

COVID-19 weekly surveillance in NSW

--- Week ending 30 April 2020 ---

Contents

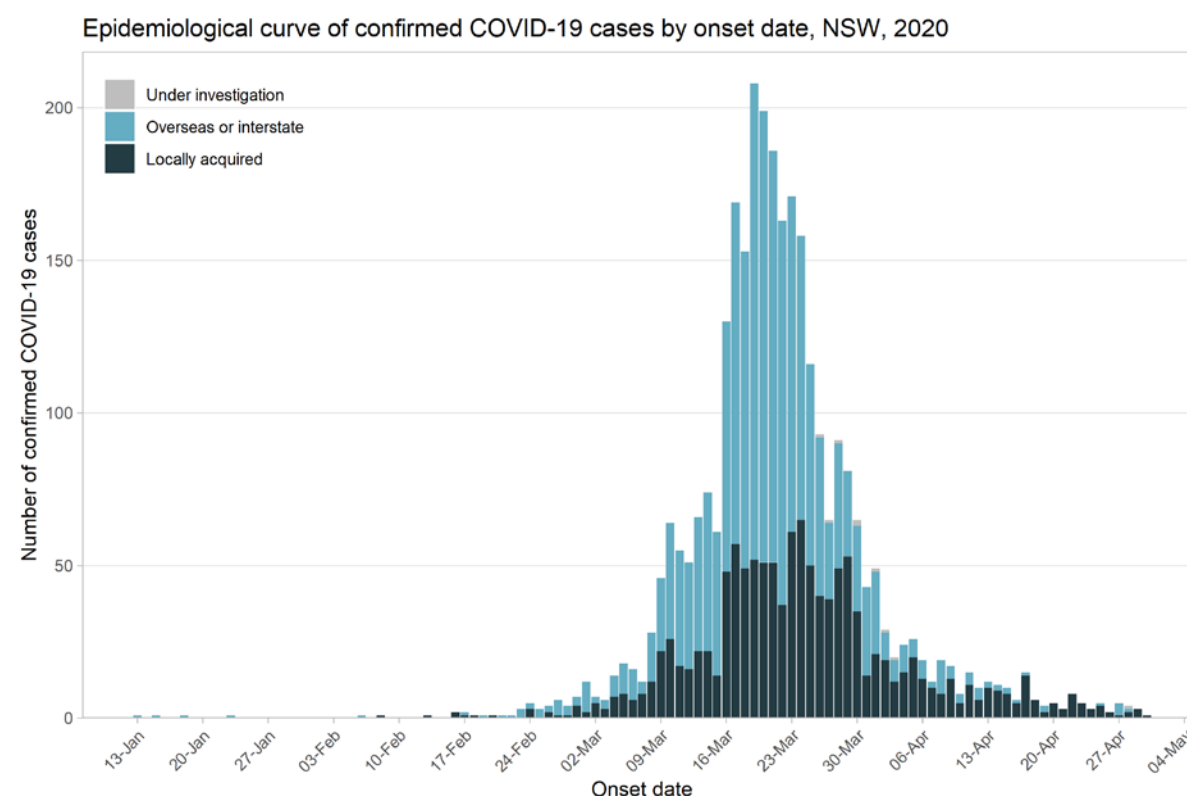
Section 1: Overall summary	2
How is the outbreak tracking in NSW?	2
How much testing is happening?	3
How long does it take to get a COVID-19 test result?	5
Section 2: COVID-19 cases acquired in NSW	7
How much transmission is occurring in NSW?	7
Where is transmission occurring in NSW?	8
How quickly are locally acquired cases getting tested after symptoms begin?	10
Who is getting infected with COVID-19 in NSW?	11
Are Aboriginal people getting infected?	11
Section 3: NSW COVID-19 cases acquired interstate	12
Section 4: COVID-19 in overseas travellers	12
Who is getting infected overseas?	13
Airport screening	15

Section 1: Overall summary

How is the outbreak tracking in NSW?

Confirmed cases (people infected with COVID-19) reported to NSW Health include NSW residents who were infected overseas and in Australia (in NSW and interstate) and interstate or international visitors who are under the care of NSW Health.

In order to understand how the outbreak is tracking we need to look at how many new cases are being reported each day and the number of people that are being tested. The graph below shows the number of new cases reported in NSW has decreased significantly over recent weeks.

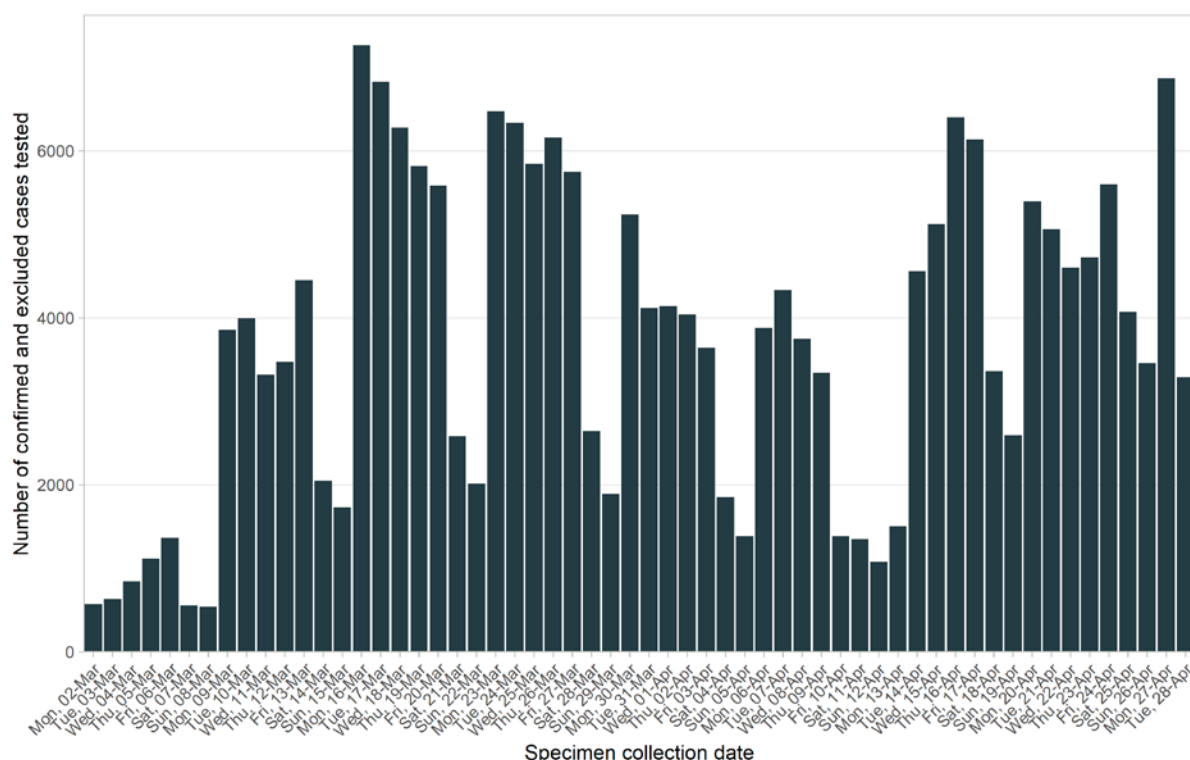


Note: Date of symptom onset is the date the person reported that they first started to feel unwell. This is collected by public health staff via an interview at the time of diagnosis. If symptom onset date is not available, the date of the earliest test is used.

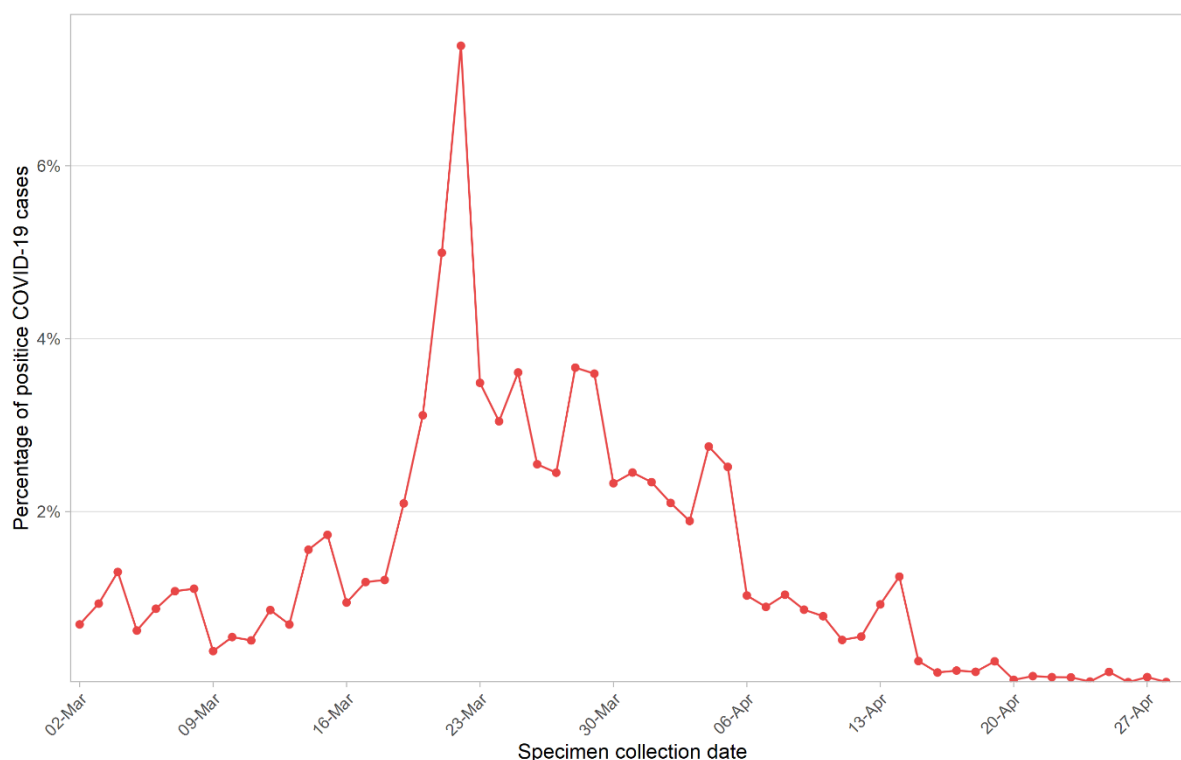
How much testing is happening?

The bars on the graph below show the number of people tested each day. While public health facilities are open seven days a week, less testing through GPs and private collection centres occurs on weekends and public holidays. This explains most of the lower number of tests conducted at these times. Note this may not include all the people tested before 8pm April 30 due to laboratories sending the notifications of negative tests to NSW Health in batches.

Total number of people tested by specimen collection date

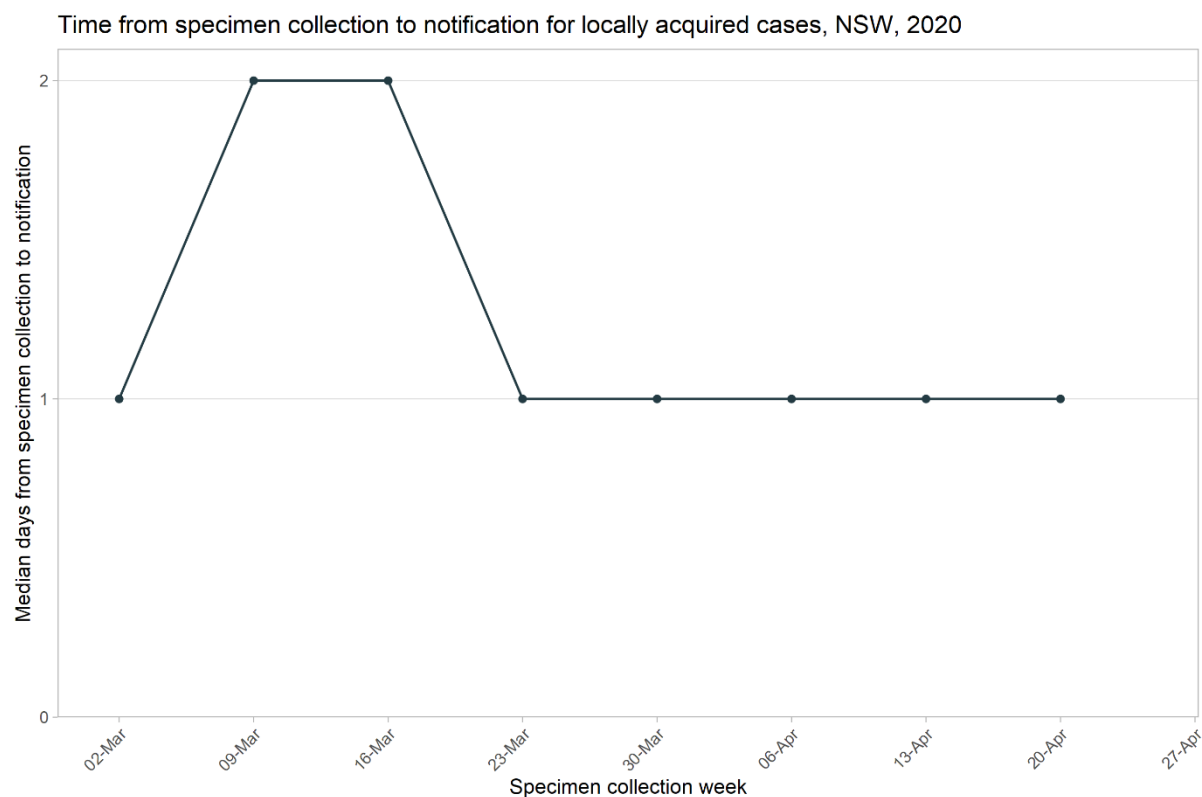


Percentage of positive COVID-19 cases by specimen collection date



Interpretation: NSW has one of the highest testing rates in the world, at 27.0 per 1000 population (NSW cases = 3,025). This compares to South Korea (10 per 1000 population) (10,613 cases), Switzerland (23.4 per 1000) (26,732 cases), USA (9.3 per 1000) (632,548 cases) and the UK (4.7 per 1000) (103,093 cases). NSW Health is encouraging testing in people with mild symptoms in areas which have been identified by public health units as areas of concern about potential undetected community transmission. This is important for public health staff to be able to find and isolate people who are infectious and carry out contact tracing (quarantining of all people potentially infected by a case) to limit the spread of infection. The overall test positivity rate has been declining since Mid-March, indicating that we are seeing decreased rates of illness in the community.

How long does it take to get a COVID-19 test result?



Interpretation: This graph shows time from test date to COVID-19 diagnosis (test result) by week. Despite significant increases in testing in March, the median time to receive a test result was two days. This has reduced to a single day over the last few weeks.

How long does it take to recover from COVID-19?

In NSW, recovery status for COVID-19 is assessed 3 weeks after the onset of illness by interviewing the case. Cases reporting resolution of all COVID-19 symptoms are considered to have recovered. Cases who have not recovered at three weeks are called in the following weeks until recovery. While people may have recovered within three weeks of onset, recovery information is only reported on cases after three weeks as this is the time the interview is done. At the time of interview, the date of recovery is collected to understand the duration of symptoms. This data will be updated as more cases are interviewed and more time has passed for people to recover.

Analysis on information collected from over 2,300 case interviews showed that 50% of cases had recovered after 16 days, 75% had recovered after 3 weeks and 95% had recovered after 6 weeks. Time to recovery by age group is shown in the table below.

Age Group	Time taken for 50% of cases to recover	Time taken for 75% of cases to recover
	Days	Days
≤ 40 years	14	20
41 – 70 years	17	24
71+ years	19	27
Total	16	23

Interpretation: Older people take longer to recover than younger people.

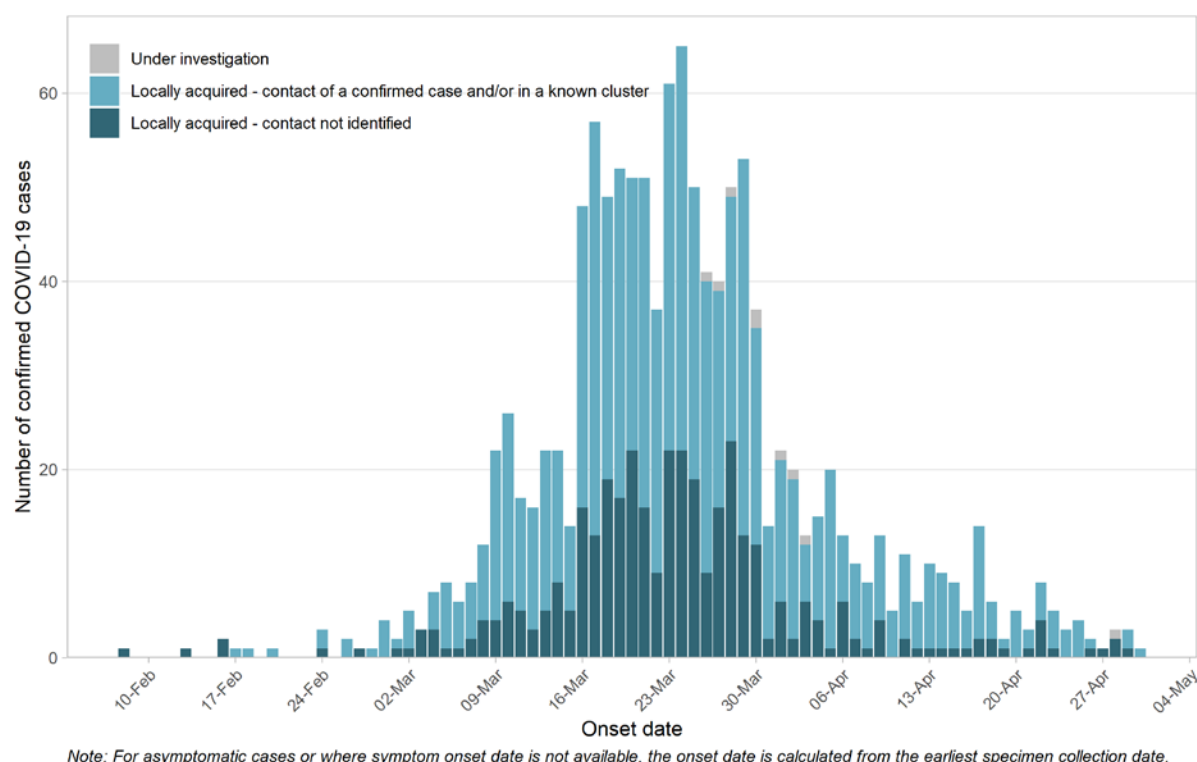
Section 2: COVID-19 cases acquired in NSW

How much transmission is occurring in NSW?

Total count (excluding overseas travellers)	1,203
No. of cases with an identified source or part of an outbreak	840
No. cases without an identified source	363
No. of cases under investigation	0

Interpretation: Most of the cases reported in NSW to date have been acquired overseas. Of the cases of infection acquired locally, most have been a contact of another confirmed case, or part of a known cluster of illness or outbreak. It is the cases that were locally acquired without an identified source that we are monitoring most closely to try to find previously unidentified cases of community transmission.

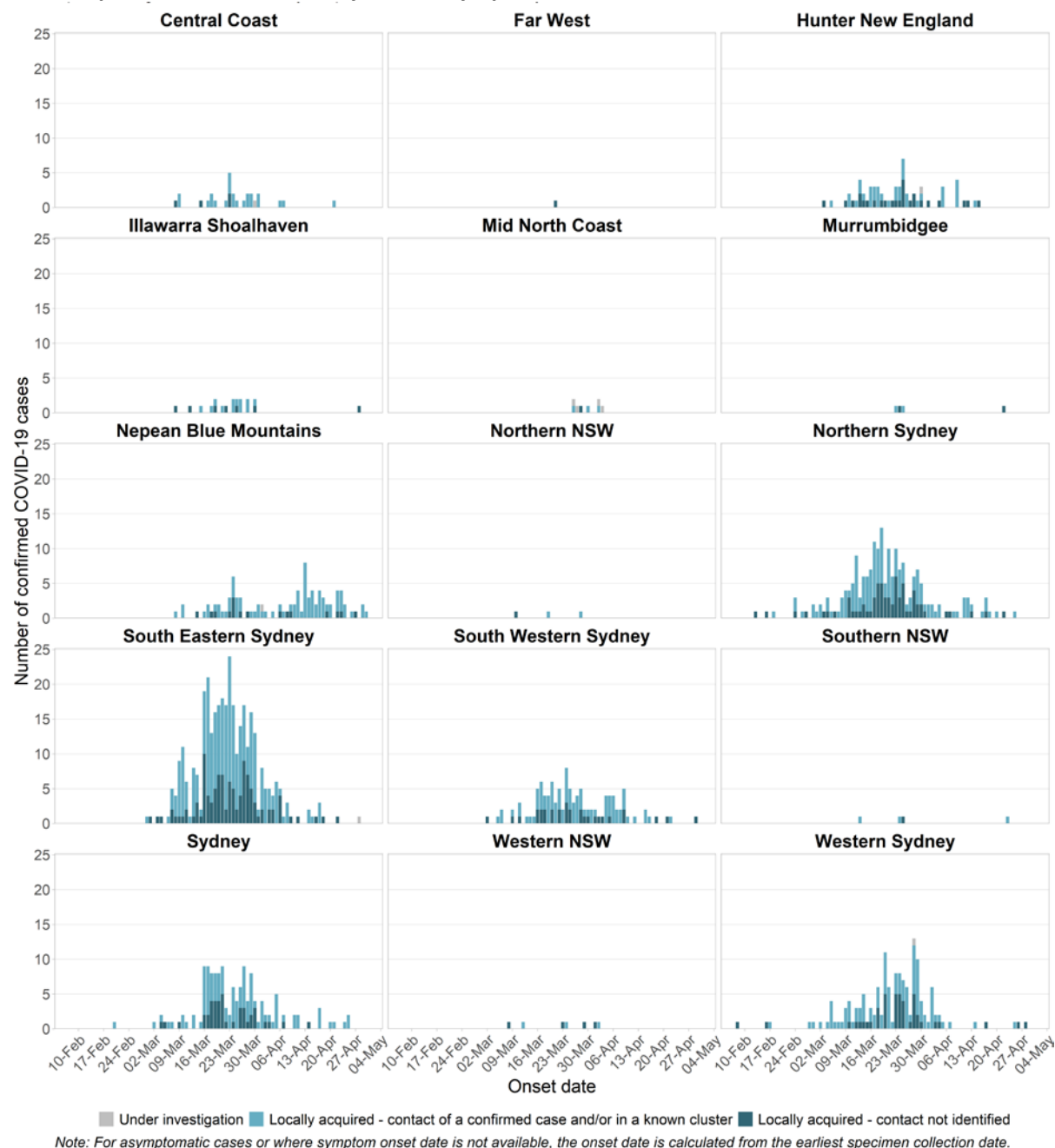
NSW acquired COVID-19 cases by date of symptom onset and source of infection



Interpretation: Approximately 40% of confirmed COVID-19 cases reported to date have been infected in NSW. Larger clusters occurred in NSW before many of the strict social distancing rules were introduced. Recently there has been a decrease in both the number of cases who have had close contact with a known source of COVID-19 and the number of cases where the source is not known. The identification of people with no known source of infection shows that there are other people with COVID-19 in the community who haven't been diagnosed. It is encouraging that these numbers are now very low, but it is important that testing rates remain high so that cases can be identified as quickly as possible.

Where is transmission occurring in NSW?

NSW acquired COVID-19 cases by date of symptom onset and LHD, NSW, 2020



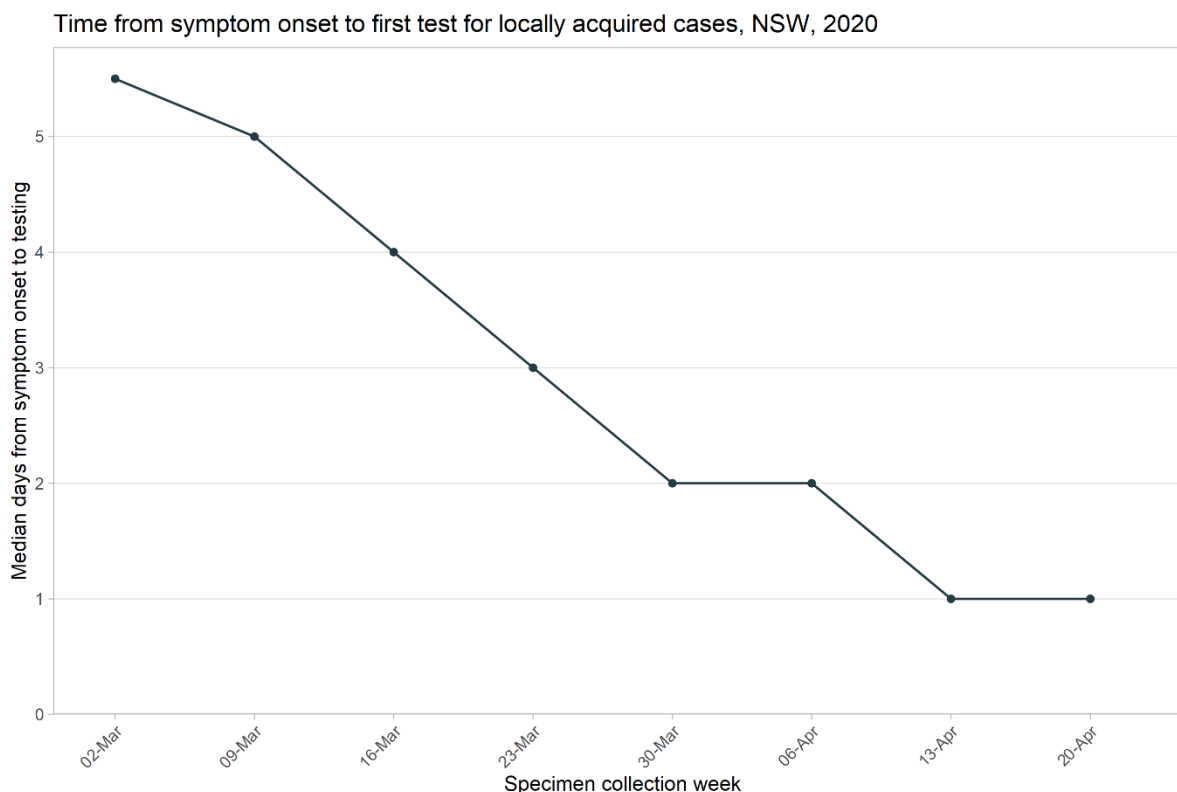
Interpretation: These graphs show the number of cases acquired in NSW according to the person's Local Health District (LHD) of residence. This does not mean that the infection was acquired in that district, as many people travel outside their place of residence for work or other reasons. The highest number of cases have been reported in people living in metropolitan Sydney (particularly in South Eastern Sydney and Northern Sydney LHDs). Recently there has been an increase in cases in Nepean Blue Mountains LHD, largely due to an outbreak in an aged care facility. Currently very limited transmission has been detected in people living in regional and rural NSW.

Confirmed cases of COVID-19 infection and testing rates by Local Health District (LHD) of residence

LHD	Cases	Cases per 100,000 residents	Tests per 100,000 residents
South Eastern Sydney	673	70	3529
Northern Sydney	531	56	3291
Nepean Blue Mountains	170	43	3652
Sydney	248	36	3097
Central Coast	116	33	2546
Hunter New England	277	29	2567
Illawarra Shoalhaven	113	27	2553
Western Sydney	275	26	2485
Southern NSW	55	25	1688
South Western Sydney	236	23	2287
Mid North Coast	50	22	2004
Northern NSW	56	18	1911
Western NSW	45	16	1594
Murrumbidgee	47	16	1278
Far West	2	7	2020
NSW Total	3025	37	2774

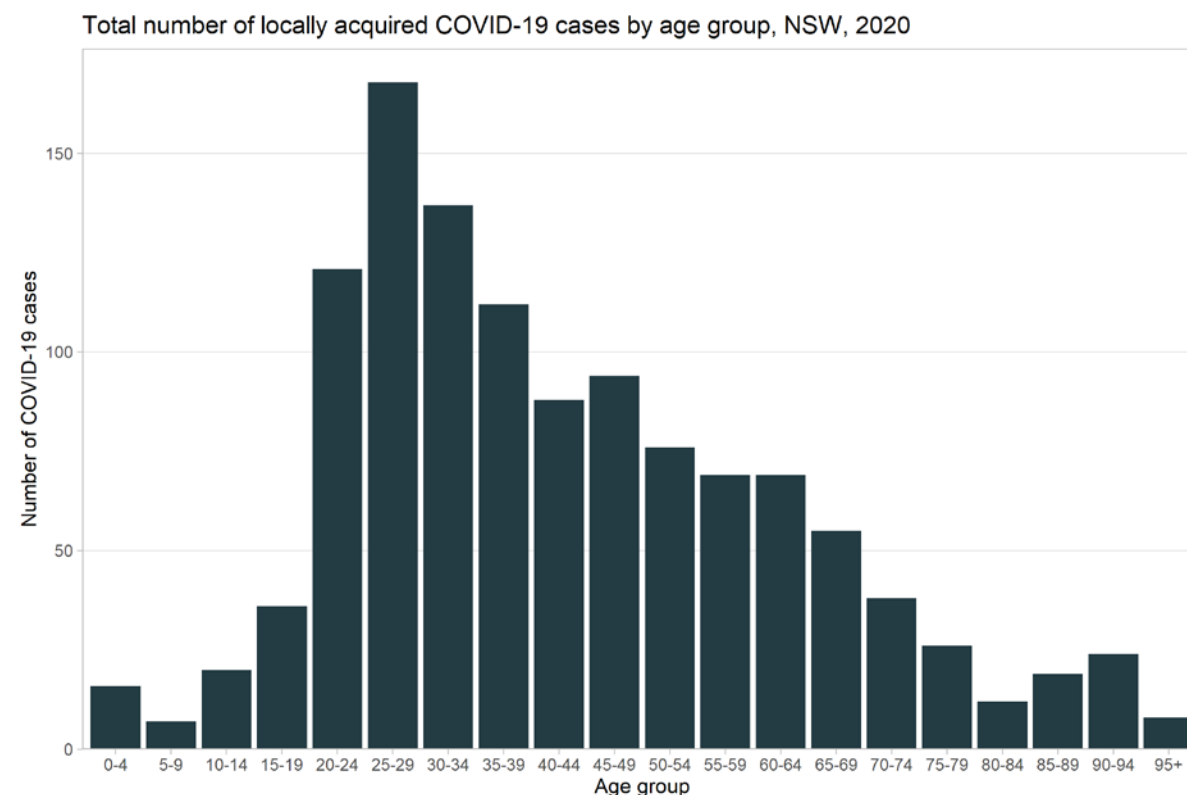
Interpretation: Taking into account the differences in the number of people living in each LHD, the highest rates of both infection and testing have occurred in people living in South Eastern Sydney and Northern Sydney LHD, and the lowest rates have been seen in people living in rural NSW.

How quickly are locally acquired cases getting tested after symptoms begin?



Interpretation: This graph shows the time from onset of symptoms to the date of test. In more recent weeks people have been seeking testing more promptly following the onset of symptoms compared with earlier in the outbreak. Last week, the median time from developing symptoms to getting tested was a single day. This is important as the earlier in their infection people are diagnosed, the sooner they are able to isolate themselves from others to prevent the spread of infection. All people who undergo testing are advised to isolate themselves while they are waiting for test results to avoid spreading infection to others should they be confirmed to have COVID-19.

Who is getting infected with COVID-19 in NSW?



Interpretation: This graph shows the total number of cases acquired in NSW by age group. The highest number of infections have been reported in young adults with people aged between 20 and 40 years most commonly infected. While younger people generally experience less severe illness than older people, they are still able to spread infection to other people. Infections have been evenly distributed between men and women (data not shown).

Are Aboriginal people getting infected?

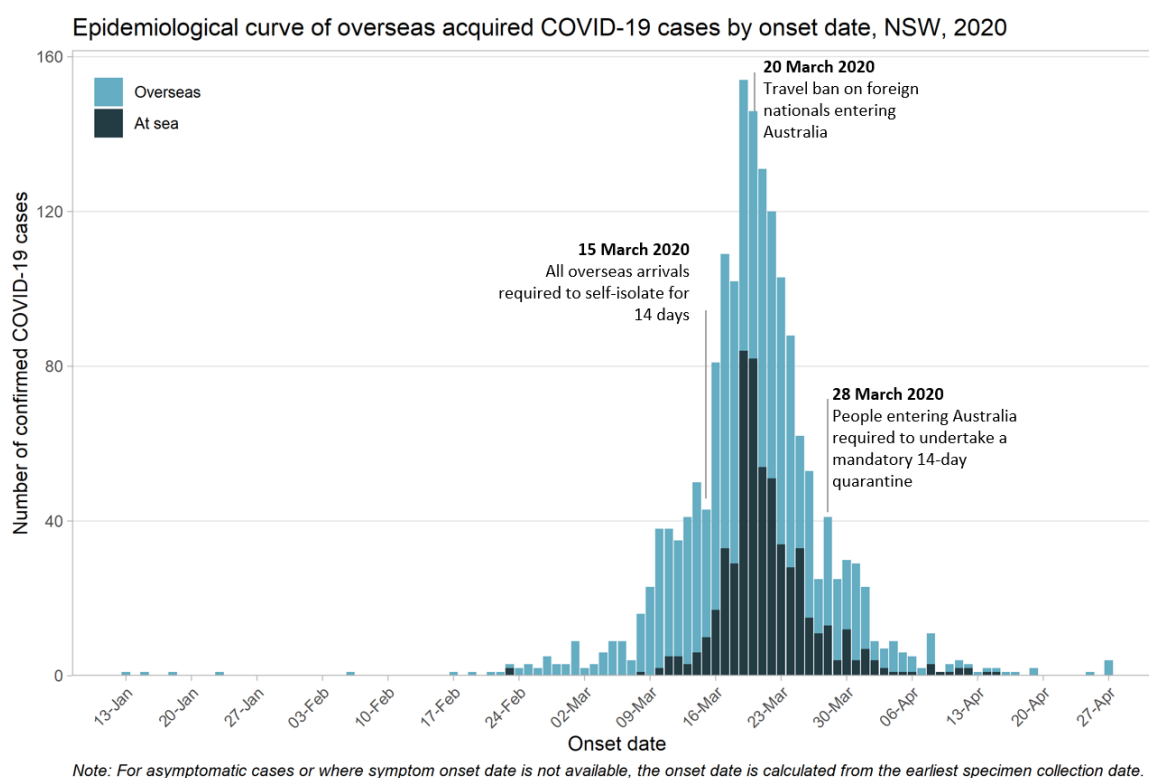
Aboriginal people are considered to be a vulnerable group for serious COVID-19 disease due to their high burden of chronic disease. Additionally, transmission within Aboriginal communities is likely to be high due to factors such as high number of people per household and barriers to accessing health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

A total of 29 people with confirmed COVID-19 have identified as Aboriginal and/or Torres Strait Islander. This represents less than 1% of all reported cases in NSW. Fourteen of these people (48%) acquired their infection outside Australia. Of the fifteen remaining cases acquired in NSW, the source of infection was known for eleven and was not identified in four cases. Cases ranged in age from 1 to 75 years. Most of the cases in Aboriginal people (38%) in NSW are in people who live in Hunter New England LHD. There have been no deaths from COVID-19 in Aboriginal people in NSW. All Aboriginal people with symptoms are strongly encouraged to seek testing if symptoms develop.

Section 3: NSW COVID-19 cases acquired interstate

A total of 68 NSW residents have been infected interstate. Infections in NSW residents have been acquired in Victoria (24 cases), Queensland (14 cases), Tasmania (5 cases), South Australia (4 cases), ACT (3 cases) and Northern Territory (1 case). The place of infection was unable to be identified for the remaining 17 cases due to visits to multiple states.

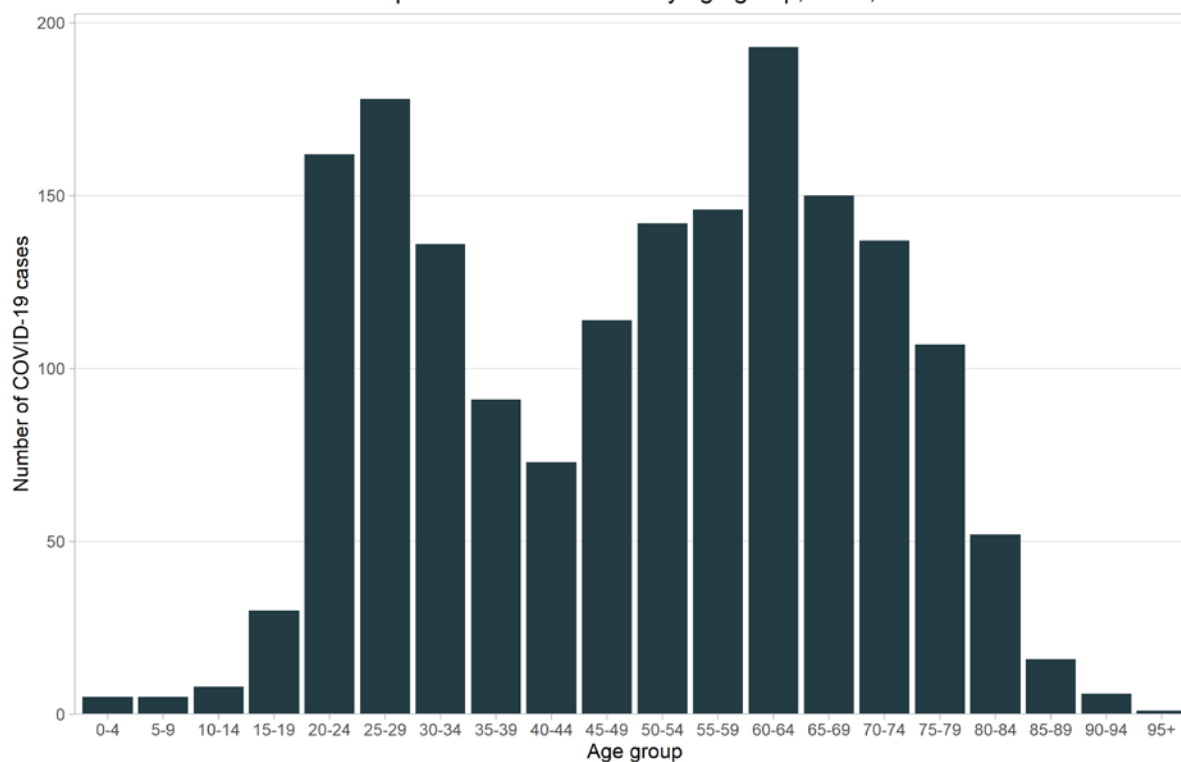
Section 4: COVID-19 in overseas travellers



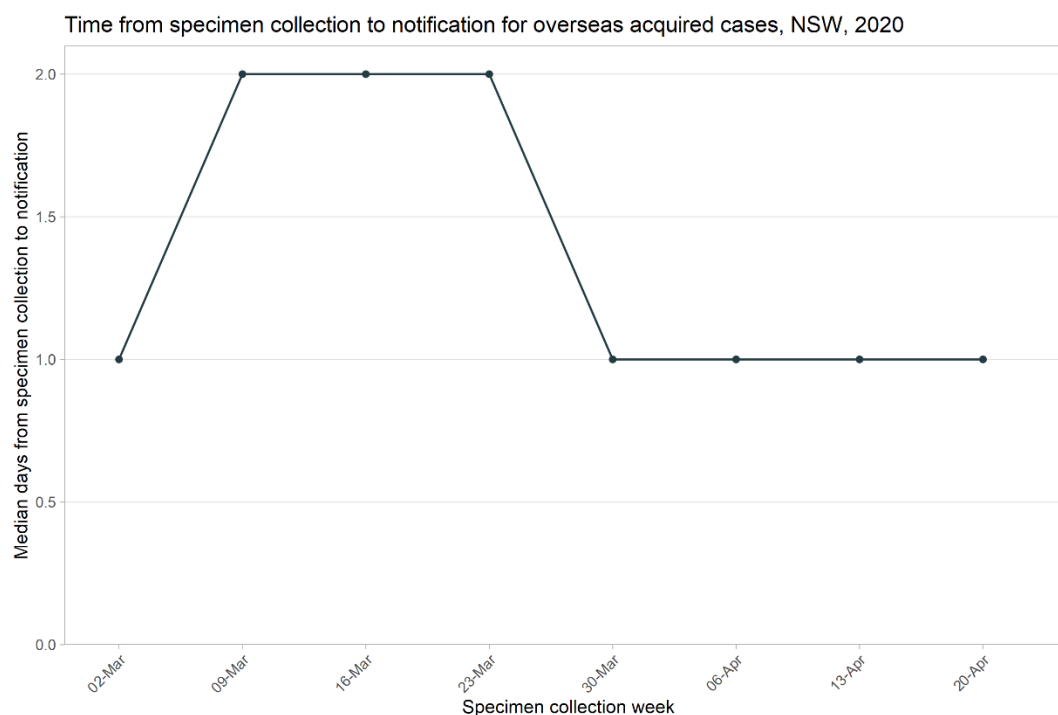
Interpretation: Infections have been acquired overseas in approximately 60% of all cases notified to date in NSW. Cases acquired at sea refers to those cruise ship passengers who acquired their infection on board prior to disembarking in NSW. Cruise ship passengers account for approximately 30% of all overseas acquired infections. Other infections were most commonly acquired in the United Kingdom and United States of America. The graph above shows that cases in returned travellers have decreased markedly in recent weeks following the restrictions on people entering Australia. Since 28 March all returned travellers have been quarantined in hotels for a 14 day period to stop the spread of infection into the community in NSW.

Who is getting infected overseas?

Total number of overseas acquired COVID-19 cases by age group, NSW, 2020



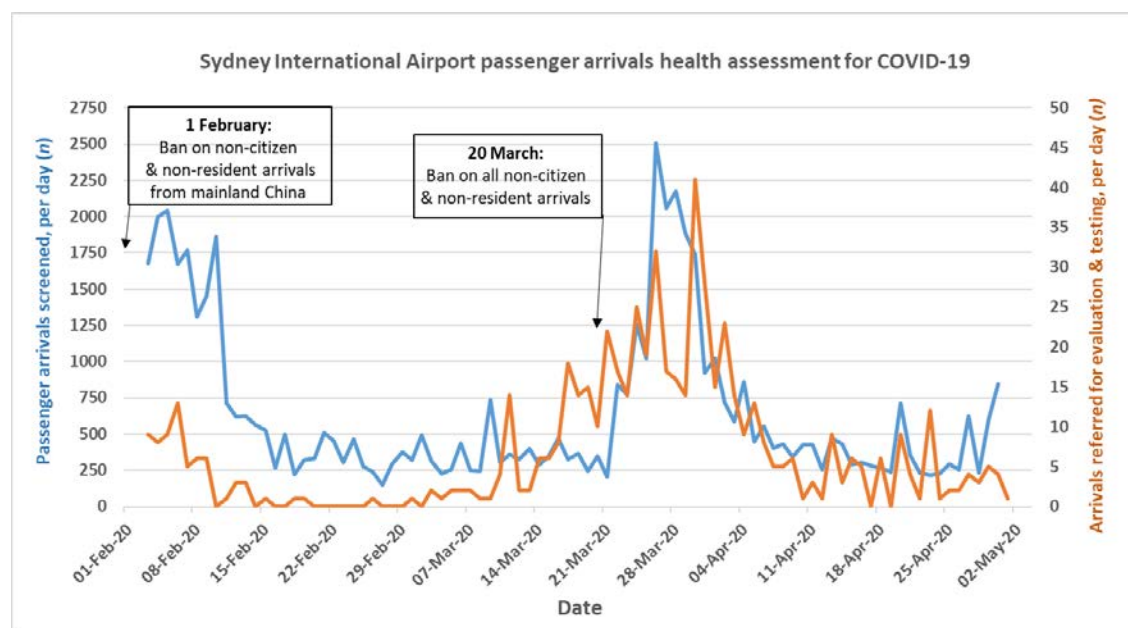
Interpretation: The graph shows the number of cases acquired outside Australia by age group. Cases in returned travellers have been generally older than those who acquired their infections in Australia, which reflects the older age group that more commonly travel on cruise ships. Approximately equal numbers of men and women acquired their infection overseas (data not shown).



Interpretation: The median time for returned travellers to undergo COVID-19 testing has decreased since the start of the outbreak. The above figure shows in recent weeks the median time to test is one day. All international travellers are considered at risk of COVID-19 infection and are encouraged to seek testing if symptoms develop.

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 respiratory symptoms are assessed by an onsite health team and tested for COVID-19. In total 57,463 people have been screened at the airport since 02 Feb 2020 with 603 people referred for onsite health assessment and testing.



Interpretation: In line with travel restrictions there has been a significant decline in the number of people arriving into Sydney International Airport with respiratory symptoms.