

COVID-19 WEEKLY SURVEILLANCE IN NSW

EPIDEMIOLOGICAL WEEK 16, ENDING 24 APRIL 2021

Published 29 April 2021

Overview

Number and proportion of COVID-19 cases in NSW by likely source of infection to week ending 24 April 2021

	2020		2021		
	Jan – Jun	July – Dec	year to date 1 Jan – 24 April	last 4 weeks 28 March – 24 April	last 7 days 18 April – 24 April
Overseas acquired	1,893 (59%)	714 (46%)	443 (90%)	137 (96%)	47 (100%)
Interstate acquired	67 (2%)	23 (2%)	0	0	0
Locally acquired	1,237 (39%)	808 (52%)	49 (10%)	5 (4%)	0
Total	3,197 (100%)	1,545 (100%)	492 (100%)	142 (100%)	47 (100%)
Deaths	52	4	0	0	0

Summary for the week ending 24 April 2021

- There were no locally acquired cases reported in the week ending 24 April 2021.
- The number of cases reported in overseas returned travellers increased this week (up 15%) compared to the previous week.
- In the four-week period ending 24 April 2021, 46% (63/137) of overseas acquired cases have been identified as having COVID-19 variants of concern (B.1.1.7, B.1.351 and P1). Of the 631 returned travellers diagnosed with COVID-19 since 29 November 2020, 148 (24%) have been diagnosed with a VoC.
- In the four weeks ending 24 April 2021, three (2%) overseas acquired COVID-19 cases self-reported being fully vaccinated prior to arrival in Australia, although they may have been exposed to COVID-19 prior to their vaccination becoming fully effective (two weeks after their second dose).
- Testing rates remained stable across all local health districts compared to the previous week.
- The NSW Sewage Surveillance Program reported seven detections – taken from the Bondi, Malabar, Merimbula and Burwood Beach treatment plants, and the sewage network at Paddington (within the Bondi catchment), Botany (within the Malabar catchment) and Allambie Heights (within the North Head catchment). Although no active cases were identified in Merimbula, Burwood Beach and Allambie Heights sewage catchment areas, the detections may indicate the presence of people in the community who are no longer infectious but have recently tested positive for COVID-19. People can continue to shed fragments of the virus for several weeks.

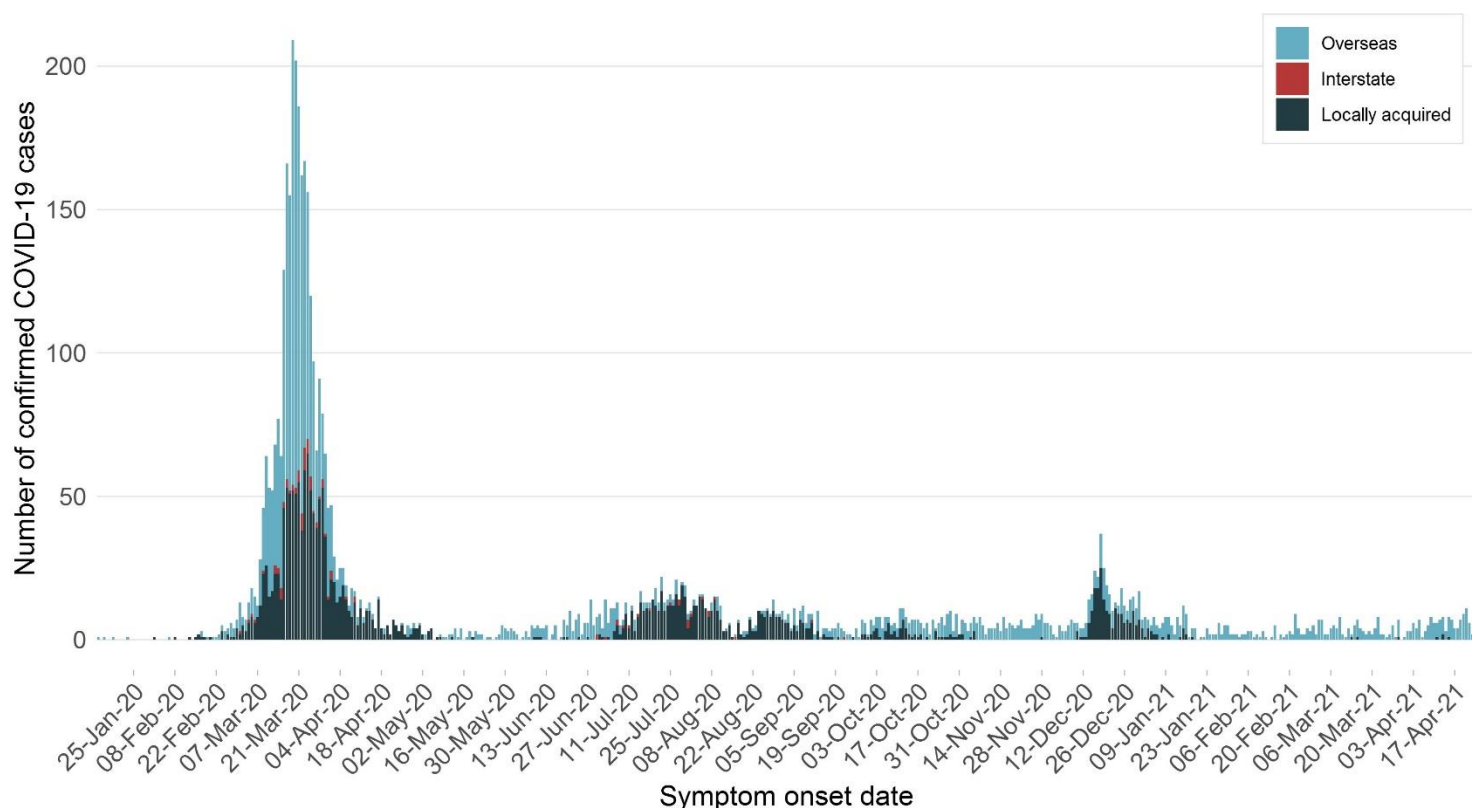
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Section 1: How is the outbreak tracking in NSW?

To understand how the outbreak is tracking we look at how many new cases are reported each day and the number of people being tested. Each bar in the graph below represents the number of new cases based on the date of symptom onset.

Figure 1. COVID-19 cases by likely infection source and illness onset, NSW, from 25 January 2020 to 24 April 2021



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

Interpretation: Between 25 January 2020 and 24 April 2021, there were 5,234 confirmed COVID-19 cases. Of those, 3,051 (58%) were overseas acquired, 90 (2%) were interstate acquired, and 2,093 (40%) were locally acquired.

The epidemiology of COVID-19 in NSW continued to evolve since the first three cases were reported in NSW on 25 January 2020 in people who acquired their infection in China. The first locally acquired COVID-19 case in NSW was reported on 2 March 2020 and by mid-March case numbers had increased rapidly in overseas returned travellers and their contacts and within localised community outbreaks. In NSW, the number of reported daily cases peaked on 27 March 2020 at 213 cases. Public health action and the introduction of a range of stringent control measures, including the closure of international borders, 14-day mandatory quarantine for returned travellers and restrictions of movement within NSW lead to a decline in cases. Community transmission was interrupted by the end of May 2020.

In early July seeding of SARS-CoV-2 into South Western Sydney from an outbreak in Melbourne lead to a second wave of infection. Following intensive public health action community transmission was again interrupted by the end of November 2020.

In December 2020 two new introductions of SARS-CoV-2 caused outbreaks in Sydney's Northern Beaches and Berala in Sydney's West. Community transmission was again interrupted by the end of January 2021.

COVID-19 cases reported in 2021

Figure 2. COVID-19 cases by likely infection source and reporting date, NSW, from 1 January 2021 to 24 April 2021

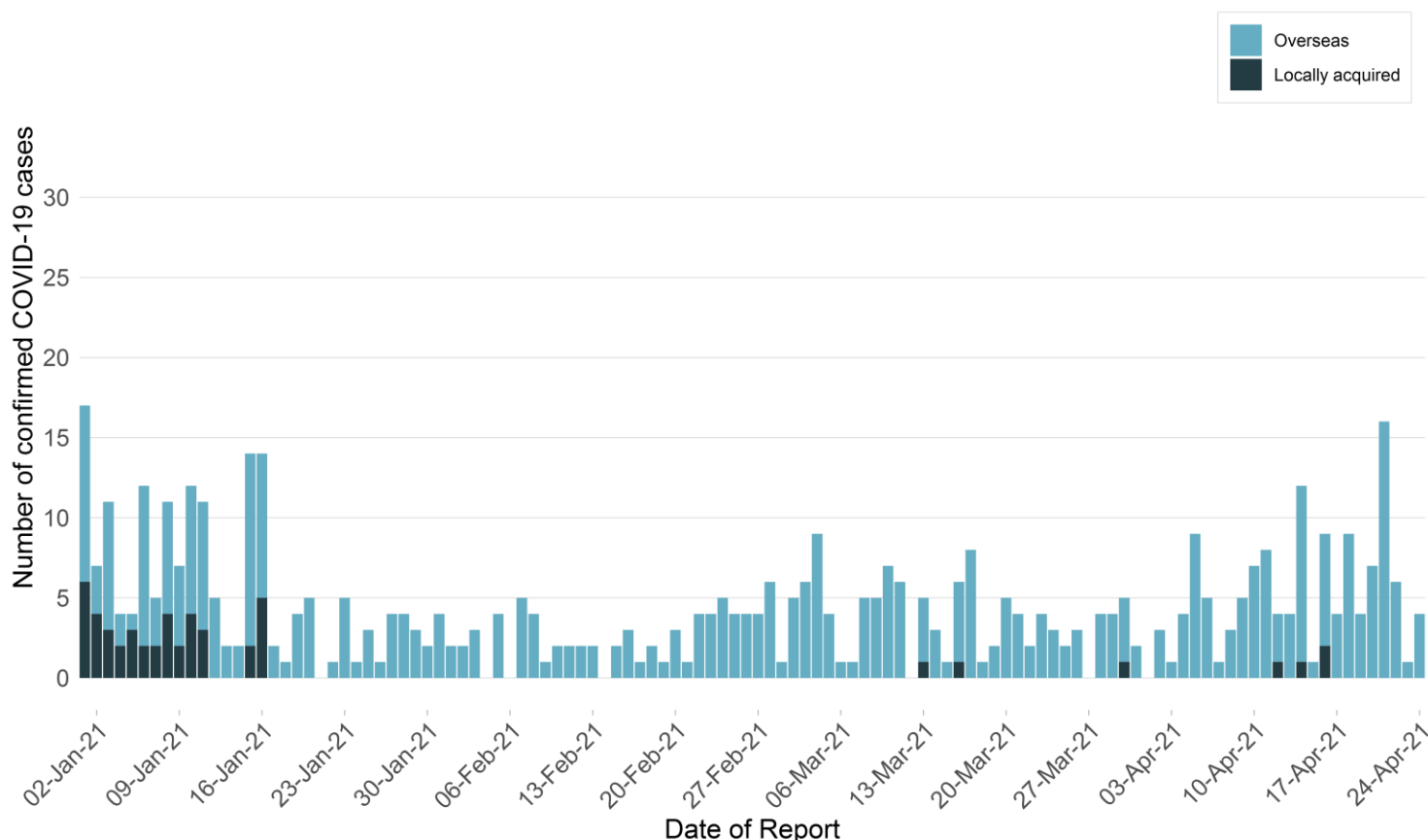


Table 1. COVID-19 cases and tests reported, NSW, from 1 January 2021 to 24 April 2021

	Week ending 24 Apr	Week ending 17 Apr	% change	Total 2021
Number of cases	47	42	↑ 12%	492
Overseas acquired	47	38	↑ 24%	443
Interstate acquired	0	0	-	0
Locally acquired	0	4	-	49
No epidemiological links to other cases or clusters	0	0	-	6
Number of deaths	0	0	-	0
Number of tests	60,627	63,128	↓ 4%	1,438,118

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

Interpretation: Of the 49 locally acquired COVID-19 cases reported between 1 January and 24 April 2021:

- 11 were associated with the Avalon cluster
- 31 were associated with the Berala cluster
- Two, a guest and a security guard, were associated with the Sydney hotel quarantine cluster in mid-March
- one case acquired their infection from an infectious Queensland resident who was visiting a Byron Bay pub, detected as part of extensive contact tracing in late March
- four cases, three in one family and one individual, acquired their infection while in hotel quarantine in two unrelated transmission events in mid-April.

The majority of cases reported in the last four weeks in NSW were overseas acquired (137/142, 96%).

Section 2: Variants of Concern (VoC)

Like other viruses, the SARS-CoV-2 virus that causes COVID-19 acquires mutations over time. Some of these mutations occur in regions that are critical to virus function, such as the spike protein. The spike protein allows the virus to enter human cells, which is why it is the target of many COVID-19 vaccines and part of our own immune response to the virus. Global surveillance is done to monitor the prevalence of mutations in the SARS-CoV-2 virus, with particular focus on those occurring in the spike protein that may reduce vaccine effectiveness or enable re-infection.

Currently, there are three internationally recognised VoCs, B.1.1.7, B.1.351 and P.1, that were first identified in the United Kingdom, South Africa and Brazil, respectively. All three VoCs have since spread beyond their initial country of origin with B.1.1.7 the most widely distributed worldwide. NSW Health Pathology has identified all three of the VoCs, in NSW.

In the last four weeks, ending 24 April 2021, there have been:

- 56 returned travellers diagnosed with a VoC. Of these 56 cases, 40 were diagnosed with the B.1.1.7 variant, 13 with the B.1.351 variant, and three with the P.1 variant. Approximately half (48%) of these cases likely acquired their VoC in either India (14, 25%) or Bangladesh (13, 23%). The remaining cases likely acquired their infections in USA (7, 13%), Iraq (5, 9%), Pakistan (5, 9%), Canada (4, 7%), Ethiopia (1, 2%), France (1, 2%), Germany (1, 2%), Lebanon (1, 2%), and Poland (1, 2%). Three VoC cases were found in international flight crew members whose country of disease acquisition is unknown.
- Five locally acquired COVID-19 cases diagnosed with a VoC; four being diagnosed with the B.1.1.7 variant and one with the B.1.351 variant.

Table 2a. Overseas acquired COVID-19 cases by VoC and week reported, NSW, 29 November 2020 to 24 April 2021

	Week ending				29 Nov to 27 Mar	Total since 29 November
	24 Apr*	17 Apr	10 Apr	03 Apr		
Total overseas acquired cases	47	38	34	18	493	630
Overseas cases with VoC	11	20	15	10	92	149
B.1.1.7	11	12	12	5	81	121
B.1.351	0	7	2	4	9	22
P.1	0	1	1	1	2	5
% overseas acquired cases with VoC	23%	53%	44%	56%	19%	23%

Interpretation: In the week ending 24 April, 11 returned travellers were reported as having a COVID-19 VoC, which is 23% (11/47) of all cases reported this week.

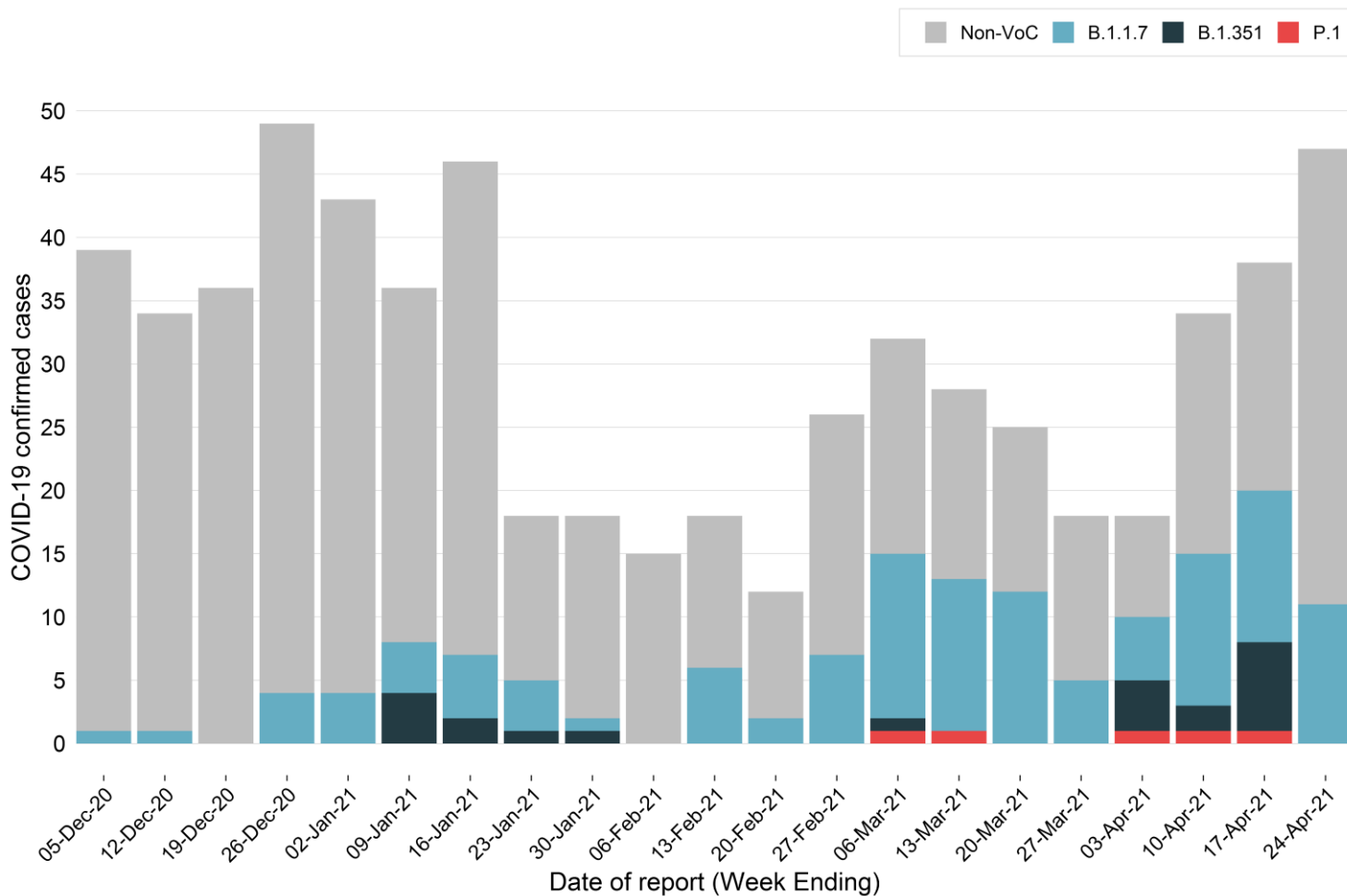
Table 2b. Locally acquired COVID-19 cases by VoC and week reported, NSW, 29 November 2020 to 24 April 2021

	Week ending				29 Nov to 27 Mar	Total since 29 November
	24 Apr*	17 Apr	10 Apr	03 Apr		
Total locally acquired cases	0	4	0	1	220	225
Local cases with VoC	0	4	0	1	2	7
B.1.1.7	0	3	0	1	2	6
B.1.351	0	1	0	0	0	1
% local cases with VoC	0	100%	0	100%	1%	3%

Interpretation: All locally acquired cases diagnosed with COVID-19 in the last four weeks were in hotel quarantine and were reported as having a COVID-19 VoC.

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

Figure 3. Confirmed overseas acquired COVID-19 cases by VoC type, NSW, 29 November to 24 April 2021



Interpretation: Since 29 November 2020 there have been 149 returned travellers diagnosed with a COVID-19 VoC. In the last four weeks 41% (56/137) of overseas acquired cases have been identified as having COVID-19 variants of concern (B.1.1.7, B.1.351 and P1).

Section 3: Locally acquired 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. This section summarises cases based on the date the case was reported to NSW Health.

Table 3. Locally acquired COVID-19 cases by LHD of residence and week reported, NSW, 28 March to 24 April 2021

Local Health District	Week ending				Total	Days since last case reported
	24 Apr	17 Apr	10 Apr	03 Apr		
Central Coast	0	0	0	0	0	116
Illawarra Shoalhaven	0	0	0	0	0	112
Nepean Blue Mountains	0	0	0	0	0	221
Northern Sydney	0	1	0	0	1	8
South Eastern Sydney	0	0	0	0	0	42
South Western Sydney	0	0	0	0	0	106
Sydney	0	0	0	0	0	103
Western Sydney	0	0	0	0	0	98
Far West	0	0	0	0	0	387
Hunter New England	0	3	0	0	3	8
Mid North Coast	0	0	0	0	0	368
Murrumbidgee	0	0	0	0	0	229
Northern NSW	0	0	1	1	1	25
Southern NSW	0	0	0	0	0	187
Western NSW	0	0	0	0	0	268
NSW*	0	4	0	1	5	8

*Includes people with a usual place of residence outside of NSW

Interpretation: In the week ending 24 April, there were no locally acquired cases.

In the week ending the 17 April, three cases in a family of returned travellers in hotel quarantine (with a usual residence in the Hunter New England local health district) likely acquired their infection while in hotel quarantine from a family of cases staying in an adjacent room on level 12 at the Adina Apartments Hotel, Town Hall. Epidemiological investigation, supported by whole genome sequencing results, showed the virus genome sequence found in both families was identical and was the VoC B.1.1.7. Subsequent public health investigation did not identify any community transmission.

In a separate hotel quarantine transmission event, one case in a returned traveller (with a usual residence in the Northern Sydney local health district) likely acquired their infection while in hotel quarantine from a family staying in an adjacent room on level 10 at the Mercure Hotel Sydney. Epidemiological investigation, supported by whole genome sequencing results, showed the virus genome sequence found in the two family members and a third returned traveller was identical and was the VoC B.1.351. Subsequent public health investigation did not identify any community transmission.

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 (generally two days prior to symptom onset until the time of isolation and three days in high-risk settings). Close contacts are quarantined to limit the spread of infection to others and encouraged to seek testing.

Clusters are defined as a group of cases that are infected with the same virus (with the identical genetic sequence) that are linked epidemiologically to each other. This means that a direct source of infection can be identified for each case in the cluster, through contact with a known case where transmission likely occurred.

A case that shares the same virus (with an identical genetic sequence) is not counted as part of the cluster if an epidemiological link to another case in the cluster has not been found. Although the case must have been infected through contact with an infectious person in the cluster, that contact or that infectious person has not been found.

Cases in community settings

There were no cases reported in the last week who were linked to recent clusters.

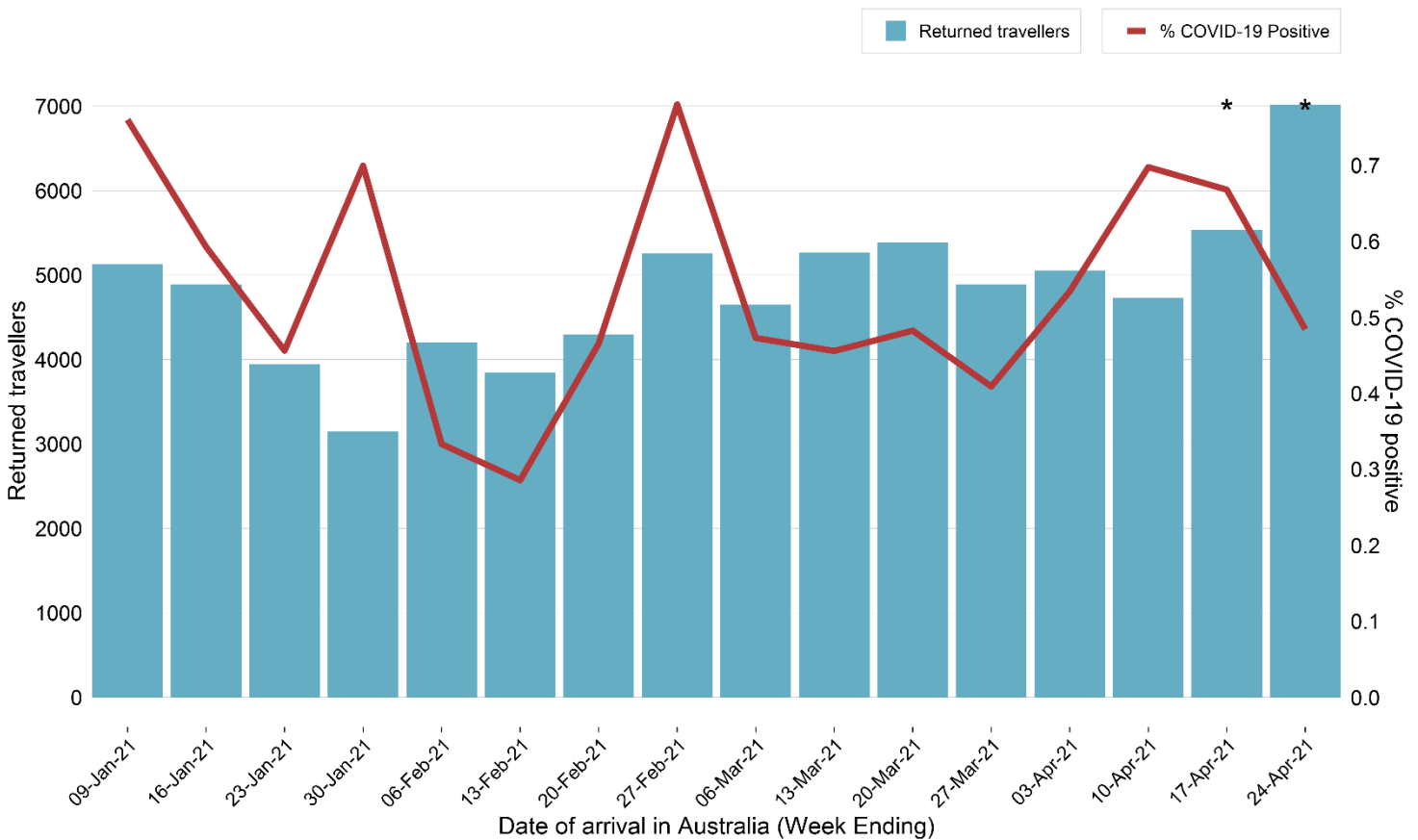
Section 5: COVID-19 in returned travellers

To limit the spread of COVID-19 into NSW, travel restrictions were introduced for all non-Australian citizens and permanent residents in mid-March 2020. In addition:

- From 29 March 2020 returned travellers have been quarantined in hotels for a 14-day period and travellers who develop symptoms are isolated until no longer infectious. Returned travellers are screened on entry and exit from quarantine and following release from quarantine.
- From 22 January 2021 (local time at departure point) all people travelling to Australia on flights must provide proof of a negative COVID-19 PCR test result at the time of check-in.

The figure below shows the number of returned travellers screened at Sydney International Airport since 2021. Returned travellers include international flight crew who are required to be tested before leaving the airport.

Figure 4. Returned travellers screened at Sydney International Airport by week of arrival and percent COVID-19 positive, NSW, 3 January 2021 to 24 April 2021



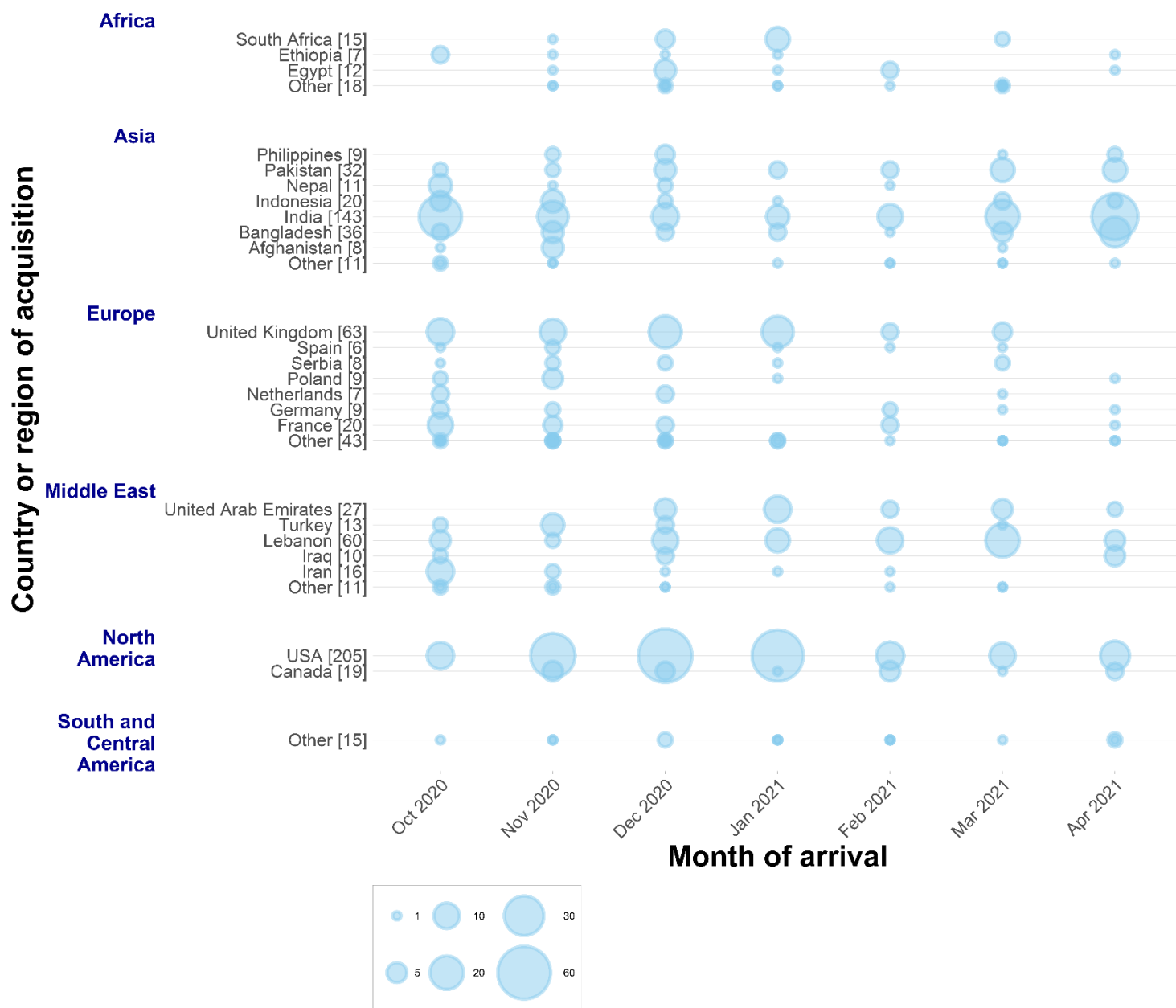
*Returned travellers entering Australia in the past 14 days are still in quarantine and may return a positive result prior to the end of their hotel quarantine period.

Interpretation: Since 3 January 2021, there has been on average 690 people screened on arrival through Sydney International Airport daily. In the last four weeks, 138 returned travellers have subsequently tested positive for COVID-19 while completing quarantine. The proportion of returned travellers who test positive for COVID-19 has remained very low, at less than 1%.

Country of acquisition of COVID-19 for overseas travellers

The following figure displays the countries and regions with the greatest numbers of international travellers diagnosed with COVID-19 in NSW.

Figure 5. Overseas acquired COVID-19 cases by country of acquisition and arrival month, NSW, 1 October 2020 to 24 April 2021



*The number of overseas acquired COVID-19 cases is incomplete for the current month

Interpretation: In March and April 2021, there has been an increase in detections of COVID-19 in travellers from India, Bangladesh and Pakistan. The pattern seen in COVID-positive travellers over time reflects the evolving nature of the pandemic in those areas and the country of origin of returned travellers.

In the last four weeks, there have been 137 COVID-positive travellers in NSW. The table below lists of countries of acquisition for these travellers.

Table 4. Top countries of acquisition for overseas acquired cases that have tested positive in the last four weeks, 28 March to 24 April 2021

Country of acquisition of COVID-19	Number (%) of cases in the last four weeks
India	48 (35%)
Bangladesh	19 (14%)
United States of America	14 (10%)
Pakistan	8 (6%)
Lebanon	7 (5%)
Iraq	5 (4%)
Canada	4 (3%)
United Arab Emirates	3 (2%)
Indonesia	2 (1%)
Papua New Guinea	2 (1%)
Peru	2 (1%)
Philippines	2 (1%)
Other	21 (15%)
Total	137

Interpretation: In the last four weeks, travellers returning from India accounted for the largest number of overseas acquired cases (48, 35%), followed by travellers returning from Bangladesh (19, 14%), and the United States of America (14, 10%).

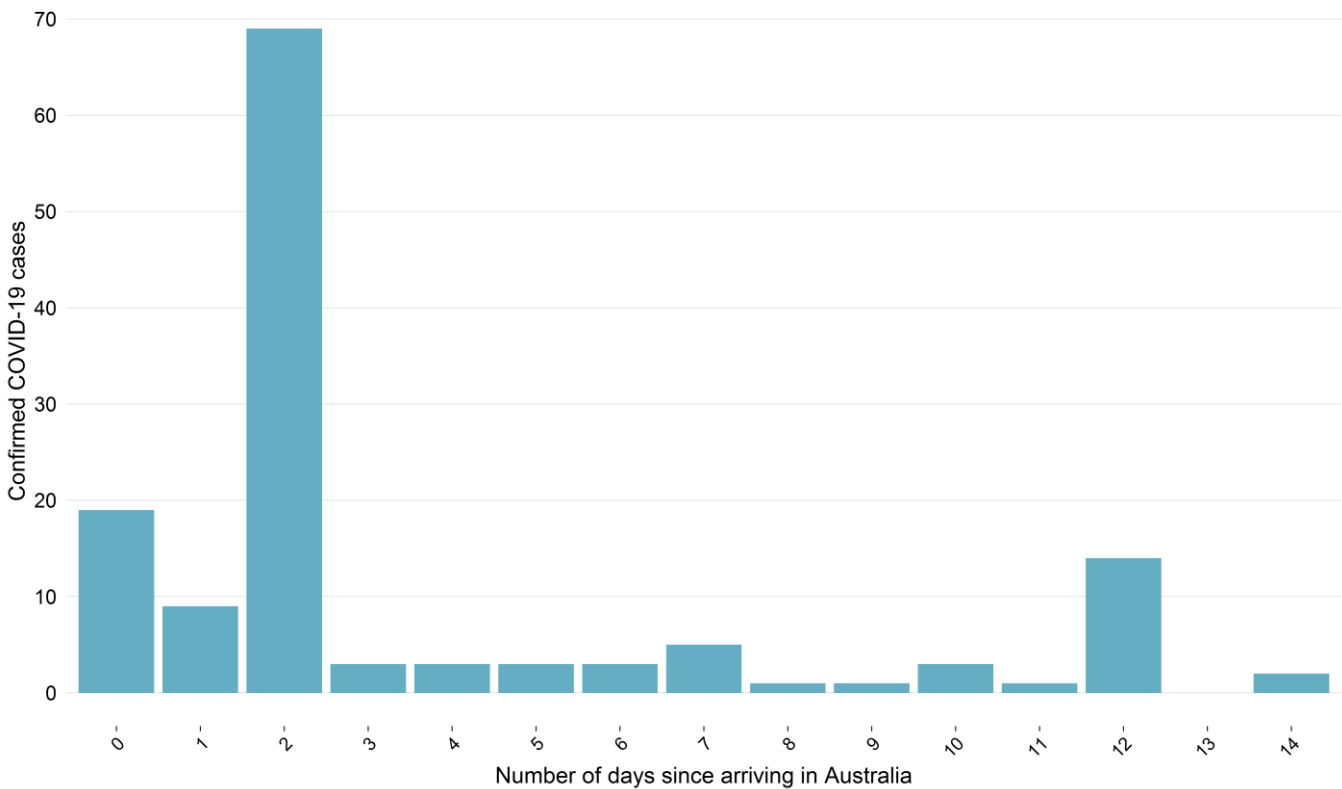
Cases among returned travellers in quarantine

The program of screening all overseas travellers after arrival in NSW commenced on 15 May 2020. From 30 June 2020, the program was extended to include screening of travellers on entry to quarantine, day 2 after arrival, and exit of quarantine. On 11 January 2021, exit screening of travellers was moved from day 10 to day 12 of quarantine. Testing is also carried out on individuals that became symptomatic in addition to these two tests, including those that are symptomatic on arrival.

Overseas returned travellers complete their quarantine in several facilities with majority of people in police-managed hotels or hotels managed by NSW Health (known as Special Health Accommodation). Since September 2020 international flight crew are also required to quarantine in police-managed hotels.

The figure below shows the number of overseas acquired cases in returned travellers within the quarantine program, by the number of days since they arrived in Australia. Overseas acquired cases include people with likely exposure overseas, in flight or who are household-like contacts of overseas acquired cases within hotel quarantine.

Figure 6. Number of overseas acquired cases in the last four weeks who tested positive for SARS-CoV-2 during the 14-day quarantine period, by days since arrival in NSW, 28 March to 24 April 2021



Interpretation: In the four weeks ending 24 April 2021, 71% of overseas acquired COVID-19 cases have tested positive within 2 days of arriving to Australia, with most people testing positive on day 2 screening.

Section 6: COVID-19 vaccination status

COVID-19 vaccinations began in Australia on 22 February 2021. The first people to receive the COVID-19 vaccines are priority groups who are at a higher risk of COVID-19 including quarantine and border workers, frontline healthcare workers, and aged and disability care residents and staff.

There are a range of vaccines, with variable efficacy, currently being administered worldwide. People receiving vaccines are considered fully vaccinated two weeks after they complete the recommended course for that vaccine. Both vaccines being administered in Australia, Pfizer-BioNTech and AstraZeneca, and many from overseas such as Moderna and Sinovac, recommend a two-dose course. There is one single dose vaccine course currently being administered, the Johnson & Johnson vaccine in the USA.

The tables below show the number COVID-19 cases, by the number of self-reported COVID-19 vaccine doses received. The number of cases reported as fully vaccinated refers to vaccination being completed 14 days prior to known exposure to COVID-19 or 14 days prior to arrival in Australia.

Table 5a. Overseas acquired COVID-19 cases by number of self-reported COVID-19 vaccine doses received and week reported, NSW, 1 March to 24 April 2021

Number of self-reported vaccination doses received	Week ending				1 Mar to 27 Mar	Total since 1 March 2021
	24 Apr	17 Apr	10 Apr	03 Apr		
Total overseas acquired cases	47	38	34	18	97	234
Two doses	2	1	2	0	0	5
One dose	6	3	0	0	4	13
None	38	32	30	18	89	207
Unknown	1	2	2	0	4	9
Number (%) cases fully vaccinated	2 (4%)	1 (3%)	0	0	0	3 (1%)

Interpretation: Since 1 March 2021, three cases reported being fully vaccinated prior to arrival in Australia, although may not have been fully vaccinated prior to being exposed to COVID-19.

Table 5b. Locally acquired COVID-19 cases by number of self-reported COVID-19 vaccine doses received and week reported, NSW, 1 March to 24 April 2021

Number of self-reported vaccination doses received	Week ending				1 Mar to 27 Mar	Total since 1 March 2021
	24 Apr	17 Apr	10 Apr	03 Apr		
Total locally acquired cases	0	4	0	1	2	7
Two doses	0	0	0	0	0	0
One dose	0	1	0	0	1	2
None	0	3	0	1	1	5
Unknown	0	0	0	0	0	0
Number (%) cases fully vaccinated	0	0	0	0	0	0

Interpretation: No locally acquired cases since 1 March 2021 reported being fully vaccinated.

Section 7: COVID-19 in specific populations

Aboriginal people

Aboriginal and Torres Strait Islander communities are recognised as a priority group due to key drivers of increased risk of transmission and severity of COVID-19 which include mobility, remoteness, barriers to access including institutional racism and mistrust of mainstream health services, crowded and inadequate housing, and burden of disease.

In total, 48 Aboriginal people have been diagnosed with COVID-19, representing 1% of all cases in NSW. 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 3 April 2021, with Aboriginal status ascertained for approximately 90% of all COVID-19 test records.

Healthcare workers

The following describes infections of COVID-19 in healthcare workers (HCWs). HCWs in this section includes roles such as doctor, nurse, orderly, paramedic, laboratory technician, pharmacist, administrative staff, cleaners, and other support staff. Public health units routinely undertake investigations of COVID-19 cases in healthcare workers to identify ongoing risks in healthcare settings.

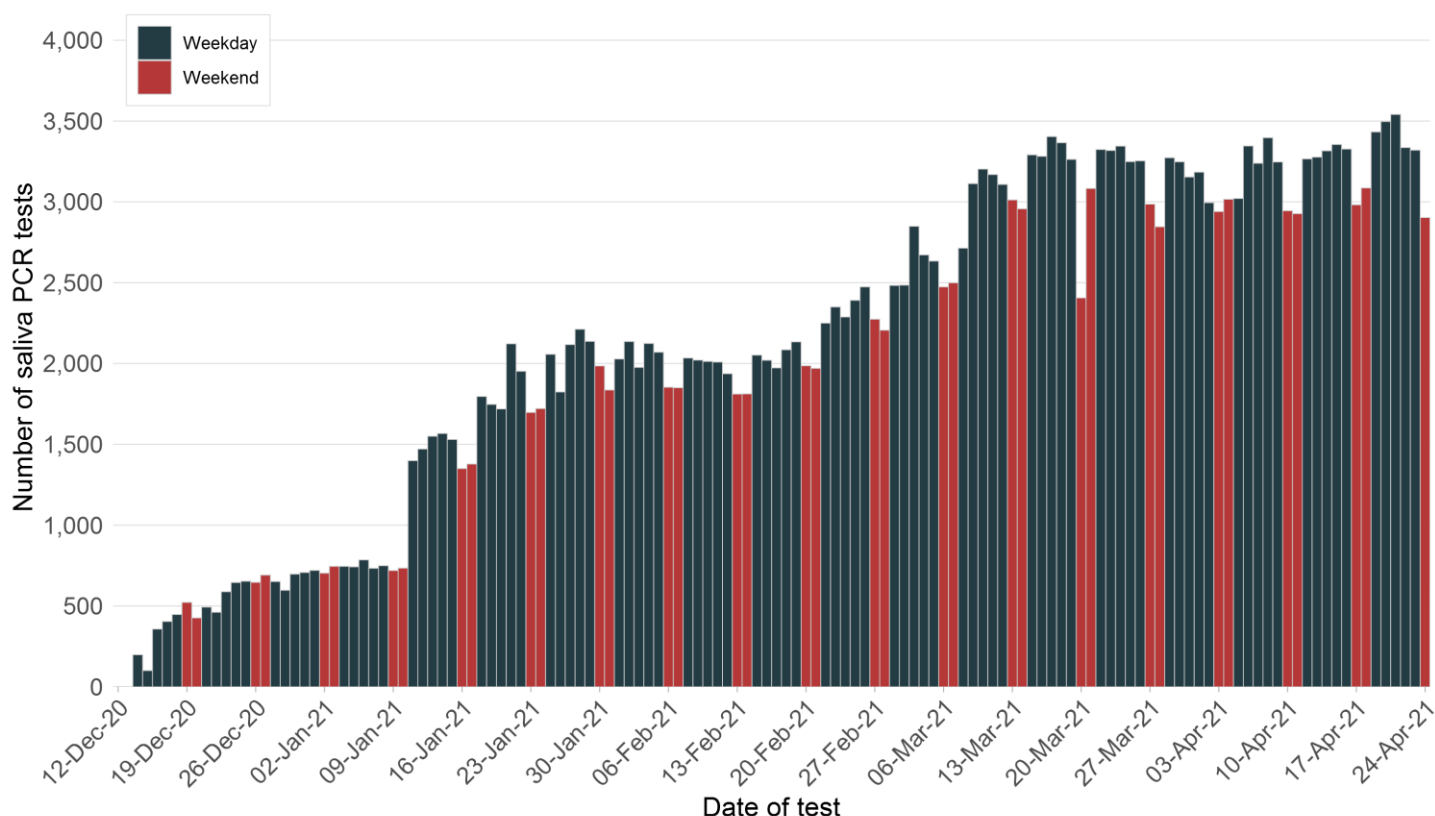
There were no locally acquired cases of COVID-19 reported in HCWs in the week ending 24 April.

In total, there have been 48 cases of COVID-19 in health care workers since 1 August 2020. Of these, 25 HCWs were potentially infected in healthcare settings. A further nine cases were social or household contacts of a known case, eight were exposed in community settings, and for six cases the source of infection is unknown. Prior to August 2020, there were 206 cases identified in HCWs who had worked in a health facility in the 14 days prior to symptom onset or date of testing (see [COVID-19 in healthcare workers in NSW](#)).

Border and quarantine workers – saliva testing screening program

As the number of COVID-19 cases rise across the world and more people return to Australia from overseas, increased numbers of COVID-19 cases are seen in returned overseas travellers in quarantine facilities. Routine screening of quarantine workers is implemented out of care and caution for staff members who work in NSW quarantine facilities. Screening involves a daily SARS-CoV-2 saliva PCR testing, which is painless and quick (see [NSW hotel quarantine worker surveillance and testing program](#)).

Figure 7. Daily numbers of saliva PCR test results reported for border and quarantine workers, NSW, 12 December 2020 to 24 April 2021



* The number of saliva PCR tests on 24 April 2021 is incomplete due to delays in reporting negative results.

Interpretation: Since screening of quarantine workers began in December 2020, a total of 279,409 saliva PCR tests have been conducted. The number of saliva PCR tests increased significantly on 11 January 2021, which corresponds to the expansion of the NSW quarantine hotel worker surveillance and testing program. One confirmed case of COVID-19 has been reported through saliva PCR testing, reported on 13 March 2021.

The daily number of saliva PCR tests is not included in the total PCR testing numbers reported.

Section 8: COVID-19 deaths

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

Since the start of the pandemic, 1.1% of cases (56 people) have died as a result of COVID-19, most of whom were 70 years of age or older, including 28 residents of aged care facilities with known COVID-19 outbreaks. Approximately 21% (12/56) of the deaths were in overseas acquired cases.

There were no deaths reported in the week ending 24 April.

Table 6. Deaths as a result of COVID-19, by age group, NSW, from 25 January 2020 to 24 April 2021

Age group (years)	Number of deaths	Number of cases	Case fatality rate
0–4	0	127	0%
5–11	0	127	0%
12–17	0	164	0%
18–29	0	1,184	0%
30–49	0	1,724	0%
50–59	1	700	0.1%
60–69	4	654	0.6%
70–79	15	390	3.8%
80+	36	164	22.0%
Total	56	5,234	1.1%

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

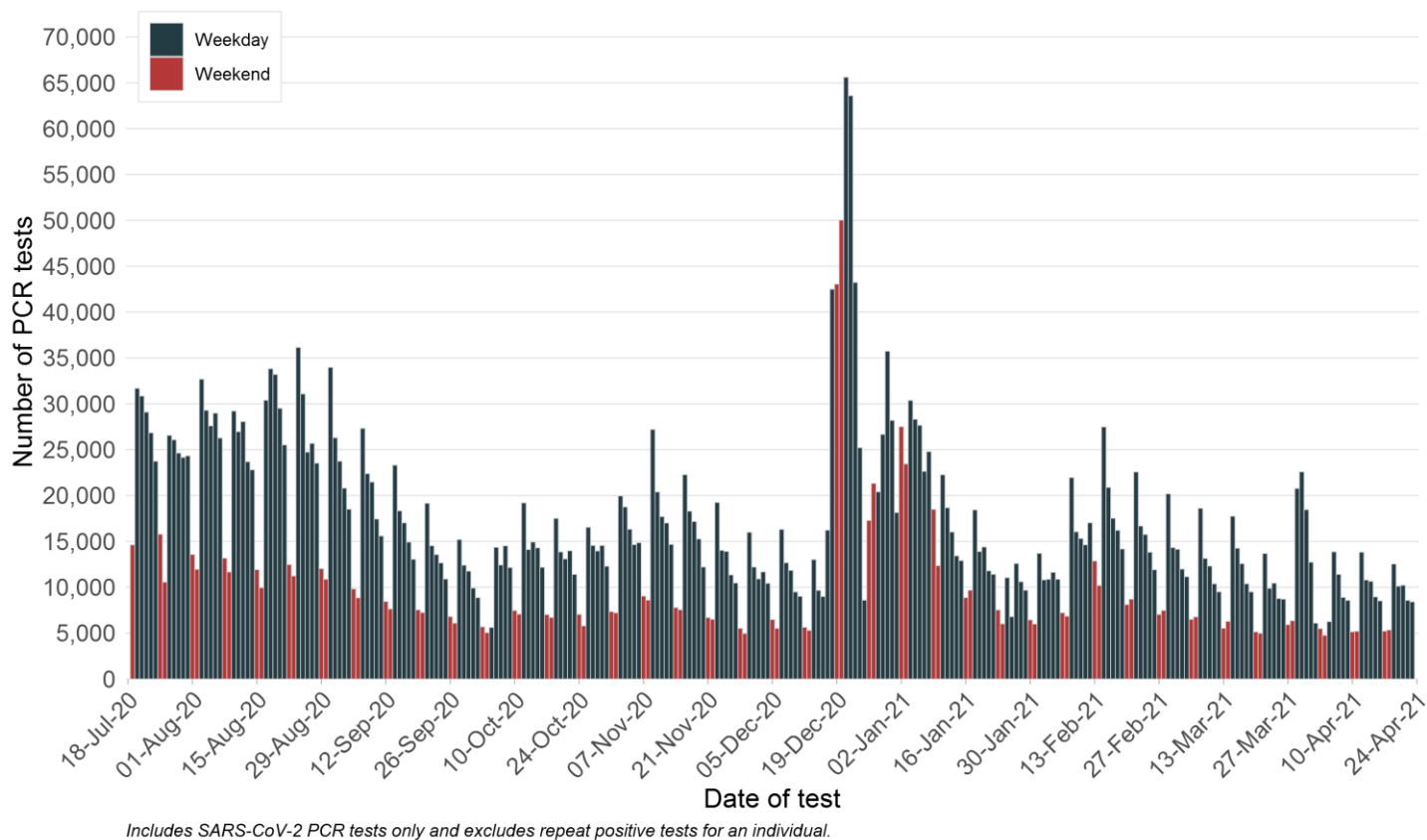
Section 9: COVID-19 testing in NSW

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.¹ While public health facilities are generally open seven days a week, there may be less demand and availability for testing through GPs and private collection centres on weekends and public holidays. This likely explains lower testing numbers on weekends.

The PCR testing numbers reported are for tests performed on nose and throat swabs. Saliva PCR tests are not included, these are reported in the “Quarantine workers – Screening Program” section on page 11.

Figure 8. Number of PCR tests per day, NSW, 11 July 2020 to 24 April 2021

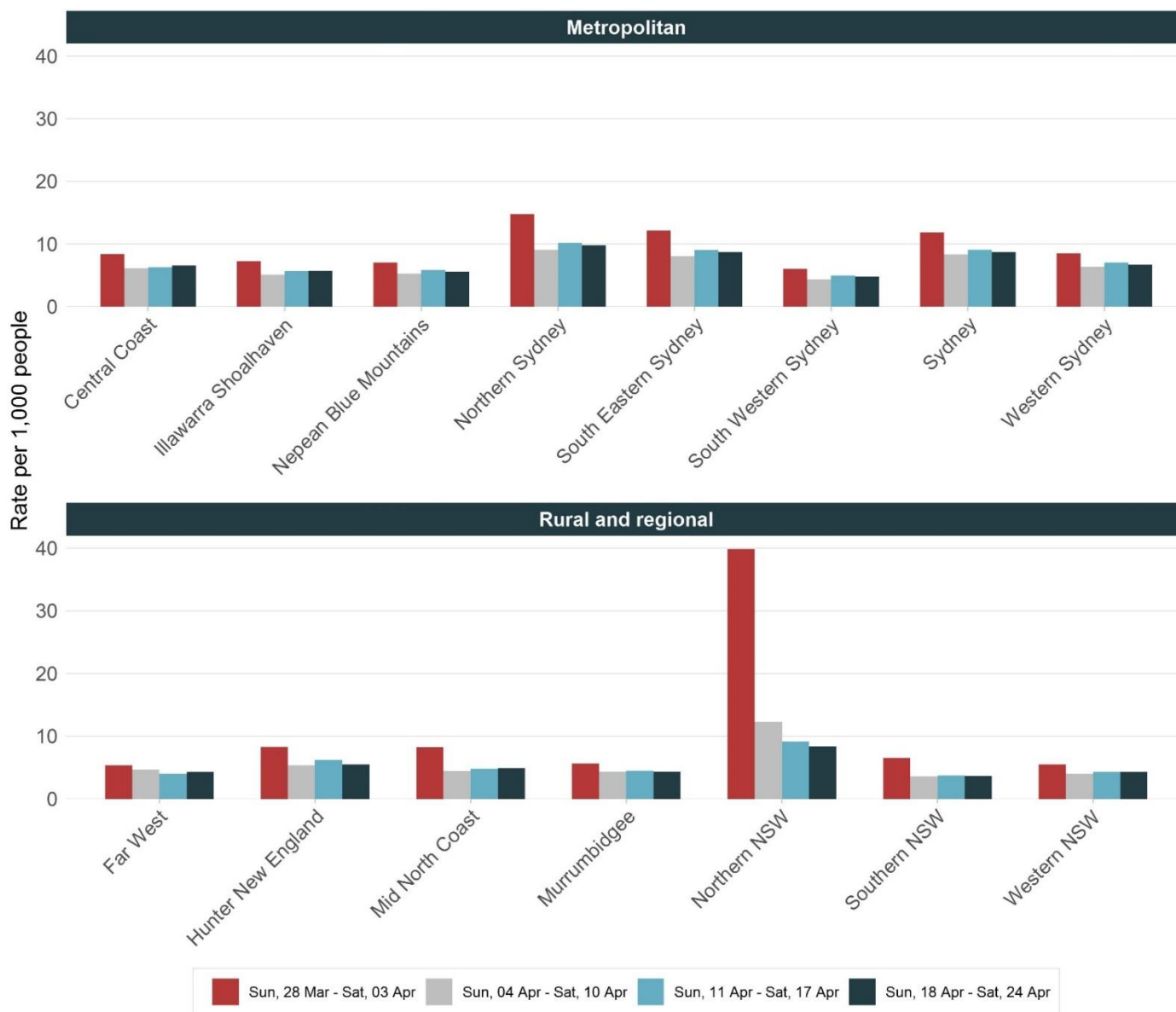


Interpretation: Testing numbers decreased slightly in the week ending 24 April (down 4%) compared to the previous week. The average daily testing rate remained stable and was 1.1 per 1,000 people in NSW compared to the previous week.

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.

Testing by Local Health District

Figure 9. Rates of COVID-19 testing by LHD of residence, NSW, 28 March to 24 April 2021

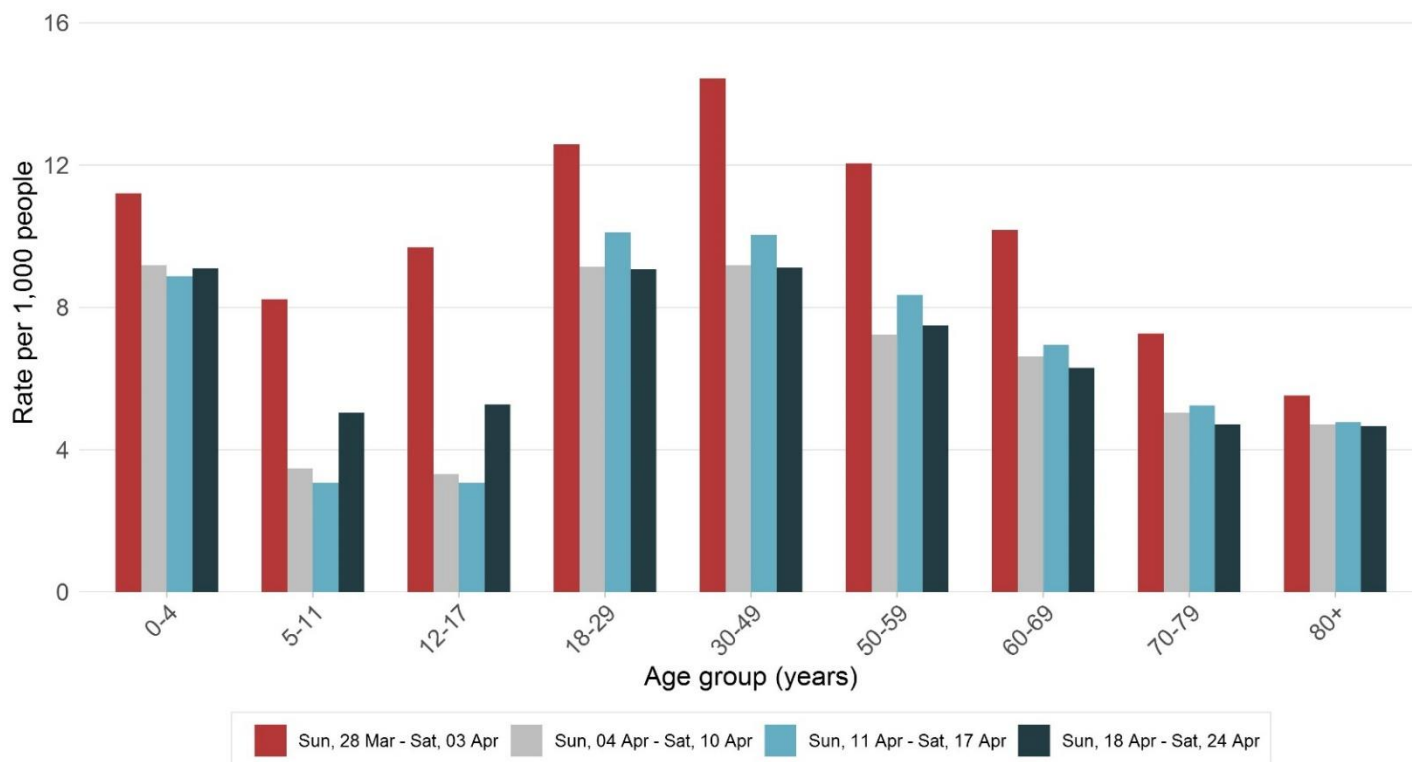


Includes SARS-CoV-2 PCR tests only and excludes notifications with missing postcode of residence.

Interpretation: State-wide testing rates in the week ending 24 April decreased slightly when compared to the previous week (7.5 per 1,000 people compared to 7.8 per 1,000 people).

Testing by age group

Figure 10. Rates of COVID-19 testing by age group and week, NSW, 28 March to 24 April 2021



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

Interpretation: In the week ending 24 April, testing rates remained stable for most age groups. There were increases observed in testing rates in school aged children, which corresponds with the return to school following holidays.

Section 10: NSW Sewage Surveillance Program

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

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

The table below shows results for the last 10 weeks for sites that have had detections. The results from all sites across NSW are available in Appendix D. Rozelle Sewage Network has been added as a new site within the Bondi catchment.

Table 7. Locations with SARS-CoV-2 detections in sewage samples in the last 10 weeks, NSW, 24 January 2021 to 24 April 2021

		20-Feb	27-Feb	6-Mar	13-Mar	20-Mar	27-Mar	3-Apr	10-Apr	17-Apr	24-Apr
Pop.	Location	7	8	9	10	11	12	13	14	15	16
Sydney sewage treatment plant (inlet sites)											
318,810	Bondi		n	n	n	n	n	n	n	n	n
1,857,740	Malabar 1		n	n	n	n	n	n	n	n	n
161,200	Glenfield										
1,341,986	North Head	n	n								
Sydney network sites											
Bondi	Paddington Sewage Network										
Malabar	Homebush SPS										
Malabar	Olympic Park										
Malabar	Botany Sewage Network										
North Head	Auburn Sewage Network										
North Head	Allambie Heights Sewage Network										
Regional sites											
225,834	Hunter – Burwood Beach										
15,500	Merimbula										
7,700	Lennox Head										

Sampling commenced week ending 18 July 2020

	not sampled or analysed
	SARS-CoV-2 not detected
	SARS-CoV-2 detected
	site moved to composite sample or ceased
SPS	Sewage Pumping Station
n	result from network sites

Interpretation: In the week ending 24 April, 145 sewage samples were tested for fragments of SARS-CoV-2. Of these, there were seven detections – taken from the Bondi, Malabar, Merimbula and Burwood Beach treatment plants, and the sewage network at Paddington (within the Bondi catchment), Botany (within the Malabar catchment) and Allambie Heights (within the North Head catchment). Although no active cases were identified in Merimbula, Burwood Beach and Allambie Heights sewage catchment areas, the detections may indicate the presence of people in the community who are no longer infectious but have recently tested positive for COVID-19. People can continue to shed fragments of the virus for several weeks.

Section 11: Other respiratory infections in NSW

Influenza and other respiratory virus cases and tests reported in NSW, up to 18 April 2021

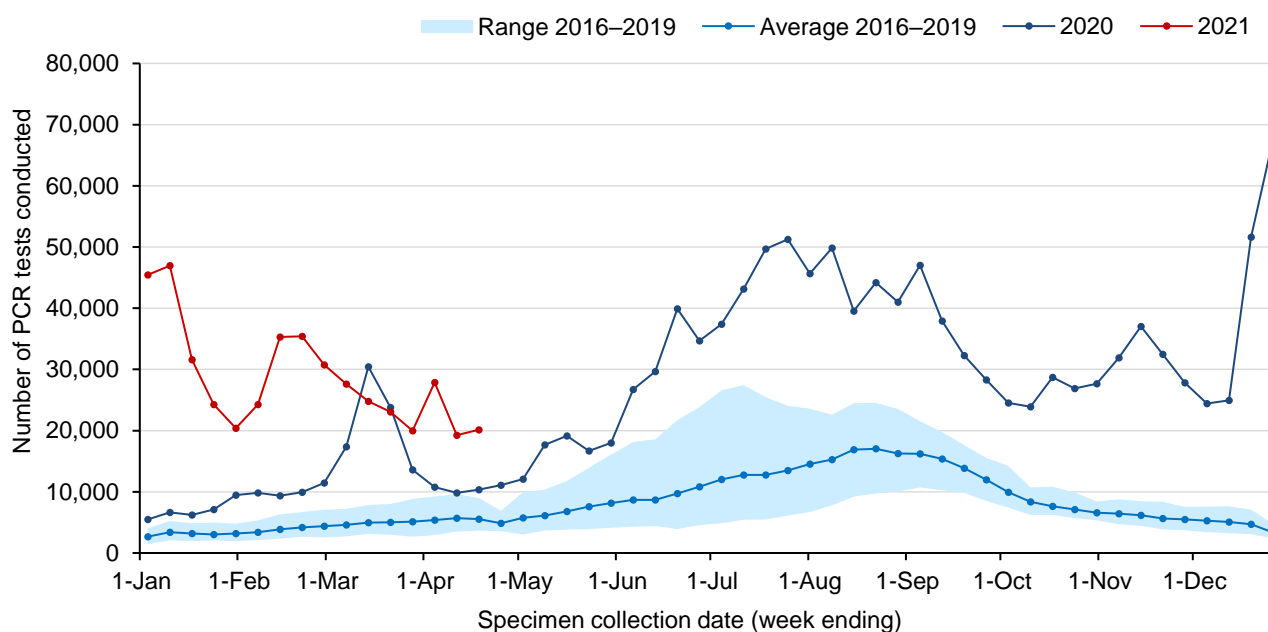
In NSW, routine surveillance for influenza and other respiratory viruses is conducted through sentinel laboratories. The number of all PCR tests (positive and negative) are provided to NSW Health by participating laboratories each week. Testing counts reflect the number of influenza PCR tests conducted;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

The most recent data available is for testing carried out to 18 April 2021. A total of 457,005 influenza tests have been performed at participating laboratories from 28 December 2020. 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 in 2021, the dark blue line showing PCR tests for 2020. The light blue line shows the average number of PCR tests carried out for the same week in the previous four years (2016–2019) and the shaded area shows the range of tests reported in the same time period.

Figure 12. Testing for influenza by week, NSW, 1 January 2016 to 18 April 2021

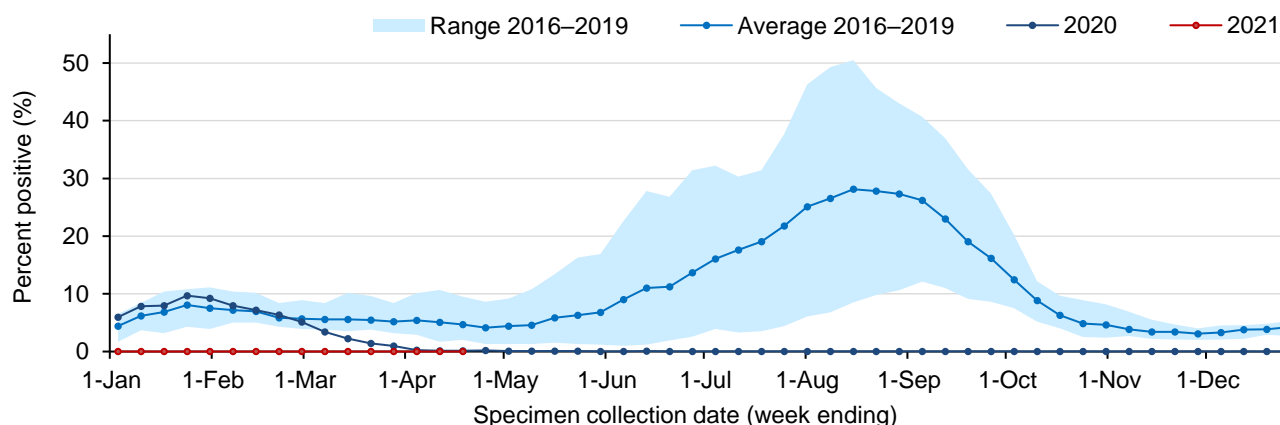


Interpretation: In the week ending 18 April, the number of influenza tests increased with 20,109 influenza tests performed across participating laboratories compared with 19,253 the previous week. Testing for influenza continues to exceed the four-year average for this time of year.

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 2021, the dark blue line showing counts for 2020, the light blue line showing the average for 2016 to 2019 and the shaded area showing the range recorded for 2016 to 2019.

Figure 13. Proportion of tests positive for influenza, NSW, 1 January 2016 to 18 April 2021

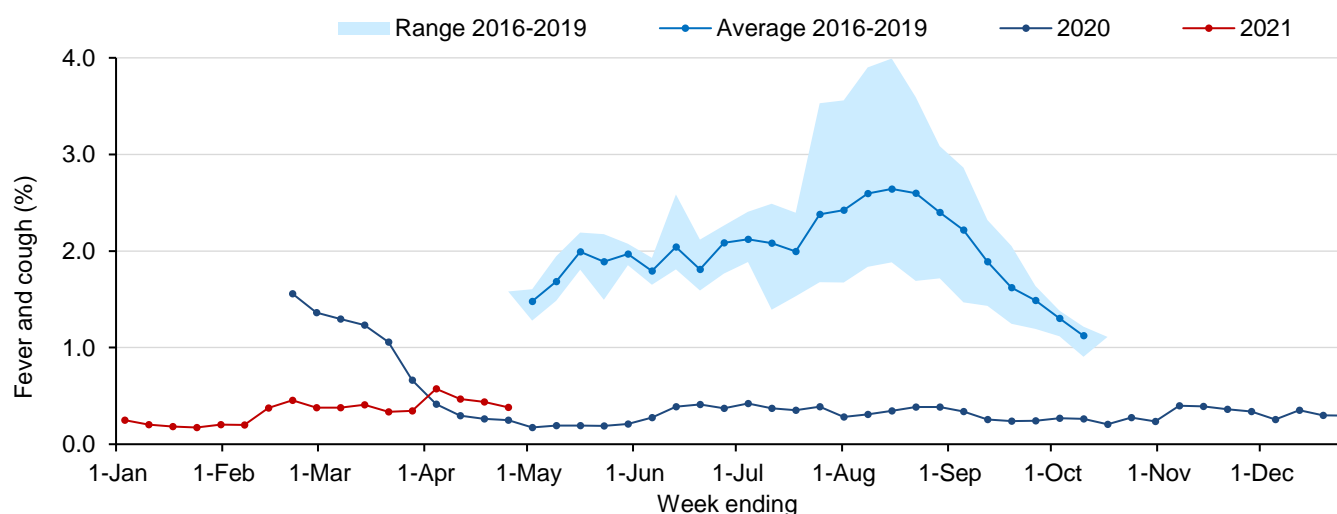


Interpretation: In the week ending 18 April, the percent of influenza tests that were positive continued to be very low (<0.01%), indicating limited influenza transmission in the community. Since early March 2020, this percentage has remained far lower than the usual range for the time of year.

How many people have flu-like symptoms in the community?

FluTracking is an online survey that asks participants to report flu-like symptoms, such as fever or cough, in the last week. Across NSW approximately 25,000–30,000 people participate each week. The survey usually commences at the beginning of May in line with the flu season but has continued throughout the year due to the COVID-19 outbreak.

Figure 14. Proportion of FluTracker participants reporting influenza-like illness, NSW, 1 January 2016 to 25 April 2021



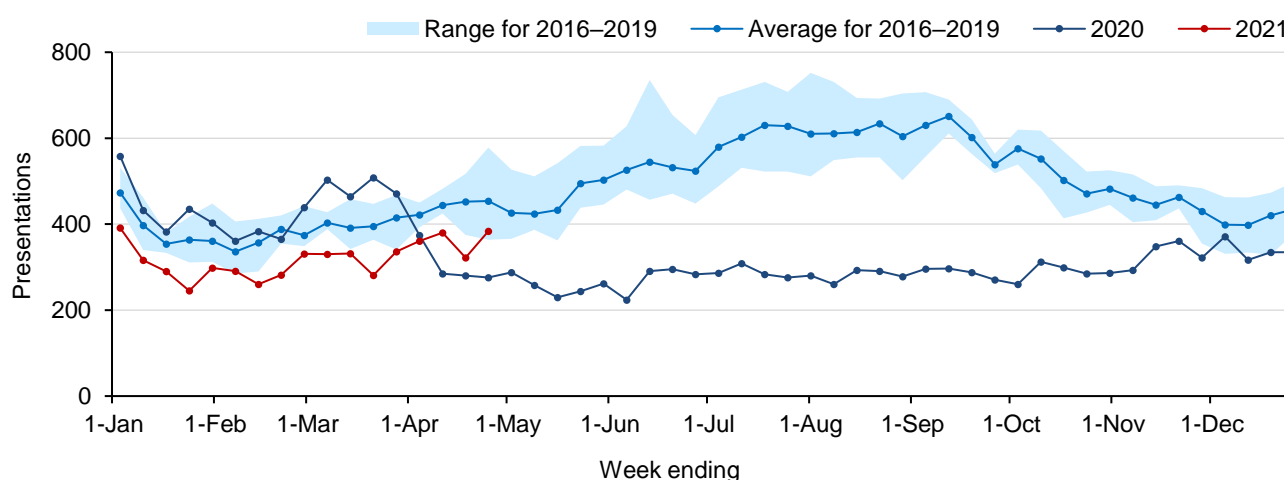
Interpretation: In NSW in the week ending 25 April of the 18,676 people surveyed, 71 people (0.38%) reported flu-like symptoms. In the last four weeks, 44% (172/392) of new cases of flu-like illness reported having a COVID-19 test. The proportion of people being tested for COVID-19 has been steadily decreasing since January when 80% of people surveyed with flu-like symptoms were being tested.

How are emergency department presentations tracking?

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

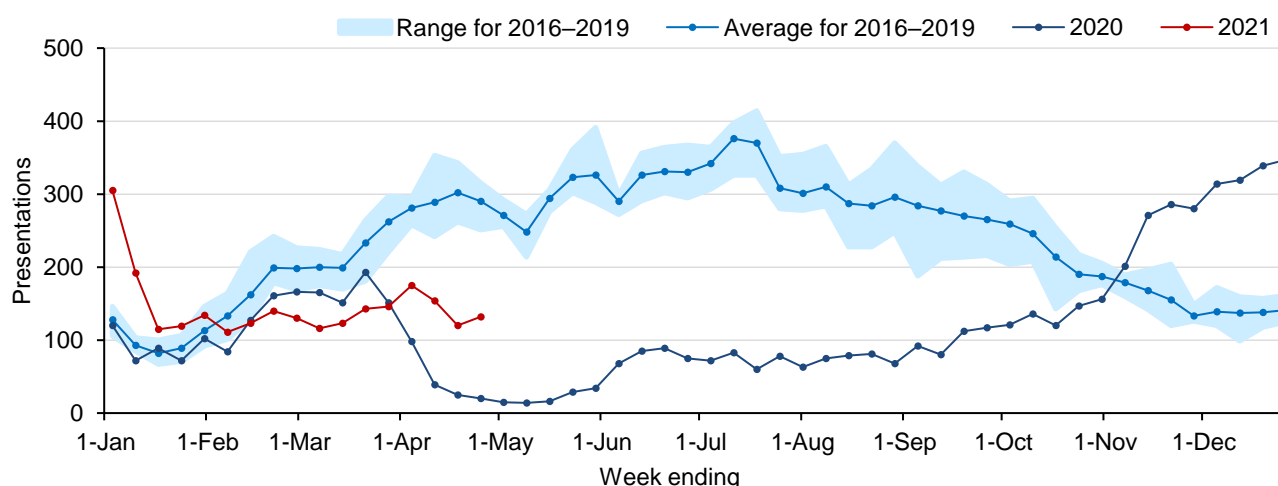
The figures below show weekly pneumonia and bronchiolitis presentations to Emergency Departments in NSW, using PHREDSS². The red line shows the weekly counts for 2021, the dark blue line showing counts for 2020, the light blue line showing the average for 2016 to 2019 and the shaded area showing the range recorded for 2016 to 2019.

Figure 15. Emergency Department pneumonia presentations, NSW, 1 January 2016 to 25 April 2021



Interpretation: Pneumonia presentations include people with diagnoses of viral, bacterial, atypical or unspecified pneumonia, and Legionnaires' disease, but excludes 'pneumonia with influenza' and provides an indicator of more severe respiratory conditions. In the week ending 25 April, pneumonia presentations increased into the seasonal range for this time of year.

Figure 16. Emergency Department bronchiolitis presentations, NSW, 1 January 2016 to 25 April 2021



Interpretation: Bronchiolitis is a common disease of infants often caused by respiratory syncytial virus (RSV). Public health measures introduced last year around social distancing and improved hygiene practices coincided with a large decrease in bronchiolitis presentations for the majority of 2020. A rise in bronchiolitis presentations in the later part of 2020 corresponds to an increase in RSV detections. In the week ending 25 April, bronchiolitis presentations remain below the seasonal range for this time of year.

² NSW Health Public Health Rapid, Emergency Disease and Syndromic Surveillance (PHREDSS) system, CEE, NSW Ministry of Health. Comparisons are made with data for the preceding 5 years. Includes unplanned presentations to 67 NSW emergency departments (accounts for 87% of total public ED activity).

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

Local Health District	Local Government Area	Week ending				Total since January 2021	
		24-April		17-April		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	2305	6.53	2235	6.33	204934	580.77
	Balranald	2	0.86	9	3.85	681	291.27
	Broken Hill	91	5.21	74	4.23	9130	522.34
Far West	Central Darling	8	4.35	7	3.81	550	299.08
	Wentworth	29	4.11	30	4.25	3328	471.86
	LHD Total ²	130	4.31	120	3.98	13689	454.12
	Armidale Regional	175	5.69	187	6.08	14422	468.57
	Cessnock	186	3.1	216	3.6	21303	355.14
	Dungog	46	4.88	45	4.78	3496	371.01
	Glen Innes Severn	17	1.92	37	4.17	2622	295.57
	Gunnedah	47	3.71	45	3.55	4525	356.83
	Gwydir	10	1.87	14	2.62	980	183.07
	Inverell	72	4.26	78	4.62	5904	349.56
	Lake Macquarie	1315	6.39	1559	7.57	125975	611.82
	Liverpool Plains	32	4.05	26	3.29	2921	369.61
	Maitland	593	6.96	717	8.42	57027	669.6
	Mid-Coast	353	3.76	317	3.38	33929	361.58
Hunter New England	Moree Plains	28	2.11	40	3.02	4152	313.1
	Muswellbrook	67	4.09	62	3.79	6286	383.83
	Narrabri	21	1.6	33	2.51	3526	268.44
	Newcastle	1354	8.18	1504	9.08	122864	742.06
	Port Stephens	356	4.84	419	5.7	39484	537.34
	Singleton	121	5.16	181	7.71	13037	555.69
	Tamworth Regional	311	4.97	344	5.5	31229	499.34
	Tenterfield	21	3.18	21	3.18	1622	245.98
	Upper Hunter Shire	39	2.75	50	3.53	5748	405.36
	Uralla	36	5.99	18	2.99	1761	292.91
	Walcha	12	3.83	16	5.11	1281	408.74
	LHD Total ²	5206	5.47	5925	6.22	503693	528.88
	Kiama	151	6.46	125	5.35	14509	620.41
Illawarra Shoalhaven	Shellharbour	419	5.72	411	5.61	44181	603.29
	Shoalhaven	428	4.05	441	4.17	48713	461.09
	Wollongong	1419	6.51	1393	6.39	140780	645.44
	LHD Total ²	2417	5.76	2370	5.65	248183	591.46
	Bellingen	68	5.23	66	5.08	5560	427.82
	Coffs Harbour	337	4.36	388	5.02	29413	380.62
Mid North Coast	Kempsey	150	5.04	147	4.94	12787	429.89
	Nambucca	61	3.08	84	4.24	6962	351.53
	Port Macquarie-Hastings	482	5.7	395	4.67	37422	442.73
	LHD Total ²	1098	4.87	1080	4.79	92144	408.32

Local Health District	Local Government Area	Week ending				Total since January 2021	
		24-April		17-April		No.	Tests per 1,000 population
		No.	Tests per 1,000 population	No.	Tests per 1,000 population		
Murrumbidgee	Albury	285	5.24	301	5.54	25170	463.08
	Berrigan	12	1.37	10	1.14	2447	279.66
	Bland	11	1.84	12	2.01	1978	331.21
	Carrathool	2	0.71	2	0.71	438	156.48
	Coolamon	15	3.46	12	2.76	1764	406.36
	Cootamundra-Gundagai Regional	39	3.47	35	3.12	4007	356.65
	Edward River	26	2.86	35	3.85	3356	369.44
	Federation	48	3.86	67	5.39	4143	333.12
	Greater Hume Shire	46	4.27	44	4.09	4296	399.11
	Griffith	125	4.62	152	5.62	12356	457.14
	Hay	2	0.68	2	0.68	686	232.62
	Hilltops	68	3.64	73	3.9	7203	385.1
	Junee	9	1.35	23	3.44	1875	280.56
	Lachlan ¹	4	0.66	5	0.82	1238	203.79
	Leeton	34	2.97	25	2.18	3635	317.61
	Lockhart	11	3.35	7	2.13	1049	319.33
	Murray River	3	0.25	8	0.66	1087	89.7
	Murrumbidgee	11	2.81	15	3.83	1085	277
	Narrandera	8	1.36	11	1.86	1427	241.91
	Snowy Valleys	50	3.45	59	4.07	5605	387.11
Temora	14	2.22	10	1.59	1695	268.75	
Wagga Wagga	481	7.37	428	6.56	36078	552.85	
<i>LHD Total²</i>	1301	4.36	1332	4.47	121786	408.53	
Nepean Blue Mountains	Blue Mountains	522	6.6	519	6.56	61769	780.72
	Hawkesbury	392	5.83	368	5.47	42131	626.06
	Lithgow	72	3.33	63	2.92	8683	401.9
	Penrith	1225	5.75	1368	6.42	148987	699.55
	<i>LHD Total²</i>	2198	5.62	2304	5.89	259532	663.79
Northern NSW	Ballina	1247	27.94	1256	28.14	28663	642.26
	Byron	288	8.21	310	8.84	24097	686.9
	Clarence Valley	186	3.6	231	4.47	16532	320
	Kyogle	26	2.96	29	3.3	2679	304.57
	Lismore	258	5.9	308	7.05	23217	531.38
	Richmond Valley	115	4.9	120	5.11	10214	435.29
	Tenterfield	21	3.18	21	3.18	1622	245.98
	Tweed	477	4.92	564	5.81	38091	392.69
<i>LHD Total²</i>	2602	8.38	2821	9.09	143858	463.52	
Northern Sydney	Hornsby	1112	7.31	1153	7.58	99962	657.39
	Hunters Hill	219	14.62	214	14.29	22332	1490.79
	Ku-ring-gai	1485	11.68	1423	11.19	131730	1036
	Lane Cove	672	16.74	734	18.28	63488	1581.07
	Mosman	302	9.75	321	10.36	26939	869.53
	North Sydney	703	9.37	707	9.42	49690	662.35
	Northern Beaches	2827	10.34	2795	10.22	336104	1228.9

Local Health District	Local Government Area	Week ending				Total since January 2021	
		24-April		17-April		No.	Tests per 1,000 population
		No.	Tests per 1,000 population	No.	Tests per 1,000 population		
	Parramatta ¹	1765	6.86	1871	7.27	146723	570.47
	Ryde	1094	8.33	1286	9.8	93047	708.82
	Willoughby	570	7.02	683	8.41	51175	630.32
	<i>LHD Total²</i>	9370	9.8	9700	10.15	904250	945.95
South Eastern Sydney	Bayside	1158	6.49	1296	7.26	96993	543.69
	Georges River	867	5.44	906	5.68	82581	517.84
	Randwick	1501	9.64	1594	10.24	132084	848.6
	Sutherland Shire	1805	7.83	1864	8.08	171334	742.96
	Sydney ¹	2997	12.17	3095	12.56	216496	878.84
	Waverley	873	11.75	933	12.56	75703	1018.95
	Woollahra	957	16.11	954	16.06	65251	1098.74
	<i>LHD Total²</i>	8358	8.71	8686	9.06	702479	732.44
South Western Sydney	Camden	735	7.25	730	7.2	88926	876.66
	Campbelltown	1049	6.14	1097	6.42	119918	701.51
	Canterbury-Bankstown ¹	2024	5.36	2077	5.5	209578	554.56
	Fairfield	684	3.23	732	3.46	92688	437.84
	Liverpool	1041	4.57	1111	4.88	145373	638.76
	Wingecarribee	333	6.51	364	7.12	38093	744.96
	Wollondilly	223	4.2	192	3.61	25506	479.9
	<i>LHD Total²</i>	4971	4.79	5168	4.98	613044	590.3
Southern NSW	Bega Valley	124	3.6	120	3.48	13511	391.9
	Eurobodalla	162	4.21	170	4.42	20549	534.11
	Goulburn Mulwaree	135	4.34	134	4.3	14340	460.62
	Queanbeyan-Palerang Regional	200	3.27	198	3.24	20084	328.71
	Snowy Monaro Regional	83	3.99	87	4.18	8659	416.4
	Upper Lachlan Shire	41	5.09	34	4.22	3206	397.82
	Yass Valley	47	2.75	59	3.45	4867	284.84
	<i>LHD Total²</i>	792	3.65	803	3.7	85247	392.71
Sydney	Burwood	207	5.1	217	5.34	19619	483.08
	Canada Bay	826	8.6	822	8.56	75134	782.04
	Canterbury-Bankstown ¹	2024	5.36	2077	5.5	209578	554.56
	Inner West	1787	8.9	1805	8.99	174067	866.82
	Strathfield	370	7.88	442	9.42	34432	733.75
	Sydney ¹	2997	12.17	3095	12.56	216496	878.84
	<i>LHD Total²</i>	6085	8.73	6340	9.1	544214	781.05
Western NSW	Bathurst Regional	219	5.02	203	4.65	24050	551.38
	Blayney	22	2.98	33	4.47	3951	535.44
	Bogan	12	4.65	6	2.33	1061	411.24
	Bourke	3	1.16	9	3.47	645	249.03
	Brewarrina	5	3.1	3	1.86	369	229.05
	Cabonne	50	3.67	33	2.42	4051	297.12
	Cobar	20	4.29	13	2.79	1361	292.19
	Coonamble	14	3.54	8	2.02	1140	288.02
	Cowra	54	4.24	43	3.37	4443	348.66

Local Health District	Local Government Area	Week ending				Total since January 2021	
		24-April		17-April		No.	Tests per 1,000 population
		No.	Tests per 1,000 population	No.	Tests per 1,000 population		
	Dubbo Regional	222	4.13	234	4.36	23403	435.66
	Forbes	31	3.13	24	2.42	2718	274.38
	Gilgandra	7	1.65	10	2.36	1141	269.17
	Lachlan ¹	4	0.66	5	0.82	1238	203.79
	Mid-Western Regional	141	5.58	149	5.9	10829	428.85
	Narromine	16	2.46	37	5.68	2222	340.95
	Oberon	14	2.59	18	3.33	2056	379.97
	Orange	290	6.83	282	6.64	27651	651.36
	Parkes	55	3.71	60	4.04	5133	345.96
	Walgett	6	1.01	14	2.35	1899	319
	Warren	12	4.45	11	4.08	1603	594.36
	Warrumbungle Shire	19	2.05	21	2.26	3414	367.97
	Weddin	12	3.32	8	2.21	1060	293.38
	<i>LHD Total²</i>	1227	4.31	1223	4.29	125080	438.86
Western Sydney	Blacktown	2478	6.62	2608	6.96	245401	655.36
	Cumberland	1395	5.78	1495	6.19	155986	645.85
	Parramatta ¹	1765	6.86	1871	7.27	146723	570.47
	The Hills Shire	1752	9.84	1812	10.18	160640	902.63
	<i>LHD Total²</i>	7047	6.69	7457	7.08	685197	650.44
NSW Total³		60627	7.49	63128	7.8	1438118	177.77

Source - Notifiable condition information management System, accessed as at 8pm 29 March 2021.

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 since January 2021 include tests where residential information is incomplete.

See <https://www.health.nsw.gov.au/Infectious/covid-19/Pages/counting-tests.aspx> for detail on how tests are counted.

Appendix B: Number of positive PCR test results for influenza and other respiratory viruses at sentinel NSW laboratories, January 2020 to 18 April 2021

The reported testing numbers reflect the number of influenza PCR tests conducted. Not all samples are tested for all of the other respiratory viruses. Therefore, data presented may tend to under-represent current respiratory virus activity in NSW.

Testing numbers in NSW from 28 December 2020–18 April 2021

Specimen collection date	PCR tests conducted	Influenza A		Influenza B		Adeno-virus	Para-influenza	RSV	Rhino-virus	HMPV**	Entero-virus
		No.	%Pos	No.	%Pos						
Total	457,005	3	0.00%	0	0.00%	1,821	1,237	8,596	25,786	92	3,347
Month ending											
31 January*	168,596	1	0.00%	0	0.00%	416	88	3,275	3,541	23	560
28 February	125,718	2	0.00%	0	0.00%	419	106	2,386	8,667	22	910
28 March	95,458	0	0.00%	0	0.00%	507	354	1,909	8,891	18	1,187
Week ending											
4 April	27,871	0	0.00%	0	0.00%	173	221	365	1,773	13	270
11 April	19,253	0	0.00%	0	0.00%	146	243	369	1,444	10	231
18 April	20,109	0	0.00%	0	0.00%	160	225	292	1,470	6	189

Testing numbers in NSW from January–27 December 2020

Specimen collection date	PCR tests conducted	Influenza A		Influenza B		Adeno-virus	Para-influenza	RSV	Rhino-virus	HMPV**	Entero-virus
		No.	%Pos.	No.	%Pos.						
Total	1,393,182	6,631	0.48%	955	0.07%	9,139	9,193	22,004	138,737	2,435	6,434
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 *	227,152	34	0.01%	2	0.00%	1,251	89	209	31,589	79	427
30 August	174,594	9	0.01%	2	0.00%	1,137	37	299	13,926	14	235
27 September	145,489	6	0.00%	1	0.00%	938	35	866	8,416	61	259
1 November *	131,686	7	0.01%	1	0.00%	894	56	3,508	5,632	51	662
29 November	129,164	6	0.00%	3	0.00%	752	42	6,255	8,252	192	884
27 December	167,756	2	0	0	0	584	64	6,317	5,471	151	555

Notes: Preliminary laboratory data is provided by participating sentinel laboratories on a weekly basis and are subject to change.

Serological diagnoses are not included.

HMPV – Human metapneumovirus

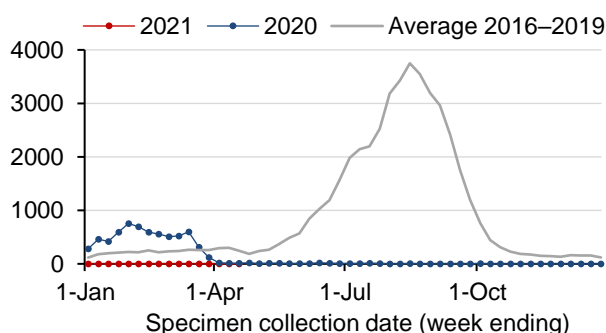
RSV - Respiratory syncytial virus

*Five-week period

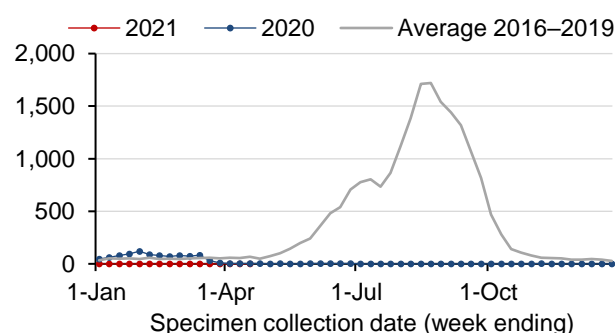
Appendix C: Number of positive PCR test results for influenza and other respiratory viruses at sentinel NSW laboratories, January 2020 to 18 April 2021

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.

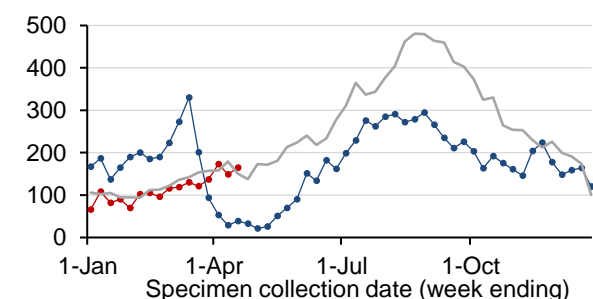
Influenza A



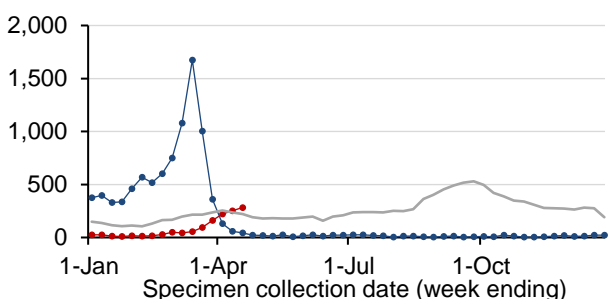
Influenza B



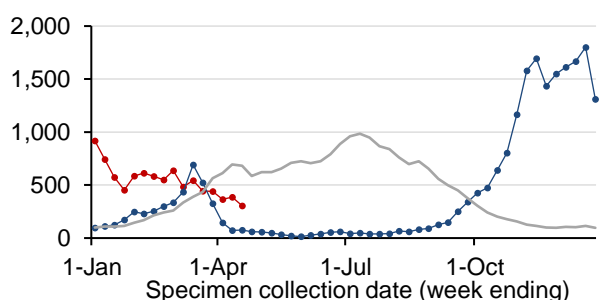
Adenovirus



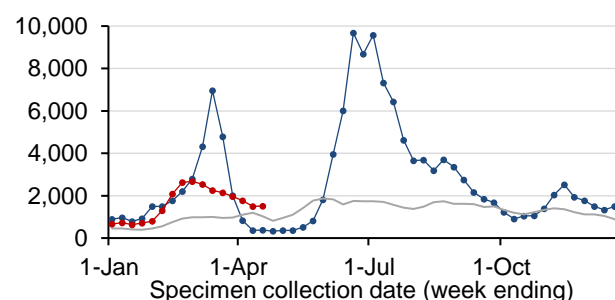
Parainfluenza



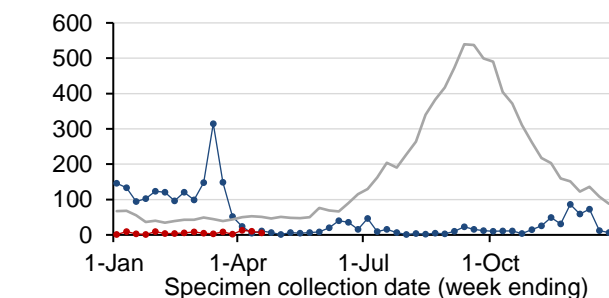
Respiratory syncytial virus (RSV)



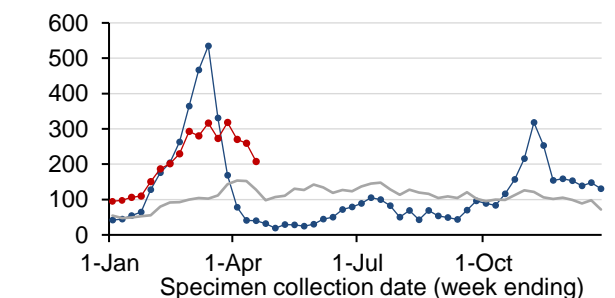
Rhinovirus



Human metapneumovirus (HMPV)



Enterovirus



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

Appendix D: SARS-CoV-2 testing in sewage samples collected in the previous 10 weeks, week ending 17 April 2021

The NSW Sewage Surveillance Program tests untreated sewage for fragments of the COVID-19 (SARS-CoV-2) virus at sewage treatment plant locations across NSW. The table below shows results for the last 10 weeks of samples collected across all sites in NSW.

Sydney Sites		20-Feb	27-Feb	6-Mar	13-Mar	20-Mar	27-Mar	3-Apr	10-Apr	17-Apr	24-Apr
Pop.	Location	7	8	9	10	11	12	13	14	15	16
60,514	Blue Mountains (Winmalee)										
4,681	North Richmond										
13,052	Richmond										
110,114	Penrith										
12,000	Lithgow										
19,000	South Windsor										
8,000	McGraths Hill										
69,245	Warriewood										
1,241	Brooklyn										
31,924	Hornsby Heights										
57,933	West Hornsby										
318,810	Bondi		n	n	n	n	n	n	n	n	n
233,176	Cronulla										
1,857,740	Malabar 1		n	n	n	n	n	n	n	n	n
	Malabar 2										
181,005	Liverpool										
98,743	West Camden										
6,882	Wallacia										
14,600	Picton										
161,200	Glenfield										
1,341,986	North Head	n	n								
26,997	Castle Hill Cattai										
	Castle Hill Glenhaven										
163,374	Quakers Hill										
119,309	Rouse Hill										
37,061	Riverstone										
163,147	St Marys										
73,686	Shellharbour										
55,000	Wollongong										
68,000	Port Kembla										
93,000	Bellambi										

Sydney Network Sites		20-Feb	27-Feb	6-Mar	13-Mar	20-Mar	27-Mar	3-Apr	10-Apr	17-Apr	24-Apr
Network	Location	7	8	9	10	11	12	13	14	15	16
Bondi	Paddington Sewage Network										
Bondi	Rozelle Sewage Network										
Cronulla	Caringbah Sewage Network										
Cronulla	Miranda Sewage Network										
Malabar	Earlwood Sewage Network										
Malabar	Marrickville Sewage Network 1										
Malabar	Marrickville Sewage Network 2										
Malabar	Bardwell Creek Sewage Network										
Malabar	Arncliffe Sewage Network 1										
Malabar	Arncliffe Sewage Network 2										
Malabar	Blakehurst Sewage Network										
Malabar	Padstow Sewage Network 1										
Malabar	Padstow Sewage Network 2										
Malabar	Fairfield Sewage Pumping Station 1										
Malabar	Fairfield Sewage Pumping Station 2										
Malabar	Homebush Sewage Pumping Station										
Malabar	Olympic Park										
Malabar	Croydon Sewage Network										
Malabar	Dulwich Hill Sewage Network										
Malabar	Canterbury Sewage Network										
Malabar	Botany Sewage Network										
Malabar	Maroubra Sewage Network										
North Head	Camellia Sewage Pumping Station - North										
North Head	Camellia Sewage Pumping Station - South										
North Head	Auburn Sewage Network										
North Head	Northmead Sewage Pumping Station										
North Head	Northmead Sewage Network										
North Head	Tunks Park Sewage Network										
North Head	Vineyard Creek Sewage Network										
North Head	Boronia Park Sewage Network										
North Head	West Lindfield Sewage Network										
North Head	Lane Cove West Sewage Network										
North Head	Allambie Heights Sewage Network										
North Head	Buffalo Creek Reserve Network										
Glenfield	Minto Sewage Network										
Liverpool	Ireland Park Sewage Network										
Quakers Hill	Eastern Creek Sewage Network										
St Mary's	Ropes Creek Sewage Network										

Regional Sites		20-Feb	27-Feb	6-Mar	13-Mar	20-Mar	27-Mar	3-Apr	10-Apr	17-Apr	24-Apr
Pop.	Location	7	8	9	10	11	12	13	14	15	16
14,700	Bowral										
14,000	Mittagong										
9,000	Moss Vale										
1,000	Berrima										
2,000	Bundanoon										
900	Robertson										
16,068	Bombo										
7,200	Gerringong/Gerroa										
32,000	Ulladulla										
18,000	Bomaderry										
37,500	Nowra										
16,000	St Georges Basin										
11,000	Cullburra Beach										
139,500	Gosford-Kincumber										
59,060	Charmhaven										
29,300	Wyong-Toukley										
38,900	Bateau Bay										
41,300	Woy Woy										
5,000	Perisher										
8,400	Thredbo										
3,000	Jindabyne										
8,000	Cooma										
500	Gunning										
500	Charlottes Pass										
51,750	Albury composite	c	c	c		c	c	c	c	c	c
	Albury Kremer St										
	Albury Waterview										
22,419	Goulburn										
21,000	Batemans Bay										
18,000	Moruya										
17,000	Narooma										
8,000	Eden										
15,500	Merimbula										
5,000	Bermagui										
7,800	Deniliquin										
48,000	Queanbeyan										
50,000	Wagga Wagga composite	c	c	c	c	c	c	c	c	c	c
	Wagga Wagga- inlet 1										
	Wagga Wagga- inlet 2										
	Wagga Wagga -Koorlingal STP										
2,050	Bourke										
	Nyngan										

Regional Sites (con't)		20-Feb	27-Feb	6-Mar	13-Mar	20-Mar	27-Mar	3-Apr	10-Apr	17-Apr	24-Apr
Pop.	Location	7	8	9	10	11	12	13	14	15	16
40,000	Orange										
12,000	Mudgee										
36,603	Bathurst										
19,000	Broken Hill										
500	Dareton										
11,600	Parkes										
37,000	Dubbo										
24,000	Armidale										
45,000	Tamworth										
	Narrabri										
	Tenterfield										
	Urbenville										
10,000	Moree										
26,394	Taree										
12,000	Forster										
7,582	Hallidays Point										
5,180	Harrington										
10,715	Hawks Nest										
225,834	Hunter – Burwood Beach										
60,000	Hunter – Shortland										
115,000	Hunter – Belmont										
60,000	Hunter – Morpeth										
58,300	Hunter – Boulder Bay										
35,000	Hunter – Raymond Terrace										
32,000	Hunter – Dora Creek										
42,000	Hunter – Toronto										
70,000	Hunter – Edgeworth										
2,500	Hunter – Karuah										
3,000	Hunter – Dungog										
21,500	Hunter – Kurri Kurri										
32,000	Hunter – Cessnock										
40,000	Hunter – Farley										
32500	Lismore composite		c	c	c			c		c	c
17,000	East Lismore										
15,500	South Lismore										
18,958	Byron Bay – Ocean Shores										
	Byron Bay										
2,000	Bangalow										
3,500	Mullumbimby										
31,104	Ballina										
7,700	Lennox Head										
16,000	Tweed – Murwillumbah										

Regional Sites (con't)		20-Feb	27-Feb	6-Mar	13-Mar	20-Mar	27-Mar	3-Apr	10-Apr	17-Apr	24-Apr
Pop.	Location	7	8	9	10	11	12	13	14	15	16
75,000	Tweed – Banora Point										
25,000	Tweed – Kingscliff										
18,000	Tweed – Hastings Point										
18,550	Grafton composite	c	c	c	c	c	c		c	c	c
12,250	North Grafton										
6,300	South Grafton										
6,500	Yamba										
8,730	Nambucca Heads										
54,370	Port Macquarie										
7,010	Bonny Hills										
8,540	Dunbogan										
12,105	South West Rocks										
4,052	Crescent Head										
12,000	Urunga										
50,000	Coffs Harbour										

Sampling commenced week ending 18 July 2020

- not sampled or analysed
- SARS-CoV-2 not detected
- SARS-CoV-2 detected
- site moved to composite or ceased
- c composite of the separate influent samples
- n result from network sites

Glossary

Term	Description
Case	<p>A person infected who has tested positive to a validated specific SARS-CoV-2 nucleic acid test or has had the virus identified by electron microscopy or viral culture. Blood tests (serology) is only used in special situations following a public health investigation and require other criteria to be met in addition to the positive serology result (related to timing of symptoms and contact with known COVID-19 cases).</p> <p>Case counts include:</p> <ul style="list-style-type: none"> - NSW residents diagnosed in NSW who were infected overseas or in Australia (in NSW or interstate), and - interstate or international visitors diagnosed in NSW who were under the care of NSW Health at the time of diagnosis
Health care workers	Individuals who work within a hospital or other healthcare settings, including staff in direct or indirect contact with patients or infectious materials.
Incubation period	The time in which the case was infected. The incubation period for COVID-19 is between 1 and 14 days prior to symptom onset.
Overseas acquired case	Case who travelled overseas during their incubation period. While testing rates in NSW are high and case counts are low, cases who have travelled overseas in their incubation period are considered to have acquired their infection overseas.
Interstate acquired case	Case who travelled interstate during their infection and the public health investigation concludes the infection was likely acquired interstate.
Cluster	Group of cases sharing a common source of infection or are linked to each other in some way.

Dates used in COVID-19 reporting

Event	Date name	Source
Person first starts to feel unwell	Date of symptom onset	Public health staff interview all cases at the time of diagnosis. This is the date provided to NSW Health by the case.
Person has a swab taken	Date of test	This date is provided to NSW Health by the laboratory when the test result (positive or negative) is notified.
Laboratory notifies NSW Health of result	Date of notification	<p>This date is provided to NSW Health by the laboratory. Laboratories prioritise notification of positive results to allow prompt public health action.</p> <p>Positive cases: The date of notification is collected by NSW Health on the day of notification. Cases are informed of their diagnosis by their doctor or public health staff as soon as the result is available. The date of notification to NSW Health is usually the same day as the date the case finds out about the result.</p> <p>Negative cases: Some laboratories notify NSW Health of negative results in batches at regular intervals. For these laboratories the date of notification to NSW Health does not reflect the date the negative result was available at the laboratory. NSW Health does not collect information on the date the person was informed of the result.</p>