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## **COVID-19 Australia: Epidemiology Report 37**

Reporting period ending 14 March 2021

COVID-19 National Incident Room Surveillance Team

# Communicable Diseases Intelligence

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## Contacts

CDI is produced by Environmental Health and Health Protection Policy Branch, Office of Health Protection and Response, Australian Government Department of Health, GPO Box 9848, (MDP 6) CANBERRA ACT 2601

## Email:

[cdi.editor@health.gov.au](mailto:cdi.editor@health.gov.au)

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# COVID-19 Australia: Epidemiology Report 37

Reporting period ending 14 March 2021

COVID-19 National Incident Room Surveillance Team

**Trends** – Australia continues to report low numbers of COVID-19 cases. The daily average number of cases for this reporting period was eight compared to an average of five cases per day in the previous fortnight, due to an increase in the number of overseas-acquired cases. There were 106 cases of COVID-19 and no deaths this fortnight, bringing the cumulative case count to 29,051 with 909 deaths.

**Demographics** – Demographic trends have remained consistent this reporting period: persons aged  $\geq 90$  years had the highest cumulative rate of infection; children aged 0–9 years had the lowest rate of infection; and cases in Aboriginal and Torres Strait Islander persons accounted for less than 1% of all confirmed cases.

**Local cases** – There were two locally-acquired cases reported in Australia this fortnight, one each from New South Wales and Queensland, both linked to cases in hotel quarantine. Six further cases, likely overseas-acquired, were reported as under initial investigation at the end of the reporting period, five in Queensland and one in South Australia.

**Overseas cases** – There were 98 overseas-acquired cases this reporting period, an increase compared to the previous reporting period when there were 56 overseas-acquired cases. Of these, 41% (40/98) were from New South Wales and 33% (32/98) were from Queensland, with the remainder dispersed across all jurisdictions except Tasmania and the Northern Territory.

**Testing** – A cumulative total of 14,933,604 tests have been conducted in Australia. The cumulative nationwide proportion of positive tests remains low at 0.2%.

**Vaccinations** – As at 14 March, 164,437 Australians have received a COVID-19 vaccine.

## Summary

This reporting period covers the last two weeks (1–14 March 2021). The previous reporting period is the preceding two weeks (15–28 February 2021). As Australia continues to experience low numbers of COVID-19 cases, this report has transitioned to a brief update on case numbers each fortnight and a more detailed analysis every four weeks. Acute respiratory illness, severity, clusters and outbreaks, 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 36,<sup>i</sup> state and territory health websites,<sup>i</sup> the World Health Organization's weekly situation reports,<sup>ii</sup> and the Department of Health's current situation and case numbers webpage.<sup>iii</sup>

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>.

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

## Background and data sources

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

## Activity

### COVID-19 trends

(NNDSS and jurisdictional reporting to NIR)

As at 14 March 2021, there were 29,051 COVID-19 cases including 909 deaths reported nationally, with two distinct peaks in March and July (Figure 1). In this reporting period, there were 106 cases and no deaths reported. On average, eight cases were notified each day over this reporting period, an increase from the average of five cases reported per day over the previous reporting period. The largest number of

cases diagnosed this fortnight was from New South Wales (39%; 41/106), closely followed by Queensland (36%; 38/106) (Table 1).

### Source of acquisition

(NNDSS)

In this reporting period, the majority of cases were reported as overseas acquired (92%; 98/106). There were two cases reported as locally acquired this fortnight, a decrease from the previous reporting period. At the end of this reporting period, six cases were classified as under initial investigation (Table 1).

Cumulatively, the infection rate for all locally-acquired cases is highest in Victoria with 290 infections per 100,000 population (Table 2). The rate of infection in Tasmania is 28 infections per 100,000 population, largely as a result of an outbreak in North West Tasmanian hospitals in April 2020, which represented half of all their cases. Nationally, it has been 58 days since there was a locally-acquired case of unknown source (Table 3).

**Table 1: COVID-19 notifications by jurisdiction and source of acquisition, Australia, 1–14 March 2021<sup>a</sup>**

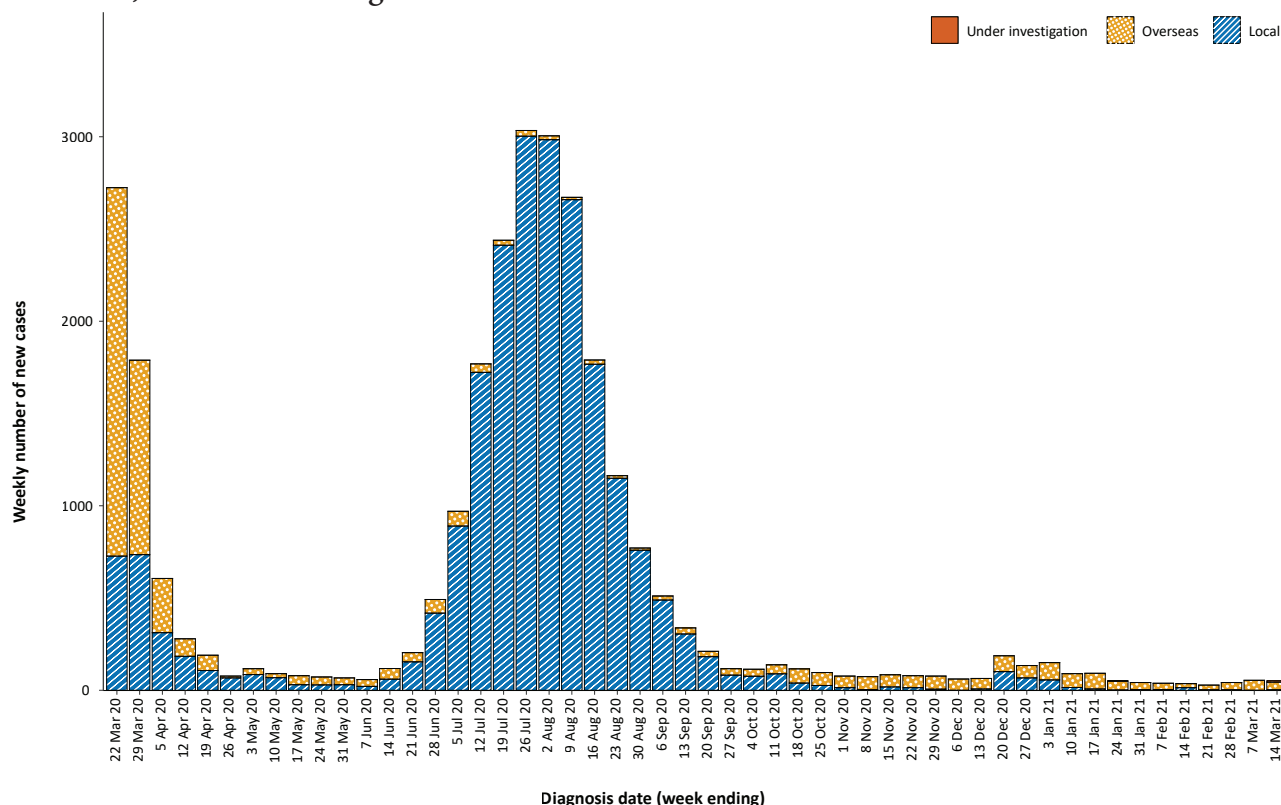
Source	NSW	Vic.	Qld <sup>b</sup>	WA	SA <sup>b</sup>	Tas.	NT	ACT	Australia
Overseas	40	2	32	7	12	0	0	5	98
Local (subtotal)	1 <sup>c</sup>	0	1	0	0	0	0	0	2
<i>source known</i>	0	0	1	0	0	0	0	0	1
<i>source unknown</i>	0	0	0	0	0	0	0	0	0
<i>interstate, source known</i>	0	0	0	0	0	0	0	0	0
<i>interstate, source unknown</i>	0	0	0	0	0	0	0	0	0
<i>investigation ongoing</i>	1	0	0	0	0	0	0	0	1
Under initial investigation	0	0	5	0	1	0	0	0	6
<b>Total</b>	<b>41</b>	<b>2</b>	<b>38</b>	<b>7</b>	<b>13</b>	<b>0</b>	<b>0</b>	<b>5</b>	<b>106</b>

a Source: NNDSS, using diagnosis date, extracted on 16 March 2021.

b Overseas-acquired infections from Queensland and South Australia were classified as under initial investigation at the time of reporting.

c At the time of reporting, a locally-acquired case from New South Wales was under ongoing investigation as to the source.

Figure 1: Cumulative COVID-19 notified cases by source of acquisition and diagnosis date, Australia, until week ending 14 March 2021<sup>a</sup>



a Source: NNDSS, extracted 16 March 2021.

Table 2: Locally-acquired COVID-19 case numbers and rates per 100,000 population by jurisdiction and reporting period, Australia, 15 February to 14 March 2021<sup>a</sup>

Jurisdiction	Reporting period 15–28 February 2021	Reporting period 1–14 March 2021	Cumulative cases 23 January 2020 – 14 March 2021	
	Number of cases	Number of cases	Number of cases	Rate per 100,000 population <sup>b</sup>
NSW	0	1	2,177	26.7
Vic.	4	0	19,410	290.0
Qld	0	1	303	5.9
WA	0	0	99	3.8
SA	0	0	186	10.5
Tas.	0	0	149	27.5
NT	0	0	4	1.6
ACT	0	0	29	6.7
<b>Australia</b>	<b>4</b>	<b>2</b>	<b>22,357</b>	<b>87.0</b>

a Source: NNDSS, using diagnosis date, extracted on 16 March 2021.

b Population data based on Australian Bureau of Statistics (ABS) Estimated Resident Population (ERP) as at June 2020. Note that small discrepancies in rates between previous reports and this one will be due to the updated reference population (previous reports used ABS ERP December 2019).

In this reporting period, the largest number of overseas-acquired cases was reported in New South Wales (41%; 40/98), followed by Queensland (33%; 32/98). The higher number of overseas-acquired cases reported in New South Wales reflects the number of managed international arrivals there. The increase in overseas-acquired cases in Queensland is likely related to returning travellers from Papua New Guinea, a country that is experiencing an outbreak of cases at the moment.

## Demographic features

(NNDSS)

In this reporting period, the largest number of cases occurred in those aged 30 to 39 years (24/106 cases). For all notifications to date, the highest rate of infection is in those aged 90 and over with a rate of 386.8 per 100,000 population (Appendix A, Table A.1). Children under 10 years old have the lowest rate of infection (46.7 cases per 100,000 population).

Cumulatively, the male-to-female rate ratio of cases is approximately 1:1 in most age groups. Notification rates are higher among females

than among males in the 20–29 years age group and those aged  $\geq 80$  years old, and higher among males than among females in the 70–79 years age group (Figure 2). The largest difference in cumulative rates is in the 90 years and over age group, where the cumulative rate among males is 335.2 cases per 100,000 population and among females 412.6 cases per 100,000 population (Appendix A, Table A.1).

Since the beginning of the epidemic in Australia, the median age of all cases is 37 years (interquartile range, IQR: 25–56), which has not changed since the beginning of August. Prior to 1 June 2020, COVID-19 cases were slightly older, with a median age of 46 years (IQR: 29–62), associated with a high proportion of cases having a recent travel history or acquisition on a cruise ship. In cases reported after 1 June 2020, the median age is 34 years (IQR: 23–53), reflecting transmission in the community and across a range of settings, especially in Victoria. The median age of cases in this reporting period was 34 years (IQR: 27–48).

**Table 3: Days since last locally-acquired COVID-19 case (source known and source unknown), by jurisdiction, reported by notification received date, 14 March 2021<sup>a,b</sup>**

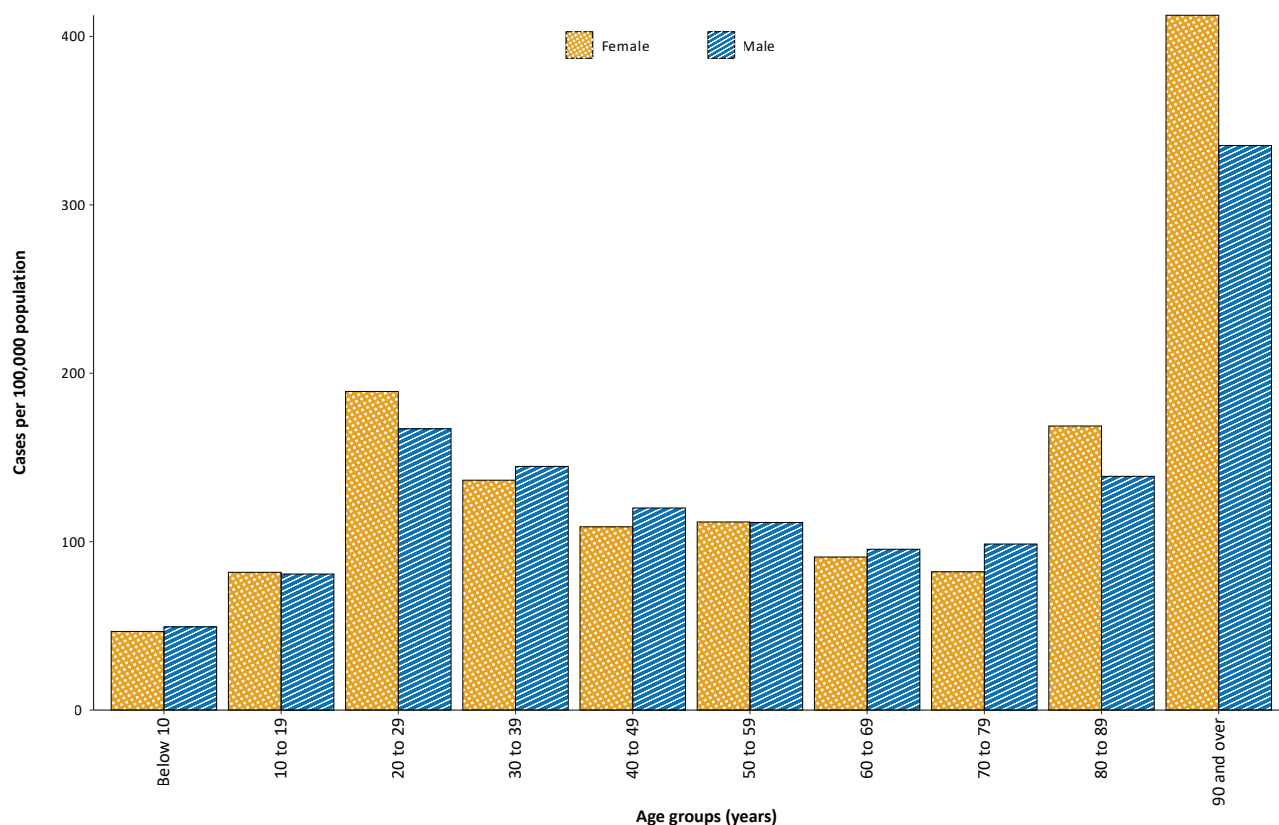
Jurisdiction	Locally acquired — source unknown		Locally acquired — source known	
	Date of last case	Days since last case	Date of last case	Days since last case
NSW	15 January 2021	58	13 March 2021	1
Vic.	5 January 2021	68	25 February 2021	17
Qld	26 August 2020	200	12 March 2021	2
WA	12 April 2020	336	1 February 2021	41
SA	15 April 2020	333	29 November 2020	105
Tas.	11 August 2020	215	6 May 2020	312
NT <sup>c</sup>	NA	NA	4 April 2020	344
ACT	28 March 2020	351	9 July 2020	248

a Source: NNDSS, using notification received date, extracted on 16 March 2021.

b Apparent mismatches between case numbers per reporting fortnight in Table 2 and dates of most recent cases in Table 3 can arise through the use of diagnosis dates for Table 2 versus notification received dates in Table 3.

c The Northern Territory has not reported any locally-acquired cases with an unknown source of infection.

Figure 2: Cumulative COVID-19 cases, by age group and sex, Australia, 23 January 2020 to 14 March 2021<sup>a</sup>



a Source: NNDSS, extracted on 16 March 2021.

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

There have been 150 confirmed cases of COVID-19 notified in Aboriginal and Torres Strait Islander people since the beginning of the epidemic. Overall, Aboriginal and Torres Strait Islander people represented approximately 0.5% (150/28,901) of all confirmed cases. Table 4 compares the remoteness of cases in Aboriginal and Torres Strait Islander people with those in the non-Indigenous population.

The median age of COVID-19 cases in Aboriginal and Torres Strait Islander people is 31 years old (IQR: 21–50), which is younger than for non-Indigenous cases where the median age is 37 years old (IQR: 25–56).

The notification rate across all age groups remains higher in non-Indigenous people than in Aboriginal and Torres Strait Islander people (Figure 3). The age-standardised Aboriginal and Torres Strait Islander:non-Indigenous notification rate ratio is 0.2, indicating that the Aboriginal and Torres Strait Islander population has a lower COVID-19 case rate than the non-Indigenous population after accounting for differences in age structure. Amongst Aboriginal and Torres Strait Islander cases, the highest notification rate is in those aged 70–79 years (36.0 cases per 100,000 population), followed by the 60–69 years age group (34.4 cases per 100,000 population). Similar to non-Indigenous cases, children aged 0–9 years have the lowest notification rate among Aboriginal and Torres Strait Islander cases (6.9 cases per 100,000 population).

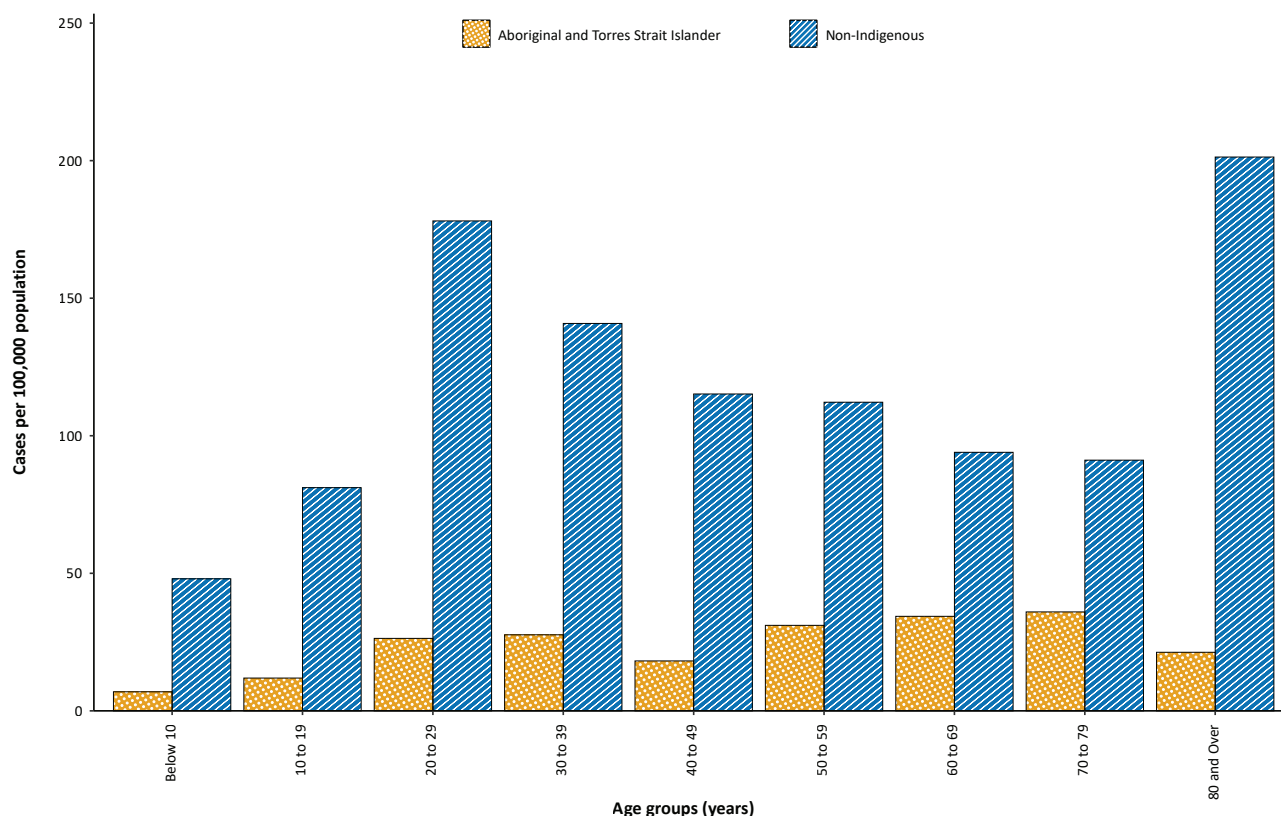
**Table 4: COVID-19 notifications by Aboriginal and Torres Strait Islander status by jurisdiction, source of acquisition and remoteness classification, Australia, 14 March 2021<sup>a</sup>**

	Locally acquired				Interstate acquired	Overseas acquired	Unknown <sup>b</sup>	Total
	Major cities of Australia	Inner regional Australia	Outer regional Australia	Remote / very remote Australia				
Aboriginal and Torres Strait Islander	91	15	6	1	2	34	1	150
Non-Indigenous	20,706	921	221	16	125	6,682	230	28,901

a Source: NNDSS, extracted on 16 March 2021.

b Includes 26 non-Indigenous cases classified as overseas residents who were diagnosed in Australia.

**Figure 3: National COVID-19 notification rate per 100,000 population by age group, Aboriginal and Torres Strait Islander people and non-Indigenous people, Australia, 23 January 2020 – 14 March 2021<sup>a</sup>**



a Source: NNDSS, extracted on 16 March 2021.



## Testing

(State and territory reporting)

As at 14 March 2021, a cumulative total of 14,933,604 tests have been conducted in Australia. The cumulative nationwide proportion of positive tests remains low at 0.2%. With the exception of Victoria, the cumulative testing positivity in individual jurisdictions is < 0.2%.

Testing rates decreased in all age groups over the two-week period ending 14 March 2021 (Figure 4). Testing rates were highest in major cities and urban areas of Australia; lower testing rates, with little variation between classification areas, were seen across regional and remote areas across Australia.

## Vaccinations

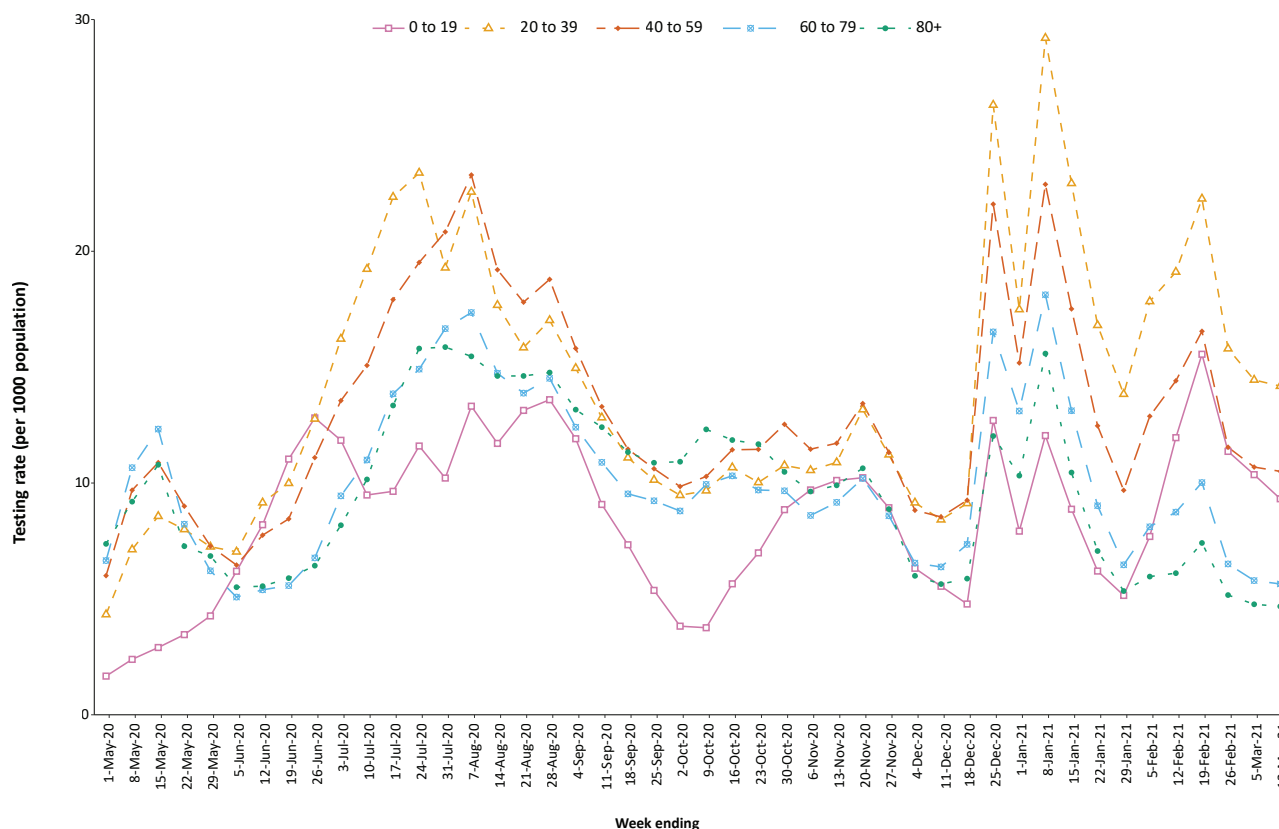
(Department of Health)

As of 14 March 2021, 164,437 Australians have received a COVID-19 vaccine (Table 5), including 39,760 aged care and disability residents.

## Acknowledgements

We thank public health staff from incident emergency operations centres and public health units in state and territory health departments, and the Australian Government Department of Health, along with state and territory public health laboratories. We thank those who have provided data from surveillance systems, such as Commonwealth respiratory clinics, Flutracking, and FluCAN.

Figure 4: SARS-CoV-2 polymerase chain reaction (PCR) testing rates per 1,000 population per week by age group, Australia, 1 May 2020 – 12 March 2021<sup>a,b</sup>



a Source: Jurisdictional reporting to the NIR.

b The jurisdictions reporting each week (i.e. the denominator population) may vary.

**Table 5: Total number of people vaccinated, by jurisdiction, Australia, 14 March 2021<sup>a</sup>**

Jurisdiction	Total number of people vaccinated
NSW	37,553
Vic.	31,808
Qld	18,705
WA	18,892
SA	6,984
Tas.	3,853
NT	3,519
ACT	3,363
Commonwealth <sup>b</sup>	39,760
<b>Total</b>	<b>164,437</b>

a Source: Australian Government Department of Health website (<https://www.health.gov.au/initiatives-and-programs/covid-19-vaccines/getting-vaccinated-for-covid-19#australias-vaccine-rollout>).

b Aged care and residential disability.

## Author details

### Corresponding author

COVID-19 National Incident Room  
Surveillance Team Australian Government  
Department of Health, GPO Box 9484, MDP  
14, Canberra, ACT 2601.  
Email: [epi.coronavirus@health.gov.au](mailto:epi.coronavirus@health.gov.au)

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1. COVID-19 National Incident Room Surveillance Team. COVID-19 Australia: Epidemiology Report 36: Fortnightly reporting period ending 28 February 2021. *Commun Dis Intell (2018)*. 2021;45. doi: <https://doi.org/10.33321/cdi.2021.45.14>.
2. COVID-19 National Incident Room Surveillance Team. Technical supplement: COVID-19 Australia: epidemiology reporting. *Commun Dis Intell (2018)*. 2021;45. doi: <https://doi.org/10.33321/cdi.2021.45.2>.

## Appendix A: Supplementary figures and tables

Table A.1: COVID-19 case notifications and rates per 100,000 population, by age group and sex, Australia, 14 March 2021<sup>a</sup>

Age group	This reporting period 1–14 March 2021						Cumulative 23 January 2020 – 14 March 2021					
	Cases			Rate per 100,000 population			Cases			Rate per 100,000 population		
	Male	Female	People	Male	Female	People	Male	Female	People	Male	Female	People
0 to 9	6	4	10	0.4	0.3	0.3	809	721	1,533	49.4	46.7	48.1
10 to 19	5	4	9	0.3	0.3	0.3	1,269	1,215	2,484	80.8	81.8	81.3
20 to 29	6	12	18	0.3	0.7	0.5	3,102	3,407	6,530	167.0	189.2	178.5
30 to 39	14	10	24	0.8	0.5	0.7	2,632	2,533	5,180	144.7	136.5	141.0
40 to 49	15	7	22	0.9	0.4	0.7	1,943	1,802	3,773	120.0	108.8	115.2
50 to 59	11	3	14	0.7	0.2	0.5	1,680	1,756	3,443	111.4	111.7	111.8
60 to 69	7	0	7	0.6	0.0	0.3	1,214	1,221	2,437	95.5	90.9	93.2
70 to 79	1	0	1	0.1	0.0	0.1	858	757	1,615	98.6	82.1	90.1
80 to 89	1	0	1	0.3	0.0	0.1	496	778	1,274	138.8	168.7	155.6
90 and over	0	0	0	0.0	0.0	0.0	230	551	782	335.2	412.6	386.8

<sup>a</sup> Source: NNDSS, extracted on 14 March 2021.