

COVID-19 WEEKLY SURVEILLANCE IN NSW

EPIDEMIOLOGICAL WEEK 03 ENDING 22 JANUARY 2022

Published 4 February 2022

Summary for the week 16 January 2022 to 22 January 2022 (inclusive)

Table 1. Total number of PCR cases and tests, and number of cases who were hospitalised, admitted to an Intensive Care Unit (ICU) or died, to the week ending 22 January 2022

	1 Jan 2020 – 15 Jun 2021 (pre-Delta)	16 Jun 2021 – 25 Nov 2021 (Delta variant)	26 Nov 2021 – 22 Jan 2022 (Omicron emergence)	Total
PCR cases	5,431 (100%)	75,317 (100%)	669,934 (77%)	750,682 (79%)
Hospitalised*	378 (7%)	7,872 (10%)	8,308 (1%)	16,558 (2%)
Admitted to ICU*	143 (3%)	1,454 (2%)	794 (<1%)	2,391 (<1%)
Deaths*	56 (1%)	588 (1%)	436 (<1%)	1,080 (<1%)
PCR Tests	6,858,446	15,811,931	5,770,771	28,441,168

* Note, these categories are not mutually exclusive. Hospitalised includes cases admitted to ICU; deaths may occur with or without being admitted to hospital or ICU. Hospitalisations, ICU admissions and deaths include only PCR-confirmed cases (see Glossary for further details).

In the week ending 22 January 2022:

- This report contains detailed information about PCR-confirmed cases only; detailed epidemiological information about cases diagnosed with RATs was only available after 19 January 2022, i.e., midway through this reporting period. Analyses of all cases diagnosed by both PCRs and RATs will be included in next week's report.
- There were 186,929 total cases reported, including 110,395 (59%) detected by PCR. In comparison, in the week ending 15 January 2022, 181,190 positive PCR tests were reported.
- 76,534 people (41% of cases) registered a positive Rapid Antigen Test (RAT) result. In comparison, in the week ending 15 January 2022, and 75,238 RAT tests were reported. People with a positive RAT have been required to register their result with Service NSW since 12 January 2022.
- The ten LGAs with the highest number of cases confirmed by PCR were:
 - Blacktown, 7,867 (7%) cases
 - Wollongong, 3,757 (3%) cases
 - Canterbury-Bankstown, 6,652 (6%) cases
 - Fairfield, 3,608 (3%) cases
 - Central Coast, 5,315 (5%) cases
 - Northern Beaches, 3,481 (3%) cases
 - Cumberland, 5,080 (5%) cases
 - Sutherland Shire, 3,416 (3%) cases
 - Liverpool, 4,338 (4%) cases
 - 60,964 (55%) cases were residents across 118 other LGAs
 - Penrith, 3,913 (4%) cases
- There were 192 deaths in people with a PCR-confirmed diagnosis of COVID, compared with 132 in the week ending 15 January 2022.
- 58.7% of all cases, 61.8% of those hospitalised, and 55.3% of those admitted to ICU had received two effective doses.
- 5.8% of all cases, 4.4% of those hospitalised, and 3.9% of those admitted to ICU had received three or more doses.
- Among those aged 12 years and over, 92.8% of the population had received at least two effective doses. Among those aged 18 years and over, 33.5% of the population had received three or more vaccine doses.
- PCR testing rates decreased compared to the previous week (down 23%).

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Table 2. Measures of public health action, NSW, for the period from 9 January 2022 to 22 January 2022

	Week ending 22 Jan	Week ending 15 Jan
Proportion PCR confirmed cases notified to NSW Health by the laboratory within 1 day of specimen collection	77% (84,559/110,395)	58% (105,442/181,190)
PCR confirmed cases contacted by text message within 1 day of notification to NSW Health	97% (107,033/110,395)	98% (177,971/181,190)

Note: Due to the increase in case numbers, NSW Health is no longer interviewing all COVID-19 cases.

Section 1: Case overview

Figure 1. PCR confirmed COVID-19 case count by symptom onset date*, with 7 day backward rolling average, NSW, from 16 June 2021 to 22 January 2022

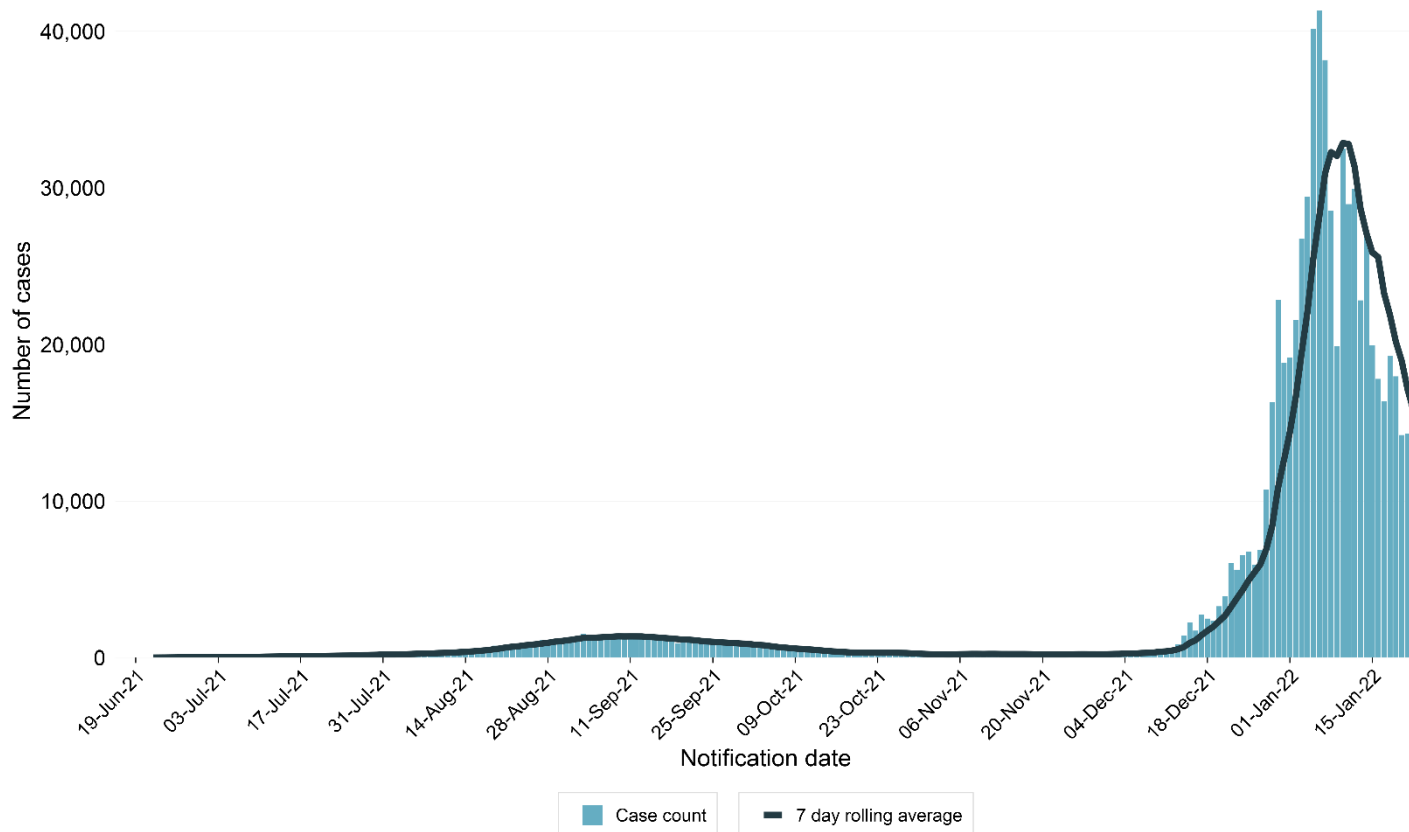


Table 3. Demographics of infections among total PCR confirmed cases by gender and age, NSW, 1 January 2020 to 22 January 2022

	Week ending		26 Nov 2021 – 22 Jan 2022	16 Jun 2021 – 25 Nov 2021	1 Jan 2020 – 15 Jun 2021
	22 Jan 2022	15 Jan 2022			
Gender					
Female	55,824 (51%)	91,062 (50%)	338,325 (51%)	35,774 (47%)	2,670 (49%)
Male	54,398 (49%)	89,789 (50%)	330,402 (49%)	39,500 (52%)	2,760 (51%)
Non-specified or non-binary	173 (<1%)	339 (<1%)	1,207 (<1%)	43 (<1%)	1 (<1%)
Age group					
0-9	13,654 (12%)	16,718 (9%)	54,536 (8%)	12,409 (16%)	251 (5%)
10-19	14,193 (13%)	22,492 (12%)	85,929 (13%)	12,319 (16%)	325 (6%)
20-29	18,790 (17%)	39,473 (22%)	174,546 (26%)	14,741 (20%)	1,115 (21%)
30-39	19,502 (18%)	33,548 (19%)	124,175 (19%)	12,882 (17%)	1,098 (20%)
40-49	15,778 (14%)	25,834 (14%)	87,735 (13%)	9,273 (12%)	718 (13%)
50-59	12,325 (11%)	20,665 (11%)	69,900 (10%)	6,745 (9%)	710 (13%)
60-69	9,015 (8%)	13,046 (7%)	42,761 (6%)	3,871 (5%)	656 (12%)
70-79	4,604 (4%)	6,223 (3%)	19,833 (3%)	1,902 (3%)	394 (7%)
80-89	1,947 (2%)	2,406 (1%)	8,081 (1%)	937 (1%)	122 (2%)
90+	552 (1%)	751 (<1%)	2,332 (<1%)	238 (<1%)	42 (1%)
Total*	110,395 (100%)	181,190 (100%)	669,934 (100%)	75,317 (100%)	5,431 (100%)

* Total includes cases for whom age was not available at the time of data extraction.

Figure 2. Seven day backward rolling average of PCR confirmed COVID-19 cases rate per 100,000 population by age and notification date, NSW, from 26 November 2021 to 22 January 2022

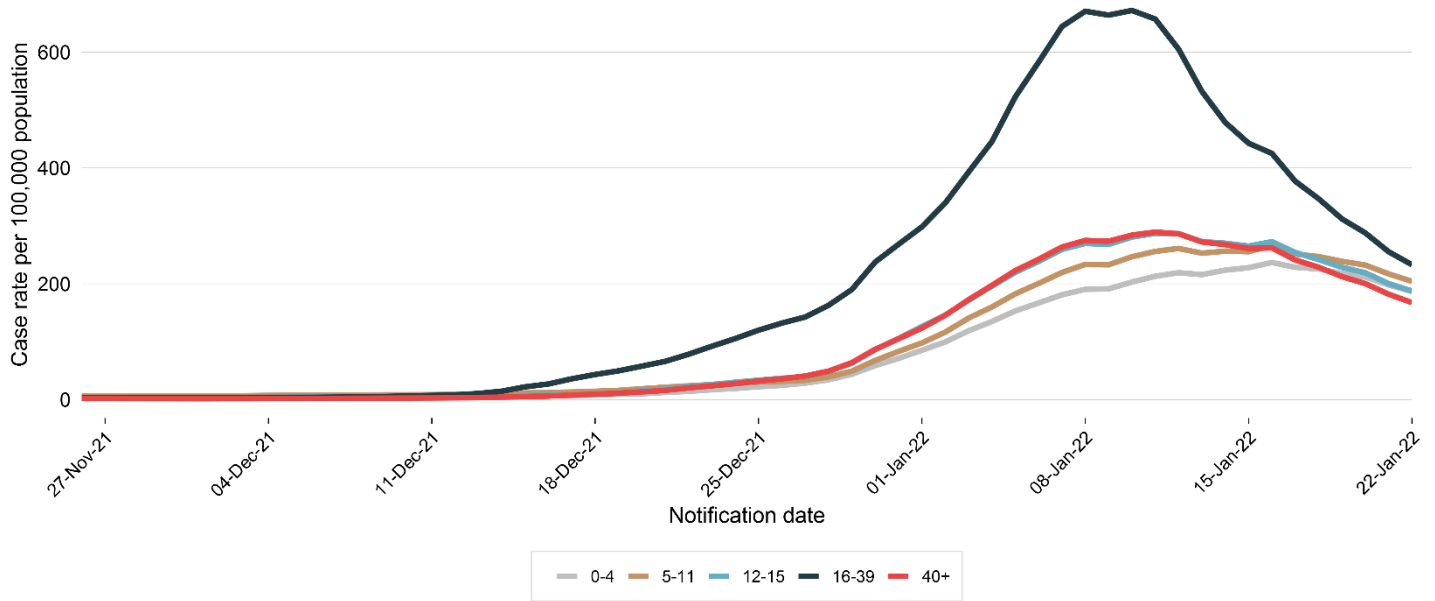
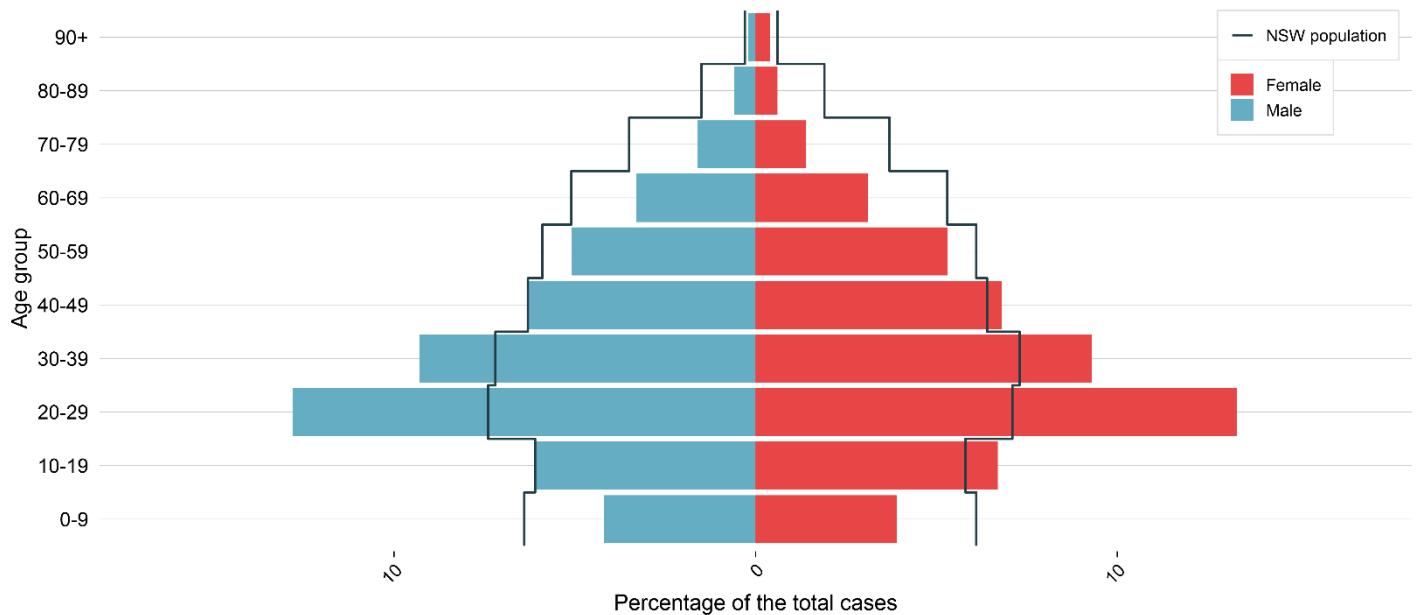


Figure 3. Current wave total PCR confirmed case percentage (n = 668,640) by age and gender, NSW, from 26 November 2021 to 22 January 2022



Note that the figure does not include cases for whom gender is not specified or non-binary.

- PCR positive cases decreased in the week ending 22 January 2022, compared to the previous week.
- PCR positive cases since 26 November 2021 have been concentrated in the 16-39 years age group (see Figure 2), and especially in the 20-29 years age group (see Figure 3). In the week ending 22 January, the decrease in case rates was also largest in this age range.
- PCR positive case rates in all other age groups have been lower, and decreased less in the week ending 22 January.
- In the most recent week, there has been a more even age spread of cases.
- The median age of PCR positive cases since 26 November 2021 was 31 (interquartile range (IQR) = 21-47). Cases aged 20-29 years are over-represented among cases relative to their proportion in the NSW population. Cases aged 10-19 and 40-49 years are also over-represented among cases relative to their proportion in the NSW population but to a lesser extent.
- Declines in the number of people who test positive by PCR may result from fewer cases having a PCR test than previously, and may not reflect the true number of cases in the community.

Section 2: Variants in NSW

Table 4. Variants identified among COVID-19 cases by week reported, NSW, 25 December 2020 to 22 January 2022

Variant	Week ending				26 Nov 2021 – 22 Jan 2022	16 Jun 2021 – 25 Nov 2021	1 Jan 2020 – 15 Jun 2021
	22 Jan*	15 Jan*	8 Jan	1 Jan			
Alpha (B.1.1.7)	0	0	0	0	0	11	189
Beta (B.1.351)	0	0	0	0	0	5	29
Gamma (P.1)	0	0	0	0	0	0	6
Delta (B.1.617.2)	0	15	32	43	2,683	16,599	73
Omicron (B.1.1.529)	210	378	317	315	2,423	-	-
Total	210	393	349	358	5,106	16,615	297

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

- From 1 January 2020 to 15 June 2021, genomic sequencing identified several variants in cases in NSW, with the predominant variant in the community being Alpha (B.1.1.7).
- On 16 June 2021, the first community case with the Delta (B.1.617.2) variant was notified and genomic sequencing has identified this as the only variant circulating in the community in the following months (other variants were detected in hotel quarantine).
- On 26 November 2021, the first community case with the Omicron (B.1.1.529) variant was notified. Since that time, both the Delta and Omicron variants have been circulating in the community.
- These dates form the basis for the major time intervals used throughout the report.
- The current priority for whole genome sequencing is cases admitted to an intensive care unit. In the general community, the Omicron variant is now dominant.

Section 3: Cases in hospital each day with COVID-19

Figure 4a. Estimated active cases (number of PCR-confirmed cases notified last 14 days), number of PCR-confirmed and RAT cases in hospital, in ICU and ventilated by date, NSW, from 16 June 2021 to 22 January 2022

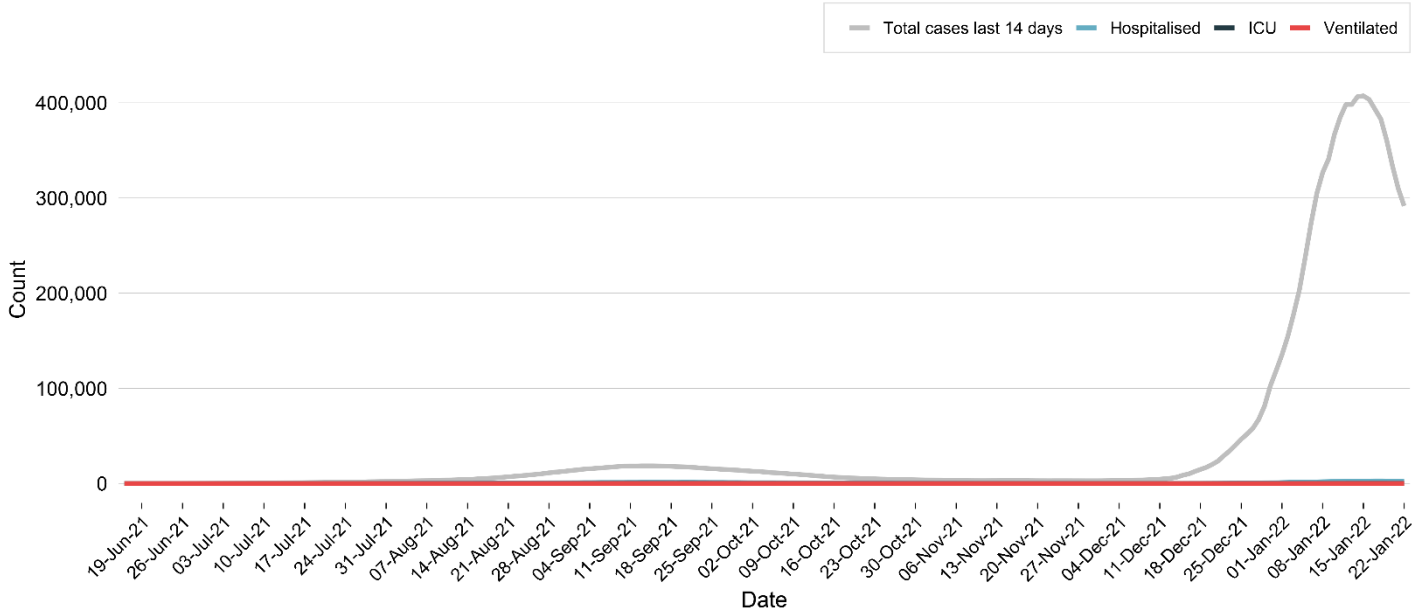
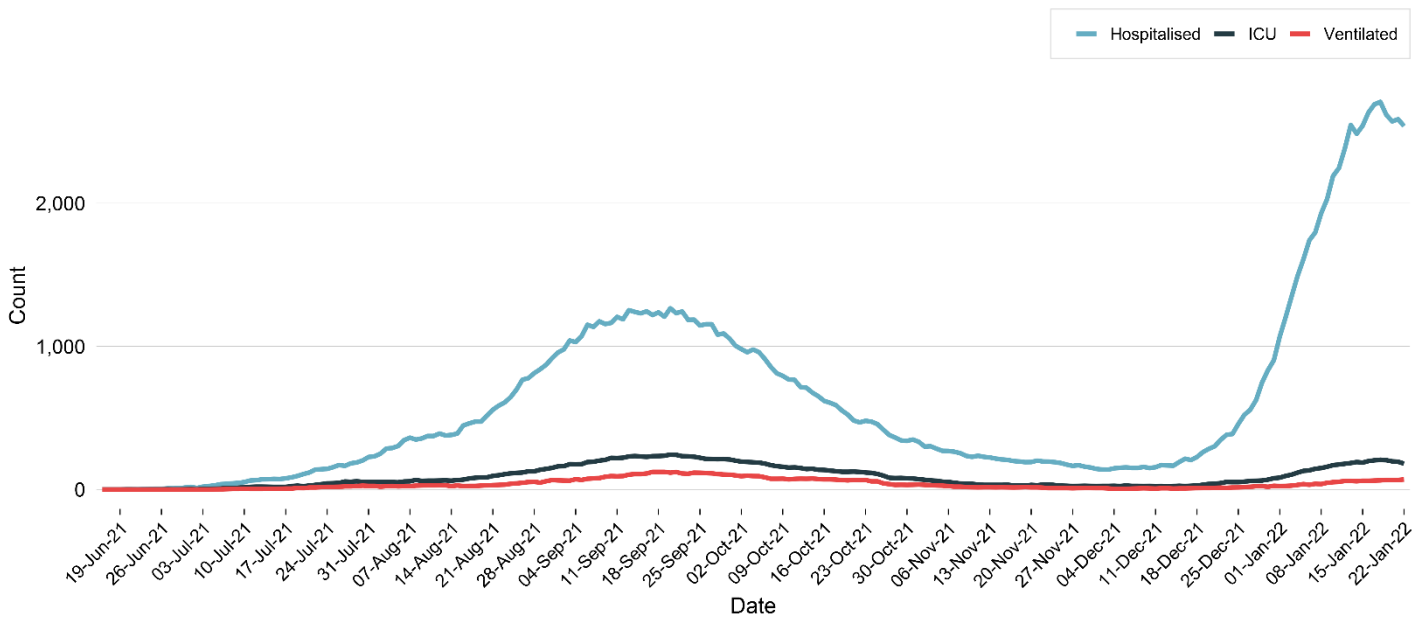
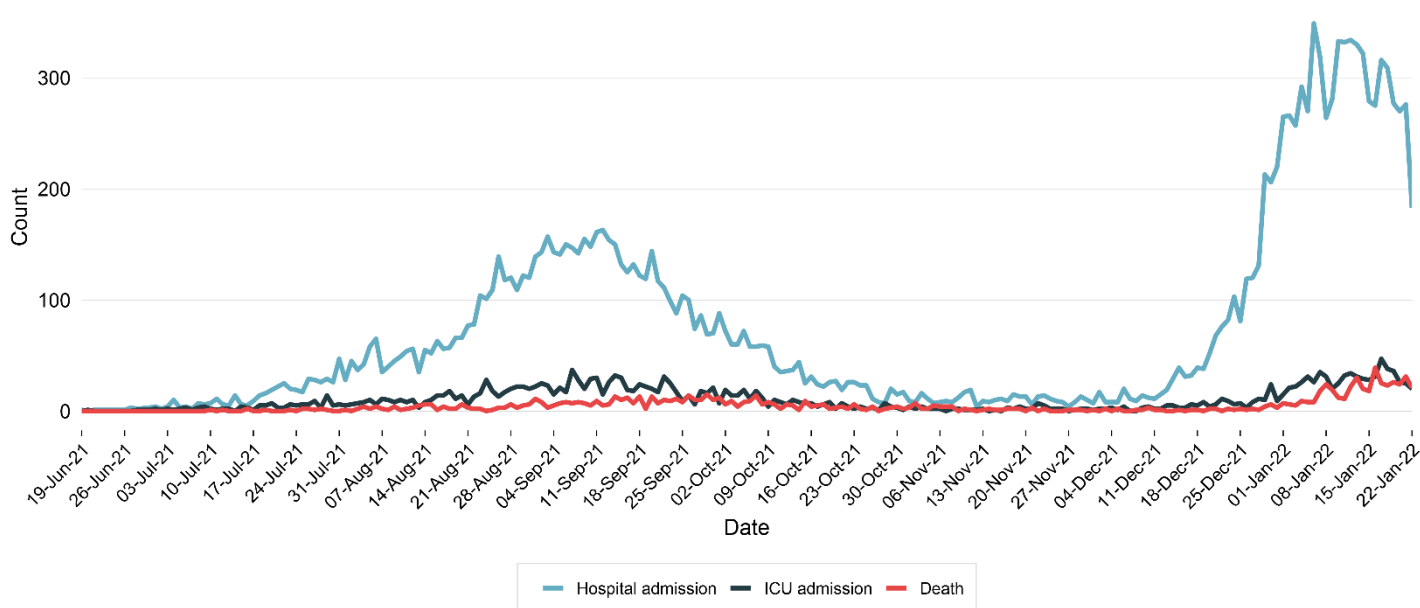


Figure 4b. Number of PCR-confirmed and RAT cases in hospital, in ICU and ventilated by date, NSW, from 16 June 2021 to 22 January 2022



- The graph shows the number of PCR-confirmed active cases and the number of PCR-confirmed and RAT cases hospitalised, in ICU and ventilated.
- Since 16 June 2021, the median delay between a person becoming ill with COVID-19 and requiring a hospitalisation is 4 days.
- The number of cases who are hospitalised decreased in the week ending 22 January. The number of cases in hospital is higher than the previous peak in mid-September 2021, however the number of cases in hospital has not increased at the same rate as number of cases detected. This may be due to cases being primarily young, having received at least two effective doses, and/or the Omicron variant being less severe than the Delta variant circulating in the period 16 June to 25 November 2021.

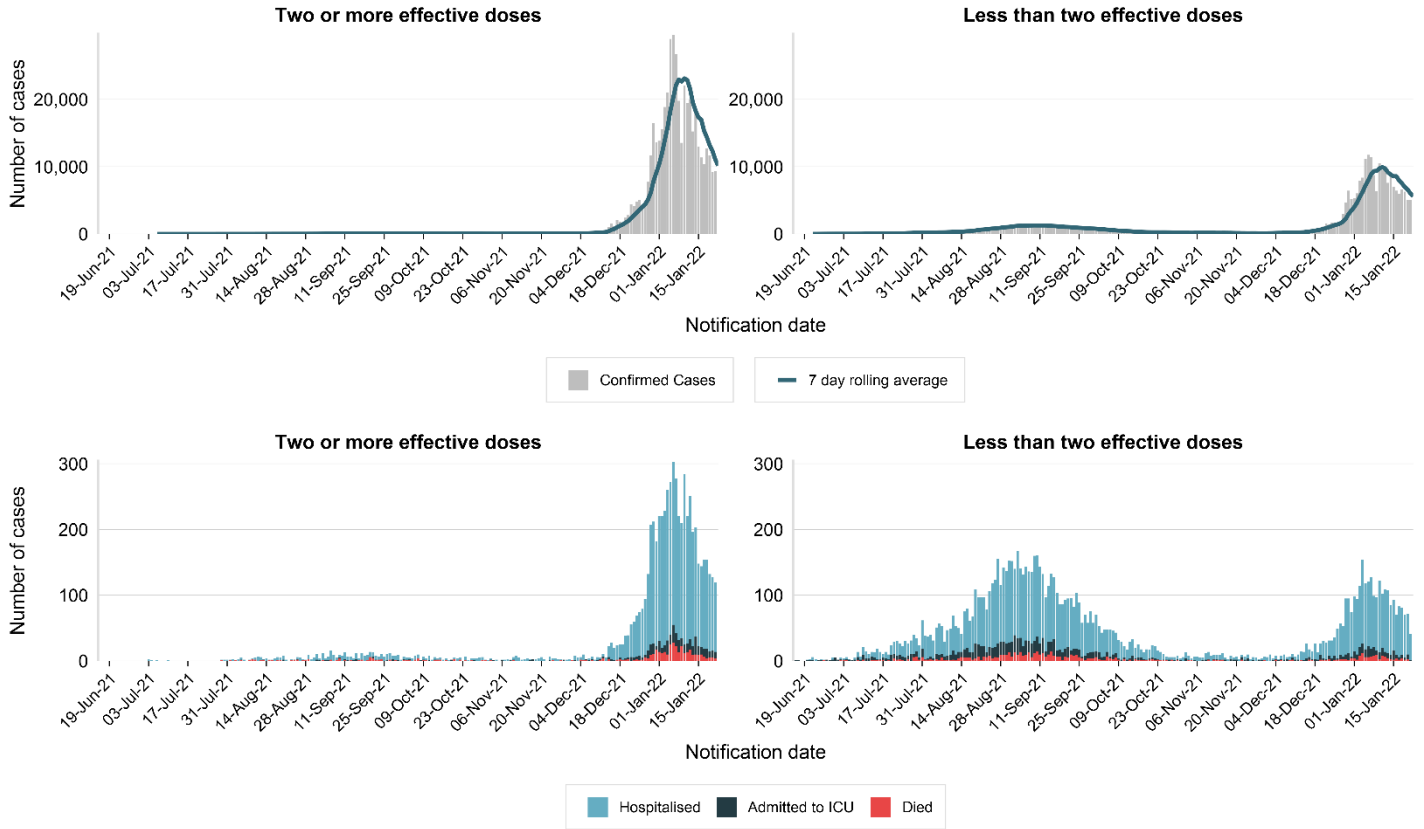
Figure 4c. Number of daily new hospital admissions, ICU admissions and deaths from PCR-confirmed cases, NSW, from 16 June 2021 to 22 January 2022



- The number of daily new hospital admissions decreased in the week ending 22 January 2022 compared to the previous week. Given that hospitalisation lags symptom onset by a median of 4 days, and death lags by 12 days, the number of daily deaths has not yet shown signs of reaching a peak.

Section 4: Clinical severity by vaccination status

Figure 5. PCR confirmed COVID-19 cases by outcome, notification date and vaccination status with 7 day backward rolling average, NSW, from 16 June 2021 to 22 January 2022¹



¹ Figure dates are based on the date of the case's notification rather than the date they were hospitalised, admitted to ICU, or died. Cases are classified in the figure according to their most severe outcome (e.g., a person was admitted to hospital and then died is counted only as a death). Data are provided to 22 January 2022; because of the delay between onset and severe illness or death, outcomes are under-reported for the most recently notified cases. Note that the scale differs between the top and bottom panels to allow easier visualisation.

Table 5. Hospitalisations, ICU admissions and deaths among PCR confirmed cases diagnosed with COVID-19, by vaccination status, NSW, from 26 November 2021 to 22 January 2022

Vaccination status	Total cases	Hospitalised* (% of total cases)	Hospitalised and in ICU* (% of total cases)	Death* (% of total cases)
Three or more effective doses	23,782	366 (1.5%)	31 (0.1%)	22 (0.1%)
Two effective doses	438,255	5,137 (1.2%)	439 (0.1%)	287 (0.1%)
One effective dose	5,521	150 (2.7%)	19 (0.3%)	14 (0.3%)
No effective dose	72,772	822 (1.1%)	93 (0.1%)	98 (0.1%)
Under investigation	129,604	1,833 (1.4%)	212 (0.2%)	15 (<0.1%)
Total	669,934	8,308 (1.2%)	794 (0.1%)	436 (0.1%)

* Note, table categories are not mutually exclusive. Hospitalised includes cases admitted to ICU; deaths may occur with or without being admitted to hospital or ICU.

Table 6. Proportion of PCR confirmed cases with a severe outcome (ICU and/or death) amongst all cases, by age, time of infection, and vaccination status, NSW, 26 November 2021 to 22 January 2022

Age-group (years)	Three or more effective doses	Two effective doses	Less than two effective doses
0-9	-	-	<1% (15 / 54,536)
10-19	0% (0 / 232)	<1% (5 / 54,508)	<1% (6 / 15,854)
20-29	<1% (1 / 3,849)	<1% (22 / 128,000)	<1% (7 / 2,692)
30-39	<1% (2 / 3,833)	<1% (33 / 87,486)	1% (11 / 2,123)
40-49	<1% (2 / 5,125)	<1% (38 / 64,157)	1% (14 / 1,176)
50-59	<1% (5 / 4,258)	<1% (58 / 52,112)	3% (22 / 687)
60-69	<1% (10 / 2,911)	<1% (106 / 31,310)	6% (33 / 512)
70-79	1% (15 / 2,081)	1% (189 / 14,013)	9% (33 / 379)
80-89	1% (8 / 1,046)	3% (160 / 5,373)	17% (40 / 231)
90+	2% (7 / 447)	5% (63 / 1,296)	17% (18 / 103)
Total	<1% (50 / 23,782)	<1% (674 / 438,255)	<1% (199 / 78,293)

* Less than two effective doses combines those with one and no effective dose.

- In the past week, 71,217 (64.5%) of all PCR confirmed cases had received at least two effective doses (see Appendix C), reflective of the high proportion of community vaccination (90.0% of those aged 12 years and over, at the start of this wave on 26 November 2021). Similar breakdowns by vaccination status for previous periods are in Appendix C.
- The proportion of cases who were hospitalised, admitted to ICU or died is similar in Table 5 for those with no effective dose and those with two effective doses because the no effective dose group contains a very large proportion of young children, who typically have mild outcomes and are only very rarely hospitalised, admitted to ICU or die. Likewise, the overall rate of hospitalisation, ICU admission and death is presently similar for those with three effective doses compared to those with two effective doses, because the group with three effective doses contains a larger proportion of elderly cases, as well as more people with immunosuppression, who were eligible for a third vaccine dose earlier. Therefore, it is important to consider rates of hospitalisation, ICU admission, and death by age group as well as vaccination status. Table 6 and Appendix C show such further breakdowns by age range.
- In the period since 26 November 2021, the *number* of cases with two effective doses who experience severe outcomes is reflective of the high number in the community who have received two effective doses. However, the *proportion* of cases with two effective doses who experience severe outcomes is still lower than that for cases with less than two effective doses in every age group, demonstrating the effectiveness of vaccines to protect against severe outcomes.
- Caution should be used when interpreting rates among people over 60 with less than two effective doses since 26 November 2021. The denominator among cases is small, because the proportion of people in the community aged over 60 with no effective dose is small.
- Caution should also be used when interpreting rates among those with three or more effective doses, as the number who have received three doses is still relatively small. Rates will become more reliable as a greater proportion of the population receives their third dose. However, the preliminary evidence to date suggests that three or more effective doses provides additional protection against ICU admission and/or death, compared to having received only two effective doses.

Section 5: Deaths following recent infection with COVID-19

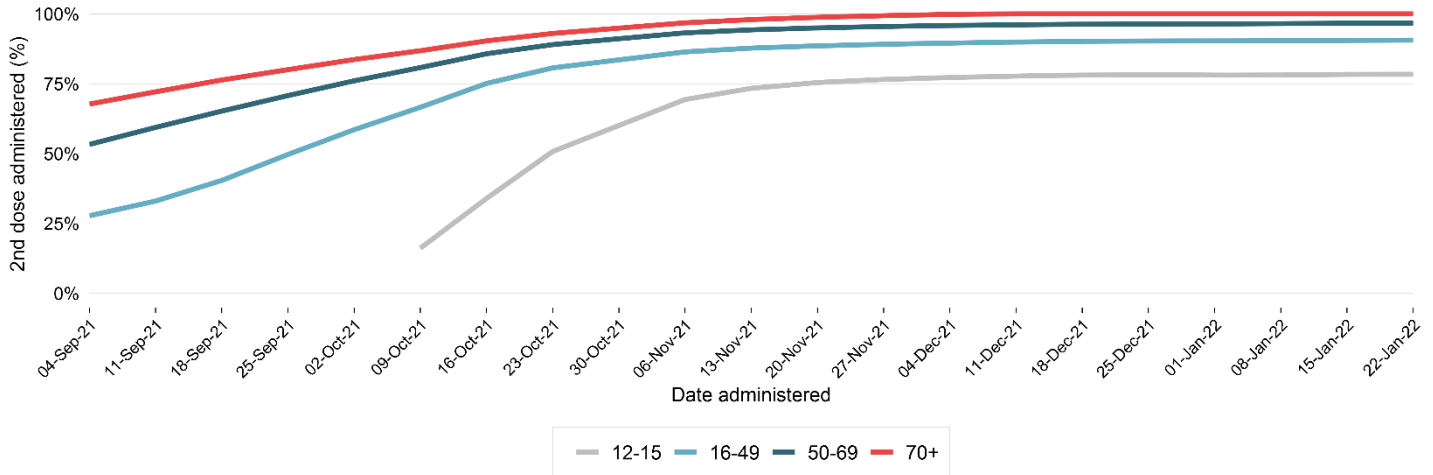
Table 7. Deaths following recent infection with COVID-19, by age group and location, 26 November 2021 to 22 January 2022

Age-group (years)	Number of deaths	Case fatality rate	Location of death	
			Health care facility	Aged care facility
0-9	1	<0.1%	0	0
10-19	0	0%	0	0
20-29	2	<0.1%	2	0
30-39	3	<0.1%	2	0
40-49	9	<0.1%	7	0
50-59	21	<0.1%	18	0
60-69	43	0.1%	38	0
70-79	117	0.6%	104	12
80-89	155	1.9%	130	23
90+	85	3.6%	61	23
Total	436	0.1%	362	58

- Since the start of the pandemic, 0.1% of confirmed cases (1,080 people) have died.
- This includes 214 residents of aged care facilities.
- Among cases since 26 November, 22.5% (98/436) of the deaths were among people who had received no effective dose (see Table 5). This is an over-representation, given that those with no effective dose represent 10.9% (72,772/669,934) of cases.
- In the period from 16 June to 22 January 2022, the median delay between a person becoming ill and death was 12 days.
- In the week ending 22 January 2022, there were 192 deaths in people with a PCR confirmed diagnosis of COVID-19, including
 - 17 people who had received three doses (1 in their 30s, 1 in their 60s, 7 in their 70s, 4 in their 80s, and 4 aged 90+ years),
 - 127 people who had received two effective doses (1 in their 40s, 5 in their 50s, 12 in their 60s, 36 in their 70s, 53 in their 80s, and 20 aged 90+ years),
 - 6 people who had received one dose (2 in their 50s, 1 in their 70s, 2 in their 80s and 1 aged 90+ years),
 - 40 people who had received no effective dose (3 in their 40s, 4 in their 50s, 6 in their 60s, 9 in their 70s, 12 in their 80s, and 6 aged 90+ years), and
 - 2 people whose vaccination status is under investigation (1 in their 50s, and 1 in their 80s).
- The majority of deaths in cases since 26 November 2021 have occurred in hospital (362/436, 83%).
- There have been 16 deaths at home. Among these, 12 were diagnosed after death.

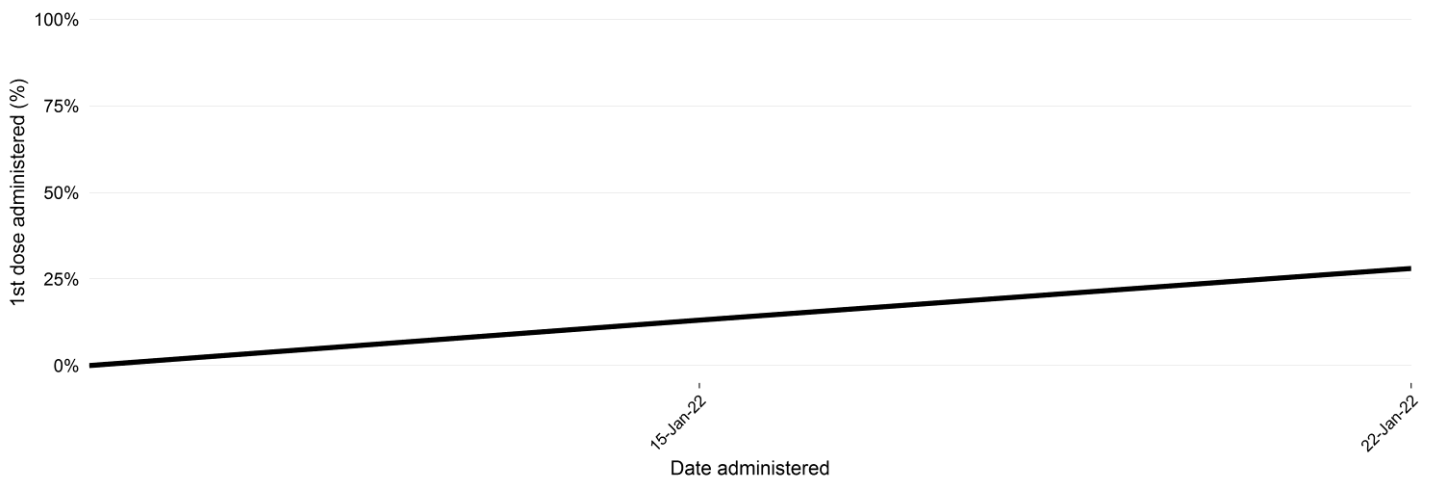
Section 6: Vaccination coverage in NSW

Figure 6. Proportion of 12+ year-olds who have received two doses of COVID-19 vaccine, by age range and time, NSW, 4 September 2021 to 22 January 2022



Sources: <https://www.health.gov.au/resources/collections/covid-19-vaccination-daily-rollout-update>

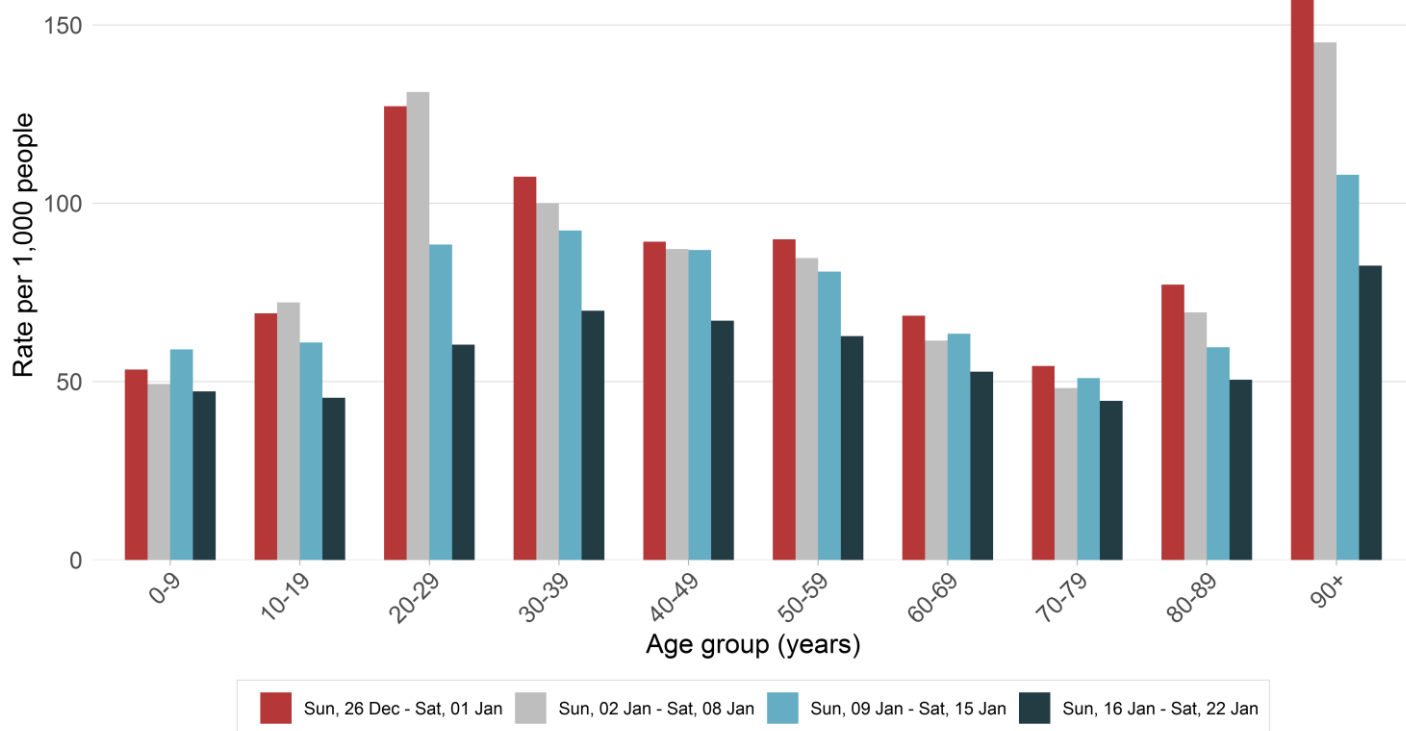
Figure 7. Proportion of children aged 5-11 years who have received one dose of COVID-19 vaccine, by age range and time, NSW, 9 January 2022 to 22 January 2022



- The proportion of the NSW population who have received two vaccine doses has increased substantially in the last four months, reaching over 92% of those aged 12 and over by 22 January 2022.
- Children aged 12-15 years became eligible for vaccination from mid-September 2021 and showed strong uptake of vaccination immediately. Since mid-November their vaccination has remained stable at around 75-78%.
- The highest vaccination rates have been achieved among those aged 70+ and 50-69 years, who have a vaccination rate above 95%.
- Children aged 5-11 became eligible for vaccination on 10 January 2022, and by 22 January 28.0% of children in this age range had received their first dose. Children in this age range are recommended to receive their second dose 8 weeks after the first.
- By 22 January 2022, 33.5% of the NSW population aged 18 years and over had received three or more vaccine doses.

Section 7: COVID-19 testing in NSW by age group

Figure 8. Number of PCR tests per 1,000 population, by age group, NSW, 16 June 2021 to 22 January 2022

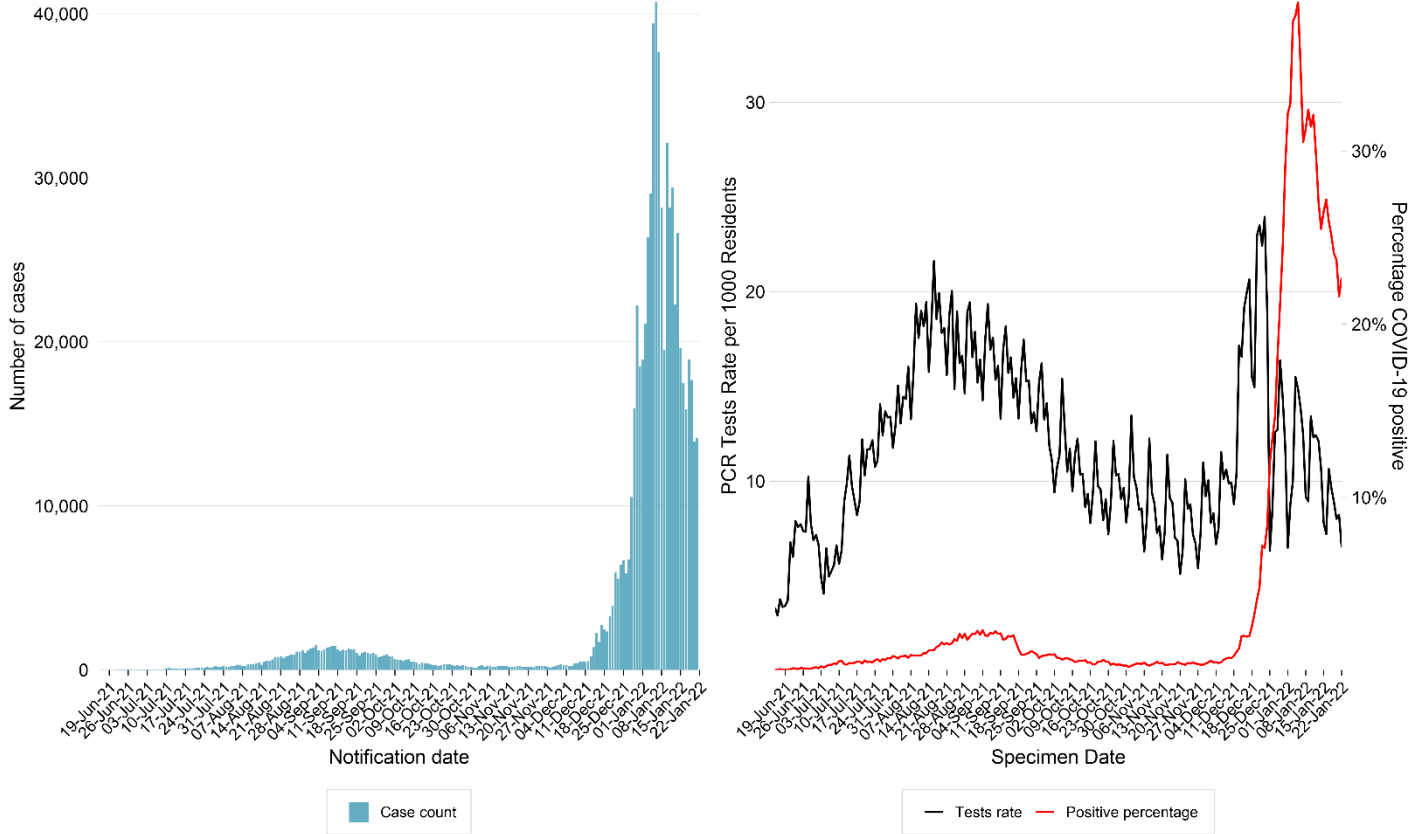


Includes SARS-CoV-2 PCR tests only and excludes notifications with age missing.

- The figure shows PCR testing only and excludes RAT results. While it is mandatory to report positive RAT results, NSW Health receives no information about the number of negative tests performed, and as such it is not possible to calculate RAT testing rates.
- In the last four weeks to 22 January, testing rates decreased for all age groups. This may be due to difficulties accessing PCR testing facilities, using rapid antigen tests instead, and/or delays in processing and reporting PCR tests to NSW Health.
- The PCR testing rate remains highest among those aged 90 years and over.

Section 8: PCR testing and positivity rates, NSW

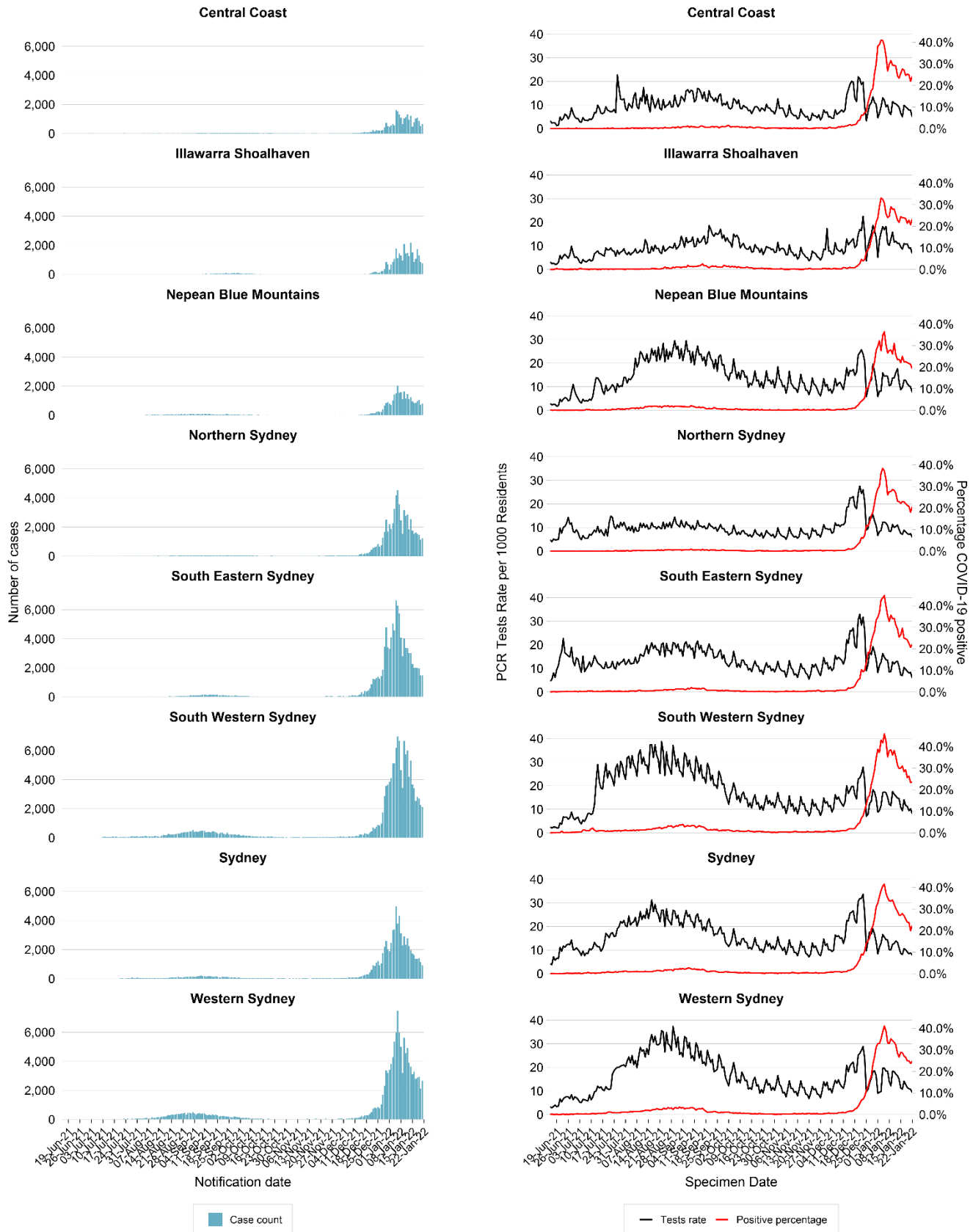
Figure 9. PCR confirmed cases, testing rates per 1000 population, and percentage of tests which were positive for COVID-19, NSW, 16 June 2021 to 22 January 2022



- There were 454,554 PCR tests reported in the week ending 22 January 2022, down 23% from the 589,878 reported in the week ending 15 January 2022.
- This may be due to fewer people being able to access testing, delays in reporting tests to NSW Health and the use of Rapid Antigen Tests instead of PCR.
- Test positivity rates have generally been well below 3%, reflecting high surveillance capacity and rapid case identification. However, during January 2022, the test positivity rate increased to above 30%. This high positivity rate indicates that there were likely undetected COVID-19 cases in the community.
- From 5 January 2022, people who receive a positive Rapid Antigen Test no longer need to have a PCR test (except in limited circumstances). From 12 January 2022, it was mandatory to report positive results; those with positive RAT results from 1 to 11 January were also encouraged to report their result. These policy changes are likely to result in fewer PCR tests being reported, and in particular positive PCR tests.

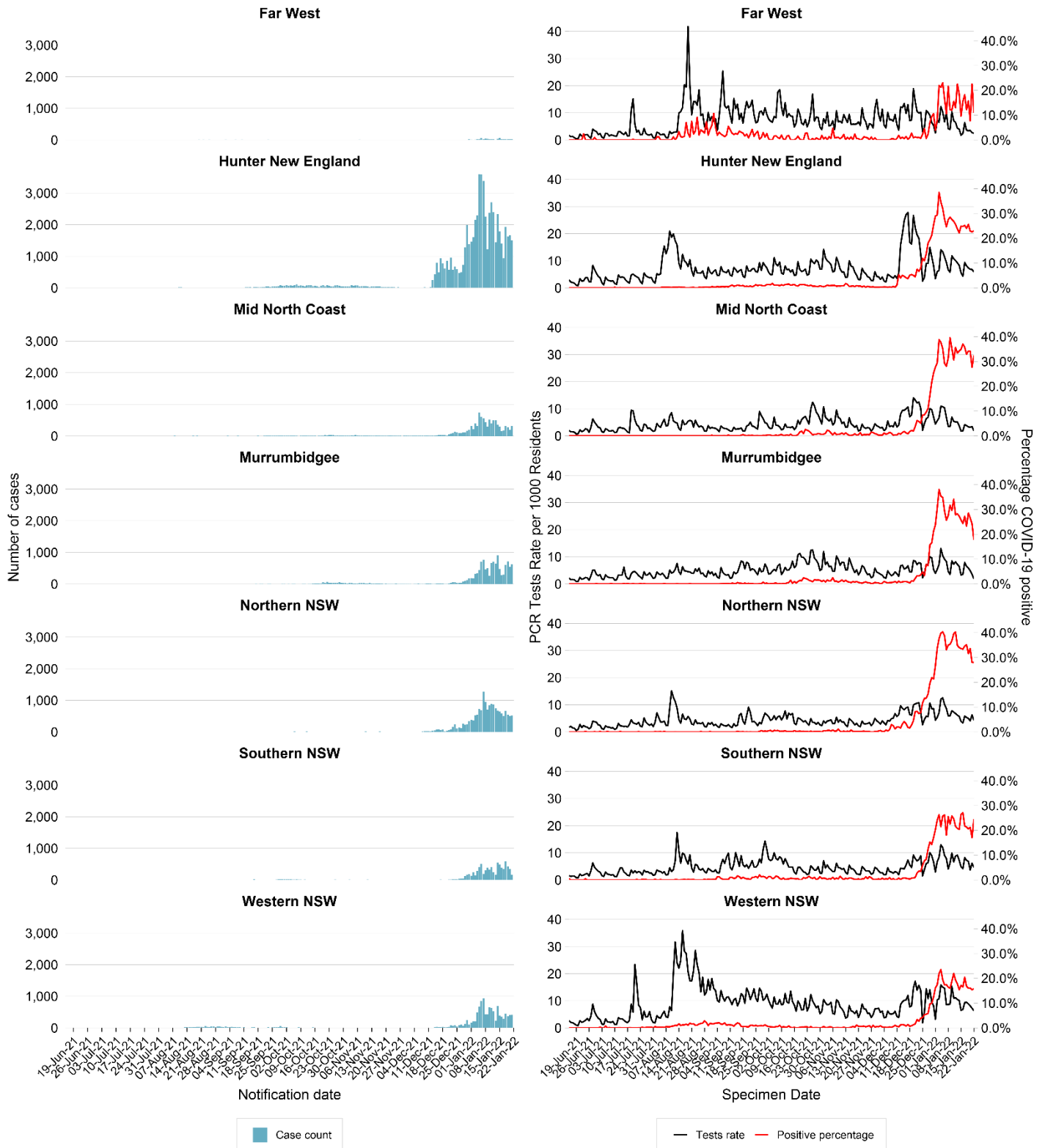
Section 9: PCR testing and positivity rates, Greater Sydney, Central Coast and Illawarra Shoalhaven LHDs

Figure 10. PCR confirmed cases, PCR testing rates per 1000 population, and percentage of tests which were positive for COVID-19, by LHD of residence, metropolitan LHDs, NSW, 16 June 2021 to 22 January 2022



Section 10: PCR testing and positivity rates, rural and regional LHDs

Figure 11. PCR confirmed cases, PCR testing rates per 1000 population, and percentage of tests which were positive for COVID-19, by LHD of residence, rural and regional LHDs, NSW, 16 June 2021 to 22 January 2022



- Note that the axes may differ within and between figures
- Testing rates and positivity rates show larger deviations in rural compared to metropolitan LHDs because their population is small.
- The increased case numbers, increased testing, and increased test positivity from December 2021 are apparent in all LHDs.

Section 11: PCR case rates in Local Government Areas

Table 8a. Top 20 metropolitan LGAs of residence, ordered by total PCR-confirmed COVID-19 cases in the last 7 days, per 100,000 population rate, NSW, 26 November 2021 to 22 January 2022

LGA name	Last 7 days		26 Nov 2021 - 22 Jan 2022	
	Cases	Cases per 100,000 population	Cases	Cases per 100,000 population
Shellharbour	1,548	2,114	6,230	8,507
Cumberland	5,080	2,103	31,738	13,141
Blacktown	7,867	2,101	43,110	11,513
Campbelltown	3,295	1,928	19,762	11,561
Liverpool	4,338	1,906	28,712	12,616
Penrith	3,913	1,837	21,357	10,028
Camden	1,837	1,811	11,408	11,246
Canterbury-Bankstown	6,652	1,760	45,604	12,067
Wollongong	3,757	1,722	17,229	7,899
Strathfield	802	1,709	6,606	14,077
Fairfield	3,608	1,704	25,979	12,272
The Hills Shire	2,948	1,656	16,876	9,483
Hunters Hill	246	1,642	1,980	13,218
Shoalhaven	1,678	1,588	5,302	5,019
Central Coast	5,315	1,545	23,811	6,922
Hawkesbury	1,010	1,501	4,251	6,317
Sutherland Shire	3,416	1,481	22,248	9,647
Georges River	2,333	1,463	16,261	10,197
Bayside	2,425	1,359	19,467	10,912
Northern Beaches	3,481	1,273	21,487	7,856

Table 8b. Top 20 regional and rural LGAs of residence, ordered by total PCR-confirmed COVID-19 cases in the last 7 days, per 100,000 population rate, NSW, 26 November 2021 to 22 January 2022

LGA name	Last 7 days		26 Nov 2021 - 22 Jan 2022	
	Cases	Cases per 100,000 population	Cases	Cases per 100,000 population
Griffith	667	2,468	2,068	7,651
Tweed	1,771	1,826	6,377	6,574
Wagga Wagga	1,092	1,673	3,024	4,634
Maitland	1,214	1,425	7,557	8,873
Byron	482	1,374	4,363	12,437
Orange	583	1,373	2,568	6,049
Dubbo Regional	734	1,366	3,070	5,715
Goulburn Mulwaree	416	1,336	1,333	4,282
Queanbeyan-Palerang Regional	805	1,318	2,742	4,488
Greater Hume Shire	140	1,301	517	4,803
Armidale Regional	400	1,300	1,147	3,727
Cessnock	772	1,287	4,091	6,820
Eurobodalla	490	1,274	1,080	2,807
Forbes	124	1,252	309	3,119
Tamworth Regional	757	1,210	3,276	5,238
Albury	644	1,185	2,788	5,129
Bega Valley	407	1,181	1,159	3,362
Newcastle	1,956	1,181	14,583	8,808
Lachlan	71	1,169	146	2,403
Federation	141	1,134	461	3,707

- The top 20 metropolitan LGAs contributed 59% of all PCR-confirmed cases in the week ending 22 January.
- The top 20 regional and rural LGAs contributed another 12% of PCR-confirmed cases.
- Although the LGA with the highest case rate per 100,000 population was in a regional and rural area this week, 6 of the top 7 highest LGA case rates were in metropolitan areas.
- The case numbers in some regional LGAs are relatively small, but because the population is also small the case rate is high.

Section 12: Aboriginal people

Figure 12. Number of PCR confirmed COVID-19 infections in Aboriginal people by date, NSW, 16 June 2021 to 22 January 2022

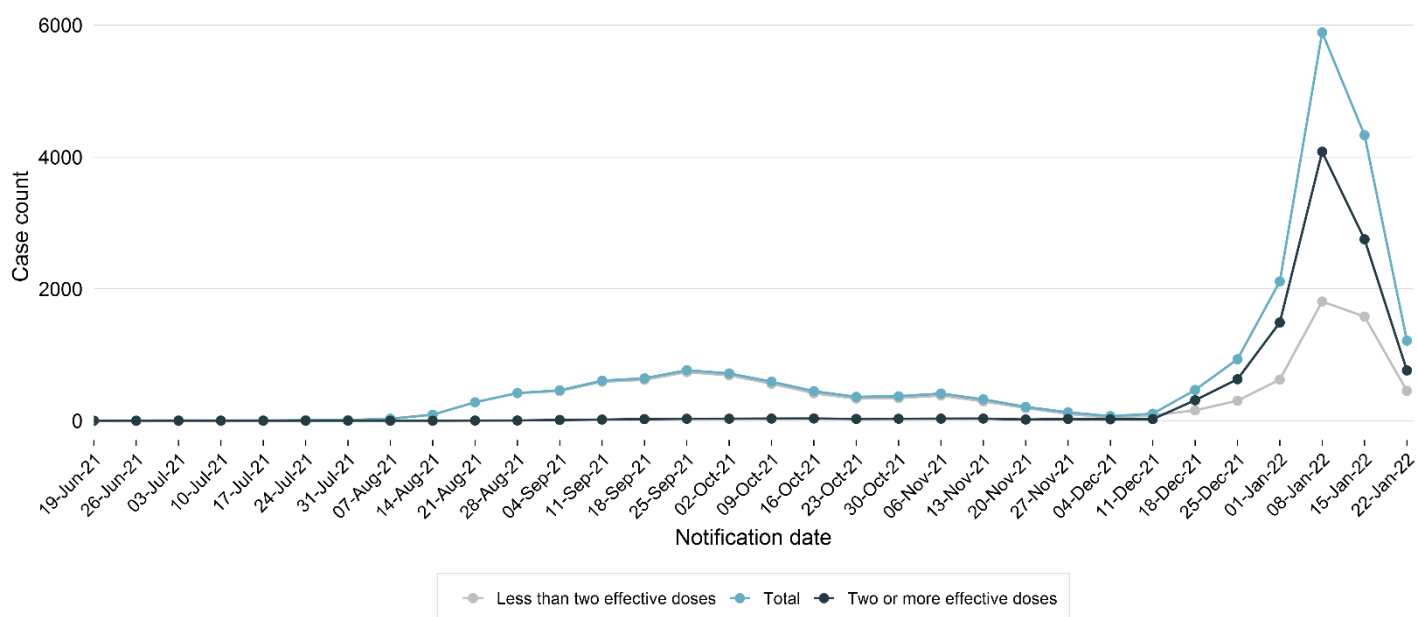


Table 9. Demographics of PCR confirmed infections among Aboriginal people by gender, age, and vaccination status, NSW, 16 June 2021 to 22 January 2022

	Week ending				26 Nov 2021 - 22 Jan 2022	16 Jun 2021 - 25 Nov 2021
	22 Jan	15 Jan	8 Jan	1 Jan		
Gender						
Female	675 (56%)	2,351 (54%)	3,258 (55%)	1,152 (55%)	8,261 (55%)	3,504 (51%)
Male	539 (44%)	1,978 (46%)	2,628 (45%)	960 (45%)	6,867 (45%)	3,371 (49%)
Non-specified or non-binary	0 (0%)	2 (<1%)	3 (<1%)	1 (<1%)	9 (<1%)	1 (<1%)
Age group						
0-9	216 (18%)	727 (17%)	771 (13%)	280 (13%)	2,192 (14%)	1,805 (26%)
10-19	209 (17%)	892 (21%)	1,252 (21%)	432 (20%)	3,156 (21%)	1,604 (23%)
20-29	292 (24%)	1,025 (24%)	1,866 (32%)	640 (30%)	4,399 (29%)	1,224 (18%)
30-39	204 (17%)	648 (15%)	825 (14%)	309 (15%)	2,182 (14%)	963 (14%)
40-49	126 (10%)	501 (12%)	538 (9%)	202 (10%)	1,502 (10%)	645 (9%)
50-59	103 (8%)	330 (8%)	381 (6%)	158 (7%)	1,043 (7%)	389 (6%)
60+	64 (5%)	208 (5%)	256 (4%)	92 (4%)	663 (4%)	246 (4%)
Vaccination status						
Three or more effective doses	34 (3%)	101 (2%)	78 (1%)	24 (1%)	250 (2%)	0 (0%)
Two effective doses	728 (60%)	2,651 (61%)	4,003 (68%)	1,466 (69%)	9,820 (65%)	345 (5%)
One effective dose	23 (2%)	60 (1%)	69 (1%)	25 (1%)	210 (1%)	477 (7%)
No effective dose	263 (22%)	1,144 (26%)	1,266 (21%)	449 (21%)	3,534 (23%)	5,534 (80%)
Under investigation*	166 (14%)	375 (9%)	473 (8%)	149 (7%)	1,323 (9%)	520 (8%)
Total	1,214 (100%)	4,331 (100%)	5,889 (100%)	2,113 (100%)	15,137 (100%)	6,876 (100%)

* Vaccination status is updated regularly using both the Australian Immunisation Register and the patient's interview.

- Since 26 November 2021 there have been 15,137 Aboriginal people diagnosed with COVID-19, representing 2.3% of all cases in that time. This is an under-representation among Aboriginal and Torres Strait Islander people, who represent 3.4% of the NSW population according to the Australian Bureau of Statistics. In contrast, in the period 16 June to 25 November 2021 Aboriginal and Torres Strait Islander people were over-represented in total cases, with 9.1% of cases identified as Aboriginal.
- Since 26 November 2021, the proportion of cases of COVID-19 in Aboriginal people has been highest in the 20-29 year age group, reflecting the high case numbers in this age group in the population as a whole.
- Although NSW Health is no longer interviewing every case, Aboriginal status is recorded through the short text message survey sent at the time of notification. However, not all cases that receive this text message respond (82% response rate), and hence Aboriginality may be under-reported.

Section 13: Correctional settings

Figure 13. Number of PCR-confirmed COVID-19 infections among people residing in correctional settings by date, NSW, 16 June 2021 to 22 January 2022

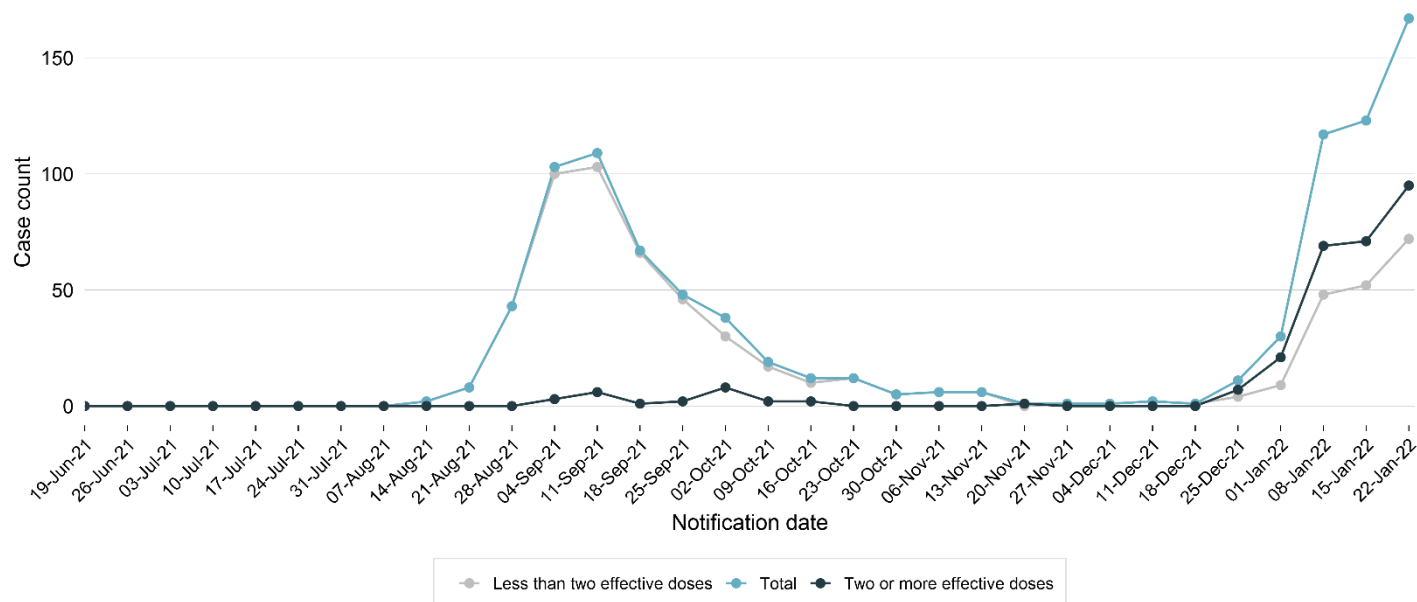


Table 10. Demographics of PCR-confirmed infections in correctional settings by gender, age, and vaccination status, NSW, 16 June to 22 January 2022

	Week ending				26 Nov 2021 - 22 Jan 2022	16 Jun 2021 - 25 Nov 2021
	22 Jan	15 Jan	8 Jan	1 Jan		
Gender						
Male	165 (99%)	120 (98%)	113 (97%)	27 (90%)	440 (97%)	453 (94%)
Female	1 (1%)	2 (2%)	4 (3%)	3 (10%)	10 (2%)	27 (6%)
Non-specified or non-binary	1 (1%)	1 (1%)	0 (0%)	0 (0%)	2 (<1%)	0 (0%)
Age group						
10-19	2 (1%)	10 (8%)	8 (7%)	1 (3%)	25 (6%)	28 (6%)
20-29	49 (29%)	29 (24%)	32 (27%)	8 (27%)	124 (27%)	142 (30%)
30-39	51 (31%)	38 (31%)	32 (27%)	12 (40%)	134 (30%)	169 (35%)
40-49	37 (22%)	28 (23%)	30 (26%)	8 (27%)	105 (23%)	95 (20%)
50-59	12 (7%)	10 (8%)	9 (8%)	1 (3%)	34 (8%)	35 (7%)
60-69	10 (6%)	4 (3%)	6 (5%)	0 (0%)	20 (4%)	7 (1%)
70-79	4 (2%)	4 (3%)	0 (0%)	0 (0%)	8 (2%)	3 (1%)
80-89	2 (1%)	0 (0%)	0 (0%)	0 (0%)	2 (<1%)	1 (<1%)
Vaccination status						
Three or more effective doses	1 (1%)	0 (0%)	0 (0%)	0 (0%)	1 (<1%)	0 (0%)
Two effective doses	94 (56%)	71 (58%)	69 (59%)	21 (70%)	262 (58%)	25 (5%)
One effective dose	7 (4%)	3 (2%)	7 (6%)	0 (0%)	19 (4%)	59 (12%)
No effective dose	1 (1%)	1 (1%)	1 (1%)	0 (0%)	3 (1%)	267 (56%)
Under investigation*	64 (38%)	48 (39%)	40 (34%)	9 (30%)	167 (37%)	129 (27%)
Total	167 (100%)	123 (100%)	117 (100%)	30 (100%)	452 (100%)	480 (100%)

* Vaccination status is updated regularly using both the Australian Immunisation Register and the patient's interview.

- Note that cases in correctional settings may have acquired their infection prior to entry into the setting.
- Most cases of COVID-19 among people residing in correctional settings were male and aged 30-39 years, consistent with the demographics of correctional populations generally.
- The number of cases in correctional settings increased in the week ending 22 January 2022 compared to the previous week.

Section 14: Other respiratory infections in NSW

Figure 14. Proportion of tests positive for influenza, NSW, 1 January 2016 to 16 January 2022

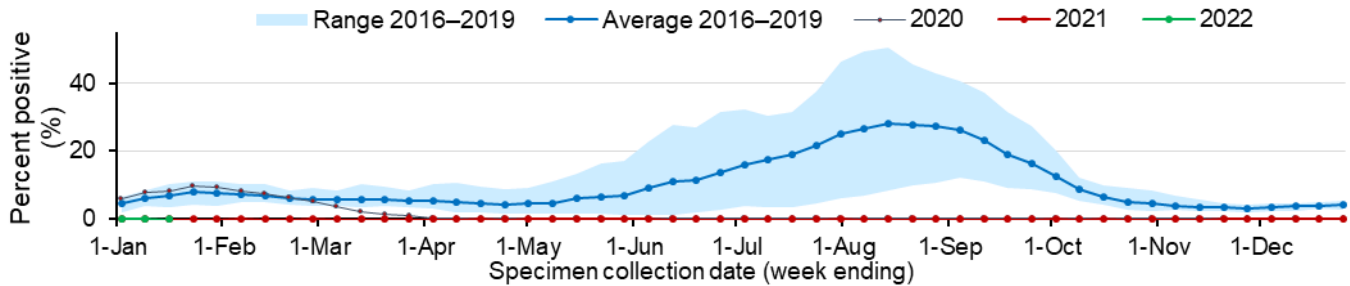


Figure 15. Proportion of FluTracker participants reporting influenza-like illness, NSW, 1 January 2016 to 16 January 2022

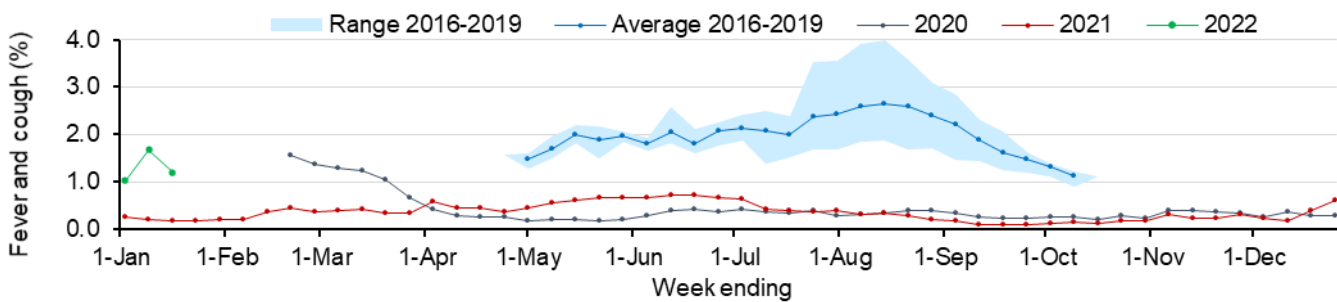


Figure 16. Emergency Department pneumonia presentations, NSW, 1 January 2017 to 23 January 2022

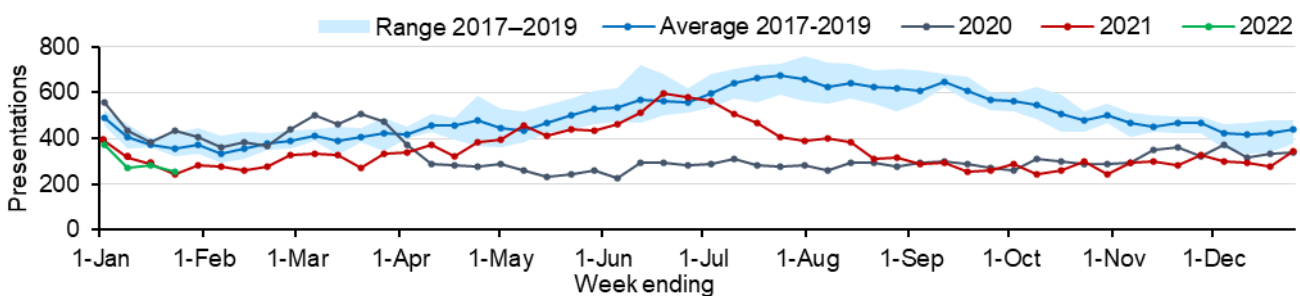
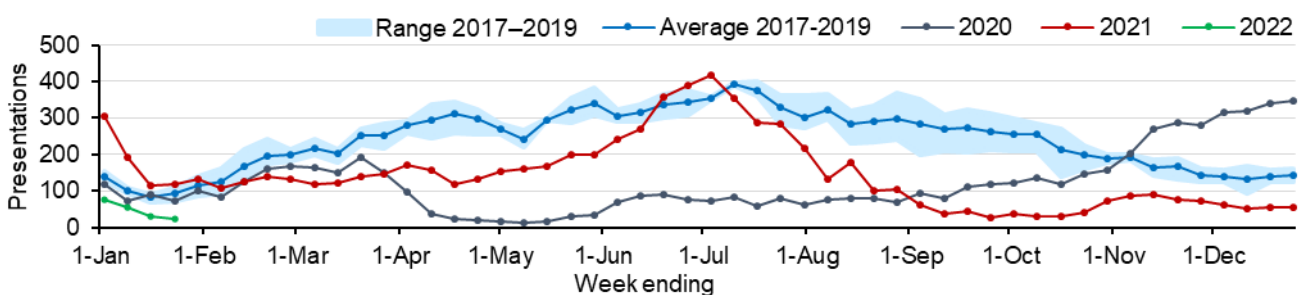


Figure 17. Emergency Department bronchiolitis presentations, NSW, 1 January 2017 to 23 January 2022



- The percentage of influenza tests that were positive has been low (<1%) relative to the usual seasonal range (see Figure 14), indicating limited influenza transmission in the community. Data are pending from several labs from 5 December 2021 and are subject to change.
- In the week ending 16 January 2022, 20,297 people were surveyed with FluTracker, and 245 people (1.2%) reported flu-like symptoms (see Figure 15, and Glossary for further details on the FluTracker survey).
- In the last four weeks, 59% (512/871) of new cases of flu-like illness reported having a COVID-19 test.
- International border closures, improved hygiene and social distancing measures implemented during 2020 and 2021 in the COVID-19 pandemic impacted on a broad range of other viral and bacterial infections.
- Both pneumonia presentations and bronchiolitis presentations to emergency departments decreased in March 2020 and again in July 2021, and remain below the seasonal range for this time of year (see Figures 16 and 17).

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

		Week ending				Total since January 2022	
		22 Jan 2022		15 Jan 2022		No.	Tests per 1,000 population
Local Health District	Local Government Area	No.	Tests per 1,000 population	No.	Tests per 1,000 population		
Central Coast	<i>LHD Total*</i>	17,973	50.93	21,771	61.70	64,194	181.92
	Kiama	1,258	53.79	1,790	76.54	5,290	226.20
Illawarra Shoalhaven	Shellharbour	5,387	73.56	6,752	92.20	20,430	278.97
	Shoalhaven	6,486	61.39	7,829	74.10	23,227	219.85
	Wollongong	13,348	61.20	17,591	80.65	54,292	248.92
	<i>LHD Total*</i>	26,479	63.10	33,962	80.94	103,239	246.03
Nepean Blue Mountains	Blue Mountains	3,713	46.93	4,680	59.15	13,461	170.14
	Hawkesbury	5,340	79.35	6,100	90.64	16,704	248.22
	Lithgow	1,075	49.76	987	45.68	3,123	144.55
	Penrith	17,660	82.92	21,903	102.84	62,370	292.85
	<i>LHD Total*</i>	27,598	70.59	33,410	85.45	94,937	242.81
Northern Sydney	Hornsby	5,518	36.29	6,770	44.52	20,073	132.01
	Hunters Hill	1,193	79.64	1,541	102.87	4,792	319.89
	Ku-ring-gai	6,800	53.48	8,900	69.99	25,815	203.02
	Lane Cove	2,694	67.09	3,595	89.53	10,947	272.62
	Mosman	1,181	38.12	1,696	54.74	5,129	165.55
	North Sydney	1,885	25.13	2,517	33.55	8,128	108.34
	Northern Beaches	15,745	57.57	20,180	73.78	57,166	209.02
	Parramatta [#]	12,999	50.54	16,471	64.04	49,437	192.21
	Ryde	7,115	54.20	9,047	68.92	27,162	206.92
	Willoughby	2,792	34.39	3,652	44.98	10,803	133.06
<i>LHD Total*</i>	47,207	49.38	60,508	63.30	178,126	186.34	
South Eastern Sydney	Bayside	9,948	55.76	14,058	78.80	41,486	232.55
	Georges River	9,439	59.19	12,324	77.28	37,207	233.32
	Randwick	8,403	53.99	11,766	75.59	36,482	234.39
	Sutherland Shire	15,397	66.77	18,471	80.10	56,009	242.87
	Sydney [#]	10,405	42.24	14,287	58.00	47,247	191.79
	Waverley	3,391	45.64	4,757	64.03	15,237	205.09
	Woollahra	2,172	36.57	3,128	52.67	9,800	165.02
<i>LHD Total*</i>	52,030	54.25	68,776	71.71	211,441	220.46	
South Western Sydney	Camden	8,467	83.47	10,561	104.11	29,732	293.11
	Campbelltown	13,828	80.89	19,521	114.20	53,384	312.29
	Canterbury-Bankstown [#]	26,717	70.70	35,888	94.96	106,923	282.93
	Fairfield	14,485	68.42	19,970	94.33	55,578	262.54
	Liverpool	15,889	69.82	21,930	96.36	62,580	274.97
	Wingecarribee	1,959	38.31	2,962	57.93	8,217	160.70
	Wollondilly	2,555	48.07	3,060	57.57	8,543	160.74
<i>LHD Total*</i>	71,181	68.54	97,283	93.67	274,012	263.84	
Sydney	Burwood	2,232	54.96	2,615	64.39	8,197	201.84
	Canada Bay	5,412	56.33	7,135	74.27	20,350	211.82
	Canterbury-Bankstown [#]	26,717	70.70	35,888	94.96	106,923	282.93
	Inner West	9,504	47.33	11,559	57.56	35,753	178.04
	Strathfield	4,281	91.23	5,662	120.66	17,068	363.72

		Week ending				Total since January 2022	
		22 Jan 2022		15 Jan 2022			
Local Health District	Local Government Area	No.	Tests per 1,000 population	No.	Tests per 1,000 population	No.	Tests per 1,000 population
	Sydney [#]	10,405	42.24	14,287	58.00	47,247	191.79
	<i>LHD Total[*]</i>	40,596	58.26	52,816	75.80	161,928	232.40
Western Sydney	Blacktown	32,250	86.13	42,677	113.97	118,845	317.38
	Cumberland	19,496	80.72	25,298	104.74	74,461	308.30
	Parramatta [#]	12,999	50.54	16,471	64.04	49,437	192.21
	The Hills Shire	14,477	81.35	17,521	98.45	50,734	285.07
	<i>LHD Total[*]</i>	77,813	73.87	100,421	95.33	288,612	273.97
Far West	Balranald	24	10.27	43	18.39	197	84.26
	Broken Hill	407	23.29	727	41.59	2,401	137.36
	Central Darling	113	61.45	64	34.80	279	151.71
	Wentworth	174	24.67	285	40.41	744	105.49
	<i>LHD Total[*]</i>	718	23.82	1,119	37.12	3,621	120.12
Hunter New England	Armidale Regional	1,187	38.57	1,459	47.40	4,332	140.75
	Cessnock	2,628	43.81	3,385	56.43	9,662	161.07
	Dungog	212	22.50	264	28.02	794	84.26
	Glen Innes Severn	220	24.80	210	23.67	731	82.40
	Gunnedah	369	29.10	641	50.55	1,777	140.13
	Gwydir	56	10.46	80	14.94	261	48.76
	Inverell	688	40.73	742	43.93	2,346	138.90
	Lake Macquarie	11,101	53.91	12,455	60.49	36,756	178.51
	Liverpool Plains	117	14.80	161	20.37	645	81.61
	Maitland	6,219	73.02	8,019	94.16	22,461	263.73
	Mid-Coast	3,166	33.74	5,324	56.74	14,018	149.39
	Moree Plains	539	40.65	753	56.78	2,482	187.17
	Muswellbrook	314	19.17	438	26.74	1,564	95.50
	Narrabri	243	18.50	550	41.87	1,979	150.67
	Newcastle	9,392	56.72	11,537	69.68	34,823	210.32
	Port Stephens	3,510	47.77	4,760	64.78	13,368	181.92
	Singleton	818	34.87	945	40.28	3,060	130.43
	Tamworth Regional	3,022	48.32	3,583	57.29	11,145	178.20
	Tenterfield	78	11.83	124	18.80	421	63.85
	Upper Hunter Shire	219	15.44	294	20.73	1,238	87.31
	Uralla	163	27.11	171	28.44	500	83.17
Walcha	73	23.29	91	29.04	324	103.38	
<i>LHD Total[*]</i>	44,323	46.54	55,951	58.75	164,594	172.82	
Mid North Coast	Bellingen	171	13.16	186	14.31	802	61.71
	Coffs Harbour	1,406	18.19	1,328	17.18	7,188	93.02
	Kempsey	989	33.25	1,246	41.89	4,181	140.56
	Nambucca	378	19.09	547	27.62	1,821	91.95
	Port Macquarie-Hastings	1,800	21.30	3,336	39.47	10,415	123.22
	<i>LHD Total[*]</i>	4,744	21.02	6,643	29.44	24,407	108.16
Murrumbidgee	Albury	2,379	43.77	2,951	54.29	9,233	169.87
	Berrigan	93	10.63	131	14.97	437	49.94
	Bland	74	12.39	128	21.43	371	62.12
	Carrathool	17	6.07	36	12.86	162	57.88

		Week ending				Total since January 2022	
		22 Jan 2022		15 Jan 2022			
Local Health District	Local Government Area	No.	Tests per 1,000 population	No.	Tests per 1,000 population	No.	Tests per 1,000 population
	Coolamon	88	20.27	129	29.72	433	99.75
	Cootamundra-Gundagai Regional	207	18.42	231	20.56	965	85.89
	Edward River	164	18.05	158	17.39	660	72.66
	Federation	291	23.40	465	37.39	1,542	123.98
	Greater Hume Shire	387	35.95	528	49.05	1,521	141.30
	Griffith	1,484	54.90	1,909	70.63	5,507	203.74
	Hay	40	13.56	46	15.60	177	60.02
	Hilltops	977	52.23	1,105	59.08	3,116	166.60
	Junee	198	29.63	303	45.34	893	133.62
	Lachlan [#]	104	17.12	158	26.01	536	88.23
	Leeton	295	25.78	292	25.51	1,029	89.91
	Lockhart	37	11.26	85	25.88	265	80.67
	Murray River	107	8.83	98	8.09	634	52.32
	Murrumbidgee	93	23.74	140	35.74	382	97.52
	Narrandera	94	15.93	90	15.26	294	49.84
	Snowy Valleys	186	12.85	297	20.51	1,124	77.63
	Temora	68	10.78	150	23.78	479	75.95
	Wagga Wagga	2,419	37.07	3,489	53.46	10,878	166.69
	<i>LHD Total*</i>	9,708	32.57	12,792	42.91	40,242	134.99
	Ballina	1,517	33.99	2,067	46.32	5,870	131.53
	Byron	938	26.74	1,666	47.49	5,792	165.10
	Clarence Valley	1,048	20.29	1,133	21.93	4,457	86.27
	Kyogle	130	14.78	179	20.35	594	67.53
Northern NSW	Lismore	946	21.65	1,150	26.32	4,317	98.81
	Richmond Valley	520	22.16	735	31.32	2,562	109.18
	Tenterfield	78	11.83	124	18.80	421	63.85
	Tweed	4,743	48.90	5,854	60.35	19,044	196.33
	<i>LHD Total*</i>	9,854	31.75	12,816	41.29	42,725	137.66
	Bega Valley	1,147	33.27	1,311	38.03	4,339	125.86
	Eurobodalla	975	25.34	1,393	36.21	4,169	108.36
	Goulburn Mulwaree	1,351	43.40	2,034	65.33	6,644	213.41
Southern NSW	Queanbeyan-Palerang Regional	3,372	55.19	4,039	66.10	10,681	174.81
	Snowy Monaro Regional	904	43.47	1,345	64.68	4,074	195.91
	Upper Lachlan Shire	289	35.86	295	36.61	987	122.47
	Yass Valley	504	29.50	668	39.09	2,269	132.79
	<i>LHD Total*</i>	8,546	39.37	11,086	51.07	33,169	152.80
	Bathurst Regional	2,970	68.09	4,496	103.08	12,392	284.10
	Blayney	321	43.50	364	49.33	1,116	151.24
	Bogan	53	20.54	126	48.84	279	108.14
Western NSW	Bourke	140	54.05	184	71.04	617	238.22
	Brewarrina	7	4.35	21	13.04	109	67.66
	Cabonne	391	28.68	418	30.66	1,314	96.38
	Cobar	72	15.46	130	27.91	441	94.68

Local Health District	Local Government Area	Week ending				Total since January 2022	
		22 Jan 2022		15 Jan 2022		No.	Tests per 1,000 population
		No.	Tests per 1,000 population	No.	Tests per 1,000 population	No.	Tests per 1,000 population
	Coonamble	82	20.72	234	59.12	525	132.64
	Cowra	247	19.38	256	20.09	1,051	82.48
	Dubbo Regional	6,027	112.19	7,292	135.74	21,189	394.44
	Forbes	342	34.52	272	27.46	930	93.88
	Gilgandra	131	30.90	195	46.00	545	128.57
	Lachlan [#]	104	17.12	158	26.01	536	88.23
	Mid-Western Regional	388	15.37	720	28.51	2,272	89.98
	Narromine	346	53.09	458	70.28	1,438	220.65
	Oberon	124	22.92	208	38.44	643	118.83
	Orange	2,626	61.86	3,225	75.97	9,954	234.48
	Parkes	703	47.38	832	56.08	2,407	162.23
	Walgett	126	21.17	171	28.73	710	119.27
	Warren	169	62.66	249	92.32	784	290.69
	Warrumbungle Shire	162	17.46	311	33.52	939	101.21
	Weddin	62	17.16	91	25.19	263	72.79
	<i>LHD Total*</i>	15,584	54.68	20,383	71.52	60,335	211.69
NSW Total	NSW Total[^]	454,544	56.19	589,878	72.92	1,746,016	215.83

Source - Notifiable Condition Information Management System, accessed as at 8pm 25 Jan 2022

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

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

[^] NSW 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 16 January 2022

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 – 16 January 2022

Specimen collection date	PCR tests conducted	Influenza A		Influenza B		Adeno-virus	Para-influenza	RSV	Rhino-virus	HMPV	Entero - virus
		No.	%Pos.	No.	%Pos.						
2021 Total	811,134	30	<0.01%	12	<0.01%	8,474	18,847	17,612	64,890	6,693	6,842
Month ending											
31 January*	63,814	1	<0.01%	0	-	416	88	3,275	3,541	23	560
28 February	54,010	2	<0.01%	0	-	419	106	2,386	8,667	22	910
28 March	42,760	0	-	0	-	507	354	1,909	8,891	18	1,187
2 May*	53,506	0	-	3	<0.01%	802	1,515	1,653	8,141	48	1,128
30 May	52,445	0	-	6	<0.01%	946	3,129	1,491	8,982	78	843
27 June	73,605	1	< 0.01%	0	-	1,551	7,104	2,794	9,915	635	811
26 July	78,704	0	-	0	-	1,463	4,603	3,014	5,089	1,991	587
29 August*	126,147	0	-	1	< 0.01%	869	1,497	852	2,252	2,035	259
26 September	75,074	0	-	0	-	321	151	124	715	454	70
31 October*	88,568	6	< 0.01%	0	-	304	59	40	1,898	188	82
28 November	55,275	3	< 0.01%	0	-	577	45	31	4,086	232	167
2 January*	46,776	17	0.04%	2	< 0.01%	299	196	43	2,713	969	238
Week ending											
26 December	10,223	2	< 0.01%	2	< 0.01%	55	55	9	481	220	49
2 January	10,742	2	0.02%	0	-	36	44	9	211	159	26
9 January	9,588	4	0.04%	0	-	37	27	4	155	120	18
16 January	6,974	1	0.01%	0	-	27	31	2	85	68	7

Notes: Preliminary laboratory data is provided by participating sentinel laboratories on a weekly basis and are subject to change. Serological diagnoses are not included. Data are pending from several labs for the weeks since 5 December due to high demand on testing laboratories in the past weeks.

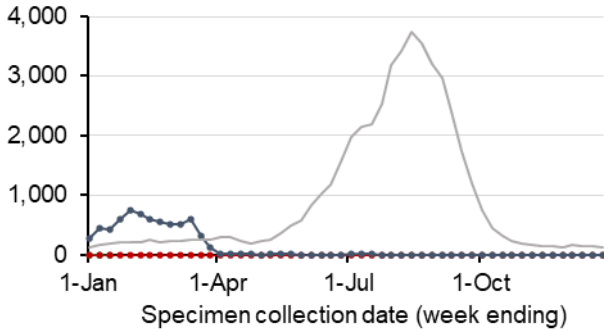
HMPV – Human metapneumovirus

RSV - Respiratory syncytial virus

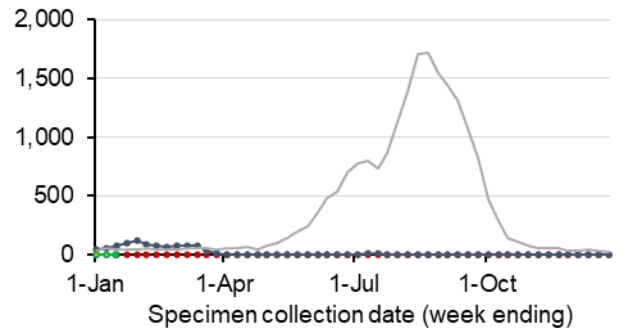
*Five-week period

Number of positive PCR test results for influenza and other respiratory viruses at sentinel NSW laboratories, January 2020 to 16 January 2022

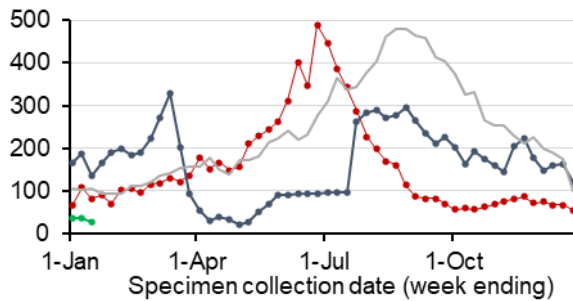
Influenza A



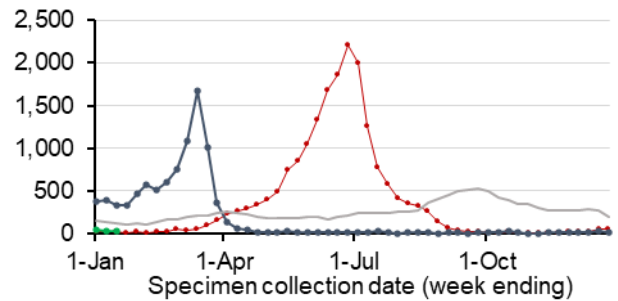
Influenza B



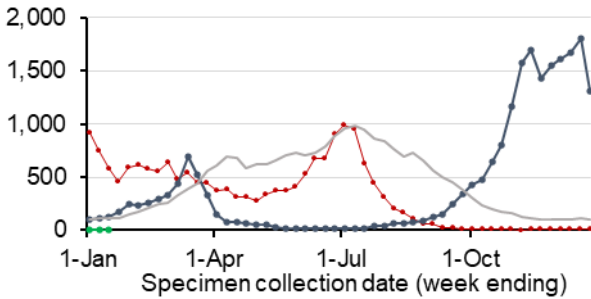
Adenovirus



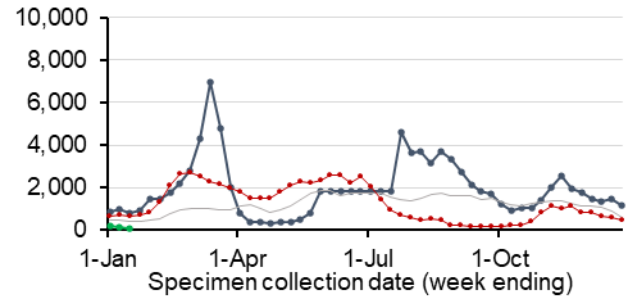
Parainfluenza



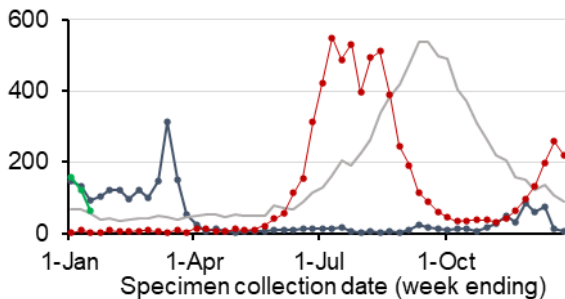
Respiratory Syncytial Virus



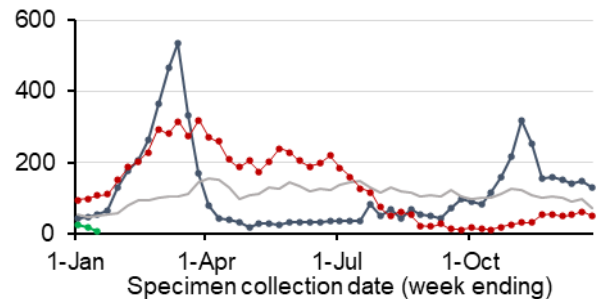
Rhinovirus



Human metapneumovirus



Enterovirus

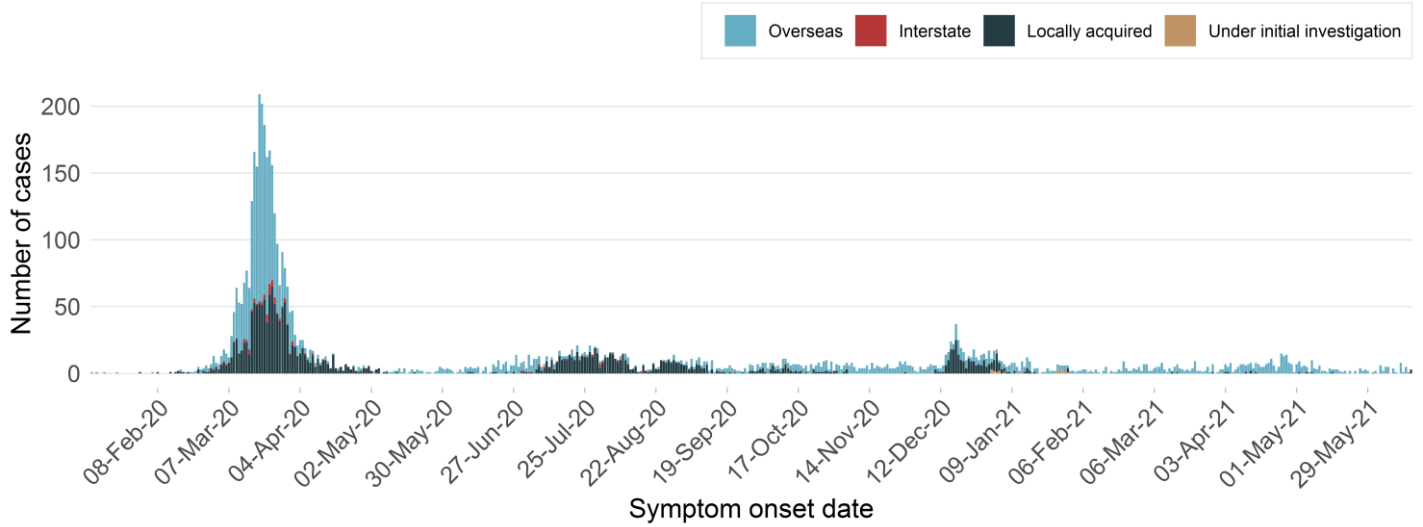


— 2022 — 2021 — 2020 — Average 2016–2019

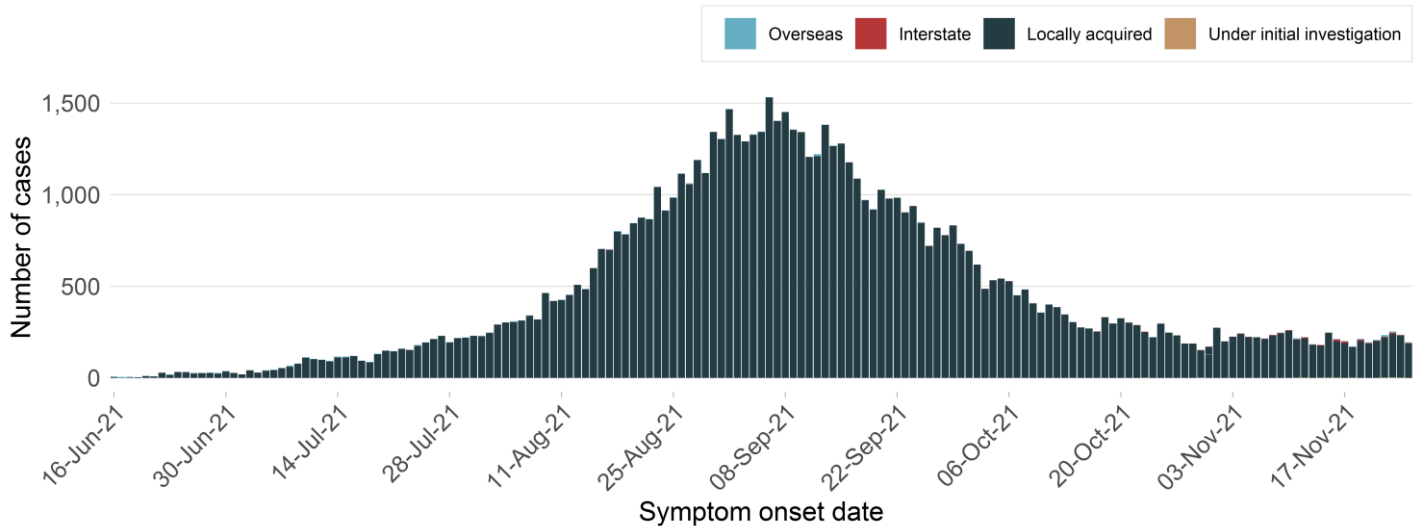
Note: Preliminary laboratory data are provided by participating sentinel laboratories on a weekly basis and are subject to change. Serological diagnoses are not included. Not all samples are tested for all respiratory viruses. Therefore, data presented may tend to under-represent current respiratory virus activity in NSW. Data are pending from several labs for the weeks since 5 December due to high demand on testing laboratories in the past weeks.

Appendix C: Additional tables and figures

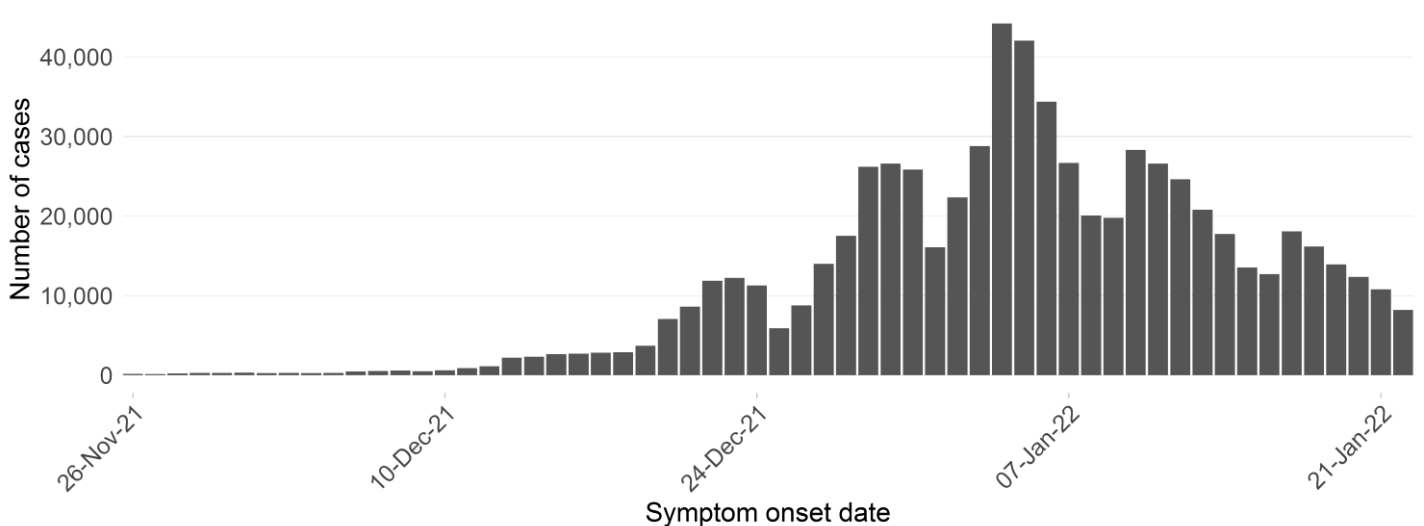
PCR-confirmed COVID-19 cases by likely infection source and reported illness onset, NSW, 13 January 2020 to 15 June 2021



PCR-confirmed COVID-19 cases by likely infection source and reported illness onset, NSW, 16 June to 25 November 2021



PCR-confirmed COVID-19 cases by reported illness onset, NSW, 25 November 2021 to 22 January 2022



Total PCR-confirmed COVID-19 cases by LHD of residence and week reported, NSW, 19 December 2021 to 22 January 2022

	Local Health District	Week ending				Total
		22 Jan	15 Jan	8 Jan	1 Jan	
Metropolitan Local Health Districts	Western Sydney	18,426	28,901	37,884	15,851	101,062
	South Western Sydney	17,516	34,997	38,784	17,521	108,818
	South Eastern Sydney	11,966	21,879	36,474	19,498	89,817
	Northern Sydney	9,315	16,432	22,089	10,716	58,552
	Sydney	8,455	16,260	25,417	12,420	62,552
	Illawarra Shoalhaven	7,243	10,925	8,249	2,844	29,261
	Nepean Blue Mountains	5,756	8,633	9,835	4,081	28,305
	Central Coast	5,315	6,805	7,322	2,790	22,232
Rural and Regional Local Health Districts	Hunter New England	10,025	14,288	18,873	7,827	51,013
	Murrumbidgee	3,654	4,117	3,184	742	11,697
	Northern NSW	3,620	5,384	5,072	1,720	15,796
	Western NSW	2,878	3,553	3,819	908	11,158
	Southern NSW	2,466	2,553	2,093	746	7,858
	Mid North Coast	1,613	2,862	3,274	1,080	8,829
	Far West	143	204	183	53	583
	Correctional settings	167	123	117	30	437
Hotel Quarantine*	3	4	3	2	12	
NSW#	110,395	181,190	226,017	100,740	618,342	

* Includes people who were placed into Hotel Quarantine after time in the community.

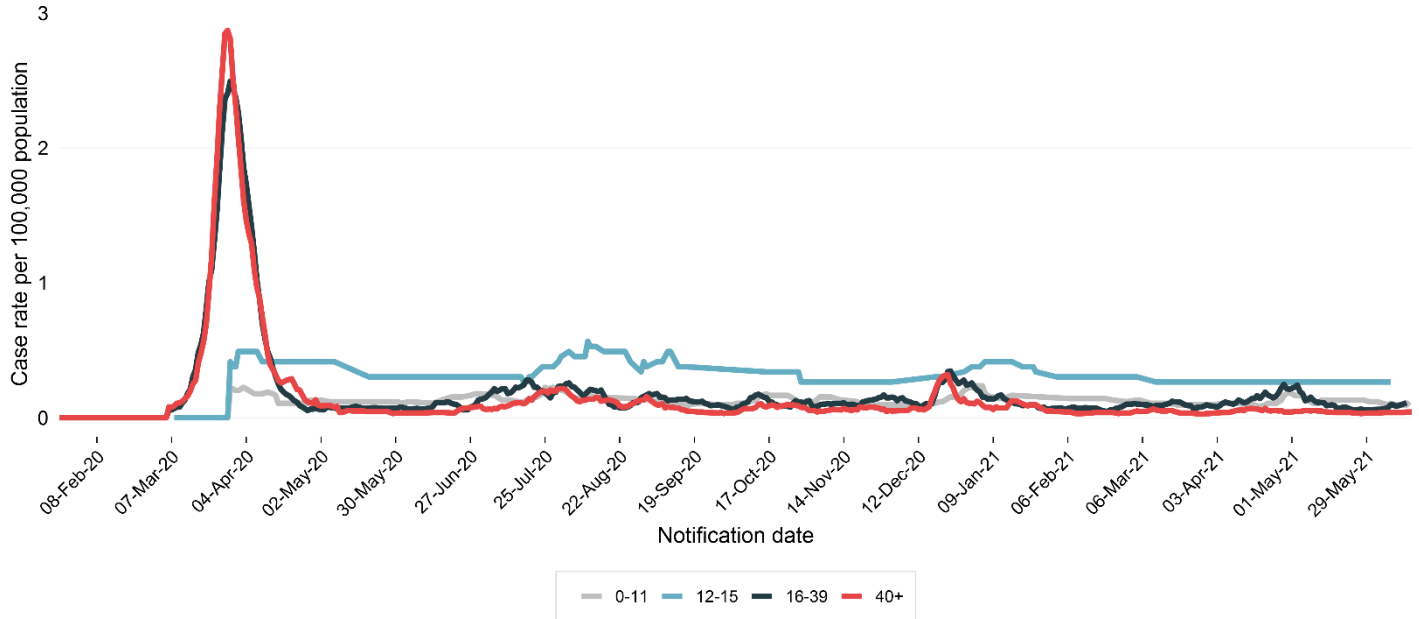
Includes people with a usual place of residence outside of NSW, and those for whom LHD was not available at the time of data extraction.

Total PCR confirmed COVID-19 cases by vaccination status and week reported, NSW, 16 June 2021 to 22 January 2022

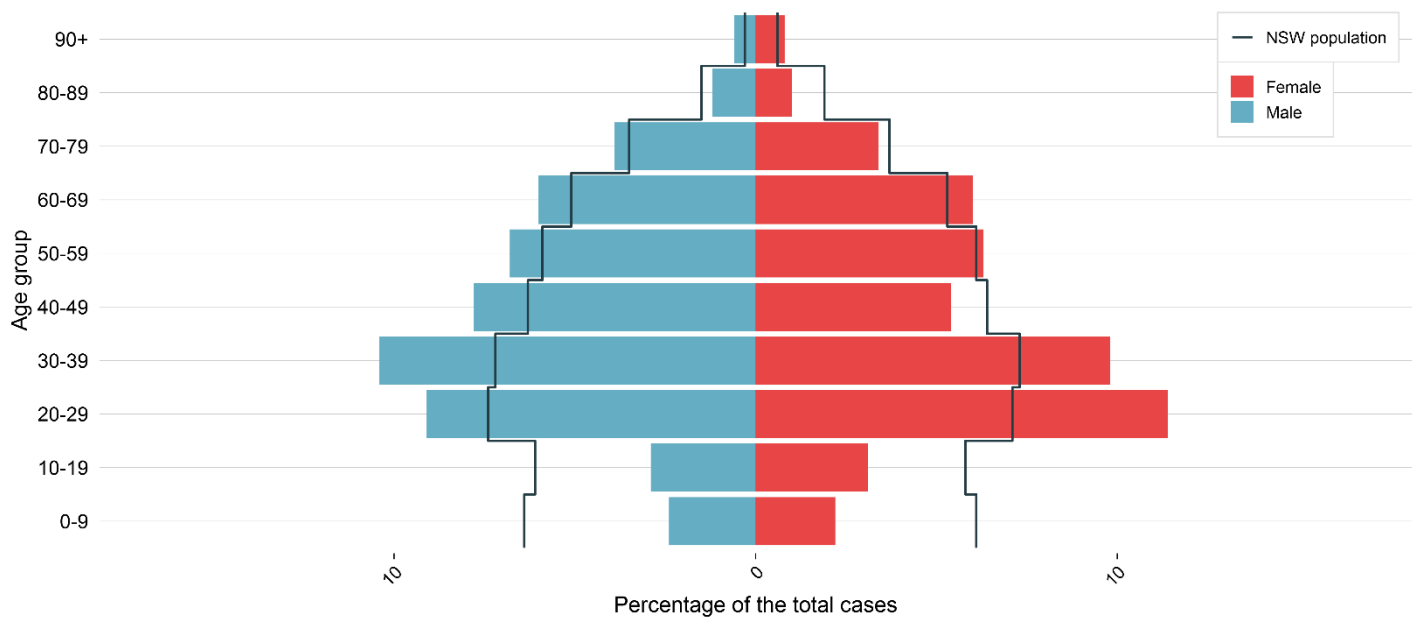
	Third or more effective doses	Two effective doses	One effective dose	No effective dose	Under investigation*	Total
16 Jun - 25 Nov 2021	2 (<1%)	6,872 (9%)	6,870 (9%)	53,245 (71%)	8,328 (11%)	75,317
26 Nov 2021 - 22 Jan 2022	23,782 (4%)	438,255 (65%)	5,521 (1%)	72,772 (11%)	129,604 (19%)	669,934
Month						
June 2021	0 (0%)	3 (1%)	11 (5%)	221 (93%)	2 (1%)	237
July 2021	0 (0%)	70 (2%)	98 (3%)	3,099 (94%)	40 (1%)	3,307
August 2021	0 (0%)	557 (3%)	806 (4%)	16,530 (87%)	1,087 (6%)	18,980
September 2021	0 (0%)	2,618 (8%)	3,904 (11%)	22,110 (63%)	6,239 (18%)	34,871
October 2021	2 (<1%)	1,876 (15%)	1,738 (14%)	8,156 (66%)	589 (5%)	12,361
November 2021	3 (<1%)	2,158 (33%)	336 (5%)	3,592 (55%)	452 (7%)	6,541
December 2021	2,038 (2%)	92,710 (70%)	1,141 (1%)	12,925 (10%)	23,354 (18%)	132,168
Week ending						
1 Jan 2022	1,911 (2%)	70,814 (70%)	813 (1%)	8,515 (8%)	18,687 (19%)	100,740
8 Jan 2022	6,816 (3%)	153,806 (68%)	1,796 (1%)	19,151 (8%)	44,448 (20%)	226,017
15 Jan 2022	8,077 (4%)	113,112 (62%)	1,526 (1%)	21,342 (12%)	37,123 (20%)	181,190
22 Jan 2022	6,391 (6%)	64,826 (59%)	881 (1%)	17,177 (16%)	21,120 (19%)	110,395

* Vaccination status is updated regularly using both the Australian Immunisation Register and the patient's interview. See Glossary for details of vaccination status categories. The increase in cases with a vaccination status Under investigation since December 2021 is due to no record being found in AIR, and NSW Health no longer interviewing every case, such that cases cannot provide further information about vaccination. These cases likely represent a mix of those with two or more effective doses, and those with no effective dose.

Seven day backward rolling average of PCR-confirmed COVID-19 cases rate per 100,000 population by age and notification date, NSW, from 1 January 2020 to 15 June 2021



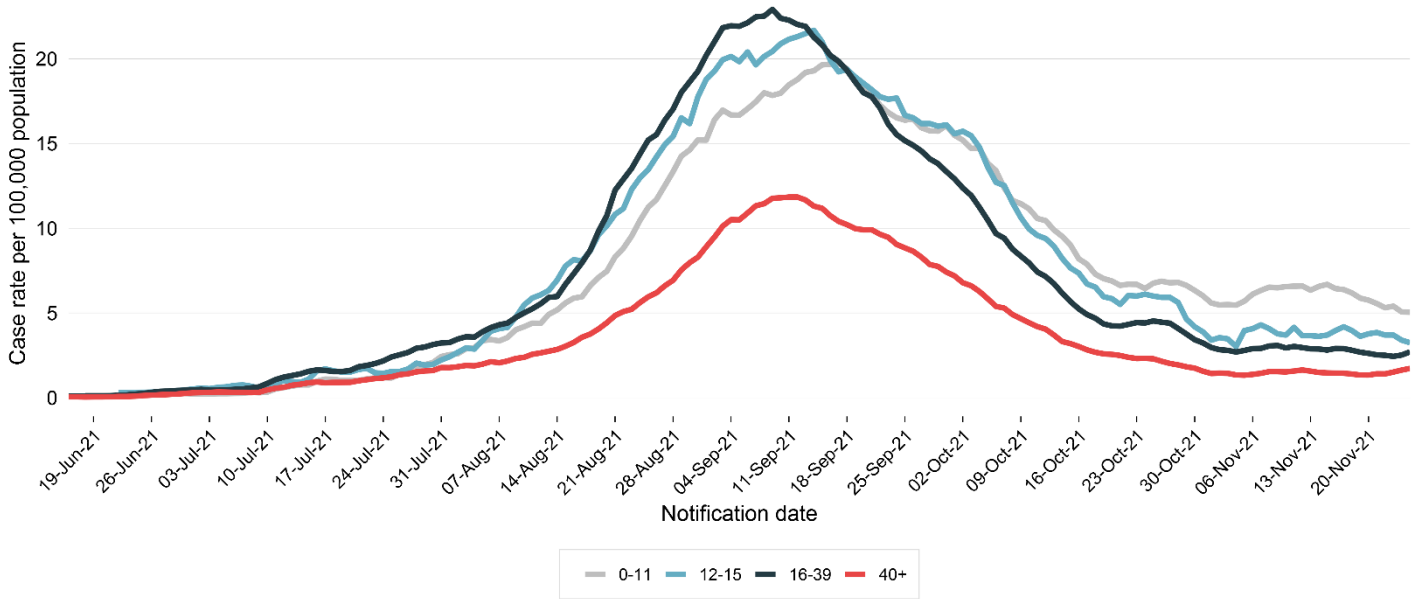
Total PCR-confirmed case percentage (n = 5,430) by age and gender, NSW, from 1 January 2020 to 15 June 2021



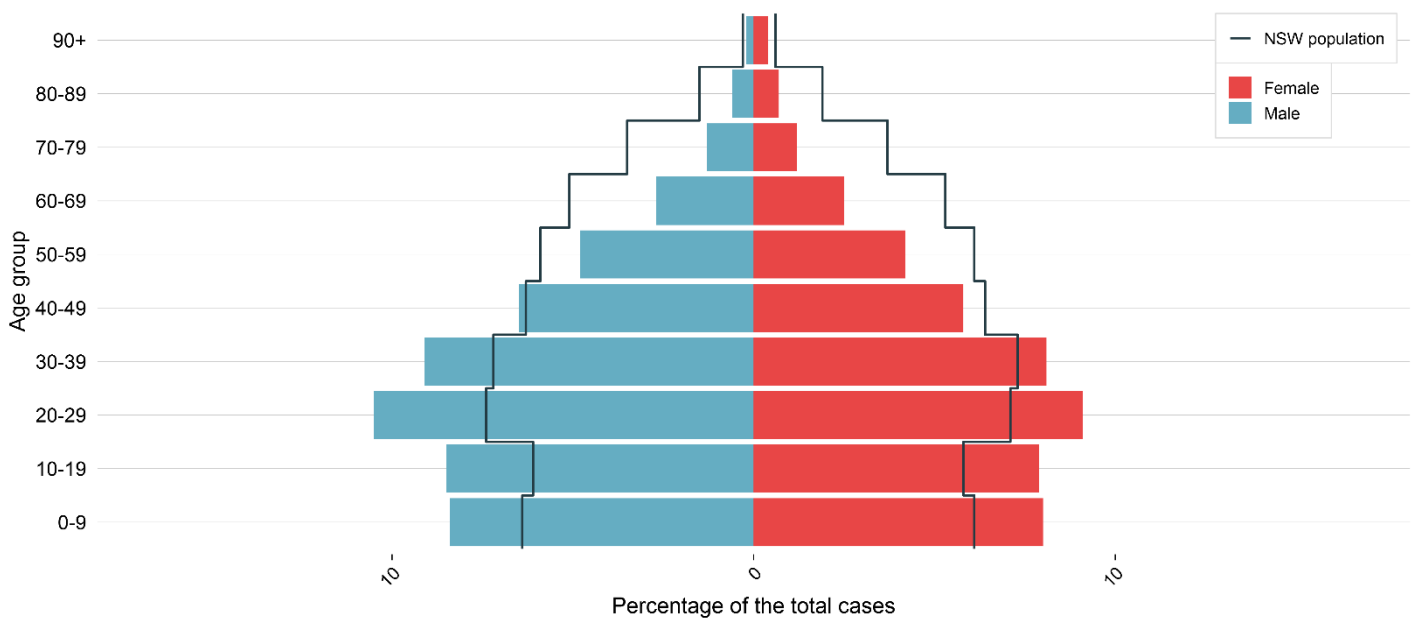
Note that the figure does not include cases for whom gender is not specified or non-binary.

Cases before 16 June 2021 had a median age 39 years, and interquartile range (IQR) = 27-57 years.

Seven day backward rolling average of PCR-confirmed COVID-19 cases rate per 100,000 population by age and notification date, NSW, from 16 June to 25 November 2021



Total PCR-confirmed case percentage (n = 75,277) by age and gender, NSW, from 16 June to 25 November 2021



Note that the figure does not include cases for whom gender is not specified or non-binary.

Cases between 16 June 2021 and 25 November 2021 were younger, with a median age = 28 years and IQR = 15-44 years.

Hospitalisations among people with PCR-confirmed COVID-19, by age group, NSW, 1 January 2020 to 22 January 2022

Age-group (years)	1 Jan 2020 – 15 Jun 2021		16 Jun – 25 Nov 2021		26 Nov 2021 – 22 Jan 2022	
	Hospitalised	Percentage of cases hospitalised	Hospitalised	Percentage of cases hospitalised	Hospitalised	Percentage of cases hospitalised
0-9	5	2%	291	2%	371	1%
10-19	8	2%	359	3%	262	<1%
20-29	22	2%	964	7%	855	<1%
30-39	41	4%	1,253	10%	934	1%
40-49	39	5%	1,295	14%	662	1%
50-59	59	8%	1,266	19%	780	1%
60-69	84	13%	1,045	27%	1,115	3%
70-79	67	17%	763	40%	1,447	7%
80-89	40	33%	507	54%	1,416	18%
90+	13	31%	129	54%	466	20%
Total	378	7%	7,872	10%	8,308	1%

* There is often a delay between a person becoming ill with COVID-19 and subsequently requiring a hospitalisation or dying. Since 16 June 2021, the median time between onset and hospitalisation is 4 days and between onset and death is 12 days. Therefore hospitalisations and deaths are under-reported for the most recently notified cases.

ICU hospitalisations among people with PCR-confirmed COVID-19, by age group, NSW, 1 January 2020 to 22 January 2022

Age-group (years)	1 Jan 2020 – 15 Jun 2021		16 Jun – 25 Nov 2021		26 Nov 2021 – 22 Jan 2022	
	Admitted to ICU	Percentage of cases admitted to ICU	Admitted to ICU	Percentage of cases admitted to ICU	Admitted to ICU	Percentage of cases admitted to ICU
0-9	0	0%	10	<1%	14	<1%
10-19	2	1%	35	<1%	15	<1%
20-29	3	<1%	117	1%	43	<1%
30-39	13	1%	182	1%	77	<1%
40-49	12	2%	228	2%	77	<1%
50-59	23	3%	334	5%	126	<1%
60-69	41	6%	282	7%	164	<1%
70-79	35	9%	208	11%	194	1%
80-89	13	11%	57	6%	76	1%
90+	1	2%	1	<1%	8	<1%
Total	143	3%	1,462	2%	794	<1%

Deaths following recent PCR-confirmed infection with COVID-19, by age group and location, 1 January 2020 to 25 November 2021

Age-group (years)	1 January 2020 – 15 June 2021		16 June 2021 – 25 November 2021				
	Number of deaths	Case fatality rate	Number of deaths	Case fatality rate	Location of death		
					Health care facility	Aged care facility	Home
0-9	0	0%	0	0%	-	-	-
10-19	0	0%	1	<1%	1	0	0
20-29	0	0%	6	<1%	4	0	2
30-39	0	0%	15	<1%	11	0	4
40-49	0	0%	28	<1%	22	0	6
50-59	1	<1%	66	1%	57	0	9
60-69	4	1%	105	3%	93	1	11
70-79	15	4%	135	7%	126	6	3
80-89	20	16%	165	18%	148	10	7
90+	16	38%	63	27%	47	16	0
Total	56	1%	584	1%	509	33	42

Before 16 June 2021, location of death was not well-recorded. Among deaths occurring at home for cases in the period 16 June – 25 November 2021, the majority (26/42, 62%) were diagnosed after death.

Hospitalisations, ICU admissions and deaths among cases with PCR-confirmed COVID-19, by vaccination status, NSW, from 1 January 2020 to 25 November 2021

Vaccination status	Total cases	Hospitalised (% of total cases)	Hospitalised and in ICU (% of total cases)	Death (% of total cases)
1 January 2020 – 15 June 2021				
Total	5,431	385 (7.1%)	145 (2.7%)	56 (1.0%)
16 June 2021 – 25 November 2021				
Two or more effective doses	6,874	580 (8.4%)	66 (1.0%)	87 (1.3%)
One effective dose	6,870	587 (8.5%)	94 (1.4%)	75 (1.1%)
No effective dose	53,245	5,472 (10.3%)	1,057 (2.0%)	418 (0.8%)
Under investigation	8,328	1,233 (14.8%)	237 (2.8%)	8 (0.1%)
Total	75,317	7,872 (10.5%)	1,454 (1.9%)	588 (0.8%)

* Note, these categories are not mutually exclusive. Hospitalised includes cases admitted to ICU; deaths may occur with or without being admitted to hospital or ICU.

- The percentage of cases who died is higher for those with two or more effective doses compared to those with no effective dose because elderly people were more likely to have received two doses before or during this period, and the group with no effective dose contains a considerable proportion of children aged 0-11 who were ineligible for vaccination throughout this period, and typically have mild illnesses. Among cases in the period from 16 June to 25 November 2021, the median age of those who died was 83.5 (interquartile range (IQR) = 76-90); for those with no effective dose it was 72 (IQR 60-82).

Proportion of PCR confirmed cases with a severe outcome (ICU and/or death) amongst all cases, by age, time of infection, and vaccination status, NSW, 1 January 2020 to 15 June 2021

Age-group (years)	1 Jan 2020 - 15 Jun 2021		16 Jun 2021 – 25 Nov 2021			
			Two or more effective doses		Less than two effective doses	
0-9	0%	(0 / 251)	-	-	<1%	(10 / 12,409)
10-19	<1%	(1 / 325)	0%	(0 / 156)	<1%	(30 / 10,587)
20-29	<1%	(4 / 1,115)	<1%	(2 / 1,047)	1%	(95 / 11,696)
30-39	1%	(15 / 1,098)	<1%	(5 / 1,410)	2%	(160 / 9,723)
40-49	2%	(12 / 718)	<1%	(4 / 1,306)	3%	(190 / 6,706)
50-59	4%	(30 / 710)	1%	(16 / 1,161)	6%	(283 / 4,743)
60-69	7%	(44 / 656)	2%	(17 / 817)	10%	(255 / 2,553)
70-79	12%	(46 / 394)	7%	(37 / 564)	18%	(196 / 1,089)
80-89	21%	(26 / 122)	11%	(34 / 299)	30%	(156 / 517)
90+	38%	(16 / 42)	21%	(24 / 114)	42%	(39 / 92)
Total	4%	(194 / 5,431)	2%	(139 / 6,872)	2%	(1,414 / 60,115)

* Less than two effective doses combines those with one and no effective dose.

- Prior to 15 June 2021, 4% of cases had a severe outcome, with an increasing risk of severe outcome with increasing age (from <1% for those aged under 30 to 38% for those aged 90+ years).
- Although vaccination was available in Australia before 15 June 2021, there were relatively few cases between 22 February 2021 (when vaccination began) and 15 June 2021.
- The total proportion of cases with a severe outcome is lower in the period from 16 June – 25 November 2021 compared to before this date; this is because infections were in a younger cohort in the later period.
- In the period from 16 June to 25 November 2021, the likelihood of a severe outcome for individuals with less than two effective doses is similar to the pre-delta period, while the likelihood of a severe outcome is substantially reduced amongst individuals with two or more effective doses.
- Increased age remains a significant predictor of increased risk of a severe outcome, but the protective effects of vaccination remain apparent for every age group.

Glossary

Term	Description
PCR case	<p>A person infected who has tested positive to a validated specific SARS-CoV-2 nucleic acid test (in NSW, this has been principally via polymerase chain reaction (PCR) tests) 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
RAT case	<p>A person who has reported a positive result with a SARS-CoV-2 rapid antigen test (RAT). From 12 January 2022, it was mandatory to report positive results to NSW Health via the Service NSW app. NSW Health receives no information about negative test results. RAT results will be entered in the NSW Health database for COVID cases from 20 January 2022.</p>
Incubation period	<p>The time between a case becoming infected and developing symptoms. The incubation period for COVID-19 is between 1 and 14 days prior to symptom onset.</p>
Overseas acquired case	<p>Case who likely acquired their infection overseas.</p>
Interstate acquired case	<p>Case who likely acquired their infection interstate.</p>
Three effective doses	<p>Cases reported as having three effective doses have had a third dose of COVID-19 vaccine at least 60 days after a valid second dose and 14 days prior to COVID infection. This includes people who are immunocompromised and have had a third primary dose (recommended 2-6 months after second dose), and non-immunocompromised people who have had a booster dose.</p>
Two effective doses	<p>Cases reported as having received two effective doses have received their second vaccine dose at least 14 days prior to known exposure to COVID-19, and have not yet received an effective third dose.</p>
One effective dose	<p>Cases reported as having one effective dose received their first dose of a two-dose vaccination course at least 21 days prior to known exposure to COVID-19, or received their second dose of a two-dose vaccination course less than 14 days prior to known exposure to COVID-19.</p>
No effective dose	<p>Cases reported as no effective dose received their first dose of a two-dose vaccination course less than 21 days prior to known exposure to COVID-19, or have not received any vaccine dose.</p> <p>Using the phrase “no effective dose” indicates that an insufficient period of time has elapsed to allow for maximal immune response provided by the vaccine. It does not indicate that vaccines are ineffective.</p> <p>Historical cases in children aged 5-11 between 16 June 2021 and 9 January 2022 have been assigned No effective dose, as have all cases in children aged 0-4 since 16 June 2021.</p>
Under investigation	<p>Cases reported as under investigation are those whose vaccination status has not yet been determined via searching the Australian Immunisation Register and/or via case interview.</p>
Hospitalisation	<p>People with COVID-19 can be hospitalised because of the disease but may also be hospitalised for other reasons not related to their COVID-19 diagnosis. For the purposes of surveillance, reported hospitalisation counts include all people who were admitted to any hospital ward for more than 1 day, around the time of their COVID-19 diagnosis. The count does not include people managed in the community (e.g., including Hospital in the Home schemes).</p>
Death	<p>A COVID-19 death is defined for surveillance purposes as a death in a confirmed COVID-19 case, unless there is a clear alternative cause of death that cannot be related to COVID-19 (e.g., trauma). There should be no period of complete recovery from COVID-19 between illness and death.</p>
Variants of concern	<p>This report reflects the recommendations of Australia's Communicable Diseases Genomics Network (CDGN) for reporting of Variants of Concern (VoC) in NSW.</p>

Pneumonia presentations	Pneumonia presentations to Emergency Departments 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.
Bronchiolitis presentations	Bronchiolitis is a common disease of infants often caused by respiratory syncytial virus (RSV). Public health measures introduced in 2020 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 (see Appendix B). Since 16 June 2021, there has again been a steady decrease in bronchiolitis presentations.
FluTracking	FluTracking is an online weekly survey asking participants to report flu-like symptoms. It usually runs only between May and October in line with flu season but has continued every week since the start of the pandemic. Members of the public are encouraged to enrol and contribute to the FluTracking initiative: https://info.flutracking.net/

Dates used in COVID-19 reporting

Event	Date name	Source
Person first starts to feel unwell	Date of symptom onset	The date that the case reports their symptoms commenced, or the date of test if self-report information is not available.
Person has a PCR swab taken, or performs a rapid antigen test	Date of test	This date is provided to NSW Health by the laboratory when the PCR test result (positive or negative) is notified, or by the person when reporting their test result.
Laboratory or case notifies NSW Health of result	Date of notification	<p>For PCR tests, 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 PCR 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 PCR 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> <p>Positive RAT cases: The date of notification is collected by NSW Health on the day of notification.</p>