

# COVID-19 WEEKLY SURVEILLANCE IN NSW

## EPIDEMIOLOGICAL WEEK 38, ENDING 25 September 2021

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### Overview

Table 1. Number and proportion of COVID-19 cases in NSW by likely source of infection to week ending 25 September 2021

	2020		2021		Total
	Jan – Jun	Jul – Dec	01 Jan – 15 Jun	16 Jun – 25 Sep	
Locally acquired	1,236 (39 %)	807 (52 %)	51 (7 %)	53,153 (100 %)	55,247 (94 %)
Interstate acquired	67 (2 %)	23 (1 %)	0 (0 %)	10 (0 %)	100 (0 %)
Overseas acquired	1,892 (59 %)	714 (46 %)	641 (93 %)	213 (0 %)	3,460 (6 %)
Total	3,195 (100 %)	1,544 (100 %)	692 (100 %)	53,376 (100 %)	58,807 (100 %)
Deaths	51	5	0	300	356

### Summary for the week 19 September to 25 September 2021 (inclusive)

- There were 7,127 locally acquired cases reported in the week ending 25 September 2021. The ten LGAs with the highest number of cases were:
  - Canterbury-Bankstown LGA with 956 (13%) cases
  - Blacktown LGA with 704 (10%) cases
  - Liverpool LGA with 617 (9%) cases
  - Cumberland LGA with 594 (8%) cases
  - Fairfield LGA with 397 (6%) cases
  - Wollongong LGA with 334 (5%) cases
  - Sydney LGA with 334 (5%) cases
  - Penrith LGA with 329 (5%) cases
  - Campbelltown LGA with 281 (4%) cases
  - Central Coast LGA with 212 (3%) cases
  - 2,309 (32%) cases were residents across 62 other LGAs
- There were 7 cases reported in overseas returned travellers in the last week (down 59%).
- There were 53 deaths in people diagnosed with COVID reported this week.
- In the past week 8.4% of locally acquired cases were fully vaccinated. This compares with around 46.2% 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 11 September).
- Testing rates decreased compared to the previous week (down 10%), 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 25 September, 234 sewage samples were tested for fragments of SARS-CoV-2. Of these, there were 92 detections. Detections occurring with no known or recent cases in the catchment occurred in Dareton, Grafton composite, North Grafton, South Grafton, Eden, Balranald, Oberon, Dungog, Karuah, South Lismore, Lightning Ridge, Jindabyne and Crookwell and Ballina. Subsequently cases were identified in South Lismore. Note that cases may be identified in these catchments after 25 September.

## Indicators of effective prevention for COVID-19 in NSW for the week ending 25 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 12 September to 25 September 2021**

	Week ending 25 Sep	Week ending 18 Sep
Proportion locally acquired cases notified to NSW Health by the laboratory within 1 day of specimen collection	75% (5,374/7,127)	69% (5,945/8,585)
Locally acquired cases contacted by text message within 1 day of notification to NSW Health	87% (6,167/7,127)	90% (7,767/8,585)
Locally acquired cases fully interviewed by public health staff within 1 day of notification to NSW Health	82% (5,858/7,127)	48% (4,149/8,585)

**Interpretation:** In the week ending 25 September, 75% of cases were notified to NSW Health within a day of test, 82% of cases were fully interviewed within one day of notification and 87% 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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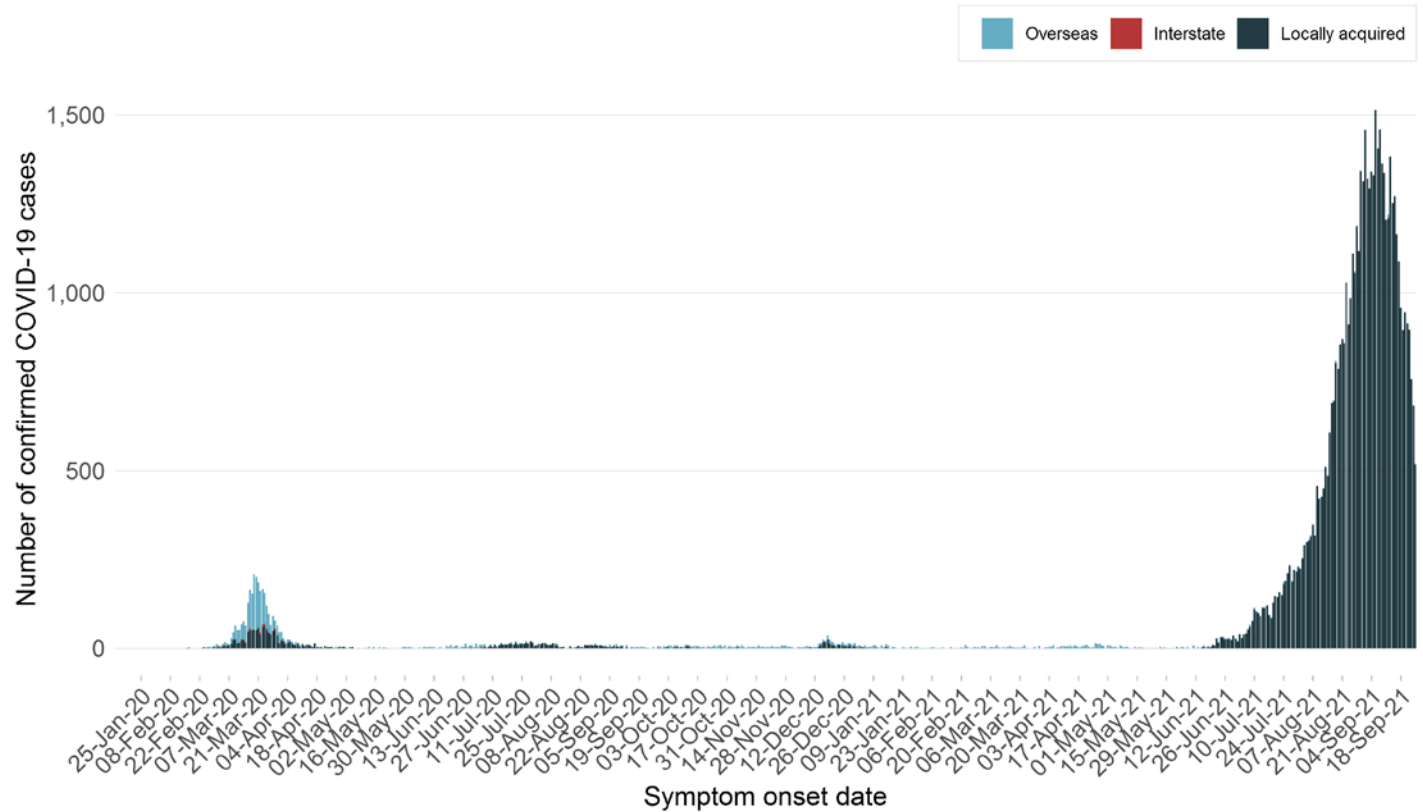
### COVID-19 Vaccination program

- Australian Government Department of Health reports the number of vaccine doses administered across Australia — [Daily COVID-19 vaccine rollout numbers](#)
- 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 25 September 2021



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

**Interpretation:** Between 13 January 2020 and 25 September 2021, there were 58,807 confirmed COVID-19 cases in NSW. Of those, 3,460 (6%) were overseas acquired, 100 (<1%) were interstate acquired, and 55,247 (94%) were locally acquired. Cases who tested positive by 25 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, 29 August to 25 September 2021

Local Health District	Week ending				Total	Days since last case reported
	25 Sep	18 Sep	11 Sep	04 Sep		
South Western Sydney	2,074	2,786	3,152	3,023	11,035	0
Western Sydney	1,553	2,204	2,766	3,058	9,581	0
South Eastern Sydney	774	1,040	912	603	3,329	0
Sydney	766	1,047	1,219	953	3,985	0
Illawarra Shoalhaven	478	318	209	82	1,087	0
Nepean Blue Mountains	431	420	526	540	1,917	0
Northern Sydney	303	217	211	177	908	0
Central Coast	212	133	164	47	556	0
Hunter New England	246	144	61	48	499	0
Western NSW	120	97	174	271	662	0
Southern NSW	45	38	47	34	164	0
Far West	42	48	10	2	102	0
Murrumbidgee	17	8	0	0	25	1
Mid North Coast	6	4	0	0	10	0
Northern NSW	0	2	0	0	2	8
Correctional settings	48	66	110	104	328	0
NSW*	7,127	8,585	9,568	8,949	34,229	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 7,127 locally acquired cases reported in the week ending 25 September 2021. The largest proportion of cases were residents of South Western Sydney LHD (2,074, 29%) followed by Western Sydney LHD (1,553, 22%), and South Eastern LHD (774, 11%). Correctional settings include all cases residing in NSW correctional facilities.

### Section 3: Epidemiology of local cases with COVID-19 from 16 June 2021 to 25 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.

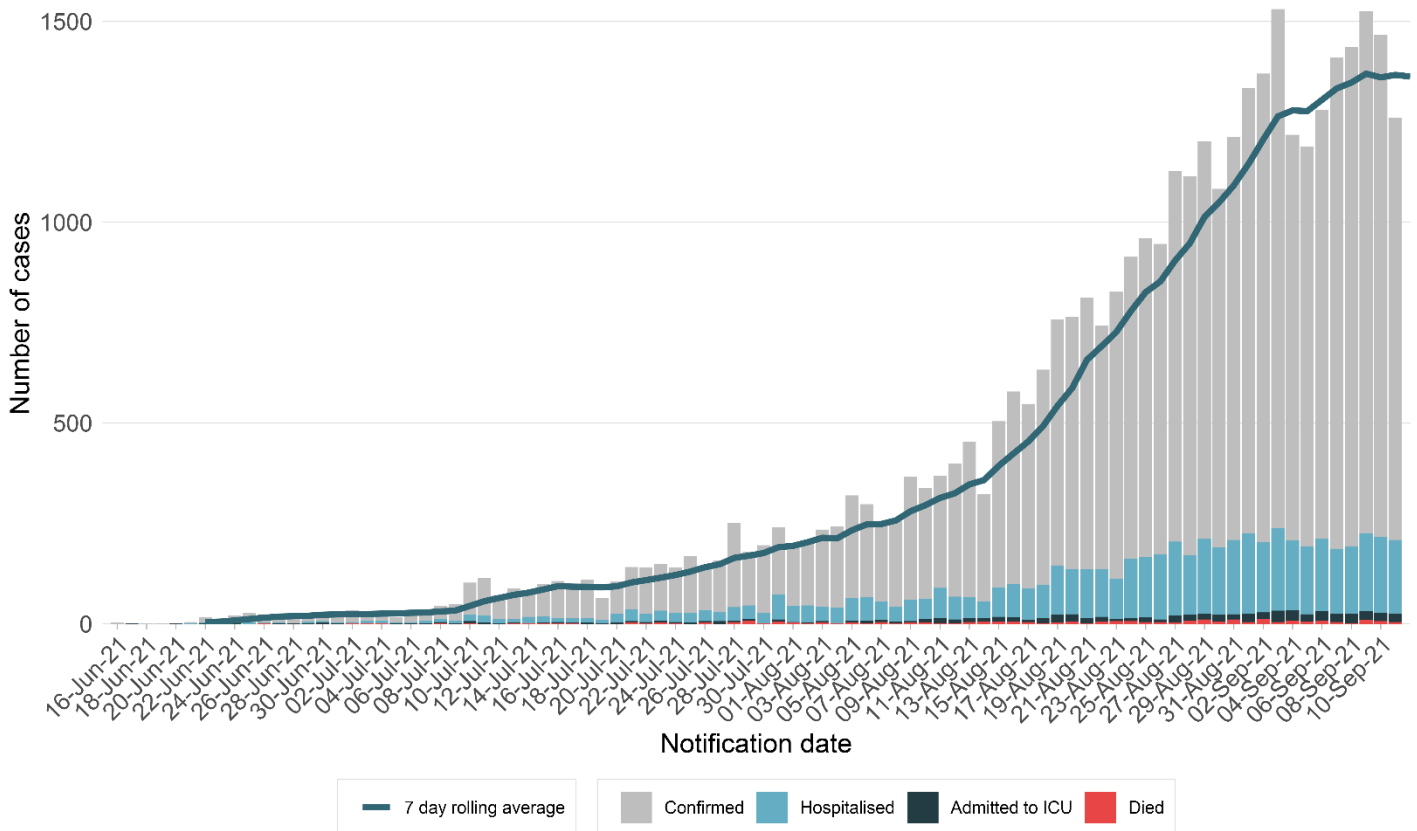
Table 4. COVID-19 cases and tests reported, NSW, from 1 January 2021 to 25 September 2021

	Week ending 25 Sep	Week ending 18 Sep	% change	Total 2021
Number of cases	7,135	8,605	-17 %	54,068
Locally acquired	7,127	8,585	-17 %	53,204
Known epidemiological links to other cases or clusters	1,957	1,893	3 %	18,058
No epidemiological links to other cases or clusters	5,170	6,692	-23 %	35,146
Overseas acquired	7	17	-59 %	854
Interstate acquired	1	3	-67 %	10
Number of tests	826,574	919,179	-10 %	13,374,161

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 (15,712/15,740 cases, or 99.8%). Of the 7,127 locally acquired cases reported in the week ending 25 September 2021, 62% 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 11 September 2021



**Interpretation:** This graph shows the number of COVID-19 cases notified each day to NSW Health, as of 11 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 11 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 25 September 2021

LGA name	Last 7 days		Current NSW outbreak (16 Jun-25 Sep 2021)	
	Cases	Cases per 100,000 population	Cases	Cases per 100,000 population
Liverpool	617	271	4,585	2,015
Canterbury-Bankstown	956	253	9,652	2,554
Cumberland	594	246	7,877	3,261
Blacktown	704	188	5,726	1,529
Fairfield	397	188	3,973	1,877
Campbelltown	281	164	1,881	1,100
Penrith	329	154	2,613	1,227
Wollongong	334	153	761	349
Sydney	334	136	1,640	666
Shellharbour	92	126	291	397
Camden	123	121	816	804
Randwick	184	118	1,006	646
Bayside	196	110	1,162	651
Hunters Hill	16	107	68	454
Hawkesbury	68	101	389	578
Strathfield	46	98	355	757
Burwood	32	79	270	665
Georges River	126	79	1,044	655
Wollondilly	36	68	142	267
Central Coast	212	62	610	177

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 25 September 2021

LGA name	Last 7 days		Current NSW outbreak (16 Jun-25 Sep 2021)	
	Cases	Cases per 100,000 population	Cases	Cases per 100,000 population
Bourke	22	849	116	4,479
Central Darling	11	598	147	7,993
Broken Hill	34	195	90	515
Cowra	22	173	23	180
Dubbo Regional	60	112	800	1,489
Goulburn Mulwaree	22	71	34	109
Hilltops	13	70	18	96
Walgett	3	50	32	538
Lake Macquarie	101	49	221	107
Newcastle	80	48	222	134
Gilgandra	2	47	9	212
Yass Valley	7	41	19	111
Warren	1	37	20	742
Cessnock	19	32	32	53
Walcha	1	32	1	32
Warrumbungle Shire	3	32	3	32
Muswellbrook	5	31	5	31
Narromine	2	31	23	353
Maitland	25	29	99	116
Eurobodalla	7	18	25	65

**Interpretation:** The top 20 metropolitan LGAs contributed 80% of all cases in the week ending 25 September. The two LGAs with the highest case rates per 100,000 population are in a rural and regional area and are 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 25 September 2021

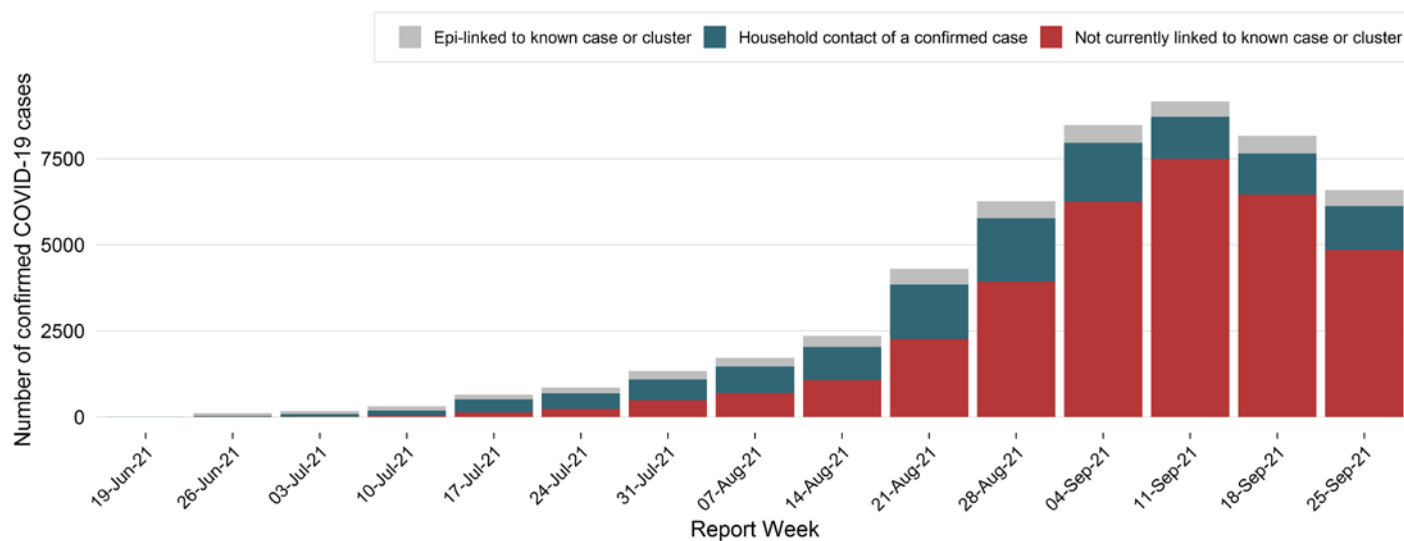
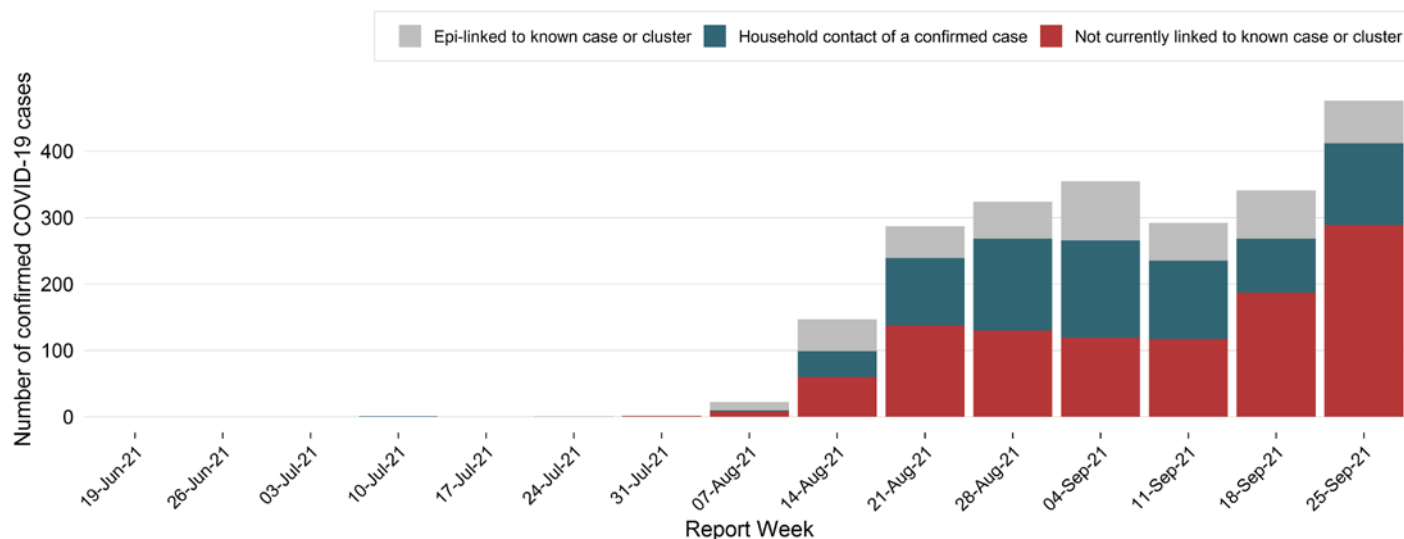


Figure 3b. Source of infection for locally acquired cases, rural and regional LHDs, from 16 June to 25 September 2021



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

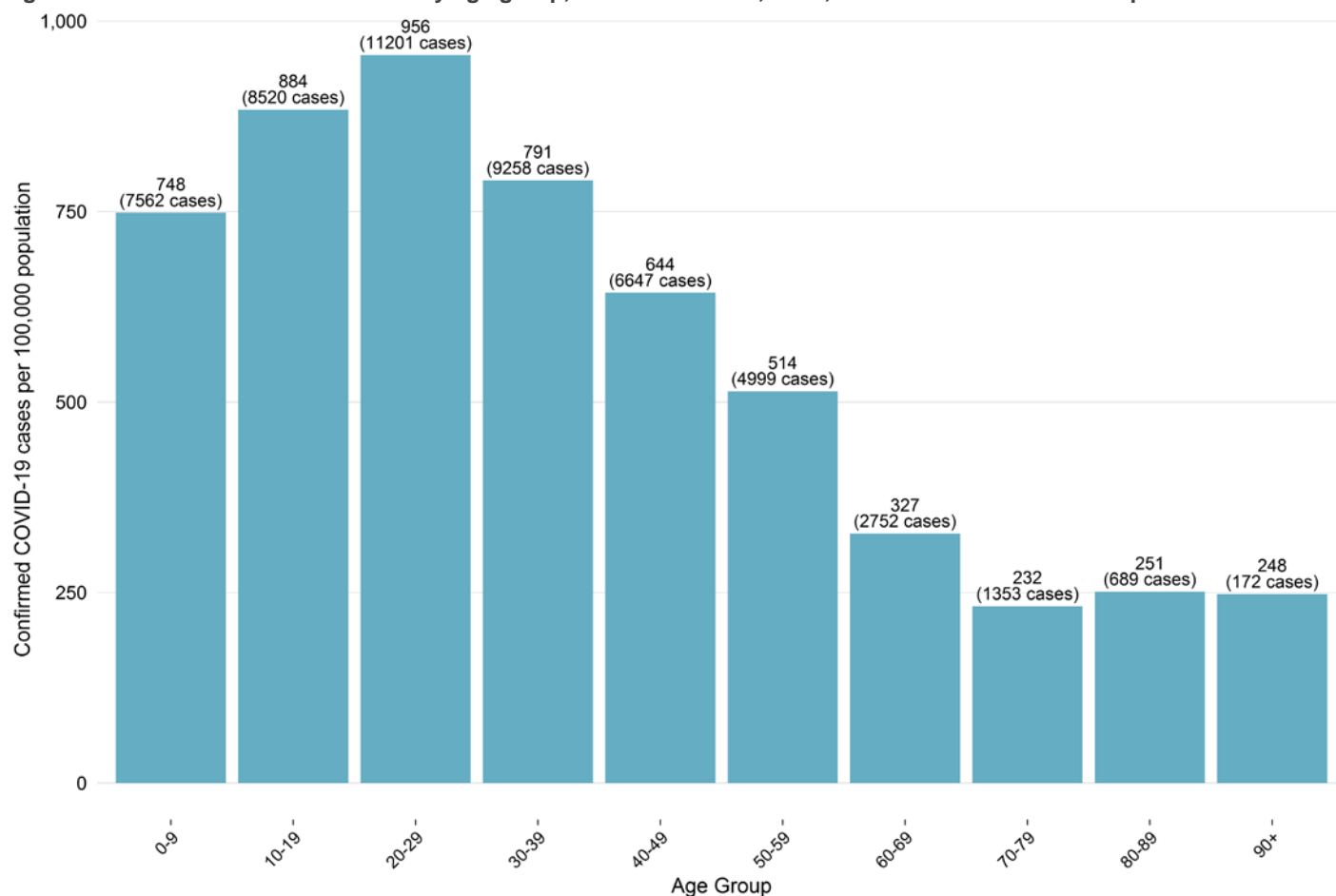
**Interpretation:** In the week ending 25 September, cases decreased by 19% in metropolitan LHDs (6,591 compared to 8,165 the previous week), and increased by 40% in rural and regional LHDs (476 compared to 341 the previous week). Of the 6,591 cases reported this week in metropolitan LHDs, 1274 (19%) were household contacts, 464 (7%) were epidemiologically linked but not household contacts and 4,853 (74%) were not currently linked to a case or cluster. There were 476 cases reported this week in rural and regional LHDs. Of these 123 (26%) are household contacts, 64 (13%) are epidemiologically linked but not household contacts and 289 (61%) have not currently been linked to a case or cluster.



### Age breakdown of locally acquired cases, NSW, from 16 June - 25 September 2021

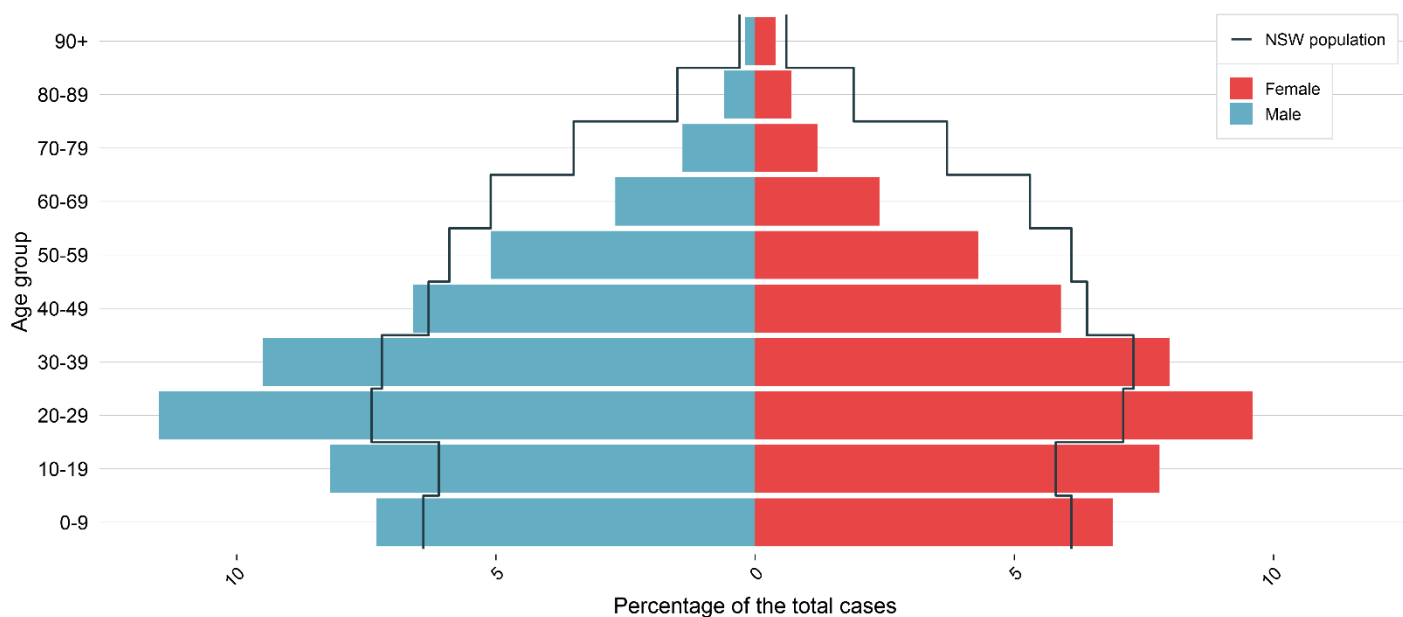
The median age of cases between 1 January 2020 and 15 June 2021 was 37 years (interquartile range (IQR) = 25-55 years). By contrast, between 16 June and 25 September 2021, there have been 53,153 locally acquired cases. The median age was 29 years (IQR = 17-44 years).

Figure 4. Rates of COVID-19 infection by age group, current outbreak, NSW, from 16 June 2021 to 25 September 2021



**Interpretation:** The age group with the highest rates of people diagnosed with COVID-19 is those aged 20-29 years (11,201 cases, or 956 per 100,000 people) followed by those aged 10-19 years (8,520 cases, or 884 per 100,000 people).

Figure 5. Current wave locally acquired case percentage (n = 52,993) by age and gender, NSW, from 16 June to 25 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 624 locally acquired cases of COVID-19 reported in Aboriginal people in the week ending 25 September 2021. Of the 624 cases, 20 were fully vaccinated (see Section 5 for a full description of vaccination status). In total there have been 2,814 Aboriginal people diagnosed with COVID-19 in the current NSW outbreak.

### Pregnant women

In the week ending 25 September, 67 pregnant women were diagnosed with COVID-19. Since January 2020, 577 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. Twelve 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 48 confirmed cases residing in correctional settings in the week ending 25 September. Since 16 June 2021, 383 people residing in correctional settings have been diagnosed with COVID-19 in NSW. Nine (2.3%) 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 25 September, there were 81 healthcare workers diagnosed with COVID-19. Of these, 15 (19%) were potentially infected in a healthcare setting, 17 (21%) were social or household contacts of previously reported cases and 48 (60%) are currently not linked. Forty-four (55%) cases were fully vaccinated and 10 (12%) were partially vaccinated.

In total there have been 771 cases of COVID-19 in health care workers since August 2020. Of these, 126 were potentially infected in healthcare settings. A further 194 cases were linked to social or household contacts, and for 451 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-25 Sep 2021)		
	Number of HCWs	Fully vaccinated	Partially vaccinated	Number of HCWs	Fully vaccinated	Partially vaccinated
Healthcare acquired	15	10 (67%)	0 (0%)	101	42 (42%)	7 (7%)
Community acquired	17	9 (53%)	4 (24%)	177	60 (34%)	17 (10%)
Not currently linked	49	25 (51%)	6 (12%)	433	161 (37%)	39 (9%)
<b>Total</b>	<b>81</b>	<b>44 (54%)</b>	<b>10 (12%)</b>	<b>711</b>	<b>263 (37%)</b>	<b>63 (9%)</b>

**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 (610/711, 86%). Of the 711 healthcare workers that have been diagnosed with COVID-19 in the current outbreak, 263 (37%) have been fully vaccinated and 63 (9%) have been partially vaccinated.

## Aged care workers

There were 25 locally acquired cases in aged care workers in the week ending 25 September 2021. Seven cases acquired their infection while working in an aged care facility, one case was social or household contacts of a known case and for 17 cases the source of infection is under investigation. Two of the seven cases who acquired their infection at work were fully vaccinated.

Since 16 June 2021, there have been 250 cases reported in aged care workers. Of these, 47 (19%) people have reported being vaccinated with one effective dose, and 78 (31%) 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-25 Sep 2021)		
	Number of ACWs	Fully vaccinated	Partially Vaccinated	Number of ACWs	Fully vaccinated	Partially Vaccinated
Acquired at aged care facility	7	2 (29%)	4 (57%)	50	13 (26%)	14 (28%)
Community acquired	1	1 (100%)	0 (0%)	72	22 (31%)	8 (11%)
Not currently linked	17	10 (59%)	3 (18%)	128	43 (34%)	25 (20%)
<b>Total</b>	<b>25</b>	<b>13 (52%)</b>	<b>7 (28%)</b>	<b>250</b>	<b>78 (31%)</b>	<b>47 (19%)</b>

**Interpretation:** In the week ending 25 September there were 25 aged care workers diagnosed with COVID-19. Of these, 7 (28%) were infected in an aged care facility, 1 (4%) were social or household contacts of previously reported cases and 17 (68%) 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, 16 June to 25 September 2021**

Vaccination Status	Week ending				16 Jun to 3 Sep 2021	Total from 16 Jun 2021
	25 Sep 21	18 Sep 21	11 Sep 21	04 Sep 21		
Fully Vaccinated	602 (8.4%)	617 (7.2%)	569 (5.9%)	367 (4.1%)	483 (2.6%)	2,638 (5%)
Partially Vaccinated	992 (13.9%)	940 (10.9%)	756 (7.9%)	488 (5.5%)	680 (3.6%)	3,856 (7.3%)
No effective dose	3,141 (44.1%)	3,811 (44.4%)	5,222 (54.6%)	5,719 (63.9%)	16,206 (85.6%)	34,099 (64.2%)
Under investigation*	2,392 (33.6%)	3,217 (37.5%)	3,021 (31.6%)	2,375 (26.5%)	1,555 (8.2%)	12,560 (23.6%)
<b>Total</b>	<b>7,127</b>	<b>8,585</b>	<b>9,568</b>	<b>8,949</b>	<b>18,924</b>	<b>53,153</b>

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

**Interpretation:** In the past week 8.4% of locally acquired cases were fully vaccinated. This compares with around 46.2% of the NSW population aged 16 and over who had been fully vaccinated (that is, had completed their recommended vaccine schedule by 11 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 8,075 people hospitalised with COVID-19 in the current outbreak, 981 (12.2%) people were in ICU. Of these, 639 (65.1%) had not received an effective dose, and 56 (5.7%) were partially vaccinated. There were 19 (1.9%) fully vaccinated cases in ICU. For the remaining 267 (27.2%) 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 25 September 2021**

Vaccination status	Hospitalised (%)	Hospitalised and in ICU (%)	Death (%)
Fully Vaccinated	369 (4.6%)	19 (1.9%)	32 (10.7%)
Partially vaccinated	477 (5.9%)	56 (5.7%)	28 (9.4%)
No effective dose	5,351 (66.3%)	639 (65.1%)	228 (76.5%)
Under investigation	1,878 (23.3%)	267 (27.2%)	10 (3.4%)
<b>Total</b>	<b>8,075 (100.0%)</b>	<b>981 (100.0%)</b>	<b>298 (100.0%)</b>

**Interpretation:** Of the 8,075 people hospitalised, 369 (4.6%) had received two effective doses, 477 (5.9%) had received one effective dose, and 7,229 (89.5%) had either received no effective doses or vaccination status has not yet been determined. The 32 deaths among people fully vaccinated were two people in their 50s, ten people in their 70s, ten people in their 80s and ten people in their 90s.

## Section 6: COVID-19 hospitalisations and deaths

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

Figure 7a. 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 25 September 2021

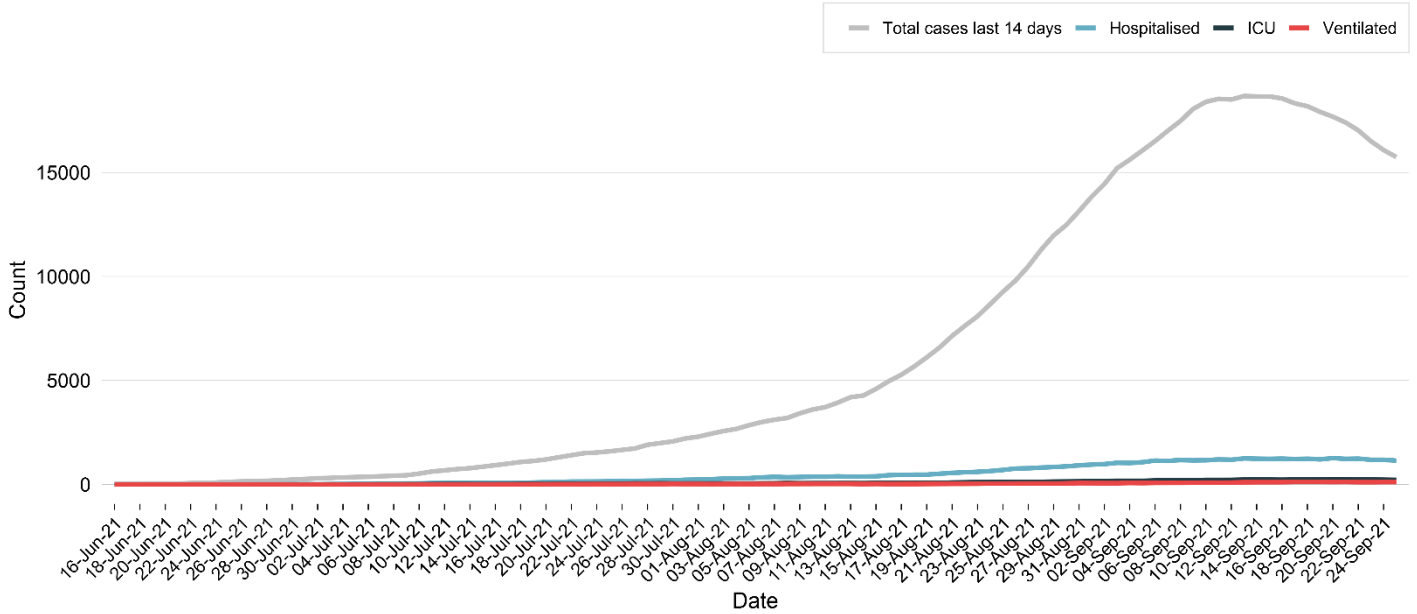
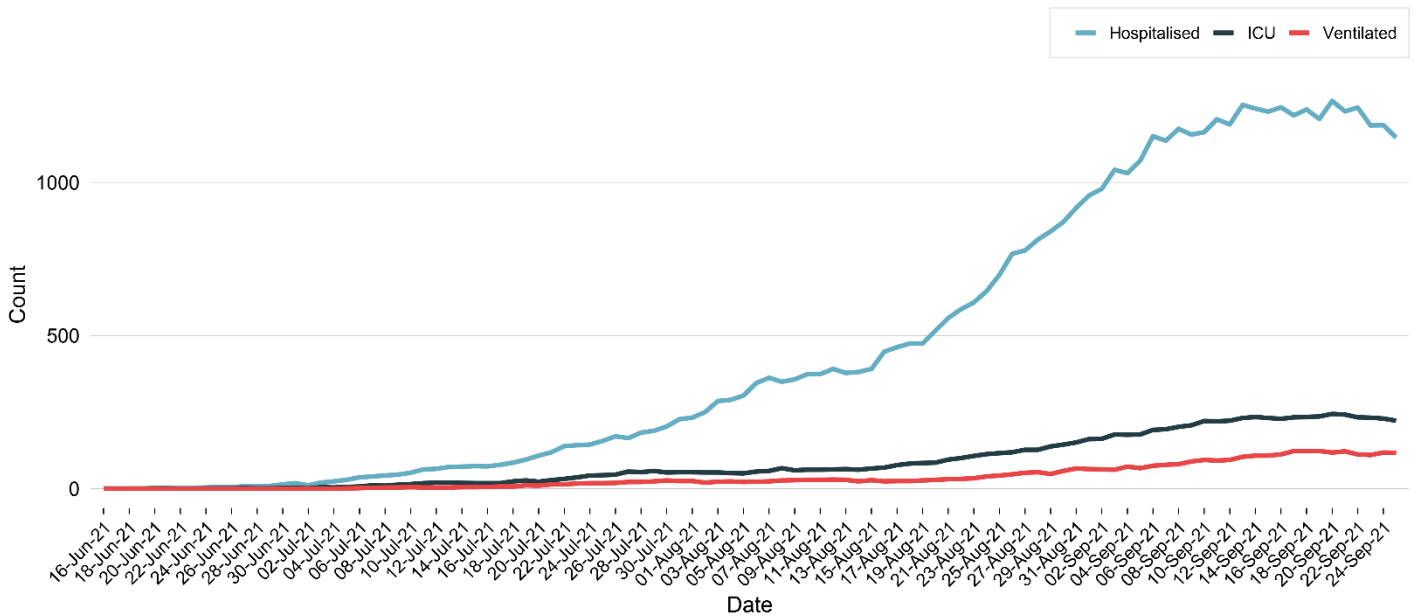


Figure 7b. Number of cases in hospital, in ICU and ventilated by date, NSW, from 16 June to 25 September 2021



**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 25 September 2021, of the 7,127 locally acquired cases, there were 684 people who had a diagnosis of COVID-19 who were also admitted to a hospital ward, and 58 of those were admitted to ICU. In total, there have been 8,075 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 <sup>1</sup>	Hospitalised per 100,000 population	Hospitalised	Percentage of cases hospitalised <sup>1</sup>
0-9	370	5%	36.6	376	5%
10-19	461	5%	47.8	472	5%
20-29	1,262	11%	107.7	1,290	10%
30-39	1,387	15%	118.5	1,433	14%
40-49	1,315	20%	127.3	1,364	18%
50-59	1,217	24%	125.2	1,297	23%
60-69	905	33%	107.7	1,026	30%
70-79	629	46%	107.9	721	41%
80-89	422	61%	153.9	475	58%
90+	107	62%	154.3	123	57%
Total	8,075	15%	99.8	8,577	15%

**Interpretation:** The highest number of cases hospitalised are aged 30-39 years (1,387, 15%), followed by those aged 40-49 years (1,315, 20%). In NSW, cases aged 90 years and over have the highest rate of hospitalisation (154.3 per 100,000 people), closely followed by those aged 80-89 years (154.3 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 <sup>1</sup>	ICU admission per 100,000 population	Admitted to ICU	Percentage of cases admitted to ICU <sup>1</sup>
0-9	6	<1%	0.6	6	<1%
10-19	23	<1%	2.4	24	<1%
20-29	71	1%	6.1	75	1%
30-39	108	1%	9.2	123	1%
40-49	146	2%	14.1	158	2%
50-59	220	4%	22.6	248	4%
60-69	175	6%	20.8	218	6%
70-79	108	8%	18.5	141	8%
80-89	32	5%	11.7	45	6%
90+	0	0%	0.0	0	0%
Total	889	2%	11.0	1038	2%

**Interpretation:** The highest number of cases in ICU are aged 50-59 years (220, 4%). The highest rate of admission to ICU is for those aged 50-59 years (220 cases, 22.6 per 100,000 people).

<sup>1</sup> 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 (356 people) have died following a recent infection with COVID-19, most of whom were 80 years of age or older, including 56 residents of aged care facilities with known COVID-19 outbreaks. Approximately 4% (14/356) of the deaths were in overseas acquired cases.

There were 53 deaths in people diagnosed with COVID-19 reported this week including 4 people who were fully vaccinated, 3 people who were partially vaccinated, and 46 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 <sup>2</sup>	Number of deaths	Case fatality rate <sup>2</sup>
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	14	<1%	1.4	14	<1%
50-59	30	1%	3.1	31	1%
60-69	45	2%	5.4	50	1%
70-79	68	5%	11.7	83	5%
80-89	97	14%	35.4	118	15%
90+	30	17%	43.3	46	21%
Total	298	1%	3.7	356	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 25 September 2021**

Age-group (years)	Health care facility	Home	Aged care facility
0-9	0	0	0
10-19	1	0	0
20-29	4	1	0
30-39	4	4	0
40-49	9	5	0
50-59	26	4	0
60-69	36	9	0
70-79	66	1	1
80-89	90	5	2
90+	25	0	5
Total	261	29	8

**Interpretation:** The majority of deaths following recent locally acquired COVID-19 infection have occurred in hospital (261/298, 88%). Eight deaths in aged care facilities have been among people aged 70+, while 29 deaths occurring at home have been people aged between 20 and 89 years of age.

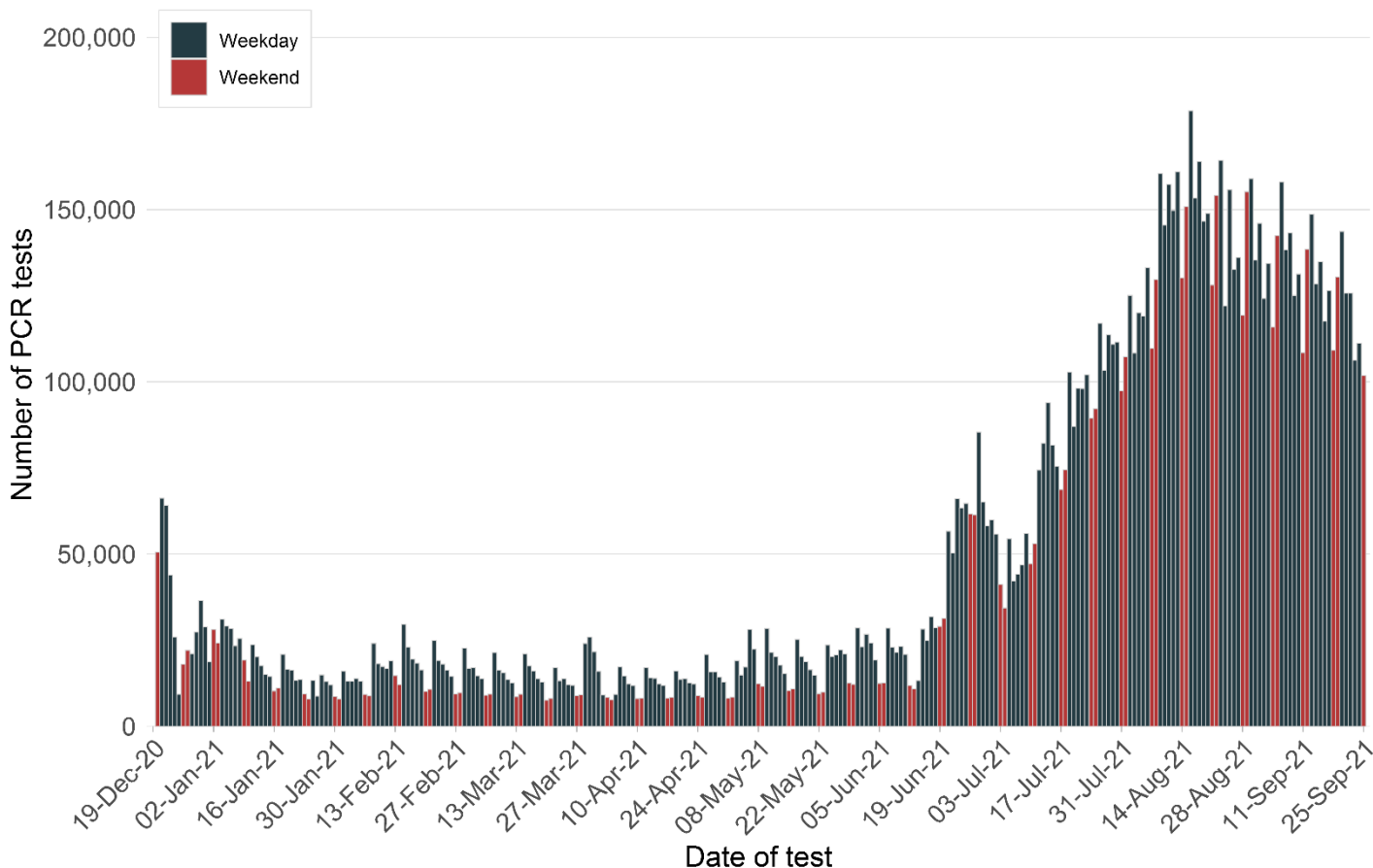
<sup>2</sup> There is often a delay between a person becoming ill with COVID-19 and subsequently requiring a hospitalisation or dying. In the current outbreak the median time between onset and hospitalisation is 5 days and between onset and death is 11 days. Therefore hospitalisations and deaths are 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.<sup>3</sup> 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 25 September 2021



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

**Interpretation:** Testing numbers decreased in the week ending 25 September 2021 (down 10%) compared to the previous week. The average daily testing rate of 14.2 per 1,000 people in NSW each day decreased compared to the previous week of 15.1 per 1,000 people.

<sup>3</sup> 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 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 25 September 2021

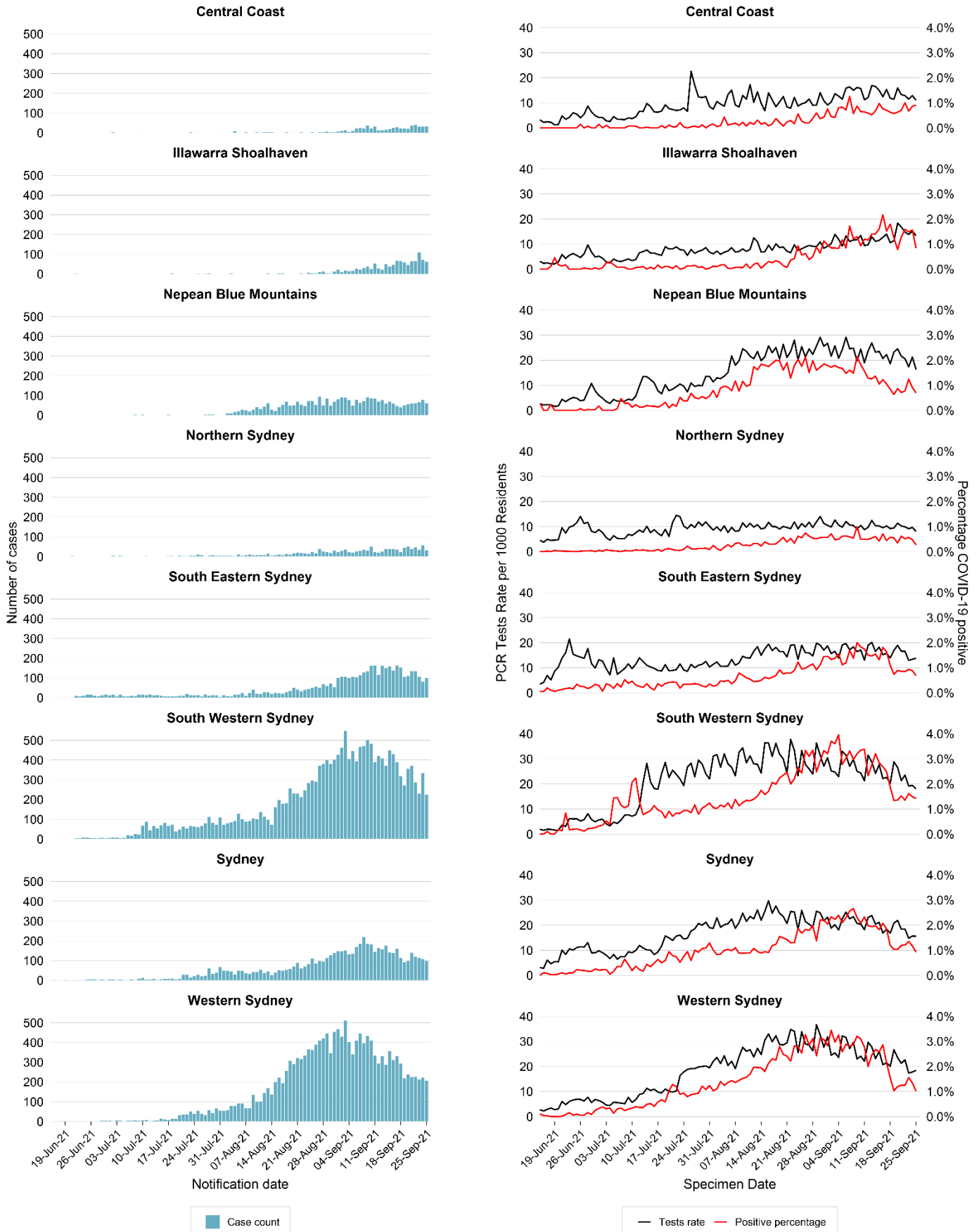
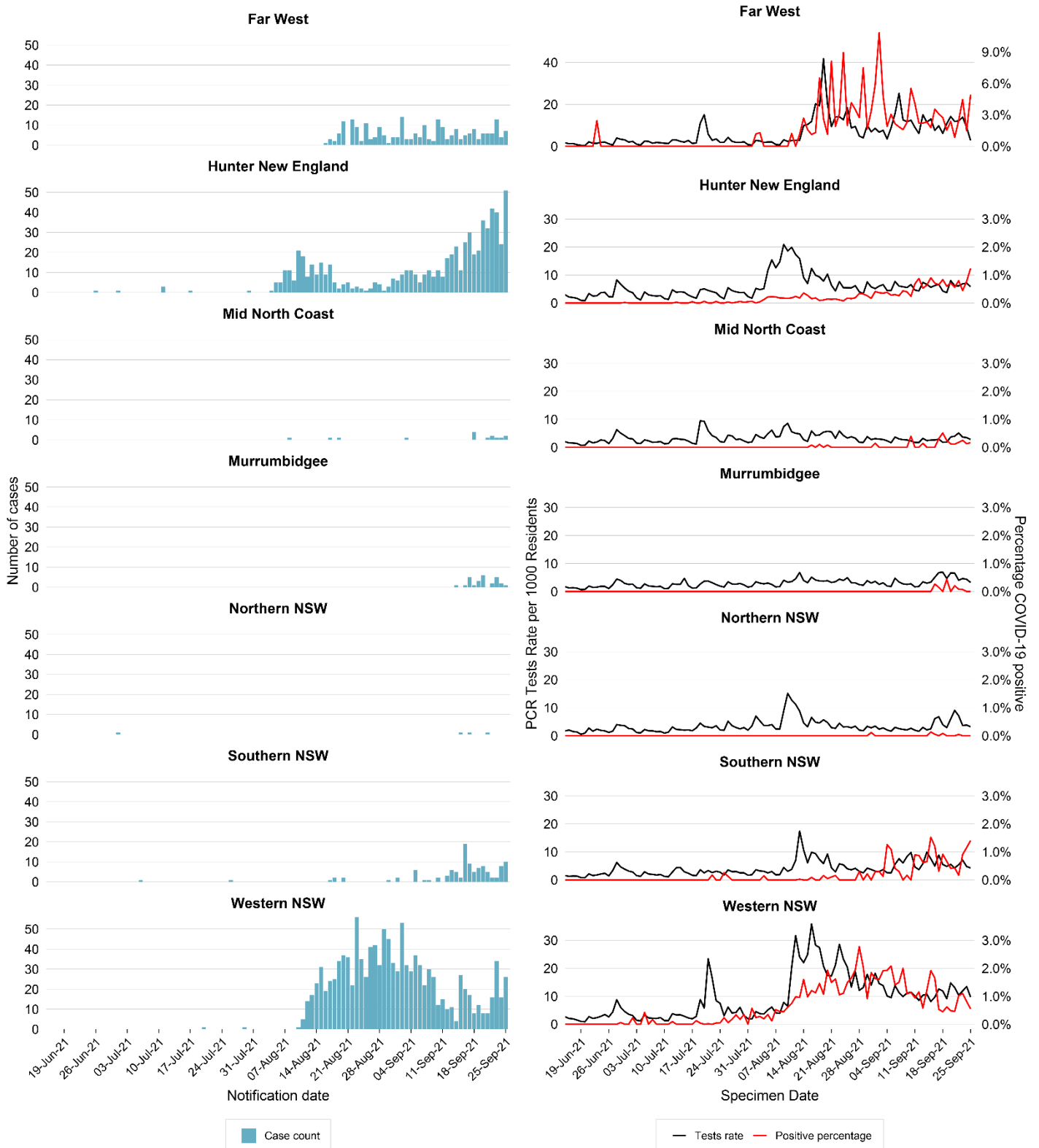


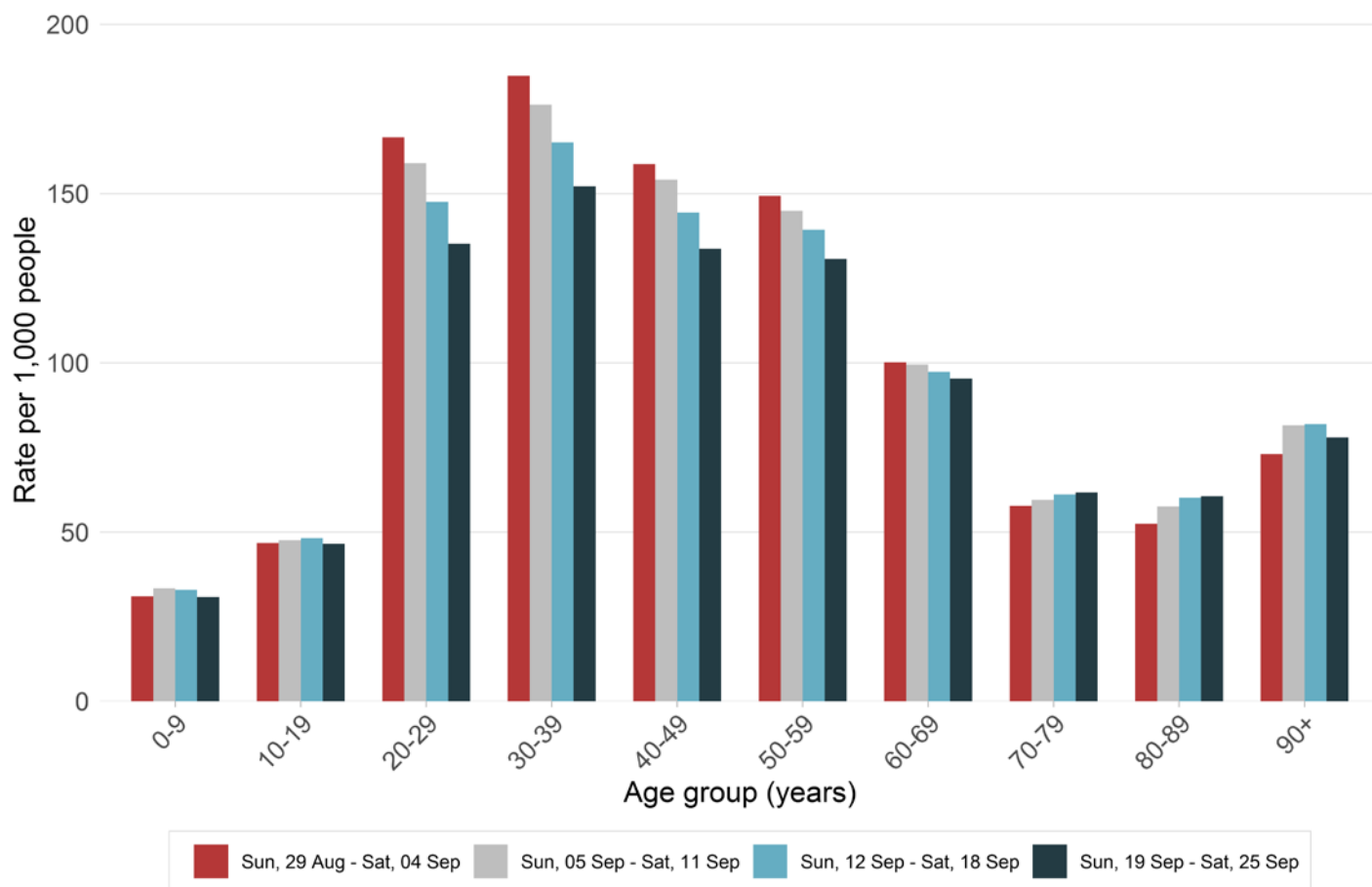
Figure 10b. Cases, testing rates per 1000 population, and percentage of tests which were positive for COVID-19, by LHD of residence, rural and regional LHDs, NSW, 16 June to 25 September 2021



**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 25 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, 29 August to 25 September 2021



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

**Interpretation:** In the week ending 25 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 14. Variants identified among locally acquired COVID-19 cases by week reported, NSW, 29 November 2020 to 25 September 2021**

Variant	Week ending				29 Nov 2020 to 28 Aug 2021	Total since 29 Nov 2020
	25 Sep*	18 Sep*	11 Sep	04 Sep		
Total variants identified	111	675	796	805	6,836	9,223
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)	111	675	796	805	6,843	9,230

**\*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 25 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 25 September, 234 sewage samples were tested for fragments of SARS-CoV-2. Of these, there were 92 detections:

- Detections outside Sydney

There were 86 detections outside Sydney taken from the sewage treatment plants at Ballina, Balranald, Bateau Bay, Batemans Bay, Bathurst, Blayney, Bomaderry, Bombo (2), Bowral, Broken Hill (2), Broken Hill South (2), Charmhaven, Coffs Harbour, Crookwell, Culburra Beach, Dareton (5), East Lismore, Eden, Forbes, Gerroa, Gilgandra, Glen Innes, Gosford – Kincumber, Goulburn, Grafton composite, Gwandalan, Hunter - Boulder Bay, Branxton, Burwood Beach, Dora Creek, Edgeworth, Karuah, Morpeth, Raymond Terrace, Shortland, Toronto, Belmont, Cessnock, Dungog, Farley, Kurri Kurri, Tanilba Bay, Jindabyne, Lightning Ridge, Mannering Park, Mittagong, Moss Vale, Mudgee, Muswellbrook, Narromine, North Grafton, Nowra, Oberon (2), Orange, Parkes, Port Macquarie (2), Queanbeyan, South Grafton, South Kempsey, South Lismore, St Georges Basin, Tamworth, Ulladulla, Vincentia, Walgett, Wardell (3), 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 Canterbury and Paddington.

- Detections with no known cases to 25 September

Detections from Dareton, Grafton composite, North Grafton, South Grafton, Eden, Balranald, Oberon, Dungog, Karuah, South Lismore, Lightning Ridge, Jindabyne and Crookwell and Ballina occurred with no known or recent cases in the catchment. Subsequently cases were identified in South Lismore.

- Sampled sites with no detections

There were no detections in the following catchments: Alstonville, Armidale, Bangalow, Baradine, Bega, Bellingen, Bermagui, Bodalla, Bombala, Bonny Hills, Bowraville, Brewarrina, Buronga, Byron Bay, Ocean Shores, Canowindra, Casino, Condobolin, Coolah, Coolamon, Coonabarabran, Coonamble, Cootamundra, Coraki, Corowa, Crescent Head, Deniliquin, Dunbogan, Dunedoo, Eden, Evans Head, Frederickton, Googong, Grenfell, Gulgong, Gundagai, Gunnedah, Guyra, Harden, Hay, Holbrook, Inverell, Junee, Kyogle, Lake Cargelligo, Leeton, Lennox Head, Lockhart, Merimbula, Moama, Molong, Moree, Moruya, Mullumbimby, Mulwala, Mungindi, Nambucca Heads, Narooma, Narrabri, Narrandera, Nyngan, Perisher, Quirindi, Scone, Singleton, South West Rocks, Tamworth, Temora, Tenterfield, Thredbo, Trangie, Tumut, Tuross, Tweed - Banora Point, Hastings Point, Kingscliff, Murwillumbah, Uralla, Walcha, Warren, Wauchope, Wee Waa, Wentworth, West Wyalong, Woodenbong and Yamba.

- New collection sites

The sewage treatment plants at Frederickton, Bowraville, Canowindra, Grenfell, Lockhart, Crookwell, Bodalla, Tomakin, Tuross, Bombala and Holbrook were added as new sites.

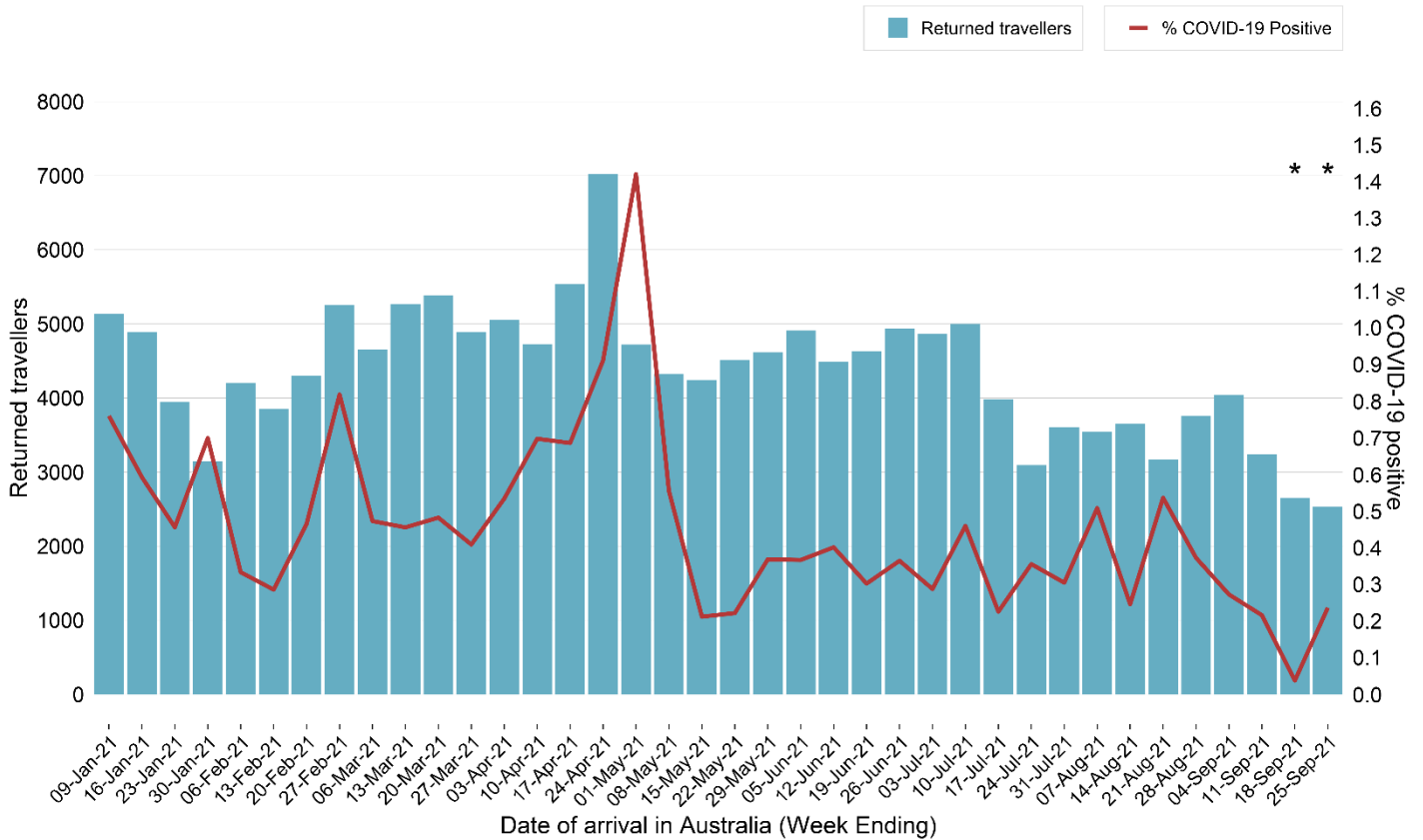
## Section 10: COVID-19 in returned travellers

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 25 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 623 people screened on arrival through Sydney International Airport daily. In the last four weeks, 27 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.

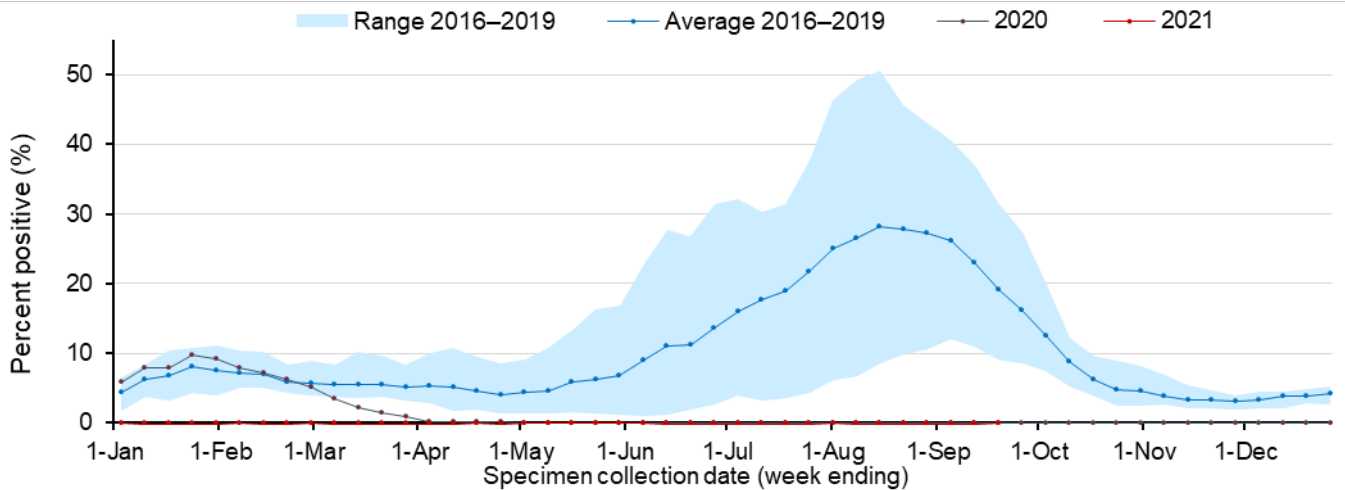


## Section 11: Other respiratory infections in NSW

### 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 26 September 2021

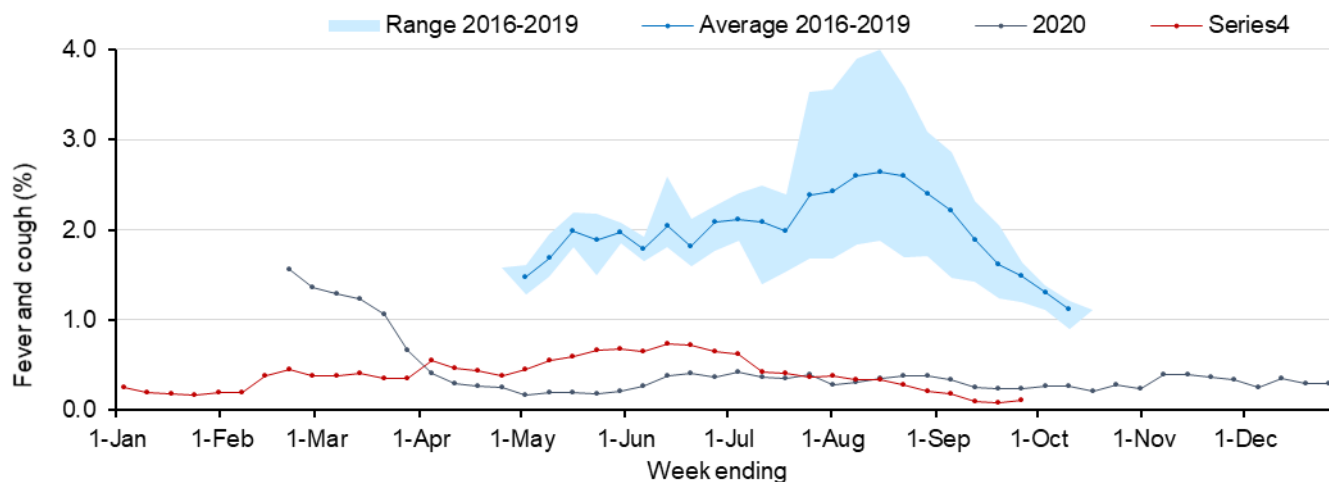


**Interpretation:** In the week ending 26 September, the percent of influenza tests that were positive continued to be very low (<0.01%), indicating limited influenza transmission in the community. Since early March 2020, this percentage has remained far lower than the usual range for the time of year. 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 26 September 2021



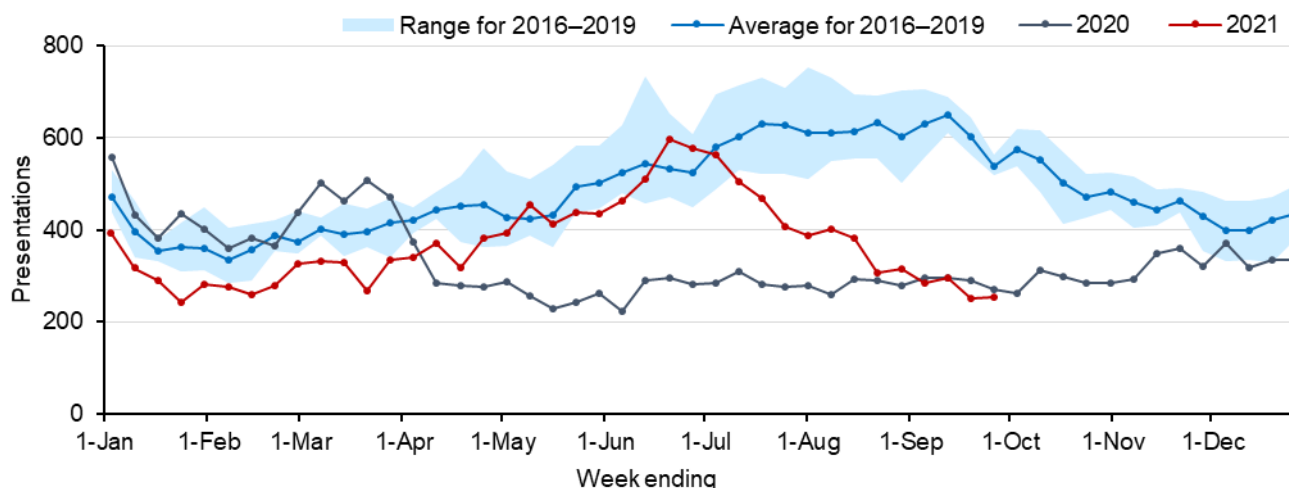
**Interpretation:** In NSW in the week ending 26 September 2021, of the 22,902 people surveyed, 24 people (0.10%) reported flu-like symptoms. In the last four weeks, 60% (66/110) of new cases of flu-like illness reported having a COVID-19 test. The proportion of people with flu-like symptoms being tested for COVID-19 decreased from January 2021, when 80% reported being tested, to around 50% between April and June 2021, and then increased to around 60% from June 2021 onwards.

### How are emergency department presentations tracking?

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

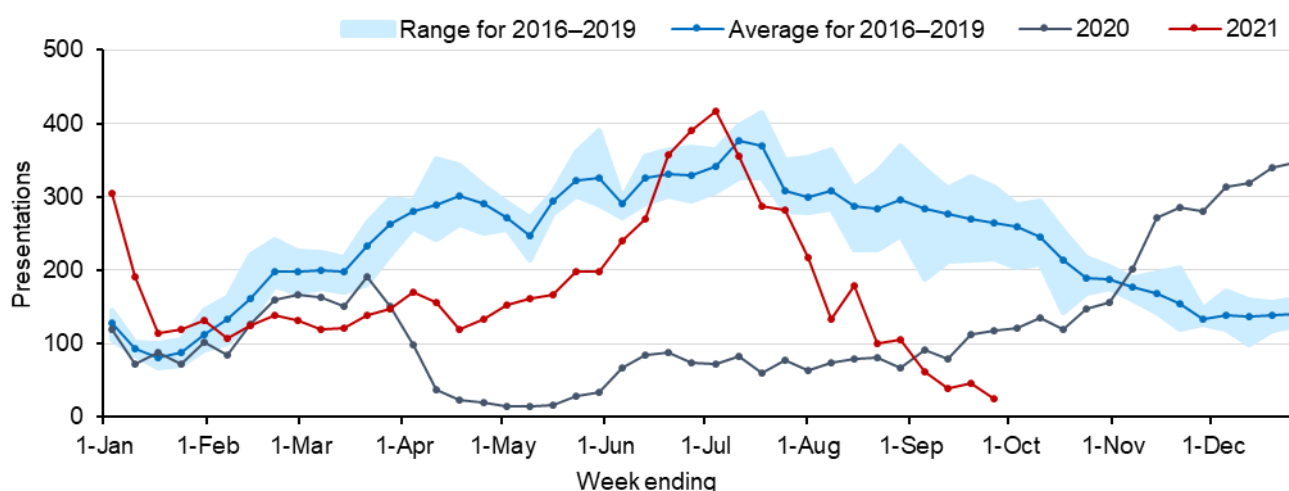
The figures below show weekly pneumonia and bronchiolitis presentations to Emergency Departments in NSW, using PHREDSS<sup>4</sup>. The red line shows the weekly counts for 2021, the dark blue line showing counts for 2020, the light blue line showing the average for 2016 to 2019 and the shaded area showing the range recorded for 2016 to 2019.

Figure 15. Emergency Department pneumonia presentations, NSW, 1 January 2016 to 26 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 26 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 26 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 26 September remain below the seasonal range for this time of year.

<sup>4</sup> 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	
		25-Sep		18-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
<b>Central Coast</b>	<i>LHD Total<sup>ℙ</sup></i>	31079	88.1	35018	99.2	416760	1181.1
	Kiama	1545	66.1	1646	70.4	22826	976.1
<b>Illawarra Shoalhaven</b>	Shellharbour	8936	122.0	8025	109.6	92233	1259.5
	Shoalhaven	5639	53.4	4608	43.6	71826	679.9
	Wollongong	26763	122.7	19624	90.0	256896	1177.8
	<i>LHD Total<sup>ℙ</sup></i>	42883	102.2	33903	80.8	443781	1057.6
<b>Nepean Blue Mountains</b>	Blue Mountains	7613	96.2	8352	105.6	103442	1307.4
	Hawkesbury	11975	178.0	13543	201.3	129938	1930.8
	Lithgow	833	38.6	740	34.3	12422	575.0
	Penrith	36307	170.5	39376	184.9	445960	2093.9
	<i>LHD Total<sup>ℙ</sup></i>	56126	143.6	61315	156.8	682893	1746.6
<b>Northern Sydney</b>	Hornsby	8158	53.7	9449	62.1	149297	981.8
	Hunters Hill	1914	127.8	2010	134.2	37019	2471.2
	Ku-ring-gai	7132	56.1	7803	61.4	166067	1306.0
	Lane Cove	4551	113.3	4253	105.9	85025	2117.4
	Mosman	1498	48.4	1578	50.9	33064	1067.2
	North Sydney	3415	45.5	3697	49.3	69321	924.0
	Northern Beaches	19505	71.3	17898	65.4	400581	1464.7
	Parramatta <sup>1</sup>	25882	100.6	29900	116.3	401850	1562.4
	Ryde	10973	83.6	13803	105.2	210072	1600.3
	Willoughby	3573	44.0	3465	42.7	69890	860.8
<i>LHD Total<sup>ℙ</sup></i>	64357	67.3	67967	71.1	1279414	1338.4	
<b>South Eastern Sydney</b>	Bayside	24501	137.3	26727	149.8	327770	1837.3
	Georges River	18436	115.6	20655	129.5	282904	1774.0
	Randwick	20414	131.2	21364	137.3	294068	1889.3
	Sutherland Shire	20671	89.6	22983	99.7	321727	1395.1
	Sydney <sup>1</sup>	25644	104.1	28344	115.1	416531	1690.9
	Waverley	7301	98.3	7127	95.9	146286	1969.0
	Woollahra	4846	81.6	4681	78.8	110260	1856.6
	<i>LHD Total<sup>ℙ</sup></i>	103889	108.3	112235	117.0	1620569	1689.7
<b>South Western Sydney</b>	Camden	17606	173.6	18194	179.4	224944	2217.6
	Campbelltown	28283	165.5	30650	179.3	365471	2138.0
	Canterbury-Bankstown <sup>1</sup>	62943	166.6	73555	194.6	1052441	2784.9
	Fairfield	34958	165.1	38504	181.9	601950	2843.5
	Liverpool	39097	171.8	44114	193.8	551872	2424.9
	Wingecarribee	2994	58.6	3233	63.2	49526	968.6
	Wollondilly	4816	90.6	5505	103.6	62495	1175.9
<i>LHD Total<sup>ℙ</sup></i>	160433	154.5	179067	172.4	2384321	2295.9	
<b>Sydney</b>	Burwood	4254	104.8	4571	112.6	60141	1480.9
	Canada Bay	8643	90.0	9487	98.8	142824	1486.6
	Canterbury-Bankstown <sup>1</sup>	62943	166.6	73555	194.6	1052441	2784.9
	Inner West	17670	88.0	18930	94.3	292026	1454.2
	Strathfield	8938	190.5	10246	218.3	130200	2774.6
	Sydney <sup>1</sup>	25644	104.1	28344	115.1	416531	1690.9

		Week ending				Total since January 2021	
		25-Sep		18-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
	<i>LHD Total</i>	86555	124.2	96163	138.0	1408408	2021.3
<b>Western Sydney</b>	Blacktown	60673	162.0	68174	182.1	822633	2196.9
	Cumberland	48491	200.8	55436	229.5	719625	2979.6
	Parramatta <sup>1</sup>	25882	100.6	29900	116.3	401850	1562.4
	The Hills Shire	20333	114.3	21853	122.8	319047	1792.7
	<i>LHD Total</i>	153489	145.7	173463	164.7	2233400	2120.1
<b>Far West</b>	Balranald	55	23.5	64	27.4	1210	517.5
	Broken Hill	1816	103.9	1528	87.4	18098	1035.4
	Central Darling	173	94.1	312	169.7	2667	1450.2
	Wentworth	135	19.1	117	16.6	3530	500.5
	<i>LHD Total</i>	2179	72.3	2021	67.0	25505	846.1
<b>Hunter New England</b>	Armidale Regional	484	15.7	490	15.9	22147	719.6
	Cessnock	3195	53.3	2301	38.4	32794	546.7
	Dungog	205	21.8	232	24.6	4728	501.8
	Glen Innes Severn	284	32.0	377	42.5	4009	451.9
	Gunnedah	276	21.8	239	18.9	6385	503.5
	Gwydir	65	12.1	75	14.0	1676	313.1
	Inverell	291	17.2	279	16.5	7865	465.7
	Lake Macquarie	13090	63.6	10838	52.6	203601	988.8
	Liverpool Plains	156	19.7	151	19.1	3694	467.4
	Maitland	5419	63.6	4902	57.6	96924	1138.1
	Mid-Coast	1723	18.4	1950	20.8	39538	421.4
	Moree Plains	209	15.8	291	21.9	7889	594.9
	Muswellbrook	339	20.7	394	24.1	7928	484.1
	Narrabri	222	16.9	423	32.2	4962	377.8
	Newcastle	8888	53.7	7971	48.1	172842	1043.9
	Port Stephens	3062	41.7	4545	61.9	56156	764.2
	Singleton	1135	48.4	957	40.8	17127	730.0
	Tamworth Regional	1837	29.4	1889	30.2	44591	713.0
	Tenterfield	98	14.9	107	16.2	2104	319.1
	Upper Hunter Shire	217	15.3	302	21.3	6834	482.0
	Uralla	65	10.8	90	15.0	2788	463.7
	Walcha	51	16.3	45	14.4	1754	559.7
	<i>LHD Total</i>	41291	43.4	38828	40.8	747921	785.3
<b>Mid North Coast</b>	Bellingen	227	17.5	193	14.9	6359	489.3
	Coffs Harbour	1638	21.2	1007	13.0	35109	454.3
	Kempsey	1286	43.2	745	25.1	17258	580.2
	Nambucca	387	19.5	265	13.4	7700	388.8
	Port Macquarie-Hastings	1953	23.1	1633	19.3	43805	518.3
	<i>LHD Total</i>	5491	24.3	3843	17.0	110231	488.5
<b>Murrumbidgee</b>	Albury	1965	36.2	2077	38.2	32283	594.0
	Berrigan	163	18.6	183	20.9	2455	280.6
	Bland	140	23.4	131	21.9	2701	452.3
	Carrathool	21	7.5	19	6.8	753	269.0
	Coolamon	134	30.9	115	26.5	2345	540.2

		Week ending				Total since January 2021	
		25-Sep		18-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
	Cootamundra-Gundagai Regional	553	49.2	384	34.2	6045	538.1
	Edward River	223	24.6	256	28.2	3573	393.3
	Federation	363	29.2	361	29.0	5623	452.1
	Greater Hume Shire	331	30.8	362	33.6	6319	587.1
	Griffith	546	20.2	518	19.2	13057	483.1
	Hay	51	17.3	53	18.0	938	318.1
	Hilltops	4050	216.5	2884	154.2	15892	849.7
	Junee	135	20.2	178	26.6	2815	421.2
	Lachlan <sup>1</sup>	94	15.5	124	20.4	2488	409.6
	Leeton	220	19.2	228	19.9	4312	376.8
	Lockhart	104	31.7	104	31.7	1694	515.7
	Murray River	85	7.0	76	6.3	1423	117.4
	Murrumbidgee	79	20.2	61	15.6	1372	350.3
	Narrandera	97	16.4	99	16.8	1714	290.6
	Snowy Valleys	310	21.4	316	21.8	5731	395.8
	Temora	130	20.6	102	16.2	2498	396.1
	Wagga Wagga	2392	36.7	2553	39.1	45740	700.9
		<i>LHD Total<sup>2</sup></i>	12115	40.6	11095	37.2	160172
<b>Northern NSW</b>	Ballina	1694	38.0	1235	27.7	36321	813.9
	Byron	1079	30.8	752	21.4	29071	828.7
	Clarence Valley	863	16.7	850	16.5	19692	381.2
	Kyogle	173	19.7	140	15.9	3068	348.8
	Lismore	2854	65.3	2251	51.5	29509	675.4
	Richmond Valley	842	35.9	976	41.6	14846	632.7
	Tenterfield	98	14.9	107	16.2	2104	319.1
	Tweed	3558	36.7	1818	18.7	48070	495.6
		<i>LHD Total<sup>2</sup></i>	11093	35.7	8042	25.9	181085
<b>Southern NSW</b>	Bega Valley	423	12.3	792	23.0	15583	452.0
	Eurobodalla	1128	29.3	1610	41.9	19634	510.3
	Goulburn Mulwaree	1812	58.2	1924	61.8	24350	782.2
	Queanbeyan-Palerang Regional	2333	38.2	2117	34.7	32758	536.1
	Snowy Monaro Regional	393	18.9	894	43.0	12892	620.0
	Upper Lachlan Shire	297	36.9	354	43.9	4765	591.3
	Yass Valley	1438	84.2	2308	135.1	10677	624.9
		<i>LHD Total<sup>2</sup></i>	7826	36.1	9999	46.1	120736
<b>Western NSW</b>	Bathurst Regional	2742	62.9	3072	70.4	45051	1032.9
	Blayney	433	58.7	317	43.0	7292	988.2
	Bogan	100	38.8	103	40.0	2097	812.8
	Bourke	286	110.4	311	120.1	4330	1671.8
	Brewarrina	71	44.1	242	150.2	1767	1096.8
	Cabonne	585	42.9	356	26.1	8334	611.3
	Cobar	171	36.7	158	33.9	2707	581.2
	Coonamble	134	33.9	133	33.6	2644	668.0
	Cowra	4352	341.5	729	57.2	10587	830.8

Local Health District	Local Government Area	Week ending				Total since January 2021	
		25-Sep		18-Sep		No.	Tests per 1,000 population
		No.	Tests per 1,000 population	No.	Tests per 1,000 population		
	Dubbo Regional	8365	155.7	8341	155.3	111007	2066.4
	Forbes	254	25.6	198	20.0	5564	561.7
	Gilgandra	185	43.6	148	34.9	3626	855.4
	Lachlan <sup>1</sup>	94	15.5	124	20.4	2488	409.6
	Mid-Western Regional	965	38.2	796	31.5	24683	977.5
	Narromine	414	63.5	630	96.7	7784	1194.4
	Oberon	699	129.2	175	32.3	3363	621.5
	Orange	1937	45.6	2406	56.7	54089	1274.2
	Parkes	325	21.9	452	30.5	10442	703.8
	Walgett	366	61.5	836	140.4	5046	847.6
	Warren	279	103.5	317	117.5	4947	1834.3
	Warrumbungle Shire	246	26.5	233	25.1	5468	589.4
	Weddin	302	83.6	202	55.9	1971	545.5
	<i>LHD Total<sup>2</sup></i>	23283	81.7	20246	71.0	324487	1138.5
<b>NSW Total</b>	<b>NSW Total<sup>3</sup></b>	<b>802089</b>	<b>99.1</b>	<b>853227</b>	<b>105.5</b>	<b>12139877</b>	<b>1500.6</b>

Source - Notifiable Condition Information Management System, accessed as at 8pm 27 Sep 2021

<sup>1</sup> Local Government Area (LGA) spans multiple Local Health Districts.

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

<sup>3</sup> 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 26 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 2020–26 September 2021

Specimen collection date	PCR tests conducted	Influenza A		Influenza B		Adeno-virus	Para-influenza	RSV	Rhino-virus	HMPV	Entero-virus
		No.	%Pos.	No.	%Pos.						
Total	1,634,439	5	<0.01%	10	<0.01%	7,224	18,528	17,481	56,035	5,244	6,344
<b>Month ending</b>											
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
<b>Week ending</b>											
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
26 September	25,659	0	-	0	-	70	19	17	158	60	11

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

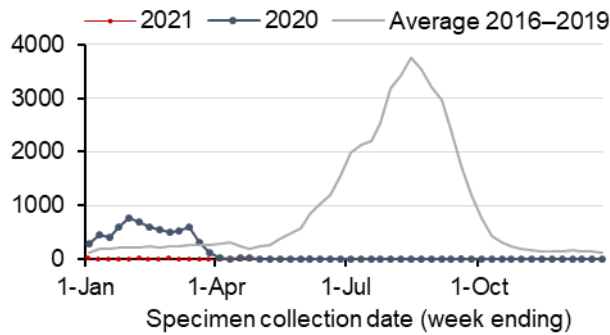
RSV - Respiratory syncytial virus

\*Five-week period

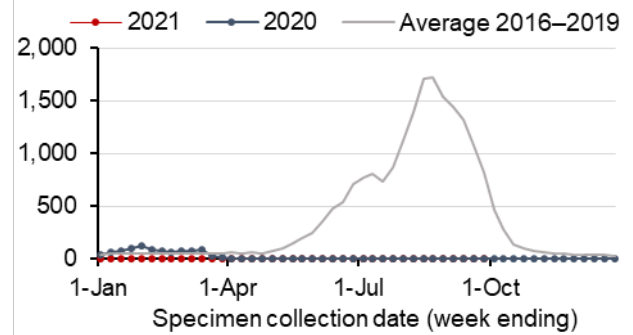
## Appendix C: Number of positive PCR test results for influenza and other respiratory viruses at sentinel NSW laboratories, January 2020 to 26 September 2021

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

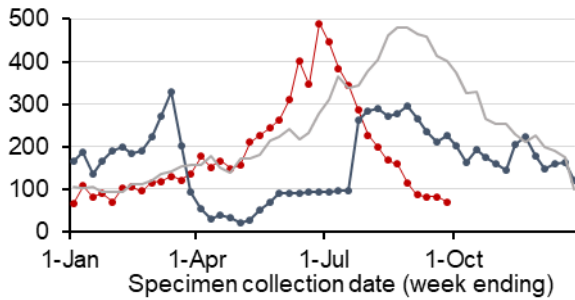
### Influenza A



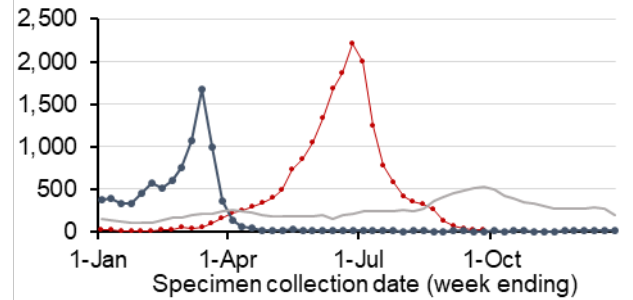
### Influenza B



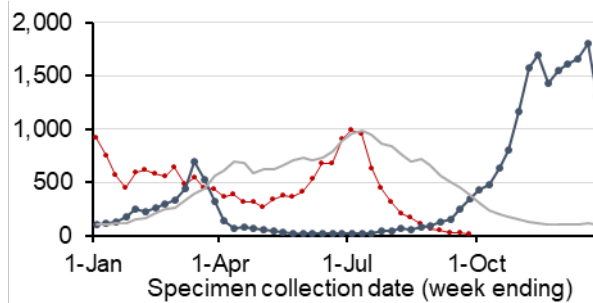
### Adenovirus



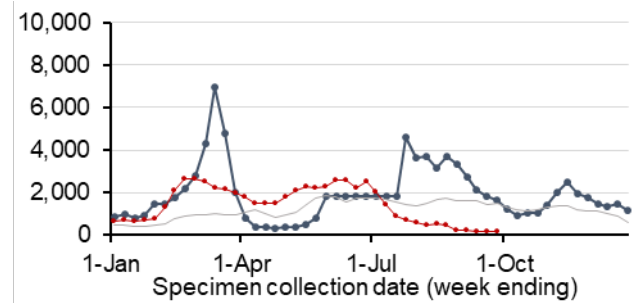
### Parainfluenza



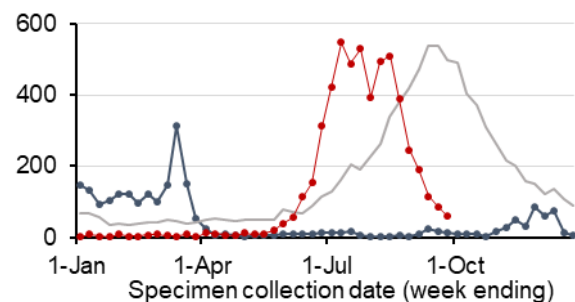
### Respiratory Syncytial Virus



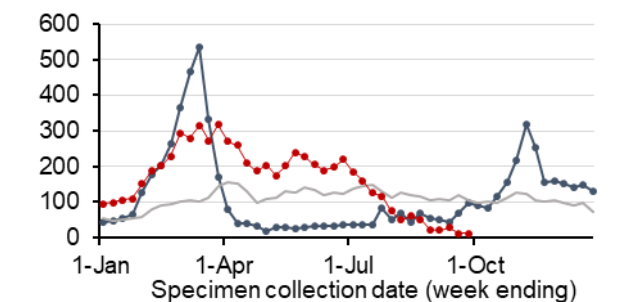
### Rhinovirus



### 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	<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"> <li>- NSW residents diagnosed in NSW who were infected overseas or in Australia (in NSW or interstate), and</li> <li>- interstate or international visitors diagnosed in NSW who were under the care of NSW Health at the time of diagnosis</li> </ul>
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>