

# Activity and performance

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

April to June 2019



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State Health Publication Number: (BHI) 190436  
ISSN: 2207-9564 (online)

Suggested citation:

Bureau of Health Information. Healthcare Quarterly, Activity and performance, Emergency department, ambulance, admitted patients, seclusion and restraint, and elective surgery, April to June 2019. Sydney (NSW); BHI; 2019.

Please note there is the potential for minor revisions of data in this report.  
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Published September 2019

The conclusions in this report are those of BHI and no official endorsement by the NSW Minister for Health, the NSW Ministry of Health or any other NSW public health organisation is intended or should be inferred.

Full results for *Healthcare Quarterly* are available through BHI's interactive data portal, Healthcare Observer. Results are reported at a state, local health district, hospital peer group and individual hospital level for public hospitals and at a state level and by statistical area level 3 (SA3) for ambulance services.

Figures published in Healthcare Observer, 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 data are available in Healthcare Observer and supersede all previously published figures.

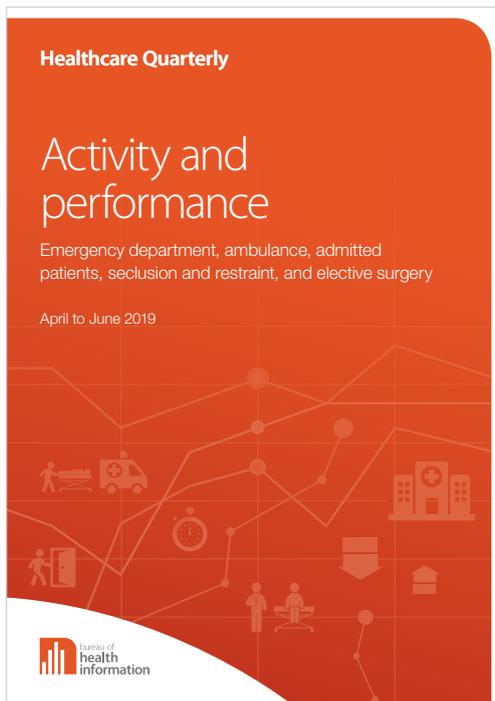
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# A guide to Healthcare Quarterly

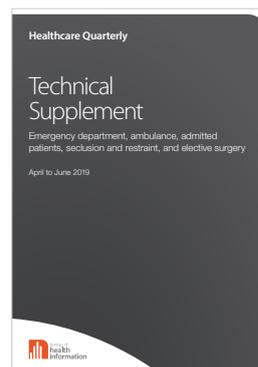
*Healthcare Quarterly* reports on activity and performance in public hospitals and ambulance services across NSW.



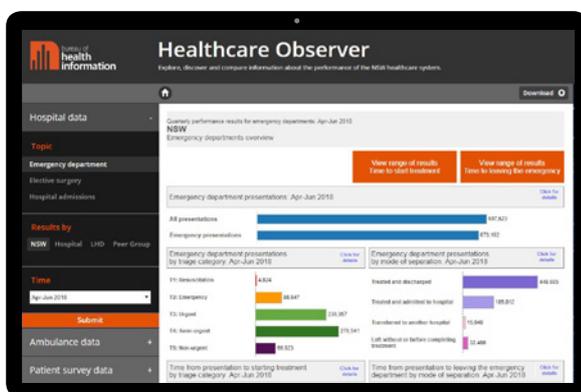
This *Healthcare Quarterly* shows how public hospitals and ambulance services performed in the April to June 2019 quarter. The key measures focus on the timeliness of services delivered to people across NSW.



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



The *Technical Supplement* describes the data, methods and technical terms used to calculate activity and performance measures. Profiles report activity and performance at hospital, peer group and local health district level.



Full results are available from BHI's interactive data portal Healthcare Observer, at [bhi.nsw.gov.au/healthcare\\_observer](http://bhi.nsw.gov.au/healthcare_observer)



All reports and profiles are available at [bhi.nsw.gov.au](http://bhi.nsw.gov.au)

- 1 There were 754,442 emergency department attendances in the April to June 2019 quarter, up 8.2% compared with the same quarter last year.** The number of attendances was higher in 72 emergency departments. Attendances were up more than 10% in 19 emergency departments.
- 2 About seven in 10 (71.8%) emergency department patients were treated within clinically recommended timeframes.** This was 4.8 percentage points lower than the same quarter last year (76.6%).
- 3 About seven in 10 (70.6%) patients spent four hours or less in the emergency department, down 3.4 percentage points.** The median time patients spent in the emergency department was 2 hours and 53 minutes, up 9 minutes.
- 4 The percentage of patients who had their care transferred from paramedics to hospital staff within 30 minutes was 87.6%, down 4.0 percentage points.** The number of arrivals to emergency departments by ambulance was up 10.2% (16,061) to 173,437 arrivals. Arrivals by ambulance were up more than 10% in 28 hospitals.
- 5 The number of ambulance responses, where a vehicle was dispatched, was up 9.7% (27,523) to 309,828 compared with the same quarter last year.** Cases classified as emergencies (priority 1) were up 11.2% (14,066) to 139,923 responses.
- 6 Paramedics reached almost six in 10 (59.1%) emergency (priority 1) cases within 15 minutes, down 3.2 percentage points.** The percentage of urgent (priority 2) cases reached within 30 minutes was down 4.5 percentage points to 67.7%.
- 7 The median response time for life-threatening (priority 1A) cases remained stable at 7.5 minutes.** The number of responses to life-threatening cases was up 11.8% (691) to 6,551 responses. Paramedics reached 71.8% of cases within 10 minutes, down 0.9 percentage points.
- 8 There were 649 seclusion events and 920 physical restraint events in specialised acute mental health inpatient units.** The average duration of seclusion events was 5 hours and 7 minutes, down 14 minutes compared with the same quarter last year, and the average duration of physical restraint events was 5 minutes, down 1 minute.
- 9 The number of elective surgical procedures performed (59,113) in the April to June 2019 quarter remained stable.** The numbers of urgent and non-urgent procedures were up 0.5% and 2.2% respectively, while the number of semi-urgent procedures were down 4.2%.
- 10 The median waiting times for elective surgery were 11 days for urgent procedures (unchanged), 46 days for semi-urgent procedures (up one day) and 246 days for non-urgent surgeries (up 12 days).** Most (96.4%) elective surgical procedures were performed within clinically recommended timeframes.

# Healthcare Quarterly – Activity

Emergency department activity	April to June 2019	April to June 2018	Difference	% change
All arrivals at NSW EDs by ambulance	173,437	157,376	16,061	10.2%
All ED attendances	754,442	697,525	56,917	8.2%
<b>Emergency presentations</b>	<b>729,793</b>	<b>672,493</b>	<b>57,300</b>	<b>8.5%</b>
T1: Resuscitation	5,253	4,822	431	8.9%
T2: Emergency	96,222	88,617	7,605	8.6%
Triage category T3: Urgent	261,177	236,222	24,955	10.6%
T4: Semi-urgent	299,133	276,316	22,817	8.3%
T5: Non-urgent	68,008	66,516	1,492	2.2%
Admissions to hospital from NSW EDs	194,984	185,472	9,512	5.1%

Ambulance activity	April to June 2019	April to June 2018	Difference	% change
Calls	309,734	281,491	28,243	10.0%
<b>Responses</b>	<b>309,828</b>	<b>282,305</b>	<b>27,523</b>	<b>9.7%</b>
P1: Emergency	139,923	125,857	14,066	11.2%
P1A: Highest priority	6,551	5,860	691	11.8%
Priority category P2: Urgent	146,619	133,442	13,177	9.9%
P3: Time-critical	14,847	14,477	370	2.6%
P4–9: Non-emergency	8,439	8,517	-78	-0.9%
Incidents	240,781	222,538	18,243	8.2%
Patient transports	187,096	170,310	16,786	9.9%

Admitted patient activity	April to June 2019	April to June 2018	Difference	% change
<b>All admitted patient episodes</b>	<b>486,439</b>	<b>475,391</b>	<b>11,048</b>	<b>2.3%</b>
Acute episodes	457,043	446,697	10,346	2.3%
Overnight episodes	244,273	238,571	5,702	2.4%
Same-day episodes	212,770	208,126	4,644	2.2%
Non-acute episodes	18,162	17,610	552	3.1%
Mental health episodes	11,234	11,084	150	1.4%
<b>All episodes</b>	<b>3.5</b>	<b>3.5</b>	<b>0.0</b>	
Average length of stay (days)				
Acute episodes	2.9	2.8	0.1	
Non-acute episodes	12.3	12.2	0.1	
Mental health episodes	16.2	15.9	0.3	
<b>All bed days</b>	<b>1,722,181</b>	<b>1,657,634</b>	<b>64,547</b>	<b>3.9%</b>
Hospital bed days				
Acute bed days	1,316,488	1,265,840	50,648	4.0%
Non-acute bed days	224,171	215,386	8,785	4.1%
Mental health bed days	181,522	176,408	5,114	2.9%
Babies born in NSW public hospitals	18,370	18,028	342	1.9%

Elective surgery activity	April to June 2019	April to June 2018	Difference	% change
<b>Elective surgical procedures performed</b>	<b>59,113</b>	<b>59,173</b>	<b>-60</b>	<b>-0.1%</b>
Urgency category				
Urgent surgery	12,481	12,419	62	0.5%
Semi-urgent surgery	19,003	19,835	-832	-4.2%
Non-urgent surgery	24,671	24,134	537	2.2%
<b>Patients on waiting list ready for elective surgery at end of quarter</b>	<b>84,131</b>	<b>77,954</b>	<b>6,177</b>	<b>7.9%</b>
Urgency category				
Urgent surgery	1,821	1,838	-17	-0.9%
Semi-urgent surgery	13,024	12,806	218	1.7%
Non-urgent surgery	69,286	63,310	5,976	9.4%

Note: Ambulance activity data do not include outage estimates. Data drawn on: 19 July 2019 (Emergency department), 12 July 2019 (Ambulance), 16 July 2019 (Admitted patients), 15 July 2019 (Elective surgery).

# Healthcare Quarterly – Performance

Emergency department performance			April to June 2019	April to June 2018	Difference
Percentage of patients transferred from ambulance to ED within 30 minutes			87.6%	91.6%	-4.0 percentage points
Time to treatment by triage category	T2: Emergency	Median	9 mins	8 mins	1 mins
		90th percentile	28 mins	24 mins	4 mins
	T3: Urgent	Median	22 mins	19 mins	3 mins
		90th percentile	77 mins	63 mins	14 mins
	T4: Semi-urgent	Median	28 mins	24 mins	4 mins
		90th percentile	109 mins	95 mins	14 mins
	T5: Non-urgent	Median	24 mins	21 mins	3 mins
		90th percentile	107 mins	96 mins	11 mins
<b>All patients</b>			<b>71.8%</b>	<b>76.6%</b>	<b>-4.8 percentage points</b>
Percentage of patients whose treatment started on time	T2: Emergency (Recommended: 80% in 10 minutes)		62.5%	67.4%	-4.9 percentage points
	T3: Urgent (Recommended: 75% in 30 minutes)		66.5%	72.0%	-5.5 percentage points
	T4: Semi-urgent (Recommended: 70% in 60 minutes)		75.5%	79.8%	-4.3 percentage points
	T5: Non-urgent (Recommended: 70% in 120 minutes)		92.4%	94.2%	-1.8 percentage points
Median time spent in the ED			2h 53m	2h 44m	9 mins
90th percentile time spent in the ED			7h 35m	7h 1m	34 mins
Percentage of patients who spent four hours or less in the ED			70.6%	74.0%	-3.4 percentage points

Ambulance performance		April to June 2019	April to June 2018	Difference
<b>Call to ambulance arrival time</b>				
Percentage of P1 call to ambulance arrival within 15 minutes		59.1%	62.3%	-3.2 percentage points
Percentage of P1 call to ambulance arrival within 30 minutes		93.2%	94.6%	-1.4 percentage points
Percentage of P2 call to ambulance arrival within 30 minutes		67.7%	72.2%	-4.5 percentage points
Percentage of P2 call to ambulance arrival within 60 minutes		91.4%	93.8%	-2.4 percentage points
<b>Response time</b>				
Percentage of P1A responses within 10 minutes		71.8%	72.7%	-0.9 percentage points

Elective surgery performance		April to June 2019	April to June 2018	Difference
Median waiting time (days)	Urgent surgery	11 days	11 days	0 days
	Semi-urgent surgery	46 days	45 days	1 day
	Non-urgent surgery	246 days	234 days	12 days
<b>All surgeries</b>		<b>96.4%</b>	<b>96.9%</b>	<b>-0.5 percentage points</b>
Elective surgeries performed on time	Urgent surgery (Recommended: 30 days)	99.9%	99.8%	+0.1 percentage points
	Semi-urgent surgery (Recommended: 90 days)	96.7%	97.2%	-0.5 percentage points
	Non-urgent surgery (Recommended: 365 days)	94.3%	95.2%	-0.9 percentage points

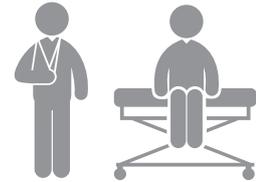
Notes: Data drawn on: 19 July 2019 (Emergency department), 12 July 2019 (Ambulance), 15 July 2019 (Elective surgery).

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. Timeframes to treat other triage categories are recommended by the Australasian College for Emergency Medicine.

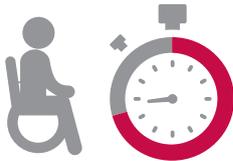
In the April to June 2019 quarter...

## Emergency department

There were **754,442** emergency department attendances



**71.8%** of patients' treatment **started on time**



**70.6%** of patients spent **four hours or less** in the emergency department



## Ambulance



There were **309,828** ambulance responses



**93.2%** of priority 1 cases had a call to ambulance arrival time of 30 minutes or less



Note: All comparisons are in reference to the same quarter last year.



## Admitted patients

There were **486,439** admitted patient episodes of care



**53.4%** of acute admitted patient episodes were for overnight stays



## Elective surgery

There were **59,113** elective surgical procedures performed

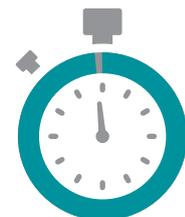
60 less than same quarter last year

**DOWN 0.1%**



Almost all (96.4%) were performed within recommended time frames

Median waiting times were unchanged for urgent (11 days), but increased by one day for semi-urgent (46 days) and by 12 days for non-urgent surgeries (246 days)



Note: All comparisons are in reference to the same quarter last year.

# About this report

## The data

*Healthcare Quarterly* draws on five main data sources:

- **Emergency Department Data Collection (EDDC)** – data drawn from the Health Information Exchange (HIE) on 19 July 2019
- **NSW Ambulance Computer Aided Dispatch (CAD) system** – provided on 12 July 2019
- **Admitted Patient Data Collection (APDC)** – data drawn from the HIE on 16 July 2019
- **Seclusion and Restraint Data Collection** – data drawn from the HIE on 24 July 2019, and manually collected measures received from Information for Mental Health (InforMH), Ministry of Health on 31 July 2019
- **Waiting List Collection Online System (WLCOS)** – data drawn on 15 July 2019

Hospital data are transmitted by the state's hospitals to centralised data warehouses administered by the NSW Ministry of Health and are extracted by the Bureau of Health Information (BHI) from the NSW HIE. Ambulance data are provided directly to BHI by NSW Ambulance and resultant information is calculated by BHI. Seclusion and restraint events, manually collected by InforMH, Ministry of Health, are provided to BHI and resultant information is calculated by BHI.

## The analyses and measures

For some hospital analyses, results are stratified by 'peer group' into principal referral hospitals (peer group A), major hospitals (peer group B) and district hospitals (peer group C). For ambulance analyses, results are reported by statistical area level 3 (SA3). SA3s are geographical areas created under the Australian Bureau of Statistics' geographical regional framework. For both the hospital-based and ambulance-based indicators, stratification by acuity or urgency are also used to report on performance.

For seclusion and restraint analysis, results are reported for 46 public hospitals that have one or more specialised acute mental health inpatient units. There

are six Mental Health Intensive Care Units (MHICUs) in these hospitals, providing treatment for patients with a higher level of severity and complexity. These six hospitals are grouped together for reporting. The Justice Health and Forensic Mental Health Network (JHFMHN) provides specialised mental health services for forensic patients.

Data analyses are conducted in SAS 9.4. Codes that form the basis of routine reporting are written by two data analysts independently and only accepted when matching results are achieved.

*Healthcare Quarterly* uses nine core measures of performance (Table 1). For timeliness indicators, two different measurement approaches are used.

The first approach is based on units of time such as minutes or days and generally reports median and 90th percentile times, where:

- The median is the middle value of all observations, once they have been ordered from the lowest to the highest value. For example, in measuring the time that patients waited for their treatment to start, the median time refers to the 'middle wait' – half of all patients waited a shorter time and the other half waited a longer time.
- The 90th percentile time gives an indication of the longest waiting times experienced by patients – most patients have a shorter wait than the 90th percentile time but one in 10 patients wait longer.

The second approach is based on achievement against a recommended or defined time. Here, results are reported in proportions, such as the percentage of patients who received elective surgery within clinically recommended time periods of 30, 90 and 365 days.

The large datasets used in *Healthcare Quarterly* mean that analyses have considerable statistical power to detect significant differences. However, not all of these differences are clinically or organisationally meaningful. Therefore a more than five percentage point threshold is used to highlight hospitals with marked variation in results – either over time, or relative to the NSW result.

## Reporting

Hospital results based on very few patients are not reported. If there are fewer than five patients in any group for admitted patient and ED data, patient numbers are displayed as < 5. NSW and local health district (LHD) results include data from all public hospitals.

Ambulance activity and performance are reported at NSW level and by SA3. Results for two SA3s, Blue Mountains – South, and Illawarra Catchment Reserve, are suppressed because the estimated resident

population is below 1,000. SA3s with less than 10 incidents in a quarter are also suppressed.

For seclusion and restraint reporting, episode numbers are displayed as < 5 if there are fewer than five seclusion or physical restraint events. Due to the infrequent use of mechanical restraint, it is only reported at NSW level to respect the confidentiality of patients.

*Healthcare Quarterly* compares this quarter's results with the same quarter in previous years, to take into account seasonal effects on activity and performance.

Table 1 Description of main performance measures featured in *Healthcare Quarterly*\*

Emergency departments (ED)	
Transfer of care time	For patients who are transported to the emergency department (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 an ED until the start of clinical treatment.
Time spent in the ED	The time from patient arrival at the ED until their departure.
Ambulance	
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.
Seclusion and restraint	
Rate of seclusion/physical restraint	Number of seclusion/physical restraint events per 1,000 bed days.
Frequency of seclusion/physical restraint	Percentage of acute mental health admitted episodes of care where at least one seclusion/physical restraint event occurs.
Average duration of seclusion/physical restraint	The average duration in hours of seclusion events/minutes of restraint events.
Elective surgery	
Elective surgery waiting time	The number of days from a patient's placement on the elective surgery waiting list until removal from the list (generally when 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.

Note: Results for publicly contracted services at Northern Beaches Hospital are included in all relevant analyses in *Healthcare Quarterly*. Emergency department (ED) performance results for Northern Beaches Hospital and Northern Sydney Local Health District should be interpreted with caution because of challenges experienced in the implementation of a new information system at Northern Beaches ED following its opening on 30 October 2018.





# Emergency department activity and performance

# Emergency presentations

NSW public hospital emergency departments (EDs) are open to everyone and provide specialised assessment and life-saving care for acutely unwell patients. EDs often act as an entry point to inpatient services.

There were 754,442 ED attendances in the April to June 2019 quarter, up 8.2% compared with the same quarter last year. The number of ambulance arrivals was up 16,061 (10.2%) to 173,437 (Figure 1).

Across all triage categories, the number of patients was higher this quarter than the same quarter last year. For triage categories 2 to 5, emergency (triage 2) and urgent (triage 3) saw the largest change in presentations, up 8.6% (7,605 more patients) to 96,222 presentations and 10.6% (24,955 more patients) to 261,177 presentations respectively (Figure 1).

Most attendances (96.7%) were classified as emergency presentations (Figure 1). The remaining 24,649 attendances to EDs were for non-emergency reasons such as a planned return visit.

Figure 1 Patient presentations and ambulance arrivals at NSW emergency departments, April to June 2019

		This quarter	Same quarter last year	Change since one year ago
All ED attendances		754,442	697,525	8.2%
Emergency presentations by triage category		729,793	672,493	8.5%
Triage 1: Resuscitation	0.7%	5,253	4,822	8.9%
Triage 2: Emergency	13.2%	96,222	88,617	8.6%
Triage 3: Urgent	35.8%	261,177	236,222	10.6%
Triage 4: Semi-urgent	41.0%	299,133	276,316	8.3%
Triage 5: Non-urgent	9.3%	68,008	66,516	2.2%
Ambulance arrivals		173,437	157,376	10.2%

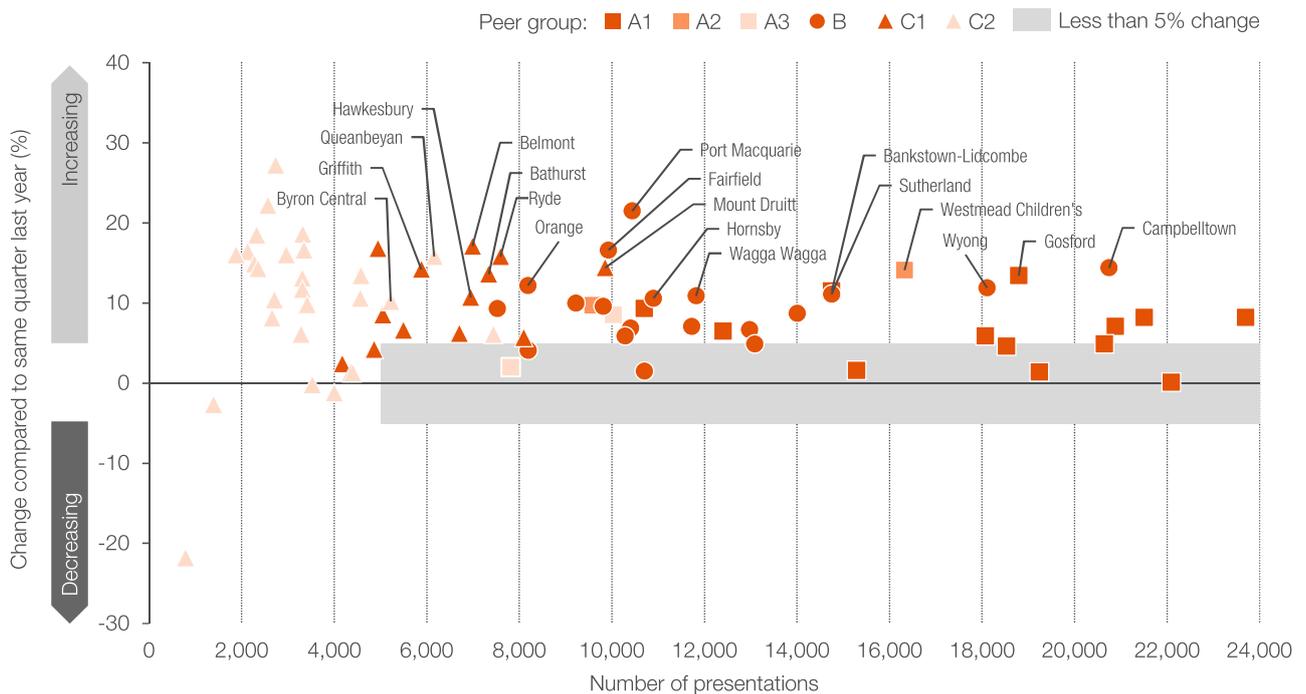
Compared with the same quarter last year, the number of ED attendances was higher this quarter in 72 out of the 77 public hospital EDs reported on individually in *Healthcare Quarterly*.

Hospitals identified in Figure 2 had more than 5,000 ED attendances this quarter and more than a 10% change in the number of attendances compared with the same quarter last year.

**Hospitals with >10% change in the number of ED attendances, compared with same quarter last year**

Hospital	Peer group	All presentations	Change (%)
Port Macquarie	B	10,440	21.5
Belmont	C1	6,988	17.1
Fairfield	B	9,926	16.6
Ryde	C1	7,591	15.8
Queanbeyan	C2	6,159	15.8
Campbelltown	B	20,745	14.4
Mount Druitt	C1	9,857	14.4
Griffith	B	5,883	14.2
Westmead Children's	A2	16,326	14.1
Bathurst	C1	7,338	13.6
Gosford	A1	18,795	13.4
Orange	B	8,188	12.2
Wyong	B	18,107	11.9
Bankstown-Lidcombe	A1	14,752	11.5
Sutherland	B	14,747	11.1
Wagga Wagga	B	11,821	10.9
Hawkesbury	C1	6,949	10.7
Hornsby	B	10,900	10.6
Byron Central	C2	5,222	10.2

Figure 2 Change in number of emergency department attendances compared with the same quarter last year, hospitals by peer group, April to June 2019



# Time to treatment in the emergency department

On arrival at the ED, patients are allocated to one of five triage categories, based on urgency. Each category has a maximum recommended wait time within which treatment should start, ranging from two minutes for triage category 1 to 120 minutes for triage category 5.

In the April to June 2019 quarter, 71.8% of ED patients' treatment started within clinically recommended timeframes, 4.8 percentage points lower than the same quarter last year. The percentage of patients starting treatment on time was lower across triage categories 2 to 5 (Figure 3).

The median time to treatment and 90th percentile time to treatment were longer across triage categories 2 to 5 (Figure 3).

Figure 3 Percentage of patients whose treatment started on time, by triage category, April to June 2019

	This quarter	Same quarter last year	Percentage point change since one year ago
All emergency presentations	 71.8%	76.6%	-4.8
Triage category 2	 Recommended: 80% in 10 minutes 62.5%	67.4%	-4.9
Triage category 3	 Recommended: 75% in 30 minutes 66.5%	72.0%	-5.5
Triage category 4	 Recommended: 70% in 60 minutes 75.5%	79.8%	-4.3
Triage category 5	 Recommended: 70% in 120 minutes 92.4%	94.2%	-1.8

	This quarter	Same quarter last year	Change since one year ago
Triage 2 Emergency (e.g. chest pain, severe burns): 95,019 presentations			
Median time to start treatment	 9m	8m	1m
90th percentile time to start treatment	 28m	24m	4m
Triage 3 Urgent (e.g. moderate blood loss, dehydration): 253,939 presentations			
Median time to start treatment	 22m	19m	3m
90th percentile time to start treatment	 1h 17m	1h 3m	14m
Triage 4 Semi-urgent (e.g. sprained ankle, earache): 278,090 presentations			
Median time to start treatment	 28m	24m	4m
90th percentile time to start treatment	 1h 49m	1h 35m	14m
Triage 5 Non-urgent (e.g. small cuts or abrasions): 58,527 presentations			
Median time to start treatment	 24m	21m	3m
90th percentile time to start treatment	 1h 47m	1h 36m	11m

Note: 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. Timeframes to treat other triage categories are recommended by the Australasian College for Emergency Medicine.

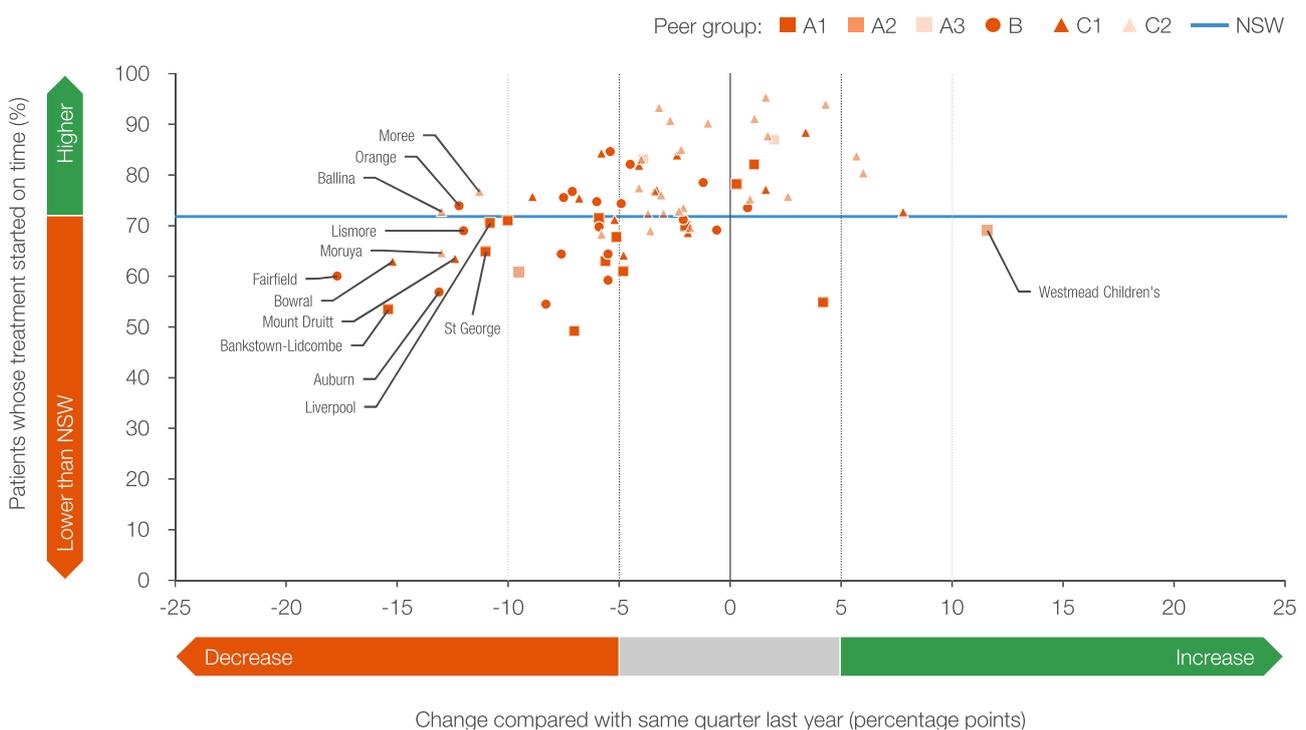
Thirteen hospitals saw a change of more than 10 percentage points in patients whose treatment started on time.

Figure 4 maps hospital results this quarter compared with the same quarter last year. Hospitals labelled had a more than 10 percentage points change in patients whose treatment started on time, compared with the same quarter last year.

**Hospitals with >10 percentage point change in the percentage of patients whose treatment started on time in ED, compared with same quarter last year**

Hospital	Peer group	Emergency visits treated on time (%)	Percentage point change
Westmead Children's	A2	69.0	11.6
Liverpool	A1	70.5	-10.8
St George	A1	64.8	-11.0
Moree	C2	76.7	-11.3
Lismore	B	69	-12.0
Orange	B	73.9	-12.2
Mount Druitt	C1	63.5	-12.4
Ballina	C2	72.8	-13.0
Moruya	C2	64.6	-13.0
Auburn	B	56.9	-13.1
Bowral	C1	62.9	-15.2
Bankstown-Lidcombe	A1	53.4	-15.4
Fairfield	B	60	-17.7

Figure 4 Percentage of patients whose treatment started on time, and percentage point change compared with same quarter last year, hospitals by peer group, April to June 2019



# Time spent in the emergency department

Following treatment in the ED, the majority of patients are either discharged home or admitted to hospital. Some patients choose not to wait for treatment and leave, and others are transferred to a different hospital. Collectively, these categories are referred to as the 'mode of separation' (Figure 5).

About seven in 10 (70.6%) patients spent four hours or less in the ED during the April to June 2019 quarter, 3.4 percentage points lower than the same quarter last year (Figure 6).

Patients who require admission to hospital from the ED or who are transferred to another hospital usually have more complex health needs than those who are treated and discharged, and therefore often spend longer periods in the ED. Less than half of these patients left within four hours (Figure 6).

The percentage of patients spending four hours or less in the ED was lower across all modes of separation, particularly for those who were treated and admitted which was down 5.1 percentage points to 39.5% (Figure 6).

Figure 5 Percentage of patients who presented to the emergency department, by mode of separation, April to June 2019

		This quarter	Same quarter last year	Change since one year ago
Treated and discharged	64.3%	484,852	449,746	7.8%
Treated and admitted to hospital	25.8%	194,984	185,472	5.1%
Left without, or before completing, treatment	6.0%	45,289	32,562	39.1%
Transferred to another hospital	2.2%	16,879	16,119	4.7%
Other	1.6%	12,438	13,626	-8.7%

Figure 6 Percentage of patients who spent four hours or less in the emergency department, by mode of separation, April to June 2019

	Number	This quarter	Same quarter last year	Change since one year ago
All ED attendances	532,753	70.6%	74.0%	-3.4
Treated and discharged	397,969	82.1%	85.3%	-3.2
Treated and admitted	76,959	39.5%	44.6%	-5.1
Left without, or before completing, treatment	38,586	85.2%	88.6%	-3.4
Transferred to another hospital	7,569	44.8%	47.9%	-3.1

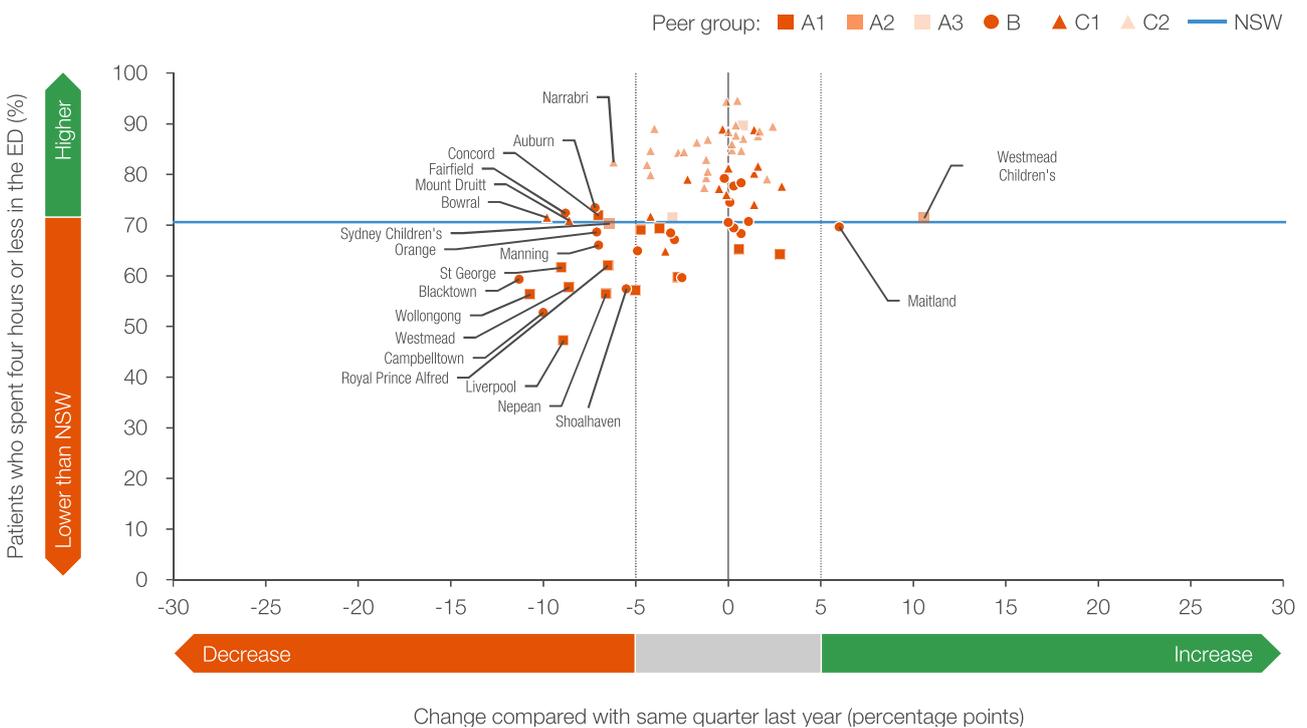
Compared with the same quarter last year:

- In 27 hospitals, the percentage of patients who spent four hours or less in the ED was higher. Westmead Children's (10.6%) had an increase of more than 10 percentage points (Figure 7).
- In 47 hospitals, there was a drop in the proportion of patients who spent four hours or less in the ED. Blacktown (11.3%) and Wollongong (10.7%) had a decrease of more than 10 percentage points (Figure 7).

Hospitals with >10 percentage point change in the percentage of patients who spent four hours or less in the ED, compared with same quarter last year

Hospital	Peer group	Left ED within four hours (%)	Percentage point change
Westmead Children's	A2	71.4	10.6
Wollongong	A1	56.3	-10.7
Blacktown	B	59.3	-11.3

Figure 7 Percentage of patients who spent four hours or less in the emergency department, and percentage point change since same quarter last year, hospitals by peer group, April to June 2019



# Transfer of care

In NSW, transfer of care should occur within 30 minutes for at least 90% of patients. In the April to June 2019 quarter, 87.6% of patients who arrived by ambulance had their care transferred within 30 minutes, down 4.0 percentage points from the same quarter last year (Figure 8).

The median time for patient care to be transferred from paramedics to ED staff in the April to June 2019 quarter was 12 minutes; one minute longer than the same quarter last year (Figure 8).

Compared with the same quarter last year, the number of ambulance arrivals (used to calculate transfer of care time) in April to June 2019 was up 11.4% to 154,314 arrivals (Figure 8).

The number of ambulance arrivals in 28 hospitals was up by more than 10%. The change was more than 20% in six hospitals: Fairfield (27.3%), Mount Druitt (25.1%), Campbelltown (23.7%), Bowral (21.6%), Lithgow (21.6%) and Tamworth (20.3%). There were no hospitals where the number of ambulance arrivals was down by more than 10%.

Figure 8 Emergency presentations, ambulance arrivals and transfer of care time, April to June 2019

	This quarter	Same quarter last year	Change since one year ago
Emergency presentations	729,793	672,493	8.5%
Ambulance arrivals (number used to calculate transfer of care time)	154,314	138,469	11.4%
ED transfer of care time			
Median time	12m	11m	1m
90th percentile time	34m	27m	7m
Percentage of patients transferred from ambulance to ED within 30 minutes	87.6%	91.6%	-4.0 percentage points

Note: Transfer of care time requires matched records between ambulance service and ED data.

### Hospitals with >10% change in the number of ambulance arrivals, compared with same quarter last year

Hospital	Peer group	Ambulance arrivals	Change (%)
Fairfield	B	2,265	27.3
Mount Druitt	C1	1,476	25.1
Campbelltown	B	5,999	23.7
Bowral	C1	1,249	21.6
Lithgow	C2	720	21.6
Tamworth	B	2,308	20.3
Orange	B	1,903	18.9
Cessnock	C2	610	17.3
Bankstown-Lidcombe	A1	4,785	16.3
Belmont	C1	1,493	16.3
St Vincent's	A1	4,184	15.2
Broken Hill	C1	795	15.1
Blue Mountains	C2	1,119	14.3
Armidale	C1	956	14.2

Hospital	Peer group	Ambulance arrivals	Change (%)
Maitland	B	2,749	14.2
Coffs Harbour	B	2,737	13.1
Maclean	C2	507	12.9
Wagga Wagga	B	2,860	12.7
Wyong	B	4,871	12.5
Auburn	B	1,422	12.4
Concord	A1	2,898	12.0
Bathurst	C1	1,212	11.9
Shellharbour	C1	2,041	11.8
South East Regional	C1	1,051	11.8
Dubbo	B	2,269	11.4
Port Macquarie	B	2,544	11.0
Hawkesbury	C1	1,267	10.5
Canterbury	B	2,393	10.3





# Ambulance activity and performance

# Ambulance activity and performance

## Activity

Ambulance activity can be quantified in terms of calls, incidents, responses and patient transports (Table 2). In the April to June 2019 quarter, there were 309,734 calls and 240,781 incidents, up 10.0% and 8.2% respectively compared with the same quarter the previous year. There were 309,828 responses (up 9.7%) with most categorised as emergency – priority 1 (P1: 45.2%) and urgent – priority 2 (P2: 47.3%) (Figure 9).

## Call to ambulance arrival time

Call to ambulance arrival time covers the period from when a Triple Zero (000) call is first answered in the ambulance control centre (phone pick-up), to the time the first ambulance arrives at the scene (Figure 10).

The percentage of P1 call to ambulance arrival times within 15 minutes was 59.1% in April to June 2019, down 3.2 percentage points compared with the same quarter in 2018. The percentage of P2 call to ambulance arrival times within 30 minutes was 67.7%, down 4.5 percentage points (Figure 10).

Table 2 Definition of calls, incidents, responses and patient transports

<b>Calls</b>	Calls received at the ambulance control centre, requesting an ambulance vehicle.
<b>Incidents</b>	A call that results in the dispatch of one or more ambulance vehicles.
<b>Responses</b>	A response is the dispatch of an ambulance vehicle. There may be multiple responses to a single incident. Responses include vehicles cancelled prior to arrival at the incident scene. Responses are prioritised as priority 1 (emergency response under lights and siren; with category 1A as highest acuity); priority 2 (urgent – undelayed response required without lights and siren); priority 3 (time-critical – undelayed response required); and priority 4-9 (non-emergency).
<b>Patient transports</b>	Number of patients transported by NSW Ambulance.

Figure 9 Ambulance calls, incidents, responses and transports, NSW, April to June 2019

		This quarter	Same quarter last year	Change since one year ago
Calls		309,734	281,491	10.0%
Incidents		240,781	222,538	8.2%
All responses		309,828	282,305	9.7%
P1: Emergency	 45.2%	139,923	125,857	11.2%
P1A: Highest priority	 4.7%	6,551	5,860	11.8%
P2: Urgent	 47.3%	146,619	133,442	9.9%
P3: Time-critical	 4.8%	14,847	14,477	2.6%
P4–9: Non-emergency	 2.7%	8,439	8,517	-0.9%
Patient transports		187,096	170,310	9.9%

Note: Ambulance activity data do not include Computer-Aided Dispatch (CAD) outages and activity estimates. All calls, incidents and responses that have been assigned a priority number are included in the total counts. Most priority numbers correspond to priority codes P1 to P9.

## 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 (Figure 11).

In the April to June 2019 quarter, median response times for the high volume response categories were 11.6 minutes for emergency – priority 1 (P1) cases and 20.0 minutes for urgent – priority 2 (P2) cases (Figure 11).

Within the 139,923 P1 responses, there were 6,551 of the highest priority 1A (P1A) cases, up 11.8% compared with the same quarter last year (Figure 9). In NSW, the benchmark for the median P1A response time is 10 minutes. The median response time for P1A cases remained stable at 7.5 minutes (Figure 11).

The percentage of P1A responses within 10 minutes in April to June 2019 was 71.8%, down 0.9 percentage points compared with the same quarter in 2018 (Figure 11).

Figure 10 Call to ambulance arrival time, by priority category, NSW, April to June 2019

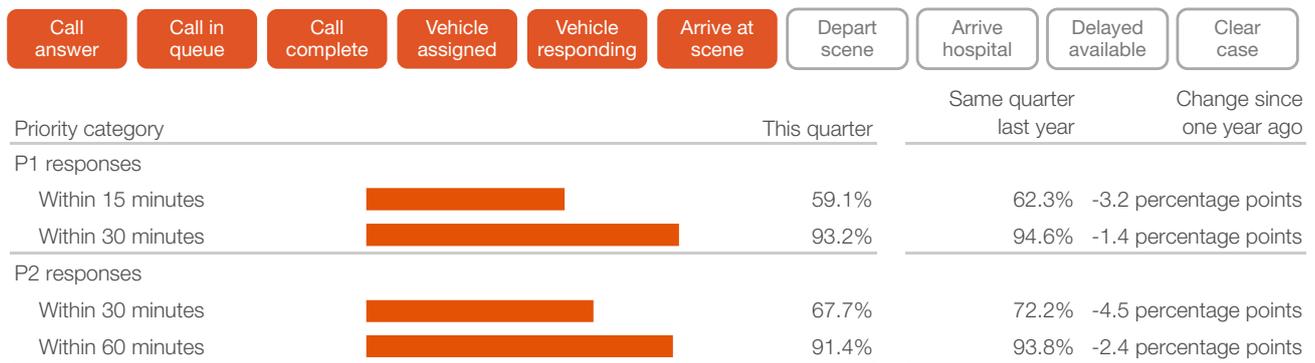
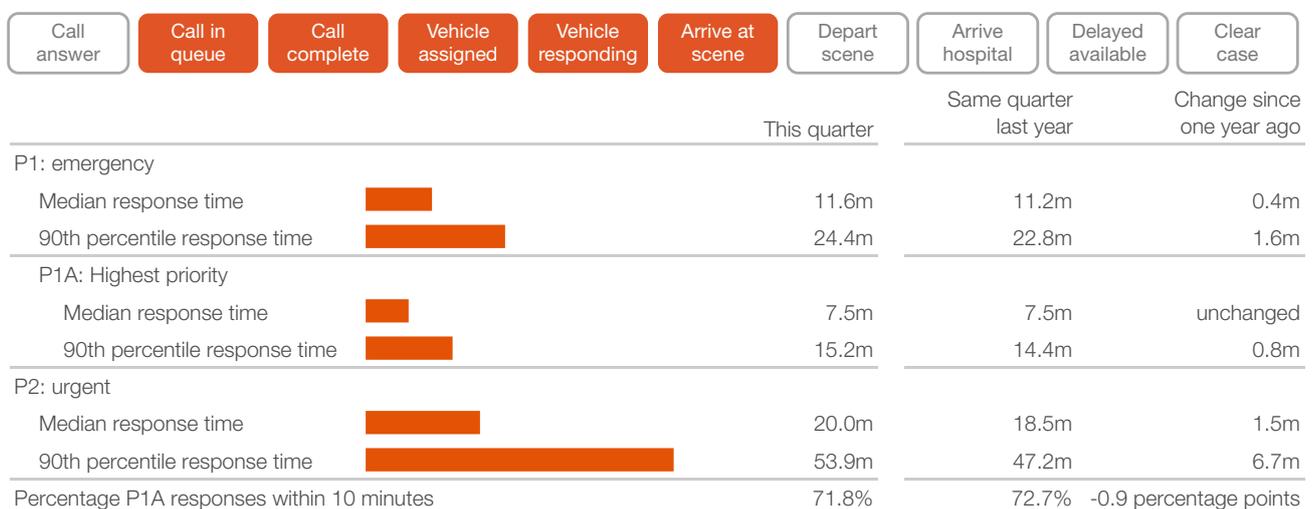


Figure 11 Ambulance response time by priority category, NSW, April to June 2019



# Ambulance activity

## Regional, rural and remote NSW

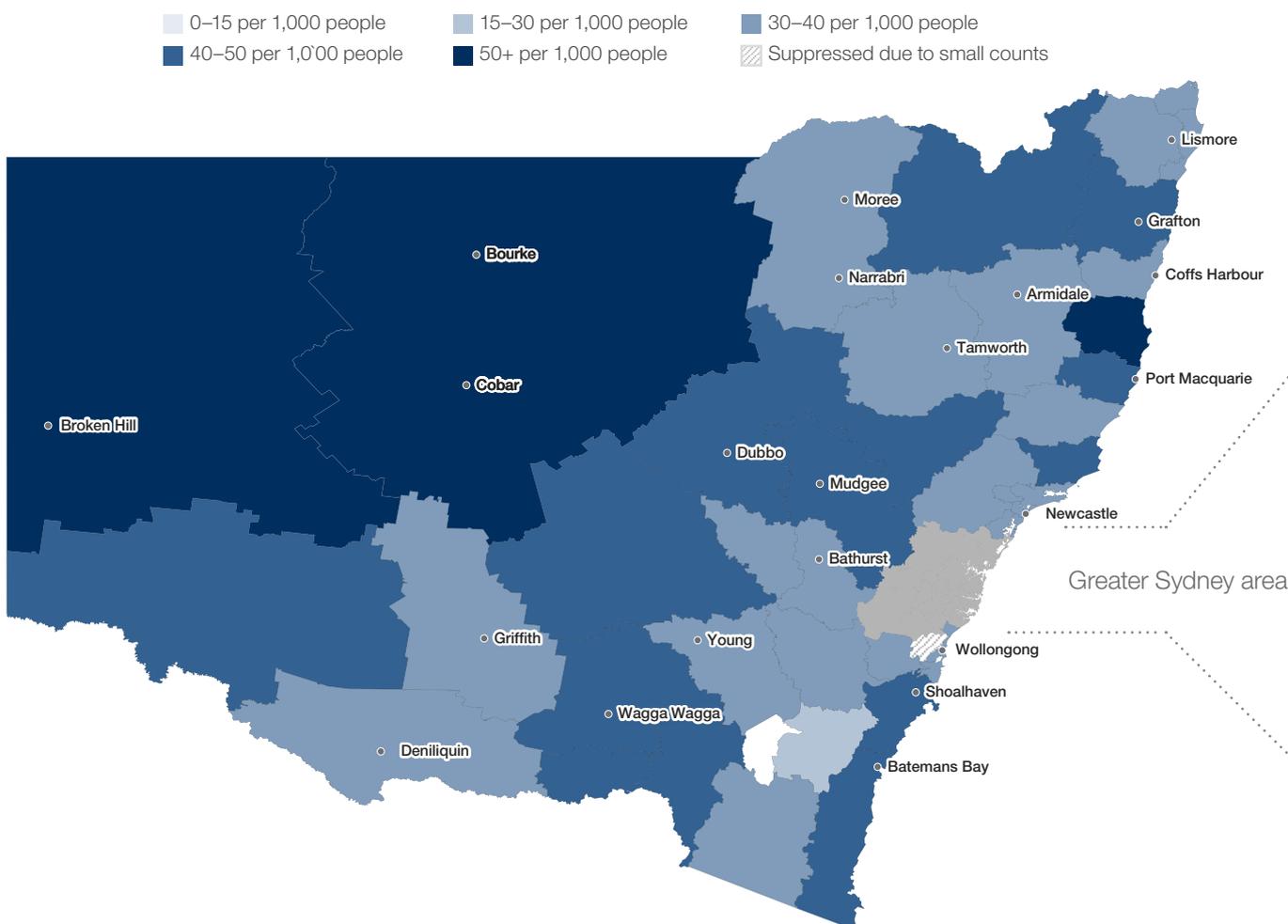
The rate of incidents requiring an ambulance is the number of incidents for every 1,000 people living in an area. Any case requiring dispatch of one or more ambulance vehicles is defined as an incident.

Across the 43 SA3s in regional, rural and remote NSW, the incident rate ranged from 23.1 to 65.5 per 1,000 people during the April to June 2019 quarter. Broken Hill and Far West had the highest rates in NSW at 65.5 incidents per 1,000 people. There was one regional, rural and remote SA3 with an incident rate below 30 per 1,000 people: Queanbeyan (23.1) (Figure 12).

A summary of results by Statistical Area Level 3 (SA3) is available online through BHI's ambulance performance tool: [bhi.nsw.gov.au/search-ambulance-performance](https://bhi.nsw.gov.au/search-ambulance-performance)

Full activity and performance results by SA3, including trends over time, are available on BHI's interactive data portal, **Healthcare Observer**.

Figure 12 Incident rate by Statistical Area Level 3, per 1,000 people, regional, rural and remote NSW, April to June 2019



Note: Statistical Areas Level 3 (SA3) are geographical areas defined by the Australian Bureau of Statistics and used by BHI for reporting ambulance activity and performance. See the Technical Supplement for more information.

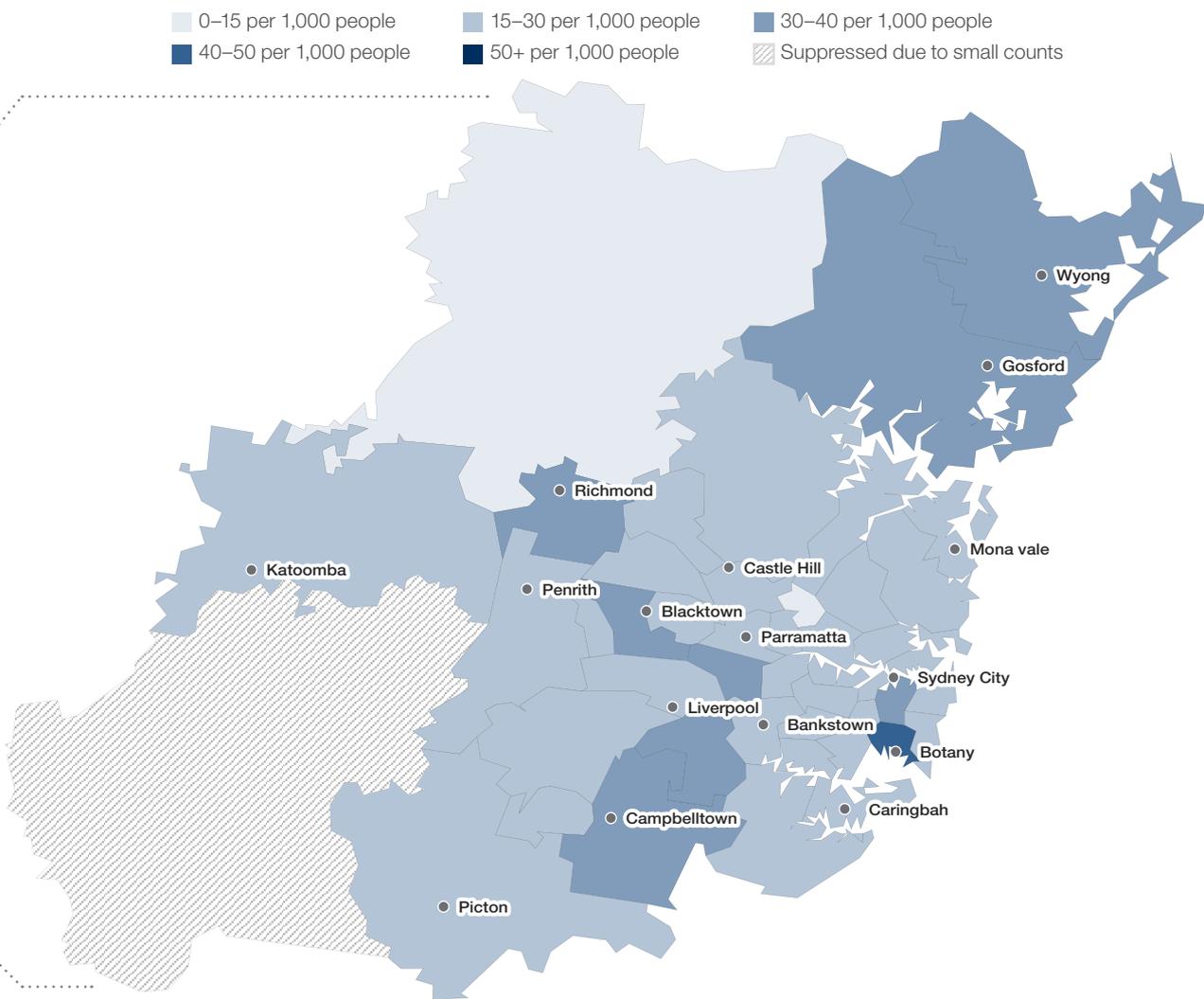
## Greater Sydney area

Across the 46 SA3s in the Greater Sydney area, the incident rate for the April to June 2019 quarter ranged from 13.1 to 43.3 per 1,000 people.

There were 38 SA3s across NSW with incident rates below 30 per 1,000 people; 37 of these were located in Greater Sydney. The two SA3s in NSW with rates below 15 per 1,000 people, both within Greater Sydney, were: Hawkesbury (13.1) and Pennant Hills – Epping (13.5) (Figure 13).

Nine SA3s in Greater Sydney had incident rates above 30 per 1,000 people: Botany (43.3); Wyong (39.4); Sydney Inner City (35.6); Gosford (35.2); Richmond – Windsor (33.9); Campbelltown (31.9); Mount Druitt (31.3), Liverpool (30.3); and Merrylands – Guildford (30.2) (Figure 13).

Figure 13 Incident rate by Statistical Area Level 3, per 1,000 people, Greater Sydney, April to June 2019



# Call to ambulance arrival times

Emergency cases are classified as priority 1 (P1) by NSW Ambulance and require an immediate response under lights and siren. There were 139,923 P1 responses across NSW in the April to June 2019 quarter.

Statewide, 59.1% of P1 call to ambulance arrival times were within 15 minutes. Results for the April to June quarter over the past five years have ranged from 59.1% to 65.7%.

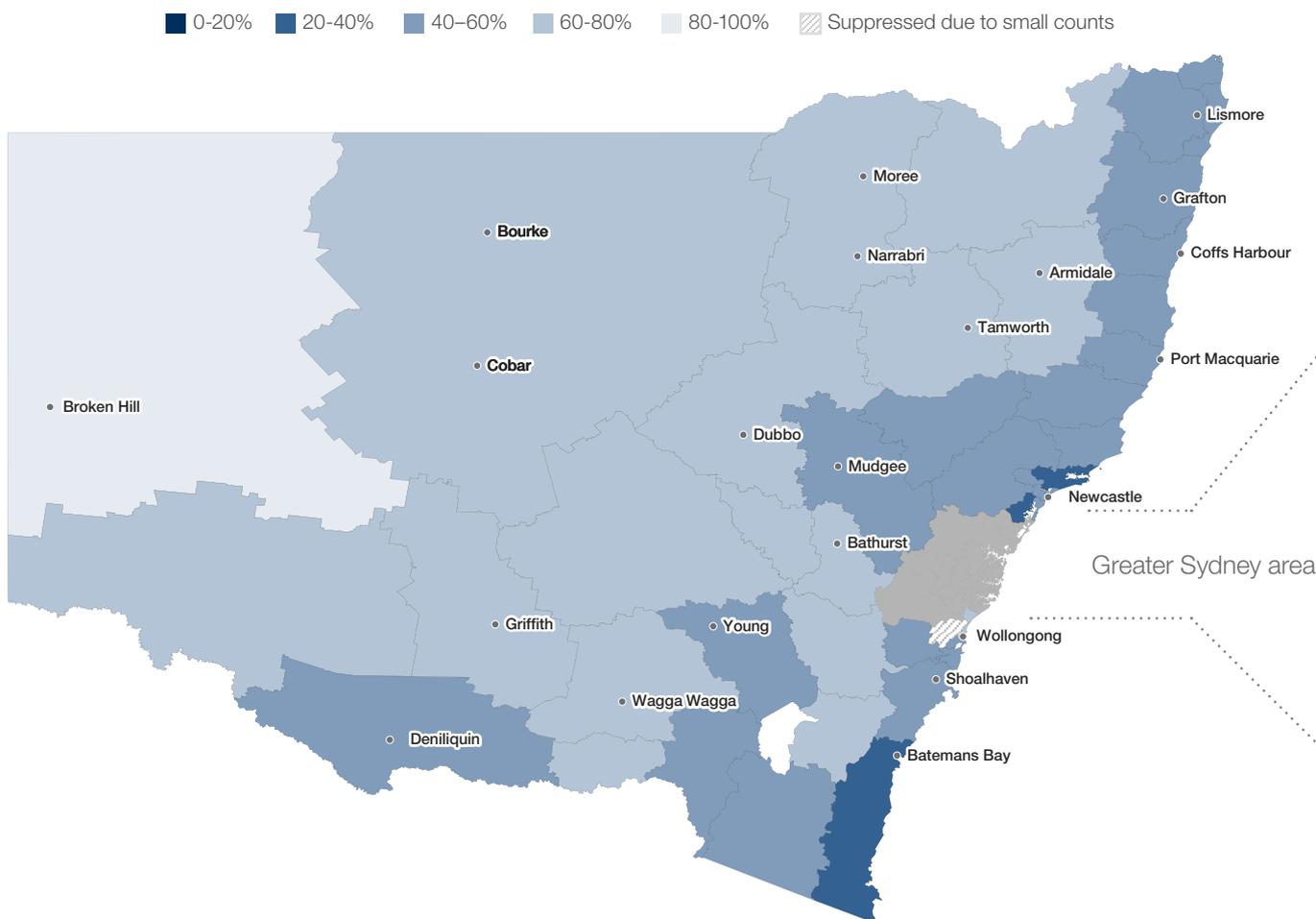
## Regional, rural and remote NSW

Regional, rural and remote NSW has a higher proportion of non-24-hour ambulance stations than in metropolitan Sydney, and longer distances between

incidents and major hospitals, which can affect the time it takes for paramedics to reach patients. In some of these areas, NSW Ambulance-trained first responders are also available, who can arrive on scene to deliver first aid and defibrillation before the first paramedic crew arrives, and transport patients if needed.

Three of the 43 SA3s in regional, rural and remote NSW had more than 70% of P1 call to ambulance arrival times within 15 minutes in the April to June 2019 quarter: Broken Hill and Far West (83.4%); Armidale (71.8%); and Griffith – Murrumbidgee (West) (70.6%). Overall, results in regional, rural and remote NSW ranged from 37.6% (Lake Macquarie – West) to 83.4% (Broken Hill and Far West) (Figure 14).

Figure 14 Percentage of Emergency (P1) call to ambulance arrival times under 15 minutes by Statistical Area Level 3, regional, rural and remote NSW, April to June 2019

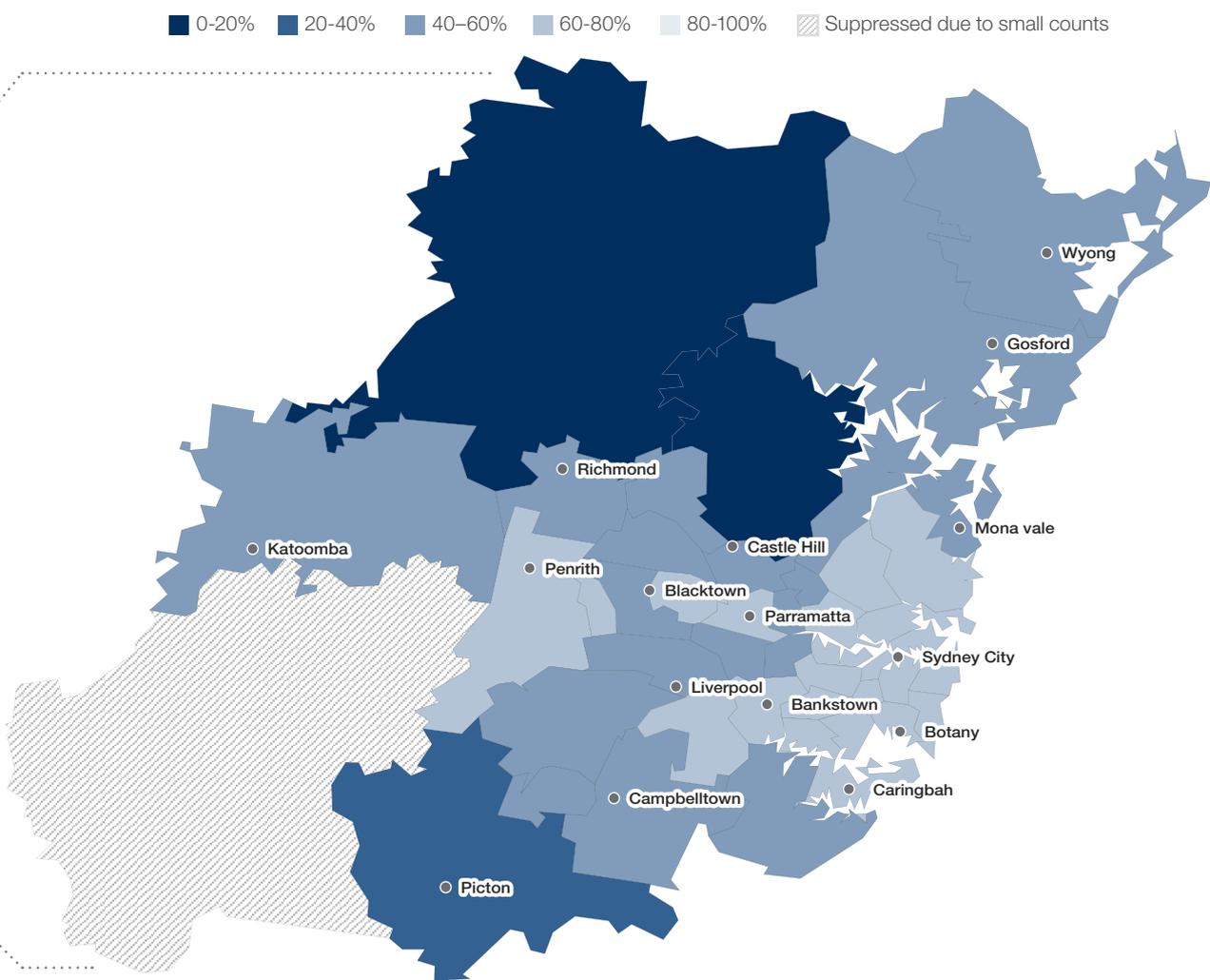


## Greater Sydney area

For emergency – priority 1 (P1) cases, there were eight SA3s out of 46 in Greater Sydney with more than 70% of call to ambulance arrival times within 15 minutes: Sydney Inner City (79.5%); Kogarah – Rockdale (76.4%); Cronulla – Miranda – Caringbah (75.5%); Parramatta (74.8%); Marrickville – Sydenham – Petersham (73.5%); Eastern Suburbs – South (72.9%); Blacktown (71.2%); and Chatswood – Lane Cove (71.0%) (Figure 15).

Two SA3s in Greater Sydney had less than 30% of P1 call to ambulance arrival times within 15 minutes: Hawkesbury (14.9%); and Dural – Wisemans Ferry (10.8%) (Figure 15).

Figure 15 Percentage of Emergency (P1) call to ambulance arrival times under 15 minutes by Statistical Area Level 3, Greater Sydney, April to June 2019







# 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.

There were 11,234 mental health episodes in the April to June 2019 quarter (Figure 16). The use of restrictive practices in acute mental health units is reported in the seclusion and restraint section of this report.

There were 486,439 admitted patient episodes in NSW public hospitals in the April to June 2019 quarter – up 2.3% compared with the same quarter last year. Among those, 94.0% were acute admitted patient episodes, of which 53.4% were overnight episodes (Figure 16).

Figure 16 Total number of admitted patient episodes, by stay type, April to June 2019

		This quarter	Same quarter last year	Change since one year ago
All episodes*		486,439	475,391	2.3%
Acute	94.0%	457,043	446,697	2.3%
Non-acute	3.7%	18,162	17,610	3.1%
Mental health	2.3%	11,234	11,084	1.4%
<hr/>				
		This quarter	Same quarter last year	Change since one year ago
Acute				
Overnight	53.4%	244,273	238,571	2.4%
Same-day	46.6%	212,770	208,126	2.2%
Non-acute				
Overnight	81.4%	14,783	14,378	2.8%
Same-day	18.6%	3,379	3,232	4.5%
Mental Health				
Overnight	85.0%	9,554	9,412	1.5%
Same-day	15.0%	1,680	1,672	0.5%

\* Episodes of care include same day, overnight completed episodes. Non-completed episodes are excluded.

Bed days are a unit of time used to establish levels of inpatient occupancy, and are calculated for all admitted patient episodes that ended during the period. Total bed days for all admitted patient episodes were 1,722,181 in the April to June 2019 quarter – up 3.9% compared with the same quarter last year. Total bed days were up across all types of admitted patient episodes (Figure 17).

Figure 17 Total number of hospital bed days, by episode type, April to June 2019

		This quarter	Same quarter last year	Change since one year ago
Total bed days		1,722,181	1,657,634	3.9%
Acute	 76.4%	1,316,488	1,265,840	4.0%
Non-acute	 13.0%	224,171	215,386	4.1%
Mental health	 10.5%	181,522	176,408	2.9%





# Seclusion and restraint

# Seclusion and restraint

Seclusion and restraint involves the use of interventions to restrict the freedom of movement of a patient. These restrictive practices are not therapeutic but may be needed to support care.

In NSW, there are 46 public hospitals with specialised acute mental health units that treat patients with varying severities of mental illness. There are Mental Health Intensive Care Units (MHICUs) in six of these hospitals, providing treatment for patients with a higher level of clinical severity and complexity who are more likely to experience seclusion and restraint.

The Justice Health and Forensic Mental Health Network (JHFMHN) provides specialised mental health services for forensic patients. JHFMHN is reported separately and not included in NSW totals to acknowledge the differences in model of care and the patient cohort.

BHI does not report on seclusion and restraint events in non-acute specialised mental health inpatient units or in emergency departments.

Most episodes of care in acute mental health units did not have a seclusion or restraint event in the April to June 2019 quarter (Figure 18).

The percentage of acute mental health episodes of care with at least one seclusion or physical restraint event was 3.0% and 4.4% respectively, unchanged compared with the same quarter last year (Figure 18, Table 3).

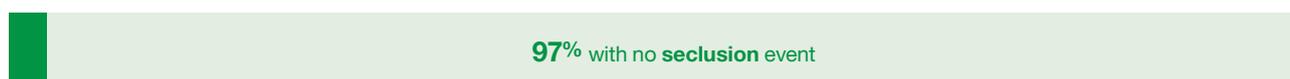
There is variability across public hospitals in the use of these interventions (Table 3).

A **seclusion event** occurs when a patient is placed alone in a room or an area at any time of day or night, with no freedom of exit. The duration of the event, or the size and type of area in which a patient is confined is not relevant in determining what is or is not seclusion.

A **restraint event** occurs when the patient's freedom of movement is restricted by physical means (i.e. the hands-on immobilisation by a health care staff), or mechanical means (i.e. application of devices).

Figure 18 Percentage of episodes of care in specialised acute mental health inpatient units with one or more seclusion events or physical restraint events, April to June 2019\*

**3.0%** with  $\geq 1$  **seclusion event**



**4.4%** with  $\geq 1$  **physical restraint event**



\*BHI does not report on seclusion and restraint events in non-acute specialised mental health inpatient units or in emergency departments.

Table 3 Percentage of acute mental health episodes of care occurring in specialised acute mental health inpatient units with at least one seclusion or physical restraint event, by public hospital, April to June 2019\*

Hospital	Number of acute mental health episodes of care	Seclusion		Physical restraint		
		% of episodes with at least one event	Percentage point change since one year ago	% of episodes with at least one event	Percentage point change since one year ago	
<b>NSW†</b>	<b>11,814</b>	<b>3.0</b>	<b>0</b>	<b>4.4</b>	<b>0</b>	
No mental health intensive care unit	Armidale	89	0	0	0	
	Bankstown-Lidcombe	197	6.6	0.8	9.6	3.2
	Bathurst	72	0	0	0	0
	Blacktown	339	2.1	-0.9	2.1	-1.7
	Blue Mountains	85	2.4	1.6	5.9	5.1
	Braeside	36	0	0	5.6	-3.8
	Broken Hill	38	2.6	0.5	7.9	5.8
	Campbelltown	480	3.1	1.5	4.4	1.5
	Coffs Harbour	220	2.3	-4.5	4.1	-3.1
	Dubbo	91	1.1	1.1	4.4	1.3
	Gosford	164	2.4	-1.5	2.4	-0.9
	Goulburn	193	3.1	2.6	5.7	1.4
	Greenwich	65	0	0	3.1	1.6
	John Hunter	71	0	0	5.6	2.4
	Kempsey	82	0	0	0	0
	Lismore	226	1.8	-5.6	3.5	-3.5
	Liverpool	533	4.3	0.3	4.7	-1.1
	Macquarie	81	2.5	1.4	7.4	5.2
	Maitland	199	2.5	-1.8	1.5	-1.9
	Manning	105	2.9	-3.6	1.9	0
	Morrisset	16	0	0	6.3	6.3
	Nepean	591	4.6	1.4	3.9	0.4
	Port Macquarie	118	0	-4.9	3.4	0.9
	Royal North Shore	363	2.5	1.1	2.8	0.8
	Royal Prince Alfred	693	2.5	-0.4	3.8	-0.3
	Shellharbour	317	6.0	1.4	5.0	0.4
	South East Regional	88	0	-4.2	4.5	0.3
	St George	267	0.4	-0.4	6.0	0.4
	St Joseph's	36	0	0	2.8	2.8
	St Vincent's	391	1.0	-2.6	2.6	-2.2
	Sutherland	198	1.0	-2.6	3.5	-0.7
	Sydney Children's	61	1.6	-1.0	3.3	0.7
	Tamworth	199	3.0	1.0	6.5	0.5
Tweed	228	2.6	-0.4	3.9	-1.1	
Wagga Wagga	254	2.0	0	3.5	0.5	
Westmead	156	0	0	5.1	3.6	
Westmead Children's	60	0	0	5.0	-9.8	
Wollongong	303	3.0	1.5	3.0	0.4	
Wyong	297	2.0	-2.0	2.4	-0.6	
MHICU	Concord	1,036	5.9	-1.2	5.3	-1.3
	Cumberland	795	4.4	-1.9	5.3	-1.4
	Hornsby	397	4.8	-1.1	5.3	0.1
	Hunter New England Mater MH	755	2.8	0.8	6.0	2.5
	Orange	295	3.4	0.1	4.7	0.8
JH	Prince of Wales	534	1.1	-1.7	5.1	-1.0
JH	The Forensic Hospital†	51	19.6	0.4	31.4	-9.0

\* Episodes of care include same day, overnight, completed and non-completed episodes excluding episodes at the Forensic Hospital. Episodes of care for the Forensic Hospital include same day, overnight, completed and non-completed episodes.

† Justice Health (JH) is not included in NSW totals because of the differences in model of care and the patient cohort. For more information, see *Measurement Matters – Reporting on seclusion and restraint in NSW public hospitals*.

Notes: MHICU = Mental Health Intensive Care Unit. JHFMHN = Justice Health and Forensic Mental Health Network. Manly Hospital which was closed on 30 October 2018 was excluded from NSW totals in the April to June 2019 quarter, but included in the same quarter 2018.

Results for Northern Beaches Hospital are not included, as complete data for admissions to acute mental health units are not yet available for this hospital.

## Seclusion and restraint events and rate

Seclusion and restraint interventions are 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.

Use of seclusion and restraint in hospitals can be affected by a range of factors including the mix of patients, local models of care, staffing levels and training, and the physical environment of the unit.

Across NSW, there were 649 seclusion events in the April to June 2019 quarter, up 12 events compared with the same quarter last year. There were 920 physical restraint events, up 109 compared with the same quarter last year (Table 4).

The number of seclusion and restraint events varied across public hospitals. The highest numbers of seclusion and restraint events mostly occurred in hospitals with a MHICU, and the Forensic Hospital (Table 4).

The NSW Health Performance Framework includes two key performance indicators (KPIs) related to the use of restrictive practices — the rate and duration of seclusion.

The KPI target for rate of seclusion in 2018–19 is less than 5.1 per 1,000 bed days for each hospital.

In the April to June 2019 quarter, the NSW rate of seclusion was 5.3, up 0.5 compared with the same quarter last year (Table 4).

The rate of seclusion was below 5.1 per 1,000 bed days in 31 hospitals. The rate was 5.1 or above in 14 hospitals: Broken Hill (21.8); Concord (11.9); Shellharbour (11.4); Liverpool (10.7); Maitland (8.8); Orange (7.8); Nepean (7.6); Bankstown–Lidcombe (7.1), Hornsby (6.8), Cumberland (6.7); Hunter New England Mater Mental Health Centre (5.8); Campbelltown (5.4); Wagga Wagga (5.3); and Manning (5.2).

State wide, the rate of physical restraint was 7.5, up 1.4 compared with the same quarter last year (Table 4).

There were 51 mechanical restraint events in NSW public hospitals with specialised acute mental health units (excluding the Forensic Hospital). This was up by 43 events compared with the same quarter last year (data not shown by hospital due to small numbers). At the Forensic Hospital, there were 140 mechanical restraint events, up by 79 events compared with the same quarter last year.

For more information on analyses of seclusion and restraint, see *Measurement Matters: Reporting on seclusion and restraint in NSW public hospitals*.  
[bhi.nsw.gov.au/BHI\\_reports/measurement\\_matters](https://bhi.nsw.gov.au/BHI_reports/measurement_matters)

Table 4 Number of seclusion and physical restraint events occurring in specialised acute mental health inpatient units, by public hospital, April to June 2019

Hospital	Seclusion			Physical restraint		
	Total number of seclusion events	Change in events since one year ago	Rate per 1,000 bed days	Total number of physical restraint events	Change in events since one year ago	Rate per 1,000 bed days
<b>NSW†</b>	<b>649</b>	<b>12</b>	<b>5.3</b>	<b>920</b>	<b>109</b>	<b>7.5</b>
<b>No Mental Health Intensive Care Unit</b>						
Armidale	0	0	0	0	0	0
Bankstown-Lidcombe	19	-2	7.1	24	13	9
Bathurst	0	0	0	0	0	0
Blacktown	9	-4	3.5	7	-8	2.7
Blue Mountains	<5	2	3.6	11	9	9.9
Braeside	0	0	0	5	2	3.9
Broken Hill	5	3	21.8	7	6	30.6
Campbelltown	31	20	5.4	50	26	8.7
Coffs Harbour	10	-19	3.4	18	-7	6.0
Dubbo	<5	1	1.5	<5	0	5.9
Gosford	<5	-2	1.7	<5	-1	1.7
Goulburn	8	7	4.2	22	10	11.5
Greenwich	0	0	0	<5	2	1.7
John Hunter	0	0	0	10	7	18.2
Kempsey	0	0	0	0	0	0
Lismore	9	-18	4.0	23	-1	10.3
Liverpool	56	21	10.7	37	-16	7.1
Macquarie	<5	1	1.7	7	5	6.1
Maitland	16	5	8.8	6	-5	3.3
Manning	5	-2	5.2	<5	0	2.1
Morisset	0	0	0	<5	4	5.8
Nepean	36	14	7.6	29	0	6.1
Port Macquarie	0	-8	0	7	3	7.4
Royal North Shore	10	4	3.4	19	11	6.5
Royal Prince Alfred	24	3	4.5	36	-28	6.8
Shellharbour	38	5	11.4	25	2	7.5
South East Regional	0	-4	0	<5	-1	4.1
St George	<5	0	0.7	32	10	11.1
St Joseph's	0	0	0	<5	2	1.8
St Vincent's	6	-16	2.3	11	-20	4.1
Sutherland	<5	-8	0.9	8	-7	3.7
Sydney Children's	<5	1	4.1	<5	2	6.2
Tamworth	6	-2	3.8	19	4	11.9
Tweed	11	0	4.6	19	6	8.0
Wagga Wagga	13	7	5.3	21	12	8.5
Westmead	0	0	0	24	22	10.1
Westmead Children's	0	0	0	<5	-15	9.1
Wollongong	13	1	4.4	10	-10	3.4
Wyong	8	-6	2.2	7	-2	1.9
<b>MHICU</b>						
Concord	136	24	11.9	110	15	9.7
Cumberland	52	-24	6.7	66	8	8.5
Hornsby	35	-7	6.8	33	-5	6.4
Hunter New England Mater MH	48	24	5.8	109	76	13.2
Orange	22	7	7.8	26	8	9.2
Prince of Wales	6	-13	1.0	53	-24	9.2
<b>JH</b>						
The Forensic Hospital†	102	54	26.0	131	-50	33.4

† Justice Health (JH) is not included in NSW totals because of the differences in model of care and the patient cohort. For more information, see *Measurement Matters: Reporting on seclusion and restraint in NSW public hospitals*.

Note: MHICU = Mental Health Intensive Care Unit. JHFMHN = Justice Health and Forensic Mental Health Network. Manly Hospital which was closed on 30 October 2018 was excluded from NSW totals in the April to June 2019 quarter, but included in the same quarter 2018.

Results for Northern Beaches Hospital are not included, as complete data for admissions to acute mental health units are not yet available for this hospital.

# Seclusion and restraint duration

While seclusion and restraint is 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.

The NSW Health Performance KPI target for seclusion duration in 2018–19 is less than four hours for each hospital. Statewide, the average duration of a seclusion event was 5 hours and 7 minutes in the April to June 2019 quarter, shorter by 14 minutes than the same quarter last year (Table 5).

The average duration of seclusion events was less than four hours in 37 hospitals. The average duration was longer than four hours in eight hospitals: Concord (10h 17m); Shellharbour (7h 50m); Liverpool (6h 27m); St Vincent's (5h 48m); Cumberland (5h 15m); Nepean (4h 33m); Prince of Wales (4h 25m); and Blacktown (4h 19m).

In the April to June 2019 quarter, the average duration of a physical restraint event was five minutes, one minute shorter compared with the same quarter last year (Table 5).

The average duration of a mechanical restraint event in NSW public hospitals (excluding the Forensic Hospital) was 1 hour 45 minutes. This was up by 51 minutes compared with the same quarter last year (data not shown by hospital due to small numbers). At the Forensic Hospital, the average duration of a mechanical restraint event was 39 minutes, up 10 minutes compared with the same quarter last year.

For more information on analyses of seclusion and restraint, see *Measurement Matters: Reporting on seclusion and restraint in NSW public hospitals*.  
[bhi.nsw.gov.au/BHI\\_reports/measurement\\_matters](https://bhi.nsw.gov.au/BHI_reports/measurement_matters)

Table 5 Average duration of seclusion and physical restraint events occurring in specialised acute mental health inpatient units, by public hospital, April to June 2019

Hospital	Seclusion		Physical restraint		
	Average duration	Change since one year ago	Average duration	Change since one year ago	
<b>NSW†</b>	<b>5h 7m</b>	<b>-14m</b>	<b>5m</b>	<b>-1m</b>	
No mental health intensive care unit	Armidale	0m	0m	0m	
	Bankstown-Lidcombe	2h 55m	1h 33m	2m	-1m
	Bathurst	0m	0m	0m	0m
	Blacktown	4h 19m	1h 28m	1m	-2m
	Blue Mountains	1h 3m	-2h 37m	5m	1m
	Braeside	0m	0m	1m	1m
	Broken Hill	1h 49m	55m	1m	0m
	Campbelltown	1h 2m	-33m	3m	2m
	Coffs Harbour	2h 35m	-2h 37m	6m	2m
	Dubbo	30m	30m	3m	3m
	Gosford	28m	-33m	7m	4m
	Goulburn	45m	10m	4m	2m
	Greenwich	0m	0m	12m	11m
	John Hunter	0m	0m	9m	4m
	Kempsey	0m	0m	0m	0m
	Lismore	2h 13m	-28m	4m	0m
	Liverpool	6h 27m	2h 32m	2m	0m
	Macquarie	4h 0m	-1h 0m	6m	3m
	Maitland	2h 15m	52m	5m	0m
	Manning	2h 12m	13m	3m	0m
	Morisset	0m	0m	1m	1m
	Nepean	4h 33m	-3h 5m	3m	-6m
	Port Macquarie	0m	-2h 9m	8m	5m
	Royal North Shore	3h 35m	1h 41m	3m	-1m
	Royal Prince Alfred	3h 5m	40m	5m	-3m
	Shellharbour	7h 50m	3h 24m	6m	-4m
	South East Regional	0m	-40m	1m	-2m
	St George	13m	-1h 52m	1m	0m
	St Joseph's	0m	0m	1m	1m
	St Vincent's	5h 48m	3h 13m	9m	6m
	Sutherland	55m	-11m	2m	0m
	Sydney Children's	22m	-7m	7m	6m
	Tamworth	1h 8m	-2h 4m	7m	5m
Tweed	2h 42m	-29m	3m	1m	
Wagga Wagga	3h 20m	5m	4m	1m	
Westmead	0m	0m	1m	-16m	
Westmead Children's	0m	0m	13m	6m	
Wollongong	2h 8m	-7m	5m	-1m	
Wyong	2h 27m	-37m	13m	9m	
MHICU	Concord	10h 17m	1h 29m	6m	0m
	Cumberland	5h 15m	-9h 18m	2m	-1m
	Hornsby	1h 42m	-8m	7m	1m
	Hunter New England Mater MHC	3h 51m	1h 58m	11m	3m
	Orange	1h 19m	51m	4m	2m
Prince of Wales	4h 25m	50m	3m	-11m	
JH	The Forensic Hospital†	54h 45m	-66h 13m	8m	0m

† Justice Health (JH) is not included in NSW totals because of the differences in model of care and the patient cohort. For more information, see *Measurement Matters: Reporting on seclusion and restraint in NSW public hospitals*.

Note: MHICU = Mental Health Intensive Care Unit. JHFMHN = Justice Health and Forensic Mental Health Network. Manly Hospital which was closed on 30 October 2018 was excluded from NSW totals in the April to June 2019 quarter, but included in the same quarter 2018.

Results for Northern Beaches Hospital are not included, as complete data for admissions to acute mental health units is not yet available for this hospital.





# Elective surgery activity and performance

# Elective surgery

In the April to June 2019 quarter, 59,113 elective surgical procedures were performed, down 0.1% compared with the same quarter last year (Figure 19).

There are three main categories for elective surgery: urgent, semi-urgent and non-urgent. The urgency category is determined by the surgeon and is based on clinical criteria. More than half (53.3%) of all procedures performed this quarter were either urgent or semi-urgent (Figure 19).

Of the hospitals that performed more than 500 elective surgical procedures in the April to June 2019 quarter, the number was up by more than 10% in seven hospitals and down by more than 10% in four hospitals.

## Hospitals with >10% change in elective surgical procedures, compared with same quarter last year

Hospital	Peer group	Number of procedures	Change (%)
Kurri Kurri	C2	774	27.7
RPAH Institute	A1	508	16.5
Mount Druitt	C1	658	15.8
Blacktown	B	828	15.2
St Vincent's	A1	892	15.2
St George	A1	1,527	12.8
Wagga Wagga	B	1,580	11.7
Nepean	A1	1,689	-10.2
Sutherland	B	628	-12.5
Shellharbour	C1	792	-15.7
Shoalhaven	B	820	-20.8

Figure 19 Elective surgical procedures performed, by urgency category, April to June 2019

	This quarter	Same quarter last year	Change since one year ago	
Total number of elective surgical procedures	59,113	59,173	-0.1%	
Urgent	 21.1%	12,481	12,419	0.5%
Semi-urgent	 32.1%	19,003	19,835	-4.2%
Non-urgent	 41.7%	24,671	24,134	2.2%
Staged*	 5.0%	2,958	2,785	6.2%

\* Staged surgery is surgery that, for medical reasons, cannot take place before a certain amount of time has elapsed (includes all non-urgent cystoscopy patients).

# Waiting time for elective surgery

Timeliness of elective surgery is measured by median and 90th percentile waiting times, and the percentage of procedures performed within clinically recommended time frames.

The recommended waiting times for elective surgery are up to: 30 days for urgent, 90 days for semi-urgent, and 365 days for non-urgent procedures. Most procedures (96.4%) were performed within recommended timeframes (Figure 20).

Compared with the same quarter last year, median waiting times in the April to June 2019 quarter were 11 days for urgent (unchanged), 46 days for semi-urgent (up 1 day) and 246 days for non-urgent procedures (up 12 days) (Figure 20).

Figure 20 Percentage of elective surgical procedures performed on time and waiting times, by urgency category, April to June 2019

		This quarter	Same quarter last year	Percentage point change since one year ago
All procedures		96.4%	96.9%	-0.5
Urgent	<b>Recommended: 30 days</b> 	99.9%	99.8%	0.1
Semi-urgent	<b>Recommended: 90 days</b> 	96.7%	97.2%	-0.5
Non-urgent	<b>Recommended: 365 days</b> 	94.3%	95.2%	-0.9

		This quarter	Same quarter last year	Change since one year ago
Urgent: 12,481 patients				
Median time to receive surgery		11 days	11 days	unchanged
90th percentile time to receive surgery		26 days	26 days	unchanged
Semi-urgent: 19,003 patients				
Median time to receive surgery		46 days	45 days	1 day
90th percentile time to receive surgery		83 days	83 days	unchanged
Non-urgent: 24,671 patients				
Median time to receive surgery		246 days	234 days	12 days
90th percentile time to receive surgery		359 days	357 days	2 days

# Percentage of elective surgery on time

The hospital-level results for this quarter are presented on two axes: the percentage of elective surgical procedures performed on time (Y-axis), and the percentage point change since the same quarter last year (X-axis). For hospitals shown above the blue NSW line, a higher percentage of procedures were performed on time this quarter compared with the overall NSW result. Hospitals are named if they had more than a five percentage point change in performance (Figure 21).

In the April to June 2019 quarter, the percentage of elective surgical procedures performed on time for different specialities ranged from 89.8% for ear, nose and throat surgery to 99.4% for ophthalmology surgery (Figure 22).

The percentage of elective surgical procedures performed on time for different common procedures ranged from 76.3% for myringoplasty/tympanoplasty to 100% for myringotomy (Figure 23).

Figure 21 Percentage of elective surgical procedures performed on time and percentage point change since same quarter last year, hospitals by peer group, April to June 2019

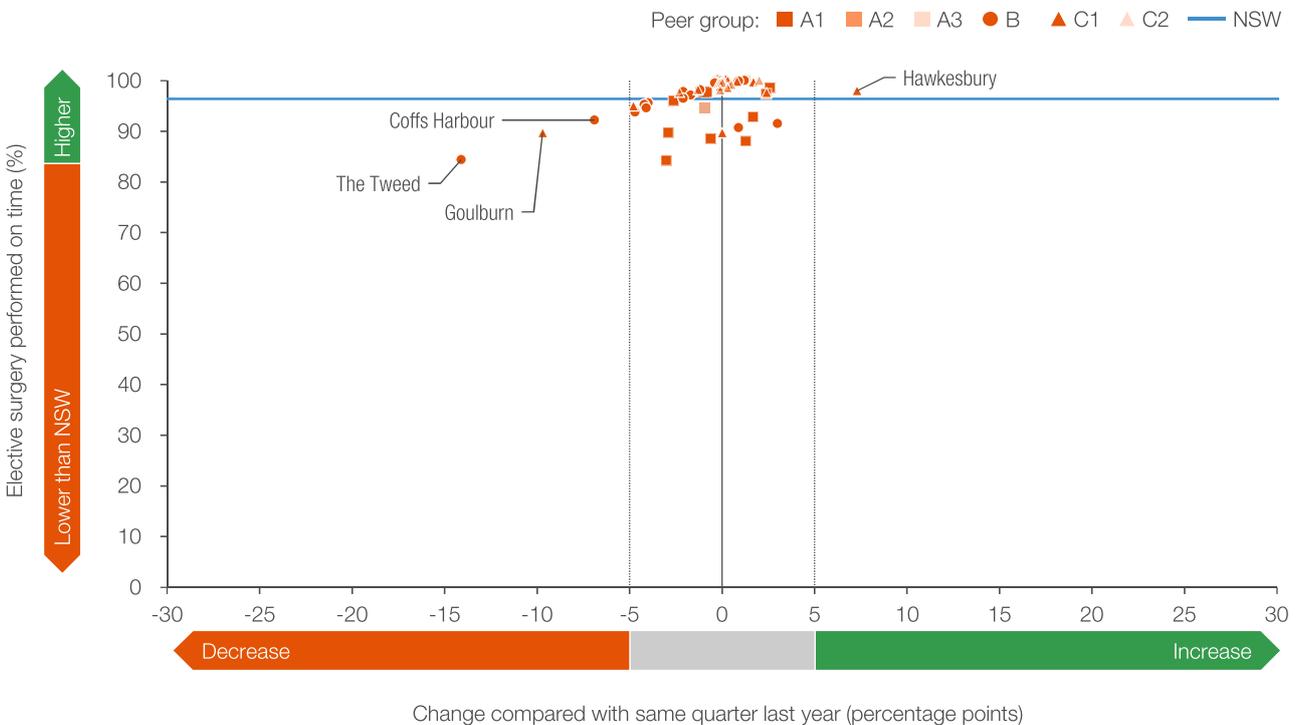


Figure 22 Percentage of elective surgical procedures performed on time, by specialty, April to June 2019

	Number of procedures	Percentage on time	Same quarter last year	Percentage point change since one year ago
Ophthalmology	8,452	99.4%	98.6%	0.8
Vascular surgery	1,730	98.8%	97.4%	1.4
Medical	538	98.7%	98.2%	0.5
Gynaecology	7,192	98.1%	98.4%	-0.3
General surgery	14,105	97.8%	98.5%	-0.7
Plastic surgery	2,548	97.4%	97.2%	0.2
Cardiothoracic surgery	910	97.0%	97.6%	-0.6
Neurosurgery	1,194	96.8%	96.0%	0.8
Urology	8,483	96.3%	96.5%	-0.2
Orthopaedic surgery	9,572	92.5%	94.0%	-1.5
Ear, nose and throat surgery	4,389	89.8%	93.2%	-3.4

Figure 23 Percentage of elective surgical procedures performed on time, by common procedure, April to June 2019

	Number of procedures	Percentage on time	Same quarter last year	Percentage point change since one year ago
Myringotomy	41	100.0%	96.9%	3.1
Cataract extraction	6,704	99.7%	98.6%	1.1
Other – General	1,624	98.2%	98.8%	-0.6
Varicose veins stripping and ligation	380	98.1%	93.8%	4.3
Hysteroscopy	2,494	97.8%	99.3%	-1.5
Cholecystectomy	1,646	97.2%	98.8%	-1.6
Cystoscopy	3,505	97.0%	97.1%	-0.1
Abdominal hysterectomy	611	96.6%	97.6%	-1.0
Coronary artery bypass graft	179	96.6%	92.6%	4.0
Haemorrhoidectomy	302	96.6%	97.3%	-0.7
Inguinal herniorrhaphy	1,467	95.5%	98.2%	-2.7
Prostatectomy	664	90.9%	93.5%	-2.6
Tonsillectomy	1,394	88.4%	94.0%	-5.6
Total hip replacement	1,082	86.3%	90.9%	-4.6
Total knee replacement	1,894	85.7%	89.3%	-3.6
Septoplasty	513	85.2%	89.3%	-4.1
Myringoplasty/Tympanoplasty	94	76.3%	82.2%	-5.9

# Waiting time for elective surgery

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

In the April to June 2019 quarter, the median waiting time for different specialties ranged from 15 days for medical procedures to 231 days for ophthalmology surgery. The median waiting time for ophthalmology surgery was up 22 days compared with the same quarter last year (Figure 24).

The median waiting time for different common procedures ranged from 24 days for 'other - general' procedures to 324 days for septoplasty. The median waiting time for cataract extraction was 260 days, up 23 days compared with the same quarter last year. The median waiting time for varicose veins stripping and ligation was 135 days, down 50 days compared with the same quarter last year (Figure 25).

Figure 24 Median waiting time for patients who received elective surgery, by specialty, April to June 2019

	Number of procedures	This quarter	Same quarter last year	Change since one year ago
Ophthalmology	8,452	 231 days	209 days	22 days
Ear, nose and throat surgery	4,389	 216 days	225 days	-9 days
Orthopaedic surgery	9,572	 121 days	117 days	4 days
Neurosurgery	1,194	 54 days	43 days	11 days
Gynaecology	7,192	 43 days	38 days	5 days
General surgery	14,105	 41 days	37 days	4 days
Plastic surgery	2,548	 34 days	34 days	unchanged
Urology	8,483	 34 days	37 days	-3 days
Cardiothoracic surgery	910	 26 days	25 days	1 day
Vascular surgery	1,730	 22 days	23 days	-1 day
Medical	538	 15 days	18 days	-3 days

Figure 25 Median waiting time for patients who received elective surgery, by common procedure, April to June 2019

	Number of procedures	This quarter	Same quarter last year	Change since one year ago
Septoplasty	513	324 days	332 days	-8 days
Myringoplasty/Tympanoplasty	94	321 days	336 days	-15 days
Tonsillectomy	1,394	304 days	296 days	8 days
Total knee replacement	1,894	294 days	286 days	8 days
Cataract extraction	6,704	260 days	237 days	23 days
Total hip replacement	1,082	238 days	234 days	4 days
Varicose veins stripping and ligation	380	135 days	185 days	-50 days
Inguinal herniorrhaphy	1,467	77 days	75 days	2 days
Haemorrhoidectomy	302	76 days	67 days	9 days
Myringotomy	41	74 days	97 days	-23 days
Prostatectomy	664	69 days	68 days	1 day
Abdominal hysterectomy	611	67 days	56 days	11 days
Cholecystectomy	1,646	59 days	57 days	2 days
Hysteroscopy	2,494	43 days	34 days	9 days
Coronary artery bypass graft	179	34 days	32 days	2 days
Cystoscopy	3,505	29 days	30 days	-1 day
Other – General	1,624	24 days	25 days	-1 day

## End of quarter elective surgery waiting list

The waiting list is dynamic and the 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. A patient would not be considered ready for surgery if, for example, they were receiving a staged procedure (i.e. their medical condition does not require, or is not amenable to, surgery until a future date) or the patient is unavailable for personal reasons.

There were 84,131 patients on the elective surgery waiting list as at 30 June 2019, up 7.9% compared with the same quarter last year. The number of patients on the waiting list for semi-urgent and non-urgent surgery was up 1.7% and 9.4% respectively. The number of patients on the waiting list for urgent surgery was down 0.9% (Figure 26).

There were 465 patients still waiting after more than 12 months on the waiting list, up 223 compared with the same quarter last year. Five specialities saw an increase of more than 10% in the number of patients on the waiting list at the end of quarter: cardiothoracic surgery (17.9%), ophthalmology (17.4%), general surgery (11.1%), medical (11.1%) and gynaecology (10.2%) (Figure 27).

Seven common procedures saw an increase of more than 10% in the number of patients on the waiting list at the end of quarter: haemorrhoidectomy (25.4%), cataract extraction (17.3%), abdominal hysterectomy (16.2%), coronary artery bypass graft (13.5%), myringoplasty/tympanoplasty (12.8%), other-general procedures (12.1%) and inguinal herniorrhaphy (10.8%). One common procedure saw a decrease of more than 10% in the number of patients on the waiting list at the end of quarter: myringotomy (22.2%) (Figure 28).

Figure 26 Elective surgery waiting list, by urgency category, as at 30 June 2019

	This quarter	Same quarter last year	Change since one year ago
Patients ready for surgery on waiting list as at 30 June 2019	84,131	77,954	7.9%
Urgent  2.2%	1,821	1,838	-0.9%
Semi-urgent  15.5%	13,024	12,806	1.7%
Non-urgent  82.4%	69,286	63,310	9.4%
Patients not ready for surgery on waiting list at the end of quarter	15,679	15,463	1.4%

Figure 27 Patients waiting for elective surgery and patients still waiting after more than 12 months on the waiting list at the end of the quarter, by speciality, as at 30 June 2019

	Patients on waiting list at end of quarter			Patients still waiting after more than 12 months	
	This quarter	Same quarter last year	Percentage change since one year ago	This quarter	Same quarter last year
<b>All specialties</b>	<b>84,131</b>	<b>77,954</b>	<b>7.9</b>	<b>465</b>	<b>242</b>
Ophthalmology	21,400	18,225	17.4	12	8
Orthopaedic surgery	19,734	18,967	4.0	120	98
General surgery	14,658	13,191	11.1	93	17
Ear, nose and throat surgery	10,523	10,580	-0.5	183	85
Gynaecology	7,344	6,662	10.2	30	10
Urology	4,577	4,365	4.9	7	<5
Plastic surgery	2,520	2,642	-4.6	11	16
Neurosurgery	1,552	1,616	-4.0	<5	6
Vascular surgery	1,158	1,129	2.6	7	0
Cardiothoracic surgery	414	351	17.9	0	0
Medical	251	226	11.1	0	0

Figure 28 Patients waiting for elective surgery and patients still waiting after more than 12 months on the waiting list at the end of the quarter, by common procedure, as at 30 June 2019

Procedure	Patients on waiting list at end of quarter			Patients still waiting after more than 12 months	
	This quarter	Same quarter last year	Percentage change since one year ago	This quarter	Same quarter last year
Cataract extraction	18,769	16,005	17.3	<5	6
Total knee replacement	6,045	5,842	3.5	30	32
Tonsillectomy	4,041	4,098	-1.4	39	23
Total hip replacement	2,836	2,614	8.5	28	12
Inguinal herniorrhaphy	2,568	2,318	10.8	21	<5
Hysteroscopy	1,956	1,845	6.0	6	0
Cholecystectomy	1,744	1,682	3.7	12	<5
Septoplasty	1,528	1,624	-5.9	33	17
Other - General	1,294	1,154	12.1	<5	<5
Cystoscopy	1,225	1,180	3.8	<5	<5
Abdominal hysterectomy	926	797	16.2	0	0
Prostatectomy	767	713	7.6	<5	<5
Varicose veins stripping and ligation	712	719	-1.0	5	0
Haemorrhoidectomy	509	406	25.4	<5	0
Myringoplasty / Tympanoplasty	387	343	12.8	15	<5
Coronary artery bypass graft	101	89	13.5	0	0
Myringotomy	77	99	-22.2	0	0

## 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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