

Activity and performance

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

July to September 2019



BUREAU OF HEALTH INFORMATION

Level 11, 67 Albert Avenue
Chatswood NSW 2067
Australia
Telephone: +61 2 9464 4444
bhi.nsw.gov.au

© Copyright Bureau of Health Information 2019

This work is copyrighted. It may be reproduced in whole or in part for study or training purposes subject to the inclusion of an acknowledgement of the source. It may not be reproduced for commercial usage or sale. Reproduction for purposes other than those indicated above requires written permission from the Bureau of Health Information.

State Health Publication Number: (BHI) 190770
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, July to September 2019. Sydney (NSW); BHI; 2019.

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 December 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.

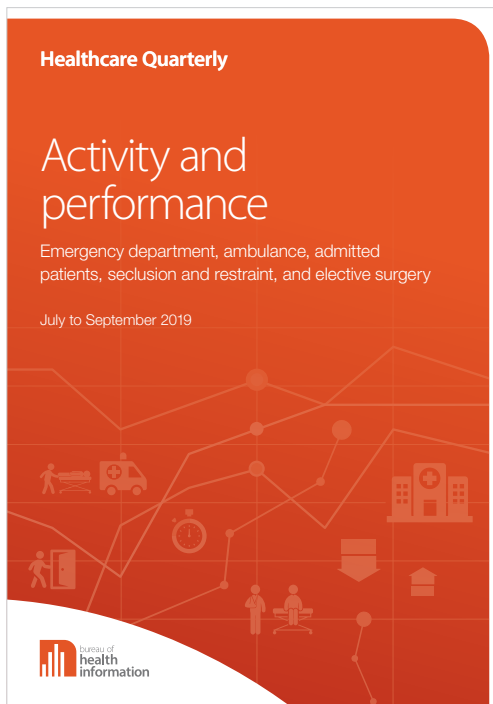
Please visit **bhi.nsw.gov.au/Healthcare_Observer**

Table of contents

10 key findings	1
Healthcare Quarterly – Activity	2
Healthcare Quarterly – Performance	3
In the July to September 2019 quarter...	4
About this report	6
Emergency department activity and performance	9
Emergency department presentations	10
Time to treatment	12
Time spent in the emergency department	14
Transfer of care	16
Ambulance activity and performance	19
Ambulance activity and performance	20
Ambulance activity	22
Call to ambulance arrival times	24
Admitted patient activity	27
Admitted patients	28
Seclusion and restraint	31
Seclusion and restraint	32
Seclusion and restraint events and rate	34
Seclusion and restraint duration	36
Elective surgery activity and performance	39
Elective surgery	40
Elective surgery waiting time by urgency category	41
Percentage of elective surgery on time	42
Elective surgery waiting time by specialty and procedure	44
End of quarter elective surgery waiting list	46

A guide to Healthcare Quarterly

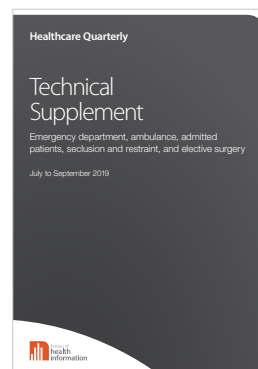
Healthcare Quarterly reports on activity and performance in public hospitals and ambulance services across NSW.



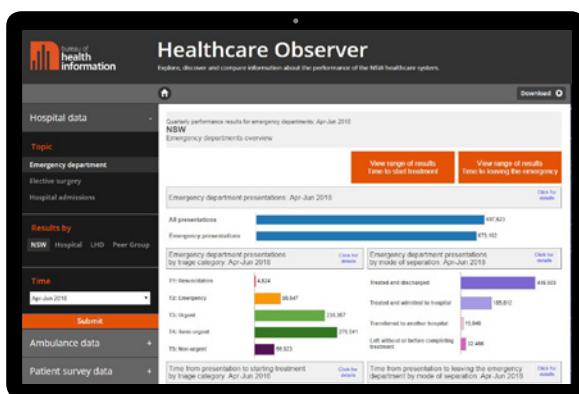
Healthcare Quarterly shows how public hospitals and ambulance services performed in the July to September 2019 quarter. The key measures focus on the timeliness of services delivered to people across NSW.



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



All reports and profiles are available at bhi.nsw.gov.au

10 key findings

July to September 2019

- 1 There were 764,610 emergency department attendances in the July to September 2019 quarter, up 6.6% (47,059) compared with the same quarter last year.** The number of attendances was higher in 71 large emergency departments.
- 2 About seven in 10 (70.2%) emergency department patients were treated within clinically recommended timeframes.** This was 3.2 percentage points lower than the same quarter last year (73.4%).
- 3 Almost seven in 10 (68.1%) patients spent four hours or less in the emergency department, down 3.3 percentage points.** The median time patients spent in the emergency department was 3 hours and 1 minute, up 9 minutes.
- 4 The percentage of patients who had their care transferred from paramedics to hospital staff within 30 minutes was 84.4%, down 4.9 percentage points.** The number of arrivals to emergency departments by ambulance was up 7.9% (13,092) to 179,056 arrivals. Arrivals by ambulance were up more than 10% in 27 large hospitals.
- 5 The number of ambulance responses, where a vehicle was dispatched, was up 7.6% (22,543) to 320,177 compared with the same quarter last year.** Cases classified as emergencies (priority 1) were up 8.3% (11,247) to 146,724 responses.
- 6 Paramedics reached almost six in 10 (57.1%) emergency (priority 1) cases within 15 minutes, down 3.8 percentage points.** The percentage of urgent (priority 2) cases reached within 30 minutes was down 5.1 percentage points to 64.7%.
- 7 The median response time for life-threatening (priority 1A) cases remained stable at 7.4 minutes.** The number of responses to life-threatening cases was up 7.7% (509) to 7,131 responses. Paramedics reached 72.6% of these cases within 10 minutes, down 1.1 percentage points.
- 8 There were 791 seclusion events and 1,063 physical restraint events in specialised acute mental health inpatient units.** The average duration of seclusion events was 5 hours and 45 minutes, up 59 minutes compared with the same quarter last year. The average duration of physical restraint events was 4 minutes, down 1 minute.
- 9 The number of elective surgical procedures performed was 61,916, up 3.6% (2,140) compared with the same quarter last year.** The numbers of urgent and non-urgent procedures were up 4.4% and 6.0% respectively, while the number of semi-urgent procedures remained stable.
- 10 The median waiting times for elective surgery were 11 days for urgent procedures (unchanged), 45 days for semi-urgent procedures (up one day) and 241 days for non-urgent surgeries (up 13 days).** Most elective surgical procedures (96.6%) were performed within clinically recommended timeframes.

Healthcare Quarterly – Activity

Emergency department activity		July to September 2019	July to September 2018	Difference	% change
All arrivals at NSW EDs by ambulance		179,056	165,964	13,092	7.9%
All ED attendances		764,610	717,551	47,059	6.6%
Emergency presentations		741,263	693,807	47,456	6.8%
Triage category	T1: Resuscitation	5,434	5,150	284	5.5%
	T2: Emergency	99,633	93,493	6,140	6.6%
	T3: Urgent	269,690	249,929	19,761	7.9%
	T4: Semi-urgent	301,866	282,358	19,508	6.9%
	T5: Non-urgent	64,640	62,877	1,763	2.8%
Admissions to hospital from NSW EDs		198,706	191,095	7,611	4.0%

Ambulance activity		July to September 2019	July to September 2018	Difference	% change
Calls		322,120	295,461	26,659	9.0%
Responses		320,177	297,634	22,543	7.6%
Priority category	P1: Emergency	146,724	135,477	11,247	8.3%
	P1A: Highest priority	7,131	6,622	509	7.7%
	P2: Urgent	150,383	138,920	11,463	8.3%
	P3: Time-critical	14,931	14,314	617	4.3%
	P4–9: Non-emergency	8,139	8,909	-770	-8.6%
Incidents		248,619	231,713	16,906	7.3%
Patient transports		193,211	179,561	13,650	7.6%

Admitted patient activity		July to September 2019	July to September 2018	Difference	% change
All admitted patient episodes		498,148	488,842	9,306	1.9%
Acute episodes		467,120	458,122	8,998	2.0%
Overnight episodes		249,685	248,048	1,637	0.7%
Same-day episodes		217,435	210,074	7,361	3.5%
Non-acute episodes		19,654	19,322	332	1.7%
Mental health episodes		11,374	11,398	-24	-0.2%
All episodes		3.6	3.6	0.0	
Average length of stay (days)	Acute episodes	2.9	2.9	0	
	Non-acute episodes	12	12.4	-0.4	
	Mental health episodes	17.2	16.2	1	
All bed days		1,799,202	1,755,057	44,145	2.5%
Hospital bed days	Acute bed days	1,368,120	1,330,652	37,468	2.8%
	Non-acute bed days	235,909	239,617	-3,708	-1.5%
	Mental health bed days	195,173	184,788	10,385	5.6%
Babies born in NSW public hospitals		18,102	18,376	-274	-1.5%

Elective surgery activity		July to September 2019	July to September 2018	Difference	% change
Elective surgical procedures performed		61,916	59,776	2,140	3.6%
Urgency category	Urgent surgery	13,400	12,837	563	4.4%
	Semi-urgent surgery	19,801	19,922	-121	-0.6%
	Non-urgent surgery	25,781	24,322	1,459	6.0%
Patients on waiting list ready for elective surgery at end of quarter		85,261	78,760	6,501	8.3%
Urgency category	Urgent surgery	1,866	1,734	132	7.6%
	Semi-urgent surgery	13,295	13,073	222	1.7%
	Non-urgent surgery	70,100	63,953	6,147	9.6%

Note: Ambulance activity data do not include outage estimates. Data drawn on: 24 October 2019 (Emergency department), 11 October 2019 (Ambulance), 15 October 2019 (Admitted patients), 23 October 2019 (Elective surgery).

Healthcare Quarterly – Performance

Emergency department performance			July to September 2019	July to September 2018	Difference	
Percentage of patients transferred from ambulance to ED within 30 minutes			84.4%	89.3%	-4.9 percentage points	
Time to treatment by triage category	T2: Emergency	Median	9 mins	8 mins	1 mins	
		90th percentile	29 mins	27 mins	2 mins	
	T3: Urgent	Median	22 mins	21 mins	1 mins	
		90th percentile	83 mins	72 mins	11 mins	
	T4: Semi-urgent	Median	29 mins	26 mins	3 mins	
		90th percentile	117 mins	105 mins	12 mins	
	T5: Non-urgent	Median	24 mins	22 mins	2 mins	
		90th percentile	113 mins	102 mins	11 mins	
	All patients			70.2%	73.4%	-3.2 percentage points
	Percentage of patients whose treatment started on time	T2: Emergency (Recommended: 80% in 10 minutes)		61.1%	64.0%	-2.9 percentage points
T3: Urgent (Recommended: 75% in 30 minutes)		65.0%	68.6%	-3.6 percentage points		
T4: Semi-urgent (Recommended: 70% in 60 minutes)		74.1%	77.2%	-3.1 percentage points		
T5: Non-urgent (Recommended: 70% in 120 minutes)		91.4%	93.2%	-1.8 percentage points		
Median time spent in the ED			3h 1m	2h 52m	9 mins	
90th percentile time spent in the ED			8h 6m	7h 29m	37 mins	
Percentage of patients who spent four hours or less in the ED			68.1%	71.4%	-3.3 percentage points	

Ambulance performance		July to September 2019	July to September 2018	Difference
Call to ambulance arrival time				
Percentage of P1 call to ambulance arrival within 15 minutes		57.1%	60.9%	-3.8 percentage points
Percentage of P1 call to ambulance arrival within 30 minutes		92.3%	93.9%	-1.6 percentage points
Percentage of P2 call to ambulance arrival within 30 minutes		64.7%	69.8%	-5.1 percentage points
Percentage of P2 call to ambulance arrival within 60 minutes		89.6%	92.7%	-3.1 percentage points
Response time				
Percentage of P1A responses within 10 minutes		72.6%	73.7%	-1.1 percentage points

Elective surgery performance		July to September 2019	July to September 2018	Difference
Median waiting time (days)	Urgent surgery	11 days	11 days	0 days
	Semi-urgent surgery	45 days	44 days	1 day
	Non-urgent surgery	241 days	228 days	13 days
All surgeries		96.6%	97.6%	-1.0 percentage points
Elective surgeries performed on time	Urgent surgery (Recommended: 30 days)	99.9%	99.8%	+0.1 percentage points
	Semi-urgent surgery (Recommended: 90 days)	96.8%	97.6%	-0.8 percentage points
	Non-urgent surgery (Recommended: 365 days)	94.6%	96.4%	-1.8 percentage points

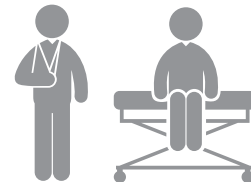
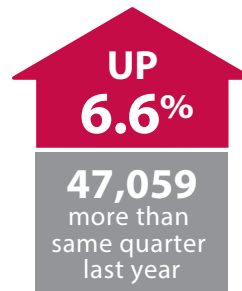
Notes: Data drawn on: 24 October 2019 (Emergency department), 11 October 2019 (Ambulance), 23 October 2019 (Elective surgery).

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.

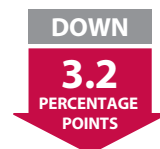
In the July to September 2019 quarter...

Emergency department

There were **764,610**
emergency department attendances



70.2% of patients' treatment
started on time



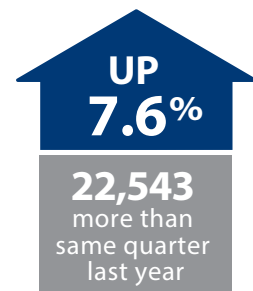
68.1% of patients spent
four hours or less in the
emergency department



Ambulance



There were **320,177**
ambulance responses



92.3% 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 **498,148**
admitted patient episodes of care



53.5%
of acute admitted patient episodes
were for overnight stays



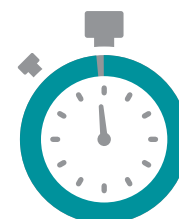
Elective surgery

There were **61,916**
elective surgical
procedures performed



Almost all (96.6%) were performed
within recommended time frames

Median waiting times were unchanged for
urgent (11 days), but increased by one day
for semi-urgent (45 days) and by 13 days
for non-urgent surgeries (241 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 24 October 2019
- **NSW Ambulance Computer Aided Dispatch (CAD) system** – provided on 11 October 2019
- **Admitted Patient Data Collection (APDC)** – data drawn from the HIE on 15 October 2019
- **Seclusion and Restraint Data Collection** – data drawn from the HIE on 16 October 2019, and manually collected measures received from InforMH, System Information and Analytics Branch, Ministry of Health on 1 November 2019
- **Waiting List Collection Online System (WLCOS)** – data drawn on 23 October 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 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 department 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 764,610 ED attendances in the July to September 2019 quarter across more than 170 public hospitals, up 6.6% compared with the same quarter last year. The number of ambulance arrivals was up 7.9% (13,092) to 179,056 (Figure 1).

Across all triage categories, the number of patient presentations was higher this quarter than the same quarter last year. Triage 3 (urgent) and triage 4 (semi-urgent) saw the largest change in presentations, up 7.9% (19,761 more patients) to 269,690 presentations and 6.9% (19,508 more patients) to 301,866 presentations, respectively (Figure 1).

Most attendances (96.9%) were classified as emergency presentations (Figure 1). The remaining 23,347 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, July to September 2019

		This quarter	Same quarter last year	Change since one year ago
All ED attendances		764,610	717,551	6.6%
Emergency presentations by triage category		741,263	693,807	6.8%
Triage 1: Resuscitation	0.7%	5,434	5,150	5.5%
Triage 2: Emergency	13.4%	99,633	93,493	6.6%
Triage 3: Urgent	36.4%	269,690	249,929	7.9%
Triage 4: Semi-urgent	40.7%	301,866	282,358	6.9%
Triage 5: Non-urgent	8.7%	64,640	62,877	2.8%
Ambulance arrivals		179,056	165,964	7.9%

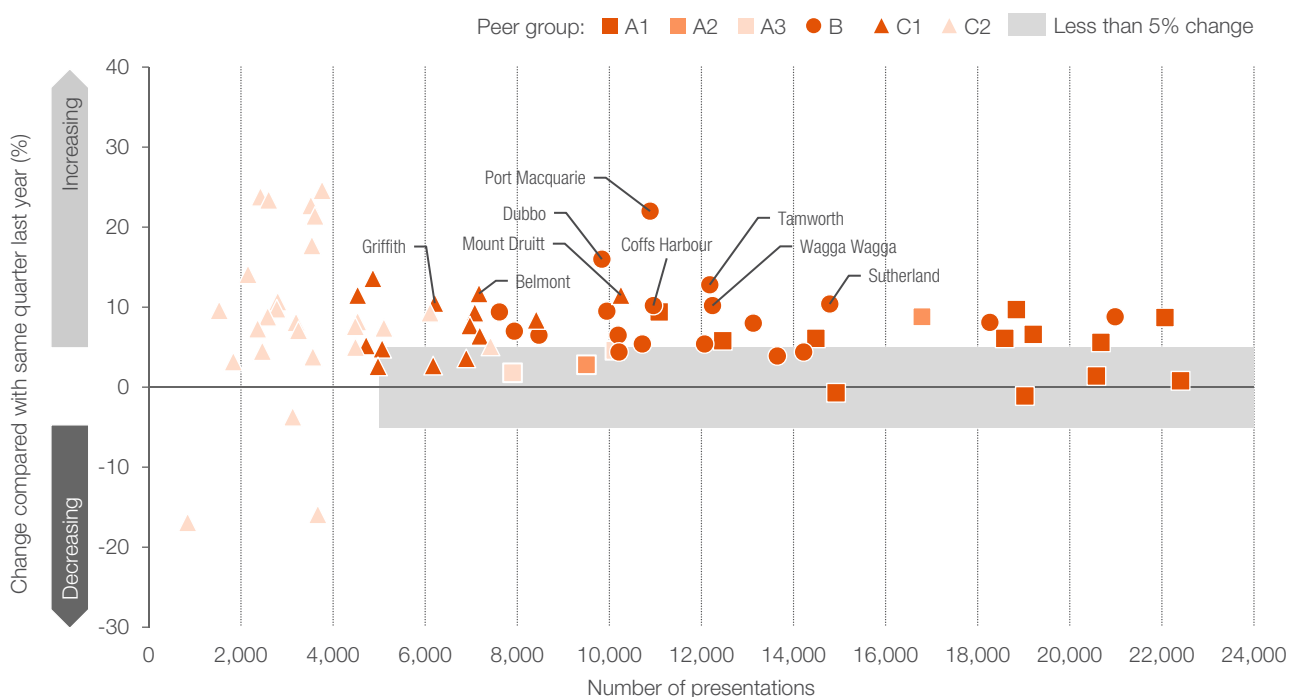
Compared with the same quarter last year, the number of ED attendances was higher this quarter in 71 out of the 77 large public hospital EDs reported on individually in *Healthcare Quarterly*.

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	10,884	22.0
Dubbo	B	9,837	16.0
Tamworth	B	12,180	12.8
Belmont	C1	7,169	11.7
Mount Druitt	C1	10,251	11.5
Griffith	C1	6,208	10.5
Sutherland	B	14,786	10.4
Wagga Wagga	B	12,240	10.2
Coffs Harbour	B	10,956	10.2

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



Time to treatment

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 July to September 2019 quarter, 70.2% of ED patients' treatment started within clinically recommended timeframes, 3.2 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, July to September 2019

	This quarter	Same quarter last year	Percentage point change since one year ago
All emergency presentations	70.2%	73.4%	-3.2
Triage 2: Emergency	Recommended: 80% in 10 minutes 61.1%	64.0%	-2.9
Triage 3: Urgent	Recommended: 75% in 30 minutes 65.0%	68.6%	-3.6
Triage 4: Semi-urgent	Recommended: 70% in 60 minutes 74.1%	77.2%	-3.1
Triage 5: Non-urgent	Recommended: 70% in 120 minutes 91.4%	93.2%	-1.8

	This quarter	Same quarter last year	Change since one year ago
Triage 2 Emergency (e.g. chest pain, severe burns): 98,336 presentations			
Median time to start treatment	9m	8m	1m
90th percentile time to start treatment	29m	27m	2m
Triage 3 Urgent (e.g. moderate blood loss, dehydration): 261,418 presentations			
Median time to start treatment	22m	21m	1m
90th percentile time to start treatment	1h 23m	1h 12m	11m
Triage 4 Semi-urgent (e.g. sprained ankle, earache): 278,947 presentations			
Median time to start treatment	29m	26m	3m
90th percentile time to start treatment	1h 57m	1h 45m	12m
Triage 5 Non-urgent (e.g. small cuts or abrasions): 54,841 presentations			
Median time to start treatment	24m	22m	2m
90th percentile time to start treatment	1h 53m	1h 42m	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.

Emergency department activity and performance

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	73.7	18.9
Manning	B	87.9	15.8
Griffith	C1	84.7	11.9
Auburn	B	53.9	-10.1
Ballina	C2	72.1	-10.1
Concord	A1	65.7	-10.6
Broken Hill	C1	66.0	-11.5
Shoalhaven	B	51.2	-11.9
Moree	C2	72.8	-12.7
Blacktown	B	56.5	-13.7
Bowral	C1	62.2	-14.1
Casino	C2	61.4	-15.9
Armidale	C1	55.1	-17.1
Mount Druitt	C1	54.9	-18.1



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'.

In the July to September 2019 quarter, 68.1% of patients spent four hours or less in the ED, 3.3 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 4.8 percentage points to 36.3% (Figure 6).

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











		This quarter	Same quarter last year	Change since one year ago
Treated and discharged	 63.4%	485,065	455,203	6.6%
Treated and admitted to hospital	 26.0%	198,706	191,095	4.0%
Left without, or before completing, treatment	 6.6%	50,764	40,116	26.5%
Transferred to another hospital	 2.2%	17,003	16,544	2.8%
Other	 1.7%	13,072	14,593	-10.4%

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

	Number	This quarter	Same quarter last year	Change since one year ago
All ED attendances	520,349	 68.1%	71.4%	-3.3
Treated and discharged	386,525	 79.7%	83.0%	-3.3
Treated and admitted	72,186	 36.3%	41.1%	-4.8
Left without, or before completing, treatment	42,451	 83.6%	87.1%	-3.5
Transferred to another hospital	7,281	 42.8%	46.1%	-3.3

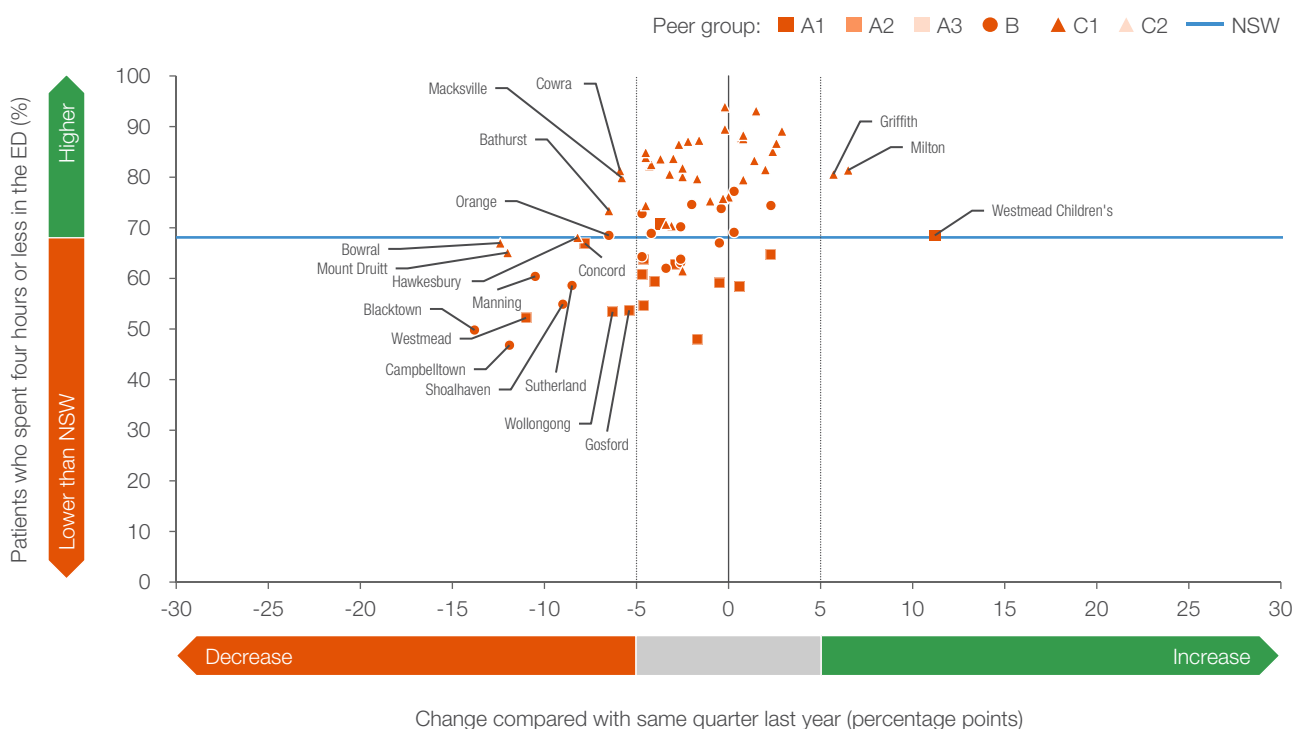
Compared with the same quarter last year, for 77 large public hospital EDs reported on individually in *Healthcare Quarterly*:

- In 18 hospitals, the percentage of patients who spent four hours or less in the ED was higher. Westmead Children's (11.2%) had an increase of more than 10 percentage points (Figure 7).
- In 57 hospitals, there was a drop in the percentage of patients who spent four hours or less in the ED. Six hospitals had a decrease of more than 10 percentage points: Blacktown (13.8%), Bowral (12.4%), Mount Druitt (12.0%), Campbelltown (11.9%), Westmead (11.0%), and Manning (10.5%) (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	68.5	11.2
Manning	B	60.4	-10.5
Westmead	A1	52.2	-11.0
Campbelltown	B	46.8	-11.9
Mount Druitt	C1	65.1	-12.0
Bowral	C1	67.0	-12.4
Blacktown	B	49.8	-13.8

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, July to September 2019



Transfer of care

In NSW, transfer of care should occur within 30 minutes for at least 90% of patients. In the July to September 2019 quarter, 84.4% of patients who arrived by ambulance had their care transferred within 30 minutes, down 4.9 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 July to September 2019 quarter was 13 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 July to September 2019 was up 8.5% to 159,731 arrivals (Figure 8).

The number of ambulance arrivals was up by more than 10% in 27 hospitals. The change was more than 20% in five hospitals: Mount Druitt (37.7%), Narrabri (25.5%), Blue Mountains (23.5%), Young (20.9%), and Coffs Harbour (20.1%). The number of ambulance arrivals was down by more than 10% for Kurri Kurri Hospital (12.9%).

Figure 8 Emergency presentations, ambulance arrivals and transfer of care time, July to September 2019

	This quarter	Same quarter last year	Change since one year ago
Emergency presentations	741,263	693,807	6.8%
Ambulance arrivals (number used to calculate transfer of care time)	159,731	147,180	8.5%
ED transfer of care time			
Median time	13m	12m	1m
90th percentile time	40m	31m	9m
Percentage of patients transferred from ambulance to ED within 30 minutes	84.4%	89.3%	-4.9 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 (%)
Mount Druitt	C1	1,789	37.7
Narrabri	C2	202	25.5
Blue Mountains	C2	1,233	23.5
Young	C2	358	20.9
Coffs Harbour	B	3,028	20.1
Belmont	C1	1,679	20.0
Auburn	B	1,563	17.4
Campbelltown	B	6,133	15.8
Maclean	C2	521	15.5
Moree	C2	334	14.8
Tamworth	B	2,549	14.8
Shellharbour	C1	2,241	14.7
Fairfield	B	2,431	14.6
Bowral	C1	1,319	13.7

Hospital	Peer group	Ambulance arrivals	Change (%)
St Vincent's	A1	4,326	12.9
Singleton	C2	396	12.2
Sutherland	B	4,162	11.9
Muswellbrook	C2	444	11.6
Bankstown-Lidcombe	A1	4,849	11.4
The Tweed	B	2,399	11.4
Manning	B	2,622	11.1
Hawkesbury	C1	1,328	10.8
Goulburn	C1	1,056	10.5
Maitland	B	2,844	10.5
Royal Prince Alfred	A1	6,405	10.3
Broken Hill	C1	849	10.1
Liverpool	A1	7,782	10.1
Kurri Kurri	C2	61	-12.9



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 July to September 2019 quarter, there were 322,120 calls and 248,619 incidents, up 9.0% and 7.3%, respectively, compared with the same quarter last year. There were 320,177 responses (up 7.6%) with most categorised as emergency – priority 1 (P1: 45.8%), and urgent – priority 2 (P2: 47.0%) (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 57.1% in July to September 2019, down 3.8 percentage points compared with the same quarter last year. The percentage of P2 call to ambulance arrival times within 30 minutes was 64.7%, down 5.1 percentage points (Figure 10).

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

Calls	Calls received at the ambulance control centre, requesting an ambulance vehicle.
Incidents	A call that results in the dispatch of one or more ambulance vehicles.
Responses	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).
Patient transports	Number of patients transported by NSW Ambulance.

Figure 9 Ambulance calls, incidents, responses and transports, NSW, July to September 2019

		This quarter	Same quarter last year	Change since one year ago
Calls		322,120	295,461	9.0%
Incidents		248,619	231,713	7.3%
All responses		320,177	297,634	7.6%
P1: Emergency	<div><div></div></div> 45.8%	146,724	135,477	8.3%
P1A: Highest priority	<div><div></div></div> 4.9%	7,131	6,622	7.7%
P2: Urgent	<div><div></div></div> 47.0%	150,383	138,920	8.3%
P3: Time-critical	<div><div></div></div> 4.7%	14,931	14,314	4.3%
P4–9: Non-emergency	<div><div></div></div> 2.5%	8,139	8,909	-8.6%
Patient transports		193,211	179,561	7.6%

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 July to September 2019 quarter, median response times for the high volume response categories were 11.9 minutes for emergency – priority 1 (P1) cases, and 21.0 minutes for urgent – priority 2 (P2) cases (Figure 11).

Within the 146,724 P1 responses, there were 7,131 of the highest priority 1A (P1A) cases, up 7.7% 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 7.4 minutes (Figure 11).

The percentage of P1A responses within 10 minutes in July to September 2019 was 72.6%, down 1.1 percentage points compared with the same quarter in 2018 (Figure 11).

Figure 10 Call to ambulance arrival time, by priority category, NSW, July to September 2019

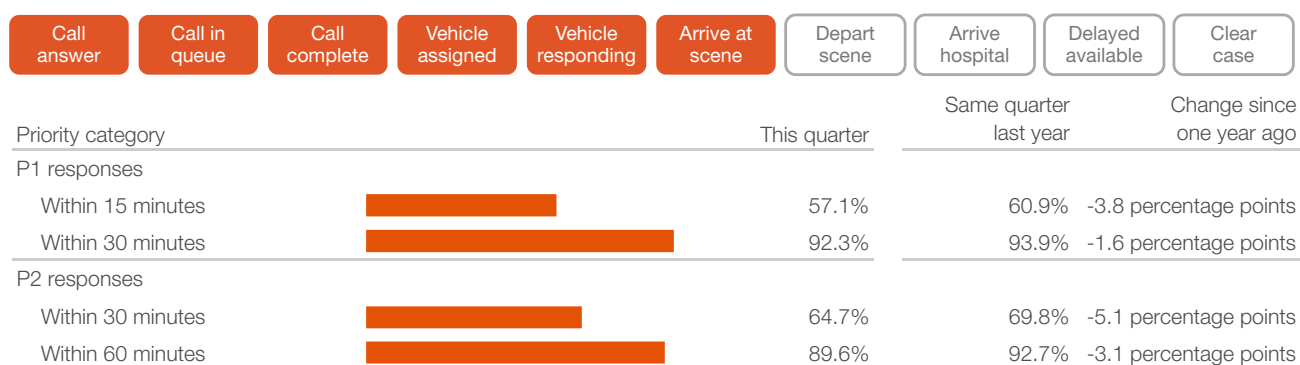
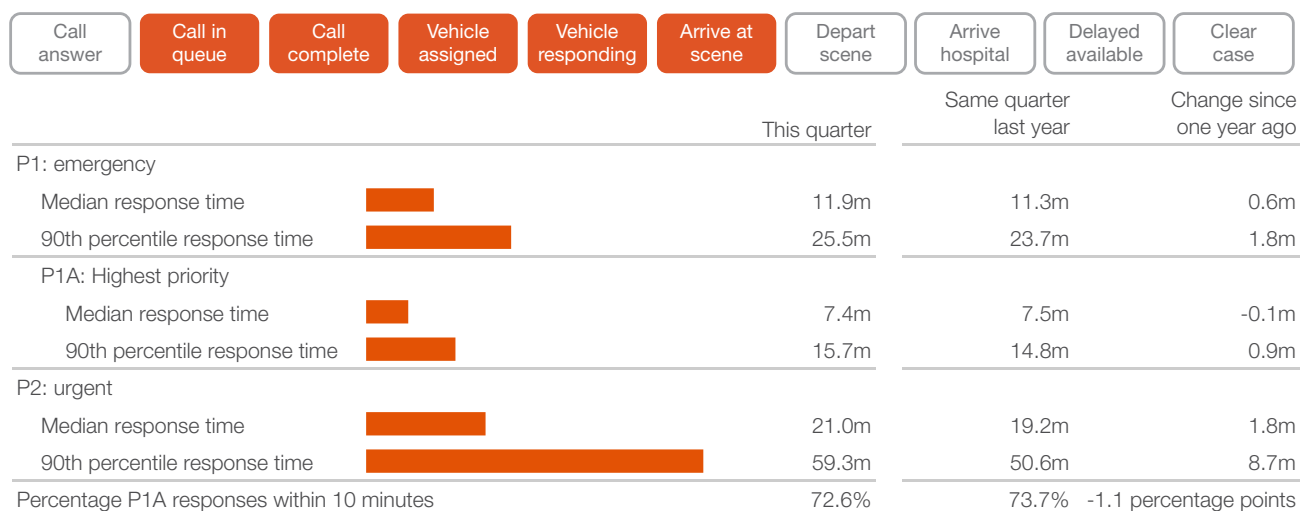


Figure 11 Ambulance response time by priority category, NSW, July to September 2019



Ambulance activity

Regional, rural and remote NSW

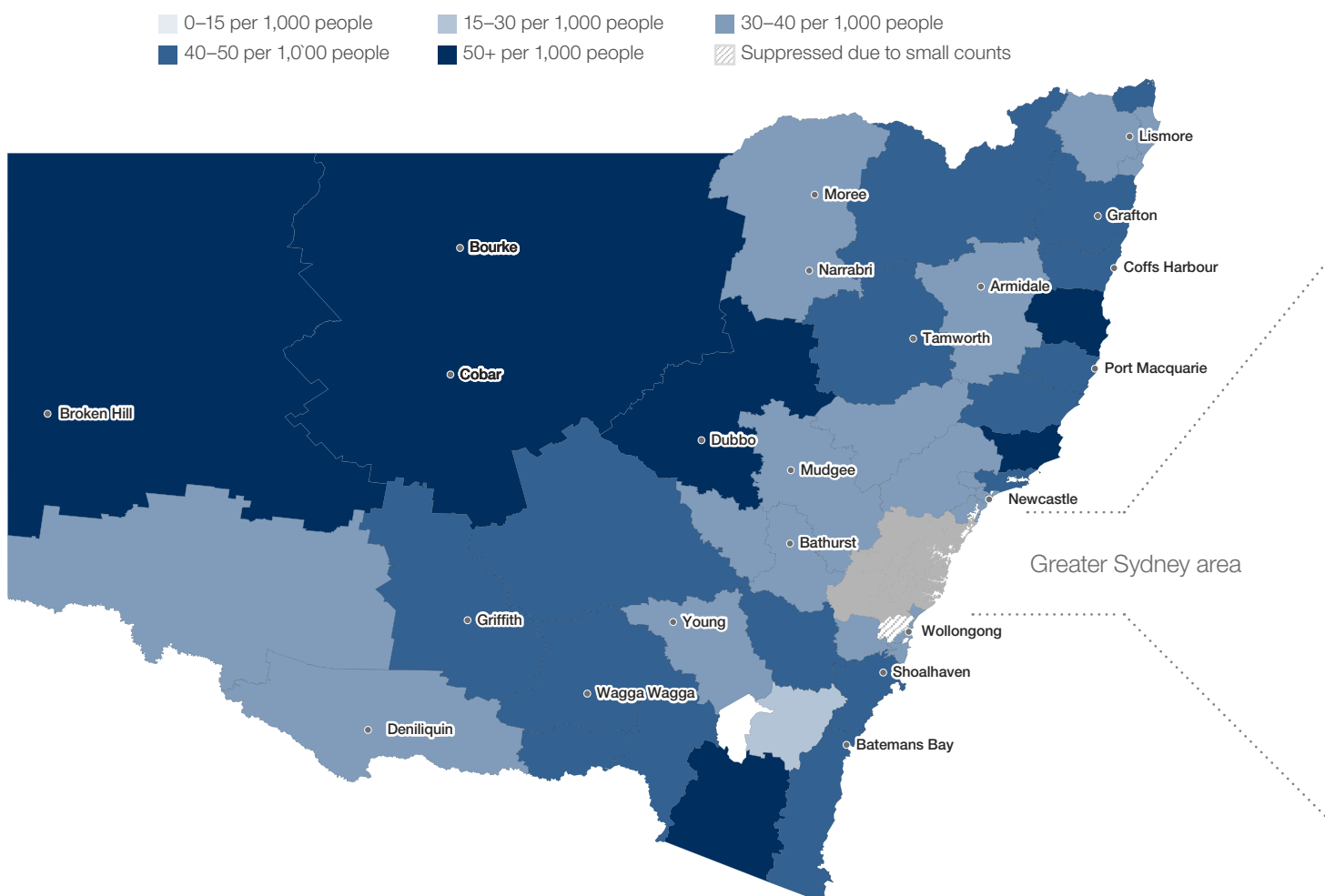
The rate of incidents requiring an ambulance is the number of incidents for every 1,000 people living in an area. Any case requiring dispatch of one or more ambulance vehicles is defined as an incident.

Across the 43 statistical areas level 3 (SA3s) in regional, rural and remote NSW, the incident rate ranged from 24.1 to 74.2 per 1,000 people during the July to September 2019 quarter. Broken Hill and Far West had the highest rate in NSW at 74.2 incidents per 1,000 people. There was one regional, rural and remote SA3 with an incident rate below 30 per 1,000 people: Queanbeyan (24.1) (Figure 12).

A summary of results by SA3 is available online through BHI's ambulance performance tool: 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, July to September 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.

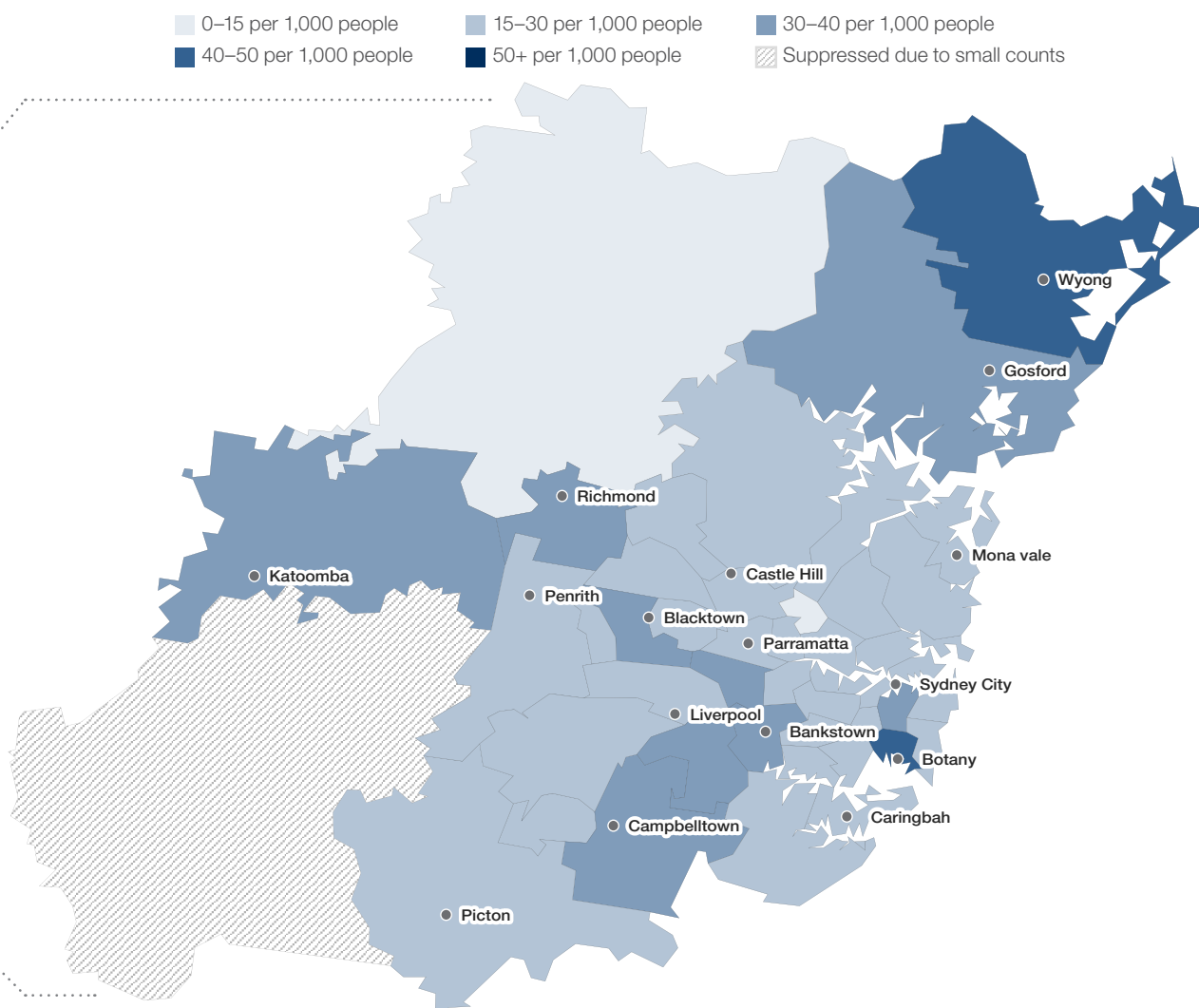
Greater Sydney area

Across the 46 SA3s in the Greater Sydney area, the incident rate for the July to September 2019 quarter ranged from 14.3 to 45.0 per 1,000 people.

There were 36 SA3s across NSW with incident rates below 30 per 1,000 people; 35 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 (14.3), and Pennant Hills – Epping (14.5) (Figure 13).

Eleven SA3s in Greater Sydney had incident rates above 30 per 1,000 people: Botany (45.0), Wyong (40.6), Gosford (36.2), Sydney Inner City (34.9), Richmond – Windsor (34.6), Mount Druitt (34.4), Campbelltown (32.9), Liverpool (32.1), Merrylands – Guildford (31.5), Blue Mountains (30.9), and Bankstown (30.2) (Figure 13).

Figure 13 Incident rate by statistical area level 3, per 1,000 people, Greater Sydney, July to September 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 146,724 P1 responses across NSW in the July to September 2019 quarter.

Statewide, 57.1% of P1 call to ambulance arrival times were within 15 minutes.

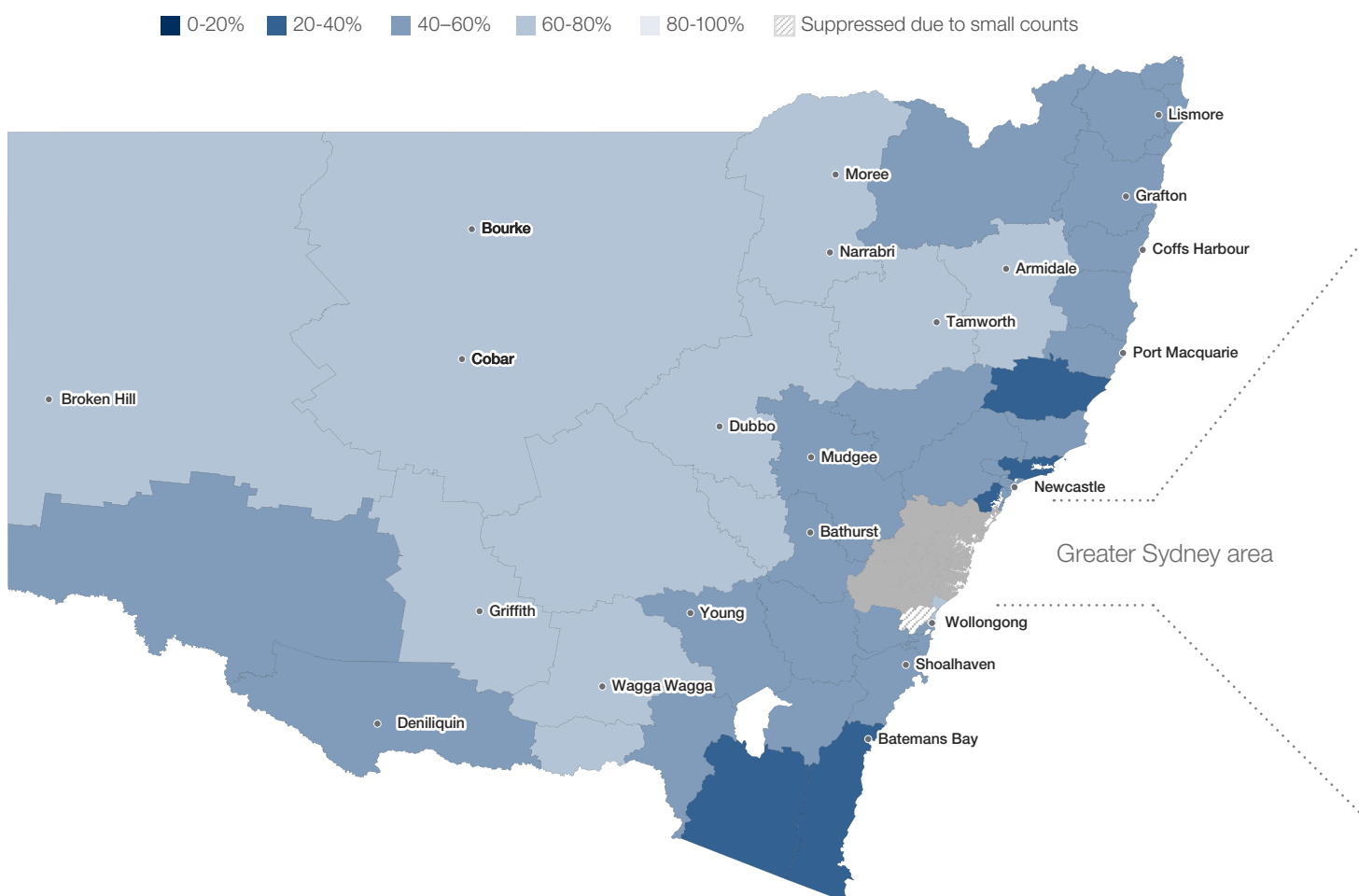
Regional, rural and remote NSW

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 July to September 2019 quarter: Broken Hill and Far West (74.6%), Bourke – Cobar – Coonamble (70.6%), and Armidale (70.5%). Overall, results in regional, rural and remote NSW ranged from 35.1% (Lake Macquarie – West) to 74.6% (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, July to September 2019



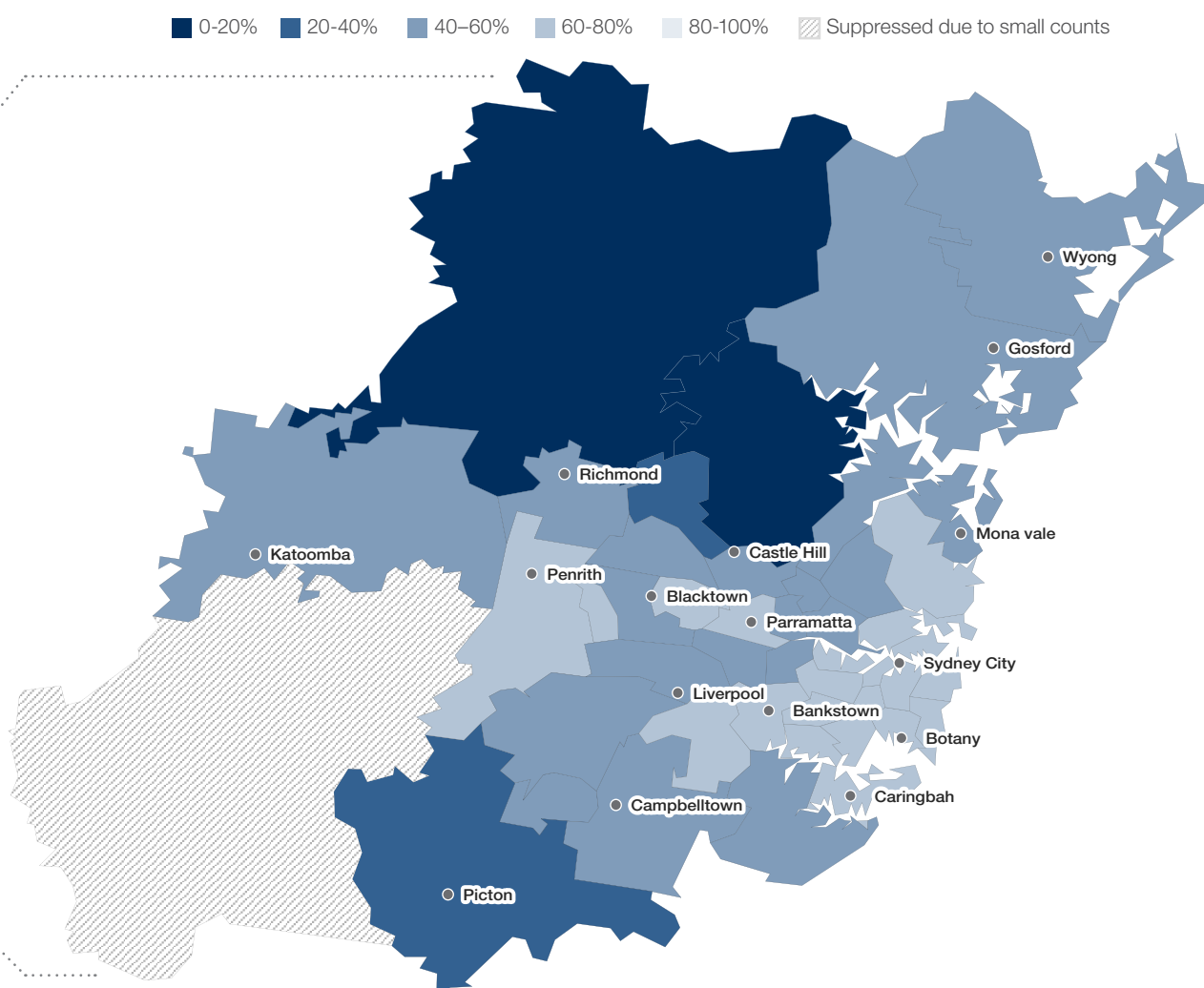
Greater Sydney area

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 (79.0%); Cronulla – Miranda – Caringbah (76.6%), Kogarah – Rockdale (75.0%), Eastern Suburbs – South (72.6%), Chatswood – Lane Cove (71.2%), Marrickville – Sydenham – Petersham (70.7%), Eastern Suburbs

– North (70.5%), and Strathfield – Burwood – Ashfield (70.2%). (Figure 15).

Three SA3s in Greater Sydney had less than 30% of P1 call to ambulance arrival times within 15 minutes: Wollondilly (28.9%), Hawkesbury (18.4%), and Dural – Wisemans Ferry (8.4%) (Figure 15).

Figure 15 Percentage of Emergency (P1) call to ambulance arrival times under 15 minutes by statistical area level 3, Greater Sydney, July to September 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 498,148 admitted patient episodes in NSW public hospitals in the July to September 2019 quarter – up 1.9% compared with the same quarter last year. Among those, 93.8% were acute admitted patient episodes, of which 53.5% were overnight episodes (Figure 16).

There were 11,374 mental health episodes in the July to September 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.

Figure 16 Total number of admitted patient episodes, by stay type, July to September 2019




		This quarter	Same quarter last year	Change since one year ago
All episodes*		498,148	488,842	1.9%
Acute	93.8%	467,120	458,122	2.0%
Non-acute	3.9%	19,654	19,322	1.7%
Mental health	2.3%	11,374	11,398	-0.2%

		This quarter	Same quarter last year	Change since one year ago
Acute				
Overnight	53.5%	249,685	248,048	0.7%
Same-day	46.5%	217,435	210,074	3.5%
Non-acute				
Overnight	81.6%	16,043	15,914	0.8%
Same-day	18.4%	3,611	3,408	6.0%
Mental Health				
Overnight	85.3%	9,706	9,799	-0.9%
Same-day	14.7%	1,668	1,599	4.3%

* 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 1,799,202 in the July to September 2019 quarter – up 2.5% compared with the same quarter last year. Total bed days were up for acute and mental health admitted patient episodes, and down for non-acute admitted patient episodes (Figure 17).

Figure 17 Total number of hospital bed days, by episode type, July to September 2019

		This quarter	Same quarter last year	Change since one year ago
Total bed days		1,799,202	1,755,057	2.5%
Acute	 76.0%	1,368,120	1,330,652	2.8%
Non-acute	 13.1%	235,909	239,617	-1.5%
Mental health	 10.8%	195,173	184,788	5.6%



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 47 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 July to September 2019 quarter (Figure 18).

The percentage of acute mental health episodes of care with at least one seclusion event remained stable at 3.5%, compared with the same quarter last year (Figure 18, Table 3).

The percentage of acute mental health episodes of care with at least one physical restraint event was 5.0%, up 0.7 percentage points, compared with the same quarter last year (Figure 18, Table 3).

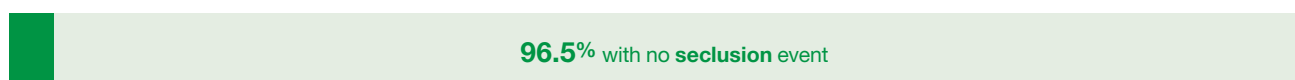
There is variability across public hospitals in the use of these interventions (Table 3).

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.

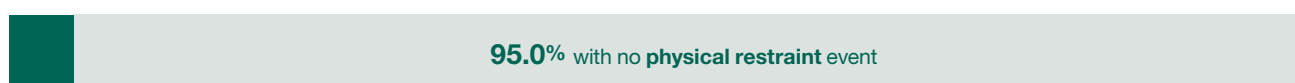
A **restraint event** occurs when the patient's freedom of movement is restricted by physical means (i.e. the hands-on immobilisation by health care staff), or mechanical means (i.e. application of devices).

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

3.5% with ≥ 1 **seclusion event**



5.0% with ≥ 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, July to September 2019*

			Seclusion		Physical restraint	
Hospital			% 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
NSW†			3.5	-0.1	5.0	0.7
No mental health intensive care unit	Armidale	87	0	0	0	0
	Bankstown-Lidcombe	226	4.9	-3.8	6.2	-2.5
	Bathurst	73	0	0	0	0
	Blacktown	388	1.8	-2.9	1.3	-1.3
	Blue Mountains	109	1.8	1.8	3.7	0.9
	Braeside	36	0	0	5.6	0.3
	Broken Hill	40	7.5	7.5	5.0	5.0
	Campbelltown	514	3.5	2.2	5.1	2.7
	Coffs Harbour	265	1.1	-4.9	3.4	-6.0
	Dubbo	101	2.0	2.0	2.0	0.9
	Gosford	183	7.7	4.3	7.1	4.4
	Goulburn	278	1.1	-0.6	6.1	0.2
	Greenwich	56	0	0	5.4	-0.4
	John Hunter	75	0	-1.1	5.3	-0.1
	Kempsey	84	0	0	0	0
	Lismore	206	2.9	-0.4	2.9	-4.2
	Liverpool	489	6.3	2.6	4.7	-0.3
	Macquarie	74	1.4	-0.8	2.7	-1.7
	Maitland	209	4.3	-1.1	8.6	2.7
	Manning	117	3.4	-3.3	0.9	0.9
	Morisset	15	0	0	6.7	0.8
	Nepean	620	3.5	0.5	4.7	2.5
	Port Macquarie	115	0	-3.1	1.7	0.1
	Royal North Shore	334	2.4	1.3	4.5	2.3
	Royal Prince Alfred	505	2.4	-1.2	4.0	-1.7
	Shellharbour	345	4.9	-2.5	6.4	-0.2
	South East Regional	78	0	-2.5	2.6	-3.3
	St George	301	2.0	0.2	7.6	1.4
	St Joseph's	49	0	0	2.0	2.0
	St Vincent's	378	1.9	-0.7	5.6	1.8
	Sutherland	179	3.9	1.5	6.7	2.3
	Sydney Children's	63	0	-6.4	3.2	-5.3
	Tamworth	274	0.7	-3.7	4.0	-2.1
	Tweed	220	2.7	-0.7	5.9	1.7
	Wagga Wagga	273	0.7	-2.0	3.7	0.3
	Westmead	141	0	0	2.1	-1.2
	Westmead Children's	49	2.0	0.2	6.1	-6.4
	Wollongong	313	2.9	0.9	2.9	0.9
	Wyong	299	6.0	3.2	4.0	2.7
MHICU	Concord	1,011	7.7	-0.6	7.1	1.5
	Cumberland	830	5.4	-1.0	6.3	2.0
	Hornsby	378	3.7	1.4	3.2	-1.1
	Hunter New England Mater MH	767	5.0	3.1	8.3	5.9
	Orange	337	3.3	-2.2	3.0	-2.5
JH	Prince of Wales	528	1.5	-1.0	4.9	-1.6
	The Forensic Hospital†	49	20.4	-5.6	30.6	2.6

* 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 July to September 2019 quarter, but included in the same quarter for 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 791 seclusion events in the July to September 2019 quarter, up 33 events compared with the same quarter last year. There were 1,063 physical restraint events, up 126 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 2019–20 is less than 5.1 per 1,000 bed days for each hospital.

In the July to September 2019 quarter, the NSW rate of seclusion was 6.2, 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 29 hospitals. The rate was 5.1 or above in 16 hospitals: Broken Hill (16.9); Concord (15.0); Liverpool (11.8); Gosford (11.6); Orange (11.4); Maitland (9.3); Hunter New England Mater Mental Health Centre (9.2); Goulburn (8.0); Sutherland (7.4); Campbelltown (7.4); Shellharbour (7.2); Cumberland (7.1); Wyong (6.4); Bankstown–Lidcombe (6.3), Nepean (6.1); and Royal Prince Alfred (5.4).

Statewide, the rate of physical restraint was 8.3, up 1.3 compared with the same quarter last year (Table 4).

There were 36 mechanical restraint events in NSW public hospitals with specialised acute mental health units (excluding the Forensic Hospital). This was down by two events compared with the same quarter last year (data not shown by hospital due to small numbers). At the Forensic Hospital, there were 132 mechanical restraint events, up by 66 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

Table 4

Number of seclusion and physical restraint events occurring in specialised acute mental health inpatient units, by public hospital, July to September 2019

		Seclusion			Physical restraint		
Hospital		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
NSW†		791	33	6.2	1,063	126	8.3
No Mental Health Intensive Care Unit	Armidale	0	0	0	0	0	0
	Bankstown-Lidcombe	18	-10	6.3	20	-15	7.0
	Bathurst	0	0	0	0	0	0
	Blacktown	7	-14	2.6	5	-7	1.8
	Blue Mountains	<5	2	1.6	6	1	4.8
	Braeside	0	0	0	<5	-1	1.5
	Broken Hill	<5	4	16.9	<5		12.7
	Campbelltown	43	35	7.4	68	53	11.6
	Coffs Harbour	<5	-18	1.3	14	-25	4.4
	Dubbo	<5	2	2.6	<5	1	2.6
	Gosford	25	17	11.6	27	22	12.5
	Goulburn	17	10	8.0	39	19	18.3
	Greenwich	0	0	0	5	1	2.9
	John Hunter	0	-1	0	5	-2	6.1
	Kempsey	0	0	0	0	0	0
	Lismore	10	-1	3.7	10	-14	3.7
	Liverpool	64	33	11.8	34	-12	6.3
	Macquarie	<5	-1	0.8	<5	-3	1.7
	Maitland	17	5	9.3	40	26	21.8
	Manning	6	-3	4.8	<5	2	1.6
	Morisset	0	0	0	<5	2	3.5
	Nepean	35	13	6.1	34	18	5.9
	Port Macquarie	0	-7	0	<5	-2	1.9
	Royal North Shore	8	3	2.7	22	13	7.5
	Royal Prince Alfred	30	-9	5.4	38	-32	6.8
	Shellharbour	31	-18	7.2	33	3	7.7
	South East Regional	0	-3	0	<5	-4	3.0
	St George	11	6	4.0	51	26	18.5
	St Joseph's	0	0	0	<5	1	1.1
	St Vincent's	10	-5	4.0	39	17	15.8
	Sutherland	17	10	7.4	31	16	13.5
	Sydney Children's	0	-13	0	7	-16	10.5
	Tamworth	<5	-10	1.1	12	-3	6.7
	Tweed	6	-9	2.6	23	11	9.8
	Wagga Wagga	<5	-10	1.3	14	-3	6.1
	Westmead	0	0	0	<5	-3	1.6
	Westmead Children's	<5	0	1.7	5	-11	8.6
	Wollongong	11	5	3.6	12	2	4.0
	Wyang	24	15	6.4	15	11	4.0
MHICU	Concord	174	-22	15.0	124	18	10.7
	Cumberland	58	-5	7.1	71	30	8.7
	Hornsby	22	5	4.4	27	5	5.4
	Hunter New England Mater MH	79	54	9.2	147	125	17.1
	Orange	37	-13	11.4	18	-17	5.6
JH	Prince of Wales	12	-10	2.2	43	-111	8.0
	The Forensic Hospital†	242	183	66.4	137	-2	37.6

† 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 July to September 2019 quarter, but included in the same quarter for 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 2019–20 is less than four hours for each hospital. Statewide, the average duration of a seclusion event was 5 hours and 45 minutes in the July to September 2019 quarter, longer by 59 minutes than the same quarter last year (Table 5).

The average duration of seclusion events was less than four hours in 32 hospitals. The average duration was longer than four hours in 13 hospitals: Cumberland (13h 11m); Blacktown (10h 10m); Concord (8h 23m); Lismore (8h 0m); Broken Hill (7h 6m); Liverpool (6h 48m); Tweed (6h 36m); Hunter New England Mater Mental Health Centre (6h 21m); Nepean (6h 2m); Shellharbour (5h 41m); Prince of Wales (5h 28m); Wyong (4h 46m); and Royal Prince Alfred (4h 44m).

In the July to September 2019 quarter, the average duration of a physical restraint event was four 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 11 minutes. This was down 41 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 25 minutes, down 13 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

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

		Seclusion		Physical restraint	
Hospital		Average duration	Change since one year ago	Average duration	Change since one year ago
NSW†		5h 45m	59m	4m	-1m
No mental health intensive care unit	Armidale	0m	0m	0m	0m
	Bankstown-Lidcombe	2h 1m	1h 19m	2m	0m
	Bathurst	0m	0m	0m	0m
	Blacktown	10h 10m	7h 20m	3m	1m
	Blue Mountains	28m	28m	3m	1m
	Braeside	0m	0m	1m	0m
	Broken Hill	7h 6m	7h 6m	2m	2m
	Campbelltown	1h 10m	-2m	2m	0m
	Coffs Harbour	41m	-5h 21m	2m	-4m
	Dubbo	45m	45m	2m	0m
	Gosford	2h 20m	1h 11m	4m	2m
	Goulburn	1h 51m	52m	2m	0m
	Greenwich	0m	0m	1m	0m
	John Hunter	0m	-1h 0m	10m	-5m
	Kempsey	0m	0m	0m	0m
	Lismore	8h 0m	6h 22m	3m	0m
	Liverpool	6h 48m	1h 48m	1m	0m
	Macquarie	1h 10m	-4h 40m	2m	-2m
	Maitland	2h 44m	1h 0m	10m	4m
	Manning	1h 58m	51m	2m	2m
	Morisset	0m	0m	3m	2m
	Nepean	6h 2m	3h 1m	2m	-3m
	Port Macquarie	0m	-3h 25m	2m	1m
	Royal North Shore	2h 31m	1h 7m	3m	-5m
	Royal Prince Alfred	4h 44m	2h 45m	9m	1m
	Shellharbour	5h 41m	-1h 17m	3m	0m
	South East Regional	0m	-20m	2m	-7m
	St George	1h 2m	-3h 31m	1m	-1m
	St Joseph's	0m	0m	1m	1m
	St Vincent's	2h 6m	-17m	3m	-1m
	Sutherland	3h 14m	-3h 1m	1m	-1m
	Sydney Children's	0m	-19m	5m	1m
	Tamworth	1h 48m	23m	3m	1m
	Tweed	6h 36m	2h 28m	1m	-2m
	Wagga Wagga	2h 50m	26m	3m	-1m
	Westmead	0m	0m	3m	-8m
	Westmead Children's	1m	-9m	9m	3m
	Wollongong	2h 15m	-1h 6m	10m	7m
	Wyong	4h 46m	2h 28m	4m	-2m
MHICU	Concord	8h 23m	20m	4m	-2m
	Cumberland	13h 11m	4h 50m	3m	-1m
	Hornsby	1h 54m	-5m	12m	5m
	Hunter New England Mater MHC	6h 21m	3h 40m	6m	0m
	Orange	49m	-30m	3m	1m
JH	Prince of Wales	5h 28m	1h 10m	4m	-2m
	The Forensic Hospital†	17h 27m	-83h 39m	5m	-6m

† 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 July to September 2019 quarter, but included in the same quarter for 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 July to September 2019 quarter, 61,916 elective surgical procedures were performed, up 3.6% 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 (53.6%) 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 July to September 2019 quarter, the number was up by more than 10% in nine hospitals and down by more than 10% in two 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	811	37.0
Shellharbour	C1	909	20.4
The Tweed	B	1,011	18.5
Sydney and Sydney Eye	A3	1,545	15.5
RPAH Institute	A1	526	12.6
Liverpool	A1	2,259	12.5
Port Macquarie	B	1,010	12.1
St Vincent's	A1	963	11.2
Hornsby	B	687	10.3
Blacktown	B	734	-10.8
Manning	B	622	-11.9

Figure 19 Elective surgical procedures performed, by urgency category, July to September 2019

		This quarter	Same quarter last year	Change since one year ago
Total number of elective surgical procedures		61,916	59,776	3.6%
Urgent	21.6%	13,400	12,837	4.4%
Semi-urgent	32.0%	19,801	19,922	-0.6%
Non-urgent	41.6%	25,781	24,322	6.0%
Staged*	4.7%	2,934	2,695	8.9%

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





Elective surgery waiting time by urgency category







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 (96.6%) were performed within recommended timeframes (Figure 20).

Compared with the same quarter last year, median waiting times in the July to September 2019 quarter were 11 days for urgent (unchanged), 45 days for semi-urgent (up one day) and 241 days for non-urgent procedures (up 13 days) (Figure 20).

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

		This quarter	Same quarter last year	Percentage point change since one year ago
All procedures		96.6%	97.6%	-1.0
Urgent	Recommended: 30 days 	99.9%	99.8%	0.1
Semi-urgent	Recommended: 90 days 	96.8%	97.6%	-0.8
Non-urgent	Recommended: 365 days 	94.6%	96.4%	-1.8

		This quarter	Same quarter last year	Change since one year ago
Urgent: 13,400 patients				
Median time to receive surgery		11 days	11 days	unchanged
90th percentile time to receive surgery		26 days	26 days	unchanged
Semi-urgent: 19,801 patients				
Median time to receive surgery		45 days	44 days	1 day
90th percentile time to receive surgery		84 days	83 days	1 day
Non-urgent: 25,781 patients				
Median time to receive surgery		241 days	228 days	13 days
90th percentile time to receive surgery		359 days	356 days	3 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 July to September 2019 quarter, the percentage of elective surgical procedures performed on time for different specialities ranged from 90.6% for ear, nose and throat surgery to 98.6% for cardiothoracic surgery (Figure 22).

The percentage of elective surgical procedures performed on time for different common procedures ranged from 82.8% for myringoplasty/tympanoplasty to 98.6% for cataract extraction (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, July to September 2019

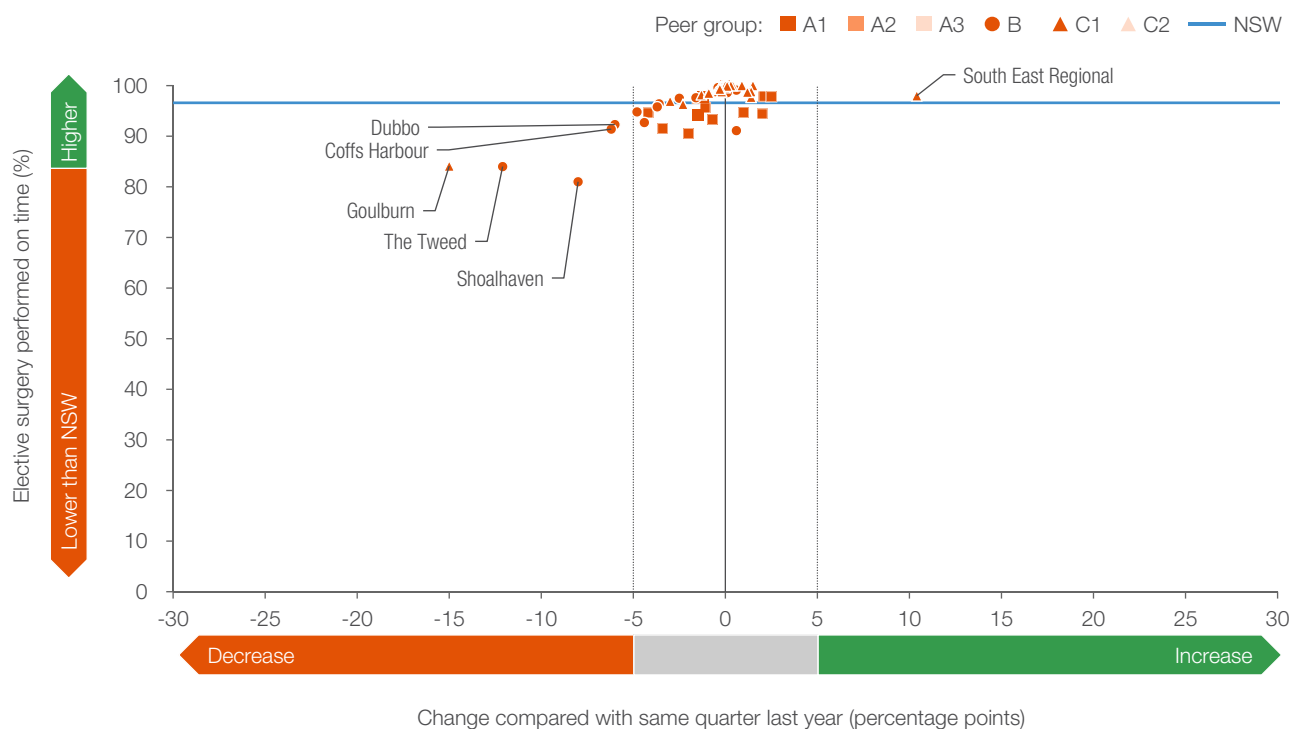


Figure 22 Percentage of elective surgical procedures performed on time, by specialty, July to September 2019

	Number of procedures	Percentage on time	Same quarter last year	Percentage point change since one year ago
Cardiothoracic surgery	974	98.6%	97.8%	0.8
Vascular surgery	1,927	98.6%	98.9%	-0.3
Ophthalmology	8,859	98.5%	99.0%	-0.5
Gynaecology	7,984	98.2%	98.8%	-0.6
Urology	8,625	97.8%	97.7%	0.1
Neurosurgery	1,281	97.7%	96.8%	0.9
General surgery	14,552	97.0%	98.6%	-1.6
Medical	514	97.0%	99.4%	-2.4
Plastic surgery	2,741	95.3%	96.6%	-1.3
Orthopaedic surgery	10,056	94.2%	95.7%	-1.5
Ear, nose and throat surgery	4,403	90.6%	93.8%	-3.2

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

	Number of procedures	Percentage on time	Same quarter last year	Percentage point change since one year ago
Cataract extraction	7,133	98.6%	99.1%	-0.5
Hysteroscopy	2,683	98.6%	99.0%	-0.4
Cystoscopy	3,553	98.3%	97.8%	0.5
Coronary artery bypass graft	210	98.1%	96.0%	2.1
Other - General	1,786	97.8%	98.5%	-0.7
Myringotomy	42	97.6%	98.6%	-1.0
Prostatectomy	669	96.0%	95.3%	0.7
Varicose veins stripping and ligation	342	95.9%	96.4%	-0.5
Abdominal hysterectomy	631	95.7%	97.9%	-2.2
Cholecystectomy	1,691	95.7%	98.5%	-2.8
Inguinal herniorrhaphy	1,593	95.5%	98.0%	-2.5
Haemorrhoidectomy	347	93.9%	98.3%	-4.4
Total knee replacement	1,777	89.7%	93.4%	-3.7
Tonsillectomy	1,357	89.2%	94.5%	-5.3
Total hip replacement	1,146	88.6%	94.2%	-5.6
Septoplasty	496	83.3%	89.9%	-6.6
Myringoplasty / Tympanoplasty	130	82.8%	83.8%	-1.0

Elective surgery waiting time by specialty and procedure

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 July to September 2019 quarter, the median waiting time for different specialties ranged from 14 days for medical procedures to 232 days for ophthalmology surgery. The median waiting time for ophthalmology surgery was up 28 days compared with the same quarter last year (Figure 24).

The median waiting time for different common procedures ranged from 25 days for 'other-general' procedures to 336 days for septoplasty. The median waiting time for cataract extraction was 272 days, up 35 days compared with the same quarter last year (Figure 25).

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

	Number of procedures	This quarter	Same quarter last year	Change since one year ago
Ophthalmology	8,859	232 days	204 days	28 days
Ear, nose and throat surgery	4,403	217 days	233 days	-16 days
Orthopaedic surgery	10,056	112 days	114 days	-2 days
Gynaecology	7,984	42 days	39 days	3 days
Neurosurgery	1,281	41 days	42 days	-1 day
General surgery	14,552	38 days	35 days	3 days
Plastic surgery	2,741	35 days	42 days	-7 days
Urology	8,625	32 days	32 days	unchanged
Cardiothoracic surgery	974	24 days	22 days	2 days
Vascular surgery	1,927	21 days	19 days	2 days
Medical	514	14 days	16 days	-2 days

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

	Number of procedures	This quarter	Same quarter last year	Change since one year ago
Septoplasty	496	336 days	324 days	12 days
Myringoplasty / Tympanoplasty	130	319 days	310 days	9 days
Tonsillectomy	1,357	297 days	301 days	-4 days
Total knee replacement	1,777	294 days	274 days	20 days
Cataract extraction	7,133	272 days	237 days	35 days
Total hip replacement	1,146	223 days	229 days	-6 days
Varicose veins stripping and ligation	342	168 days	138 days	30 days
Haemorrhoidectomy	347	77 days	69 days	8 days
Myringotomy	42	77 days	76 days	2 days
Inguinal herniorrhaphy	1,593	76 days	73 days	3 days
Abdominal hysterectomy	631	70 days	61 days	9 days
Prostatectomy	669	60 days	57 days	3 days
Cholecystectomy	1,691	57 days	54 days	3 days
Hysteroscopy	2,683	40 days	37 days	3 days
Coronary artery bypass graft	210	29 days	35 days	-6 days
Cystoscopy	3,553	28 days	29 days	-1 day
Other - General	1,786	25 days	23 days	2 days

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 85,261 patients on the elective surgery waiting list as at 30 September 2019, up 8.3% compared with the same quarter last year. The number of patients on the waiting list was up across all urgency categories: 7.6% for urgent surgery, 1.7% for semi-urgent surgery and 9.6% for non-urgent surgery (Figure 26).

There were 690 patients still waiting after more than 12 months on the waiting list, up 270 compared with

the same quarter last year. Four specialties saw an increase of more than 10% in the number of patients on the waiting list at the end of quarter: cardiothoracic surgery (27.7%), gynaecology (17.6%), general surgery (13.9%), and ophthalmology (13.6%). Medical procedures saw a decrease of 26.7% in the number of patients on the waiting list at the end of quarter (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: abdominal hysterectomy (36.2%), coronary artery bypass graft (32.1%) haemorrhoidectomy (20.5%), hysteroscopy (16.5%), cataract extraction (13.2%), prostatectomy (12.9%), and other-general procedures (12.0%). Two common procedure saw a decrease of more than 10% in the number of patients on the waiting list at the end of quarter: septoplasty (11.1%) and myringotomy (10.3%) (Figure 28).

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




		This quarter	Same quarter last year	Change since one year ago
Patients ready for surgery on waiting list as at 30 September 2019		85,261	78,760	8.3%
Urgent	 2.2%	1,866	1,734	7.6%
Semi-urgent	 15.6%	13,295	13,073	1.7%
Non-urgent	 82.2%	70,100	63,953	9.6%
Patients not ready for surgery on waiting list at the end of quarter		16,285	15,653	4.0%

Figure 27 Patients on elective surgery waiting list at end of quarter, and patients still waiting after more than 12 months on waiting list at end of quarter, by specialty, as at 30 September 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
All specialties	85,261	78,760	8.3	690	420
Ophthalmology	21,669	19,075	13.6	54	10
Orthopaedic surgery	19,867	18,910	5.1	152	183
General surgery	14,978	13,150	13.9	147	41
Ear, nose and throat surgery	10,651	10,634	0.2	262	132
Gynaecology	7,615	6,473	17.6	33	20
Urology	4,872	4,597	6.0	17	13
Plastic surgery	2,341	2,573	-9.0	13	14
Neurosurgery	1,497	1,611	-7.1	<5	<5
Vascular surgery	1,118	1,098	1.8	10	<5
Cardiothoracic surgery	433	339	27.7	0	0
Medical	220	300	-26.7	0	0

Figure 28 Patients on elective surgery waiting list at end of quarter, and patients still waiting after more than 12 months on waiting list at end of quarter, by common procedure, as at 30 September 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	18,957	16,741	13.2	42	7
Total knee replacement	6,207	5,788	7.2	49	77
Tonsillectomy	4,065	4,056	0.2	70	26
Total hip replacement	2,796	2,657	5.2	18	25
Inguinal herniorrhaphy	2,559	2,377	7.7	29	12
Hysteroscopy	2,079	1,785	16.5	6	<5
Cholecystectomy	1,806	1,677	7.7	15	<5
Septoplasty	1,462	1,645	-11.1	48	33
Cystoscopy	1,326	1,233	7.5	<5	0
Other - General	1,324	1,182	12.0	7	5
Abdominal hysterectomy	1,020	749	36.2	<5	<5
Prostatectomy	832	737	12.9	5	<5
Varicose veins stripping and ligation	677	690	-1.9	7	<5
Haemorrhoidectomy	534	443	20.5	8	0
Myringoplasty / Tympanoplasty	380	356	6.7	19	<5
Coronary artery bypass graft	111	84	32.1	0	0
Myringotomy	87	97	-10.3	0	<5

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.

bhi.nsw.gov.au