

COVID-19 WEEKLY SURVEILLANCE IN NSW

EPIDEMIOLOGICAL WEEK 40 ENDING 9 October 2021

Published 25 October 2021

Overview

Table 1. Number and proportion of COVID-19 cases in NSW by likely source of infection to week ending 9 October 2021

	2020		2021		Total
	Jan – Jun	Jul – Dec	01 Jan – 15 Jun	16 Jun – 9 Oct	
Locally acquired	1,236 (39 %)	807 (52 %)	51 (7 %)	62,927 (100 %)	65,021 (95 %)
Interstate acquired	67 (2 %)	23 (1 %)	0 (0%)	19 (<1 %)	109 (<1 %)
Overseas acquired	1,892 (59 %)	714 (46 %)	641 (93 %)	226 (<1 %)	3,473 (5 %)
Total	3,195 (100 %)	1,544 (100 %)	692 (100 %)	63,172 (100 %)	68,603 (100 %)
Deaths	51	5	0	437	493

Summary for the week 3 October to 9 October 2021 (inclusive)

In the week ending 9 October 2021:

- There were 4,087 locally acquired cases reported.
- The ten LGAs with the highest number of cases were:
 - Canterbury-Bankstown LGA with 438 (11%) cases
 - Blacktown LGA with 351 (9%) cases
 - Liverpool LGA with 273 (7%) cases
 - Wollongong LGA with 269 (7%) cases
 - Cumberland LGA with 261 (6%) cases
 - Campbelltown LGA with 223 (5%) cases
 - Central Coast LGA with 209 (5%) cases
 - Penrith LGA with 183 (4%) cases
 - Lake Macquarie LGA with 168 (4%) cases
 - Fairfield LGA with 144 (4%) cases
 - 1,539 (38%) cases were residents across 70 other LGAs
- There were 4 cases in overseas returned travellers (down 64%).
- There were 56 deaths in people diagnosed with COVID.
- 12.0% of locally acquired cases were fully vaccinated. This compares with around 60.1% of the NSW population aged 16 and over who had been fully vaccinated (that is, had completed their recommended vaccine schedule more than 2 weeks before, by 25 September).
- Testing rates decreased compared to the previous week (down 12%), with continued high testing rates in the Nepean Blue Mountains, South Western Sydney, and Western Sydney LHDs.
- 206 sewage samples were tested for fragments of SARS-CoV-2. Of these, there were 111 detections. Detections from Wagga Koorringal, Uralla, Dungog, Ballina, Crescent Head, Merimbula, Gulargambone, Bega, West Wyalong, Brewarrina, Wee Waa, Quirindi and Brooklyn occurred with no known or recent cases in the catchment. Subsequently cases were identified in Bega. Cases were also identified in Dareton and South Grafton following sewage detections in recent weeks. Note that cases may have been identified in these catchments after 9 October.

Indicators of effective prevention for COVID-19 in NSW for the week ending 9 October 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 26 September to 9 October 2021

	Week ending 09 Oct	Week ending 02 Oct
Proportion locally acquired cases notified to NSW Health by the laboratory within 1 day of specimen collection	82% (3,341/4,087)	76% (4,458/5,851)
Locally acquired cases contacted by text message within 1 day of notification to NSW Health	83% (3,407/4,087)	87% (5,099/5,851)
Amongst the locally acquired cases who responded to our text message and identified as high risk cases, number fully interviewed by public health staff within 1 day of notification to NSW Health	92% (686/745)	92% (1,136/1,241)
Locally acquired cases fully interviewed by public health staff within 1 day of notification to NSW Health	92% (3,778/4,087)	90% (5,272/5,851)

Interpretation: In the week ending 9 October, 82% of cases were notified to NSW Health within a day of test, 92% of cases were fully interviewed within one day of notification and 83% of cases were sent a text message to advise of their positive result, provide isolation requirements and to identify high risk exposure settings. Of those who responded to this message and were identified as high-risk cases, 92% were interviewed within one day of notification.

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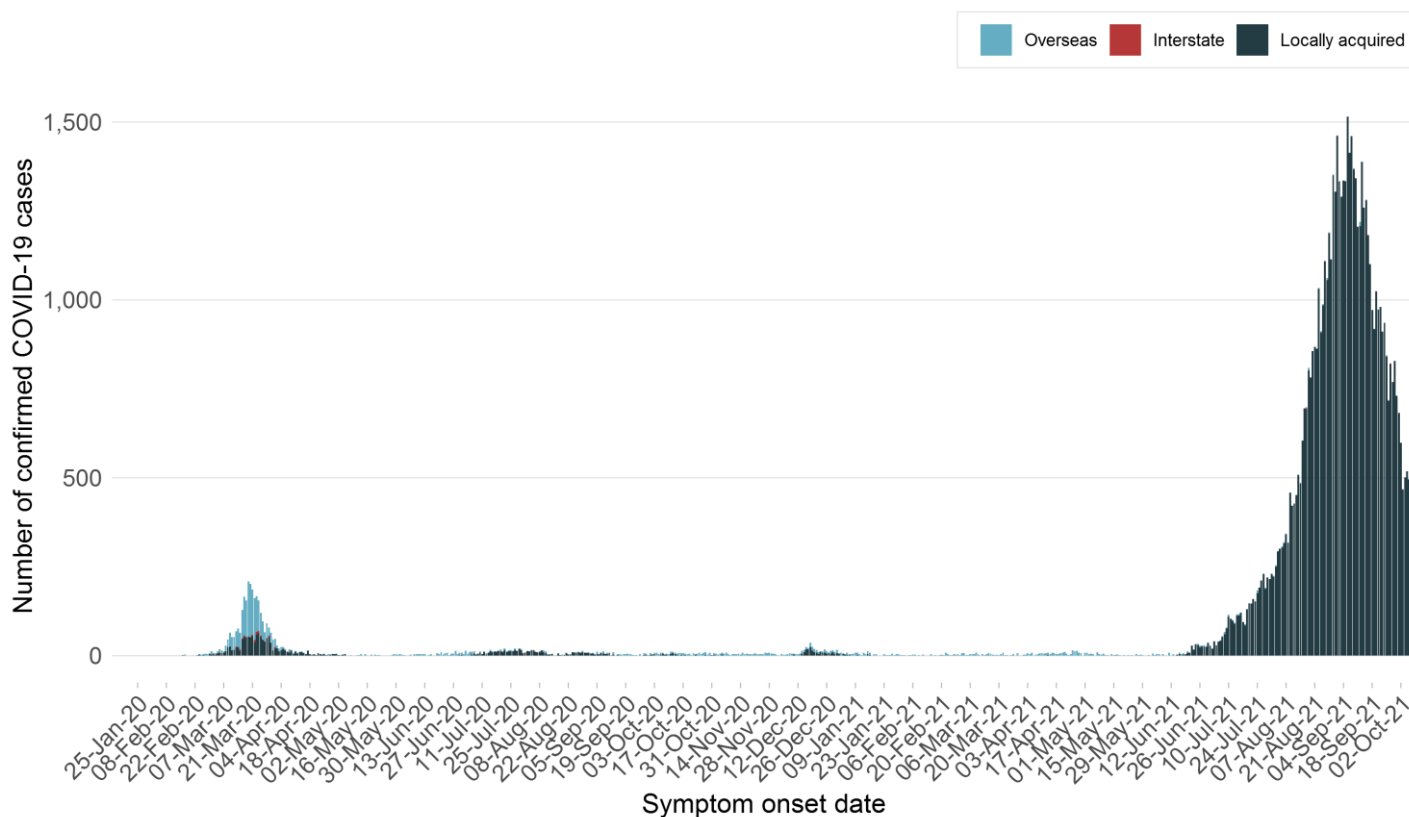
COVID-19 Vaccination program

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

Section 1: How is the 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 9 October 2021



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

Interpretation: Between 13 January 2020 and 9 October 2021, there were 68,603 confirmed COVID-19 cases in NSW. Of those, 3,473 (5%) were overseas acquired, 109 (<1%) were interstate acquired, and 65,021 (95%) were locally acquired. Cases who tested positive by 9 October are included, but are plotted by earliest symptom onset date. As cases typically develop symptoms prior to being notified, the number of cases reported by symptom onset date will appear to decline in more recent days, even if the total number of cases reported on that day does not.

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 2020 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 Western 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, 12 September to 9 October 2021

Local Health District	Week ending				Total	Days since last case reported
	9 Oct	2 Oct	25 Sep	18 Sep		
South Western Sydney	959	1,504	2,067	2,770	7,300	0
Western Sydney	681	1,119	1,535	2,196	5,531	0
Illawarra Shoalhaven	380	536	475	317	1,708	0
South Eastern Sydney	340	559	766	1,029	2,694	0
Sydney	312	460	761	1,045	2,578	0
Central Coast	209	231	211	133	784	0
Nepean Blue Mountains	203	287	430	419	1,339	0
Northern Sydney	124	216	300	216	856	0
Hunter New England	559	458	246	145	1,408	0
Southern NSW	120	140	41	46	347	0
Western NSW	92	212	115	98	517	0
Northern NSW	41	25	0	2	68	0
Far West	17	33	45	38	133	0
Mid North Coast	11	13	6	4	34	0
Murrumbidgee	10	10	15	8	43	0
Correctional settings	21	37	48	68	174	0
NSW*	4,087	5,851	7,072	8,550	25,560	

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

Interpretation: There were 4,087 locally acquired cases reported in the week ending 9 October 2021. The largest proportion of cases were residents of South Western Sydney LHD (959, 23%) followed by Western Sydney LHD (681, 17%), and Illawarra Shoalhaven LHD (380, 9%). Correctional settings include all cases residing in NSW correctional facilities.

Section 3: Epidemiology of local cases with COVID-19 from 16 June 2021 to 9 October 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.

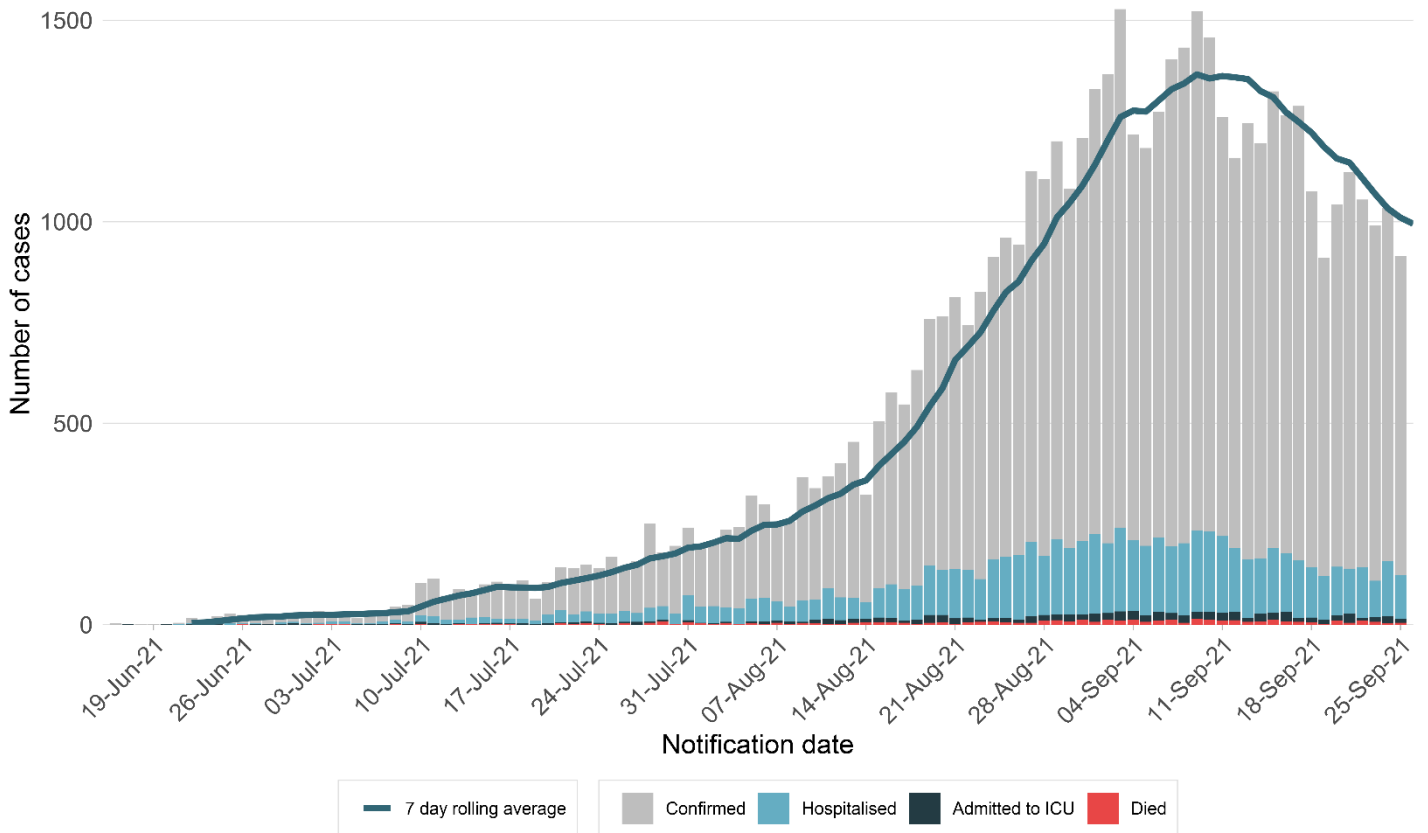
Table 4. COVID-19 cases and tests reported, NSW, from 1 January 2021 to 9 October 2021

	Week ending 9 Oct	Week ending 2 Oct	% change	Total 2021
Number of cases	4,094	5,868	-30 %	63,864
Locally acquired	4,087	5,851	-30 %	62,978
Known epidemiological links to other cases or clusters	1,390	2,001	-31 %	22,638
No epidemiological links to other cases or clusters	2,697	3,850	-30 %	40,340
Overseas acquired	4	11	-64 %	867
Interstate acquired	3	6	-50 %	19
Number of Tests	641,963	731,960	-12 %	14,767,960

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 (9,938/9,962 cases, or 99.8%). Of the 4,087 locally acquired cases reported in the week ending 9 October 2021, 52% 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 25 September 2021



Interpretation: This graph shows the number of COVID-19 cases notified each day to NSW Health, as of 25 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 25 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 9 October 2021

LGA name	Last 7 days		Current NSW outbreak (16 Jun-9 Oct 2021)	
	Cases	Cases per 100,000 population	Cases	Cases per 100,000 population
Campbelltown	223	130	2,446	1,431
Wollongong	269	123	1,391	638
Liverpool	273	120	5,237	2,301
Canterbury-Bankstown	438	116	10,689	2,828
Cumberland	261	108	8,556	3,543
Blacktown	351	94	6,560	1,752
Penrith	183	86	3,043	1,429
Shellharbour	57	78	447	610
Fairfield	144	68	4,362	2,061
Central Coast	209	61	1,049	305
Bayside	105	59	1,417	794
Georges River	91	57	1,222	766
Shoalhaven	54	51	206	195
Randwick	76	49	1,217	782
Wollondilly	26	49	193	363
Camden	43	42	925	912
Burwood	14	34	303	746
Strathfield	14	30	395	842
Hunters Hill	4	27	75	501
Wingecarribee	13	25	70	137

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 9 October 2021

LGA name	Last 7 days		Current NSW outbreak (16 Jun-9 Oct 2021)	
	Cases	Cases per 100,000 population	Cases	Cases per 100,000 population
Bourke	12	463	150	5,792
Snowy Monaro Regional	46	221	75	361
Walgett	11	185	47	790
Wentworth	13	184	14	198
Cessnock	109	182	195	325
Maitland	83	97	273	321
Kyogle	8	91	16	182
Gunnedah	11	87	13	103
Lake Macquarie	168	82	526	255
Queanbeyan-Palerang Regional	49	80	151	247
Cowra	10	78	59	463
Narromine	5	77	47	721
Dubbo Regional	39	73	932	1,735
Muswellbrook	12	73	26	159
Richmond Valley	14	60	16	68
Singleton	13	55	38	162
Newcastle	90	54	436	263
Goulburn Mulwaree	15	48	74	238
Tamworth Regional	30	48	32	51
Edward River	4	44	7	77

Interpretation: The top 20 metropolitan LGAs contributed 70% of all locally acquired cases in the week ending 9 October. The five LGAs with the highest case rates per 100,000 population are in a rural and regional area and are associated with known clusters. Although case numbers in most regional LGAs are relatively small, because the population is also small, the case rate is substantially higher than observed in some metropolitan LGAs.

Source of infection for locally acquired cases in NSW

Figure 3a. Source of infection for locally acquired cases, Metropolitan LHDs, from 16 June to 9 October 2021

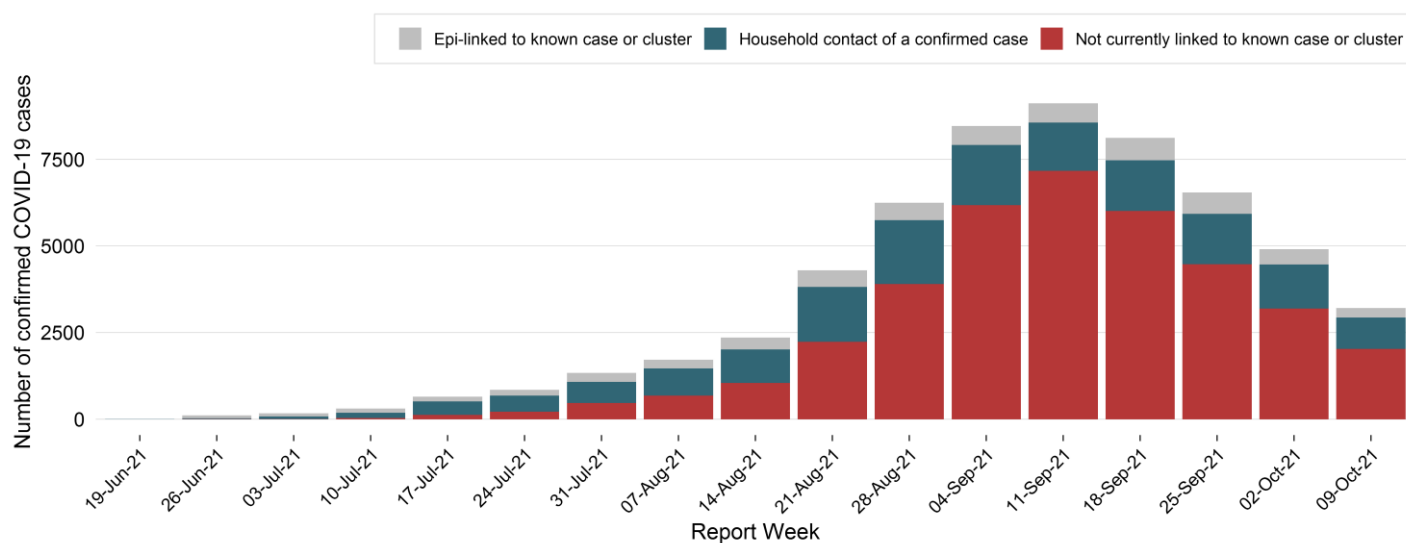
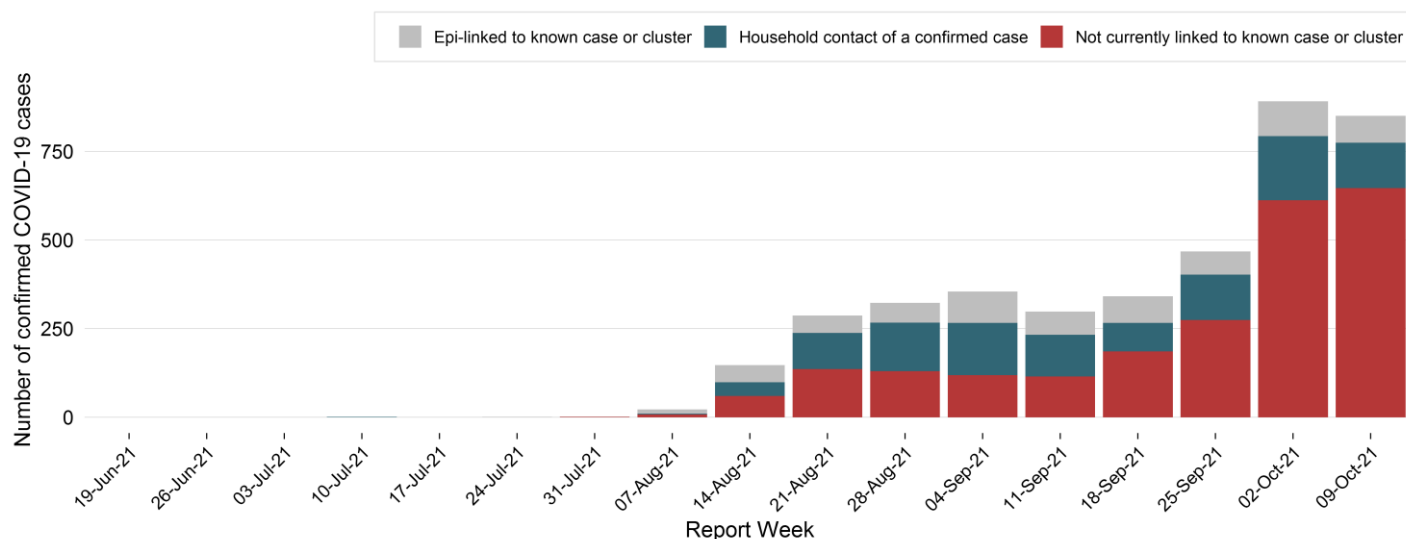


Figure 3b. Source of infection for locally acquired cases, rural and regional LHDs, from 16 June to 9 October 2021



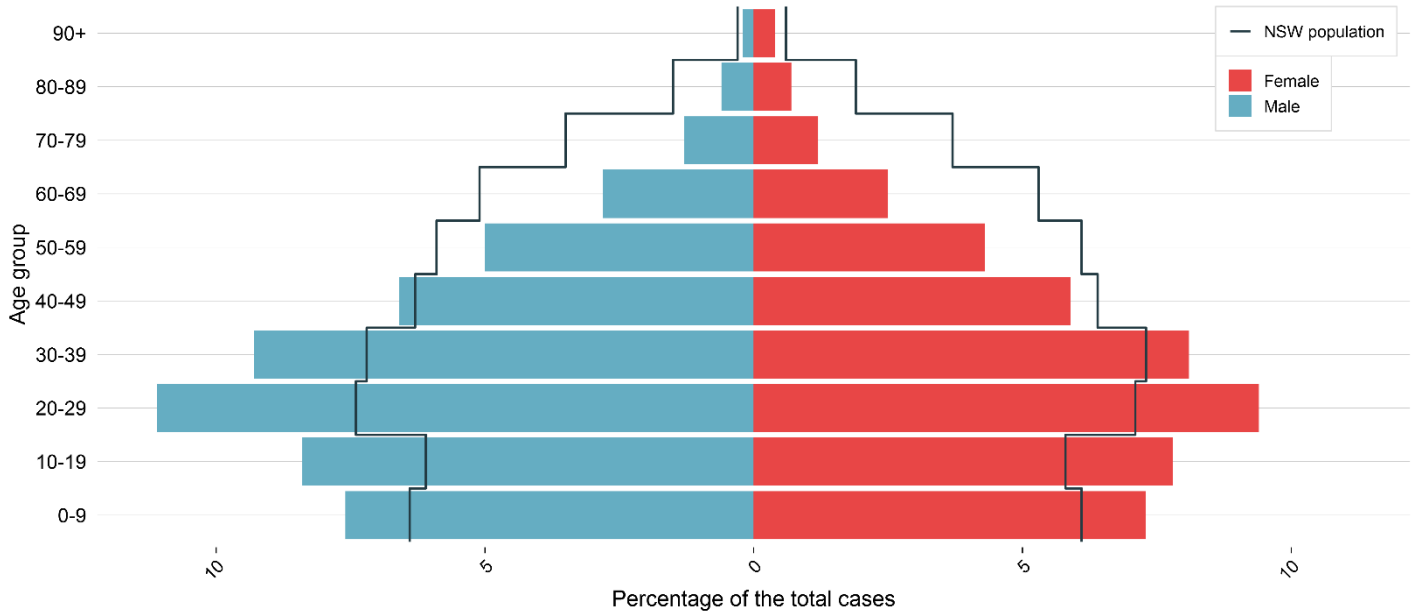
Note: This graph does not include cases in Justice Health and correctional facilities and those for whom LHD was not available at the time of data extraction.

Interpretation: In the week ending 9 October, cases decreased by 35% in metropolitan LHDs (3,208 compared to 4,912 the previous week), and decreased by 5% in rural and regional LHDs (850 compared to 891 the previous week). Of the 3,208 cases reported this week in metropolitan LHDs, 907 (28%) were household contacts, 274 (9%) were epidemiologically linked but not household contacts and 2,027 (63%) were not currently linked to a case or cluster. There were 850 cases reported this week in rural and regional LHDs. Of these 128 (15%) were household contacts, 76 (9%) were epidemiologically linked but not household contacts and 646 (76%) had not yet been linked to a case or cluster.

Age breakdown of locally acquired cases, NSW, from 16 June - 9 October 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 9 October 2021, there have been 62,927 locally acquired cases. The median age was 29 years (IQR = 16-44 years).

Figure 4. Current wave locally acquired case percentage (n = 62,793) by age and gender, NSW, from 16 June to 9 October 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 533 locally acquired cases of COVID-19 reported in Aboriginal people in the week ending 9 October 2021. Of the 533 cases, 30 were fully vaccinated (see Section 5 for a full description of vaccination status). In total there have been 4,023 Aboriginal people diagnosed with COVID-19 in the current NSW outbreak.

Pregnant women

In the week ending 9 October, 36 pregnant women were diagnosed with COVID-19. Since January 2020, 668 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. Seventeen 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 21 confirmed cases residing in correctional settings in the week ending 9 October. Since 16 June 2021, 444 people residing in correctional settings have been diagnosed with COVID-19 in NSW. Seventeen (3.8%) 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 9 October, there were 43 healthcare workers diagnosed with COVID-19. Of these, 6 (14%) were potentially infected in a healthcare setting, 11 (26%) were social or household contacts of previously reported cases and 26 (60%) are currently not linked. Twenty-five cases (58%) were fully vaccinated and 7 (16%) were partially vaccinated.

In total there have been 994 cases of COVID-19 in health care workers since August 2020. Of these, 176 were potentially infected in healthcare settings. A further 259 cases were linked to social or household contacts, and for 559 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-09 Oct 2021)		
	Number of HCWs	Fully vaccinated	Partially vaccinated	Number of HCWs	Fully vaccinated	Partially vaccinated
Healthcare acquired	6	2 (33%)	1 (17%)	151	55 (36%)	15 (10%)
Community acquired	11	6 (55%)	4 (36%)	242	96 (40%)	28 (12%)
Not currently linked	26	17 (65%)	2 (8%)	553	224 (41%)	58 (10%)
Total	43	25 (58%)	7 (16%)	946	375 (40%)	101 (11%)

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 (795/946, 84%). Of the 946 healthcare workers that have been diagnosed with COVID-19 in the current outbreak, 375 (40%) were fully vaccinated and 101 (11%) were partially vaccinated.

Aged care workers

Since 16 June 2021, there have been 293 cases reported in aged care workers. Of these, 62 (21%) people have reported being vaccinated with one effective dose, and 102 (35%) 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-09 Oct 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%)	58	17 (29%)	15 (26%)
Community acquired	3	2 (67%)	1 (33%)	83	28 (34%)	11 (13%)
Not currently linked	12	5 (42%)	5 (42%)	152	57 (38%)	36 (24%)
Total	17	9 (53%)	6 (35%)	293	102 (35%)	62 (21%)

Interpretation: In the week ending 9 October there were 17 aged care workers diagnosed with COVID-19. Of these, 2 (12%) were infected in an aged care facility, 3 (18%) were social or household contacts of previously reported cases and 12 (71%) had not yet been 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, 16 June to 9 October 2021

Vaccination Status	Week ending				16 Jun to 11 Sep 2021	Total from 16 Jun 2021
	9 Oct 21	2 Oct 21	25 Sep 21	18 Sep 21		
Fully Vaccinated	491 (12.0%)	635 (10.9%)	612 (8.7%)	633 (7.4%)	1,429 (3.8%)	3,800 (6.0%)
Partially Vaccinated	646 (15.8%)	920 (15.7%)	1,023 (14.5%)	969 (11.3%)	1,938 (5.2%)	5,496 (8.7%)
No effective dose	2,421 (59.2%)	3,340 (57.1%)	3,235 (45.7%)	3,952 (46.2%)	27,304 (73.1%)	40,252 (64.0%)
Under investigation*	529 (12.9%)	956 (16.3%)	2,202 (31.1%)	2,996 (35.0%)	6,696 (17.9%)	13,379 (21.3%)
Total	4,087	5,851	7,072	8,550	37,367	62,927

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

Interpretation: In the past week 12.0% of locally acquired cases were fully vaccinated. This compares with around 60.1% of the NSW population aged 16 and over who had been fully vaccinated (that is, had completed their recommended vaccine schedule by 25 September). The proportion of cases who are fully or partially vaccinated will continue to increase as the vaccination coverage continues to increase in the community.

Clinical severity and COVID-19 vaccination

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

Of the 9,446 people hospitalised with COVID-19 in the current outbreak, 1,156 (12.2%) people were in ICU. Of these, 764 (66.1%) had not received an effective dose, and 78 (6.7%) were partially vaccinated. There were 36 (3.1%) fully vaccinated cases in ICU. For the remaining 278 (24.0%) 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 locally acquired cases diagnosed with COVID-19, by vaccination status, NSW, from 16 June to 9 October 2021

Vaccination status	Hospitalised (%)	Hospitalised and in ICU (%)	Death (%)
Fully Vaccinated	525 (5.6%)	36 (3.1%)	51 (11.7%)
Partially vaccinated	684 (7.2%)	78 (6.7%)	52 (12.0%)
No effective dose	6,205 (65.7%)	764 (66.1%)	321 (73.8%)
Under investigation	2,032 (21.5%)	278 (24.0%)	11 (2.5%)
Total	9,446 (100.0%)	1,156 (100.0%)	435 (100.0%)

Interpretation: Of the 9,446 people hospitalised, 525 (5.6%) had received two effective doses, 684 (7.2%) had received one effective dose, and 8,237 (87.2%) had either received no effective doses or vaccination status has not yet been determined. The 51 deaths among people fully vaccinated were 4 people in their 50s, 1 person in their 60s, 13 people in their 70s, 19 people in their 80s and 14 people in their 90s.

Section 6: COVID-19 hospitalisations and deaths

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

Figure 5a. Estimated active cases (number of cases notified last 14 days), number of cases in hospital, in ICU and ventilated by date, NSW, from 16 June to 9 October 2021

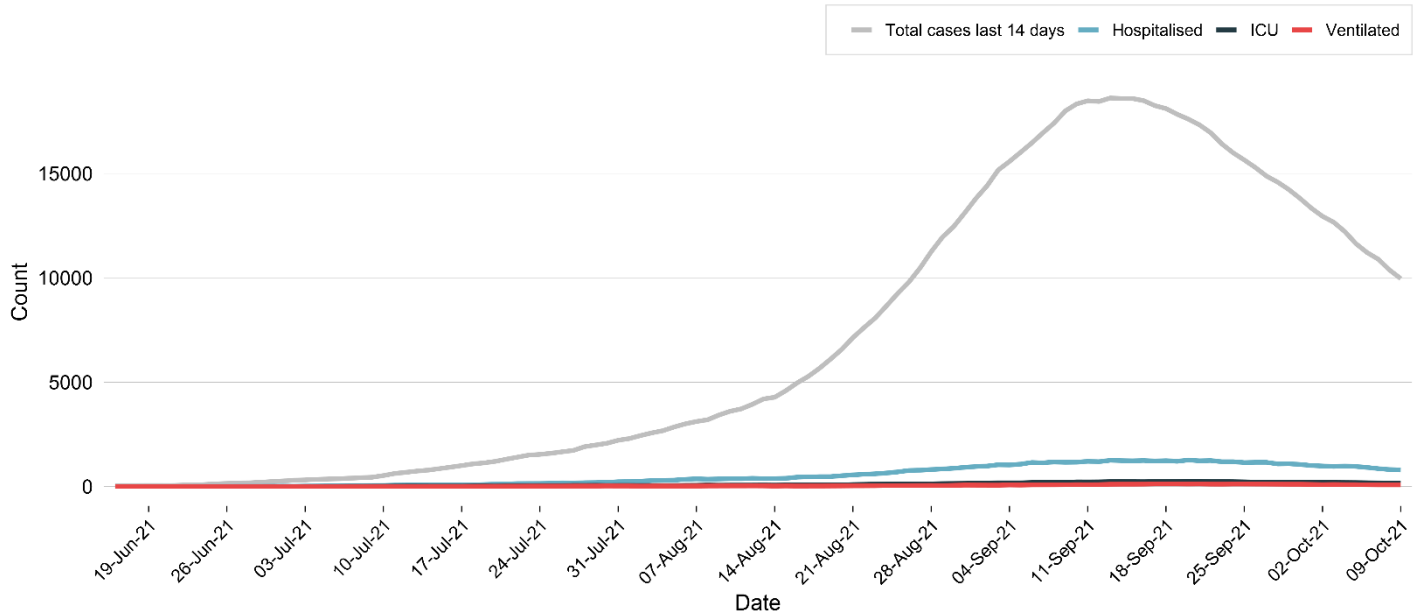
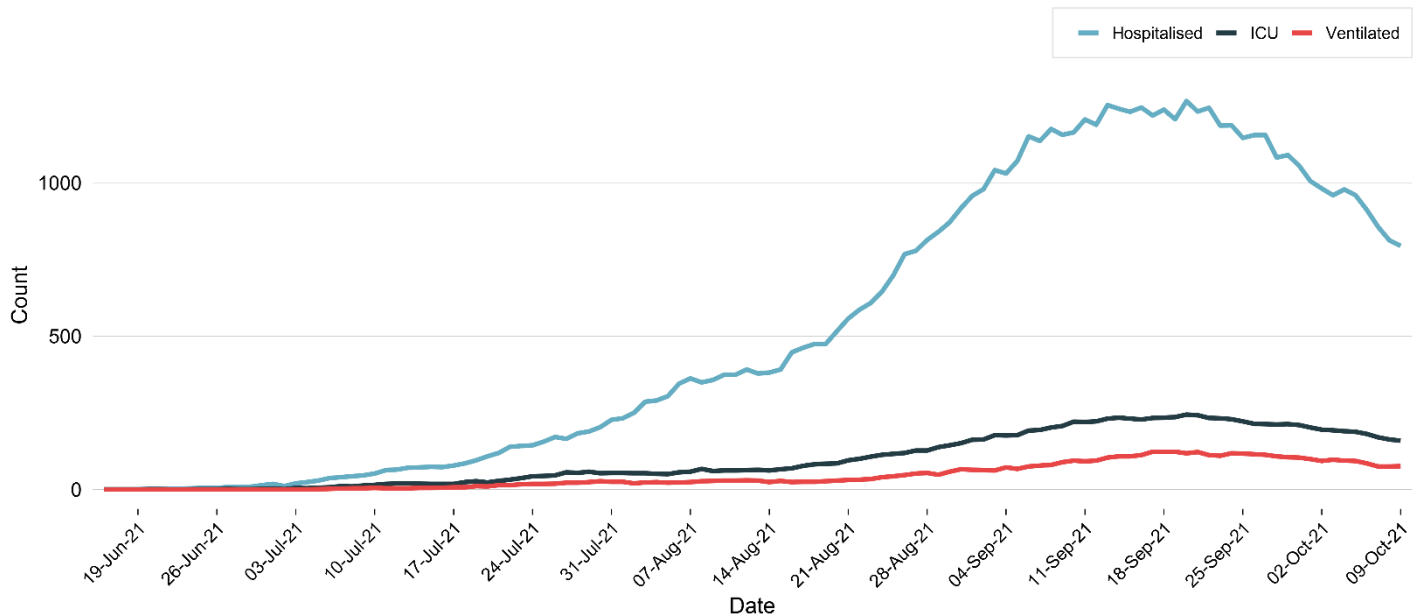


Figure 5b. Number of cases in hospital, in ICU and ventilated by date, NSW, from 16 June to 9 October 2021



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 9 October 2021, of the 4,087 locally acquired cases, there were 365 people who had a diagnosis of COVID-19 who were also admitted to a hospital ward, and 38 of those were admitted to ICU. In total, there have been 9,446 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	455	5%	45.0	461	5%
10-19	549	5%	56.9	560	5%
20-29	1,454	11%	124.0	1,482	11%
30-39	1,627	15%	139.0	1,674	14%
40-49	1,505	19%	145.7	1,555	18%
50-59	1,402	24%	144.2	1,482	23%
60-69	1,079	33%	128.4	1,201	30%
70-79	748	47%	128.4	840	42%
80-89	501	62%	182.7	554	59%
90+	126	65%	181.7	142	60%
Total	9,446	15%	116.8	9,951	15%

Interpretation: The highest number of cases hospitalised are aged 30-39 years (1,627, 15%), followed by those aged 40-49 years (1,505, 19%). In NSW, cases aged 80-89 years have the highest rate of hospitalisation (182.7 per 100,000 people), closely followed by those aged 90 years and over (181.7 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	6	<1%	0.6	6	<1%
10-19	28	<1%	2.9	29	<1%
20-29	77	1%	6.6	81	1%
30-39	128	1%	10.9	143	1%
40-49	167	2%	16.2	179	2%
50-59	246	4%	25.3	274	4%
60-69	215	7%	25.6	258	6%
70-79	142	9%	24.4	176	9%
80-89	37	5%	13.5	50	5%
90+	0	0%	0.0	0	0%
Total	1046	2%	12.9	1196	2%

Interpretation: The highest number of cases in ICU are aged 50-59 years (246, 4%). The highest rate of admission to ICU is for those aged 60-69 years (215 cases, 25.6 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.

Since the start of the pandemic, 1% of cases (493 people) have died following a recent infection with COVID-19, most of whom were 80 years of age or older, including 73 residents of aged care facilities with known COVID-19 outbreaks. Approximately 3% (14/493) of the deaths were in overseas acquired cases.

There were 56 deaths in people diagnosed with COVID-19 reported this week including 8 people who were fully vaccinated, 11 people who were partially vaccinated, and 37 who were unvaccinated (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	6	<1%	0.5	6	<1%
30-39	8	<1%	0.7	8	<1%
40-49	20	<1%	1.9	20	<1%
50-59	47	1%	4.8	48	1%
60-69	73	2%	8.7	78	2%
70-79	105	7%	18.0	120	6%
80-89	129	16%	47.0	150	16%
90+	46	24%	66.3	62	26%
Total	435	1%	5.4	493	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.

Table 13. Deaths following recent locally acquired infection with COVID-19, by age group and location, from 16 June to 9 October 2021

Age-group (years)	Health care facility	Aged care facility	Home
0-9	0	0	0
10-19	1	0	0
20-29	4	0	2
30-39	4	0	4
40-49	14	0	6
50-59	40	0	7
60-69	62	0	11
70-79	102	1	2
80-89	115	7	7
90+	39	7	0
Total	381	15	39

Interpretation: The majority of deaths following recent locally acquired COVID-19 infection have occurred in hospital (381/435, 88%). Fifteen deaths in aged care facilities have been among people aged 70+, while 39 deaths occurring at home have been in a younger cohort aged 20-89, and 23 (59%) of the deaths at home were tested only after death.

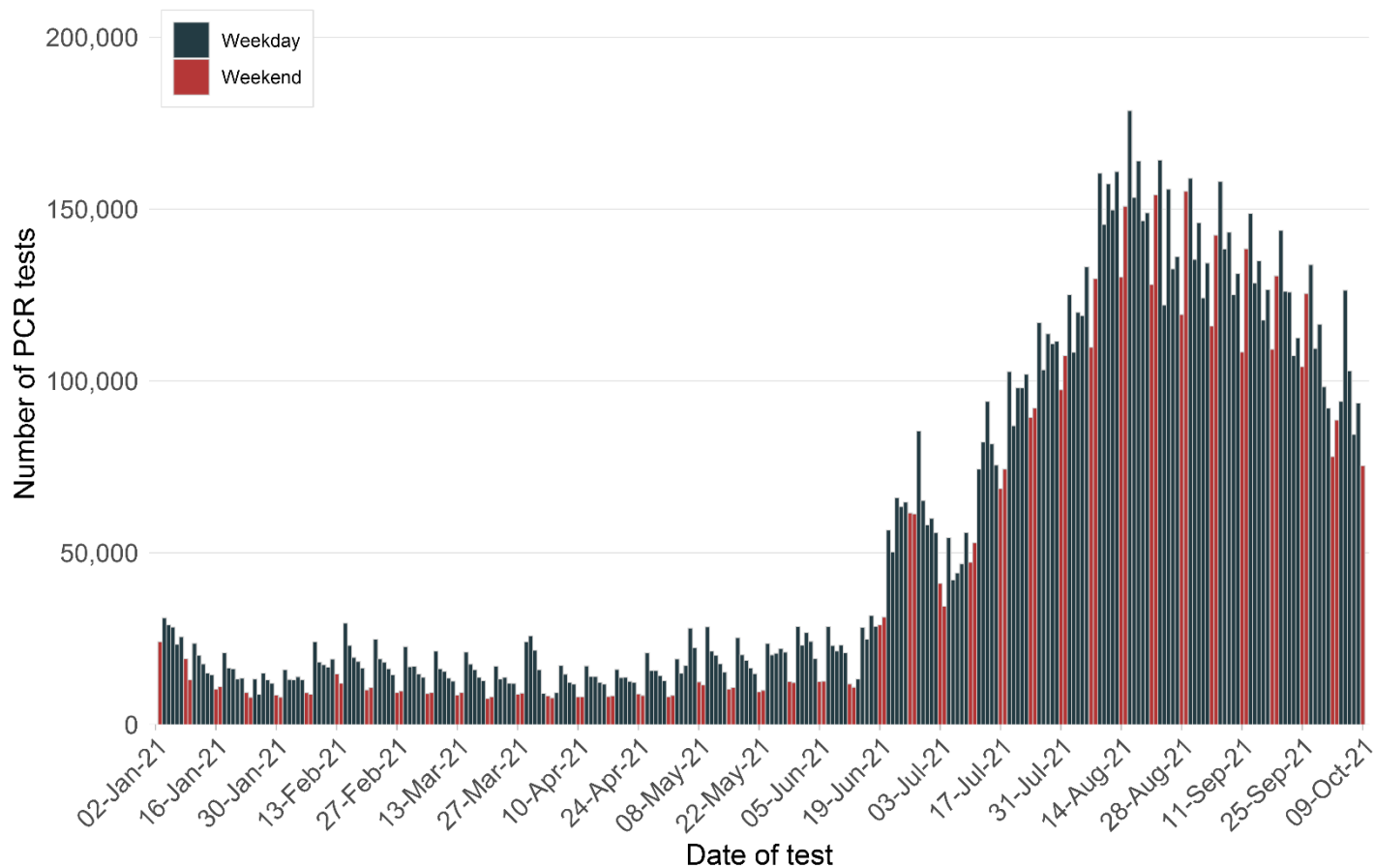
² There is often a delay between a person becoming ill with COVID-19 and subsequently requiring a hospitalisation or dying. In the current outbreak the median time between onset and hospitalisation is 5 days and between onset and death is 11 days. Therefore hospitalisations and deaths are under-reported 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 6. Number of negative PCR tests per day, NSW, 12 December 2020 to 9 October 2021



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

Interpretation: Testing numbers decreased in the week ending 9 October 2021 (down 12%) compared to the previous week. The average daily testing rate of 11.0 per 1,000 people in NSW each day decreased compared to the previous week of 12.5 per 1,000 people.

³ The number of tests per day displayed is different to the 24 hour increase in tests reported each day as there are delays in some laboratories providing negative results to NSW Health.

Testing and positivity rates by Local Health District

Figure 7a. 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 9 October 2021

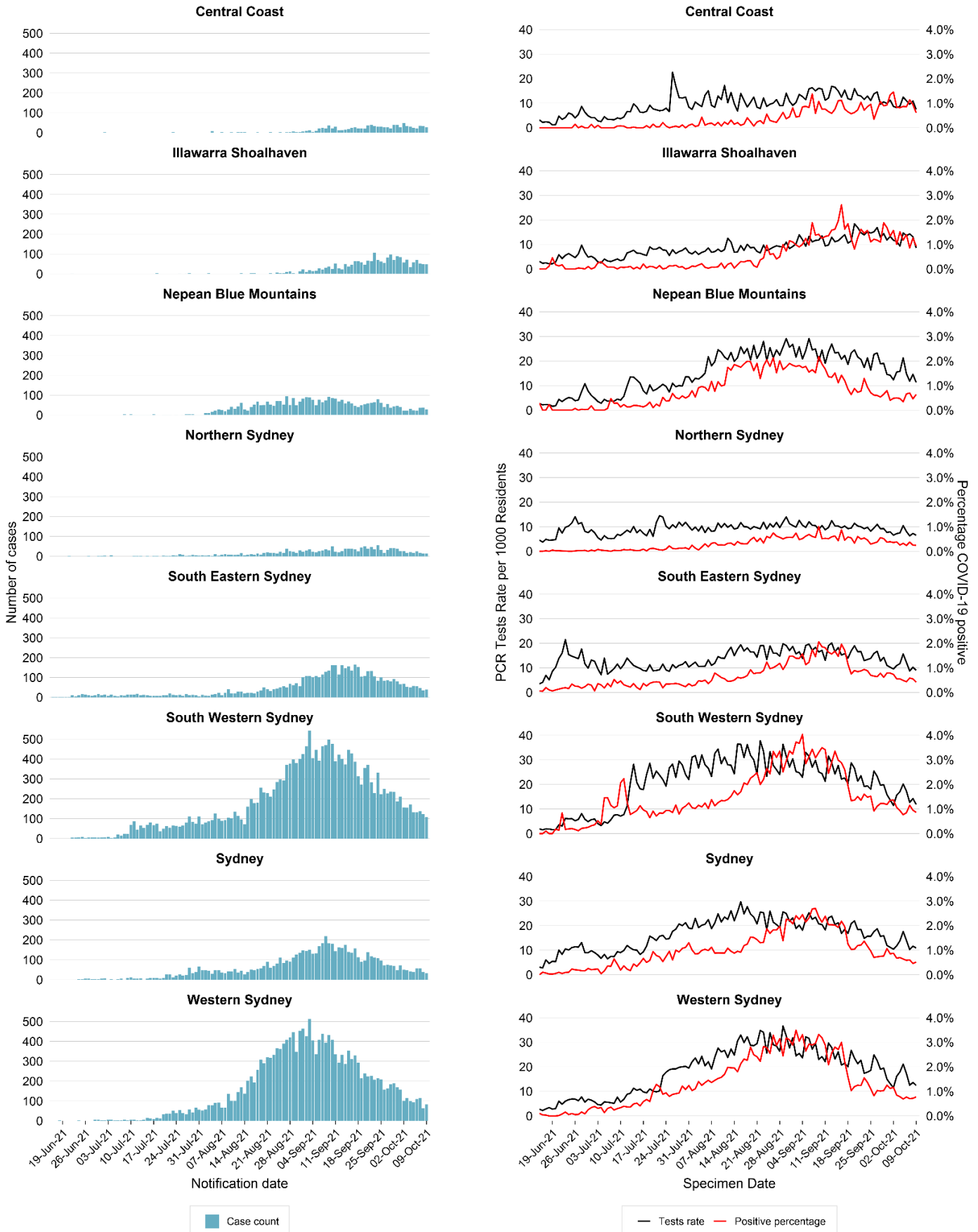
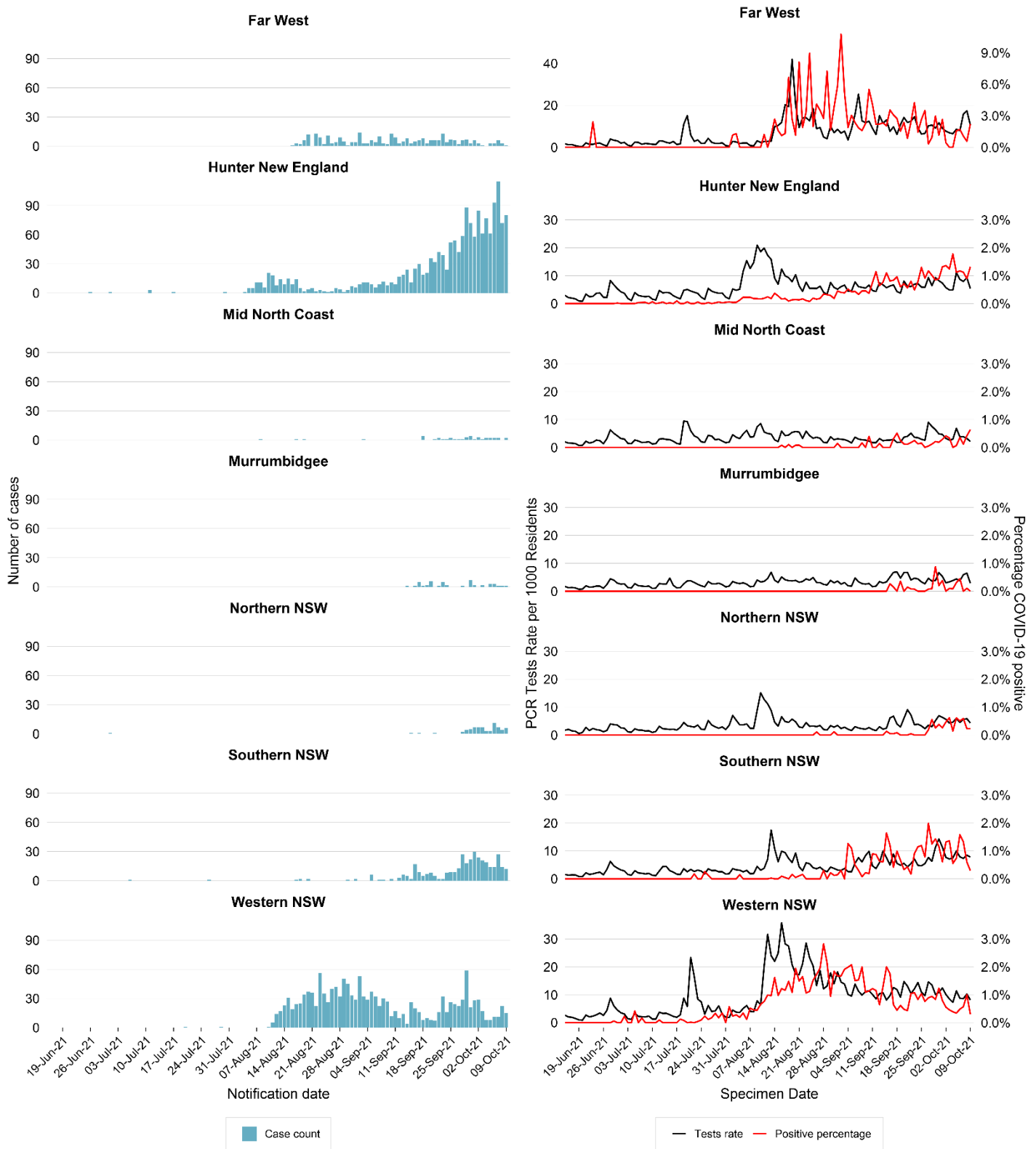


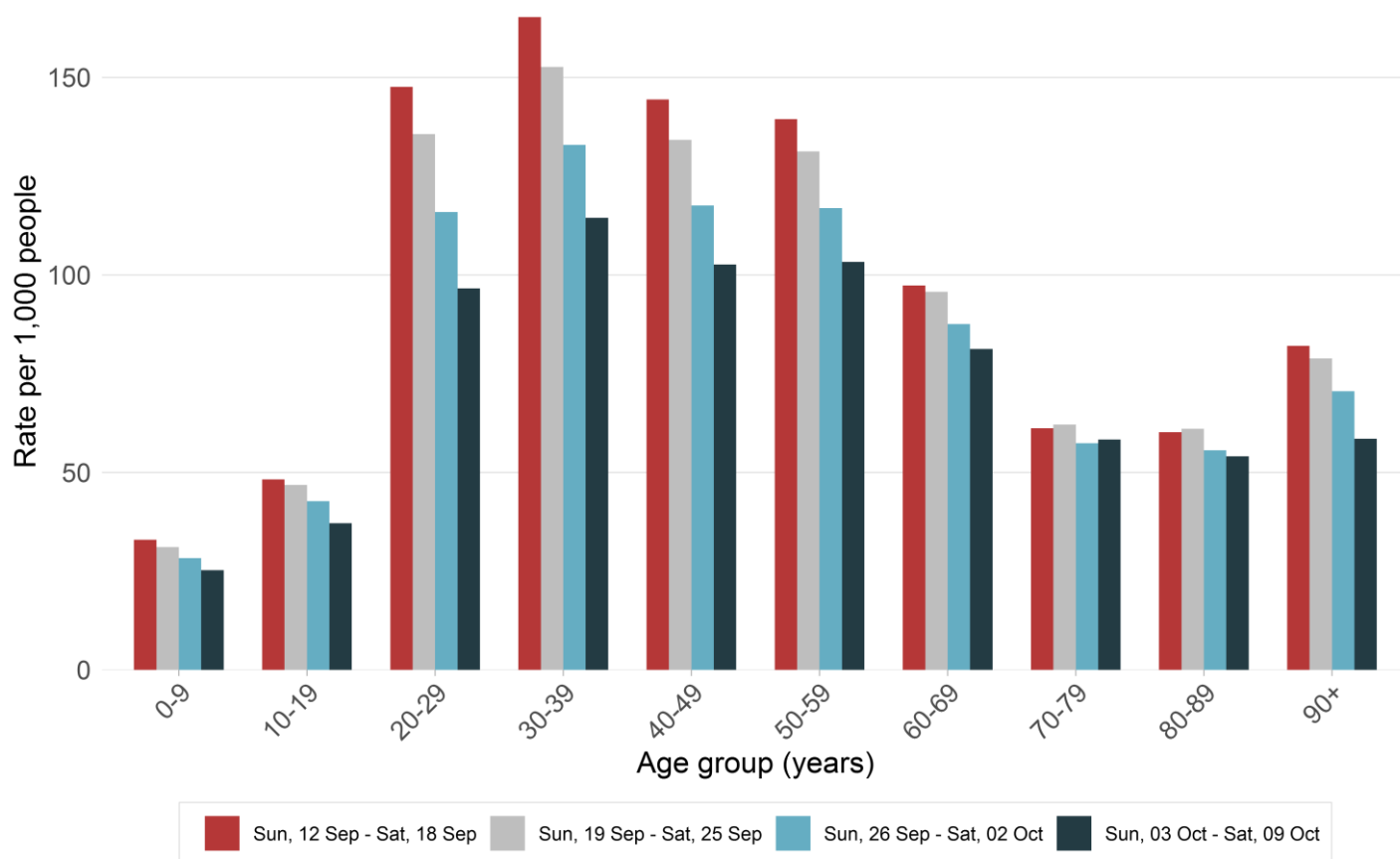
Figure 7b. Cases, testing rates per 1000 population, and percentage of tests which were positive for COVID-19, by LHD of residence, rural and regional LHDs, NSW, 16 June to 9 October 2021



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 9 October 2021. Note that the axes differ within and 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 8. Rates of COVID-19 testing by age group and week, NSW, 12 September to 9 October 2021



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

Interpretation: In the week ending 9 October 2021, testing rates remained highest overall among those aged 20-59. All age groups 0-69 years of age and 90+ showed a steady decrease in testing rates over the past month, while those aged 70-89 have remained stable 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 14. Variants identified among locally acquired COVID-19 cases by week reported, NSW, 29 November 2020 to 9 October 2021

Variant	Week ending				29 Nov 2020 to 11 Sep 2021	Total since 29 Nov 2020
	9 Oct*	2 Oct*	25 Sep	18 Sep		
Total variants identified	2	148	637	789	8,565	10,141
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)	2	148	637	789	8,558	10,134

***Note:** identification of variants of concern is through whole genome sequencing. Results for reported cases in the most recent weeks may not be available at the time of reporting. All locally acquired cases sequenced in the week ending 9 October have been the Delta variant of concern.

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

Table 15. Variants identified among overseas acquired COVID-19 cases by week reported, NSW, 29 November 2020 to 9 October 2021

Variant	Week ending				29 Nov 2020 to 11 Sep 2021	Total since 29 Nov 2020
	9 Oct*	2 Oct*	25 Sep	18 Sep		
Total variants identified	0	0	0	4	391	395
Alpha (B.1.1.7)	0	0	0	0	194	194
Beta (B.1.351)	0	0	0	0	33	33
Gamma (P.1)	0	0	0	0	6	6
Kappa (B.1.617.1)	0	0	0	0	9	9
Delta (B.1.617.2)	0	0	0	4	149	153

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

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

Section 9: NSW Sewage Surveillance Program

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

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

In the week ending 9 October, 206 sewage samples were tested for fragments of SARS-CoV-2. Of these, there were 111 detections:

- Detections outside Sydney

There were 104 detections outside Sydney taken from the sewage treatment plants at Albury composite, Alstonville (2), Ballina (2), Bateau Bay, Batemans Bay, Bathurst, Bega (2), Bermagui (2), Bodalla, Bomaderry, Bombo, Bourke, Brewarrina, Broken Hill, Byron Bay, Casino, Charmhaven, Coffs Harbour, Cooma, Crescent Head, Culburra Beach, Dareton, Dubbo, Dunbogan (2), East Lismore, Forster, Gerroa, Googong, Gosford – Kincumber, Goulburn, Gulargambone, Gwandalan, Hunter - Boulder Bay, Burwood Beach, Dora Creek, Edgeworth, Karuah, Morpeth, Raymond Terrace, Shortland, Toronto, Belmont, Cessnock, Dungog, Farley, Kurri Kurri and Tanilba Bay, Jindabyne, Kyogle, Lightning Ridge, Mannering Park, Merimbula (2), Mittagong, Moruya (2), Moss Vale, Muswellbrook, Narooma (2), Narromine, North Grafton, Nowra, Oberon, Orange, Port Macquarie (2), Queanbeyan, Quirindi, Singleton, South Grafton (2), South Kempsey, South Lismore, South West Rocks, St Georges Basin, Tamworth (2), Taree, Thredbo, Ulladulla, Uralla (2), Vincentia, Wagga Wagga Koorringal (2), Walgett, Wee Waa, Wellington, West Kempsey (2), Wilcannia, Woy Woy, Wyong – Toukley, Wyong South, Yass, and Young.

- Sydney detections

Results for Sydney sites may be delayed to prioritise analysis of regional sites. In Sydney there were detections from the sewage treatment plants at Brooklyn, Lithgow, McGraths Hill and South Windsor. There were also detections from the sewage networks and pumping stations at Caringbah, Eastern Creek, Fairfield 1, Miranda, Padstow 1 and Rozelle.

- Detections with no known cases

Detections from Wagga Koorringal, Uralla, Dungog, Ballina, Crescent Head, Merimbula, Gulargambone, Bega, West Wyalong, Brewarrina, Wee Waa, Quirindi and Brooklyn occurred with no known or recent cases in the catchment. Subsequently cases were identified in Bega. Cases were also identified in Dareton and South Grafton following sewage detections in recent weeks.

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

There were no detections in the following catchments: Armidale, Balranald, Bangalow, Baradine, Bellingen, Blayney, Bonny Hills, Boorowa, Bowral, Bowraville, Broken Hill South, Ocean Shores, Condobolin, Coolah, Coonabarabran, Coonamble, Cootamundra, Coraki, Dareton, Denman, Dunedoo, Eden, Evans Head, Forbes, Frederickton, Glen Innes, Grenfell, Gulgong, Gunnedah, Guyra, Hallidays Point, Harden, Hawkes Nest, Hay, Inverell, Jerilderie, Junee, Lake Cargelligo, Leeton, Lennox Head, Lockhart, Moree, Mullumbimby, Mungindi, Nambucca Heads, Narrabri, Narrandera, Perisher, Scone, Temora, Tenterfield, Tomakin, Trangie, Tumut, Tuross, Tweed - Banora Point, Hastings Point, Murwillumbah and Kingscliff, Wagga Wagga - Narrung Orbal and Narrung SBR, Walcha, Wardell, Warren, Wauchope, Wentworth, Woolgoolga, and Yamba.

- New collection sites

The sewage treatment plant at Jerilderie was added as a new site.

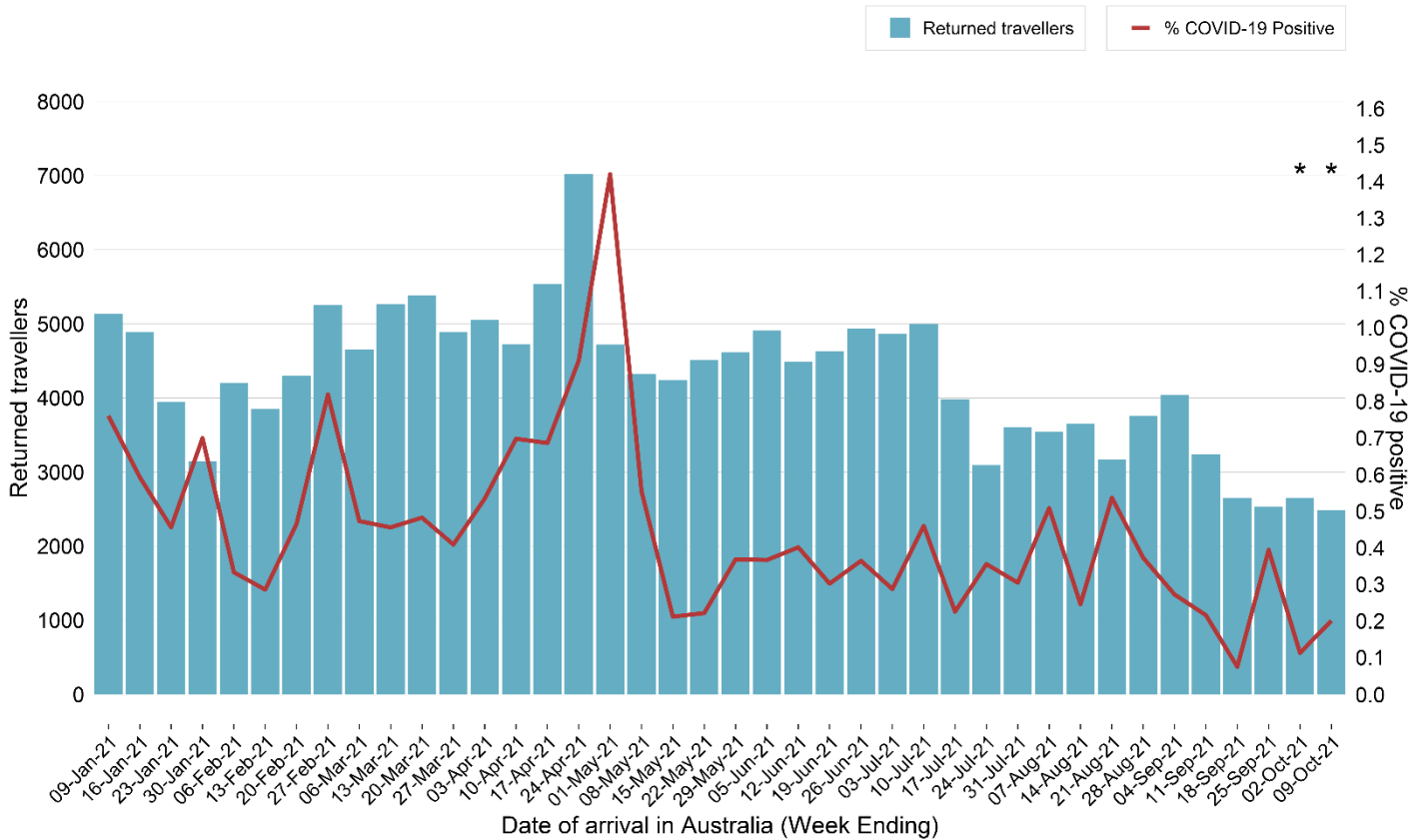
Section 10: COVID-19 in returned travellers

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 9. Returned travellers screened at Sydney International Airport by week of arrival and percent COVID-19 positive, NSW, 3 January 2021 to 9 October 2021



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

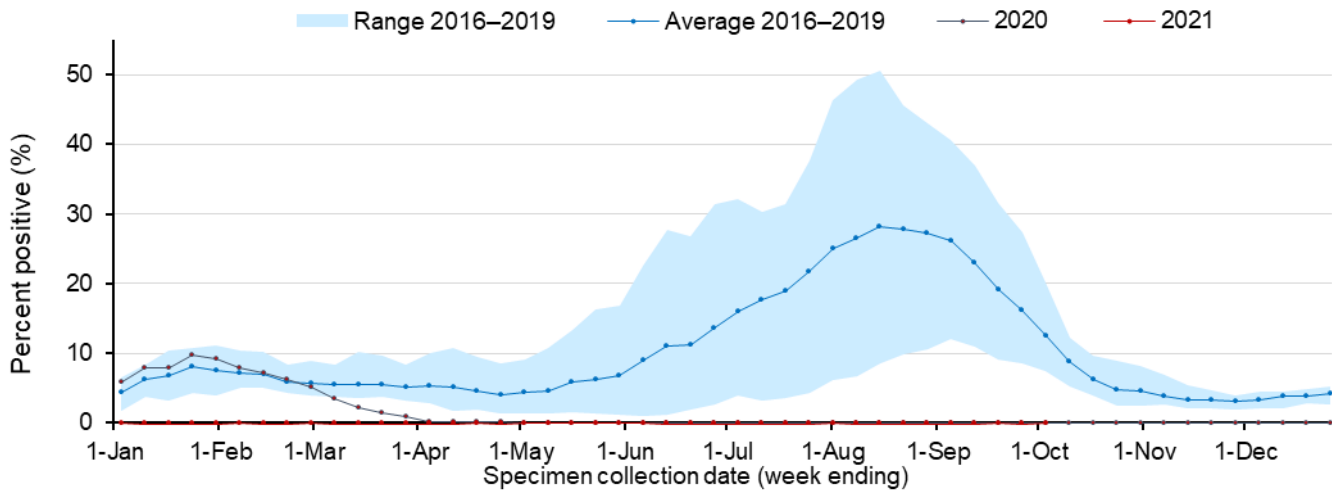
Interpretation: Since 3 January 2021, there has been on average 610 people screened on arrival through Sydney International Airport daily. In the last four weeks, 20 returned travellers have subsequently tested positive for COVID-19 while completing quarantine. The proportion of returned travellers who 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 10. Proportion of tests positive for influenza, NSW, 1 January 2016 to 3 October 2021

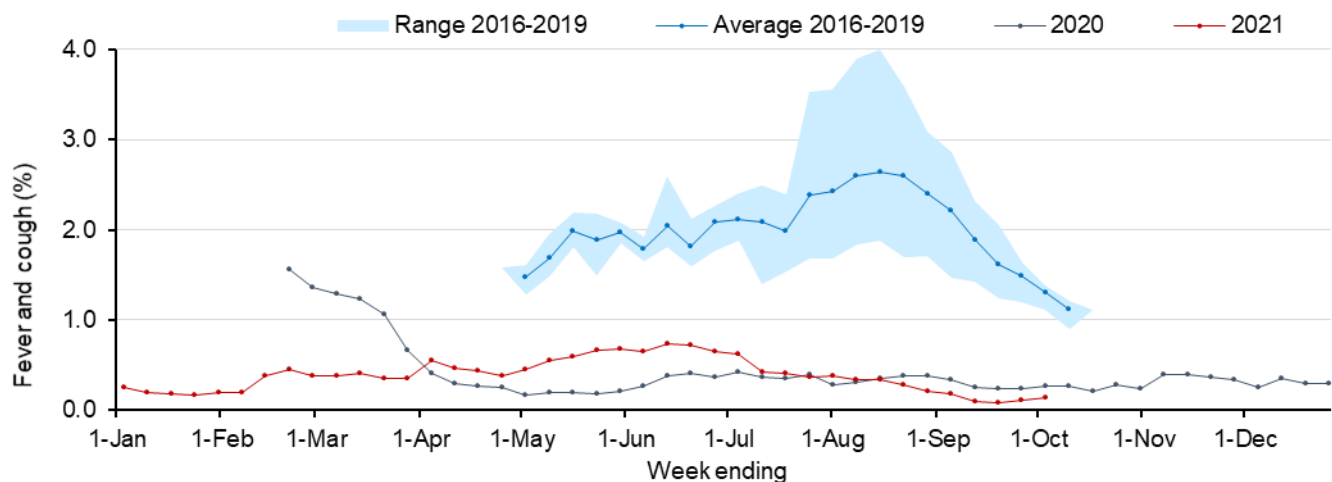


Interpretation: In the week ending 3 October, the percent of influenza tests that were positive continued to be very low (<0.01%), indicating limited influenza transmission in the community. Since early March 2020, this percentage has remained far lower than the usual range for the time of year. There have been 16 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 11. Proportion of FluTracker participants reporting influenza-like illness, NSW, 1 January 2016 to 3 October 2021



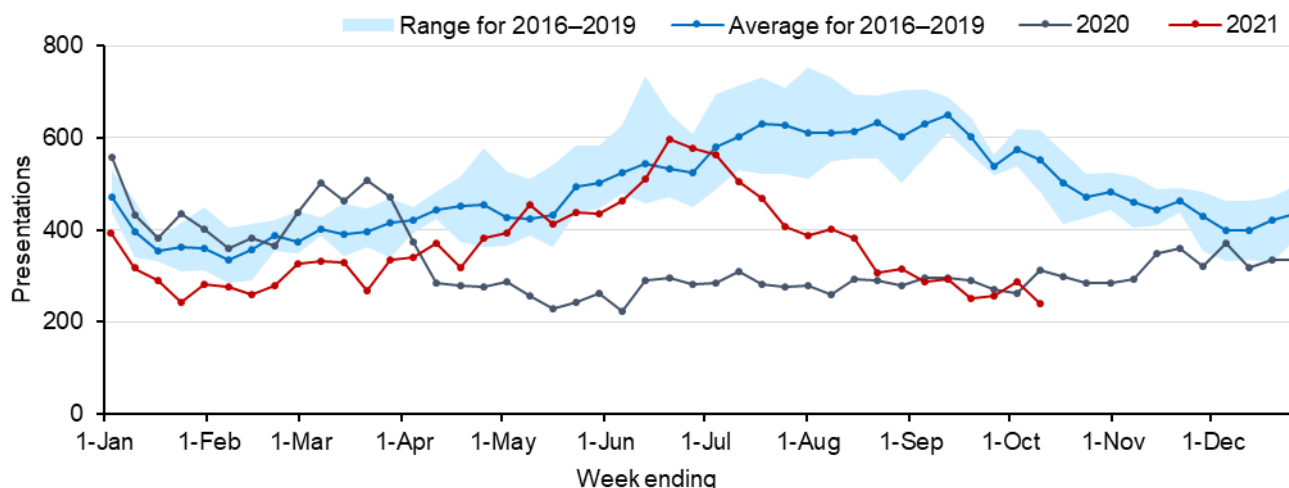
Interpretation: In NSW in the week ending 3 October 2021, of the 22,764 people surveyed, 33 people (0.14%) reported flu-like symptoms. In the last four weeks, 62% (62/100) of new cases of flu-like illness reported having a COVID-19 test. The proportion of people with flu-like symptoms being tested for 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.

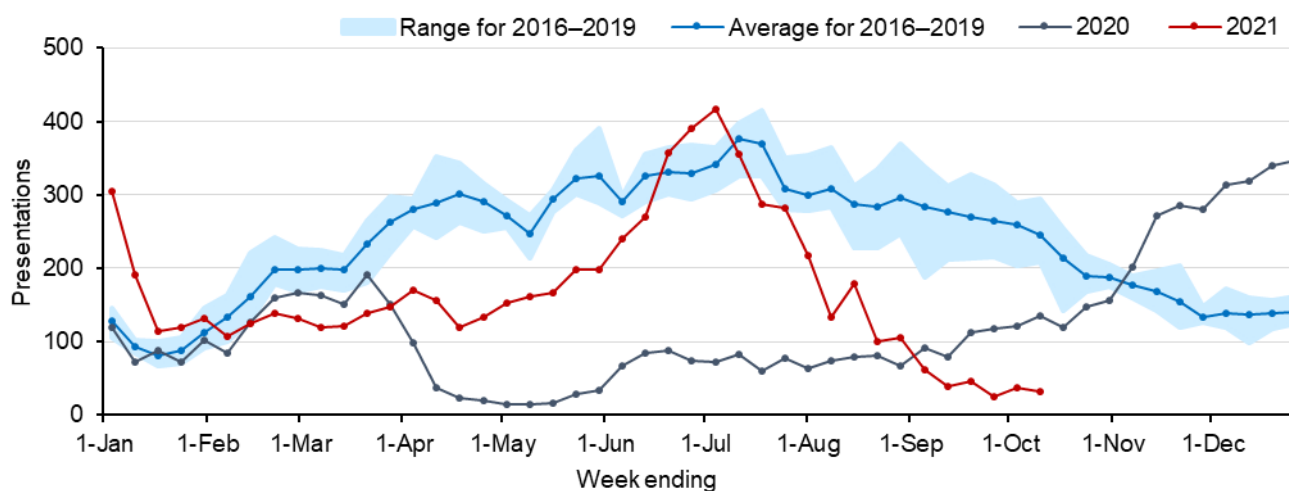
The figures below show weekly pneumonia and bronchiolitis presentations to Emergency Departments in NSW, using PHREDSS⁴. The red line shows the weekly counts for 2021, the dark blue line showing counts for 2020, the light blue line showing the average for 2016 to 2019 and the shaded area showing the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

Figure 12. Emergency Department pneumonia presentations, NSW, 1 January 2016 to 10 October 2021



Interpretation: Pneumonia presentations include people with diagnoses of viral, bacterial, atypical or unspecified pneumonia, and Legionnaires' disease, but excludes 'pneumonia with influenza' and provides an indicator of more severe respiratory conditions. Since the beginning of the current outbreak from 16 June 2021, there has been a steady decline in pneumonia presentations, with the number of presentations in the week ending 10 October remaining significantly below the seasonal range for this time of year.

Figure 13. Emergency Department bronchiolitis presentations, NSW, 1 January 2016 to 10 October 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. Since the beginning of the current outbreak from 16 June 2021, there has again been a steady decrease in bronchiolitis presentations, with the number of presentations in the week ending 10 October remaining well 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 4 years. Includes unplanned presentations to 67 NSW emergency departments (accounts for 87% of total public ED activity).

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

		Week ending				Total since January 2021	
		9 Oct		2 Oct			
Local Health District	Local Government Area	No.	Tests per 1,000 population	No.	Tests per 1,000 population	No.	Tests per 1,000 population
Central Coast	<i>LHD Total²</i>	23902	67.7	27367	77.6	468156	1326.7
	Kiama	1195	51.1	1439	61.5	25465	1088.9
Illawarra Shoalhaven	Shellharbour	6890	94.1	8166	111.5	107417	1466.8
	Shoalhaven	5522	52.3	6241	59.1	83706	792.3
	Wollongong	21441	98.3	23864	109.4	302563	1387.2
	<i>LHD Total²</i>	35048	83.5	39710	94.6	519151	1237.2
Nepean Blue Mountains	Blue Mountains	5770	72.9	6797	85.9	116023	1466.5
	Hawkesbury	8332	123.8	9980	148.3	148266	2203.2
	Lithgow	737	34.1	1257	58.2	14418	667.4
	Penrith	26418	124.0	31018	145.6	503430	2363.8
	<i>LHD Total²</i>	40801	104.4	48527	124.1	772287	1975.2
Northern Sydney	Hornsby	6775	44.6	7463	49.1	163598	1075.9
	Hunters Hill	1532	102.3	1675	111.8	40251	2687.0
	Ku-ring-gai	6181	48.6	6782	53.3	179092	1408.5
	Lane Cove	3139	78.2	3824	95.2	92102	2293.7
	Mosman	1814	58.6	1432	46.2	36355	1173.5
	North Sydney	2632	35.1	2894	38.6	74929	998.8
	Northern Beaches	15439	56.5	18010	65.9	434088	1587.2
	Parramatta ¹	18691	72.7	22061	85.8	442757	1721.5
	Ryde	7952	60.6	9306	70.9	227328	1731.8
	<i>LHD Total²</i>	50662	53.0	57985	60.7	1388631	1452.7
South Eastern Sydney	Bayside	16699	93.6	20019	112.2	364535	2043.4
	Georges River	13049	81.8	14775	92.7	310764	1948.7
	Randwick	14758	94.8	16356	105.1	325241	2089.6
	Sutherland Shire	16058	69.6	18144	78.7	355970	1543.6
	Sydney ¹	17854	72.5	20719	84.1	455220	1847.9
	Waverley	5397	72.6	6131	82.5	157836	2124.5
	Woollahra	3628	61.1	4381	73.8	118289	1991.8
	<i>LHD Total²</i>	74958	78.2	86206	89.9	1782027	1858.0
South Western Sydney	Camden	11747	115.8	13825	136.3	250525	2469.8
	Campbelltown	20598	120.5	24604	143.9	410685	2402.5
	Canterbury-Bankstown ¹	44465	117.7	50898	134.7	1147940	3037.6
	Fairfield	24115	113.9	28761	135.9	654926	3093.7
	Liverpool	26820	117.9	31830	139.9	610628	2683.1
	Wingecarribee	2753	53.8	2744	53.7	55030	1076.2
	<i>LHD Total²</i>	3522	66.3	4226	79.5	70248	1321.7
Sydney	<i>LHD Total²</i>	112132	108.0	132721	127.8	2629505	2531.9
	Burwood	2903	71.5	3386	83.4	66435	1635.9
	Canada Bay	6034	62.8	7088	73.8	155960	1623.3
	Canterbury-Bankstown ¹	44465	117.7	50898	134.7	1147940	3037.6
	Inner West	13483	67.1	14623	72.8	320178	1594.4
	Strathfield	6403	136.5	7372	157.1	144000	3068.7
	Sydney ¹	17854	72.5	20719	84.1	455220	1847.9

		Week ending				Total since January 2021	
		9 Oct		2 Oct			
Local Health District	Local Government Area	No.	Tests per 1,000 population	No.	Tests per 1,000 population	No.	Tests per 1,000 population
	<i>LHD Total</i>	62322	89.4	70060	100.6	1540964	2211.6
Western Sydney	Blacktown	46793	125.0	52303	139.7	921722	2461.5
	Cumberland	34873	144.4	39863	165.1	794532	3289.7
	Parramatta ¹	18691	72.7	22061	85.8	442757	1721.5
	The Hills Shire	16886	94.9	18305	102.9	354289	1990.7
	<i>LHD Total</i>	115871	110.0	130651	124.0	2480271	2354.5
Far West	Balranald	61	26.1	66	28.2	1341	573.6
	Broken Hill	962	55.0	1408	80.6	20586	1177.8
	Central Darling	250	135.9	222	120.7	3166	1721.6
	Wentworth	911	129.2	215	30.5	4664	661.3
	<i>LHD Total</i>	2184	72.5	1911	63.4	29757	987.2
Hunter New England	Armidale Regional	646	21.0	662	21.5	23455	762.1
	Cessnock	3549	59.2	3602	60.1	39981	666.5
	Dungog	263	27.9	331	35.1	5323	564.9
	Glen Innes Severn	142	16.0	122	13.8	4272	481.6
	Gunnedah	1486	117.2	282	22.2	8154	643.0
	Gwydir	95	17.8	69	12.9	1840	343.7
	Inverell	258	15.3	293	17.4	8415	498.2
	Lake Macquarie	10287	50.0	12701	61.7	226967	1102.3
	Liverpool Plains	446	56.4	179	22.7	4320	546.6
	Maitland	6223	73.1	6521	76.6	109775	1289.0
	Mid-Coast	4544	48.4	3042	32.4	47171	502.7
	Moree Plains	347	26.2	262	19.8	8500	641.0
	Muswellbrook	688	42.0	1283	78.3	9910	605.1
	Narrabri	497	37.8	237	18.0	5706	434.4
	Newcastle	8779	53.0	11681	70.6	193904	1171.1
	Port Stephens	2604	35.4	3044	41.4	61893	842.3
	Singleton	2047	87.3	1728	73.7	20909	891.2
	Tamworth Regional	5313	85.0	2099	33.6	52001	831.5
	Tenterfield	139	21.1	125	19.0	2373	359.9
	Upper Hunter Shire	395	27.9	572	40.3	7800	550.1
	Uralla	99	16.5	102	17.0	2990	497.3
Walcha	67	21.4	120	38.3	1942	619.7	
<i>LHD Total</i>	48952	51.4	49020	51.5	847185	889.5	
Mid North Coast	Bellingen	217	16.7	267	20.5	6844	526.6
	Coffs Harbour	1242	16.1	1447	18.7	37792	489.1
	Kempsey	1493	50.2	1526	51.3	20282	681.9
	Nambucca	337	17.0	524	26.5	8563	432.4
	Port Macquarie-Hastings	2415	28.6	4815	57.0	51065	604.1
	<i>LHD Total</i>	5704	25.3	8579	38.0	124546	551.9
Murrumbidgee	Albury	1463	26.9	1698	31.2	35465	652.5
	Berrigan	170	19.4	177	20.2	2805	320.6
	Bland	127	21.3	150	25.1	2984	499.7
	Carrathool	42	15.0	29	10.4	825	294.8
	Coolamon	173	39.9	153	35.3	2671	615.3

		Week ending				Total since January 2021	
		9 Oct		2 Oct			
Local Health District	Local Government Area	No.	Tests per 1,000 population	No.	Tests per 1,000 population	No.	Tests per 1,000 population
	Cootamundra-Gundagai Regional	245	21.8	322	28.7	6612	588.5
	Edward River	1065	117.2	670	73.8	5309	584.4
	Federation	322	25.9	320	25.7	6266	503.8
	Greater Hume Shire	320	29.7	301	28.0	6947	645.4
	Griffith	547	20.2	509	18.8	14114	522.2
	Hay	60	20.4	69	23.4	1067	361.8
	Hilltops	704	37.6	1629	87.1	18251	975.8
	Junee	182	27.2	264	39.5	3347	500.8
	Lachlan ¹	134	22.1	172	28.3	2811	462.7
	Leeton	245	21.4	208	18.2	4766	416.4
	Lockhart	146	44.4	111	33.8	1951	593.9
	Murray River	128	10.6	195	16.1	1747	144.2
	Murrumbidgee	92	23.5	73	18.6	1537	392.4
	Narrandera	116	19.7	87	14.8	1915	324.6
	Snowy Valleys	297	20.5	356	24.6	6389	441.3
	Temora	135	21.4	138	21.9	2774	439.8
	Wagga Wagga	3972	60.9	3037	46.5	52759	808.5
	<i>LHD Total²</i>	10575	35.5	10533	35.3	181450	608.7
Northern NSW	Ballina	1724	38.6	1216	27.3	39275	880.1
	Byron	810	23.1	990	28.2	30883	880.3
	Clarence Valley	1657	32.1	966	18.7	22314	431.9
	Kyogle	517	58.8	1084	123.2	4674	531.4
	Lismore	2096	48.0	1874	42.9	33506	766.9
	Richmond Valley	1429	60.9	1331	56.7	17672	753.1
	Tenterfield	139	21.1	125	19.0	2373	359.9
	Tweed	2547	26.3	2618	27.0	53254	549.0
		<i>LHD Total²</i>	10818	34.9	10124	32.6	202171
Southern NSW	Bega Valley	1227	35.6	640	18.6	17452	506.2
	Eurobodalla	908	23.6	1977	51.4	22570	586.7
	Goulburn Mulwaree	2240	72.0	3231	103.8	29824	958.0
	Queanbeyan-Palerang Regional	3219	52.7	4822	78.9	40806	667.9
	Snowy Monaro Regional	3934	189.2	2253	108.3	19116	919.3
	Upper Lachlan Shire	198	24.6	309	38.3	5272	654.2
	Yass Valley	325	19.0	484	28.3	11488	672.3
		<i>LHD Total²</i>	12071	55.6	13723	63.2	146632
Western NSW	Bathurst Regional	2191	50.2	2622	60.1	49888	1143.8
	Blayney	285	38.6	343	46.5	7941	1076.2
	Bogan	52	20.2	75	29.1	2223	861.6
	Bourke	447	172.6	436	168.3	5220	2015.4
	Brewarrina	46	28.6	131	81.3	1945	1207.3
	Cabonne	327	24.0	860	63.1	9585	703.0
	Cobar	143	30.7	150	32.2	3004	644.9
	Coonamble	163	41.2	128	32.3	2939	742.6
	Cowra	684	53.7	3228	253.3	14925	1171.2

		Week ending				Total since January 2021	
		9 Oct		2 Oct		No.	Tests per 1,000 population
Local Health District	Local Government Area	No.	Tests per 1,000 population	No.	Tests per 1,000 population		
	Dubbo Regional	6467	120.4	7848	146.1	125402	2334.4
	Forbes	213	21.5	240	24.2	6023	608.0
	Gilgandra	165	38.9	208	49.1	4011	946.2
	Lachlan ¹	134	22.1	172	28.3	2811	462.7
	Mid-Western Regional	581	23.0	784	31.1	26049	1031.6
	Narromine	658	101.0	669	102.7	9114	1398.5
	Oberon	1099	203.1	1649	304.8	6112	1129.6
	Orange	2402	56.6	2191	51.6	58704	1382.9
	Parkes	488	32.9	394	26.6	11355	765.3
	Walgett	490	82.3	241	40.5	5781	971.1
	Warren	212	78.6	251	93.1	5417	2008.5
	Warrumbungle Shire	488	52.6	220	23.7	6178	665.9
	Weddin	116	32.1	169	46.8	2272	628.8
	<i>LHD Total²</i>	17830	62.6	22974	80.6	366044	1284.3
NSW Total	NSW Total³	623830	77.1	710092	87.8	13479247	1666.2

Source - Notifiable Condition Information Management System, accessed as at 8pm 11 Oct 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 3 October 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 2020–3 October 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	1,634,439	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											
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	<0.01%	0	-	82	27	25	162	87	12
26 September	25,659	0	-	0	-	70	19	17	158	60	11
3 October	24,430	1	< 0.01%	0	-	53	11	14	171	44	16

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

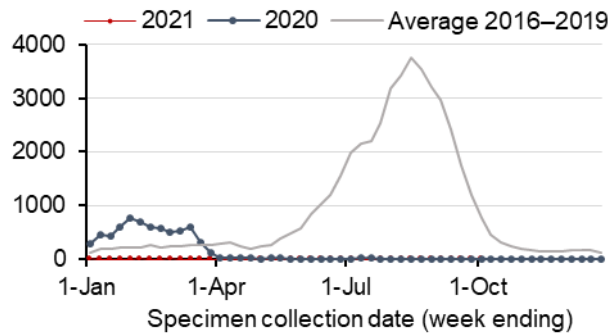
RSV - Respiratory syncytial virus

*Five-week period

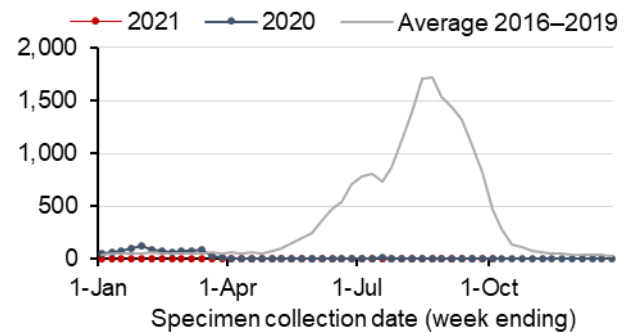
Appendix C: Number of positive PCR test results for influenza and other respiratory viruses at sentinel NSW laboratories, January 2020 to 3 October 2021

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

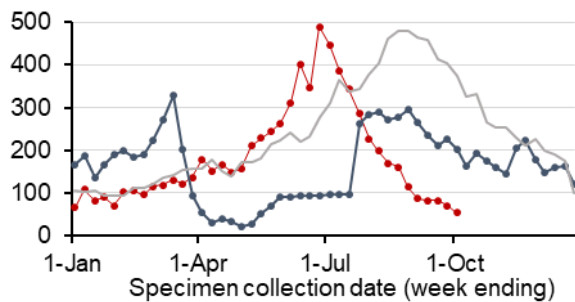
Influenza A



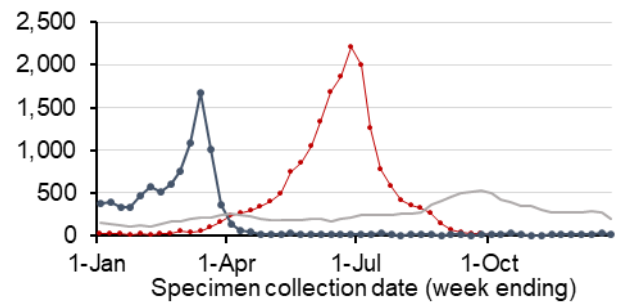
Influenza B



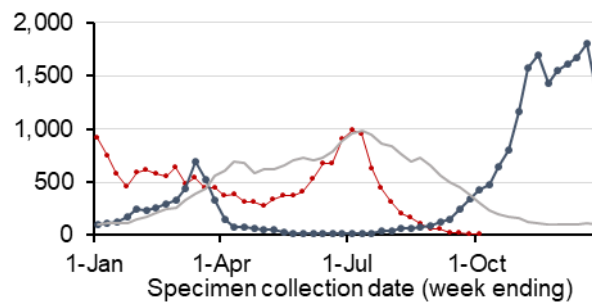
Adenovirus



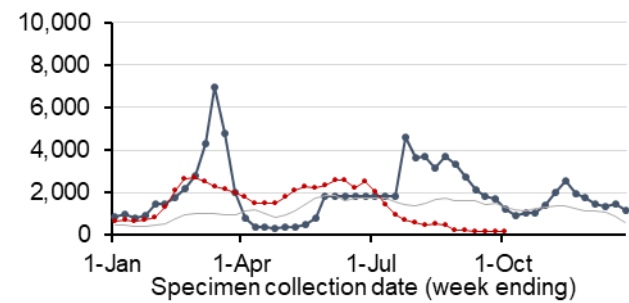
Parainfluenza



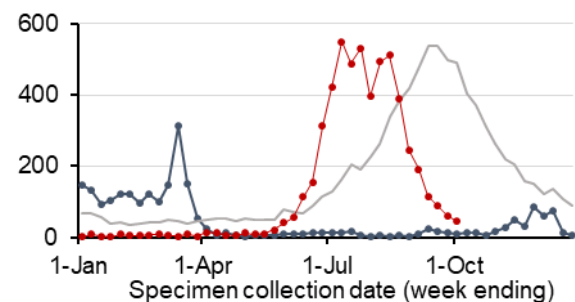
Respiratory Syncytial Virus



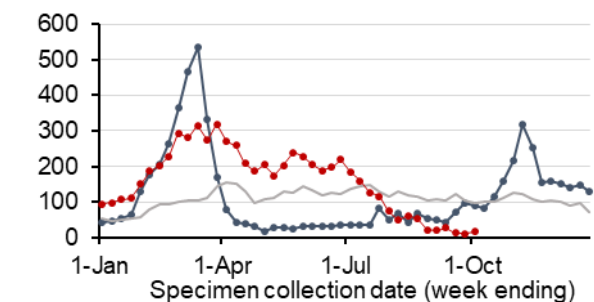
Rhinovirus



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	<p>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).</p> <p>Case counts include:</p> <ul style="list-style-type: none"> - 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	<p>This date is provided to NSW Health by the laboratory. Laboratories prioritise notification of positive results to allow prompt public health action.</p> <p>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.</p> <p>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.</p>