

COVID-19 WEEKLY SURVEILLANCE IN NSW

EPIDEMIOLOGICAL WEEK 2, ENDING 16 JANUARY 2021

Published 21 January 2021

SUMMARY FOR THE WEEK ENDING 16 January 2021

- There were 14 locally acquired cases reported in NSW this week (down 22%).
- Of the 14 locally-acquired cases:
 - 3 were linked to the Berala cluster
 - 2 were linked to previously reported cases and not part of a cluster
 - 6 were linked to a residential cluster in Auburn
 - 3 were unable to be epidemiologically linked to a known case or cluster but have been genomically linked to the Avalon (1) and Berala clusters (2). Epidemiological links are still under investigation.
- The majority of locally-acquired cases reporting symptoms were not in isolation at least 48 hours before symptom onset.
- The majority of locally-acquired cases were residents of Western Sydney LHD (10, 71%).
- Testing numbers decreased across all LHDs and age groups this week with overall testing rates down 41% when compared to the previous week.
- The NSW Sewage Surveillance Program reported seven detections – these samples were taken from the Glenfield, Warriewood (two samples detected), West Hornsby, Bondi, North Head and Malabar treatment plants. All detections were associated with reported cases from known locally acquired cases and returned travellers.
- There have been 22 returned travellers that have tested positive to COVID-19 Variants of Concern (VoC) since 30 November. To date there has been no identified cases detected in the community.
- All people are reminded of the need to isolate and seek testing as soon as any symptoms develop, to limit spread of COVID-19 to other people.

Indicators of effective prevention measure for COVID-19 in NSW for the week ending 16 January 2021

Locally acquired cases in isolation during their infectious period

| | Week of reporting | | | |
|---|--------------------|-----|-------------------|-----|
| | Week ending 16-Jan | | Week ending 9-Jan | |
| | Count | % | Count | % |
| Locally acquired cases | 14 | | 18 | |
| Cases with symptoms at diagnosis | 10 | 71% | 15 | 83% |
| Number in isolation at least 48 hours before symptoms | 1 | 10% | 2 | 13% |
| Cases reporting no symptoms at diagnosis | 4 | 29% | 3 | 17% |
| Number in isolation at least 48 hours before test | 0 | 0% | 1 | 33% |

Interpretation: In the week ending 16 January, four cases (29%) did not report symptoms at the time of diagnosis and had sought testing because they were either close contacts or had been in a venue that had been visited by confirmed cases of COVID-19. Of the ten cases who were symptomatic, one was in isolation at least 48 hours before symptoms. To reduce the spread of COVID-19 it is essential that people seek testing immediately if symptoms develop, however mild.

Measures of Public Health Action

| | Week of reporting | |
|---|--------------------|-------------------|
| | Week ending 16-Jan | Week ending 9-Jan |
| Proportion locally-acquired cases notified to NSW Health by the laboratory within 24 hours | 93% (13/14) | 100% (18/18) |
| Locally-acquired cases interviewed by public health staff within 1 day of notification to NSW Health | 100% (14/14) | 100% (18/18) |
| Close contacts (identified by the case) contacted by public health within 48 hours of case notification | 100% (14/14) | 100% (18/18) |

Interpretation: In the week-ending 16 January, all locally-acquired cases were interviewed within a day of notification of positive result and all close contacts were contacted by public health within 48 hours of case notification.

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SECTION 1: HOW IS THE OUTBREAK TRACKING IN NSW?

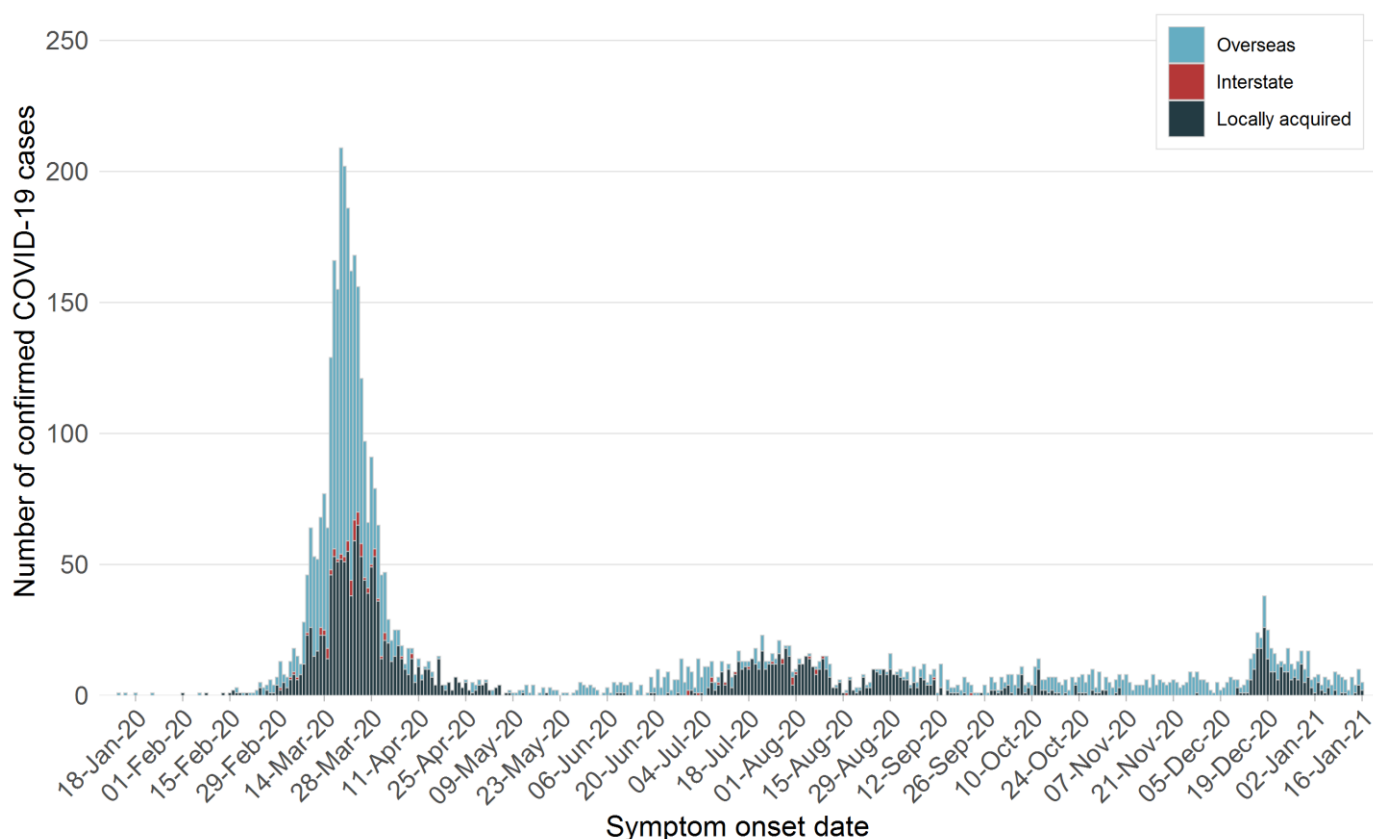
Table 1. COVID-19 cases and tests reported in NSW, up to 16 January 2021

| | Week ending 16 Jan | Week ending 9 Jan | % change | Pandemic total |
|---|--------------------|-------------------|----------|----------------|
| Number of cases | 60 | 54 | ↑11% | 4,884 |
| Overseas acquired | 46 | 36 | ↑28% | 2,704 |
| Interstate acquired | 0 | 0 | - | 90 |
| Locally acquired | 14 | 18 | ↓22% | 2,090 |
| No epidemiological links to other cases or clusters | 3 | 2 | ↑50% | 448 |
| Number of deaths | 0 | 0 | - | 56 |
| Number of tests | 103,806 | 175,168 | ↓41% | 4,484,754 |

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

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

Figure 1. COVID-19 cases by likely infection source and illness onset, NSW, week ending 16 January



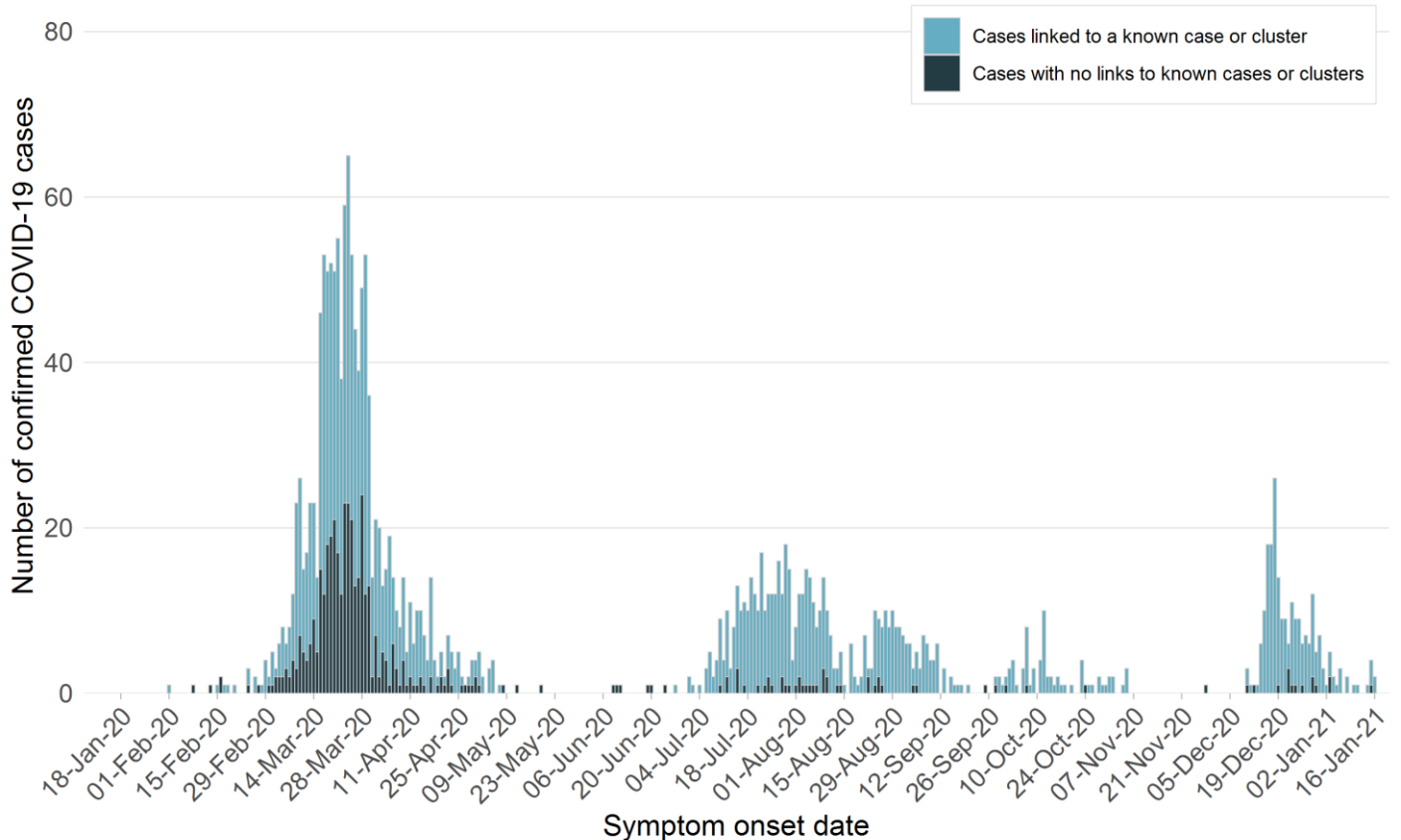
The date of the first positive test is used for cases who did not report symptoms.

Interpretation: The majority of COVID-19 infections diagnosed in the last two weeks in NSW have been overseas acquired.

How much local transmission is occurring in NSW?

Public health efforts are focused on contact tracing to limit further spread in the community and identifying the source of infection for every case. To understand the extent of community transmission, locally-acquired cases who have had contact with a case or who are part of a known cluster are considered separately to those with an unidentified source of infection. Cases with no links to other cases or clusters suggest that there are people infected with COVID-19 in the community who have not been diagnosed.

Figure 2. COVID-19 cases by likely infection source and illness onset, NSW, week ending 16 January



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

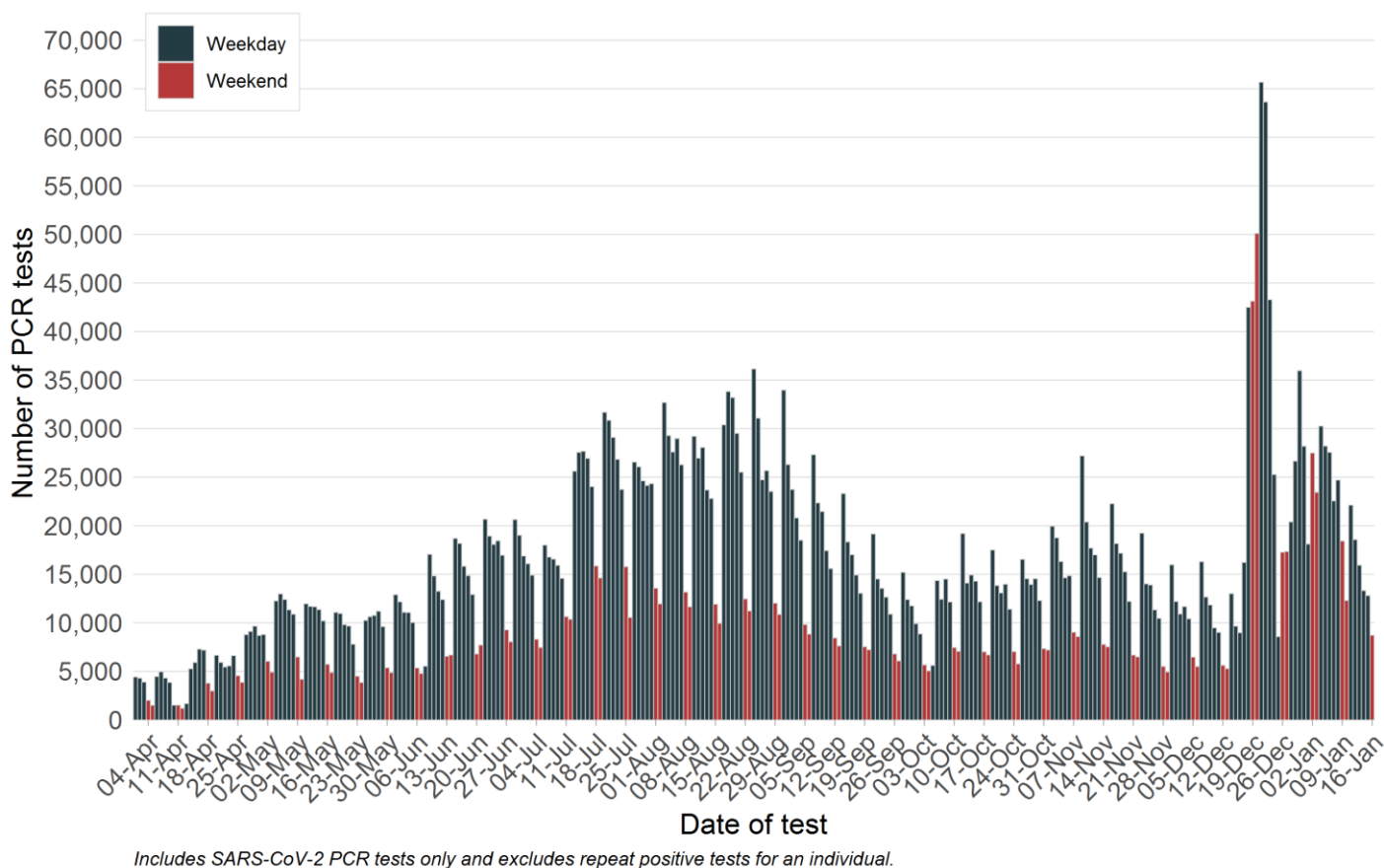
Interpretation: Of the 22 locally-acquired cases with an onset of symptoms in the last two weeks, half (11) were household contacts of a confirmed case and further eight were linked to a previously reported case or part of a known cluster.

SECTION 2: 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 open seven days a week, less testing occurs through GPs and private collection centres on weekends and public holidays. This explains the lower number of tests on weekends.

Figure 3. Number of PCR tests per day, NSW, 2020

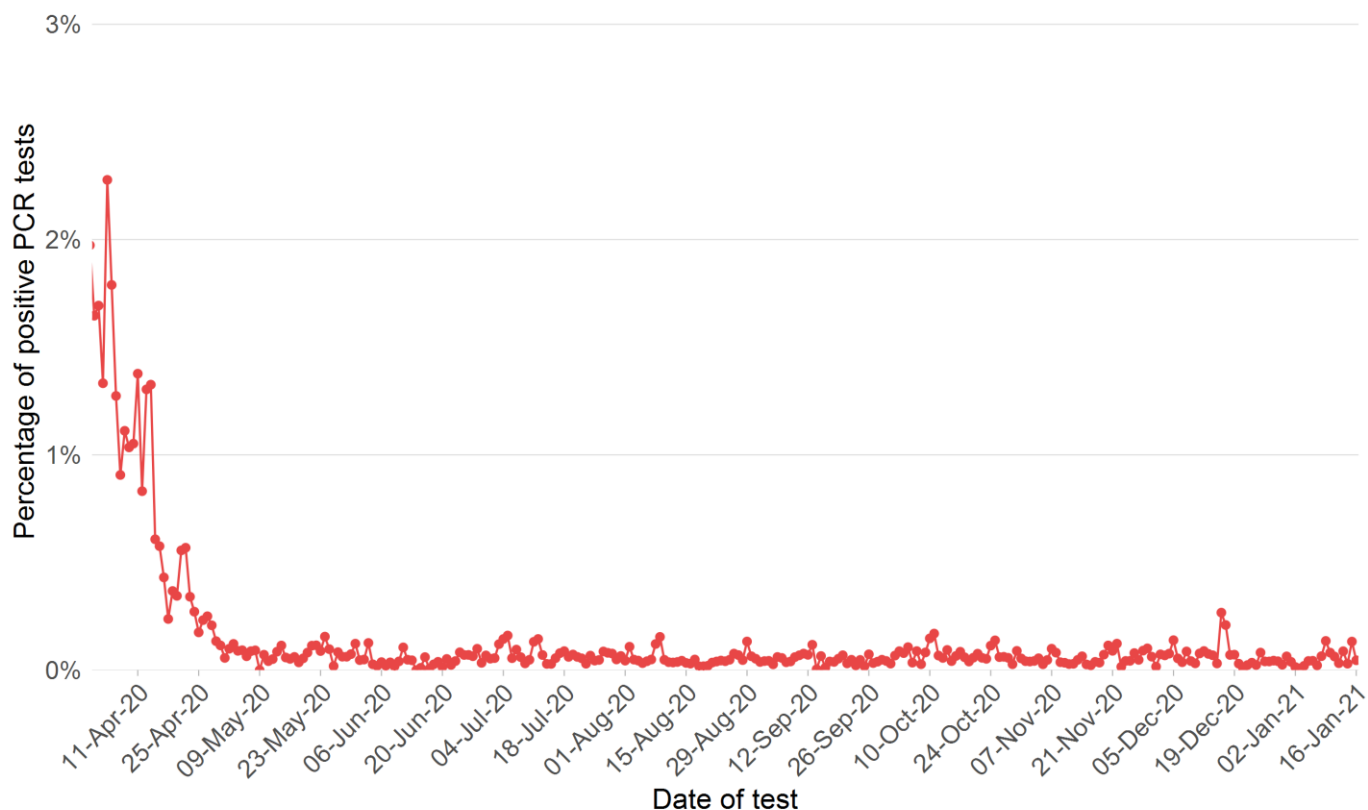


Interpretation: Testing numbers decreased significantly in the week ending 16 January (down 41%) compared to the previous week. An average of 1.8 tests were conducted per 1,000 people in NSW each day compared to 3.1 per 1,000 people the previous week and 4.8 per 1,000 people in December in response to the outbreak in the Northern Beaches.

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.

What proportion of tests are positive?

Figure 4. Number of PCR tests per day, NSW, 16 January

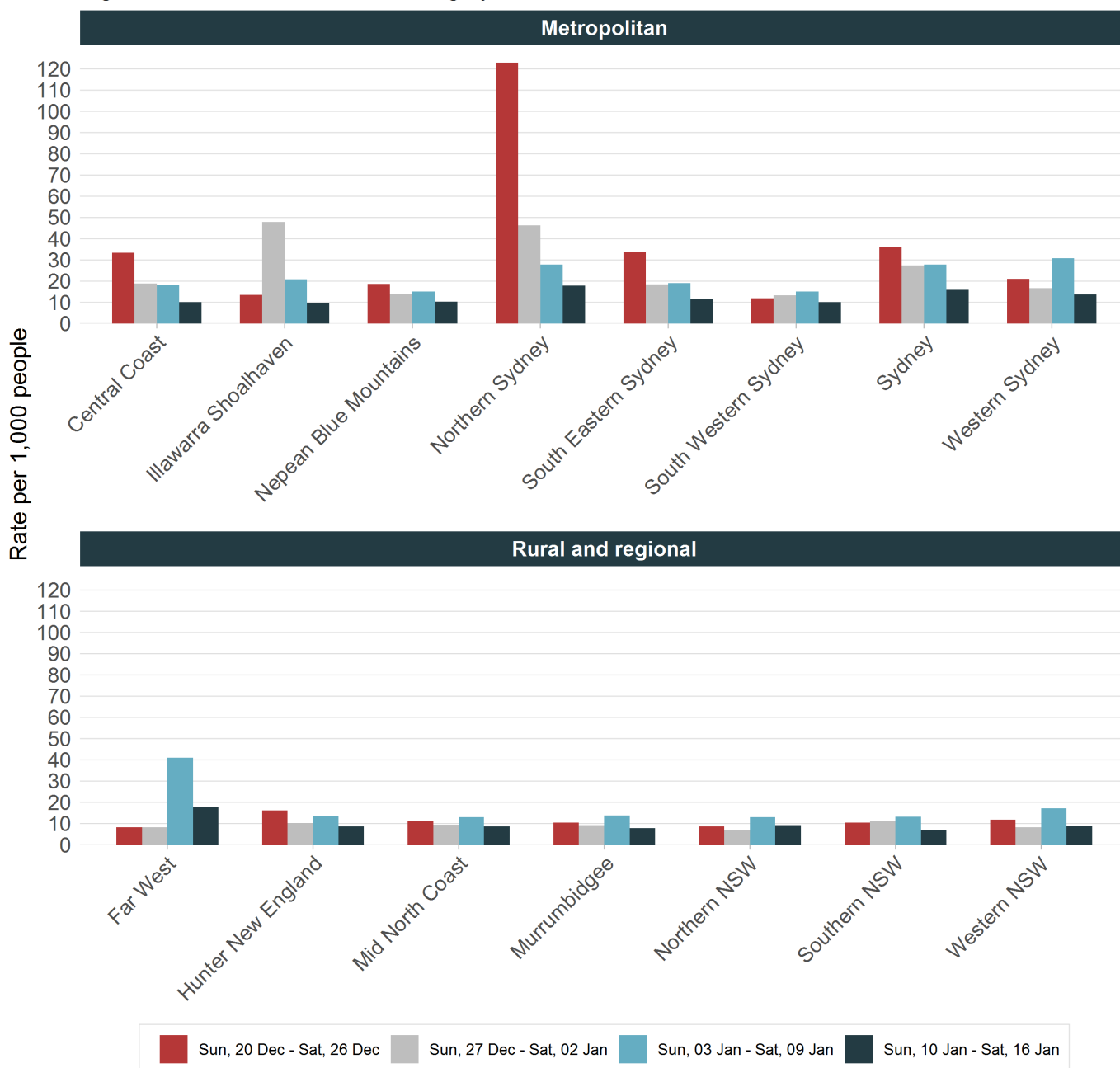


Includes SARS-CoV-2 PCR tests only and excludes repeat positive tests for an individual.

Interpretation: The proportion of tests positive for COVID-19 in NSW declined in mid-March to early May 2020, and then stabilised at very low levels. Despite high rates of testing, the overall proportion of tests found to be positive indicate low levels of transmission in the community.

Testing by Local Health District

Figure 5. Rates of COVID-19 testing by LHD of residence and week

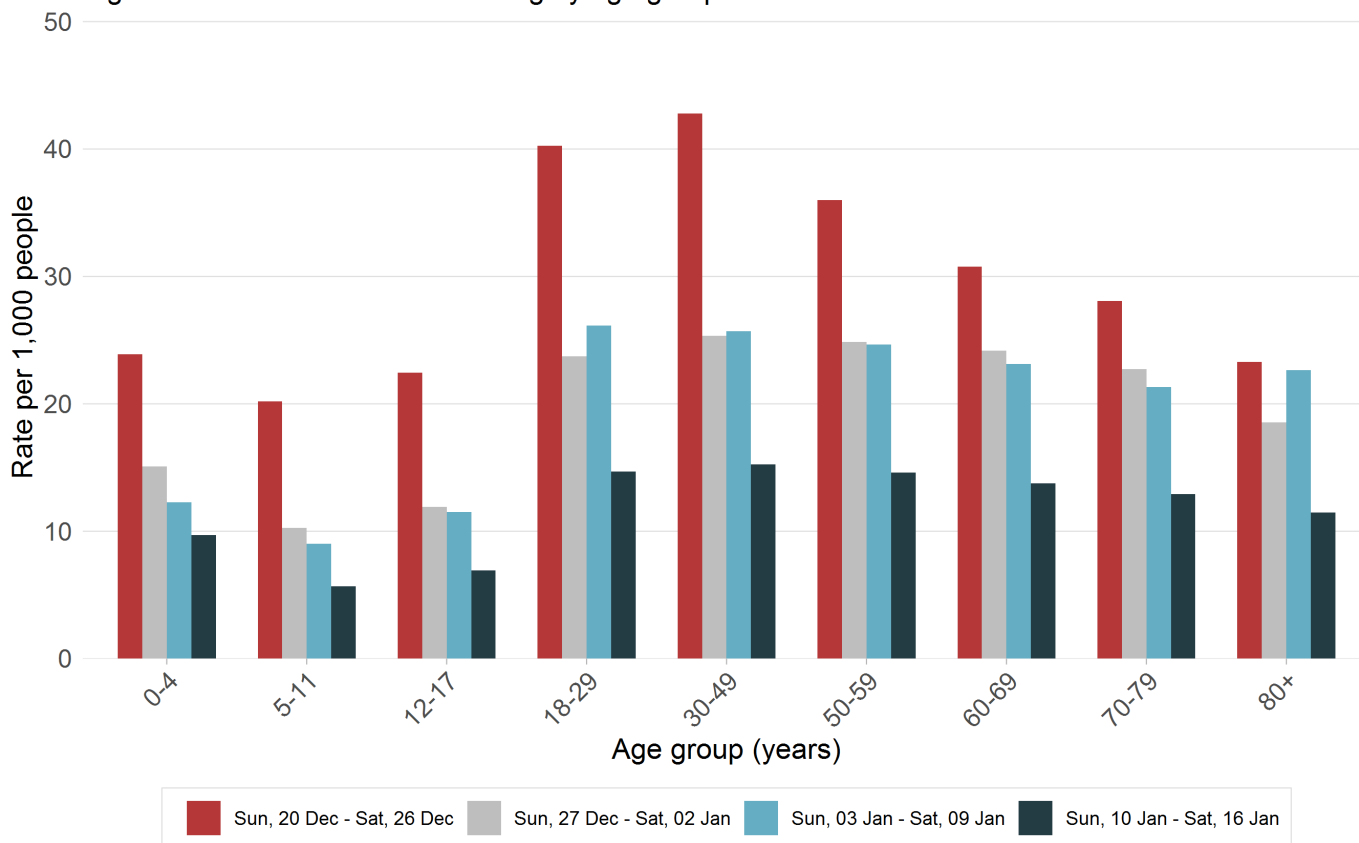


Includes SARS-CoV-2 PCR tests only and excludes notifications with missing postcode of residence.

Interpretation: State-wide testing rates in the week ending 16 January almost halved compared to the previous week (13 per 1,000 vs 22 per 1,000 people). The greatest decrease was in Far West LHD (down 65%) following a surge of testing in the previous week in response to a positive case travelling through the region.

Testing by age group

Figure 6. Rates of COVID-19 testing by age group and week

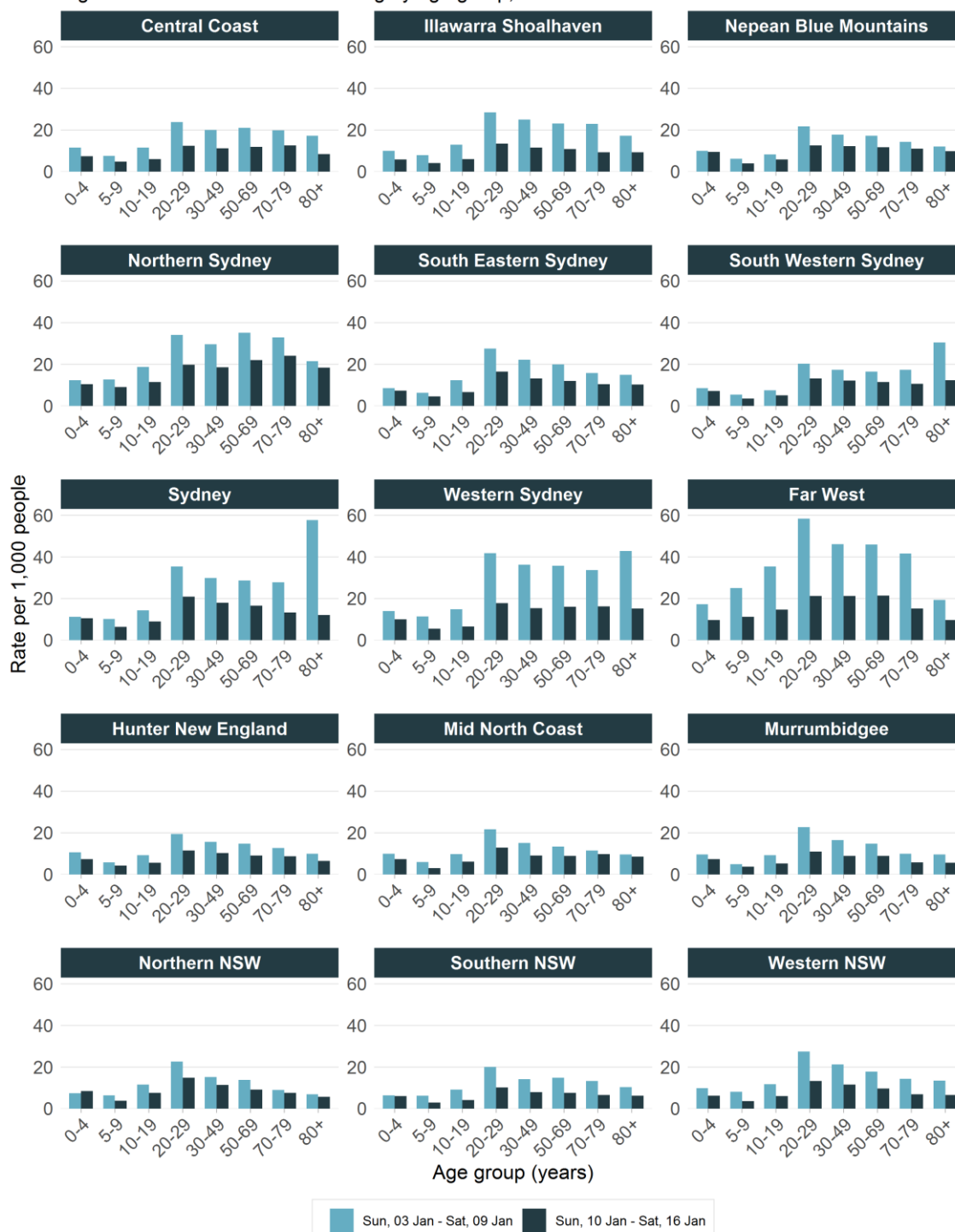


Includes SARS-CoV-2 PCR tests only and excludes notifications with age missing.

Interpretation: Testing rates decreased across all age groups in the week ending 16 January. Testing rates in school aged children have decreased for the fourth consecutive week which corresponds to the school holiday period and a subsequent decrease in respiratory virus activity in NSW within these age groups.

Testing by LHD and age group

Figure 7. Rates of COVID-19 testing by age group, LHD of residence and week



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

Interpretation: There was significant decrease in state-wide testing across all age groups across most LHDs in the week ending 16 January. The largest decrease was in adults that reside in Western Sydney, Sydney and Far West LHDs following elevated testing rates in the previous week. Sydney, South Western Sydney and Western Sydney LHDs also reported a significant decrease in testing for people aged 80 years and over following targeted surveillance testing within this age group the previous week.

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

Information from cases who were diagnosed in the last four weeks is used to understand where COVID-19 is spreading in the community. This takes into account the **incubation period** and the time it takes for people to seek testing and for the laboratory to perform the test. This section summarises cases based on the date the case was reported to NSW Health.

Table 2. Locally-acquired COVID-19 cases in NSW, by notification week and source of infection, 26 December to 16 January 2021

| Locally-acquired cases | Week ending | | | | Total |
|--|-------------|-----------|-----------|-----------|------------|
| | 16 Jan | 09 Jan | 02 Jan | 26 Dec | |
| Cases who are linked to a known case or cluster | 11 | 16 | 48 | 58 | 131 |
| Cases with no epidemiological links to other cases or clusters | 3 | 2 | 4 | 5 | 16 |
| Total | 14 | 18 | 52 | 63 | 147 |

Interpretation: There were 11 cases that were linked to a known case or cluster and three cases with no links to a case or cluster in the week ending 16 January.

Table 3. Locally-acquired COVID-19 cases by LHD of residence and week reported, 26 December to 16 January 2021

| Local Health District | Week ending | | | | Total | Days since last case reported |
|-----------------------|-------------|-----------|-----------|-----------|------------|-------------------------------|
| | 16 Jan | 09 Jan | 02 Jan | 26 Dec | | |
| Central Coast | 0 | 0 | 2 | 0 | 2 | 20 |
| Illawarra Shoalhaven | 0 | 0 | 3 | 0 | 3 | 18 |
| Nepean Blue Mountains | 0 | 0 | 0 | 0 | 0 | 123 |
| Northern Sydney | 2 | 3 | 15 | 38 | 58 | 6 |
| South Eastern Sydney | 0 | 0 | 4 | 10 | 14 | 16 |
| South Western Sydney | 0 | 1 | 9 | 3 | 13 | 13 |
| Sydney | 2 | 6 | 8 | 4 | 20 | 8 |
| Western Sydney | 10 | 8 | 11 | 8 | 37 | 0 |
| Far West | 0 | 0 | 0 | 0 | 0 | 301 |
| Hunter New England | 0 | 0 | 0 | 0 | 0 | 164 |
| Mid North Coast | 0 | 0 | 0 | 0 | 0 | 289 |
| Murrumbidgee | 0 | 0 | 0 | 0 | 0 | 133 |
| Northern NSW | 0 | 0 | 0 | 0 | 0 | 173 |
| Southern NSW | 0 | 0 | 0 | 0 | 0 | 96 |
| Western NSW | 0 | 0 | 0 | 0 | 0 | 164 |
| Total | 14 | 18 | 52 | 63 | 147 | 0 |

Interpretation: There were 14 locally-acquired cases reported in the week ending 16 January. The majority of cases were residents of Western Sydney LHD (71%).

Table 4. Locally acquired COVID-19 cases with no identified links to known cases or cluster by LHD of residence and week reported, 26 December to 16 January 2021

| Local Health District | Week ending | | | | Total |
|-----------------------|-------------|----------|----------|----------|-----------|
| | 16 Jan | 09 Jan | 02 Jan | 26 Dec | |
| Central Coast | 0 | 0 | 0 | 0 | 0 |
| Illawarra Shoalhaven | 0 | 0 | 1 | 0 | 1 |
| Nepean Blue Mountains | 0 | 0 | 0 | 0 | 0 |
| Northern Sydney | 1 | 1 | 0 | 3 | 5 |
| South Eastern Sydney | 0 | 0 | 0 | 2 | 2 |
| South Western Sydney | 0 | 0 | 0 | 0 | 0 |
| Sydney | 0 | 0 | 2 | 0 | 2 |
| Western Sydney | 2 | 1 | 1 | 0 | 4 |
| Far West | 0 | 0 | 0 | 0 | 0 |
| Hunter New England | 0 | 0 | 0 | 0 | 0 |
| Mid North Coast | 0 | 0 | 0 | 0 | 0 |
| Murrumbidgee | 0 | 0 | 0 | 0 | 0 |
| Northern NSW | 0 | 0 | 0 | 0 | 0 |
| Southern NSW | 0 | 0 | 0 | 0 | 0 |
| Western NSW | 0 | 0 | 0 | 0 | 0 |
| Total | 3 | 2 | 4 | 5 | 14 |

Interpretation: There were three locally-acquired COVID-19 cases reported this week with no epidemiological links to a known case or cluster. Of these, one case was a resident of Northern Sydney LHD and two were residents of Western Sydney.

The Northern Sydney resident acquired their infection several days after being released from quarantine. Whole genome sequencing of the virus suggests a similar strain to the Avalon cluster. A household contact of this case has since tested positive and was asymptomatic at the time of test. The source for this case is under investigation.

Of the two cases in Western Sydney, one case attended Mt Druitt Hospital Emergency Department (ED) during their infectious period. Testing of staff and patients has identified no ongoing transmission at Mt Druitt Hospital to date. A household contact of this case has tested positive and was asymptomatic at the time of test. The other case in Western Sydney is the source for a household of six residing in Auburn. All family members had not been in isolation at least 48 hours prior to symptom onset. Both unlinked cases from Western Sydney have been genomically linked to the Berala cluster however epidemiological links are still under investigation.

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.

In the week ending 16 January there were 11 cases linked to a case or cluster. Of these, three cases were associated with the Berala cluster, six cases were linked to a cluster in residential setting in Auburn and two cases were linked to previously reported cases. Whole genome sequencing suggests that the residential cluster in Auburn is linked to the Berala cluster however epidemiological investigations are ongoing.

Cases in community settings

Patient transport cases

On 21 December Western Sydney Public Health Unit was notified of two cases in patient transport workers. Following investigation, the first case was found to be infected by returned travellers being transported from Sydney airport to a quarantine hotel. The second case was a close contact who had worked multiple shifts with the first case. In the week ending 16 January, a further two close contacts of these workers were subsequently notified as cases.

Berala cluster

On 31 December a case was reported in a Western Sydney resident whose source of infection was initially unknown. Subsequent testing of the case's household and contacts identified several more cases associated with a bottle shop in Berala. Further epidemiological investigation supported by whole genome sequencing has revealed that this cluster is linked to one of the patient transport workers.

In the week ending 16 January there were three cases associated with this cluster including one customer who attended the bottle shop in Berala and two close contacts associated with separate dinner events at Macquarie fields and Hurlstone Park. All reported cases had symptoms at diagnosis and two of the three cases were not in isolation at least 48 hours prior to symptom onset.

Table 5. Cases linked to Berala cluster by setting of exposure, reported to week ending 16 January, NSW

| Setting of exposure | Exposure site | Location | Primary cases | Subsequent cases | | Total |
|---------------------|------------------|------------------|---------------|-----------------------|-------------------|-----------|
| | | | | Non-household setting | Household setting | |
| Retail | Bottle shop | Berala | 9 | 1 | 12 | 22 |
| Private event 1 | Dinner party | Macquarie Fields | 2 | 0 | 1 | 3 |
| Private event 2 | Social gathering | Hurlstone Park | 3 | 0 | 0 | 3 |
| Total | | | 14 | 1 | 13 | 28 |

Interpretation: Excluding the source, a healthcare worker that acquired their infection in a healthcare setting, there are 28 cases and three exposure locations associated with this cluster

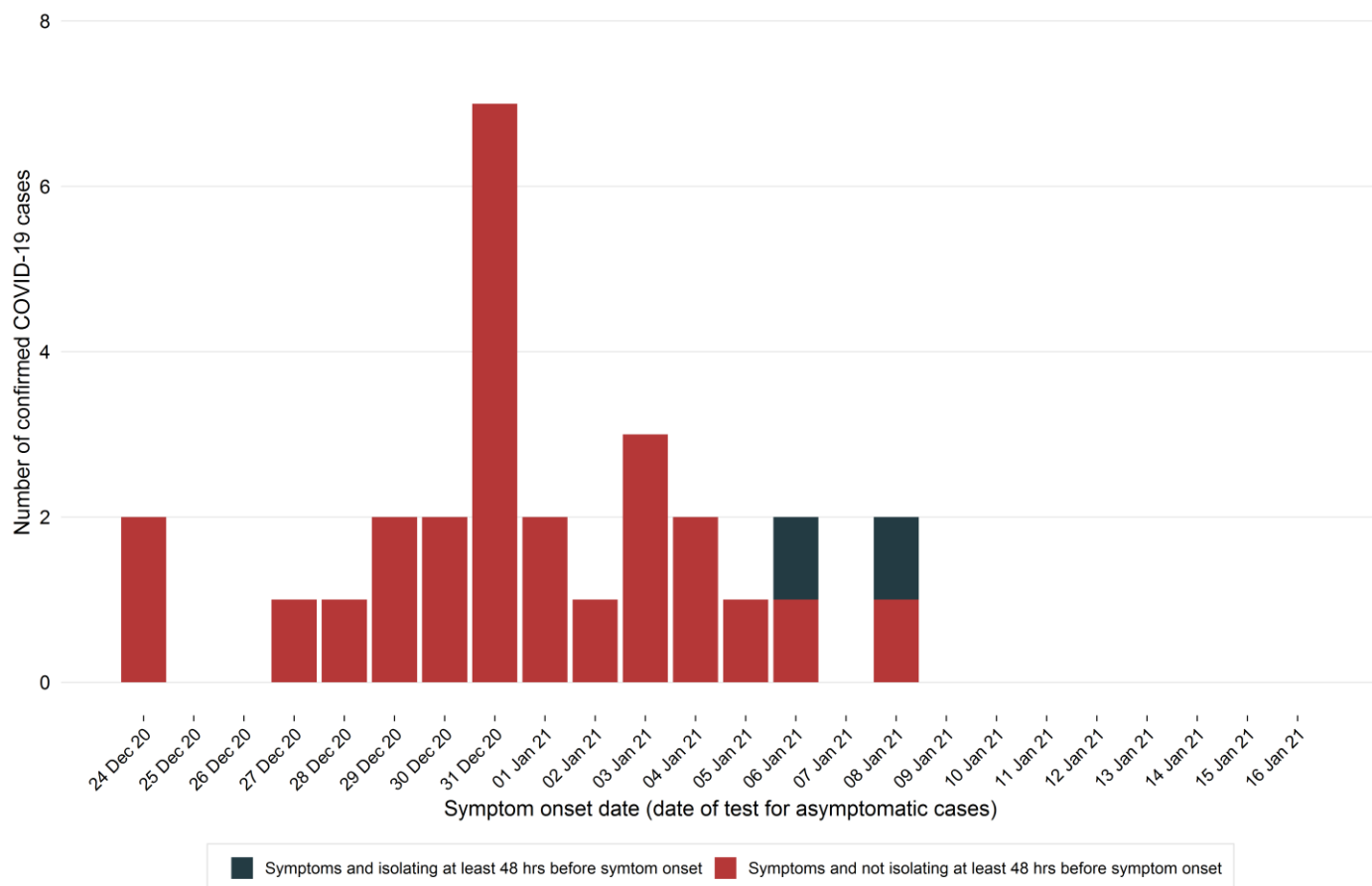
Table 6. Rates of PCR tests within the Berala & surrounding suburbs and rest of Greater Sydney region per 1,000 people by week of test request

| Area of residence | Week ending | | | | |
|-------------------------------|-------------|--------|-------|-------|--------|
| | 19 Dec | 26 Dec | 2 Jan | 9 Jan | 16 Jan |
| Berala & surrounding suburbs* | 7.4 | 14 | 37.1 | 136.8 | 24.2 |
| Rest of Greater Sydney LHDs | 14.8 | 29.6 | 21.4 | 19.5 | 12 |

*Surrounding suburbs include: Auburn, Berala, Birrong, Lidcombe, Rookwood, Potts Hill and Regents Park

Interpretation: Testing rates decreased significantly across Berala and surrounding suburbs in the week ending 16 January. The peak in testing rates in the week ending 9 January were in response to multiple health alerts advising people who attended COVID-19 affected venues in the area to get tested and isolate.

Figure 8. Number of confirmed cases linked to the Berala cluster (n=28) by symptom onset date and symptoms, week ending 16 January 2021



Interpretation: The majority of people associated with the Berala cluster have not been isolating at least 48 hours prior to symptom onset. There were no cases with a symptom onset in the week ending 16 January.

Previously reported active clusters with no new cases identified this week

Avalon cluster

The last case associated with this cluster was notified on 8 January in a case that attended a gym in Mona Vale. Whole genome sequencing of the virus suggests that this is an overseas strain most similar to strains circulating in the United States. In total, there are 151 cases associated with this cluster. In the last four weeks there have been five cases reported that reside in the Northern Sydney area that are geographically associated with this cluster but have no direct epidemiological link. Four of the five cases have been genomically linked to the Avalon cluster and one was unable to be sequenced. These cases are not included in total case numbers for this cluster.

Inner West cluster

The last case associated with this cluster was notified on 7 January in a social contact who attended a family gathering. Excluding the source, who is not linked to any known case or cluster, there are ten cases associated with this cluster. Whole genome sequencing indicate that this cluster is linked to the Avalon cluster, but epidemiological links are still under investigation.

SECTION 5: COVID-19 IN SPECIFIC POPULATIONS

COVID-19 in 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 cases of COVID-19 infections in healthcare to identify ongoing risks in healthcare settings.

There have been two cases of COVID-19 reported in healthcare workers (HCW) in the week ending the 16 January. The two reported cases were infected in the community outside of a healthcare setting. One case worked three days whilst infectious in a non-patient facing role at Concord Hospital. Close contacts of this case have been identified and have been advised to seek testing and isolate immediately. There has been no ongoing transmission at Concord Hospital to date despite comprehensive testing. The other case did not work during their infectious period.

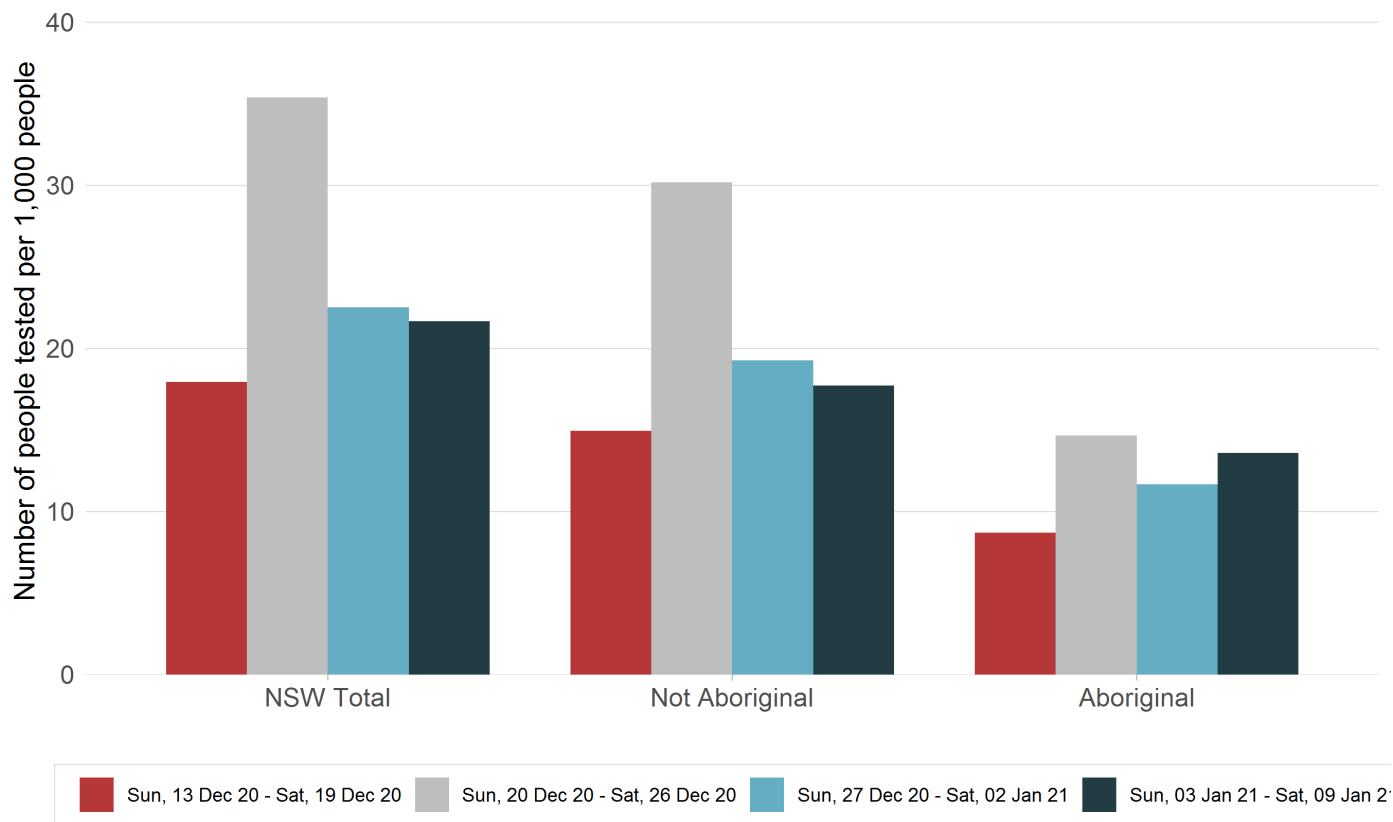
In total, there have been 48 cases of COVID-19 in health care workers since 1 August 2020. Of these, 25 HCWs were potentially infected in healthcare settings. A further nine cases were social or household contacts of a known case, eight were exposed in community settings, and for six cases the source 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](#)).

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. There were no locally-acquired cases in an Aboriginal person reported in the week ending 16 January. In total, 46 Aboriginal people have been diagnosed with COVID-19, representing 0.9% of all cases in NSW.

While Aboriginal status is collected by public health staff on interview with the case at the time of diagnosis, those who test negative are not interviewed. Aboriginal status for those tested can be ascertained through linkage with other health information systems but there is a delay in getting this information. Results of the most recent linkage are available for people tested up to 09 January 2021, with Aboriginal status ascertained for approximately 90% of all COVID-19 test records.

Figure 9. Testing Rate per 1,000 by Aboriginality and week, NSW



Note: NSW Total includes persons tested in NSW without Aboriginality recorded.

Interpretation: Testing rates increased in the week ending 9 January compared to the previous week for Aboriginal people but have remained below the rates reported for non-Aboriginal people. In the last four weeks the testing rates among non-Aboriginal people was significantly higher due to the extensive testing in Northern Sydney LHD in response to the Avalon Cluster.

Pregnant women

There was one overseas-acquired case in pregnant women in the week ending 16 January. In total, 39 pregnant women have been diagnosed with COVID-19 in NSW. As those who test negative are not interviewed, testing rates among pregnant women are not available.

SECTION 6: DEATHS

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

There were no deaths reported in NSW in the week ending 16 January. 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.

Table 7. Deaths as a result of COVID-19, by age group, NSW, 2020 and 2021

| Age group | Number of deaths | Number of cases | Case fatality rate |
|--------------|------------------|-----------------|--------------------|
| 0-4 years | 0 | 109 | 0% |
| 5-11 years | 0 | 115 | 0% |
| 12-17 years | 0 | 152 | 0% |
| 18-29 years | 0 | 1,098 | 0% |
| 30-49 years | 0 | 1,560 | 0% |
| 50-59 years | 1 | 671 | 0.1% |
| 60-69 years | 4 | 634 | 0.6% |
| 70-79 years | 15 | 382 | 3.9% |
| 80+ years | 36 | 163 | 22.1% |
| Total | 56 | 4,884 | 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 7: 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. 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.

In the week ending 16 January, 120 sewage samples were tested for fragments of SARS-CoV-2. Of these, there were seven detections – these samples were taken from the Glenfield, Warriewood (two samples detected), West Hornsby, Bondi, North Head and Malabar 1 treatment plants. The table below shows results for previous weeks from various sites across NSW.

Table 8. Locations with positive SARS-CoV-2 detections in sewage samples since November 2020 for the week ending 16 January 2021

| Pop. | Location | Week ending | | | | | | | | | |
|-----------|---------------------------|-------------|--------|--------|-------|--------|--------|--------|-------|-------|--------|
| | | 14-Nov | 21-Nov | 28-Nov | 5-Dec | 12-Dec | 19-Dec | 26-Dec | 2-Jan | 9-Jan | 16-Jan |
| 60,514 | Blue Mountains (Winmalee) | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 1 | 2 |
| 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 | | | n | | | | | | | |
| 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 | | | | | | | | | | |

| | | Week ending | | | | | | | | | |
|---------|-----------------------|-------------|--------|--------|-------|--------|--------|--------|-------|-------|--------|
| | Regional sites | 14-Nov | 21-Nov | 28-Nov | 5-Dec | 12-Dec | 19-Dec | 26-Dec | 2-Jan | 9-Jan | 16-Jan |
| Pop. | Location | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 1 | 2 |
| 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 | | | | | | | | | | |
| 3,000 | Jindabyne | | | | | | | | | | |
| 8,000 | Cooma | | | | | | | | | | |
| 500 | Gunning | | | | | | | | | | |
| 51,750 | Albury composite | | | c | c | | | c | | | c |
| | 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 | |
| 2,050 | Bourke | | | | | | | | | | |
| 40,000 | Orange | | | | | | | | | | |
| 36,603 | Bathurst | | | | | | | | | | |
| 19,000 | Broken Hill | | | | | | | | | | |
| 500 | Dareton | | | | | | | | | | |
| 11,600 | Parkes | | | | | | | | | | |
| 37,000 | Dubbo | | | | | | | | | | |
| 24,000 | Armidale | | | | | | | | | | |
| 45,000 | Tamworth | | | | | | | | | | |
| | Tenterfield | | | | | | | | | | |
| | Urbenville | | | | | | | | | | |
| 10,000 | Moree | | | | | | | | | | |
| 26,394 | Taree | | | | | | | | | | |
| 12,000 | Forster | | | | | | | | | | |
| 7,582 | Hallidays Point | | | | | | | | | | |
| 5,180 | Harrington | | | | | | | | | | |
| 10,715 | Hawks Nest | | | | | | | | | | |

| Pop. | Location | Week ending | | | | | | | | | |
|-------------------------------------|--------------------------|-------------|--------|--------|-------|--------|--------|--------|-------|-------|--------|
| | | 14-Nov | 21-Nov | 28-Nov | 5-Dec | 12-Dec | 19-Dec | 26-Dec | 2-Jan | 9-Jan | 16-Jan |
| 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 | | | | | | | | | | |
| 17,000 | East Lismore | | | | | | | | | | |
| 15,500 | South Lismore | | | | | | | | | | |
| 18,958 (both plants total) | Byron Bay - Ocean Shores | | | | | | | | | | |
| | Byron Bay | | | | | | | | | | |
| 31,104 | Ballina | | | | | | | | | | |
| 16,000 | Tweed - Murwillumbah | | | | | | | | | | |
| 75,000 | Tweed - Banora Point | | | | | | | | | | |
| 25,000 | Tweed - Kingscliff | | | | | | | | | | |
| 18,000 | Tweed - Hastings Point | | | | | | | | | | |
| 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 | Bellingen | | | | | | | | | | |
| 50,000 | Coffs Harbour | | | | | | | | | | |

| | |
|--|-----------------------------|
| | not sampled or not analysed |
| | SARS-CoV-2 not detected |
| | SARS-CoV-2 detected |

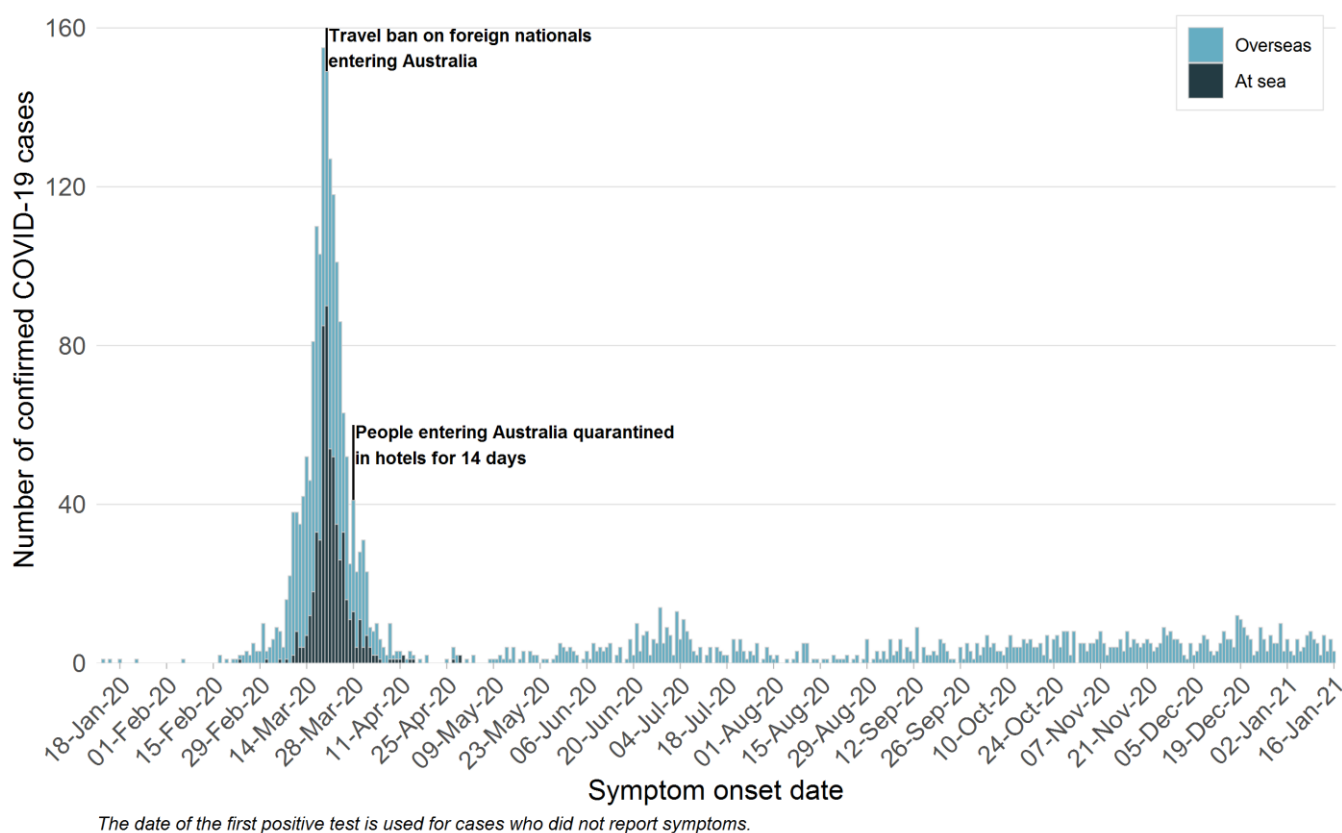
Interpretation: In the last week, there were seven detections of SARS-CoV-2. The Malabar, Bondi and North Head treatment plants serve around 3.5 million people, including quarantine hotels and known cases. All other detections are associated with reported cases from known locally acquired cases and returned travellers.

SECTION 8: COVID-19 IN RETURNED TRAVELLERS

To limit the spread of COVID-19 into NSW, travel restrictions were introduced for all non-Australian citizens and permanent residents. In addition, since 29 March returned travellers have been quarantined in hotels for a 14-day period and travellers who develop symptoms are isolated until no longer infectious.

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

Figure 10. Number of PCR tests per day, NSW, 16 January

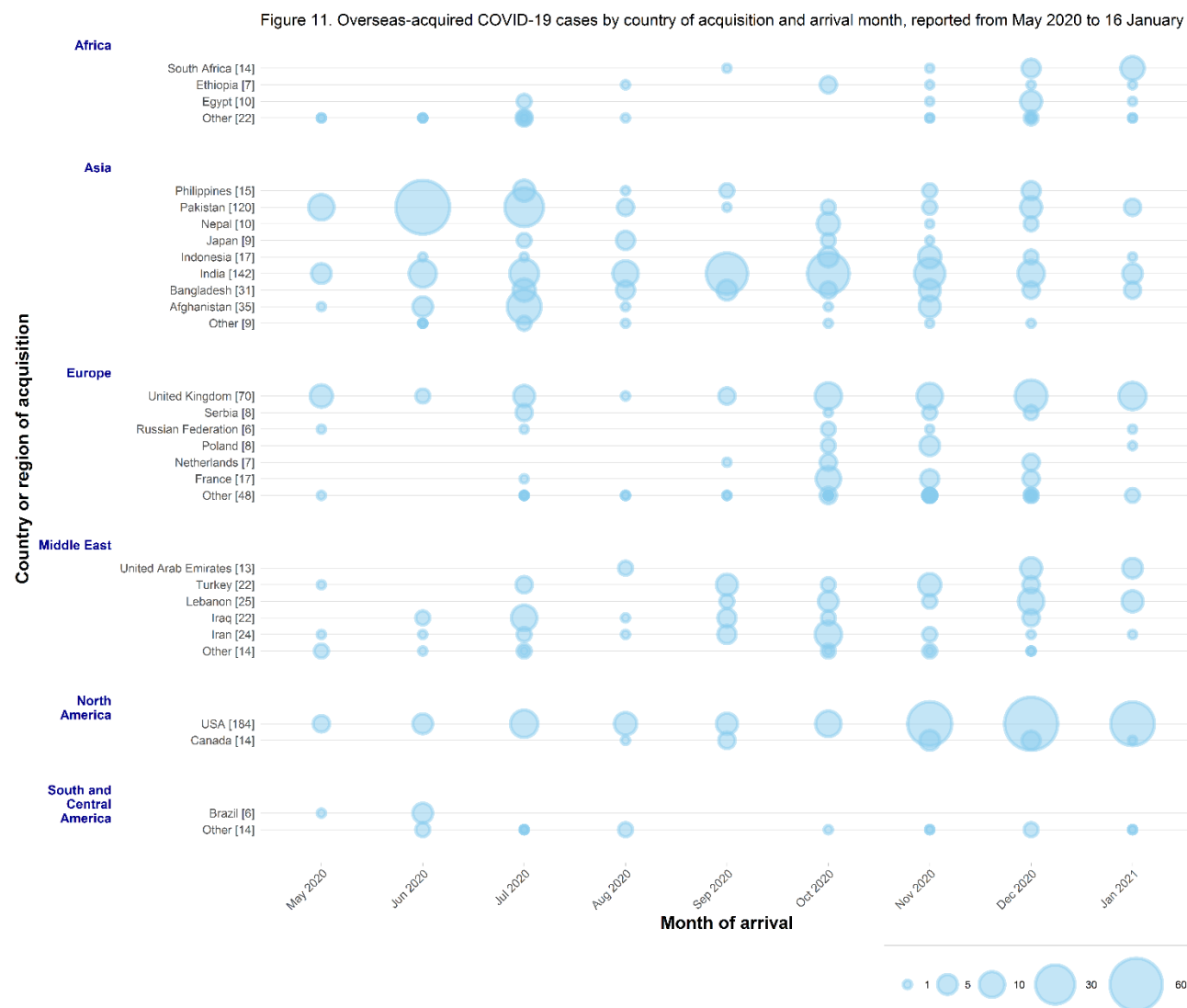


Interpretation: The number of new cases in returned travellers has decreased markedly since March in line with travel restrictions. There were 46 overseas acquired cases reported in the week ending 16 January, 28% more than the previous week.

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 11. Overseas-acquired COVID-19 cases by country of acquisition and arrival month, reported from May 2020 to 16 January, NSW, 2021



Interpretation: Since May, the majority of international travellers diagnosed in NSW were likely infected in Asia or North America. Over the last few weeks there has been a steady increase in the number of positive return travellers from the United Kingdom. The pattern seen in COVID-positive travellers over time reflects the evolving nature of the pandemic in those areas.

In the last four weeks, there have been 175 COVID-positive travellers who have arrived in NSW. The table below lists the top 10 countries of acquisition for these travellers.

Table 9. Top 10 countries of acquisition for overseas travellers that have tested positive in the last four weeks, 30 December to 16 January 2021

| Country of acquisition of COVID-19 | Number (%) of cases in the last four weeks |
|------------------------------------|--|
| USA | 64 (37%) |
| United Kingdom | 20 (11%) |
| South Africa | 12 (7%) |
| Lebanon | 10 (6%) |
| India | 8 (5%) |
| United Arab Emirates | 7 (4%) |
| Pakistan | 5 (3%) |
| Bangladesh | 4 (2%) |
| Egypt | 4 (2%) |
| Netherlands | 3 (2%) |
| Philippines | 3 (2%) |
| Sweden | 3 (2%) |
| Other | 32 (18%) |
| Total | 175 (100%) |

Interpretation: In the last four weeks, travellers returning from the United States accounted for the largest number of overseas acquired cases (64, 37%), followed by travellers returning from the United Kingdom (20, 11%), and South Africa (12, 7%).

COVID-19 Variants of Concern (VoC) in returned travellers

Mutations of the COVID-19 virus are the basis for new genetic variants and the changing prevalence of variant viruses over time. New variants of COVID-19 may be of concern if they demonstrate to be more infectious, spreading more quickly from person to person. In the last few weeks NSW Health Pathology has identified two Variants of Concern (B.1.1.7 and B.1.351) in returned travellers in hotel quarantine. VoC B.1.1.7 originated in the United Kingdom and can now be found in other parts of the world while VoC B.1.351 has origins in South Africa. Both strains are defined by multiple mutations including a shared mutation in the spike protein that binds to the human ACE2 receptor. Emerging evidence suggests that both variants of COVID-19 are more infectious than the dominant strains currently circulating in NSW.

NSW Health has strict protocols in place for managing the health of returned travellers and staff which have been further strengthened to address the additional risk associated with the new variants. Since 30 November, 22 returned travellers have tested positive with the two Variants of Concern.

Table 10. Overseas travellers that have tested positive by VoC and week reported, 30 November 2020 to 16 January 2021

| | Previous four weeks (week ending) | | | | Total since 30 November |
|------------------------------|-----------------------------------|-------|-------|--------|-------------------------|
| | 26 Dec | 2 Jan | 9 Jan | 16 Jan | |
| Overseas acquired cases | 49 | 44 | 36 | 46 | 284 |
| Cases with VoC | 4 | 3 | 8 | 5 | 22 |
| B.1.1.7 | 4 | 3 | 4 | 3 | 16 |
| B.1.351 | 0 | 0 | 4 | 2 | 6 |
| % of overseas cases with VoC | 8% | 7% | 22% | 11% | 8% |

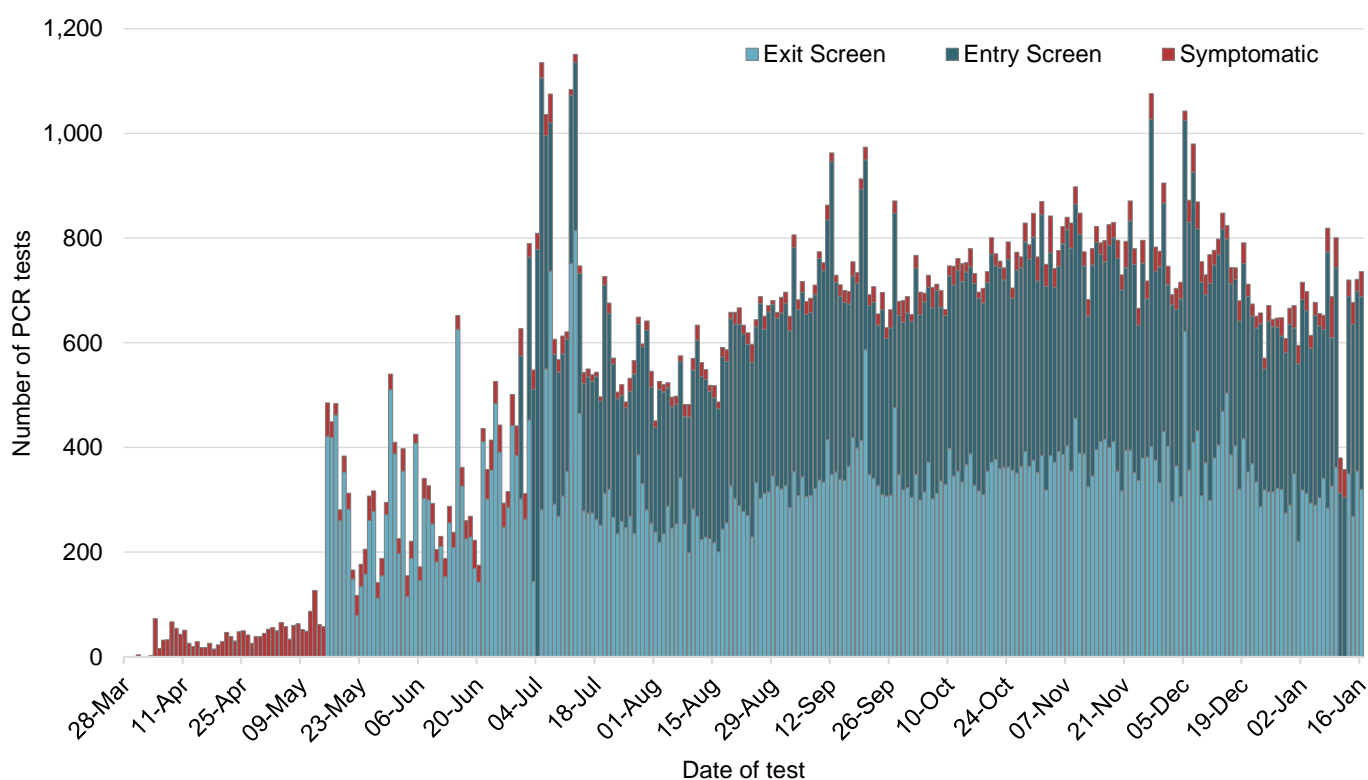
Interpretation: In the week ending 16 January, 11% of return travellers in hotel quarantine have been identified as having COVID-19 Variants of Concern (B.1.1.7 and B.1.351). Since 30 November, the majority of returned travellers likely acquired VoCs from the United Kingdom (10), South Africa (7), Lebanon (4) and Nigeria (1).

Hotel 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 the two mandatory tests.

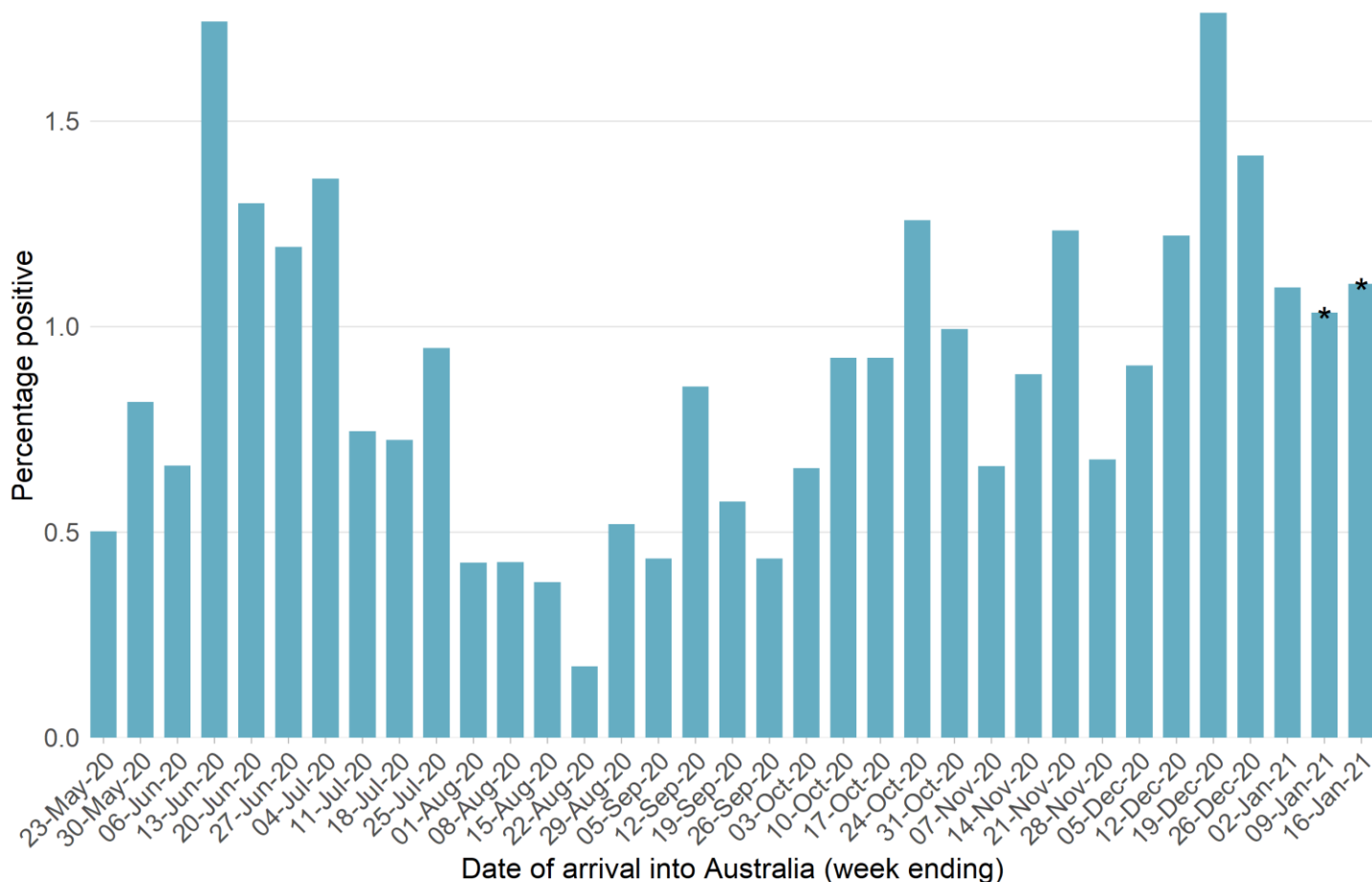
Since hotel quarantine began on 29 March, a total of 158,836 PCR tests have been conducted with 817 overseas acquired cases and 4 interstate acquired COVID-19 cases detected while in hotel quarantine. In the last four weeks, 9,174 returned travellers received an entry swab on day two in hotel quarantine; of these 2.9% reported symptoms at the time of screening. In the same time period, 8,196 returned travellers received an exit swab, and 1.0% reported symptoms at the time of screening.

Figure 12. COVID-19 testing in returned travellers in hotel quarantine, reported from 21 March to 16 January, NSW, 2021



Interpretation: In the week ending 16 January, there were 4,393 tests of travellers conducted through the hotel quarantine screening programs. For two days in the last week there were no exit swabs performed as the timing of the screening moved from day 10 to day 12 of quarantine. This change was implemented to assist with the identification of cases with longer incubation periods and as part of a series of additional security measures that have been employed to strengthen the NSW hotel quarantine system.

Figure 13. COVID-19 percentage positive in returned travellers in hotel quarantine by week of arrival in Australia, reported from week ending 23 May 2020 to week ending 16 January, NSW, 2021



*Returned travellers in the past 14 days are still in hotel quarantine and may return a positive result

Interpretation: In the most recent weeks, slightly more than 1% of returned travellers have tested positive during their stay in hotel quarantine. This increase suggests that more returned travellers are testing positive on arrival into NSW, which is consistent with the current high numbers of COVID-19 cases being reported worldwide. Data is likely incomplete for returned travellers who have arrived within the last two weeks as they are still in hotel quarantine.

SECTION 9: OTHER RESPIRATORY INFECTIONS IN NSW

Influenza and other respiratory virus cases and tests reported in NSW, up to 10 January 2021

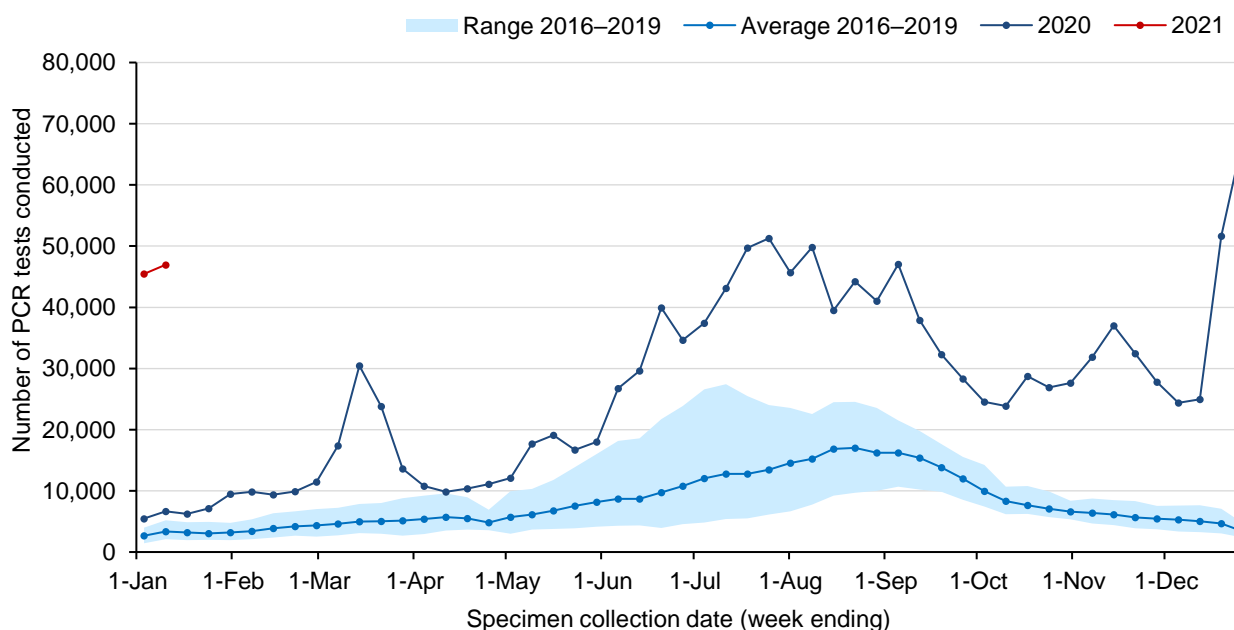
In NSW, routine surveillance for influenza and other respiratory viruses is conducted through sentinel laboratories. The number of all PCR tests (positive and negative) are provided to NSW Health by participating laboratories each week. Testing counts reflect the number of influenza PCR tests conducted;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

The most recent data available is for testing carried out to 10 January 2021. A total of 92,404 influenza tests have been performed at participating laboratories in the two weeks from 28 December 2020 to 10 January 2021. 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 and the black line shows the testing numbers for 2020. The blue line shows the average number of tests carried out for the same week in the previous four years (2016–2019) and the shaded area shows the range of counts reported in the same time period.

Figure 14. Testing for influenza by week, to 10 January 2021

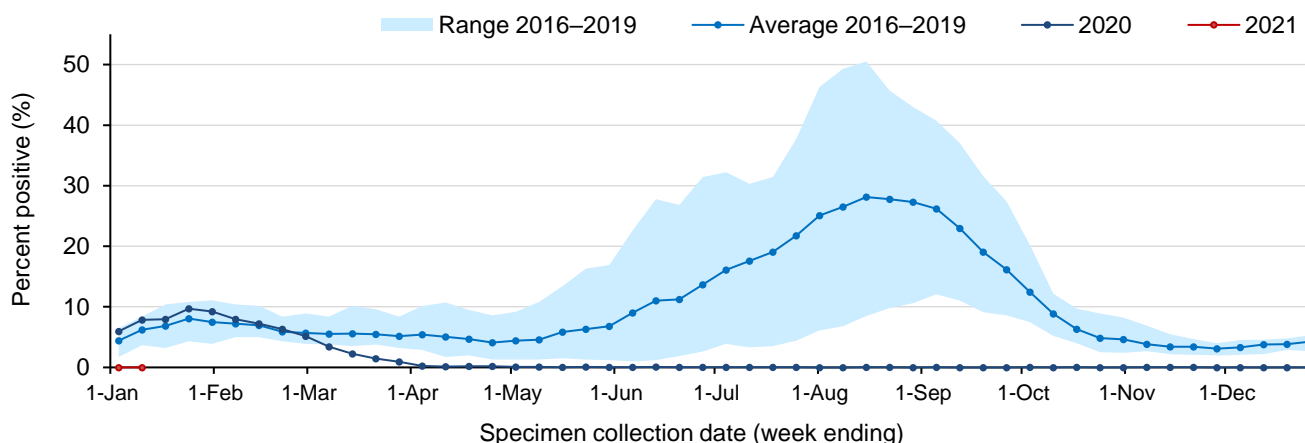


Interpretation: In the week ending 10 January, the number of influenza tests performed increased and continues to exceed the average for this time of year.

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

Figure 15. Proportion of tests positive for influenza, to 10 January 2021

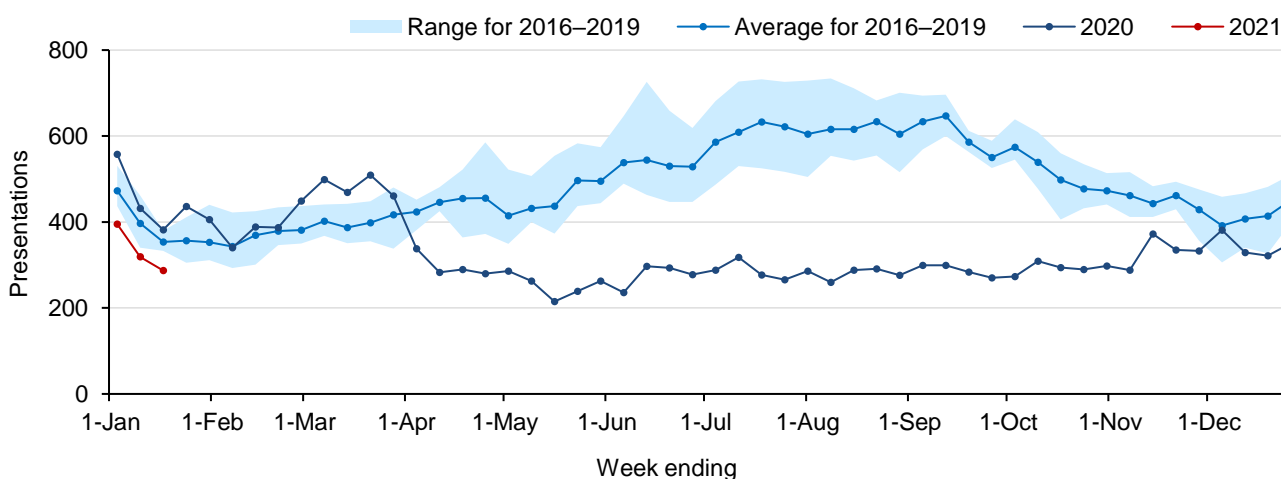


Interpretation: In the week ending 10 January, the percent of influenza tests that were positive continued to be very low (<0.01%), indicating limited influenza transmission in the community. Since early March 2020, this percentage has remained far lower than the usual range for the time of year.

How are emergency department presentations for respiratory infections tracking?

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

Figure 16. Emergency Department pneumonia presentations in NSW by week, to 17 January 2021



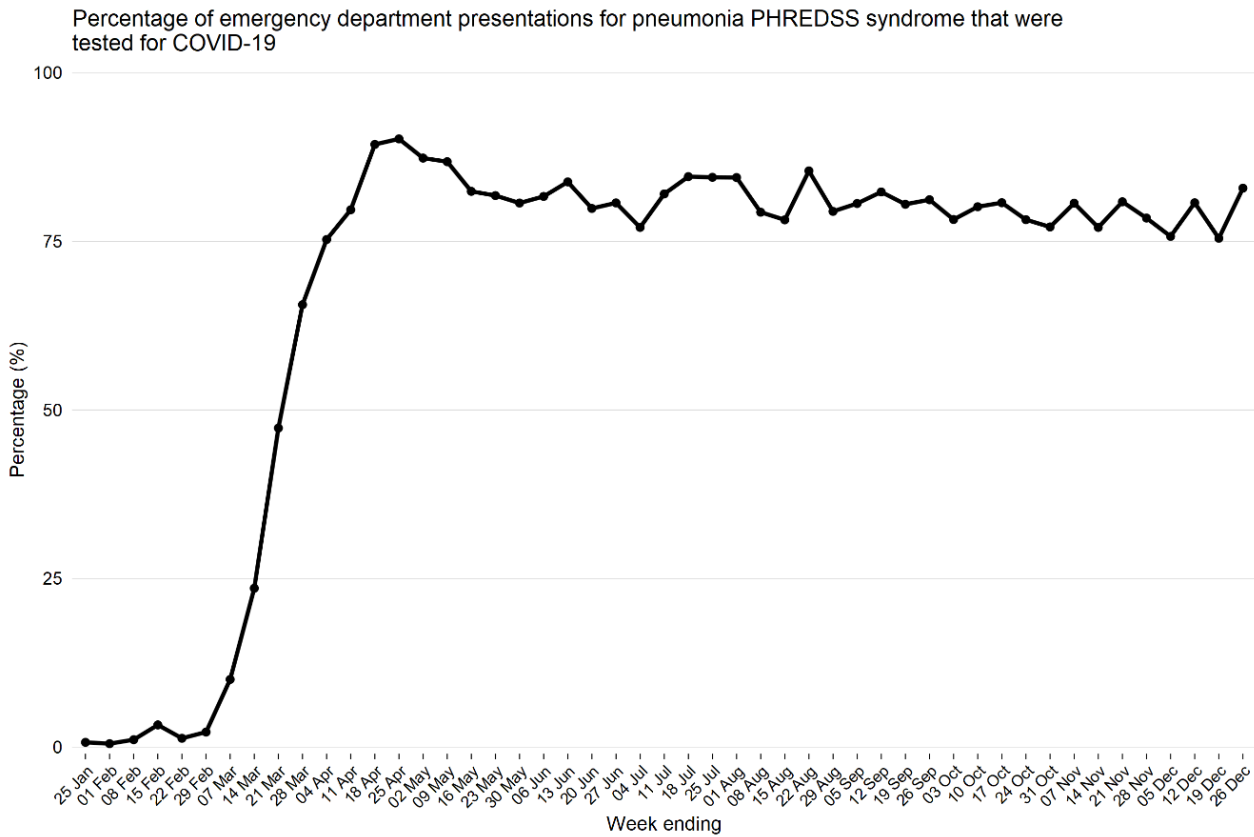
Interpretation: Pneumonia presentations include people with diagnoses of viral, bacterial, atypical or unspecified pneumonia, and Legionnaires' disease, but excludes 'pneumonia with influenza' and provides an indicator of more severe respiratory conditions. In the week ending 17 January, pneumonia presentations decreased and were below the seasonal range for the beginning of January.

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).

Are all people diagnosed with pneumonia in a NSW Emergency Department tested for COVID-19?

COVID-19 testing is recommended for everyone with respiratory symptoms. To understand the testing rates among patients presenting to an Emergency Department (ED) with pneumonia, COVID-19 testing data was linked to the Emergency Department Data Collection (EDDC) which contains data on all unplanned presentations to NSW EDs. Pneumonia presentations were recorded as having been tested for COVID-19 if testing occurred on the same date or one day either side of the ED presentation. As there is a delay in receipt of data to the EDDC, complete data on pneumonia presentations was limited to the week ending 26 December.

The figure below shows the percentage of ED presentations for pneumonia that were tested for COVID-19. Pneumonia presentations are defined using the NSW Health Public Health Rapid, Emergency Disease and Syndromic Surveillance (PHREDSS) system definitions. This included diagnoses of viral, bacterial, atypical or unspecified pneumonia, and Legionnaires' disease, but excluded diagnoses of pneumonia with influenza.

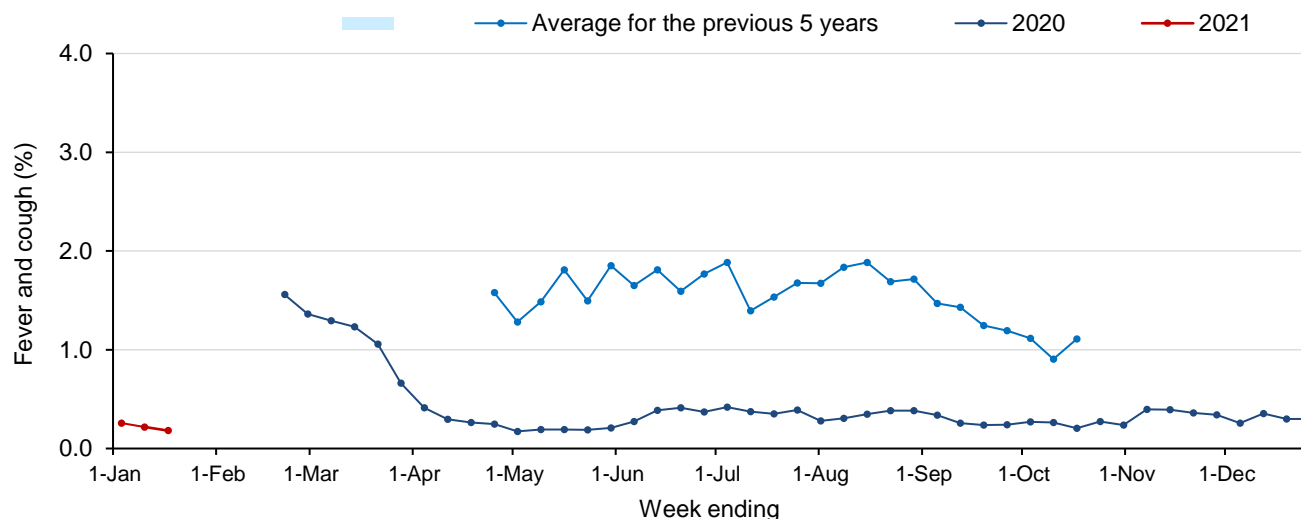


Interpretation: The percentage of ED pneumonia presentations that were tested for COVID-19 has remained steady and above 75% since May, with a peak of almost 90% of all pneumonia presentations tested during late April.

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

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

Figure 18. Proportion of FluTracker participants in NSW reporting influenza-like illness, to 17 January 2021



Interpretation: In NSW in the week ending 17 January of the 12,702 people surveyed, 23 people (0.18%) reported flu-like symptoms.

APPENDIX A: COVID-19 PCR TESTS IN NSW BY LOCAL GOVERNMENT AREA

| Local Health District | Local Government Area | Week ending | | | | Total since January 2020 | |
|-------------------------------|---|-------------|----------------------------|-------------|----------------------------|--------------------------|----------------------------|
| | | 16-January | | 09- January | | No. | Tests per 1,000 population |
| | | No. | Tests per 1,000 population | No. | Tests per 1,000 population | | |
| Central Coast | Central Coast / <i>LHD Total</i> ² | 3610 | 10.23 | 6427 | 18.21 | 166944 | 473.11 |
| Far West | Balranald | 11 | 4.7 | 18 | 7.7 | 558 | 238.67 |
| | Broken Hill | 403 | 23.06 | 990 | 56.64 | 7095 | 405.92 |
| | Central Darling | 26 | 14.14 | 30 | 16.31 | 479 | 260.47 |
| | Wentworth | 101 | 14.32 | 197 | 27.93 | 2787 | 395.15 |
| | <i>LHD Total</i> ² | 541 | 17.95 | 1235 | 40.97 | 10919 | 362.23 |
| Hunter New England | Armidale Regional | 297 | 9.65 | 397 | 12.9 | 11342 | 368.5 |
| | Cessnock | 329 | 5.48 | 514 | 8.57 | 17920 | 298.74 |
| | Dungog | 41 | 4.35 | 68 | 7.22 | 2789 | 295.98 |
| | Glen Innes Severn | 89 | 10.03 | 75 | 8.45 | 2111 | 237.97 |
| | Gunnedah | 89 | 7.02 | 133 | 10.49 | 3742 | 295.09 |
| | Gwydir | 24 | 4.48 | 17 | 3.18 | 794 | 148.33 |
| | Inverell | 154 | 9.12 | 147 | 8.7 | 4728 | 279.93 |
| | Lake Macquarie | 1981 | 9.62 | 3327 | 16.16 | 101620 | 493.54 |
| | Liverpool Plains | 50 | 6.33 | 107 | 13.54 | 2414 | 305.45 |
| | Maitland | 926 | 10.87 | 1369 | 16.07 | 45299 | 531.89 |
| | Mid-Coast | 578 | 6.16 | 933 | 9.94 | 28302 | 301.61 |
| | Moree Plains | 93 | 7.01 | 107 | 8.07 | 3410 | 257.15 |
| | Muswellbrook | 107 | 6.53 | 121 | 7.39 | 5219 | 318.68 |
| | Narrabri | 65 | 4.95 | 85 | 6.47 | 3033 | 230.91 |
| | Newcastle | 1834 | 11.08 | 3079 | 18.6 | 99921 | 603.49 |
| | Port Stephens | 575 | 7.83 | 925 | 12.59 | 33033 | 449.54 |
| | Singleton | 224 | 9.55 | 335 | 14.28 | 10792 | 460 |
| | Tamworth Regional | 639 | 10.22 | 976 | 15.61 | 25488 | 407.54 |
| | Tenterfield | 42 | 6.37 | 47 | 7.13 | 1233 | 186.99 |
| | Upper Hunter Shire | 83 | 5.85 | 124 | 8.74 | 4666 | 329.06 |
| | Uralla | 38 | 6.32 | 39 | 6.49 | 1421 | 236.36 |
| | Walcha | 14 | 4.47 | 41 | 13.08 | 1035 | 330.25 |
| <i>LHD Total</i> ² | 8264 | 8.68 | 12960 | 13.61 | 409998 | 430.5 | |
| Illawarra Shoalhaven | Kiama | 269 | 11.5 | 510 | 21.81 | 11832 | 505.94 |
| | Shellharbour | 669 | 9.14 | 1242 | 16.96 | 36221 | 494.6 |
| | Shoalhaven | 1034 | 9.79 | 1868 | 17.68 | 40098 | 379.54 |
| | Wollongong | 2155 | 9.88 | 5184 | 23.77 | 110330 | 505.84 |
| | <i>LHD Total</i> ² | 4127 | 9.84 | 8804 | 20.98 | 198481 | 473.01 |
| Mid North Coast | Bellingen | 106 | 8.16 | 171 | 13.16 | 4312 | 331.79 |
| | Coffs Harbour | 658 | 8.51 | 1023 | 13.24 | 23492 | 304 |
| | Kempsey | 244 | 8.2 | 327 | 10.99 | 10231 | 343.96 |
| | Nambucca | 150 | 7.57 | 200 | 10.1 | 5677 | 286.64 |
| | Port Macquarie-Hastings | 787 | 9.31 | 1194 | 14.13 | 30361 | 359.2 |
| | <i>LHD Total</i> ² | 1945 | 8.62 | 2915 | 12.92 | 74073 | 328.24 |

| Local Health District | Local Government Area | Week ending | | | | Total since January 2020 | |
|------------------------------|-------------------------------|-------------|----------------------------|-------------|----------------------------|--------------------------|----------------------------|
| | | 16-January | | 09- January | | No. | Tests per 1,000 population |
| | | No. | Tests per 1,000 population | No. | Tests per 1,000 population | | |
| Murrumbidgee | Albury | 496 | 9.13 | 920 | 16.93 | 20085 | 369.53 |
| | Berrigan | 29 | 3.31 | 45 | 5.14 | 2124 | 242.74 |
| | Bland | 26 | 4.35 | 61 | 10.21 | 1671 | 279.81 |
| | Carrathool | 8 | 2.86 | 18 | 6.43 | 385 | 137.55 |
| | Coolamon | 45 | 10.37 | 53 | 12.21 | 1437 | 331.03 |
| | Cootamundra-Gundagai Regional | 75 | 6.68 | 118 | 10.5 | 3397 | 302.36 |
| | Edward River | 50 | 5.5 | 94 | 10.35 | 2835 | 312.09 |
| | Federation | 78 | 6.27 | 130 | 10.45 | 3254 | 261.64 |
| | Greater Hume Shire | 64 | 5.95 | 135 | 12.54 | 3519 | 326.92 |
| | Griffith | 244 | 9.03 | 499 | 18.46 | 10226 | 378.33 |
| | Hay | 15 | 5.09 | 20 | 6.78 | 598 | 202.78 |
| | Hilltops | 126 | 6.74 | 221 | 11.82 | 5924 | 316.72 |
| | Junee | 43 | 6.43 | 56 | 8.38 | 1435 | 214.72 |
| | Lachlan ¹ | 31 | 5.1 | 68 | 11.19 | 1077 | 177.28 |
| | Leeton | 85 | 7.43 | 145 | 12.67 | 3044 | 265.97 |
| | Lockhart | 20 | 6.09 | 25 | 7.61 | 877 | 266.97 |
| | Murray River | 27 | 2.23 | 57 | 4.7 | 952 | 78.56 |
| | Murrumbidgee | 13 | 3.32 | 41 | 10.47 | 896 | 228.75 |
| | Narrandera | 34 | 5.76 | 46 | 7.8 | 1261 | 213.77 |
| | Snowy Valleys | 71 | 4.9 | 157 | 10.84 | 4778 | 330 |
| Temora | 37 | 5.87 | 43 | 6.82 | 1407 | 223.09 | |
| Wagga Wagga | 730 | 11.19 | 1191 | 18.25 | 28920 | 443.16 | |
| <i>LHD Total²</i> | 2332 | 7.82 | 4090 | 13.72 | 99385 | 333.38 | |
| Nepean Blue Mountains | Blue Mountains | 877 | 11.08 | 1441 | 18.21 | 50737 | 641.28 |
| | Hawkesbury | 617 | 9.17 | 927 | 13.77 | 35210 | 523.21 |
| | Lithgow | 144 | 6.67 | 240 | 11.11 | 7408 | 342.88 |
| | Penrith | 2474 | 11.62 | 3366 | 15.8 | 123512 | 579.93 |
| | <i>LHD Total²</i> | 4079 | 10.43 | 5922 | 15.15 | 215135 | 550.23 |
| Northern NSW | Ballina | 438 | 9.81 | 647 | 14.5 | 15995 | 358.41 |
| | Byron | 422 | 12.03 | 661 | 18.84 | 15591 | 444.43 |
| | Clarence Valley | 365 | 7.07 | 574 | 11.11 | 13041 | 252.43 |
| | Kyogle | 65 | 7.39 | 81 | 9.21 | 2055 | 233.63 |
| | Lismore | 492 | 11.26 | 629 | 14.4 | 16540 | 378.56 |
| | Richmond Valley | 239 | 10.19 | 262 | 11.17 | 7556 | 322.01 |
| | Tenterfield | 42 | 6.37 | 47 | 7.13 | 1233 | 186.99 |
| | Tweed | 848 | 8.74 | 1173 | 12.09 | 27829 | 286.89 |
| <i>LHD Total²</i> | 2875 | 9.26 | 4033 | 12.99 | 98897 | 318.65 | |
| Northern Sydney | Hornsby | 1826 | 12.01 | 2372 | 15.6 | 77900 | 512.3 |
| | Hunters Hill | 330 | 22.03 | 536 | 35.78 | 17554 | 1171.83 |
| | Ku-ring-gai | 2071 | 16.29 | 3171 | 24.94 | 101401 | 797.47 |
| | Lane Cove | 1007 | 25.08 | 1548 | 38.55 | 50314 | 1252.99 |
| | Mosman | 441 | 14.23 | 710 | 22.92 | 21170 | 683.32 |
| | North Sydney | 869 | 11.58 | 1386 | 18.47 | 38885 | 518.32 |

| Local Health District | Local Government Area | Week ending | | | | Total since January 2020 | |
|-----------------------|-----------------------------------|-------------|----------------------------|-------------|----------------------------|--------------------------|----------------------------|
| | | 16-January | | 09- January | | No. | Tests per 1,000 population |
| | | No. | Tests per 1,000 population | No. | Tests per 1,000 population | | |
| | Northern Beaches | 7800 | 28.52 | 12285 | 44.92 | 279422 | 1021.66 |
| | Parramatta ¹ | 2719 | 10.57 | 4885 | 18.99 | 114476 | 445.09 |
| | Ryde | 1417 | 10.79 | 2559 | 19.49 | 70841 | 539.65 |
| | Willoughby | 895 | 11.02 | 1286 | 15.84 | 39111 | 481.73 |
| | <i>LHD Total²</i> | 17160 | 17.95 | 26633 | 27.86 | 719260 | 752.43 |
| South Eastern Sydney | Bayside | 1690 | 9.47 | 2971 | 16.65 | 75821 | 425.02 |
| | Georges River | 1463 | 9.17 | 2151 | 13.49 | 64592 | 405.04 |
| | Randwick | 2181 | 14.01 | 3957 | 25.42 | 104161 | 669.2 |
| | Sutherland Shire | 2371 | 10.28 | 4082 | 17.7 | 137538 | 596.41 |
| | Sydney ¹ | 4079 | 16.56 | 5902 | 23.96 | 168931 | 685.76 |
| | Waverley | 1105 | 14.87 | 1830 | 24.63 | 59698 | 803.53 |
| | Woollahra | 924 | 15.56 | 1468 | 24.72 | 50231 | 845.82 |
| | <i>LHD Total²</i> | 11153 | 11.63 | 18358 | 19.14 | 553678 | 577.29 |
| South Western Sydney | Camden | 1146 | 11.3 | 1854 | 18.28 | 74148 | 730.98 |
| | Campbelltown | 1849 | 10.82 | 2714 | 15.88 | 99372 | 581.32 |
| | Canterbury-Bankstown ¹ | 5822 | 15.41 | 8978 | 23.76 | 171140 | 452.85 |
| | Fairfield | 1413 | 6.67 | 2257 | 10.66 | 78851 | 372.47 |
| | Liverpool | 2300 | 10.11 | 3313 | 14.56 | 123109 | 540.94 |
| | Wingecarribee | 517 | 10.11 | 954 | 18.66 | 31294 | 612 |
| | Wollondilly | 322 | 6.06 | 568 | 10.69 | 21370 | 402.08 |
| | <i>LHD Total²</i> | 10498 | 10.11 | 15777 | 15.19 | 512703 | 493.68 |
| Southern NSW | Bega Valley | 268 | 7.77 | 557 | 16.16 | 11350 | 329.21 |
| | Eurobodalla | 334 | 8.68 | 639 | 16.61 | 17352 | 451.02 |
| | Goulburn Mulwaree | 230 | 7.39 | 390 | 12.53 | 11771 | 378.1 |
| | Queanbeyan-Palerang Regional | 388 | 6.35 | 675 | 11.05 | 16269 | 266.27 |
| | Snowy Monaro Regional | 174 | 8.37 | 356 | 17.12 | 7220 | 347.2 |
| | Upper Lachlan Shire | 36 | 4.47 | 92 | 11.42 | 2531 | 314.06 |
| | Yass Valley | 100 | 5.85 | 166 | 9.71 | 3971 | 232.4 |
| | <i>LHD Total²</i> | 1530 | 7.05 | 2876 | 13.25 | 70494 | 324.75 |
| Sydney | Burwood | 529 | 13.03 | 1084 | 26.69 | 15798 | 389 |
| | Canada Bay | 1293 | 13.46 | 3245 | 33.78 | 60066 | 625.21 |
| | Canterbury-Bankstown ¹ | 5822 | 15.41 | 8978 | 23.76 | 171140 | 452.85 |
| | Inner West | 3233 | 16.1 | 5710 | 28.43 | 140482 | 699.57 |
| | Strathfield | 677 | 14.43 | 1800 | 38.36 | 27509 | 586.22 |
| | Sydney ¹ | 4079 | 16.56 | 5902 | 23.96 | 168931 | 685.76 |
| | <i>LHD Total²</i> | 11069 | 15.89 | 19424 | 27.88 | 434344 | 623.37 |
| Western NSW | Bathurst Regional | 376 | 8.62 | 667 | 15.29 | 19960 | 457.61 |
| | Blayney | 91 | 12.33 | 152 | 20.6 | 3287 | 445.45 |
| | Bogan | 48 | 18.6 | 240 | 93.02 | 920 | 356.59 |
| | Bourke | 15 | 5.79 | 29 | 11.2 | 546 | 210.81 |
| | Brewarrina | 5 | 3.1 | 19 | 11.79 | 330 | 204.84 |
| | Cabonne | 74 | 5.43 | 146 | 10.71 | 3237 | 237.42 |
| | Cobar | 33 | 7.08 | 84 | 18.03 | 1112 | 238.73 |

| Local Health District | Local Government Area | Week ending | | | | Total since January 2020 | |
|------------------------------|------------------------------|----------------|----------------------------|----------------|----------------------------|--------------------------|----------------------------|
| | | 16-January | | 09- January | | No. | Tests per 1,000 population |
| | | No. | Tests per 1,000 population | No. | Tests per 1,000 population | | |
| | Coonamble | 20 | 5.05 | 36 | 9.1 | 973 | 245.83 |
| | Cowra | 72 | 5.65 | 134 | 10.52 | 3579 | 280.86 |
| | Dubbo Regional | 538 | 10.02 | 789 | 14.69 | 19200 | 357.42 |
| | Forbes | 47 | 4.74 | 110 | 11.1 | 2285 | 230.67 |
| | Gilgandra | 22 | 5.19 | 37 | 8.73 | 984 | 232.13 |
| | Lachlan ¹ | 31 | 5.1 | 68 | 11.19 | 1077 | 177.28 |
| | Mid-Western Regional | 219 | 8.67 | 294 | 11.64 | 8763 | 347.04 |
| | Narromine | 53 | 8.13 | 92 | 14.12 | 1820 | 279.27 |
| | Oberon | 29 | 5.36 | 37 | 6.84 | 1772 | 327.48 |
| | Orange | 684 | 16.11 | 1663 | 39.17 | 22324 | 525.88 |
| | Parkes | 102 | 6.87 | 160 | 10.78 | 4310 | 290.49 |
| | Walgett | 34 | 5.71 | 44 | 7.39 | 1637 | 274.99 |
| | Warren | 34 | 12.61 | 55 | 20.39 | 1351 | 500.93 |
| | Warrumbungle Shire | 51 | 5.5 | 57 | 6.14 | 2749 | 296.29 |
| | Weddin | 15 | 4.15 | 18 | 4.98 | 829 | 229.45 |
| | LHD Total² | 2580 | 9.05 | 4917 | 17.25 | 102730 | 360.44 |
| Western Sydney | Blacktown | 5236 | 13.98 | 6915 | 18.47 | 196238 | 524.07 |
| | Cumberland | 4149 | 17.18 | 16149 | 66.86 | 127291 | 527.04 |
| | Parramatta ¹ | 2719 | 10.57 | 4885 | 18.99 | 114476 | 445.09 |
| | The Hills Shire | 2565 | 14.41 | 3976 | 22.34 | 125270 | 703.89 |
| | LHD Total² | 14395 | 13.66 | 32485 | 30.84 | 545826 | 518.14 |
| NSW Total³ | | 103,806 | 12.83 | 175,168 | 21.65 | 4,484,754 | 554.37 |

¹Local Government Area (LGA) spans multiple Local Health Districts.

²Local Health District total counts and rates includes tests for LHD residents only. Murrumbidgee includes Albury LGA residents.

³NSW Total counts and rates include tests where residential information is incomplete.

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

APPENDIX B: NUMBER OF POSITIVE PCR TEST RESULTS FOR INFLUENZA AND OTHER RESPIRATORY VIRUSES AT SENTINEL NSW LABORATORIES, January 2020 to 10 January 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 – 10 January 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 | 92,404 | 1 | 0.00% | 0 | 0.00% | 174 | 1 | 50 | 1,663 | 10 | 193 |
| Week ending | | | | | | | | | | | |
| 3 January | 45,456 | 1 | 0.00% | 0 | 0.00% | 66 | 0 | 25 | 919 | 1 | 95 |
| 10 January | 46,948 | 0 | 0.00% | 0 | 0.00% | 108 | 1 | 25 | 744 | 9 | 98 |

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 |
| Week ending | | | | | | | | | | | |
| 6 December | 24,404 | 0 | 0.00% | 0 | 0.00% | 148 | 9 | 1,614 | 1,488 | 59 | 153 |
| 13 December | 24,954 | 1 | 0.00% | 0 | 0.00% | 159 | 14 | 1,666 | 1,334 | 73 | 139 |
| 20 December | 51,622 | 0 | 0.00% | 0 | 0.00% | 164 | 22 | 1,801 | 1,494 | 12 | 148 |
| 27 December | 66,776 | 1 | 0.00% | 0 | 0.00% | 113 | 19 | 1,236 | 1,155 | 7 | 115 |

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

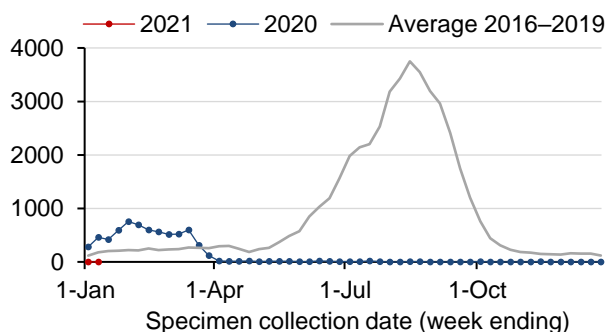
RSV - Respiratory syncytial virus

*Five-week period

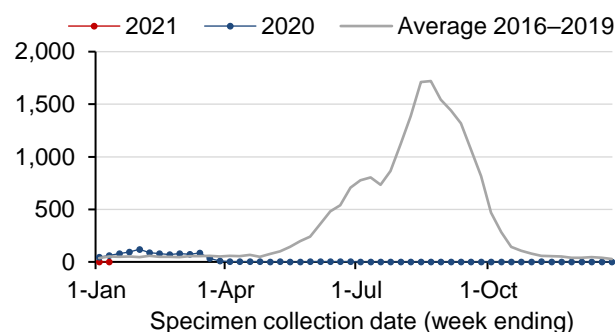
APPENDIX C: NUMBER OF POSITIVE PCR TEST RESULTS FOR INFLUENZA AND OTHER RESPIRATORY VIRUSES AT SENTINEL NSW LABORATORIES, January 2020 to 10 January 2021

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.

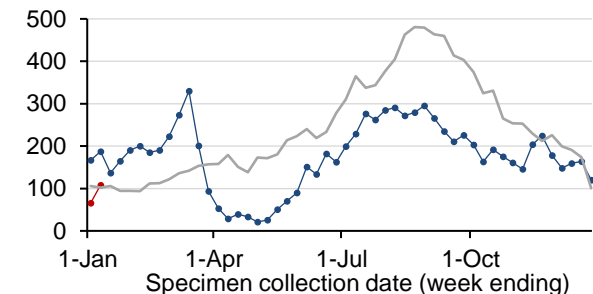
Influenza A



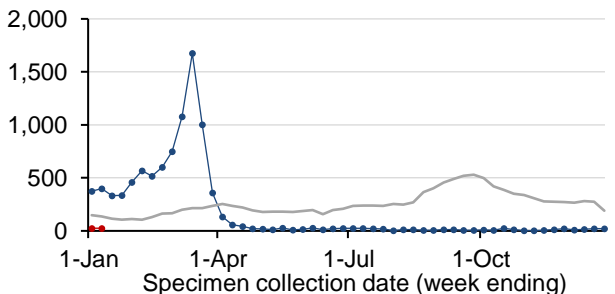
Influenza B



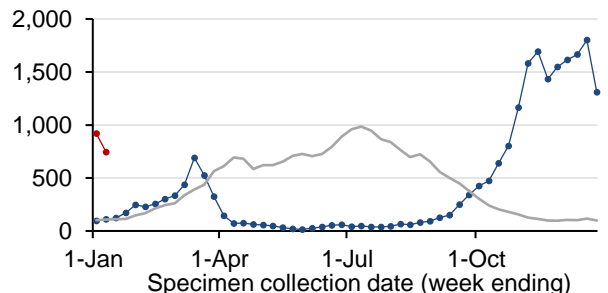
Adenovirus



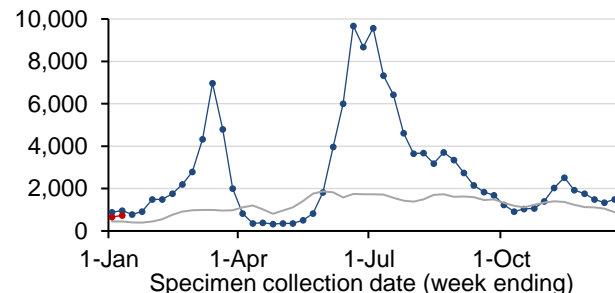
Parainfluenza



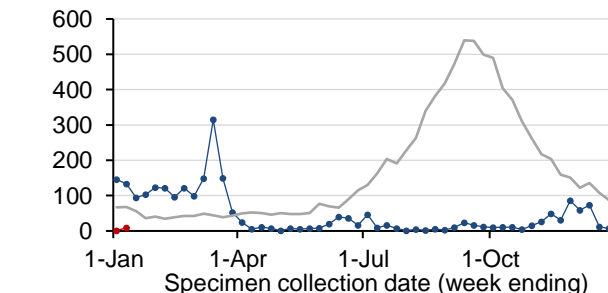
Respiratory syncytial virus (RSV)



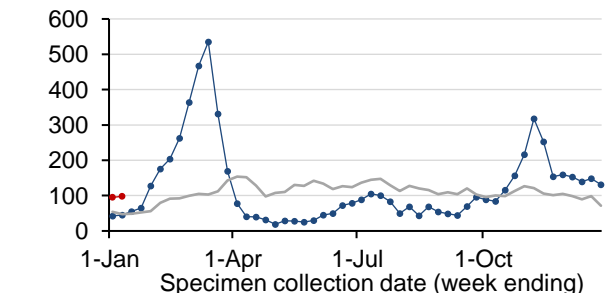
Rhinovirus



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

GLOSSARY

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