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## **COVID-19 Australia: Epidemiology Report 67**

Reporting period ending 23 October 2022

COVID-19 Epidemiology and Surveillance Team

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# Communicable Diseases Intelligence

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# COVID-19 Australia: Epidemiology Report 67

Reporting period ending 23 October 2022

COVID-19 Epidemiology and Surveillance Team

## Summary

### Four-week reporting period (26 September – 23 October 2022)

*As of report 62 onward, the case data provided in this report includes both confirmed and probable cases reported to the National Notifiable Diseases Surveillance System (NNDSS), unless otherwise specified. Case definitions for confirmed and probable cases are in accordance with the coronavirus disease 2019 (COVID-19) Series of National Guidelines for Public Health Units (SoNG).*

At the time of extraction, probable cases were incomplete from Victoria since 29 July 2022. On 24 October 2022, Queensland commenced the transmission of all rapid antigen test (RAT) positive cases to NNDSS, which will be completed over the coming weeks; prior to 24 October 2022, Queensland only reported probable cases that had a RAT conducted in a clinical setting; probable cases who tested via RAT outside of a clinical setting were not reported to NNDSS. Therefore, interpretation of historical trends in Queensland should be undertaken with caution until the transmission of all RAT cases is complete.

**Trends** – Nationally, weekly case numbers have remained relatively stable since late September 2022. In the reporting period 26 September – 23 October 2022, there were 40,009 confirmed and 88,214 probable cases of COVID-19 reported in Australia to NNDSS. In the latter fortnight (10–23 October 2022) of the reporting period, 60,333 confirmed and probable cases were notified (an average of 4,310 cases per day), compared to 67,890 in the previous fortnight (4,849 cases per day); together, these mark the lowest case numbers observed in a reporting period during 2022.

**Age group** – In the reporting period 26 September – 23 October 2022, the highest case rate was observed among adults aged 90 years and over, followed by those aged 18 to 29 years; whilst the lowest rate was among children aged 5 to 15 years. Case rates remained relatively stable across all age groups during the reporting period. For the entire Omicron wave to date (15 December 2021 – 23 October 2022), the highest case rate has been in adults aged 18 to 29 years.

**Aboriginal and Torres Strait Islander persons** – In the reporting period 26 September – 23 October 2022, there were 8,548 new cases notified in Aboriginal and Torres Strait Islander people. In the current Omicron wave (15 December 2021 – 23 October 2022) there have been 316,068 cases of COVID-19 notified in Aboriginal and Torres Strait Islander people, representing 3.5% (316,068/8,968,635) of all COVID-19 cases in the Omicron wave to date.

**Severity** – The overall crude case fatality rate in the current BA.5 wave is 0.21%, which is higher than the rate observed during the BA.1 (0.14%) and BA.2 (0.10%) waves, and notably less than that observed during the Delta (0.70%) wave. Since the start of the pandemic to 23 Oct 2022, there have been 156 cases of paediatric inflammatory multisystem syndrome temporally associated with SARS-CoV-2 (PIMS-TS) reported to PAEDS, including 121 cases reported in 2022.

**Virology** – For samples collected in the four-week period 26 September – 23 October 2022, all 4,033 were assigned against Omicron or recombinants consisting of two Omicron lineages, with BA.5 constituting 78.8% of sequences collected in the reporting period and available for analysis in AusTrakka. Of the Omicron sequences in AusTrakka to date, 26.3% are BA.1; 41.9% are BA.2; 0.001% are BA.3; 4.4% are BA.4 and 27.5% are BA.5.

**International situation** – According to the World Health Organization (WHO), cumulative global COVID-19 cases stood at over 624 million COVID-19 cases and over 6.5 million deaths reported globally, as of 23 October 2022. For the South East Asian and Western Pacific regions combined, there were 3,618,333 newly-confirmed cases and 6,737 deaths in the four-week period to 23 October 2022. Compared to the previous four-week reporting period, new cases and new deaths decreased in both the Western Pacific and South East Asia regions. In total, since the start of the pandemic, over 152 million cases and over one million deaths have been reported in the two regions.

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

This reporting period covers the four-week period of 26 September – 23 October 2022. Within this period, data for each week is compared. The previous reporting period was the preceding four weeks (29 August – 25 September 2022).<sup>1</sup> The focus of this report is on the epidemiological situation in Australia since the beginning of the current Omicron wave. For the purposes of this report, 15 December 2021 is used as a proxy for the beginning of this wave. This date was chosen as, from this date onwards, the majority of sequenced strains from cases were Omicron. Readers are encouraged to consult prior reports in this series for information on the epidemiology of coronavirus disease 2019 (COVID-19) in Australia.

Methods of data analysis used in these reports have periodically changed over the course of this reporting series to date. Please refer to the Technical Supplement for details of such changes, and for definitions of terminology.<sup>2</sup>

Unless otherwise specified, tabulated data, data within the text, and figures, except those relating to severity, are extracted from the National Notifiable Diseases Surveillance System (NNDSS) based on ‘notification received date’. All tables and figures related to severity data extracted from NNDSS are based on ‘diagnosis date’ to better capture the true onset of severe illness and to enable a more accurate understanding of infection risk and disease severity.

The case data provided includes both confirmed cases and probable cases reported to the NNDSS, as defined in accordance with the COVID-19 series of national guidelines (SoNG).<sup>3</sup> For the purposes of this report, only probable cases from 5 January 2022 are included.

Due to the dynamic nature of data in the NNDSS, numbers may be subject to revision and may vary from numbers previously reported and from case notifications released by states and territories.

## 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

*(NNDSS and jurisdictional reporting to the National Incident Centre)*

Cumulatively, from the beginning of the pandemic to 23 October 2022, jurisdictions within Australia have reported 10,354,152 COVID-19 cases to the National Incident Centre (Table 1). In the same time period, there were 4,870,995 confirmed and 4,332,525 probable cases of COVID-19 reported to NNDSS nationally. The difference in these case numbers arises because probable cases are not yet systematically reported by all jurisdictions to NNDSS. The analyses in this report include both confirmed and probable cases reported to the NNDSS, unless otherwise specified.

In the four-week period 26 September – 23 October 2022, there were 40,009 confirmed and 88,214 probable cases of COVID-19 reported in Australia to NNDSS. In the most recent reporting fortnight, a total of 60,333 confirmed and probable cases were notified (an average of 4,310 cases per day), compared to 67,890 in the previous fortnight (4,849 cases per day); together, these mark the lowest case numbers observed in a reporting period during 2022.

Since the emergence of the Omicron variant in Australia, there have been three distinct waves of transmission, defined by the predominant Omicron subvariant circulating. The first wave, driven by the BA.1 subvariant, occurred from mid-December 2021 to February 2022, with a peak in cases observed in early January 2022. From March 2022, the BA.2 subvariant was the predominant strain; in this second Omicron wave, there was a primary peak in early April and a secondary peak in late May 2022. In early July 2022, BA.5 (including sub-lineages) became the predominant subvariant detected in Australia, driving a third wave of transmission which peaked in the week ending 24 July 2022. Since then, cases decreased until late September 2022, following which weekly case notifications remained relatively stable.

Case numbers since January 2022 are an underestimate, as probable cases are not yet systematically reported from all jurisdictions, and fewer people are testing for COVID-19. Furthermore, in October 2022, mandatory reporting of positive RATs ceased in several jurisdictions, including the Australian Capital Territory, New South Wales, the Northern Territory, Queensland, Victoria and Western Australia.

### Demographic features

*(NNDSS)*

In the reporting period 26 September – 23 October 2022, the highest case rate was observed among adults aged 90 years and over, followed by those aged 18 to 29 years; the lowest

**Table 1: Confirmed and probable COVID-19 cases by jurisdiction, 1 January 2020 – 23 October 2022<sup>a,b</sup>**

|                       | Australia (total) | ACT            | NSW              | NT            | Qld              | SA             | Tas.           | Vic.             | WA               |
|-----------------------|-------------------|----------------|------------------|---------------|------------------|----------------|----------------|------------------|------------------|
| Cases – PCR confirmed | 4,889,738         | 122,659        | 1,942,384        | 21,570        | 639,988          | 462,187        | 57,202         | 1,158,952        | 484,796          |
| Cases – RAT probable  | 5,464,414         | 85,358         | 1,600,417        | 76,757        | 1,023,085        | 316,609        | 194,846        | 1,481,116        | 686,226          |
| <b>Cases – total</b>  | <b>10,354,152</b> | <b>208,017</b> | <b>3,542,801</b> | <b>98,327</b> | <b>1,663,073</b> | <b>778,796</b> | <b>252,048</b> | <b>2,640,068</b> | <b>1,171,022</b> |

a Source: jurisdictional reporting to the National Incident Centre.

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

**Table 2: Confirmed and probable COVID-19 cases by jurisdiction and date of notification, Australia, 15 December 2021 – 23 October 2022<sup>a,b</sup>**

| Jurisdiction      | Reporting period              |                           |               |                           |                           |               | Current Omicron wave               |                              |                  |
|-------------------|-------------------------------|---------------------------|---------------|---------------------------|---------------------------|---------------|------------------------------------|------------------------------|------------------|
|                   | 26 September – 9 October 2022 |                           |               | 10–23 October 2022        |                           |               | 15 December 2021 – 23 October 2022 |                              |                  |
|                   | Confirmed                     | Probable                  | Total         | Confirmed                 | Probable                  | Total         | Confirmed                          | Probable                     | Total            |
| ACT               | 449<br>(39.4%)                | 690<br>(60.6%)            | 1,139         | 515<br>(44.2%)            | 651<br>(55.8%)            | 1,166         | 121,463<br>(58.5%)                 | 86,293<br>(41.5%)            | 207,756          |
| NSW               | 8,876<br>(38.6%)              | 14,132<br>(61.4%)         | 23,008        | 9,754<br>(49.5%)          | 9,965<br>(50.5%)          | 19,719        | 1,853,847<br>(56.6%)               | 1,420,125<br>(43.4%)         | 3,273,972        |
| NT                | 96<br>(15.8%)                 | 511<br>(84.2%)            | 607           | 109<br>(20.8%)            | 416<br>(79.2%)            | 525           | 21,379<br>(21.7%)                  | 77,078<br>(78.3%)            | 98,457           |
| Qld <sup>c</sup>  | 1,305<br>(16.5%)              | 6,593<br>(83.5%)          | 7,898         | 1,267<br>(15.4%)          | 6,975<br>(84.6%)          | 8,242         | 635,017<br>(88.5%)                 | 82,574<br>(11.5%)            | 717,591          |
| SA                | 2,473<br>(41.0%)              | 3,559<br>(59.0%)          | 6,032         | 2,422<br>(42.4%)          | 3,288<br>(57.6%)          | 5,710         | 462,532<br>(58.8%)                 | 324,155<br>(41.2%)           | 786,687          |
| Tas.              | 223<br>(16.3%)                | 1,148<br>(83.7%)          | 1,371         | 311<br>(21.0%)            | 1,170<br>(79.0%)          | 1,481         | 57,159<br>(22.8%)                  | 193,510<br>(77.2%)           | 250,669          |
| Vic. <sup>c</sup> | 3,939<br>(21.2%)              | 14,638<br>(78.8%)         | 18,577        | 3,966<br>(29.7%)          | 9,397<br>(70.3%)          | 13,363        | 1,011,317<br>(41.0%)               | 1,453,760<br>(59.0%)         | 2,465,077        |
| WA                | 2,095<br>(22.6%)              | 7,163<br>(77.4%)          | 9,258         | 2,209<br>(21.8%)          | 7,918<br>(78.2%)          | 10,127        | 473,396<br>(40.5%)                 | 695,030<br>(59.5%)           | 1,168,426        |
| <b>Australia</b>  | <b>19,456<br/>(28.7%)</b>     | <b>48,434<br/>(71.3%)</b> | <b>67,890</b> | <b>20,553<br/>(34.1%)</b> | <b>39,780<br/>(65.9%)</b> | <b>60,333</b> | <b>4,636,110<br/>(51.7%)</b>       | <b>4,332,525<br/>(48.3%)</b> | <b>8,968,635</b> |

a Source: NNDSS extract from 1 November 2022 for notifications from 15 December 2021 to 23 October 2022.

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

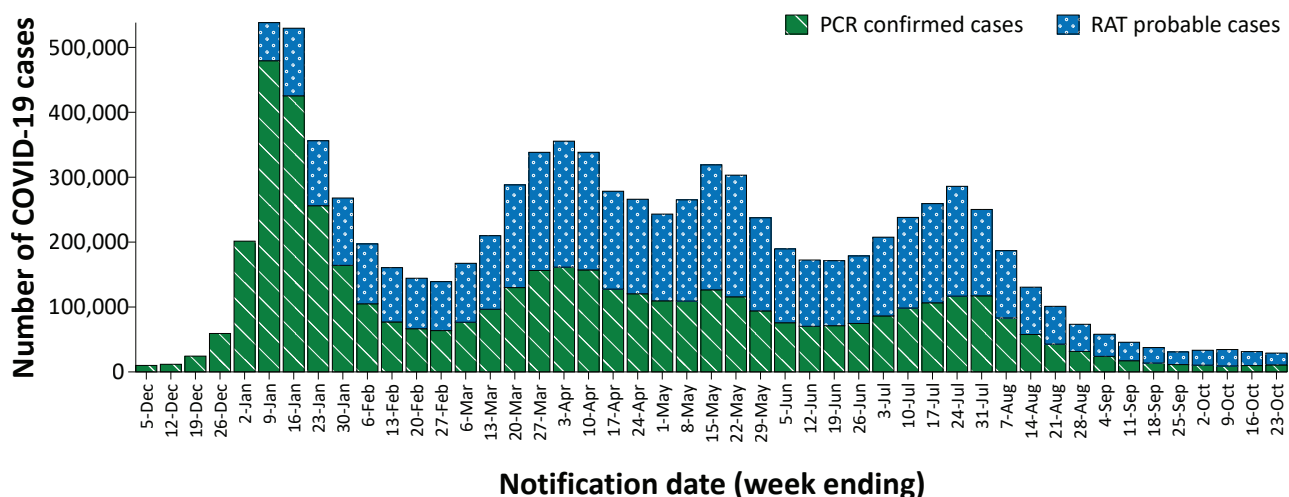
c At the time of extraction, probable cases were incomplete from Victoria since 29 July 2022. On 24 October 2022, Queensland commenced the transmission of all RAT positive cases to NNDSS, which will be completed over the coming weeks; prior to 24 October 2022, Queensland only reported probable cases that had a RAT conducted in a clinical setting. Therefore, interpretation of historical trends in Queensland should be undertaken with caution until the transmission of all RAT cases is complete.

rate was among children aged 5 to 15 years (Appendix A, Table A.1). Case rates remained relatively stable across all age groups during the reporting period, with children aged 17 years or less continuing to have considerably lower rates than the adult age groups. (Figure 2). For the entire Omicron wave to date (15 December 2021 – 23 October 2022), the highest case rate has been in adults aged 18 to 29 years. For this age group, the weekly notification rate peaked in the week ending 9 January 2022 at 5,605 cases per 100,000 population (not depicted). Case rates have been comparable across all paediatric age groups since late August 2022, with rates remaining relatively stable throughout this reporting period (Figure 2).

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

Overall, since the start of the pandemic, Indigenous status is unknown for approximately 13% of COVID-19 cases. Therefore, the number of cases classified as Aboriginal and Torres Strait Islander people is likely an under-representation. During the reporting period, there were 8,548 new COVID-19 cases notified in Aboriginal and Torres Strait Islander people (Table 3). In the current Omicron wave (15 December 2021 – 23 October 2022), there have been 316,068 cases of COVID-19 notified

**Figure 1: Confirmed and probable weekly COVID-19 notified cases by notification date, Australia, 29 November 2021 – 23 October 2022<sup>a</sup>**



<sup>a</sup> Source: NNDSS extract from 1 November 2022 for notifications from 29 November 2021 to 23 October 2022. At the time of extraction, probable cases were incomplete from Victoria since 29 July 2022. On 24 October 2022, Queensland commenced the transmission of all RAT positive cases to NNDSS, which will be completed over the coming weeks; prior to 24 October 2022, Queensland only reported probable cases that had a RAT conducted in a clinical setting. Therefore, interpretation of historical trends in Queensland should be undertaken with caution until the transmission of all RAT cases is complete.

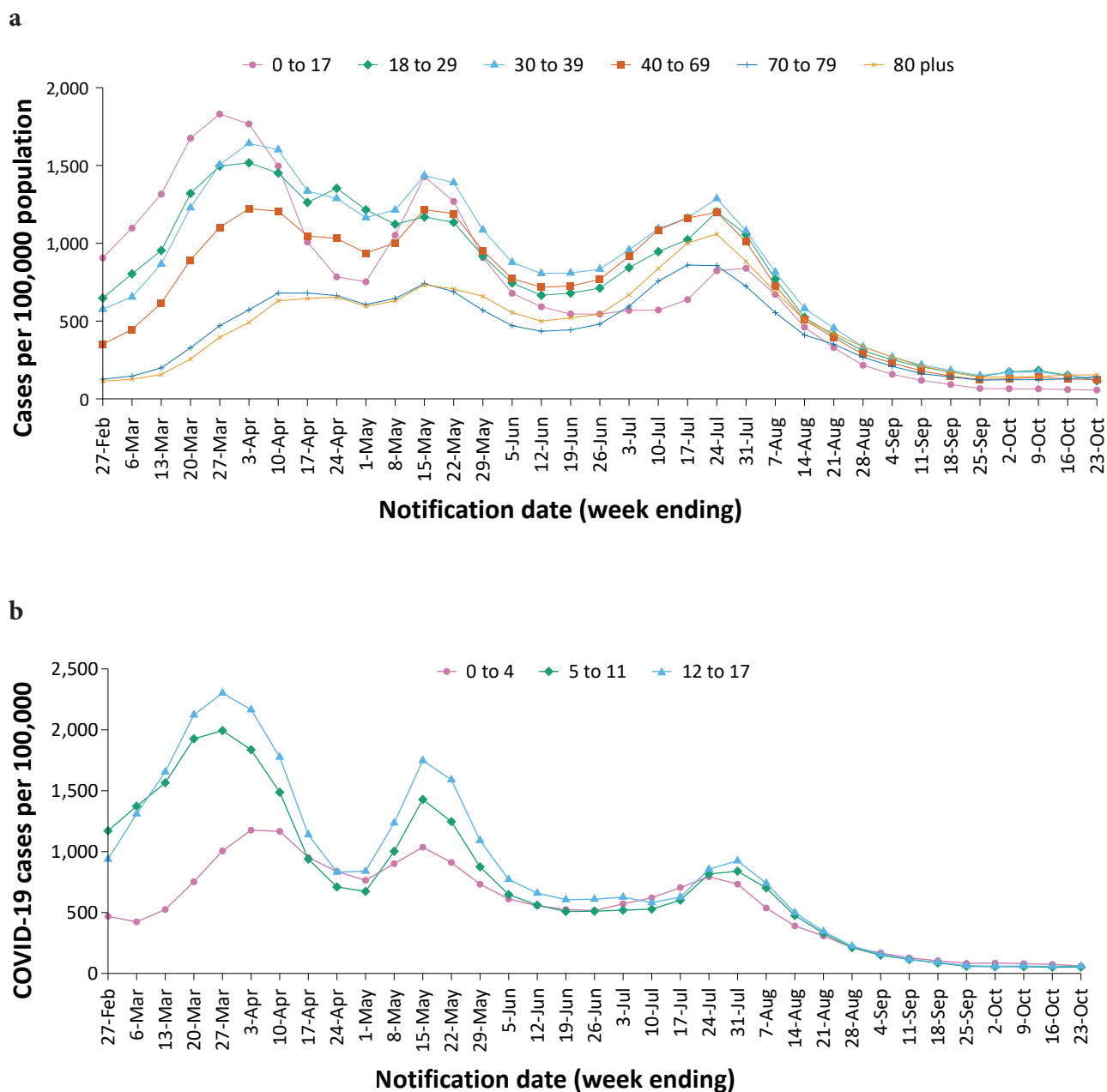
in Aboriginal and Torres Strait Islander people, representing 3.5% (316,068/8,968,635) of all COVID-19 cases in the Omicron wave to date.

Of the COVID-19 cases notified in Aboriginal and Torres Strait Islander people from 15 December 2021 to date, and where location of residence was known, 56% (175,261/313,856) lived in a regional or remote area (Table 4). The majority of cases reported in outer regional and remote areas since the start of the Omicron wave were diagnosed using RATs, at 66% and 72%, respectively. It should be noted that the reliance on RATs for diagnosing COVID-19 is greater in regional and remote areas than in major cities, resulting in a larger under-representation of cases in regional and remote areas than in major cities, due to the incomplete capture of probable cases in NNDSS.

Nationally, there have been 279 COVID-19 associated deaths reported in Aboriginal and Torres Strait Islander people from the start of the pandemic to 23 October 2022. This comprises 93 from New South Wales, 85 from Queensland, 37 from the Northern Territory, 30 from Western Australia, 20 from South

Australia, 10 from Victoria and two each from the Australian Capital Territory and Tasmania. An additional 521 Aboriginal and Torres Strait Islander cases have been admitted to intensive care units (ICU) nationally. During the Omicron wave to date, the overall notification rate, to NNDSS, of severe cases (measured as those who were admitted to ICU or died) in Aboriginal and Torres Strait Islander people was 76.3 per 100,000 population, compared to 16.5 per 100,000 population during the Delta wave (Table 5). The higher rates of severe illness during the Omicron wave may be attributed to the significantly higher levels of disease transmission in the community during the Omicron wave, rather than the Omicron variant inherently causing more severe illness compared to the Delta variant. Note that ICU status in NNDSS is likely incomplete.

Figure 2: Confirmed and probable COVID-19 case rates for (a) all ages and (b) children, by age group by notification week, Australia, 27 February – 23 October 2022<sup>a</sup>



a Source: NNDSS extract from 1 November 2022 for notifications from 21 February to 23 October 2022. At the time of extraction, probable cases were incomplete from Victoria since 29 July 2022. On 24 October 2022, Queensland commenced the transmission of all RAT positive cases to NNDSS, which will be completed over the coming weeks; prior to 24 October 2022, Queensland only reported probable cases that had a RAT conducted in a clinical setting. Therefore, interpretation of historical trends in Queensland should be undertaken with caution until the transmission of all RAT cases is complete.



**Table 3: Confirmed and probable cases of COVID-19 among Aboriginal and Torres Strait Islander peoples by jurisdiction and date of notification, Australia, 15 December 2021 – 23 October 2022<sup>a</sup>**

| Jurisdiction                 | 26 September – 2 October 2022 | 3–9 October 2022 | 10–16 October 2022 | 17–23 October 2022 | 15 December 2021 – 23 October 2022 (Omicron wave) |
|------------------------------|-------------------------------|------------------|--------------------|--------------------|---|
| Australian Capital Territory | 20                            | 11               | 7                  | 7                  | 3,653   |
| New South Wales              | 934                           | 785              | 516                | 442                | 122,325   |
| Northern Territory           | 116                           | 92               | 62                 | 55                 | 24,060  |
| Queensland <sup>b</sup>      | 498                           | 1,388            | 995                | 459                | 42,789  |
| South Australia              | 95                            | 62               | 61                 | 61                 | 21,403  |
| Tasmania                     | 61                            | 65               | 41                 | 53                 | 14,821  |
| Victoria <sup>b</sup>        | 253                           | 178              | 143                | 94                 | 32,028  |
| Western Australia            | 340                           | 280              | 210                | 164                | 54,989  |
| <b>Total</b>                 | <b>2,317</b>                  | <b>2,861</b>     | <b>2,035</b>       | <b>1,335</b>       | <b>316,068</b>                                    |

a Source: NNDSS extract from 1 November 2022 for notifications from 15 December 2021 to 23 October 2022.

b At the time of extraction, probable cases were incomplete from Victoria since 29 July 2022. On 24 October 2022, Queensland commenced the transmission of all RAT positive cases to NNDSS, which will be completed over the coming weeks; prior to 24 October 2022, Queensland only reported probable cases that had a RAT conducted in a clinical setting. Therefore, interpretation of historical trends in Queensland should be undertaken with caution until the transmission of all RAT cases is complete.

**Table 4: COVID-19 cases among Aboriginal and Torres Strait Islander people by area of remoteness, Australia, 15 December 2021 – 23 October 2022<sup>a</sup>**

| Jurisdiction <sup>b,c</sup> | Major city     | Inner regional | Outer regional | Remote <sup>d</sup> |
|-----------------------------|----------------|----------------|----------------|---------------------|
| ACT                         | 3,583          | 29             | 10             | 1                   |
| NSW                         | 65,486         | 39,674         | 13,675         | 2,830               |
| NT                          | 61             | 17             | 7,509          | 15,837              |
| Qld <sup>e</sup>            | 11,055         | 6,799          | 17,699         | 7,174               |
| SA                          | 11,488         | 2,301          | 4,561          | 2,948               |
| Tas.                        | 196            | 8,992          | 5,247          | 260                 |
| Vic. <sup>e</sup>           | 18,233         | 10,322         | 3,425          | 13                  |
| WA                          | 28,493         | 3,939          | 6,901          | 15,098              |
| <b>Australia</b>            | <b>138,595</b> | <b>72,073</b>  | <b>59,027</b>  | <b>44,161</b>       |

a Source: Source: NNDSS extract from 1 November 2022 for notifications from 15 December 2021 to 23 October 2022. Excludes cases with an overseas place of residence, and where place of residence is unknown.

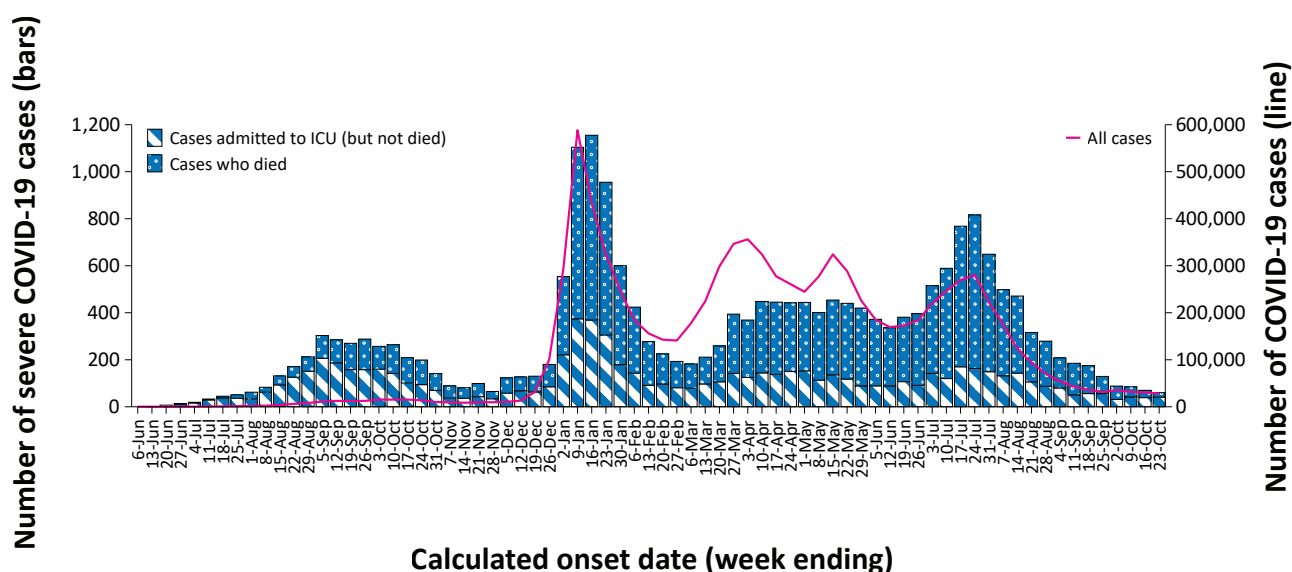
b ACT: Australian Capital Territory; NSW: New South Wales; NT: Northern Territory; Qld: Queensland; SA: South Australia; Tas.: Tasmania; Vic.: Victoria; WA: Western Australia.

c Cases are classified based on jurisdiction of notification not jurisdiction of residence. Some cases are notified to a different jurisdiction to their location of residence.

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

e At the time of extraction, probable cases were incomplete from Victoria since 29 July 2022. On 24 October 2022, Queensland commenced the transmission of all RAT positive cases to NNDSS, which will be completed over the coming weeks; prior to 24 October 2022, Queensland only reported probable cases that had a RAT conducted in a clinical setting. Therefore, interpretation of historical trends in Queensland should be undertaken with caution until the transmission of all RAT cases is complete.

**Figure 3: COVID-19 cases, deaths and ICU admissions, Australia, by date of onset, Australia, 31 May 2021 to 23 October 2022<sup>a,b</sup>**



- a Source: NNDSS extract from 1 November 2022 for notifications to 23 October 2022. At the time of extraction, probable cases were incomplete from Victoria since 29 July 2022. On 24 October 2022, Queensland commenced the transmission of all RAT positive cases to NNDSS, which will be completed over the coming weeks; prior to 24 October 2022, Queensland only reported probable cases that had a RAT conducted in a clinical setting. Therefore, interpretation of historical trends in Queensland should be undertaken with caution until the transmission of all RAT cases is complete.
- b The shaded bars at the right represent the most recent two reporting weeks and should be interpreted with caution, as cases with an illness onset in these weeks may not have yet developed severe disease.

**Table 5: Confirmed and probable COVID-19 cases in Aboriginal and Torres Strait Islander people by age and highest level of illness severity, Australia, 1 January 2020 to 23 October 2022**

| Age group (years) | 15 December 2021 – 23 October 2022 (Omicron wave) |                   |                          |                               | 16 June 2021 – 14 December 2021 (Delta wave) |                   |                          |                               | 1 January 2020 – 23 October 2022 (Pandemic to date) |                   |                          |                               |
|-------------------|---|-------------------|--------------------------|-------------------------------|--|-------------------|--------------------------|-------------------------------|---|-------------------|--------------------------|-------------------------------|
|                   | ICU <sup>a</sup>                                  | Died <sup>a</sup> | ICU or died <sup>a</sup> | Rate ICU or died <sup>b</sup> | ICU <sup>a</sup>                             | Died <sup>a</sup> | ICU or died <sup>a</sup> | Rate ICU or died <sup>b</sup> | ICU <sup>a</sup>                                    | Died <sup>a</sup> | ICU or died <sup>a</sup> | Rate ICU or died <sup>b</sup> |
| 0–17              | 54  | 1                 | 54                       | 16.6                          | 8  | 0                 | 8                        | 2.5                           | 62  | 1                 | 62                       | 19.1                          |
| 18–59             | 222   | 78                | 287                      | 68.8                          | 85   | 11                | 89                       | 21.3                          | 308   | 89                | 377                      | 90.3                          |
| 60+               | 121   | 174               | 268                      | 474.9                         | 28   | 15                | 35                       | 62.0                          | 151   | 189               | 305                      | 540.4                         |
| <b>All</b>        | <b>397</b>  | <b>253</b>        | <b>609</b>               | <b>76.3</b>                   | <b>121</b>                                   | <b>26</b>         | <b>132</b>               | <b>16.5</b>                   | <b>521</b>  | <b>279</b>        | <b>744</b>               | <b>93.2</b>                   |

- a 'ICU' and 'died' are not mutually exclusive categories; 'died' can include cases who died with or without prior admission to ICU. Therefore, the number of cases admitted to ICU or having died will not equal the sum of cases in ICU or died.
- b Rate per 100,000 population for the given time period.

**Table 6: Comorbidities for adult COVID-19 cases (aged greater than or equal to 18 years) amongst those admitted to ICU, Australia, 15 December 2021 – 23 October 2022<sup>a</sup>**

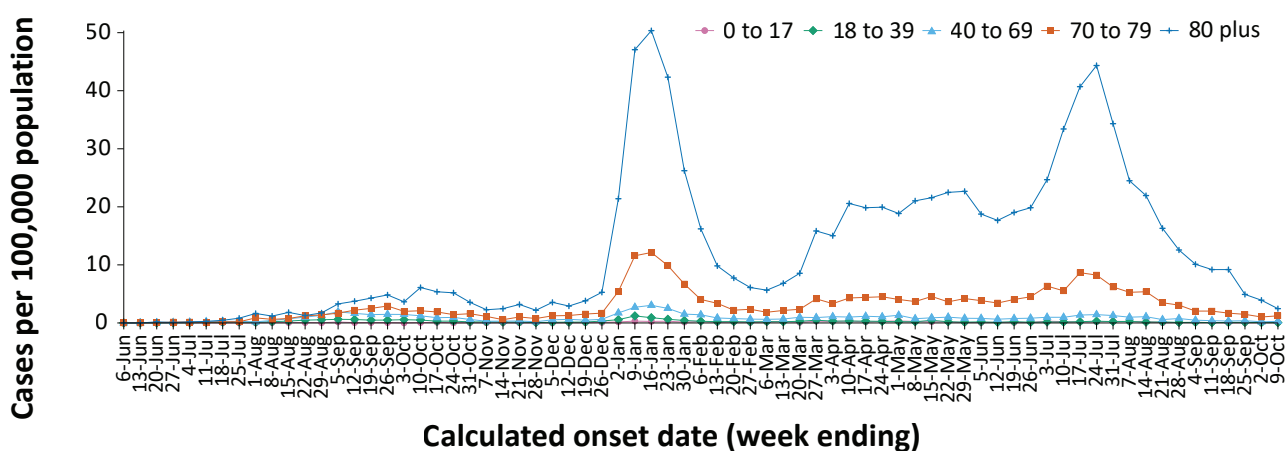
| Comorbidity  | ICU cases <sup>a</sup> (n = 2,612) (%) |
|--|--|
| Cardiac disease (n = 2,580)                                      | 682 (26%)                              |
| Chronic respiratory condition (n = 2,580) <sup>b</sup>           | 617 (24%)                              |
| Diabetes (n = 2,561)   | 880 (34%)                              |
| Obesity (n = 2,541)  | 601 (24%)                              |
| Chronic renal disease (n = 2,565)                                | 400 (16%)                              |
| Chronic neurological condition (n = 2,563)                       | 176 (7%)                               |
| Malignancy (n = 2,577)   | 343 (13%)                              |
| Chronic liver disease (n = 2,569)                                | 143 (6%)                               |
| Immunosuppression (n = 2,550)                                    | 454 (18%)                              |
| <b>Number of specified comorbidities (n = 2,612)<sup>c</sup></b> |  |
| No comorbidities   | 618 (24%)                              |
| One or more  | 1,994 (76%)                            |
| Two or more  | 1,261 (48%)                            |
| Three or more  | 656 (25%)                              |

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.

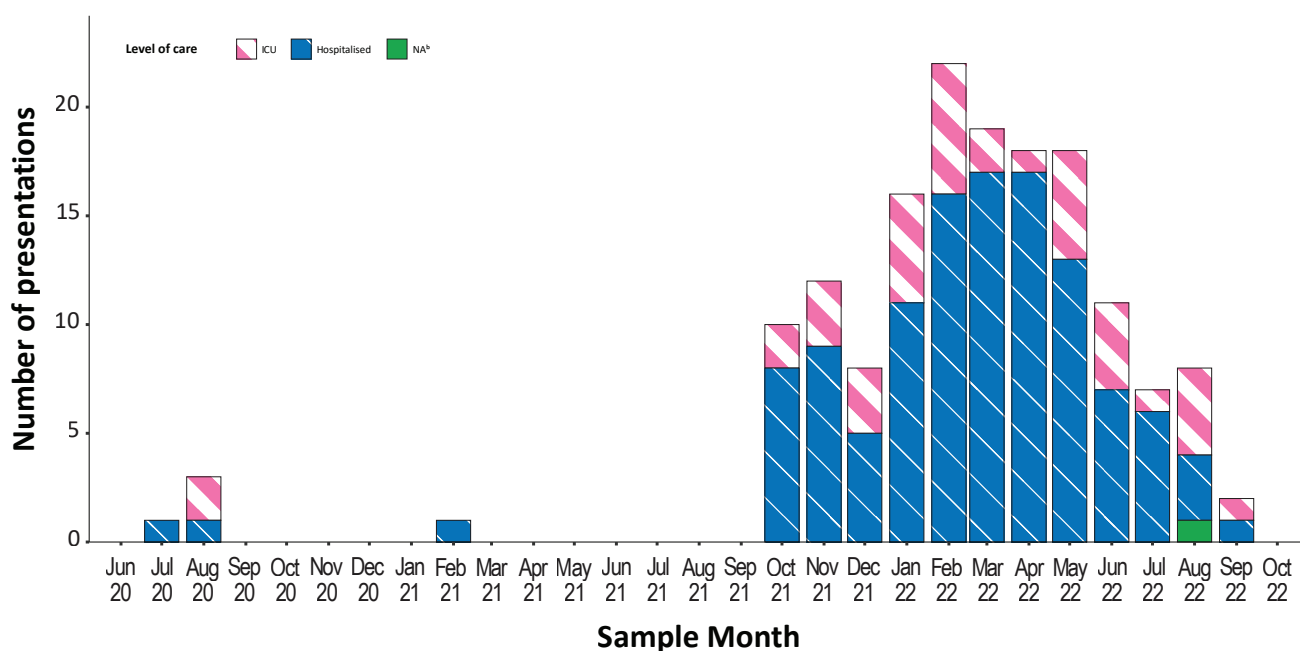
c Includes chronic respiratory conditions, cardiac disease (excluding hypertension), immunosuppressive condition/therapy, diabetes, obesity, liver disease, renal disease and neurological disorder.

**Figure 4: Age-specific rates of COVID-19 cases admitted to ICU or died, by date of diagnosis, Australia, 31 May 2021 to 9 October 2022<sup>a</sup>**



a Source: NNDSS extract from 1 November 2022 for notifications to 23 October 2022. Includes cases with an illness onset from 31 May 2021 to 9 October 2022; cases with an illness onset in the last two weeks (10–23 October 2022) were excluded to account for the delay between onset and development of severe illness.

**Figure 5: PIMS-TS cases reported to PAEDS, by sample month and level of care required, Australia, 1 June 2020 – 23 October 2022<sup>a</sup>**



a Source: PAEDS.

b NA: not available. Denotes a case with missing ICU status at time of data export.

## Severity

(NNDSS, SPRINT-SARI)

Given the delay between illness onset and severe illness, and so as to provide a more accurate assessment of severity, cases with an onset in the last two weeks have been excluded from analyses on the weekly rate of cases with severe illness (defined as cases admitted to ICU or died) and on the proportion of cases admitted to ICU or died.

In the Omicron wave, the notification rate of cases with severe illness peaked in the week ending 16 January 2022, at approximately 4.5 severe cases per 100,000 population per week (Figure 3). Coinciding with overall case trends, there was an increase in severe cases during the BA.5 wave from late June 2022, with a peak occurring during the week ending 24 July 2022. The incidence of severe cases continued to decline throughout the reporting period. Rates of severe cases continue to be greater in older age groups; in the BA.5 wave, those aged 80 years and over experienced a notable peak

in severe rates during the week ending 24 July 2022, while this trend was not observed in the other age groups (Figure 4).

## ICU admissions

From the start of the Omicron wave to 23 September 2022, there were 4,163 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 77 of these admitted during this reporting period (26 September–23 October 2022).

## Risk factors for severe disease

Comorbidity data extracted from SPRINT-SARI reflect the sickest patients with COVID-19 who are managed in ICU; data are therefore not generalisable to all cases (Table 6). In adult patients admitted to ICU with COVID-19 since 15 December 2021, where comorbidity information was available, the most prevalent comorbidity was diabetes, followed by cardiac disease and obesity (a body mass index of > 30 or weight over 120 kg). Of those adult patients admitted to

ICU since 15 December 2021 for whom comorbidity data was known, 76% (1,994/2,612) had at least one of the listed comorbidities.

### PIMS-TS (PAEDS)

Since the start of the pandemic to 23 Oct 2022, there have been 156 cases of paediatric inflammatory multisystem syndrome temporally associated with SARS-CoV-2 (PIMS-TS) reported to the Paediatric Active Enhanced Disease Surveillance (PAEDS) network, including 121 cases reported in 2022, none in the current reporting period and two new cases from previous reporting periods. The majority of PIMS-TS cases to date have occurred in those aged 5 to < 12 years (53%; 82/156), followed by those aged 6 months to < 5 years (27%; 42/156). To date, there have been no PIMS-TS associated deaths.

### COVID-19 deaths

There were 287 COVID-19-associated deaths among COVID-19 cases notified during the reporting period (26 September–23 October 2022). This brings the total number of COVID-19-associated deaths reported in NNDSS to 14,909 (Table 7). The overall crude case fatality rate in the current BA.5 wave is 0.21%, which is higher than the rate observed during the BA.1 (0.14%) and BA.2 (0.10%) waves, and notably less than observed during the Delta (0.70%) wave (Table 8).

**Table 7: Deaths associated with COVID-19 by reporting period, Australia, 1 January 2020 – 23 October 2022<sup>a,b</sup>**

| Jurisdiction <sup>c</sup> | 26 September – 9 October 2022 | 10–23 October 2022  | 15 December 2021 – 23 October 2022 (Omicron wave) | 1 January 2020 – 23 October 2022 (Pandemic to date) |
|---------------------------|-------------------------------|---------------------|---|---|
| ACT                       | 0 (0.0%)                      | 1 (1.0%)            | 113 (0.9%)  | 140 (0.9%)  |
| NSW                       | 59 (32.2%)                    | 14 (13.5%)          | 4,730 (37.4%)                                     | 5,429 (36.4%)                                       |
| NT                        | 1 (0.5%)                      | 1 (1.0%)            | 74 (0.6%)   | 75 (0.5%)   |
| Qld <sup>d</sup>          | 33 (18.0%)                    | 8 (7.7%)            | 2,291 (18.1%)                                     | 2,298 (15.4%)                                       |
| SA                        | 9 (4.9%)                      | 10 (9.6%)           | 1,035 (8.2%)                                      | 1,042 (7.0%)  |
| Tas.                      | 4 (2.2%)                      | 5 (4.8%)            | 171 (1.4%)  | 200 (1.3%)  |
| Vic. <sup>d</sup>         | 61 (33.3%)                    | 52 (50.0%)          | 3,530 (27.9%)                                     | 5,030 (33.7%)                                       |
| WA                        | 16 (8.7%)                     | 13 (12.5%)          | 689 (5.5%)  | 695 (4.7%)  |
| <b>Total</b>              | <b>183 (100.0%)</b>           | <b>104 (100.0%)</b> | <b>12,633 (100.0%)</b>                            | <b>14,909 (100.0%)</b>                              |

a Source: NNDSS, extract from 1 November 2022 for deaths to 23 October 2022.

b Deaths are categorised into time periods using date of death. Deaths with a missing date of death are classified using date of illness onset.

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

d At the time of extraction, probable cases were incomplete from Victoria since 29 July 2022. On 24 October 2022, Queensland commenced the transmission of all RAT positive cases to NNDSS, which will be completed over the coming weeks; prior to 24 October 2022, Queensland only reported probable cases that had a RAT conducted in a clinical setting. Therefore, interpretation of historical trends in Queensland should be undertaken with caution until the transmission of all RAT cases is complete.

**Table 8: COVID-19 associated case fatality rates, among cases notified to NNDSS, by age group and date of onset, 1 January 2020 to 9 October 2022<sup>a,b</sup>**

| Age group    | BA.5<br>15 June – 9<br>October 2022 | BA.2<br>1 March - 14<br>June 2022 | BA.1<br>15 December<br>2021 - 28<br>February 2022 | Omicron<br>15 December<br>2021 – 9 October<br>2022 | Delta<br>16 June – 14<br>December 2021 | Pandemic<br>1 January 2020 –<br>9 October 2022 |
|--------------|-------------------------------------|-----------------------------------|---|--|--|--|
| 0–4          | < 0.05%                             | < 0.05%                           | < 0.05%   | < 0.05%  | 0.00%                                  | < 0.05%  |
| 5–11         | 0.00%                               | 0.00%                             | < 0.05%   | < 0.05%  | < 0.05%                                | < 0.05%  |
| 12–15        | < 0.05%                             | 0.00%                             | < 0.05%   | < 0.05%  | < 0.05%                                | < 0.05%  |
| 16–17        | 0.00%                               | < 0.05%                           | 0.00%   | < 0.05%  | 0.00%                                  | < 0.05%  |
| 18–29        | < 0.05%                             | < 0.05%                           | < 0.05%   | < 0.05%  | < 0.05%                                | < 0.05%  |
| 30–39        | < 0.05%                             | < 0.05%                           | < 0.05%   | < 0.05%  | 0.06%                                  | < 0.05%  |
| 40–49        | < 0.05%                             | < 0.05%                           | < 0.05%   | < 0.05%  | 0.19%                                  | < 0.05%  |
| 50–59        | < 0.05%                             | < 0.05%                           | 0.06%   | < 0.05%  | 0.66%                                  | 0.05%  |
| 60–69        | 0.14%                               | 0.11%                             | 0.25%   | 0.15%  | 1.95%                                  | 0.19%  |
| 70–79        | 0.67%                               | 0.47%                             | 1.18%   | 0.68%  | 6.20%                                  | 0.81%  |
| 80–89        | 2.53%                               | 2.12%                             | 5.10%   | 2.82%  | 14.91%                                 | 3.25%  |
| 90+          | 6.65%                               | 5.94%                             | 10.92%  | 7.08%  | 27.92%                                 | 7.89%  |
| Unknown      | 0.00%                               | 0.00%                             | 0.00%   | 0.00%  | 0.00%                                  | 0.00%  |
| <b>Total</b> | <b>0.21%</b>                        | <b>0.10%</b>                      | <b>0.14%</b>                                      | <b>0.14%</b>                                       | <b>0.70%</b>                           | <b>0.16%</b>                                   |

- a Source: NNDSS, extract from 1 November 2022 for deaths to 23 October 2022. At the time of extraction, probable cases were incomplete from Victoria since 29 July 2022. On 24 October 2022, Queensland commenced the transmission of all RAT positive cases to NNDSS, which will be completed over the coming weeks; prior to 24 October 2022, Queensland only reported probable cases that had a RAT conducted in a clinical setting. Therefore, interpretation of historical trends in Queensland should be undertaken with caution until the transmission of all RAT cases is complete.
- b To account for the lag between illness onset and the development of severe illness, cases with an onset date in the last two weeks have been excluded from calculations of the case fatality rate.

### Genomic surveillance and virology (Communicable Disease Genomics Network, AusTrakka and jurisdictional sequencing laboratories)

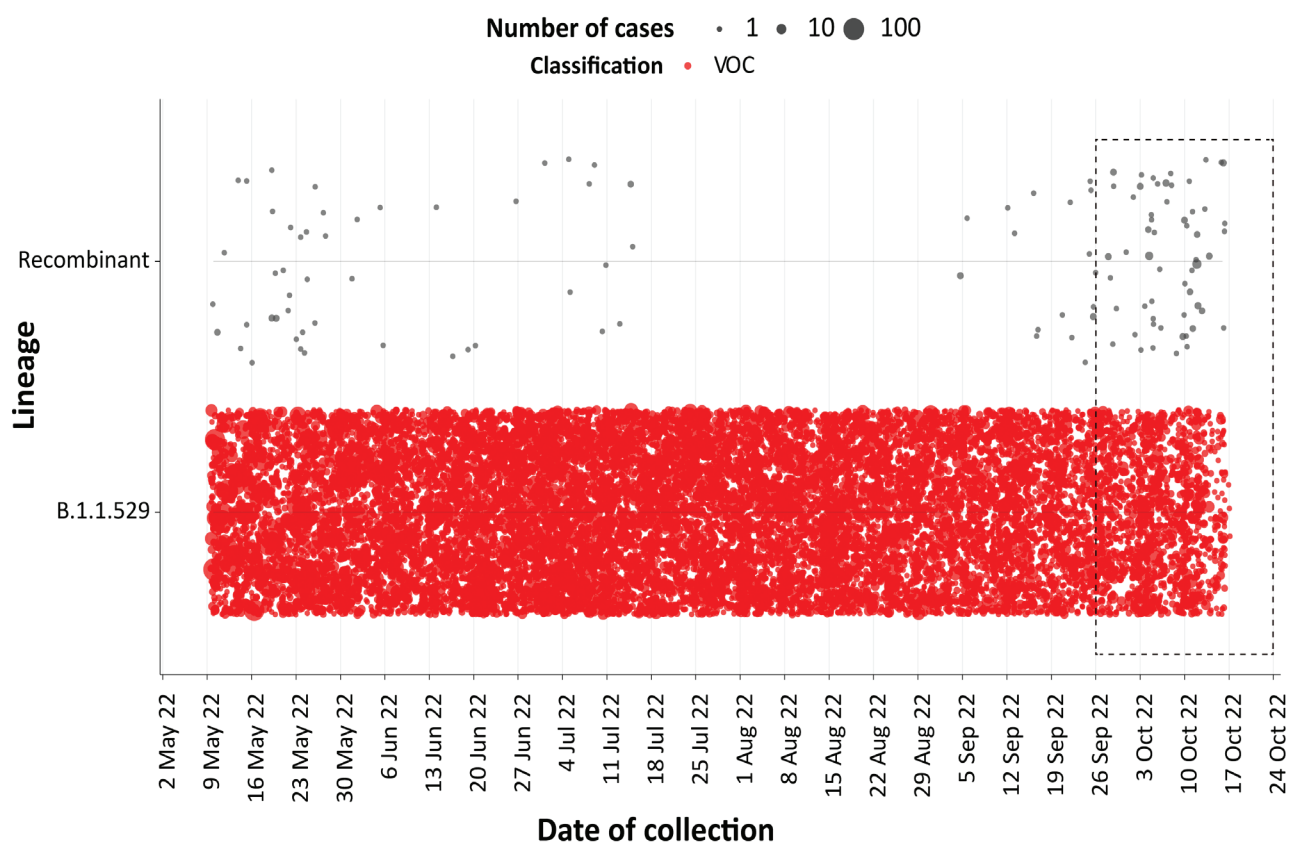
Nationally, 2.96% of COVID-19 cases have been sequenced since the start of the pandemic in January 2020, based on jurisdictional reporting of confirmed cases (Table 9). Case numbers and sequencing proportion are based on PCR results only, as rapid antigen tests do not allow for sequencing. A significant rise in case numbers nationally at the start of 2022, and a change in the pandemic response across Australia, saw jurisdictional laboratories move towards sequencing for surveillance purposes. This resulted in a drop in the overall sequencing

proportion in 2022. However, as the sequencing output has remained steady, the recent drop in recorded case numbers related to significant changes in testing and isolation requirements may cause the sequencing proportion to rise again. (Figure 6).

### Variants of concern (VOC)

AusTrakka<sup>5</sup> is actively monitoring and reporting on one lineage currently designated as a Variant of Concern (VOC) by international organisations, including the World Health Organization (WHO): Omicron (B.1.1.529). The Omicron variant displays a characteristic set of mutations, including a number of variations in the genomic region encoding the spike

Figure 6: Samples in AusTrakka from 2 May 2022 to 23 October 2022, by lineage and date of collection<sup>a</sup>



<sup>a</sup> The current reporting period (26 September to 23 October 2022) is marked by the dashed lines, and variant of concern samples are coloured red. The size of the circle is proportional to the number of samples in the lineage at each time point.

protein thought to have the potential to increase transmissibility and/or immune evasion. The CDGN VOC working group demoted four previously designated VOCs (Alpha (B.1.1.7); Beta (B.1.351), Gamma (P.1) and Delta (B.1.617)) due to the sustained absence of any cases in Australia, and very limited prevalence globally. Further information on variants is available in the Technical Supplement.<sup>2</sup>

All 4,033 sequences from samples collected within the reporting period were assigned to Omicron or recombinants consisting of two Omicron lineages. BA.5 is currently the predominant sub-lineage being sequenced, representing 78.8% of sequences collected in the reporting period and available for analysis in AusTrakka.

Of the Omicron sequences in AusTrakka to date (n = 99,962), 26.3% are BA.1; 41.9% are BA.2; 0.001% are BA.3; 4.4% are BA.4 and 27.5% are BA.5. All sub-sub-lineages have been collapsed into their respective major sub-lineage.

### Testing (State and territory reporting)

From the commencement of the pandemic to 23 October 2022, over 79 million PCR tests for SARS-CoV-2 have been conducted nationally. Jurisdictional PCR testing rates are driven by current case numbers, testing policies and numbers of people experiencing symptoms. The number, rates and percent positivity of RATs cannot be calculated, as there is currently no reporting of negative RATs.

**Figure 7: Sequences in AusTrakka by Omicron sub-lineage and collection date, 29 August to 23 October 2022<sup>a</sup>**



<sup>a</sup> The current reporting period (26 September to 23 October 2022) is marked by the dashed lines. The size of the dots are proportional to the number of sequences observed in each jurisdiction each day.

During the four-week reporting period (26 September – 23 October 2022), PCR testing rates remained relatively stable across all jurisdictions. Percent positivity increased or remained stable across all jurisdictions over the reporting period. In the week ending 23 October 2022, the highest PCR percent positivity was observed in Western Australia at 16% (Figure 8).

### Acute respiratory illness

(FluTracking, ASPREN, and Commonwealth Respiratory Clinics)

Based on self-reported FluTracking data,<sup>6</sup> the prevalence of fever and cough in the community over this reporting period fluctuated, with an increasing trend in the first three weeks of the reporting period, followed by a decrease in the last week of the reporting period (Figure 9). Following an initial decrease in the prevalence of runny nose and sore throat symptoms during

the first week of the reporting period, there was an increase in this set of symptoms in last three weeks of the reporting period (Figure 10).

Over the reporting period, FluTracking data indicated that 19% of participants with ‘fever and cough’ were tested for SARS-CoV-2 with a PCR test and 77% were tested using a RAT (noting that in some instances RATs will be followed up by a PCR test for the same case). Of those with runny nose and sore throat, 5% were tested for SARS-CoV-2 using a PCR test and 57% were tested using a RAT. In the current reporting period, the percent positivity for fever and cough symptoms increased slightly compared to the previous reporting period for both PCR and RAT to 26% and 25%, respectively. For runny nose and sore throat symptoms, the percent positivity increased for PCR to 10% and remained stable for RAT at 4%. Note that participants with one set of symptoms are not excluded from having the other. It is important



**Table 9: Australian SARS-CoV-2 genome sequences and proportion of positive cases sequenced, 26 September – 23 October 2022 and cumulative to date**

| Measure   | Reporting period<br>26 September – 23 October<br>2022 | Cumulative<br>23 January 2020 – 23 October 2022 |
|---|---|---|
| SARS-CoV-2 cases sequenced <sup>a</sup>               | 6,551   | 146,962   |
| Percentage of positive cases sequenced <sup>b,c</sup> | 15.25%  | 2.96%   |

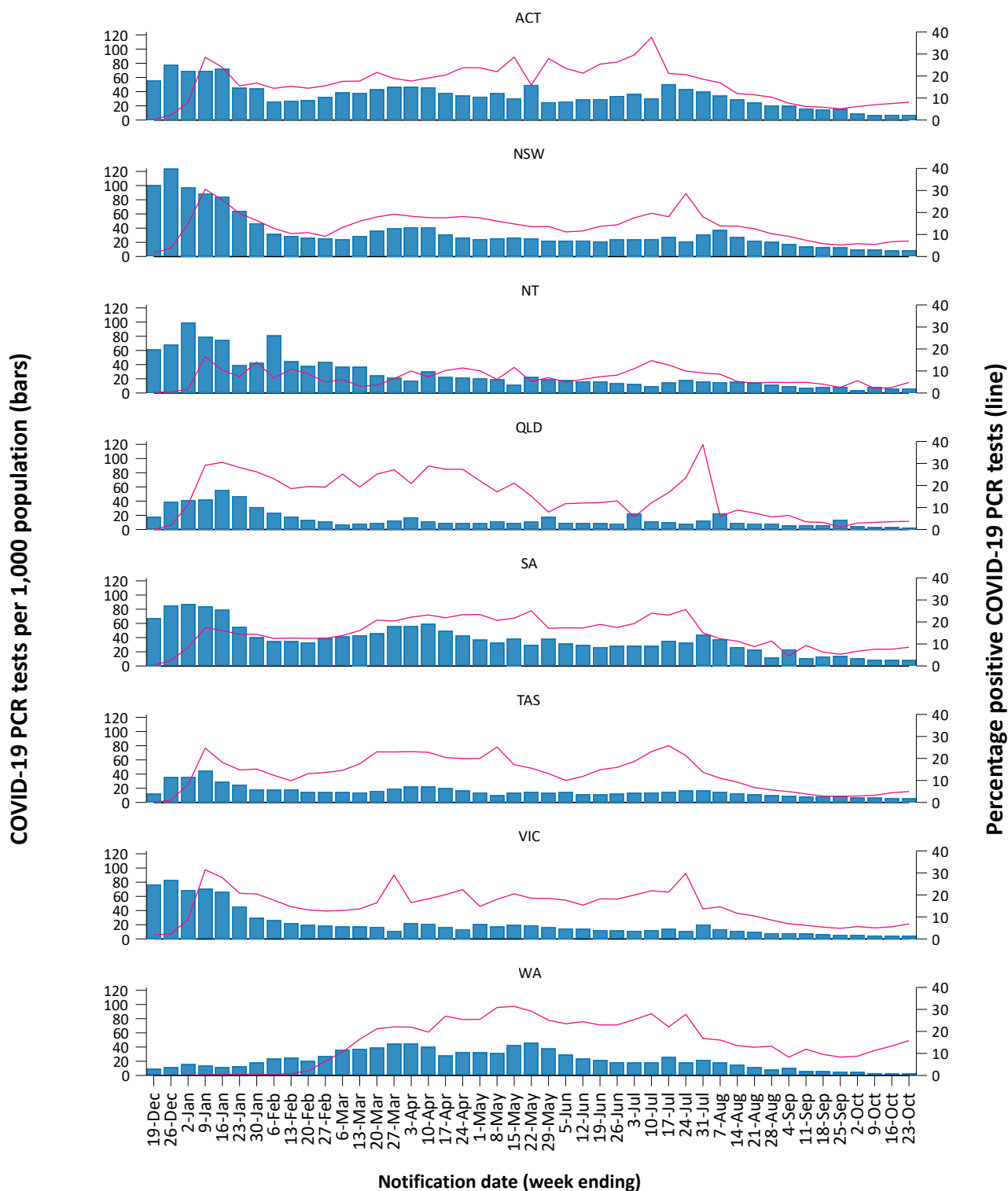
- a Total SARS-CoV-2 case numbers as reported by jurisdictional laboratories based on PCR results only. Cases identified via rapid antigen testing are reported differently by each jurisdiction and cannot be followed up for sequencing. They are therefore not included in the sequencing proportions reported here. Sequencing of samples from cases identified in the reporting period may be in process at the time of reporting. Remaining unsequenced samples may be due to jurisdictional sequencing strategy, or where samples have been deemed unsuitable for sequencing (typically because viral loads were too low for sequencing to be successful).
- b Based on individual jurisdictional reports of sequences and case numbers. Calculations of the percentage of cases sequenced based on the number of sequences available in AusTrakka may not always be up-to-date, since this may include duplicate samples from cases and may not represent all available sequence data.
- c Updated data for September was not available from WA at time of submission

to acknowledge that there may be legitimate reasons why people did not get tested, including barriers to accessing testing. Symptoms reported to FluTracking are not specific to COVID-19 and may also be due to infections with other respiratory pathogens and to chronic diseases, such as asthma.

From 26 September to 23 October 2022, of presentations to Commonwealth Respiratory Clinics that were tested for SARS-CoV-2, 4.7% (1,336/28,580) were found to be positive. Since the start of the pandemic, the most commonly reported symptom amongst presentations that tested positive for COVID-19 was sore throat (57%), followed by cough (56%) and tiredness (44%).

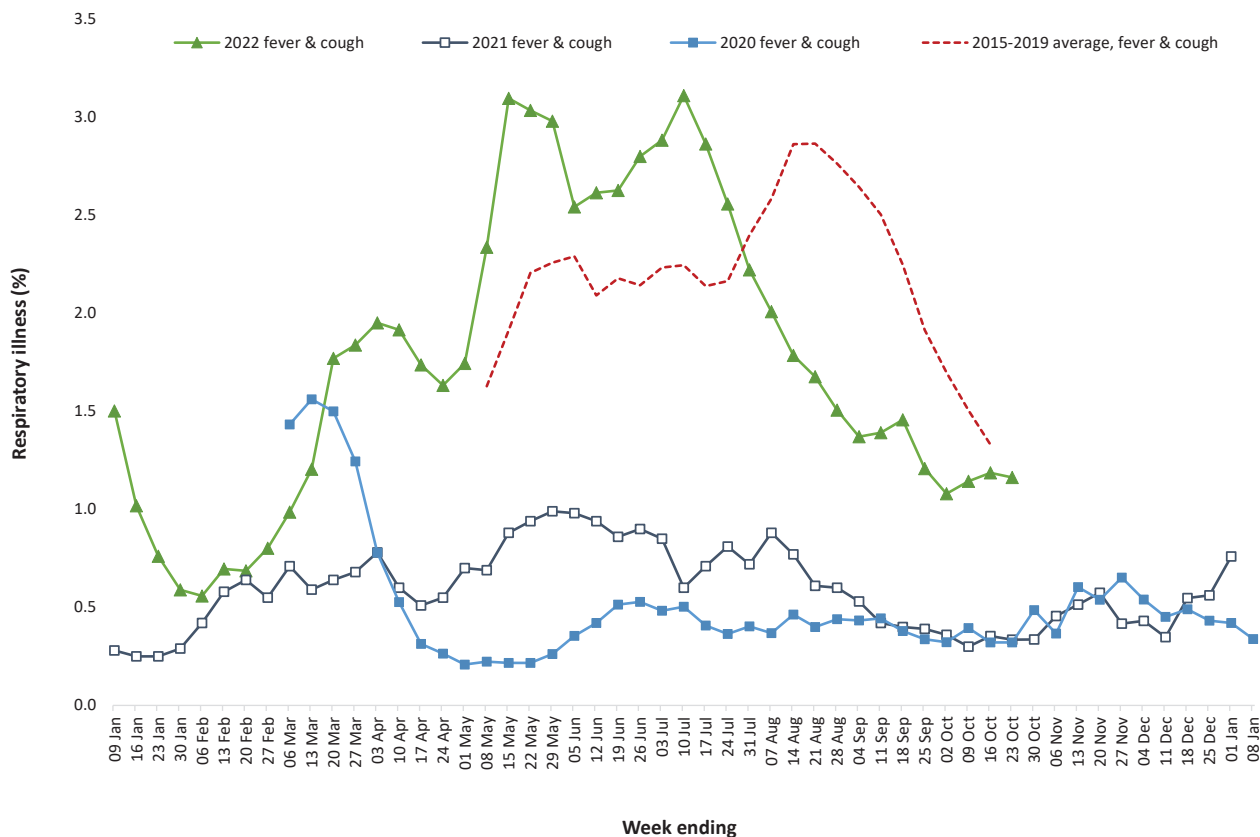
Since the start of 2022, of those presenting to Australian Sentinel Practice Research Network (ASPREN) sites with influenza-like illness who were tested for respiratory viruses, 57% (515/910) tested positive. Among those positive, the most common virus detected was influenza A (31%; 161/515), followed by rhinovirus (25%; 130/515); of those testing positive, 12% (61/515) were positive for SARS-CoV-2.

**Figure 8: SARS-CoV-2 polymerase chain reaction (PCR) testing rates per 1,000 population and percent positivity by jurisdiction and date of notification, 13 December 2021 – 23 October 2022<sup>a</sup>**



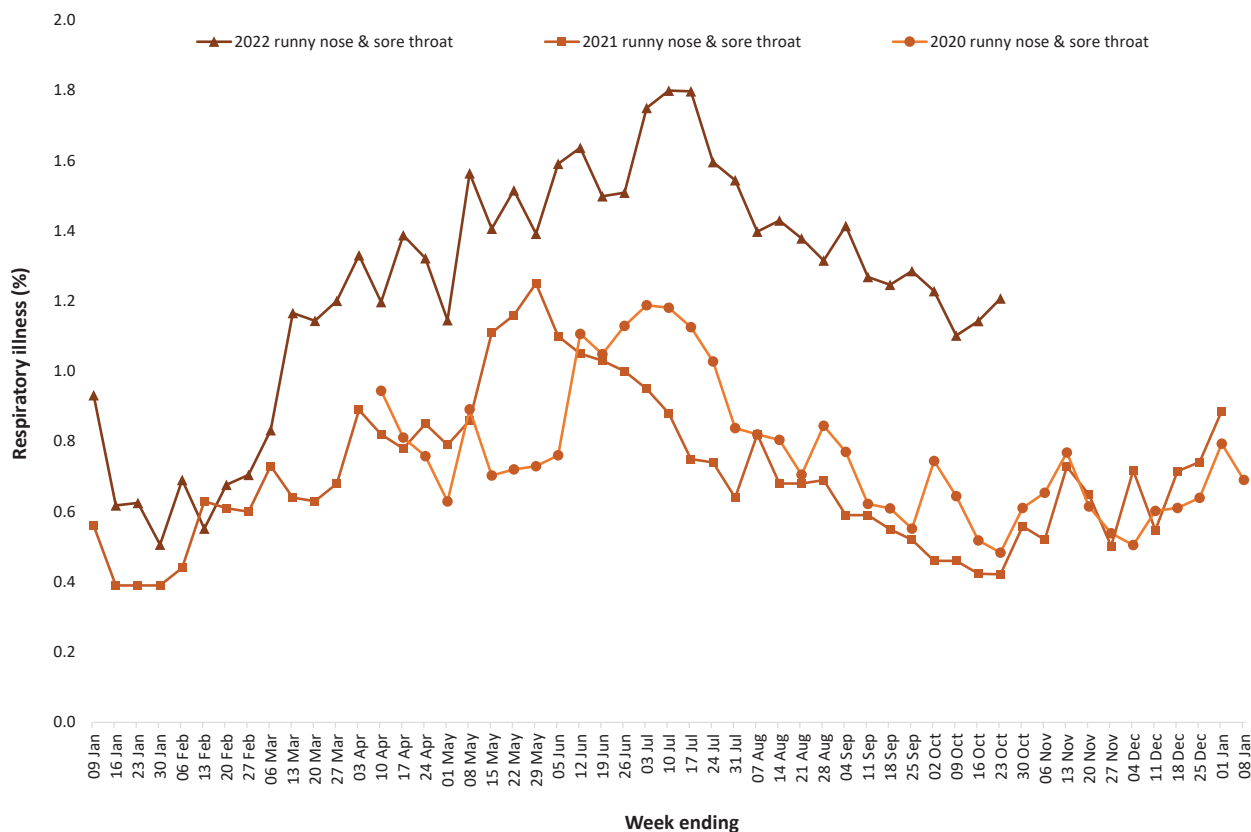
<sup>a</sup> Source: testing data provided by jurisdictions to the NIR daily, current to 23 October 2022; case data extracted from NNDSS on 1 November 2022 for cases with a notification date up to 23 October 2022; population data based on Australian Bureau of Statistics (ABS) Estimated Resident Population (ERP) as at June 2021. At the time of extraction, probable cases were incomplete from Victoria since 29 July 2022. On 24 October 2022, Queensland commenced the transmission of all RAT positive cases to NNDSS, which will be completed over the coming weeks; prior to 24 October 2022, Queensland only reported probable cases that had a RAT conducted in a clinical setting. Therefore, interpretation of historical trends in Queensland should be undertaken with caution until the transmission of all RAT cases is complete.

**Figure 9: Weekly trends in fever and cough amongst FluTracking survey participants (age-standardised) compared to the average of the previous five years, Australia, 1 January 2020 – 23 October 2022<sup>a</sup>**



a In years prior to 2020, FluTracking was activated during the main Influenza season from May to October. A historical average beyond the week ending 11 October is therefore not available. In 2020, FluTracking commenced ten weeks early to capture data for COVID-19.

**Figure 10: Weekly trends in runny nose and sore throat amongst FluTracking survey participants (age-standardised), Australia, 29 March 2020 – 23 October 2022<sup>a</sup>**



a Data on runny nose and sore throat were only collected systematically after 29 March 2020, therefore a historical average for this symptom profile is unavailable.

## Countries and territories in Australia's near region

According to WHO, countries and territories in the South East Asian and Western Pacific regions reported 3,618,333 newly-confirmed cases and 6,737 deaths in the four-week period to 23 October 2022. Compared to the previous four-week reporting period, new cases and new deaths decreased in both the Western Pacific and South East Asia regions.<sup>7</sup> In total, since the start of the pandemic, over 152 million cases and over one million deaths have been reported in the two regions.<sup>8</sup>

Table 10 outlines new cases and deaths in the four-week period to 23 October 2022 and cumulative cases and deaths for the pandemic

in selected countries with the highest number of new cases in the South East Asian region and the Western Pacific region.

As of 23 October 2022, over 624 million COVID-19 cases and over 6.5 million deaths have been reported globally since the start of the pandemic, with a global case fatality rate (CFR) of approximately 1.1%. The two regions reporting the largest burden of disease over the past four weeks were the European region (57% of total cases) and the Western Pacific region (28% of total cases).

**Table 10: Cumulative cases and deaths, and new cases and deaths reported in the four-week period to 23 October 2022 for selected countries in Australia's near region according to WHO<sup>a</sup>**

| Country                        | Cumulative cases | New cases reported in the last 4 weeks | Change in new cases in the last 4 weeks <sup>b</sup> | Cumulative deaths | New deaths reported in the last 4 weeks | Change in new deaths in the last 4 weeks <sup>b</sup> |
|--------------------------------|------------------|--|--|-------------------|---|---|
| <b>South East Asian region</b> |                  |  |  |                   |   |   |
| India                          | 44,642,742       | 74,628                                 | -53%   | 528,961           | 451                                     | -40%  |
| Indonesia                      | 6,470,961        | 48,432                                 | -36%   | 158,429           | 415                                     | -19%  |
| Bangladesh                     | 2,034,141        | 12,451                                 | +20%   | 29,413            | 60                                      | +100%   |
| Thailand                       | 4,689,897        | 11,545                                 | -64%   | 32,922            | 204                                     | -59%  |
| Myanmar                        | 630,603          | 9,201                                  | +43%   | 19,476            | 21                                      | +17%  |
| <b>Western Pacific region</b>  |                  |  |  |                   |   |   |
| China                          | 8,655,725        | 1,251,180                              | +15%   | 27,812            | 1,680                                   | +17%  |
| Japan                          | 21,991,277       | 967,463                                | -66%   | 46,274            | 1,943                                   | -65%  |
| Republic of Korea              | 25,297,334       | 677,206                                | -59%   | 28,990            | 777                                     | -53%  |
| Singapore                      | 2,059,709        | 170,165                                | +192%  | 1,660             | 50                                      | +150%   |

a Source: World Health Organization Coronavirus (COVID-19) Dashboard, accessed 9 November 2022.

b Percent change in the number of newly confirmed cases/deaths in the most recent four-week period compared to the four weeks prior.

## 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 and Aged Care, along with state and territory public health laboratories. We thank those who have provided data from surveillance systems, such as Commonwealth respiratory clinics, ASPREN, FluTracking, FluCAN, PAEDS, SPRINT-SARI, Communicable Disease Genomics Network, AusTrakka and jurisdictional sequencing laboratories.

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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 notification received date, Australia, 15 December 2021 – 23 October 2022<sup>a,b,c</sup>**

| Age group | Four-week reporting period   |        |                     |                             |        |                     | Current 'Omicron' wave             |         |                     |                             |          |                     |
|-----------|------------------------------|--------|---------------------|-----------------------------|--------|---------------------|------------------------------------|---------|---------------------|-----------------------------|----------|---------------------|
|           | 26 September–23 October 2022 |        |                     |                             |        |                     | 15 December 2021 – 23 October 2022 |         |                     |                             |          |                     |
|           | Cases                        |        |                     | Rate per 100,000 population |        |                     | Cases                              |         |                     | Rate per 100,000 population |          |                     |
|           | Male                         | Female | People <sup>d</sup> | Male                        | Female | People <sup>d</sup> | Male                               | Female  | People <sup>d</sup> | Male                        | Female   | People <sup>d</sup> |
| 0–4       | 2,122                        | 2,033  | 4,588               | 271.2                       | 275.3  | 301.7               | 190,882                            | 181,664 | 407,239             | 24,392.2                    | 24,603.4 | 26,775.8            |
| 5–11      | 2,359                        | 2,150  | 4,921               | 200.9                       | 193.1  | 215.1               | 377,055                            | 358,592 | 809,407             | 32,105.6                    | 32,200.1 | 35,375.2            |
| 12–15     | 1,196                        | 1,189  | 2,649               | 183.2                       | 192.2  | 208.3               | 220,062                            | 221,991 | 491,180             | 33,699.8                    | 35,888.5 | 38,628.0            |
| 16–17     | 666                          | 917    | 1,770               | 219.5                       | 320.2  | 300.1               | 99,656                             | 113,949 | 232,337             | 32,838.9                    | 39,794.7 | 39,391.8            |
| 18–29     | 9,896                        | 13,043 | 25,386              | 477.7                       | 655.6  | 625.1               | 785,015                            | 914,804 | 1,809,361           | 37,898.0                    | 45,982.5 | 44,556.2            |
| 30–39     | 9,369                        | 12,023 | 23,500              | 502.5                       | 627.4  | 621.6               | 669,195                            | 793,102 | 1,575,643           | 35,894.3                    | 41,388.5 | 41,677.2            |
| 40–49     | 7,371                        | 9,476  | 18,350              | 451.5                       | 570.1  | 556.9               | 544,183                            | 653,087 | 1,294,312           | 33,329.9                    | 39,288.2 | 39,280.9            |
| 50–59     | 6,292                        | 8,894  | 16,307              | 410.0                       | 552.8  | 518.7               | 429,587                            | 502,676 | 1,001,763           | 27,990.0                    | 31,244.0 | 31,866.1            |
| 60–69     | 5,405                        | 6,858  | 13,040              | 407.5                       | 485.8  | 476.3               | 296,166                            | 326,605 | 664,353             | 22,330.9                    | 23,136.9 | 24,265.3            |
| 70–79     | 4,543                        | 4,946  | 10,086              | 480.3                       | 491.3  | 516.5               | 174,859                            | 174,099 | 366,907             | 18,485.6                    | 17,293.8 | 18,790.4            |
| 80–89     | 2,130                        | 2,451  | 4,895               | 549.6                       | 501.4  | 558.6               | 75,018                             | 83,375  | 164,570             | 19,357.2                    | 17,057.7 | 18,779.5            |
| 90+       | 520                          | 971    | 1,597               | 668.5                       | 673.6  | 719.6               | 18,753                             | 34,029  | 54,315              | 24,107.8                    | 23,605.7 | 24,472.4            |

a Source: NNDSS, extract from 1 November 2022 for notifications to 23 October 2022. At the time of extraction, probable cases were incomplete from Victoria since 29 July 2022. On 24 October 2022, Queensland commenced the transmission of all RAT positive cases to NNDSS, which will be completed over the coming weeks; prior to 24 October 2022, Queensland only reported probable cases that had a RAT conducted in a clinical setting. Therefore, interpretation of historical trends in Queensland should be undertaken with caution until the transmission of all RAT cases is complete.

b Population data based on Australian Bureau of Statistics (ABS) Estimated Resident Population (ERP) as at June 2021.

c Excludes cases where age was unknown.

d Total cases includes those where sex was unknown and those classified as X, i.e., persons who reported their sex as another term, other than male or female.