

ACT COVID-19 Epidemiology Overview



Produced by ACT Health

Week ending 12 June 2022

Reporting period Monday to Sunday inclusive

- Case numbers have remained relatively stable this week.
- ACT hospitals continue to care for a large number of patients affected by COVID-19.

Key statistics:

5,014 TOTAL NEW CASES (LAST 7 DAYS) ^{ab}	141,042 TOTAL CASES (SINCE MAR 2020)	9,654 NEGATIVE TESTS (LAST 7 DAYS)
68 LIVES LOST (SINCE MAR 2020)	14 CASES ADMITTED TO HOSPITAL (LAST 7 DAYS)	2 CASES ADMITTED TO ICU (LAST 7 DAYS)
80.6% (ONE DOSE: 5-11 YEARS OLD)	97.3% (TWO DOSES: 5 YRS+)	76.9% (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 6 June to Sunday 12 June inclusive, Epidemiological Week 24.

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. 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: COVID-19 case status by test type

	Test type	WEEK 24 ^a	TOTAL ^b
		Ending 12/06/2022	
Cases	PCR	2,697	85,501
	RAT	2,317	55,541
	Total	5,014	141,042
Deaths ^d		1	68

Note:

^aCases notified to ACT Health during the reporting period.

^bTotal cases since the start of the pandemic, March 2020.

^cTotal 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 due to the additional number of deaths being fewer than five. Please refer to the report for the week ending 5 June 2022 for vaccination status of deaths to that date.
- There have been 895 individuals with more than one episode¹ of COVID-19 reported to ACT Health since March 2020. Approximately, 79% (705/895) of these individuals initially tested positive since December 2021, when the Omicron variant was first detected in the ACT. It is expected that the risk of reinfection for an individual will increase over time as immunity wanes following COVID-19 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 of 4 to 12 weeks. It is possible that some individuals have not been included in this analysis due to the changing recommended testing periods, due to individuals having had an initial infection in a different location (i.e., not in ACT Health system). This number should not be taken as meaning reinfection as some instances of prolonged viral shedding may have been counted as a separate episode. 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 reinfection with a different variant/subvariant.

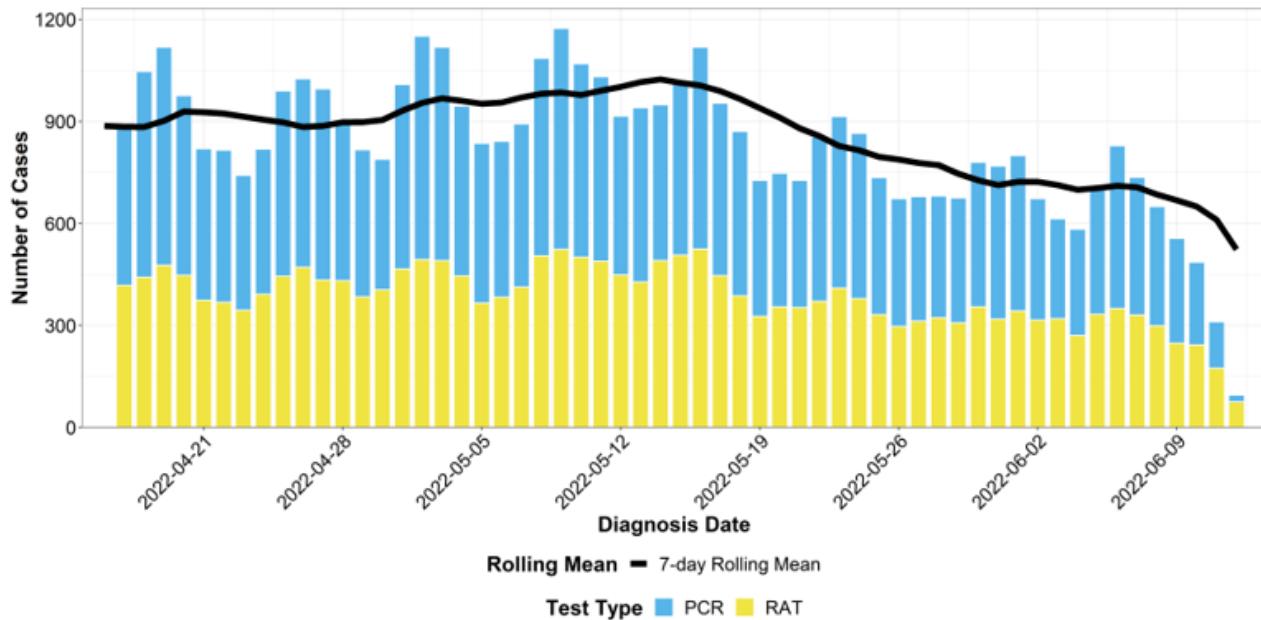
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Figure 1: COVID-19 cases by test type and diagnosis date ^{ab}

Last 8 Weeks



Notes:

^aThe 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.

^bDue 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 12 June 2022, 5,014 cases were reported in the ACT compared to 4,959 cases reported in Week 23. Note that the total cases for Week 23 were previously reported as 4,974, which has since decreased following data cleaning and removal of duplicates.
- Of the cases reported in Week 24, 2,697 (54%) were from positive PCR tests and 2,317 (46%) were from positive RATs.



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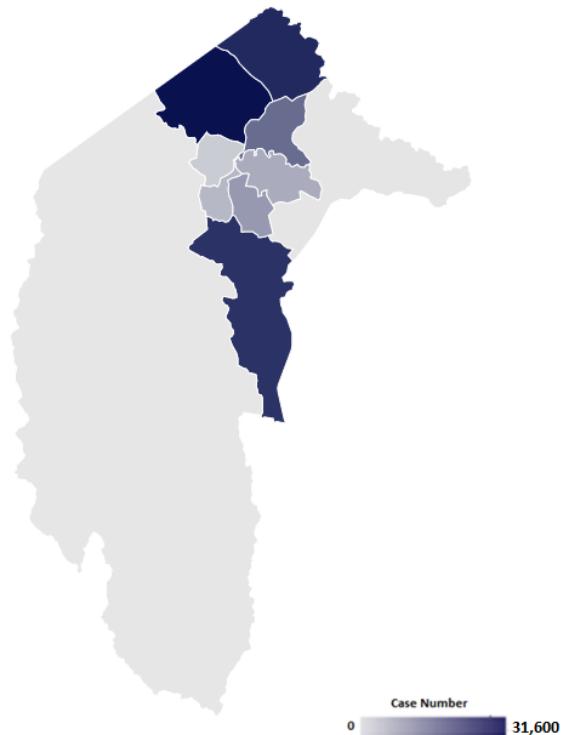


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Figure 2: Map of COVID-19 cases by Statistical Area Level 3 (SA3) since 15 December 2021



SA3 Region ^a	Cases ^b
Belconnen	31,528
Canberra East	297
Gungahlin	28,109
Molonglo	4,065
North Canberra	18,001
South Canberra	8,694
Tuggeranong	26,648
Urriarra - Namadgi	160
Weston Creek	7,007
Woden Valley	11,528
Not available	534
Outside ACT	2,264
TOTAL	138,835

Notes:

^aData 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, 12 June 2022). These data use the [Australian Statistical Geography Standard \(ASGS\) Edition 3](#).

^bThese data use multiple address identifiers to determine the SA3 region.

^cThere were 2,798 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.



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

Age Group	WEEK 24 Ending 12/06/2022	Age Group Percentage (%) of TOTAL WEEK 24
0–4	302	6%
5–11	427	8.5%
12–17	378	7.5%
18–24	369	7.4%
25–39	1,451	28.9%
40–49	850	17%
50–64	815	16.3%
65+	422	8.4%
Not stated/inadequately described ^a	0	0%
Total	5,014	100%

Source: ACT Health Data Repository (NDMS) and ACT Health REDCap Database .

Notes:

^aDates of birth were invalid or not available.

- Case numbers across all age groups remained relatively stable this reporting period.

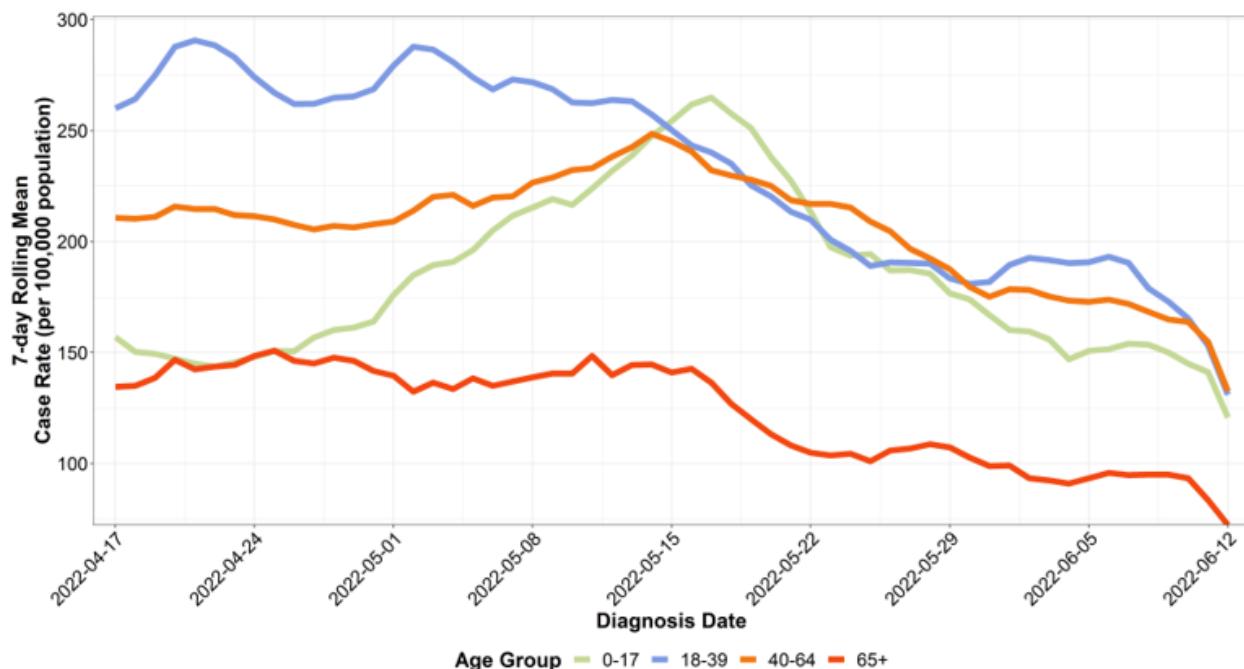
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Figure 3: Rolling mean of COVID-19 case rate by age group and diagnosis date^a

Last 8 Weeks



Notes:

^aThe 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).
- In Week 24, the 7-day rolling average case rate remained relatively stable across all age groups.



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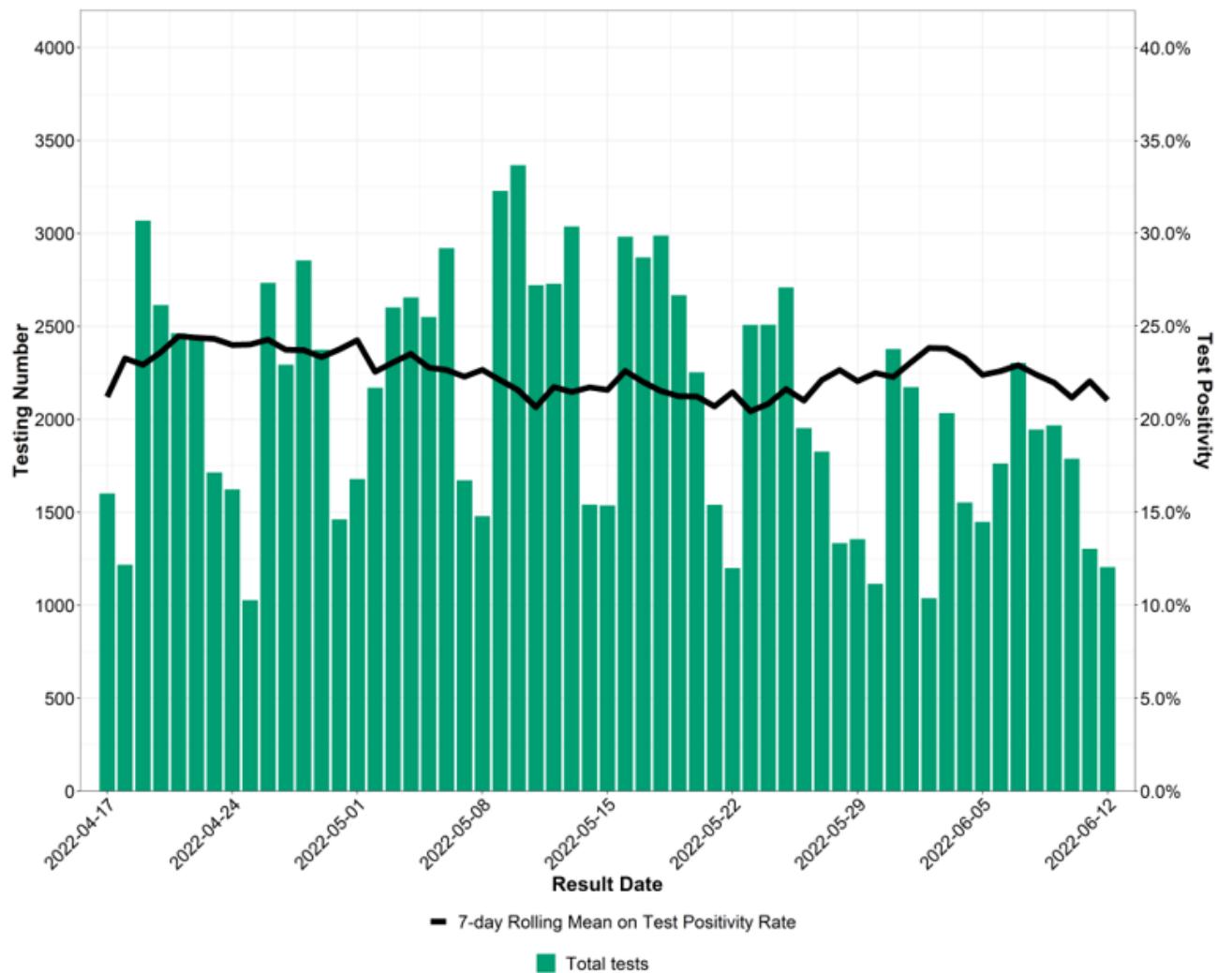
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Figure 4: Testing^a by result date and test positivity^b

Last 8 Weeks



Notes:

^aTesting number includes positive and negative tests for PCR only.

^bTest 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 numbers slightly increased this reporting period with a total of 12,261 PCR tests conducted, compared to 11,756 in Week 23.
- Based on PCR tests only, the test positivity rolling mean remains high, at between 22-23%.
- High test positivity can be an indicator of undiagnosed cases in the community.

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

Indigenous Status	WEEK 24 Ending 12/06/2022	TOTAL Pandemic ^a
Aboriginal and/or Torres Strait Islander People	99	2,852 (2%)
Neither Aboriginal nor Torres Strait Islander People	4,295	112,747 (80%)
Not stated/inadequately described ^b	215	5,510 (4%)
Not available ^c	405	19,933 (14%)
Total	5,014	141,042 (100%)

Notes:

^aTotal 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.

^bIndividuals have chosen not to identify their Aboriginal and/or Torres Strait Islander status.

^cData 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 cases^a by vaccination status and hospitalisation status (non-mutually exclusive^b)

Status (NON-MUTUALLY EXCLUSIVE) ^a	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 ^{bcd}	20 (2%)	335 (31%)	341 (32%)	45 (4%)	334 (31%)	6 (1%)	1,082 (100%) ^e
In ICU							138 (100%) ^f

Notes:

^aTotal cases since the start of the pandemic, March 2020.

^bCases 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.

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

^dHospitalisation 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.

^eSix cases admitted to ACT hospitals with admission dates outside of the reporting period (three cases from the previous reporting period and three historical cases) were notified to ACT Health in the most recent reporting period. This includes one ICU admission that was reported outside of the reporting period.

^fTotal ICU cases may not reflect the sum of ICU cases from last week's reporting period and this week's reporting period. ICU numbers have remained the same this reporting period due to the merging of duplicate records.

- ACT hospitals continue to care for a large number of patients affected by COVID-19.
- At the end of the reporting period (8pm on 12 June 2022), there were 80 inpatients affected by COVID-19 across ACT hospitals.
- The ICU admission figures in the table have been removed due to the number of new admissions since 8 May 2022 being fewer than five. Please refer to the report for week ending 5 June 2022 for vaccination status of ICU admissions to that date.

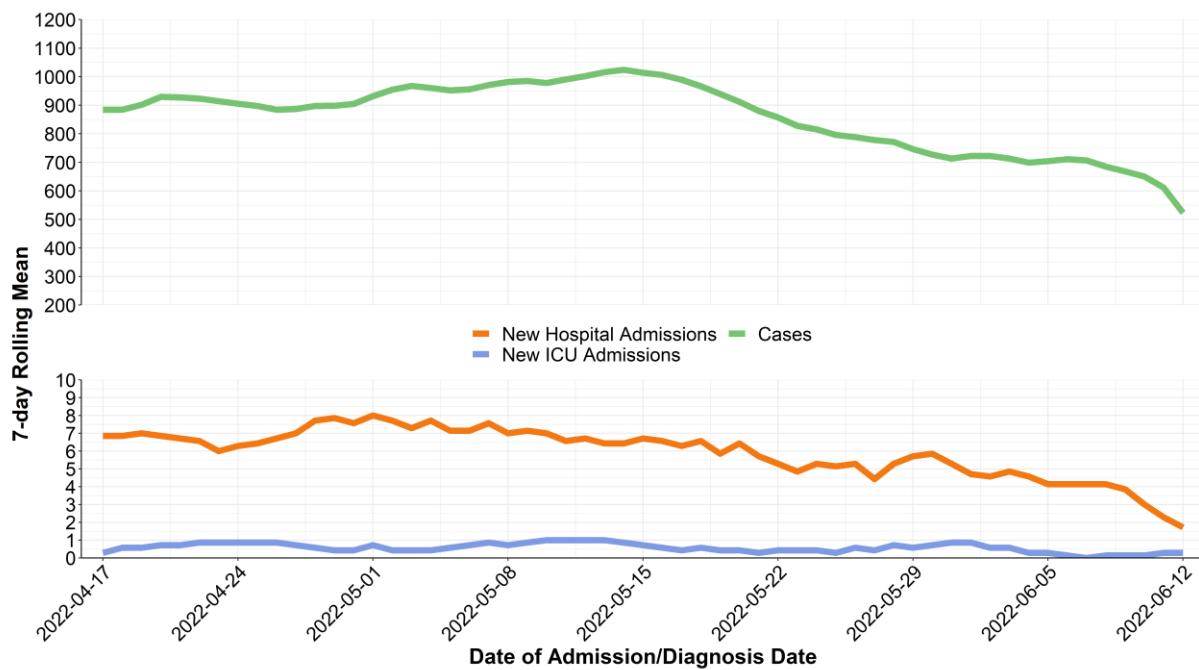
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Figure 5: Rolling mean of number of COVID-19 cases admitted^a to ACT hospitals and ICU, by date of admission, and cases by diagnosis date^b

Last 8 Weeks



Notes:

^aCases 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.

^bThe 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 cases^a 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%)	24 (16%)	12 (8%)	107 (75%)	0 (0%)	144 (100%)
18–39	1 (0%)	52 (23%)	86 (38%)	10 (4%)	74 (33%)	2 (1%)	225 (100%)
40–64	3 (1%)	85 (32%)	87 (33%)	8 (3%)	82 (31%)	1 (0%)	266 (100%)
65+	16 (4%)	198 (44%)	144 (32%)	15 (3%)	71 (16%)	3 (1%)	447 (100%)
TOTAL^a	20 (2%)	336 (31%)	341 (32%)	45 (4%)	334 (31%)	6 (1%)	1,082 (100%)

Notes:

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



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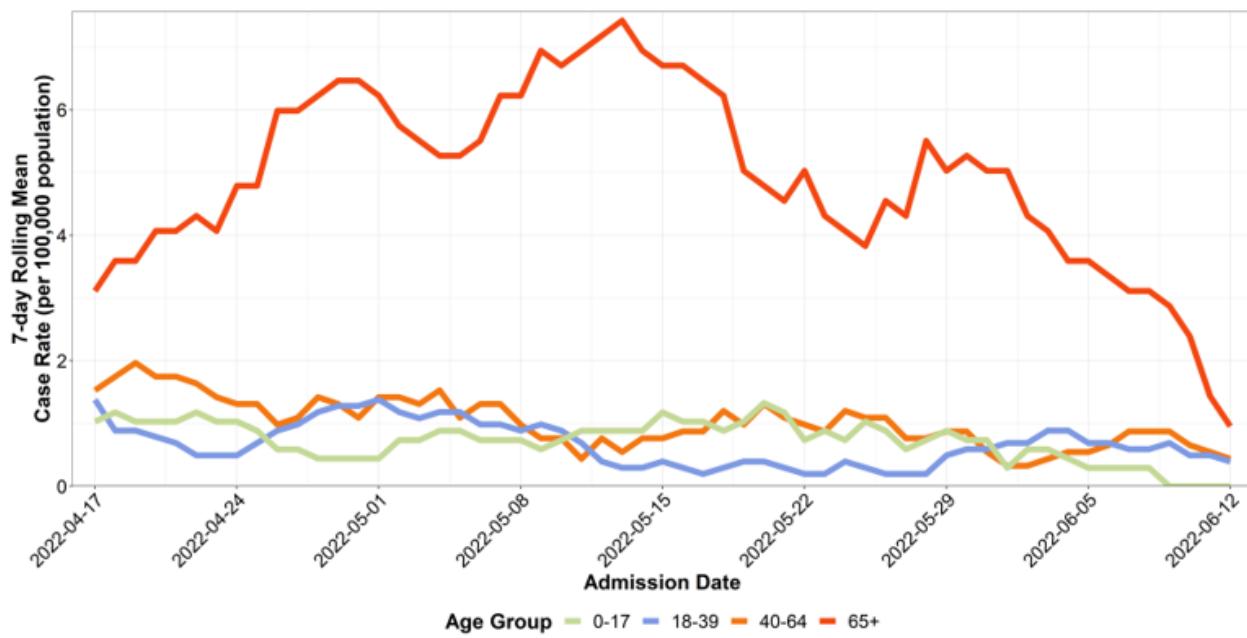
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Figure 6: Rolling mean of hospitalised^a COVID-19 case rate by date of admission

Last 8 Weeks



Note:

^aCases 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 14 new hospital admissions (by date of admission) reported for Week 24. This compares to the 29 new hospital admissions reported in Week 23. Note that the figure for Week 23 was previously reported as 27 new hospital admissions and has been corrected because of data that was subsequently received. A further three additional historical admissions have also been identified and have been included in the total number of hospital admissions since the start of the pandemic. These were not counted as new hospital admissions in the reporting period as they occurred outside of Week 24.
- The average age of hospital admissions this week was 50 years, (with a range from 8-95 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.
- There were two new admissions to the ICU this week. Last week, there was one additional ICU admission that was not reported in Week 23 due to a delay in receiving the data, bringing the total

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for Week 23 to two. Overall, total ICU numbers since the start of the pandemic have remained the same this week due to the merging of historic duplicate records.

- Since January 2022, approximately 60% (50/84) of cases with a known vaccination status admitted to the ICU had received fewer than 3 doses of vaccine at the time of their admission² and 21% (18/86) of cases were unvaccinated at the time of their admission.

Whole Genome Sequencing

- Since 1 January 2022, Whole Genome Sequencing (WGS) has been attempted on 5% (3,856/80,982) 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.
- A further BA.1/BA.2 recombinant was sequenced in the ACT this week, in a known contact of the previously reported BA.1/BA.2 recombinant. The simultaneous high circulation of BA.1 and BA.2 across the world has facilitated the occurrence of recombination (i.e. shared genetic material) between these 2 sublineages of Omicron. This recombinant variant has been reported in several cases elsewhere in Australia in 2022 and is being monitored.
- The BA.2 subvariant of Omicron (BA.1.1.529) continues to be the dominant COVID-19 variant identified on WGS samples from the ACT community. Of the cases successfully sequenced this week, 77% (98/126) were BA.2, 19% (24/126) were BA.5 (compared to 7% last week) with the remaining samples returning as BA.4, and XM.
- Evidence from overseas studies suggests that the BA.4 and BA.5 subvariants may have a growth advantage over the BA.2 subvariant due to mutations associated with infectivity and immune escape.

Outbreaks in High-Risk Settings

- During the reporting period, 21 ACT Residential Aged Care Facilities (RACFs) reported active COVID-19 outbreaks and a total of 64 new cases reported in residents.
- In Week 23, 18 disability support providers were affected by COVID-19 exposures. An additional 11 service providers reported exposures to ACT Health in this week where the actual exposure occurred prior to Week 24.

² This figure only accounts for cases admitted to the ICU that were eligible for 3 doses of COVID-19 vaccine at the time of their admission.

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Vaccination Coverage in the ACT

Table 6: COVID-19 vaccination coverage rates for ACT residents by age group, as of 13 June 2022

Age Group	Dose 1	Dose 2	Dose 3	Dose 4
5-11 ¹	80.6%	68.4%	0.1%	
12-15	>99%	97.3%	1.4%	
16-29	>99%	97.7%	60.6%	0.5%
30-39	>99%	98.2%	70.7%	0.9%
40-49	>99%	98.9%	80.4%	1.6%
50-69	>99%	98.7%	87.1%	11.6%
70+	>99%	98.5%	91.4%	52.2%
Total 5 and over	>99%	97.3%	67.2%	8.9%
Total 16 and over	>99%	98.4%	76.8%	10.2%

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 are 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.

^cThird doses cannot be distinguished from boosters in AIR reporting.

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

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

^fPostcode 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.

^gWhere 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. The first dose vaccination coverage rates are based on the estimated population provided by ACT Government Treasury projections, this is an estimate and may not be a true representation of the population at the time of reporting.

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