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## **COVID-19 Australia: Epidemiology Report 55**

Reporting period ending 21 November 2021

COVID-19 National Incident Room Surveillance Team

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# Communicable Diseases Intelligence

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# COVID-19 Australia: Epidemiology Report 55

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## Summary

**Trends** – The daily average of 1,298 cases for this reporting period was lower than the previous fortnight's daily average of 1,528 cases. There were 18,166 cases of coronavirus disease 2019 (COVID-19) reported this fortnight, bringing the 2021 cumulative case count to 170,420 cases.

**Local cases** – More than 99% (18,115/18,166) of COVID-19 cases reported this fortnight are known to be locally acquired (including cases under initial investigation). The majority of these cases were reported in Victoria (82%; 14,922/18,115), followed by New South Wales (16%; 2,966/18,115).

**Clusters and high-risk settings** – As at 21 November 2021, there had been 73,924 locally-acquired cases in New South Wales, including 567 deaths, since the first case of the Sydney Metropolitan outbreak was reported on 16 June 2021. Genomic testing showed that the outbreak's primary case was infected with the 'Delta' SARS-CoV-2 variant of concern (B.1.617.2). The fortnightly number of new locally-acquired cases reported in New South Wales continued to decrease, with 2,966 locally-acquired cases reported this reporting period, compared to 3,189 locally-acquired cases in the previous reporting period. In recent weeks, the proportion of locally-acquired cases in regional and remote residents has decreased.

As at 21 November 2021, there were 90,602 cases, including 461 deaths, associated with the Victorian outbreaks since the first cases were reported on 5 August 2021. These primary cases involved the Delta variant and were closely associated with the current New South Wales and the July 2021 Victorian outbreaks. The number of new cases in the Victorian outbreak decreased during the reporting period, with 14,922 locally-acquired cases reported this fortnight compared to 18,033 in the previous fortnight. Most new cases in the outbreak were across several parts of Greater Melbourne. The proportion of cases identified in regional and remote residents decreased this reporting period compared with the previous reporting period.

As at 21 November 2021, a total of 1,929 cases, including 11 deaths, had been reported as part of the Australian Capital Territory outbreak. The primary case in the outbreak was reported on 12 August 2021 and was infected with the Delta variant. The number of new cases in the Australian Capital Territory during this reporting period (187) was slightly higher than in the previous reporting period (145).

As at 21 November 2021, a total of 34 locally-acquired cases had been reported in the Northern Territory since 5 November 2021. These cases were part of two genomically linked clusters: an initial four cases detected in Darwin and Katherine between 5 and 10 November 2021, and 30

cases detected in Katherine, Robinson River and surrounding homelands since 15 November 2021. At the end of the reporting period, there were active cases in Katherine, Robinson River and Binjari.

A total of eight locally-acquired cases was reported as part of a cluster in Goondiwindi, Queensland, with the first case reported on 4 November 2021. The first case is believed to have acquired their infection in Moree, New South Wales. The most recent cases associated with this cluster were reported on 12 November 2021.

**Aboriginal and Torres Strait Islander persons** – During the reporting period, there were 869 new cases notified in Aboriginal and Torres Strait Islander people, of whom 520 were from New South Wales; 290 were from Victoria; 31 were from the Northern Territory; 25 were from the Australian Capital Territory; and three were from Queensland. To date in 2021, there have been 8,384 cases and 16 deaths reported among Aboriginal and Torres Strait Islander people. Of locally-acquired cases notified in Aboriginal and Torres Strait Islander people in 2021 to date, 42% (3,487/8,384) lived in a regional or remote area.

**Overseas cases** – There were 51 overseas-acquired cases this reporting period, with the largest number of such cases reported in New South Wales (65%; 33/51), followed by Western Australia (16%; 8/51).

**Severity** – In 2021, based on the highest level of severity reported for cases with an illness onset up to 7 November 2021, 0.7% of cases were reported to have died, a further 1.2% of cases required intensive care and a further 8.4% required admission to hospital, noting that cases may be hospitalised for reasons other than clinical COVID-19 related care. Given the delay between illness onset and severe illness, cases with an onset in the last two weeks were excluded from the analysis on severity. During the reporting period, 113 new COVID-19-associated deaths were notified.

**Vaccinations** – As at 21 November 2021, there had been 38,454,860 doses of COVID-19 vaccine administered in Australia. Nationally, 18,866,665 people aged 16 years or over (91.5%) had received at least one dose, including 17,550,642 people aged 16 and over (85.1%) who were fully vaccinated.

Keywords: *SARS-CoV-2; novel coronavirus; 2019-nCoV; coronavirus disease 2019; COVID-19; acute respiratory disease; epidemiology; Australia*

This reporting period covers the two-week period 8–21 November 2021, with data for this period compared to that from the previous two-week reporting period (25 October – 7 November 2021).<sup>1</sup> The focus of this report is on the epidemiological situation in Australia since the beginning of 2021. Readers are encouraged to consult prior reports in this series for information on the epidemiology of cases in Australia in 2020.

Acute respiratory illness, testing, public health response measures, virology and the international situation are reported in detail on a four-weekly basis and are not included in this report. The latest information on these topics can be found in Epidemiology Report 54;<sup>1</sup> state and territory health websites;<sup>1</sup> the weekly situation reports of the World Health Organization (WHO);<sup>ii</sup> and the Department of Health's current situation and case numbers webpage.<sup>iii</sup>

From report 46 onward, and unless otherwise specified, tabulated data and data within the text are extracted from the National Interoperable Notifiable Diseases Surveillance System (NINDSS)<sup>iv</sup> based on 'notification received date' rather than 'diagnosis date' (see the Technical Supplement for definitions).<sup>2</sup> As a case's diagnosis date can be several days prior to the date of its notification, there is potential for newly-notified cases to be excluded from the case count in the current reporting period when reporting by 'diagnosis date'. Using 'notification received date' ensures that the case count for the reporting period better reflects the number of newly-notified cases. As the graphs presented in this report, based on NINDSS data, reflect a larger time period (i.e. year to date and entire pandemic),

these will continue to be based on diagnosis date to enable a more accurate understanding of infection risk and local transmission.

## Background and data sources

See the Technical Supplement for general information on COVID-19 including modes of transmission, common symptoms and severity.<sup>2</sup>

## Activity

### COVID-19 trends

*(NINDSS and jurisdictional reporting to NIR)*

The number of cases reported this fortnight was lower than the number reported in the previous fortnight. A total of 18,166 cases were notified in this two-week reporting period (an average of 1,298 cases per day), compared to 21,395 cases (an average of 1,528 cases per day) in the previous reporting period. The majority of cases occurred in Victoria (82%; 14,923/18,166), followed by New South Wales (17%; 2,999/18,166) (Table 1).

In the year to date, from 1 January to 21 November 2021, there have been 170,420 COVID-19 cases reported nationally. Until the week ending 20 June 2021, the number of weekly cases diagnosed this year had been below 180 cases per week. Since then, cases have increased and there have been over 1,000 cases diagnosed each week since the week ending 25 July 2021 and over 10,000 cases diagnosed each week from the start of September until late October 2021. In the latest fortnight, case numbers remained below 10,000 each week, with approximately 8,600 cases in the first week and 7,000 in the most recent week, noting that this most recent week is likely an underestimate as additional cases may be identified in the coming week that have a diagnosis date in this period (Figure 1). The current peak in 2021 is over 15,000 cases per week, which occurred in the week ending 3 October 2021. This peak considerably surpasses the two distinct peaks experienced in March and July of 2020, when new cases diagnosed per week reached approximately 2,700 and 3,000, respectively (Figure 2). Cumulatively,

i <https://www.health.gov.au/news/health-alerts/novel-coronavirus-2019-ncov-health-alert#local-outbreak-information>.

ii <https://www.who.int/emergencies/diseases/novel-coronavirus-2019/situation-reports/>.

iii <https://www.health.gov.au/news/health-alerts/novel-coronavirus-2019-ncov-health-alert/coronavirus-covid-19-current-situation-and-case-numbers>.

iv Previously known as the National Notifiable Diseases Surveillance System (NNDSS).

since the beginning of the pandemic, there have been 198,830 COVID-19 cases reported in Australia to 21 November 2021.

### Source of acquisition (NINDSS)

In this reporting period, > 99% of cases notified (18,115/18,166) were considered to be acquired within Australia (including cases under initial investigation), comprising 53% (9,717/18,166) identified as cases acquired within the reporting jurisdiction, 46% (8,337/18,166) categorised as cases under initial investigation, and 61 interstate-acquired cases; < 1% of cases (51/18,166) were overseas acquired (Table 1).<sup>v</sup> Victoria reported the majority of locally-acquired cases (82%; 14,922/18,115) in this fortnight, followed by New South Wales (16%; 2,966/18,115) and the Australian Capital Territory (1%; 187/18,115). Cases acquired within the jurisdiction of notification were reported in the Australian Capital Territory, New South Wales, the Northern Territory, Queensland and Victoria. The Australian Capital Territory, New South Wales and the Northern Territory also reported interstate-acquired cases. South Australia, Tasmania and Western Australia did not report any locally-acquired cases.

For 2021 to date, Victoria has had the highest notification rate for locally-acquired cases with

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<sup>v</sup> Almost all cases under initial investigation are known to be locally acquired. Therefore, case numbers and rates of locally-acquired cases reported in this section include cases under initial investigation. However, it is acknowledged that since changes to quarantine requirements for vaccinated overseas arrivals were introduced on 1 November 2021, there may be a small number of overseas-acquired cases that are classified as under initial investigation. The inclusion of cases under initial investigation among jurisdictional locally-acquired case totals differs from the data analysis in reports prior to and including report 50, and represents also a minor change in practice from report 51, in which cases missing a source of acquisition were also included among cases considered to be locally acquired. Accordingly, comparison of locally-acquired case numbers and case rates from this report with values tabulated in previous reports should be undertaken with care.

1,379.3 notifications per 100,000 population, followed by New South Wales with a rate of 903.6 notifications per 100,000 population and the Australian Capital Territory with a rate of 446.8 notifications per 100,000 population (Table 2).

In the reporting period, New South Wales reported the largest number of overseas-acquired cases (65%; 33/51), followed by Western Australia (16%; 8/51) (Table 1). In the past 28 days (25 October to 21 November 2021), twenty-three percent (16/69) of confirmed overseas-acquired cases reported to the NINDSS had an unknown country of acquisition. Cases acquired in the United Kingdom (21%; 11/53) were the most numerous of those with an identified country of acquisition in the past 28 days, followed by the United States of America (13%; 7/53).

Since May 2021, the proportion of air arrivals diagnosed with COVID-19 has remained at less than 1%. On 1 November 2021, several states changed quarantine requirements for vaccinated arrivals. Since then, there has been a substantial increase in the number of air arrivals; however, the proportion of overseas-acquired cases amongst these arrivals has remained less than 1%. The number of cases acquired in different countries is influenced by travel patterns of returning Australians, travel restrictions, and the prevalence of COVID-19 in the country of travel.

### Demographic features (NINDSS)

In this reporting period, the largest proportion of cases occurred in children aged 5 to 11 years (23%; 4,182/18,166). Notification rates were also highest in people aged 5 to 11, at 183.7 per 100,000 population, over twice that of the next highest age group. For this year, the highest rate of infection has been in those aged 5 to 11 years with a rate of 959.4 infections per 100,000 population, followed by people aged 18 to 29 (927.1 per 100,000 population) (Figure 3; Appendix A, Table A.1). Adults aged 70 to 79 years have had the lowest rate of infection this year.

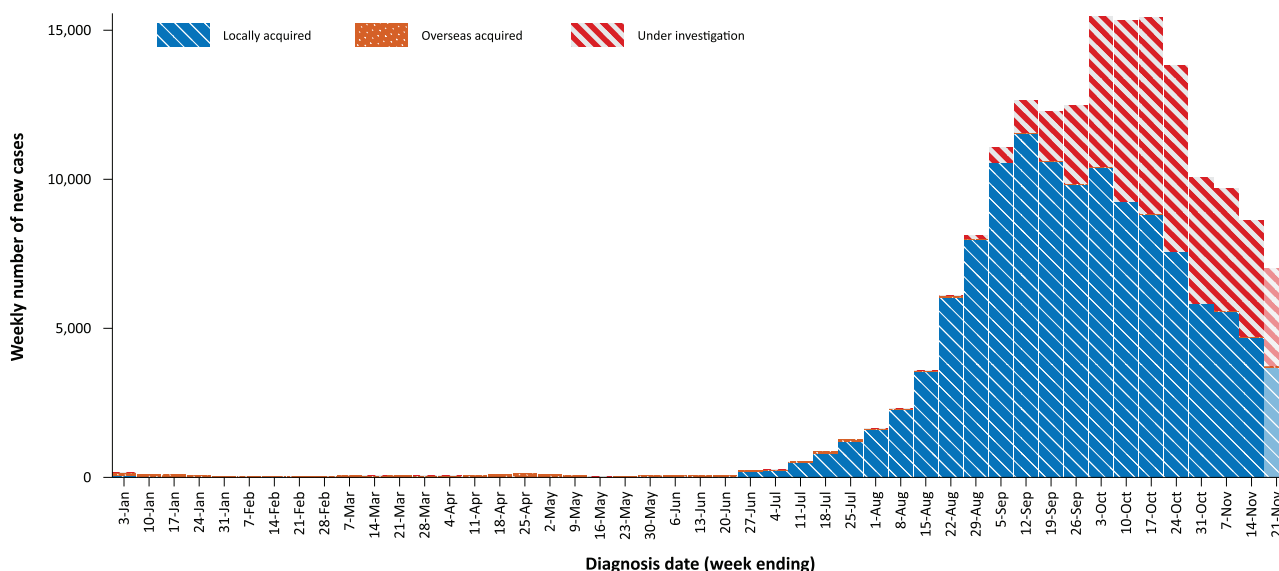
**Table 1: COVID-19 notifications by jurisdiction and source of acquisition, with a notification received date of 8–21 November 2021<sup>a</sup>**

Source <sup>b</sup>	ACT	NSW	NT	Qld	SA	Tas.	Vic.	WA	Australia
Overseas	1	33	3	3	2	0	1	8	51
Locally acquired - acquired within jurisdiction of notification	175	2,894	33	5	0	0	6,610	0	9,717
Locally acquired - acquired interstate	12	48	1	0	0	0	0	0	61
Under initial investigation	0	24	0	1	0	0	8,312	0	8,337
Missing source of acquisition	0	0	0	0	0	0	0	0	0
<b>Total new cases</b>	<b>188</b>	<b>2,999</b>	<b>37</b>	<b>9</b>	<b>2</b>	<b>0</b>	<b>14,923</b>	<b>8</b>	<b>18,166</b>

a Source: NINDSS, extract from 23 November 2021 for notifications to 21 November 2021.

b ACT: Australian Capital Territory; NSW: New South Wales; NT: Northern Territory; Qld: Queensland; SA: South Australia; Tas.: Tasmania; Vic.: Victoria; WA: Western Australia.

**Figure 1: COVID-19 notified cases by source of acquisition and diagnosis date, 28 December 2020 – 21 November 2021<sup>a,b</sup>**



a Source: NINDSS, extract from 23 November 2021 for notifications to 21 November 2021.

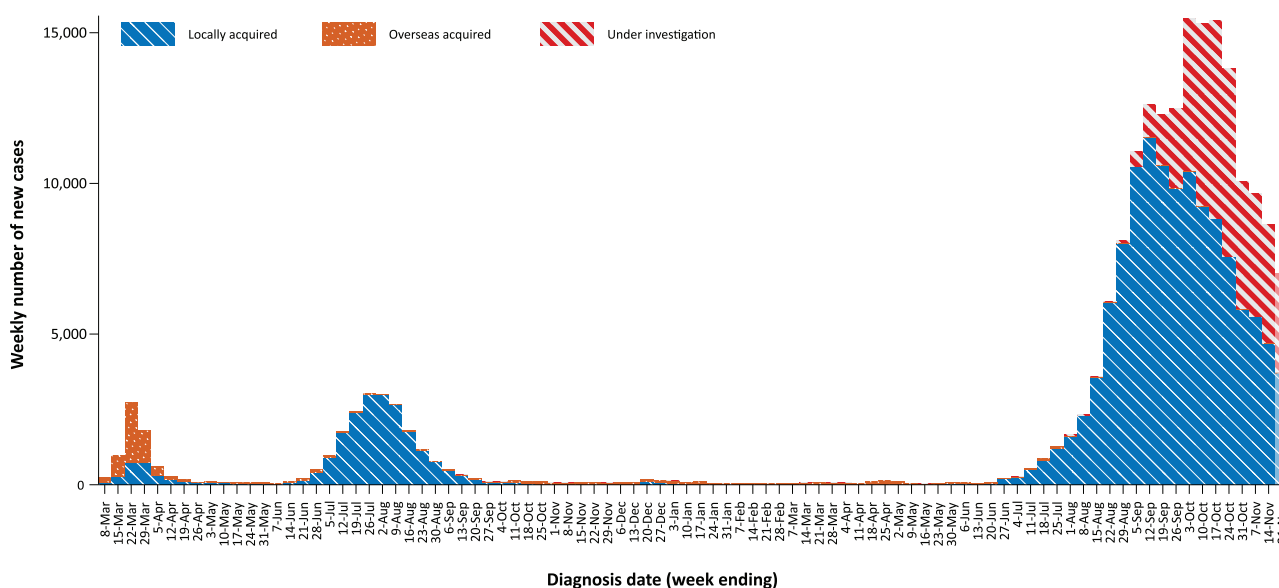
b The lighter bar at the right represents the most recent reporting week and should be interpreted with caution as additional cases may be identified in the coming week that have a diagnosis date during this period.

In 2021, notification rates were higher among males than females in most age groups, though rates were similar among males and females in those aged 0 to 15 years and were also similar in those over 90 years old (Figure 3; Appendix A, Table A.1). The median age of cases in this reporting period was 26 years (range: 0 to 106 years; interquartile range, IQR: 10 to 42 years), which has gradually decreased from a median of 33 (IQR: 22 to 45 years) at the beginning of 2021.

### Aboriginal and Torres Strait Islander persons (NINDSS)

During the reporting period, there were 869 new cases notified in Aboriginal and Torres Strait Islander people, with 520 from New South Wales, 290 from Victoria, 31 from the Northern Territory, 25 from the Australian Capital Territory and three from Queensland. Since the beginning of 2021, there have been

**Figure 2: COVID-19 notified cases by source of acquisition and diagnosis date, 2 March 2020 – 21 November 2021<sup>a,b</sup>**



- a Source: NINDSS, extract from 23 November 2021 for notifications to 21 November 2021.
- b The lighter bar at the right represents the most recent reporting week and should be interpreted with caution as additional cases may be identified in the coming week that have a diagnosis date during this period.

8,384 confirmed cases of COVID-19 notified in Aboriginal and Torres Strait Islander people, representing 5% (8,384 /170,421) of all confirmed cases this year. Of the locally-acquired cases notified in Aboriginal and Torres Strait Islander people in 2021 to date, 42% (3,487/8,384) resided in a regional or remote area (Table 3).

The majority of cases reported in Aboriginal and Torres Strait Islander people in 2021 have been associated with the Sydney metropolitan and regional outbreaks in New South Wales. There have been 6,702 locally-acquired cases reported in Aboriginal and Torres Strait Islander people in New South Wales since 16 June 2021 when the Sydney metropolitan outbreak began, with 41% (2,742/6,702) of these cases reported in regional and remote residents. Since the start of the pandemic, there have been 16 COVID-19-associated deaths in Aboriginal and Torres Strait Islander people, all of which were associated with the current outbreaks in New South Wales. In Victoria, there have been 1,392 locally acquired Aboriginal and Torres Strait Islander cases reported since the start of

the Victorian outbreak on 5 August 2021, with 50% (701/1,392) of these cases in regional residents. In the Australian Capital Territory, there have been 237 cases reported in Aboriginal and Torres Strait Islander people since the start of the outbreak, representing approximately 12% of cases overall. During the reporting period, the Northern Territory reported 31 locally acquired cases in Aboriginal and Torres Strait Islander people, with the first case reported on 15 November 2021. This is the first time since the beginning of the pandemic that the Northern Territory has reported Aboriginal and Torres Strait Islander cases acquired within the state.

Cumulatively, since the beginning of the epidemic in Australia, there have been 8,583 cases in Aboriginal and Torres Strait Islander people, representing approximately 4% (8,583/198,830) of all confirmed cases in Australia. Indigenous status was unknown for approximately 19% (38,386/198,830) of confirmed cases, with the majority of these associated with more recently-reported cases, especially in Victoria and New South Wales.



**Table 2: Locally-acquired COVID-19 case numbers and rates per 100,000 population by jurisdiction and reporting period, Australia, with a notification received date from 1 January to 21 November 2021<sup>a</sup>**

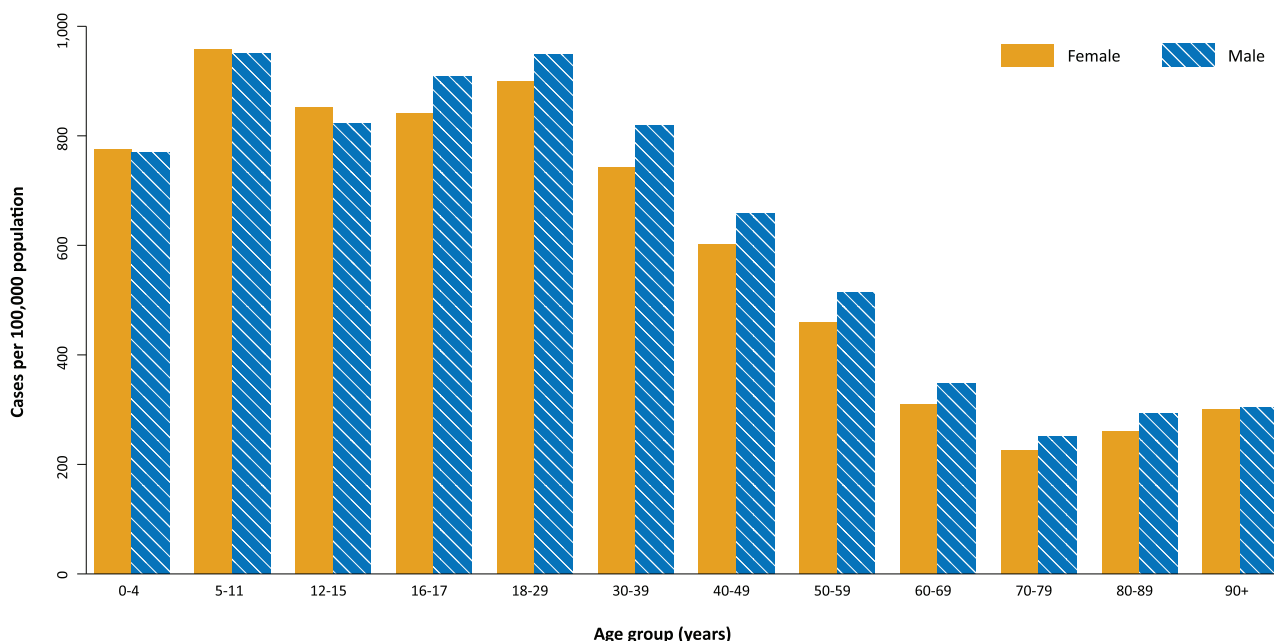
Jurisdiction	Reporting period	Reporting period	Cases this year	
	8–21 November 2021	25 October 2021 – 7 November 2021	1 January 2021 – 21 November 2021	
	Number of cases <sup>b</sup>	Number of cases <sup>b</sup>	Number of cases <sup>b</sup>	Rate per 100,000 population <sup>c</sup>
ACT	187	145	1,927	446.8
NSW	2,966	3,189	73,808	903.6
NT	34	3	54	21.9
Qld	6	7	267	5.2
SA	0	0	41	2.3
Tas.	0	0	3	0.6
Vic.	14,922	18,033	92,368	1,379.3
WA	0	0	17	0.6
<b>Australia</b>	<b>18,115</b>	<b>21,377</b>	<b>168,485</b>	<b>655.6</b>

a Source: NINDSS, extract from 23 November 2021 for notifications to 21 November 2021.

b This total includes cases under initial investigation and excludes overseas-acquired cases and with a missing source of acquisition. In reports prior to report 51, cases under initial investigation were excluded from this total.

c Population data based on Australian Bureau of Statistics (ABS) Estimated Resident Population (ERP) as at June 2020. The ABS June 2020 ERP was ACT: 431,325; NSW: 8,168,893; NT: 246,283; Qld: 5,176,044; SA: 1,770,494; Tas.: 540,781; Vic.: 6,696,630; WA: 2,663,976; Australia: 25,698,093.

**Figure 3: Cumulative COVID-19 cases for the calendar year to date, by age group and sex, Australia, with a notification received date of 1 January 2021 – 21 November 2021<sup>a,b</sup>**



a Source: NINDSS, extract from 23 November 2021 for notifications to 21 November 2021.

b Note, from this report, the age groups have been changed to match those used to report severity.

**Table 3: Confirmed cases of COVID-19 among Aboriginal and Torres Strait Islander peoples by place of acquisition and area of remoteness, 1 January – 21 November 2021<sup>a</sup>**

Jurisdiction	Locally acquired, Australia <sup>b</sup>						Overseas acquired	Total
	Major city	Inner regional	Outer regional	Remote <sup>c</sup>	Overseas resident	Unknown		
ACT	235	0	0	0	0	2	0	237
NSW	3,905	1,717	669	357	5	50	1	6,704
NT	0	0	3	31	0	0	0	34
Qld	4	2	6	0	0	0	3	15
SA	0	0	0	0	0	0	0	0
Tas.	0	1	0	0	0	0	0	1
Vic.	689	498	203	0	0	2	0	1,392
WA	0	0	0	0	0	0	1	1
<b>Australia</b>	<b>4,833</b>	<b>2,218</b>	<b>881</b>	<b>388</b>	<b>5</b>	<b>54</b>	<b>5</b>	<b>8,384</b>

a Source: NINDSS, extract from 23 November 2021 for notifications to 21 November 2021.

b 'Locally acquired' includes cases under initial investigation. Note, in reports prior to report 52, 'locally acquired' excluded cases under initial investigation.

c 'Remote' here also includes areas classified as 'very remote'.

**Table 4: COVID-19 cases in Aboriginal and Torres Strait Islander people by age group and highest level of illness severity, 1 January 2021 – 7 November 2021<sup>a</sup>**

Age group	Count					% of total cases by age group		
	Not severe <sup>b</sup>	Hospitalised only	ICU	Died	Total cases	Hospitalised only	ICU	Died
		(not ICU or died)	(but not died)			(not ICU or died)	(but not died)	
0–4	883	45	0	0	928	4.8%	0.0%	0.0%
5–11	1,351	30	2	0	1,383	2.2%	0.1%	0.0%
12–15	714	27	2	0	743	3.6%	0.3%	0.0%
16–17	320	20	2	0	342	5.8%	0.6%	0.0%
18–29	1,575	180	13	0	1,768	10.2%	0.7%	0.0%
30–39	928	141	13	0	1,082	13.0%	1.2%	0.0%
40–49	603	118	16	3	740	15.9%	2.2%	0.4%
50–59	348	71	15	4	438	16.2%	3.4%	0.9%
60–69	128	55	12	4	199	27.6%	6.0%	2.0%
70–79	27	22	5	2	56	39.3%	8.9%	3.6%
80–89	6	5	0	3	14	35.7%	0.0%	21.4%
90+	1	1	0	0	2	50.0%	0.0%	0.0%
Unknown	0	0	0	0	0	0.0%	0.0%	0.0%
<b>Total</b>	<b>6,884</b>	<b>715</b>	<b>80</b>	<b>16</b>	<b>7,695</b>	<b>9.3%</b>	<b>1.0%</b>	<b>0.2%</b>

a Source: NINDSS, extract from 23 November 2021. Includes cases notified from 1 January 2021, with an illness onset up to 7 November 2021. Cases with an illness onset in the last two weeks (8 to 21 November 2021) were excluded to account for the delay between onset and development of severe illness.

b 'Not severe' includes all cases that were not hospitalised, admitted to ICU or died.

**Table 5: Total number of vaccinations administered, by jurisdiction, Australia, 21 November 2021<sup>a</sup>**

Jurisdiction	Total number of doses administered	Percentage of people aged 16 and over who have had at least one dose <sup>b</sup>	Percentage of people aged 16 and over who are fully vaccinated
ACT	943,620	> 95%	> 95%
NSW	12,844,155	94.4%	91.9%
NT	367,901	86.0%	73.4%
Qld	6,951,772	84.6%	73.4%
SA	2,478,288	87.2%	77.4%
Tas.	820,482	92.6%	84.8%
Vic.	10,542,678	93.0%	89.2%
WA	3,505,964	84.4%	72.9%
<i>Aged care and disability facilities<sup>c</sup></i>	<i>1,095,995</i>	<i>NA</i>	<i>NA</i>
<i>Primary care<sup>d</sup></i>	<i>21,695,737</i>	<i>NA</i>	<i>NA</i>
<b>Total</b>	<b>38,454,860</b>	<b>91.5%</b>	<b>85.1%</b>

a Source: Australian Government Department of Health website.<sup>3</sup>

b Includes people who are fully vaccinated.

c Commonwealth vaccine doses administered in aged care and disability facilities.

d Commonwealth vaccine doses administered in primary care settings.

Up to 21 November 2021, it has been 0 days since the last locally-acquired Aboriginal and Torres Strait Islander case was diagnosed and 127 days since the last overseas-acquired Aboriginal and Torres Strait Islander case was diagnosed. To date, the majority of Aboriginal and Torres Strait Islander cases were reported as locally acquired (92%; 7,853/8,538), with 37 cases that were overseas acquired and 648 cases under investigation (most of which are known to be locally acquired). The median age of locally-acquired Aboriginal and Torres Strait Islander cases is 20 years old (range 0 to 99 years, IQR: 9 to 34 years), while the median age of overseas-acquired cases is 40 years old (range 7 to 75 years; IQR: 27 to 57 years). Overall, the distribution among males and females was similar at 49% and 51% of cases, respectively.

Given the delay between onset and severe illness, cases with an onset in the last two weeks were excluded from the following analysis on severity. In 2021, based on the highest level of severity reported for cases with an illness onset up to 7 November 2021, 0.2% of cases in Aboriginal and Torres Strait Islander people were reported

to have died, 1.0% of cases required intensive care and a further 9.3% required admission to hospital (Table 4). Note that hospitalisation data in NINDSS should be interpreted with caution: hospitalisation is not always reflective of severe illness, as cases may be hospitalised for reasons other than clinical COVID-19 related care; additionally, hospitalisation and intensive care unit (ICU) status in NINDSS is likely incomplete.

### Vaccinations (Department of Health)

As of 21 November 2021, a total of 38,454,860 doses of COVID-19 vaccine had been administered (Table 5), including 1,095,995 doses provided to aged care and disability residents. Nationally, 18,866,665 people aged 16 years or over (91.5%) had received at least one dose. This includes 17,550,642 people aged 16 and over (85.1%) who were fully vaccinated (Table 5). Among people aged 12–15 years, 920,840 people (74.0%) had received at least one dose, including 772,539 (62.1%) who were fully vaccinated.

## Clusters and outbreaks

### Sydney Metropolitan Outbreak and New South Wales Regional Outbreak – New South Wales

In total, as at 21 November 2021, there had been 73,924 locally-acquired cases, including 567 deaths, reported in New South Wales following notification of the outbreak's first case on 16 June 2021. Genomic testing results showed that the first case was infected with the Delta SARS-CoV-2 variant of concern (B.1.617.2); however, the sequence did not match cases from the Victorian Delta variant outbreak that occurred from May to June 2021. This sequence had not been seen in Australia previously, but matched one from the United States of America.

Overall, the number of new locally-acquired cases (including cases under initial investigation) continued to decrease this fortnight, with 2,966 cases reported this reporting period, compared to 3,189 such cases reported in the previous reporting period. Following the initial start of the outbreak in south-east Sydney, the largest number of new cases were subsequently reported among residents of south-western and western Sydney, with cases also reported in residents of regional and remote areas in New South Wales, particularly in western New South Wales. In the reporting period, the proportion of locally-acquired cases in regional and remote residents decreased; 30% (897/2,966) of locally-acquired cases in NSW this reporting period were in residents of regional or remote areas, compared with 39% (1,241/3,189) in the previous reporting period. Regional areas with current outbreaks during this reporting period included the Hunter New England, Mid-North Coast and Albury-Wodonga regions.

### Metropolitan Melbourne and Victorian Regional Outbreak – Victoria

As at 21 November 2021, there had been 90,602 locally-acquired cases, including 461 deaths, reported in Victoria since two unlinked cases were reported on 5 August 2021. Investigations into the source of the outbreak were ongoing,

but genomic testing had determined that these outbreaks involved the Delta variant and were genomically closely associated with recent clusters in New South Wales and the previous two seeding events in Victoria from July 2021.

Overall, the number of new locally-acquired cases decreased this reporting period, with 14,922 locally-acquired cases (including cases under initial investigation) reported in Victoria this fortnight, compared to 18,033 in the previous fortnight. Most new cases in the outbreak were across several parts of Greater Melbourne. In the reporting period, the proportion of cases in regional remote residents decreased, with 11% (1,636/14,922) of locally-acquired cases reported in Victoria this reporting period being in residents of regional or remote areas, compared to 15% (2,768/18,033) in the previous reporting period.

### Canberra – Australian Capital Territory

As at 21 November 2021, a total of 1,929 cases had been reported in the Australian Capital Territory's outbreak, including 11 deaths. The first case in the Territory's outbreak, which was the first locally-acquired case in the Australian Capital Territory in over a year, was reported on 12 August 2021 and was confirmed to have the Delta variant. The source of infection remained under investigation at the end of this reporting period, though it was genomically related to the Sydney Metropolitan Outbreak. The number of new locally-acquired cases (including cases under initial investigation) in the Australian Capital Territory during this reporting period (187) was higher than the number in the previous reporting period (145).

### Northern Territory outbreak – Northern Territory

As at 21 November 2021, there had been 34 locally-acquired cases reported in the Northern Territory since 5 November 2021. An initial four cases were detected between 5 November and 10 November 2021, associated with a traveller from Melbourne. Exposure sites from these cases were identified in both Darwin and Katherine

**Table 6: COVID-19 cases by age group and highest level of illness severity, 1 January 2021 – 7 November 2021<sup>a</sup>**

Age group	Count					% of cases		
	Not severe <sup>b</sup>	Hospitalised only	ICU	Died	Total cases	Hospitalised only	ICU	Died
		(not ICU or died)	(not died)			(not ICU or died)	(not died)	
0–4	10,409	464	6	0	10,879	4.3%	0.1%	0.0%
5–11	17,790	326	11	1	18,128	1.8%	0.1%	< 0.05%
12–15	9,261	268	9	2	9,540	2.8%	0.1%	< 0.05%
16–17	4,706	155	13	0	4,874	3.2%	0.3%	0.0%
18–29	34,127	2,183	177	8	36,495	6.0%	0.5%	< 0.05%
30–39	24,380	2,314	270	17	26,981	8.6%	1.0%	0.1%
40–49	16,582	2,067	339	37	19,025	10.9%	1.8%	0.2%
50–59	11,671	1,807	440	95	14,013	12.9%	3.1%	0.7%
60–69	6,121	1,471	363	167	8,122	18.1%	4.5%	2.1%
70–79	2,563	1,052	177	263	4,055	25.9%	4.4%	6.5%
80–89	1,023	723	38	311	2,095	34.5%	1.8%	14.8%
90+	266	170	1	127	564	30.1%	0.2%	22.5%
Age unknown	6	1	0	0	7	14.3%	0.0%	0.0%
<b>Total</b>	<b>138,905</b>	<b>13,001</b>	<b>1,844</b>	<b>1,028</b>	<b>154,778</b>	<b>8.4%</b>	<b>1.2%</b>	<b>0.7%</b>

a NINDSS, extract from 23 November 2021. Includes cases notified from 1 January 2021, with an illness onset up to 7 November 2021; cases with an illness onset in the last two weeks (8 to 21 November 2021) were excluded to account for the delay between onset and development of severe illness.

b 'Not severe' includes all cases that were not hospitalised, admitted to ICU or died.

local government areas. A second cluster, which, as of 21 November 2021, comprised 30 locally-acquired cases in the Katherine, Robinson River and surrounding homelands, was first reported on 15 November 2021. The two clusters were genomically linked, however the epidemiological link remained under investigation. Current areas of concern at the end of this reporting period included Katherine, Robinson River and Binjari.

### Goondiwindi cluster – Queensland

A total of eight locally-acquired cases was reported as part of a cluster in Goondiwindi, Queensland. The first case in the cluster was reported on 4 November 2021 and is believed to have acquired their infection in Moree, New South Wales. The most recent cases associated with this cluster were reported on 12 November 2021.

### Severity (NINDSS, SPRINT-SARI)

#### Hospitalisation and intensive care unit admission

Given the delay between illness onset and severe illness, to provide a more accurate assessment of the highest level of severity, cases with an onset in the last two weeks were excluded from the analysis. In 2021, based on the highest level of severity reported for cases with an illness onset up to 7 November 2021, 0.7% of cases were reported to have died; a further 1.2% of cases required intensive care; and a further 8.4% required admission to hospital (Table 6). Note that hospitalisation data in NINDSS should be interpreted with caution: hospitalisation is not always reflective of severe illness, as cases may be hospitalised for reasons other than clinical

**Table 7: Comorbidities for adult COVID-19 cases (aged greater than or equal to 18 years) amongst those admitted to ICU, Australia, 1 February 2021 – 21 November 2021<sup>a</sup>**

Comorbidity	ICU cases <sup>a</sup> (n = 1,629) (%)
Cardiac disease (n = 1,619)	180 (11)
Chronic respiratory condition (n = 1,621) <sup>b</sup>	244 (15)
Diabetes (n = 1,613)	474 (29)
Obesity (n = 1,585)	554 (35)
Chronic renal disease (n = 1,617)	86 (5)
Chronic neurological condition (n = 1,616)	47 (3)
Malignancy (n = 1,619)	50 (3)
Chronic liver disease (n = 1,620)	41 (3)
Immunosuppression (n = 1,616)	62 (4)
<b>Number of specified comorbidities (n = 1,502)<sup>a,b,c</sup></b>	
One or more	1,043 (64)
Two or more	463 (28)
Three or more	159 (10)
No comorbidities	586 (36)

a Source: SPRINT-SARI. Only includes adult cases ( $\geq 18$  years old) and excludes those with missing data on comorbidities or where comorbidity is unknown.

b Includes asthma.

c Includes chronic respiratory conditions, cardiac disease (excluding hypertension), immunosuppressive condition/therapy, diabetes, obesity, liver disease, renal disease and neurological disorder.

COVID-19 related care; additionally, hospitalisation and intensive care unit (ICU) status in NINDSS is likely incomplete.

In the year to date to 21 November 2021, there were 1,984 COVID-19 cases admitted to ICUs participating in the sentinel surveillance system, Short Period Incidence Study of Severe Acute Respiratory Infection (SPRINT-SARI),<sup>4</sup> with 58 of these admitted during this reporting period (8–21 November 2021).

### Risk factors for severe disease

The proportion of cases who were admitted to hospital generally increased as a person's age increased (Table 6).

Comorbidity data extracted from SPRINT-SARI reflect the sickest patients with COVID-19 managed in ICU; data are therefore not generalisable to all cases (Table 7). In patients admitted to ICU with COVID-19 since 1 February 2021, the most prevalent comorbidity was obesity (a body mass index of  $> 30$  or weight over 120 kg), followed by diabetes. Of those adult patients admitted to ICU this year for whom comorbidity

**Table 8: Deaths associated with COVID-19 by reporting period, Australia, 1 January 2020 – 21 November 2021<sup>a</sup>**

Reporting period	Number of deaths
Reporting period 8–21 November 2021	113
Year to date (2021) 1 January – 21 November 2021	1,058
Epidemic to date 1 January – 21 November 2021	1,966

a Source: NINDSS, extract from 23 November 2021 for notifications to 21 November 2021.

data was known, 64% (1,043/1,629) had at least one comorbidity; 36% (586/1,629) of patients had none of the listed comorbidities recorded.

### COVID-19 deaths

In the past two weeks, there were 113 deaths associated with COVID-19: ninety-two in Victoria and 21 in New South Wales. This brings the total number of COVID-19-associated deaths in 2021 to 1,058 (Table 8).

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## Appendix A: Supplementary figures and tables

**Table A.1: COVID-19 cases and rates per 100,000 population, by age group, sex and diagnosis date Australia, 21 November 2021<sup>a,b</sup>**

Age group <sup>c</sup>	This reporting period						This year							
	8–21 November 2021						1 January – 21 November 2021							
	Cases		Rate per 100,000 population		Cases		Rate per 100,000 population		Cases		Rate per 100,000 population			
Male	Female	People	Male	Female	People	Male	Female	People	Male	Female	People	Male	Female	People
0–4	690	647	1,343	86.1	85.6	86.3	6,170	5,855	12,070	770.2	775.0	775.4		
5–11	2,153	2,013	4,182	184.3	181.6	183.7	11,108	10,615	21,839	950.9	957.8	959.4		
12–15	507	527	1,040	79.4	87.1	83.6	5,251	5,153	10,442	821.9	851.7	839.5		
16–17	153	173	328	51.1	60.9	56.2	2,724	2,389	5,133	908.9	841.3	879.5		
18–29	1,555	1,643	3,205	72.1	79.2	75.8	20,442	18,671	39,214	948.5	900.1	927.1		
30–39	1,285	1,504	2,796	69.2	79.1	74.4	15,192	14,101	29,379	818.1	741.7	781.7		
40–49	1,064	1,048	2,117	65.2	62.9	64.2	10,746	10,027	20,818	659.0	601.9	631.5		
50–59	686	721	1,411	45.0	45.1	45.2	7,826	7,342	15,204	513.9	459.5	487.2		
60–69	438	426	870	33.5	30.6	32.3	4,539	4,297	8,860	347.3	309.1	328.5		
70–79	270	241	513	29.6	24.9	27.3	2,293	2,184	4,489	251.5	225.6	238.8		
80–89	118	152	271	31.8	32.1	32.1	1,087	1,229	2,327	293.1	259.4	275.5		
90 and over	34	56	90	46.5	40.5	42.6	223	415	638	304.7	300.4	301.9		

<sup>a</sup> Source: NINDSS, extract from 23 November 2021 for notifications to 21 November 2021. Excludes cases where age or sex data is missing.

<sup>b</sup> Population data based on Australian Bureau of Statistics (ABS) Estimated Resident Population (ERP) as at June 2020.

<sup>c</sup> From this report, the age groups have been changed to match those used to report severity.