allowing sufficient time to capture the development of severe illness among the most recently notified cases.

Local Government Areas

Table 5a. Top 20 metropolitan LGA's of residence, ordered by Locally acquired COVID-19 cases in the last 7 days per 100,000 population rate, NSW, 16 June to 4 September 2021

LGA name	Last 7 days		Current NSW outbreak (16 Jun-04 Sep 2021)	
	Cases	Cases per 100,000 population	Cases	Cases per 100,000 population
Cumberland	1,697	703	5,029	2,082
Canterbury-Bankstown	1,836	486	5,430	1,437
Liverpool	739	325	2,203	968
Fairfield	591	279	2,644	1,249
Blacktown	998	267	3,169	846
Penrith	474	223	1,564	734
Campbelltown	332	194	982	574
Camden	132	130	373	368
Parramatta	315	122	1,006	391
Strathfield	55	117	178	379
Georges River	170	107	520	326
Sydney	224	91	477	194
Bayside	160	90	530	297
Hawkesbury	56	83	139	207
Burwood	32	79	133	327
Canada Bay	66	69	161	168
Inner West	132	66	348	173
Randwick	90	58	284	182
Ryde	59	45	191	146
Wollondilly	22	41	44	83

Table 5b. Top 20 regional and rural LGA's of residence, ordered by locally acquired COVID-19 cases in the last 7 days per 100,000 population rate, NSW, 16 June to 4 September 2021

LGA name	Last 7 days		Current NSW outbreak (16 Jun-4 Sep 2021)	
	Cases	Cases per 100,000 population	Cases	Cases per 100,000 population
Central Darling	28	1,523	96	5,220
Bourke	37	1,429	69	2,664
Dubbo Regional	182	339	570	1,061
Warren	3	111	16	593
Balranald	2	86	2	86
Narromine	5	77	17	261
Brewarrina	1	62	10	621
Blayney	4	54	5	68
Bathurst Regional	19	44	31	71
Parkes	5	34	12	81
Port Stephens	22	30	33	45
Gilgandra	1	24	7	165
Orange	10	24	32	75
Broken Hill	4	23	10	57
Forbes	2	20	4	40
Gwydir	1	19	1	19
Upper Hunter Shire	2	14	2	14
Wentworth	1	14	1	14
Mid-Western Regional	2	8	11	44
Cabonne	1	7	2	15

Interpretation: The top 20 metropolitan LGAs contributed 90% of all cases in the week ending 4 September. The two highest case rates per 100,000 population are in rural and regional areas and are associated with known clusters, particularly in the west and far west of NSW. 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 4 September 2021

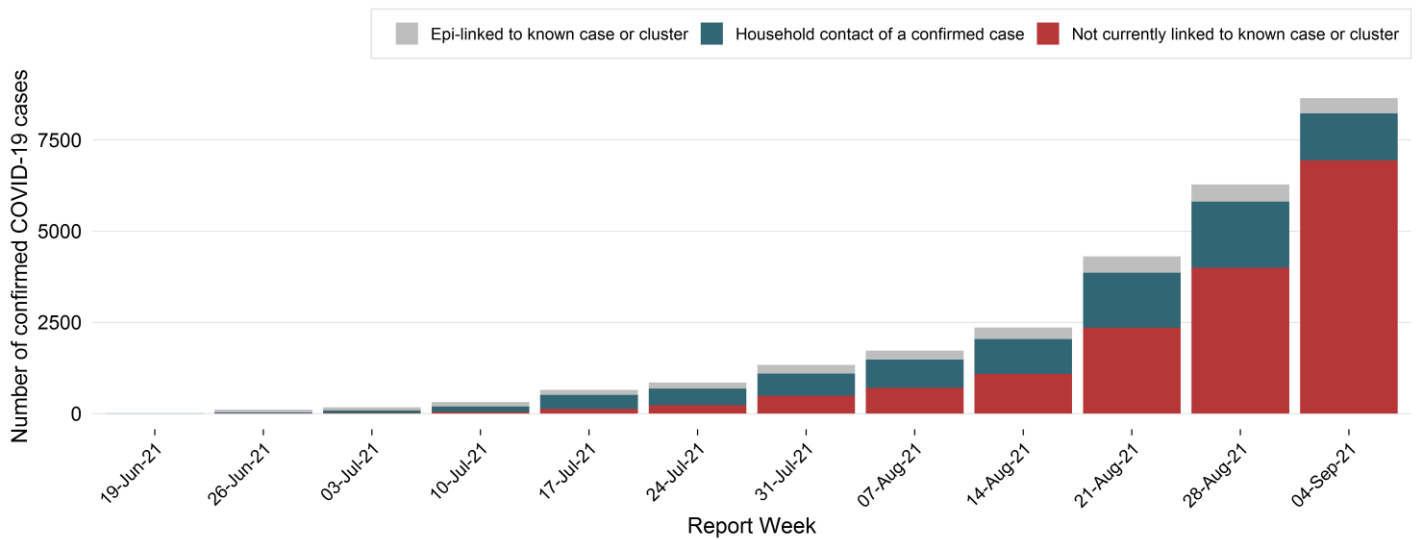
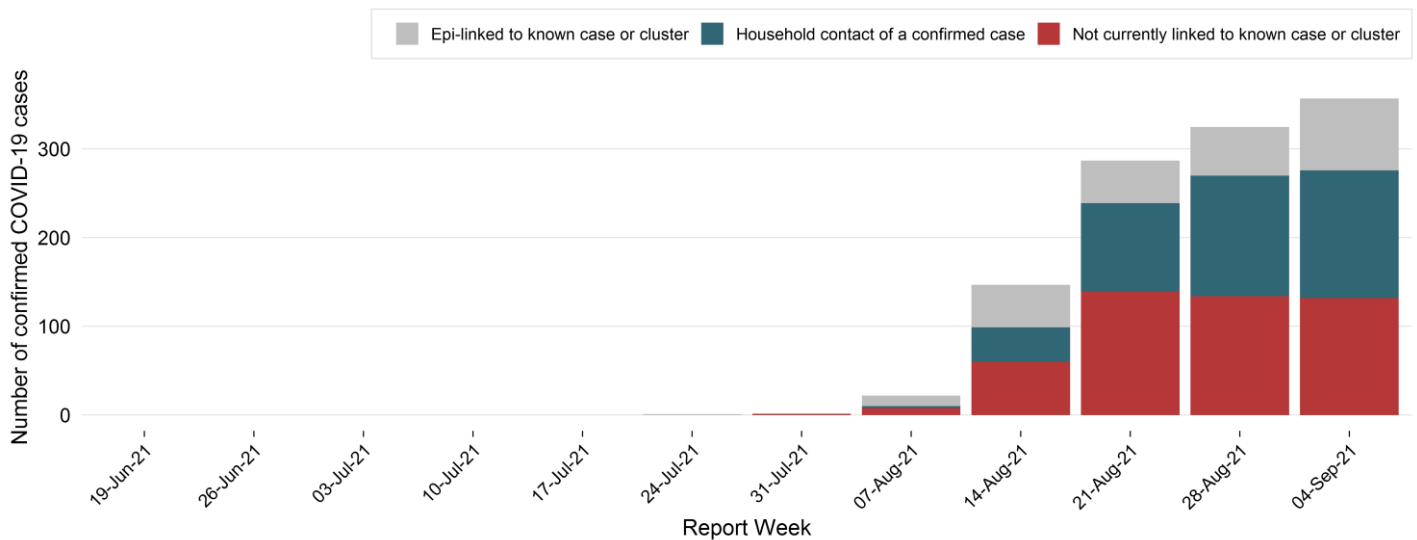


Figure 3b. Source of infection for locally acquired cases, rural and regional LHDs, from 16 June to 4 September 2021



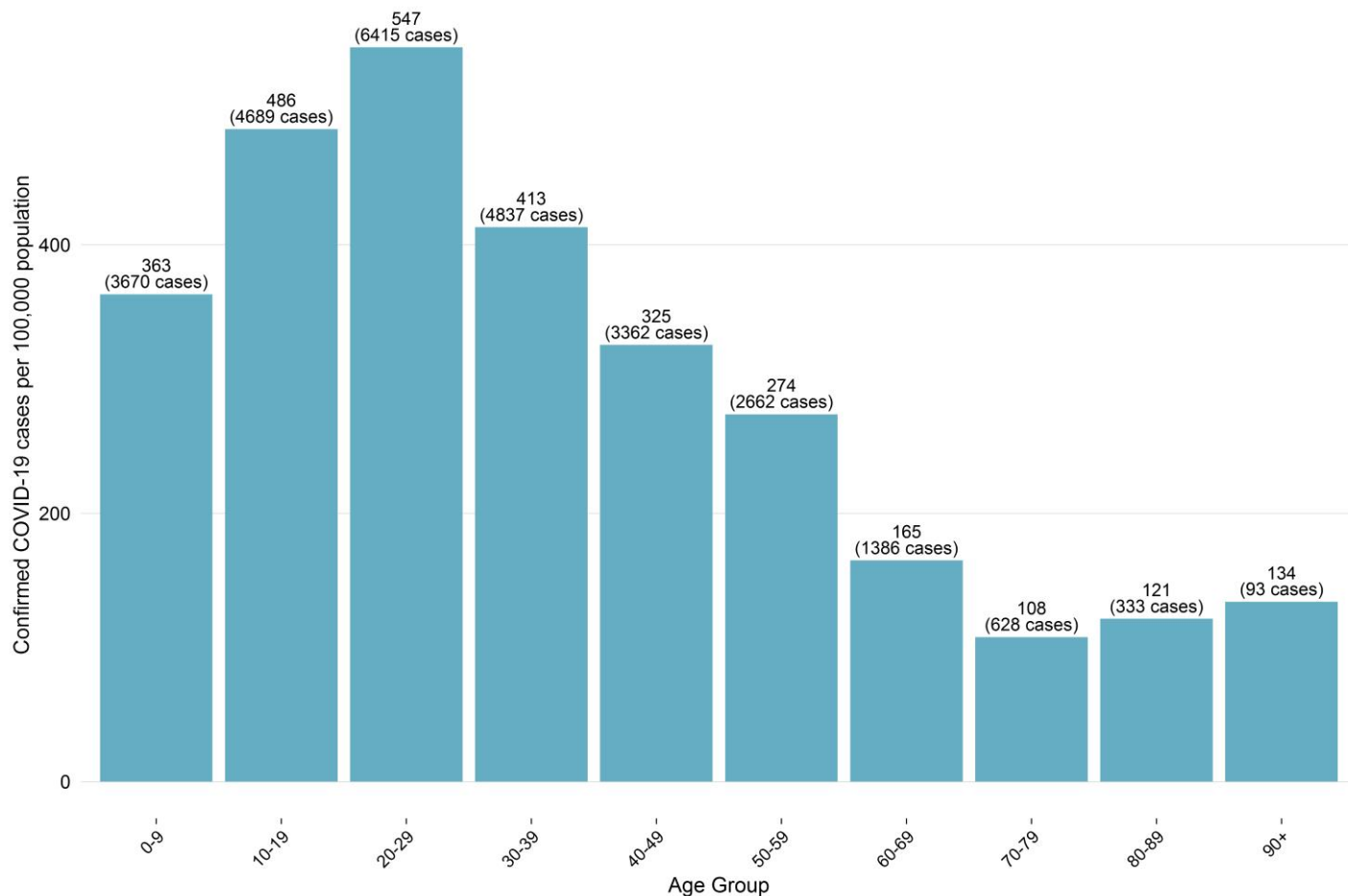
Note: This graph does not include cases in Justice Health and correctional facilities and those for whom LHD was not available at the time of data extraction

Interpretation: In the week ending 4 September, cases increased by 38% in metropolitan LHDs (8,648 compared to 6,279 the previous week), with a smaller increase of 10% in rural and regional LHDs (357 compared to 325 the previous week). Of the 8,648 cases reported this week in metropolitan LHDs, 1,282 (15%) were household contacts, 419 (5%) were epidemiologically linked but not household contacts and 6,944 (80%) were not currently linked to a case or cluster. There were 357 cases reported this week in rural and regional LHDs. Of these 144 (40%) were household contacts, 81 (23%) were epidemiologically linked but not household contacts and 132 (37%) have not currently been linked to a case or cluster.

Age breakdown of locally acquired cases across four waves, NSW, from 1 January 2020 - 4 September 2021

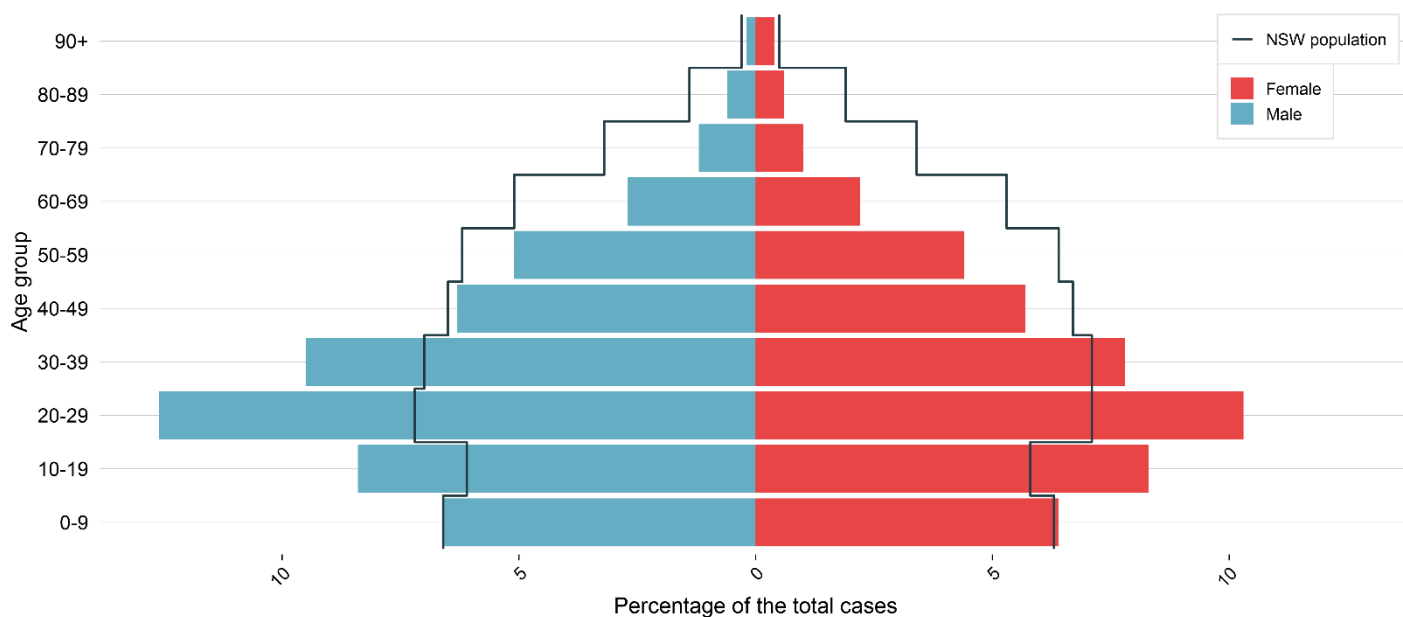
The median age of cases between 1 January 2020 and 15 June 2021 was 37 years (interquartile range (IQR) = 25-55 years). Between 16 June and 4 September 2021, there have been 28,075 locally acquired cases. The median age was 28 years (IQR = 17-44 years).

Figure 4. Rates of COVID-19 infection by age group, current outbreak, NSW, from 16 June 2021 to 4 September 2021



Interpretation: The age group with the highest rate of people diagnosed with COVID-19 was those aged 20-29 years (6,415 cases, or 547 per 100,000 people) and a high rate was also seen in people aged 10-19 years (4,689 cases, or 486 per 100,000 people).

Figure 5. Current wave locally acquired case percentage (n = 27,957) by age and gender, NSW, from 16 June to 4 September 2021



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

Interpretation: In the current fourth wave from 16 June 2021, people aged 10-39 are over-represented among the cases relative to their proportion in the NSW population. Under-representation among older groups may be due to vaccination programs targeted towards elderly and aged care residents.

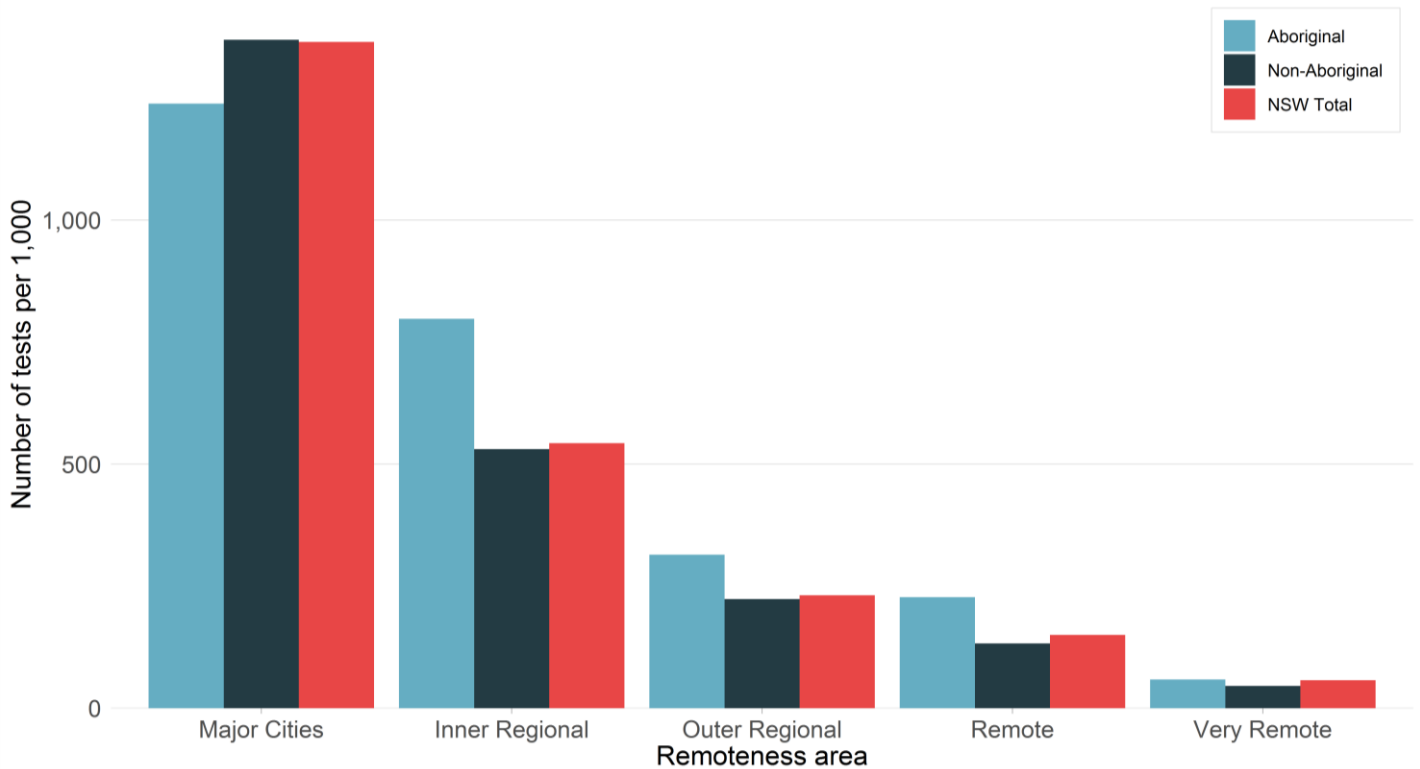
Section 4: COVID-19 in specific populations

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 339 locally acquired cases of COVID-19 reported in Aboriginal people in the week ending 4 September 2021. Of the 339 cases, 7 were fully vaccinated. In total there have been 1060 Aboriginal people diagnosed with COVID-19 in the current NSW outbreak.

Figure 6. Testing rate by Aboriginality and remoteness area, per 1,000 population, NSW, 1 April to 04 September 2021



Note: NSW Total and Non-Aboriginal includes persons tested in NSW without Aboriginality recorded.

Interpretation: Testing rates were highest in major cities in NSW, where the majority of cases in the current fourth wave are located. In all parts of NSW except major cities, testing rates were higher among Aboriginal people than among Non-Aboriginal people.

Pregnant women

In the week ending 4 September, 69 pregnant women were diagnosed with COVID-19. Since January 2020, 358 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. Four of the women were fully vaccinated at the time of their illness. Pregnant women of any age became a priority group eligible for vaccination on 22 July 2021, although some women may have been eligible before this date due to higher-risk occupations or being aged 40 years or more.

Correctional settings

There were 101 confirmed cases residing in correctional settings in the week ending 4 September. Since 16 June 2021, 158 people residing in correctional settings have been diagnosed with COVID-19 in NSW. Four of these were fully vaccinated.

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 4 September, there were 78 healthcare workers diagnosed with COVID-19. Of these, 13 (17%) were potentially infected in a healthcare setting, 11 (14%) were social or household contacts of previously reported cases and 54 (69%) are currently not linked. Twenty-six (33%) cases were fully vaccinated and 29 (37%) were partially vaccinated.

In total there have been 486 cases of COVID-19 in health care workers since August 2020. Of these, 91 were potentially infected in healthcare settings. A further 143 cases were linked to social or household contacts, and for 252 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 6. Number of healthcare worker infections by source of infection and proportion fully vaccinated

Healthcare workers	Last 7 days			Current NSW outbreak (16 Jun-4 Sep 2021)		
	Number of HCWs	Fully vaccinated	Partially vaccinated	Number of HCWs	Fully vaccinated	Partially vaccinated
Healthcare acquired	13	4 (31%)	6 (46%)	66	18 (27%)	19 (29%)
Community acquired	11	4 (36%)	3 (27%)	126	37 (29%)	24 (19%)
Not currently linked	54	18 (33%)	20 (37%)	246	70 (28%)	70 (28%)
Total	78	26 (33%)	29 (37%)	438	125 (29%)	113 (26%)

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 (372/438, 85%). Of the 438 healthcare workers that have been diagnosed with COVID-19 in the current outbreak, 125 (29%) have been fully vaccinated and 113 (26%) have been partially vaccinated.

Aged care workers

There were 41 locally acquired cases in aged care workers in the week ending 4 September 2021. Two cases acquired their infection while working in an aged care facility, 14 cases were social or household contacts of a known case and for 25 cases the source of infection is under investigation. The two cases who acquired their infection at work were both fully vaccinated.

Since 16 June 2021, there have been 152 cases reported in aged care workers. Of these, 77 (51%) people have reported being partially vaccinated. There have been 35 aged care workers diagnosed with COVID-19 who have been fully vaccinated.

Table 7. 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-4 Sep 2021)		
	Number of ACWs	Fully vaccinated	Partially Vaccinated	Number of ACWs	Fully vaccinated	Partially Vaccinated
Acquired at aged care facility	2	2 (100%)	0 (0%)	26	3 (12%)	15 (58%)
Community acquired	14	6 (43%)	6 (43%)	58	14 (24%)	26 (45%)
Not currently linked	25	10 (40%)	13 (52%)	68	18 (26%)	36 (53%)
Total	41	18 (44%)	19 (46%)	152	35 (23%)	77 (51%)

Interpretation: In the week ending 4 September there were 41 aged care workers diagnosed with COVID-19. Of these, 2 (5%) were infected in an aged care facility, 14 (34%) were social or household contacts of previously reported cases and 25 (61%) are not currently linked.

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. Both vaccines being administered in Australia, Pfizer-BioNTech and AstraZeneca, and many from overseas such as Moderna and Sinovac, 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 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 8. Locally acquired COVID-19 cases by vaccination status and week reported, NSW, 1 March to 4 September 2021

Vaccination Status	Week ending				01 Mar to 7 Aug 2021	Total from 1 Mar 2021
	04 Sep 21	28 Aug 21	21 Aug 21	14 Aug 21		
Fully Vaccinated	362 (4.0%)	162 (2.4%)	126 (2.7%)	92 (3.7%)	100 (1.9%)	842 (3.0%)
Partially Vaccinated	2,335 (25.6%)	1,508 (22.7%)	685 (14.9%)	271 (10.8%)	414 (8%)	5,213 (18.6%)
None	2,474 (27.1%)	4,163 (62.6%)	3,360 (72.9%)	1,946 (77.6%)	4,455 (85.8%)	16,398 (58.4%)
Under investigation	3,953 (43.3%)	819 (12.3%)	437 (9.5%)	199 (7.9%)	223 (4.3%)	5,631 (20.1%)
Total	9,124	6,652	4,608	2,508	5,192	28,084

Interpretation: In the past week 4% of locally acquired cases were fully vaccinated. This compares with around 40.8% of the NSW population who had received two doses of vaccine by 4 September. Since 1 March 2021, there have been 842 (3.0%) locally acquired cases reported as being fully vaccinated and 5,213 (18.6%) partially vaccinated.

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.

Of the 4,654 people hospitalised with COVID-19 in the current outbreak, 441 (9%) people were in ICU. Of these, 284 (64.4%) were unvaccinated, and 70 (15.9%) were partially vaccinated or had a single dose within 14 days. There were 8 (1.8%) fully vaccinated cases in ICU. For the remaining 79 (17.9%) people in ICU, vaccination status could not be determined, either through interview or searching the Australian Immunisation Register.

Table 9. Hospitalisations and ICU admissions among people diagnosed with COVID-19, by vaccination status, NSW, from 16 June to 4 September 2021

Vaccination status	Hospitalised (%)	Hospitalised and in ICU (%)	Death (%)
Fully Vaccinated	153 (3.3%)	8 (1.8%)	15 (11.6%)
Partially vaccinated	844 (18.1%)	70 (15.9%)	27 (20.9%)
None	2,718 (58.4%)	284 (64.4%)	78 (60.5%)
Not stated	939 (20.2%)	79 (17.9%)	9 (7.0%)
Total	4,654 (100.0%)	441 (100.0%)	129 (100.0%)

Interpretation: Of the 4,654 people hospitalised, 153 (3.3%) are fully vaccinated, 844 (18.1%) were partially vaccinated and 3,657 (78.6%) were either not vaccinated or vaccination status has not yet been determined. The 15 deaths among people fully vaccinated were six people in their 70s, five people in their 80s and four people in their 90s.

Section 6: COVID-19 hospitalisations and deaths

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

Figure 7a. Number of cases notified last 14 days, number of cases in hospital, in ICU and ventilated by date, NSW, from 16 June to 4 September 2021

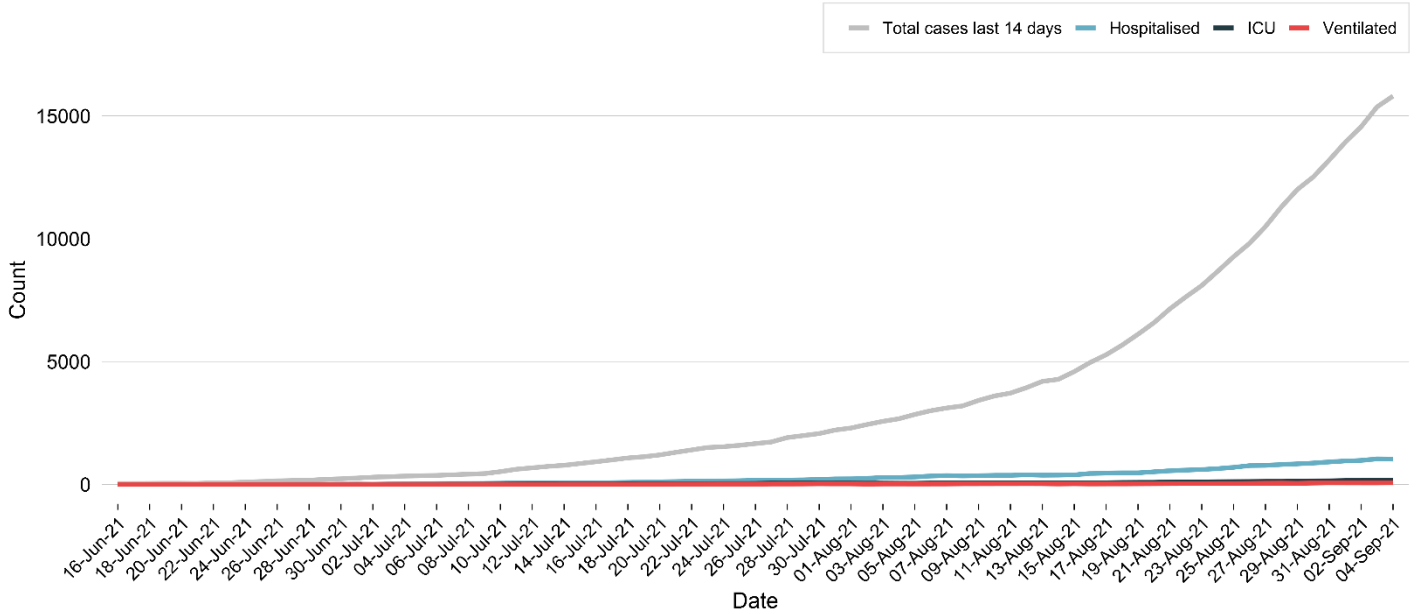
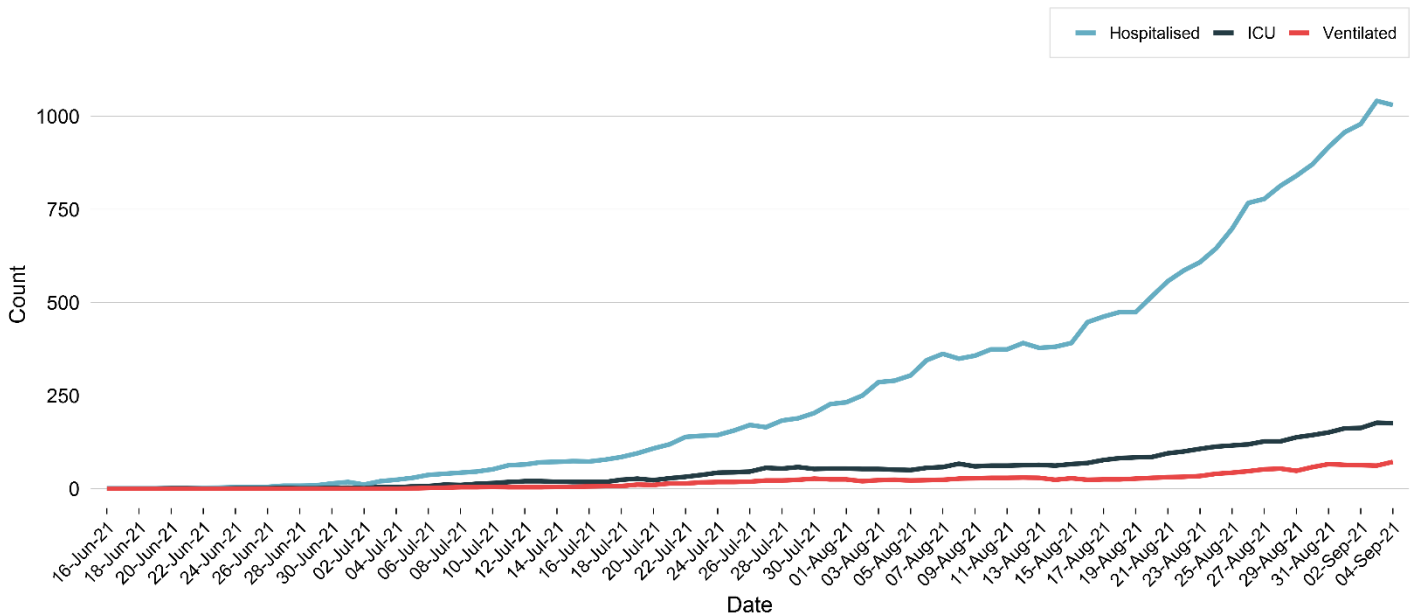


Figure 7b. Number of cases in hospital, in ICU and ventilated by date, NSW, from 16 June to 4 September 2021



Interpretation: Cases are considered active for 14 days from symptom onset; during this time a person may become increasingly ill and require hospitalisation. Figure 7a shows the daily: number of COVID-19 cases in the last 14 days, number in hospital, number in ICU, and number ventilated. Figure 7b 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 a case. Additionally, people may require hospitalisation for long periods of time therefore reporting the number of cases in hospital on any given date does not reflect the true proportion that requiring 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 in 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 4 September 2021, of the 9,124 locally acquired cases, there were 1,278 people who had a diagnosis of COVID-19 who were also admitted to a hospital ward. In total, there have been 4,142 people with COVID-19 who were also hospitalised since the beginning of the current NSW outbreak.

Table 10. Hospitalisations among people diagnosed with COVID-19, by age group, NSW

Age-group (years)	Current outbreak since 16 June (Locally acquired only)			Total since January 2020	
	Hospitalised	Percentage of cases hospitalised ¹	Hospitalised per 100,000 population	Hospitalised	Percentage of cases hospitalised ¹
0-9	184	5%	18.2	195	5%
10-19	252	5%	26.1	275	5%
20-29	660	10%	56.3	739	10%
30-39	738	15%	63.0	849	14%
40-49	670	20%	64.9	776	19%
50-59	644	24%	66.2	781	23%
60-69	425	31%	50.6	590	29%
70-79	298	47%	51.1	417	41%
80-89	208	62%	75.8	266	58%
90+	63	68%	90.8	81	60%
Total	4,142	15%	51.2	4,969	15%

Interpretation: The age group with the highest number of hospitalised cases was those aged 30-39 years (738, 15%), followed by those aged 40-49 years (670, 20%). In NSW, cases aged 90 years and over had the highest rate of hospitalisation (90.8 per 100,000 people).

How many people with a COVID-19 diagnosis were in ICU wards ?

Table 11. ICU hospitalisations among people diagnosed with COVID-19, by age group, NSW

Age-group (years)	Current outbreak since 16 June (Locally acquired only)			Total since January 2020	
	Admitted to ICU	Percentage of cases admitted to ICU ¹	ICU admission per 100,000 population	Admitted to ICU	Percentage of cases admitted to ICU ¹
0-9	5	<1%	0.5	5	<1%
10-19	15	<1%	1.6	16	<1%
20-29	39	1%	3.3	43	1%
30-39	49	1%	4.2	64	1%
40-49	71	2%	6.9	83	2%
50-59	111	4%	11.4	139	4%
60-69	84	6%	10.0	127	6%
70-79	52	8%	8.9	86	8%
80-89	13	4%	4.7	26	6%
90+	0	0%	0.0	0	0%
Total	439	2%	5.4	589	2%

Interpretation: The age group with the highest number of cases in ICU was those aged 50-59 years (111, 4%). The highest rate of admission to ICU was for those aged 50-59 years (111 cases, 11.4 per 100,000 people).

¹ 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.

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 observed.

Since the start of the pandemic, 1% of cases (185 people) have died following a recent infection with COVID-19, most of whom were 80 years of age or older, including 38 residents of aged care facilities with known COVID-19 outbreaks. Approximately 7% (13/185) of the deaths were in overseas acquired cases.

There were 38 deaths in people diagnosed with COVID-19 reported this week including 5 fully vaccinated people, 7 partially vaccinated people, 21 un-vaccinated people, and 5 people whose vaccination status could not be confirmed, either by interview or searching the Australian Immunisation Register.

Table 12. Deaths following recent infection with COVID-19, by age group

Age-group (years)	Current outbreak since 16 June (Locally acquired only)			Total since January 2020	
	Number of deaths	Case fatality rate	Fatality rate per 100,000 population ²	Number of deaths	Case fatality rate ²
0-9	0	0%	0.0	0	0%
10-19	1	<1%	0.1	1	<1%
20-29	1	<1%	0.1	1	<1%
30-39	5	<1%	0.4	5	<1%
40-49	3	<1%	0.3	3	<1%
50-59	8	<1%	0.8	9	<1%
60-69	15	1%	1.8	19	1%
70-79	33	5%	5.7	48	5%
80-89	45	14%	16.4	66	14%
90+	17	18%	24.5	33	24%
Total	128	<1%	1.6	185	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.

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.

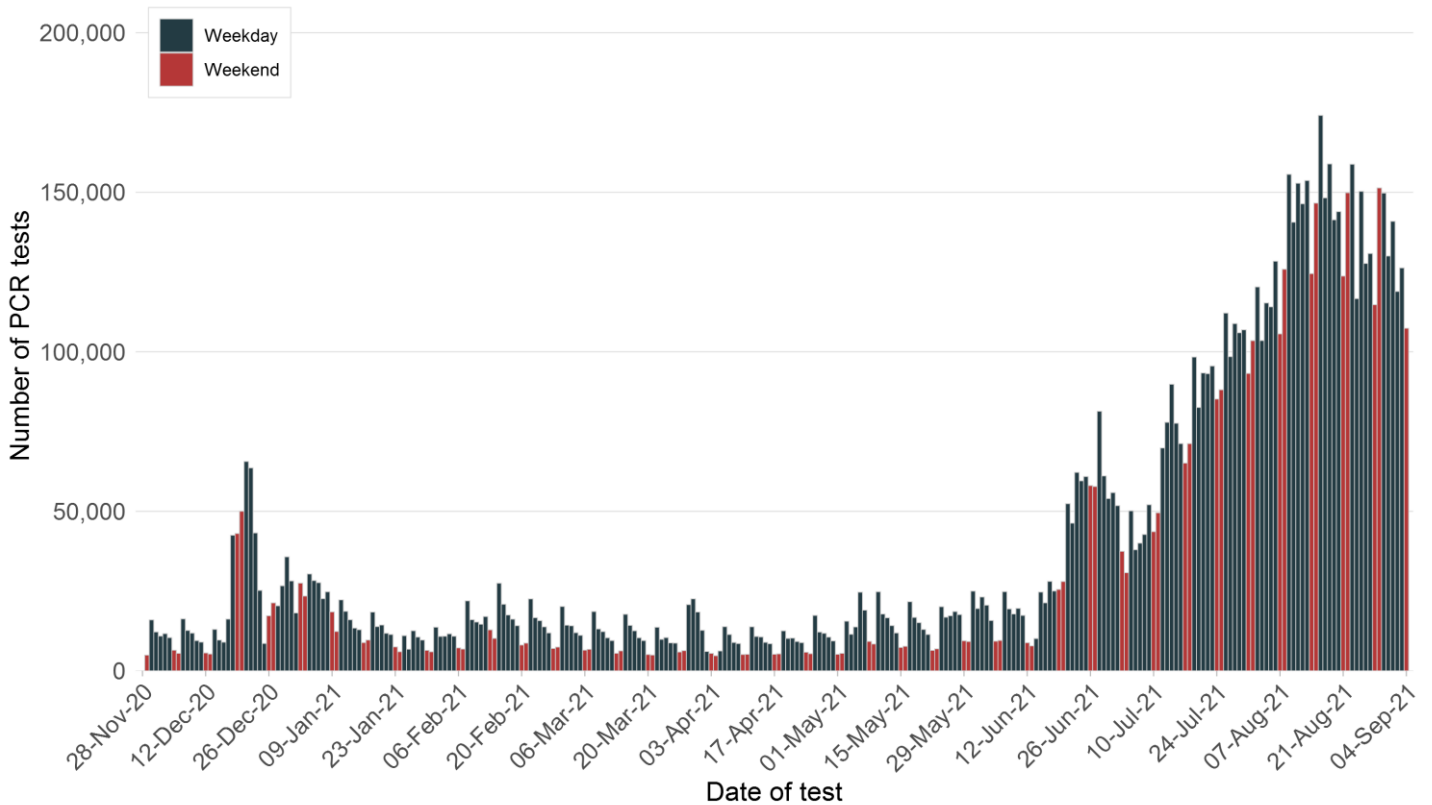
Section 7: COVID-19 testing in NSW

How much testing is happening?

The bars on the graph below show the number of tests by the date a person presented for the test.³ 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 8. Number of PCR tests per day, NSW, 21 November 2020 to 4 September 2021



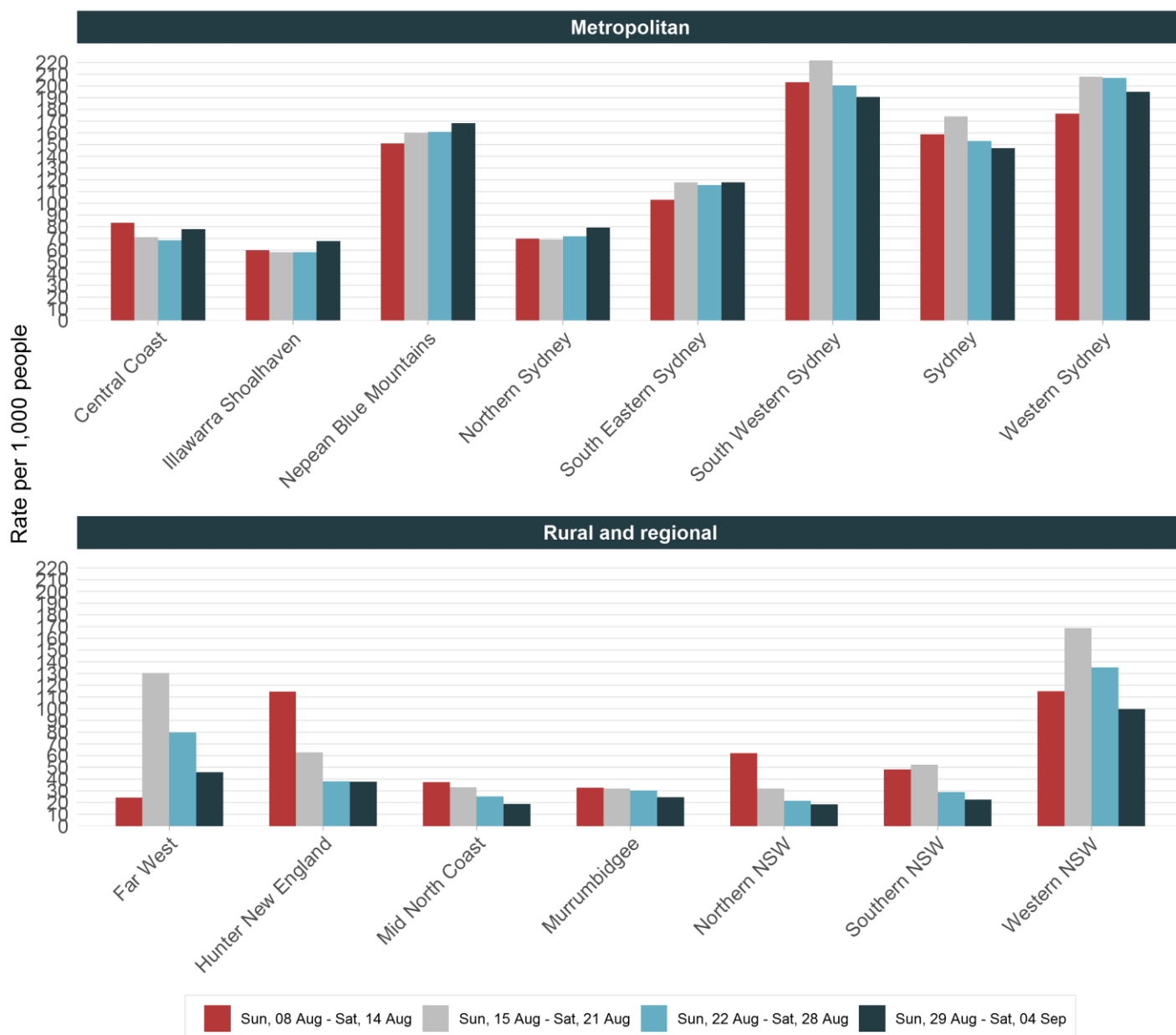
Includes SARS-CoV-2 PCR tests only and excludes repeat positive tests for an individual.

Interpretation: Testing numbers decreased in the week ending 4 September 2021 (down 3%) compared to the previous week. The average daily testing rate of 16.3 per 1,000 people in NSW each day decreased compared to the previous week of 16.8 per 1,000 people.

³ The number of tests per day displayed below 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 by Local Health District and Local Government Areas

Figure 9. Rates of COVID-19 testing by LHD of residence, NSW, 08 August to 4 September 2021

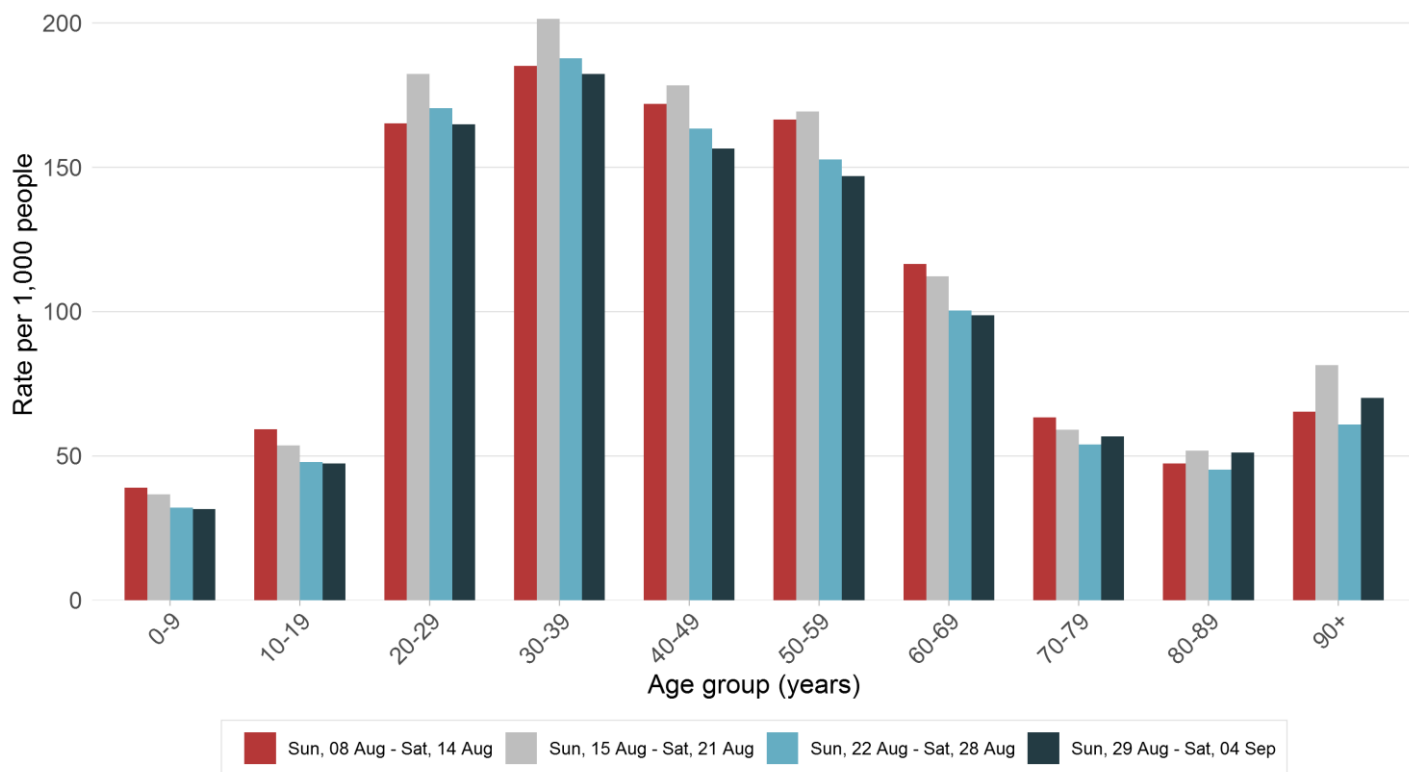


Includes SARS-CoV-2 PCR tests only and excludes notifications with missing postcode of residence.

Interpretation: State-wide weekly testing rates in the week ending 4 September decreased in most LHDs compared to the previous week (114.3 per 1,000 people compared to 117.3 per 1,000 people). Sustained high testing rates are observed for Nepean Blue Mountains, South Eastern Sydney, South Western Sydney, Sydney, and Western Sydney LHDs.

Testing by age group

Figure 10. Rates of COVID-19 testing by age group and week, NSW, 08 August to 04 September 2021



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

Interpretation: In the week ending 4 September 2021, testing rates remained highest overall among those aged 20-59. All age groups under 70 years of age showed a slight decrease in testing rates, while those aged 70+ showed a slight increase.

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 locally acquired cases in the NSW outbreak from 16 June 2021.

Table 13. Variants identified among locally acquired COVID-19 cases by week reported, NSW, 29 November 2020 to 4 September 2021

Variant	Week ending				29 Nov to 07 Aug	Total since 29 November
	04 Sep*	28 Aug*	21 Aug	14 Aug		
Total variants identified	0	31	555	958	3,856	5,400
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	31	555	958	3,849	5,393

***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 4 September 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.

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.

New collection sites

In the week ending 4 September, 232 sewage samples were tested for fragments of SARS-CoV-2. The sewage treatment plants at Alstonville, Wardell, Coraki, Evans Head, Googong, Warren, Wauchope, Kyogle, Woodenbong, Mungindi, Cootamundra, Junee, Leeton, West Wyalong, Young, Googong and Tumut were added as new sites.

Detections outside of Sydney

There were 87 detections across the state. Sixty-seven detections outside Sydney were taken from the Bateau Bay, Bathurst, Bega, Blayney, Bomaderry (2), Bonny Hills, Bourke, Bowral, Broken Hill (2), Broken Hill South (2), Byron Bay, Charmhaven (2), Cooma (2), Dubbo, Dunbogan, Forbes, Gilgandra, Glen Innes, Gosford-Kincumber (2), Goulburn (2), Gulargambone, Gunnedah, Boulder Bay, Branxton, Burwood Beach, Dora Creek, Edgeworth, Morpeth, Raymond Terrace, Shortland, Belmont, Cessnock, Jindabyne, Mannering Park, Merimbula, Mittagong, Molong, Mudgee, Nyngan (2), Orange, Parkes, Port Macquarie, Shellharbour (3), Tamworth (2), Temora, Thredbo, Walgett (2), Warren, Wauchope, West Kempsey (2), Wilcannia, Woy Woy and Wyong-Toukley (2) sewage treatment plants.

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 in Brooklyn, Castle Hill-Cattai, Castle Hill-Glenhaven, Hornsby Heights, Lithgow (2), McGraths Hill, Picton, South Windsor, West Hornsby, Winmalee, Wollongong (3). There were also detections from the sewage networks and pumping stations within Bellambi (3) and Port Kembla (3).

Detections with no known cases

Detections from Bega, Brooklyn, Blayney, Bonny Hills, Bomaderry, Byron Bay, Cooma, Dunbogan, Tamworth, Glen Innes, Gunnedah, Jindabyne, Merimbula, Molong, Port Macquarie, Temora, Thredbo, Warren, Wauchope and West Kempsey, occurred with no known or recent cases in the catchment. Subsequently cases were identified in Bomaderry.

Sampled site with no detections

There were no detections in the catchment areas for: Moss Vale, Bombo, Gerringong/Gerroa, Ulladulla, Nowra, Vincentia, St Georges Basin, Cullburra Beach, Gwandalan, Wyong South, Perisher, Tumut, Charlottes Pass, Albury (composite), Batemans Bay, Moruya, Narooma, Eden, Bermagui, Moama, Queanbeyan, Googong, Yass, Young, Wagga Wagga (composite), West Wyalong, Gundagai, Narrandera, Cootamundra, Junee, Leeton, Oberon, Cowra, Coonabarabran, Coolah, Dunedoo, Baradine, Balranald, Dareton, Buronga, Wentworth, Condobolin, Lake Cargelligo, Coonamble, Cobar, Trangie, Armidale, Guyra, Uralla, Inverell, Glen Innes, Quirindi, Muswellbrook, Narrabri, Tenterfield, Moree, Mungindi, Taree, Forster, Hallidays Point, Scone, Singleton, Toronto, Karuah, Dungog, Tanilba Bay, Kurri Kurri, Farley, Lismore (composite), Kyogle, Woodenbong, Casino, Coraki, Evans Head, Nimbin, Byron Bay – Ocean Shores, Bangalow, Mullumbimby, Ballina, Lennox Head, Wardell, Alstonville, Murwillumbah, Banora Point, Kingscliff, Hastings Point, Grafton (composite), Yamba, Nambucca Heads, South Kempsey, South West Rocks, Crescent Head, Bellingen, Woolgoolga, Coffs Harbour.

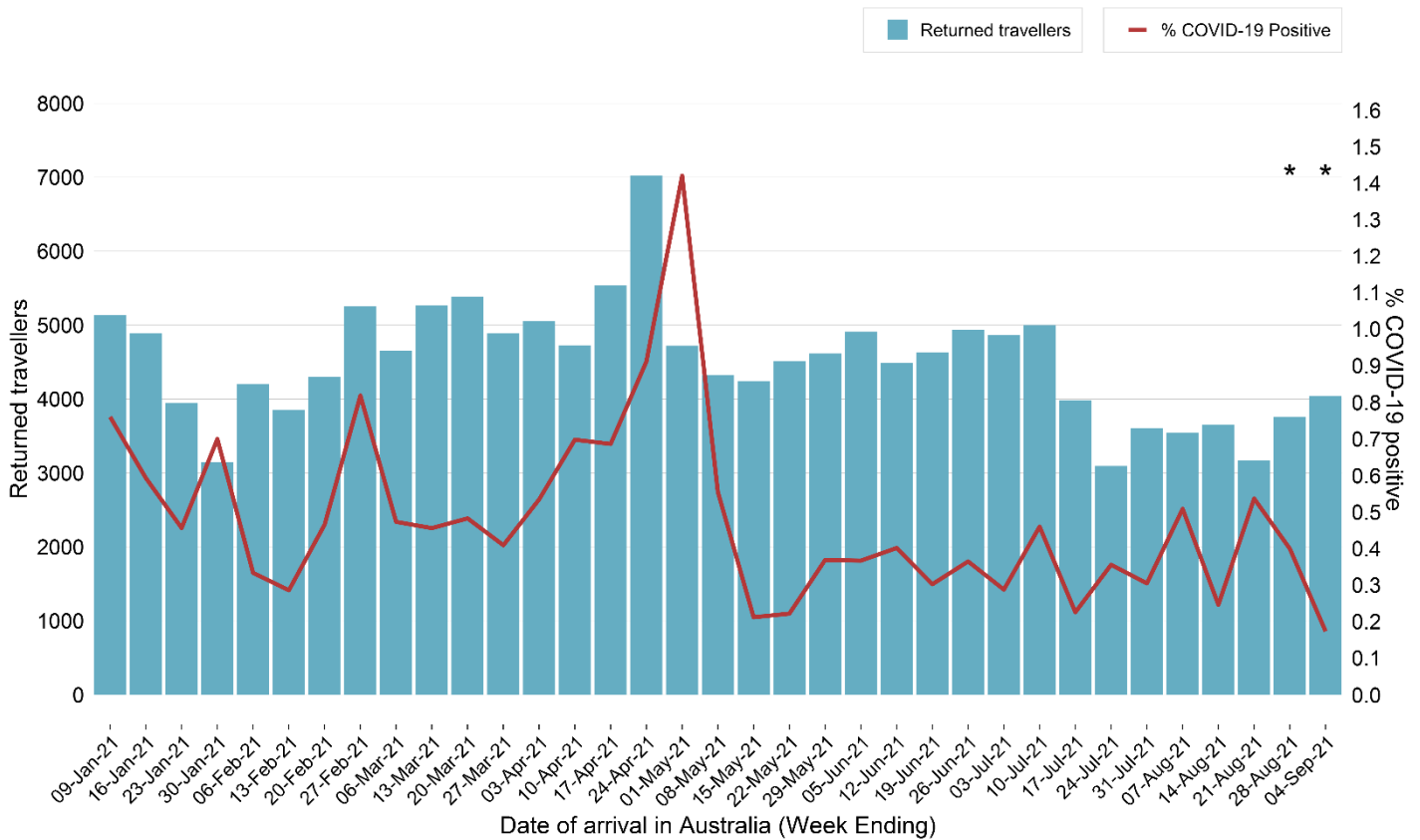
Section 10: COVID-19 in returned travellers

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 11. Returned travellers screened at Sydney International Airport by week of arrival and percent COVID-19 positive, NSW, 3 January 2021 to 04 September 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.

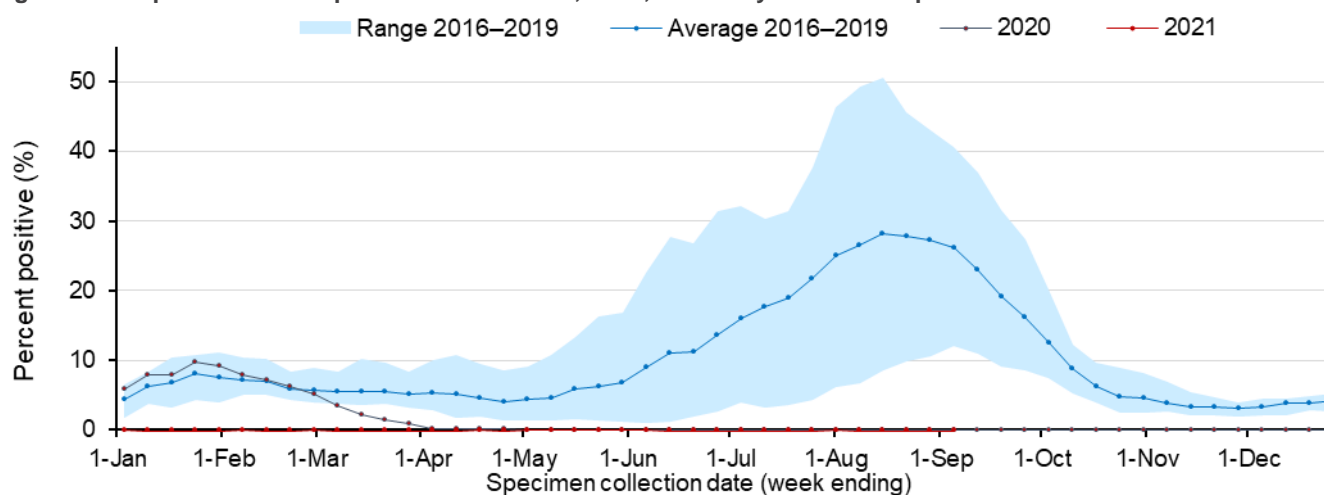
Interpretation: Since 3 January 2021, there has been on average 642 people screened on arrival through Sydney International Airport daily. In the last four weeks, 48 returned travellers have subsequently tested positive for COVID-19 while completing quarantine. The proportion of returned travellers who 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 12. Proportion of tests positive for influenza, NSW, 1 January 2016 to 5 September 2021

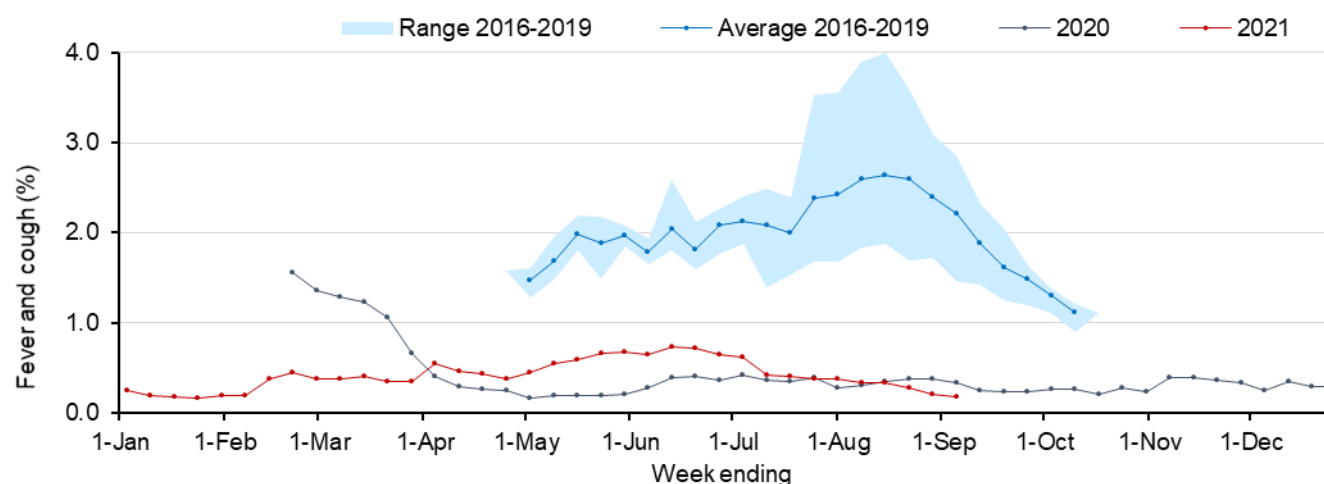


Interpretation: In the week ending 5 September, the percent of influenza tests that were positive continued to be very low (<0.01%), indicating limited influenza transmission in the community. Since early March 2020, this percentage has remained far lower than the usual range for the time of year. There 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 13. Proportion of FluTracker participants reporting influenza-like illness, NSW, 1 January 2016 to 5 September 2021



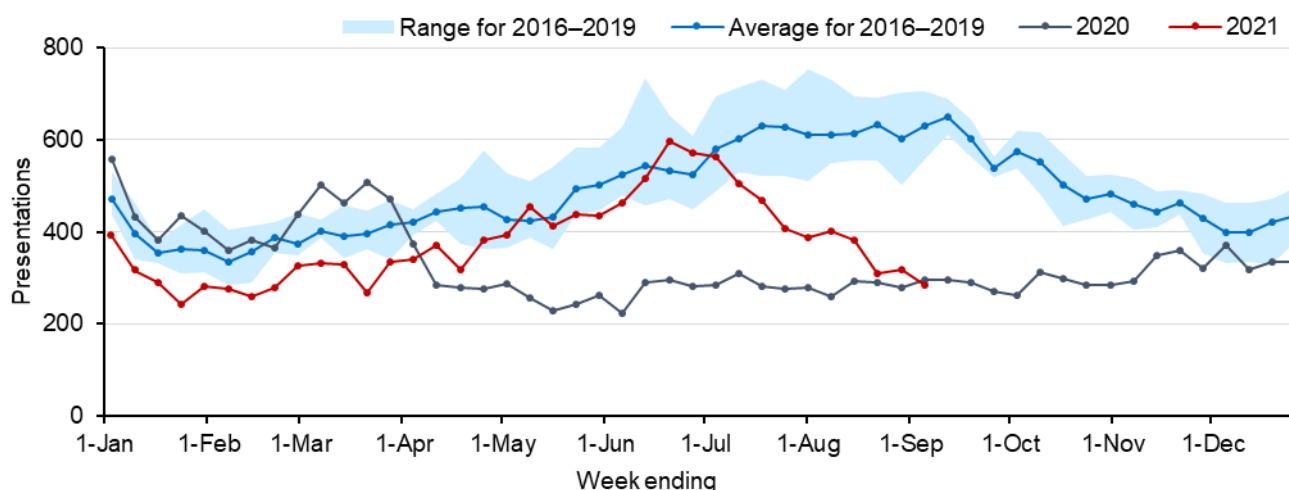
Interpretation: In NSW in the week ending 5 September 2021, of the 23,485 people surveyed, 43 people (0.18%) reported flu-like symptoms. In the last four weeks, 59% (140/239) of new cases of flu-like illness reported having a COVID-19 test. The proportion of people with flu-like symptoms being tested 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.

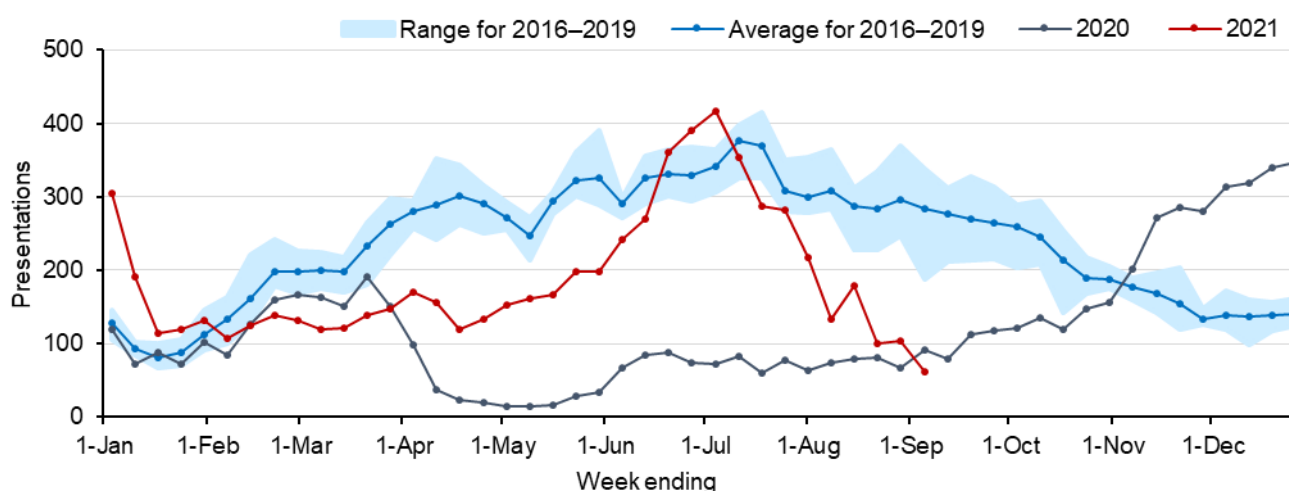
The figures below show weekly pneumonia and bronchiolitis presentations to Emergency Departments in NSW, using PHREDSS⁴. The red line shows the weekly counts for 2021, the dark blue line showing counts for 2020, the light blue line showing the average for 2016 to 2019 and the shaded area showing the range recorded for 2016 to 2019.

Figure 14. Emergency Department pneumonia presentations, NSW, 1 January 2016 to 5 September 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 5 September, pneumonia presentations remain significantly below the seasonal range for this time of year.

Figure 15. Emergency Department bronchiolitis presentations, NSW, 1 January 2016 to 5 September 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 5 September remain below the seasonal range for this time of year.

⁴ 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	
		04-Sep		28-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		
Central Coast	<i>LHD Total</i>	27466	77.84	24142	68.42	467806	1325.74
	Balranald	107	45.77	74	31.65	1451	620.62
	Broken Hill	808	46.23	1689	96.63	18173	1039.70
Far West	Central Darling	342	185.97	479	260.47	2405	1307.78
	Wentworth	124	17.58	158	22.40	5601	794.13
	<i>LHD Total</i>	1381	45.81	2400	79.62	27630	916.60
	Armidale Regional	706	22.94	687	22.32	30999	1007.15
	Cessnock	2312	38.54	1803	30.06	41980	699.84
	Dungog	222	23.56	242	25.68	6694	710.39
	Glen Innes Severn	149	16.80	152	17.13	5017	565.55
	Gunnedah	328	25.87	231	18.22	9097	717.37
	Gwydir	86	16.07	85	15.88	2163	404.07
	Inverell	230	13.62	328	19.42	11316	669.98
	Lake Macquarie	9656	46.90	10356	50.30	264204	1283.16
	Liverpool Plains	128	16.20	209	26.45	5375	680.12
	Maitland	4689	55.06	5187	60.90	123365	1448.52
Hunter New England	Mid-Coast	1622	17.29	2093	22.30	60498	644.72
	Moree Plains	459	34.61	416	31.37	10182	767.82
	Muswellbrook	263	16.06	284	17.34	11448	699.03
	Narrabri	188	14.31	217	16.52	6845	521.13
	Newcastle	7267	43.89	7918	47.82	242230	1463.00
	Port Stephens	4146	56.42	2552	34.73	74594	1015.15
	Singleton	810	34.53	845	36.02	23656	1008.31
	Tamworth Regional	2249	35.96	2237	35.77	62207	994.66
	Tenterfield	165	25.02	127	19.26	2885	437.52
	Upper Hunter Shire	265	18.69	290	20.45	10340	729.20
	Uralla	130	21.62	121	20.13	3853	640.88
	Walcha	63	20.10	68	21.70	2561	817.17
	<i>LHD Total</i>	36056	37.86	36418	38.24	1010876	1061.42
Illawarra Shoalhaven	Kiama	1083	46.31	1013	43.32	29014	1240.66
	Shellharbour	7079	96.66	5099	69.63	101474	1385.63
	Shoalhaven	4397	41.62	2742	25.95	92280	873.47
	Wollongong	15928	73.03	15574	71.40	290483	1331.79
	<i>LHD Total</i>	28487	67.89	24428	58.22	513251	1223.15
Mid North Coast	Bellingen	202	15.54	262	20.16	9727	748.46
	Coffs Harbour	1100	14.23	1477	19.11	52748	682.58
	Kempsey	859	28.88	1400	47.07	23774	799.26
	Nambucca	262	13.23	430	21.71	11997	605.76
	Port Macquarie-Hastings	1837	21.73	2117	25.05	66494	786.68
	<i>LHD Total</i>	4260	18.88	5686	25.20	164740	730.02
Murrumbidgee	Albury	1346	24.76	1510	27.78	45213	831.84
	Berrigan	172	19.66	194	22.17	4004	457.60
	Bland	346	57.94	238	39.85	3849	644.51
	Carrathool	32	11.43	150	53.59	1047	374.06

		Week ending				Total since January 2021	
		04-Sep		28-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	142	32.71	291	67.04	3321	765.03
	Cootamundra-Gundagai Regional	219	19.49	277	24.66	7999	711.97
	Edward River	241	26.53	308	33.91	5508	606.34
	Federation	288	23.16	332	26.69	7565	608.27
	Greater Hume Shire	279	25.92	358	33.26	8529	792.36
	Griffith	469	17.35	571	21.13	20942	774.80
	Hay	106	35.94	67	22.72	1358	460.50
	Hilltops	405	21.65	527	28.18	13635	728.99
	Junee	144	21.55	144	21.55	3680	550.65
	Lachlan ¹	159	26.17	446	73.42	3112	512.26
	Leeton	200	17.47	217	18.96	6438	562.52
	Lockhart	104	31.66	120	36.53	2199	669.41
	Murray River	143	11.80	112	9.24	2027	167.27
	<i>LHD Total²</i>	72	18.38	77	19.66	1996	509.57
	Narrandera	112	18.99	107	18.14	2600	440.75
	Snowy Valleys	284	19.61	314	21.69	9323	643.90
	Temora	237	37.58	517	81.97	3481	551.93
	Wagga Wagga	1975	30.26	2356	36.10	65608	1005.36
	<i>LHD Total²</i>	7347	24.65	9064	30.40	221459	742.88
	Nepean Blue Mountains	Blue Mountains	8966	113.32	7048	89.08	127831
Hawkesbury		13797	205.02	12261	182.20	123373	1833.29
Lithgow		852	39.44	1893	87.62	16913	782.83
Penrith		43098	202.36	42678	200.39	443831	2083.94
<i>LHD Total²</i>		65846	168.41	62938	160.97	703459	1799.18
Northern NSW	Ballina	637	14.27	974	21.82	47330	1060.54
	Byron	745	21.24	747	21.29	40789	1162.71
	Clarence Valley	762	14.75	970	18.78	29178	564.79
	Kyogle	111	12.62	133	15.12	4534	515.46
	Lismore	767	17.55	916	20.96	38832	888.77
	Richmond Valley	760	32.39	766	32.64	19388	826.25
	Tenterfield	165	25.02	127	19.26	2885	437.52
	Tweed	1802	18.58	2090	21.55	65747	677.80
	<i>LHD Total²</i>	5681	18.30	6629	21.36	246483	794.18
Northern Sydney	Hornsby	9834	64.67	8777	57.72	195509	1285.74
	Hunters Hill	2688	179.44	2665	177.90	46872	3128.97
	Ku-ring-gai	7316	57.54	7441	58.52	238392	1874.84
	Lane Cove	4705	117.17	4464	111.17	118819	2959.01
	Mosman	1465	47.29	1472	47.51	48330	1559.99
	North Sydney	3847	51.28	3155	42.05	94892	1264.87
	Northern Beaches	22044	80.60	17212	62.93	601688	2199.96
	Parramatta ¹	33952	132.01	36347	141.32	418522	1627.24
	Ryde	16285	124.06	15998	121.87	236417	1800.98
	Willoughby	3574	44.02	3233	39.82	95819	1180.20
	<i>LHD Total²</i>	75919	79.42	68645	71.81	1744941	1825.41

		Week ending				Total since January 2021	
		04-Sep		28-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	29954	167.91	31279	175.33	318224	1783.81
	Georges River	22589	141.65	24190	151.69	281497	1765.19
	Randwick	18073	116.11	17920	115.13	331845	2132.01
	Sutherland Shire	22169	96.13	19893	86.26	383802	1664.28
	Sydney ¹	26697	108.37	23318	94.66	487844	1980.34
	Waverley	6612	89.00	6150	82.78	181067	2437.14
	Woollahra	5223	87.95	4336	73.01	141999	2391.08
	<i>LHD Total²</i>	113058	117.88	110923	115.65	1807168	1884.23
South Western Sydney	Camden	18697	184.32	18424	181.63	241267	2378.49
	Campbelltown	32778	191.75	32945	192.73	368395	2155.08
	Canterbury-Bankstown ¹	82842	219.21	93931	248.55	987164	2612.12
	Fairfield	45988	217.24	49789	235.19	560700	2648.62
	Liverpool	48762	214.26	50988	224.04	537281	2360.79
	Wingecarribee	2801	54.78	2504	48.97	69447	1358.14
	Wollondilly	5238	98.55	5089	95.75	67254	1265.39
	<i>LHD Total²</i>	197853	190.51	208387	200.65	2334038	2247.44
Southern NSW	Bega Valley	708	20.54	810	23.49	22671	657.59
	Eurobodalla	553	14.37	657	17.08	31456	817.61
	Goulburn Mulwaree	1060	34.05	1175	37.74	29341	942.47
	Queanbeyan-Palerang Regional	1582	25.89	2245	36.74	41663	681.88
	Snowy Monaro Regional	574	27.60	585	28.13	16321	784.85
	Upper Lachlan Shire	173	21.47	202	25.07	6219	771.68
	Yass Valley	271	15.86	578	33.83	10207	597.35
	<i>LHD Total²</i>	4926	22.69	6260	28.84	157979	727.78
Sydney	Burwood	5550	136.66	5867	144.46	59942	1475.97
	Canada Bay	9770	101.69	9469	98.56	168490	1753.75
	Canterbury-Bankstown ¹	82842	219.21	93931	248.55	987164	2612.12
	Inner West	18711	93.18	18019	89.73	364501	1815.14
	Strathfield	12570	267.87	13753	293.08	123052	2622.26
	Sydney ²	26697	108.37	23318	94.66	487844	1980.34
	<i>LHD Total²</i>	102452	147.04	106703	153.14	1514851	2174.10
Western NSW	Bathurst Regional	4740	108.67	6267	143.68	54951	1259.82
	Blayney	842	114.11	588	79.69	9104	1233.77
	Bogan	197	76.36	135	52.33	2427	940.70
	Bourke	504	194.59	556	214.67	3836	1481.08
	Brewarrina	368	228.43	273	169.46	1622	1006.83
	Cabonne	493	36.16	617	45.25	9805	719.16
	Cobar	177	38.00	279	59.90	3230	693.43
	Coonamble	137	34.61	389	98.28	3182	803.94
	Cowra	375	29.43	350	27.47	8517	668.37
	Dubbo Regional	11239	209.22	15445	287.51	102795	1913.57
	Forbes	456	46.03	695	70.16	6878	694.33
	Gilgandra	231	54.49	408	96.25	4014	946.92
	Lachlan ¹	159	26.17	446	73.42	3112	512.26
	Mid-Western Regional	1619	64.12	1567	62.06	30223	1196.90

		Week ending				Total since January 2021	
		04-Sep		28-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
	Narromine	896	137.49	762	116.92	7776	1193.19
	Oberon	203	37.52	209	38.63	4016	742.19
	Orange	3895	91.75	6840	161.13	66405	1564.27
	Parkes	959	64.64	1583	106.69	13167	887.44
	Walgett	190	31.92	385	64.67	4781	803.12
	Warren	388	143.86	551	204.30	5291	1961.81
	Warrumbungle Shire	278	29.96	351	37.83	7395	797.05
	Weddin	82	22.70	115	31.83	2152	595.63
	<i>LHD Total²</i>	28402	99.65	38536	135.21	353668	1240.89
Western Sydney	Blacktown	78568	209.82	80248	214.31	800324	2137.33
	Cumberland	71289	295.17	79926	330.93	656796	2719.42
	Parramatta ¹	33952	132.01	36347	141.32	418522	1627.24
	The Hills Shire	23177	130.23	22847	128.38	370601	2082.39
	<i>LHD Total²</i>	205373	194.96	217946	206.89	2204599	2092.77
NSW Total³		924635	114.30	948850	117.29	9892994	1222.89

Source - Notifiable Condition Information Management System, accessed as at 8pm 06 Sep 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 5 September 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 2020–5 September 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	1,586,777	4	<0.01%	10	<0.01%	7,041	18,437	17,417	55,660	4,964	6,299
Month ending											
31 January*	168,596	1	<0.01%	0	-	416	88	3,275	3,541	23	560
28 February	125,718	2	<0.01%	0	-	419	106	2,386	8,667	22	910
28 March	95,458	0	-	0	-	507	354	1,909	8,891	18	1,187
2 May*	112,962	0	-	3	<0.01%	802	1,515	1,653	8,141	48	1,128
30 May	131,316	0	-	6	<0.01%	946	3,129	1,491	8,982	78	843
27 June	243,351	1	< 0.01%	0	-	1,551	7,104	2,794	9,915	635	811
26 July	530,698	0	-	0	-	1,463	4,603	3,014	5,089	1,991	587
Week ending											
1 August	24,651	0	-	1	<0.01%	227	411	317	591	395	75
8 August	36,453	0	-	0	-	199	361	210	457	494	49
15 August	45,226	0	-	0	-	169	326	165	507	511	61
22 August	29,858	0	-	0	-	160	263	105	454	389	52
29 August	20,769	0	-	0	-	110	135	49	232	239	19
5 September	23,216	0	-	0	-	84	45	51	203	124	17

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

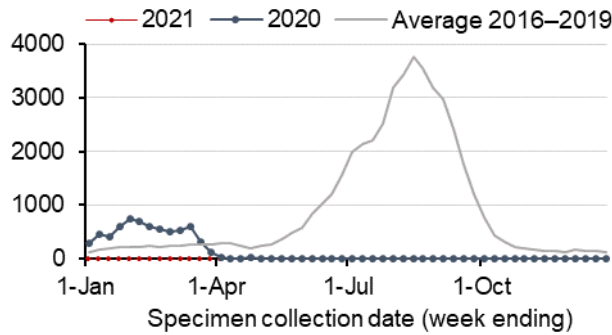
RSV - Respiratory syncytial virus

*Five-week period

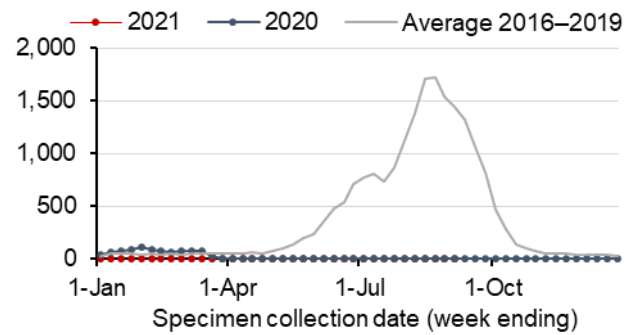
Appendix C: Number of positive PCR test results for influenza and other respiratory viruses at sentinel NSW laboratories, January 2020 to 5 September 2021

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

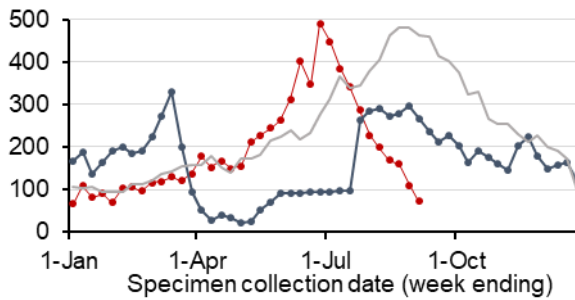
Influenza A



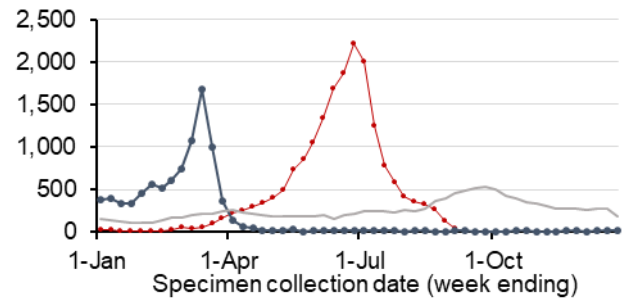
Influenza B



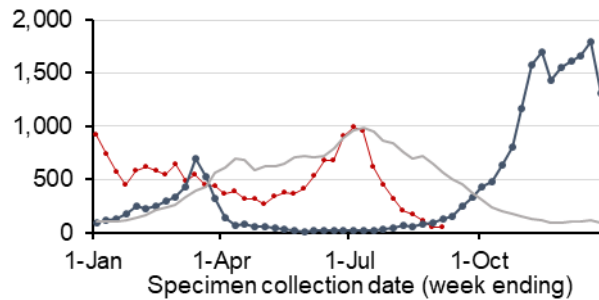
Adenovirus



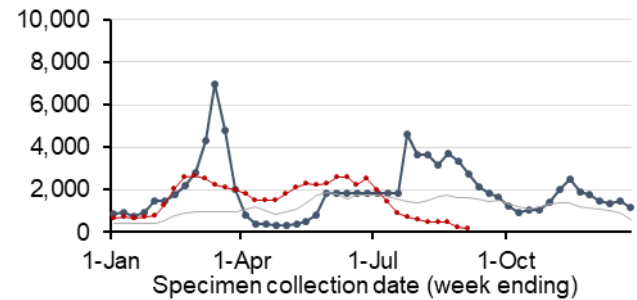
Parainfluenza



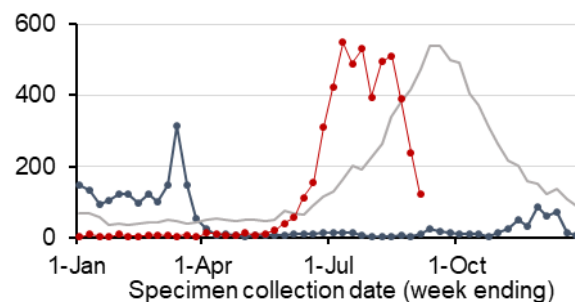
Respiratory Syncytial Virus



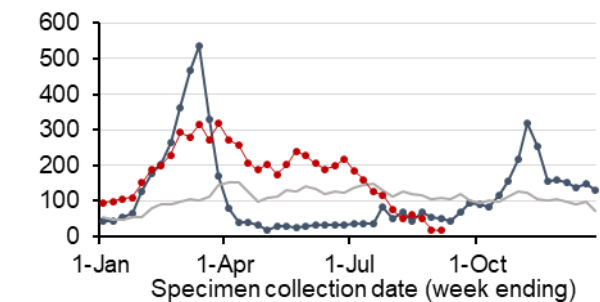
Rhinovirus



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.