

ACT COVID-19 Epidemiology Overview



Produced by ACT Health

Week ending 29 May 2022

Reporting period Monday to Sunday inclusive

- There was a decrease in case numbers for the second week in a row.
- The test positivity rate remains high, which suggests high community transmission and that people in the community have undiagnosed COVID-19.
- ACT hospitals continue to care for a large number of patients affected by COVID-19.
- This week the ACT recorded two new occurrences of the Omicron BA.2.12.1 subvariant, seven new occurrences of the Omicron BA.5 subvariant and the first detected cases of the Omicron BA.4 subvariant. Of note in the past week, we have also detected the Omicron BA.1 subvariant in three samples. Before this, BA.1 had not been detected since March 2022.

Key statistics:

5,465 TOTAL NEW CASES (LAST 7 DAYS) ^{1,2}	131,269 TOTAL CASES (SINCE MAR 2020)	11,140 NEGATIVE TESTS (LAST 7 DAYS)
63 LIVES LOST (SINCE MAR 2020)	24 CASES ADMITTED TO HOSPITAL (LAST 7 DAYS)	1 CASE ADMITTED TO ICU (LAST 7 DAYS)
80.6% VACCINATIONS (ONE DOSE: 5–11 YEARS OLD)	97.2% VACCINATIONS (TWO DOSES: 5 YRS+)	76.4% VACCINATIONS (THREE DOSES: 16 YRS+)

Note:

^aTotal COVID-19 cases identified by both Polymerase Chain Reaction (PCR) and Rapid Antigen Test (RAT) in the reporting week.

^bTotal cases identified by both PCR and RAT. Total cases may not reflect the sum of new cases from last week and the total from the previous week. This difference in total cases is due to ACT Health's case processing system, including reclassifying some of the cases following investigation or merging of duplicate records.

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Explanatory notes:

Reporting period is Monday 23 May to Sunday 29 May inclusive, Epidemiological Week 22.

This report analyses COVID-19 case notifications, positive by Polymerase Chain Reaction (PCR) or Rapid Antigen Test (RAT) self-declaration, received by ACT Health. Some data in this report is based on online surveys sent to everyone who tests positive for COVID-19 in the ACT, by both PCR and RAT.

All analysis is based on data available in the ACT Health Notifiable Disease Management System (NDMS) at the time of reporting and is subject to change. There may be case notifications received after the release of the report that fall within the reporting period resulting in data lag. Additionally, case numbers may change due to reclassifying some of the cases following further investigation or merging of duplicate records. These will be reflected in subsequent reports.

All case notification data is for ACT residents or non-ACT residents who fall under the management of ACT Health (i.e. they have a residential address outside the ACT but will remain in the ACT for their period of isolation). Other case notifications that have a residential address outside the ACT have been excluded.

ACT Health must balance the importance of transparency with its legal and ethical obligations to maintain the confidentiality of the personal health information of individuals. As such, not all data tables are updated every week if the count difference between the weeks is fewer than five and if there is a chance of individuals being identified.

Diagnosis date is used to estimate the disease activity within the reporting period. This date represents when a person reported that their symptoms started, or the earliest of the date the PCR was collected/positive RAT was declared or the date ACT Health received the positive PCR/RAT declaration. Due to potential delays in people seeking a COVID-19 test and the time taken for the test to be notified, the diagnosis date and notification date may differ by several days. This can result in underestimates of case numbers late in the reporting period, with data often appearing to trend down. This should be interpreted with caution and may smooth out or increase in subsequent reports as further notifications are received and data is reanalysed.

Daily case reporting by ACT Health represents COVID-19 case notifications received in the past 24 hours, also known as the notification received date. The notification received date provides a useful 'snapshot' of COVID-19 numbers over a shorter time. The diagnosis date can differ from the notification received date, as explained above, hence why case numbers in this report may not match the number of cases reported daily elsewhere for the same period.

Age is calculated as the age of the person on the date when their PCR specimen was collected, or the positive RAT was declared.

All cases are asked if they identify as Aboriginal and/or Torres Strait Islander in the online survey. People may choose to answer this question as 'not stated'. ACT Health attempts to contact all those that have not responded to their case survey. No data will be available for this question if a person refuses to respond to their survey or for a small proportion of people who ACT Health is unable to contact.

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Hospitalisation is defined as a person admitted to an ACT hospital for any reason and does not differentiate between a person admitted for COVID-19 related reasons or for other reasons. It may also include those with a residential address outside the ACT. Those admitted may be active or cleared cases as defined by the CDNA National Guidelines for Public Health Units of a COVID-19 death (COVID-19 SoNG). ACT Health may receive notification of a case being admitted to hospital after the release of the report that falls within the reporting period. These will be reflected in subsequent reports.

Vaccination status is based on Australian Immunisation Register (AIR) records. Where a vaccination status is listed as 'unknown', this is because no record was found for the individual in AIR or the record was not accessible. Hospitalised cases, deaths and people who identify as Aboriginal and/or Torres Strait Islander with missing vaccination statuses are prioritised for review and the data updated accordingly.

The definition of a COVID-19 related death for surveillance purposes is according to the COVID-19 SoNG. A COVID-19 related death is reported if the person dies with COVID-19, though it may not be the primary cause of death. Deaths under investigation by the coroner will not be reported until the findings have been issued. ACT Health may receive notifications of COVID-19 related deaths after the release of the report that fall within the reporting period. These will be reflected in subsequent reports. COVID-19 related deaths are reported by the date of death, as recorded on the death certificate.

Whole Genome Sequencing (WGS) is currently being prioritised for cases from outbreaks in high-risk settings, recently returned overseas travellers, hospitalised cases, deaths and a small proportion of other community cases.

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Number of people reported to be diagnosed with COVID-19 in the ACT

Table 1: Case status by test type

	Test type	WEEK 22 ¹ Ending 29/05/2022	TOTAL ²
New Cases	PCR	2,965	80,109
	RAT	2,500	51,160
	Total	5,465	131,269
New Deaths		2	63

Note:

¹Cases notified to ACT Health during the reporting period.

²Total cases since the start of the pandemic, March 2020.

Total COVID-19 cases since March 2020 may not reflect the sum of cases from last week's reporting period and this week's reporting period. Case numbers may change due to reclassifying some of the cases following further investigation or merging of duplicate records.

- Vaccination status of deaths has not been included this reporting period due to the additional number of deaths being fewer than five. Please refer to the report for the week ending 22 May 2022 for vaccination status of deaths to that date.
- There have been 750 individuals with more than one episode¹ of COVID-19 reported to ACT Health since March 2020. Approximately 76% (575/750) of these individuals had their first positive test in December 2021 or later, after the Omicron variant was first detected in the ACT. It is expected that the risk of multiple episodes of COVID-19 will increase over time as immunity wanes from infection and vaccination, and new subvariants/variants emerge. Reinfections are also expected to increase at the population level as total infections increase.

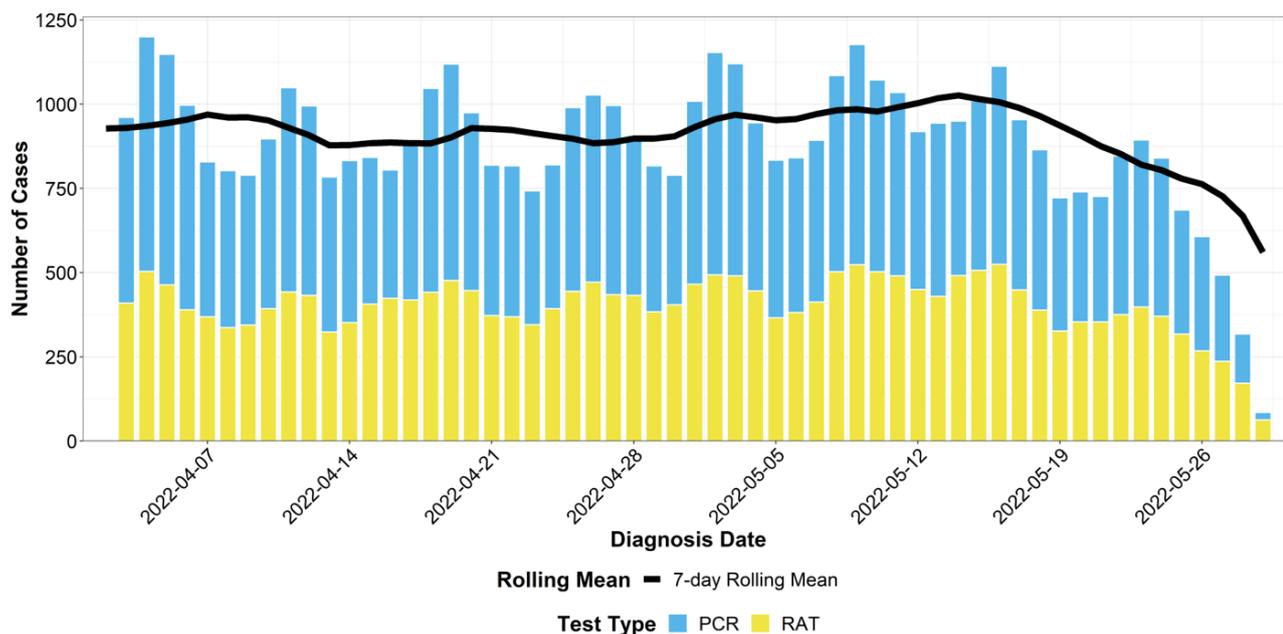
¹ For this analysis, we have defined multiple episodes as a person who has an initial positive PCR/RAT and a subsequent positive PCR/RAT after the nationally recommended testing window that was current at the time of the subsequent test. This recommended testing window has changed to reflect evolving national guidance with a range from 4 to 12 weeks. It is possible that some individuals have not been included in this analysis due to the changing recommended testing periods or individuals having had an initial infection in a different location (i.e. not in the ACT Health system). Also, some instances of prolonged viral shedding may have been counted as a reinfection. Most of these episodes have not had whole genome sequencing attempted on both samples (if both were PCR) so we are unable to confirm how many have been reinfected with a different variant/subvariant.

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Figure 1: COVID-19 cases by test type and diagnosis date^{1,2}

Last 8 Weeks



Notes:

¹The DIAGNOSIS DATE will be the TRUE ONSET DATE if known, otherwise it will be earliest of the SPECIMEN DATE, the NOTIFICATION DATE or the NOTIFICATION RECEIVED DATE.

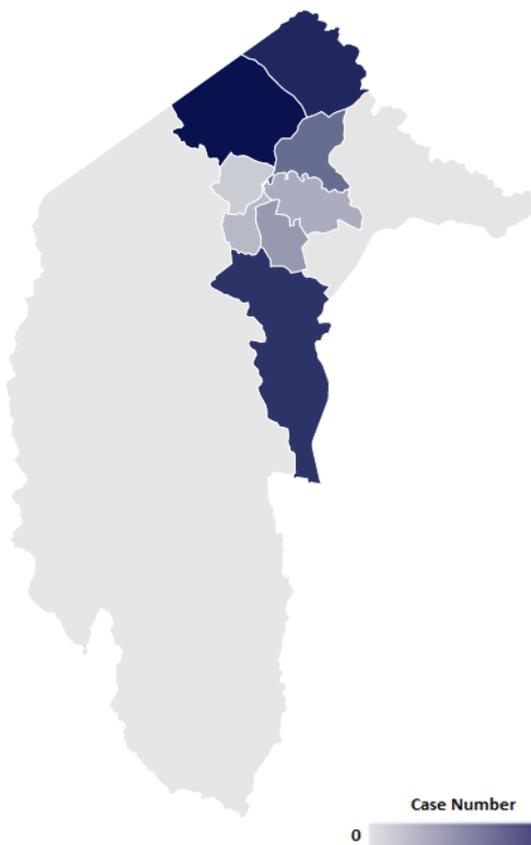
²Due to the case processing system, there is a small portion of cases that will not appear before the end of the cut-off period. This will result in an under-reporting of the case numbers and average mean for the 48 hours prior to the cut-off period.

- For the week ending 29 May 2022, 5,465 cases were reported in the ACT compared to 6,297 cases reported in Week 21. Note that the total cases for Week 21 were previously reported as 6,326, which has since decreased following data cleaning and removal of duplicates.
- Of the cases reported in Week 22, 2,965 (54%) were from positive PCR tests and 2,500 (46%) were from positive RATs.
- The 7-day rolling mean has decreased to between 750-850 cases per day, compared to last week's 850-950 cases per day.

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Figure 2: Map of COVID-19 cases by Statistical Area Level 3 (SA3) since 15 December 2021



SA3 Region ¹	Cases ²
Belconnen	29,334
Canberra East	290
Gungahlin	26,429
Molonglo	3,788
North Canberra	16,858
South Canberra	7,974
Tuggeranong	24,709
Uriarra - Namadgi	155
Weston Creek	6,406
Woden Valley	10,707
Not available ³	420
Outside ACT ³	1,992
TOTAL	129,062⁴

Notes:

¹Data show cases confirmed by PCR notified to ACT Health since 15 December 2021 and probable cases identified by positive RAT from 8 January 2022 until the end of the reporting period (8pm, 29 May 2022). These data use the [Australian Statistical Geography Standard \(ASGS\) Edition 3](#).

²These data use multiple address identifiers to determine the SA3 region.

³There were 2,412 cases not included in the figure due to incomplete or inaccurate address data reported to ACT Health and/or residential address being outside the ACT.

⁴Total COVID-19 cases may not reflect the sum of cases from last week's reporting period and this week's reporting period. This difference in cases is due to ACT Health's case processing system reclassifying some cases following investigation, removal of duplicates, and other case processing activities. In addition, new cases may be identified in previous reporting periods due to the inter-jurisdictional reporting agreements on cases being managed by ACT Health (after receiving a positive COVID-19 test interstate).

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Table 2: COVID-19 cases by age group for the reporting period

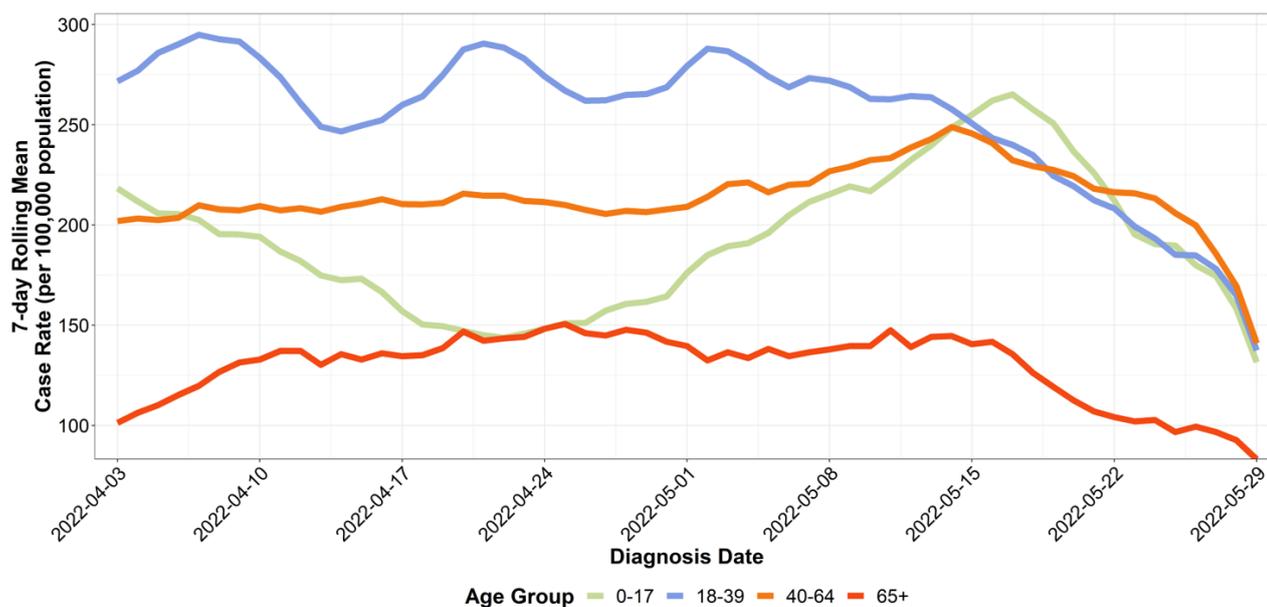
Age Group	WEEK 22 Ending 29/05/2022	Age Group Percentage (%) of TOTAL WEEK 22
0-4	323	5.9%
5-11	444	8.1%
12-17	522	9.6%
18-24	466	8.5%
25-39	1,444	26.4%
40-49	917	16.8%
50-64	899	16.5%
65+	450	8.2%
Total	5,465	100

- There was a decrease in total reported case numbers across all age groups this reporting period, with the largest decrease in the 25-39 age group.

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Figure 3: Rolling mean of COVID-19 case rate by age group and diagnosis date¹
Last 8 Weeks



Notes:

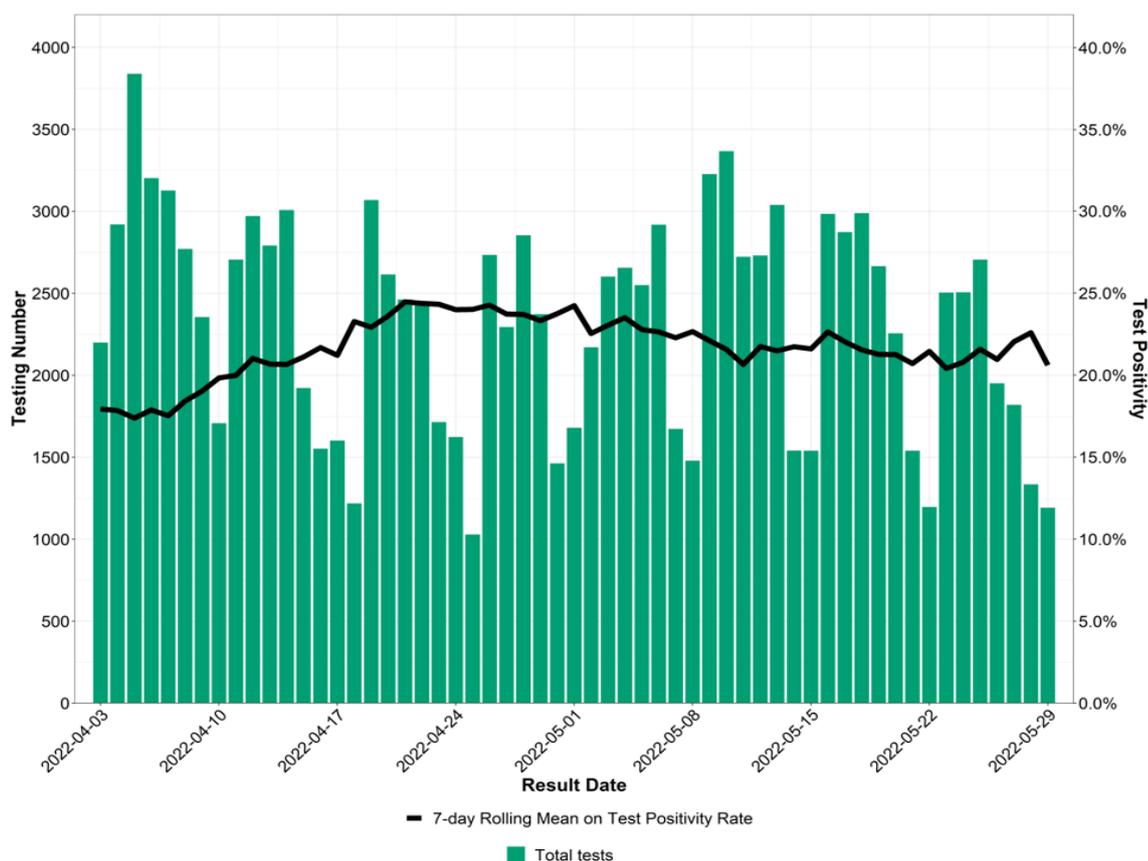
¹The DIAGNOSIS DATE will be the TRUE ONSET DATE if known, otherwise it will be earliest of the SPECIMEN DATE, the NOTIFICATION DATE or the NOTIFICATION RECEIVED DATE.

- The case rate is calculated as the number of reported cases divided by the population count of the people in the ACT in that age group multiplied by 100,000. The rolling mean is the average of the rate for that day and the previous 6 days. A rolling mean provides an average line over time and smooths out predictable peaks and troughs (e.g. case numbers usually decrease around weekends as there is less testing demand).
- There was a decrease in the 7-day rolling average case rate for all age groups.

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**Figure 4: Testing¹ by result date with test positivity²
Last 8 Weeks**



Notes:

¹Testing number includes positive and negative tests for PCR only.

²Test positivity is calculated as the number of positive PCR tests divided by the total number of PCR tests, both positive and negative. The rolling mean is the average of the test positivity for that day and the previous 6 days.

- Total PCR testing number decreased this reporting period with a total of 13,996 PCR tests conducted, compared to Week 21 (n=16,398).
- Based on PCR tests only, the test positivity rolling mean remains high, at between 21%-22%.
- High test positivity suggests high community transmission and that there are likely people in the community who have undiagnosed COVID-19. The focus in this phase of the pandemic is less on total case numbers and more on monitoring severe outcomes and the burden on the healthcare system.

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Table 3: COVID-19 cases by Aboriginal and/or Torres Strait Islander status for the reporting period

Indigenous Status	WEEK 22 Ending 29/05/2022	TOTAL Pandemic ¹
Aboriginal and/or Torres Strait Islander People	94	2,670 (2%)
Neither Aboriginal nor Torres Strait Islander People	4,747	104,171 (79%)
Not stated/inadequately described ²	218	5,123 (4%)
Not available ³	406	19,305 (15%)
Total	5,465	131,269 (100%)

Notes:

¹Total cases since the start of the pandemic, March 2020. Total cases may vary from week to week due to data cleaning and merging of records or receipt of retrospective surveys.

²Individuals have chosen not to identify their Aboriginal and/or Torres Strait Islander status.

³Data were not available on Aboriginal and/or Torres Strait Islander status. These data are not available if an individual has not completed the survey, is awaiting a case interview, or has refused to respond to a case interview.

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Hospitalisation in the ACT

Table 4: COVID-19 cases¹ by vaccination status and hospitalisation status (non-mutually exclusive²)

Status (NON-MUTUALLY EXCLUSIVE) ¹	4 doses of COVID-19 vaccine N (%)	3 doses of COVID-19 vaccine N (%)	2 doses of COVID-19 vaccine N (%)	1 dose of COVID-19 vaccine N (%)	Unvaccinated N (%)	Unvalidated/ Unknown N (%)	TOTAL
In hospital ^{2,3,4}	10 (1%)	301 (30%)	326 (32%)	44 (4%)	324 (32%)	8 (1%)	1,013 ⁵ (100%)
In ICU	1 (1%)	30 (23%)	33 (25%)	7 (5%)	60 (45%)	2 (2%)	133 ⁵ (100%)

Notes:

¹Total cases since the start of the pandemic, March 2020.

²Cases are counted multiple times for the different types of hospital admissions (admitted to the hospital ward, ICU and receiving ventilation). Therefore, data in this table are not non-mutually exclusive.

³Cases admitted to an ACT hospital, including those with a residential address in the ACT or another state or territory.

⁴Hospitalisation is defined as a person being admitted to an ACT hospital for any reason and does not differentiate between a person admitted for COVID 19 related reasons or for other reasons.

⁵Thirteen cases were admitted to an ACT hospital with admission date prior to the reporting period. Three cases were admitted to an ICU with an admission date prior to the reporting period.

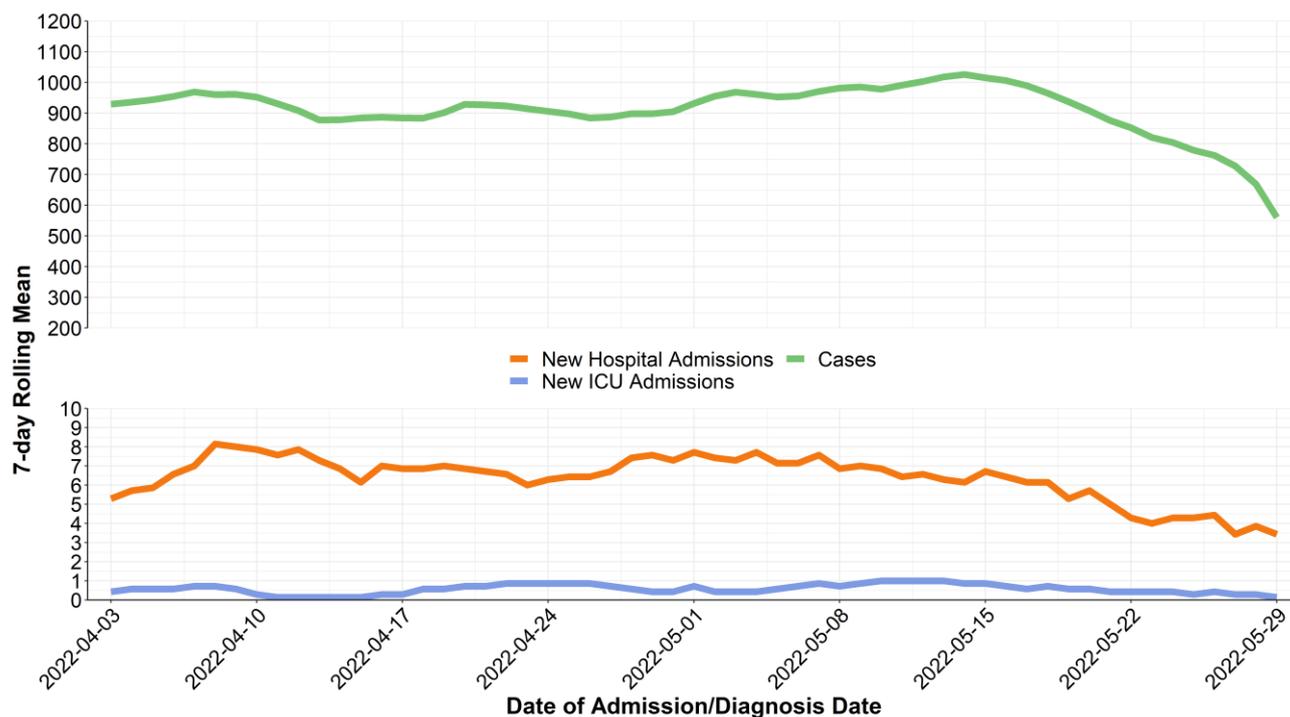
- ACT hospitals continue to care for large number of patients affected by COVID-19.
- At the end of the reporting period (29 May 2022), there were 82 inpatients affected by COVID-19 across ACT hospitals.

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Figure 5: Rolling mean of number of cases admitted¹ to ACT Hospitals and ICU, by date of admission, and cases by diagnosis date²

Last 8 Weeks



Notes:

¹Cases admitted to an ACT hospital, including those with a residential address in the ACT or another state or territory. If the case was admitted to an ACT hospital on multiple occasions, the earliest date of the hospital admission is used in the reporting week.

²The DIAGNOSIS DATE will be the TRUE ONSET DATE if known, otherwise it will be earliest of the SPECIMEN DATE, the NOTIFICATION DATE or the NOTIFICATION RECEIVED DATE.

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Table 5: Hospitalised COVID-19 cases¹ by age group and vaccination status

Age Group	4 doses of COVID-19 vaccine N (%)	3 doses of COVID-19 vaccine N (%)	2 doses of COVID-19 vaccine N (%)	1 dose of COVID-19 vaccine N (%)	Unvaccinated N (%)	Unvalidated/ Unknown N (%)	TOTAL Pandemic
0–17	0 (0%)	1 (1%)	21 (15%)	12 (9%)	105 (75%)	1 (1%)	140 (100%)
18–39	1 (0%)	47 (22%)	81 (38%)	9 (4%)	71 (34%)	2 (1%)	211 (100%)
40–64	3 (1%)	76 (30%)	86 (33%)	8 (3%)	80 (31%)	2 (1%)	255 (100%)
65+	6 (1%)	177 (44%)	138 (34%)	15 (4%)	68 (17%)	3 (1%)	407 (100%)
TOTAL ¹	10 (1%)	301 (30%)	326 (32%)	44 (4%)	324 (32%)	8 (1%)	1,013 ² (100%)

Notes:

¹Cases admitted to an ACT hospital, including those with a residential address in the ACT or another state or territory

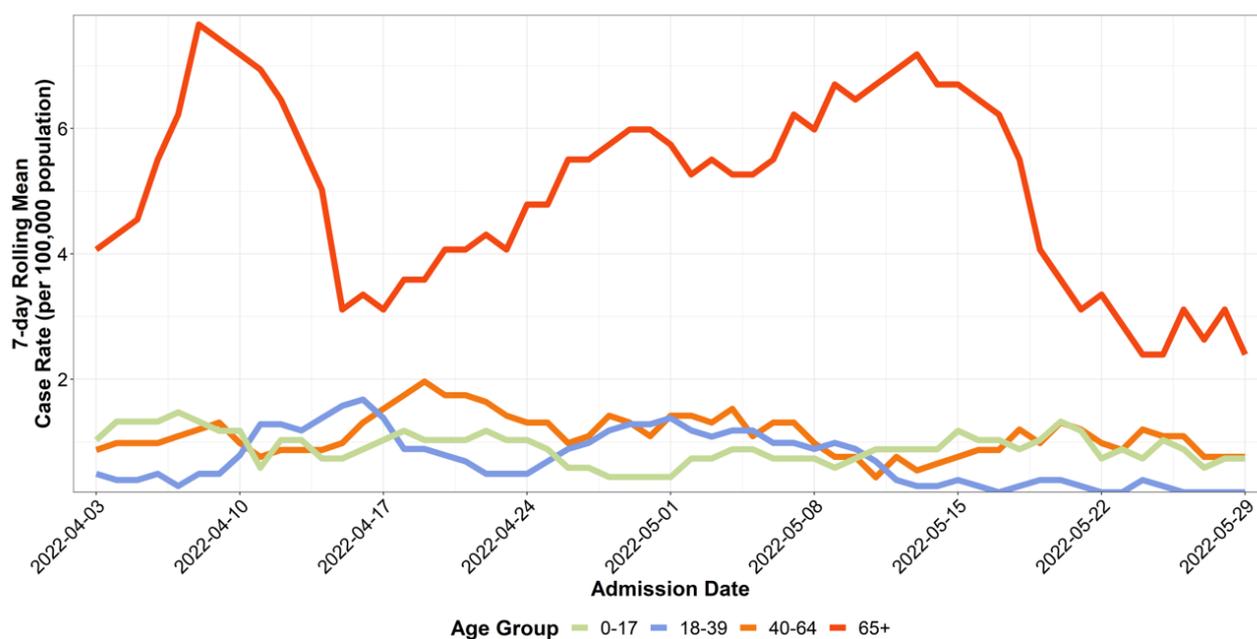
²One case admitted to an ACT hospital with admission date outside the reporting period was notified to ACT Health in the most recent reporting period.

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Figure 6: Rolling mean of hospitalised¹ COVID-19 case rate by date of admission

Last 8 Weeks



Note:

¹Cases admitted to an ACT hospital, including those with a residential address in the ACT or another state or territory. If the case was admitted to an ACT hospital on multiple occasions, the earliest date of the hospital admission is used in the reporting week. Admissions are counted whether it was for COVID-related reasons or for other reasons.

- There were 25 new hospital admissions (by date of admission) this week, compared to 30 new hospital admissions reported in Week 21. Note that the figure for Week 21 was initially reported as 18 hospital admissions and has been corrected because of data that was subsequently received.
- One additional case admitted to an ACT hospital with an admission date outside the reporting period was notified to ACT Health in the most recent reporting period. This case has been included in the total number of hospital admissions since the start of the reporting period.
- There was one new admission to the ICU in this reporting period. Last week, there were two additional ICU admissions that were not reported in Week 21 due to a delay in receiving the data, bringing the Week 21 total to three. One further additional historic case who was admitted to ICU with an admission date outside of the reporting period has also been included in the total number of ICU admissions since the start of the pandemic.
- Since 1 January 2022, approximately 62% of cases with a known vaccination status admitted to the ICU had fewer than three doses of vaccine at the time of their admission and 21% of cases were unvaccinated at the time of their admission.

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- The average age of hospital admission this week was 56 years (with a range from 0-101 years). Hospitalisations continue to be consistently highest in the 65+ age group despite it having the lowest case rates, highlighting the increased risk of severe disease, including hospitalisation, in this older age group.

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Whole Genome Sequencing

- Since 1 January 2022, Whole Genome Sequencing (WGS) has been attempted on 4% (3,565/75,590) of all PCR positive tests for COVID-19 in the ACT.
- No mixed infections were recorded during the reporting period. A mixed infection is defined as a case being simultaneously infected with two different strains at the same time. Seven mixed infections have been previously identified in the ACT.
- As of the current reporting period, no recombinant variants have been detected in the samples sequenced in the ACT. A recombinant variant is where two strains have shared genetic material to form a new variant.
- This week the ACT recorded two new occurrences of the Omicron BA.2.12.1 subvariant, seven new occurrences of the Omicron BA.5 subvariant and the first detected cases of the Omicron BA.4 subvariant. Of note in the past week, we have also detected the Omicron BA.1 subvariant in three samples. Before this, BA.1 had not been detected since March 2022.

Outbreaks in High-Risk Settings

- During the reporting period, there were 20 ACT Residential Aged Care Facilities (RACFs) with active COVID-19 outbreaks and a total of 79 new cases reported in residents.
- In Week 22, 24 disability support providers were affected by COVID-19 exposures. An additional 12 service providers reported exposures to ACT Health in this week where the actual exposure occurred prior to Week 22.
- The COVID-19 outbreak at the Alexander Maconochie Centre (AMC) continued in Week 22. ACT Health is continuing to support the Justice and Community Safety (JACS) Directorate and Justice Health (Canberra Health Services) in the management of this outbreak.

Vaccination Coverage in the ACT

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Table 6: COVID-19 vaccination coverage rates for ACT Residents by age group, as of 30 May 2022

Age Group	Dose 1	Dose 2	Dose 3	Dose 4
5–11	80.6%	68.1%	0.1%	
12-15	>99%	97.2%	1.4%	
16-29	>99%	97.7%	60.2%	0.4%
30-39	>99%	98.2%	70.4%	0.8%
40–49	>99%	99.0%	80.2%	1.3%
50–69	>99%	98.7%	86.9%	9.7%
70+	>99%	98.6%	91.3%	46.7%
Total 5 and over	>99%	97.3%	67.0%	7.8%
Total 16 and over	>99%	98.4%	76.6%	8.9%

Source: Australian Immunisation Register, QLIK reports. Population estimates are sourced from ACT Government Treasury projections, 2021 estimate.

Notes:

^aPopulation change is occurring in the ACT including interstate and overseas migration into and out of the ACT. Vaccination rates affected by these changes.

^bThere were 1,233 third doses administered prior to the approval of third doses for severely immunocompromised people on 8 October 2021. Third doses cannot be distinguished from boosters in AIR reporting.

^cThere were 3,280 fourth doses administered prior to the commencement of the administration of winter (second) boosters. Fourth doses cannot be distinguished from second boosters in AIR reporting.

^dACT residential status is determined by residential address given at the time of vaccination. This may differ from a person's Medicare address.

^ePostcode 2901 is excluded from counting as this postcode lists vaccines administered under the Commonwealth COVID-19 Vaccination Program for persons that do not disclose their address, or for whom there is no known address. It includes national residents.

^fWhere first dose vaccinations to ACT residents are greater than the estimated number of ACT residents, the population estimate is revised to equal the number with a first dose.

^gWhere a cell contains fewer than 10 people, data is not shown.