

COVID-19 WEEKLY SURVEILLANCE IN NSW

EPIDEMIOLOGICAL WEEK 31, ENDING 1 AUGUST 2020

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SUMMARY FOR THE WEEK ENDING 1 AUGUST

- The number of new locally-acquired cases remains steady with 92 new cases reported in the week ending 1 August, most of which have been linked to known clusters.
- Two new clusters at restaurants in Potts Point and a third at a club in Mount Pritchard were identified this week, making a total of six restaurant/club clusters identified in July.
- Cases have been diagnosed in both restaurant patrons and staff which serves as a reminder to all to stay home when unwell, even if symptoms are mild, and highlights the importance of having:
 - plenty of space between tables and keeping patrons (except those in household groups) and staff at least 1.5 metres apart at all times
 - accurate attendee lists to enable close contacts to be contacted and quarantined.
- While testing rates have increased in Sydney LGA following the recent cluster, a 15% decrease in testing statewide was observed when compared to the previous week.
- No links to known cases or clusters have been identified for 16 cases who developed symptoms in the last four weeks.
- While the low number of unlinked cases reported each week continues, COVID-19 is circulating to a limited extent in the community, risking further outbreaks.
- High rates of testing for everyone with symptoms is critical in the coming weeks to limit the spread in the community.

SECTION 1: PREVENTING THE SPREAD OF COVID-19 – WE ALL PLAY A ROLE

Everyone has an important role to play to prevent the spread of COVID-19. For the public health response to be effective, members of the community, laboratories, clinicians and public health staff all have to play their part.

The sooner we can diagnose cases, the faster we can identify other people who may have been infected, and the better we can limit the spread of infection across our community.

The roles we all play are outlined below.

Everyone

- Seek medical attention and get tested quickly every time you develop respiratory symptoms (even if mild) or unexplained fever.
- Stay at home to avoid spreading infection to others as soon as you:
 - develop symptoms and until you are told that you do not have COVID-19 and you are well
 - are told that you are a close contact of a COVID-19 case and until your quarantine period has ended (even if you test negative before then).
- Follow the advice given in public health alerts regarding the need to self-isolate and seek testing if you attended a location at a time where a cluster has been identified.

People who are diagnosed with COVID-19

- Provide information to public health staff at the time of interview on the locations visited and people you have been in contact with in your **incubation period** and while infectious.
- Stay at home until you are told your isolation period has ended.

Clinicians

- Promote COVID-19 testing amongst symptomatic people to ensure a COVID-19 diagnosis as close as possible to the time symptoms start.
- Encourage testing in people without symptoms when advised to do so for public health purposes.
- Support cases to self-isolate until their isolation period has ended.

Laboratories

- Notify NSW Health of new diagnoses promptly so public health staff can interview cases and identify people potentially infected by a case (close contacts).

Public health staff

- Interview cases as quickly as possible after diagnosis and collect information from cases to detect new clusters and enable contact tracing.
- Quarantine close contacts as quickly as possible.

Here is a snapshot of our locally-acquired cases to show how effective we've been in preventing the spread of COVID-19 in NSW in the past two weeks:

	Measure	Week of reporting	
		Week ending 1 August	Week ending 25 July
Cases with no links to known case or cluster	Proportion tested (swabbed) within:		
	• 1 day of symptom onset	63% (5/8)	67% (2/3)
	• 2 days of symptom onset	75% (6/8)	67% (2/3)
	• 3 days of symptom onset	75% (6/8)	100% (3/3)
	Proportion tested more than 3 days after symptom onset	25% (2/8)	0%
	Proportion who entered isolation within:		
Cases linked to known case or cluster	• 1 day of symptom onset	63% (5/8)	67% (2/3)
	• 2 days of symptom onset	63% (5/8)	67% (2/3)
	• 3 days of symptom onset	88% (7/8)	67% (2/3)
	Proportion who entered isolation more than 3 days after symptom onset	13% (1/8)	33% (1/3)
	Proportion tested (swabbed) within:		
	• 1 day of symptom onset	55% (36/66)	66% (48/73)
	• 2 days of symptom onset	70% (46/66)	82% (60/73)
	• 3 days of symptom onset	83% (55/65)	92% (67/73)
	Proportion tested more than 3 days after symptom onset	17% (11/66)	8% (6/73)
	Proportion who entered isolation within:		
	• 1 day of symptom onset	85% (56/66)	63% (46/73)
	• 2 days of symptom onset	94% (62/66)	86% (63/73)
Number of tests conducted	• 3 days of symptom onset	97% (64/66)	90% (66/73)
	Proportion who entered isolation more than 3 days after symptom onset	3% (2/66)	10% (6/73)
Number of tests conducted		146,363	169,819
Proportion notified to NSW Health by the laboratory within:			
• 1 day of swab collection		74% (68/92)	66% (57/86)
• 2 days of swab collection		99% (91/92)	99% (85/86)
• 3 days of swab collection		100% (92/92)	100% (86/86)
Proportion of locally-acquired cases interviewed by public health staff within 1 day of notification to NSW Health		100% (92/92)	100% (85/85)

Interpretation: While it is encouraging most cases entered isolation and were swabbed soon after developing symptoms, this did not occur in all cases. Of the cases with no links to known cases or clusters, one experienced symptoms for six days prior to getting tested and isolating and, while another case stayed home from the day symptoms began, they did not get tested until four days later. People are reminded of the importance of self-isolation and testing as soon as they experience even mild symptoms to limit the spread of infection.

Of the 11 cases linked to a known cluster who were tested more than three days following symptom onset, seven were in quarantine for at least two days prior to developing symptoms, including several cases with a previously negative test result.

Despite the high volume of testing, the time taken to notify cases remains stable with all new cases in the week ending 1 August notified to NSW Health within two days of swab collection. Public health staff are responding quickly, with all cases interviewed within one day of notification.

SECTION 2: HOW IS THE OUTBREAK TRACKING IN NSW?

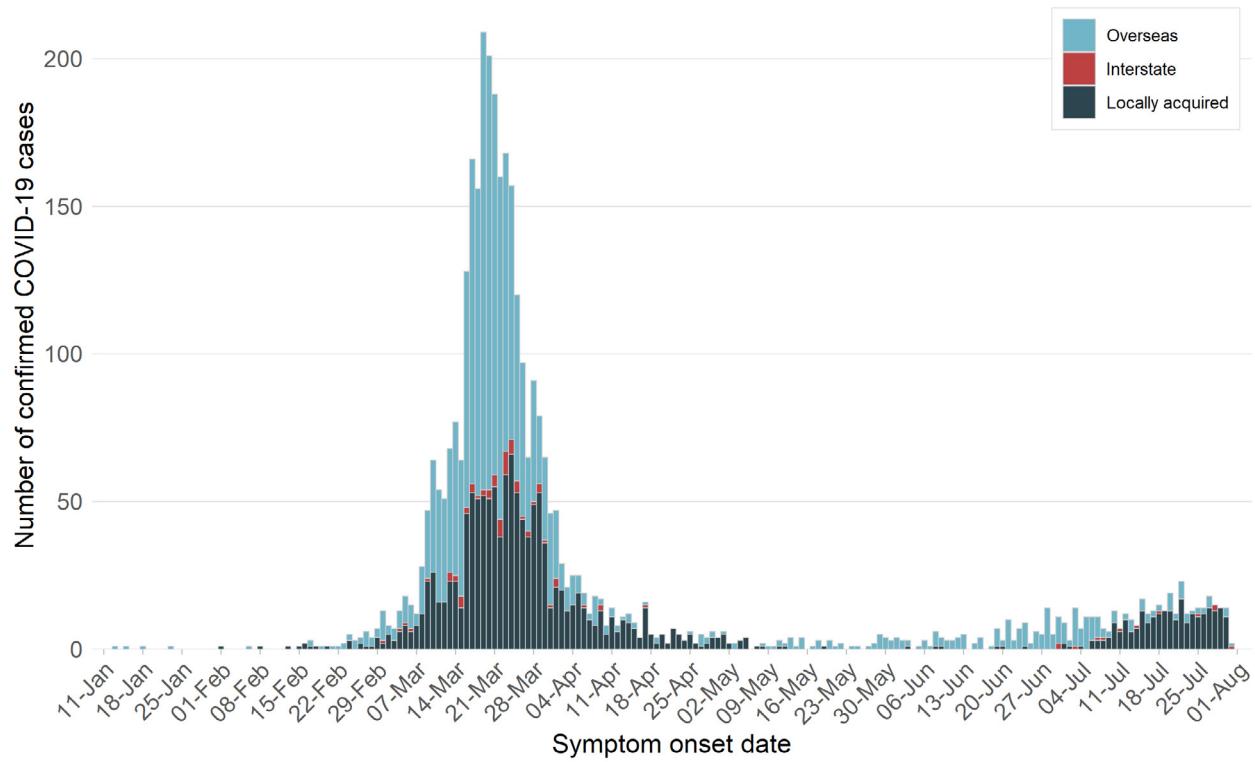
Table 1. COVID-19 cases and tests reported in NSW, up to 1 August 2020

	Week ending 1 August	Week ending 25 July	% change	Total to 1 August
Number of cases	110	109	↑ 1%	3,600
Overseas acquired	14	21	↓ 33%	2,031
Interstate acquired	4	2	↑ 100%	80
Locally acquired	92	86	↑ 7%	1,489
Number of deaths	1	0		52
Number of tests	146,981	169,825	↓ 14%	1,537,547

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

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, 2020



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

Interpretation: Approximately 60% of COVID-19 infections diagnosed in NSW to 1 August have been **overseas acquired** and the remaining 40% have been **locally acquired**. The number of new cases diagnosed in NSW decreased significantly following a peak in mid-March. The increase in overseas-acquired cases since June is largely due to a program of screening all overseas travellers 2 days and 10 days after arrival in NSW. In recent weeks, the number of overseas-acquired cases has decreased while the number of locally-acquired cases has increased.

How many NSW cases were infected in Victoria?

In response to the continued community transmission in Victoria, border measures have been introduced to limit the spread of infection into NSW. From 8 July, under the Public Health (COVID-19 Border Control) Order 2020, a person who has been in Victoria within the last 14 days must not travel to NSW. This was updated on 22 July to further restrict travel to NSW from Victoria and redefine border zone residents. Exceptions are only given in very limited circumstances and those authorised to enter NSW from Victoria must self-isolate for 14 days from arrival in NSW. NSW Health staff, along with the wider community, are strongly discouraged from travelling to Victoria whilst the outbreak of COVID-19 continues in Victoria.

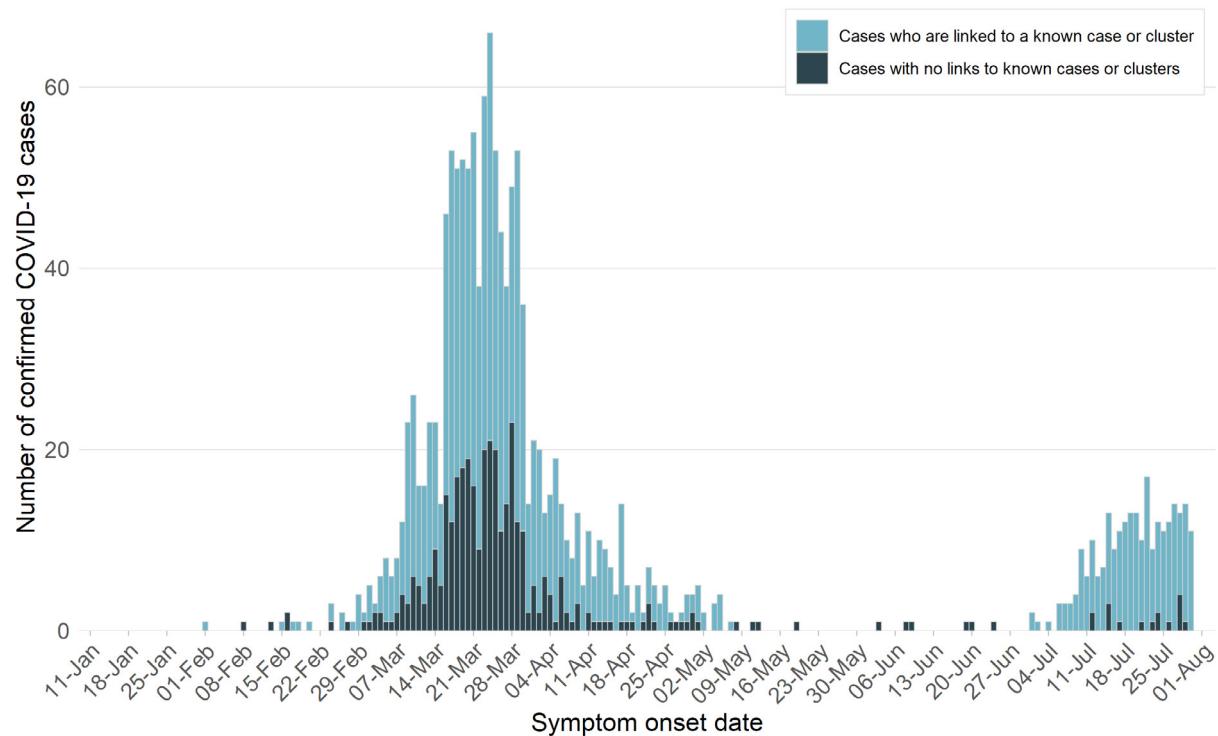
Four cases reported in the last week acquired their infection in Victoria, all of whom were isolated on arrival into NSW.

How much transmission is occurring in NSW?

All new cases who have not travelled outside of NSW are investigated by public health staff to determine the likely source of infection and identify **clusters**. To understand the extent of community transmission, locally-acquired cases who have had contact with a case or who are part of a known cluster are considered separately to those with an unidentified source of infection. Cases with no links to other cases or clusters suggest that there are people infected with COVID-19 in the community who have not been diagnosed.

As new cases are diagnosed each day, public health efforts are focussed on contact tracing to limit further spread in the community and special attention is given to identifying the source of infection for every case. High rates of testing are needed to ensure cases are identified as quickly as possible.

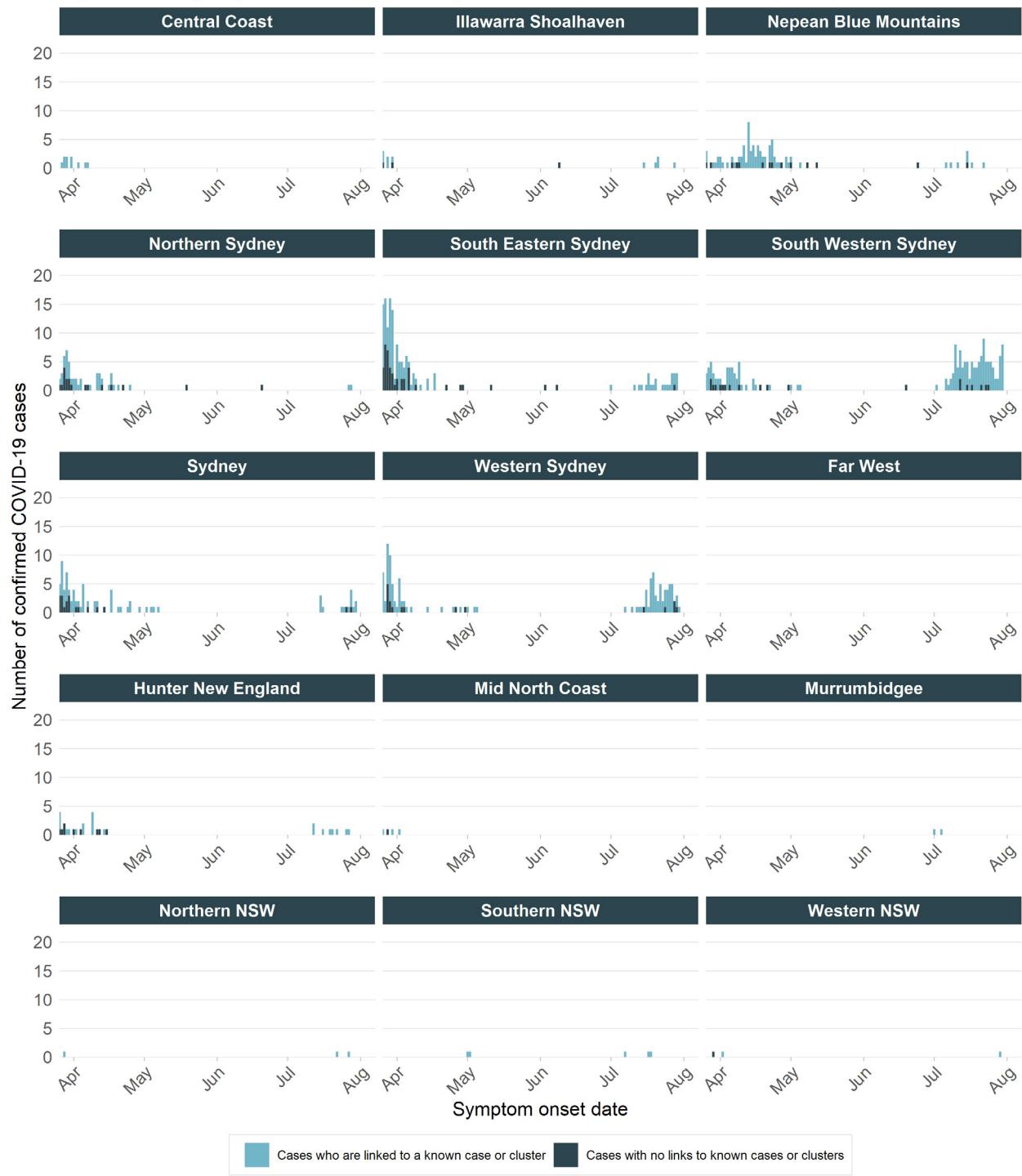
Figure 2. Locally acquired COVID-19 cases by likely infection source and illness onset, NSW, 2020



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

Interpretation: Of the locally-acquired cases with an onset in the last four weeks, 93% (229/245) were linked to known cases or clusters.

Figure 3. Locally acquired COVID-19 cases by LHD of residence and illness onset, NSW, 2020



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

Interpretation: Almost all cases with an onset in July were metropolitan Sydney residents. At the start of July cases were almost all in residents of South Western Sydney LHD and Western Sydney LHD while later in the month cases were reported in South Eastern Sydney and Sydney LHDs. The majority of cases were linked to known clusters further described in Section 4.

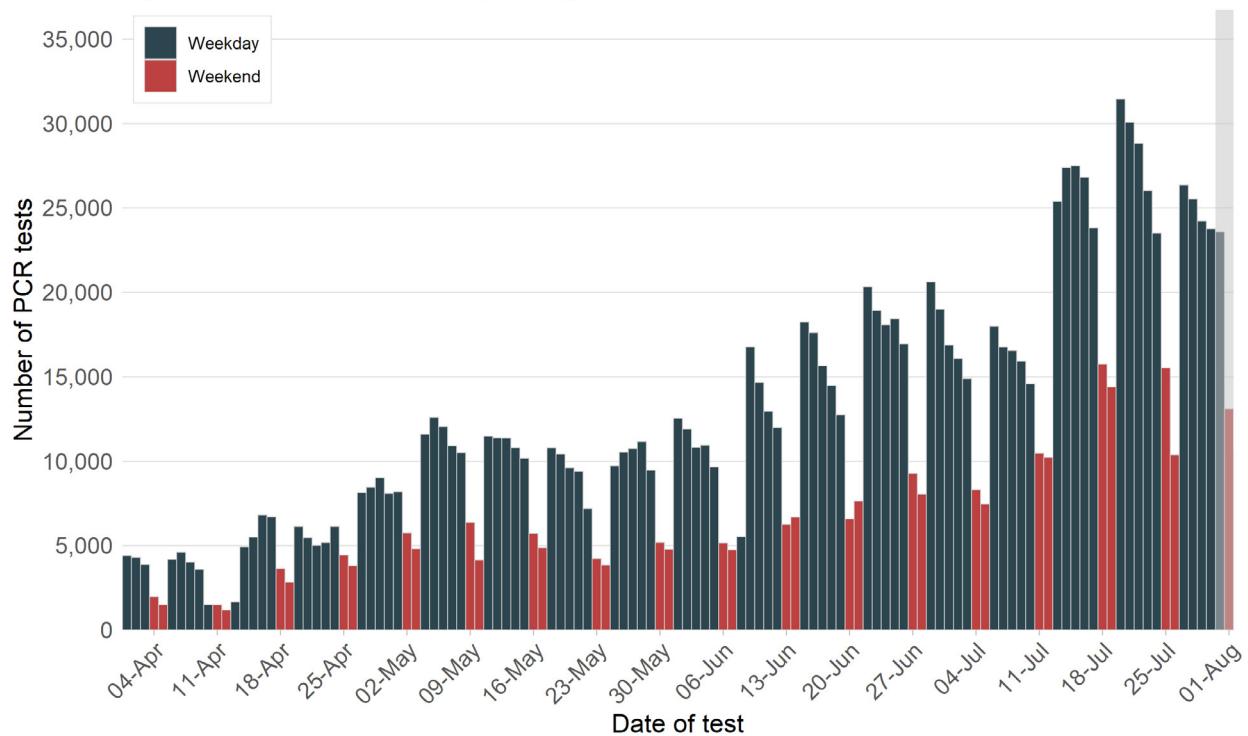
No further cases have been reported in Murrumbidgee LHD following the two household contacts of a case who returned from Melbourne notified in the week ending 11 July. High testing rates are encouraged throughout the state, particularly in border areas given the outbreak in Victoria.

How much testing is happening?

High rates of testing are essential to identify and isolate people who are infectious and to allow contact tracing to limit the spread of infection. Testing is not recommended for people without symptoms except on specific public health advice for people who have been identified as a close contact of someone with COVID-19 or in an outbreak setting.

The bars on the graph below show the number of tests by the date a person presented for the test.¹ While public health facilities are open seven days a week, less testing occurs through GPs and private collection centres on weekends and public holidays. This explains the lower number of tests on weekends.

Figure 4. Number of PCR tests per day, NSW, 2020

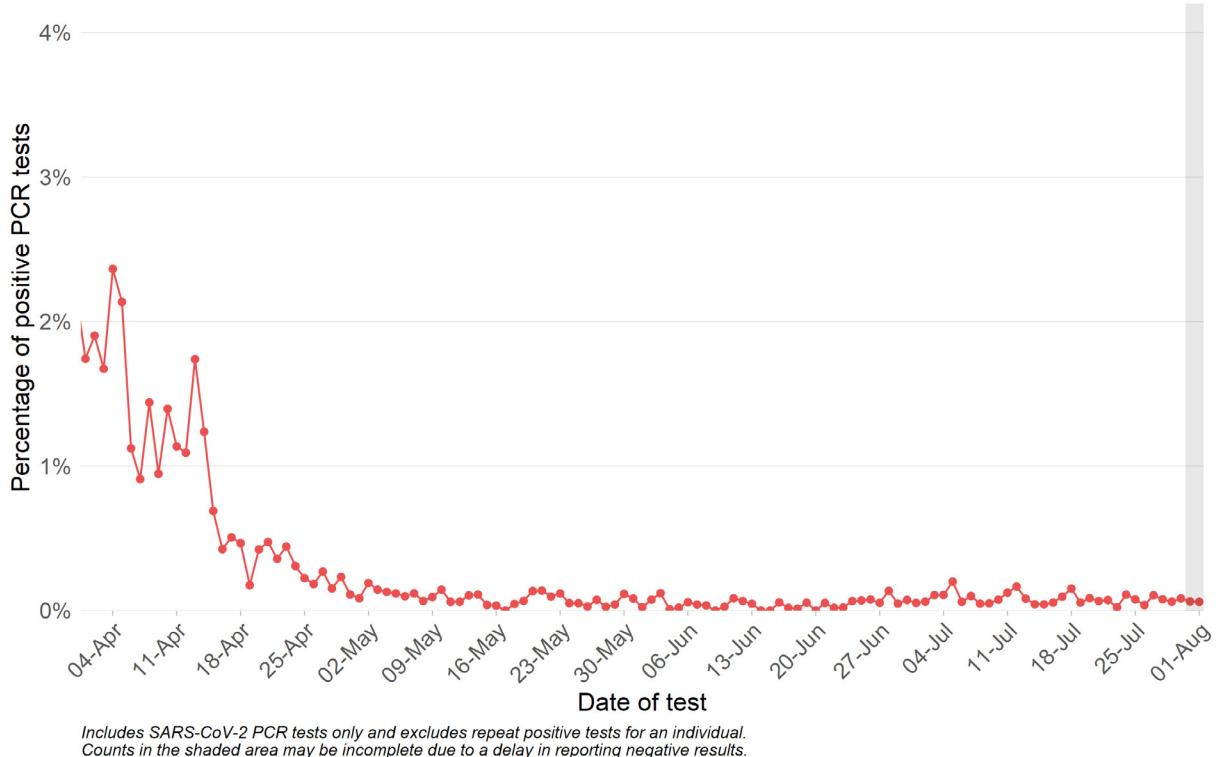


Includes SARS-CoV-2 PCR tests only and excludes repeat positive tests for an individual. Counts in the shaded area may be incomplete due to a delay in reporting negative results.

Interpretation: COVID-19 testing has increased significantly since April in line with the changes in testing criteria and increased availability of testing. Early in the outbreak the focus was on returned travellers and close contacts of confirmed cases, whereas now testing is recommended for anyone with even mild respiratory symptoms or unexplained fever. While a 14% decrease in the test numbers was reported in the week ending 1 August compared with the previous week, overall the number of tests conducted in July was considerably higher than previous months. On average, 2.6 per 1,000 people were tested in NSW each day this week.

¹ The number of tests per day displayed below is different to the 24 hour increase in tests reported each day as there are delays in some laboratories providing negative results to NSW Health.

Figure 5. Proportion of PCR tests positive for COVID-19, NSW, 2020

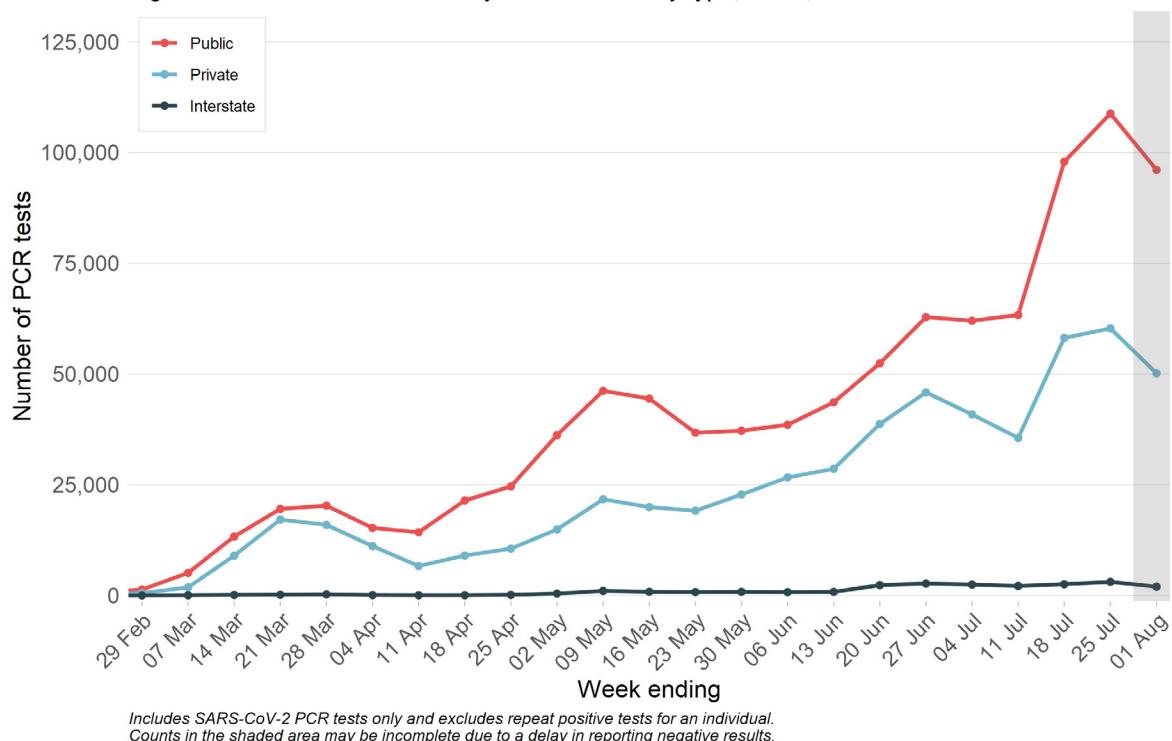


*Includes SARS-CoV-2 PCR tests only and excludes repeat positive tests for an individual.
Counts in the shaded area may be incomplete due to a delay in reporting negative results.*

Interpretation: The proportion of tests positive for COVID-19 in NSW declined in mid-March to early May, and then stabilised at very low levels. Despite high rates of testing, particularly in areas where clusters have been identified, the overall proportion of tests found to be positive indicate low levels of transmission in the community.

Which laboratories are doing the testing?

Figure 6. Number of PCR tests by week and facility type, NSW, 2020



Interpretation: In the week ending 1 August, testing in both public and private facilities remains high with approximately 65% of PCR tests conducted at public laboratories during this period.

SECTION 3: COVID-19 TRANSMISSION IN NSW IN THE LAST FOUR WEEKS

Information from cases who became unwell in the last four weeks is used to understand where COVID-19 is spreading in the community. This takes into account the **incubation period** and the time it takes for people to seek testing and the laboratory to perform the test.

Table 2. Locally-acquired COVID-19 cases in NSW, by week of onset* and source of infection, 5 July to 1 August 2020

Locally-acquired cases	Week of onset				Total
	1 August	25 July	18 July	11 July	
Cases who are linked to a known case or cluster	58	81	62	28	229
Cases with no links to other cases or clusters	6	4	6	0	16
Total	64	85	68	28	245

* If cases are asymptomatic, the date of their earliest positive COVID-19 test is used.

Interpretation: The majority (93%) of cases with a symptom onset in the four weeks ending 1 August were linked to known cases or clusters. The high rates of testing in the community and low number of cases with no source identified indicate that, currently, transmission within the community is limited.

SECTION 4: CURRENT COVID-19 CLUSTERS IN NSW

Public health staff interview all new cases at the time of diagnosis to identify the likely source of their infection. Information on all cases with no obvious source of infection is compared to identify new clusters. Cases are also asked to report all the locations visited and people with whom they have been in contact within their infectious period (two days prior to symptom onset until the time of isolation). Close contacts are quarantined to limit the spread of infection to others and encouraged to seek testing. Secondary cases and clusters are identified when close contacts who did not attend the location of the primary outbreak test positive to COVID-19. Tertiary cases are those who likely acquired their infection from secondary cases. The table below shows the clusters identified in the four weeks ending 1 August.

Clusters in high-risk settings

No clusters have been identified in settings known to be at high risk including aged care and other residential facilities, healthcare and military facilities. One case was diagnosed in a prisoner in Parklea Correctional Centre. The case, who had travelled from Victoria and had no symptoms, was identified following a screening test on entry into the service and had been in isolation.

Community clusters

In total, 223 cases with an onset in the four weeks ending 1 August were linked to known clusters.

Table 3. COVID-19 community clusters, up to 1 August 2020

Date cluster first identified	Cluster	Cases linked in the week ending 1 Aug	Number of linked cases	Source of cluster
10/7	Crossroads Hotel Casula and linked clusters	2	57*	Victorian-acquired case
17/7	Thai Rock Restaurant Wetherill Park and linked clusters	32	100	Source not identified
18/7	Soldiers Club Batemans Bay	0	8	Source not identified
24/7	Bankstown area funeral services and linked cluster	26	34	Source not identified
27/7	Thai Rock Restaurant Potts Point and linked clusters	24	24	Thai Rock Wetherill Park case
Total		84	223	

* Excludes the source case who acquired their infection in Victoria.

Crossroads Hotel Casula

The public health investigation identified that the source of the Crossroads Hotel Casula was a case who had acquired their infection in Victoria and infection was likely spread to others in a workplace and then at the hotel on 3 July when these cases attended while infectious. Everyone who attended the hotel from 3-10 July was advised to self-isolate for 14 days following the last visit to the hotel and seek testing. An additional two cases were linked to this cluster in the week ending 1 August in household members of cases linked to the Crossroads Hotel. Both cases were in isolation at home at the time of the test and no additional close contacts were identified. An 83-year-old previously reported case died on 1 August. He was a family member of a case linked to the Crossroads Hotel.

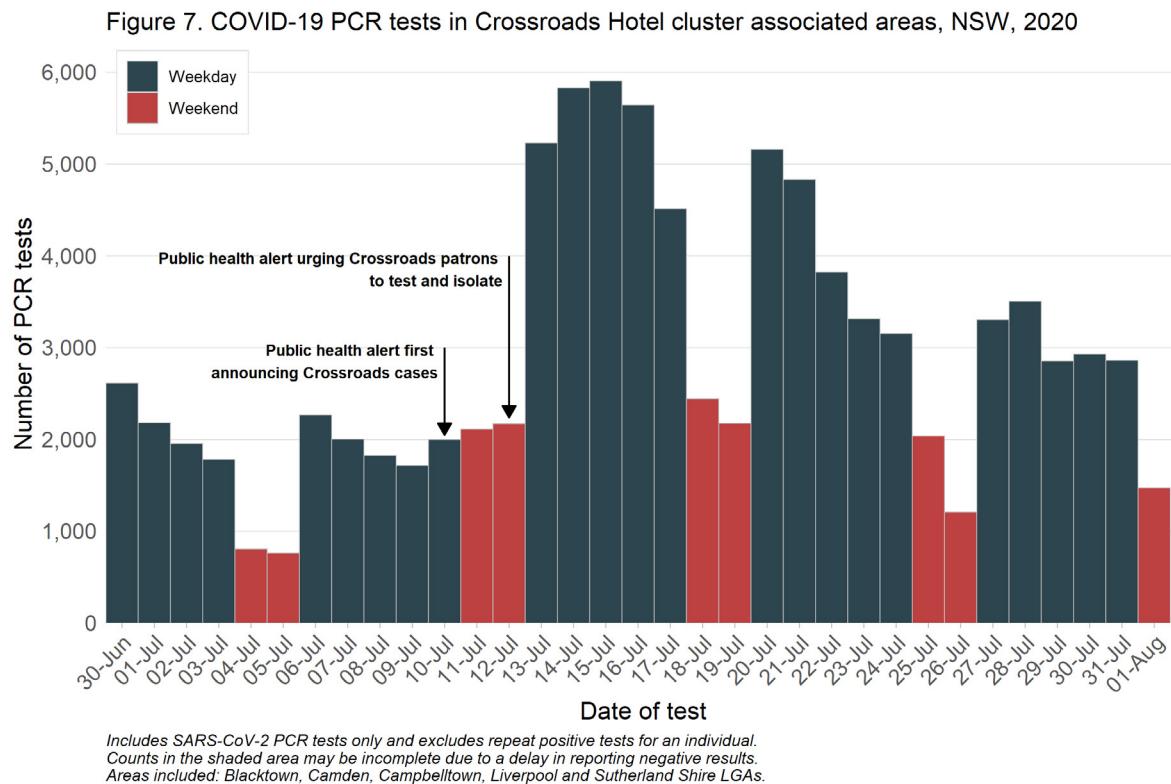
In total, 58 cases have been linked to this cluster including 15 Crossroads Hotel attendees (including the source case). Crossroads attendees were the source of seven secondary clusters including clusters at a gym, a restaurant and five separate workplaces. The quarantine period has now ended for all hotel attendees and close contacts of cases exposed at the five workplaces, gym and restaurant where secondary clusters were identified.

Table 4. Clusters linked to Crossroads Hotel Casula

Setting of exposure	Primary cases	Secondary		Tertiary		Total
		Household	Other [#]	Household	Other [#]	
Crossroads Hotel Casula	14	12	6	2	5	39
Planet Fitness Casula	4	3	1	0	0	8
Workplace in Canterbury-Bankstown LGA	3	0	0	0	0	3
Workplace in Sutherland Shire LGA	3	0	0	0	0	3
Hurricanes Brighton-Le-Sands	1	0	0	0	0	1
Workplace in Fairfield LGA	1	0	0	0	0	1
Workplace in Camden LGA	1	0	0	0	0	1
Workplace in Blacktown LGA	1	0	0	0	0	1
Total	28	15	7	2	5	57*

* Excludes the source case who acquired their infection in Victoria.

Other includes cases whose location of exposure was unable to be determined as case reported had close contact with a linked case at multiple locations while infectious.



Interpretation: A marked increase in testing of residents in LGAs where clusters were identified followed the release of public health alerts and calls to close contacts (those identified by the venues as having attended at a time when transmission was possible). While the number of tests conducted in the week ending 1 August declined compared with the previous weeks, the low proportion of additional cases identified indicates that low levels of COVID-19 continue in these areas.

Thai Rock Restaurant Wetherill Park

The Thai Rock Restaurant Wetherill Park cluster was identified when interviews revealed a staff member and another diner had attended the venue in their incubation period. While it is likely that the staff member was infected at the restaurant the source of her infection remains unknown. No additional cases were identified in restaurant attendees and the quarantine period for those who attended the restaurant at a time when a case was known to be infectious ended on 26 July. However, a further 32 cases linked to this cluster were reported in the week ending 1 August.

Three secondary clusters have been identified involving work colleagues at two separate locations and attendees of Our Lady of Lebanon Cathedral, Harris Park. Those who attended services at the cathedral on 15, 16 and 17 July were advised to self-isolate for 14 days since last attending the cathedral and seek testing.

In the week ending 1 August, a further four cases were identified in cathedral attendees and six cases in household contacts of cathedral attendees. In addition, a case in a household contact of a cathedral attendee attended a sporting match while infectious, and in the week ending 1 August three cases were reported in those who attended the match. Another case linked to this cluster was diagnosed following close contact with a tertiary case from the Thai Rock Restaurant who attended a school while infectious. The school has since undergone a deep clean and close contacts have been quarantined.

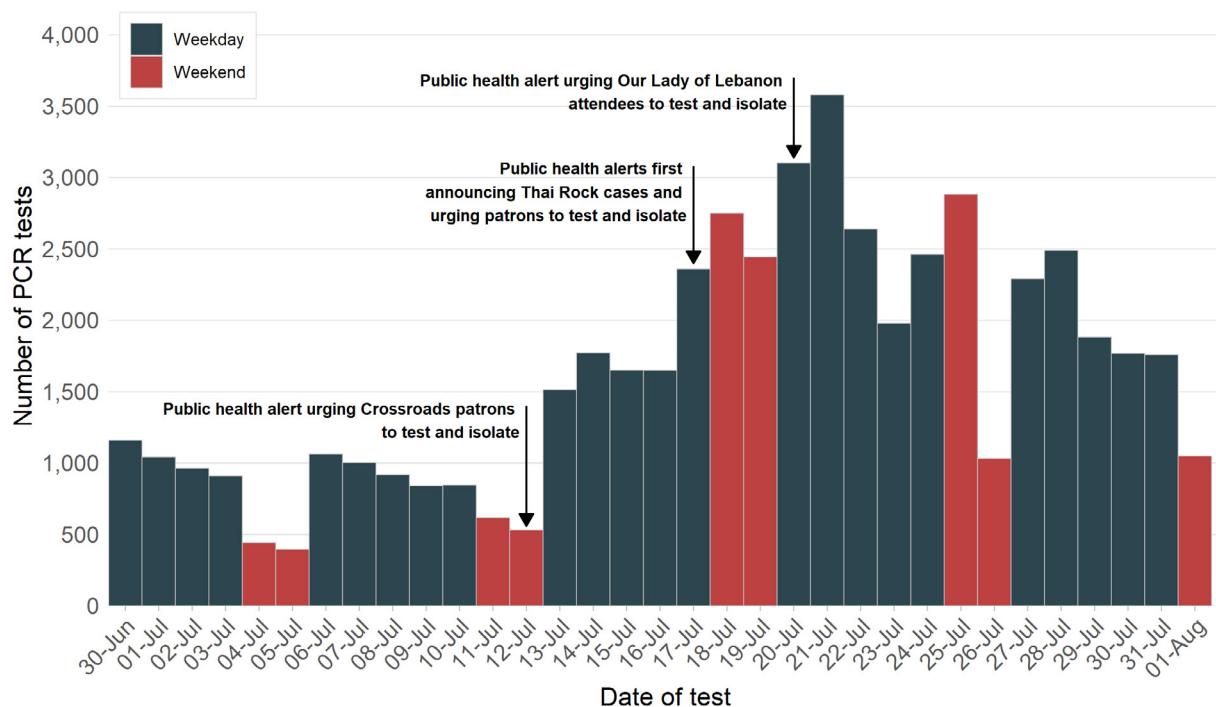
Despite extensive investigation, the source of the Thai Rock Restaurant outbreak at Wetherill Park is not known but whole genome sequencing in samples of the virus collected from cases matches a strain known to be circulating in Victoria which is related to the Crossroads Hotel strain.

Table 5. Clusters linked to Thai Rock Restaurant Wetherill Park

Setting of exposure	Primary cases	Secondary		Tertiary		Total
		Household	Other [#]	Household	Other [#]	
Thai Rock Restaurant Wetherill Park	20	16	5	16	2	59
Our Lady of Lebanon Cathedral, Harris Park	10	13	0	0	0	23
Sporting match, Canterbury-Bankstown LGA	3	1	0	0	0	4
Primary School, Fairfield LGA	1	2	0	0	0	3
Workplace in Fairfield LGA	7	2	0	0	0	9
Workplace in Cumberland LGA	2	0	0	0	0	2
Total	43	34	5	16	2	100

Other includes cases whose location of exposure was unable to be determined as case reported had close contact with a linked case at multiple locations while infectious.

Figure 8. COVID-19 PCR tests in Thai Rock Wetherill Park cluster associated areas, NSW, 2020



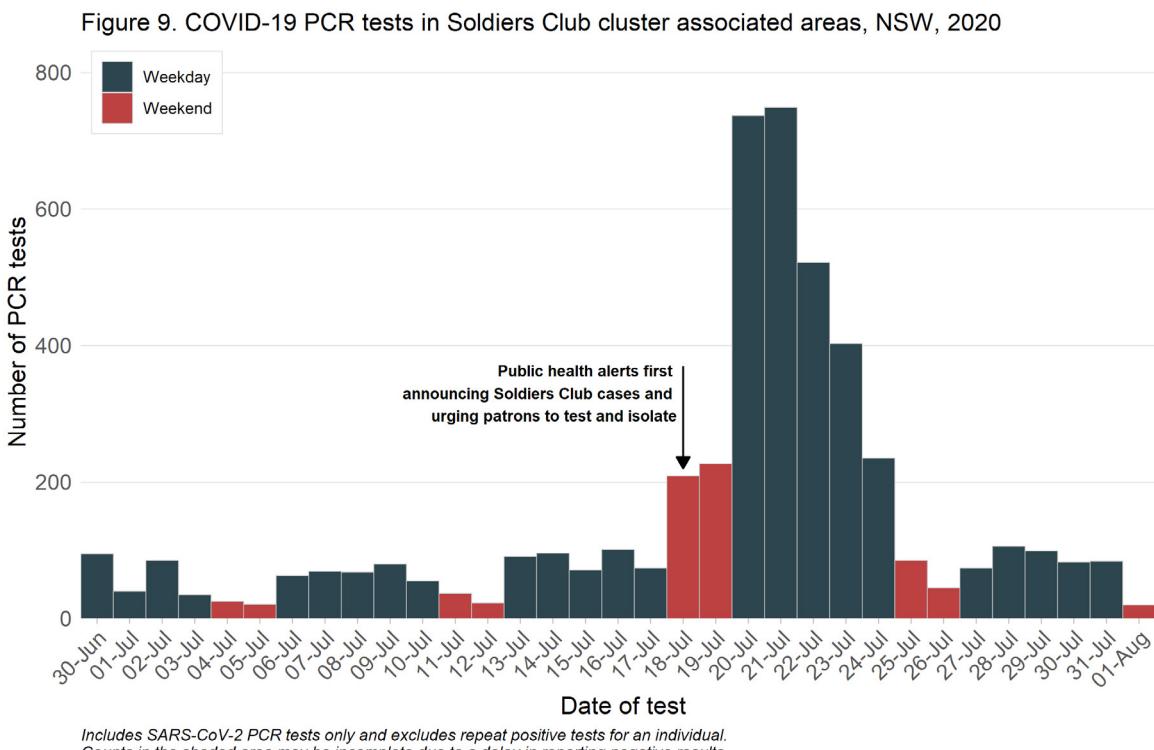
Includes SARS-CoV-2 PCR tests only and excludes repeat positive tests for an individual.
Counts in the shaded area may be incomplete due to a delay in reporting negative results.
Areas included: Cumberland, Fairfield and Parramatta LGAs.

Interpretation: Testing rates in residents of Cumberland, Fairfield and Parramatta LGAs increased following the messaging (including public health alerts and phone calls by contact tracers) to those identified as close contacts. High testing rates continued in the week ending 1 August. The low proportion of additional cases identified indicates low levels of COVID-19 in these LGAs.

Soldiers Club Batemans Bay

A family group diagnosed with COVID-19 reported visiting Batemans Bay, including attending Soldiers Club. A staff member subsequently tested positive for COVID-19 and so all those who attended the restaurant on 10, 13, 15-17 July were advised to self-isolate for 14 days since attending the restaurant and seek testing. No additional cases were linked to this restaurant in the week ending 1 August and as it is more than 14 days since the last possible exposure the cluster is now closed.

A thorough public health investigation has not been able to identify the source of the cluster, however, whole genome sequencing of samples collected from cases suggests the strain is similar to that circulating in Victoria.



Interpretation: A marked increase in testing of local residents followed the release of the public health alert and calls to those on attendee lists provided by Soldiers Club. The low proportion of additional cases identified indicates low levels of COVID-19 in this area.

Bankstown area funeral services

A case whose source of infection is not known attended multiple events in their exposure and infectious period in the week ending 25 July, including services at St Brendan's Catholic Church Bankstown. Close contacts including attendees at services held on 16 and 18 July were requested to isolate and get tested.

A public health investigation identified that one of the funeral attendees attended Mounties, Mt Pritchard on multiple occasions while infectious. Following this, anyone who attended the venue during defined hours from 20 through to 25 July was directed to self-isolate for 14 days and get tested if they develop any COVID-19 symptoms.

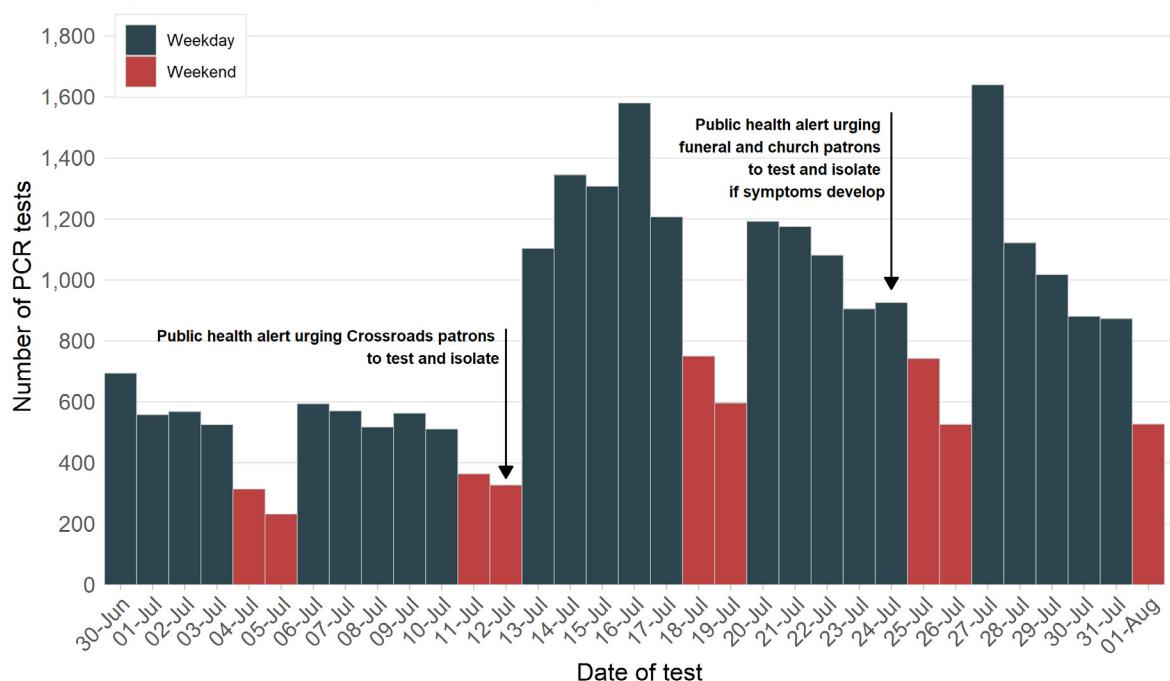
In total, 34 cases have been linked to this cluster including 14 funeral service attendees and nine secondary cases (eight household contacts) and 11 cases linked to Mounties. The public health investigation is ongoing.

Table 6. Clusters linked to Bankstown area funeral services

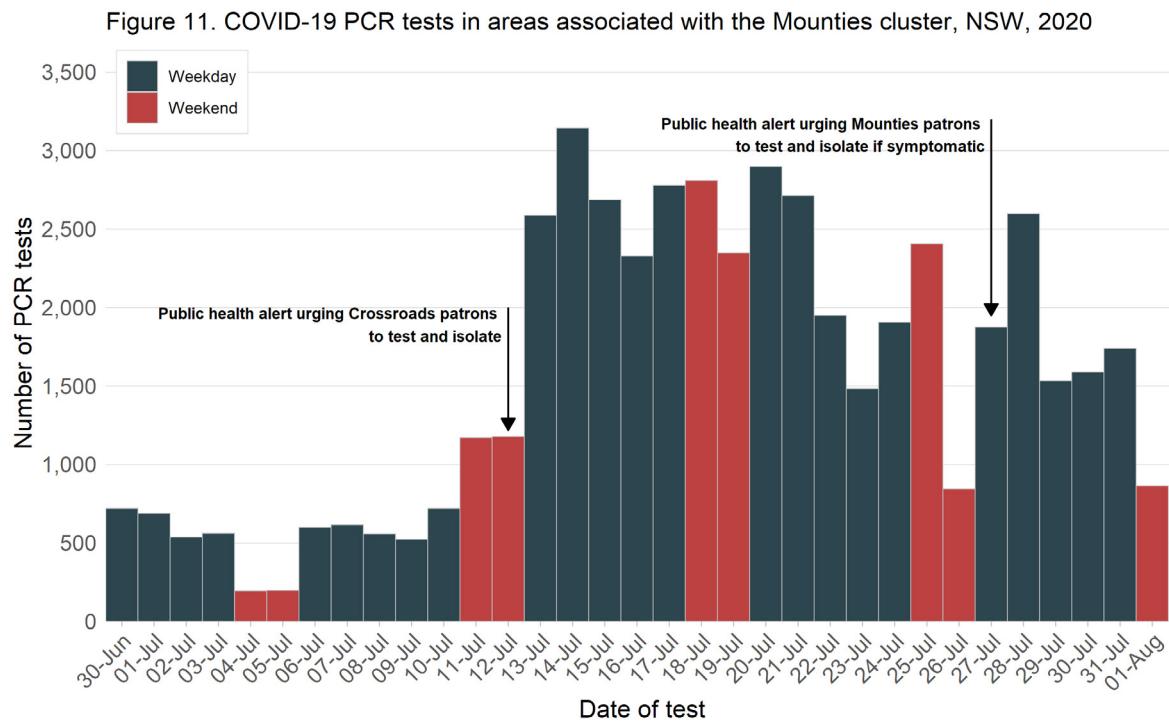
Setting of exposure	Primary cases	Secondary		Tertiary		Total
		Household	Other [#]	Household	Other [#]	
Bankstown area funeral services	14	8	1	0	0	23
Mounties Mt Pritchard	8	1	2	0	0	11
Total	22	9	3	0	0	34

[#] Other includes cases whose location of exposure was unable to be determined as case reported had close contact with a linked case at multiple locations while infectious.

Figure 10. COVID-19 PCR tests in Canterbury-Bankstown LGA, NSW, 2020



Includes SARS-CoV-2 PCR tests only and excludes repeat positive tests for an individual.
Counts in the shaded area may be incomplete due to a delay in reporting negative results.
Areas included: Canterbury-Bankstown LGA.



Interpretation: High testing rates continued in the week ending 1 August. The low proportion of additional cases identified indicates low levels of COVID-19 in this area.

Thai Rock Restaurant Potts Point and linked clusters

On 22 July a case was notified in a resident of Sydney LGA who had no known exposure to COVID-19. Places the case had visited, including Thai Rock Restaurant Potts Point on 22 July, were investigated. On 27 July a staff member of Apollo Restaurant Potts Point was notified with COVID-19, again with no known exposure source. Following media alerts urging staff and attendees of both restaurants to get tested, a couple who had eaten at Thai Rock on 17 July and Apollo on 22 July were identified as the link between the venues, as one was infectious when they visited Apollo. Whole genome sequencing shows that these cases cluster with cases from Thai Rock Wetherill Park.

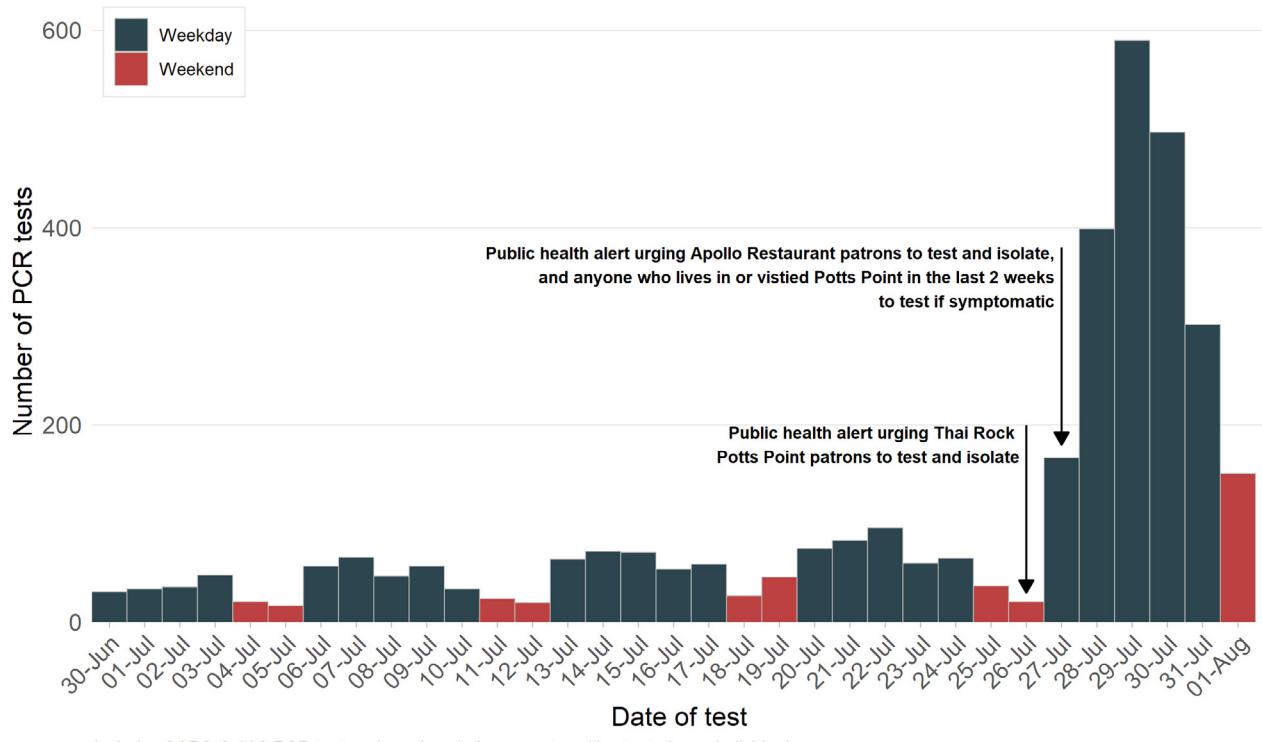
In response to the two restaurant clusters, NSW Health issued a public health alert on 28 July to encourage testing in residents and recent visitors to Potts Point with even mild respiratory symptoms.

Table 7. Clusters linked to Thai Rock Restaurant Potts Point

Setting of exposure	Primary cases	Secondary		Tertiary		Total
		Household	Other [#]	Household	Other [#]	
Thai Rock Restaurant Potts Point	5	0	1	0	0	6
Apollo Restaurant Potts Point	18	0	0	0	0	18
Total	23	0	1	0	0	24

[#] Other includes cases whose location of exposure was unable to be determined as case reported had close contact with a linked case at multiple locations while infectious.

Figure 12. COVID-19 PCR tests in Potts Point and surrounding suburbs, NSW, 2020



*Includes SARS-CoV-2 PCR tests only and excludes repeat positive tests for an individual.
Counts in the shaded area may be incomplete due to a delay in reporting negative results.
Areas included: postcode 2011.*

Interpretation: A marked increase in the number of tests conducted in residents of Sydney LGA was observed following the public health alerts and information given to those who had attended Thai Rock and Apollo restaurants at the date and time of the outbreak.

SECTION 5: COVID-19 CASES WITH NO LINKS TO KNOWN CASES OR CLUSTERS

Cases with no identified links to known cases or clusters suggest that there are people infected with COVID-19 in the community who have not been diagnosed. Testing of people with whom they have been in contact in the 14 days prior to symptom onset and more broadly in the local community is important to identify the source of the infection, detect other cases and prevent further transmission in the community.

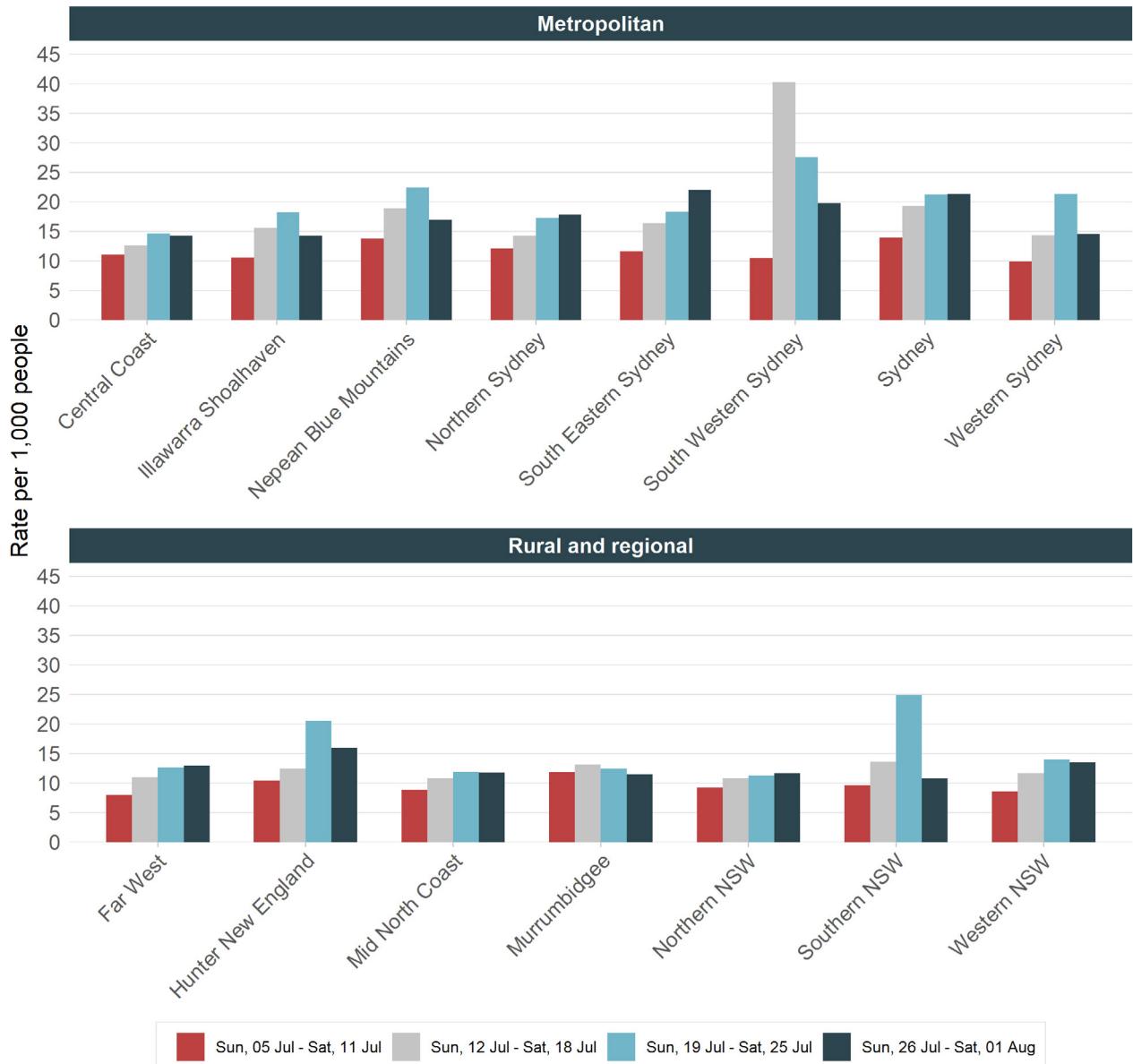
Cases and testing by LHD of residence

Table 8. Locally-acquired COVID-19 cases with no identified links to known cases or clusters by LHD of residence and week of onset, 5 July to 1 August 2020

Local Health District	Week of onset				Total
	1 August	25 July	18 July	11 July	
Central Coast	0	0	0	0	0
Far West	0	0	0	0	0
Hunter New England	0	0	0	0	0
Illawarra Shoalhaven	0	0	0	0	0
Mid North Coast	0	0	0	0	0
Murrumbidgee	0	0	0	0	0
Nepean Blue Mountains	0	0	1	0	1
Northern NSW	0	0	0	0	0
Northern Sydney	0	0	0	0	0
South Eastern Sydney	1	0	0	0	1
South Western Sydney	0	3	4	0	7
Southern NSW	0	0	0	0	0
Sydney	2	0	0	0	2
Western NSW	0	0	0	0	0
Western Sydney	3	1	1	0	5
Grand Total	6	4	6	0	16

Interpretation: No links to known cases or clusters were identified for six cases with an onset in the week ending 1 August. The 16 cases with no source identified who developed symptoms in the last four weeks included seven residents from South Western Sydney LHD, five from Western Sydney LHD, two from Sydney LHD and one each from South Eastern Sydney and Nepean Blue Mountains LHDs.

Figure 13. Rates of COVID-19 testing by LHD of residence and week



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

Interpretation: Following the record number of tests reported in the previous week, statewide testing rates in the week ending 1 August were slightly lower in comparison (18 per 1,000 vs 21 per 1,000). Testing rates increased in South Eastern Sydney LHD largely due to the increase in testing of Sydney LGA residents (see Thai Rock Restaurant and linked clusters in Section 4). Across most other LHDs, testing rates were lower in the week ending 1 August when compared with the previous week, including in South Western and Western Sydney LHDs where clusters have previously been identified.

COVID-19 testing in area of residence of cases with no links to known cases or clusters

High rates of testing in areas where cases may have acquired their infection are necessary to identify other cases and enable public health action to limit the spread of infection. The following analysis is based on the date that the case was reported to NSW Health.

Table 9. COVID-19 testing in LGAs of residence of locally-acquired cases with no links to known cases or clusters, reported from 5 July to 1 August 2020

LGA	Cases				Tests				Tests per 1,000 population			
	1 Aug	25 July	18 July	11 July	1 Aug	25 July	18 July	11 July	1 Aug	25 July	18 July	11 July
Blacktown	1	0	1	0	5,556	8,762	5,854	4,220	14.8	23.4	15.6	11.3
Canterbury-Bankstown	1	0	1	0	6,585	6,617	7,619	3,351	17.4	17.5	20.2	8.9
Cumberland	3	0	0	0	3,542	5,752	3,652	2,108	14.7	23.8	15.1	8.7
Fairfield	1	0	0	0	5,362	8,923	5,606	1,379	25.3	42.2	26.5	6.5
Inner West	1	0	0	0	5,067	4,897	4,027	3,632	25.2	24.4	20.1	18.1
Waverley	1	0	0	0	1,976	1,646	1,373	1,093	26.6	22.2	18.5	14.7

Interpretation: The low proportion of tests found to be positive in each of these LGAs indicates that, currently, COVID-19 transmission is limited.

Areas of increased COVID-19 testing for public health purposes

Perisher was identified as an area for increased testing following the detection of COVID-19 in sewage collected at the Perisher sewage treatment plant on 22 and 27 July 2020. This was collected as part of a NSW Health research program that tests sewage across the state for traces of COVID-19. This research supports the public health response to the pandemic. The significance of this result is unclear as a positive result may be due to shedding of the virus by someone who previously had the illness, as virus 'shedding' can continue for up to four weeks. Further sampling on 29 July was negative. Testing rates in the area increased following the alert however no known cases have reported visiting the Perisher area in either their incubation or infectious period.

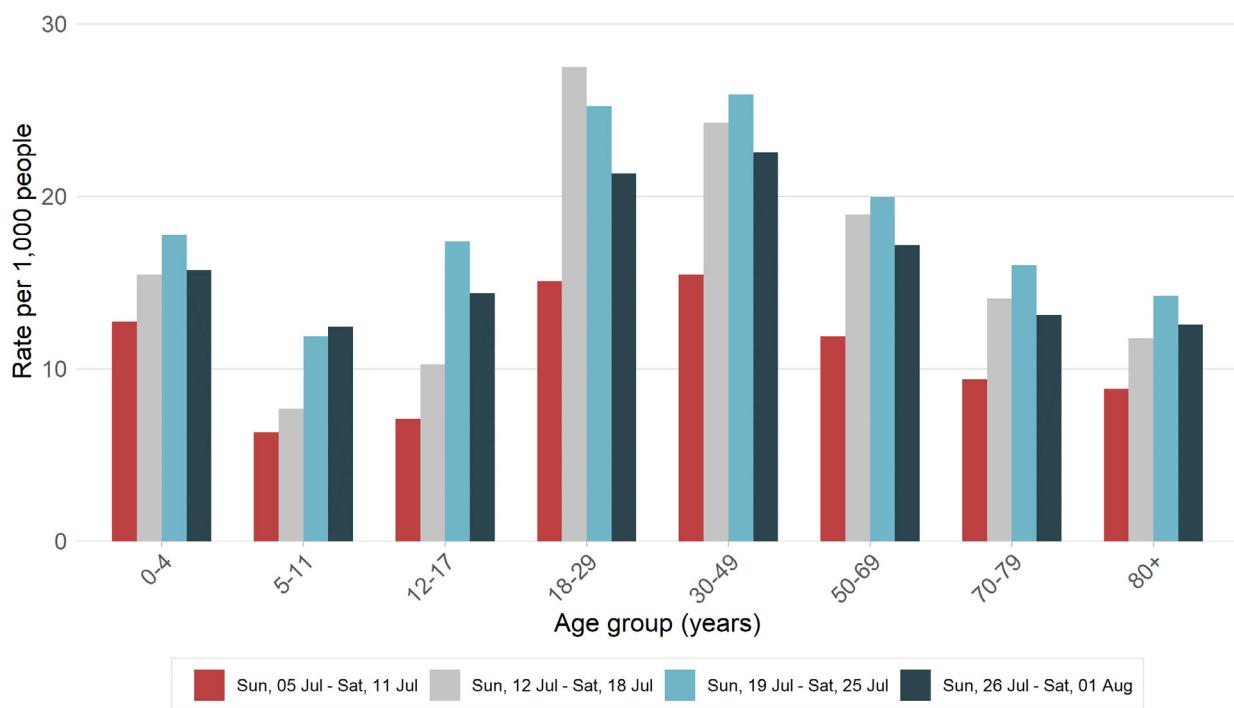
Cases and testing by age group

Table 10. Locally-acquired COVID-19 cases with no links to known cases or clusters by age group and week of onset, 5 July to 1 August 2020

Age group	Week ending				Total
	1 August	25 July	18 July	11 July	
0-4 years	0	0	0	0	0
5-11 years	0	0	0	0	0
12-17 years	0	0	0	0	0
18-29 years	0	1	4	0	5
30-49 years	3	1	2	0	6
50-69 years	3	2	0	0	5
70-79 years	0	0	0	0	0
80+ years	0	0	0	0	0
All ages	6	4	6	0	16

Interpretation: Eleven of the 16 cases in the last four weeks were aged between 18 and 49 years.

Figure 14. Rates of COVID-19 testing by age group and week



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

Interpretation: Following the record testing rates reported in the previous week, rates have decreased in almost all age groups for the week ending 1 August. While there was a decrease in testing rates in young adults (18-29 years), this group recorded the second highest testing rate across all age groups.

Cases and testing by gender

Table 11. Locally-acquired COVID-19 cases with no links to known cases or clusters by gender and week of onset, 5 July to 1 August 2020

Gender	Week ending				Total
	1 August	25 July	18 July	11 July	
Female	4	1	3	0	7
Male	2	3	3	0	9
Total	6	4	6	0	16

Table 12. Rates of COVID-19 testing by gender, up to 1 August 2020*

Gender	Week ending 1 August		Week ending 25 July	
	No. tests	No. tests per 1,000 population	No. tests	No. tests per 1,000 population
Female	79,171	19.4	94,776	23.3
Male	67,553	16.8	74,426	18.5

*Excludes cases with unavailable information on gender.

Interpretation: Testing decreased for both males and females in the week ending 1 August compared with the previous week. Females continue to have a higher rate of testing compared to males.

SECTION 6: COVID-19 IN SPECIFIC POPULATIONS

Aboriginal people

Aboriginal people are considered to be a vulnerable group for serious COVID-19 disease due to their high burden of chronic disease. Additionally, transmission within Aboriginal communities is likely to be high due to factors such as high number of people per household and barriers to accessing health care.

No Aboriginal cases were notified in the week ending 1 August. In total, 37 Aboriginal people have been diagnosed with COVID-19, representing 1% of all cases in NSW.

As those who test negative are not interviewed Aboriginal status is ascertained through periodic data linkage with other health information systems. Refer to the Weekly Report for the week ending 18 July for the most recent data on testing rates amongst Aboriginal people.

Pregnant women

No cases in pregnant women were reported in the week ending 1 August. As those who test negative are not interviewed, testing rates among pregnant women are not available.

Children

Fourteen locally-acquired cases reported in the week ending 1 August were children, including six aged 5 to 11 years and eight aged 12 to 17 years. Six children were part of the cluster at Our Lady of Lebanon Cathedral, including one church attendee and three household contacts of church attendees and two children linked to the sporting match. An additional five children were household contacts of cases who had attended known cluster locations (including four Bankstown funeral service attendees and one Thai Rock Wetherill Park diner). One child was a household contact of a case with unknown source.

SECTION 7: DEATHS

How many people have died as a result of COVID-19?

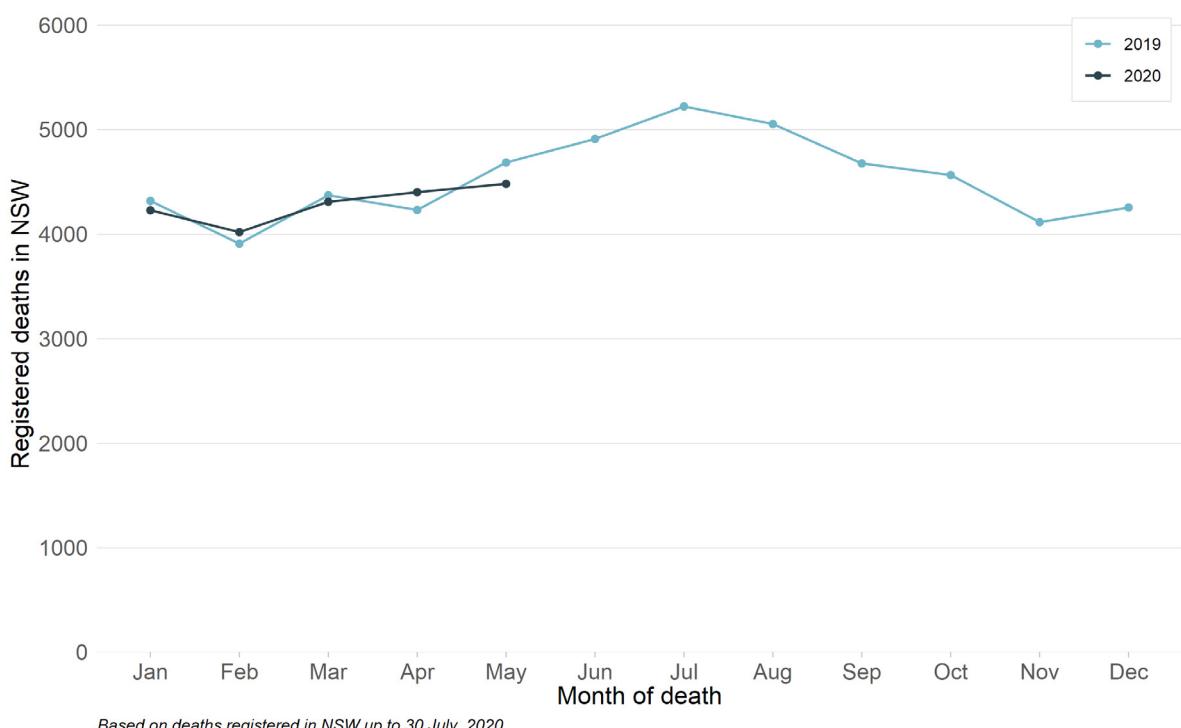
An 83-year-old previously reported case died on 1 August. He was a family member of a case linked to the Crossroads Hotel. In total, 1.4% of cases (52 people) have died as a result of COVID-19 infection, most of whom were 70 years of age or older, including 28 residents of aged care facilities with known COVID-19 outbreaks. Approximately one-quarter of the deaths were in overseas-acquired cases.

Internationally it is estimated that 3.8% of COVID-19 cases are reported to have died as a result of their infection.² Countries such as Italy, the United Kingdom and Spain have reported higher mortality rates (14.2%, 15.2% and 9.9%), while NSW reports similar rates to South Korea (2.1%) and New Zealand (1.8%). Mortality rates are heavily influenced by the testing criteria with lower rates of COVID-19-related deaths reported in countries where testing is recommended for all cases, including those with mild illness.

How many people have died in NSW from any cause of death?

NSW Health receives notifications of all deaths notified to the NSW Registry of Births Deaths and Marriages. Deaths from any cause are seasonal, increasing in winter and decreasing in summer. On average there is a delay of about 14 days for a death to be registered and notified to NSW Health, and deaths referred to a coroner may take longer to register.

Figure 15. Deaths from any cause registered in NSW from January 2019 to May 2020



Based on deaths registered in NSW up to 30 July, 2020

Interpretation: When compared to the same period in 2019, the numbers of registered deaths were higher in April but lower in May. While there is a lag in notification of deaths, there is no indication to date that the COVID-19 pandemic in NSW is causing an overall increase in mortality.

² WHO Coronavirus disease (COVID-19) Situation Report – 196
<https://www.who.int/emergencies/diseases/novel-coronavirus-2019/situation-reports>

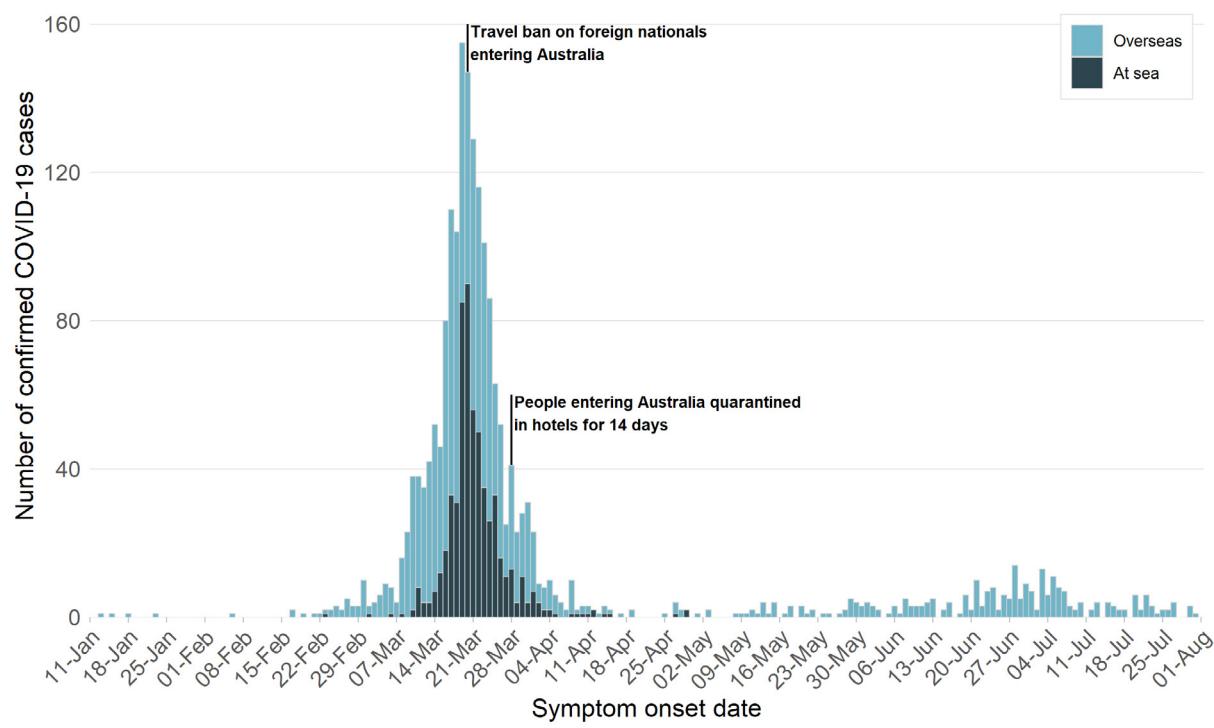
SECTION 8: COVID-19 IN RETURNED TRAVELLERS

To limit the spread of COVID-19 into NSW, travel restrictions were introduced for all non-Australian citizens and permanent residents. In addition, since 28 March returned travellers have been quarantined in hotels for a 14-day period and travellers who develop symptoms are isolated until no longer infectious.

Most travellers diagnosed in quarantine are returning Australian nationals and the country where people acquired their infection in recent weeks can be influenced by the numbers and size of arriving repatriation flights. Effective hotel quarantine minimises the risk of transmission to the community.

The graph below shows the number of cases in returned travellers by the date of symptom onset. Cases acquired at sea refers to those cruise ship passengers who acquired their infection prior to disembarking in NSW.

Figure 16. Overseas acquired COVID-19 cases by infection source and illness onset, NSW, 2020



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

Interpretation: The number of new cases in returned travellers has decreased markedly since March in line with travel restrictions. The increase in overseas-acquired cases since June is largely due to a program of screening all overseas travellers 2 days and 10 days after arrival in NSW.

Returned travellers account for less than one-third of all cases (30%, 110 cases) reported in NSW in the last four weeks with a 33% decrease in the number of overseas-acquired cases reported in the week ending 1 August compared with the previous week. This decrease is due to a reduction in the average number of returning travellers with the introduction of paid hotel quarantine (introduced from 18 July) and a cap of 350 passengers per day arriving into Sydney from 20 July following a new agreement with the Commonwealth Government.

Up to 1 August, cruise ship passengers accounted for the largest number of overseas-acquired infections (581 cases). Following this, cases were most commonly returning from the United Kingdom (334 cases), United States (287 cases) and Pakistan (108 cases).

Airport screening

Health screening of returning travellers was introduced for people returning from particular countries early in the outbreak but was expanded to all returning travellers on 21 March 2020. As part of the health screening passengers are asked to complete a questionnaire about their health upon arrival into Sydney International Airport. People with symptoms are assessed by an onsite health team and tested for COVID-19.

During the week ending 1 August, a total of 3,319 people were screened at Sydney International Airport and 29 were referred for testing. Since screening began on 2 February, a total of 105,828 people have been screened with 1,204 referred for onsite health assessment and testing.

SECTION 9: OTHER RESPIRATORY INFECTIONS IN NSW

Influenza and other respiratory virus cases and tests reported in NSW, up to 26 July 2020

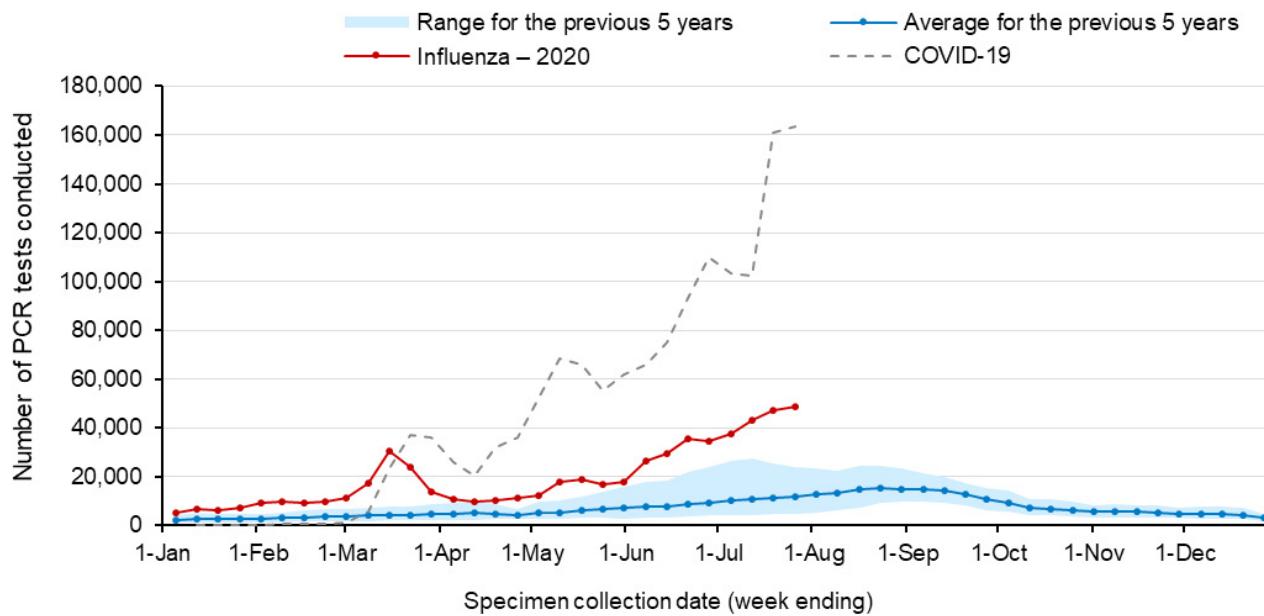
In NSW, routine surveillance for influenza and other respiratory viruses is conducted through sentinel laboratories. The number of all PCR tests (positive and negative) are provided to NSW Health by participating laboratories each week. Testing counts reflect the number of influenza PCR tests conducted; not all samples are tested for all respiratory viruses.

The most recent data available is for testing carried out to 26 July. A total of 589,778 influenza tests have been performed at participating laboratories to 26 July, with 48,809 tests conducted in the most recent week. Refer to Appendix B for PCR testing results for a range of respiratory viruses.

How much influenza testing is happening?

The red line in the figure below shows the number of PCR tests for influenza carried out each week. The blue line shows the average number of tests carried out for the same week in the last five years and the shaded area shows the range of counts reported in the previous five years. The grey line shows the number of COVID-19 tests.

Figure 17. Testing for influenza and COVID-19 by week, to 26 July 2020

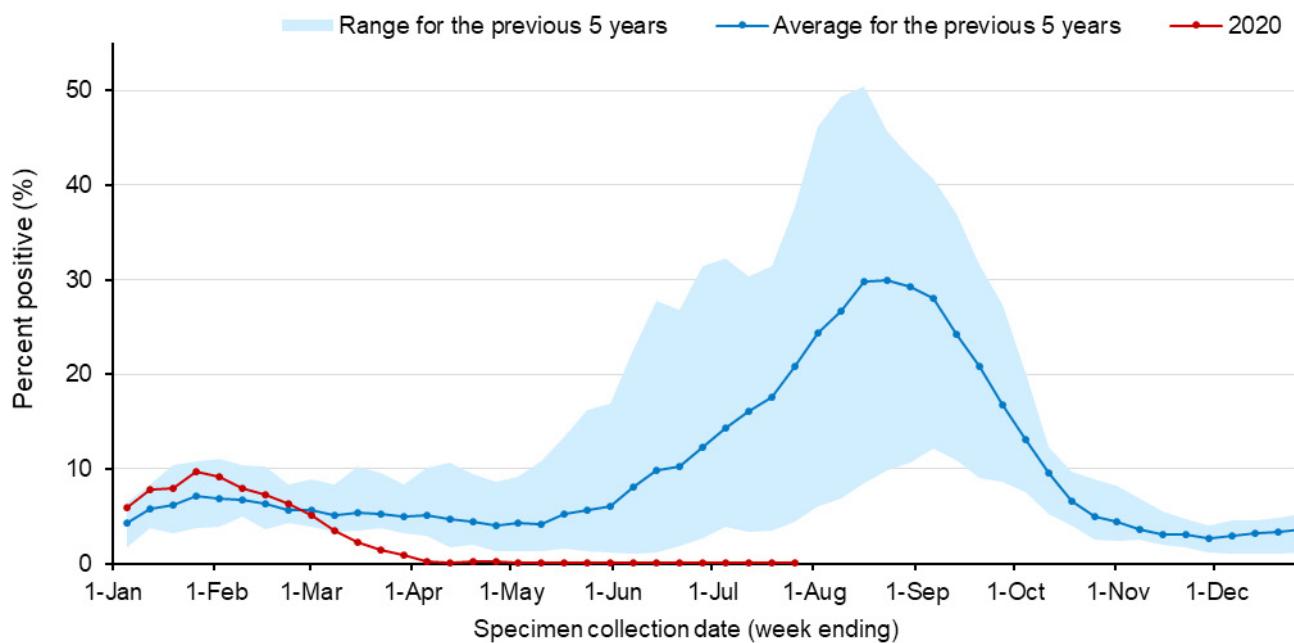


Interpretation: The number of influenza tests performed has exceeded the previous five-year average every week this year. The peak in March corresponds to an increase in testing for COVID-19 virus. The subsequent decline of influenza testing, and sharp increase in COVID-19 testing from April, reflects changes in testing practices for COVID-19 introduced in late March so that testing for influenza and other respiratory viruses was by exception to enable laboratories to increase COVID-19 testing using common equipment. Subsequently, testing for both influenza and COVID-19 has increased.

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 2020, the blue line showing the average for the past five years and the shaded area showing the range recorded in the previous five years.

Figure 18. Proportion of tests positive for influenza, to 26 July 2020



Interpretation: The percent of influenza tests that were positive in the week ending 26 July continues to be very low (less than 0.1%), indicating limited influenza transmission in the community.

How many people have died as a result of influenza?

No influenza deaths were reported in the week ending 26 July. The number of influenza-related deaths identified via Coroner's reports and death registrations from 1 January to 26 July 2020 is lower than the same period last year (12 deaths in 2020 compared with 106 in 2019).³ Two-thirds of the deaths were in people aged 65 years and over.

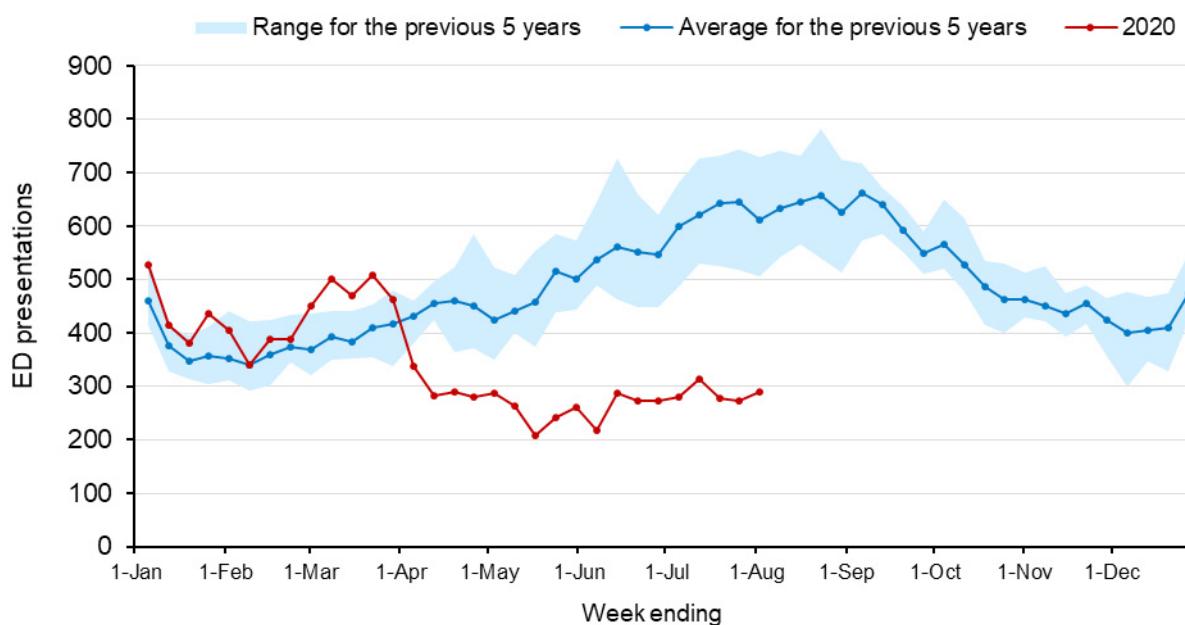
³ Includes deaths in people with laboratory-confirmed influenza.

How are emergency department presentations for pneumonia tracking?

The figure below shows weekly pneumonia presentations to Emergency Departments in NSW. This includes presentations 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 using PHREDSS.⁴

The red line shows the weekly counts for 2020, the blue line shows the average for the same week for the past five years and the shaded area shows the range recorded in the previous five years.

Figure 19. Emergency Department pneumonia presentations in NSW by week, to 2 August 2020



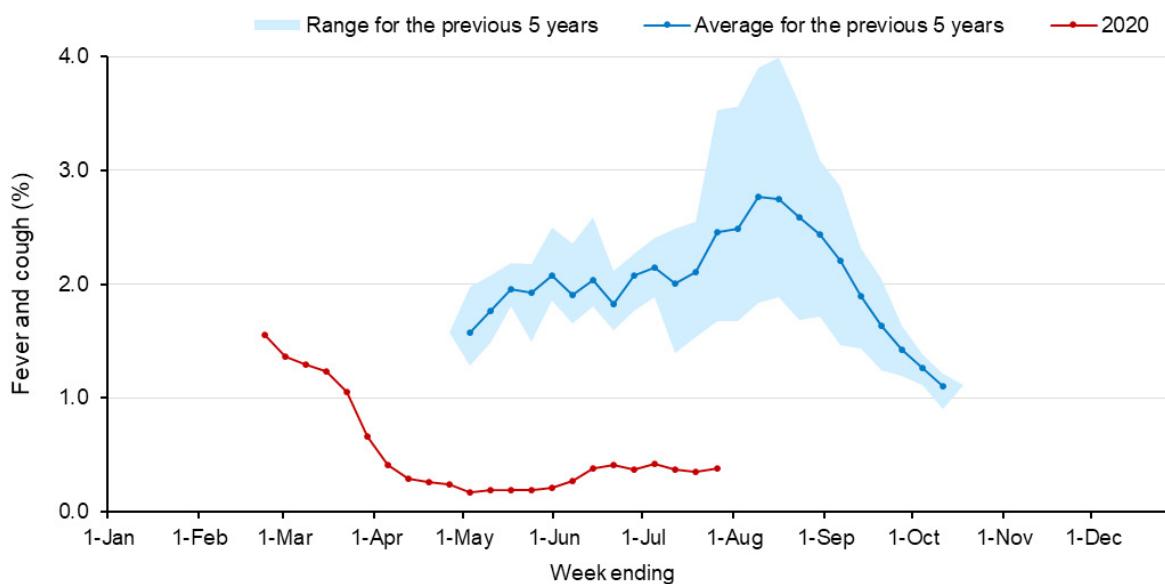
Interpretation: Pneumonia presentations decreased from the end of March and have continued to remain well below the usual range for this time of year.

⁴ NSW Health Public Health Rapid, Emergency Disease and Syndromic Surveillance (PHREDSS) system, CEE, NSW Ministry of Health. Comparisons are made with data for the preceding 5 years. Includes unplanned presentations to 67 NSW emergency departments (accounts for 87% of total public ED activity).

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 commenced at the end of February this year given the COVID-19 outbreak.

Figure 20. Proportion of FluTracker participants in NSW reporting influenza-like illness, to 26 July 2020



Interpretation: In NSW in the week ending 26 July, of the 24,722 people surveyed, 96 people (0.4%) reported flu-like symptoms. The proportion of people reporting symptoms remains well below the usual range for this time of year.

APPENDIX A: COVID-19 PCR TESTS IN NSW

Local Health District	Local Government Area	Week ending				Total	
		1 August		25 July			
		No.	Tests per 1,000 population	No.	Tests per 1,000 population	No.	Tests per 1,000 population
Central Coast	Central Coast / LHD Total ²	5049	14.3	5184	14.7	60575	171.7
Far West	Balranald	25	10.7	29	12.4	204	87.3
	Broken Hill	237	13.6	231	13.2	2250	128.7
	Central Darling	23	12.5	17	9.2	174	94.6
Hunter New England	Wentworth	107	15.2	103	14.6	971	137.7
	LHD Total ²	392	13.0	380	12.6	3599	119.4
	Armidale Regional	405	13.2	387	12.6	4893	159.0
	Cessnock	707	11.8	687	11.5	7877	131.3
	Dungog	105	11.1	133	14.1	1129	119.8
	Glen Innes Severn	66	7.4	86	9.7	1018	114.8
	Gunnedah	115	9.1	152	12.0	1254	98.9
	Gwydir	38	7.1	33	6.2	343	64.1
	Inverell	196	11.6	229	13.6	2205	130.6
	Lake Macquarie	3494	17.0	3687	17.9	38198	185.5
Illawarra Shoalhaven	Liverpool Plains	65	8.2	91	11.5	1018	128.8
	Maitland	1782	20.9	2535	29.8	18875	221.6
	Mid-Coast	1053	11.2	921	9.8	11384	121.3
	Moree Plains	112	8.5	120	9.1	1456	109.8
	Muswellbrook	189	11.5	256	15.6	2186	133.5
	Narrabri	109	8.3	118	9.0	1358	103.4
	Newcastle	3532	21.3	3951	23.9	37938	229.1
	Port Stephens	1839	25.0	4499	61.2	16160	219.9
	Singleton	429	18.3	566	24.1	4675	199.3
	Tamworth Regional	666	10.7	801	12.8	10844	173.4
Metropolitan	Tenterfield	55	8.3	47	7.1	516	78.3
	Upper Hunter Shire	171	12.1	214	15.1	2000	141.0
	Uralla	55	9.2	42	7.0	607	101.0
	Walcha	27	8.6	21	6.7	391	124.8
	LHD Total ²	15190	16.0	19567	20.6	166203	174.5
	Kiama	377	16.1	476	20.4	4548	194.5
	Shellharbour	1238	16.9	1564	21.4	14258	194.7
	Shoalhaven	1083	10.3	1726	16.3	15811	149.7
South Western	Wollongong	3312	15.2	3892	17.8	36610	167.9
	LHD Total ²	6010	14.3	7658	18.3	71227	169.7

COVID-19 WEEKLY SURVEILLANCE IN NSW

Epidemiological week 31, ending 1 August 2020

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Local Health District	Local Government Area	Week ending				Total	
		1 August		25 July			
		No.	Tests per 1,000 population	No.	Tests per 1,000 population	No.	Tests per 1,000 population
Mid North Coast	Bellingen	123	9.5	147	11.3	1667	128.3
	Coffs Harbour	810	10.5	882	11.4	9470	122.6
	Kempsey	430	14.5	359	12.1	4079	137.1
	Nambucca	249	12.6	203	10.3	2256	113.9
	Port Macquarie-Hastings	1041	12.3	1103	13.1	10852	128.4
	LHD Total ²	2653	11.8	2694	11.9	28324	125.5
Murrumbidgee	Albury	726	13.4	677	12.5	6615	121.7
	Berrigan	88	10.1	88	10.1	925	105.7
	Bland	50	8.4	106	17.8	692	115.9
	Carrathool	18	6.4	18	6.4	133	47.5
	Coolamon	52	12.0	66	15.2	552	127.2
	Cootamundra-Gundagai Regional	115	10.2	178	15.8	1387	123.5
	Edward River	118	13.0	94	10.4	1227	135.1
	Federation	114	9.2	152	12.2	1203	96.7
	Greater Hume Shire	113	10.5	151	14.0	1325	123.1
	Griffith	363	13.4	371	13.7	3508	129.8
	Hay	9	3.1	22	7.5	227	77.0
	Hilltops	161	8.6	259	13.9	1973	105.5
	Junee	49	7.3	64	9.6	531	79.5
	Lachlan ¹	36	5.9	35	5.8	409	67.3
	Leeton	100	8.7	117	10.2	1062	92.8
	Lockhart	23	7.0	30	9.1	366	111.4
	Murray River	41	3.4	54	4.5	277	22.9
	Murrumbidgee	25	6.4	39	10.0	372	95.0
	Narrandera	58	9.8	69	11.7	510	86.5
	Snowy Valleys	168	11.6	212	14.6	1813	125.2
	Temora	62	9.8	37	5.9	643	102.0
	Wagga Wagga	963	14.8	917	14.1	10851	166.3
	LHD Total ²	3431	11.5	3725	12.5	36355	122.0
Nepean Blue Mountains	Blue Mountains	1567	19.8	1789	22.6	19529	246.8
	Hawkesbury	1102	16.4	1315	19.5	13599	202.1
	Lithgow	285	13.2	253	11.7	3045	140.9
	Penrith	3769	17.7	5596	26.3	50997	239.5
	LHD Total ²	6633	17.0	8791	22.5	86430	221.1

COVID-19 WEEKLY SURVEILLANCE IN NSW
Epidemiological week 31, ending 1 August 2020

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Local Health District	Local Government Area	Week ending				Total	
		1 August		25 July			
		No.	Tests per 1,000 population	No.	Tests per 1,000 population	No.	Tests per 1,000 population
Northern NSW	Ballina	594	13.3	608	13.6	7044	157.8
	Byron	536	15.3	459	13.1	6018	171.6
	Clarence Valley	469	9.1	425	8.2	5332	103.2
	Kyogle	79	9.0	132	15.0	784	89.1
	Lismore	629	14.4	566	13.0	6660	152.4
	Richmond Valley	312	13.3	316	13.5	3137	133.7
	Tenterfield	55	8.3	47	7.1	516	78.3
	Tweed	994	10.3	982	10.1	11490	118.5
	LHD Total ²	3629	11.7	3496	11.3	40592	130.8
	Hornsby	1962	12.9	2205	14.5	22800	149.9
Northern Sydney	Hunters Hill	482	32.2	545	36.4	5914	394.8
	Ku-ring-gai	2737	21.5	2742	21.6	27481	216.1
	Lane Cove	1967	49.0	1444	36.0	16921	421.4
	Mosman	652	21.1	531	17.1	6525	210.6
	North Sydney	1308	17.4	1106	14.7	12482	166.4
	Northern Beaches	4612	16.9	4137	15.1	51166	187.1
	Parramatta ¹	3369	13.1	4417	17.2	34574	134.4
	Ryde	1652	12.6	1997	15.2	21436	163.3
	Willoughby	1119	13.8	1107	13.6	11429	140.8
	LHD Total ²	17072	17.9	16564	17.3	182691	191.1
South Eastern Sydney	Bayside	2691	15.1	2315	13.0	25097	140.7
	Georges River	2510	15.7	2326	14.6	22701	142.4
	Randwick	3432	22.1	3052	19.6	35610	228.8
	Sutherland Shire	4317	18.7	5098	22.1	50735	220.0
	Sydney ¹	7889	32.0	5337	21.7	52905	214.8
	Waverley	1976	26.6	1646	22.2	21911	294.9
	Woollahra	2113	35.6	1502	25.3	17655	297.3
	LHD Total ²	21105	22.0	17531	18.3	191236	199.4
	Camden	1964	19.4	3651	36.0	28333	279.3
	Campbelltown	2650	15.5	3947	23.1	37875	221.6
South Western Sydney	Canterbury-Bankstown ¹	6585	17.4	6617	17.5	59433	157.3
	Fairfield	5362	25.3	8923	42.2	34188	161.5
	Liverpool	5619	24.7	6692	29.4	48772	214.3
	Wingecarribee	815	15.9	1079	21.1	12085	236.3
	Wollondilly	487	9.2	721	13.6	8832	166.2
	LHD Total ²	20582	19.8	28644	27.6	200410	193.0

COVID-19 WEEKLY SURVEILLANCE IN NSW

Epidemiological week 31, ending 1 August 2020

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Local Health District	Local Government Area	Week ending				Total	
		1 August		25 July			
		No.	Tests per 1,000 population	No.	Tests per 1,000 population	No.	Tests per 1,000 population
Southern NSW	Bega Valley	331	9.6	589	17.1	4719	136.9
	Eurobodalla	511	13.3	2958	76.9	7912	205.7
	Goulburn Mulwaree	410	13.2	491	15.8	4789	153.8
	Queanbeyan-Palerang Regional	552	9.0	734	12.0	6779	111.0
	Snowy Monaro Regional	320	15.4	341	16.4	2780	133.7
	Upper Lachlan Shire	89	11.0	119	14.8	1004	124.6
	Yass Valley	125	7.3	166	9.7	1625	95.1
Sydney	LHD Total ²	2341	10.8	5404	24.9	29621	136.5
	Burwood	434	10.7	464	11.4	4624	113.9
	Canada Bay	1850	19.3	1826	19.0	20263	210.9
	Canterbury-Bankstown ¹	6585	17.4	6617	17.5	59433	157.3
	Inner West	5067	25.2	4897	24.4	50697	252.5
	Strathfield	820	17.5	884	18.8	8206	174.9
	Sydney ¹	7889	32.0	5337	21.7	52905	214.8
Western NSW	LHD Total ²	14842	21.3	14808	21.3	147810	212.1
	Bathurst Regional	681	15.6	712	16.3	7008	160.7
	Blayney	175	23.7	110	14.9	1268	171.8
	Bogan	17	6.6	52	20.2	289	112.0
	Bourke	36	13.9	14	5.4	219	84.6
	Brewarrina	22	13.7	12	7.5	184	114.2
	Cabonne	164	12.0	95	7.0	1212	88.9
	Cobar	24	5.2	66	14.2	365	78.4
	Coonamble	42	10.6	54	13.6	436	110.2
	Cowra	126	9.9	141	11.1	1388	108.9
	Dubbo Regional	680	12.7	833	15.5	6917	128.8
	Forbes	75	7.6	150	15.1	753	76.0
	Gulgandra	42	9.9	103	24.3	391	92.2
	Lachlan ¹	36	5.9	35	5.8	409	67.3
	Mid-Western Regional	332	13.2	338	13.4	3451	136.7
	Narromine	68	10.4	103	15.8	654	100.4
	Oberon	124	22.9	57	10.5	716	132.3
	Orange	835	19.7	608	14.3	7444	175.4
	Parkes	150	10.1	156	10.5	1353	91.2
	Walgett	55	9.2	94	15.8	789	132.5
	Warren	43	15.9	60	22.3	513	190.2
	Warrumbungle Shire	97	10.5	104	11.2	1197	129.0
	Weddin	23	6.4	98	27.1	376	104.1
	LHD Total ²	3832	13.5	3992	14.0	37194	130.5

Local Health District	Local Government Area	Week ending				Total	
		1 August		25 July			
		No.	Tests per 1,000 population	No.	Tests per 1,000 population	No.	Tests per 1,000 population
Western Sydney	Blacktown	5556	14.8	8762	23.4	68794	183.7
	Cumberland	3542	14.7	5752	23.8	36476	151.0
	Parramatta ¹	3369	13.1	4417	17.2	34574	134.4
	The Hills Shire	3377	19.0	4112	23.1	37340	209.8
	LHD Total ²	15406	14.6	22450	21.3	171864	163.2
NSW Total³		146,981	18.2	169,825	20.1	1,537,547	190.1

¹Local Government Area (LGA) spans multiple Local Health Districts.²Local Health District total counts and rates includes tests for LHD residents only. Murrumbidgee includes Albury LGA residents.³NSW Total counts and rates 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, 1 JANUARY TO 26 JULY 2020

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.

Specimen collection date	Total PCR tests conducted	Influenza A		Influenza B		Adeno-virus	Para-influenza	RSV	Rhinovirus	HMPV	Enterovirus
		No.	%Pos.	No.	%Pos.						
1 Jan–26 July 2020											
Total	589,778	6,609	1.1%	946	0.2%	4,441	8,953	4,716	91,317	1,965	3,784
Month ending											
3 February*	34,953	2,508	7.18%	401	1.15%	846	1,900	752	5,036	599	335
1 March	40,575	2,363	5.82%	315	0.78%	798	2,435	1,118	8,245	437	1,007
29 March	85,238	1,549	1.82%	200	0.23%	898	4,117	1,977	18,088	664	1,502
3 May *	54,128	70	0.13%	13	0.02%	175	273	410	2,250	48	210
31 May	71,525	35	0.05%	6	0.01%	237	62	115	3,511	27	112
28 June	126,768	48	0.04%	10	0.01%	628	81	178	28,191	112	241
Week ending											
5 July	37,394	12	0.03%	1	<0.01%	199	24	42	9,574	46	89
12 July	43,126	4	0.01%	0	0.00%	229	24	48	7,328	9	105
19 July	47,262	14	0.03%	0	0.00%	226	20	38	5,468	16	100
26 July	48,809	6	0.01%	0	0.00%	205	17	38	3,626	7	83

Notes: Preliminary laboratory data is provided by participating sentinel laboratories on a weekly basis and are subject to change. Serological diagnoses are not included.

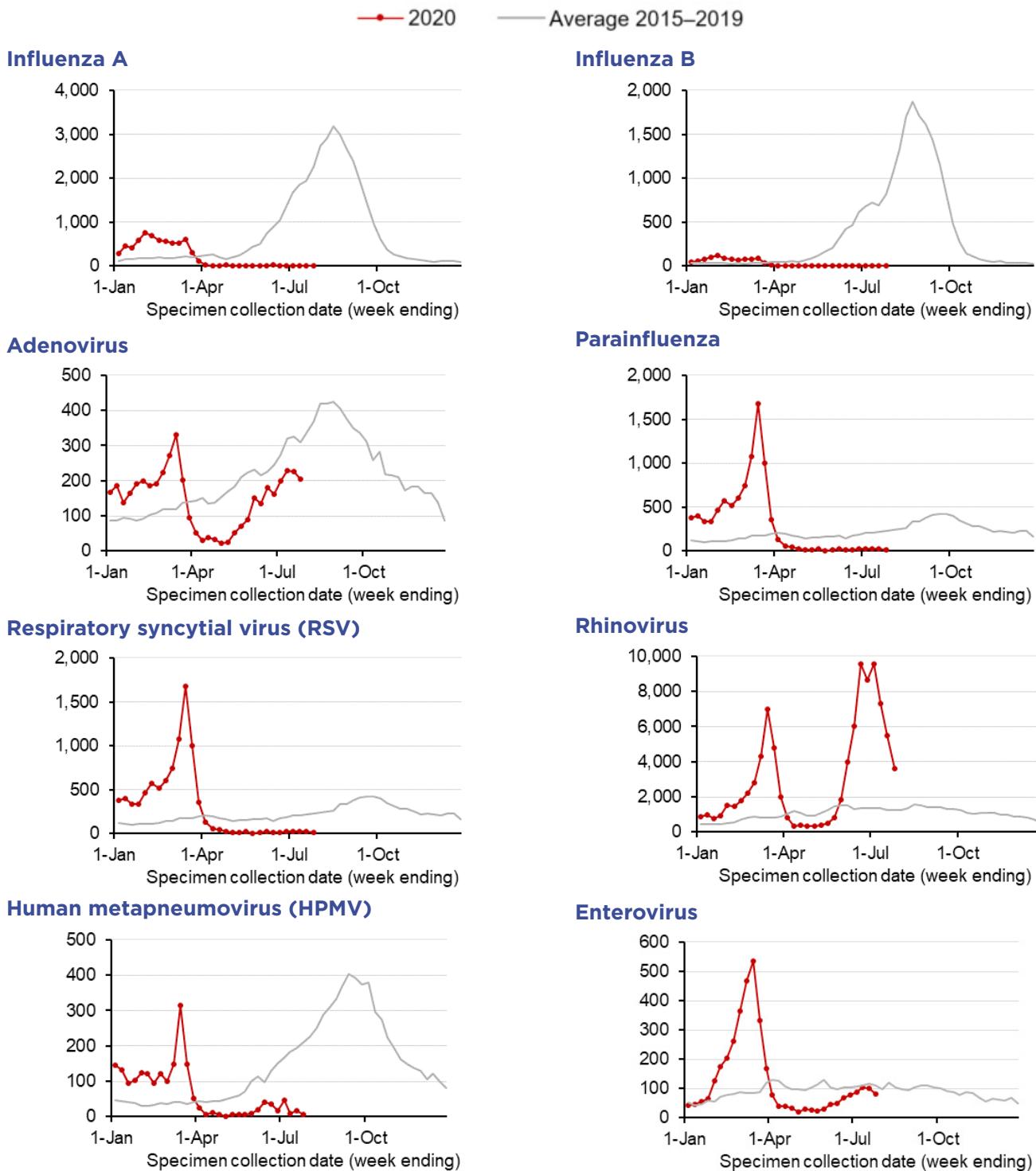
HMPV - Human metapneumovirus

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, 1 JANUARY TO 26 JULY 2020

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.



Notes: Preliminary laboratory data is provided by participating sentinel laboratories on a weekly basis and are subject to change. Serological diagnoses are not included.

GLOSSARY

Term	Description
Case	A person infected who has tested positive to a validated specific SARS-CoV-2 nucleic acid test or has had the virus identified by electron microscopy or viral culture. Blood tests (serology) is only used in special situations following a public health investigation and require other criteria to be met in addition to the positive serology result (related to timing of symptoms and contact with known COVID-19 cases). Case counts include: <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.
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 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>