

COVID-19 WEEKLY SURVEILLANCE IN NSW

EPIDEMIOLOGICAL WEEK 17, ENDING 1 May 2021

Published 6 May 2021

Overview

Number and proportion of COVID-19 cases in NSW by likely source of infection to week ending 1 May 2021

	2020		2021		
	Jan – Jun	July – Dec	year to date 1 Jan – 1 May	last 4 weeks 10 April – 1 May	last 7 days 24 April – 1 May
Overseas acquired	1,893 (59%)	714 (46%)	504 (91%)	180 (98%)	61 (100%)
Interstate acquired	67 (2%)	23 (2%)	0	0	0
Locally acquired	1,237 (39%)	808 (52%)	49 (9%)	4 (2%)	0
Total	3,197 (100%)	1,545 (100%)	553 (100%)	184 (100%)	61 (100%)
Deaths	52	4	0	0	0

Summary for the week ending 1 May 2021

- There were no locally acquired cases reported in the week ending 1 May 2021.
- The number of cases reported in overseas returned travellers increased this week (up 30%) compared to the previous week.
- In the four-week period ending 1 May 2021, 38% (69/180) 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 691 returned travellers diagnosed with COVID-19 since 29 November 2020, 169 (24%) have been diagnosed with a VoC.
- In the four weeks ending 1 May 2021, six (3%) 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 increased across all local health districts compared to the previous week (up 13%).
- The NSW Sewage Surveillance Program reported six detections – taken from the Bondi, Malabar (two detections), and the sewage network at Paddington (within the Bondi catchment), Botany (within the Malabar catchment) and Allambie Heights (within the North Head catchment). Bondi and Malabar catchments contain quarantine hotels. Although no active cases were identified in 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.

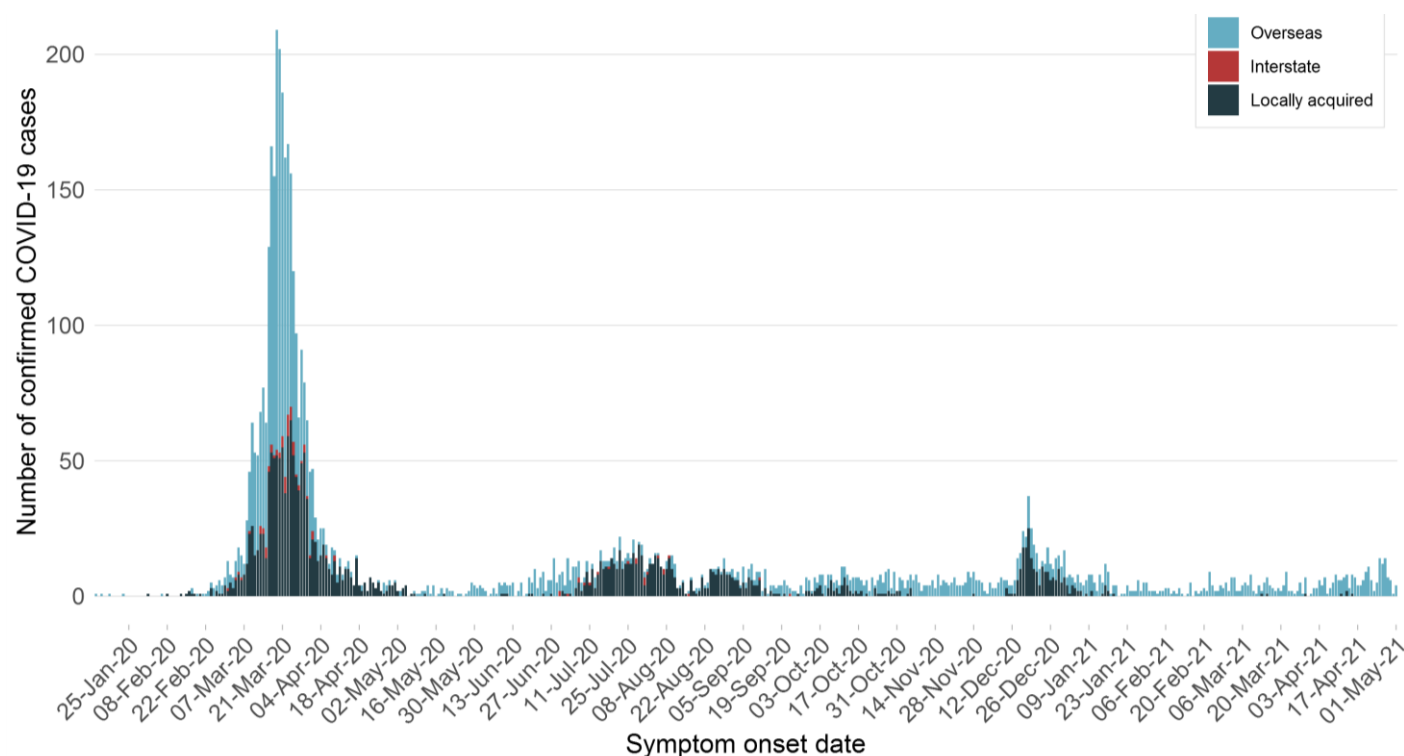
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Section 1: How is the outbreak tracking in NSW?

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 1 May 2021



Interpretation: Between 25 January 2020 and 1 May 2021, there were 5,295 confirmed COVID-19 cases. Of those, 3,111 (59%) were overseas acquired, 90 (2%) were interstate acquired, and 2,094 (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 1 May 2021

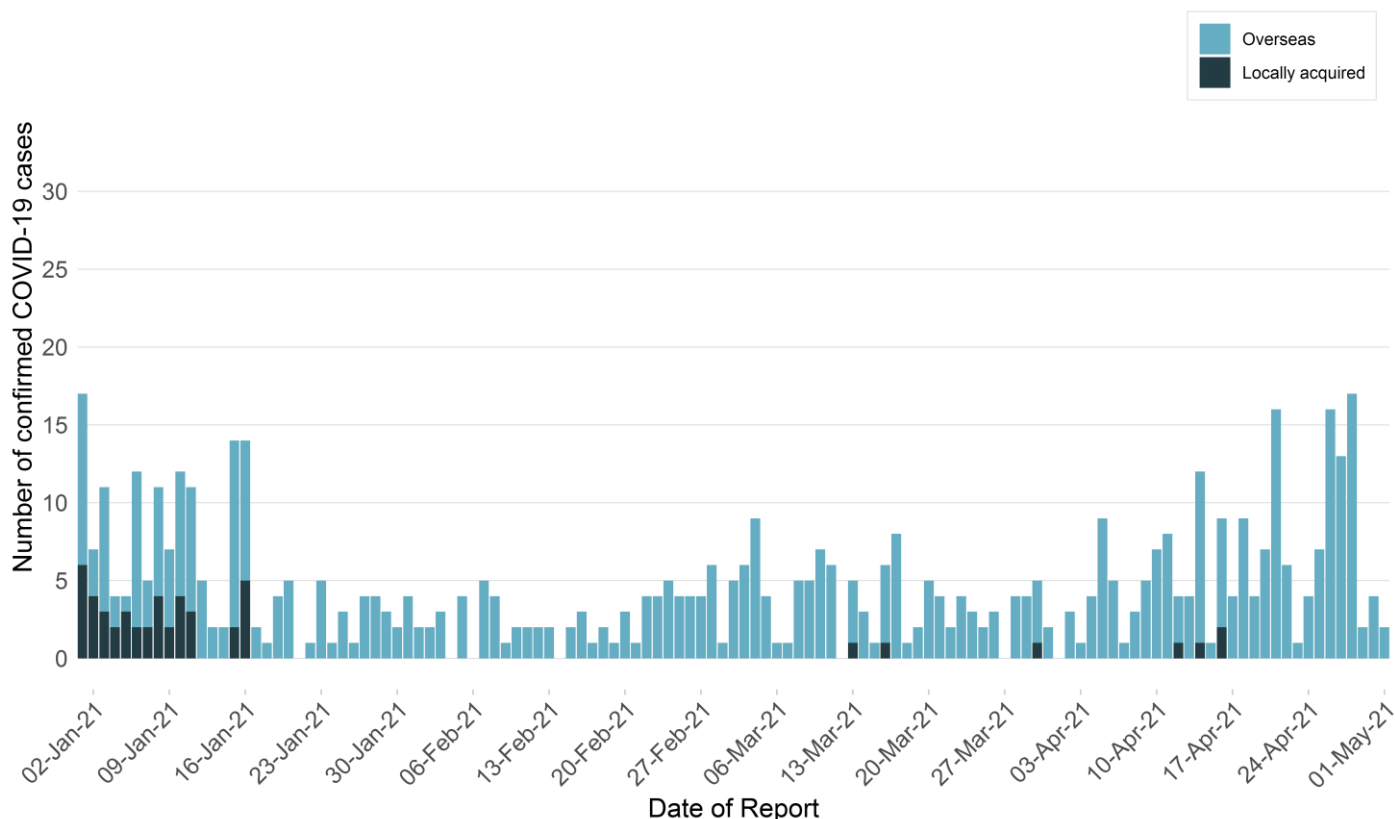


Table 1. COVID-19 cases and tests reported, NSW, from 1 January 2021 to 1 May 2021

	Week ending 1 May Apr	Week ending 24 Apr	% change	Total 2021
Number of cases	61	47	↑ 30%	5,295
Overseas acquired	61	47	↑ 30%	3,111
Interstate acquired	0	0	-	90
Locally acquired	0	0	-	2,094
No epidemiological links to other cases or clusters	0	0	-	450
Number of deaths	0	0	-	56
Number of tests	71,577	62,242	↑15%	5,674,840

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 1 May 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
- Three cases in one family acquired their infection in hotel quarantine in mid-April
- In a separate transmission event, one other person acquired their infection while in hotel quarantine in mid-April.

The majority of cases reported in the last four weeks in NSW were overseas acquired (180/184, 98%).

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, and two additional VoCs, B.1.427 and B.1.429, recognised by the US Centre of Disease Control. Australia’s Communicable Diseases Genomics Network (CDGN) only recognises the three internationally recognised VoCs, these three VoC’s B.1.1.7, B.1.351 and P.1 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 four weeks ending 1 May 2021, there have been:

- 69 returned travellers were diagnosed with a VoC. Of these 69 cases, 54 (78%) were diagnosed with the B.1.1.7 variant, 12 (17%) with the B.1.351 variant, and three (4%) with the P.1 variant. Approximately half (52%) of these cases likely acquired their VoC in either India (24, 35%) or Bangladesh (12, 17%). The remaining cases likely acquired their infections in USA (8, 12%), Pakistan (7, 10%), Iraq (5, 7%), Canada (3, 4%), Ethiopia (1, 2%), Brazil (1, 2%) France (1, 2%), Germany (1, 2%), and Poland (1, 2%). Five VoC cases were found in international flight crew members whose country of disease acquisition is unknown.
- Three locally acquired COVID-19 cases diagnosed with a VoC; three 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 1 May 2021

	Week ending				29 Nov to 3 Apr	Total since 29 November
	1 May*	24 Apr	17 Apr	10 Apr		
Total overseas acquired cases	61	47	38	34	511	690
Overseas cases with VoC	14	20	20	15	102	171
B.1.1.7	14	16	12	12	86	140
B.1.351	0	3	7	2	13	25
P.1	0	1	1	1	3	6
% overseas acquired cases with VoC	23%	43%	53%	44%	20%	25%

Interpretation: In the week ending 1 May, 14 returned travellers were reported as having a COVID-19 VoC, which is 23% (14/60) of all cases reported this week.

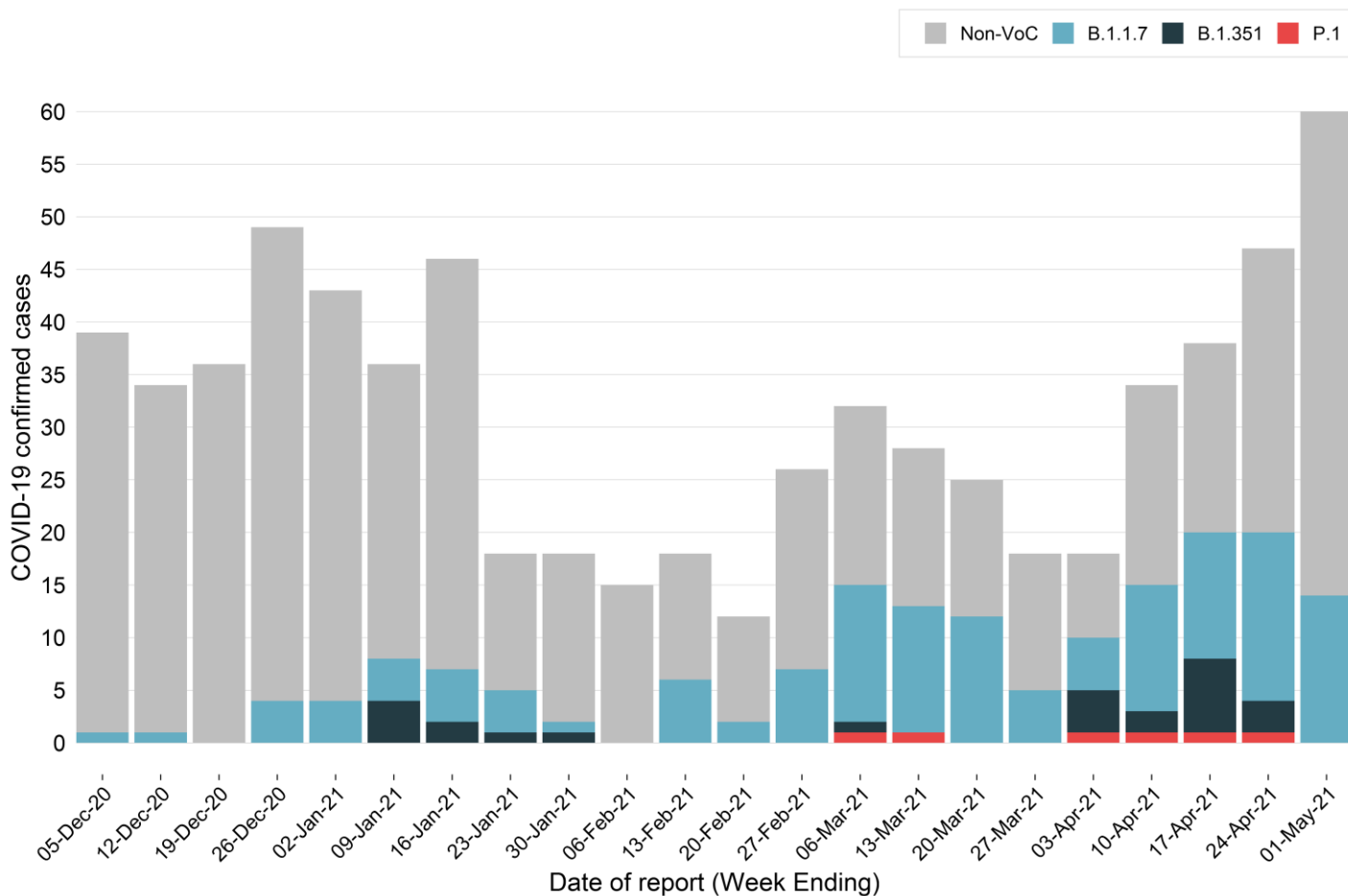
Table 2b. Locally acquired COVID-19 cases by VoC and week reported, NSW, 29 November 2020 to 1 May 2021

	Week ending				29 Nov to 3 Apr	Total since 29 November
	1 May*	24 Apr	17 Apr	10 Apr		
Total locally acquired cases	0	0	4	0	221	225
Local cases with VoC	0	0	4	0	3	7
B.1.1.7	0	0	3	0	3	6
B.1.351	0	0	1	0	0	1
% local cases with VoC	0	0	100%	0	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 1 May 2021



Interpretation: Since 29 November 2020 there have been 171 returned travellers diagnosed with a COVID-19 VoC. In the last four weeks 38% (69/180) 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, 4 April to 1 May 2021

Local Health District	Week ending				Total	Days since last case reported
	1 May	24 Apr	17 Apr	10 Apr		
Central Coast	0	0	0	0	0	123
Illawarra Shoalhaven	0	0	0	0	0	119
Nepean Blue Mountains	0	0	0	0	0	228
Northern Sydney	0	0	1	0	1	15
South Eastern Sydney	0	0	0	0	0	49
South Western Sydney	0	0	0	0	0	113
Sydney	0	0	0	0	0	110
Western Sydney	0	0	0	0	0	105
Far West	0	0	0	0	0	394
Hunter New England	0	0	3	0	3	15
Mid North Coast	0	0	0	0	0	375
Murrumbidgee	0	0	0	0	0	236
Northern NSW	0	0	0	0	0	32
Southern NSW	0	0	0	0	0	194
Western NSW	0	0	0	0	0	275
NSW*	0	0	4	0	4	46

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

Interpretation: In the week ending 1 May, there were no locally acquired cases.

In the week ending the 17 April, three people in one family acquired their infection while in hotel quarantine in the Adina Apartments Hotel. In an unrelated transmission event one other person acquired their infection while in hotel quarantine at the Mecure Hotel Sydney. 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.

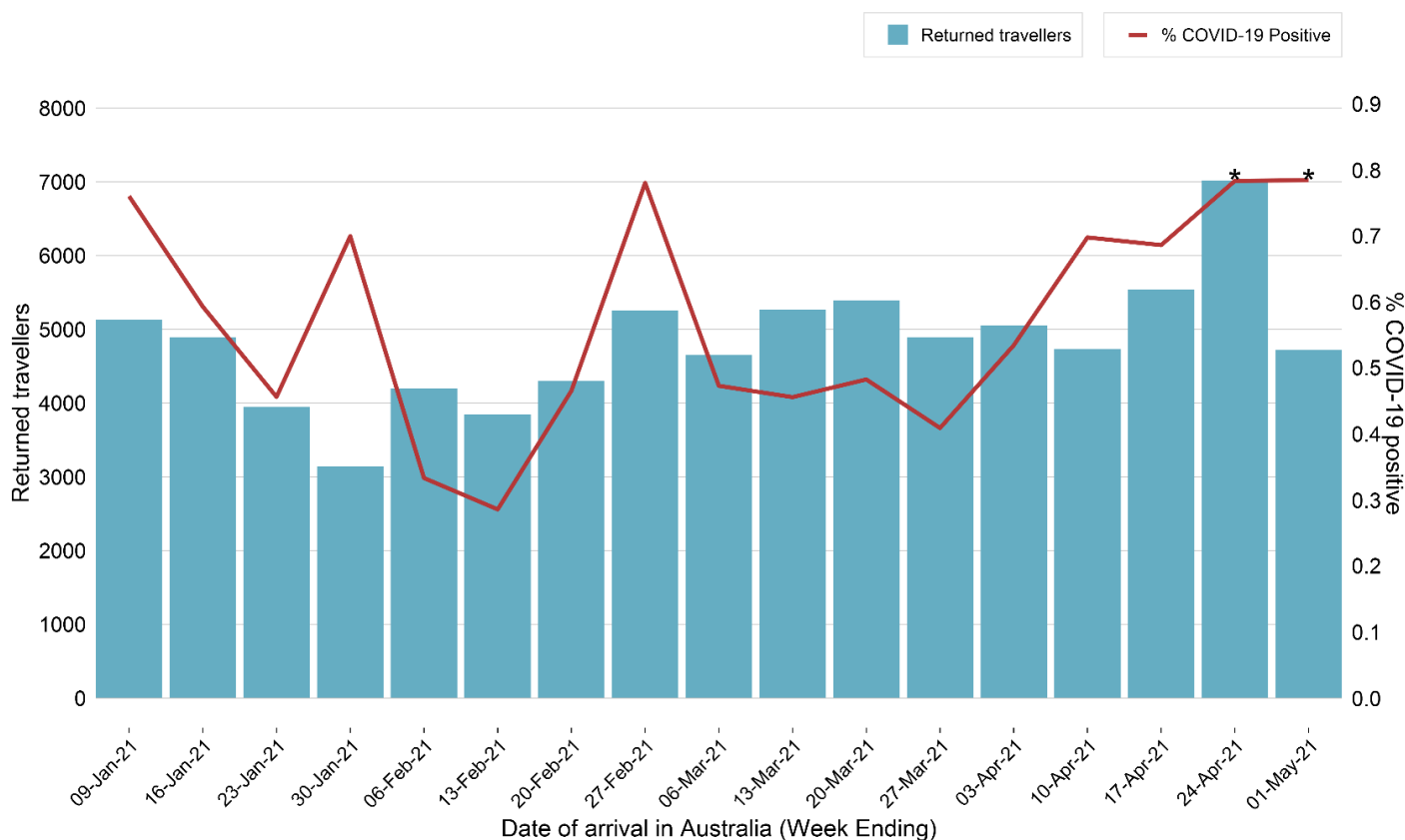
Section 5: COVID-19 in returned travellers

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 1 May 2021



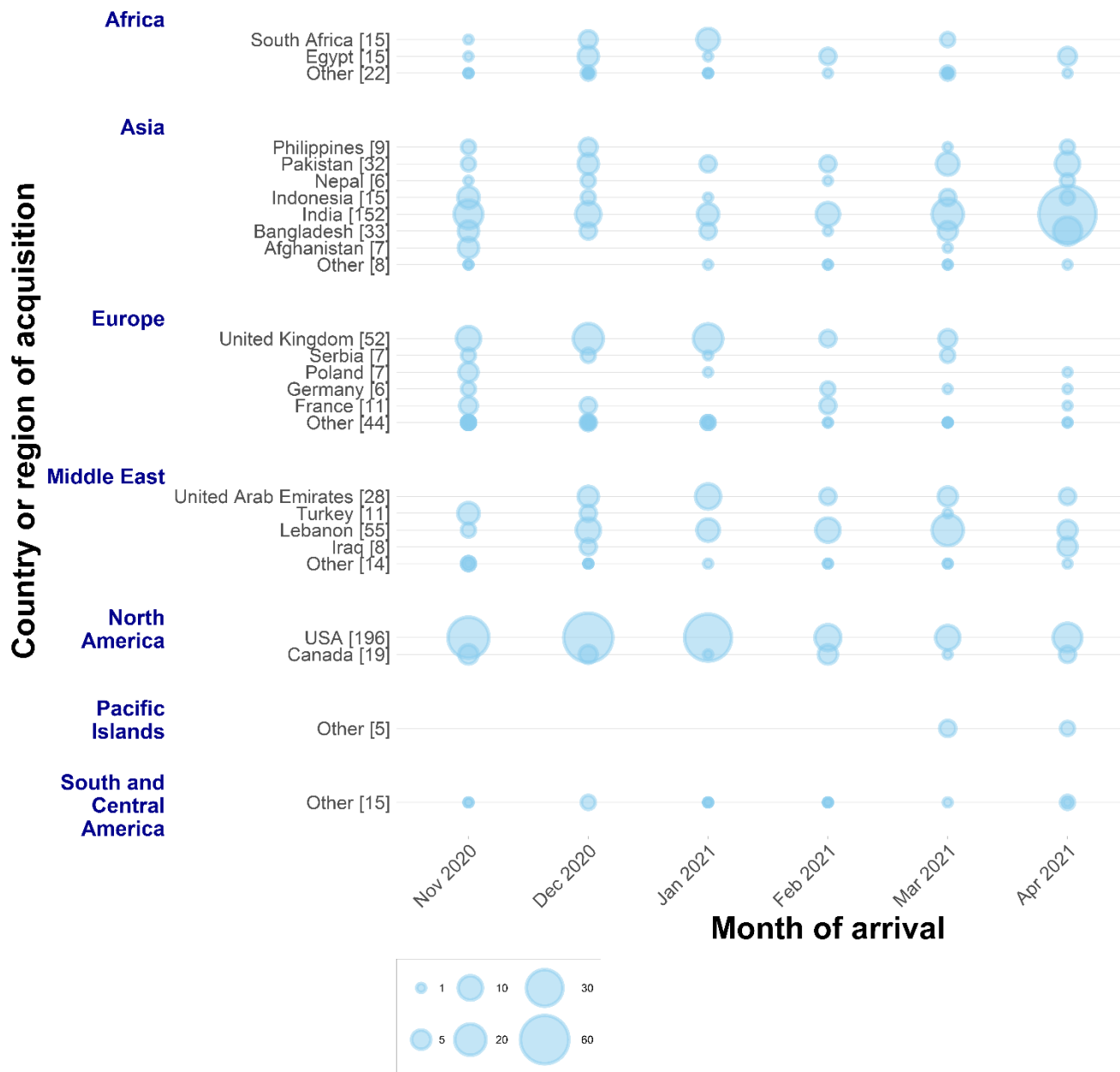
*Returned travellers entering Australia in the past 14 days are still in quarantine and may return a positive result prior to the end of their hotel quarantine period.

Interpretation: Since 3 January 2021, there has been on average 688 people screened on arrival through Sydney International Airport daily. In the last four weeks, 180 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 30 April 2021



Interpretation: In April 2021, there has been a significant increase in detections of COVID-19 in travellers from India. 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 180 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, 4 April 2021 to 1 May 2021

Country of acquisition of COVID-19	Number (%) of cases in the last four weeks
India	89 (50%)
United States of America	15 (8%)
Bangladesh	14 (8%)
Pakistan	10 (6%)
Lebanon	5 (3%)
Iraq	5 (3%)
Canada	3 (2%)
Egypt	3 (2%)
United Arab Emirates	3 (2%)
Indonesia	2 (1%)
Nepal	2 (1%)
Papua New Guinea	2 (1%)
Peru	2 (1%)
Philippines	2 (1%)
Other	23 (13%)
Total	180

Interpretation: In the last four weeks, travellers returning from India accounted for the largest number of overseas acquired cases (89, 50%), followed by travellers returning from USA (15,8%), and the Bangladesh (14, 8%).

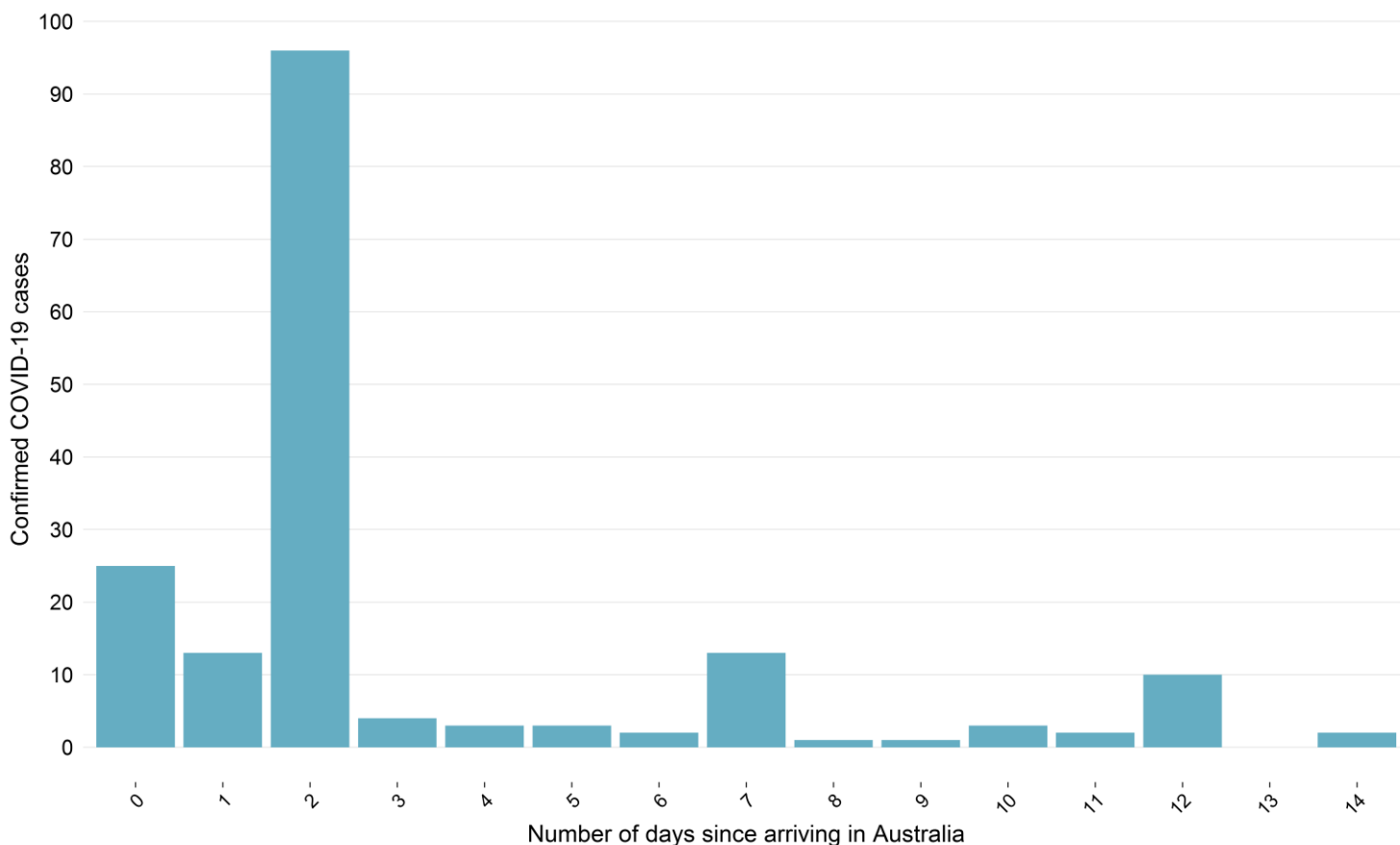
Cases among returned travellers in quarantine

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, 4 April to 1 May 2021



Interpretation: In the four weeks ending 1 May 2021, 75% 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 1 May 2021

Number of self-reported vaccination doses received	Week ending				1 Mar to 3 Apr	Total since 1 March 2021
	1 May	24 Apr	17 Apr	10 Apr		
Total overseas acquired cases	61	47	42	34	118	302
Two doses	1	2	1	2	0	6
One dose	1	6	3	0	4	14
None	57	38	32	30	107	264
Unknown	2	2	2	2	4	11
Number (%) cases fully vaccinated	2 (3%)	3 (6%)	1 (3%)	0	0	6 (2%)

Interpretation: Since 1 March 2021, six 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 1 May 2021

Number of self-reported vaccination doses received	Week ending				1 Mar to 3 Apr	Total since 1 March 2021
	1 May	24 Apr	17 Apr	10 Apr		
Total locally acquired cases	0	0	4	0	3	7
Two doses	0	0	0	0	0	0
One dose	0	0	1	0	1	2
None	0	0	3	0	2	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, 49 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.

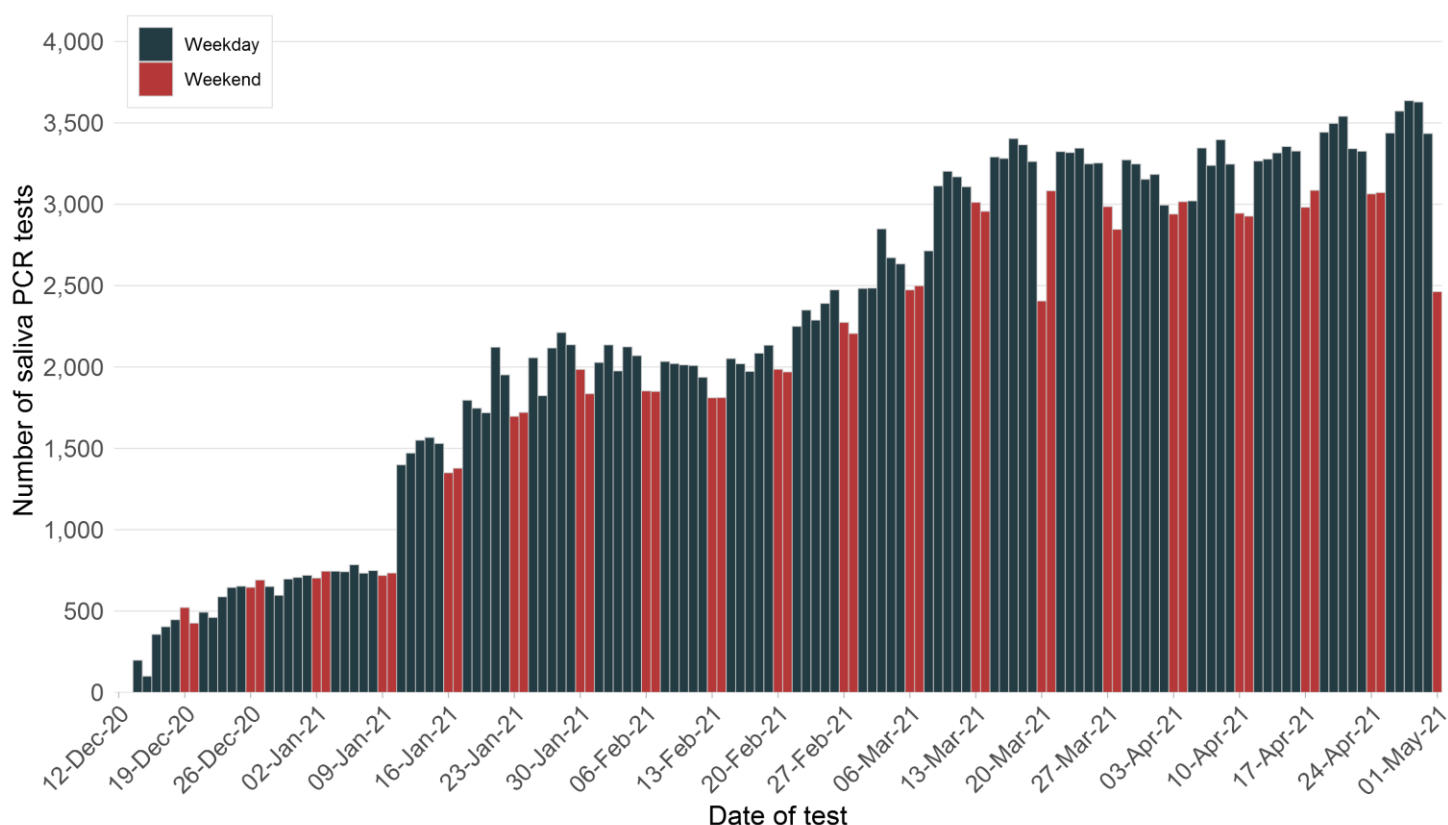
There were no locally acquired cases of COVID-19 reported in HCWs in the week ending 1 May 2021.

0-19 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 1 May 2021



* The number of saliva PCR tests on 1 May 2021 is incomplete due to delays in reporting negative results.

Interpretation: Since screening of quarantine workers began in December 2020, a total of 303,280 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 1 May.

Table 6. Deaths as a result of COVID-19, by age group, NSW, from 25 January 2020 to 1 May 2021

Age group (years)	Number of deaths	Number of cases	Case fatality rate
0–4	0	137	0%
5–11	0	131	0%
12–17	0	165	0%
18–29	0	1,195	0%
30–49	0	1,757	0%
50–59	1	702	0.1%
60–69	4	654	0.6%
70–79	15	390	3.8%
80+	36	164	22.0%
Total	56	5,295	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.

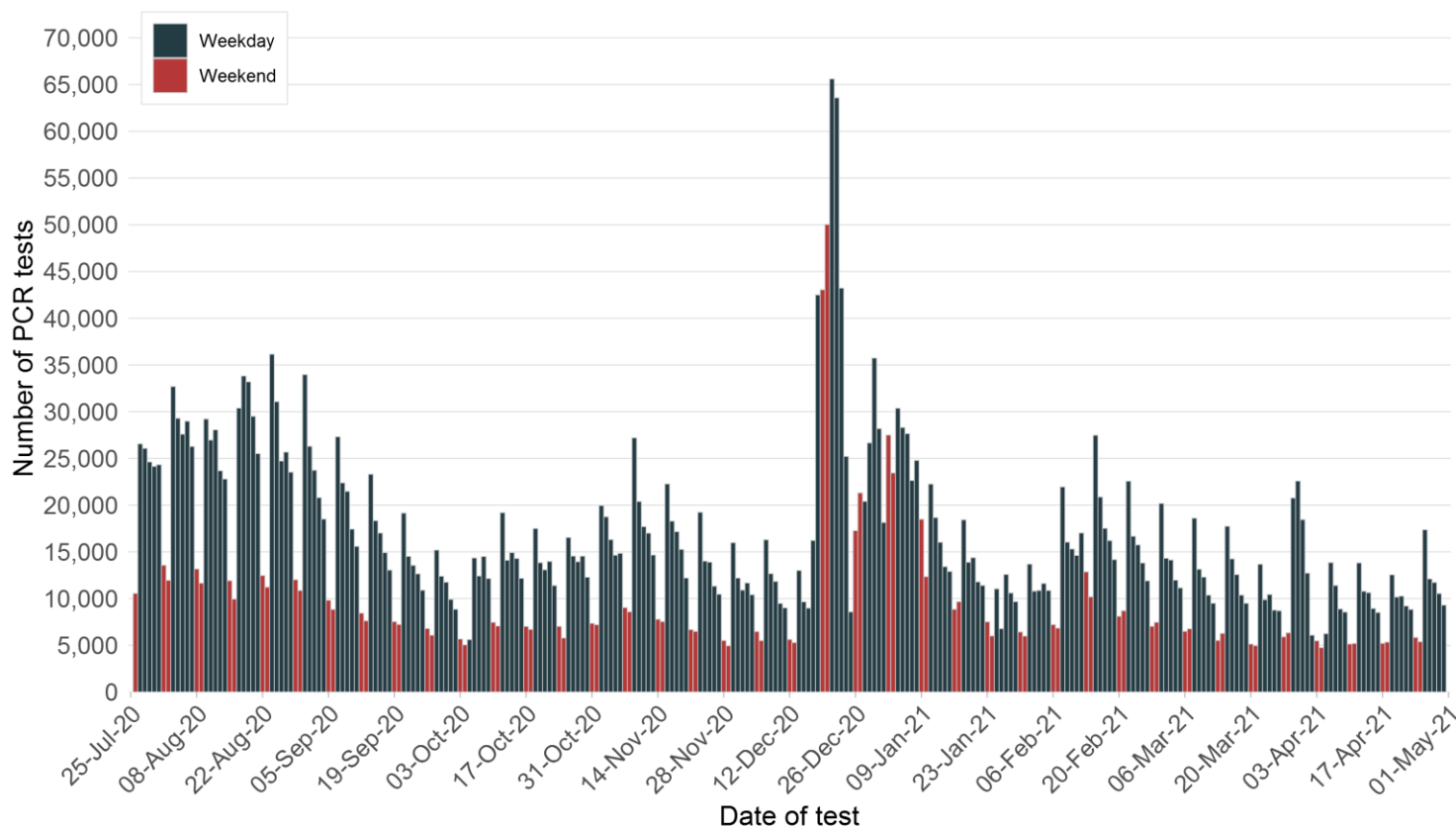
Section 9: COVID-19 testing in NSW

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 1 May 2021



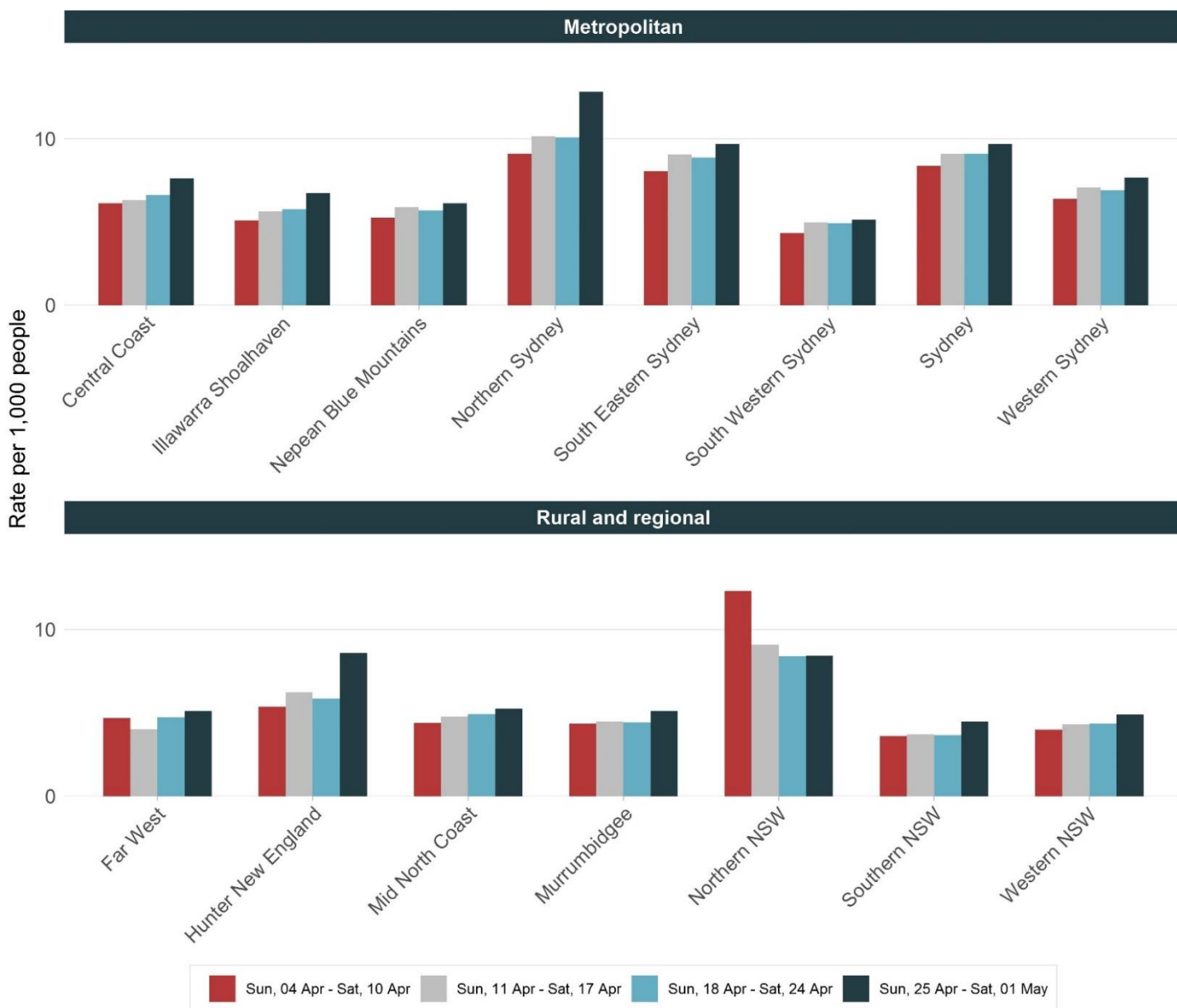
Includes SARS-CoV-2 PCR tests only and excludes repeat positive tests for an individual.

Interpretation: Testing numbers increased slightly in the week ending 1 May (up 15%) compared to the previous week. The average daily testing rate increased at 1.26 per 1,000 people compared to last week which was 1.1 per 1,000 people in NSW.

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, 4 April to 1 May 2021

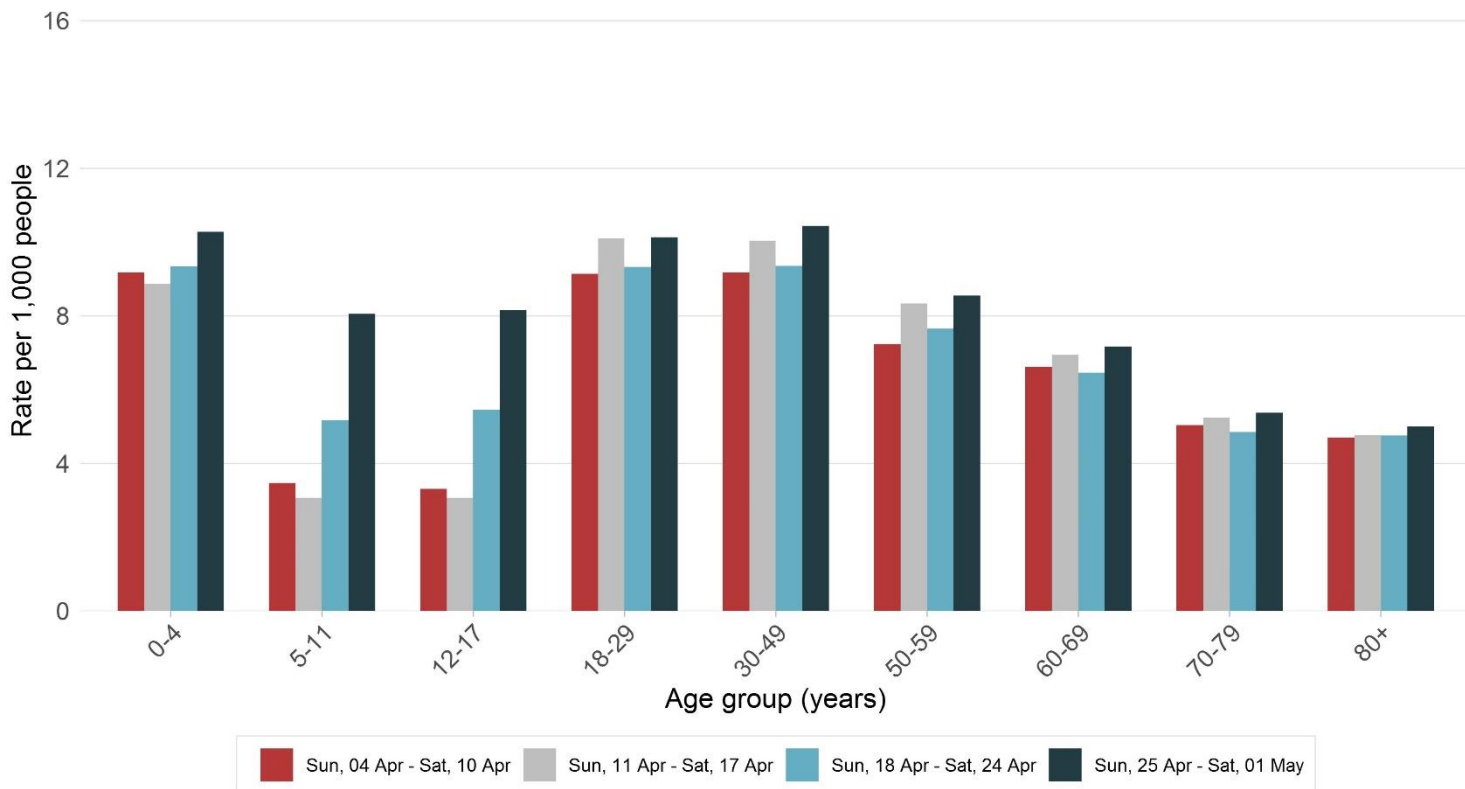


Includes SARS-CoV-2 PCR tests only and excludes notifications with missing postcode of residence.

Interpretation: State-wide weekly testing rates in the week ending 1 May increased for all LHDs when compared to the previous week (8.9 per 1,000 people compared to 7.7 per 1,000 people). Notable increases in Northern Sydney and Hunter New England LHDs may be attributed to the media alerts following sewage detections in Allambie Heights and Burwood Beach, respectively.

Testing by age group

Figure 10. Rates of COVID-19 testing by age group and week, NSW, 4 April to 1 May 2021



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

Interpretation: In the week ending 1 May, testing rates increased for all age groups. There were increases observed in testing rates particularly 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. Muswellbrook sewage treatment plant has been added as a new site.

Table 7. Locations with SARS-CoV-2 detections in sewage samples in the last 10 weeks, NSW, 24 January 2021 to 1 May 2021

		27-Feb	6-Mar	13-Mar	20-Mar	27-Mar	3-Apr	10-Apr	17-Apr	24-Apr	1-May
Pop.	Location	8	9	10	11	12	13	14	15	16	17
Sydney sewage treatment plant (inlet sites)											
318,810	Bondi										
1,857,740	Malabar 1										
	Malabar 2										
1,341,986	North Head	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 1 May, 142 sewage samples were tested for fragments of SARS-CoV-2. Of these, there were six detections – taken from the Bondi and Malabar (two detections) 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). Bondi and Malabar catchments contain quarantine hotels where active cases are known to have stayed. Although no active cases were identified in 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 25 April 2021

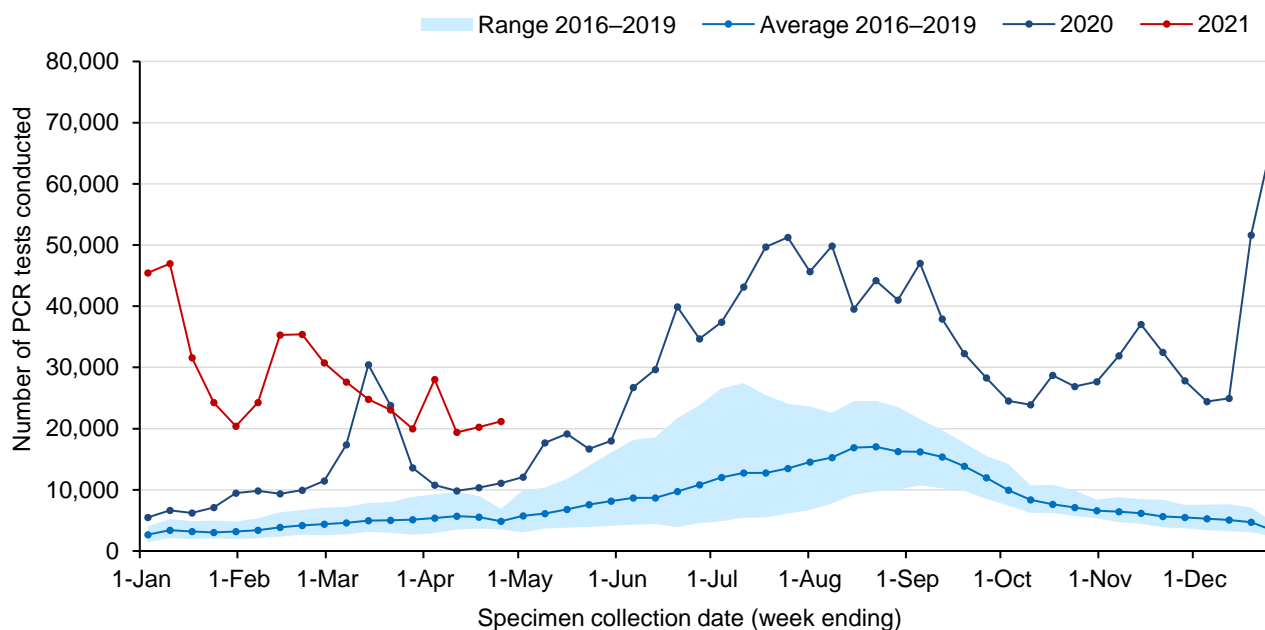
In NSW, routine surveillance for influenza and other respiratory viruses is conducted through sentinel laboratories. The number of all PCR tests (positive and negative) are provided to NSW Health by participating laboratories each week. Testing counts reflect the number of influenza PCR tests conducted;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

The most recent data available is for testing carried out to 25 April 2021. A total of 457,438 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 11. Testing for influenza by week, NSW, 1 January 2016 to 25 April 2021

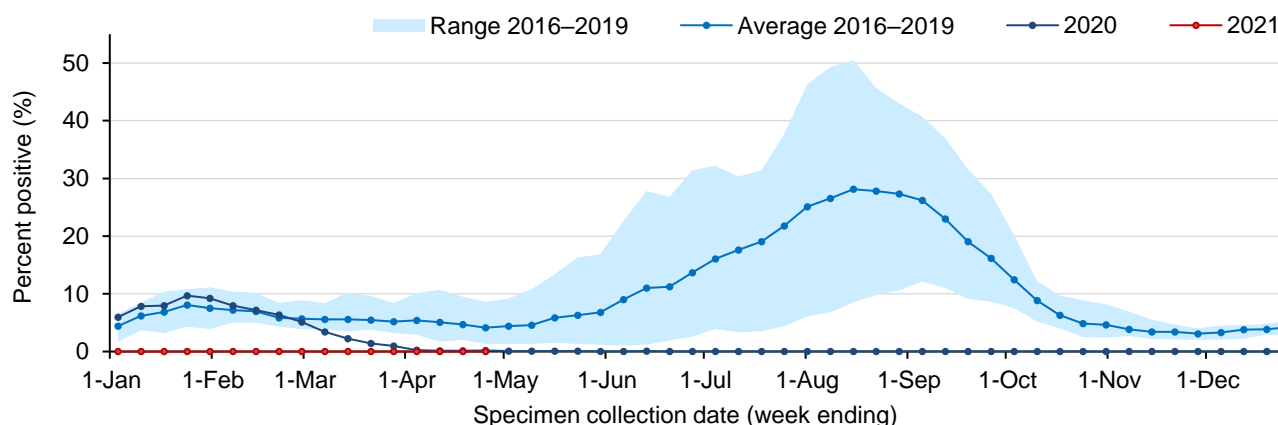


Interpretation: In the week ending 25 April, the number of influenza tests increased with 21,195 influenza tests performed across participating laboratories compared with 20,263 the previous week. Testing for influenza continues to exceed the four-year average for this time of year.

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 12. Proportion of tests positive for influenza, NSW, 1 January 2016 to 25 April 2021

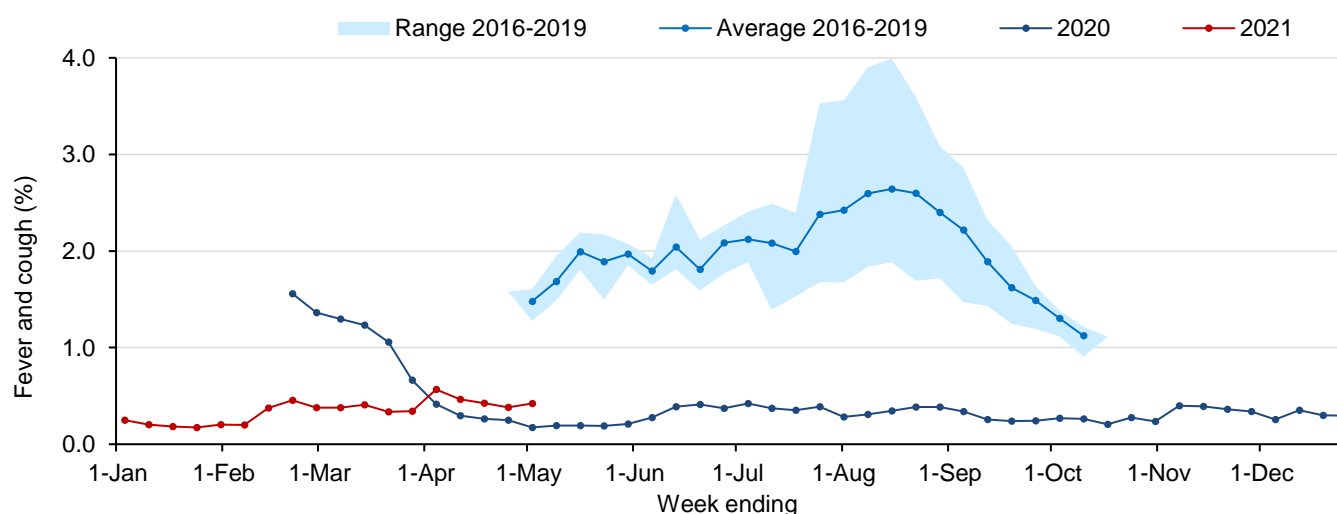


Interpretation: In the week ending 25 April, the percent of influenza tests that were positive continued to be very low (<0.01%), indicating limited influenza transmission in the community. Since early March 2020, this percentage has remained far lower than the usual range for the time of year.

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 13. Proportion of FluTracker participants reporting influenza-like illness, NSW, 1 January 2016 to 2 May 2021



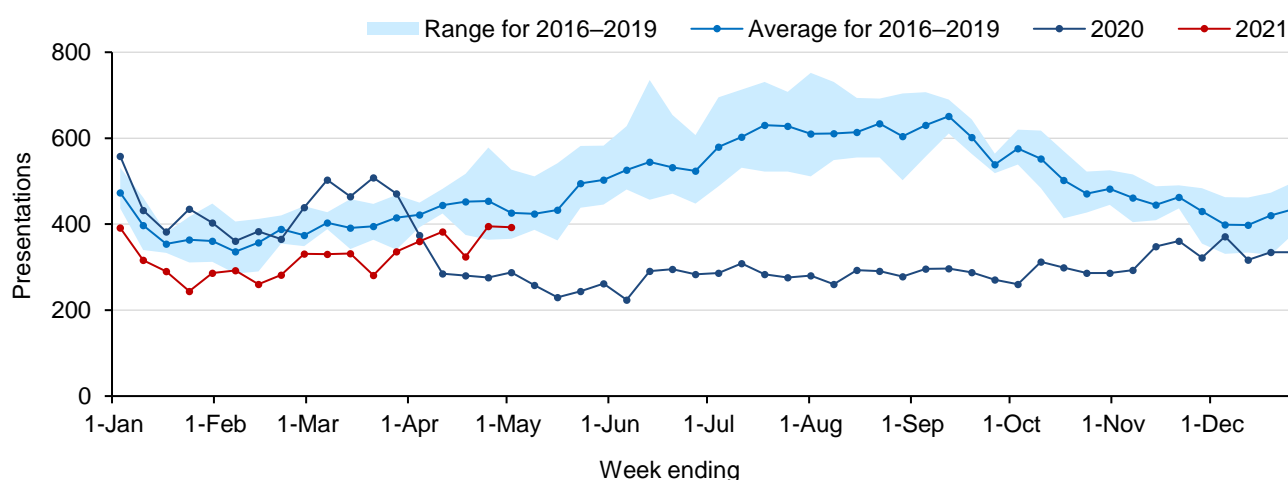
Interpretation: In NSW in the week ending 2 May of the 18,984 people surveyed, 80 people (0.42%) reported flu-like symptoms. In the last four weeks, 44% (158/358) of new cases of flu-like illness reported having a COVID-19 test. The proportion of people being tested for COVID-19 has been steadily decreasing 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.

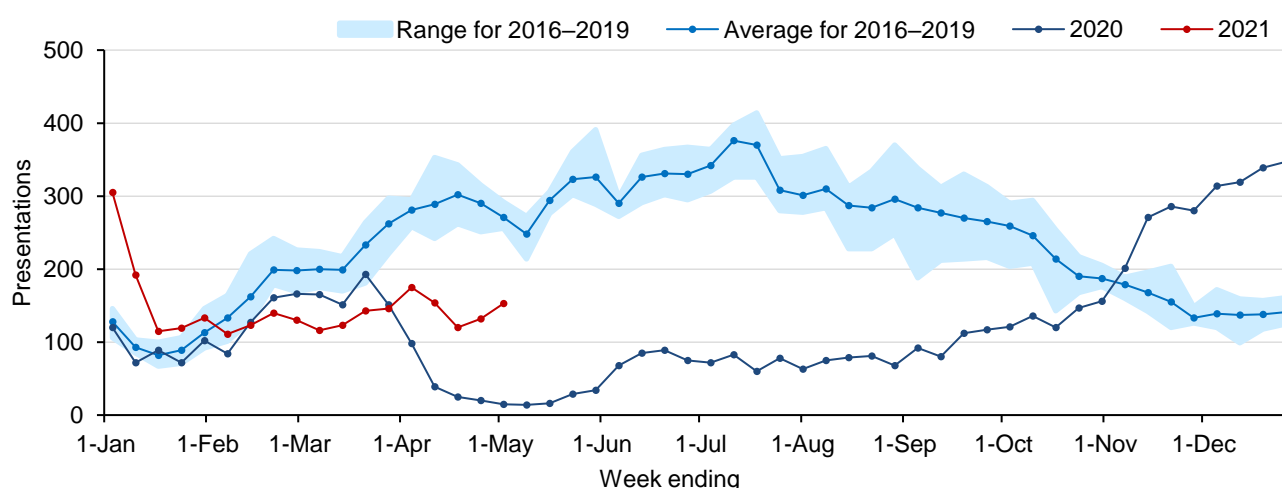
The figures below show weekly pneumonia and bronchiolitis presentations to Emergency Departments in NSW, using PHREDSS². The red line shows the weekly counts for 2021, the dark blue line showing counts for 2020, the light blue line showing the average for 2016 to 2019 and the shaded area showing the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

Figure 14. Emergency Department pneumonia presentations, NSW, 1 January 2016 to 2 May 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 2 May, pneumonia presentations remain within the seasonal range for this time of year.

Figure 15. Emergency Department bronchiolitis presentations, NSW, 1 January 2016 to 2 May 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 2 May 2021, 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	
		01-May		24-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	2691	7.63	2342	6.64	207692	588.59
	Balranald	7	2.99	3	1.28	689	294.7
	Broken Hill	104	5.95	101	5.78	9244	528.86
Far West	Central Darling	8	4.35	9	4.89	559	303.97
	Wentworth	35	4.96	30	4.25	3366	477.24
	LHD Total ²	154	5.11	143	4.74	13858	459.73
	Armidale Regional	179	5.82	174	5.65	14602	474.41
	Cessnock	264	4.4	194	3.23	21583	359.81
	Dungog	59	6.26	46	4.88	3556	377.37
	Glen Innes Severn	31	3.49	18	2.03	2654	299.18
	Gunnedah	40	3.15	47	3.71	4565	359.99
	Gwydir	9	1.68	10	1.87	994	185.69
	Inverell	80	4.74	72	4.26	5987	354.47
	Lake Macquarie	2386	11.59	1509	7.33	128546	624.31
	Liverpool Plains	46	5.82	32	4.05	2967	375.43
	Maitland	941	11.05	659	7.74	58033	681.41
	Mid-Coast	394	4.2	357	3.8	34331	365.86
Hunter New England	Moree Plains	40	3.02	33	2.49	4197	316.49
	Muswellbrook	75	4.58	67	4.09	6361	388.41
	Narrabri	21	1.6	22	1.67	3549	270.19
	Newcastle	2429	14.67	1406	8.49	125320	756.9
	Port Stephens	524	7.13	362	4.93	40014	544.55
	Singleton	170	7.25	121	5.16	13207	562.93
	Tamworth Regional	394	6.3	330	5.28	31649	506.05
	Tenterfield	21	3.18	21	3.18	1643	249.17
	Upper Hunter Shire	62	4.37	40	2.82	5812	409.87
	Uralla	18	2.99	37	6.15	1780	296.07
	Walcha	8	2.55	12	3.83	1289	411.3
	LHD Total ²	8184	8.59	5563	5.84	512231	537.84
	Kiama	161	6.88	153	6.54	14671	627.34
Illawarra Shoalhaven	Shellharbour	507	6.92	420	5.74	44689	610.23
	Shoalhaven	472	4.47	429	4.06	49184	465.55
	Wollongong	1691	7.75	1425	6.53	142474	653.21
	LHD Total ²	2831	6.75	2427	5.78	251018	598.21
	Bellingen	67	5.16	70	5.39	5629	433.13
	Coffs Harbour	359	4.65	340	4.4	29781	385.38
Mid North Coast	Kempsey	183	6.15	154	5.18	12973	436.14
	Nambucca	95	4.8	62	3.13	7057	356.32
	Port Macquarie-Hastings	480	5.68	486	5.75	37909	448.49
	LHD Total ²	1184	5.25	1112	4.93	93349	413.66
Murrumbidgee	Albury	349	6.42	285	5.24	25515	469.43

Local Health District	Local Government Area	Week ending				Total since January 2021	
		01-May		24-April		No.	Tests per 1,000 population
		No.	Tests per 1,000 population	No.	Tests per 1,000 population		
	Berrigan	28	3.2	14	1.6	2477	283.09
	Bland	19	3.18	11	1.84	1997	334.39
	Carrathool	3	1.07	2	0.71	441	157.56
	Coolamon	18	4.15	15	3.46	1782	410.5
	Cootamundra-Gundagai Regional	34	3.03	40	3.56	4042	359.77
	Edward River	36	3.96	26	2.86	3392	373.4
	Federation	72	5.79	48	3.86	4217	339.07
	Greater Hume Shire	52	4.83	45	4.18	4348	403.94
	Griffith	163	6.03	130	4.81	12519	463.17
	Hay	5	1.7	2	0.68	691	234.32
	Hilltops	94	5.03	70	3.74	7300	390.29
	Junee	12	1.8	17	2.54	1896	283.7
	Lachlan ¹	4	0.66	5	0.82	1242	204.44
	Leeton	41	3.58	35	3.06	3675	321.1
	Lockhart	14	4.26	11	3.35	1063	323.59
	Murray River	4	0.33	3	0.25	1091	90.03
	Murrumbidgee	19	4.85	12	3.06	1105	282.1
	Narrandera	11	1.86	8	1.36	1438	243.77
	Snowy Valleys	63	4.35	51	3.52	5668	391.46
	Temora	16	2.54	14	2.22	1711	271.29
	Wagga Wagga	471	7.22	481	7.37	36545	560.01
	<i>LHD Total²</i>	1524	5.11	1321	4.43	123319	413.67
Nepean Blue Mountains	Blue Mountains	587	7.42	526	6.65	62356	788.14
	Hawkesbury	474	7.04	398	5.91	42605	633.1
	Lithgow	65	3.01	72	3.33	8747	404.86
	Penrith	1296	6.09	1249	5.86	150314	705.78
	<i>LHD Total²</i>	2397	6.13	2232	5.71	261959	669.99
Northern NSW	Ballina	1142	25.59	1247	27.94	29805	667.85
	Byron	281	8.01	288	8.21	24376	694.85
	Clarence Valley	212	4.1	190	3.68	16748	324.18
	Kyogle	29	3.3	27	3.07	2709	307.98
	Lismore	306	7	258	5.9	23523	538.38
	Richmond Valley	130	5.54	115	4.9	10344	440.83
	Tenterfield	21	3.18	21	3.18	1643	249.17
	Tweed	511	5.27	477	4.92	38591	397.84
<i>LHD Total²</i>	2617	8.43	2607	8.4	146467	471.92	
Northern Sydney	Hornsby	1293	8.5	1120	7.37	101258	665.91
	Hunters Hill	290	19.36	243	16.22	22642	1511.48
	Ku-ring-gai	1823	14.34	1512	11.89	133588	1050.61
	Lane Cove	766	19.08	705	17.56	64287	1600.97
	Mosman	355	11.46	305	9.84	27297	881.09
	North Sydney	668	8.9	710	9.46	50360	671.28
	Northern Beaches	4494	16.43	2896	10.59	340669	1245.6
	Parramatta ¹	2024	7.87	1838	7.15	148795	578.53

Local Health District	Local Government Area	Week ending				Total since January 2021	
		01-May		24-April		No.	Tests per 1,000 population
		No.	Tests per 1,000 population	No.	Tests per 1,000 population		
	Ryde	1398	10.65	1170	8.91	94501	719.89
	Willoughby	728	8.97	584	7.19	51923	639.53
	<i>LHD Total²</i>	12257	12.82	9647	10.09	916764	959.04
South Eastern Sydney	Bayside	1306	7.32	1211	6.79	98354	551.32
	Georges River	1074	6.73	920	5.77	83716	524.96
	Randwick	1575	10.12	1511	9.71	133705	859.02
	Sutherland Shire	1987	8.62	1819	7.89	173332	751.62
	Sydney ¹	3335	13.54	3085	12.52	219860	892.5
	Waverley	948	12.76	878	11.82	76645	1031.63
	Woollahra	1065	17.93	960	16.17	66307	1116.52
	<i>LHD Total²</i>	9290	9.69	8520	8.88	711894	742.25
South Western Sydney	Camden	816	8.04	756	7.45	89756	884.84
	Campbelltown	1025	6	1073	6.28	120962	707.62
	Canterbury-Bankstown ¹	2287	6.05	2115	5.6	211958	560.86
	Fairfield	775	3.66	707	3.34	93479	441.57
	Liverpool	1070	4.7	1055	4.64	146451	643.5
	Wingecarribee	367	7.18	335	6.55	38467	752.28
	Wollondilly	249	4.68	230	4.33	25764	484.75
	<i>LHD Total²</i>	5344	5.15	5119	4.93	618513	595.56
Southern NSW	Bega Valley	223	6.47	124	3.6	13733	398.34
	Eurobodalla	189	4.91	162	4.21	20738	539.03
	Goulburn Mulwaree	147	4.72	136	4.37	14491	465.47
	Queanbeyan-Palerang Regional	210	3.44	200	3.27	20293	332.13
	Snowy Monaro Regional	103	4.95	83	3.99	8763	421.4
	Upper Lachlan Shire	44	5.46	41	5.09	3251	403.4
	Yass Valley	53	3.1	47	2.75	4920	287.94
	<i>LHD Total²</i>	969	4.46	793	3.65	86219	397.19
Sydney	Burwood	204	5.02	221	5.44	19836	488.43
	Canada Bay	926	9.64	884	9.2	76115	792.25
	Canterbury-Bankstown ¹	2287	6.05	2115	5.6	211958	560.86
	Inner West	1991	9.91	1849	9.21	176135	877.12
	Strathfield	407	8.67	393	8.37	34864	742.96
	Sydney ¹	3335	13.54	3085	12.52	219860	892.5
	<i>LHD Total²</i>	6752	9.69	6340	9.1	551239	791.13
Western NSW	Bathurst Regional	244	5.59	221	5.07	24301	557.13
	Blayney	43	5.83	22	2.98	3992	540.99
	Bogan	8	3.1	12	4.65	1068	413.95
	Bourke	13	5.02	5	1.93	660	254.83
	Brewarrina	8	4.97	5	3.1	377	234.02
	Cabonne	51	3.74	50	3.67	4102	300.87
	Cobar	19	4.08	21	4.51	1381	296.48
	Coonamble	9	2.27	14	3.54	1149	290.3
	Cowra	63	4.94	54	4.24	4506	353.61
	Dubbo Regional	267	4.97	223	4.15	23668	440.59

Local Health District	Local Government Area	Week ending				Total since January 2021	
		01-May		24-April		No.	Tests per 1,000 population
		No.	Tests per 1,000 population	No.	Tests per 1,000 population		
	Forbes	23	2.32	31	3.13	2741	276.7
	Gilgandra	30	7.08	7	1.65	1171	276.24
	Lachlan ¹	4	0.66	5	0.82	1242	204.44
	Mid-Western Regional	131	5.19	141	5.58	10961	434.08
	Narromine	36	5.52	16	2.46	2258	346.48
	Oberon	11	2.03	14	2.59	2067	382
	Orange	314	7.4	293	6.9	27970	658.88
	Parkes	53	3.57	55	3.71	5186	349.53
	Walgett	14	2.35	6	1.01	1913	321.35
	Warren	16	5.93	13	4.82	1621	601.04
	Warrumbungle Shire	30	3.23	19	2.05	3444	371.2
	Weddin	7	1.94	12	3.32	1067	295.32
	<i>LHD Total²</i>	1394	4.89	1238	4.34	126487	443.8
Western Sydney	Blacktown	2854	7.62	2561	6.84	248327	663.18
	Cumberland	1556	6.44	1467	6.07	157621	652.62
	Parramatta ¹	2024	7.87	1838	7.15	148795	578.53
	The Hills Shire	2049	11.51	1784	10.02	162725	914.34
	<i>LHD Total²</i>	8092	7.68	7291	6.92	693510	658.33
NSW Total³		71577	8.85	62242	7.69	1511316	186.82

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 25 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 2020–25 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	478,633	3	0.00%	1	0.00%	1,839	1,324	8,636	25,924	94	3,394
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	28,021	0	0.00%	0	0.00%	178	226	368	1,791	13	270
11 April	19,382	0	0.00%	0	0.00%	152	256	387	1,513	11	259
18 April	20,263	0	0.00%	1	0.00%	167	294	311	1,521	7	208
25 April	21,195	0	0.00%	0	0.00%	149	336	315	1,495	5	187

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

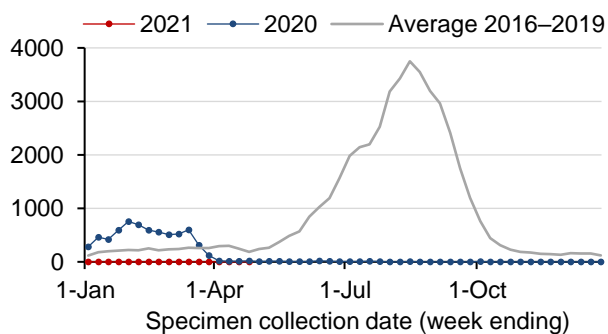
RSV - Respiratory syncytial virus

*Five-week period

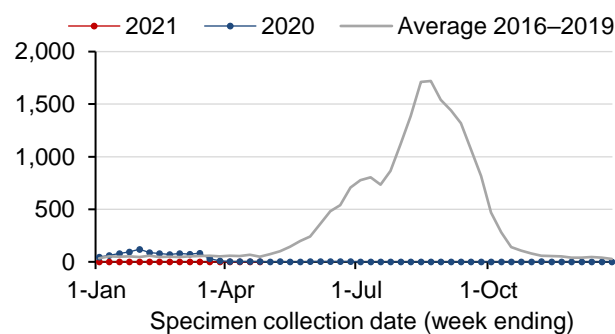
Appendix C: Number of positive PCR test results for influenza and other respiratory viruses at sentinel NSW laboratories, January 2020 to 25 April 2021

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.

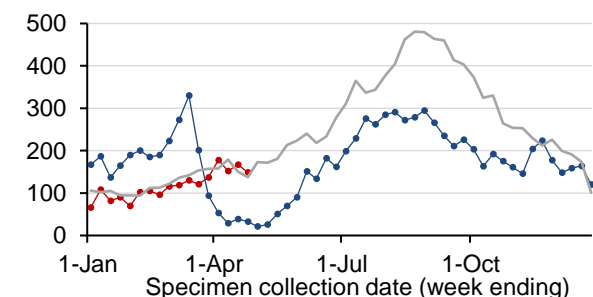
Influenza A



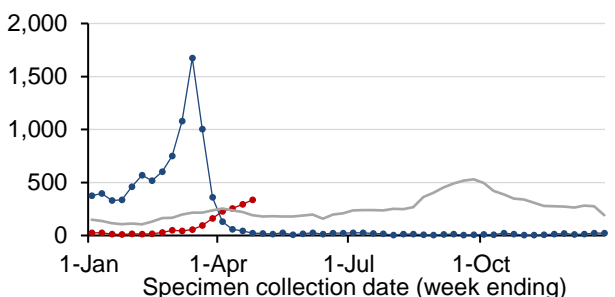
Influenza B



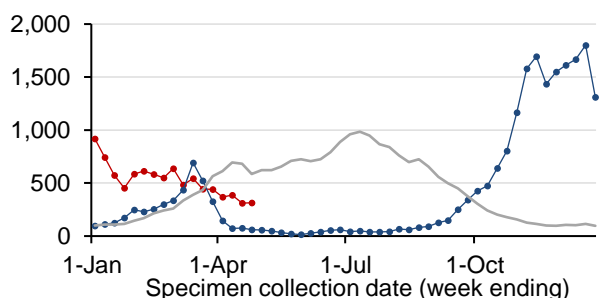
Adenovirus



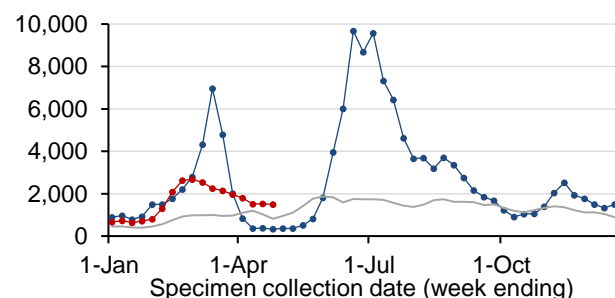
Parainfluenza



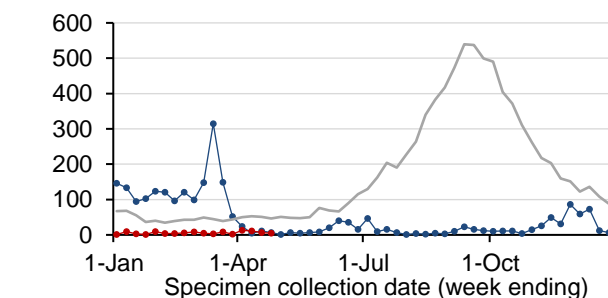
Respiratory syncytial virus (RSV)



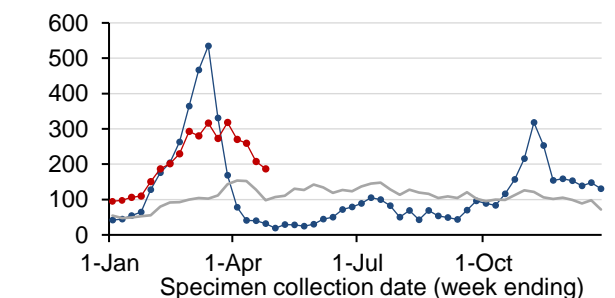
Rhinovirus



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 01 May 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		27-Feb	6-Mar	13-Mar	20-Mar	27-Mar	3-Apr	10-Apr	17-Apr	24-Apr	1-May
Pop.	Location	8	9	10	11	12	13	14	15	16	17
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										
233,176	Cronulla										
1,857,740	Malabar 1										
	Malabar 2										
181,005	Liverpool										
98,743	West Camden										
6,882	Wallacia										
14,600	Picton										
161,200	Glenfield										
1,341,986	North Head										
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		27-Feb	6-Mar	13-Mar	20-Mar	27-Mar	3-Apr	10-Apr	17-Apr	24-Apr	1-May
Network	Location	8	9	10	11	12	13	14	15	16	17
Bondi	Paddington Sewage Network	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red
Bondi	Rozelle Sewage Network	White	White	White	White	White	White	White	White	Green	Green
Cronulla	Caringbah Sewage Network	White	Green	Green	Green	Green	Green	Green	Green	Green	Green
Cronulla	Miranda Sewage Network	White	Green	Green	Green	Green	Green	Green	Green	Green	Green
Malabar	Earlwood Sewage Network	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
Malabar	Marrickville Sewage Network 1	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
Malabar	Marrickville Sewage Network 2	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
Malabar	Bardwell Creek Sewage Network	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
Malabar	Arncliffe Sewage Network 1	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
Malabar	Arncliffe Sewage Network 2	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
Malabar	Blakehurst Sewage Network	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
Malabar	Padstow Sewage Network 1	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
Malabar	Padstow Sewage Network 2	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
Malabar	Fairfield Sewage Pumping Station 1	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
Malabar	Fairfield Sewage Pumping Station 2	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
Malabar	Homebush Sewage Pumping Station	Green	Green	Green	Red	Green	Red	Green	Green	Green	Green
Malabar	Olympic Park	White	White	White	White	White	Red	Green	Green	Grey	Grey
Malabar	Croydon Sewage Network	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
Malabar	Dulwich Hill Sewage Network	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
Malabar	Canterbury Sewage Network	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
Malabar	Botany Sewage Network	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red
Malabar	Maroubra Sewage Network	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
North Head	Camellia Sewage Pumping Station - North	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
North Head	Camellia Sewage Pumping Station - South	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
North Head	Auburn Sewage Network	Red	Green	Green	Green	Green	Green	Green	Green	Green	Green
North Head	Northmead Sewage Pumping Station	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
North Head	Northmead Sewage Network	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
North Head	Tunks Park Sewage Network	White	Green	Green	Green	Green	Green	Green	Green	Green	Green
North Head	Vineyard Creek Sewage Network	White	Green	Green	Green	Green	Green	Green	Green	Green	Green
North Head	Boronia Park Sewage Network	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
North Head	West Lindfield Sewage Network	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
North Head	Lane Cove West Sewage Network	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
North Head	Allambie Heights Sewage Network	White	Green	Green	Green	Green	Green	Green	Green	Red	Red
North Head	Buffalo Creek Reserve Network	White	Green	Green	Green	Green	Green	Green	Green	Green	Green
Glenfield	Minto Sewage Network	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
Liverpool	Ireland Park Sewage Network	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
Quakers Hill	Eastern Creek Sewage Network	White	Green	Green	Green	Green	Green	Green	Green	Green	Green
St Mary's	Ropes Creek Sewage Network	White	Green	Green	Green	Green	Green	Green	Green	Green	Green

Regional Sites		27-Feb	6-Mar	13-Mar	20-Mar	27-Mar	3-Apr	10-Apr	17-Apr	24-Apr	1-May
Pop.	Location	8	9	10	11	12	13	14	15	16	17
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	
	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	
	Wagga Wagga- inlet 1										
	Wagga Wagga- inlet 2										
	Wagga Wagga -Koorlingal STP										
2,050	Bourke										
	Nyngan										

Regional Sites (con't)		27-Feb	6-Mar	13-Mar	20-Mar	27-Mar	3-Apr	10-Apr	17-Apr	24-Apr	1-May
Pop.	Location	8	9	10	11	12	13	14	15	16	17
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										
	Muswellbrook										
	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)		27-Feb	6-Mar	13-Mar	20-Mar	27-Mar	3-Apr	10-Apr	17-Apr	24-Apr	1-May
Pop.	Location	8	9	10	11	12	13	14	15	16	17
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	
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>