

# COVID-19 WEEKLY SURVEILLANCE IN NSW

## EPIDEMIOLOGICAL WEEK 37, ENDING 12 SEPTEMBER 2020

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### SUMMARY FOR THE WEEK ENDING 12 SEPTEMBER

- The number of locally-acquired COVID-19 cases in NSW decreased this week (down 36%).
- Most locally-acquired cases reported this week were linked to known cases or clusters (94%, 32/34).
- In addition to the cases already in isolation at diagnosis, 79% of symptomatic cases were tested within one day of onset of illness.
- Of the 87 locally-acquired cases reported in the last two weeks, most were reported in residents of South Eastern Sydney (29%, 25/87) and Western Sydney (23%, 20/87) LHDs.
- In the past week, 15 cases associated with a cluster at Concord Hospital and six associated with Eastern Suburbs Legion Club were reported.
- Testing has decreased this week (down 16%) though overall testing rates remain high. The largest decrease in testing rates this week was evident in school-aged children.
- The number of people reporting flu-like symptoms has decreased; this may lead to a reduction in testing rates for COVID-19.
- All people are reminded to help reduce the risk of infection from COVID-19 through physical distancing, good hand hygiene and use of masks.

## **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.

**Indicators of effective prevention measure for COVID-19 in NSW in the past two weeks**

	Week of reporting	
	Week ending 12 Sep	Week ending 5 Sep
Number of cases with symptoms at diagnosis	74% (25/34)	85% (45/53)
Proportion of cases in isolation at least 48 hours before symptoms	24% (6/25)	27% (12/45)
Proportion tested (swabbed) within:		
• 1 day of symptom onset	63% (12/19)	45% (15/33)
• 2 days of symptom onset	74% (14/19)	64% (21/33)
• 3 days of symptom onset	84% (16/19)	79% (26/33)
Proportion tested more than 3 days after symptom onset	16% (3/19)	21% (7/33)
Proportion who entered isolation within:		
• 1 day of symptom onset	79% (15/19)	64% (21/33)
• 2 days of symptom onset	89% (17/19)	79% (26/33)
• 3 days of symptom onset	95% (18/19)	85% (28/33)
Proportion who entered isolation more than 3 days after symptom onset	5% (1/19)	15% (5/33)
Number of tests conducted	120,802	143,948
Proportion notified to NSW Health by the laboratory within:		
• 1 day of swab collection	97% (33/34)	94% (50/53)
• 2 days of swab collection	97% (33/34)	100% (53/53)
• 3 days of swab collection	97% (33/34)	100% (53/53)
Proportion notified to NSW Health by the laboratory more than 3 days after the swab collection	3% (1/34)	0% (0/53)
Proportion of locally-acquired cases interviewed by public health staff within 1 day of notification to NSW Health	100% (34/34)	100% (53/53)
Proportion of close contacts (identified by the case) contacted by public health within 48 hours of case notification	100%	100%

**Interpretation:** Of 25 cases reported in the last week who reported symptoms at diagnosis, six were in isolation at the time of diagnosis and for at least 48 hours before developing symptoms. Of the remaining 19 cases, almost three-quarters (74%) sought testing within two days of developing symptoms. The majority (79%) of these cases had begun isolation within one day of their onset of illness.

The time taken to notify cases remains stable with 97% of new cases in the week ending 12 September notified to NSW Health within one day of swab collection. For the case notified more than one day after testing, NSW Health was notified of a preliminary result so that public health action was undertaken prior to confirmation of the final diagnosis. Public health staff are responding quickly, with all cases interviewed within one day of notification.

## SECTION 2: HOW IS THE OUTBREAK TRACKING IN NSW?

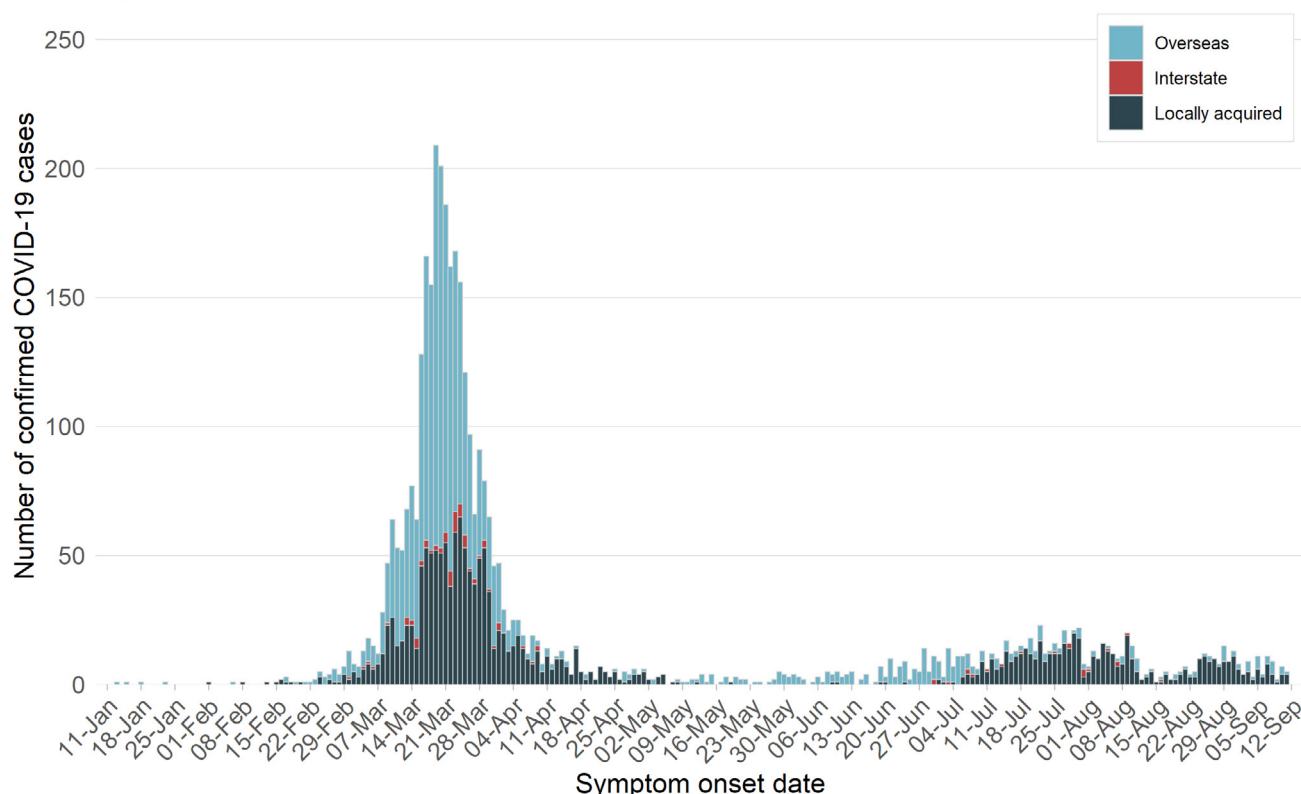
Table 1. COVID-19 cases and tests reported in NSW, up to 12 September 2020

	Week ending 12 Sep	Week ending 5 Sep	% change	Total to 12 Sep
Number of cases	52	71	↓ 27%	3,977
Overseas acquired	18	18	-	2,105
Interstate acquired	0	0	-	89
Locally acquired	34	53	↓ 36%	1,783
Number of deaths	0	0	-	54
Number of tests	120,802	143,948	↓16%	2,494,278

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:** 71% of COVID-19 infections diagnosed in the last two weeks in NSW have been **locally acquired**. The number of new cases diagnosed in NSW decreased significantly following a peak in mid-March. An increase in overseas-acquired cases during June was largely due to a program of screening all overseas travellers two days and 10 days after arrival in NSW.

## How many NSW cases were infected in Victoria?

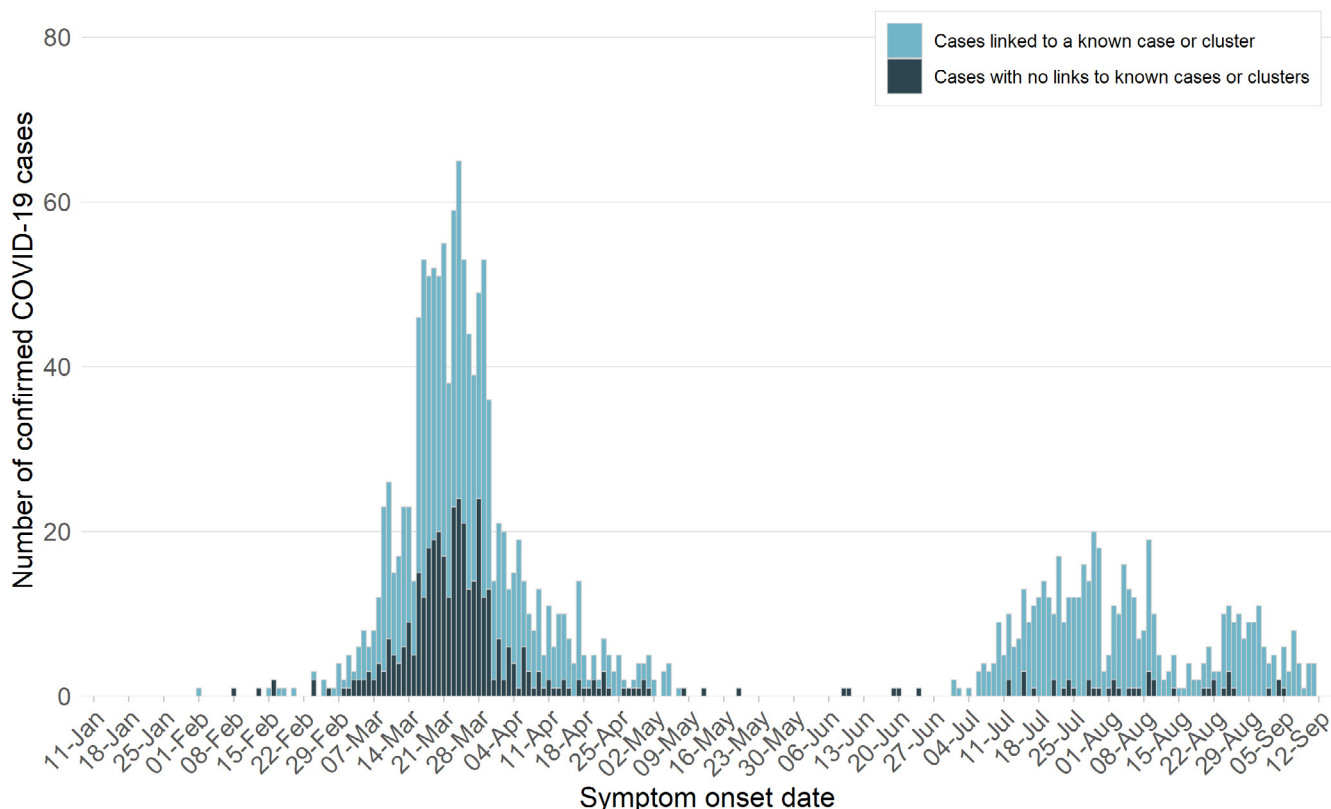
In response to the continued community transmission in Victoria, border measures have been introduced to limit the spread of infection into NSW. From 8 July, under the Public Health (COVID-19 Border Control) Order 2020, a person who has been in Victoria within the last 14 days must not travel to NSW without a permit. The order was updated on 4 September to redefine the border region. Exemptions to the Order are given in very limited circumstances.

In the week ending 12 September, no cases newly diagnosed with COVID-19 acquired their infection in Victoria.

## How much transmission is occurring in NSW?

All new cases are investigated by public health staff to determine the likely source of infection and to 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. Currently, public health efforts are focussed on contact tracing to limit further spread in the community, and identifying the source of infection for every case.

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



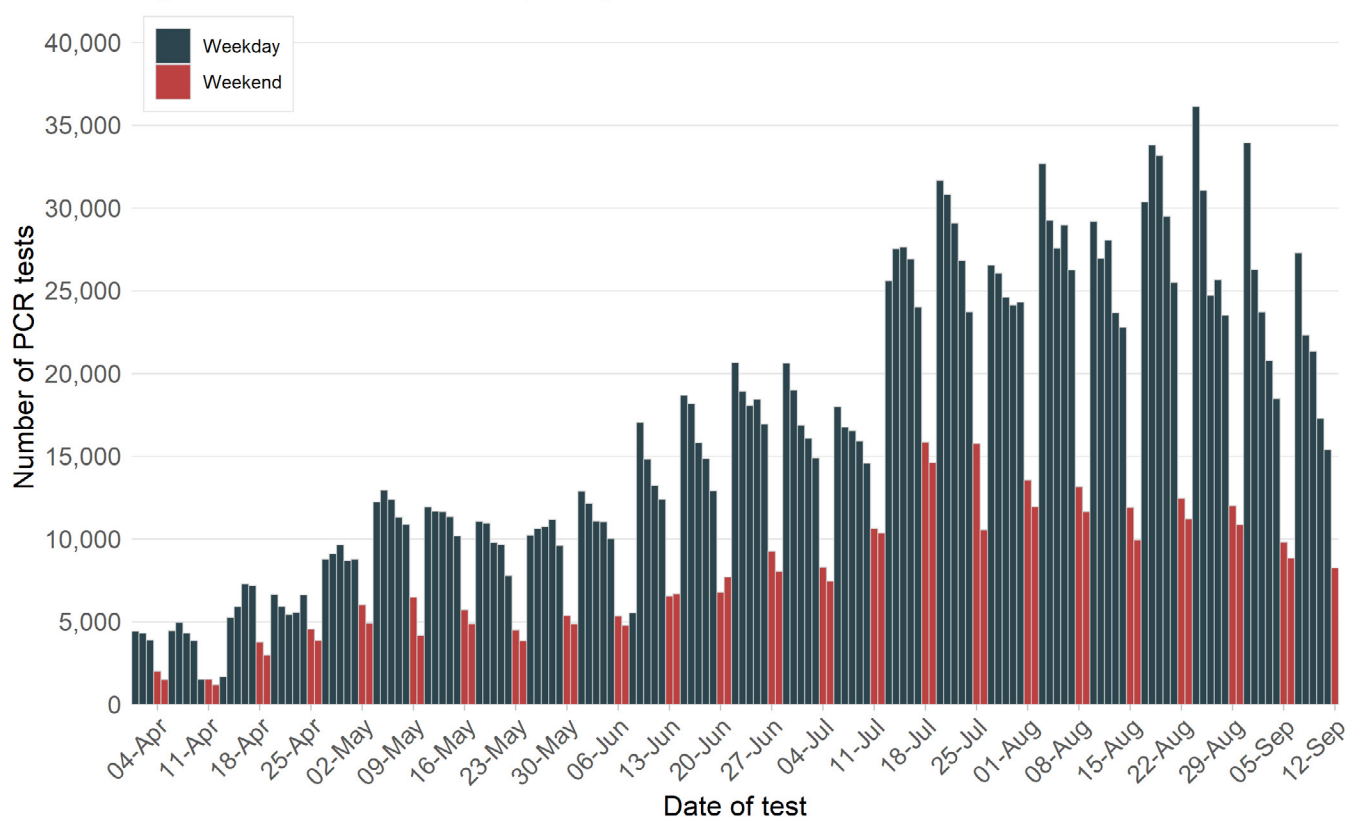
*The date of the first positive test is used for cases who did not report symptoms.*

**Interpretation:** Of the locally-acquired cases with an onset in the last four weeks, 91% (135/148) were linked to known cases or clusters.

## How much testing is happening?

The bars on the graph below show the number of tests by the date a person presented for the test.<sup>1</sup> 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 3. Number of PCR tests per day, NSW, 2020**

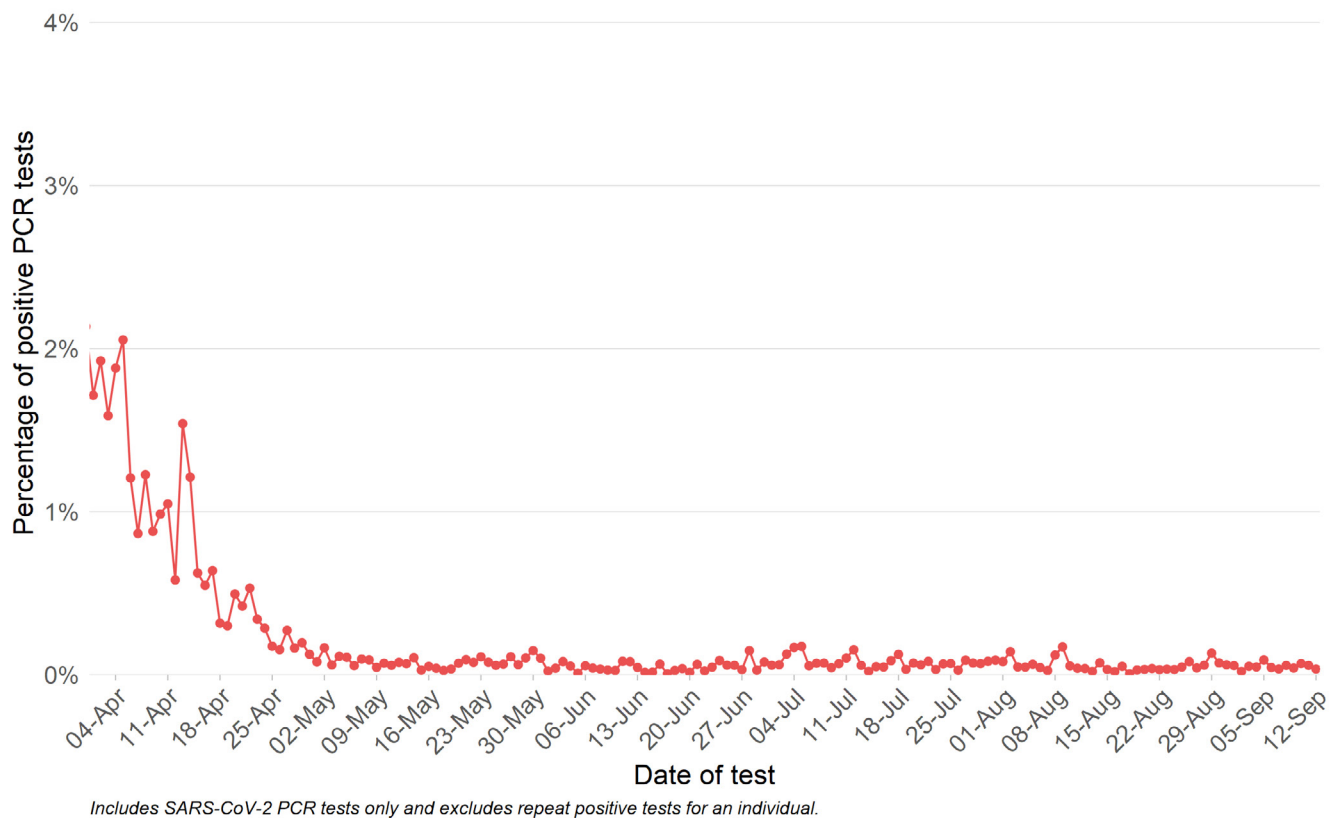


*Includes SARS-CoV-2 PCR tests only and excludes repeat positive tests for an individual.*

**Interpretation:** Early in the outbreak the focus of testing 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. A 16% decrease in testing was reported in the week ending 12 September compared with the previous week. The trend of considerably higher testing in July, August and into September compared to previous months continues. An average of 2.1 tests were conducted per 1,000 people in NSW each day in the week ending 12 September, compared to a daily average of 2.5 per 1,000 people in the previous week.

<sup>1</sup> 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.

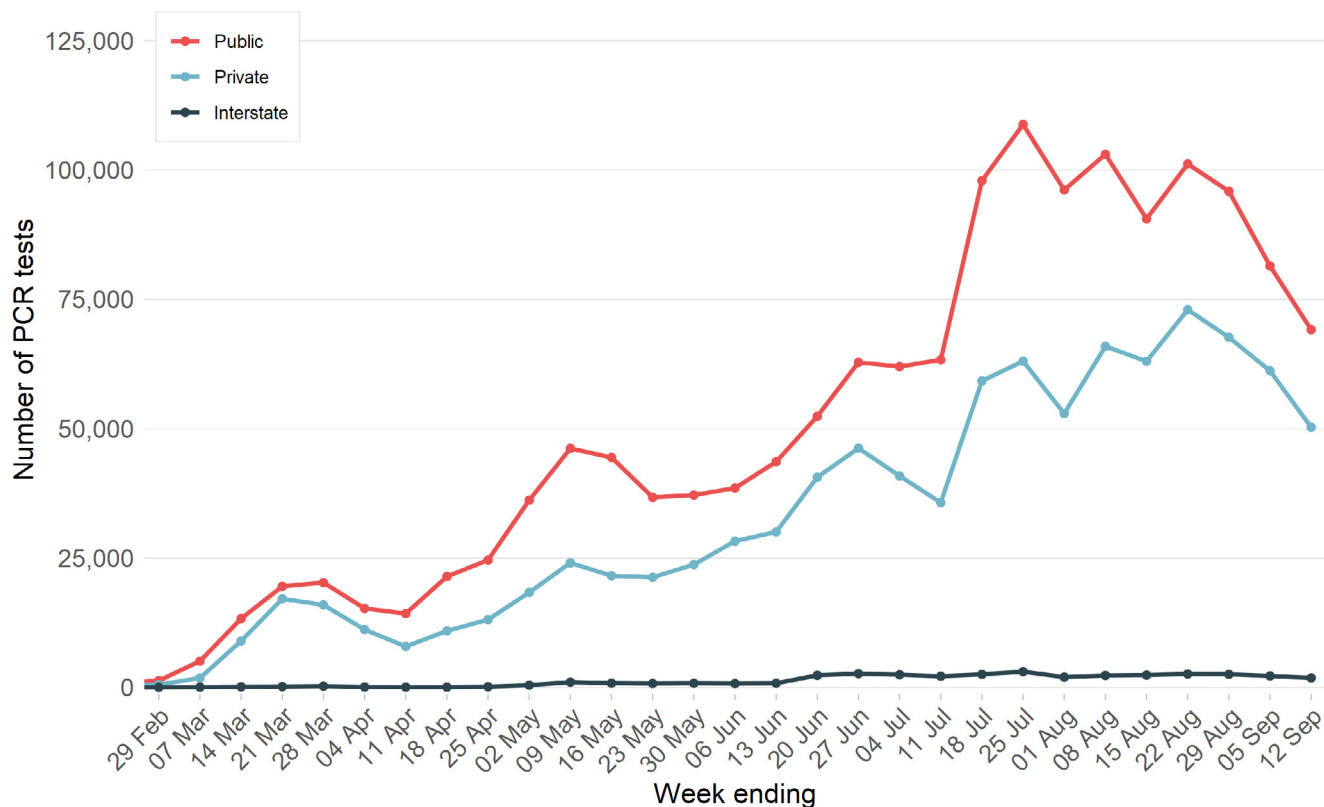
Figure 4. Proportion of PCR tests positive for COVID-19, NSW, 2020



**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, the overall proportion of tests found to be positive indicate low levels of transmission in the community.

## Which laboratories are doing the testing?

Figure 5. Number of PCR tests by week and facility type, NSW, 2020



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

**Interpretation:** In the week ending 12 September, testing in both public and private facilities decreased compared to the previous week. Approximately 60% of PCR tests were conducted at public laboratories during this period.



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

Information from cases who were diagnosed 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 for the laboratory to perform the test.

Table 2. Locally-acquired COVID-19 cases in NSW, by week and source of infection, 16 August to 12 September 2020

Locally-acquired cases	Week ending				Total
	12 Sep	5 Sep	29 Aug	22 Aug	
Cases who are linked to a known case or cluster	32	49	44	19	<b>144</b>
Cases with no links to other cases or clusters	2	4	6	5	<b>17</b>
<b>Total</b>	<b>34</b>	<b>53</b>	<b>50</b>	<b>24</b>	<b>161</b>

**Interpretation:** The majority (88%) of cases in the four weeks ending 12 September were linked to known cases or clusters.

Table 3. Locally-acquired COVID-19 cases by LHD of residence, 16 August to 12 September 2020

Local Health District	Week ending				Total
	12 Sep	5 Sep	29 Aug	22 Aug	
Central Coast	0	1	1	0	<b>2</b>
Far West	0	0	0	0	<b>0</b>
Hunter New England	0	0	0	0	<b>0</b>
Illawarra Shoalhaven	0	1	0	0	<b>1</b>
Mid North Coast	0	0	0	0	<b>0</b>
Murrumbidgee	1	0	0	0	<b>1</b>
Nepean Blue Mountains	4	0	0	0	<b>4</b>
Northern NSW	0	0	0	0	<b>0</b>
Northern Sydney	3	10	10	1	<b>24</b>
South Eastern Sydney	9	16	15	0	<b>40</b>
South Western Sydney	1	8	9	13	<b>31</b>
Southern NSW	0	0	0	0	<b>0</b>
Sydney	8	4	6	2	<b>20</b>
Western NSW	0	1	0	0	<b>1</b>
Western Sydney	8	12	9	8	<b>37</b>
<b>Total</b>	<b>34</b>	<b>53</b>	<b>50</b>	<b>24</b>	<b>161</b>

**Interpretation:** The majority of locally-acquired cases reported in the two weeks up to 12 September have been residents of South Eastern Sydney LHD (29%, 25/87) and Western Sydney LHD (23%, 20/87).

## 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.

Table 4. Locally-acquired COVID-19 cases with no identified links to known cases or clusters by LHD of residence, 9 August to 12 September 2020

Local Health District	Week ending				Total
	12 Sep	5 Sep	29 Aug	22 Aug	
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	0	0	0
Northern NSW	0	0	0	0	0
Northern Sydney	0	1	0	0	1
South Eastern Sydney	2	1	0	0	3
South Western Sydney	0	1	3	4	8
Southern NSW	0	0	0	0	0
Sydney	0	0	0	1	1
Western NSW	0	1	0	0	1
Western Sydney	0	0	3	0	3
<b>Total</b>	<b>2</b>	<b>4</b>	<b>6</b>	<b>5</b>	<b>17</b>

**Interpretation:** Extensive public health investigations were unable to identify a source of infection for two cases in the week ending 12 September. There were six cases with an unknown source in the two weeks up to 12 September; this indicates that there were at least six transmission events not linked to a known case or cluster in the last two weeks.

## **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. 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.

### **Cases in community settings**

In total, 32 cases reported in the last week were linked to known cases or clusters including Liverpool Hospital (2 cases), City Tattersalls gym (3 cases), St Paul's Catholic College (4 cases), Concord Hospital (15 cases), Eastern Suburbs Legion Club (6 cases), and two cases linked to known cases, including one case who was exposed in their own home and a student who was exposed at a school where there has been no further transmission. There were two cases not linked to a known case or cluster.

#### **City Tattersalls gym cluster**

On 25 August South Eastern Sydney Public Health Unit was notified of two cases of COVID-19 in eastern suburbs residents. While there were no initial links between the two people, further investigations, including of new cases notified in the subsequent days, revealed they belonged to a new cluster of infections related to City Tattersalls gym on Pitt Street in Sydney. People attending City Tattersalls gym unknowingly spread the infection to other workplaces, businesses, homes and on public transport.

In the week ending 12 September, there were three new cases associated with this cluster, including one case associated with City Tattersalls gym and two household contacts of previous cases who attended a gym in Zetland and a dance studio in Surry Hills. All cases associated with this cluster reported this week were in quarantine for at least two days prior to symptom onset and while considered infectious.

Table 5. Cases linked to City Tattersalls gym cluster by setting of exposure

Setting of exposure	Exposure site	Exposure site	No. cases	Total cases
		Suburb		
Primary exposure location				
Gym	City Tattersalls	CBD	15	15
Secondary exposure locations				
Office building	Workplace 1	CBD	2	17
	Workplace 2	CBD	4	
Community class	Dance studio	Surry Hills	4	
	Art school	Waverley	1	
Gym	Gym	Zetland	3	
Healthcare	Medical centre	Drummoyne	1	
Transport	Bus X39, CBD to Clovelly Road	Bus route	1	
Restaurant/Bar/Club	Cafe	CBD	1	
Tertiary exposure locations				
Educational facility	Primary school	Double Bay	1	7
	Childcare	Lindfield	2	
Healthcare	Hyde Park Medical Practice	Hyde Park	1	
	Physico City Physiotherapy	CBD	2	
Personal service	Hair salon	Bondi	1	
Onward transmission in a residential home				
Household contacts	Own home		16	23
Non-household contacts	Own home/house of a friend		7	
Total				62

**Interpretation:** Almost a third (29%, 18/62) of transmission within this cluster occurred in a gym setting. Excluding the source, who is unlinked to any known case or cluster, there are 62 people linked to this cluster. Thirty-nine cases are linked to public settings, and 23 cases were exposed in a household setting.

## Liverpool Hospital

On 10 August South Western Sydney Public Health Unit were notified of a case in a healthcare worker that worked at Liverpool Hospital. The source of their infection was a previously reported case from a known cluster. A public health investigation identified that the staff member had worked two days whilst infectious. All close contacts were advised to isolate and get tested immediately.

In the week ending 12 September, there were an additional two cases reported linked to this cluster, including a healthcare worker at Liverpool Hospital and a household contact of this case. Both cases were in quarantine prior to being tested or symptom onset, and one case was in quarantine at least two days prior to symptom onset.

**Table 6. Cases linked to Liverpool Hospital by setting of exposure**

Setting of exposure	Exposure site	Exposure site	No. cases	Total cases
		Suburb		
Primary exposure location				
Healthcare	Liverpool Hospital	Liverpool	8	8
Onward transmission in a residential home				
Household contacts	Own home		6	8
Non-household contacts	Own home/house of a friend		2	
Total				16

**Interpretation:** Excluding the source, a healthcare worker who was exposed in a household setting, there are 16 cases linked to this cluster. In total, five healthcare workers, two patients, and one visitor were exposed at the hospital and eight people were exposed in home settings.

## Concord Hospital cluster

On 5 September, Sydney Public Health Unit were notified of a doctor who worked in the Concord and Liverpool Emergency Departments whilst infectious. A further three cases were reported to the Public Health Unit on 6 September – two associated with Concord Hospital (a healthcare worker and a visitor) and a healthcare worker at Liverpool Hospital.

In the week ending 12 September, there were three exposure locations and 15 cases (excluding the source) linked to this cluster. Six cases across four separate households have been linked to cases that acquired their infection at Concord Hospital. There has been no ongoing transmission from cases at Liverpool Hospital to people in a residential home setting. Excluding the source, who was a healthcare worker at both hospitals, there are six healthcare workers who have been linked to the cluster, including five at Concord Hospital and one at Liverpool Hospital.

Table 7. Cases linked to Concord Hospital cluster by setting of exposure

Setting of exposure	Exposure site	Exposure site	No. cases	Total cases
		Suburb		
Primary exposure location				
Healthcare	Concord Hospital	Concord	7	7
Secondary exposure locations				
Healthcare	Liverpool Hospital	Liverpool	1	2
Restaurant/Bar/Club	Albion Hotel	Parramatta	1	
Onward transmission in a residential home				
Household contacts	Own home		5	6
Non-household contacts	Own home/house of a friend		1	
Total				15

**Interpretation:** Excluding the source, who is unlinked to any known case or cluster, there are 15 cases linked to this cluster. All cases were in isolation at symptom onset and six cases were in isolation at least two days prior to symptom onset and while considered infectious.

### Eastern Suburbs Legion Club

On 8 September, South Eastern Sydney Public Health Unit was notified of one case of COVID-19 in an eastern suburbs resident. His source of infection is under investigation. This case had attended the Eastern Suburbs Legion Club during his infectious period. Over the next two days, the Public Health Unit was notified of four additional cases who had attended the club during their incubation periods. The epidemiology suggests that the first notified case was the index case.

On 9 September NSW Health issued advice confirming that two cases of COVID-19 visited the club and for people who attended on 28 August to immediately get tested and isolate until they receive a negative result. Those who attended 1, 4, 5, 6 September were to monitor for symptoms and get tested immediately should symptoms develop.

Table 8. Cases linked to Eastern Suburbs Legion Club cluster by setting of exposure

Setting of exposure	Exposure site	Exposure site	No. cases	Total cases
		Suburb		
Primary exposure location				
Restaurant/Bar/Club	Eastern Suburbs Legion Club	Waverley	4	4
Onward transmission in a residential home				
Household contacts	Own home		2	2
Total				6

**Interpretation:** Excluding the source, who is unlinked to any known cases or clusters, there are six cases linked to this cluster. Four of the cases attended the club and two were household contacts of cases.

### St Paul's Catholic College, Greystanes

On 29 August a case of COVID-19 was notified in a student that attended St Paul's Catholic College, Greystanes. Students in the same classes as the case and the case's teachers were identified as close contacts and asked to self-isolate, and the school was planned to be non-operational on 31 August. On 31 August, four further cases were reported in students from the school, in the same year group as the index case. Following the fifth case, all students in the year were considered close contacts, as well as students from other year groups who shared homeroom or sporting activities with the cases. A sixth case in the same year as the index case was notified on 1 September. The school was closed for a further two days and reopened on 3 September. There are four exposure locations, including Girraween Public School, linked to this cluster. A thorough public health investigation has not been able to identify the source of the cluster.

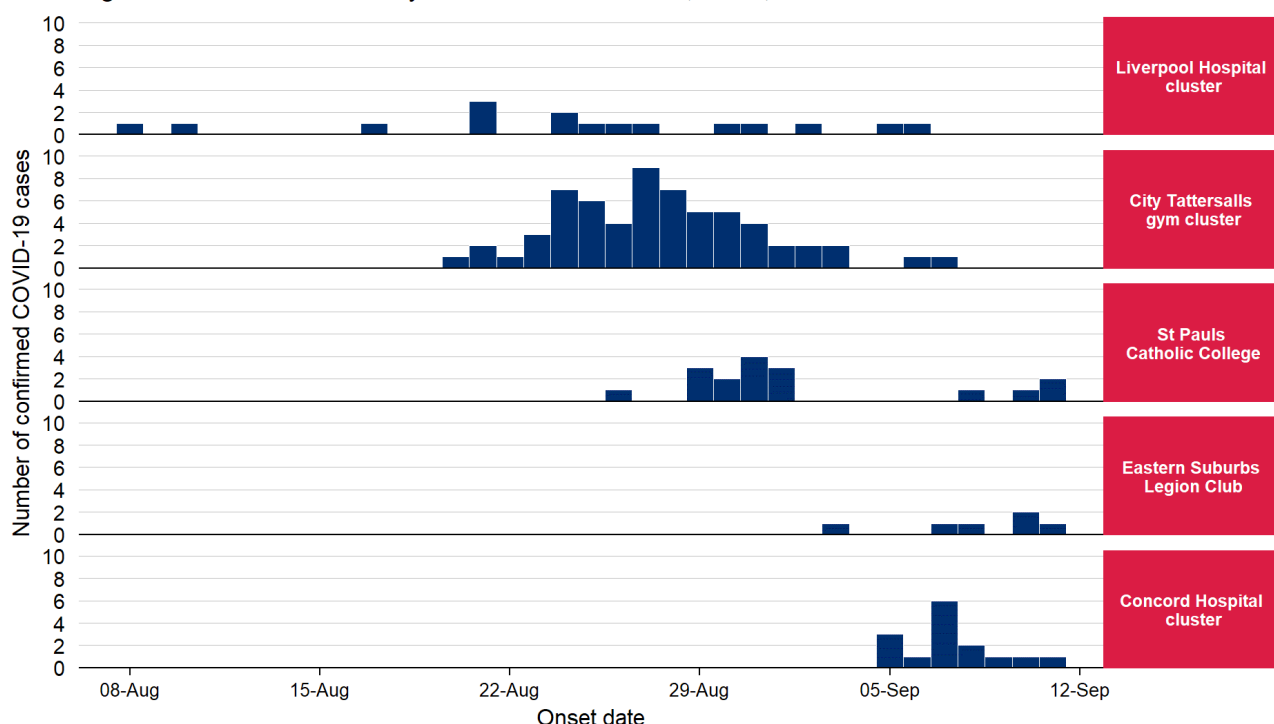
In the week ending 12 September, four cases were reported associated with this cluster, including a student and household contact at St Paul's Catholic College and two household contacts of a case that attended the cafe in Lidcombe. All cases were in isolation at the time of symptom onset and three were in isolation in the two days prior to symptom onset and while considered infectious.

**Table 9. Cases linked to St Paul's Catholic College by setting of exposure**

Setting of exposure	Exposure site	Exposure site	No. cases	Total cases
		Suburb		
Primary exposure location				
Educational facility	Secondary school	Greystanes	6	6
Secondary exposure locations				
Educational facility	Primary school	Girraween	1	3
Food service	Cafe	Lidcombe	1	
Factory	Workplace	Revesby	1	
Onward transmission in a residential home				
Household contacts	Own home		8	8
Total				17

**Interpretation:** Excluding the source, who is unlinked to any known cases or clusters, there are 17 cases linked to this cluster. This includes two students from Girraween Public School – a household contact of a student at St Paul's Catholic College and one Girraween Public School student.

Figure 6. COVID-19 cases by cluster and onset date, NSW, 2020.



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

## Clusters with no ongoing public health risk

There have been no new cases linked to the Batemans Bay Club and Thai Rock Restaurant Wetherill Park cluster since 10 and 11 August respectively. There have now been more than two incubation periods that have passed since the last case and there is no ongoing public health risk. These clusters are now closed.

Table 10. Previously reported clusters with no new cases identified in the week ending 12 September 2020

Date cluster first identified	Cluster	Cases linked in the week ending 12 Sept	Date of last case
24 July	Bankstown area funeral services and linked clusters	0	21 August
27 July	Thai Rock Restaurant Potts Point and linked clusters	0	21 August
2 August	Tangara School and associated cases	0	21 August
3 August	Our Lady of Mercy School in Western Sydney	0	24 August
5 August	Smithfield club	0	15 August
9 August	Lidcombe club	0	13 August
18 August	Sydney quarantine hotel	0	18 August



## SECTION 5: COVID-19 IN SPECIFIC POPULATIONS

### COVID-19 in healthcare workers

The following describes infections of COVID-19 in healthcare workers (HCWs) that were potentially acquired in healthcare settings in NSW. HCWs are defined as individuals who work within a hospital or other healthcare settings, including staff in direct or indirect contact with patients or infectious materials. 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 cases of COVID-19 infections in healthcare to identify ongoing risks in healthcare settings.

Since 1 August 2020, there have been 15 HCWs who were potentially infected in healthcare settings. Of these, 13 HCWs were from NSW public hospitals and two cases in private healthcare settings.

**Table 11. Potential healthcare-acquired infections for HCWs by occupation, 1 August to 12 September 2020**

Occupation	Private health setting	NSW public health setting
Doctor	2	2
Nurse	0	9
Allied health*	0	1
Support staff <sup>#</sup>	0	1
<b>Total</b>	<b>2</b>	<b>13</b>

\*Allied health includes: Chiropractors, physiotherapists, counsellors, psychologists, radiation therapists.

<sup>#</sup> Support staff include: Cleaners, receptionists.

**Interpretation:** Most healthcare-acquired cases in HCWs were reported in NSW public health settings among nurses.

### Clusters in healthcare settings

Of the recent potentially healthcare-acquired infections in HCWs, 13 were associated with four clusters in healthcare settings; two from Hornsby Hospital, five from Liverpool Hospital, one from Liverpool Emergency Department, and five from Concord Hospital.

**Table 12. Potential healthcare-acquired infections for HCWs by Local Health District of exposure setting, 1 August to 12 September 2020**

Location of exposure setting	Private health setting	NSW public health setting
Northern Sydney	0	2
South Western Sydney	0	6
Sydney	2	5
<b>Total</b>	<b>2</b>	<b>13</b>

**Interpretation:** Recent cases in HCWs potentially acquired in healthcare settings have been associated with clusters in South Western Sydney and Sydney LHDs.

## **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.

One Aboriginal case was notified in the week ending 12 September. In total, 45 Aboriginal people have been diagnosed with COVID-19, representing 1% of all cases in NSW.

While Aboriginal status is collected by public health staff on interview with the case at the time of diagnosis, those who test negative are not interviewed. Aboriginal status for those tested can be ascertained through linkage with other health information systems but there is a delay in getting this information. Results of the most recent linkage are available for people tested up to 22 August 2020, with Aboriginal status ascertained for approximately 90% of all COVID-19 test records.

## **Pregnant women**

No cases in pregnant women were reported in the week ending 12 September. As those who test negative are not interviewed, testing rates among pregnant women are not available.

## SECTION 6: DEATHS

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

In total, 1.4% of cases (54 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.

Table 13. Deaths as a result of COVID-19, by age group, NSW, 2020

Age group	Number of deaths	Number of cases	Case fatality rate
0-4 years	0	53	0%
5-11 years	0	65	0%
12-17 years	0	112	0%
18-29 years	0	907	0%
30-49 years	0	1200	0%
50-59 years	1	568	0.2%
60-69 years	4	559	0.7%
70-79 years	13	355	3.7%
80+ years	36	159	22.6%
<b>Total</b>	<b>54</b>	<b>3977</b>	<b>1.4%</b>

**Interpretation:** Cases older than 80 years of age had both the highest number of deaths and the highest case fatality rate. No cases below the 50-59 age group have died as a result of COVID-19.

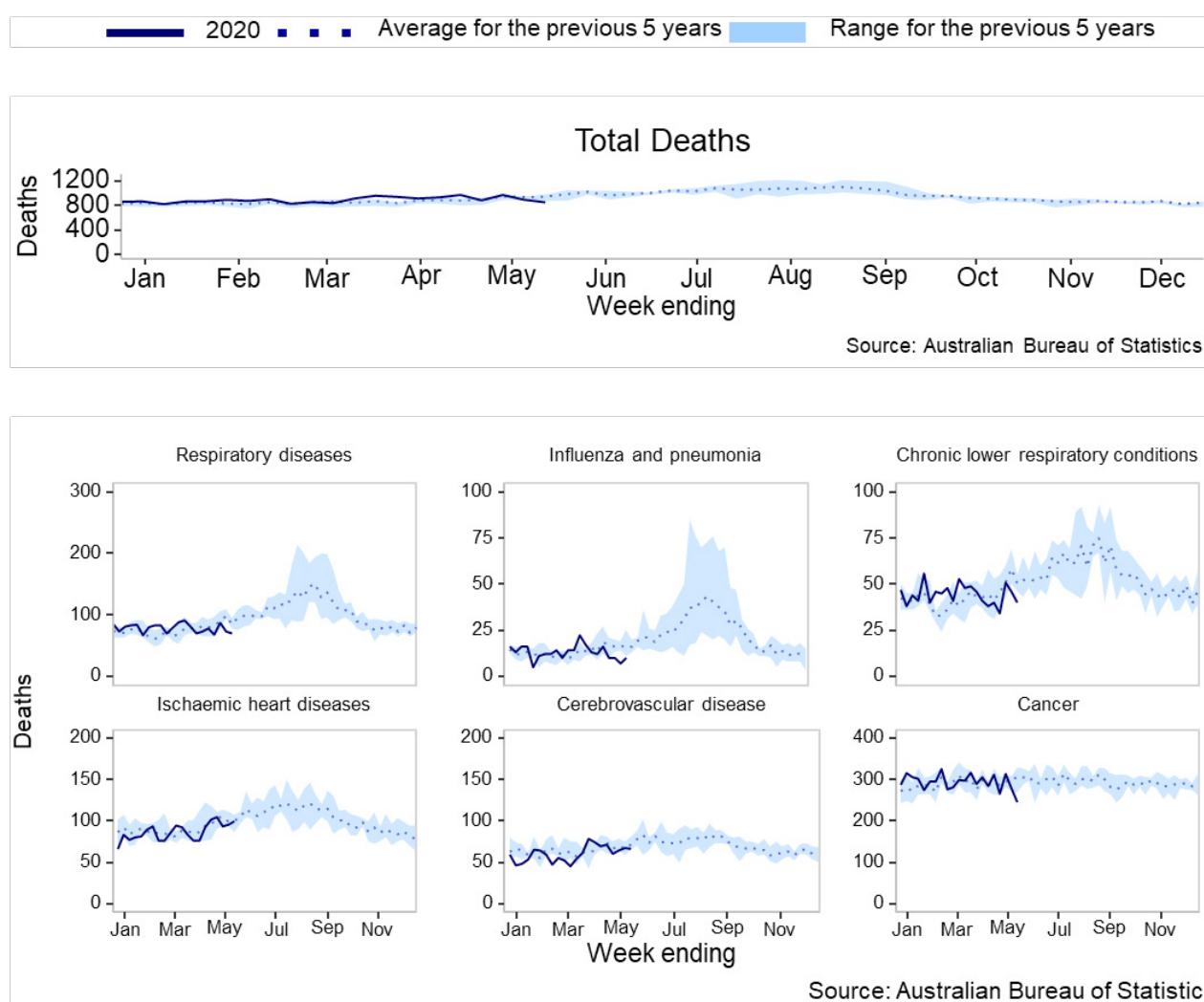
Internationally it is estimated that 3.2% of COVID-19 cases are reported to have died as a result of their infection.<sup>2</sup> Countries such as Italy, the United Kingdom and Spain have reported higher mortality rates (12.4%, 11.4% and 5.3%), while NSW reports similar rates to South Korea (1.6%) and New Zealand (1.7%). 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.

<sup>2</sup> WHO Coronavirus disease (COVID-19) Weekly Epidemiological Update – 14 September 2020  
<https://www.who.int/emergencies/diseases/novel-coronavirus-2019/situation-reports>

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

The Australian Bureau of Statistics (ABS) have published Provisional Mortality Statistics for all of Australia for January to May 2020 (<https://www.abs.gov.au/ausstats/abs@.nsf/mf/3303.0.55.004>) and provide data for NSW-registered deaths to NSW Health on a monthly basis around three months after the close of the month. The reported counts are doctor-certified deaths and excludes those referred to a coroner, such as suicides, accidents and assaults. In Australia approximately 86-89% of deaths are certified by a doctor. Deaths from any cause are seasonal, increasing in winter and decreasing in summer.

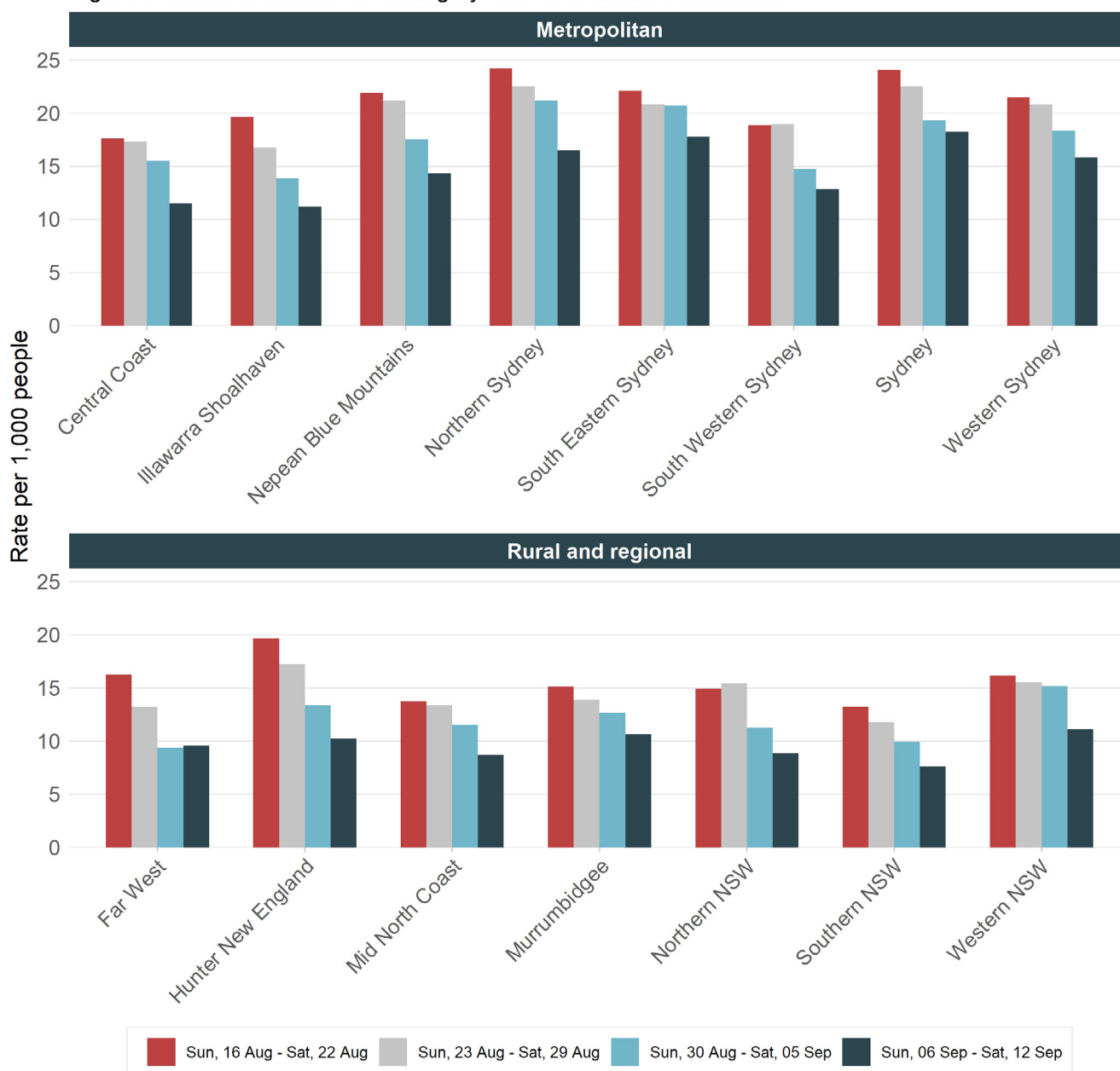
Figure 7. Deaths from any cause in NSW from January to 26 May 2020



**Interpretation:** When compared to previous years, there has been a lower number of deaths due to respiratory diseases generally, and in particular pneumonia, to date in 2020. This is likely to be due, at least in part, to the physical distancing and hand hygiene measures that have been put in place to help control the pandemic which have reduced person-to-person transmission of infections generally. The patterns of deaths from heart attack, stroke and cancer are similar to previous years.

## SECTION 7: COVID-19 TESTING IN NSW

Figure 8. Rates of COVID-19 testing by LHD of residence and week

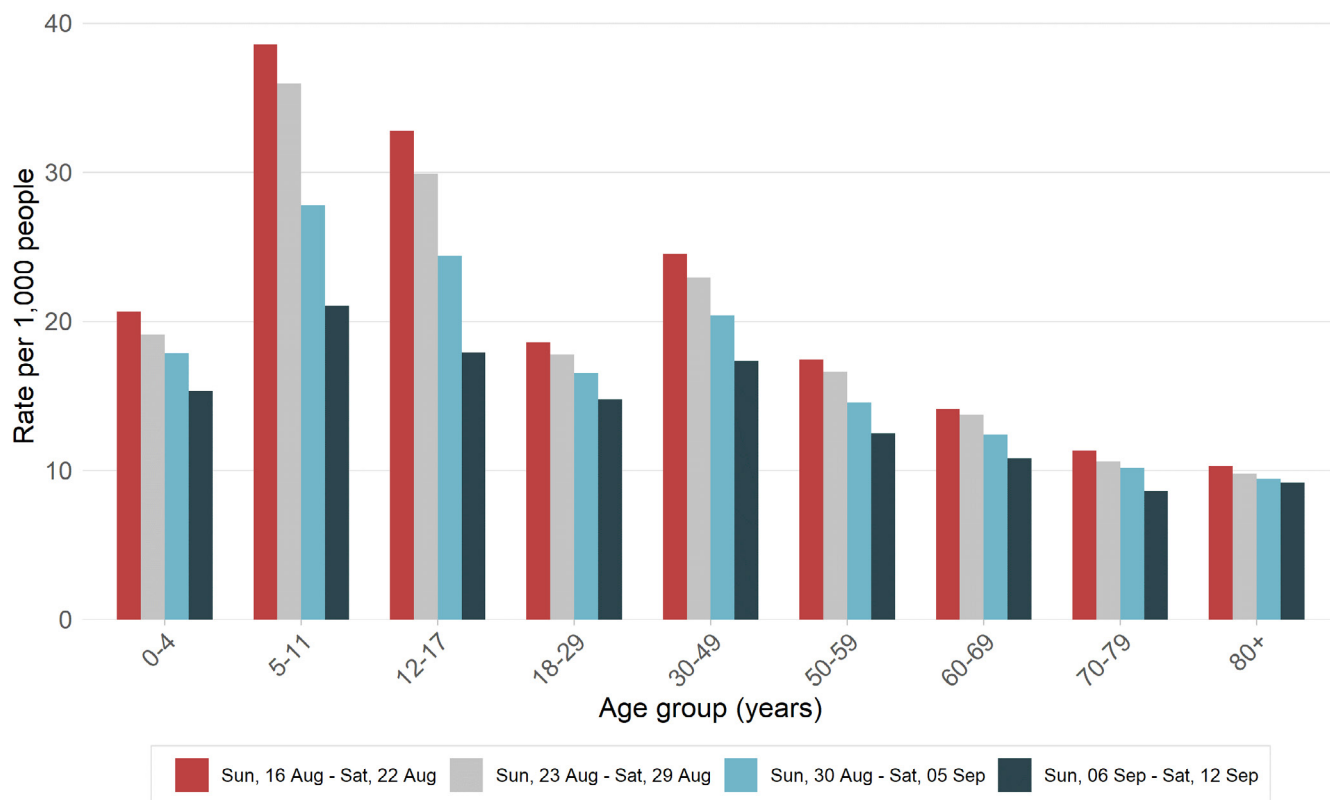


*Includes SARS-CoV-2 PCR tests only and excludes notifications with missing postcode of residence.*

**Interpretation:** Statewide testing rates in the week ending 12 September were lower compared to the previous week (15 per 1,000 vs 18 per 1,000). Testing rates decreased in all LHDs except Far West.

## Testing by age group

Figure 9. Rates of COVID-19 testing by age group and week

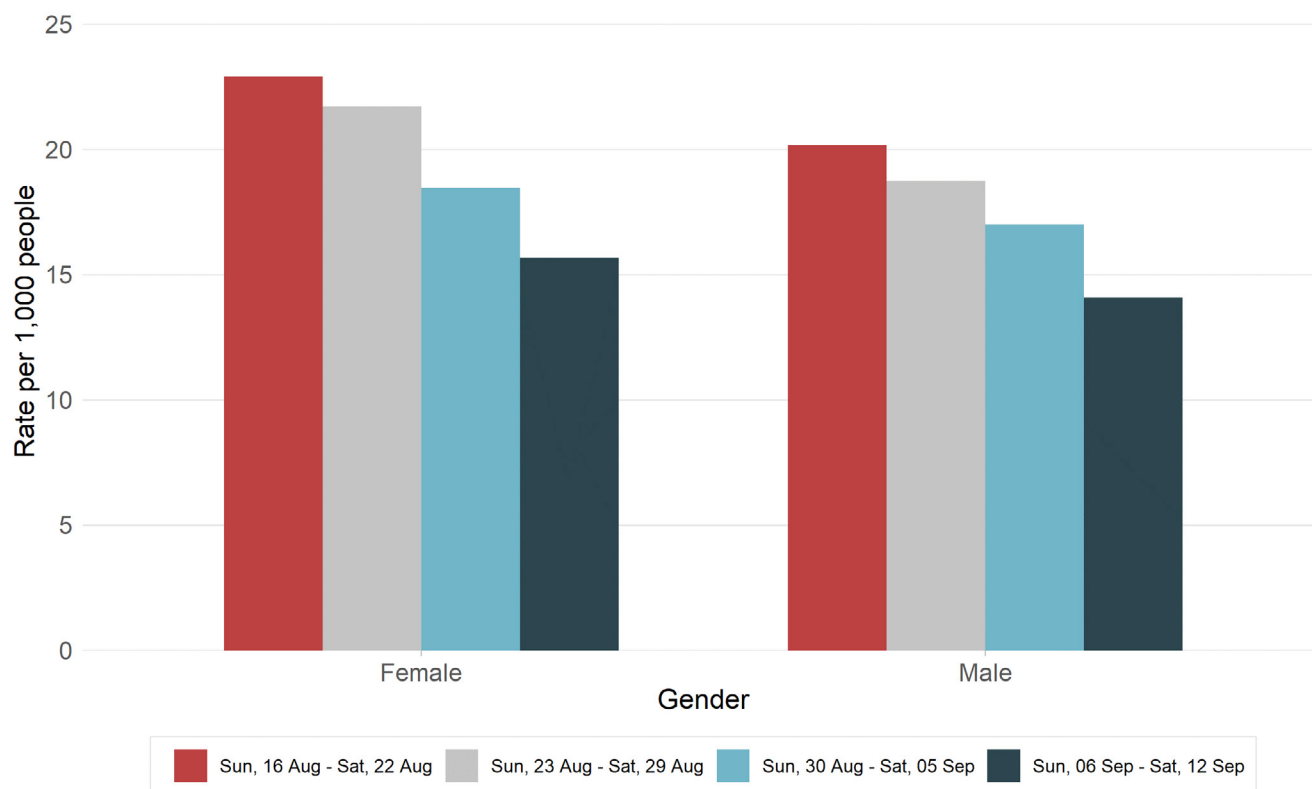


*Includes SARS-CoV-2 PCR tests only and excludes notifications with age missing.*

**Interpretation:** Testing rates decreased in all age groups for the week ending 12 September. However, testing in primary school-aged children remains higher compared with those in other groups.

## Testing by gender

Figure 10. Rates of COVID-19 testing by gender and week



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

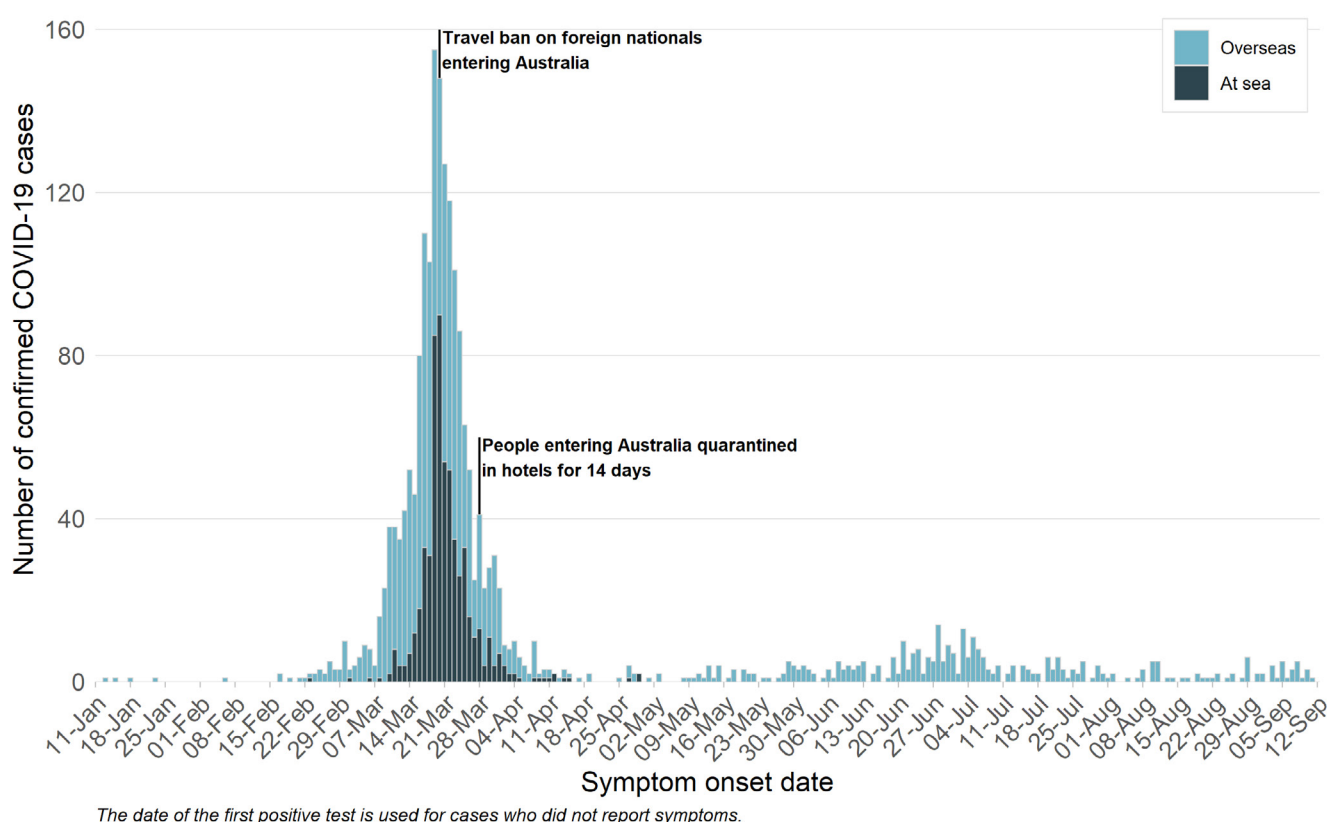
**Interpretation:** Testing rates are consistently higher in females compared with males. In both groups, rates decreased in the week ending 12 September compared with the previous week.

## 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.

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



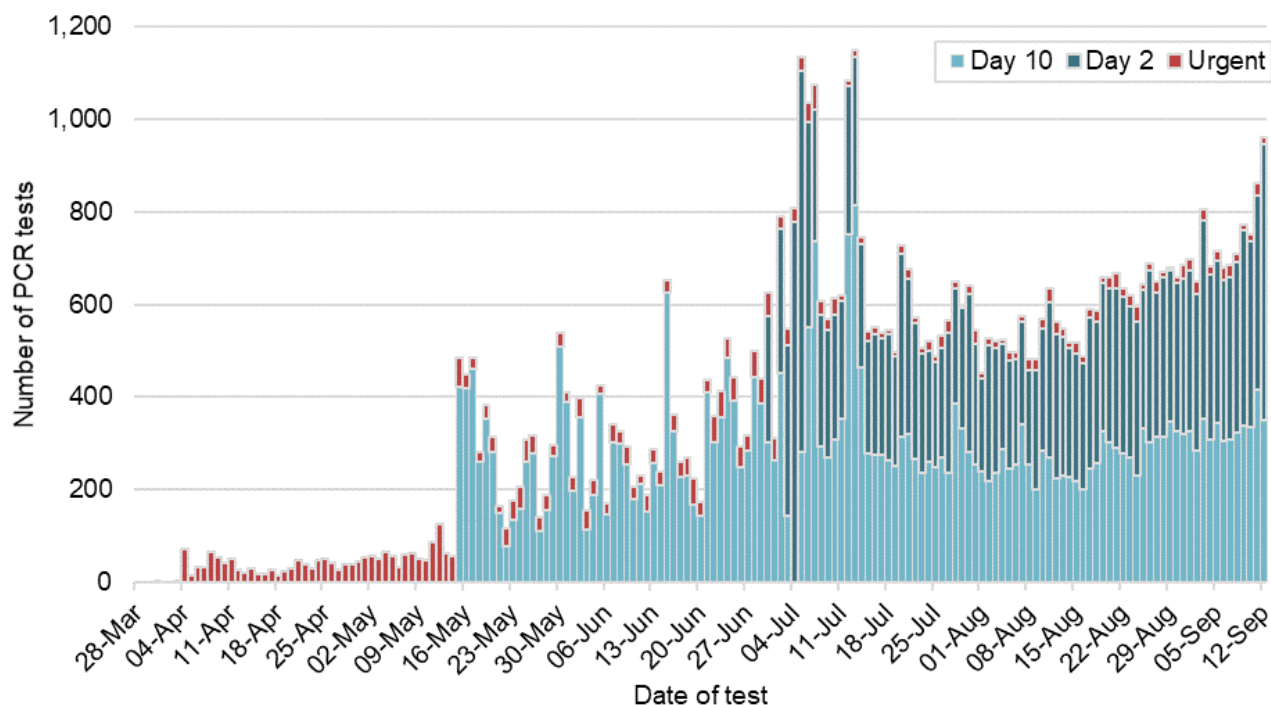
**Interpretation:** The number of new cases in returned travellers has decreased markedly since March in line with travel restrictions and declined further again since mid-July. There were 18 overseas-acquired cases reported in the week ending 12 September, identical to the previous week.



## Hotel quarantine

The program of screening all overseas travellers after arrival in NSW commenced on 15 May 2020. The program was extended to include screening on both day two and day 10 after arrival from 30 June 2020.

Figure 12. COVID-19 testing in returned travellers in hotel quarantine, reported from 28 March to 12 September, NSW, 2020



**Interpretation:** There were 5,427 tests conducted through the hotel quarantine screening programs in the week ending 12 September, of which 20% were screening tests for domestic travellers from Victoria. Since screening began on 28 March, a total of 64,980 PCR tests have been conducted and 366 COVID-19 cases have been detected.

## 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 12 September, a total of 3,889 people were screened at Sydney International Airport and 59 were referred for testing. Since screening began on 2 February, a total of 127,412 people have been screened with 1,401 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 6 September 2020

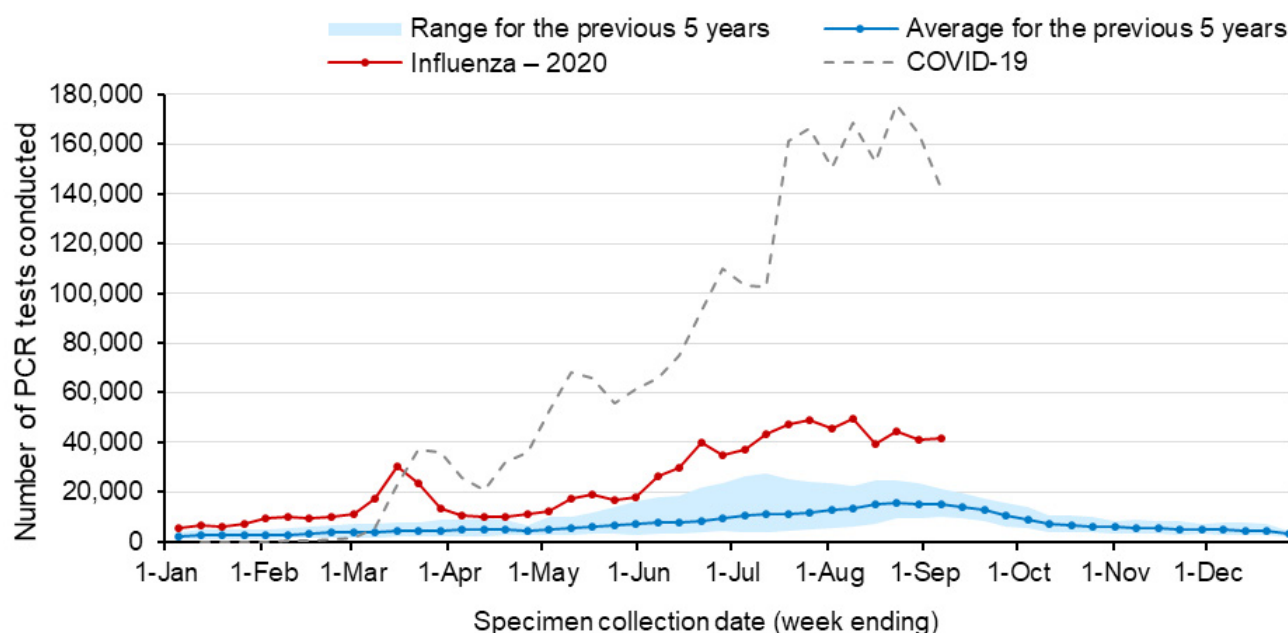
In NSW, routine surveillance for influenza and other respiratory viruses is conducted through sentinel laboratories. The number of all PCR tests (positive and negative) are provided to NSW Health by participating laboratories each week. Testing counts reflect the number of influenza PCR tests conducted;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

The most recent data available is for testing carried out to 6 September. A total of 855,779 influenza tests have been performed at participating laboratories to 6 September, with 41,421 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 13. Testing for influenza and COVID-19 by week, to 6 September 2020

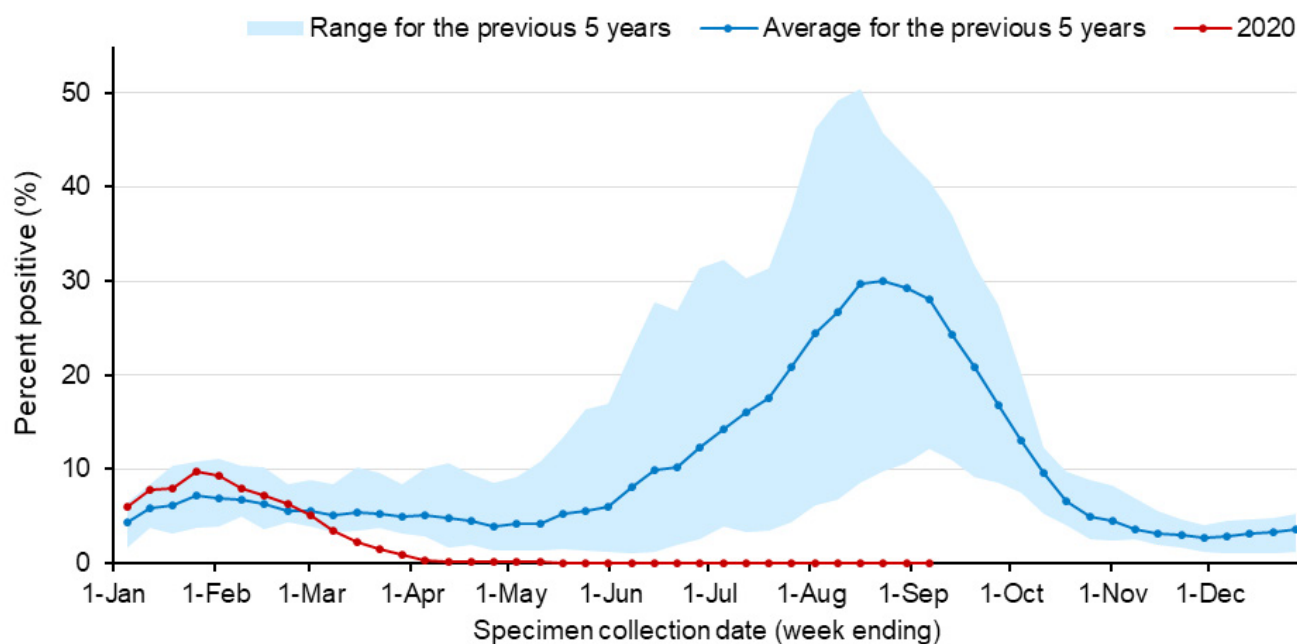


**Interpretation:** The number of influenza tests performed has exceeded the previous five-year average every week this year.

## 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.

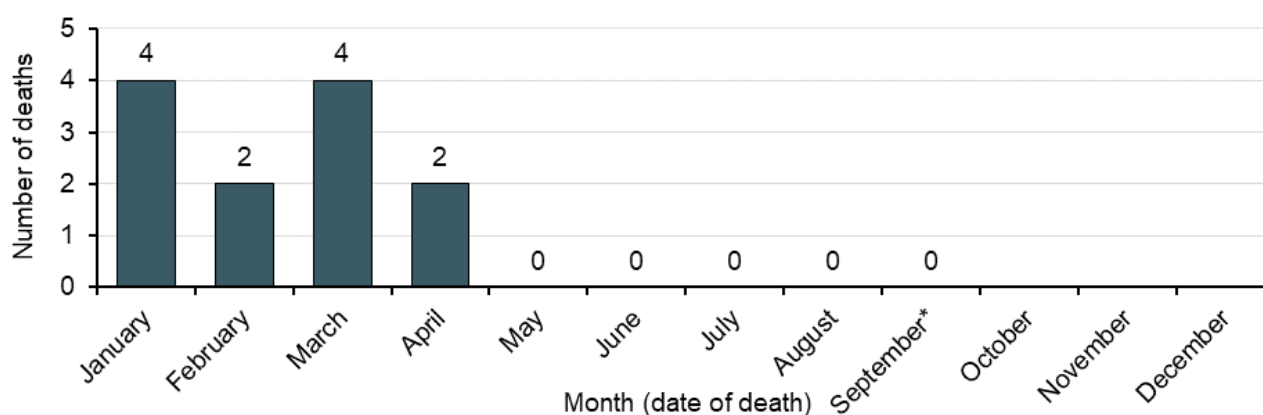
Figure 14. Proportion of tests positive for influenza, to 6 September 2020



**Interpretation:** The percent of influenza tests that were positive in the week ending 6 September 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?

Figure 15. Laboratory-confirmed influenza deaths by month of death, to 6 September 2020



**Interpretation:** No influenza deaths were reported in the week ending 6 September. The number of influenza-related deaths identified via Coroner's reports and death registrations from 1 January to 6 September 2020 is lower than the same period last year (12 deaths in 2020 compared with 214 in 2019).<sup>3</sup> Two-thirds of the deaths were in people aged 65 years and over.

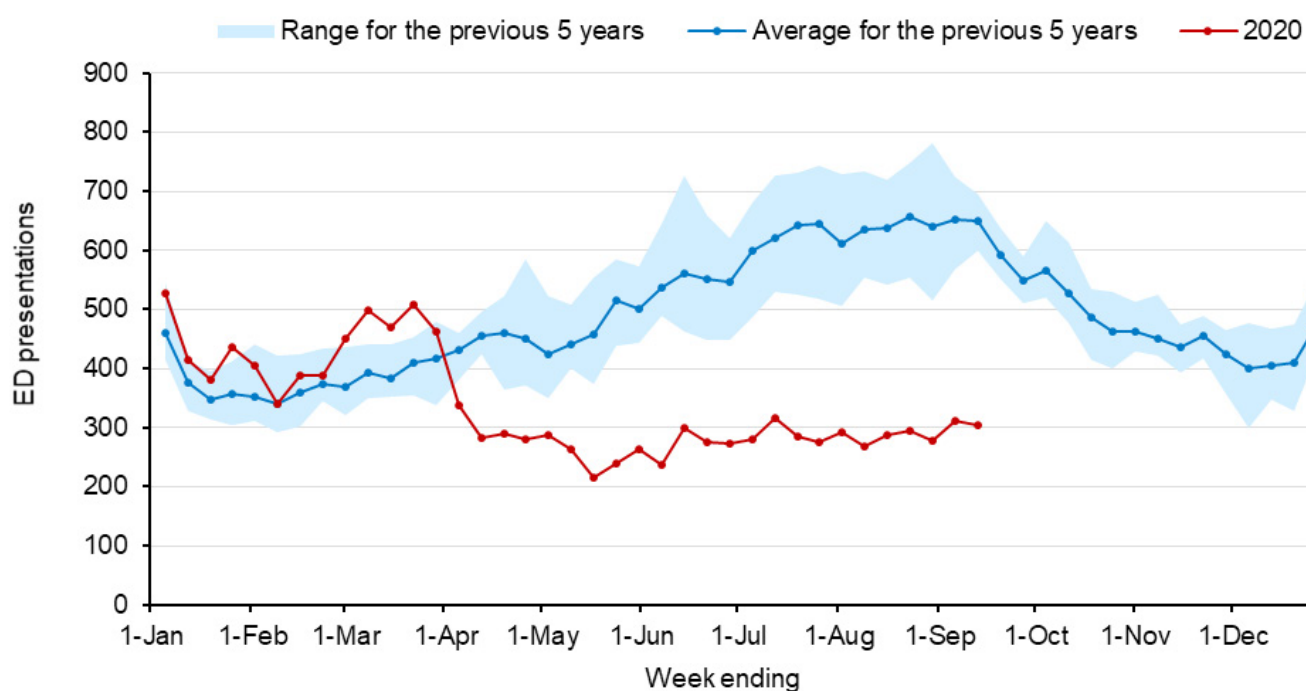
<sup>3</sup> Includes deaths in people with laboratory-confirmed influenza.

## 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.<sup>4</sup>

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 16. Emergency Department pneumonia presentations in NSW by week, to 13 September 2020



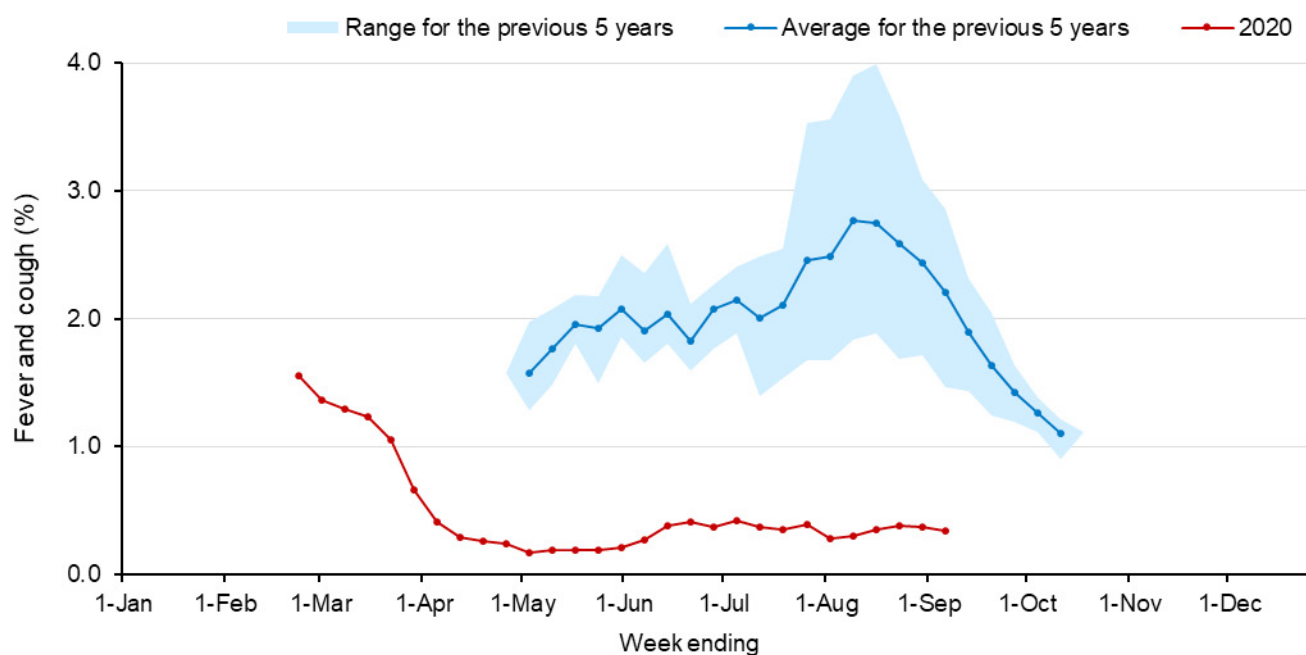
**Interpretation:** Pneumonia presentations decreased from the end of March and have continued to remain well below the usual range for this time of year.

<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).

## 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 17. Proportion of FluTracker participants in NSW reporting influenza-like illness, to 6 September 2020



**Interpretation:** In NSW in the week ending 6 September, of the 23,491 people surveyed, 81 people (0.3%) 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		
		12 September		5 September				
		No.	Tests per 1,000 population	No.	Tests per 1,000 population	No.	Tests per 1,000 population	
Central Coast	Central Coast / LHD Total <sup>2</sup>	4060	11.5	5480	15.5	94708	268.4	
Far West	Balranald	17	7.3	27	11.6	348	148.9	
	Broken Hill	172	9.8	173	9.9	3772	215.8	
	Central Darling	17	9.2	14	7.6	273	148.5	
	Wentworth	83	11.8	69	9.8	1549	219.6	
	LHD Total <sup>2</sup>	289	9.6	283	9.4	5942	197.1	
Hunter New England	Armidale Regional	270	8.8	375	12.2	7446	241.9	
	Cessnock	465	7.8	601	10.0	12529	208.9	
	Dungog	73	7.8	127	13.5	1879	199.4	
	Glen Innes Severn	44	5.0	64	7.2	1482	167.1	
	Gunnedah	109	8.6	177	14.0	2540	200.3	
	Gwydir	20	3.7	41	7.7	518	96.8	
	Inverell	118	7.0	191	11.3	3357	198.8	
	Lake Macquarie	2399	11.7	3218	15.6	65130	316.3	
	Liverpool Plains	78	9.9	96	12.2	1671	211.4	
	Maitland	1102	12.9	1373	16.1	30389	356.8	
	Mid-Coast	638	6.8	802	8.6	17987	191.7	
	Moree Plains	103	7.8	142	10.7	2353	177.4	
	Muswellbrook	140	8.6	185	11.3	3623	221.2	
	Narrabri	83	6.3	136	10.4	2202	167.6	
	Newcastle	2229	13.5	2776	16.8	65688	396.7	
	Port Stephens	618	8.4	871	11.9	23029	313.4	
	Singleton	235	10.0	345	14.7	7390	315.0	
	Tamworth Regional	816	13.1	946	15.1	17081	273.1	
	Tenterfield	41	6.2	36	5.5	862	130.7	
	Upper Hunter Shire	121	8.5	168	11.9	3221	227.2	
	Uralla	36	6.0	56	9.3	949	157.9	
	Walcha	15	4.8	22	7.0	706	225.3	
	LHD Total <sup>2</sup>	9735	10.2	12738	13.4	271809	285.4	
	Illawarra Shoalhaven	Kiama	329	14.1	408	17.5	7031	300.7
		Shellharbour	817	11.2	1120	15.3	21814	297.9
Shoalhaven		1099	10.4	1294	12.3	24668	233.5	
Wollongong		2454	11.3	3000	13.8	57542	263.8	
LHD Total <sup>2</sup>		4699	11.2	5822	13.9	111055	264.7	

Local Health District	Local Government Area	Week ending				Total	
		12 September		5 September			
		No.	Tests per 1,000 population	No.	Tests per 1,000 population	No.	Tests per 1,000 population
Mid North Coast	Bellingen	100	7.7	153	11.8	2630	202.4
	Coffs Harbour	684	8.9	863	11.2	14836	192.0
	Kempsey	238	8.0	366	12.3	6711	225.6
	Nambucca	134	6.8	222	11.2	3717	187.7
	Port Macquarie-Hastings	813	9.6	1002	11.9	18940	224.1
	LHD Total <sup>2</sup>	1969	8.7	2606	11.6	46834	207.5
Murrumbidgee	Albury	739	13.6	817	15.0	11280	207.5
	Berrigan	66	7.5	69	7.9	1372	156.8
	Bland	57	9.5	81	13.6	1139	190.7
	Carrathool	17	6.1	31	11.1	235	84.0
	Coolamon	40	9.2	51	11.8	902	207.8
	Cootamundra-Gundagai Regional	90	8.0	124	11.0	2110	187.8
	Edward River	83	9.1	101	11.1	1916	210.9
	Federation	73	5.9	104	8.4	1869	150.3
	Greater Hume Shire	116	10.8	147	13.7	2231	207.3
	Griffith	386	14.3	350	13.0	6036	223.3
	Hay	24	8.1	27	9.2	388	131.6
	Hilltops	212	11.3	242	12.9	3673	196.4
	Junee	33	4.9	50	7.5	935	139.9
	Lachlan <sup>1</sup>	34	5.6	56	9.2	737	121.3
	Leeton	89	7.8	138	12.1	1842	160.9
	Lockhart	14	4.3	39	11.9	595	181.1
	Murray River	42	3.5	34	2.8	554	45.7
	Murrumbidgee	35	8.9	37	9.5	595	151.9
	Narrandera	40	6.8	42	7.1	810	137.3
	Snowy Valleys	167	11.5	207	14.3	3155	217.9
	Temora	40	6.3	52	8.2	966	153.2
	Wagga Wagga	804	12.3	1031	15.8	17676	270.9
	LHD Total <sup>2</sup>	3174	10.7	3780	12.7	60531	203.1
	Nepean Blue Mountains	Blue Mountains	1450	18.3	1522	19.2	29717
Hawkesbury		951	14.1	1292	19.2	21742	323.1
Lithgow		200	9.3	259	12.0	4813	222.8
Penrith		3052	14.3	3845	18.1	77571	364.2
LHD Total <sup>2</sup>		5610	14.4	6868	17.6	132753	339.5

Local Health District	Local Government Area	Week ending				Total	
		12 September		5 September			
		No.	Tests per 1,000 population	No.	Tests per 1,000 population	No.	Tests per 1,000 population
Northern NSW	Ballina	391	8.8	512	11.5	10653	238.7
	Byron	481	13.7	496	14.1	9521	271.4
	Clarence Valley	365	7.1	411	8.0	8403	162.7
	Kyogle	67	7.6	67	7.6	1288	146.4
	Lismore	476	10.9	667	15.3	10975	251.2
	Richmond Valley	219	9.3	307	13.1	5132	218.7
	Tenterfield	41	6.2	36	5.5	862	130.7
	Tweed	743	7.7	1031	10.6	18056	186.1
	LHD Total <sup>2</sup>	2757	8.9	3498	11.3	64243	207.0
Northern Sydney	Hornsby	2082	13.7	2671	17.6	40793	268.3
	Hunters Hill	521	34.8	539	36.0	9661	644.9
	Ku-ring-gai	2974	23.4	4109	32.3	49876	392.3
	Lane Cove	1264	31.5	1432	35.7	26685	664.6
	Mosman	493	15.9	590	19.0	10422	336.4
	North Sydney	860	11.5	1139	15.2	19627	261.6
	Northern Beaches	3830	14.0	5489	20.1	83151	304.0
	Parramatta <sup>1</sup>	3714	14.4	3595	14.0	60483	235.2
	Ryde	2093	15.9	2207	16.8	36019	274.4
	Willoughby	984	12.1	1429	17.6	19766	243.5
	LHD Total <sup>2</sup>	15799	16.5	20276	21.2	307318	321.5
South Eastern Sydney	Bayside	2251	12.6	2578	14.5	41573	233.0
	Georges River	1949	12.2	2332	14.6	36826	230.9
	Randwick	3826	24.6	4172	26.8	59006	379.1
	Sutherland Shire	3686	16.0	5199	22.5	80567	349.4
	Sydney <sup>1</sup>	4853	19.7	5273	21.4	87637	355.8
	Waverley	1996	26.9	2035	27.4	34354	462.4
	Woollahra	1470	24.8	1663	28.0	28008	471.6
	LHD Total <sup>2</sup>	17075	17.8	19876	20.7	310573	323.8
South Western Sydney	Camden	1943	19.2	2105	20.8	42751	421.5
	Campbelltown	2534	14.8	2940	17.2	59375	347.3
	Canterbury-Bankstown <sup>1</sup>	4886	12.9	5752	15.2	96946	256.5
	Fairfield	2081	9.8	2336	11.0	53349	252.0
	Liverpool	3196	14.0	3705	16.3	76153	334.6
	Wingecarribee	716	14.0	806	15.8	17441	341.1
	Wollondilly	525	9.9	577	10.9	13158	247.6
	LHD Total <sup>2</sup>	13365	12.9	15321	14.8	311591	300.0



Local Health District	Local Government Area	Week ending				Total	
		12 September		5 September			
		No.	Tests per 1,000 population	No.	Tests per 1,000 population	No.	Tests per 1,000 population
Southern NSW	Bega Valley	254	7.4	314	9.1	6947	201.5
	Eurobodalla	367	9.5	488	12.7	12082	314.0
	Goulburn Mulwaree	262	8.4	360	11.6	7153	229.8
	Queanbeyan-Palerang Regional	429	7.0	526	8.6	10093	165.2
	Snowy Monaro Regional	179	8.6	262	12.6	4465	214.7
	Upper Lachlan Shire	59	7.3	60	7.5	1542	191.3
	Yass Valley	103	6.0	145	8.5	2564	150.1
	LHD Total <sup>2</sup>	1654	7.6	2157	9.9	44870	206.7
Sydney	Burwood	508	12.5	455	11.2	7832	192.9
	Canada Bay	2054	21.4	1814	18.9	32942	342.9
	Canterbury-Bankstown <sup>1</sup>	4886	12.9	5752	15.2	96946	256.5
	Inner West	3778	18.8	4156	20.7	78931	393.1
	Strathfield	984	21.0	929	19.8	14408	307.0
	Sydney <sup>1</sup>	4853	19.7	5273	21.4	87637	355.8
	LHD Total <sup>2</sup>	12735	18.3	13488	19.4	238023	341.6
Western NSW	Bathurst Regional	614	14.1	795	18.2	11662	267.4
	Blayney	94	12.7	137	18.6	2020	273.8
	Bogan	22	8.5	16	6.2	444	172.1
	Bourke	11	4.3	16	6.2	345	133.2
	Brewarrina	8	5.0	8	5.0	241	149.6
	Cabonne	77	5.7	130	9.5	2015	147.8
	Cobar	34	7.3	46	9.9	643	138.0
	Coonamble	31	7.8	33	8.3	656	165.7
	Cowra	104	8.2	110	8.6	2206	173.1
	Dubbo Regional	641	11.9	734	13.7	11645	216.8
	Forbes	123	12.4	164	16.6	1447	146.1
	Gilgandra	20	4.7	51	12.0	665	156.9
	Lachlan <sup>1</sup>	34	5.6	56	9.2	737	121.3
	Mid-Western Regional	245	9.7	306	12.1	5320	210.7
	Narromine	72	11.1	72	11.1	1151	176.6
	Oberon	46	8.5	90	16.6	1173	216.8
	Orange	619	14.6	693	16.3	12685	298.8
	Parkes	171	11.5	622	41.9	2924	197.1
	Walgett	56	9.4	53	8.9	1204	202.3
	Warren	50	18.5	82	30.4	902	334.5
	Warrumbungle Shire	80	8.6	104	11.2	1930	208.0
	Weddin	34	9.4	16	4.4	581	160.8
	LHD Total <sup>2</sup>	3180	11.2	4329	15.2	62372	218.8

Local Health District	Local Government Area	Week ending				Total	
		12 September		5 September			
		No.	Tests per 1,000 population	No.	Tests per 1,000 population	No.	Tests per 1,000 population
Western Sydney	Blacktown	5736	15.3	6890	18.4	111380	297.5
	Cumberland	4121	17.1	5128	21.2	65989	273.2
	Parramatta <sup>1</sup>	3714	14.4	3595	14.0	60483	235.2
	The Hills Shire	3737	21.0	4187	23.5	66573	374.1
	LHD Total <sup>2</sup>	16714	15.9	19324	18.3	295292	280.3
NSW Total <sup>3</sup>		120,802	14.9	143,948	17.8	2,494,278	308.3

<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 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 6 SEPTEMBER 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—6 Sep 2020											
Total	855,779	6,611	0.77%	950	0.11%	6,131	9,006	5,185	111,812	1,990	4,119
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	130,922	42	0.03%	11	0.01%	629	83	178	28,321	112	246
2 August*	222,423	33	0.01%	1	<0.01%	1,146	89	209	29,706	79	427
30 August	174,594	9	0.01%	2	<0.01%	1,137	37	299	13,926	14	235
Week ending											
6 September	41,421	2	<0.01%	1	<0.01%	265	10	127	2,729	10	45

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

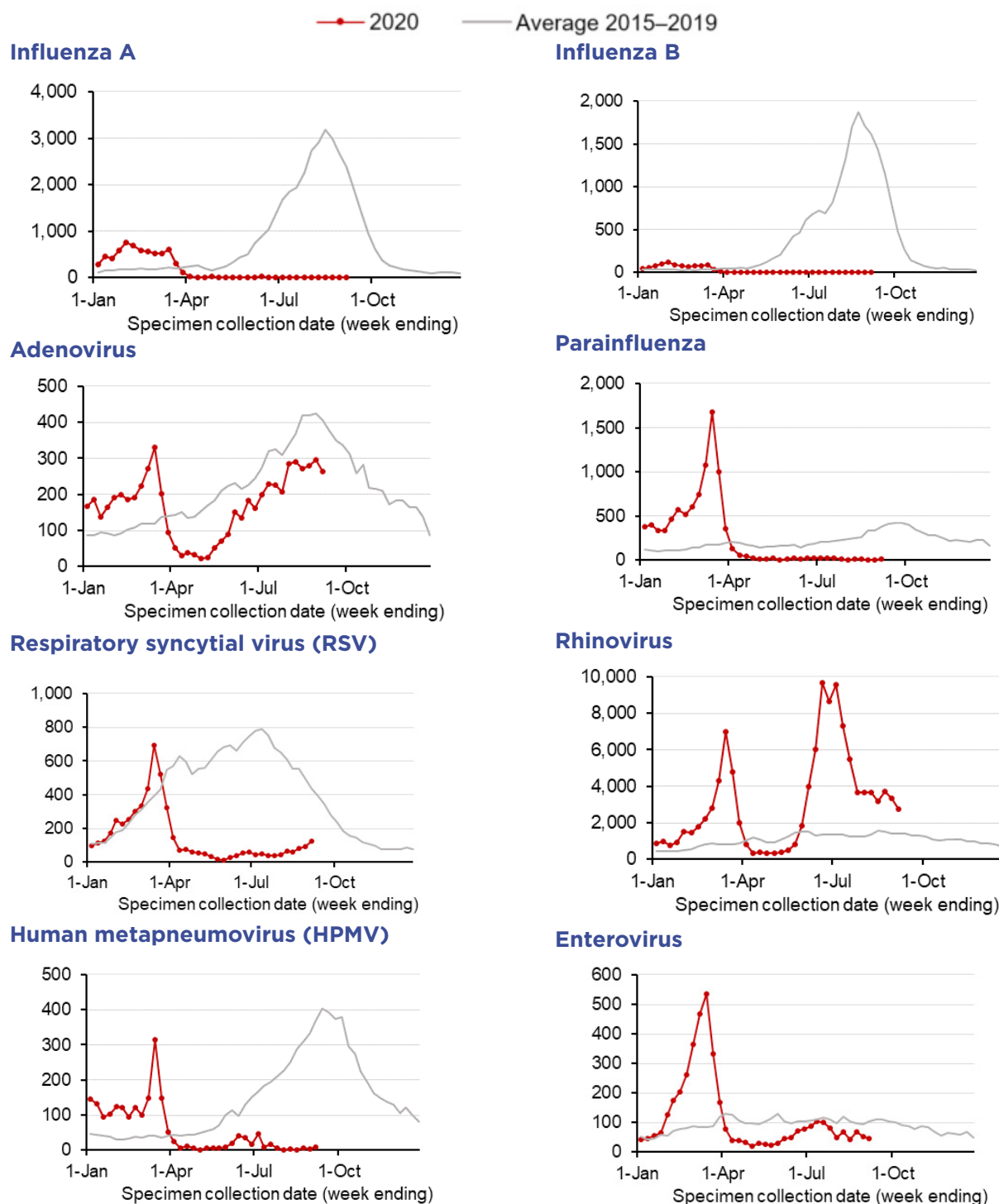
HMPV - Human metapneumovirus

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 6 SEPTEMBER 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	<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>
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>