

COVID-19 WEEKLY SURVEILLANCE IN NSW

EPIDEMIOLOGICAL WEEK 37, ENDING 18 September 2021

Published 28 September 2021

Overview

Table 1. Number and proportion of COVID-19 cases in NSW by likely source of infection to week ending 18 September 2021

	2020		2021		Total
	Jan – Jun	Jul – Dec	01 Jan – 15 Jun	16 Jun – 18 Sep	
Locally acquired	1,236 (39 %)	807 (52 %)	51 (7 %)	46,250 (99 %)	48,344 (93 %)
Interstate acquired	67 (2 %)	23 (1 %)	0 (0 %)	8 (<1 %)	98 (<1 %)
Overseas acquired	1,892 (59 %)	714 (46 %)	641 (93 %)	207 (<1 %)	3,454 (7 %)
Total	3,195 (100 %)	1,544 (100 %)	692 (100 %)	46,465 (100 %)	51,896 (100 %)
Deaths	51	5	0	245	301

Summary for the week 12 September to 18 September 2021 (inclusive)

- There were 8,717 locally acquired cases reported in the week ending 18 September 2021. The three LGAs with the highest number of cases were:
 - Canterbury-Bankstown LGA with 1,498 (17%) cases
 - Cumberland LGA with 947 (11%) cases
 - Blacktown LGA with 904 (10%) cases
 - 5,368 (62%) cases were residents across 70 other LGAs
- There were 18 cases reported in overseas returned travellers in the last week (up 100%).
- There were 64 deaths in people diagnosed with COVID reported this week.
- In the past week 7.1% of locally acquired cases were fully vaccinated. This compares with around 40.8% of the NSW population aged 16 and over who had been fully vaccinated (that is, had completed their recommended vaccine schedule by 4 September) by 18 September (52.6% had received 2 doses and 82.2% had received one dose by this date).
- Testing rates decreased compared to the previous week (down 8%), 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 18 September, 237 sewage samples were tested for fragments of SARS-CoV-2. Of these, there were 93 detections. Detections occurring with no known or recent cases in the catchment occurred in South Kempsey, Cowra, Dareton, Ballina, Byron Bay, Eden, Griffith, Balranald, Wardell, Uralla, Karuah, Dungog, Young, Coffs Harbour, Gunnedah, Narooma, Inverell, Bermagui, Glen Innes, Trangie, Yass and Wauchope. Cases were identified in Coffs Harbour, Cowra, Glen Innes, Gunnedah, Narooma, South Kempsey, Yass and Young following sewage detections in recent weeks.

Indicators of effective prevention for COVID-19 in NSW for the week ending 18 September 2021

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

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

Table 2. Measures of public health action, NSW, for the period from 05 September to 18 September 2021

	Week ending 18 Sep	Week ending 11 Sep
Proportion locally acquired cases notified to NSW Health by the laboratory within 1 day of specimen collection	69% (6,037/8,717)	68% (6,504/9,624)
Locally acquired cases contacted by text message within 1 day of notification to NSW Health	90% (7,874/8,717)	87% (8,341/9,624)
Locally acquired cases fully interviewed by public health staff within 1 day of notification to NSW Health	48% (4,164/8,717)	32% (3,125/9,624)

Interpretation: In the week ending 18 September, 69% of cases were notified to NSW Health within a day of test, 48% of cases were fully interviewed within one day of notification and 90% of cases were sent a text message to advise of their positive result, provide isolation requirements and to identify high risk exposure settings.

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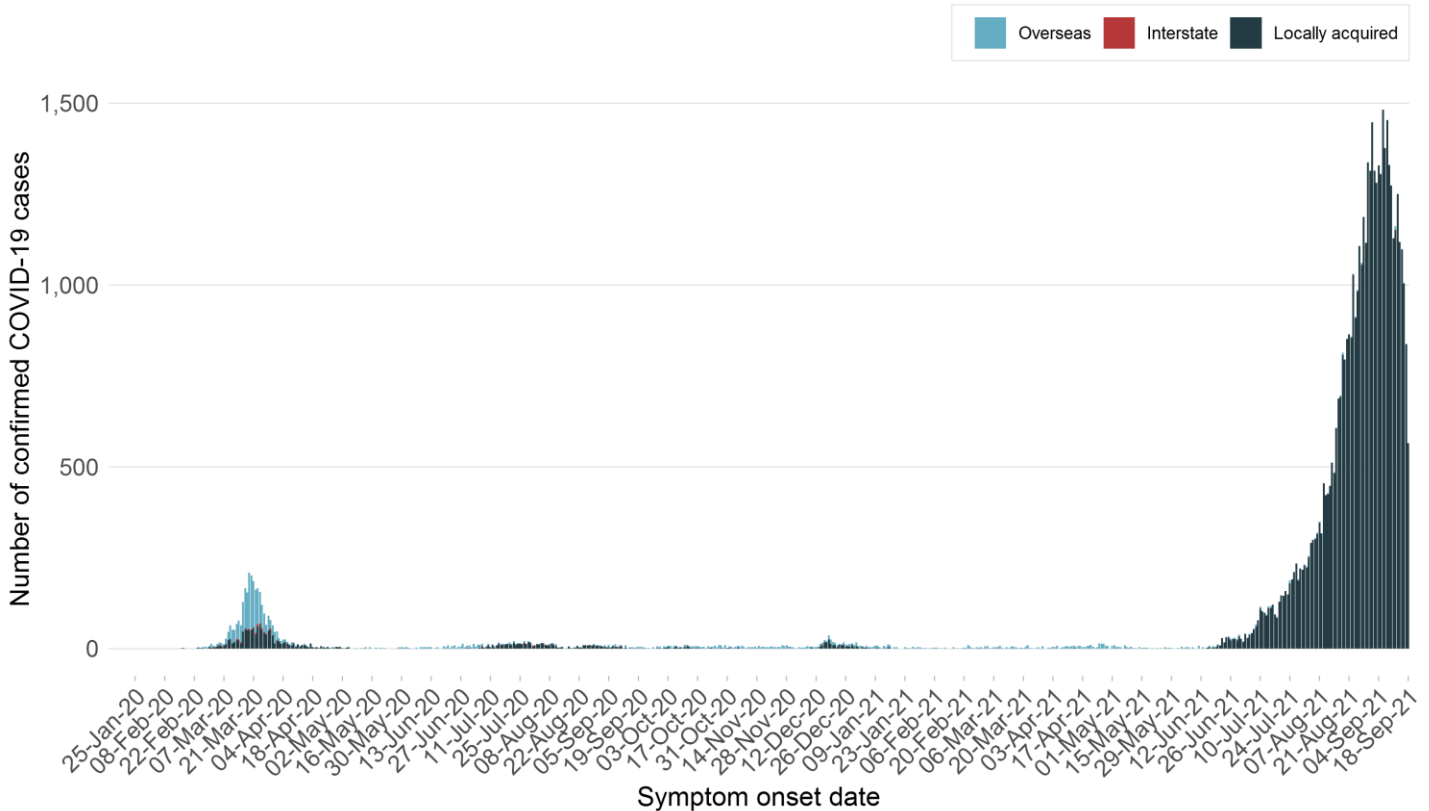
COVID-19 Vaccination program

- 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 13 January 2020 to 18 September 2021



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

Interpretation: Between 13 January 2020 and 18 September 2021, there were 51,896 confirmed COVID-19 cases in NSW. Of those, 3,454 (7%) were overseas acquired, 98 (<1%) were interstate acquired, and 48,344 (93%) were locally acquired. Cases who tested positive by 18 September are included, but are plotted by earliest symptom onset date. As cases may develop symptoms prior to being notified the number of cases with symptom onset on a particular day will generally be lower than the number of cases on that same day.

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, 22 August to 18 September 2021

Local Health District	Week ending				Total	Days since last case reported
	18 Sep	11 Sep	04 Sep	28 Aug		
South Western Sydney	2,824	3,168	3,031	2,080	11,103	0
Western Sydney	2,229	2,783	3,066	2,597	10,675	0
Sydney	1,068	1,225	955	600	3,848	0
South Eastern Sydney	1,059	922	606	341	2,928	0
Nepean Blue Mountains	428	528	541	441	1,938	0
Illawarra Shoalhaven	320	209	82	41	652	0
Northern Sydney	227	212	179	150	768	0
Central Coast	137	165	47	15	364	0
Hunter New England	143	61	48	19	271	0
Western NSW	96	176	272	254	798	0
Southern NSW	49	10	2	0	61	0
Far West	40	49	34	51	174	0
Murrumbidgee	8	0	0	0	8	0
Mid North Coast	4	0	0	0	4	0
Northern NSW	2	0	0	0	2	1
Correctional settings	64	108	103	44	319	0
NSW*	8,717	9,624	8,977	6,636	33,954	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 8,717 locally acquired cases reported in the week ending 18 September 2021. The largest proportion of cases were residents of South Western Sydney LHD (2,824, 32%) followed by Western Sydney LHD (2,229, 26%), and Sydney LHD (1,068, 12%). Correctional settings include all cases residing in NSW correctional facilities.

Section 3: Epidemiology of local cases with COVID-19 from 16 June 2021 to 18 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.

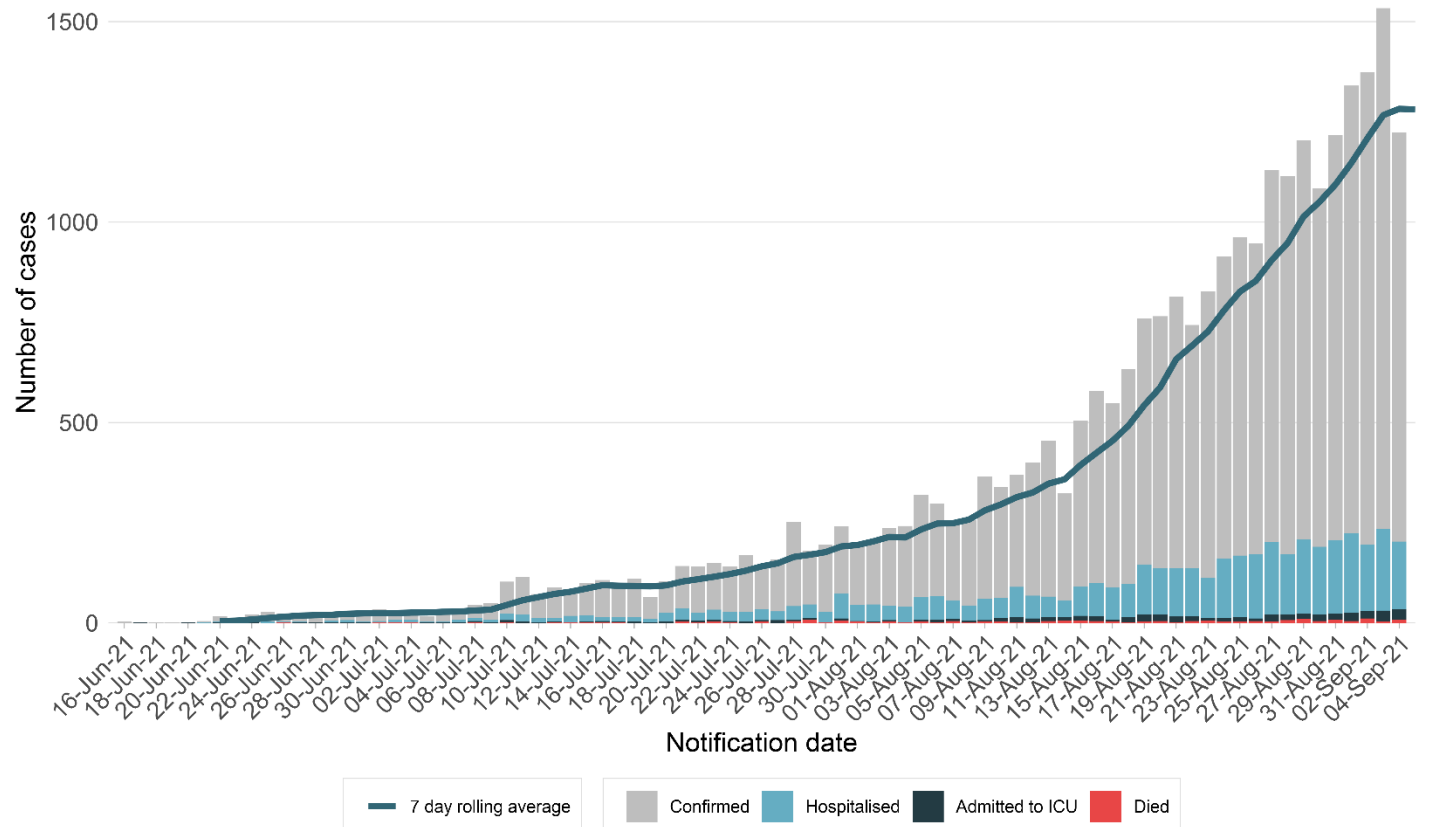
Table 4. COVID-19 cases and tests reported, NSW, from 1 January 2021 to 18 September 2021

	Week ending 18 Sep	Week ending 11 Sep	% change	Total 2021
Number of cases	8,737	9,633	-9 %	47,157
Locally acquired	8,717	9,624	-9 %	46,301
Known epidemiological links to other cases or clusters	1,505	1,773	-15 %	15,527
No epidemiological links to other cases or clusters	7,212	7,851	-8 %	30,774
Overseas acquired	18	9	100 %	848
Interstate acquired	2	0	-	8
Number of tests	875,733	964,605	-9 %	12,481,300

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

Interpretation: Almost all cases reported in the last two weeks in NSW were locally acquired (18,341/18,370 cases, or 99.8%). Of the 8,737 locally acquired cases reported in the week ending 18 September 2021, 70% 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 04 September 2021



Interpretation: This graph shows the number of COVID-19 cases notified each day to NSW Health, as of 4 September and their outcome. 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 becoming ill with COVID-19 and when they may require hospitalisation (currently, a median of 5 days) or between becoming ill and dying (currently, a median of 11 days), data is provided to 04 September, allowing sufficient time to capture the development of severe illness or death among the most recently notified cases.

Local Government Areas

Table 5a. Top 20 metropolitan LGAs of residence, ordered by locally acquired COVID-19 cases in the last 7 days, per 100,000 population rate, NSW, 16 June to 18 September 2021

LGA name	Last 7 days		Current NSW outbreak (16 Jun-18 Sep 2021)	
	Cases	Cases per 100,000 population	Cases	Cases per 100,000 population
Canterbury-Bankstown	1,498	396	8,725	2,309
Cumberland	947	392	7,309	3,026
Liverpool	885	389	3,990	1,753
Blacktown	904	241	5,034	1,344
Randwick	312	200	827	531
Fairfield	418	197	3,596	1,699
Campbelltown	335	196	1,610	942
Camden	190	187	698	688
Sydney	400	162	1,310	532
Penrith	318	149	2,290	1,075
Burwood	55	135	241	593
Georges River	211	132	924	579
Hawkesbury	89	132	325	483
Shellharbour	97	132	203	277
Bayside	226	127	972	545
Parramatta	244	95	1,559	606
Strathfield	40	85	311	663
Wollongong	186	85	423	194
Hunters Hill	12	80	52	347
Canada Bay	69	72	282	294

Table 5b. Top 20 regional and rural LGAs of residence, ordered by locally acquired COVID-19 cases in the last 7 days, per 100,000 population rate, NSW, 16 June to 18 September 2021

LGA name	Last 7 days		Current NSW outbreak (16 Jun-18 Sep 2021)	
	Cases	Cases per 100,000 population	Cases	Cases per 100,000 population
Central Darling	20	1,088	140	7,613
Bourke	6	232	94	3,629
Walgett	13	218	29	487
Broken Hill	20	114	56	320
Warren	3	111	19	704
Dubbo Regional	54	101	744	1,385
Yass Valley	12	70	12	70
Eurobodalla	15	39	18	47
Bathurst Regional	14	32	54	124
Newcastle	49	30	143	86
Hilltops	5	27	5	27
Goulburn Mulwaree	8	26	13	42
Lake Macquarie	47	23	117	57
Maitland	20	23	74	87
Queanbeyan-Palerang Regional	13	21	19	31
Singleton	4	17	11	47
Port Stephens	11	15	62	84
Blayney	1	14	6	81
Cessnock	8	13	13	22
Glen Innes Severn	1	11	1	11

Interpretation: The top 20 metropolitan LGAs contributed 85% of all cases in the week ending 18 September. The highest case rates per 100,000 population is in a rural and regional area and is associated with known clusters in the 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 18 September 2021

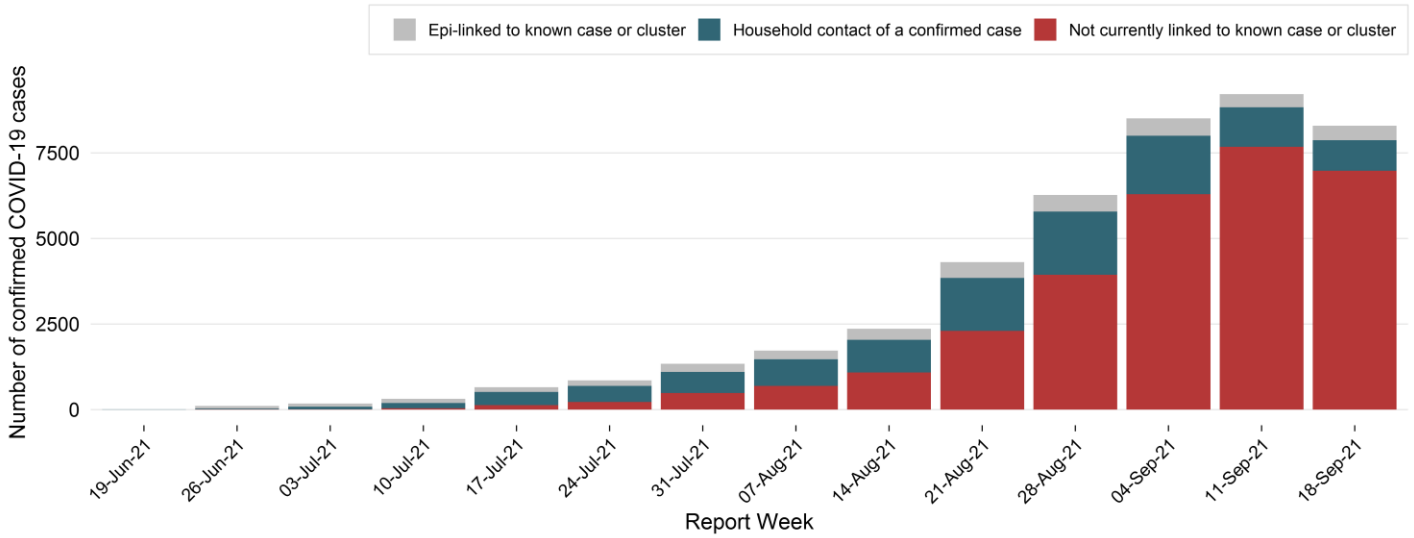
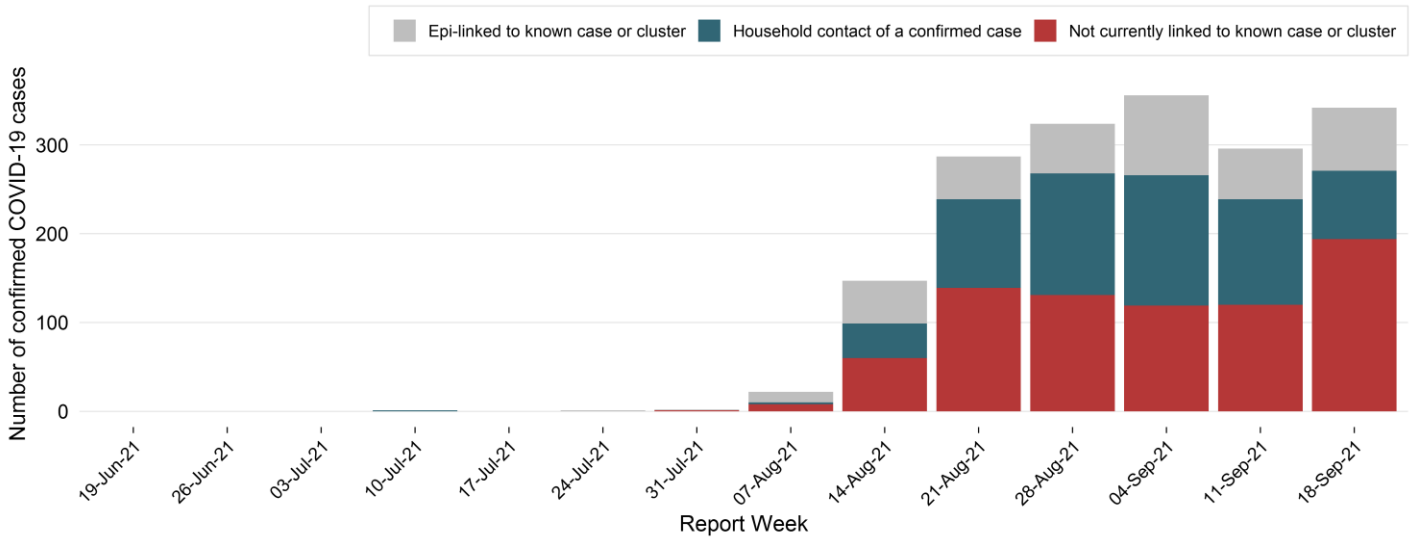


Figure 3b. Source of infection for locally acquired cases, rural and regional LHDs, from 16 June to 18 September 2021



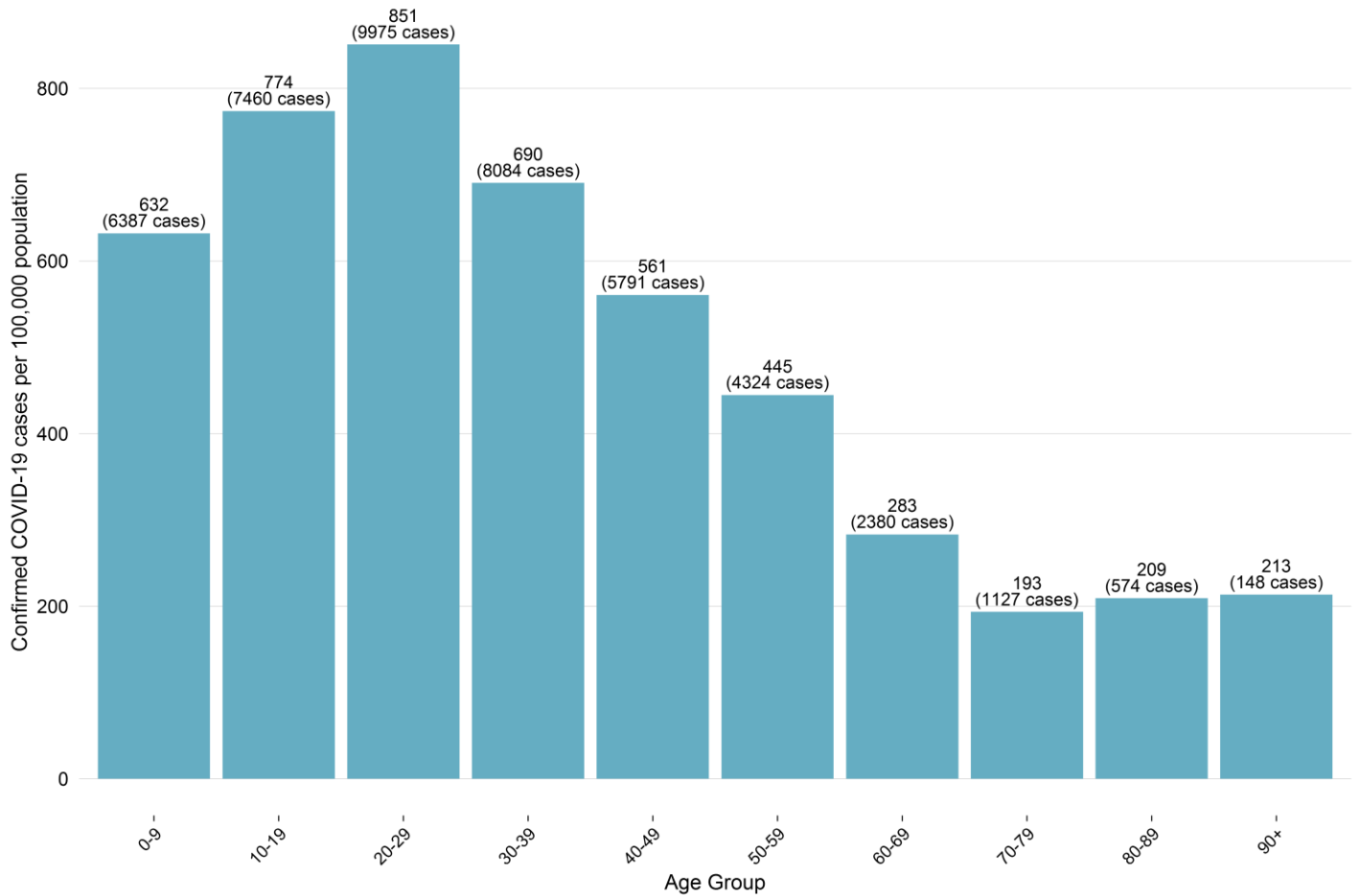
Note: This graph does not include cases in Justice Health and correctional facilities and those for whom LHD was not available at the time of data extraction. Metropolitan LHDs include: Central Coast LHD, Illawarra Shoalhaven LHD, Nepean Blue Mountains LHD, Northern Sydney LHD, South Eastern Sydney LHD, South Western Sydney LHD, Sydney LHD and Western Sydney LHD. Regional LHDs include: Far West LHD, Hunter New England LHD, Mid North Coast LHD, Murrumbidgee LHD, Northern NSW LHD, Southern NSW LHD and Western NSW LHD

Interpretation: In the week ending 18 September, cases decreased by 10% in metropolitan LHDs (8,292 compared to 9,212 the previous week), and increased by 15% in rural and regional LHDs (342 compared to 296 the previous week). Of the 8,292 cases reported this week in metropolitan LHDs, 891 (11%) were household contacts, 428 (5%) were epidemiologically linked but not household contacts and 6,973 (84%) were not currently linked to a case or cluster. There were 342 cases reported this week in rural and regional LHDs. Of these 77 (23%) are household contacts, 71 (21%) are epidemiologically linked but not household contacts and 194 (57%) have not currently been linked to a case or cluster.

Age breakdown of locally acquired cases, NSW, from 16 June - 18 September 2021

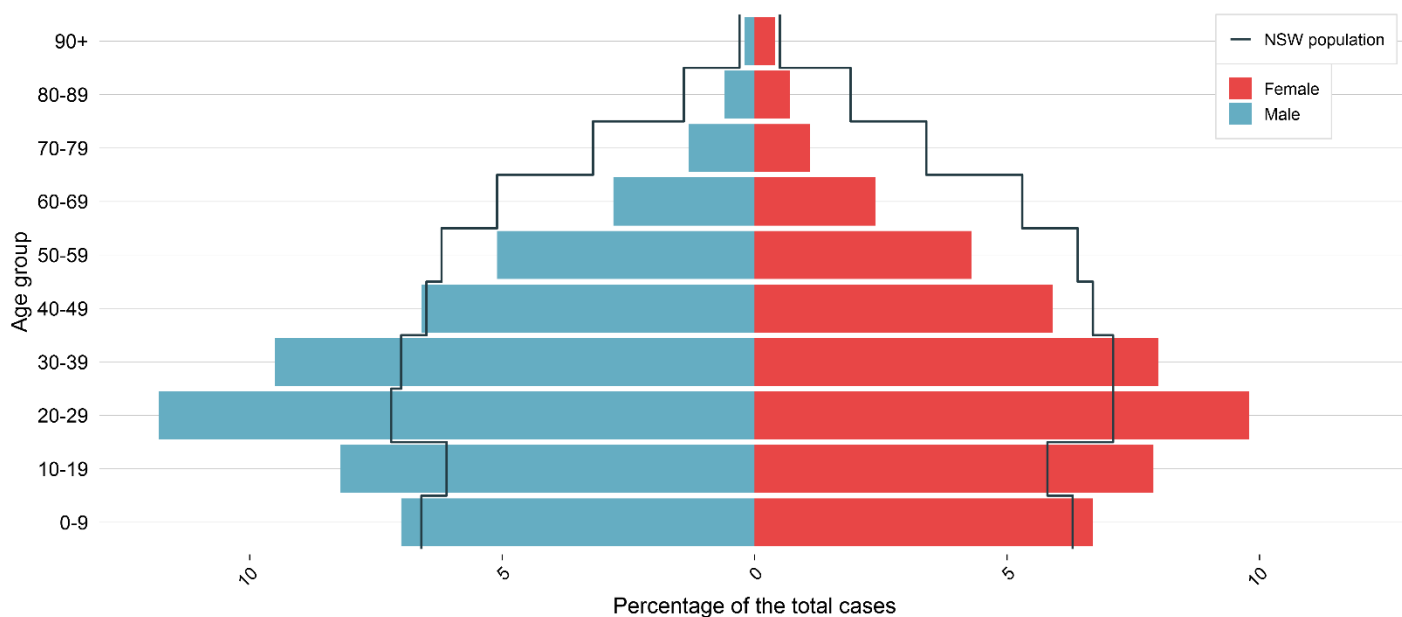
The median age of cases between 1 January 2020 and 15 June 2021 was 37 years (interquartile range (IQR) = 25-55 years). By contrast, between 16 June and 18 September 2021, there have been 46,250 locally acquired cases. The median age was 29 years (IQR = 17-44 years).

Figure 4. Rates of COVID-19 infection by age group, current outbreak, NSW, from 16 June 2021 to 18 September 2021



Interpretation: The age group with the highest rates of people diagnosed with COVID-19 is those aged 20-29 years (9,975 cases, or 851 per 100,000 people) followed by those aged 10-19 years (7,460 cases, or 774 per 100,000 people).

Figure 5. Current wave locally acquired case percentage (n = 46,090) by age and gender, NSW, from 16 June to 18 September 2021



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

Interpretation: In the current outbreak from 16 June 2021, people aged under 40 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.

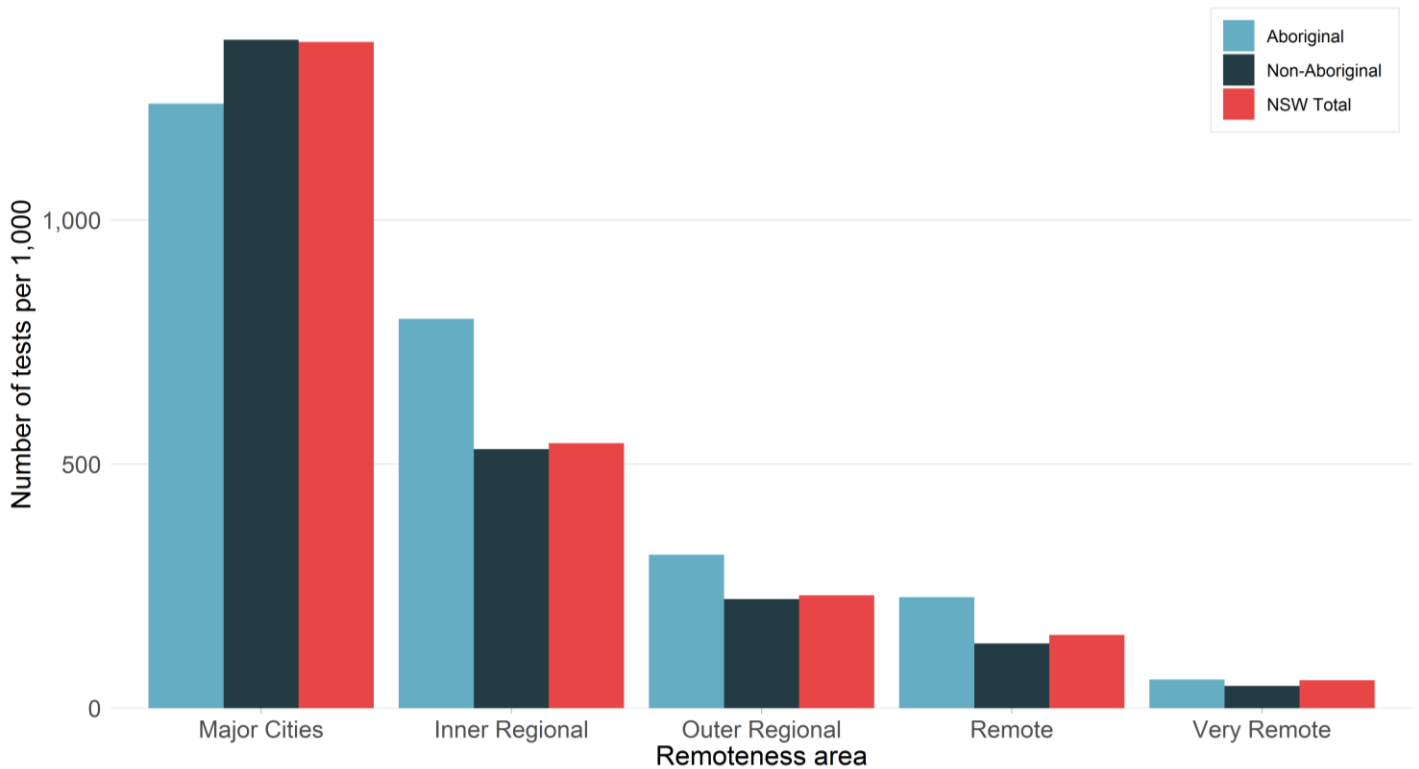
Section 4: COVID-19 in specific populations

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 454 locally acquired cases of COVID-19 reported in Aboriginal people in the week ending 18 September 2021. Of the 454 cases, 14 were fully vaccinated (see Section 5 for a full description of vaccination status). In total there have been 2,094 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 4 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 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 18 September, 61 pregnant women were diagnosed with COVID-19. Since January 2020, 501 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. Ten 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 64 confirmed cases residing in correctional settings in the week ending 18 September. Since 16 June 2021, 329 people residing in correctional settings have been diagnosed with COVID-19 in NSW. Eight (2.4%) 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 18 September, there were 72 healthcare workers diagnosed with COVID-19. Of these, 3 (4%) were potentially infected in a healthcare setting, 10 (14%) were social or household contacts of previously reported cases and 59 (82%) are currently not linked. Thirty-five (49%) cases were fully vaccinated and 7 (10%) were partially vaccinated.

In total there have been 688 cases of COVID-19 in health care workers since August 2020. Of these, 112 were potentially infected in healthcare settings. A further 174 cases were linked to social or household contacts, and for 402 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-18 Sep 2021)		
	Number of HCWs	Fully vaccinated	Partially vaccinated	Number of HCWs	Fully vaccinated	Partially vaccinated
Healthcare acquired	3	2 (67%)	0 (0%)	87	32 (37%)	7 (8%)
Community acquired	10	3 (30%)	2 (20%)	157	51 (32%)	13 (8%)
Not currently linked	59	30 (51%)	5 (8%)	384	133 (35%)	32 (8%)
Total	72	35 (49%)	7 (10%)	628	216 (34%)	52 (8%)

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 (541/628, 86%). Of the 628 healthcare workers that have been diagnosed with COVID-19 in the current outbreak, 216 (34%) have been fully vaccinated and 52 (8%) have been partially vaccinated.

Aged care workers

There were 35 locally acquired cases in aged care workers in the week ending 18 September 2021. Seven cases acquired their infection while working in an aged care facility, seven cases were social or household contacts of a known case and for 21 cases the source of infection is under investigation. Five of the seven cases who acquired their infection at work were fully vaccinated.

Since 16 June 2021, there have been 222 cases reported in aged care workers. Of these, 39 (18%) people have reported being vaccinated with one effective dose, and 63 (28%) were 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-18 Sep 2021)		
	Number of ACWs	Fully vaccinated	Partially Vaccinated	Number of ACWs	Fully vaccinated	Partially Vaccinated
Acquired at aged care facility	7	5 (71%)	1 (14%)	41	9 (22%)	10 (24%)
Community acquired	7	5 (71%)	2 (29%)	70	21 (30%)	8 (11%)
Not currently linked	21	10 (48%)	4 (19%)	111	33 (30%)	21 (19%)
Total	35	20 (57%)	7 (20%)	222	63 (28%)	39 (18%)

Interpretation: In the week ending 18 September there were 35 aged care workers diagnosed with COVID-19. Of these, 7 (20%) were infected in an aged care facility, 7 (20%) were social or household contacts of previously reported cases and 21 (60%) 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. All the vaccines being administered in Australia, and most from overseas, recommend a two-dose course.

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

- Cases reported as **fully vaccinated** completed the recommended vaccine course at least 14 days prior to known exposure to COVID-19 or arrival in Australia.
- Cases reported as **partially vaccinated** (one effective dose):
 - received their first dose of a two-dose vaccination course at least 21 days prior to known exposure to COVID-19 or arrival in Australia, or
 - received their second dose of a two-dose vaccination course less than 14 days prior to known exposure to COVID-19 or arrival in Australia, or
 - received a single-dose vaccination course (currently only Johnson & Johnson vaccine) less than 14 days prior to known exposure to COVID-19 or arrival in Australia.
- Cases reported as **no effective dose**:
 - received their first dose of a two-dose vaccination course less than 21 days prior to known exposure to COVID-19 or arrival in Australia, or
 - have not received any vaccine dose.

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

Table 8. Locally acquired COVID-19 cases by vaccination status and week reported, NSW, 1 March to 18 September 2021

Vaccination Status	Week ending				01 Mar to 21 Aug 2021	Total from 1 Mar 2021
	18 Sep 21	11 Sep 21	04 Sep 21	28 Aug 21		
Fully Vaccinated	620 (7.1%)	573 (6%)	365 (4.1%)	161 (2.4%)	322 (2.6%)	2,041 (4.4%)
Partially Vaccinated	952 (10.9%)	762 (7.9%)	492 (5.5%)	283 (4.3%)	398 (3.2%)	2,887 (6.2%)
No effective dose	3,641 (41.8%)	5,161 (53.6%)	5,720 (63.7%)	5,439 (82%)	10,744 (87.3%)	30,705 (66.4%)
Under investigation*	3,504 (40.2%)	3,128 (32.5%)	2,400 (26.7%)	753 (11.3%)	841 (6.8%)	10,626 (23%)
Total	8,717	9,624	8,977	6,636	12,305	46,259

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

Interpretation: In the past week 7.1% of locally acquired cases were fully vaccinated. This compares with around 40.8% of the NSW population aged 16 and over who had been fully vaccinated (that is, had completed their recommended vaccine schedule by 4 September).

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 6,990 people hospitalised with COVID-19 in the current outbreak, 756 (11%) people were in ICU. Of these, 504 (66.7%) had not received an effective dose, and 36 (4.8%) were partially vaccinated. There were 13 (1.7%) fully vaccinated cases in ICU. For the remaining 203 (26.9%) people in ICU, vaccination status could not be determined, either through interview or searching the Australian Immunisation Register, suggesting they were unlikely to have been vaccinated in Australia.

Table 9. Hospitalisations, ICU admissions and deaths among people diagnosed with COVID-19, by vaccination status, NSW, from 16 June to 18 September 2021

Vaccination status	Hospitalised (%)	Hospitalised and in ICU (%)	Death (%)
Fully Vaccinated	277 (4.0%)	13 (1.7%)	28 (11.4%)
Partially vaccinated	364 (5.2%)	36 (4.8%)	25 (10.2%)
No effective dose	4,773 (68.3%)	504 (66.7%)	182 (74.3%)
Under investigation	1,576 (22.5%)	203 (26.9%)	10 (4.1%)
Total	6,990 (100.0%)	756 (100.0%)	245 (100.0%)

Interpretation: Of the 6,990 people hospitalised, 277 (4.0%) had received two effective doses, 364 (5.2%) had received one effective dose, and 6,349 (90.8%) had either received no effective doses or vaccination status has not yet been determined. The 28 deaths among people fully vaccinated were one person in their 50s, ten people in their 70s, eight people in their 80s and nine 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 18 September 2021

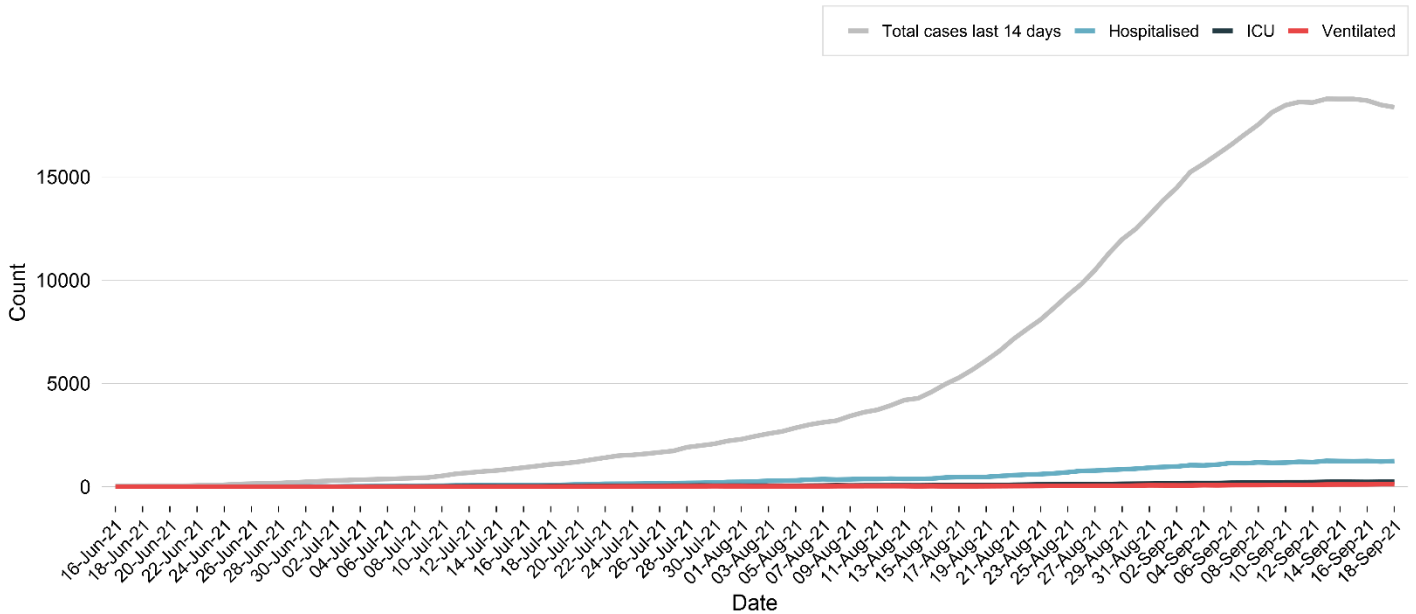
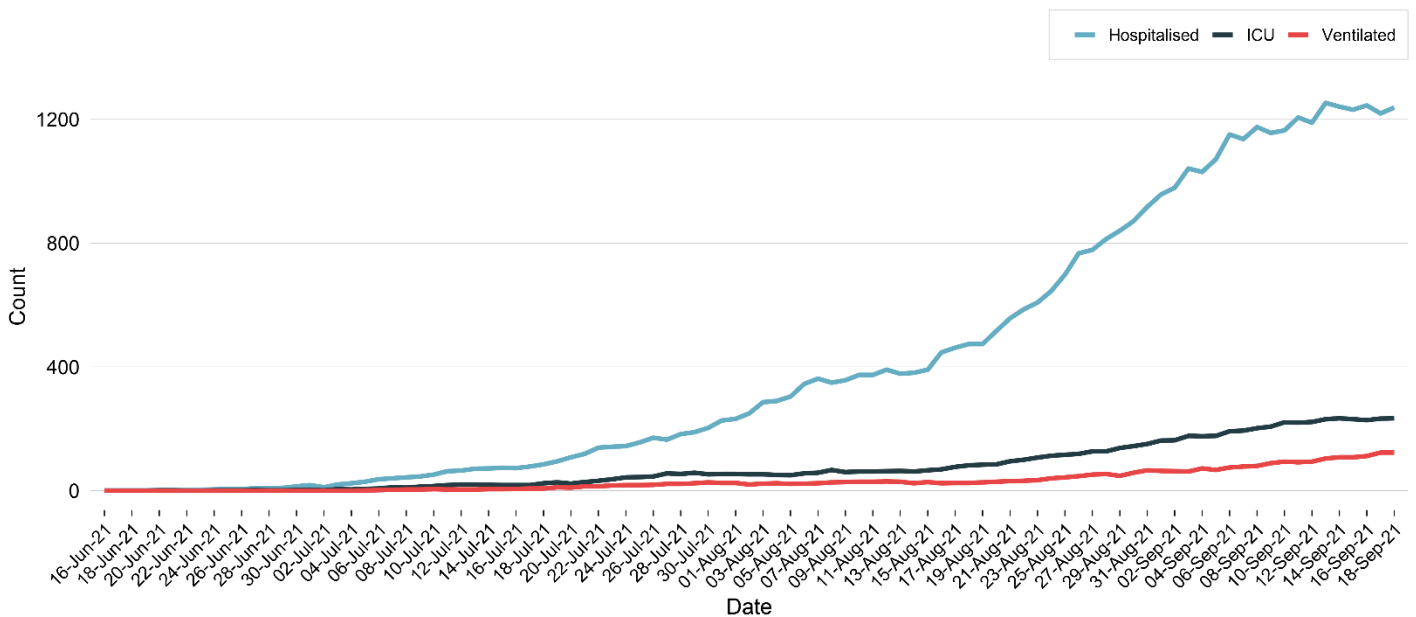


Figure 7b. Number of cases in hospital, in ICU and ventilated by date, NSW, from 16 June to 18 September 2021



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 total number of COVID-19 cases in the last 14 days, the number currently hospitalised, the number in ICU and the 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 cases. Additionally, people may require hospitalisation for long periods of time therefore reporting the number of cases hospitalised on any given date does not reflect the true proportion that will require hospitalisation. Currently there is a median delay of 5 days between a person becoming ill with COVID-19 and being admitted to hospital, and 11 days between becoming ill and dying.

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

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

In the week ending 18 September 2021, of the 8,717 locally acquired cases, there were 761 people who had a diagnosis of COVID-19 who were also admitted to a hospital ward, and 51 of those were admitted to ICU. In total, there have been 6,907 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	314	5%	31.1	320	5%
10-19	420	6%	43.6	431	6%
20-29	1,098	11%	93.7	1,133	10%
30-39	1,205	15%	102.9	1,256	14%
40-49	1,125	19%	108.9	1,177	18%
50-59	1,036	24%	106.6	1,118	22%
60-69	754	32%	89.7	875	29%
70-79	511	45%	87.7	605	40%
80-89	354	62%	129.1	407	58%
90+	90	61%	129.8	106	56%
Total	6,907	15%	85.4	7,428	14%

Interpretation: The highest number of cases hospitalised are aged 30-39 years (1205, 15%), followed by those aged 40-49 years (1125, 19%). In NSW, cases aged 90 years and over have the highest rate of hospitalisation (129.8 per 100,000 people), closely followed by those aged 80-89 years (129.1 per 100,000 people).

How many people with a COVID-19 diagnosis admitted to 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	21	<1%	2.2	22	<1%
20-29	60	1%	5.1	64	1%
30-39	92	1%	7.9	107	1%
40-49	124	2%	12.0	136	2%
50-59	185	4%	19.0	213	4%
60-69	150	6%	17.8	193	6%
70-79	92	8%	15.8	125	8%
80-89	25	4%	9.1	38	5%
90+	0	0%	0.0	0	0%
Total	754	2%	9.3	903	2%

Interpretation: The highest number of cases in ICU are aged 50-59 years (185, 4%). The highest rate of admission to ICU is for those aged 50-59 years (185 cases, 19.0 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 to be observed.

Since the start of the pandemic, 1% of cases (301 people) have died following a recent infection with COVID-19, most of whom were 80 years of age or older, including 50 residents of aged care facilities with known COVID-19 outbreaks. Approximately 5% (14/301) of the deaths were in overseas acquired cases.

There were 64 deaths in people diagnosed with COVID-19 reported this week including 6 people who were fully vaccinated, 9 people who were partially vaccinated, 48 who were unvaccinated, and one person whose status is still under investigation (see Section 5 for the definitions of vaccination status).

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	5	<1%	0.4	5	<1%
30-39	8	<1%	0.7	8	<1%
40-49	11	<1%	1.1	11	<1%
50-59	23	1%	2.4	24	<1%
60-69	35	1%	4.2	40	1%
70-79	58	5%	10.0	73	5%
80-89	76	13%	27.7	97	14%
90+	26	18%	37.5	42	22%
Total	243	1%	3.0	301	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.

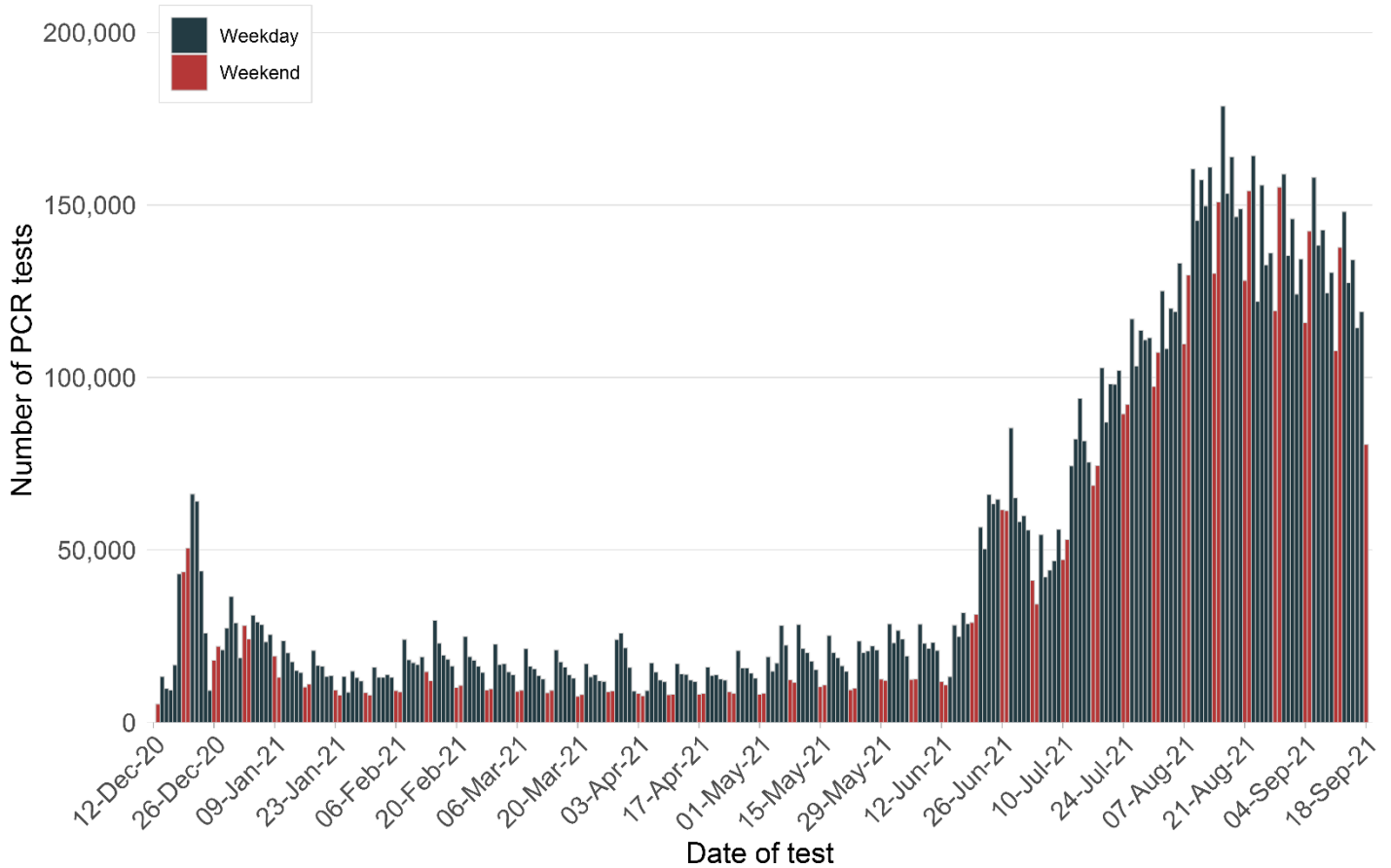
² There is often a delay between a person becoming ill with COVID-19 and subsequently requiring a hospitalisation or dying. In the current outbreak the median time between onset and hospitalisation is 5 days and between onset and death is 11 days. Therefore hospitalisations and deaths are under-reported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

Figure 8. Number of negative PCR tests per day, NSW, 12 December 2020 to 18 September 2021



Interpretation: Testing numbers decreased in the week ending 18 September 2021 (down 8%) compared to the previous week. The average daily testing rate of 14.5 per 1,000 people in NSW each day decreased compared to the previous week of 15.7 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 and positivity rates by Local Health District

Figure 10a. Cases, testing rates per 1000 population, and percentage of tests which were positive for COVID-19, by LHD of residence, metropolitan LHDs, NSW, 16 June to 18 September 2021

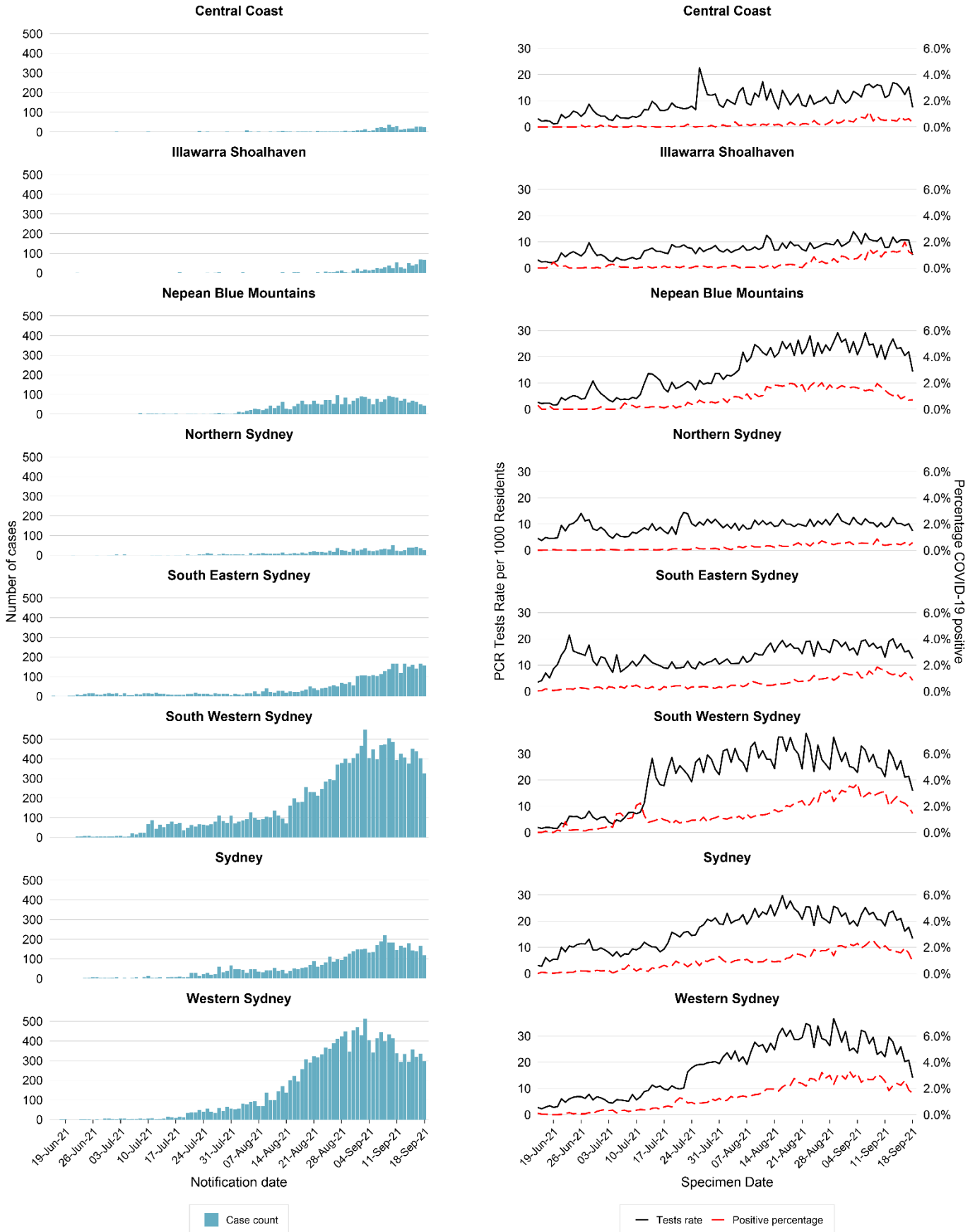
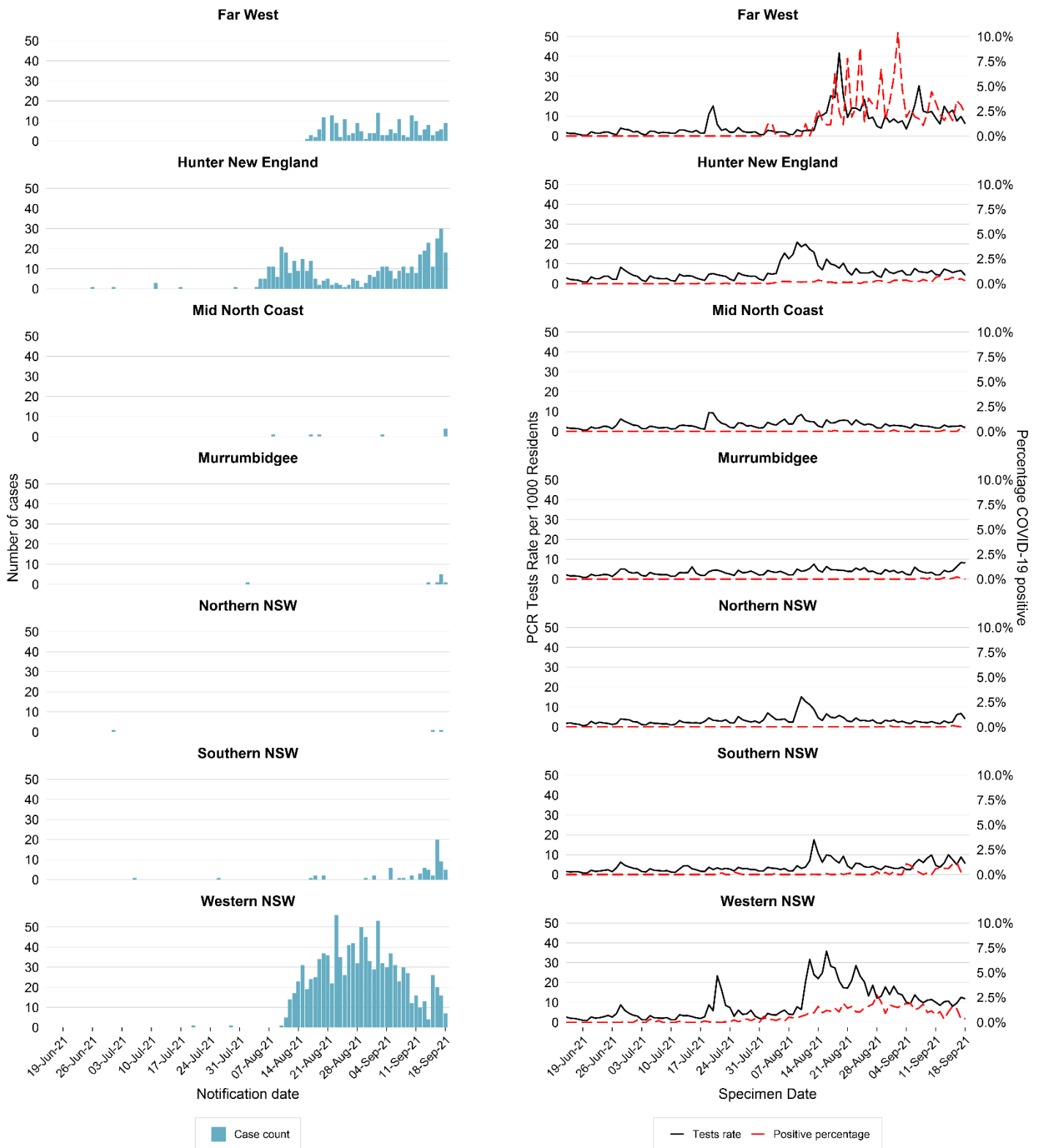


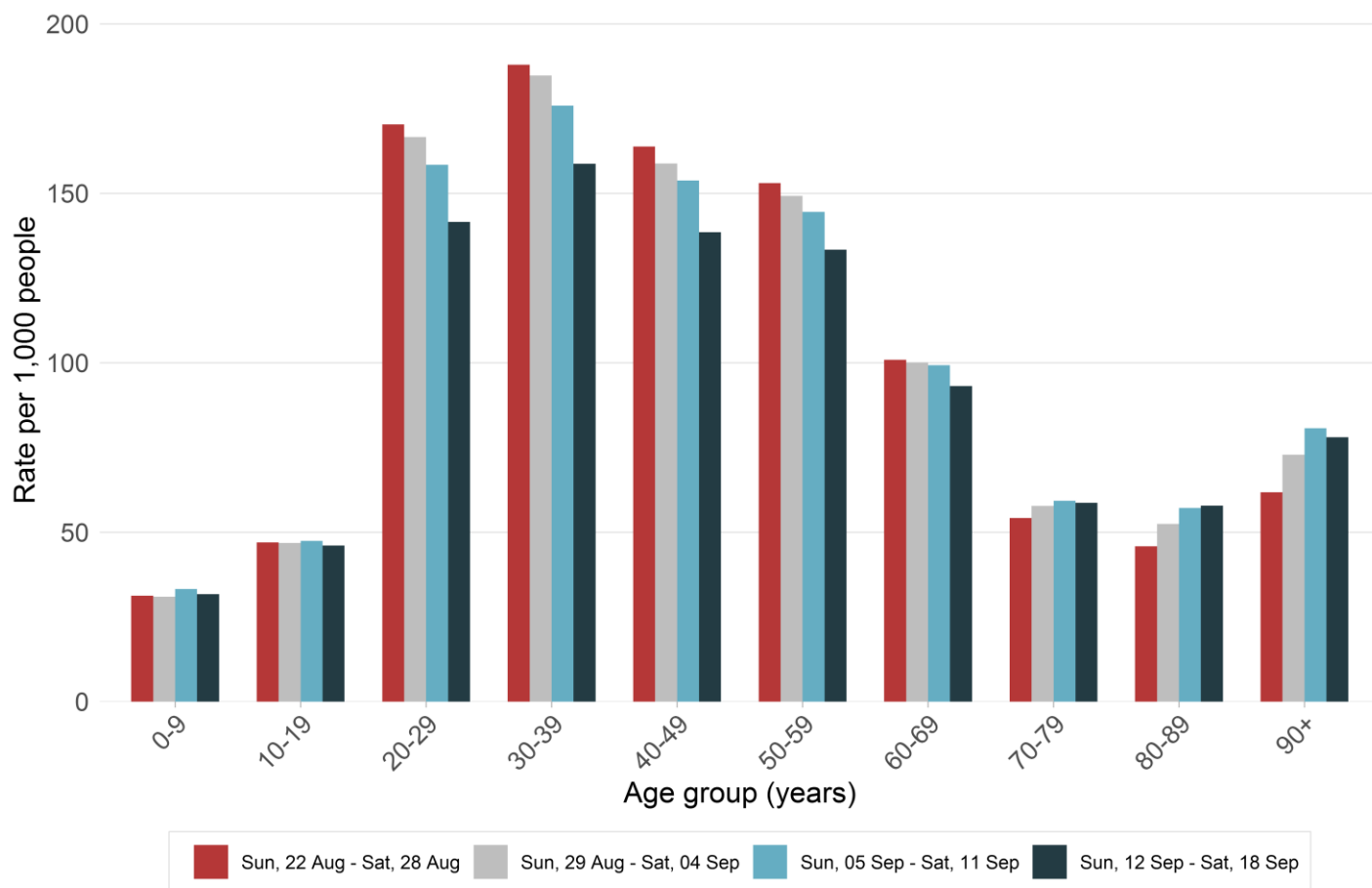
Figure 10b. Cases, testing rates per 1000 population, and percentage of tests which were positive for COVID-19, by LHD of residence, rural and regional LHDs, NSW, 16 June to 18 September 2021



Interpretation: The left panel shows the number of cases by notification date for each LHD, while the right panel shows the testing rate per 1,000 population (black line and left axis) and the percentage of tests which were positive (red line and right axis) for each LHD, from 16 June to 18 September 2021. Note that the axes differ between Figure 10a (metropolitan LHDs) and 10b (rural and regional LHDs). Percent positivity has generally been well below 3%, reflecting a high surveillance capacity and rapid case identification. Positivity generally follows the same trend as testing rates however where testing rates decrease and positivity remains stable or increases it may indicate higher number of cases in the community or be a result of more specific and targeted testing programs. Although case numbers in most regional LHDs are relatively small, because the population is also small, testing rates and positivity rates appear to show larger deviations than observed in some metropolitan LHDs.

Testing by age group

Figure 11. Rates of COVID-19 testing by age group and week, NSW, 22 August to 18 September 2021



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

Interpretation: In the week ending 18 September 2021, testing rates remained highest overall among those aged 20-59. All age groups 20-69 years of age showed a slight decrease in testing rates over the past month, while those aged 0-19 and those aged 70+ have remained stable or increased over that time.

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 18 September 2021

Variant	Week ending				29 Nov to 14 Aug	Total since 29 November
	18 Sep*	11 Sep*	04 Sep	28 Aug		
Total variants identified	39	709	796	992	5,851	8,387
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)	39	709	796	992	5,844	8,380

***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 18 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.

In the week ending 18 September, 237 sewage samples were tested for fragments of SARS-CoV-2. Of these, there were 93 detections:

- Detections outside Sydney

There were 84 detections outside Sydney taken from the sewage treatment plants at Albury (composite), Ballina, Balranald, Bateau Bay, Batemans Bay (2), Bathurst, Bermagui, Bomaderry, Bombo, Bourke, Bowral, Broken Hill (2), Broken Hill South (2), Byron Bay, Charmhaven, Coffs Harbour, Cooma, Cowra (2), Culburra Beach, Dareton, Dubbo, East Lismore, Eden, Forbes, Gerroa (2), Gilgandra, Glen Innes (2), Gosford – Kincumber, Goulburn, Griffith, Gunnedah, Gwandalan, Hunter - Boulder Bay, Burwood Beach, Dora Creek, Edgeworth, Karuah, Morpeth, Raymond Terrace, Shortland, Toronto, Cessnock, Dungog, Farley and Kurri Kurri, Inverell, Lightning Ridge, Mannering Park, Mittagong, Mudgee, Narooma, Narromine, Nowra, Nyngan, Orange, Port Macquarie (2), Queanbeyan, Shellharbour, Singleton, South Kempsey, South Lismore, St Georges Basin, Trangie, Uralla, Walgett, Wardell, Wauchope, Wilcannia, Woy Woy, Wyong – Toukley, Wyong South, Yass (3), and Young (3).

- Sydney detections

Results for Sydney sites may be delayed to prioritise analysis of regional sites. In Sydney there were detections from the sewage treatment plants at Brooklyn (2), Lithgow, McGraths Hill, South Windsor, Winmalee and Wollongong. There were also detections from the sewage networks and pumping stations at Bellambi and Port Kembla.

- Detections with no known cases

Detections from South Kempsey, Cowra, Dareton, Ballina, Byron Bay, Eden, Griffith, Balranald, Wardell, Uralla, Karuah, Dungog, Young, Coffs Harbour, Gunnedah, Narooma, Inverell, Bermagui, Glen Innes, Trangie, Yass and Wauchope occurred with no known or recent cases in the catchment. Subsequently, cases were identified in Coffs Harbour, Cowra, Glen Innes, Gunnedah, Narooma, South Kempsey, Yass and Young.

- Sampled sites with no detections

There were no detections in the following catchments: Alstonville, Armidale, Bangalow, Baradine, Bega, Bellingen, Blayney, Bonny Hills, Brewarrina, Buronga, Ocean Shores, Casino, Charlotte Pass, Cobar, Collarenebri, Condobolin, Coolah, Coolamon, Coonabarabran, Coonamble, Cootamundra, Coraki, Corowa, Crescent Head, Deniliquin, Dunbogan, Dunbogan, Dunedoo, Eden, Evans Head, Forster, Googong, Grafton, Gulgong, Gundagai, Guyra, Hallidays Point, Harden, Hay, Hunter – Branxton, Belmont, Dungog and Tanilba Bay, Jindabyne, Junee, Kyogle, Lake Cargelligo, Leeton, Lennox Head, Merimbula, Moama, Molong, Moree, Moruya, Moss Vale, Mullumbimby, Mulwala, Mungindi, Muswellbrook, Nambucca Heads, Narooma, Narrabri, Narrandera, Oberon, Parkes, Perisher, Quirindi, Scone, South West Rocks, Tamworth, Taree, Temora, Tenterfield, Thredbo, Trangie, Tumut, Tweed - Banora Point, Hastings Point, Kingscliff and Murwillumbah, Ulladulla, Vincentia, Wagga Wagga, Walcha, Warren, Wee Waa, Wentworth, West Kempsey, West Wyalong, Woodenbong, Woolgoolga and Yamba.

- New collection sites

The sewage treatment plants at Walcha, Collarenebri and Coolamon were added as new sites to the sewage surveillance program.

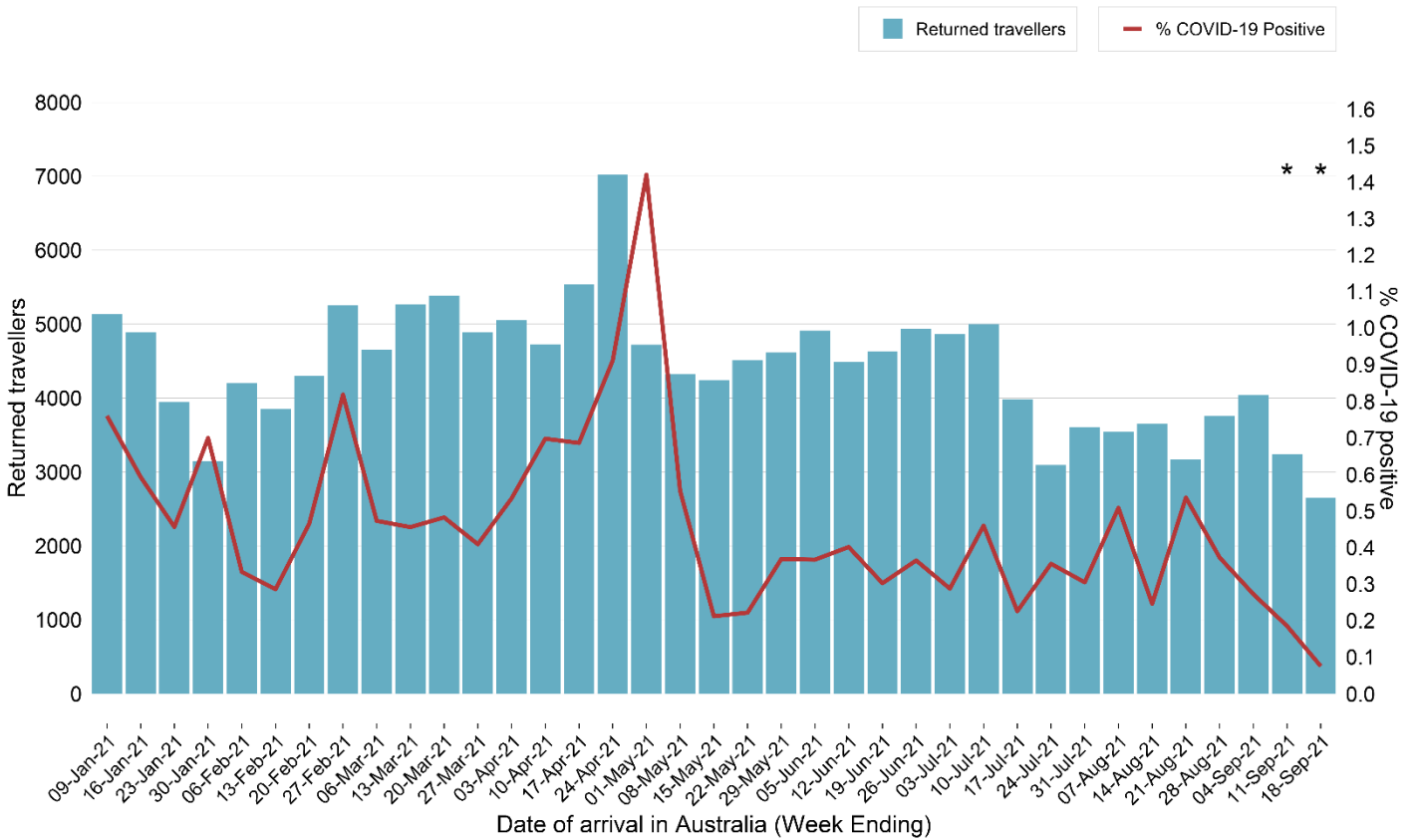
Section 10: COVID-19 in returned travellers

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 12. Returned travellers screened at Sydney International Airport by week of arrival and percent COVID-19 positive, NSW, 3 January 2021 to 18 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.

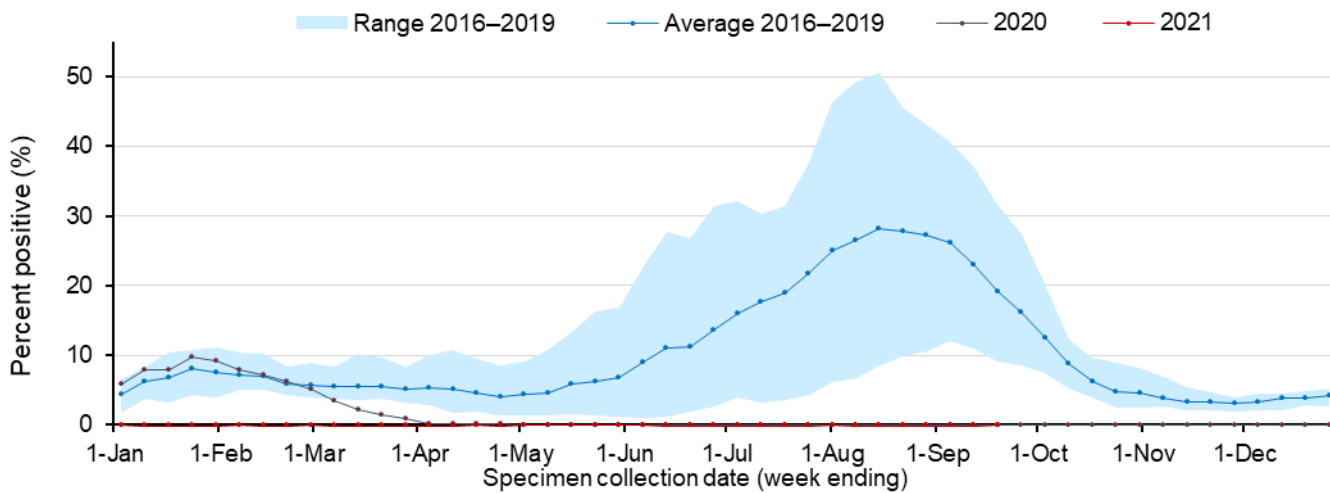
Interpretation: Since 3 January 2021, there has been on average 630 people screened on arrival through Sydney International Airport daily. In the last four weeks, 33 returned travellers have subsequently tested positive for COVID-19 while completing quarantine. The proportion of returned travellers who 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 13. Proportion of tests positive for influenza, NSW, 1 January 2016 to 19 September 2021

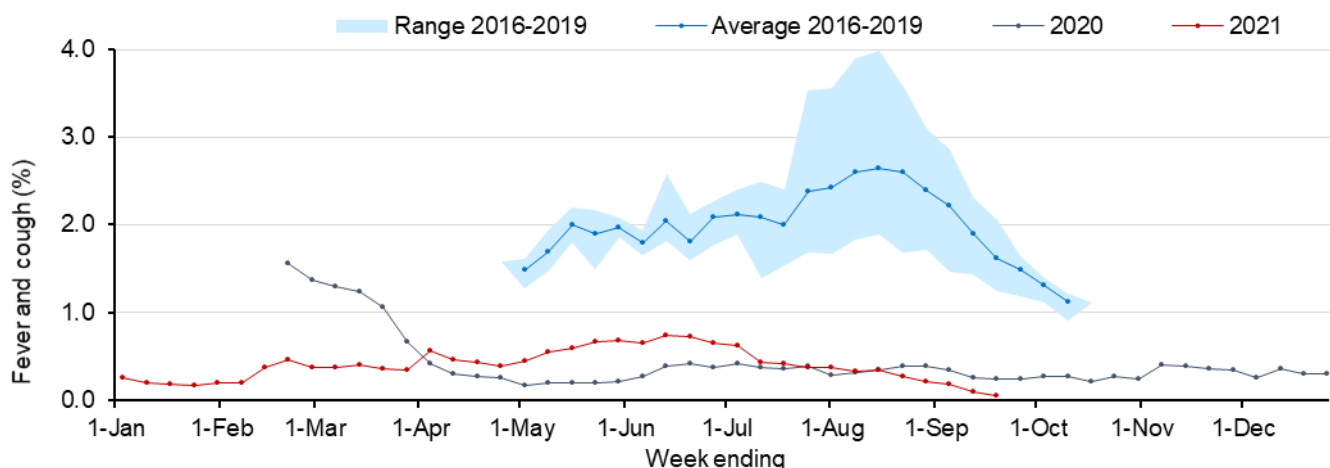


Interpretation: In the week ending 19 September, the percent of influenza tests that were positive continued to be very low (<0.01%), indicating limited influenza transmission in the community. Since early March 2020, this percentage has remained far lower than the usual range for the time of year. There have been 15 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 14. Proportion of FluTracker participants reporting influenza-like illness, NSW, 1 January 2016 to 19 September 2021



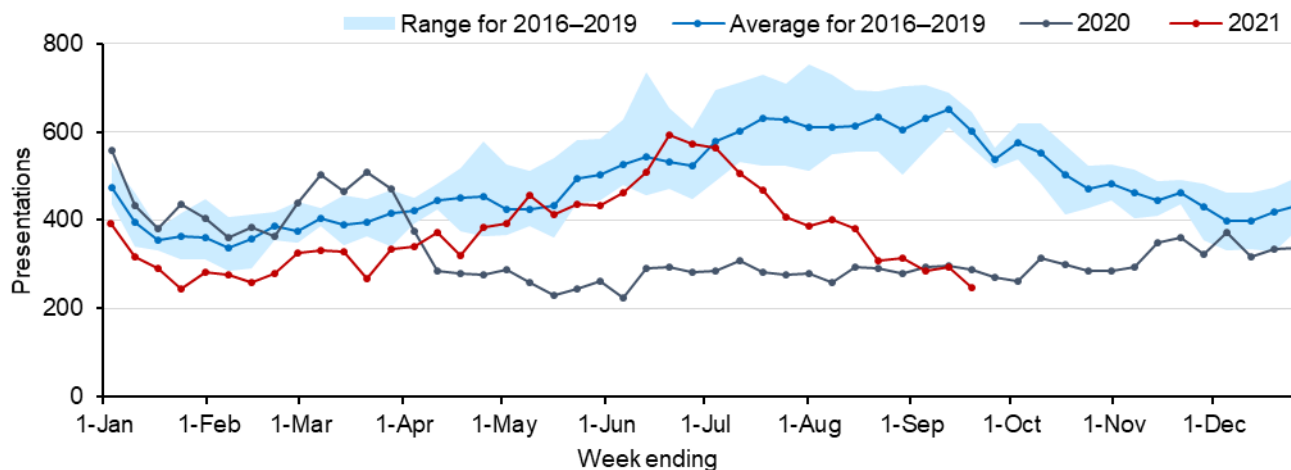
Interpretation: In NSW in the week ending 19 September 2021, of the 23,116 people surveyed, 10 people (0.04%) reported flu-like symptoms. In the last four weeks, 55% (68/124) of new cases of flu-like illness reported having a COVID-19 test. The proportion of people with flu-like symptoms being tested 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.

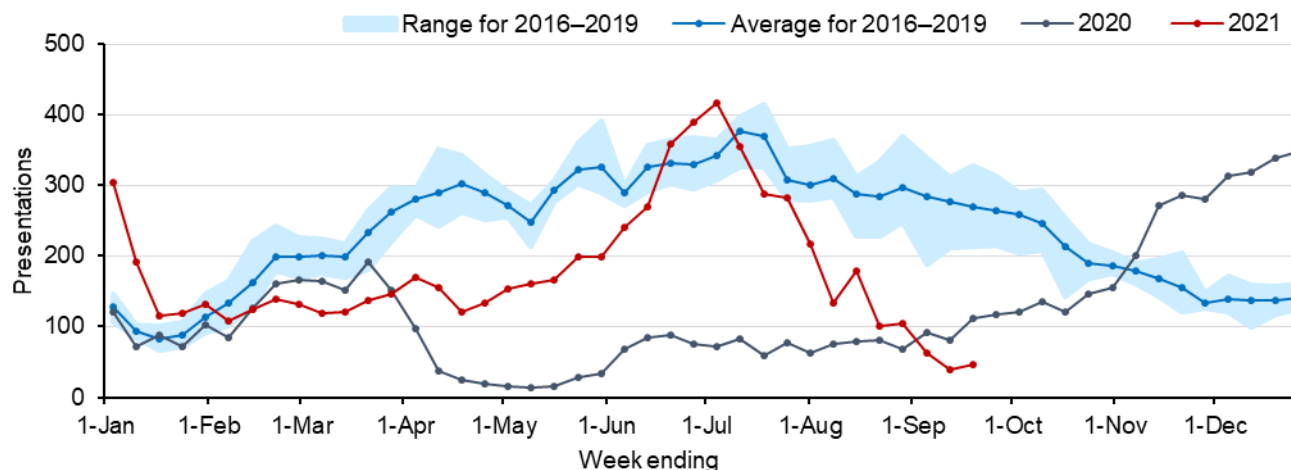
The figures below show weekly pneumonia and bronchiolitis presentations to Emergency Departments in NSW, using PHREDSS⁴. The red line shows the weekly counts for 2021, the dark blue line showing counts for 2020, the light blue line showing the average for 2016 to 2019 and the shaded area showing the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

Figure 15. Emergency Department pneumonia presentations, NSW, 1 January 2016 to 19 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 19 September, pneumonia presentations remain significantly below the seasonal range for this time of year.

Figure 16. Emergency Department bronchiolitis presentations, NSW, 1 January 2016 to 19 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 19 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	
		18-Sep		11-Sep		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 Total²</i>	33462	94.8	35516	100.7	384123	1088.6
	Kiama	1541	65.9	1247	53.3	21158	904.7
Illawarra Shoalhaven	Shellharbour	6950	94.9	7126	97.3	82125	1121.4
	Shoalhaven	4014	38.0	5619	53.2	65387	618.9
	Wollongong	15014	68.8	16565	76.0	223397	1024.2
	<i>LHD Total²</i>	27519	65.6	30557	72.8	392067	934.4
Nepean Blue Mountains	Blue Mountains	7938	100.3	7258	91.7	95414	126.0
	Hawkesbury	13121	195.0	14119	209.8	117540	1746.6
	Lithgow	733	33.9	871	40.3	11582	536.1
	Penrith	38334	180.0	42225	198.3	408592	1918.5
	<i>LHD Total²</i>	59454	152.1	63739	163.0	624885	1598.2
Northern Sydney	Hornsby	9168	60.3	8761	57.6	140845	926.3
	Hunters Hill	1893	126.4	2590	172.9	34985	2335.5
	Ku-ring-gai	7618	59.9	7549	59.4	158748	1248.5
	Lane Cove	4183	104.2	4166	103.8	80401	2002.3
	Mosman	1463	47.2	1419	45.8	31451	1015.2
	North Sydney	3603	48.0	3178	42.4	65816	877.3
	Northern Beaches	17472	63.9	17881	65.4	380648	1391.8
	Parramatta ¹	28653	111.4	32444	126.1	374673	1456.8
	Ryde	13320	101.5	14186	108.1	198611	1513.0
	Willoughby	3427	42.2	3345	41.2	66273	816.3
<i>LHD Total²</i>	66010	69.1	67247	70.4	1213068	1269.0	
South Eastern Sydney	Bayside	26336	147.6	28254	158.4	302876	1697.8
	Georges River	19961	125.2	21785	136.6	263778	1654.1
	Randwick	21217	136.3	18996	122.0	273504	1757.2
	Sutherland Shire	22798	98.9	23858	103.5	300846	1304.6
	Sydney ¹	27987	113.6	29716	120.6	390529	1585.3
	Waverley	7059	95.0	6607	88.9	138921	1869.9
	Woollahra	4623	77.9	5547	93.4	105348	1773.9
	<i>LHD Total²</i>	110578	115.3	114117	119.0	1514984	1579.6
South Western Sydney	Camden	17725	174.7	18226	179.7	206857	2039.3
	Campbelltown	29932	175.1	32355	189.3	336452	1968.2
	Canterbury-Bankstown ¹	69452	183.8	82527	218.4	985342	2607.3
	Fairfield	37486	177.1	42303	199.8	565931	2673.3
	Liverpool	41916	184.2	47690	209.6	510564	2243.4
	Wingecarribee	3204	62.7	3332	65.2	46494	909.3
	Wollondilly	5136	96.6	5153	97.0	57307	1078.2
<i>LHD Total²</i>	172233	165.8	192906	185.8	2216926	2134.7	
Sydney	Burwood	4453	109.7	4843	119.3	55771	1373.3
	Canada Bay	9301	96.8	10199	106.2	133990	1394.7
	Canterbury-Bankstown ¹	69452	183.8	82527	218.4	985342	2607.3
	Inner West	18528	92.3	19516	97.2	273940	1364.2
	Strathfield	9775	208.3	11865	252.8	120786	2574.0
	Sydney ¹	27987	113.6	29716	120.6	390529	1585.3
	LHD Total	92736	133.1	104125	149.4	1318387	1892.1

		Week ending				Total since January 2021	
		18-Sep		11-Sep			
Local Health District	Local Government Area	No.	Tests per 1,000 population	No.	Tests per 1,000 population	No.	Tests per 1,000 population
Western Sydney	Blacktown	65710	175.5	75579	201.8	759451	2028.2
	Cumberland	52570	217.7	64174	265.7	668264	2766.9
	Parramatta ¹	28653	111.4	32444	126.1	374673	1456.8
	The Hills Shire	20983	117.9	23365	131.3	297836	1673.5
	<i>LHD Total²</i>	166077	157.7	193769	183.9	2072424	1967.3
Far West	Balranald	48	20.5	164	70.2	1138	486.7
	Broken Hill	1411	80.7	2182	124.8	16161	924.6
	Central Darling	287	156.1	275	149.5	2464	1339.9
	Wentworth	108	15.3	151	21.4	3386	480.1
	<i>LHD Total²</i>	1854	61.5	2772	92.0	23149	768.0
Hunter New England	Armidale Regional	478	15.5	510	16.6	21651	703.4
	Cessnock	2293	38.2	2260	37.7	29585	493.2
	Dungog	229	24.3	250	26.5	4520	479.7
	Glen Innes Severn	376	42.4	174	19.6	3724	419.8
	Gunnedah	238	18.8	242	19.1	6108	481.7
	Gwydir	73	13.6	101	18.9	1609	300.6
	Inverell	249	14.7	242	14.3	7545	446.7
	Lake Macquarie	10672	51.8	9888	48.0	190344	924.4
	Liverpool Plains	149	18.8	183	23.2	3538	447.7
	Maitland	4869	57.2	5414	63.6	91470	1074.0
	Mid-Coast	1932	20.6	1629	17.4	37797	402.8
	Moree Plains	284	21.4	357	26.9	7673	578.6
	Muswellbrook	393	24.0	680	41.5	7588	463.3
	Narrabri	408	31.1	323	24.6	4725	359.7
	Newcastle	7915	47.8	7161	43.3	163904	989.9
	Port Stephens	4528	61.6	5259	71.6	53077	722.3
	Singleton	953	40.6	1472	62.7	15987	681.4
	Tamworth Regional	1866	29.8	1918	30.7	42732	683.3
	Tenterfield	106	16.1	111	16.8	2005	304.1
	Upper Hunter Shire	299	21.1	345	24.3	6616	466.6
Uralla	85	14.1	103	17.1	2718	452.1	
Walcha	45	14.4	66	21.1	1703	543.4	
<i>LHD Total²</i>	38421	40.3	38658	40.6	706225	741.5	
Mid North Coast	Bellingen	190	14.6	171	13.2	6129	471.6
	Coffs Harbour	997	12.9	1002	13.0	33461	433.0
	Kempsey	731	24.6	830	27.9	15960	536.6
	Nambucca	263	13.3	262	13.2	7311	369.2
	Port Macquarie-Hastings	1579	18.7	1692	20.0	41794	494.5
	<i>LHD Total²</i>	3760	16.7	3957	17.5	104655	463.8
Murrumbidgee	Albury	1834	33.7	1447	26.6	30078	553.4
	Berrigan	174	19.9	137	15.7	2283	260.9
	Bland	129	21.6	142	23.8	2559	428.5
	Carrathool	19	6.8	22	7.9	732	261.5
	Coolamon	114	26.3	103	23.7	2210	509.1
	Cootamundra-Gundagai Regional	376	33.5	284	25.3	5484	488.1

		Week ending				Total since January 2021	
		18-Sep		11-Sep			
Local Health District	Local Government Area	No.	Tests per 1,000 population	No.	Tests per 1,000 population	No.	Tests per 1,000 population
	Edward River	253	27.9	253	27.9	3347	368.5
	Federation	327	26.3	342	27.5	5225	420.1
	Greater Hume Shire	343	31.9	367	34.1	5968	554.4
	Griffith	506	18.7	424	15.7	12499	462.4
	Hay	44	14.9	31	10.5	878	297.7
	Hilltops	2338	125.0	865	46.3	11296	603.9
	Junee	165	24.7	139	20.8	2666	398.9
	Lachlan ¹	120	19.8	117	19.3	2391	393.6
	Leeton	224	19.6	190	16.6	4088	357.2
	Lockhart	102	31.1	106	32.3	1588	483.4
	Murray River	72	5.9	73	6.0	1334	110.1
	Murrumbidgee	61	15.6	72	18.4	1293	330.1
	Narrandera	96	16.3	90	15.3	1616	273.9
	Snowy Valleys	306	21.1	299	20.7	5411	373.7
	Temora	101	16.0	98	15.5	2367	375.3
Wagga Wagga	2520	38.6	1784	27.3	43313	663.7	
<i>LHD Total</i>	10139	34.0	7287	24.4	147101	493.5	
Northern NSW	Ballina	1112	24.9	569	12.8	34503	773.1
	Byron	711	20.3	675	19.2	27947	796.6
	Clarence Valley	842	16.3	686	13.3	18820	364.3
	Kyogle	139	15.8	100	11.4	2894	329.0
	Lismore	2189	50.1	682	15.6	26593	608.7
	Richmond Valley	953	40.6	493	21.0	13982	595.9
	Tenterfield	106	16.1	111	16.8	2005	304.1
	Tweed	1717	17.7	1754	18.1	44412	457.9
	<i>LHD Total</i>	7682	24.8	4998	16.1	169628	546.6
Southern NSW	Bega Valley	732	21.2	1727	50.1	15100	438.0
	Eurobodalla	1111	28.9	1474	38.3	17981	467.4
	Goulburn Mulwaree	1909	61.3	2275	73.1	22523	723.5
	Queanbeyan-Palerang Regional	2096	34.3	1651	27.0	30406	497.6
	Snowy Monaro Regional	863	41.5	1846	88.8	12468	599.6
	Upper Lachlan Shire	349	43.3	267	33.1	4464	553.9
	Yass Valley	2303	134.8	375	22.0	9233	540.4
	<i>LHD Total</i>	9363	43.1	9619	44.3	112250	517.1
Western NSW	Bathurst Regional	2992	68.6	2983	68.4	42230	968.2
	Blayney	313	42.4	431	58.4	6855	929.0
	Bogan	103	39.9	92	35.7	1997	774.0
	Bourke	311	120.1	445	171.8	4045	1561.8
	Brewarrina	242	150.2	127	78.8	1689	1048.4
	Cabonne	334	24.5	558	40.9	7727	566.7
	Cobar	156	33.5	134	28.8	2533	543.8
	Coonamble	132	33.4	100	25.3	2509	633.9
	Cowra	354	27.8	311	24.4	5860	459.9
	Dubbo Regional	8307	154.6	9476	176.4	102604	1910.0
	Forbes	192	19.4	336	33.9	5304	535.4
	Gilgandra	147	34.7	181	42.7	3440	811.5

		Week ending				Total since January 2021	
		18-Sep		11-Sep			
Local Health District	Local Government Area	No.	Tests per 1,000 population	No.	Tests per 1,000 population	No.	Tests per 1,000 population
	Lachlan ¹	120	19.8	117	19.3	2391	393.6
	Mid-Western Regional	703	27.8	728	28.8	23620	935.4
	Narromine	630	96.7	639	98.1	7370	1130.9
	Oberon	175	32.3	169	31.2	2664	492.3
	Orange	2344	55.2	3121	73.5	52079	1226.8
	Parkes	428	28.9	488	32.9	10093	680.3
	Walgett	776	130.4	587	98.6	4616	775.4
	Warren	312	115.7	321	119.0	4662	1728.6
	Warrumbungle Shire	221	23.8	213	23.0	5211	561.7
	Weddin	115	31.8	100	27.7	1582	437.9
	<i>LHD Total²</i>	19374	68.0	21639	75.9	300303	1053.7
NSW Total	NSW Total³	818683	101.2	890912	110.1	11300320	1396.9

Source - Notifiable Condition Information Management System, accessed as at 8pm 19 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 19 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 2020–19 September 2021

Specimen collection date	PCR tests conducted	Influenza A No.	Influenza A %Pos.	Influenza B No.	Influenza B %Pos.	Adeno- virus	Para- influenza	RSV	Rhino- virus	HMPV	Entero- virus
Total	1,634,439	5	<0.01%	10	<0.01%	7,224	18,528	17,481	56,035	5,244	6,344
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
29 August*	157,063	0	-	1	<0.01%	869	1,497	852	2,252	2,035	259
Week ending											
1 August	24,651	0	-	1	-	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	20,875	0	-	0	-	114	136	55	243	246	22
5 September	23,303	0	-	0	-	87	68	54	212	192	20
12 September	23,446	0	-	0	-	82	37	28	183	115	27
19 September	22,528	1	-	0	-	82	27	25	162	87	12

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

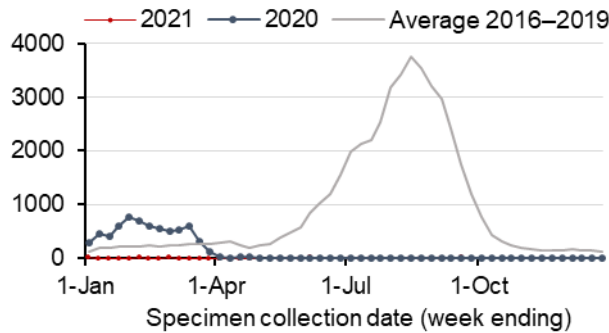
RSV - Respiratory syncytial virus

*Five-week period

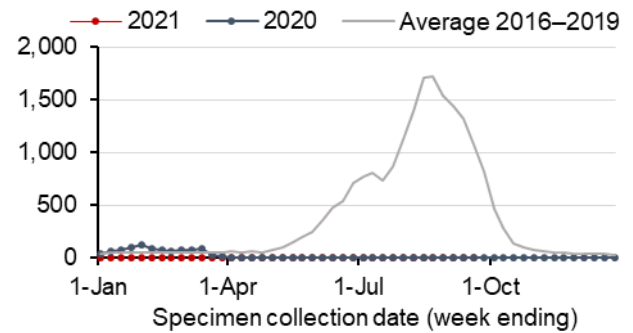
Appendix C: Number of positive PCR test results for influenza and other respiratory viruses at sentinel NSW laboratories, January 2020 to 19 September 2021

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

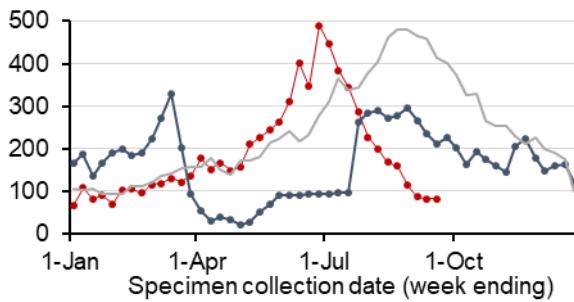
Influenza A



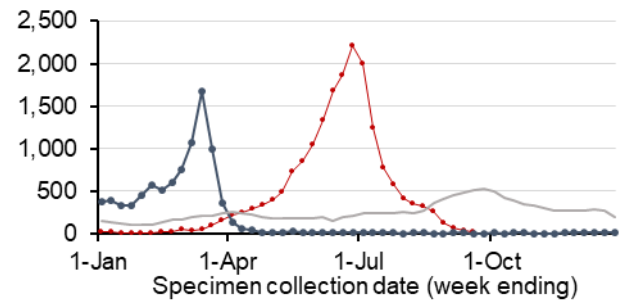
Influenza B



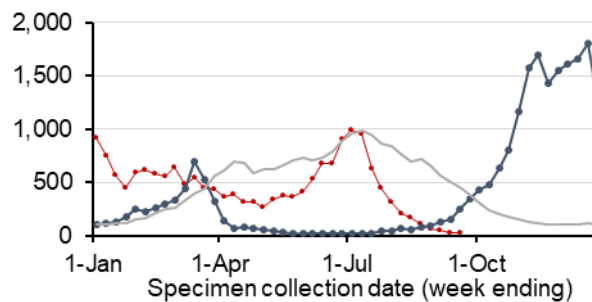
Adenovirus



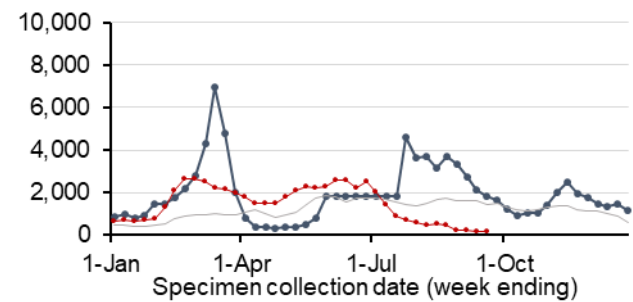
Parainfluenza



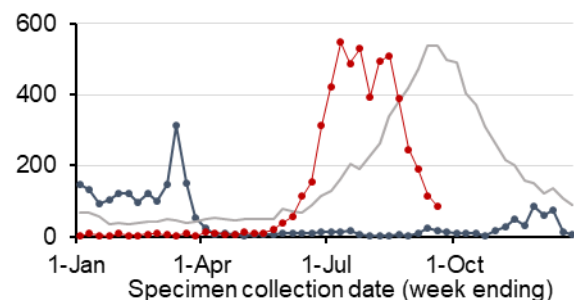
Respiratory Syncytial Virus



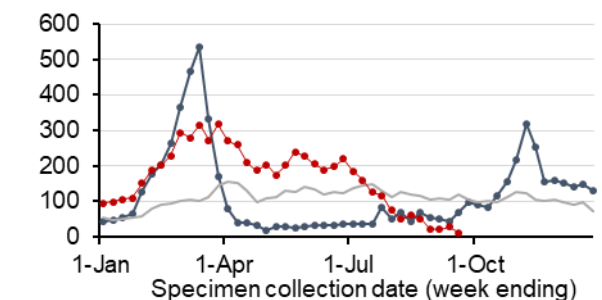
Rhinovirus



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.