Healthcare Quarterly

Trend report

Emergency department, ambulance, admitted patients, seclusion and restraint, and elective surgery

January to March 2021

bureau of health information

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Please note there is the potential for minor revisions of data in this report.
Please check the online version at **bhi.nsw.gov.au** for any amendments or errata.

Published June 2021

Full results for *Healthcare Quarterly* are available through the new Bureau of Health Information Data Portal. Results are reported at a state, local health district, hospital peer group and hospital level for public hospitals and at a state level and by statistical area level 3 (SA3) for ambulance services.

Figures in the Data Portal may differ from those in published reports and information products due to subsequent changes in data coverage and analytic methods, and updates to databases. At any time, the most up-to-date results are available in the Data Portal and supersede all previously published figures.

Please visit **bhi.nsw.gov.au**

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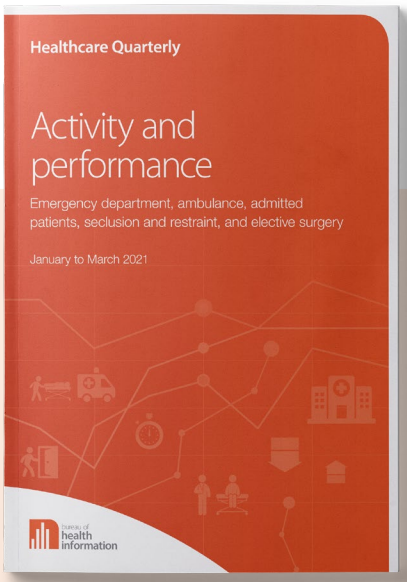
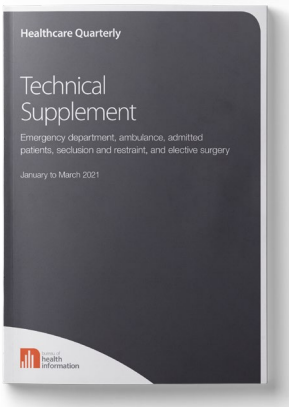
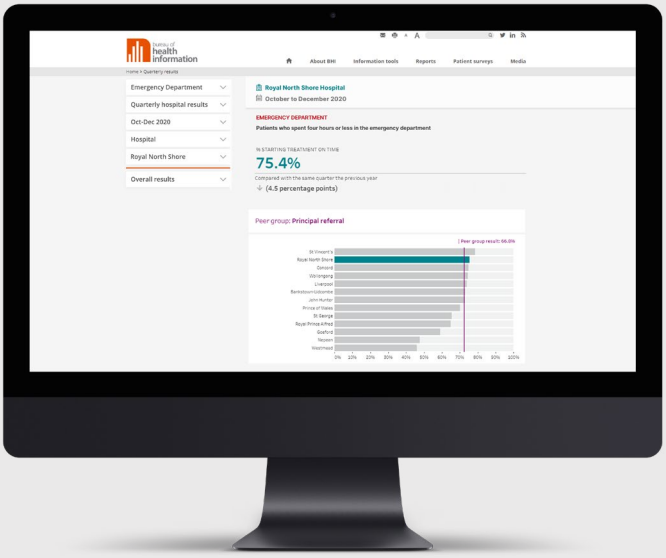


Healthcare Quarterly shows how public hospitals and ambulance services performed in the January to March 2021 quarter. The key measures focus on the timeliness of services delivered to people across NSW.

The *Trend report* provides five-year trends in activity and performance for emergency departments, ambulance services, admitted patients and elective surgery.



The technical supplement describes the data, methods and technical terms used to calculate activity and performance measures.



Bureau of Health Information Data Portal

The introduction of our new Data Portal is part of a transition to a digital-first way of reporting healthcare performance results in NSW, making them more accessible and user friendly.

These *Healthcare Quarterly* results – including historical data – are the first to appear in the new portal as part of a staged rollout over the coming months.

About this report

This *Trend report* provides five-year trends in activity and performance for emergency departments (EDs), ambulance services, admitted patients and elective surgical procedures.

Activity and performance are reported at NSW level over a five-year period. For hospital-based measures, results are stratified by peer group or acuity. For ambulance-based measures, results are stratified by urgency.

Activity measures are reported by counts of events or proportion within the total events. Timeliness measures are reported based on units of time such as minutes or days using median and 90th percentile times, or based on achievement against a recommended or defined time.

For more information on the January to March 2021 quarter refer to *Healthcare Quarterly – Activity and performance.*

Table 1 Description of main measures featured in *Healthcare Quarterly – Trend report**

Emergency departments	
ED attendances	Count of all patient visits to the ED during the defined period.
Emergency presentations	The vast majority of ED attendances are classified as emergency presentations. The remaining ED attendances include non-emergency visits such as planned returns, pre-arranged admissions, some outpatient visits and private referrals.
Transfer of care time	For patients who are transported to the ED by ambulance, the time from arrival at hospital to when responsibility for their care is transferred from paramedics to ED staff in an ED treatment zone.
Time to start treatment	The time from patient arrival at the ED until the start of clinical treatment.
Time spent in the ED	The time from patient arrival at the ED until their departure.
Ambulance	
Number of incidents	Count of all events requiring one or more ambulance responses.
Number of responses	Count of all dispatches of an ambulance service vehicle.
Call to ambulance arrival time	The time from when a call is first answered in the ambulance control centre (phone pick-up), to the time the first ambulance arrives at the scene of an incident.
Response time	The time from when a call for an ambulance is placed 'in queue' for vehicle dispatch by the ambulance control centre, to the time the first vehicle arrives at the scene.
Admitted patients	
Total episodes	An episode of care is a period of care in a hospital or other healthcare facility with a defined start and end. Total episodes is the count of all records with an episode end date in the defined period.
Total bed days	Bed days are calculated for all admitted patient episodes completed during the reference period. Total acute bed days is the sum of bed days for all acute episodes with an episode end date within the defined period.
Elective surgery	
Elective surgery waiting time	The number of days from a patient's placement on the elective surgery waiting list until they undergo surgery.

* For some measures, other agencies report similar metrics, often with slightly different data definitions, so cross-publication comparisons should be made with care.

Quarantine

The introduction of mandatory hotel quarantine has been fundamental to efforts to control the spread of COVID-19 in Australia.

From 29 March 2020, all overseas travellers were required to undertake 14 days of supervised quarantine, managed by NSW Police, in a designated hotel or accommodation facility. From 7 August to 23 November, people who had been in Victoria were also required to undertake hotel quarantine.

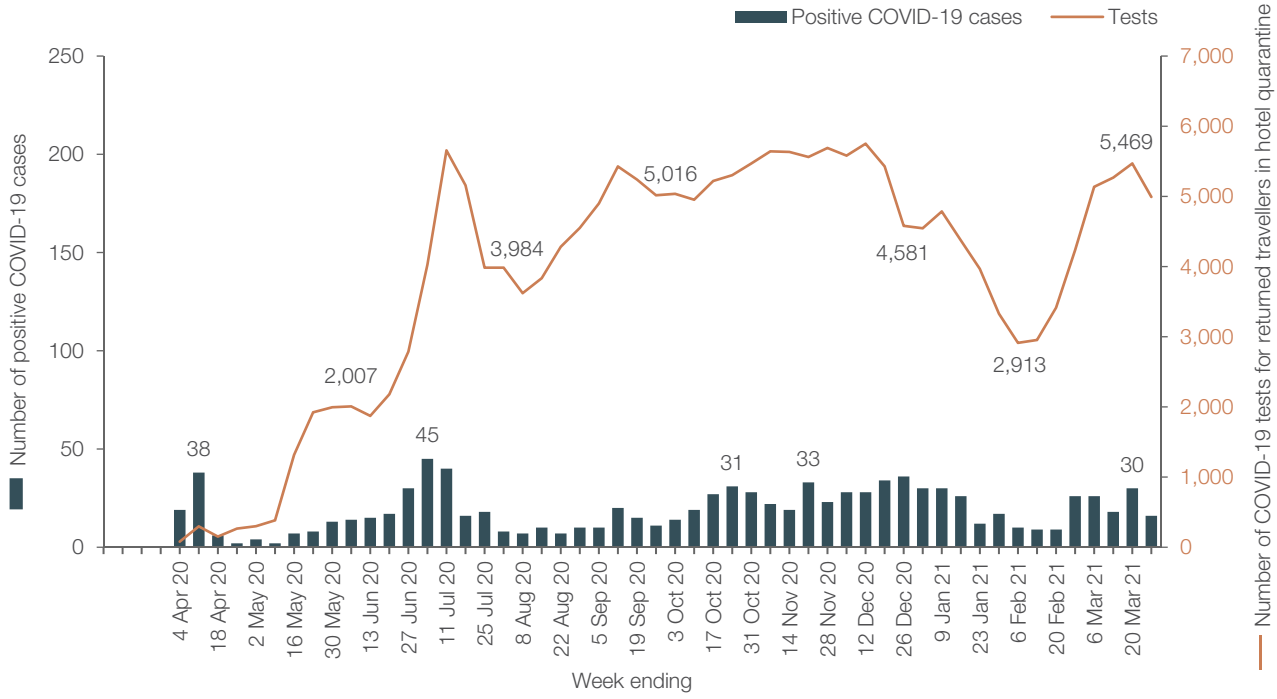
After arrival and throughout their quarantine, people undergo health screening and are provided with COVID-19 tests. People who receive positive test results are admitted to NSW Special Health Accommodation (SHA) or transferred to hospitals. SHA was established in March 2020 to provide clinical, welfare and health services for people arriving in NSW and those who are required to self-isolate in the community and need assistance to do so safely.

Information about quarantine provides an important backdrop to hospital activity and performance. It also reflects an important part of the demand placed on NSW Health – working alongside NSW Police and other agencies – given the highly specialised health support required to operate an effective quarantine program.

Hotel quarantine

People in hotel quarantine showing symptoms or feeling unwell are provided with an urgent COVID-19 test. Testing was also introduced for all incoming travellers on Day 10 of their quarantine from 6 May 2020 and on Day 2 from 30 June 2020, with a

Figure 1 Number of COVID-19 tests for returned travellers and confirmed COVID-19 cases in hotel quarantine, by Week, March 2020 to March 2021



negative result required prior to completing quarantine. Day 12 testing was introduced from 11 January 2021, replacing Day 10 testing. Testing for close contacts of COVID-19 positive cases was introduced in February 2021.

In the January to March 2021 quarter, 55,048 tests were carried out for travellers in hotel quarantine. During the same period, there were 250 confirmed COVID-19 cases (Figure 1).

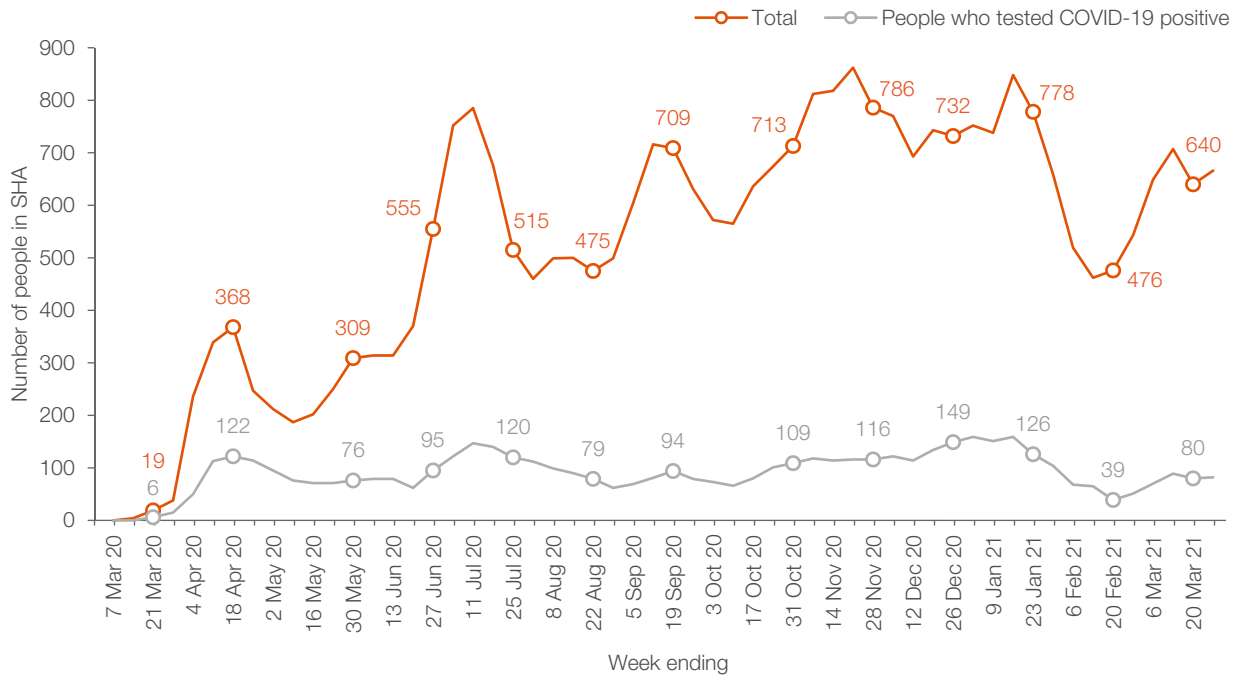
The number of tests decreased from late December 2020, followed by an increase from late February 2021. By 31 March 2021, 203,375 tests were carried out, of which 1,005 were confirmed cases. Between 1 March 2020 and 31 March 2021, the number of positive COVID-19 cases peaked at 45 in the week ending 4 July 2020 (Figure 1).

Special health accommodation

In the January to March 2021 quarter, the number of people residing in SHA varied between 4 and 862 per week. At the end of the quarter there were 666 people, of which 82 people (12.3%) were confirmed COVID-19 cases (Figure 2).

By 31 March 2021, a total 10,459 people had been admitted to SHA, of which 1,539 (14.7%) had COVID-19. Of these, 8,803 were international travellers, 579 domestic travellers and 1,077 community patients. Between 1 March 2020 and 31 March 2021, the number of people residing in SHA with COVID-19 remained relatively stable until the end of January 2021, followed by a fall to 39 in the week ending 20 February. It increased again in March 2021 (Figure 2).

Figure 2 Number of people residing in Special Health Accommodation and number of people with COVID-19, by week, March 2020 to March 2021



Emergency department activity and performance

Emergency department attendances

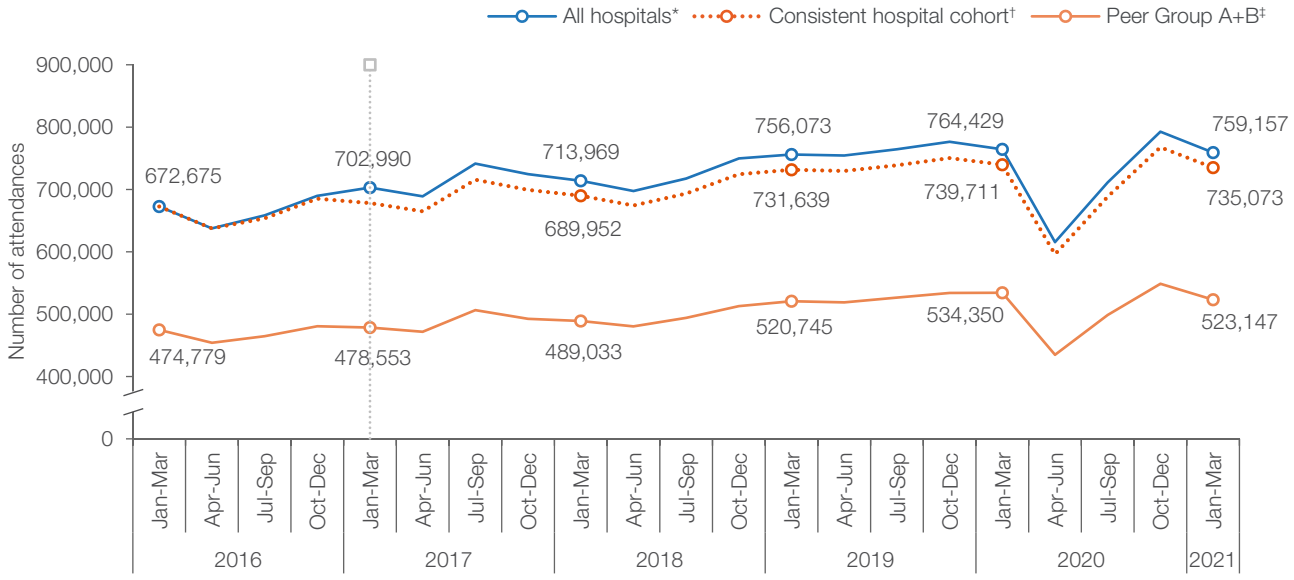
Five-year trends in emergency department (ED) activity show how demands on the system and the supply of services have changed over time. ED activity can be influenced by factors such as outbreaks, weather events and population growth. Seasonal variation can also play a role when demand for services changes predictably through the year.

Following a sharp decrease in the April to June 2020 quarter, ED attendances have increased and returned to levels similar to those seen before the COVID-19 pandemic.

Over five years, ED attendances increased by 12.9% from 672,675 in January to March 2016 to 759,157 in January to March 2021 (Figure 3).

Of the 759,157 ED attendances in January to March 2021, 17,130 (2.3%) were identified as patients likely to be only for a COVID-19 test. For more information on the impact of COVID-19 testing on ED activity and performance, please see page 18 of *Healthcare Quarterly – Activity and performance, January to March 2021,* available at **bhi.nsw.gov.au**

Figure 3 Emergency department attendances, January 2016 to March 2021



* 'All hospitals' cohort includes all EDs submitting valid data to the Emergency Department Data Collection (EDDC) in each quarter. This includes more than 170 EDs as of the January to March 2017 quarter.

† A consistent cohort of hospitals was used to report ED presentations so that comparisons of presentations over longer intervals will not be affected by inclusion of additional EDs.

‡ Peer group A+B cohort inlcudes all hospitals in peer groups A1, A2, A3 and B.

: Change in hospital cohort: in the January to March 2017 quarter, an additional 44 EDs were included in *Healthcare Quarterly,* contributing to activity and performance results. See the technical supplement to this *Healthcare Quarterly* for further information.

Emergency presentations by triage category

Reporting emergency presentations by triage category provides information on changes in the urgency of patients.

January to March 2021 had the highest number of emergency presentations for triage categories 2 (emgergency) and 3 (urgent) of any January to March quarter in the five-year period (Figure 4).

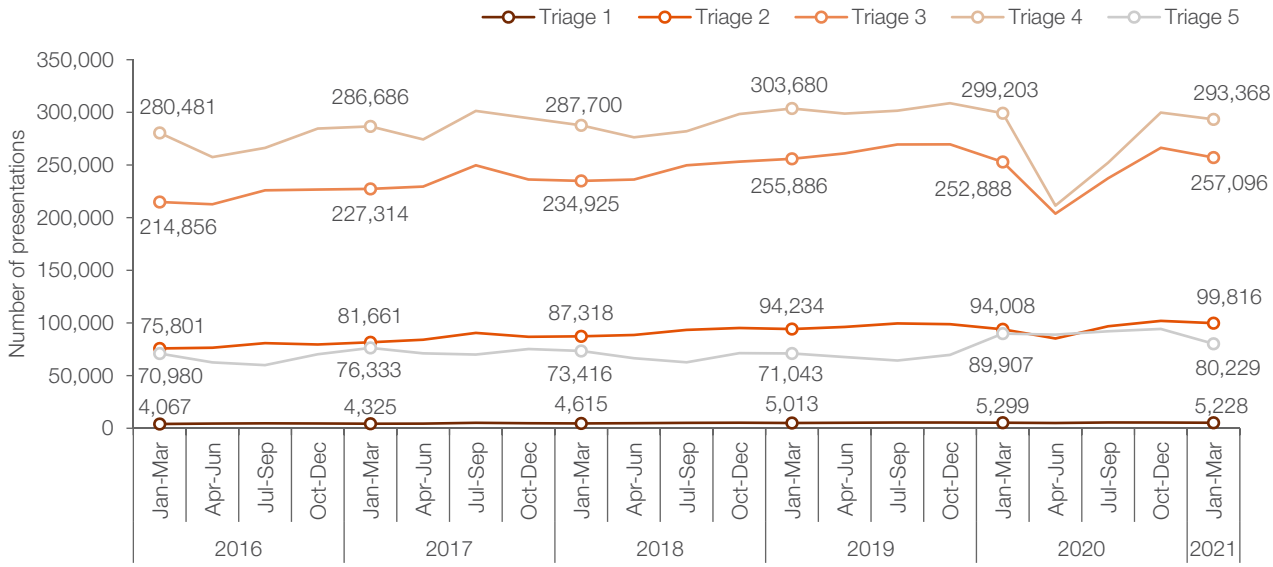
Triage category 5 (non-urgent) presentations saw a sharp increase from early 2020. They peaked in the October to December 2020 quarter, followed by a more than 10% decrease in January to March 2021 (Figure 4).

Percentage of emergency presentations by triage category, January to March quarters from 2016 to 2021

	January–March					
Category	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**
Triage 1 (%)	0.6	0.6	0.7	0.7	0.7	0.7
Triage 2 (%)	11.7	12.1	12.7	12.9	12.7	13.6
Triage 3 (%)	33.2	33.6	34.1	35.1	34.1	34.9
Triage 4 (%)	43.4	42.4	41.8	41.6	40.4	39.9
Triage 5 (%)	11.0	11.3	10.7	9.7	12.1	10.9

The variation in triage 5 presentations from early 2020 was primarily due to changes in COVID-19 testing provided by emergency departments. For more information on the impact of COVID-19 testing on ED activity and performance, please see page 18 of *Healthcare Quarterly – Activity and performance, January to March 2021,* available at **bhi.nsw.gov.au**

Figure 4 Emergency presentations by triage category, January 2016 to March 2021



Notes: Results are calculated from all EDs submitting data to EDDC in each quarter. In recent years, more than 170 EDs are included in *Healthcare Quarterly.* ↯: Change in hospital cohort: in the January to March 2017 quarter, an additional 44 EDs were included in *Healthcare Quarterly,* contributing to activity and performance results. See the technical supplement to this *Healthcare Quarterly* for further information.

Emergency department attendances by mode of arrival

The mode of arrival refers to the form of transport by which a person arrives at the ED.

The number of arrivals at the ED by ambulance increased by 21.2% from 139,734 in January to March 2016 to 169,420 in January to March 2021 over five years (Figure 5).

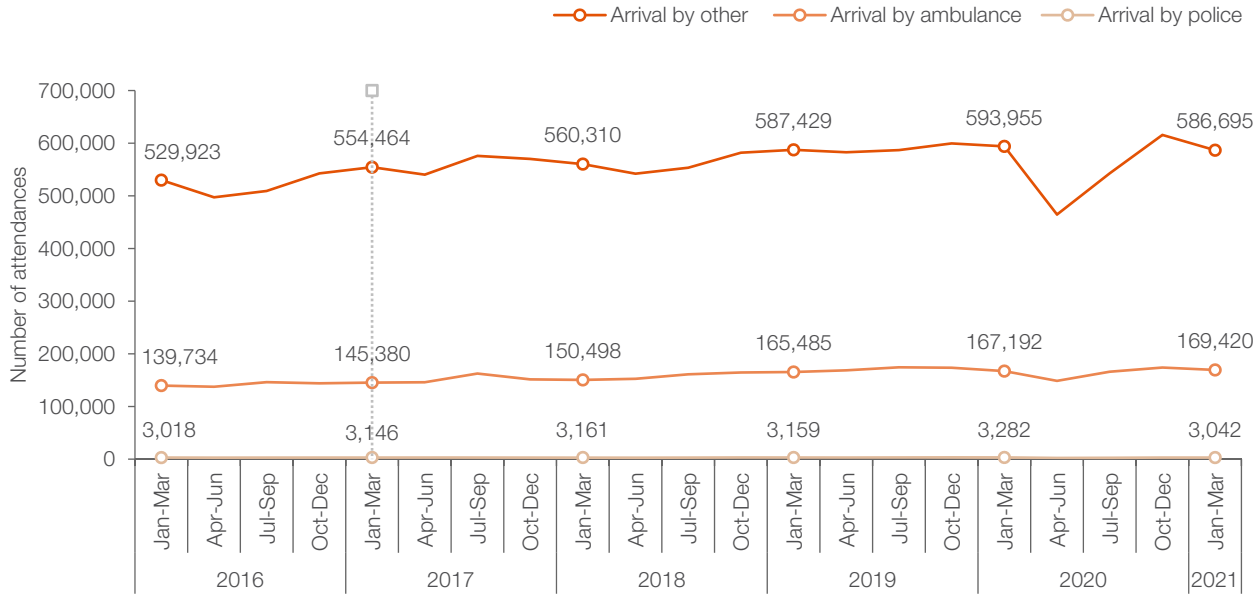
The majority of ED attendances had an arrival mode of 'other', indicating the patient most likely came by a private vehicle, community/public transport, internal ambulance/transport, or walked into the ED. Following a sharp decrease in the April to June 2020 quarter, these arrivals have increased and returned to levels similar to those seen before the COVID-19 pandemic (Figure 5).

Percentage of ED attendances by mode of arrival, January to March quarters from 2016 to 2021

	January–March					
Mode of arrival	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**
Ambulance (%)	20.8	20.7	21.1	21.9	21.9	22.3
Police (%)	0.4	0.4	0.4	0.4	0.4	0.4
Other (%)	78.8	78.9	78.5	77.7	77.7	77.3

Note: 'Other' mode of arrival includes: private vehicle, community/public transport, no transport (walked in), internal ambulance/transport and other (e.g. undertakers/ contractors, retrieval [including NETS] and internal bed/wheelchair). Presentations with missing mode of arrival are also included in this cohort.

Figure 5 Emergency department attendances by mode of arrival, January 2016 to March 2021



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Emergency department attendances by mode of separation

The mode of separation describes a patient's status (discharge/admitted/transfer) when they left the ED.

Following treatment in the ED, the majority of patients are either discharged or admitted to hospital. Some patients choose not to wait for treatment and leave, and others are transferred to a different hospital.

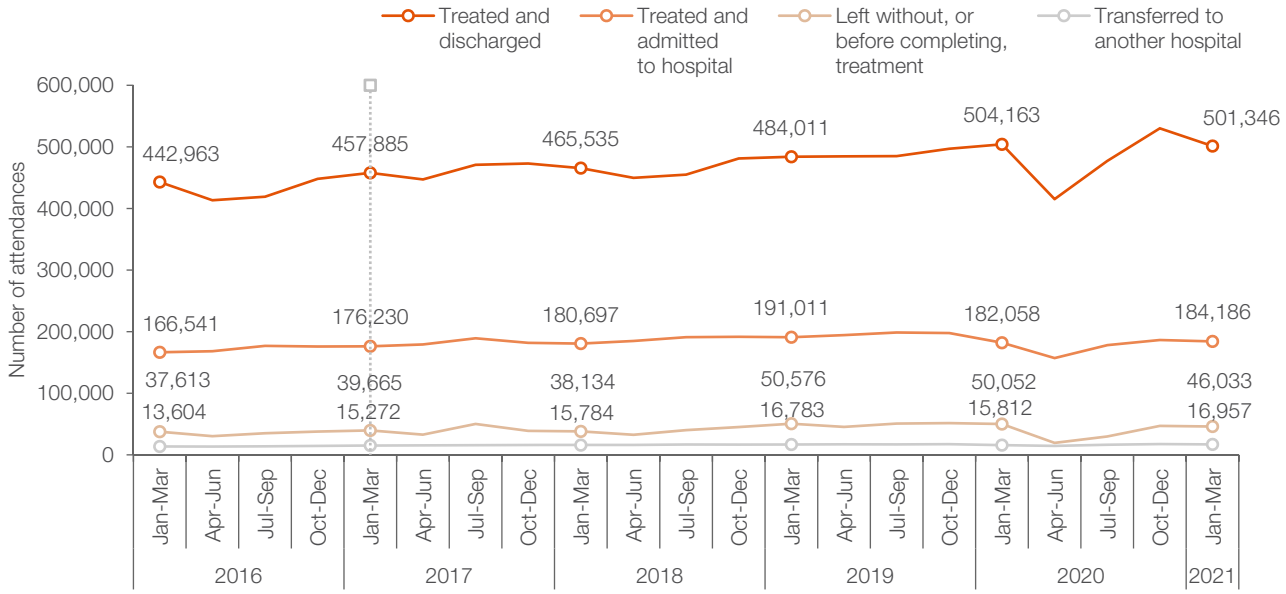
Despite a sharp decrease in the April to June 2020 quarter, the number of ED attendances has increased across all modes of separation over five years (Figure 6).

In January to March 2021, the number of patients who were transferred to a different hospital was the highest of any January to March quarter in the five-year period although the proportion of total attendances remained the same (Figure 6).

Percentage of ED attendances by mode of separation, January to March quarters from 2016 to 2021

	January–March					
Mode of separation	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**
Treated and discharged (%)	65.9	65.1	65.2	64.0	66.0	66.0
Treated and admitted (%)	24.8	25.1	25.3	25.3	23.8	24.3
Transferred (%)	2.0	2.2	2.2	2.2	2.1	2.2
Left without, or before completing, treatment (%)	5.6	5.6	5.3	6.7	6.5	6.1

Figure 6 Emergency department attendances by mode of separation, January 2016 to March 2021



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Time to treatment

Upon arrival at the ED, patients are allocated to one of five triage categories, based on urgency. For each category, the Australasian College for Emergency Medicine recommends a threshold waiting time within which treatment should start:

- **Triage 1:** Resuscitation (within 2 minutes)*
- **Triage 2:** Emergency (80% within 10 minutes)
- **Triage 3:** Urgent (75% within 30 minutes)
- **Triage 4:** Semi-urgent (70% within 60 minutes)
- **Triage 5:** Non-urgent (70% within 120 minutes).

In January to March 2021, the percentage of patients whose treatment started on time returned to levels similar to or slightly lower than those seen before the COVID-19 pandemic for all patients and across triage categories 2 to 5 (Figure 7).

The median time patients waited for treatment refers to the time from arrival at the ED in which half of the patients began treatment. The waiting time for the other half was either equal to this time or longer.

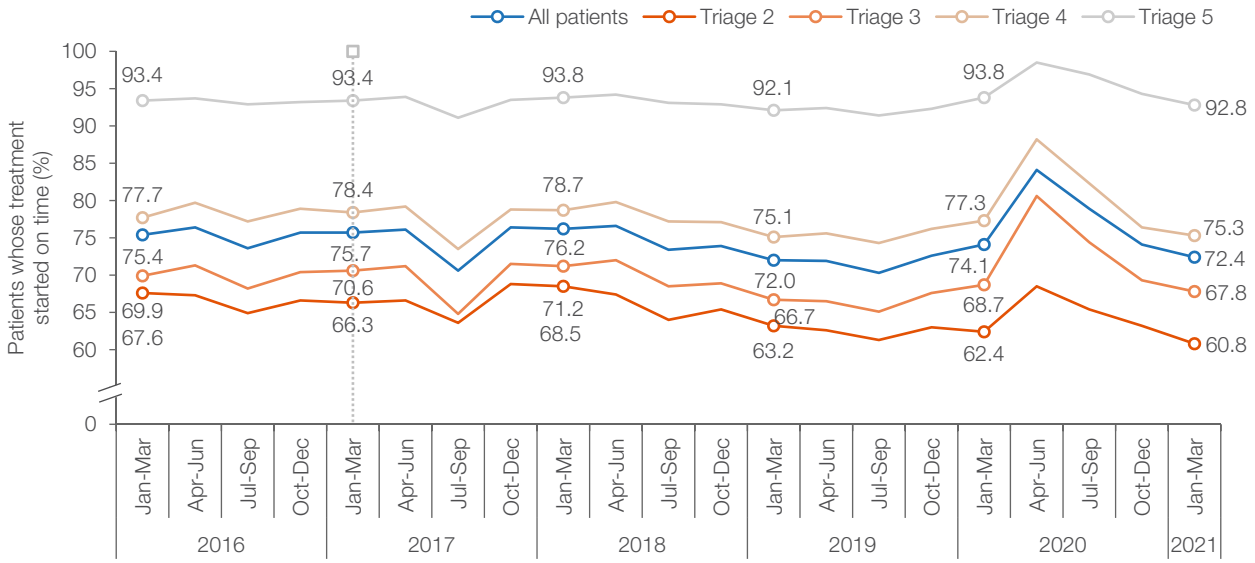
The 90th percentile time gives a sense of the longest waiting times for treatment. It is the time from arrival by which 90% of patients received treatment. The waiting time for the remaining 10% of patients was equal to this time or longer.

The median and 90th percentile time patients waited for treatment for triage category 2 remained relatively stable over five years (Figures 8, 9).

Following a sharp decrease in the April to June 2021 quarter, the median and 90th percentile time to treatment across triage categories 3 to 5 have increased and returned to levels similar to those seen before the COVID-19 pandemic (Figures 8, 9).

Due to differences in data definitions, period of reporting and the number of hospitals included, *Healthcare Quarterly* results for the percentage of patients whose treatment started on time are not directly comparable with figures reported by other agencies and jurisdictions. For more information refer to the *Healthcare Quarterly* technical supplement at **bhi.nsw.gov.au**

Figure 7 Percentage of patients whose treatment started on time, by triage category*, January 2016 to March 2021



* Triage 1 patients are the most urgent and are almost all treated within two minutes. Clinicians are focused on providing immediate and essential care, rather than recording times, therefore times to start treatment are generally not reported.
Note: Results are calculated from all EDs submitting data to EDDC in each quarter. In recent years, more than 170 EDs are included in *Healthcare Quarterly.*
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Figure 8

Median time from presentation to starting treatment, by triage category*, January 2016 to March 2021

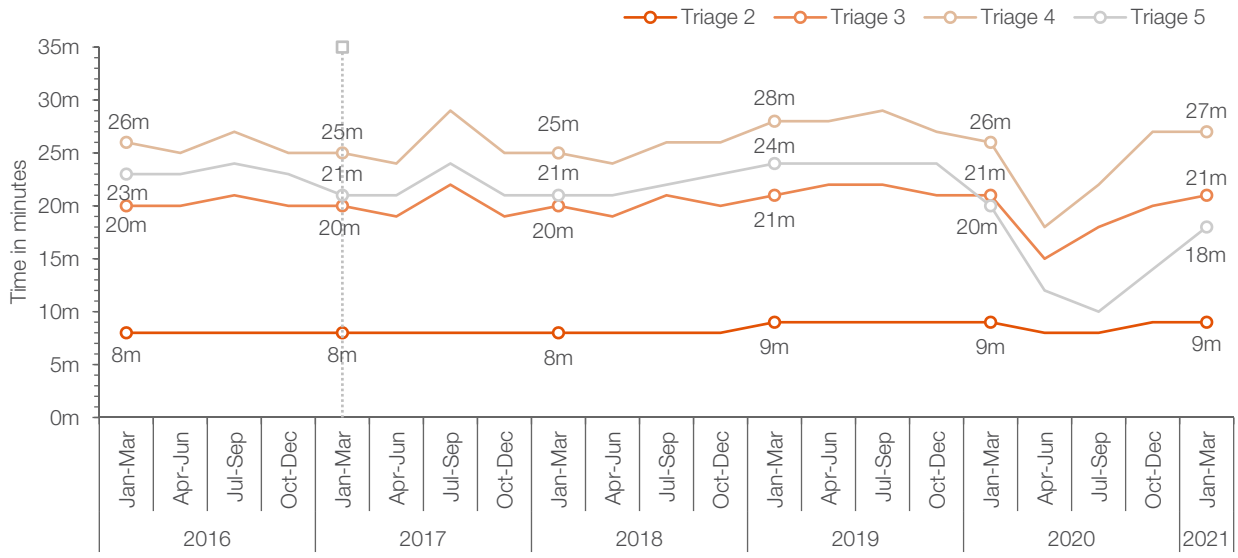

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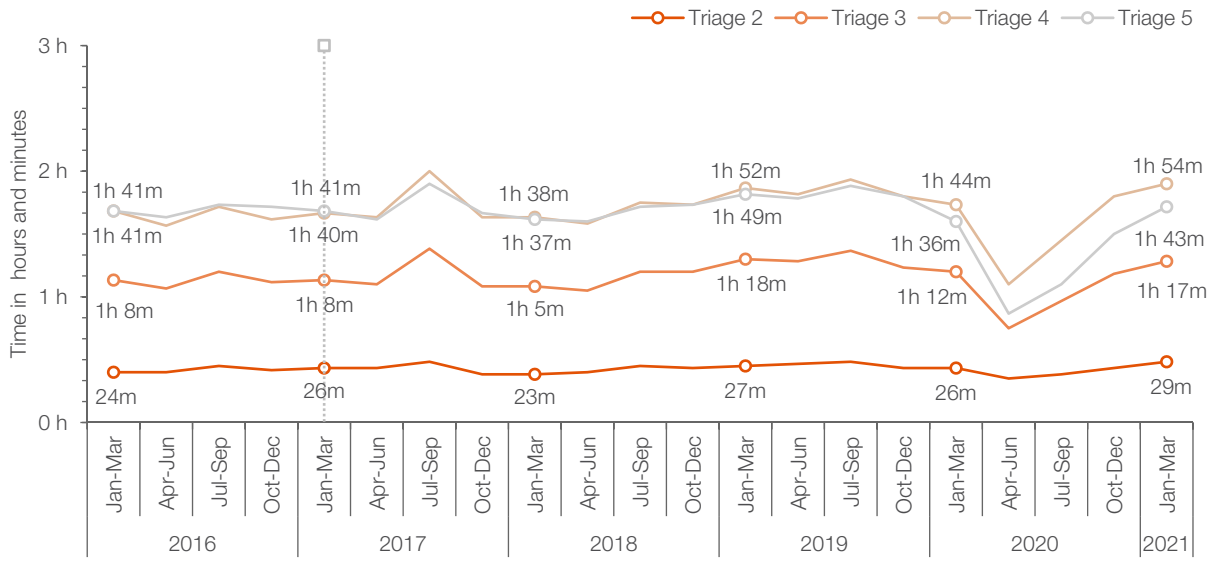
Figure 9

90th percentile time from presentation to starting treatment, by triage category*, January 2016 to March 2021



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Time spent in the emergency department

The length of time patients spent in the ED categorised by mode of separation provides information about the timeliness of transfer from ED to a hospital or ward, or how long patients stayed for treatment before discharge.

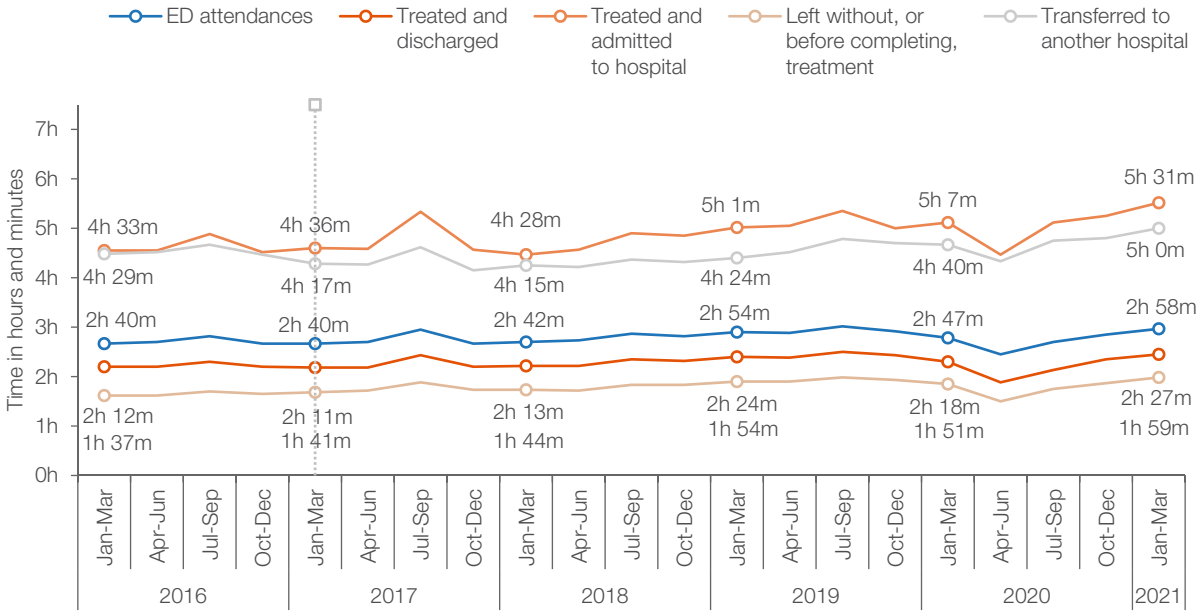
Median time spent in the ED

The median time patients spent in the ED refers to the time from arrival by which half of the patients had left the ED. The other half of patients spent equal to or longer than this time in the ED.

In January to March 2021, for patients treated and discharged or left without, or before completing, treatment, the median times spent in the ED were the longest of any January to March quarter in the five-year period (Figure 10).

For patients admitted to hospital or transferred to another hospital, the median times spent in the ED were the longest of any quarter in the five-year period (Figure 10).

Figure 10 Median time patients spent in the emergency department, by mode of separation, January 2016 to March 2021



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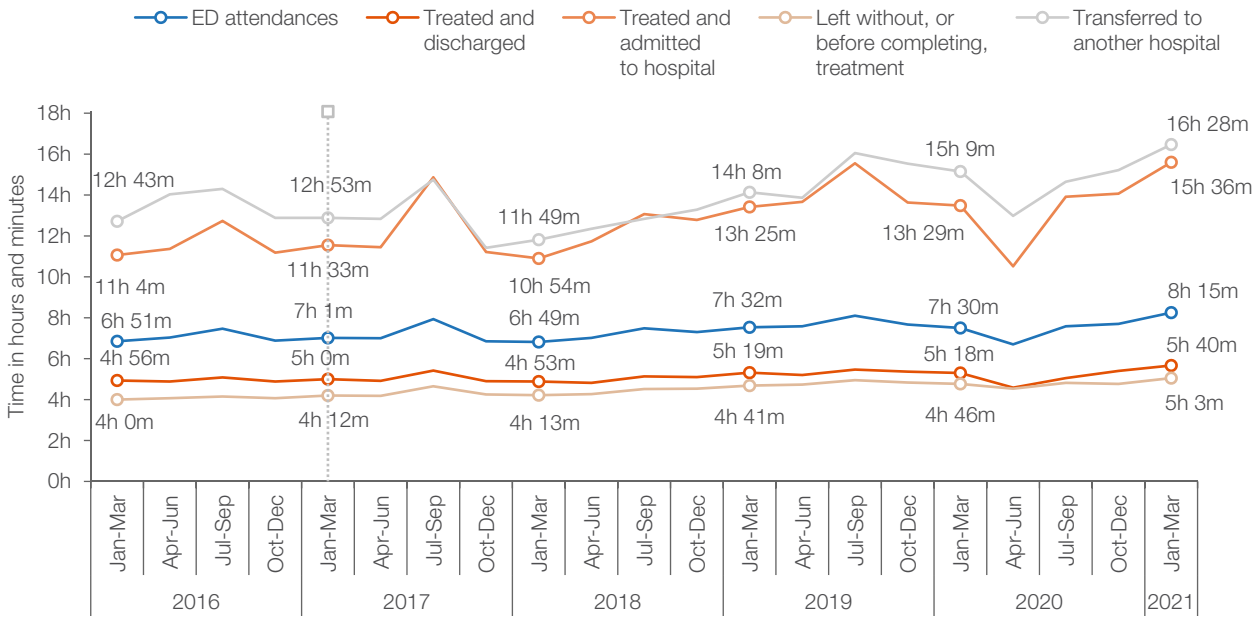
90th percentile time spent in the ED

The 90th percentile time gives a sense of the longest time patients spent in the ED. It is the time from arrival by which 90% of patients had left the ED. The time spent in the ED for the remaining 10% of patients was equal to this time or longer.

In January to March 2021, the 90th percentile time spent in the ED across all modes of separation was the longest of any quarter in the five-year period (Figure 11).

Figure 11 90th percentile time patients spent in the emergency department, by mode of separation, January 2016 to March 2021



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Percentage of patient stays of four hours or less

The percentage of patients who spent four hours or less in the ED was 67.6% in January to March 2021, the lowest of any quarter in the five-year period (Figures 12, 13).

Variation by peer group

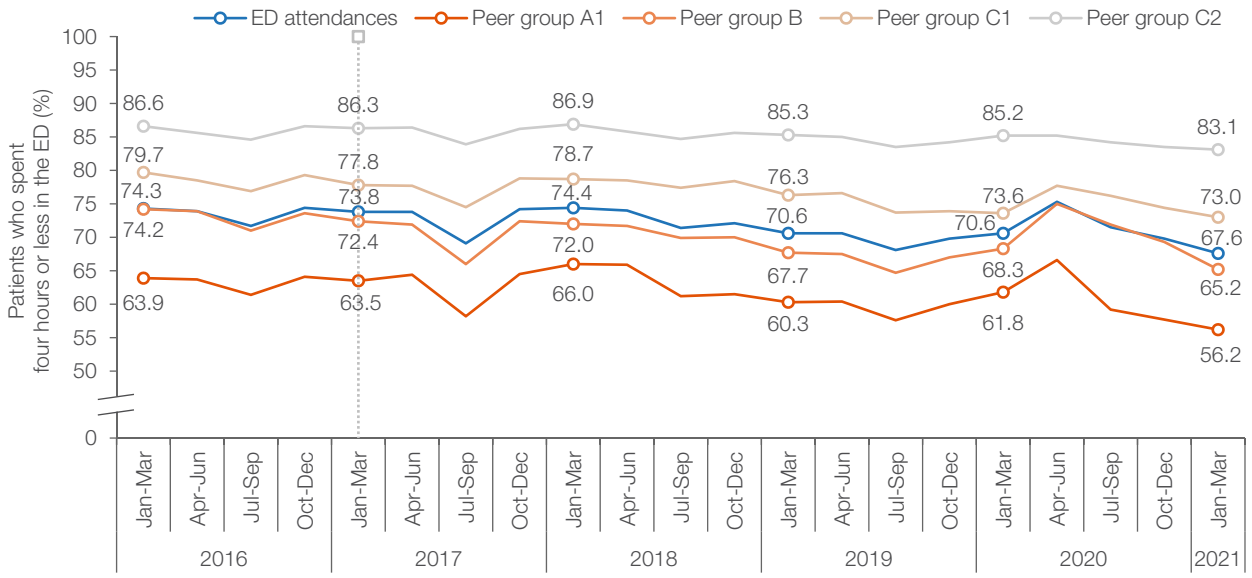
Presenting the percentage of patients who spent four hours or less in the ED by peer group acknowledges the differences in size and functions between hospitals (Figure 12). Hospital peer groups include: principal referral hospitals (peer group A1), major hospitals (peer group B) and district hospitals (peer group C).

For hospitals in peer groups A1, C1 and C2, January to March 2021 had the lowest percentage of patients who spent four hours or less in the ED of any quarter in the five-year period (Figure 12).

For peer group B hospitals, January to March 2021 had the lowest percentage of patients who spent four hours or less in the ED of any January to March quarter in the five-year period (Figure 12).

Due to differences in data definitions, period of reporting and the number of hospitals included, *Healthcare Quarterly* results for the percentage of patients who spent four hours or less in the ED are not directly comparable with figures reported by other agencies and jurisdictions. For more information refer to the *Healthcare Quarterly* technical supplements at **bhi.nsw.gov.au**

Figure 12 Percentage of patients who spent four hours or less in the emergency department, by peer group, January 2016 to March 2021



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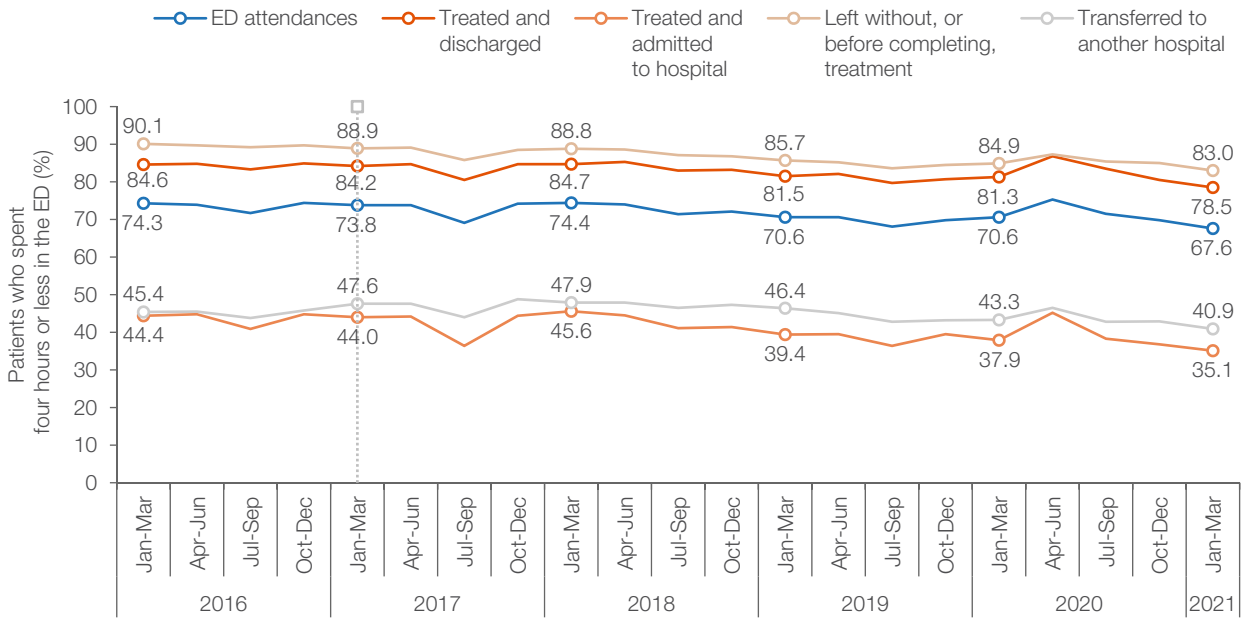
Variation by mode of separation

Patients who are treated and admitted to hospital from the ED or those who are transferred to another hospital tend to have more complex health needs, and therefore often spend longer periods in the ED (Figure 13).

Across all modes of separation, January to March 2021 had the lowest percentage of patients who spent four hours or less in the ED of any quarter in the five-year period (Figure 13).

Figure 13 Percentage of patients who spent four hours or less in the emergency department, by mode of separation, January 2016 to March 2021



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Transfer of care

When an ambulance arrives at an ED, care for the patient is transferred from the paramedics to ED staff. Transfer of care time is measured from when an ambulance arrives at the hospital to responsibility for a patient's care being transferred to ED staff. In NSW, the target for transfer of care from paramedics to ED staff is within 30 minutes for at least 90% of patients.

The percentage of ambulance arrivals with a transfer of care time within 30 minutes was 83.8% in January to March 2021, the lowest of any quarter in the five-year period (Figure 14).

Median transfer of care time

The median transfer of care time refers to the time by which half of the patients had their care transferred from paramedics to ED staff. The transfer of care time for the other half of patients was either equal to this time or longer.

In January to March 2021, the median transfer of care time remained relatively stable over five years (Figure 15).

90th percentile transfer of care time

The 90th percentile transfer of care time gives a sense of the longest time for a patient's care to be transferred from paramedics to ED staff. It is the time by which 90% of patients had their care transferred from paramedics to ED staff. The transfer of care time for the remaining 10% of patients was equal to this time or longer.

The 90th percentile transfer of care time increased over time. January to March 2021 had the longest 90th percentile transfer of care time of any quarter in the five-year period (Figure 16).

Figure 14 Percentage of ambulance arrivals with transfer of care time within 30 minutes, January 2016 to March 2021

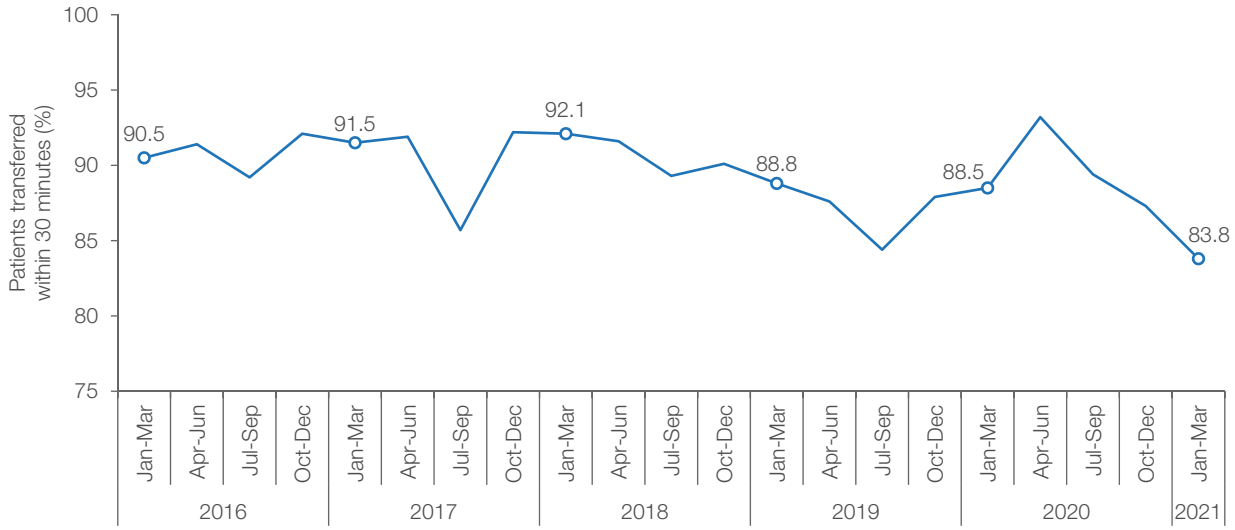


Figure 15 Median transfer of care time, January 2016 to March 2021

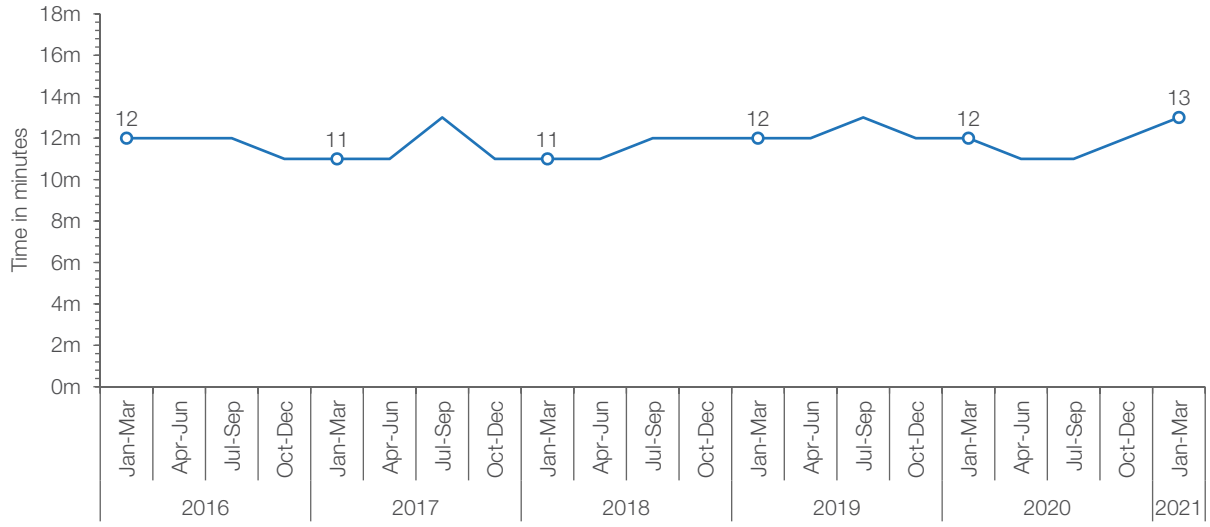
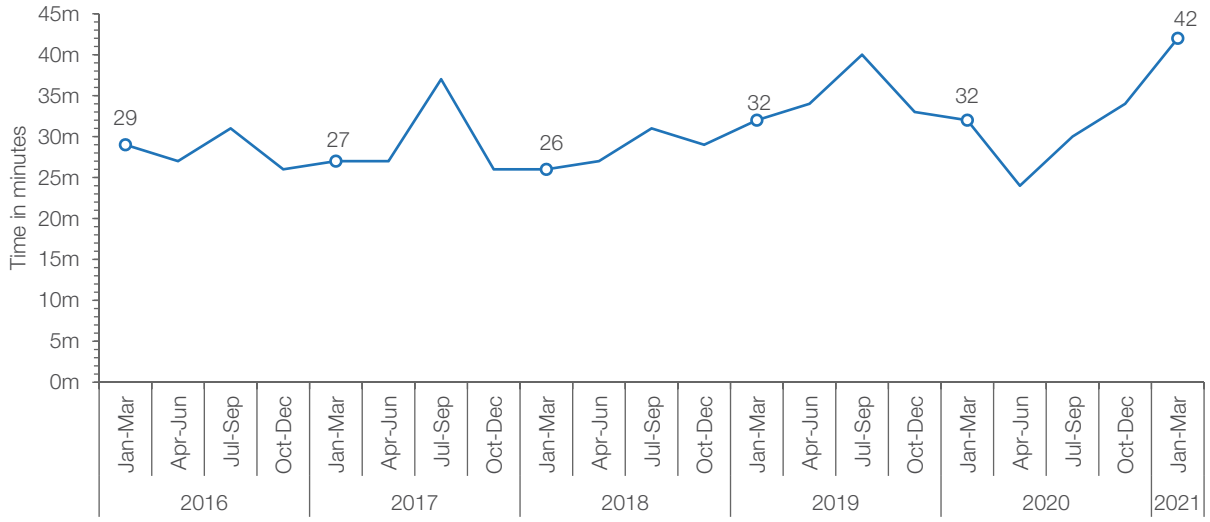


Figure 16 90th percentile transfer of care time, January 2016 to March 2021



Ambulance activity and performance

Ambulance activity

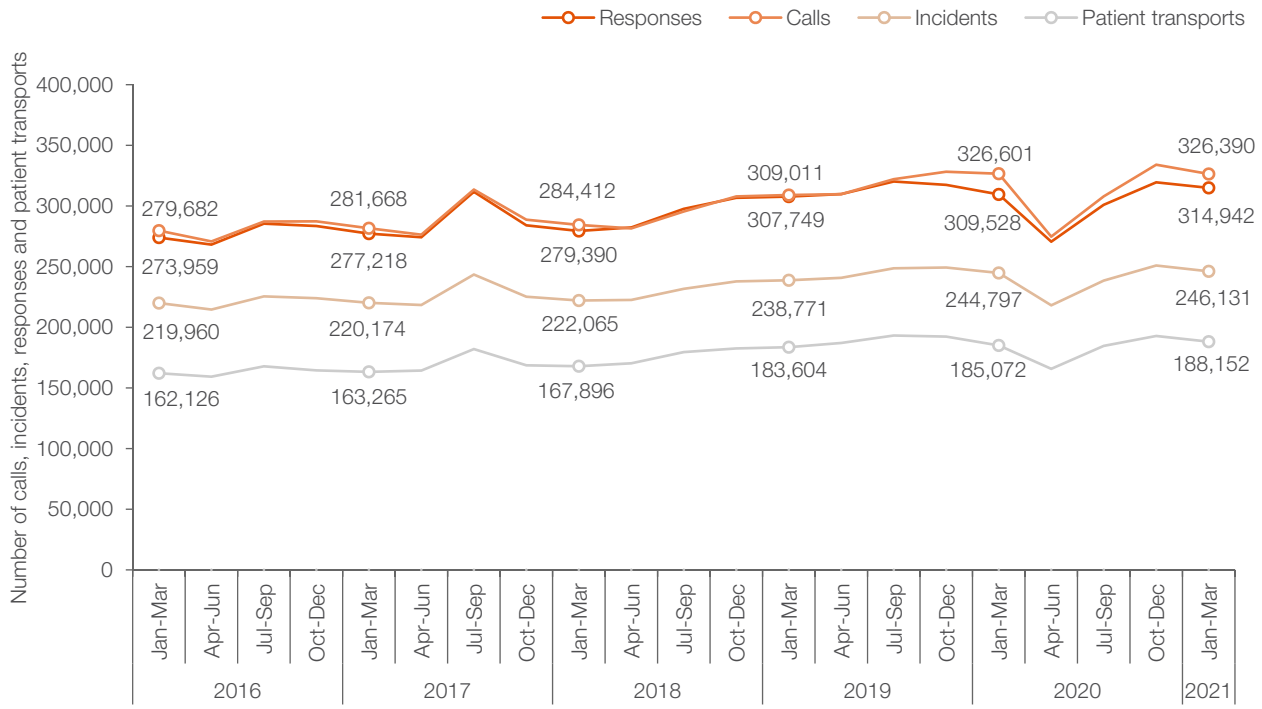
Activity is measured as the number of ambulance calls, incidents, responses and patient transports during the quarter. Ambulance activity is generally initiated by a triple zero (000) call. An incident is an event that results in a response by one or more ambulances. A response is the dispatch of an ambulance.

Depending on the seriousness of the incident, or the number of people involved, multiple responses (vehicles) may be required for a single incident. Most incidents have one vehicle assigned. Around two in 10 incidents have multiple vehicles assigned. Some vehicles are cancelled en route.

Following a sharp decrease in the April to June 2020 quarter, ambulance activity has increased and returned to levels similar to or slightly above those seen before the COVID-19 pandemic.

In January to March 2021, the numbers of ambulance incidents, responses and patient transports were the highest of any January to March quarter in the five-year period (Figures 17, 18).

Figure 17 Ambulance calls, incidents, responses and patient transports, January 2016 to March 2021

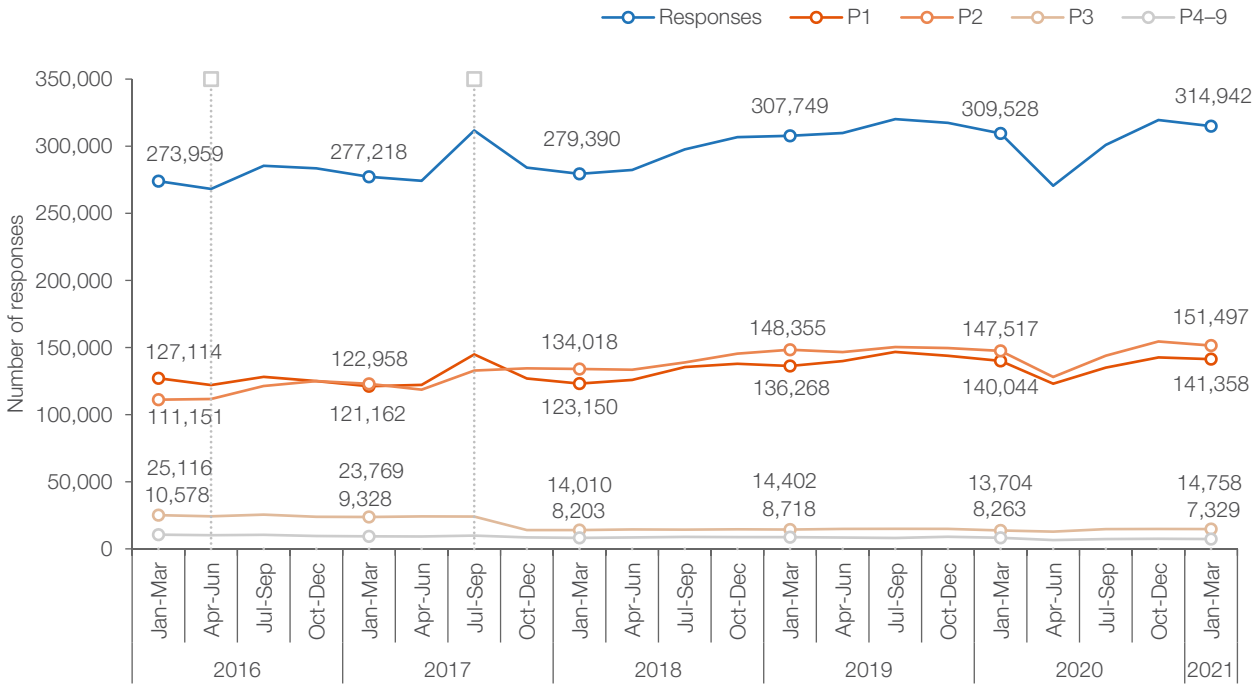


Ambulance responses by priority

There are nine main ambulance response priority categories. Three of these – priority 1 (P1: emergency), priority 2 (P2: urgent) and priority 3 (P3: time critical) – are commonly used to assess the timeliness of ambulance services. Within the priority 1 category, there is a sub-category of priority 1A (P1A) for life-threatening conditions (e.g. cardiac or respiratory arrest).

In January to March 2021, ambulance responses for P1 and P2 cases were the highest of any January to March quarter in the five-year period (Figure 18).

Figure 18 Ambulance responses by priority category, January 2016 to March 2021



: Changes to ambulance protocols resulting in the re-allocation of responses among priority categories.

Ambulance performance

Call to ambulance arrival time

Call to ambulance arrival time spans from when a call is first answered in the ambulance control centre (phone pick-up), to the time the first ambulance arrives at the scene (Figure 19). Two time benchmarks are considered for priority 1 (P1: emergency) and priority 2 (P2: urgent):

- the percentage of P1 call to ambulance arrival times within 15 and within 30 minutes
- the percentage of P2 call to ambulance arrival times within 30 and within 60 minutes.

January to March 2021 had the lowest percentage of call to ambulance arrival times within each of these benchmarks of any quarter in the five-year period (Figure 20).

Response time

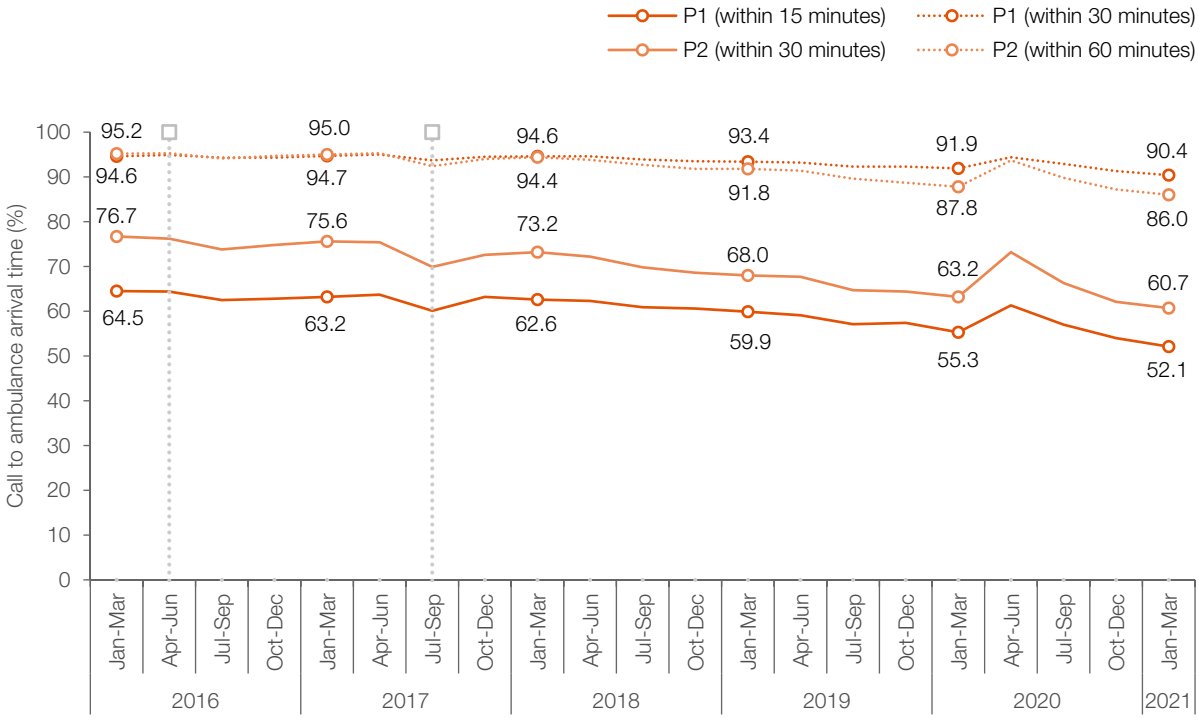
In NSW, ambulance response time refers to the period from the placement of a triple zero (000) call 'in queue' for an ambulance dispatch until the first vehicle arrives at the scene.

January to March 2021 had the longest median ambulance response times for P1 and P2 cases of any quarter in the five-year period (Figure 21).

The median ambulance response time for P1A cases increased slightly over five years (Figure 21). January to March 2021 had the lowest percentage of P1A response times within 10 minutes of any January to March quarter in the five-year period (Figure 22).

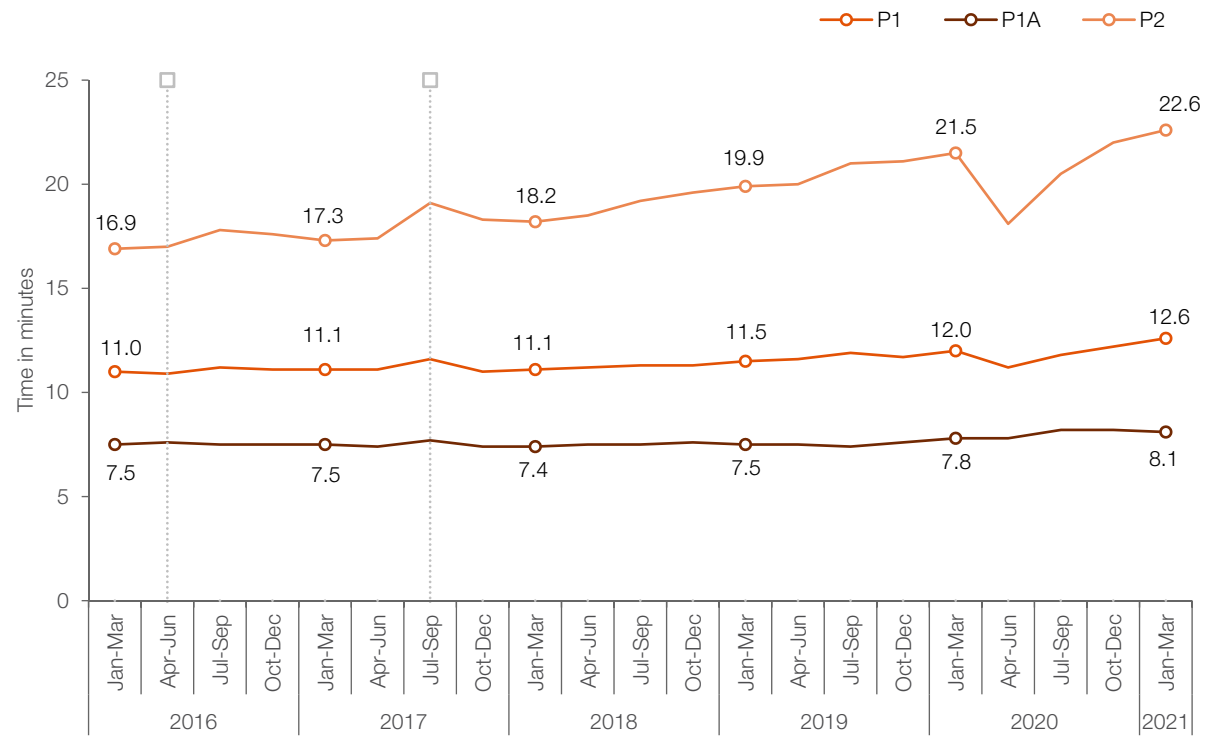
Figure 19 Call to ambulance arrival time intervals, NSW

Figure 20 Percentage of call to ambulance arrival times, by priority category, January 2016 to March 2021



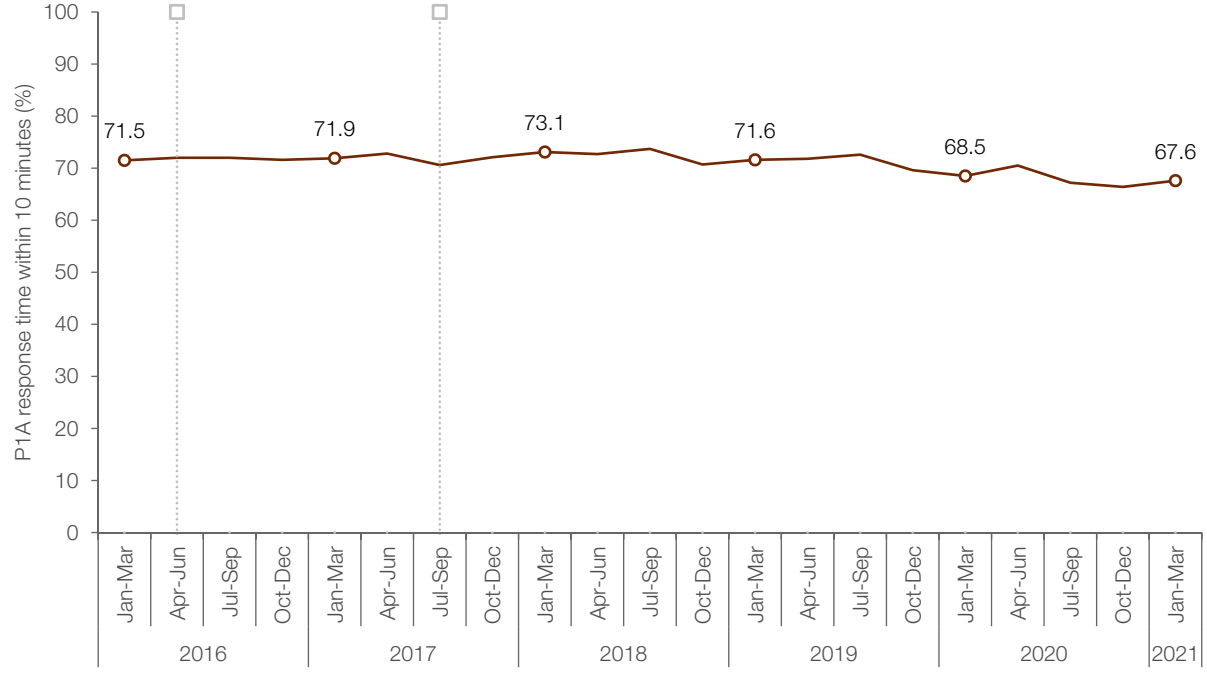
: Changes to ambulance protocols resulting in the re-allocation of responses among priority categories.

Figure 21 Median ambulance response time by priority category, January 2016 to March 2021



: Changes to ambulance protocols resulting in the re-allocation of responses among priority categories.

Figure 22 Percentage of priority 1A (P1A) response times within 10 minutes, January 2016 to March 2021



: Changes to ambulance protocols resulting in the re-allocation of responses among priority categories.

Admitted patient activity

Admitted patients

Admitted patient episodes can be acute (short-term admissions for immediate treatment) or non-acute (longer admissions for rehabilitation, palliative care or other reasons). Admissions that involve treatment for mental health can be acute or non-acute.

The five-year trend showed seasonal variation in hospital admissions, with both acute and non-acute episodes following a similar pattern.

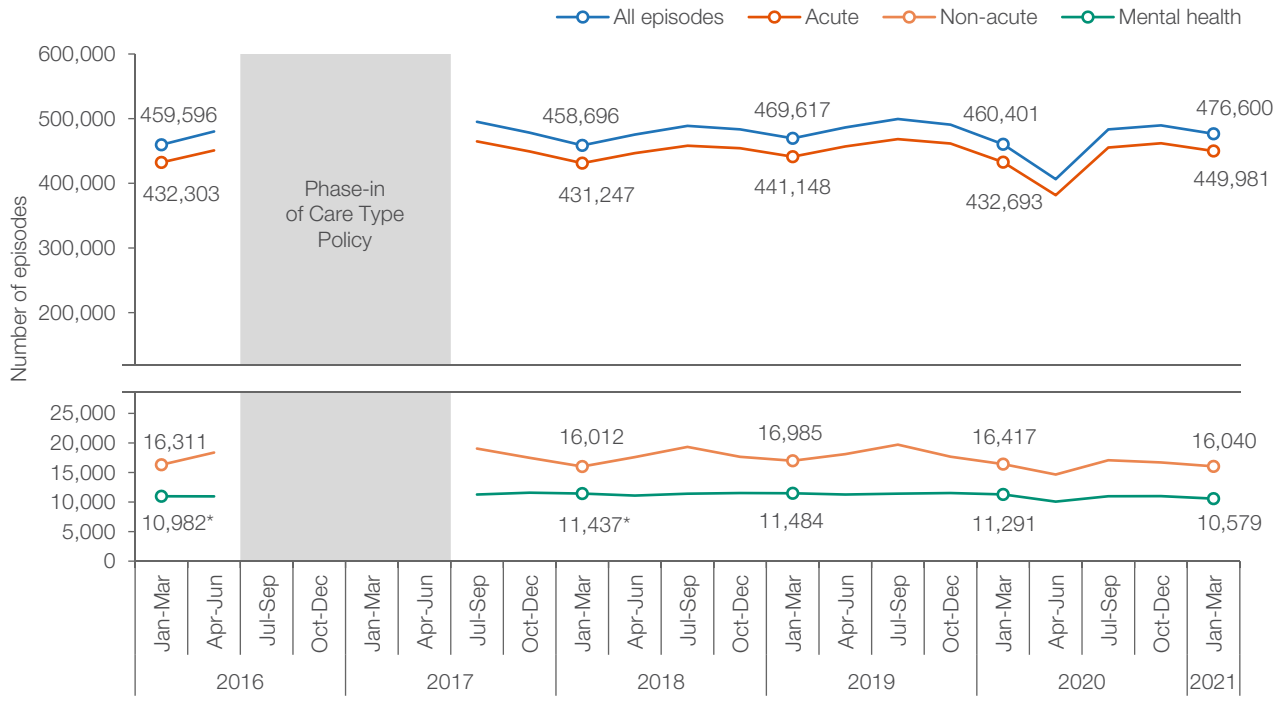
Following a sharp decrease in the April to June 2020 quarter, the numbers of admitted patient episodes for all, acute and non-acute admissions returned to levels similar to or slightly above those seen before the COVID-19 pandemic (Figure 23).

In January to March 2021, the numbers of admitted patient episodes for all admissions and acute admissions were the highest of any January to March quarter in the five-year period (Figure 23).

January to March 2021 had the lowest number of mental health admitted patient episodes of any January to March quarter in the five-year period (Figure 23).

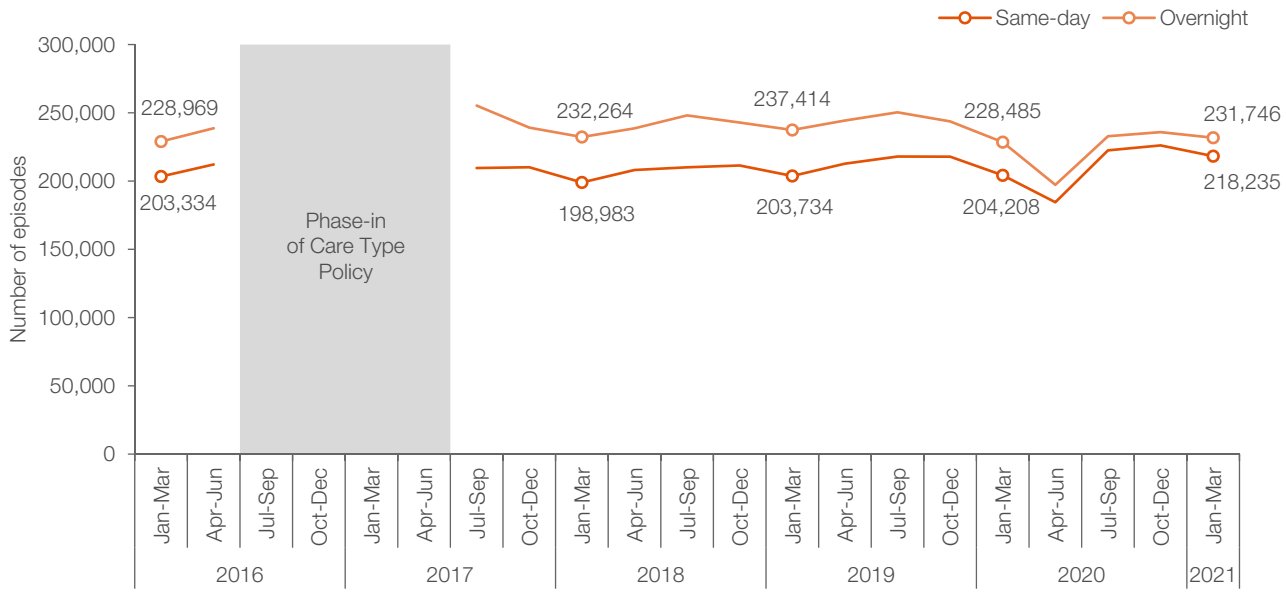
Admitted patient episodes can be for same-day or overnight care. January to March 2021 had the highest number of same-day acute episodes of any January to March quarter in the five-year period (Figure 24).

Figure 23 Total, acute, non-acute and mental health episodes, January 2016 to March 2021



* Estimates of mental health episodes calculated using a flag for days in a psychiatric unit.
Note: Results are calculated from more than 200 hospitals in each quarter reported in *Healthcare Quarterly.*

Figure 24 Overnight and same-day acute admitted patient episodes, January 2016 to March 2021



* Estimates of mental health episodes calculated using a flag for days in a psychiatric unit.
Note: Results are calculated from more than 200 hospitals in each quarter reported in *Healthcare Quarterly.* Same-day refers to patients who are admitted and discharged on the same day. Same-day episodes count as one bed day.

Phase-in of Care Type Policy – Between 1 July 2016 and 30 June 2017, all LHDs and health networks introduced a mental health stay type when classifying newly admitted or long-standing mental health patients. Comparisons between the pre- and post-policy period should be made with caution.

Hospital bed days for admitted patients

Bed days are used to establish levels of inpatient occupancy. A higher number of bed days suggests that either more patients are being hospitalised or that patients are hospitalised for longer periods, or both.

Total bed days for an overnight episode refers to the difference, in days, between the episode start and end dates, minus the number of episode leave days recorded. Same-day episodes count as one day.

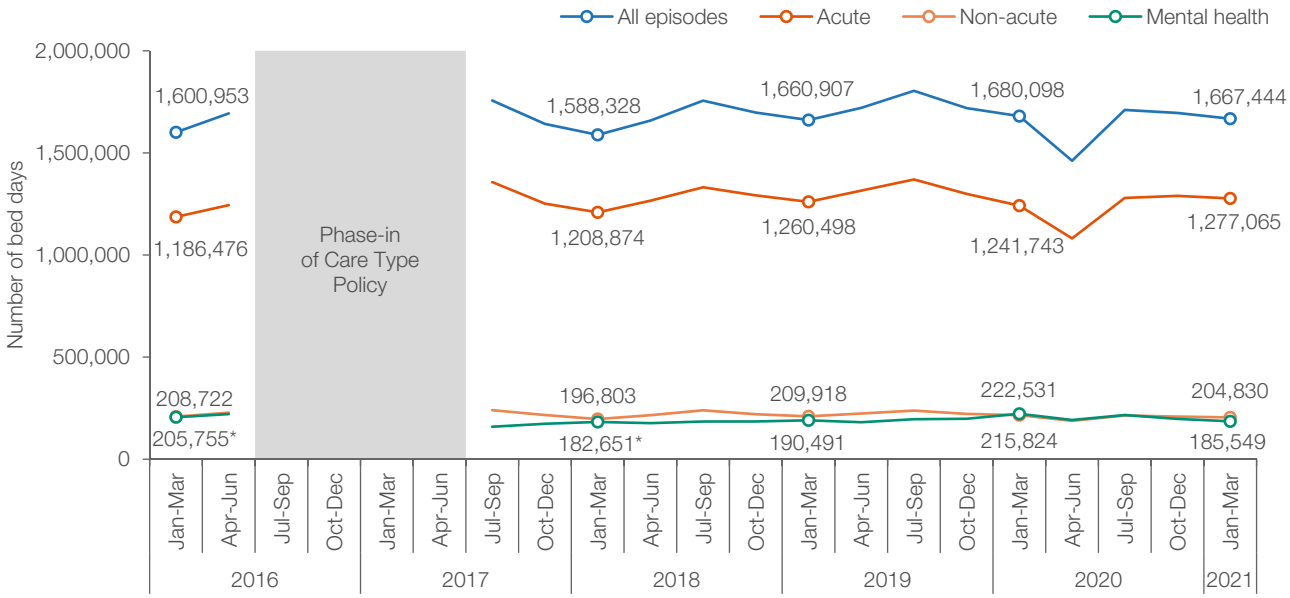
Seasonal variation for total bed days followed a similar variation pattern to that for admitted patient episodes (Figures 23, 24).

Following a sharp decrease in the April to June 2020 quarter, the numbers of hospital bed days for all episodes, acute and non-acute episodes returned to levels similar to or slightly above those seen before the COVID-19 pandemic (Figure 25).

In January to March 2021, the number of hospital bed days for acute episodes was the highest of any January to March 2021 quarter in the five-year period (Figure 25).

Following the reclassification of mental health patients between 1 July 2016 and 30 June 2017, the number of hospital bed days for mental health episodes increased from 182,651 in January to March 2018 to 215,824 in January to March 2020, slightly above levels before the Care Type Policy change, and then decreased to 185,549 in January to March 2021 (Figure 25).

Figure 25 Number of hospital bed days, by type of admitted patient episode, January 2016 to March 2021



* Estimates of mental health episodes calculated using a flag for days in a psychiatric unit.
Note: Results are calculated from more than 200 hospitals in each quarter reported in *Healthcare Quarterly*.

Phase-in of Care Type Policy – Between 1 July 2016 and 30 June 2017, all LHDs and health networks introduced a mental health stay type when classifying newly admitted or long-standing mental health patients. Comparisons between the pre- and post-policy period should be made with caution.

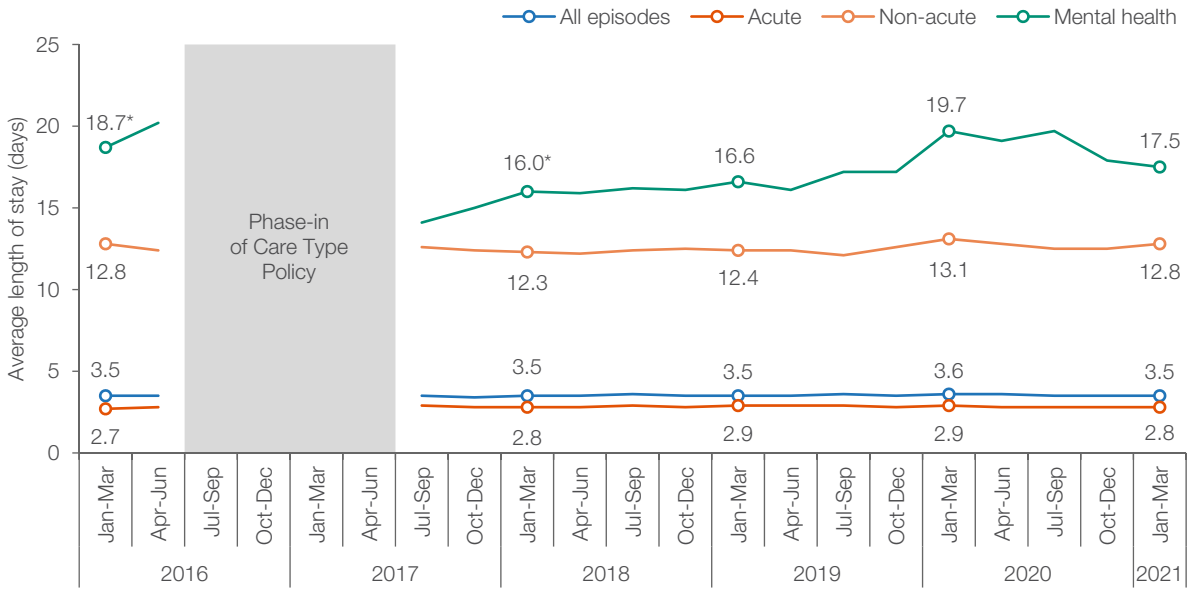
Average length of stay in hospital

The average length of stay refers to the mean of total bed days for all acute, non-acute or mental health admitted patient episodes.

The average length of stay was steady for all episodes, acute and non-acute episodes over five years (Figure 26).

Following the reclassification of mental health patients between 1 July 2016 and 30 June 2017, the average length of stay for mental health increased from 16.0 days in January to March 2018 to 19.7 days in January to March 2020, slightly above levels before the Care Type Policy change, and then decreased to 17.5 days in January to March 2021 (Figure 26).

Figure 26 Average length of stay, by type of admitted patient episode, January 2016 to March 2021



* Estimates of mental health episodes calculated using a flag for days in a psychiatric unit.
Note: Results are calculated from more than 200 hospitals in each quarter reported in *Healthcare Quarterly*.

Phase-in of Care Type Policy – Between 1 July 2016 and 30 June 2017, all LHDs and health networks introduced a mental health stay type when classifying newly admitted or long-standing mental health patients. Comparisons between the pre- and post-policy period should be made with caution.

Seclusion and restraint

Seclusion events and rate

A seclusion event occurs when a patient is placed alone in a room or an area with no freedom of exit. Seclusion is not therapeutic and should only be used as a last resort when other options are unsuccessful in maintaining safety for the patient, staff or others.

The NSW Ministry of Health introduced a new key performance indicator (KPI) for seclusion for 2020–21. The target for the percentage of acute mental health episodes of care with at least one seclusion event is less than 4.1% for each hospital.

There are 46 public hospitals with specialised acute mental health units in NSW including six with a Mental Health Intensive Care Unit (MHICU).

Across January to March quarters, the percentage of acute mental health episodes of care in NSW with at least one seclusion event decreased from 4.8% in 2016 to 3.1% in 2021 (Figure 27).

The percentage of acute mental health episodes of care with at least one seclusion event in hospitals with a MHICU followed a similar pattern, and was typically higher than in hospitals without a MHICU (Figure 27).

Across January to March quarters, the number of seclusion events decreased from 1,037 in 2016 to 652 in 2021, down 37.1% (385). The number of seclusion events in hospitals with a MHICU decreased from 452 in January to March 2016 to 310 in January to March 2021, down 31.4% (142) (Figure 28).

The rate of seclusion is the number of seclusion events per 1,000 bed days. Across January to March quarters, the rate decreased from 8.0 per 1,000 bed days in 2016 to 5.1 per 1,000 in 2021. Similarly, the rate of seclusion in hospitals with a MHICU also declined over five years, and was typically higher than in hospitals without a MHICU (Figure 29).

Since 2018–19, the NSW Ministry of Health's KPI target for the rate of seclusion has been less than 5.1 per 1,000 bed days.

Figure 27 **Percentage of acute mental health episodes of care occurring in specialised acute mental health inpatient units with at least one seclusion event, January 2016 to March 2021**

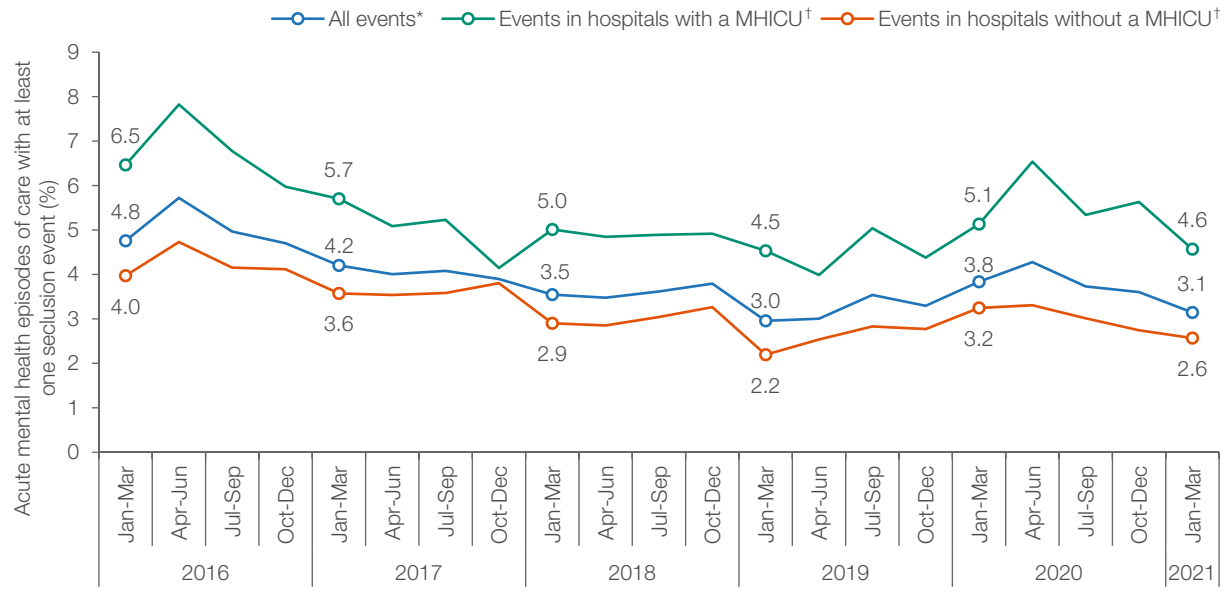


Figure 28 Number of seclusion events occuring in specialised acute mental health inpatient units, January 2016 to March 2021

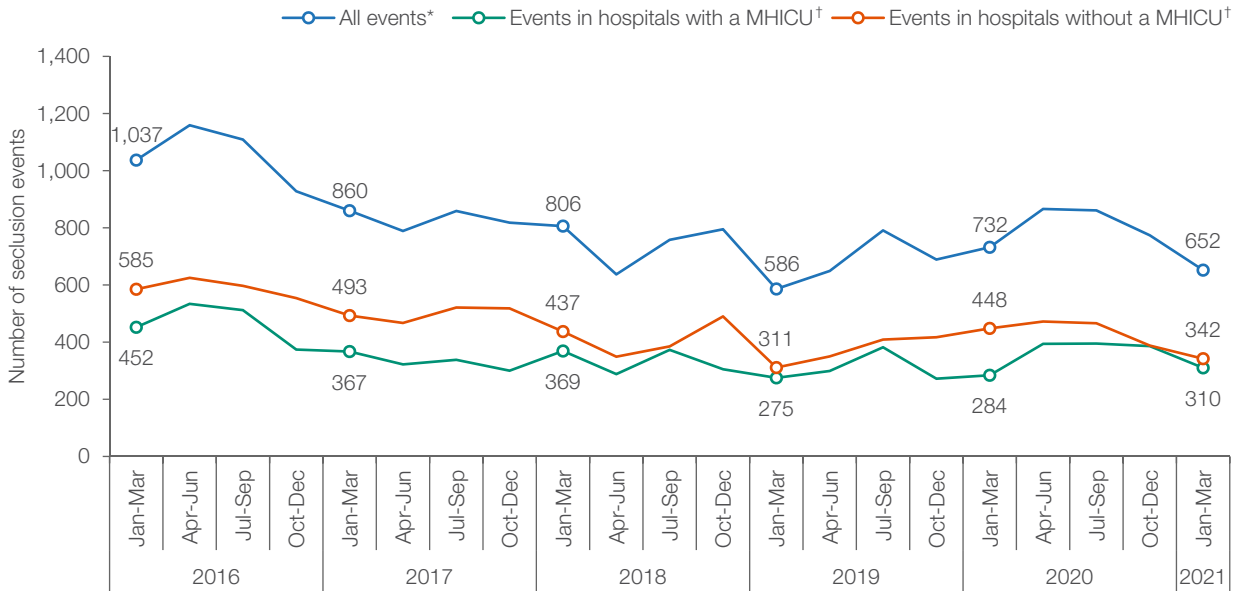
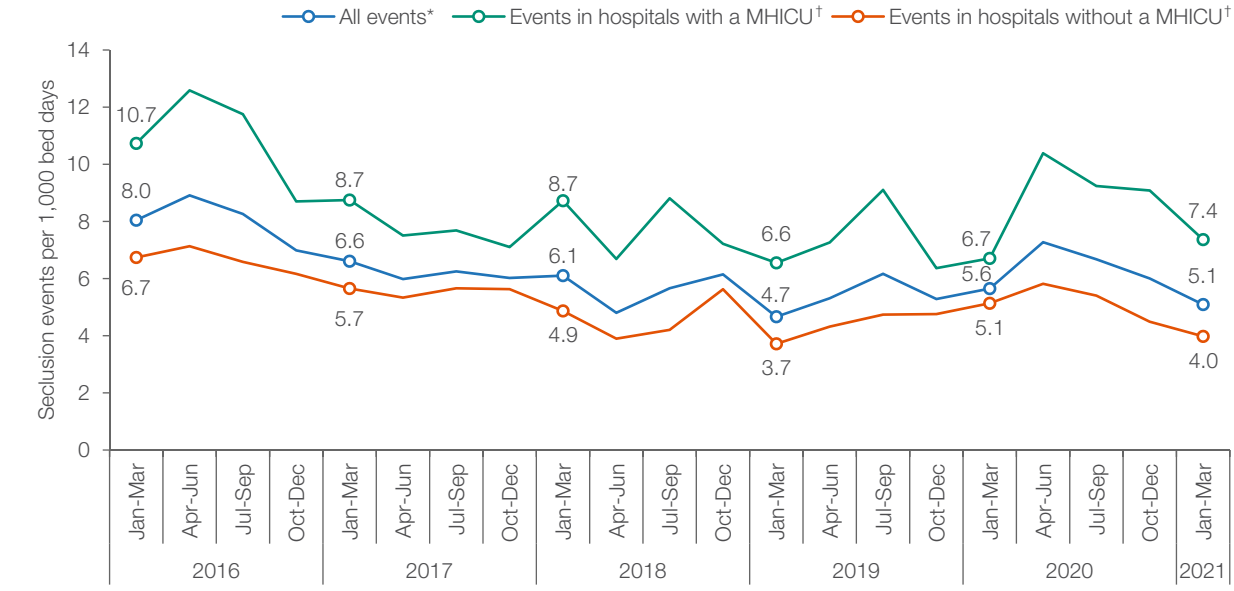


Figure 29 Number of seclusion events per 1,000 bed days in specialised acute mental health inpatient units, January 2016 to March 2021



* 'All events' includes all seclusion events occurring in specialised acute mental health inpatient units, excluding episodes in the Justice Health and Forensic Mental Health Network (JHFMHN).

† MHICU = Mental Health Intensive Care Unit

Note: For more information, including which hospitals are included each quarter, please refer to the technical supplement to this *Healthcare Quarterly* and *Measurement Matters – Reporting on seclusion and restraint in NSW public hospitals*, available at **bhi.nsw.gov.au**

Restraint events and rate

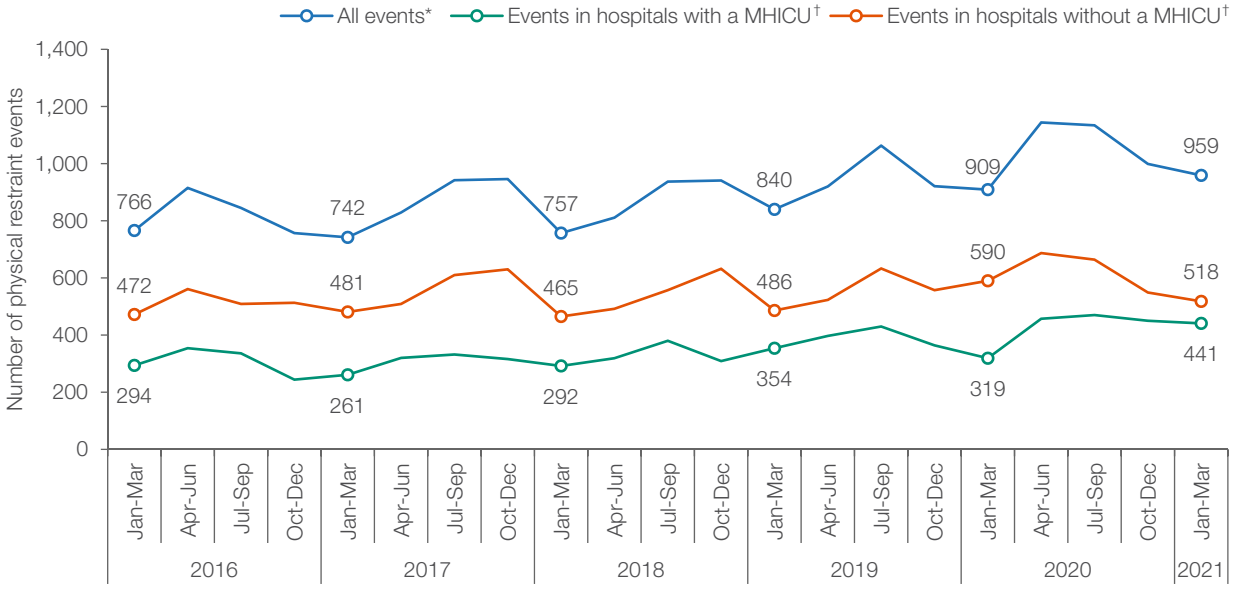
A physical restraint event occurs when a patient's freedom of movement is restricted by physical means (i.e. hands-on immobilisation by healthcare staff). Such restrictive intervention is not therapeutic and should only be used as a last resort when other options have been unsuccessful in maintaining safety for the patient, staff or others.

Most episodes of care in acute mental health units in NSW public hospitals do not have a physical restraint event. In January to March 2021, 95.6% of acute mental health episodes of care did not have any physical restraint event (data not shown).

The number of physical restraint events showed some seasonal variation over five years and increased from 766 in January to March 2016 to 959 in January to March 2021, up 25.2% (193) (Figure 30).

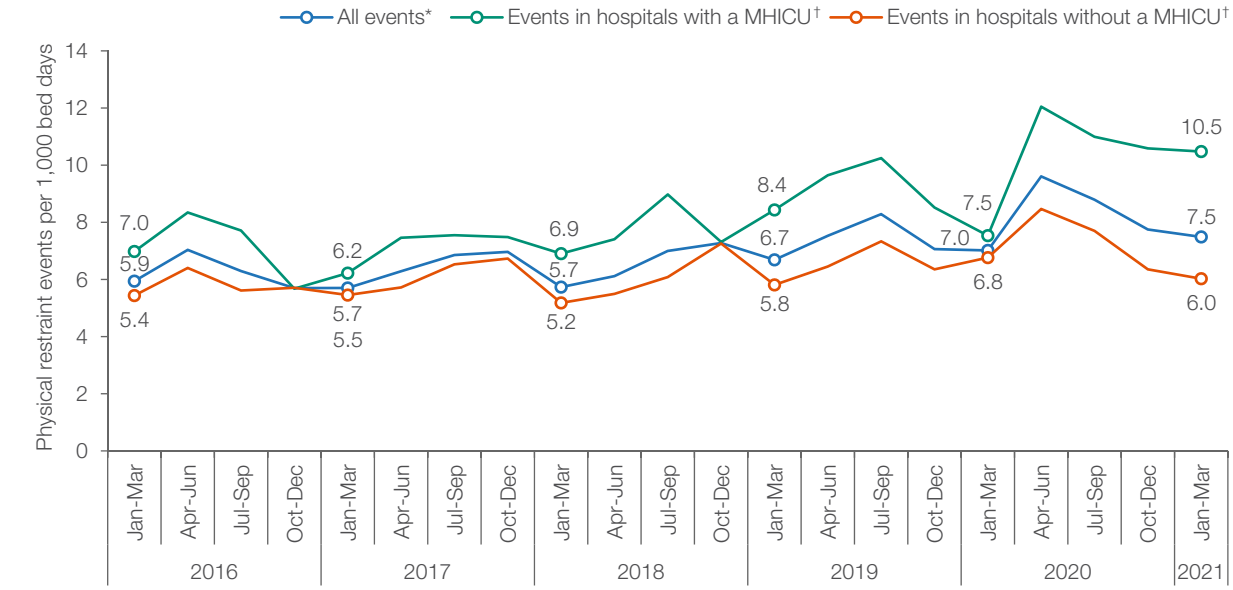
The rate of restraint refers to the number of restraint events per 1,000 bed days. The rate of physical restraint increased from 5.9 per 1,000 bed days in January to March 2016 to 7.5 per 1,000 bed days in January to March 2021. Similarly, the rate of physical restraint in hospitals with a MHICU also increased over five years, and was typically higher than in hospitals without a MHICU (Figure 31).

Figure 30 Number of physical restraint events occuring in specialised acute mental health inpatient units, January 2016 to March 2021



Note: Data collection for physical restraint commenced in 2015–16. The variation in the number of physical restraint events over time may be due to differences in the processes for manual collection of data and/or a maturing understanding of the definition of physical restraint rather than actual differences in the use of physical restraint.

Figure 31 Number of physical restraint events per 1,000 bed days in specialised acute mental health inpatient units, January 2016 to March 2021



* 'All events' includes all physical restraint events occurring in specialised acute mental health inpatient units, excluding episodes in the JHFMHN.
† MHICU = Mental Health Intensive Care Unit
Note: For more information, including which hospitals are included each quarter, please refer to the technical supplement to this *Healthcare Quarterly* and *Measurement Matters – Reporting on seclusion and restraint in NSW public hospitals*, available at **bhi.nsw.gov.au**

Seclusion and restraint duration

While seclusion and restraint are used to maintain safety for a patient, staff or others, the length of time that an individual is exposed to these restrictive interventions should be as short as possible.

When examining average duration of seclusion and restraint events, it should be noted that variation can be affected by a single event lasting considerably longer than others. NSW Health identifies improvement in the use of restrictive practices as a reduction in the number and duration of seclusion and restraint events, without substitution of other forms of restrictive practices.

The average duration of a seclusion event decreased from 6 hours 57 minutes in January to March 2016 to 4 hours 18 minutes in January to March 2018, followed by another increase to 6 hours 24 minutes in January to March 2021. The average duration of a seclusion event in hospitals with a MHICU was typically longer than in hospitals without a MHICU (Figure 32).

The NSW Health KPI target for seclusion duration has been less than four hours since 2017–18. The average duration of a seclusion event at NSW level has been longer than four hours since January to March 2016 (Figure 32).

The average duration of physical restraint events varied between 4 minutes 42 seconds, and 5 minutes 43 seconds across January to March quarters over five years. The average duration of a physical restraint event in hospitals with a MHICU was typically longer than in hospitals without a MHICU (Figure 33).

In *Healthcare Quarterly*, BHI reports on facilities with specialised declared acute mental health units and specialised non-declared acute mental health units, with both voluntary and involuntary episodes of care included. BHI does not report on seclusion and restraint in non-acute specialised mental health inpatient units or in emergency departments. The Justice Health and Forensic Mental Health Network (JHFMHN) treats a different type of patient and has different models of care. Therefore, JHFMHN is not included in NSW totals in this report.

Figure 32 Average duration of seclusion events occuring in specialised acute mental health inpatient units, January 2016 to March 2021

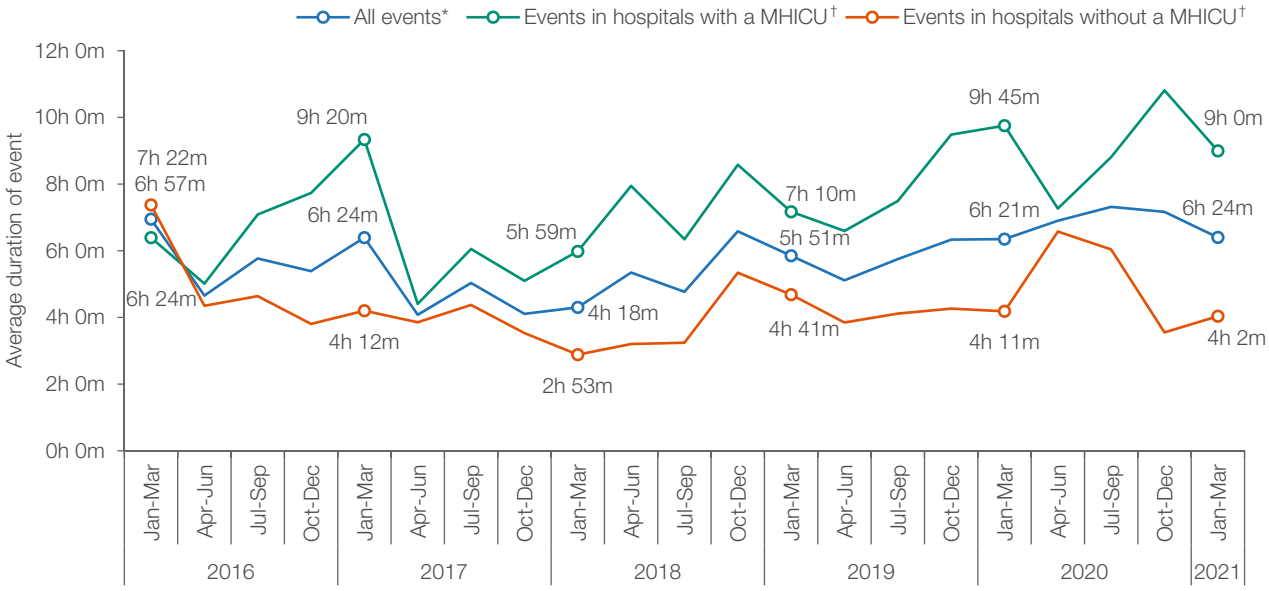
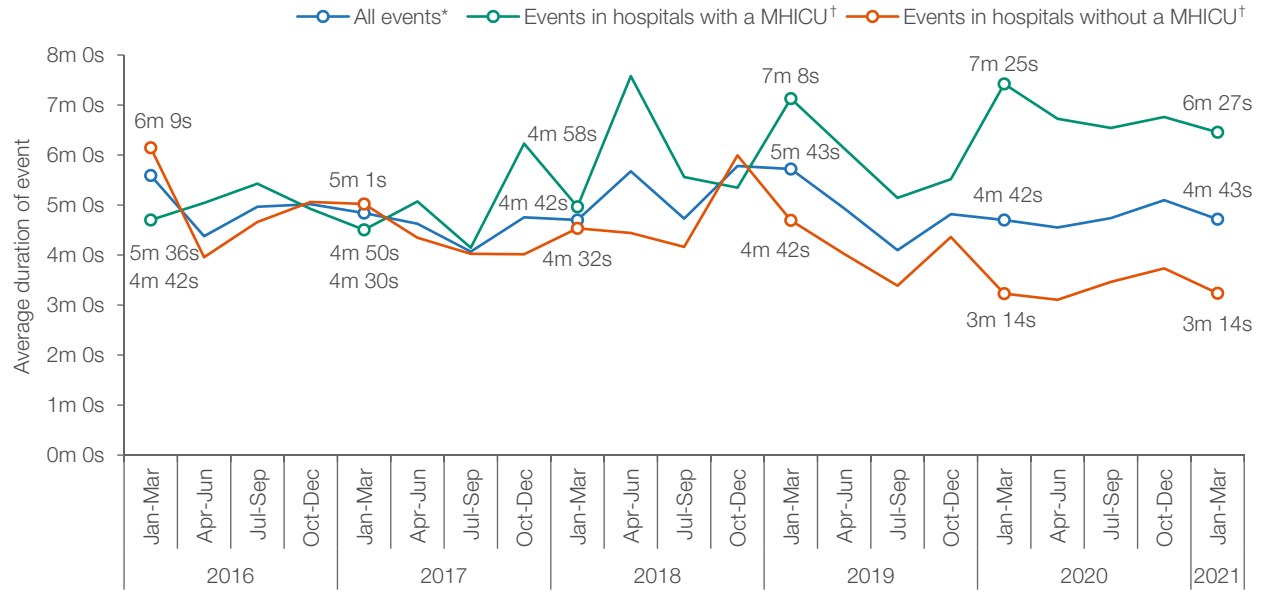


Figure 33 Average duration of physical restraint events occurring in specialised acute mental health inpatient units, January 2016 to March 2021



* 'All events' includes all seclusion or physical restraint events occurring in specialised acute mental health inpatient units, excluding episodes in the JHFMHN.
† MHICU = Mental Health Intensive Care Unit
Note: For more information, including which hospitals are included each quarter, please refer to the technical supplement to this *Healthcare Quarterly* and *Measurement Matters – Reporting on seclusion and restraint in NSW public hospitals*, available at **bhi.nsw.gov.au**

Elective surgery activity and performance

Elective surgery

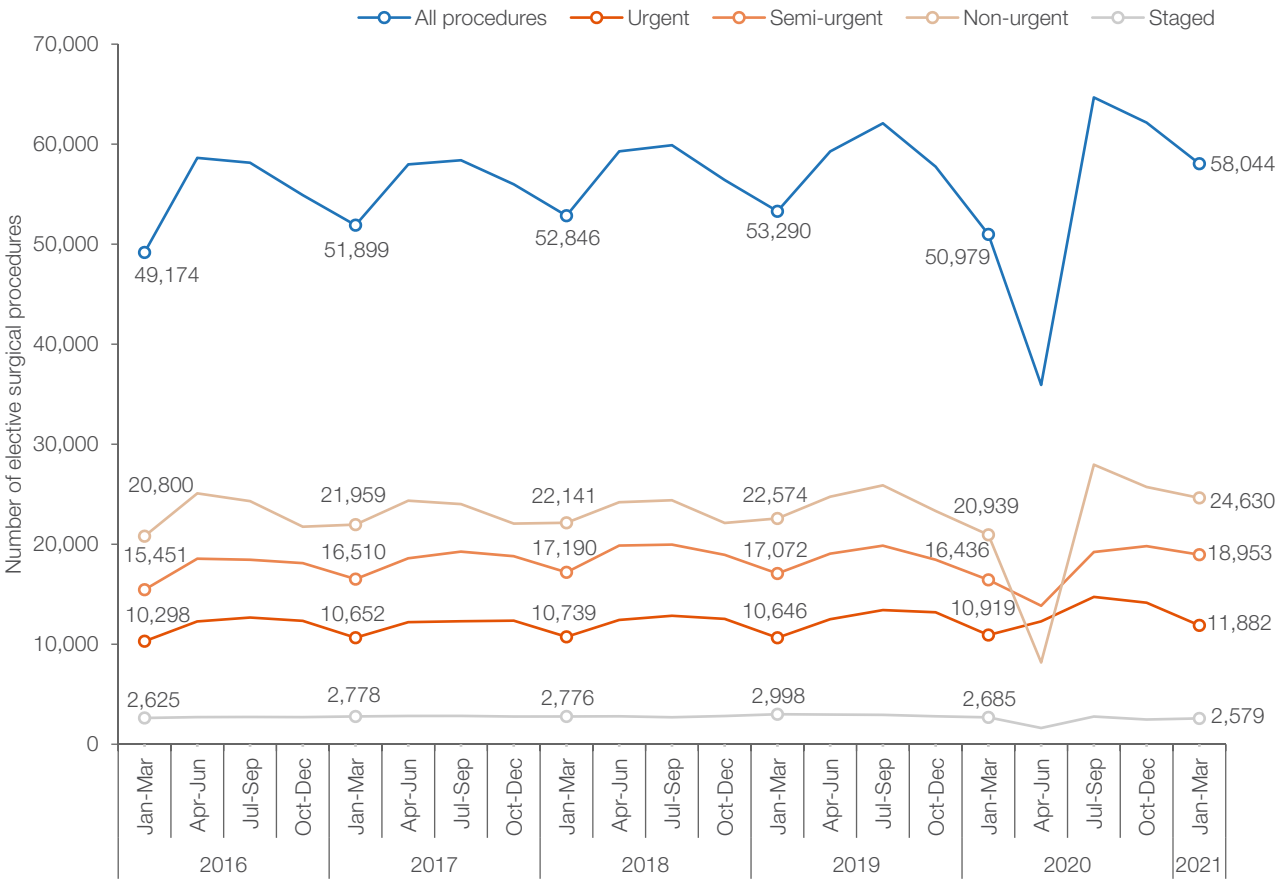
There are three main urgency categories for elective surgery: urgent, semi-urgent and non-urgent. Staged surgery, for medical reasons, cannot be performed before a certain amount of time has passed. The urgency category is determined by the surgeon and is based on clinical criteria. The surgeon also decides whether a change in the patient's condition warrants a shift to a different urgency category.

From July to September 2020, the number of elective surgery performed increased following the resumption of non-urgent surgery, which had been suspended due to the COVID-19 pandemic.

January to March 2021 had the highest number of elective surgeries performed in every urgency category of any January to March quarter in the five-year period (Figure 34).

In response to the COVID-19 pandemic, from 26 March 2020, National Cabinet suspended all non-urgent elective surgery. From 27 April, additional elective surgery up to 25% of normal levels was permitted, and from 15 May, three stages for reopening elective surgery were established, to be implemented at the discretion of each jurisdiction.

Figure 34 Elective surgery performed, by urgency category, January 2016 to March 2021



Note: From 26 March 2020, National Cabinet suspended all non-urgent elective surgery. From 27 April, additional elective surgery up to 25% of normal levels was permitted, and from 15 May, three stages for reopening elective surgery were established, to be implemented at the discretion of each jurisdiction.

Percentage of elective surgery on time

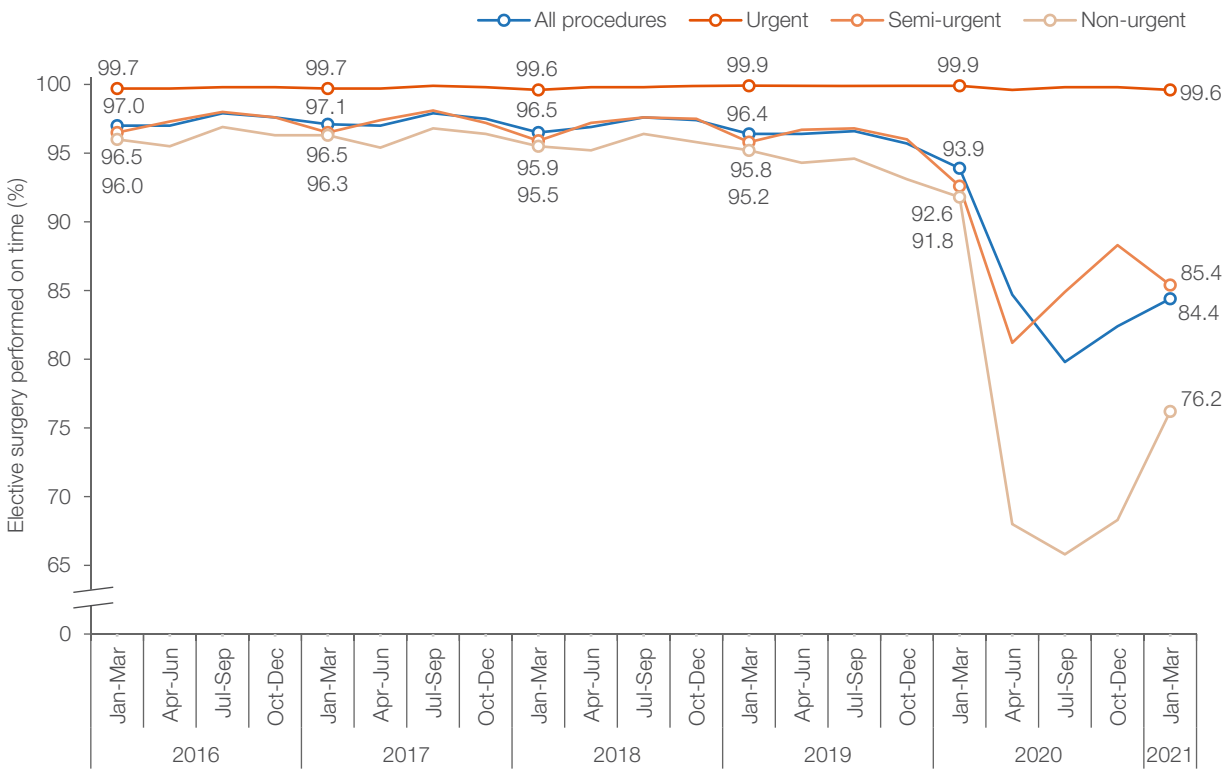
For each urgency category there are clinically recommended time frames within which elective surgical procedures should be performed: 30 days for urgent surgery, 90 days for semi-urgent surgery, and 365 days for non-urgent surgery.

Almost all urgent elective surgeries were performed within the clinically recommended time frame over five years (Figure 35).

Following a sharp decrease in April to June 2020, the percentage of surgery performed on time for semi-urgent category increased to 85.4% in January to March 2021 (Figure 35).

For non-urgent elective surgery, the percentage of surgery performed on time continued to increase to 76.2% in January to March 2021 from its lowest level in July to September 2020 (Figure 35).

Figure 35 Percentage of elective surgery performed on time, by urgency category,January 2016 to March 2021



Note: From 26 March 2020, National Cabinet suspended all non-urgent elective surgery. From 27 April, additional elective surgery up to 25% of normal levels was permitted, and from 15 May, three stages for reopening elective surgery were established, to be implemented at the discretion of each jurisdiction.

Waiting time and waiting list for elective surgery

The waiting time for elective surgery is measured as the number of days from when a patient was placed on the list to when they received surgery.

Median waiting time

The median waiting time refers to the number of days it took for half of the patients to be admitted to hospital and undergo surgery. The other half waited the same amount of time or longer.

The median waiting time remained relatively stable for urgent surgery over five years. The median waiting time for semi-urgent surgery increased slightly to 54 days in January to March 2021 – the longest of any quarter in the five-year period. The median waiting time for non-urgent surgery continued to decrease in January to March 2021 from its highest level in July to September 2020 (Figure 36).

90th percentile waiting time

The 90th percentile gives a sense of the longest waiting times to receive surgery. This measure indicates the number of days it took for 90% of patients to undergo surgery. The waiting time for the remaining 10% was the same or longer.

The 90th percentile waiting time for semi-urgent and non-urgent elective surgery decreased slightly in January to March 2021 from its highest level (Figure 37).

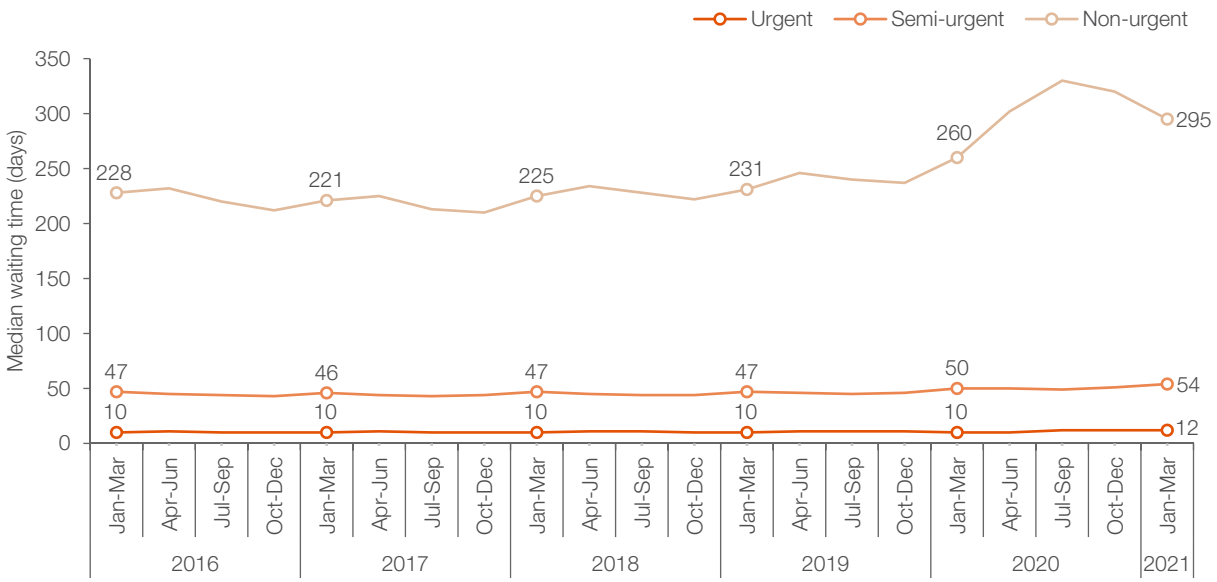
Waiting list

The waiting list is dynamic and information about the number of patients still waiting for surgery is a snapshot of the list on a single day. In this case, it is the number of patients who were ready for surgery on the last day of the quarter.

January to March 2021 had the highest number of patients on the waiting list for urgent and semi-urgent elective surgery of any quarter in the five-year period (Figure 38).

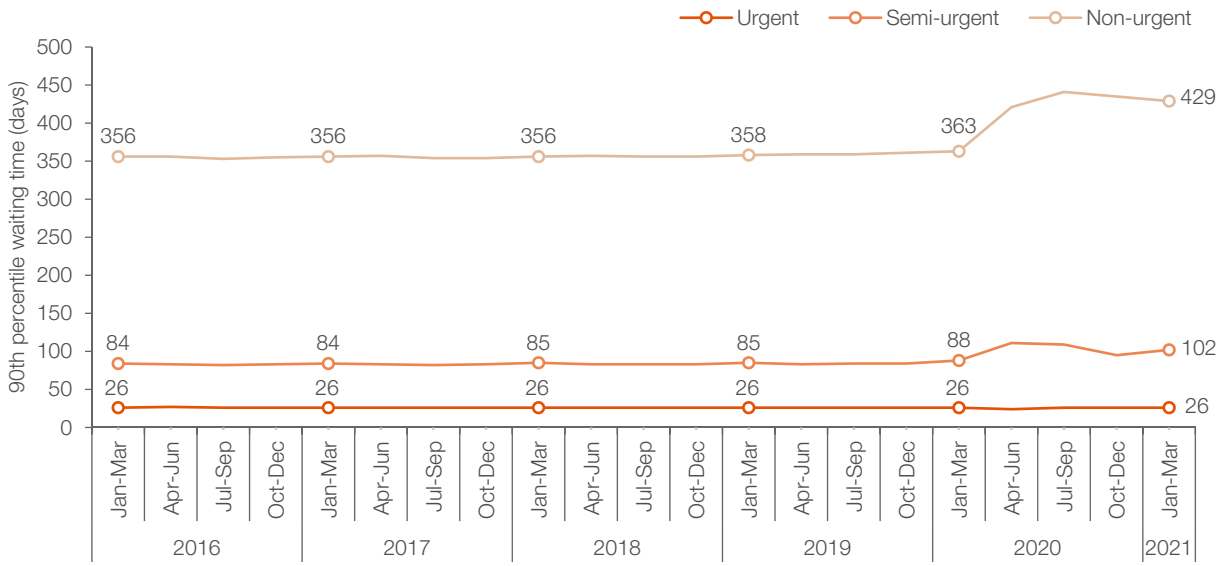
The number of patients on the waiting list for non-urgent surgery peaked in April to June 2020, and then decreased to 71,766 in January to March 2021, lower than levels seen before the COVID-19 pandemic (Figure 38).

Figure 36 Median waiting time for elective surgery, by urgency category, January 2016 to March 2021



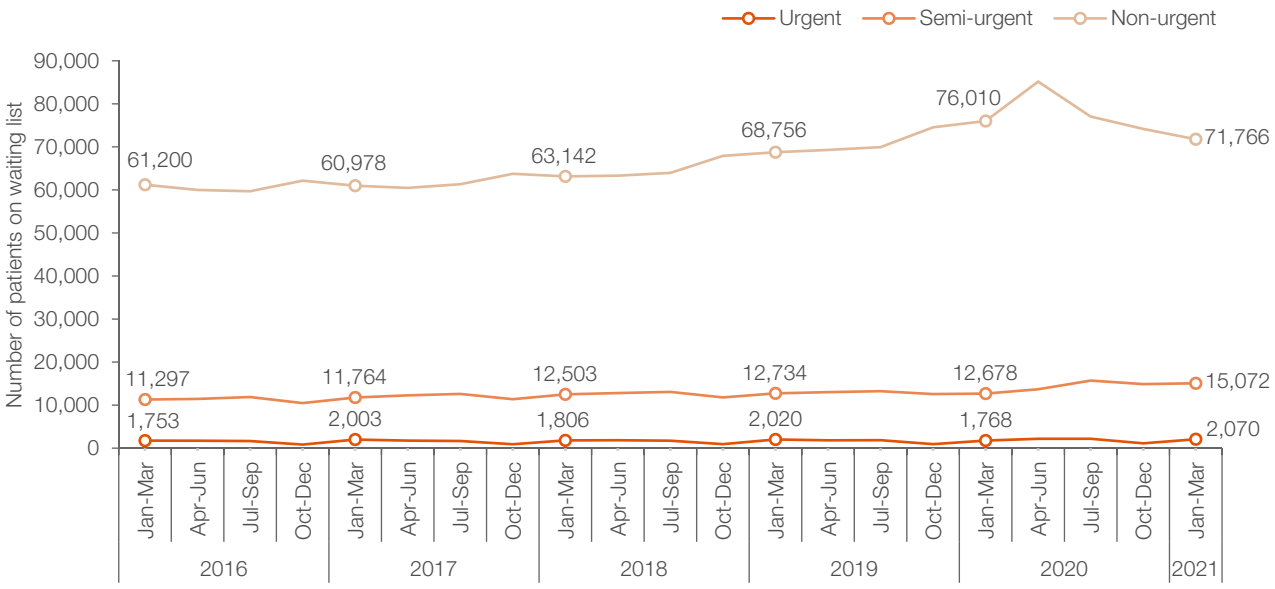
Note: From 26 March 2020, National Cabinet suspended all non-urgent elective surgery. From 27 April, additional elective surgery up to 25% of normal levels was permitted, and from 15 May, three stages for reopening elective surgery were established, to be implemented at the discretion of each jurisdiction.

Figure 37 90th percentile waiting time for elective surgery, by urgency category, January 2016 to March 2021



Note: From 26 March 2020, National Cabinet suspended all non-urgent elective surgery. From 27 April, additional elective surgery up to 25% of normal levels was permitted, and from 15 May, three stages for reopening elective surgery were established, to be implemented at the discretion of each jurisdiction.

Figure 38 Patients on the waiting list for elective surgery at the end of the quarter, by urgency category, January 2016 to March 2021



Note: From 26 March 2020, National Cabinet suspended all non-urgent elective surgery. From 27 April, additional elective surgery up to 25% of normal levels was permitted, and from 15 May, three stages for reopening elective surgery were established, to be implemented at the discretion of each jurisdiction.

bureau of health information

About the Bureau of Health Information

The Bureau of Health Information (BHI) is a board-governed organisation that provides independent information about the performance of the NSW healthcare system.

BHI was established in 2009 and supports the accountability of the healthcare system by providing regular and detailed information to the community, government and healthcare professionals. This in turn supports quality improvement by highlighting how well the healthcare system is functioning and where there are opportunities to improve.

BHI manages the NSW Patient Survey Program, gathering information from patients about their experiences and outcomes of care in public hospitals and other healthcare facilities.

BHI publishes a range of reports and information products, including interactive tools, that provide objective, accurate and meaningful information about how the health system is performing.

BHI's work relies on the efforts of a wide range of healthcare, data and policy experts. All of our assessment efforts leverage the work of hospital coders, analysts, technicians and healthcare providers who gather, codify and supply data. Our public reporting of performance information is enabled and enhanced by the infrastructure, expertise and stewardship provided by colleagues from NSW Health and its pillar organisations.

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