bureau of health information

Healthcare Quarterly

Activity and performance

Emergency department, ambulance, admitted patients and elective surgery

July to September 2017

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

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Healthcare Quarterly reports present data at the point in time when data become available to BHI. Changes in data coverage and analytic methods from quarter to quarter mean that figures published in this document are superseded by subsequent reports. At any time, the most up-to-date data are available on BHI's online data portal, Healthcare Observer, at **bhi.nsw.gov.au/healthcare_observer**

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.

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10 key findings

July to September 2017

1. **July to September 2017 was an extremely busy quarter for NSW public hospitals and ambulance services.** There were 720,564 patients who presented to a NSW public hospital emergency department (ED) – the highest number ever recorded for a quarter and up 9.4% compared with the same quarter last year. There were 311,679 ambulance responses, up 9.2%.

2. **Timeliness measures for EDs were between three and four percentage points lower compared to the same quarter last year.** However, activity measures for EDs were 9 to 10% higher.

3. **Almost all hospitals (74 out of 78) saw an increase of patient presentations at their EDs.** For 63 hospitals there was an increase of more than 5%, with marked increases at Manning Base (17.3%), Auburn (16.7%) and Kempsey (16.6%) hospitals.

4. **Treatment started within recommended times for 70.0% of ED patients – down 3.6 percentage points.** Time to treatment results were generally lower this quarter and results for six hospitals – Fairfield, Bankstown / Lidcombe, Manning, Maitland, Tamworth and Bathurst – were down by 10 percentage points or more compared with the same quarter last year.

5. **The proportion of patients who spent four hours or less in the ED was 68.4% – down 3.3 percentage points.** For five hospitals, results were more than 10 percentage points lower compared with the same quarter last year. Of these, Fairfield Hospital was 21.5 percentage points lower. Blacktown was the only hospital with a marked improvement (up 5.8 percentage points).

6. **Of the 162,350 ED patients who arrived by ambulance (up 9.0%) most had their care transferred from paramedics to emergency department staff within 30 minutes (85.6%; down 3.5 percentage points).** For five hospitals – Fairfield, Liverpool, Singleton, Bankstown / Lidcombe and Prince of Wales – results were more than 10 percentage points lower compared with the same quarter last year.

7. **For ambulance services, the number of responses categorised as emergency (priority 1) was 13.1% higher than the same quarter last year and the number of urgent (priority 2) responses was 9.5% higher.** Paramedics reached 60.1% of emergency cases within 15 minutes of a triple zero call (down 2.4 percentage points) and 69.9% of urgent cases within 30 minutes (down 3.9 percentage points).

8. **There were 2,521 highest priority (P1A, life-threatening) cases during the quarter (up 11.9%).** The median response time for these cases was 7.7 minutes (up 0.2 minutes). Altogether, 70.6% had a response time within 10 minutes (down 1.4 percentage points).

9. **Ambulance services experienced 13 surge days – days when demand is much higher than expected – during the quarter.** There were four consecutive surge days from 10–13 September. The median response time for the highest priority (P1A) cases was maintained on these days.

10. **During the quarter, 465,070 patients were admitted for acute care in NSW public hospitals (down 2.1%) and 58,289 elective surgical procedures were performed (up 0.4%).** Almost all (97.9%) elective surgical procedures were performed within clinically recommended timeframes.

Healthcare Quarterly – Activity

Emergency department activity		July to September 2017	July to September 2016	Difference	% change
All arrivals at NSW EDs by ambulance		162,350	148,880	13,470	9.0%
All ED presentations		720,564	658,481	62,083	9.4%
Emergency presentations		699,236	637,792	61,444	9.6%
Emergency presentations by triage category					
Triage category	T1: Resuscitation	5,131	4,698	433	9.2%
	T2: Emergency	88,968	80,858	8,110	10.0%
	T3: Urgent	244,822	225,993	18,829	8.3%
	T4: Semi-urgent	294,469	266,262	28,207	10.6%
	T5: Non-urgent	65,846	59,981	5,865	9.8%
Admissions to hospital from NSW EDs		195,992	195,382	610	0.3%

Ambulance activity		July to September 2017	July to September 2016	Difference	% change
Calls		313,530	287,181	26,349	9.2%
Responses		311,679	285,434	26,245	9.2%
Priority category	P1: Emergency	144,875	128,136	16,739	13.1%
	P1A: Highest priority	6,517	5,854	663	11.3%
	P2: Urgent	132,848	121,334	11,514	9.5%
	P3: Time-critical	24,084	25,502	-1,418	-5.6%
	P4–9: Non-emergency	9,871	10,462	-591	-5.6%
Incidents		243,469	225,472	17,997	8.0%
Patient transports		182,037	167,806	14,231	8.5%

Note: Ambulance activity data do not include outage estimates

Admitted patient activity		July to September 2017	July to September 2016	Difference	% change
All admitted patient episodes		494,767	494,950	-183	0.0%
All acute episodes		465,070	474,985	-9,915	-2.1%
Overnight episodes		255,737	257,351	-1,614	-0.6%
Same-day episodes		209,333	217,634	-8,301	-3.8%
Non-acute episodes*		29,697	19,965	9,732	48.7%
Average length of stay (days)	All acute episodes	2.9	3.1	-0.2	-6.5%
	Acute overnight episodes	4.5	4.9	-0.4	-8.2%
	Non-acute episodes	13.4	15.3	-1.9	-12.4%
Hospital bed days	All bed days	1,764,261	1,782,932	-18,671	-1.0%
	Acute bed days*	1,367,626	1,476,664	-109,038	-7.4%
	Non-acute bed days*	396,635	306,268	90,367	29.5%
Babies born in NSW public hospitals		18,782	18,532	250	1.3%

Elective surgery activity		July to September 2017	July to September 2016	Difference	% change
Elective surgical procedures performed		58,289	58,046	243	0.4%
Urgency category	Urgent surgery	12,291	12,660	-369	-2.9%
	Semi-urgent surgery	19,216	18,418	798	4.3%
	Non-urgent surgery	23,951	24,247	-296	-1.2%
Patients on waiting list ready for elective surgery at end of quarter		75,815	73,226	2,589	3.5%
Urgency category	Urgent surgery	1,670	1,657	13	0.8%
	Semi-urgent surgery	12,644	11,877	767	6.5%
	Non-urgent surgery	61,501	59,692	1,809	3.0%

* The increase in the number of bed days for non-acute care this quarter may reflect changes in the designation of mental health care stay types, creating a spike in results. The decrease in the number of acute bed days is due to a lower number of bed days for overnight psychiatric patients.

Healthcare Quarterly – Performance

Emergency department performance			July to September 2017	July to September 2016	Difference
Percentage of patients transferred from ambulance to ED within 30 minutes			85.6%	89.1%	-3.5 percentage points
Time to treatment by triage category	T2: Emergency	Median	9 mins	8 mins	1 min
		90th percentile	29 mins	27 mins	2 mins
	T3: Urgent	Median	23 mins	21 mins	2 mins
		90th percentile	83 mins	72 mins	11 mins
	T4: Semi-urgent	Median	30 mins	27 mins	3 mins
		90th percentile	121 mins	103 mins	18 mins
	T5: Non-urgent	Median	26 mins	24 mins	2 mins
		90th percentile	118 mins	104 mins	14 mins
Percentage of patients whose treatment started on time	All patients		70.0%	73.6%	-3.6 percentage points
	T2: Emergency		63.4%	64.9%	-1.5 percentage points
	T3: Urgent		64.3%	68.2%	-3.9 percentage points
	T4: Semi-urgent		72.9%	77.2%	-4.3 percentage points
	T5: Non-urgent		90.6%	92.9%	-2.3 percentage points
Median time spent in the ED			3h 0m	2h 49m	11 mins
90th percentile time spent in the ED			8h 2m	7h 28m	34 mins
Percentage of patients who spent four hours or less in the ED			68.4%	71.7%	-3.3 percentage points

NSW Ambulance performance		July to September 2017	July to September 2016	Difference
Call to ambulance arrival time				
Percentage of P1 call to ambulance arrival within 15 minutes		60.1%	62.5%	-2.4 percentage points
Percentage of P1 call to ambulance arrival within 30 minutes		93.7%	94.3%	-0.6 percentage points
Percentage of P2 call to ambulance arrival within 30 minutes		69.9%	73.8%	-3.9 percentage points
Percentage of P2 call to ambulance arrival within 60 minutes		92.4%	94.1%	-1.7 percentage points
Mobilisation time				
P1: Emergency	Median	2.5m	2.5m	unchanged
	Percentage P1 within 3 minutes	60.8%	61.8%	-1.0 percentage points
Response time				
Percentage of P1A responses within 10 minutes		70.6%	72.0%	-1.4 percentage points
Number of days median priority 1A response time > 10 minutes		1 day	1 day	unchanged
Turnaround time				
P1: Emergency	Median	38.3m	36.0m	2.3m
	90th percentile	65.4m	59.5m	5.9m
	Percentage within 45 minutes	64.9%	71.1%	-6.2 percentage points
P2: Urgent	Median	35.6m	33.7m	1.9m
	90th percentile	61.5m	56.2m	5.3m
	Percentage within 45 minutes	70.8%	76.0%	-5.2 percentage points

Elective surgery performance		July to September 2017	July to September 2016	Difference
Median waiting time (days)	Urgent surgery	10 days	10 days	unchanged
	Semi-urgent surgery	43 days	44 days	-1 day
	Non-urgent surgery	213 days	220 days	-7 days
Urgency category	All surgeries	97.9%	97.9%	unchanged
	Urgent surgery	99.9%	99.8%	0.1 percentage points
	Semi-urgent surgery	98.1%	98.0%	0.1 percentage points
	Non-urgent surgery	96.8%	96.9%	-0.1 percentage points

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.

In the July to September 2017 quarter...

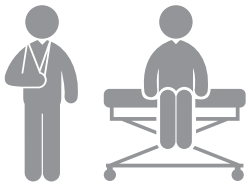
Emergency department

There were **699,236** emergency presentations

Highest ever for a July to September quarter

UP 9.6%

61,444 more than same quarter last year



70.0% of patients' treatment **started on time**

DOWN 3.6 PERCENTAGE POINTS

68.4% of patients spent **four hours or less** in the emergency department

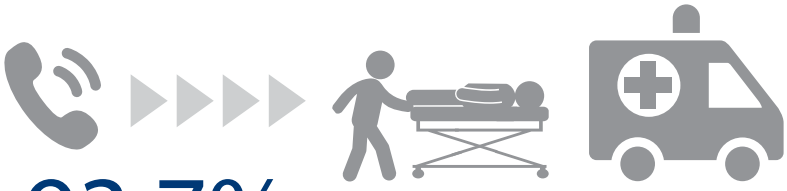
DOWN 3.3 PERCENTAGE POINTS

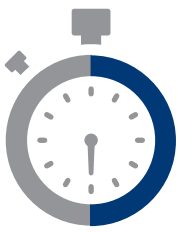
Ambulance

There were **311,679** ambulance responses

UP 9.2%

26,245 more than same quarter last year





93.7% 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 **9,915** fewer acute episodes to hospital compared to the same quarter last year

465,070 in total

DOWN 2.1%

The average length of stay for acute overnight episodes was **4.5 days**

DOWN 0.4 DAYS

Elective surgery

There were **58,289** elective surgical procedures performed

UP 0.4%

243 more than same quarter last year

Almost all (97.9%) were performed within recommended time frames

Median waiting times were unchanged or shorter than same quarter last year

10, 43 and 213 days for urgent, semi-urgent and non-urgent surgery, respectively

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

About this report

The data

Healthcare Quarterly draws on four main data sources:

- **Emergency Department Data Collection (EDDC)** – data drawn from the Health Information Exchange (HIE) on 18 October 2017
- **NSW Ambulance Computer Aided Dispatch (CAD) system** – provided on 10 October 2017
- **Admitted Patient Data Collection (APDC)** – data drawn from the HIE on 23 October 2017
- **Waiting List Collection Online System (WLCOS)** – data drawn on 16 October 2017

Hospital data are transmitted by the state's hospitals to centralised data warehouses administered by the NSW Ministry of Health and are extracted by BHI from the NSW HIE. Ambulance data are provided directly to BHI by NSW Ambulance.

The analyses

Organisational units in hospitals and ambulance services vary in size and in the types of services they provide. 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).

Similarly, for some ambulance analyses, results are stratified by type of local response area (LRA) into 24-hour, 24-hour (with on-call), non-24-hour and community and volunteer LRAs.

For both the hospital-based and ambulance-based indicators, stratification by acuity or urgency is also used. Strata are referred to as 'triage categories' (1–5) for emergency department (ED) analyses; 'urgency categories' (A–C) for elective surgery; and 'priority categories' (1–9) for ambulance (although BHI reports on ambulance performance for categories 1 and 2 only).

Data analyses are conducted in SAS 9.3. Codes that form the basis of routine reporting are written by two data analysts independently and only accepted when matching results are achieved. The indicator development process for ambulance reporting is detailed in an edition of *Spotlight on Measurement*, and all data specifications and analytic methods are described in technical supplements – available from the BHI website **bhi.nsw.gov.au**

The measures

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 5+ percentage point threshold is used to highlight hospitals with marked variation in results – either over time, or relative to the NSW result.

Reporting

ED, admitted patient and elective surgery data are reported for principal referral (peer group A), major (peer group B) and district (peer group C) hospitals.

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 a NSW and zone level. NSW and zone results include data from all constituent LRAs. Non-modifiable factors such as travel time and distance make attribution of performance difficult and so LRA results are shown on a non-nominal (not named) basis only. LRAs classified as community and voluteer, with fewer than nine consecutive quarters of data, those with fewer than 100 responses per quarter (on average), and those classified as non-24-hour with a coefficient of variation of over 10% are not shown.

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 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.
Mobilisation time	The time from placement of a triple zero call 'in queue' for ambulance dispatch until the time a vehicle is en route to the 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.
Turnaround time	The time from an ambulance arrives at a hospital until the ambulance is 'clear' and ready to respond to a new incident.
Admitted patients	
Average length of stay	Total bed days of admitted patient episodes that had an 'end date' during the quarter divided by the number of admitted patient episodes.
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.

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.

In the July to September 2017 quarter, a total of 720,564 people presented to NSW public hospital EDs, up 9.4% compared with the same quarter last year. Most presentations (97.0%) were classified as emergency presentations (Figure 1). Over the past five years, the number of emergency presentations in the July to September quarter has increased by 29.1% (Figure 2).

Compared with the same quarter last year, the number of patients in each triage category increased. The largest change was in triage category 4 (28,207 more presentations; up 10.6%) (Figure 1).

Compared with the same quarter last year, the number of emergency presentations was higher this quarter in 73 out of 78 NSW public hospital EDs.

Of these, 36 were up by more than 10% and five by more than 20%: Macksville (33.2%), Moree (31.8%), Gunnedah (31.4%), Mudgee (25.5%) and Narrabri (24.8%).

Hospitals identified in Figure 3 had more than 5,000 total presentations this quarter and more than a 5% change in the number of presentations compared with the same quarter last year.

Number of hospitals by peer group with >10% change in emergency presentations compared with same quarter last year

Peer group	Number of hospitals	Number of hospitals with >10% change
A1	13	3
B	21	12
C1	14	6
C2	26	15

See Appendix 1 for the full list of hospitals

Figure 1 **Patient presentations and ambulance arrivals at NSW emergency departments, July to September 2017**

	This quarter	Same quarter last year	Change since one year ago
All ED presentations	720,564	658,481	9.4%
Emergency presentations by triage category	699,236	637,792	9.6%
Triage 1: Resuscitation 0.7%	5,131	4,698	9.2%
Triage 2: Emergency 12.7%	88,968	80,858	10.0%
Triage 3: Urgent 35.0%	244,822	225,993	8.3%
Triage 4: Semi-urgent 42.1%	294,469	266,262	10.6%
Triage 5: Non-urgent 9.4%	65,846	59,981	9.8%
Ambulance arrivals	162,350	148,880	9.0%

In the July to September 2017 quarter, there were 21,807 ED presentations in small district hospitals that are not reported in *Healthcare Quarterly*. These hospitals were recently added to the Emergency Department Data Collection and the data provided for their EDs are under data quality review by BHI, prior to inclusion in *Healthcare Quarterly*.

Figure 2 Number of emergency presentations to an ED, July to September quarters, 2012 to 2017

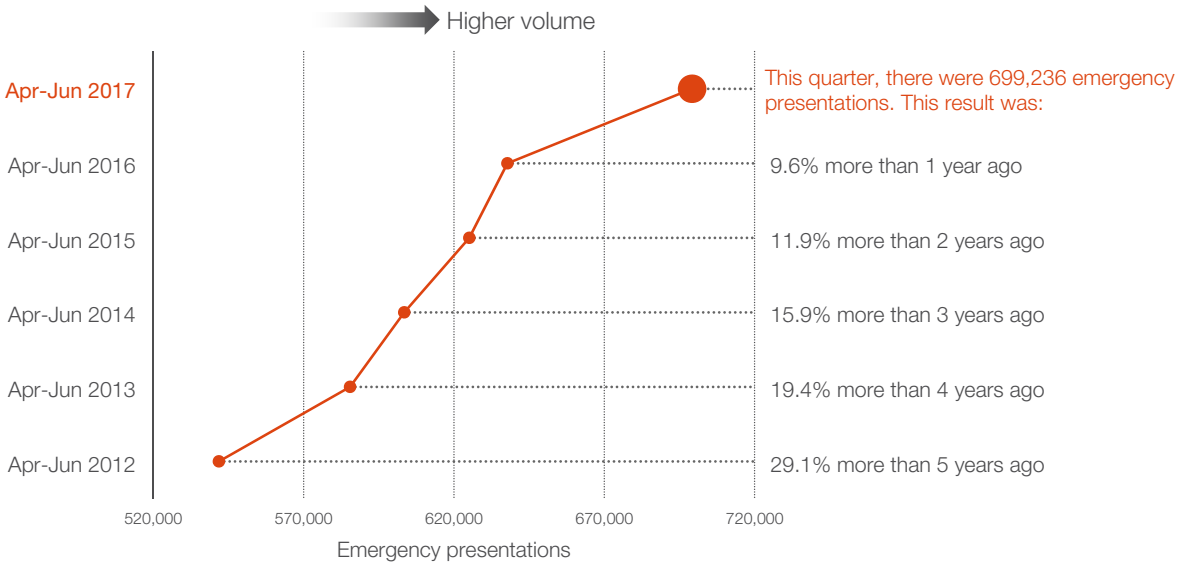
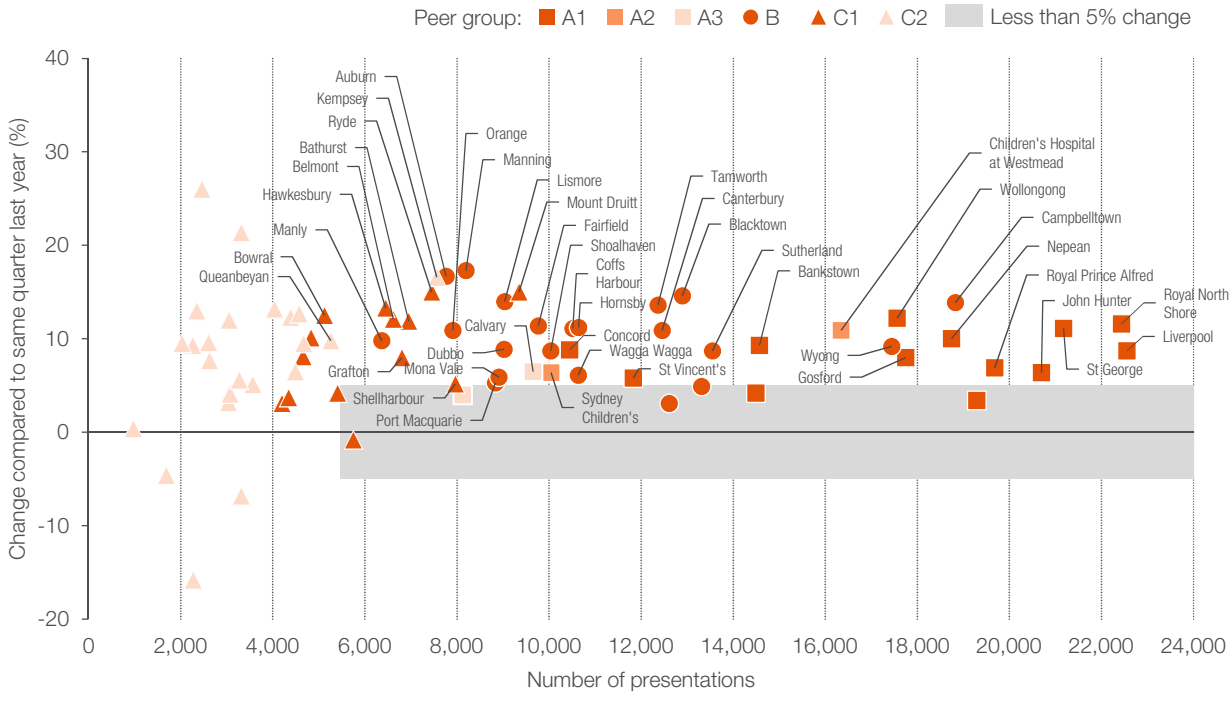


Figure 3 Change in number of all emergency department presentations compared with the same quarter last year, hospitals by peer group, July to September 2017



Note: In November 2015, Sydney and Sydney Eye Hospitals merged. This affected the number of ED presentations due to change in admission pathway.

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 waiting time within which treatment should start, ranging from two minutes for triage 1 to 120 minutes for triage 5.

In the July to September 2017 quarter, for 70.0% of ED visits, treatment started within clinically recommended timeframes; down 3.6 percentage points compared with the same quarter last year (Figure 4). This result is 1.9 percentage points higher than in the same quarter in 2012 (Figure 5).

Figure 6 maps hospital results this quarter compared with the same quarter last year. Hospitals labelled are those that had an increase or a decrease of more than five percentage points in the proportion of 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 name	Peer group code	Emergency visits treated on time (%)	Percentage point change
Maclean	C2	72.2	12.6
Bathurst	C1	74.8	-10.4
Tamworth	B	63.3	-11.2
Maitland	B	59.1	-11.7
Manning	B	67.4	-12.4
Bankstown / Lidcombe	A1	53.3	-14.6
Fairfield	B	59.1	-14.7

Figure 4 Percentage of patients whose treatment started on time, by triage category, July to September 2017

	This quarter	Same quarter last year	Percentage point change since one year ago
All emergency presentations	70.0%	73.6%	-3.6
Triage category 2	Recommended: 80% in 10 minutes 63.4%	64.9%	-1.5
Triage category 3	Recommended: 75% in 30 minutes 64.3%	68.2%	-3.9
Triage category 4	Recommended: 70% in 60 minutes 72.9%	77.2%	-4.3
Triage category 5	Recommended: 70% in 120 minutes 90.6%	92.9%	-2.3

	This quarter	Same quarter last year	Change since one year ago
Triage 2 Emergency (e.g. chest pain, severe burns): 87,854 patients			
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): 237,072 patients			
Median time to start treatment	23m	21m	2m
90th percentile time to start treatment	1h 23m	1h 12m	11m
Triage 4 Semi-urgent (e.g. sprained ankle, earache): 268,265 patients			
Median time to start treatment	30m	27m	3m
90th percentile time to start treatment	2h 1m	1h 43m	18m
Triage 5 Non-urgent (e.g. small cuts or abrasions): 54,890 patients			
Median time to start treatment	26m	24m	2m
90th percentile time to start treatment	1h 58m	1h 44m	14m

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.

Figure 5 Percentage of patients whose treatment started within clinically recommended timeframes, July to September quarters, 2012 to 2017

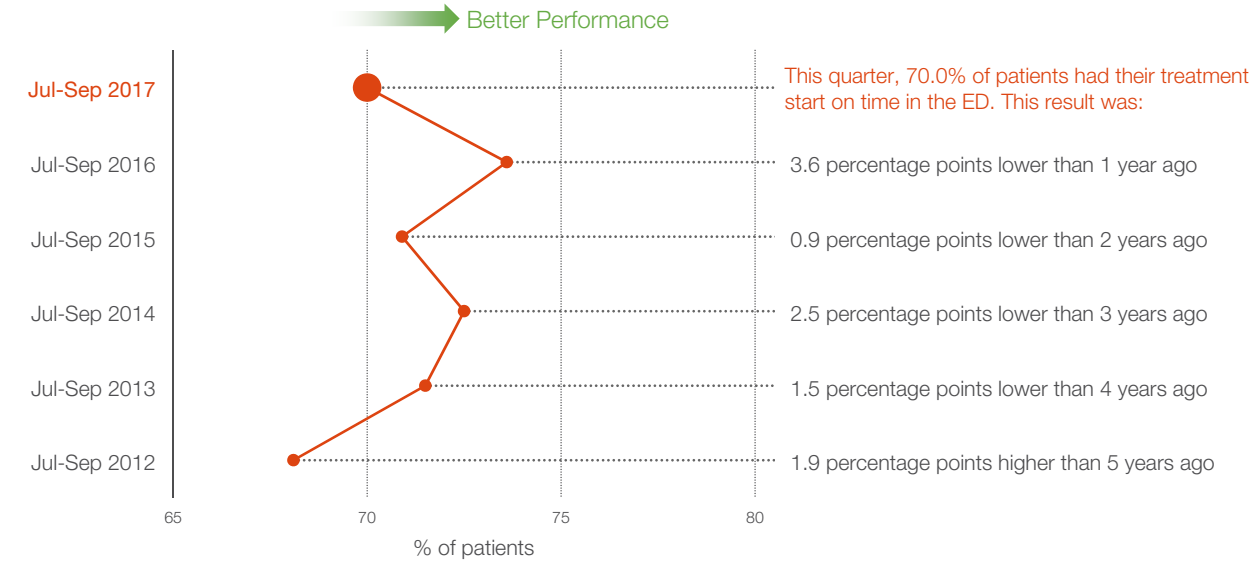
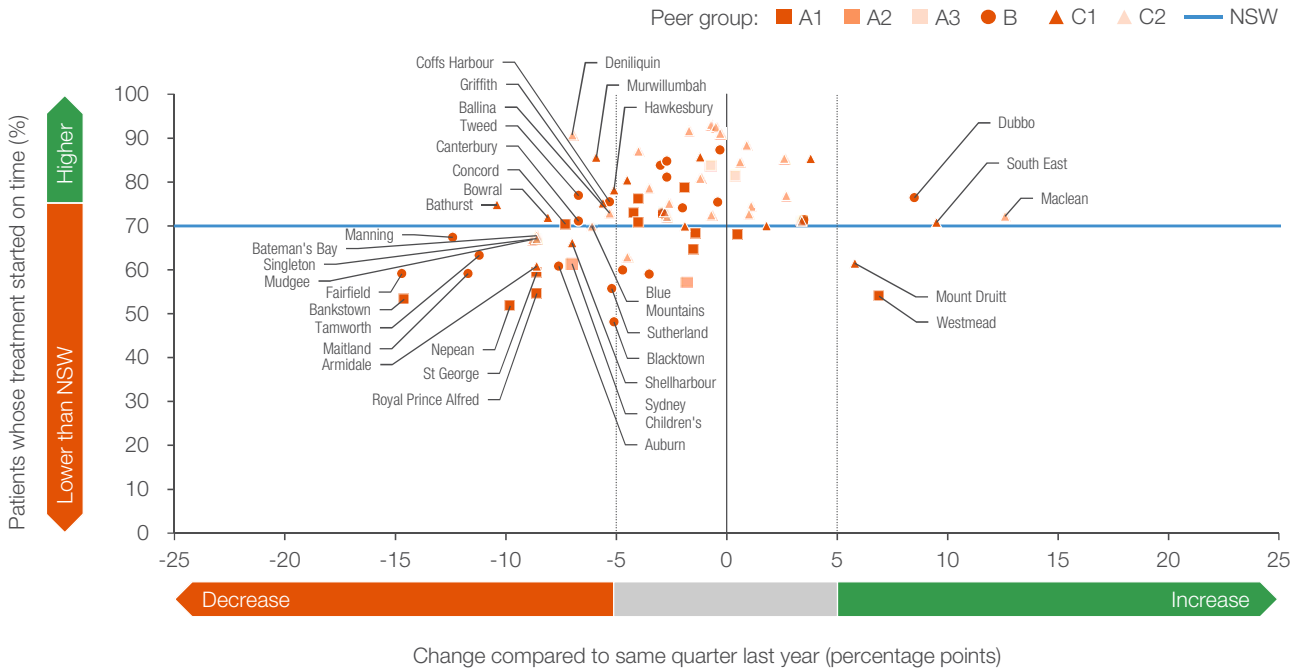


Figure 6 Percentage of patients whose treatment started on time, and percentage point change compared with same quarter last year, hospitals by peer group, July to September 2017



Time spent in the emergency department

Following assessment, stabilisation and treatment in the ED, patients are either discharged home, admitted to a short stay unit (SSU), admitted to a hospital ward, or transferred to another facility. A small percentage of patients choose not to wait for treatment.

In the July to September 2017 quarter, 68.4% of patients spent four hours or less in the ED. This was 3.3 percentage points lower than in the same quarter last year and 9.6 percentage points higher than in the same quarter in 2012 (Figure 8).

Patients who require admission to hospital from the ED usually have more complex health needs than those who are treated in the ED and discharged. Patients whose ED visit ends in admission to hospital therefore often spend longer periods in the ED. Among patients who were treated and subsequently admitted to hospital this quarter, 35.3% spent four hours or less in the ED. Among patients who were treated and discharged this quarter, 80.9% spent four hours or less in the ED (Figure 7).

Compared with the same quarter last year:

- In 18 hospitals, the proportion of patients who spent four hours or less in the ED was higher. Of these, one hospital (Blacktown) was up by more than five percentage points.
- In 60 hospitals, there was a drop in the proportion of patients who spent four hours or less in the ED. Of these, 14 hospitals were over five percentage points lower including five that were down by more than 10 percentage points. Fairfield dropped by 21.5 percentage points (Figure 9).

Figure 7 **Percentage of patients who spent four hours or less in the emergency department, by mode of separation, July to September 2017**

	Number	This quarter	Same quarter last year	Percentage point change since one year ago
All ED presentations	492,508	68.4%	71.7%	-3.3
Treated and discharged	361,588	80.9%	85.6%	-4.7
Treated and admitted	69,140	35.3%	39.8%	-4.5
Left without, or before completing, treatment	42,157	86.4%	91.0%	-4.6
Transferred to another hospital	5,923	40.7%	43.8%	-3.1

Figure 8 Percentage of patients who spent four hours or less in the ED, July to September quarters, 2012 to 2017

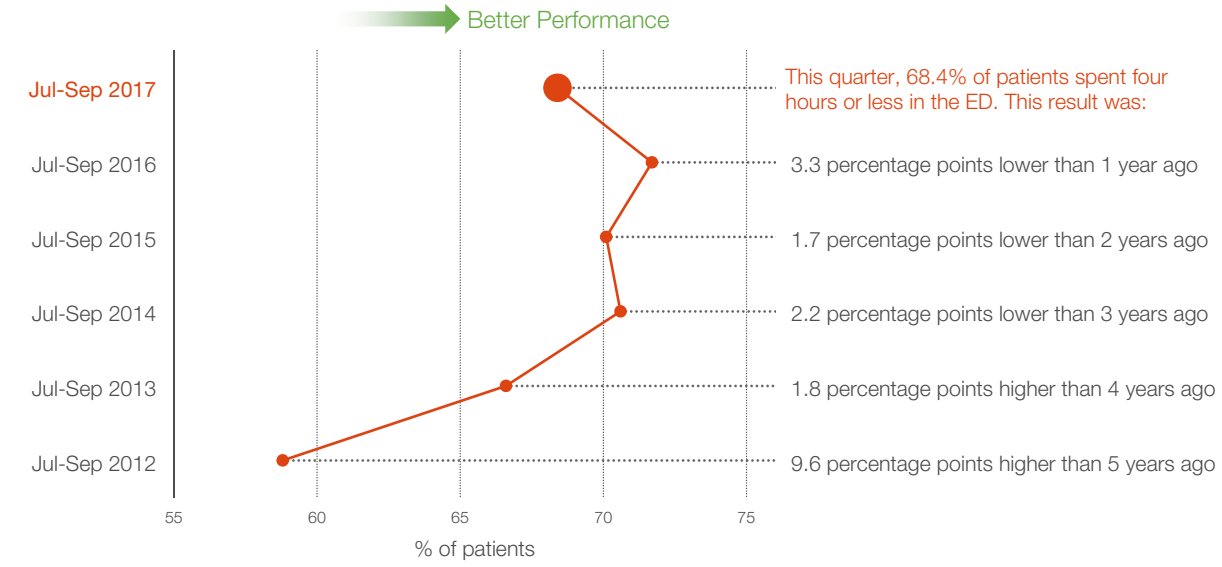
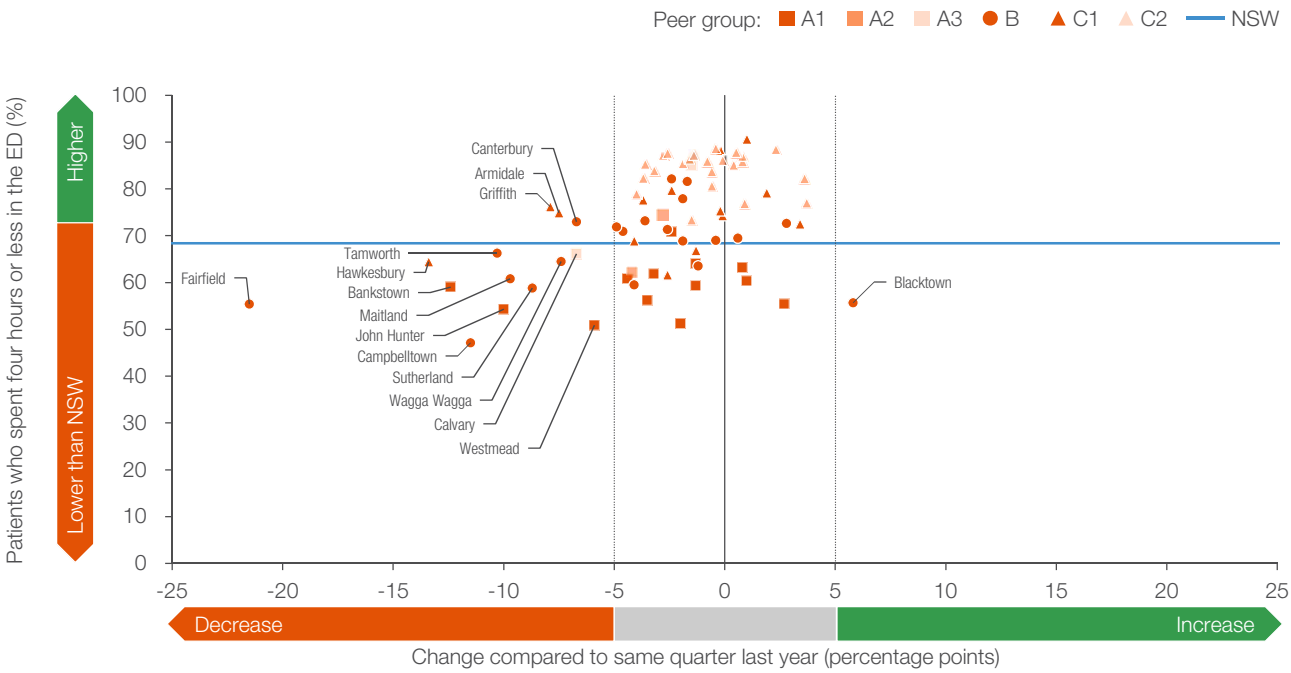


Figure 9 Percentage of patients who spent four hours or less in the emergency department, and percentage point change since same quarter last year, hospitals by peer group, July to September 2017



Transfer of care

The median time for patient care to be transferred from ambulance crews to ED staff in the July to September 2017 quarter was 13 minutes (up by one minute). (Figure 10).

In NSW, transfer of care should have occurred within 30 minutes for at least 90% of patients. This quarter, 85.6% of patients who arrived by ambulance had their care transferred within 30 minutes; 3.5 percentage points lower than in the same quarter last year and 5.5 percentage points higher than the same quarter in 2013 (Figure 11).

Figure 12 shows variation between and within hospital peer groups in the percentage of patients whose care was transferred within 30 minutes this quarter. Widest variation was among principal referral hospitals (peer group A1), with results ranging from 68.5% to 96.2%.

Compared with the same quarter last year, the number of ambulance arrivals in 39 hospitals was up by more than 10%. In nine hospitals, the change was over 20% higher: Kurri Kurri (60.4%), Fairfield (50.0%), Auburn (35.8%), Forbes (34.5%), Cowra (30.4%), Singleton (30.3%), Byron Central (24.9%), Mount Druitt (23.1%), and Blacktown (20.6%).

For four hospitals, the percentage of patients whose care was transferred within 30 minutes was 10 percentage points higher compared with the same quarter last year. For five hospitals there was a drop of more than 10 percentage points.

Number of hospitals by peer group with >10% change in ambulance arrivals compared with same quarter last year

Peer group	Number of hospitals	Number of hospitals with >10% change
A1	13	3
B	21	12
C1	14	10
C2	26	16

See Appendix 2 for full list of hospitals

Hospitals with >10 percentage point change in transfer of care on time, compared with same quarter last year

Hospital name	Peer group	% within 30 minutes	Percentage point change
Cowra†	C2	90.1	24.9
Cooma*†	C2	97.2	19.7
Byron*†	C2	93	12.8
Hawkesbury	C1	87.2	10.5
Prince of Wales	A1	80.4	-10.5
Bankstown / Lidcombe	A1	79.5	-13.2
Singleton	C2	78.7	-15.1
Liverpool	A1	68.5	-16.2
Fairfield	B	74.3	-18.4

* Caution – transfer of care could not be calculated for more than 30% of records for the same quarter last year.

† This hospital is included for the first time in the July to September 2017 issue of Healthcare Quarterly.

Figure 10 Emergency presentations, ambulance arrivals and transfer of care time, July to September 2017

	This quarter	Same quarter last year	Change since one year ago
Emergency presentations	699,236	637,792	9.6%
Ambulance arrivals (number used to calculate transfer of care time)	148,186	134,245	10.4%
ED transfer of care time			
Median time	13m	12m	1m
90th percentile time	36m	30m	6m
Percentage of patients transferred from ambulance to ED within 30 minutes	85.6%	89.1%	-3.5 percentage points

Figure 11 Percentage of patients transported to the ED by ambulance whose care was transferred within 30 minutes, July to September quarters, 2013 to 2017

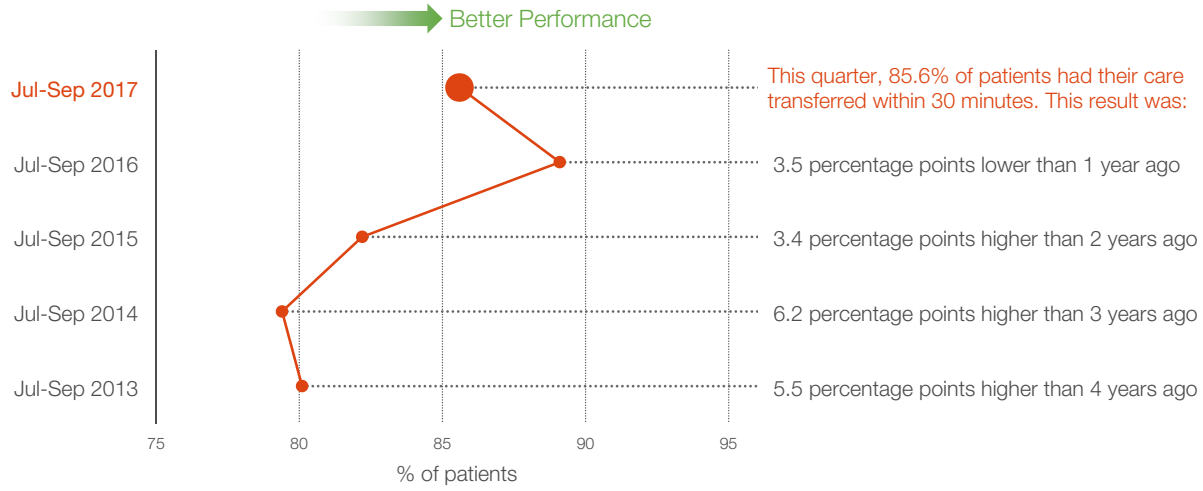
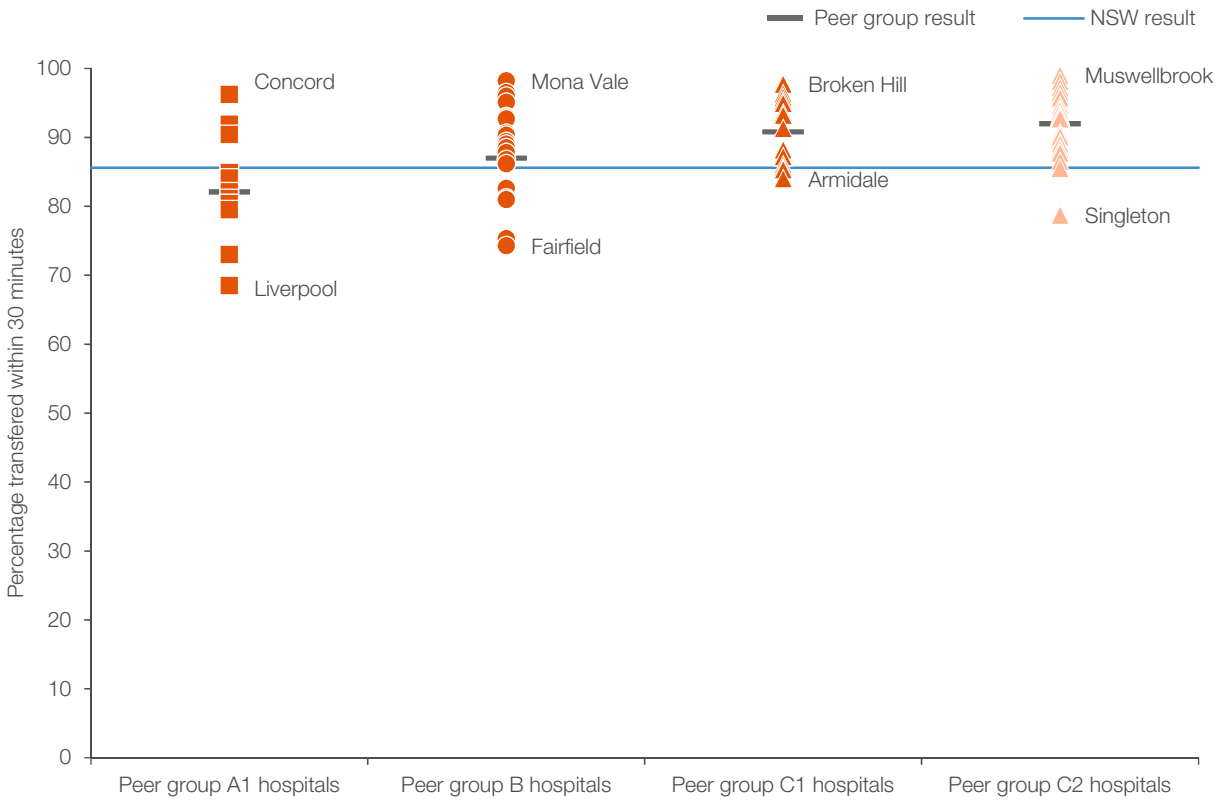


Figure 12 Percentage of patients transported to the ED by ambulance whose care was transferred within 30 minutes, by peer group, July to September 2017



Ambulance activity

Ambulance activity can be quantified in terms of calls, incidents, responses and patient transports (Table 2).

In the July to September 2017 quarter, there were 313,530 calls and 311,679 ambulance responses; for both this was 9.2% higher compared with the same quarter last year (Figure 13).

This quarter, the majority of responses were categorised as either priority 1 (46.5% of the total responses) or priority 2 (42.6% of the total responses).

The total number of priority 1–3 responses this quarter was 9.8% more than in the same quarter last year and 15.8% more than in the same quarter in 2012 (Figure 14).

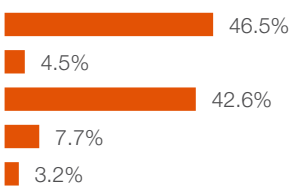
Figure 15 shows the daily number of priority 1, 2 and 3 responses this quarter. Daily activity fluctuated throughout the quarter between 136 and 1,790 responses.

Table 2 **Description of ambulance activity counts**

Calls	Calls received at the ambulance communication (control) centre, requesting an ambulance vehicle.
Incidents	A call that results in the dispatch of one or more ambulance vehicles.
Responses	The dispatch of an ambulance vehicle from a local response area. 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 category 1 (emergency response under lights and sirens; with category 1A as highest acuity); priority category 2 (urgent – undelayed response required without lights and sirens); priority category 3 (time-critical – undelayed response required); and priority categories 4-9 (non-emergency).
Patient transports	Number of patients transported by the ambulance service.

Figure 13 **Ambulance calls, incidents, responses and transports, July to September 2017**

	This quarter	Same quarter last year	Change since one year ago
Calls	313,530	287,181	9.2%
Incidents	243,469	225,472	8.0%
All responses	311,679	285,434	9.2%
P1: Emergency	144,875	128,136	13.1%
P1A: Highest priority	6,517	5,854	11.3%
P2: Urgent	132,848	121,334	9.5%
P3: Time-critical	24,084	25,502	-5.6%
P4–9: Non-emergency	9,871	10,462	-5.6%
Patient transports	182,037	167,806	8.5%



Note: Ambulance activity data do not include 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.

Figure 14 Number of priority category 1, 2 and 3 responses, July to September quarters, 2012 to 2017

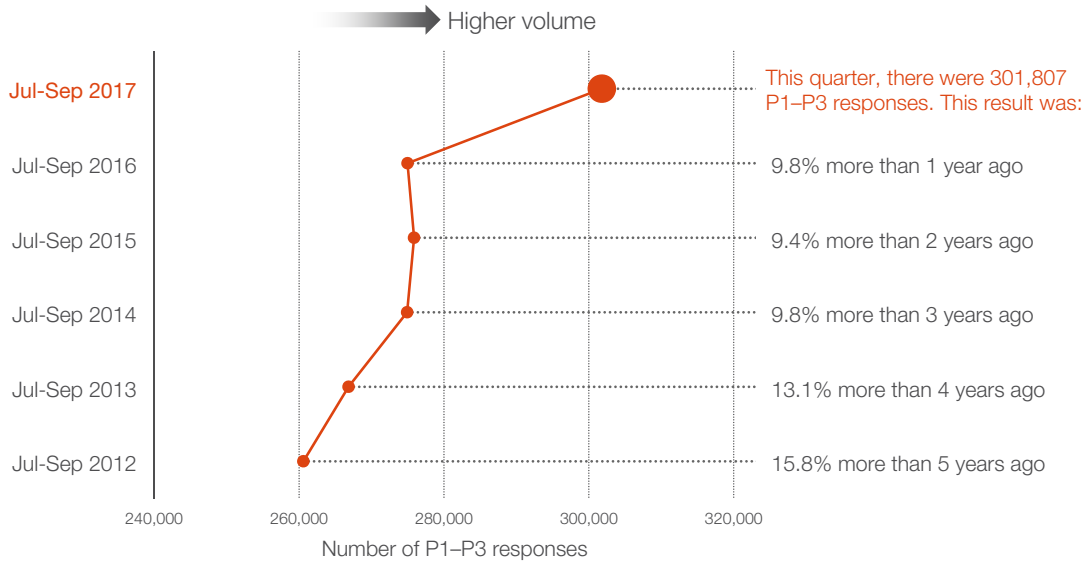
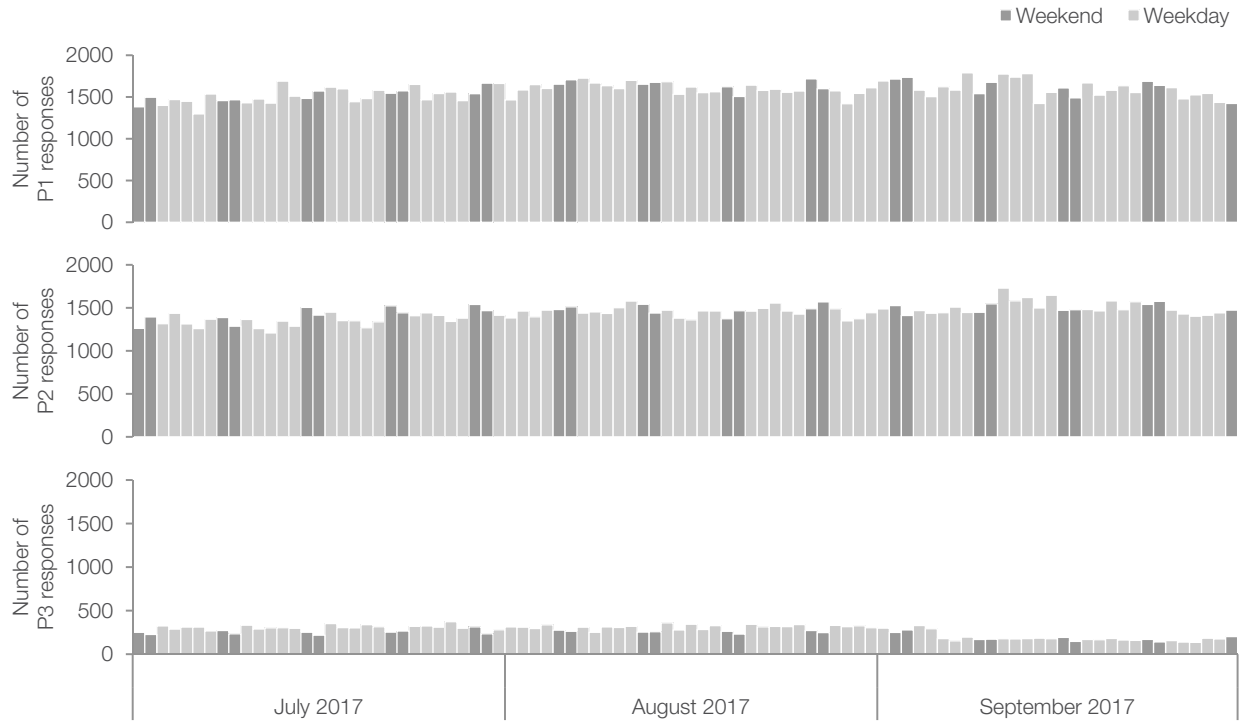


Figure 15 Daily number of priority category 1, 2 and 3 responses, July to September 2017



Call to ambulance arrival time

Call to ambulance arrival time covers the period from when a triple zero call is first answered in the ambulance control centre (phone pick-up), to the time an ambulance arrives at the scene.
This quarter, most priority 1 call to ambulance arrival times were within 30 minutes (93.7%).
A similar proportion of priority 2 responses had a call to ambulance arrival time within 60 minutes (92.4%) (Figure 16).

The percentage of call to ambulance arrival times within 30 minutes for priority 1 was lower compared with the same quarter last year and the same quarter in 2012 (down 0.6 and 0.4 percentage points, respectively) (Figure 17).

Compared with the same quarter last year, the percentage of priority 1 call to ambulance arrival times within 15 minutes was lower (60.1%; down 2.4 percentage points) (Figure 16).

Among local response areas (LRAs), roughly seven in 10 (71.0%) met a 90% threshold for the percentage of priority 1 call to ambulance arrival times within 30 minutes. This was lower proportion compared with the same quarter last year (78.6%) (Figure 18).

For priority 2, roughly eight in 10 (82.8%) of LRAs met a 90% threshold for the percentage of call to ambulance arrival time within 60 minutes [data not shown].

Figure 16 Call to ambulance arrival time, by priority category, July to September 2017

Priority category	This quarter	Same quarter last year	Change since one year ago
P1 responses 107,479			
Within 15 minutes	60.1%	62.5%	-2.4 percentage points
Within 30 minutes	93.7%	94.3%	-0.6 percentage points
Local response areas meeting 90% threshold (arrival within 30 minutes)	103 (of 145)	114 (of 145)	
P2 responses 99,713			
Within 30 minutes	69.9%	73.8%	-3.9 percentage points
Within 60 minutes	92.4%	94.1%	-1.7 percentage points
Local response areas meeting 90% threshold (arrival within 60 minutes)	120 (of 145)	138 (of 145)	

Figure 17 Percentage of priority category 1 responses with call to ambulance arrival time within 30 minutes, July to September quarters, 2012 to 2017

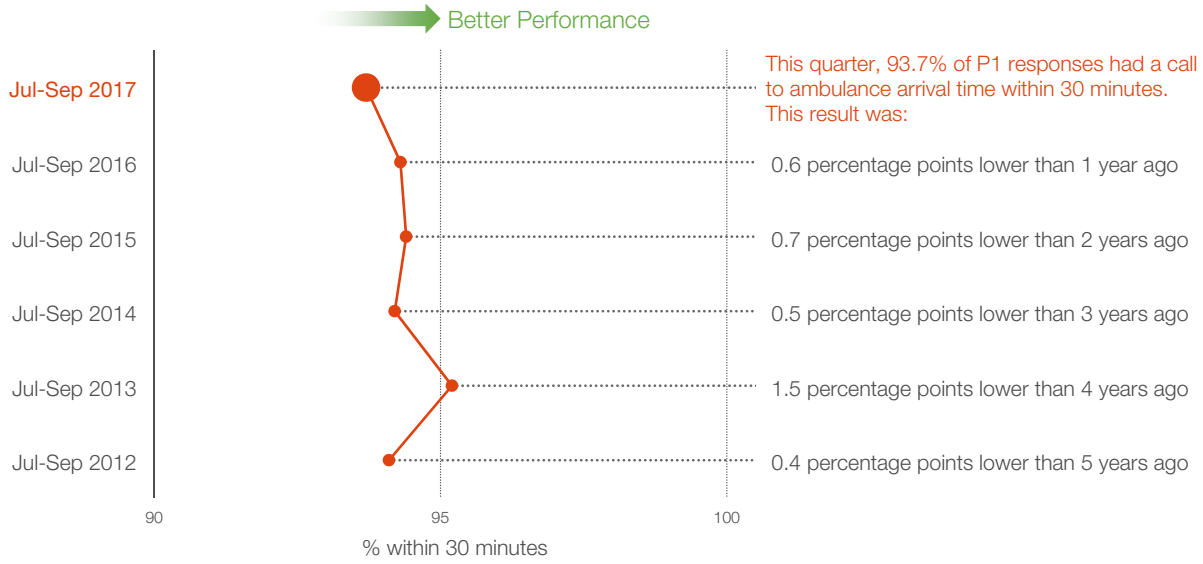
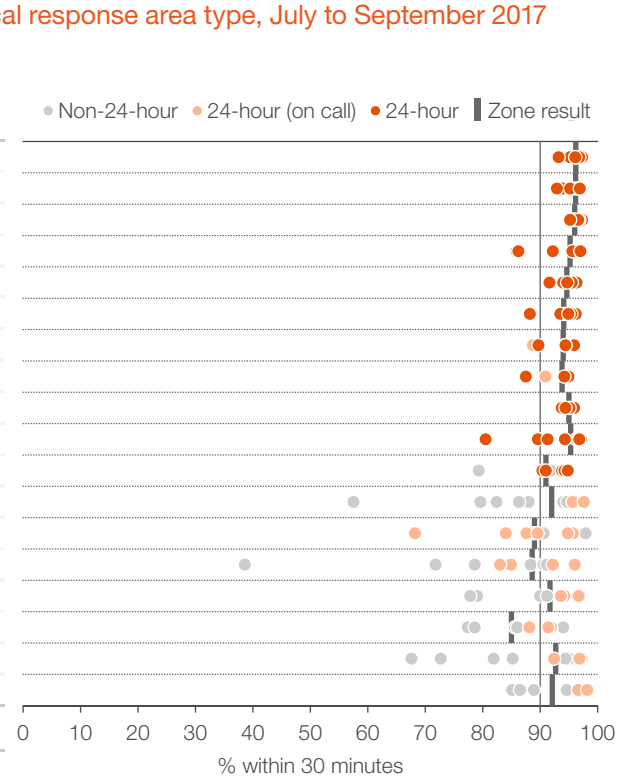


Figure 18 Percentage of priority category 1 responses with a call to ambulance arrival time within 30 minutes, by zone and local response area type, July to September 2017

	Number	Total LRAs	LRAs achieving 90% in 30 minutes 2017	2016
Sydney	10,604	8	8	8
South Eastern Sydney	7,946	8	8	8
Northern Sydney	7,695	9	9	9
Central Coast	6,489	9	7	7
Western Sydney	10,146	5	5	5
Nepean Blue Mountains	6,682	6	5	6
Illawarra	6,979	9	7	8
South West Zone 1	6,556	5	4	4
South West Zone 2	7,815	4	4	4
Hunter Zone 1	6,492	9	7	8
Hunter Zone 2	3,946	9	8	8
New England Zone	2,738	11	5	7
Mid North Coast Zone	5,706	9	4	4
Northern Rivers Zone	4,734	12	5	6
Murrumbidgee Zone	3,922	7	5	6
Southern NSW Zone	3,556	9	3	4
Central West Zone 1	3,222	10	6	7
Central and Far West Zone 2	2,215	6	3	5
Total		**145**	**103**	**114**



Ambulance response time

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

In the July to September 2017 quarter, the median response time was 7.7 minutes for priority 1A responses, 11.6 minutes for priority 1 responses, and 19.1 minutes for priority 2 responses (Figure 19).

In NSW, the benchmark for the median priority 1A response time is 10 minutes. There was one day in the quarter when the median response time exceeded 10 minutes.

Over the past five years, the median priority 1 response time has remained relatively steady (Figure 19 and 20) while the median priority 2 response time decreased. Part of this decrease reflects a reclassification of priority categories (priority 1 to priority 2) in 2013, 2015 and 2016. Amidst seasonal fluctuation, the July to September 2017 quarter had a sharper increase in the priority 2 response time.

Figure 21 shows this quarter's priority 1A, 1 and 2 median response times for zones relative to the NSW result. For priority category 2, non-metropolitan zones generally had shorter response times than metropolitan zones.

Figure 19 Ambulance response time (minutes), by priority category, July to September 2017

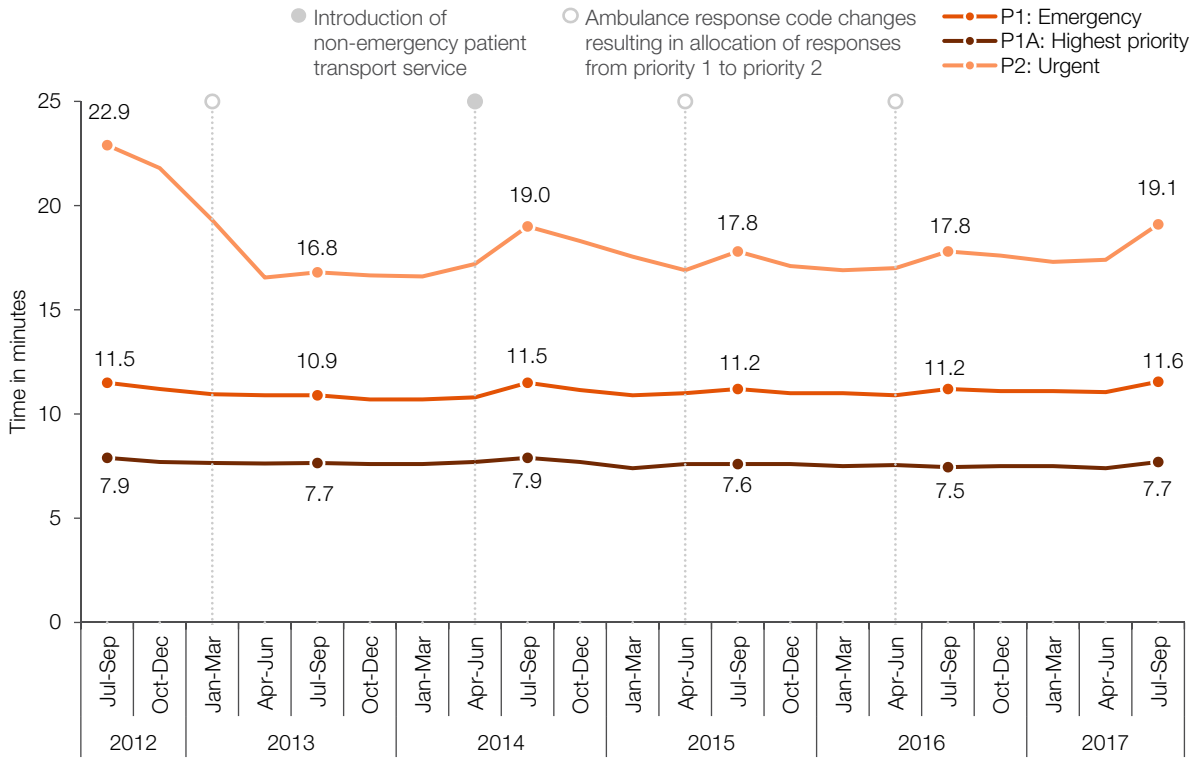
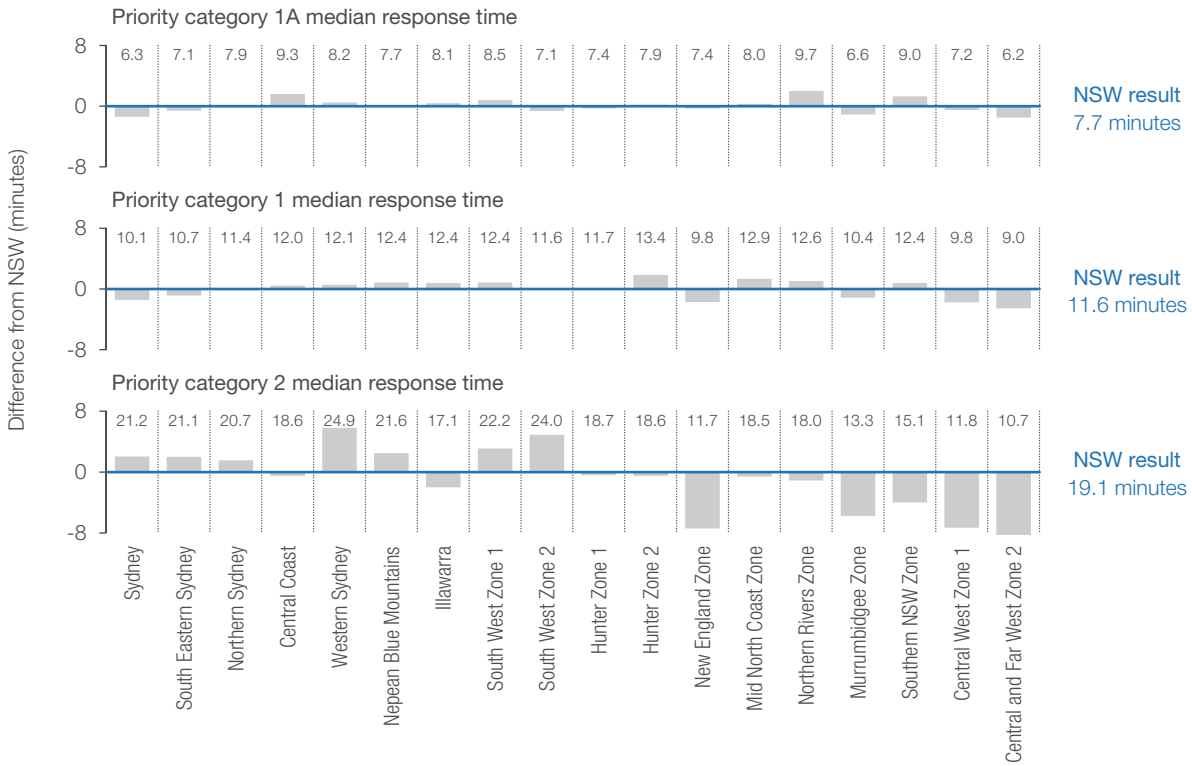


Figure 20 Median priority category 1 response time, July to September quarters, 2012 to 2017

Figure 21 Median ambulance response time, by priority category, July 2012 to September 2017



Admitted patients

In the July to September 2017 quarter, there were 494,767 admitted patient episodes (down 183) and 1.7 million bed days (down 18,671; 1.0%) compared with the same quarter last year. The majority of admitted patient episodes (94.0%) and bed days (77.5%) were for acute care (Figure 22).

Bed days are calculated for all admitted patient episodes that ended during the period. Total bed days for an overnight episode refers to the difference, in days, between the episode start date and the episode end date, minus the number of episode leave days recorded. Same-day episodes count as one bed day.

The number of acute bed days in the July to September 2017 quarter was lower compared with the same quarter last year (1,367,626 bed days; down 7.4%) (Figure 22). This was 3.3% less compared with the same quarter in 2012 (Figure 23).

The average length of stay for all acute episodes was 2.9 days this quarter and 4.5 days for all acute overnight episodes, down 0.2 and 0.4 days, respectively compared with the same quarter last year. The average length of stay for all acute episodes in the July to September 2017 quarter has remained stable since 2012.

There were hospital-level differences in the average length of stay for acute overnight episodes between and within hospital peer groups. The greatest variation was among smaller district hospitals (peer group C2) where there was an 5.8 day difference between the lowest and highest average length of stay (Figure 24).

Length of stay measures are not adjusted for differences in case mix and variation across hospitals should be interpreted with care.

Hospitals with >10% change in admitted patient episodes, compared with same quarter last year

Hospital	Peer group	Admitted patient episodes	Change (%)
Byron Central†	C2	984	39.2
Macksville	C2	991	19.0
Kempsey	C2	2,753	18.8
Blacktown	B	11,862	16.4
Blue Mountains	C2	1,765	12.6
Kurri Kurri	C2	1,001	12.3
Cessnock	C2	1,182	11.5
Shoalhaven	B	5,127	-11.1
Sydney Children's	A2	4,129	-13.0
Narrabri	C2	453	-16.9
Young	C2	704	-17.9
Moruya	C2	1,884	-18.1
Casino	C2	602	-18.8
Shellharbour	C1	3,470	-19.9
Bateman's Bay	C2	1,174	-20.9
Queanbeyan	C2	1,984	-22.8
Ballina	C2	1,853	-28.6
Lithgow	C2	831	-31.5

† This hospital is included for the first time in the July to September 2017 issue of *Healthcare Quarterly*.

Figure 22 Total number of admitted patient episodes and hospital bed days, by episode type, July to September 2017

		This quarter	Same quarter last year	Change since one year ago
Total bed days		1,764,261	1,782,932	-1.0%
Acute	77.5%	1,367,626	1,476,664	-7.4%
Non-acute	22.5%	396,635	306,268	29.5%

Note: The increase in the number of bed days for non-acute care this quarter may reflect changes in the designation of mental health care stay types, creating a spike in results. The decrease in the number of acute bed days is due to a lower number of bed days for overnight psychiatric patients.

Figure 23 Number of acute care bed days, July to September quarters, 2012 to 2017

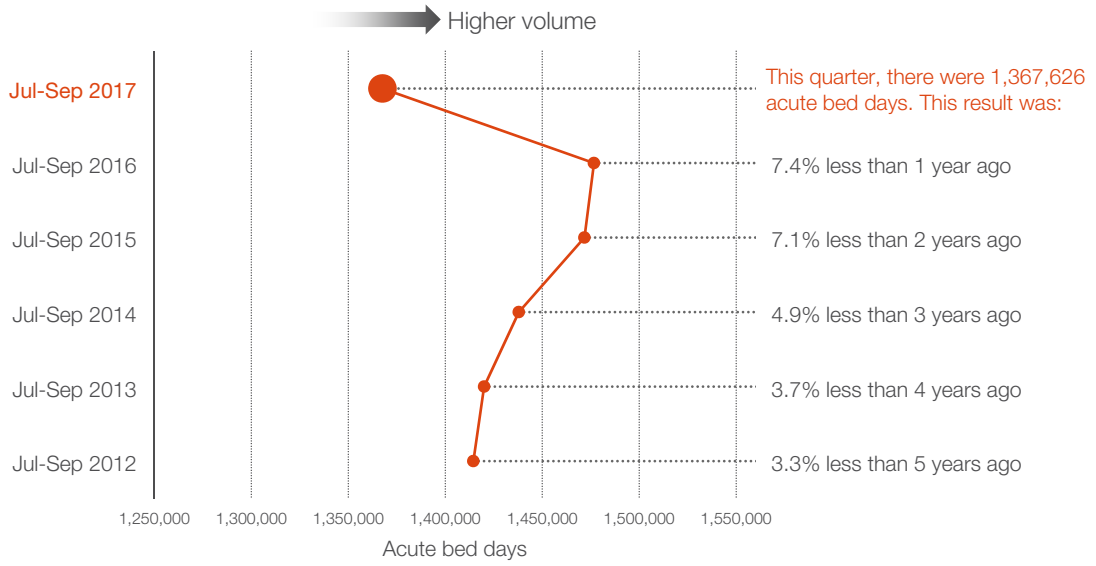
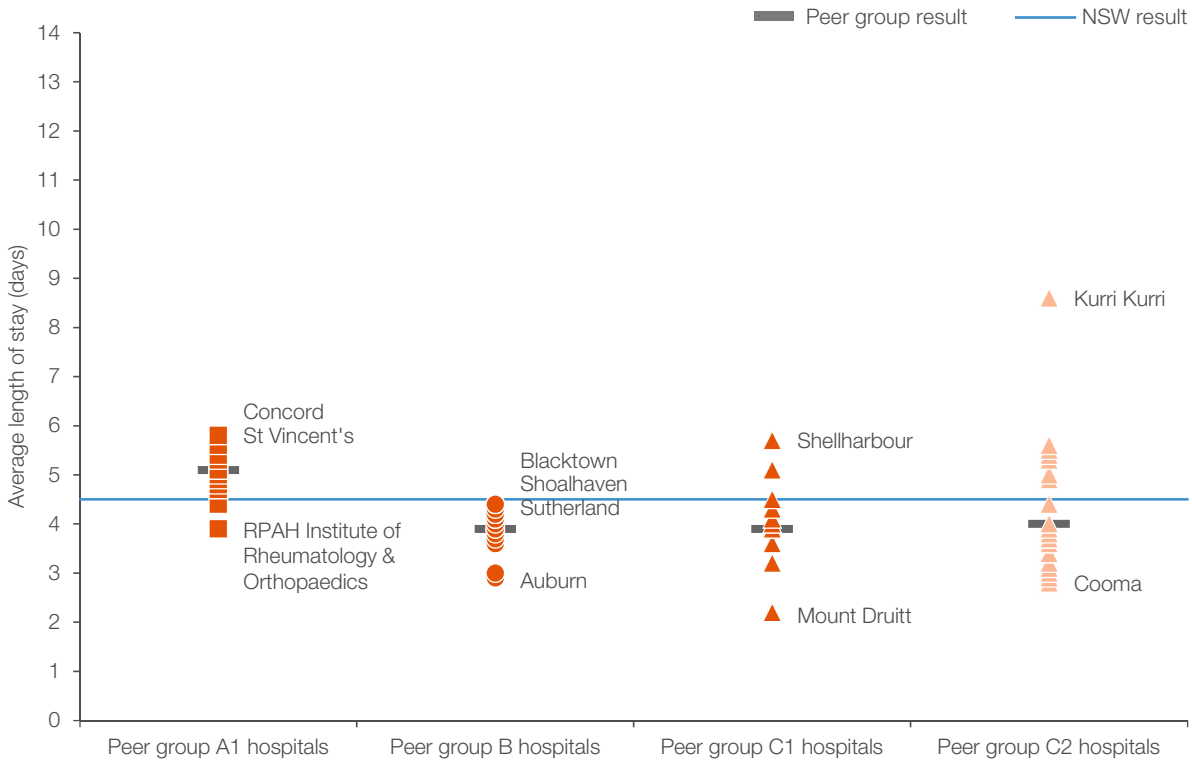


Figure 24 Average length of stay for acute overnight admitted patient episodes, by peer group, July to September 2017



Elective surgery

In the July to September 2017 quarter, a total of 58,289 elective surgical procedures were performed; 0.4% more than the same quarter last year and 4.4% more than in 2012 (Figures 25 and 26).

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. Over half (54.1%) of all procedures performed this quarter were either urgent or semi-urgent.

There are clear seasonal fluctuations in the number of elective surgical procedures performed. The number of semi-urgent and non-urgent procedures increased over the past five years while the number of urgent and staged procedures has decreased (Figure 27).

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

Hospital	Peer group	Procedures	Change (%)
Gunnedah	C2	18	80.0
Narrabri	C2	31	47.6
Muswellbrook	C2	137	47.3
Deniliquin	C2	65	38.3
Kempsey	C2	352	31.3
Shellharbour	C1	744	-11.7
Queanbeyan	C2	255	-12.1
Wollongong	A1	1,581	-13.0
Port Macquarie	B	932	-13.1
Blue Mountains	C2	180	-14.3

Figure 25 Elective surgical procedures performed, by urgency category, July to September 2017

	This quarter	Same quarter last year	Change since one year ago
Total number of elective surgical procedures	58,289	58,046	0.4%
Urgent 21.1%	12,291	12,660	-2.9%
Semi-urgent 33.0%	19,216	18,418	4.3%
Non-urgent 41.1%	23,951	24,247	-1.2%
Staged* 4.9%	2,831	2,721	4.0%

* 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).

Figure 26 Elective surgical procedures performed, July to September quarters, 2012 to 2017

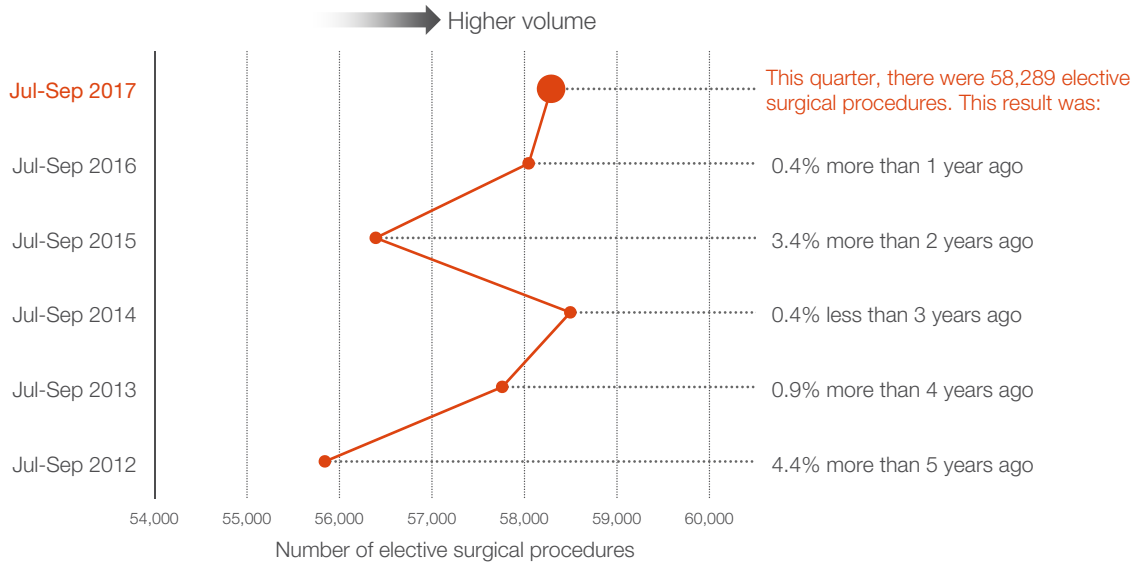
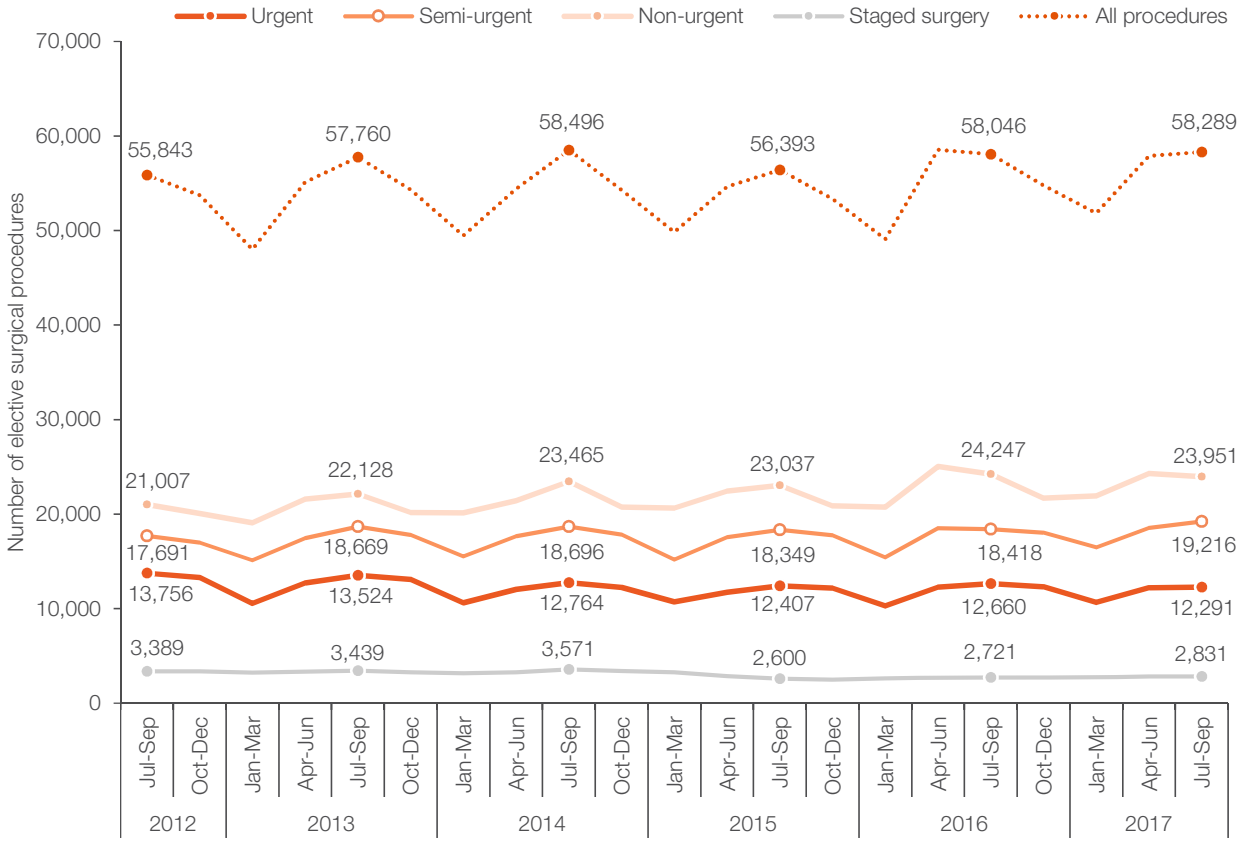


Figure 27 Elective surgical procedures performed, by urgency category, July 2012 to September 2017



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 timeframes.

Results for the July to September 2017 quarter show that in comparison to the same quarter last year, median waiting times were unchanged for urgent surgery, lower by one day for semi-urgent surgery, and lower by seven days for non-urgent surgery (Figure 28).

The maximum times by which surgery should be performed are: 30 days for urgent, 90 days for semi–urgent, and 365 days for non–urgent procedures. Almost all procedures (97.9%) were performed within recommended timeframes this quarter (Figure 28).

The percentage of elective surgical procedures performed on time in the July to September quarter was 5.0 percentage points higher in 2017 than in 2012 (Figure 29). Median waiting times decreased between 2012 and 2017 for urgent, semi-urgent and non-urgent surgeries (Figure 30).

Figure 28 Percentage of elective surgical procedures performed on time and waiting times, by urgency category, July to September 2017

	This quarter	Same quarter last year	Percentage point change since one year ago
All procedures	97.9%	97.9%	unchanged
Urgent	99.9%	99.8%	0.1
Semi-urgent	98.1%	98.0%	0.1
Non-urgent	96.8%	96.9%	-0.1

	This quarter	Same quarter last year	Change since one year ago
Urgent: 12,291 patients			
Median time to receive surgery	10 days	10 days	unchanged
90th percentile time to receive surgery	26 days	26 days	unchanged
Semi-urgent: 19,216 patients			
Median time to receive surgery	43 days	44 days	-1 day
90th percentile time to receive surgery	82 days	82 days	unchanged
Non-urgent: 23,951 patients			
Median time to receive surgery	213 days	220 days	-7 days
90th percentile time to receive surgery	354 days	353 days	1 day

Figure 29 Percentage of elective surgical procedures performed on time, July to September quarters, 2012 to 2017

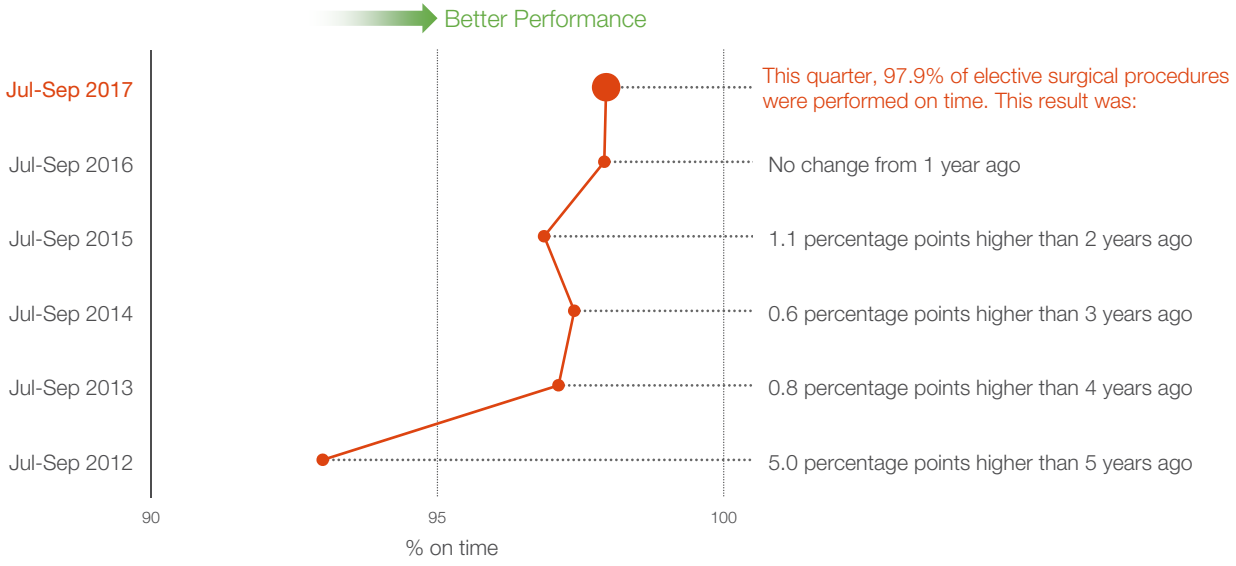
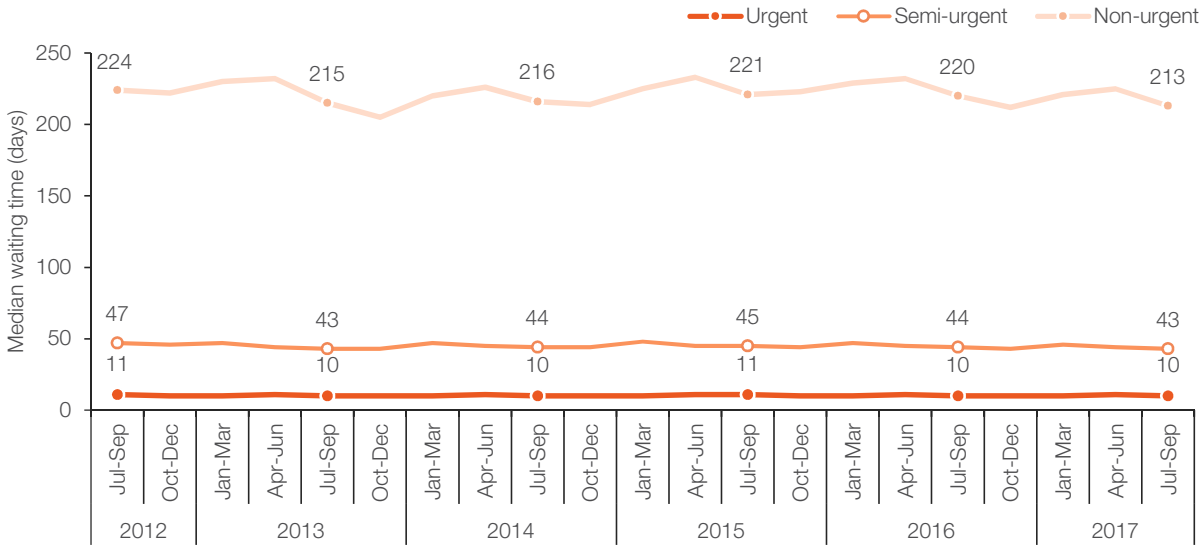


Figure 30 Median waiting times for elective surgery, by urgency category, July to September 2017



Appendix 1

Hospitals with >10% change in emergency presentations, compared with same quarter last year

Hospital name	Peer group	ED emergency attendances	Change (%)
Macksville District Hospital	C2	3,737	33.2
Moree District Hospital	C2	2,259	31.8
Gunnedah District Hospital	C2	2,398	31.4
Mudgee District Hospital	C2	3,196	25.5
Narrabri District Hospital	C2	1,659	24.8
Manning Base Hospital	B	8,055	17.9
Mount Druitt Hospital	C1	9,252	15.3
Forbes District Hospital	C2	1,866	15.3
Tamworth Base Hospital	B	11,874	15.2
Inverell District Hospital	C2	2,294	14.9
Blacktown Hospital	B	12,821	14.8
Kempsey Hospital	C2	7,323	14.6
Auburn Hospital	B	7,453	14.6
Ryde Hospital	C1	7,361	14.6
Campbelltown Hospital	B	18,659	13.8
Lismore Base Hospital	B	8,714	13.0
Ballina District Hospital	C2	4,158	12.8
Wollongong Hospital	A1	17,271	12.6
Hawkesbury District Health Services (public hospital services only)	C1	6,213	12.5
Coffs Harbour Base Hospital	B	10,210	12.5
Belmont Hospital	C1	6,591	12.5
Byron Central Hospital†	C2	4,481	12.2
Bowral and District Hospital	C1	4,997	12.2
Royal North Shore Hospital	A1	22,350	12.1
Bathurst Base Hospital	C1	6,863	11.5
Fairfield Hospital	B	9,748	11.5
Hornsby and Ku-Ring-Gai Hospital	B	10,595	11.3
The Children's Hospital at Westmead	A2	16,227	11.2
Singleton District Hospital	C2	2,973	11.1
Canterbury Hospital	B	12,427	11.1
St George Hospital	A1	21,041	11.0
Orange Health Service	B	7,829	10.9
Deniliquin Health Service	C2	1,926	10.8
Muswellbrook District Hospital	C2	2,485	10.7
Manly District Hospital	B	6,323	10.5
Bateman's Bay District Hospital	C2	3,854	10.5
Young Health Service	C2	2,121	-12.4

† This hospital is included for the first time in the July to September 2017 issue of *Healthcare Quarterly*.

Appendix 2

Hospitals with >10% change in ambulance arrivals, compared with same quarter last year

Hospital name	Peer group	Ambulance arrivals	Change (%)
Kurri Kurri District Hospital	C2	85	60.4
Fairfield Hospital	B	2,077	50.0
Auburn Hospital	B	1,438	35.8
Forbes District Hospital	C2	230	34.5
Cowra District Hospital†	C2	343	30.4
Singleton District Hospital	C2	357	30.3
Byron Central Hospital†	C2	462	24.9
Mount Druitt Hospital	C1	1167	23.1
Blacktown Hospital	B	4,364	20.6
Cessnock District Hospital	C2	604	18.9
Canterbury Hospital	B	2,413	18.5
Mudgee District Hospital	C2	299	18.2
Bowral and District Hospital	C1	1,147	17.6
Casino and District Memorial Hospital	C2	418	17.4
Mona Vale and District Hospital	B	2,032	17.0
Young Health Service	C2	305	15.5
Bankstown / Lidcombe Hospital	A1	4,444	15.5
Manning Base Hospital	B	2,343	15.4
Bathurst Base Hospital	C1	1,112	14.5
Concord Hospital	A1	2,850	14.0
Wagga Wagga Rural Referral Hospital	B	2,441	13.7
Wollongong Hospital	A1	6,420	13.6
Campbelltown Hospital	B	5,193	13.6
Goulburn Base Hospital	C1	937	13.3
Shellharbour Hospital	C1	1,998	13.0
Coffs Harbour Base Hospital	B	2,654	12.9
Belmont Hospital	C1	1519	12.9
Blue Mountains District Anzac Memorial Hospital	C2	1,046	12.8
Cooma Health Service†	C2	576	12.7
Orange Health Service	B	1,690	12.2
Macksville District Hospital	C2	566	12.1
Milton and Ulladulla Hospital	C2	516	11.9
South East Regional Hospital	C1	1,003	11.8
Maitland Hospital	B	2,495	11.4
Griffith Base Hospital	C1	894	11.2
The Tweed Hospital	B	2,268	11.1
Armidale and New England Hospital	C1	846	10.7
Murwillumbah District Hospital	C1	362	10.7
Queanbeyan Health Service	C2	593	10.4
Deniliquin Health Service	C2	233	-10.4
Maclean District Hospital	C2	447	-12.9

† This hospital is included for the first time in the July to September 2017 issue of *Healthcare Quarterly*.

Acknowledgements

The Bureau of Health Information (BHI) is the main source of information for the people of NSW about the performance of their public healthcare system. A board-governed organisation, BHI is led by Chairperson Professor Carol Pollock and Acting Chief Executive Dr Kim Sutherland.

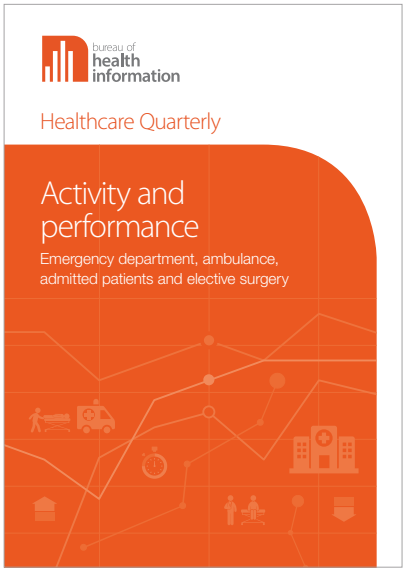
We would like to thank our expert advisors, colleagues at the Ministry of Health, NSW Ambulance and reviewers who contributed to the report.

We also acknowledge BHI's dedicated teams of analytics, research, corporate, design and communications professionals whose expertise made this report possible.

Healthcare Quarterly

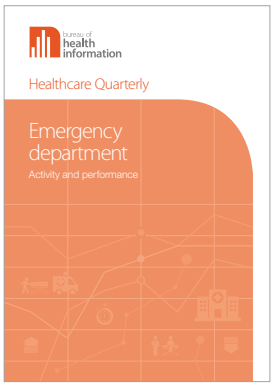
Healthcare Quarterly is a series of regular reports that describes the number and types of services provided to the people of NSW and the timeliness with which they are provided.

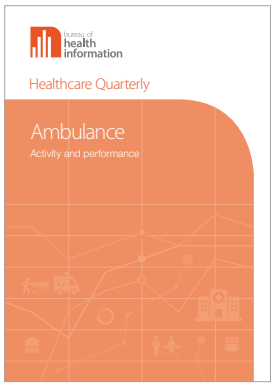
The reports feature key indicators of activity and performance across ambulance and public hospital services in NSW.

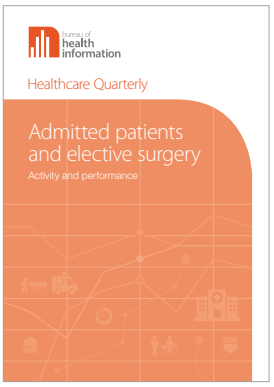


Every day around 25,000 people receive care in the NSW public hospital system and around 1,800 are transported to hospital by ambulance.

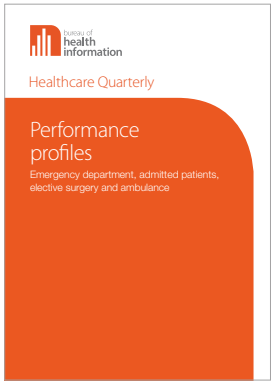
Healthcare Quarterly is published alongside three standalone modules that provide more detailed information about emergency department care, admitted patients and elective surgery, and ambulance services.

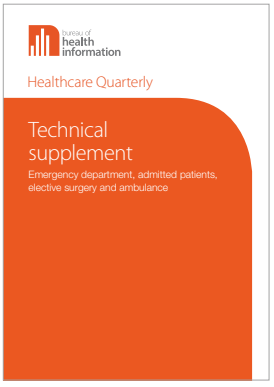






Additional information on local performance is available in our hospital profiles or from BHI's interactive portal Healthcare Observer, at **bhi.nsw.gov.au/healthcare_observer**





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

Additional information on local performance is available from BHI's interactive portal Healthcare Observer, at **bhi.nsw.gov.au/healthcare_observer**

bureau of health information

About the Bureau of Health Information

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

BHI was established in 2009 to provide system-wide support through transparent reporting.

BHI 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 in public hospitals and other healthcare facilities.

BHI publishes a range of reports and tools that provide relevant, accurate and impartial information about how the health system is measuring up in terms of:

- Accessibility – healthcare when and where needed
- Appropriateness – the right healthcare, the right way
- Effectiveness – making a difference for patients
- Efficiency – value for money
- Equity – health for all, healthcare that's fair
- Sustainability – caring for the future

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 report 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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bureau of health information

Healthcare Quarterly

Ambulance

Activity and performance

July to September 2017

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

Published December 2017

Healthcare Quarterly reports present data at the point in time when data become available to BHI. Changes in data coverage and analytic methods from quarter to quarter mean that figures published in this document are superseded by subsequent reports. At any time, the most up-to-date data are available on BHI's online data portal, Healthcare Observer, at **bhi.nsw.gov.au/healthcare_observer**

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.

Table of contents

In the July to September 2017 quarter...

Ambulance

There were **311,679** ambulance responses

UP 9.2%

26,245 more than same quarter last year

93.7% 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.

Ambulance activity		July to September 2017	July to September 2016	Difference	% change
Calls		313,530	287,181	26,349	9.2%
Responses		311,679	285,434	26,245	9.2%
Priority category	P1: Emergency	144,875	128,136	16,739	13.1%
	P1A: Highest priority	6,517	5,854	663	11.3%
	P2: Urgent	132,848	121,334	11,514	9.5%
	P3: Time-critical	24,084	25,502	-1,418	-5.6%
	P4–9: Non-emergency	9,871	10,462	-591	-5.6%
Incidents		243,469	225,472	17,997	8.0%
Patient transports		182,037	167,806	14,231	8.5%

Note: Ambulance activity data do not include outage estimates

Ambulance performance		July to September 2017	July to September 2016	Difference
Call to ambulance arrival time				
Percentage of P1 call to arrival within 15 minutes		60.1%	62.5%	-2.4 percentage points
Percentage of P1 call to arrival within 30 minutes		93.7%	94.3%	-0.6 percentage points
Local response areas meeting 90% threshold (arrival within 30 minutes)		103 (of 145)	114 (of 145)	
Percentage of P2 call to arrival within 30 minutes		69.9%	73.8%	-3.9 percentage points
Percentage of P2 call to arrival within 60 minutes		92.4%	94.1%	-1.7 percentage points
Local response areas meeting 90% threshold (arrival within 60 minutes)		120 (of 145)	138 (of 145)	
Mobilisation time				
P1: Emergency	Median	2.5m	2.5m	unchanged
	90th percentile	6.6m	6.2m	0.4m
	Percentage P1 within 3 minutes	60.8%	61.8%	-1.0 percentage points
P2: Urgent	Median	4.4m	4.0m	0.4m
	90th percentile	25.2m	21.3m	3.9m
Ambulance response time				
P1: Emergency	Median	11.6m	11.2m	0.4m
	90th percentile	24.0m	23.5m	0.5m
P1A: Highest priority	Median	7.7m	7.5m	0.2m
	90th percentile	15.4m	15.2m	0.2m
P2: Urgent	Median	19.1m	17.8m	1.3m
	90th percentile	51.4m	46.3m	5.1m
Percentage of P1A responses within 10 minutes		70.6%	72.0%	-1.4 percentage points
Number of days median priority 1A response time > 10 minutes		1 day	1 day	unchanged
Turnaround time				
P1: Emergency	Median	38.3m	36.0m	2.3m
	90th percentile	65.4m	59.5m	5.9m
	Percentage within 45 minutes	64.9%	71.1%	-6.2 percentage points
P2: Urgent	Median	35.6m	33.7m	1.9m
	90th percentile	61.5m	56.2m	5.3m
	Percentage within 45 minutes	70.8%	76.0%	-5.2 percentage points

About this module

Data for this module are drawn from the NSW Ambulance Computer Aided Dispatch (CAD) system, which is used to manage and record ambulance activity and service time points.

Detailed data specifications and analytic methods used in this module are described in the technical supplements section of the Bureau of Health Information (BHI) website at **bhi.nsw.gov.au**

About the measures

Activity is measured as the number of ambulance calls, incidents, responses and transports during the quarter. Timeliness is measured using four key measures: call to ambulance arrival time, mobilisation time, response time and turnaround time. These measures cover different combinations of time points captured in the electronic data system (Figure 1).

Results are reported at NSW and zone levels. Results for local response areas (or stations) have been shown to be subject to random variation and impacted by non-modifiable factors and so are not reported on a nominal (named) basis.

More detailed state and zone level information is available from the BHI interactive data portal, Healthcare Observer at **bhi.nsw.gov.au/healthcare_observer**

Background

A triple zero call generally initiates ambulance activity. An **incident** is an event that results in a response by one or more ambulances. A **response** is the dispatch of an ambulance from a local response area. Not all triple zero calls result in an ambulance response. Responses are prioritised according to the urgency of the case, based on the information provided by the caller.

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

Incidents involve one or multiple patients. Once an ambulance arrives at the scene, patients are either treated and transported, or treated at the scene only. About six in 10 responses result in **patient transport.**

Descriptions of ambulance indicator development, validation and sensitivity testing, are provided in the supplementary report, *Spotlight on Measurement: Measuring and reporting performance of NSW ambulance services*.

Figure 1 Ambulance service time points and timeliness measures

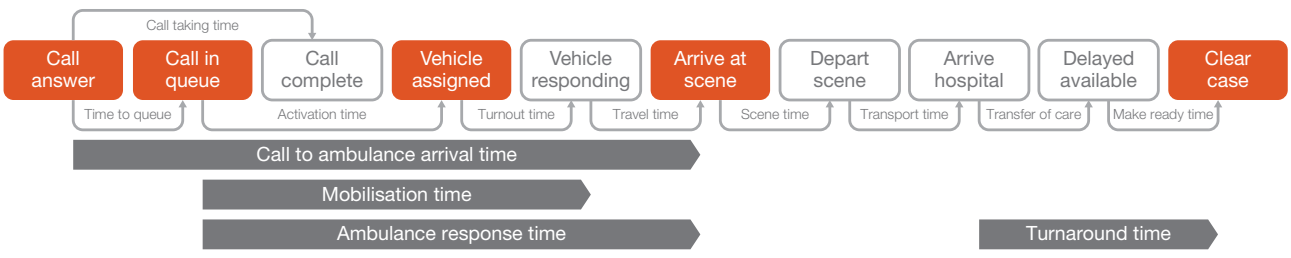


Table 1 Incident and response priority codes

Code	Priority	Description	Example	Response required
1	**1A Emergency**	Highest priority – life-threatening case	Cardiac or respiratory arrest, unconscious, ineffective breathing	Immediate response – median within 10 minutes – under 'lights and sirens'
	1B Emergency	High priority	Unconscious	Emergency response – under 'lights and sirens'
	1C Emergency	Priority	Breathing problems, chest or neck injury, serious haemorrhage	Emergency response – under 'lights and sirens'
2	**Urgent**	Urgent	Abdominal pain	Urgent response without 'lights and sirens' within specified timeframes
3	**Time-critical**	Time-critical	Medical responses requested by medical practitioners often pre-booked	Undelayed response within specified timeframes
4-9	**Non-emergency**	Non-emergency	Routine transport	Routine

Table 2 Ambulance local response area typology

Service type	Description
24-hour	Primarily situated in urban areas providing mostly urban, 24-hour operation. These are higher volume response areas, the majority with multiple vehicles and ambulance staff.
24-hour (with on-call)	Primarily situated in regional areas providing 24-hour operation, supplemented with on-call staff.
Non-24-hour	Primarily situated in regional and rural areas providing 8, 12 or 16-hour operation with remaining time covered by on-call staff.
Community and volunteer (volunteer ambulance officers, community first responder programs and community initiated groups)	Volunteer ambulance officers provide a first response and transport role in more remote areas. Some are attached to smaller stations, work with certified paramedics and respond in an ambulance vehicle. Members of community first responder programs are attached to emergency services, such as Fire Rescue NSW, NSW Rural Fire Service and the NSW State Emergency Service, and respond in their agency vehicle. Community-initiated groups (not attached to a response agency) can form a community first responder unit. Members agree to be available on a regular basis and respond from within the community in a private, or community-funded, vehicle.

Ambulance activity and performance

Ambulance activity

In the July to September 2017 quarter, there were 313,530 calls and 311,679 ambulance responses; for both this was 9.2% higher compared with the same quarter last year (Figure 2). Most responses were categorised as emergency (priority 1; 46.5%) or urgent (priority 2; 42.6%). Of priority 1 responses, 6,517 were priority 1A (4.5% of priority 1 and 2.1% of total responses, respectively) (Figure 2).

The number of calls, incidents and responses has decreased over the past five years (Figure 3).

This decrease coincided with the introduction of a dedicated patient transport service for non-emergency cases in 2014. Throughout the July to September 2017 quarter, the daily number of priority 1 to 3 responses fluctuated from 136 to 1,790 (Figure 4).

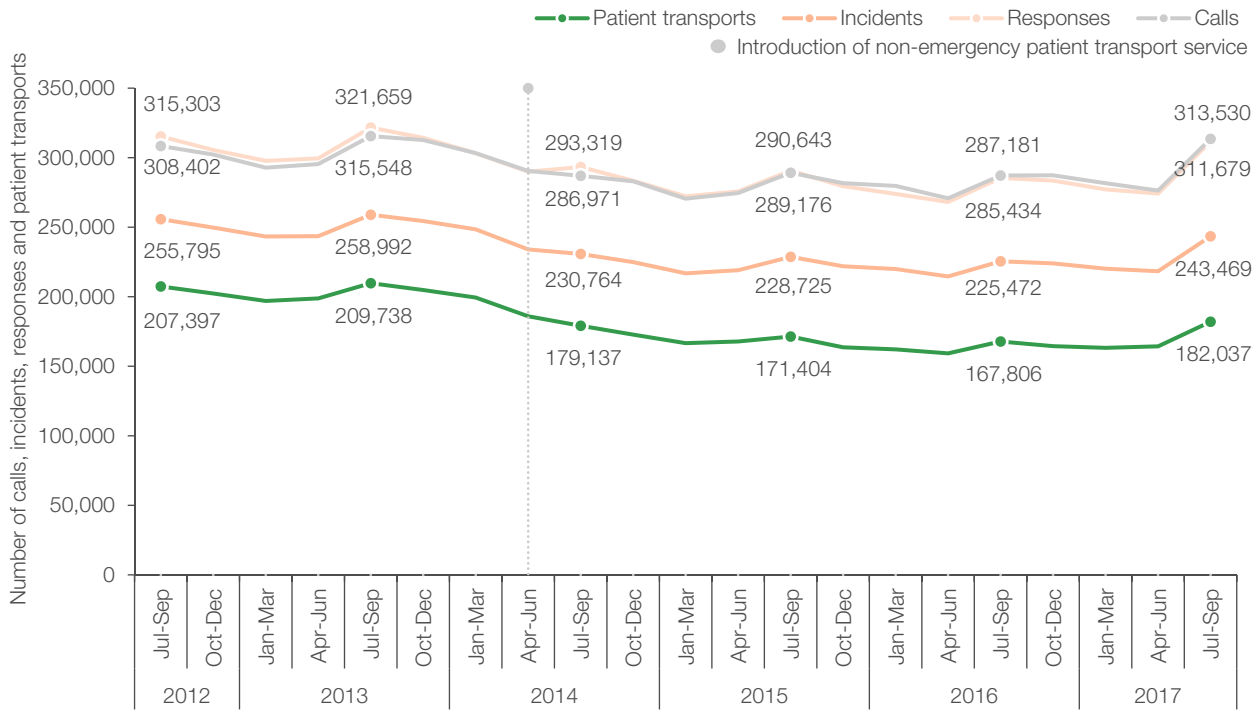
Changes in urgency categorisation or the 'grid' resulted in an apparent increase in the number of priority 2 responses and a corresponding decrease in the number of priority 1 responses between 2012 and 2016 (Figure 5).

Figure 2 **Ambulance calls, incidents and responses by priority, July to September 2017**

	This quarter	Same quarter last year	Change since one year ago
Calls	313,530	287,181	9.2%
Incidents	243,469	225,472	8.0%
All responses	311,679	285,434	9.2%
P1: Emergency (46.5%)	144,875	128,136	13.1%
P1A: Highest priority (4.5%)	6,517	5,854	11.3%
P2: Urgent (42.6%)	132,848	121,334	9.5%
P3: Time-critical (7.7%)	24,084	25,502	-5.6%
P4–9: Non-emergency (3.2%)	9,871	10,462	-5.6%
Patient transports	182,037	167,806	8.5%

Note: 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.

Figure 3 **Ambulance calls, incidents, responses and patient transports, July 2012 to September 2017**



Amidst the normal seasonal increases in ambulance activity in the July to September quarters, there was a sharper rise in the July to September 2017 quarter.

Figure 4 Daily number of priority 1, 2 and 3 responses, July to September 2017

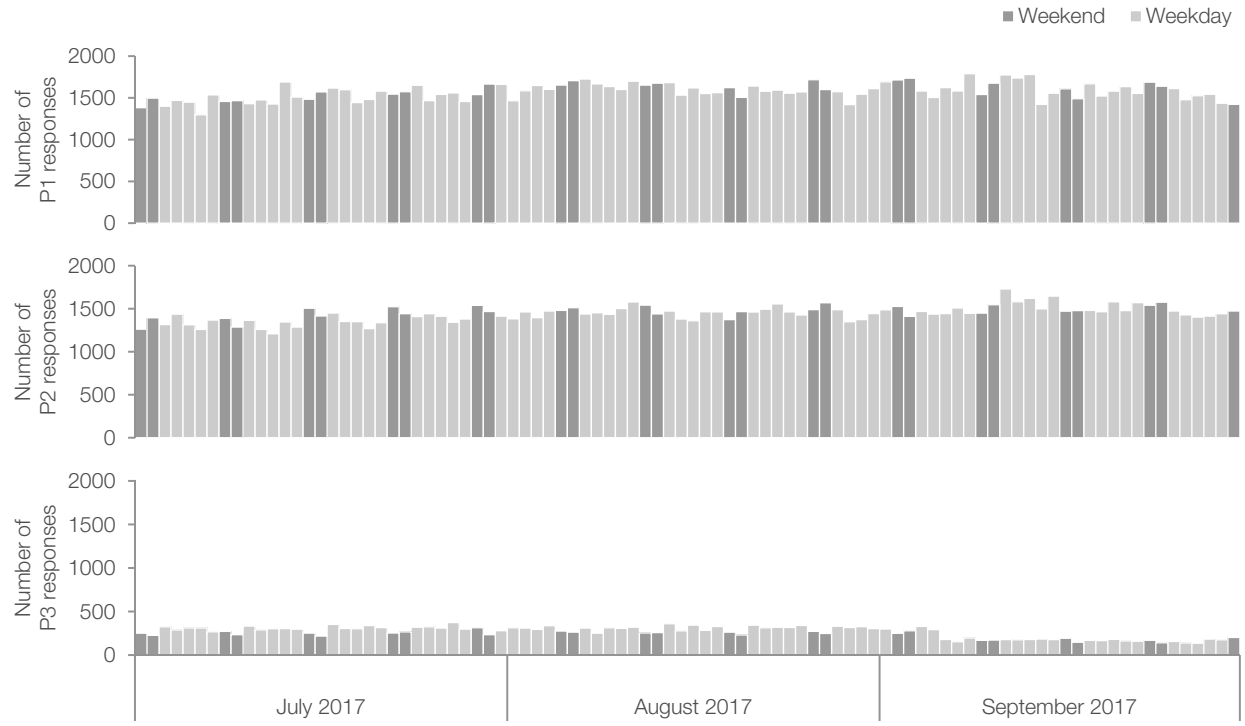
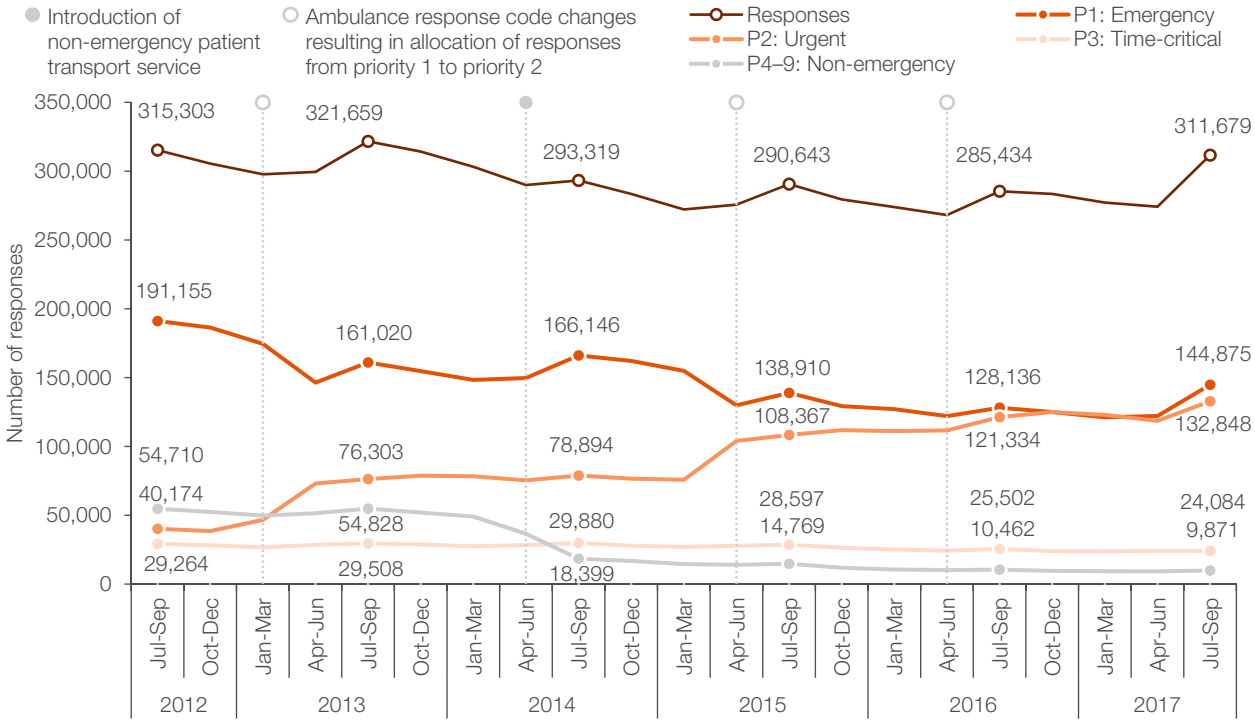


Figure 5 Ambulance responses by priority, July 2012 to September 2017



Call to ambulance arrival time – NSW and zone performance

Call to ambulance arrival time reflects patients' experiences, spanning 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.

In the July to September 2017 quarter, 60.1% of priority category 1 call to ambulance arrival times were within 15 minutes and 93.7% were within 30 minutes (down 2.4 and 0.6 percentage points, respectively, compared with the same quarter last year). For priority 2 call to ambulance arrival times, 69.9% were within 30 minutes and 92.4% were within 60 minutes (down 3.9 and 1.7 percentage points, respectively, compared with the same quarter last year) (Figure 7).

At a state level, call to ambulance arrival percentages for priority 1 and priority 2 were lower this quarter compared to the same quarter last year (Figure 8).

Across zones, the percentage of priority 1 call to ambulance arrival times within 30 minutes ranged from 85.0% in Southern NSW to 96.2% in Sydney and South Eastern Sydney.

For priority 2, the percentage of call to ambulance arrival times within 60 minutes ranged from 87.9% in South West Zone 2 to 98.4% in Central West Zone 1 and Central and Far West Zone 2 (Figure 9).

Figure 6 Intervals covering call to ambulance arrival time, NSW

Figure 7 Call to ambulance arrival time, by priority category, July to September 2017

Priority category		This quarter	Same quarter last year	Change since one year ago
P1 responses	107,479			
Within 15 minutes		60.1%	62.5%	-2.4 percentage points
Within 30 minutes		93.7%	94.3%	-0.6 percentage points
Local response areas meeting 90% threshold (arrival within 30 minutes)		103 (of 145)	114 (of 145)	
P2 responses	99,713			
Within 30 minutes		69.9%	73.8%	-3.9 percentage points
Within 60 minutes		92.4%	94.1%	-1.7 percentage points
Local response areas meeting 90% threshold (arrival within 60 minutes)		120 (of 145)	138 (of 145)	

Figure 8 Percentage of call to ambulance arrival times, by priority category, July 2012 to September 2017

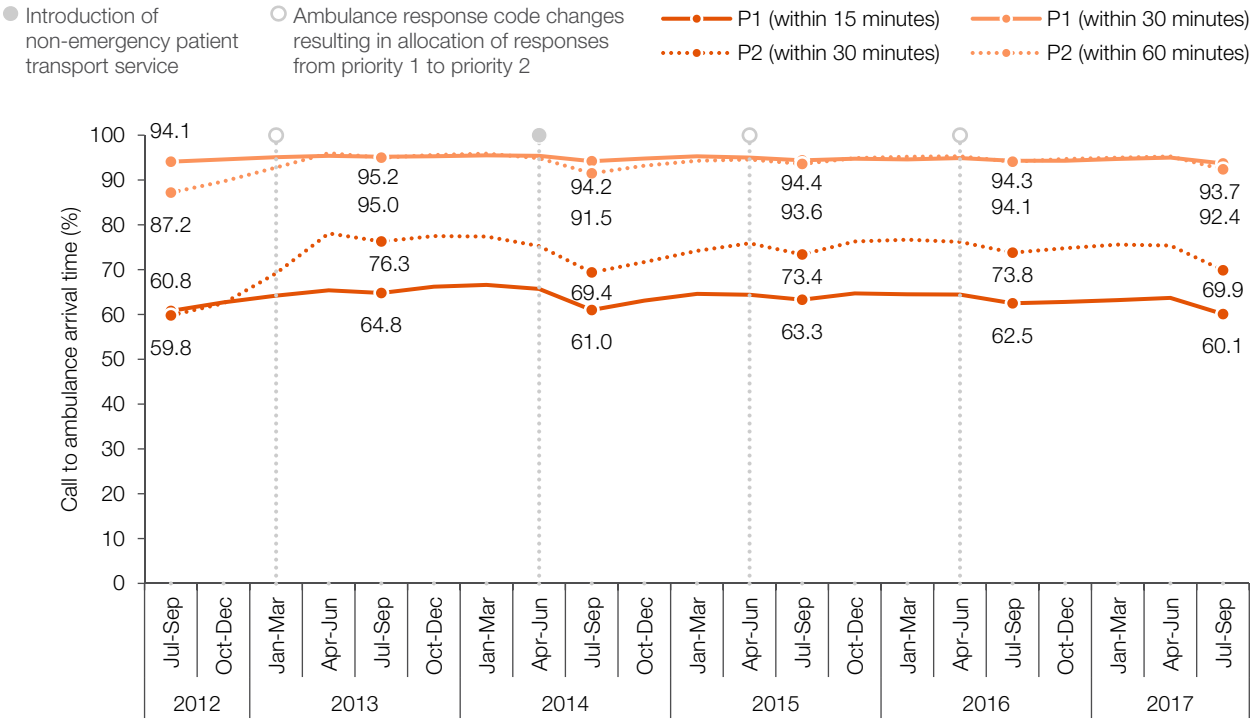
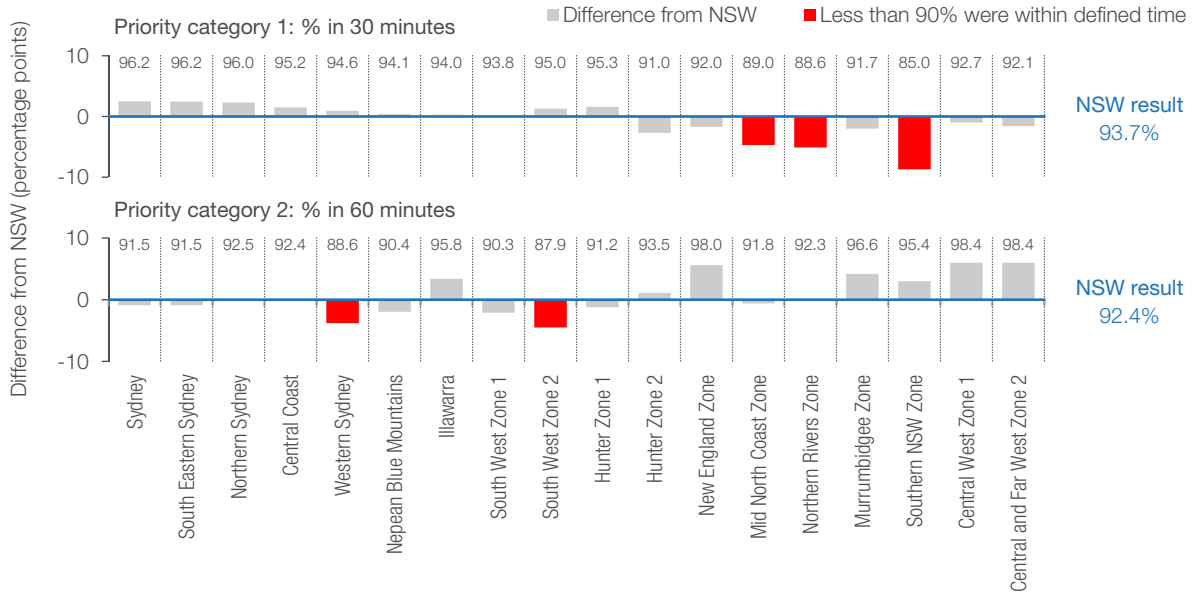


Figure 9 Percentage of call to ambulance arrival times, by zone, relative to NSW, July to September 2017



Call to ambulance arrival time – variation

For priority 1 responses this quarter, 103 of 145 local response areas (LRAs) achieved 90% of call to ambulance arrival times within 30 minutes (Figure 10). For priority 2 responses this quarter, 120 of 145 LRAs achieved 90% of call to ambulance arrival times within 60 minutes (Figure 12). As a percentage of the NSW total of priority 1 and 2 responses, Figures 11 and 13 compare each zone's

Figure 10 **Percentage of priority 1 call to ambulance arrival times within 30 minutes, by zone and local response area type, July to September 2017**

	Number	Total LRAs	LRAs achieving 90% in 30 minutes 2017	2016
Sydney	10,604	8	8	8
South Eastern Sydney	7,946	8	8	8
Northern Sydney	7,695	9	9	9
Central Coast	6,489	9	7	7
Western Sydney	10,146	5	5	5
Nepean Blue Mountains	6,682	6	5	6
Illawarra	6,979	9	7	8
South West Zone 1	6,556	5	4	4
South West Zone 2	7,815	4	4	4
Hunter Zone 1	6,492	9	7	8
Hunter Zone 2	3,946	9	8	8
New England Zone	2,738	11	5	7
Mid North Coast Zone	5,706	9	4	4
Northern Rivers Zone	4,734	12	5	6
Murrumbidgee Zone	3,922	7	5	6
Southern NSW Zone	3,556	9	3	4
Central West Zone 1	3,222	10	6	7
Central and Far West Zone 2	2,215	6	3	5
Total		**145**	**103**	**114**

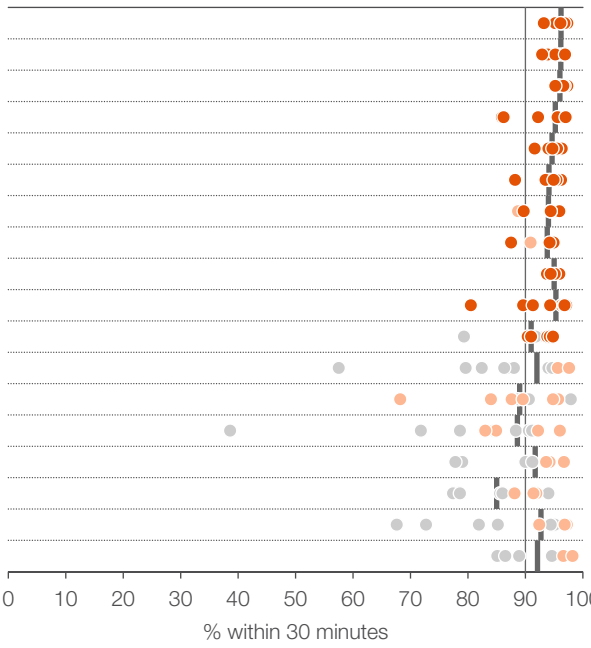


Figure 11 **Percentage of priority 1 responses and call to ambulance arrival times outside 30 minutes, by zone, July to September 2017**

share of responses that are over 30 minutes or 60 minutes, respectively. Mid North Coast crews met 5.3% of NSW priority 1 responses in the quarter, but this zone saw 9.2% of all call to ambulance arrival times over 30 minutes (Figure 11). Western Sydney crews met 8.1% of NSW priority 2 responses in the quarter, and had disproportionately more call to ambulance arrival times over 60 minutes (12.3%) (Figure 13).

Figure 12 **Percentage of priority 2 call to ambulance arrival times within 60 minutes, by zone and local response area type, July to September 2017**

	Number	Total LRAs	LRAs achieving 90% in 60 minutes 2017	2016
Sydney	9,563	8	5	8
South Eastern Sydney	7,400	8	6	8
Northern Sydney	7,815	9	8	9
Central Coast	6,128	9	8	7
Western Sydney	8,119	5	1	3
Nepean Blue Mountains	5,388	6	4	4
Illawarra	6,766	9	9	9
South West Zone 1	5,380	5	3	5
South West Zone 2	6,097	4	0	4
Hunter Zone 1	6,369	9	7	8
Hunter Zone 2	3,739	9	8	9
New England Zone	3,044	11	11	11
Mid North Coast Zone	5,380	9	9	9
Northern Rivers Zone	4,806	12	9	12
Murrumbidgee Zone	4,382	7	7	7
Southern NSW Zone	3,779	9	9	9
Central West Zone 1	3,141	10	10	10
Central and Far West Zone 2	2,389	6	6	6
Total		**145**	**120**	**138**

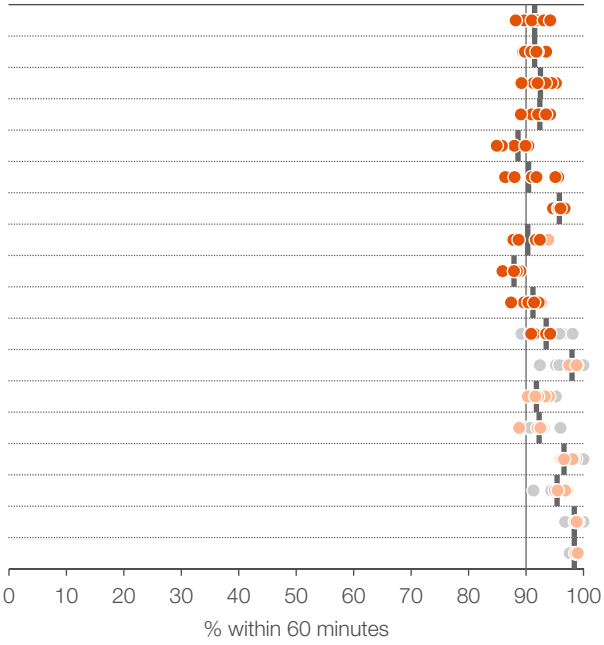
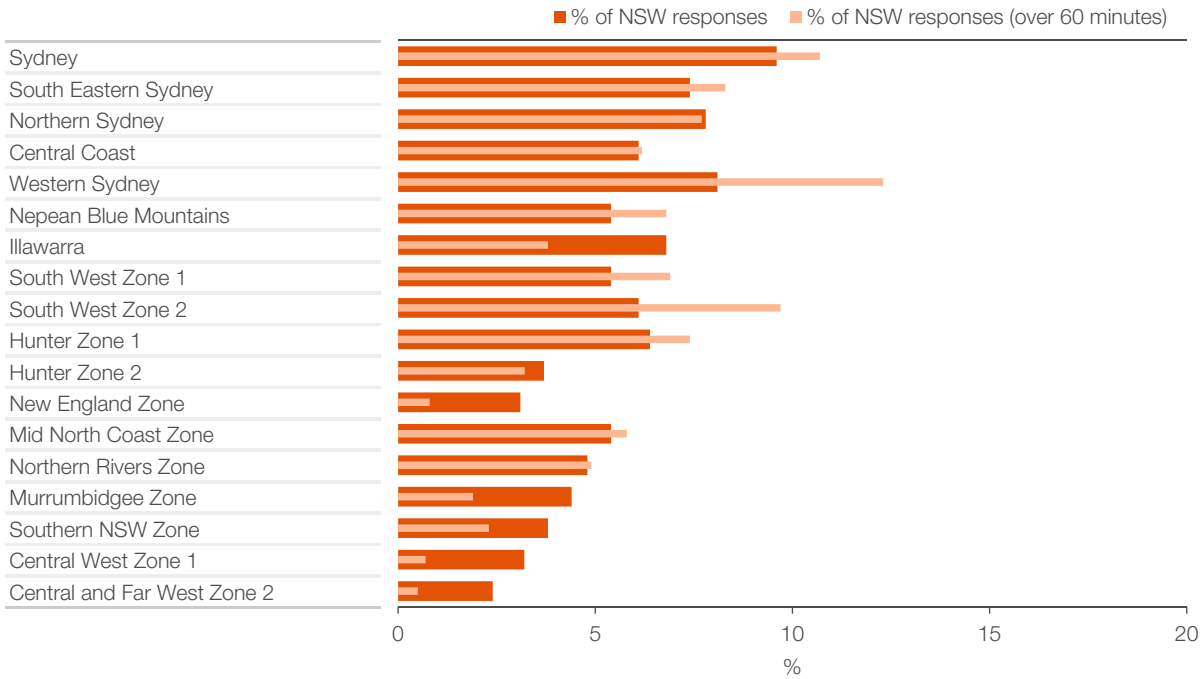


Figure 13 **Percentage of priority 2 responses and call to ambulance arrival times outside 60 minutes, by zone, July to September 2017**



Mobilisation time – NSW performance

Once a call has been placed 'in queue' for vehicle dispatch, there is typically a short period of time before crews begin driving to the scene (Figure 14). This period – the mobilisation time – is a measure of preparedness and operational responsiveness. For operational purposes, NSW Ambulance monitors the percentage of priority 1 mobilisation times within three minutes.

In the July to September 2017 quarter, the median mobilisation time was 2.5 minutes for priority 1 and 4.4 minutes for priority 2 responses. For priority 1 responses, 60.8% were within three minutes (Figure 15).

For July to September quarters between 2012 and 2017, priority 1 median mobilisation time has remained relatively unchanged (Figure 16).

The median mobilisation time for priority 2 was higher compared to the same quarter last year (4.4 minutes; up 0.4). The five-year time series shows little seasonal variation in mobilisation times (Figure 17).

Figure 14 Intervals covering mobilisation time, NSW

Figure 15 Mobilisation time, by priority category, July to September 2017

	Volume	This quarter	Same quarter last year	Change since one year ago
P1	107,461			
Median		2.5m	2.5m	unchanged
90th percentile		6.6m	6.2m	0.4m
Percentage P1 within 3 minutes		60.8%	61.8%	-1.0 percentage points
P2	99,701			
Median		4.4m	4.0m	0.4m
90th percentile		25.2m	21.3m	3.9m

Figure 16 Median priority category 1 mobilisation time, July to September quarters, 2012 to 2017

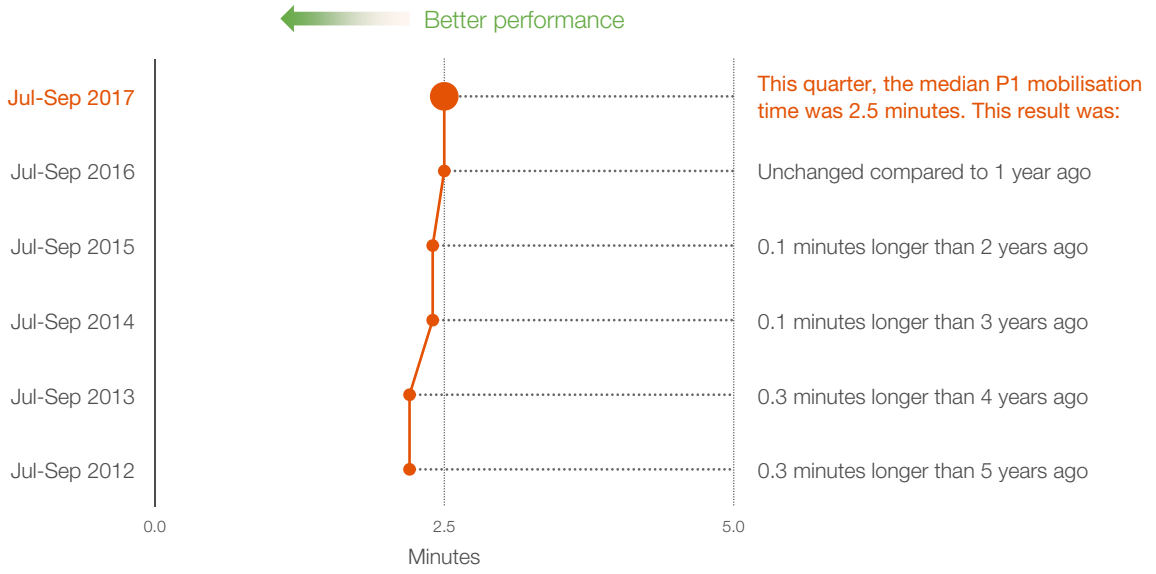
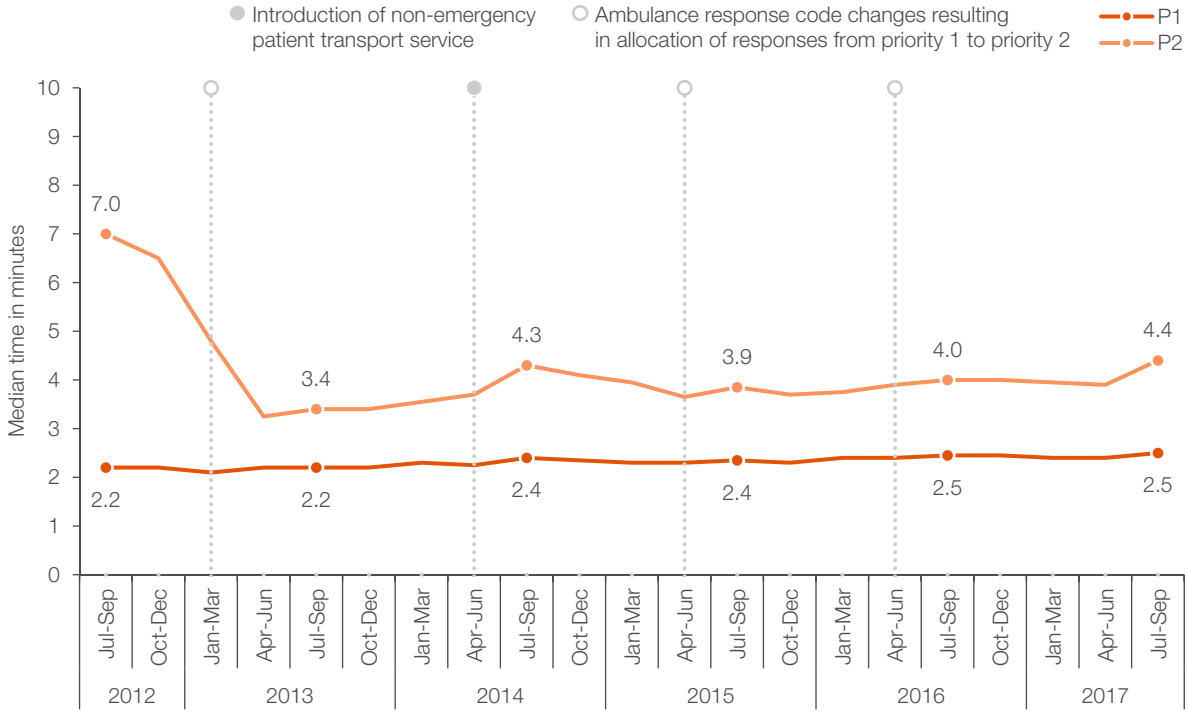


Figure 17 Median mobilisation time, by priority category, July 2012 to September 2017



Mobilisation time – variation

The NSW priority 1 median mobilisation time for July to September 2017 was 2.5 minutes. Across zones, median times ranged from 2.2 minutes in Sydney, Nepean Blue Mountains, South West Zones 1 and 2 to 3.8 minutes in Southern NSW (a 1.6 minute range) (Figure 18).

The NSW priority 2 median mobilisation time was 4.4 minutes this quarter, and ranged across zones from 4.0 minutes in Central Coast, Nepean Blue Mountains, Illawarra, South West Zone 1 and New England Zone, to 5.1 minutes in Northern Rivers (a 1.1 minute range). In general, zones in non-metropolitan areas had longer mobilisation times for both priority 1 and priority 2 responses (Figure 18).

Within zones, median mobilisation times for individual LRAs were more variable in non-metropolitan zones (Figures 19 and 20).

This may reflect differences in the distribution of LRA types across zones. Metropolitan zones primarily have 24 hour LRAs while non-metropolitan zones mostly have non-24 hour and 24 hour (on-call) LRAs, which rely on staff that are not always based at the ambulance station, ready to respond immediately to calls.

The degree of variation seen within metropolitan zones is smaller for priority 1 compared with priority 2 responses (Figures 19 and 20).

Figure 18 **Median mobilisation time, by zone, relative to NSW, July to September 2017**

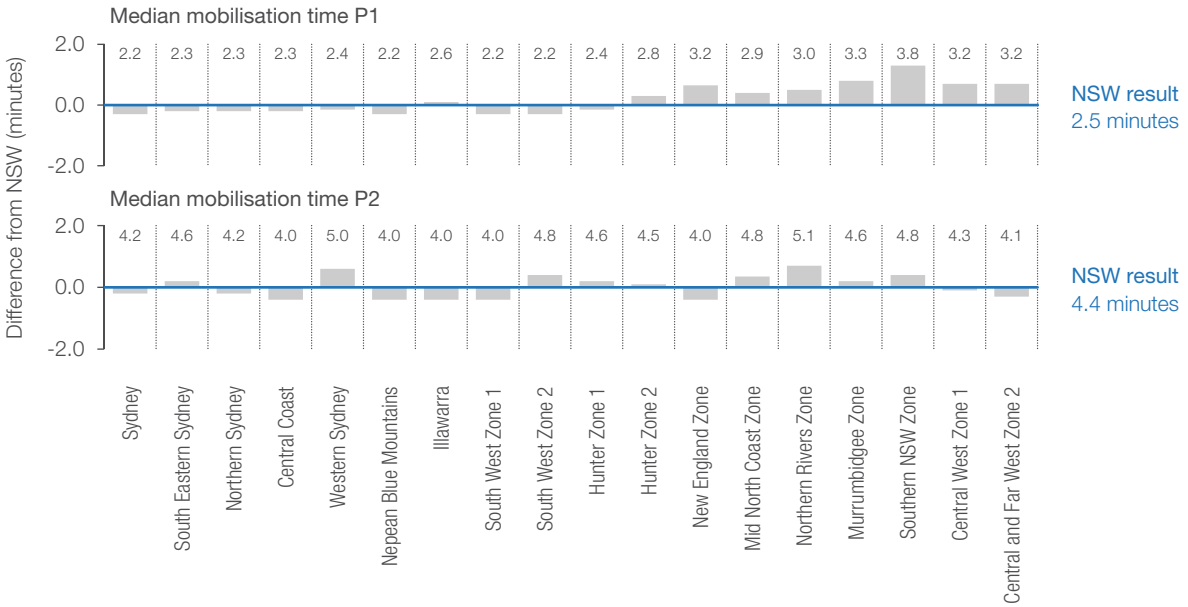


Figure 19 Median priority 1 mobilisation time, by zone and local response area type, July to September 2017

	Number
Sydney	10,603
South Eastern Sydney	7,944
Northern Sydney	7,693
Central Coast	6,488
Western Sydney	10,145
Nepean Blue Mountains	6,681
Illawarra	6,979
South West Zone 1	6,555
South West Zone 2	7,813
Hunter Zone 1	6,492
Hunter Zone 2	3,945
New England Zone	2,737
Mid North Coast Zone	5,704
Northern Rivers Zone	4,733
Murrumbidgee Zone	3,920
Southern NSW Zone	3,556
Central West Zone 1	3,222
Central and Far West Zone 2	2,215

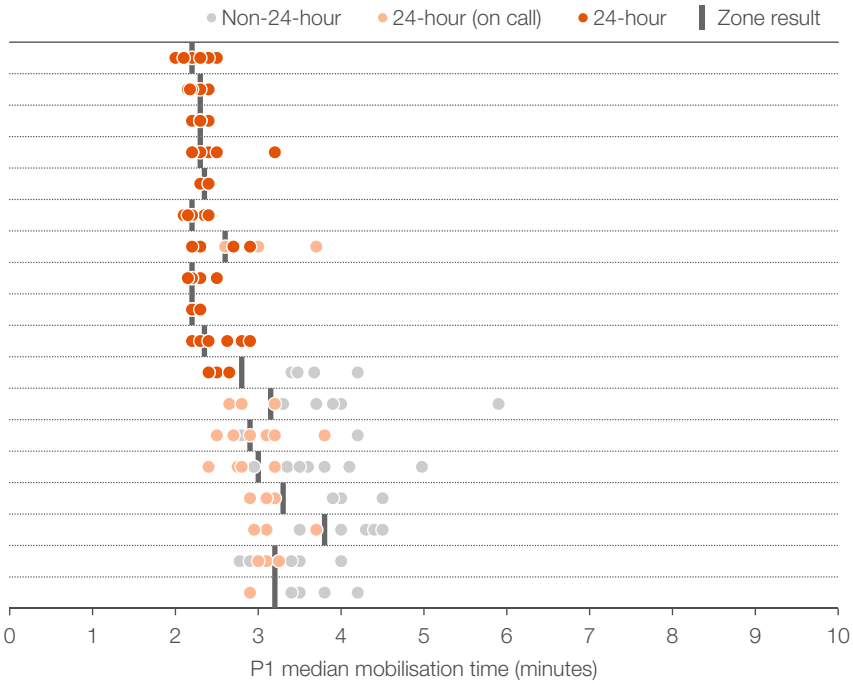
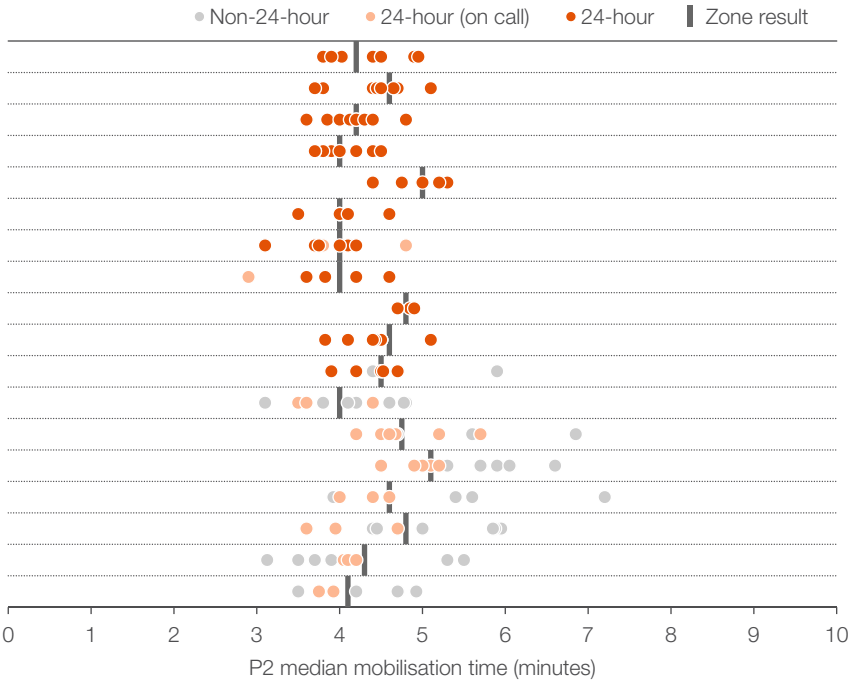


Figure 20 Median priority 2 mobilisation time, by zone and local response area type, July to September 2017

	Number
Sydney	9,563
South Eastern Sydney	7,400
Northern Sydney	7,815
Central Coast	6,128
Western Sydney	8,119
Nepean Blue Mountains	5,388
Illawarra	6,764
South West Zone 1	5,379
South West Zone 2	6,096
Hunter Zone 1	6,369
Hunter Zone 2	3,738
New England Zone	3,043
Mid North Coast Zone	5,378
Northern Rivers Zone	4,806
Murrumbidgee Zone	4,380
Southern NSW Zone	3,778
Central West Zone 1	3,141
Central and Far West Zone 2	2,388



Response time – NSW performance

Ambulance response time is measured 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 (Figure 21).

In the July to September 2017 quarter, median response times were 11.6 minutes for priority 1, 7.7 minutes for priority 1A and 19.1 minutes for priority 2 (Figure 22).

This quarter, 70.6% of priority 1A response times were within 10 minutes; 1.4 percentage points lower compared with the same quarter last year.

There was one day in the quarter when the median response time for priority 1A responses exceeded 10 minutes (unchanged compared with the same quarter last year).

There has been little change in median priority 1 response times since 2012 (Figure 23). While seasonal increases in median response times are normally seen in July to September quarters, compared with the same quarter last year, there was a rise in the priority 2 response time (Figure 24).

Figure 21 Intervals covering response time, NSW

Figure 22 Ambulance response time, by priority category, July to September 2017

	This quarter	Same quarter last year	Change since one year ago
P1: Emergency (107,479 responses)			
Median response time	11.6m	11.2m	0.4m
90th percentile response time	24.0m	23.5m	0.5m
P1A: Highest priority (2,521 responses)			
Median response time	7.7m	7.5m	0.2m
90th percentile response time	15.4m	15.2m	0.2m
P2: Urgent (99,713 responses)			
Median response time	19.1m	17.8m	1.3m
90th percentile response time	51.4m	46.3m	5.1m
Percentage P1A responses within 10 minutes	70.6%	72.0%	-1.4 percentage points
Number of days P1A median response time exceeded 10 minutes	1 day	1 day	unchanged

Figure 23 Median priority category 1 response time, July to September quarters, 2012 to 2017

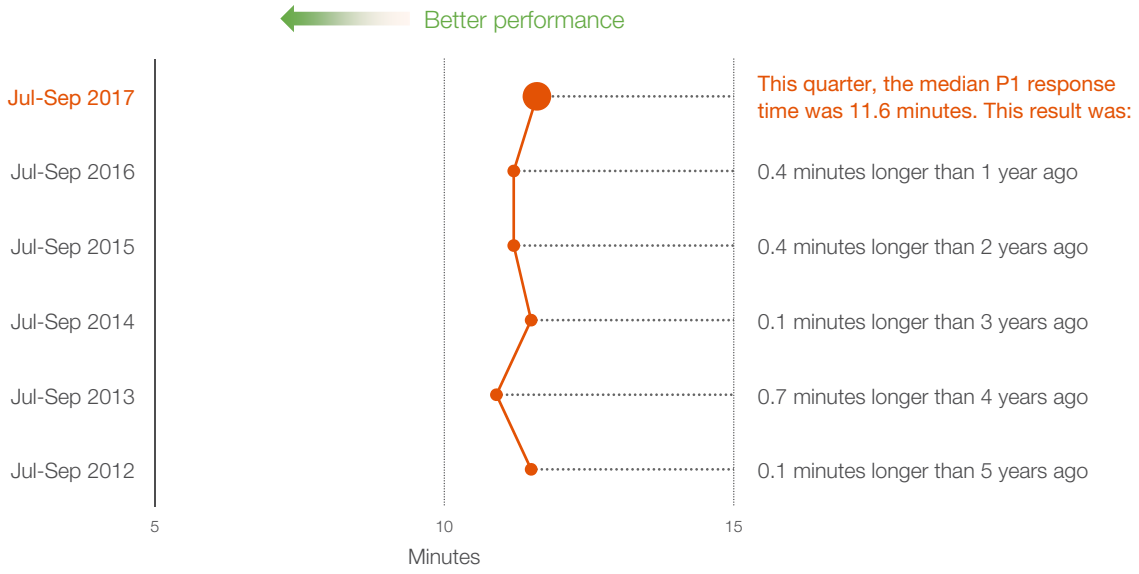
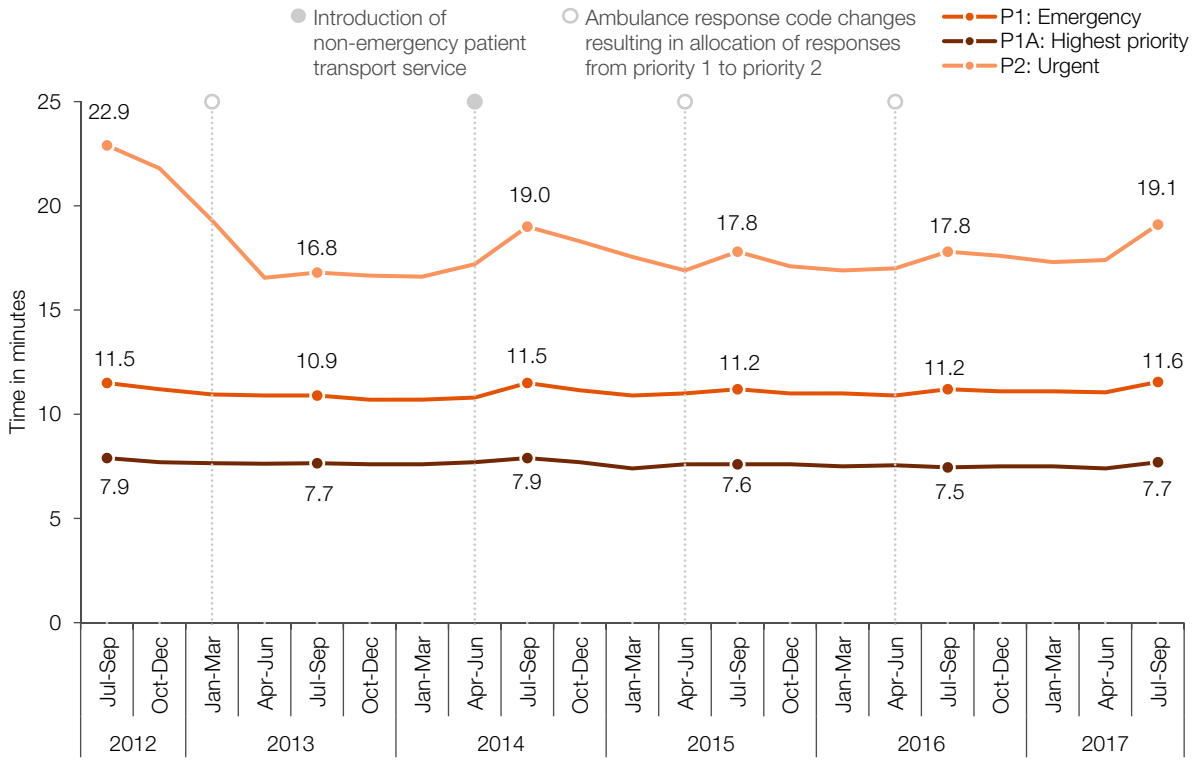


Figure 24 Median ambulance response time, by priority category, July 2012 to September 2017



Response time – variation

The NSW priority 1A median response time was 7.7 minutes in the July to September 2017 quarter. Across zones, priority 1A median response times ranged from 6.2 minutes in Central and Far West Zone 2 to 9.7 minutes in Northern Rivers Zone (a 3.5 minute range) (Figure 25).

The statewide priority 1 median response time was 11.6 minutes in the July to September 2017 quarter. Across zones, median response times ranged from 9.0 minutes in Central and Far West Zone 2 to 13.4 minutes in Hunter Zone 2 (a 4.4 minute range) (Figure 25).

The median priority 2 response time was 19.1 minutes this quarter. Across zones, median response times ranged from 10.7 minutes in Central and Far West Zone 2 to 24.9 minutes in Western Sydney (a 14.2 minute range) (Figure 25 and 27).

Within zones, the median response times of constituent LRAs varied more widely in non-metropolitan settings. Within-zone variation was more marked for priority 2 responses than for priority 1 responses (Figures 26 and 27).

Figure 25 Median ambulance response time, by zone, relative to NSW, July to September 2017

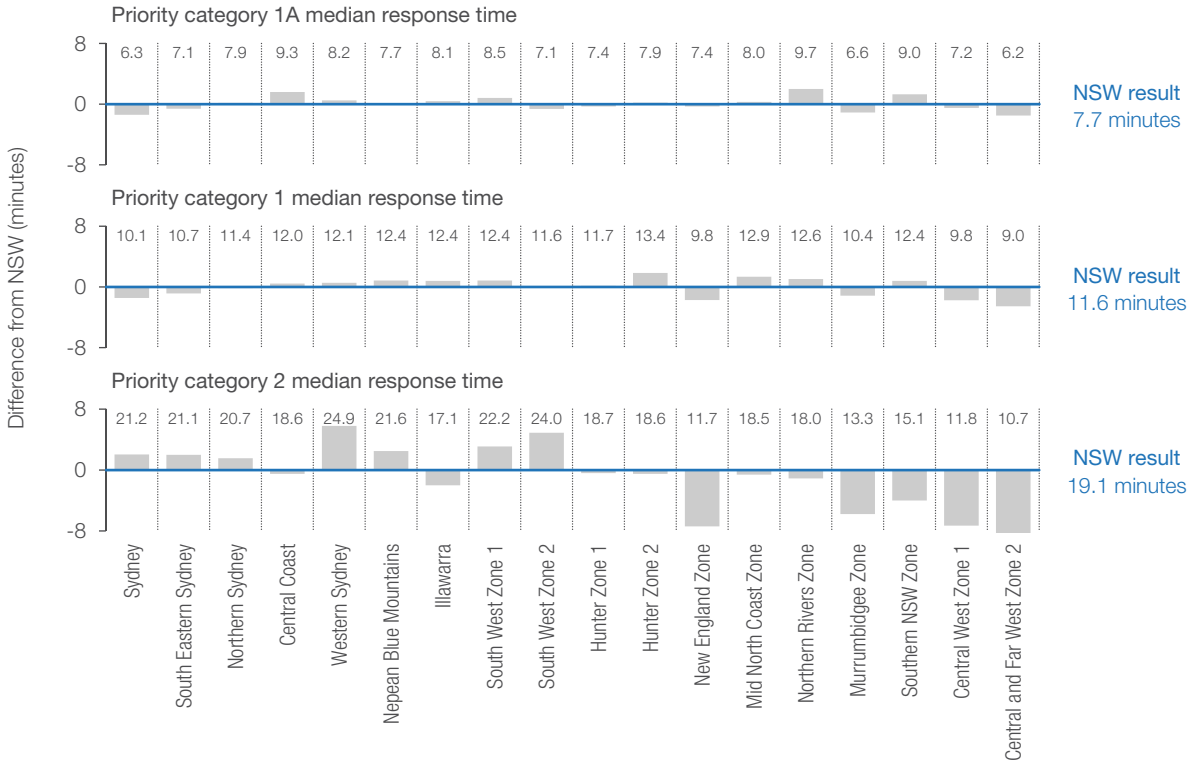


Figure 26 Median priority category 1 ambulance response time, by zone and local response area type, July to September 2017

	Number
Sydney	10,604
South Eastern Sydney	7,946
Northern Sydney	7,695
Central Coast	6,489
Western Sydney	10,146
Nepean Blue Mountains	6,682
Illawarra	6,979
South West Zone 1	6,556
South West Zone 2	7,815
Hunter Zone 1	6,492
Hunter Zone 2	3,946
New England Zone	2,738
Mid North Coast Zone	5,706
Northern Rivers Zone	4,734
Murrumbidgee Zone	3,922
Southern NSW Zone	3,556
Central West Zone 1	3,222
Central and Far West Zone 2	2,215

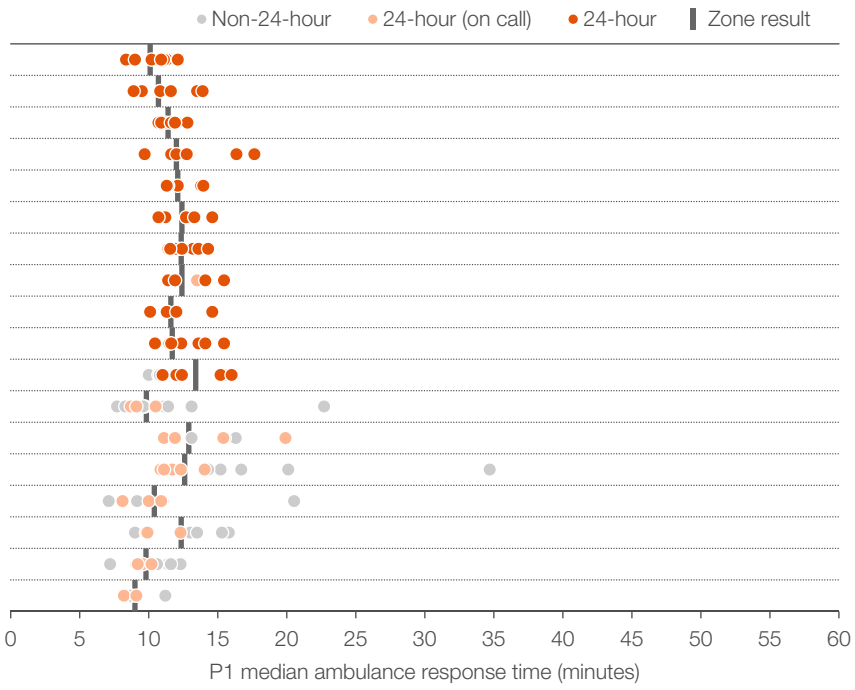
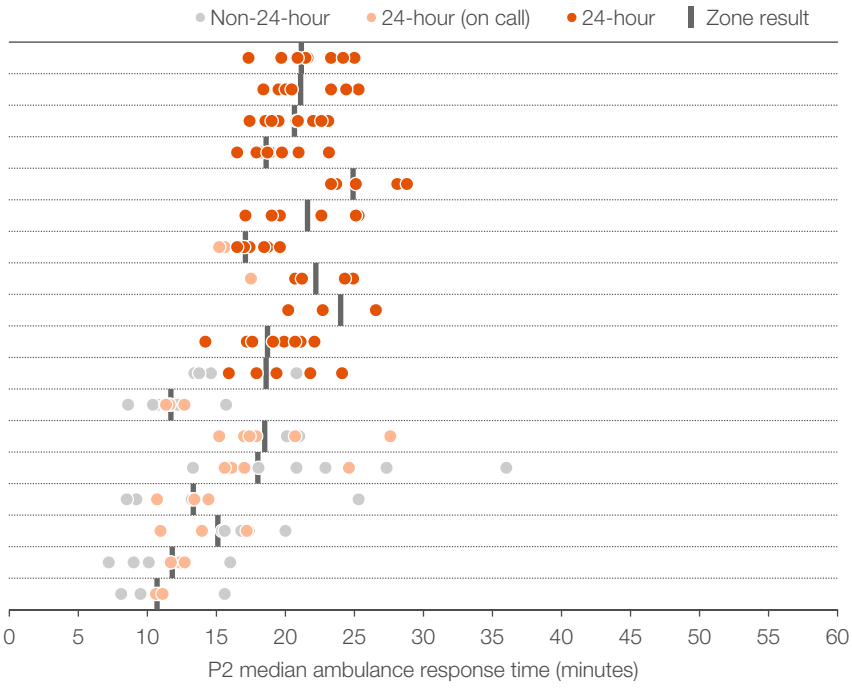


Figure 27 Median priority category 2 ambulance response time, by zone and local response area type, July to September 2017

	Number
Sydney	9,563
South Eastern Sydney	7,400
Northern Sydney	7,815
Central Coast	6,128
Western Sydney	8,119
Nepean Blue Mountains	5,388
Illawarra	6,766
South West Zone 1	5,380
South West Zone 2	6,097
Hunter Zone 1	6,369
Hunter Zone 2	3,739
New England Zone	3,044
Mid North Coast Zone	5,380
Northern Rivers Zone	4,806
Murrumbidgee Zone	4,382
Southern NSW Zone	3,779
Central West Zone 1	3,141
Central and Far West Zone 2	2,389



Turnaround time – NSW and zone performance

Turnaround time refers to the period paramedics spend at hospital emergency departments. It is measured from the time an ambulance arrives with a patient at a hospital until the time it is cleared and available to respond to another incident (Figure 28).

Turnaround time encapsulates transfer of care, off stretcher time and make ready time. In the July to September 2017 quarter, 64.9% of priority 1 and 70.8% of priority 2 turnaround times were within 45 minutes (Figure 29).

Since 2012, median turnaround times have decreased overall. There is generally a seasonal effect, with longer priority 1 and 2 median turnaround times in July to September quarters. A sharper rise was seen for the July September 2017 quarter (Figure 30).

Across zones, priorities 1 and 2 combined median turnaround times ranged from 22.5 minutes in Central and Far West Zone 2 to 46.1 minutes in South West Zone 2 (a 23.6 minute range) (Figure 31).

Non-metropolitan zones in general performed better than the NSW result for turnaround time (Figure 31).

Figure 28 Intervals covering turnaround time, NSW

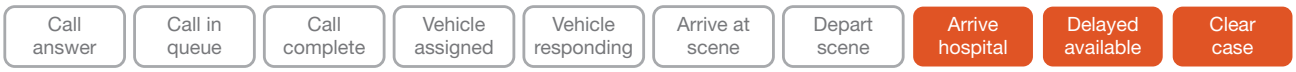


Figure 29 Turnaround time, by priority category, July to September 2017

	This quarter	Same quarter last year	Change since one year ago
Patients transported to hospital	151,395	135,855	11.4%
P1: Emergency			
Median	38.3m	36.0m	2.3m
90th percentile	65.4m	59.5m	5.9m
Percentage P1 within 45 minutes	64.9%	71.1%	-6.2 percentage points
P2: Urgent			
Median	35.6m	33.7m	1.9m
90th percentile	61.5m	56.2m	5.3m
Percentage P2 within 45 minutes	70.8%	76.0%	-5.2 percentage points

Figure 30 Median turnaround time, by priority category, July to September 2017

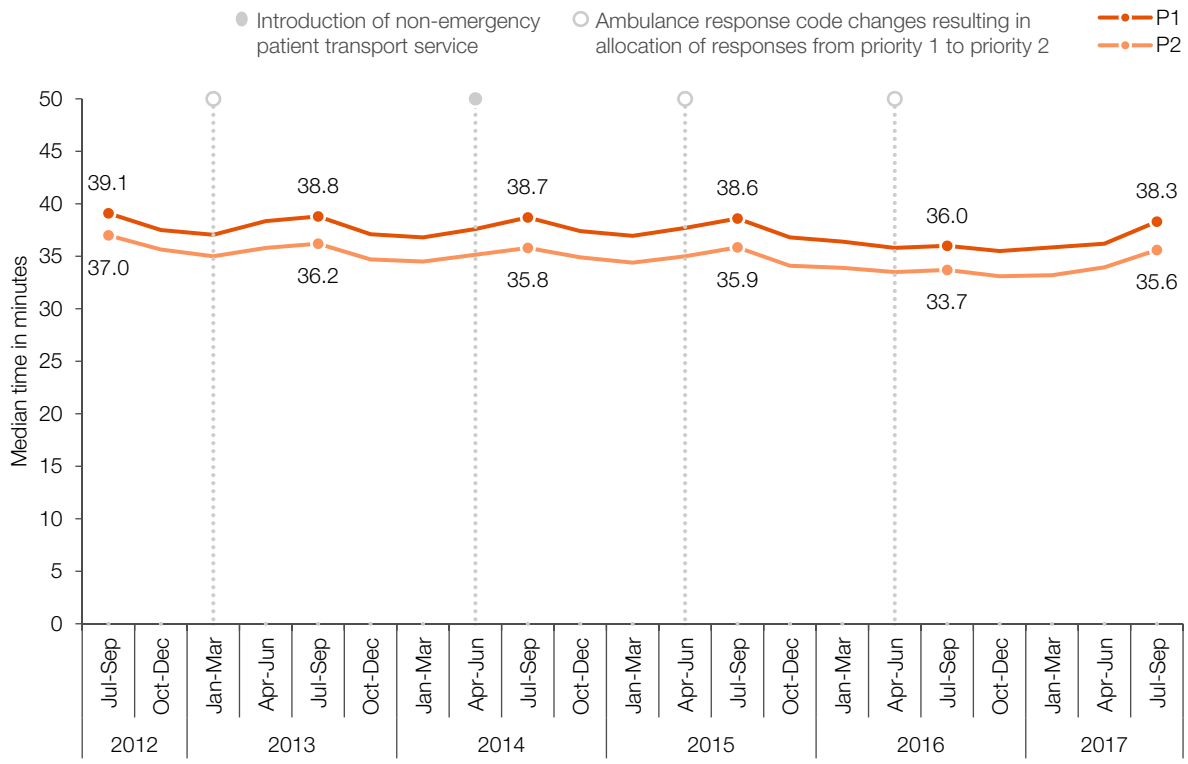
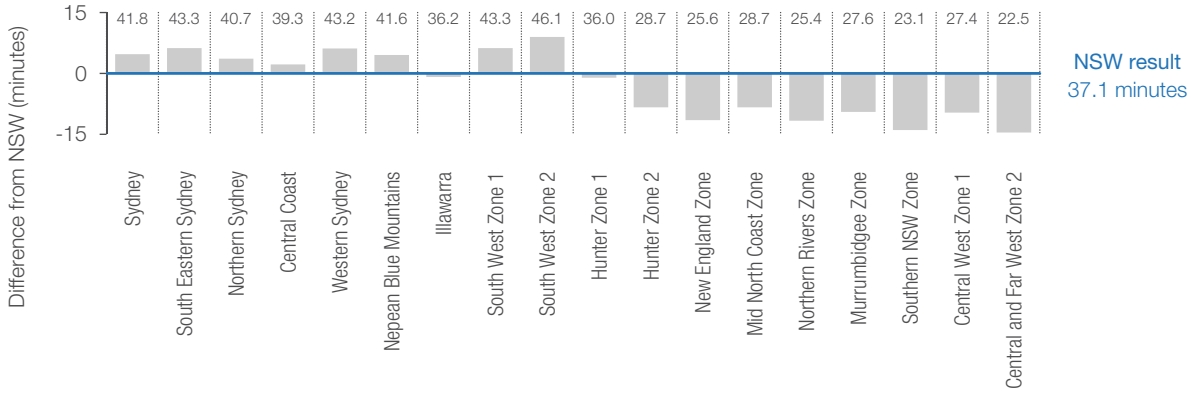


Figure 31 Median turnaround time, by zone, priority category 1 and 2, relative to NSW, July to September 2017



Activity and performance

The daily demand for ambulance services varies and can be affected by a range of factors such as local events, adverse weather conditions and outbreaks of disease. Some of this variation occurs in predictable patterns, however there are days when demand is either much higher (surge days) or much lower (lull days) than historical patterns would predict on the basis of the day of the week, the week and month of the year, and public holidays (Figure 32).

Looking at patterns of activity, identifying surge and lull days and presenting this information alongside performance results can reflect on the system's resilience and preparedness.

The daily number of priority 1 to 3 responses ranged between 2,896 and 3,683. In the July to September 2017 quarter, there were 13 surge days (gold bars) (Figure 33).

The surge days were concentrated in September including four consecutive days spanning September 10th to 13th. On these four days, timeliness measures for median priority 1 and priority 2 response times were in the 10% of lowest performing days. However, the median priority 1A response times were either within the 10% of highest performing days or within normal range - suggesting system resilience when tending to the highest priority incidents.

Figure 34 describes performance on surge days, performance on busy days, and levels of activity on the days with the lowest performance levels.

Figure 32 Daily ambulance responses, observed and expected, July to September 2017

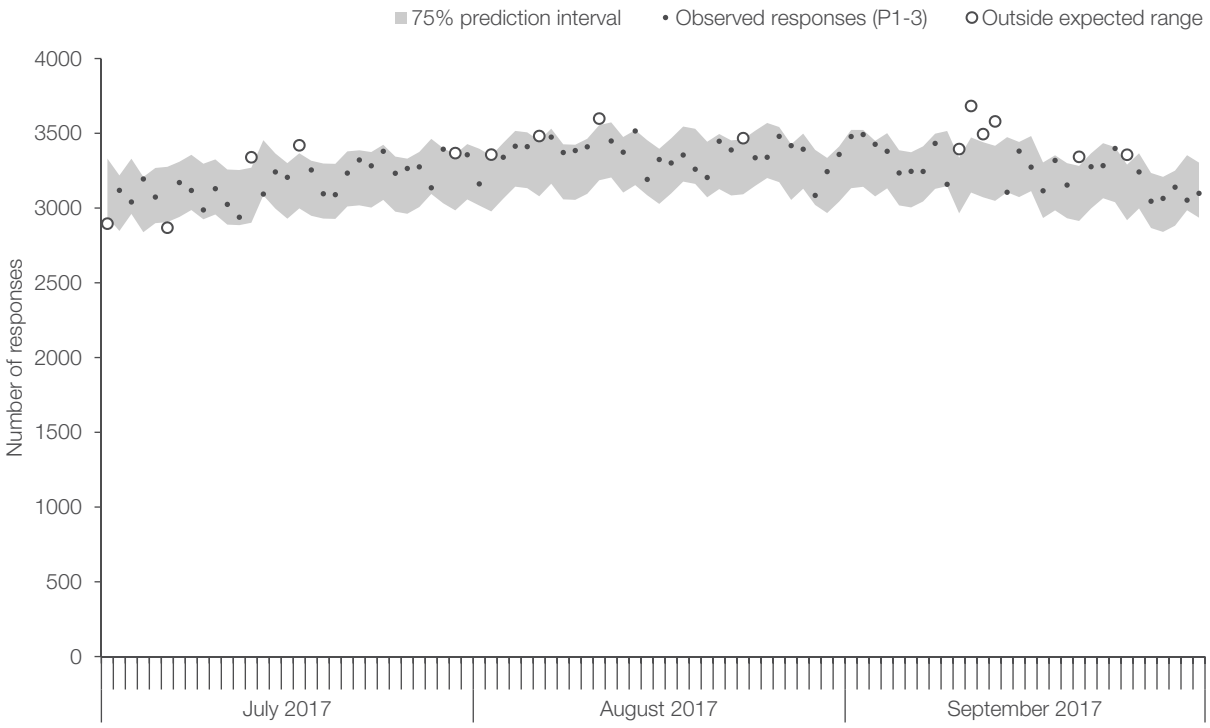


Figure 33 Daily activity and timeliness measures, July to September 2017

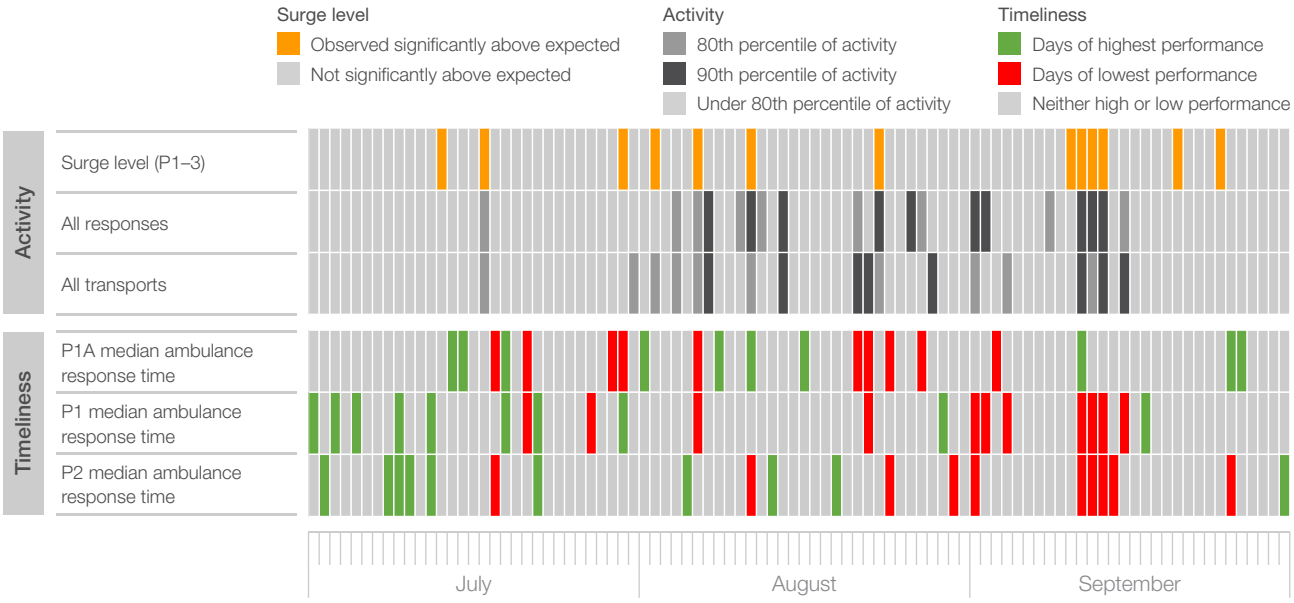


Figure 34 Summary of daily activity and timeliness measures, July to September 2017

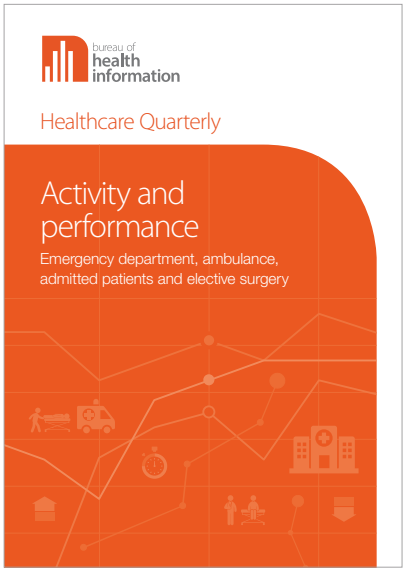
	Of the 13 surge day this quarter, performance was:		Of the ten busy days this quarter (all responses), performance was:		Of the 10% of days this quarter with relatively poor performance:		
	Relatively low	Relatively high	Relatively low	Relatively high	Normal days	Busy days	Surge days
P1A median ambulance response time	2	2	8	2	10		2
P1 median ambulance response time	4	1	5	5	6	5	4
P2 median ambulance response time	4	0	5	5	5	5	4

Note: The range of daily median response times was: 5.8 minutes to 11.1 minutes for P1A, 10.5 minutes to 12.7 minutes for P1, 16.2 minutes to 22.0 minutes for P2 and 35.9 minutes to 65.0 minutes for P3.

Healthcare Quarterly

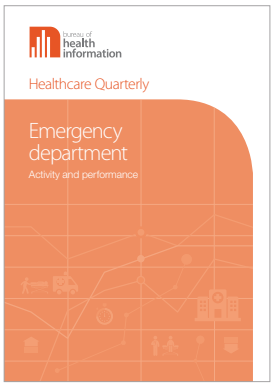
Healthcare Quarterly is a series of regular reports that describes the number and types of services provided to the people of NSW and the timeliness with which they are provided.

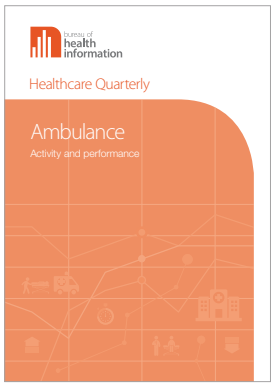
The reports feature key indicators of activity and performance across ambulance and public hospital services in NSW.

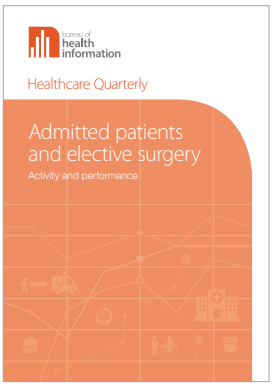


Every day around 25,000 people receive care in the NSW public hospital system and around 1,800 are transported to hospital by ambulance.

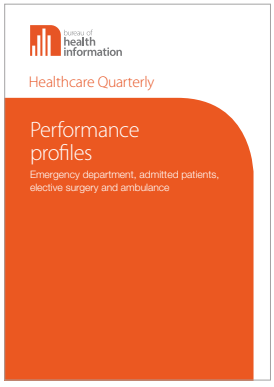
Healthcare Quarterly is published alongside three standalone modules that provide more detailed information about emergency department care, admitted patients and elective surgery, and ambulance services.

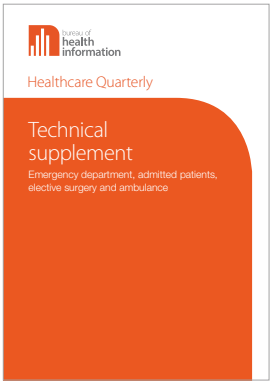






Additional information on local performance is available in our hospital profiles or from BHI's interactive portal Healthcare Observer, at **bhi.nsw.gov.au/healthcare_observer**





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

Additional information on local performance is available from BHI's interactive portal Healthcare Observer, at **bhi.nsw.gov.au/healthcare_observer**

bureau of health information

About the Bureau of Health Information

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

BHI was established in 2009 to provide system-wide support through transparent reporting.

BHI 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 in public hospitals and other healthcare facilities.

BHI publishes a range of reports and tools that provide relevant, accurate and impartial information about how the health system is measuring up in terms of:

- Accessibility – healthcare when and where needed
- Appropriateness – the right healthcare, the right way
- Effectiveness – making a difference for patients
- Efficiency – value for money
- Equity – health for all, healthcare that's fair
- Sustainability – caring for the future

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 report 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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bureau of health information

Healthcare Quarterly

Emergency department

Activity and performance

July to September 2017

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

Published December 2017

Healthcare Quarterly reports present data at the point in time when data become available to BHI. Changes in data coverage and analytic methods from quarter to quarter mean that figures published in this document are superseded by subsequent reports. At any time, the most up-to-date data are available on BHI's online data portal, Healthcare Observer, at **bhi.nsw.gov.au/healthcare_observer**

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.

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In the July to September 2017 quarter...

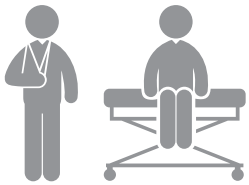
Emergency department

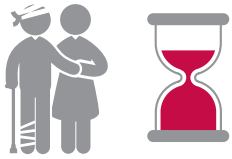
There were **699,236** emergency presentations

Highest ever for a July to September quarter

UP 9.6%

61,444 more than same quarter last year





70.0% of patients' treatment **started on time**

DOWN 3.6 PERCENTAGE POINTS

68.4% of patients spent **four hours or less** in the emergency department

DOWN 3.3 PERCENTAGE POINTS

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

Emergency department activity		July to September 2017	July to September 2016	Difference	% change
All arrivals at NSW EDs by ambulance		162,350	148,880	13,470	9.0%
All ED presentations		720,564	658,481	62,083	9.4%
Emergency presentations		699,236	637,792	61,444	9.6%
Emergency presentations by triage category					
Triage category	T1: Resuscitation	5,131	4,698	433	9.2%
	T2: Emergency	88,968	80,858	8,110	10.0%
	T3: Urgent	244,822	225,993	18,829	8.3%
	T4: Semi-urgent	294,469	266,262	28,207	10.6%
	T5: Non-urgent	65,846	59,981	5,865	9.8%
Admissions to hospital from NSW EDs		195,992	195,382	610	0.3%

Emergency department performance			July to September 2017	July to September 2016	Difference
Percentage of patients transferred from ambulance to ED within 30 minutes			85.6%	89.1%	-3.5 percentage points
Time to treatment by triage category	T2: Emergency	Median	9 mins	8 mins	1 min
		90th percentile	29 mins	27 mins	2 mins
	T3: Urgent	Median	23 mins	21 mins	2 mins
		90th percentile	83 mins	72 mins	11 mins
	T4: Semi-urgent	Median	30 mins	27 mins	3 mins
		90th percentile	121 mins	103 mins	18 mins
	T5: Non-urgent	Median	26 mins	24 mins	2 mins
		90th percentile	118 mins	104 mins	14 mins
Percentage of patients whose treatment started on time	All patients		70.0%	73.6%	-3.6 percentage points
	T2: Emergency		63.4%	64.9%	-1.5 percentage points
	T3: Urgent		64.3%	68.2%	-3.9 percentage points
	T4: Semi-urgent		72.9%	77.2%	-4.3 percentage points
	T5: Non-urgent		90.6%	92.9%	-2.3 percentage points
Median time spent in the ED			3h 0m	2h 49m	11 mins
90th percentile time spent in the ED			8h 2m	7h 28m	34 mins
Percentage of patients who spent four hours or less in the ED			68.4%	71.7%	-3.3 percentage points

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

Emergency department presentations

During the July to September 2017 quarter, a total of 720,564 people presented to a NSW public hospital emergency department (ED); up 9.4% compared with the same quarter last year. Most presentations were classified as 'emergency' (699,236 patients or 97.0%) (Figure 1). The remaining 21,328 patients presented to ED for non-emergency reasons such as a planned return visit.

This quarter, there were 162,350 ED patients who arrived by ambulance, 9.0% higher compared with the same quarter last year (Figure 1).

Across all triage categories, the number of patients was higher this quarter than in the same quarter last year. The largest change was in triage category 4 (28,207 more patients; up 10.6%) (Figure 1).

The number of patients who presented to an ED in July to September quarters increased across all five triage categories. The largest increase occurred for triage category 3 (66,741 more patients; up 37.5%) (Figure 2). The July to September 2017 quarter saw a sharper increase in the number of triage 3 and triage 4 emergency presentations.

Across hospitals, the number of total ED attendances was higher this quarter than in the same quarter last year for 74 out of 78 EDs. Of these, 63 had more than a 5% change, including 33 that had an increase of more than 10%. Four hospitals had a lower number of ED patient presentations this quarter, including two that dropped by more than 5%.

Hospitals identified in Figure 3 had more than 5,000 ED presentations this quarter and over 5% change in the number of presentations compared with the same quarter last year.

Figure 1 Emergency department presentations and ambulance arrivals, July to September 2017

	This quarter	Same quarter last year	Change since one year ago
All ED presentations	720,564	658,481	9.4%
Emergency presentations by triage category	699,236	637,792	9.6%
Triage 1: Resuscitation 0.7%	5,131	4,698	9.2%
Triage 2: Emergency 12.7%	88,968	80,858	10.0%
Triage 3: Urgent 35.0%	244,822	225,993	8.3%
Triage 4: Semi-urgent 42.1%	294,469	266,262	10.6%
Triage 5: Non-urgent 9.4%	65,846	59,981	9.8%
Ambulance arrivals	162,350	148,880	9.0%

In the July to September 2017 quarter, there were 21,807 ED presentations in small district hospitals that are not reported in *Healthcare Quarterly*. These hospitals were recently added to the Emergency Department Data Collection and the data provided for their EDs are under data quality review by BHI, prior to inclusion in *Healthcare Quarterly*.

Figure 2 Emergency presentations by triage category, July 2012 to September 2017

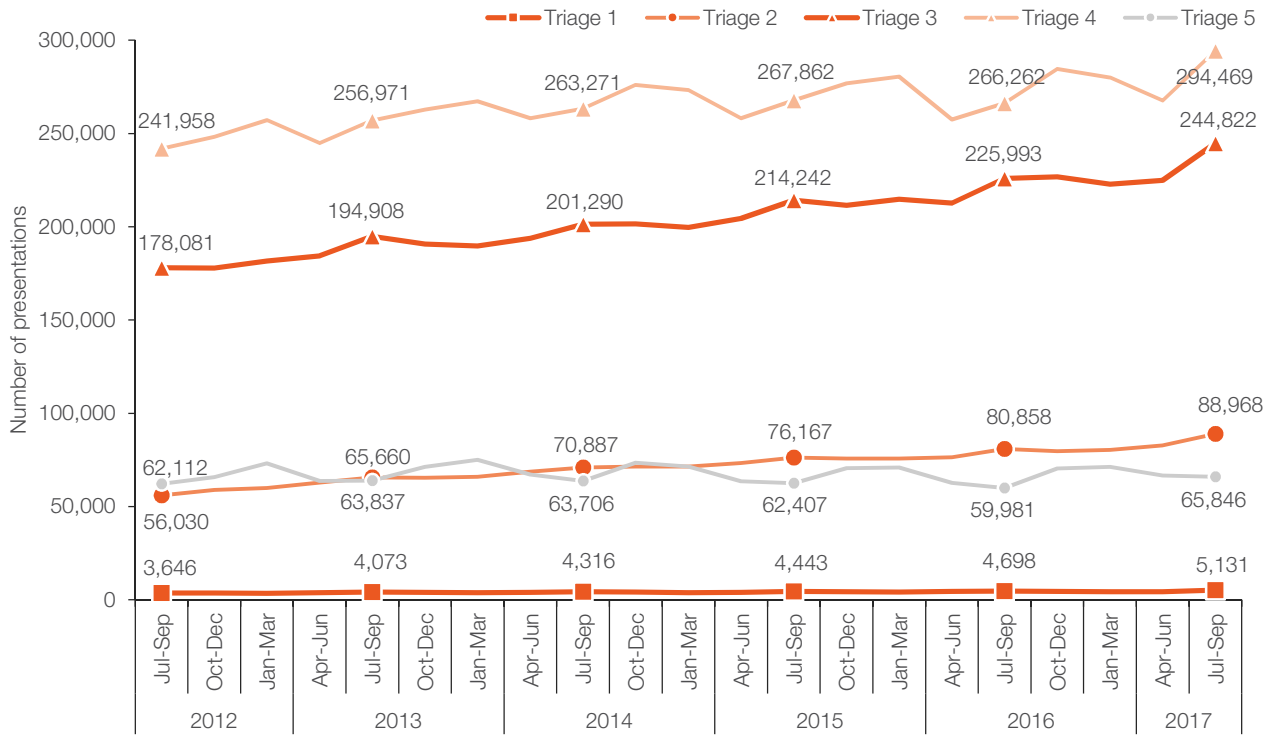
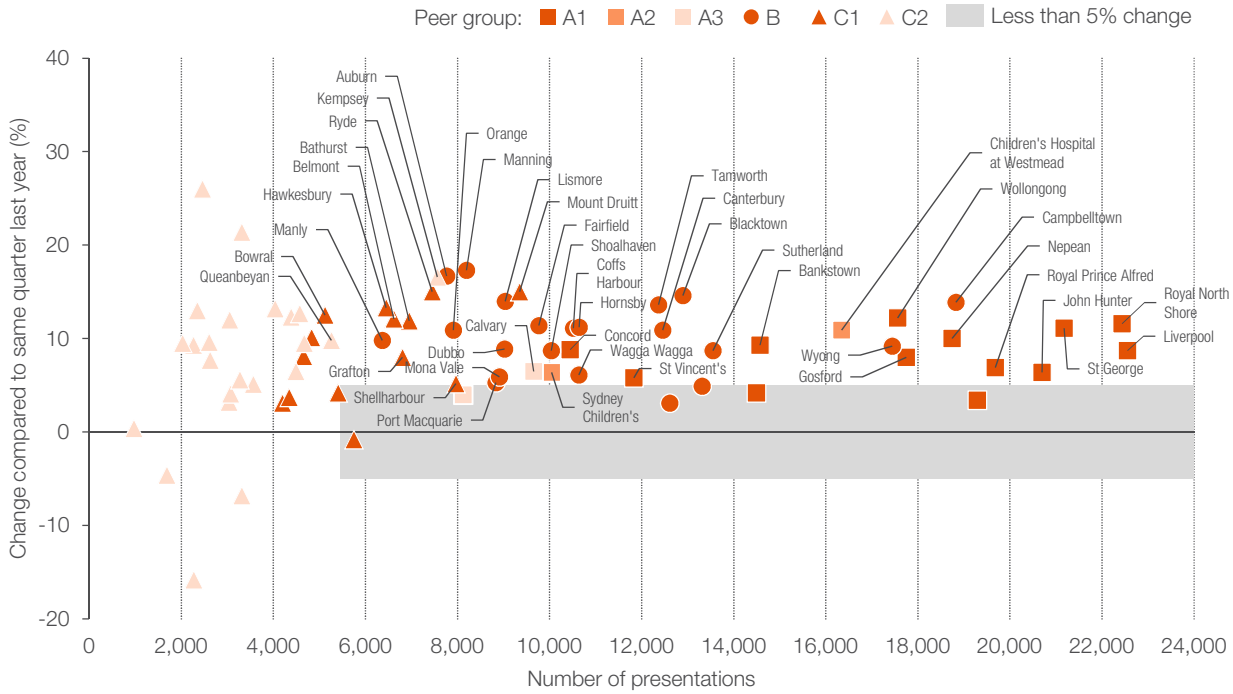


Figure 3 Change in number of all emergency department presentations compared with the same quarter last year, hospitals by peer group, July to September 2017



Time to treatment

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

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

In the July to September 2017 quarter, the median and 90th percentile time from arriving at the ED to starting treatment was longer compared with the same quarter last year for all triage categories (Figure 4).

Between 2012 and 2017, the median time to treatment for July to September quarters decreased overall for triage categories 3, 4 and 5. Despite the normal seasonal increases in the July to September quarters, the median time to starting treatment in the July to September 2017 quarter rose more sharply for triage categories 3 to 5. For triage category 2, the median time remained fairly steady over time (Figure 5). The 90th percentile times across triage categories showed similar trends (Figure 6).

Figure 4 Time from presentation to starting treatment, by triage category, July to September 2017

	This quarter	Same quarter last year	Change since one year ago
Triage 2 Emergency (e.g. chest pain, severe burns): 87,854 patients			
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): 237,072 patients			
Median time to start treatment	23m	21m	2m
90th percentile time to start treatment	1h 23m	1h 12m	11m
Triage 4 Semi-urgent (e.g. sprained ankle, earache): 268,265 patients			
Median time to start treatment	30m	27m	3m
90th percentile time to start treatment	2h 1m	1h 43m	18m
Triage 5 Non-urgent (e.g. small cuts or abrasions): 54,890 patients			
Median time to start treatment	26m	24m	2m
90th percentile time to start treatment	1h 58m	1h 44m	14m

Figure 5

Median time from presentation to starting treatment, by triage category, July 2012 to September 2017

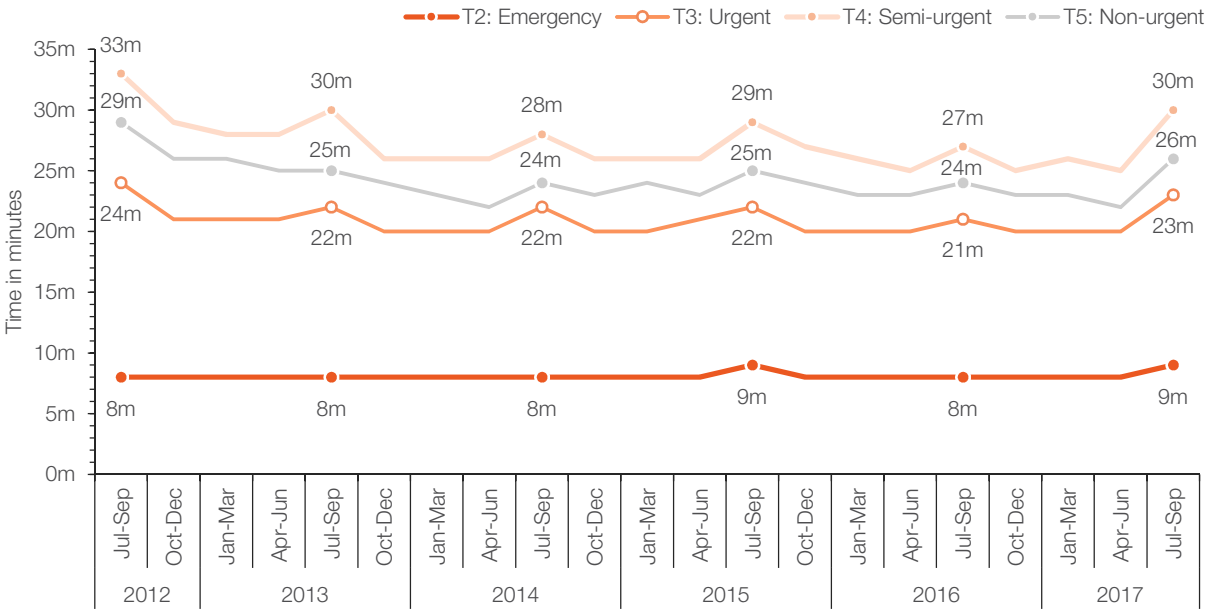
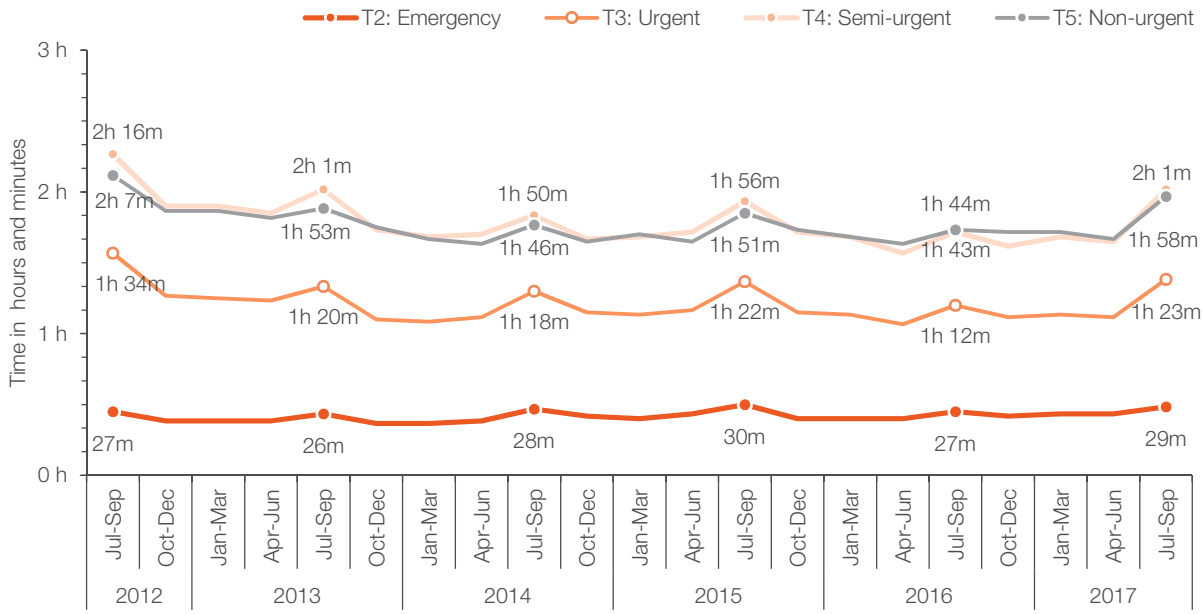


Figure 6

90th percentile time from presentation to starting treatment, by triage category, July 2012 to September 2017



Percentage of patients whose treatment started on time

During the July to September 2017 quarter, 70.0% of ED patients' treatment started within clinically recommended timeframes; 3.6 percentage points lower compared with the same quarter last year.

Within triage categories, the percentage of patients whose treatment started on time was lower across all triage categories, compared with the same quarter last year (Figure 7).

With the exception of triage category 2, the percentage of patients whose treatment started on time increased over the past five years. Amidst the seasonal decreases in the July to September quarters, a notable drop occurred in the July to September 2017 quarter. (Figure 8).

Figure 9 shows hospital results for this quarter on two axes: the percentage of patients whose treatment started 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 patients started treatment on time compared with the overall NSW result. For hospitals below this line, a lower percentage of patients' treatment started on time compared with the overall NSW result. Hospitals shown to the left of the vertical '0' line had lower results compared with the same quarter last year, while those shown to the right of the vertical line had higher results.

Hospitals labelled in Figure 9 are those that had more than a five percentage point change compared with the same quarter last year.

The percentage of patients whose treatment started on time was higher this quarter for 17 out of 78 hospitals. Five hospitals were up by more than five percentage points.

The percentage of patients whose treatment started on time was lower this quarter in 61 hospitals. For 29 hospitals, the decrease was more than five percentage points. For six hospitals, the decrease was more than 10 percentage points (Figure 9).

Due to differences in data definitions, *Healthcare Quarterly* results for the percentage of patients whose treatment started on time are not directly comparable to figures reported by other jurisdictions. For more information refer to the technical supplements section of the BHI website at **bhi.nsw.gov.au**.

Figure 7 Percentage of patients whose treatment started on time, by triage category, July to September 2017

	This quarter	Same quarter last year	Percentage point change since one year ago
All emergency presentations	70.0%	73.6%	-3.6
Triage category 2 (Recommended: 80% in 10 minutes)	63.4%	64.9%	-1.5
Triage category 3 (Recommended: 75% in 30 minutes)	64.3%	68.2%	-3.9
Triage category 4 (Recommended: 70% in 60 minutes)	72.9%	77.2%	-4.3
Triage category 5 (Recommended: 70% in 120 minutes)	90.6%	92.9%	-2.3

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.

Figure 8

Percentage of patients whose treatment started on time, by triage category, July 2012 to September 2017

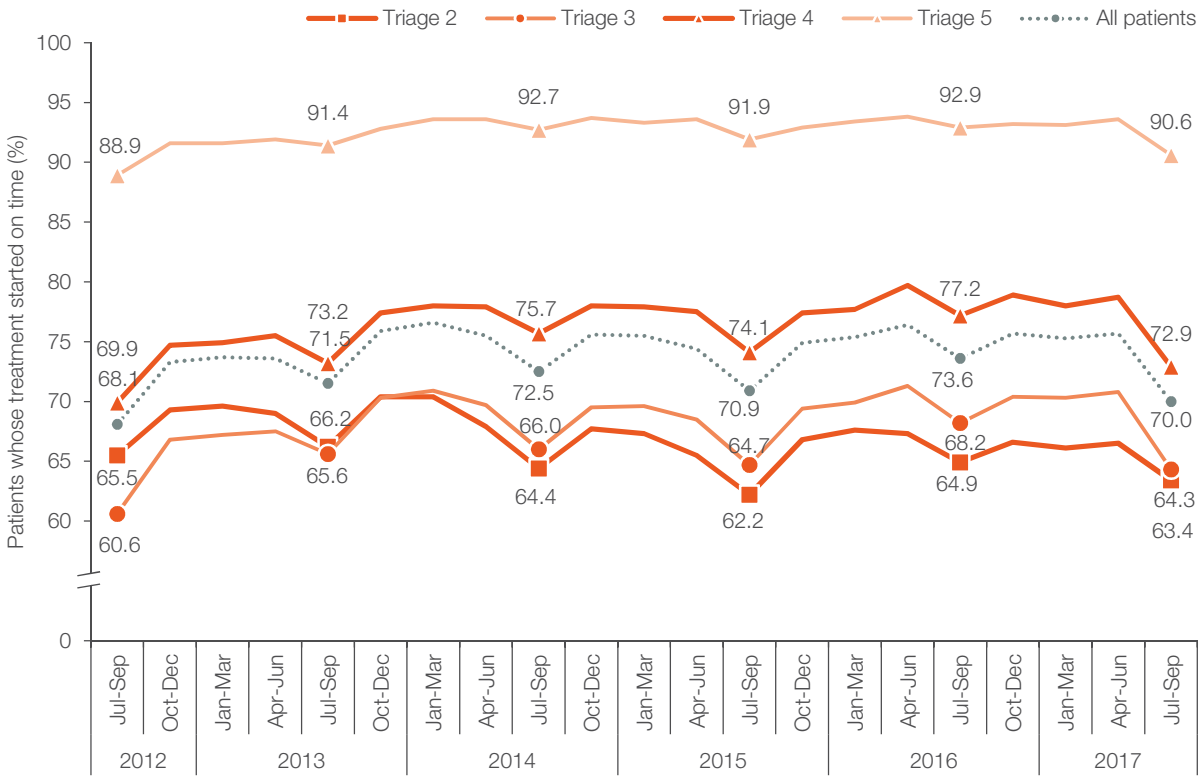
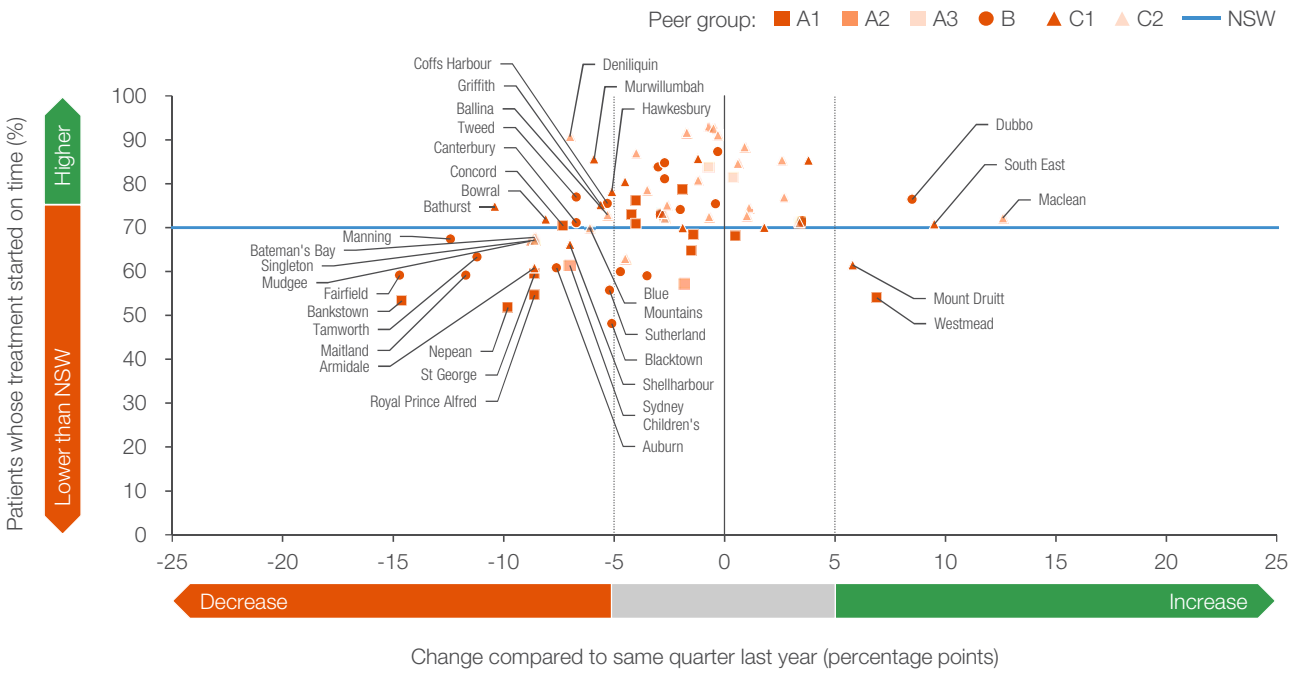


Figure 9

Percentage of patients whose treatment started on time, and percentage point change since same quarter last year, hospitals by peer group, July to September 2017



After leaving the emergency department

Following ED treatment, 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'.

During the July to September 2017 quarter, 62.0% of patients were treated and discharged from the ED (446,753; up 11.1%) and more than a quarter (27.2%) of patients were treated and admitted to hospital (195,992; up 0.3%) (Figure 10).

Compared with the same quarter last year, there was a higher number of patients who were transferred to another hospital (14,553; up 5.1%) and a higher number who left without, or before completing, treatment (48,798; up 43.1%) (Figure 10).

The majority of patients in triage categories 1 and 2 were treated and admitted to hospital (Figure 11). In triage categories 3, 4 and 5, most patients were treated and discharged (Figure 12).

The number of patients increased over the past five years across all modes of separation (Figure 13). Compared with the same quarter last year, there was a sharp increase in the number of patients who were treated and discharged and who left without, or before completing treatment.

Figure 10 **Patients who presented to the emergency department, by mode of separation, July to September 2017**

		This quarter	Same quarter last year	Change since one year ago
Treated and discharged	62.0%	446,753	402,284	11.1%
Treated and admitted to hospital	27.2%	195,992	195,382	0.3%
Left without, or before completing, treatment	6.8%	48,798	34,093	43.1%
Transferred to another hospital	2.0%	14,553	13,842	5.1%
Other	2.0%	14,468	12,880	12.3%

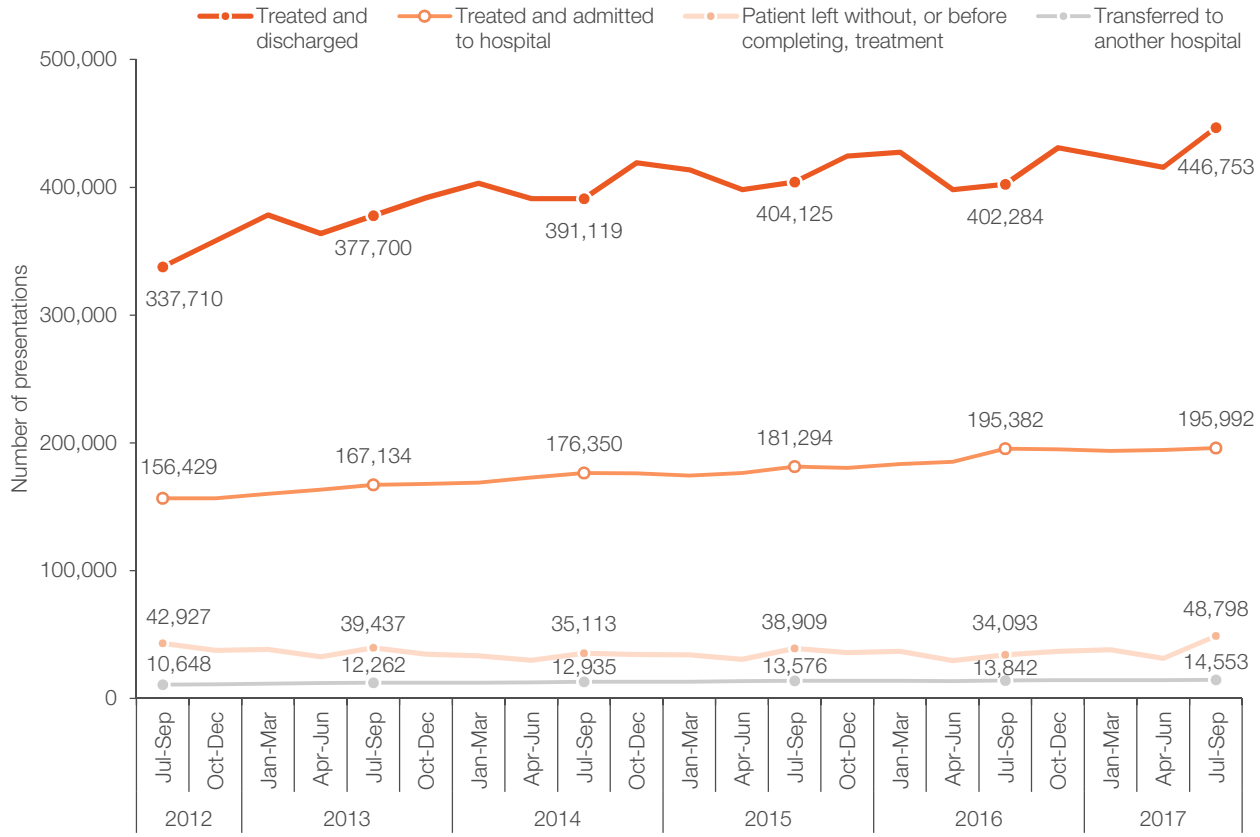
Figure 11 **Percentage of patients who were treated and admitted, by triage category, July to September 2017**

	This quarter	Same quarter last year	Percentage point change since one year ago
All ED presentations	27.2%	29.7%	-2.5
Triage 1	80.8%	82.5%	-1.7
Triage 2	56.4%	60.6%	-4.2
Triage 3	37.8%	41.4%	-3.6
Triage 4	14.7%	16.1%	-1.4
Triage 5	5.1%	5.6%	-0.5

Figure 12 Percentage of patients who were treated and discharged, by triage category, July to September 2017

	This quarter	Same quarter last year	Percentage point change since one year ago
All ED presentations	62.1%	61.1%	1.0
Triage 1	8.5%	6.6%	1.9
Triage 2	35.8%	32.4%	3.4
Triage 3	54.1%	51.6%	2.5
Triage 4	73.1%	73.9%	-0.8
Triage 5	78.5%	79.2%	-0.7

Figure 13 Patients who presented to the emergency department, by mode of separation, July 2012 to September 2017



Median time patients spent in the emergency department

During the July to September 2017 quarter, the median and 90th percentile times that patients spent in the ED was three hours and eight hours and two minutes, respectively (up 11 minutes and 34 minutes, respectively, compared with the same quarter last year). Longer median and 90th percentile waiting times were seen across all triage categories this quarter (Figure 14).

For the July to September 2017 quarter, the median time patients spent in the ED was longer across all modes of separation*, compared with the same quarter last year (Figure 14). Despite a 29.1% increase in the overall number of presentations during the July to September quarters since 2012, the median time patients spent in the ED decreased overall from three hours and 20 minutes in 2012 to three hours this quarter (Figure 15).

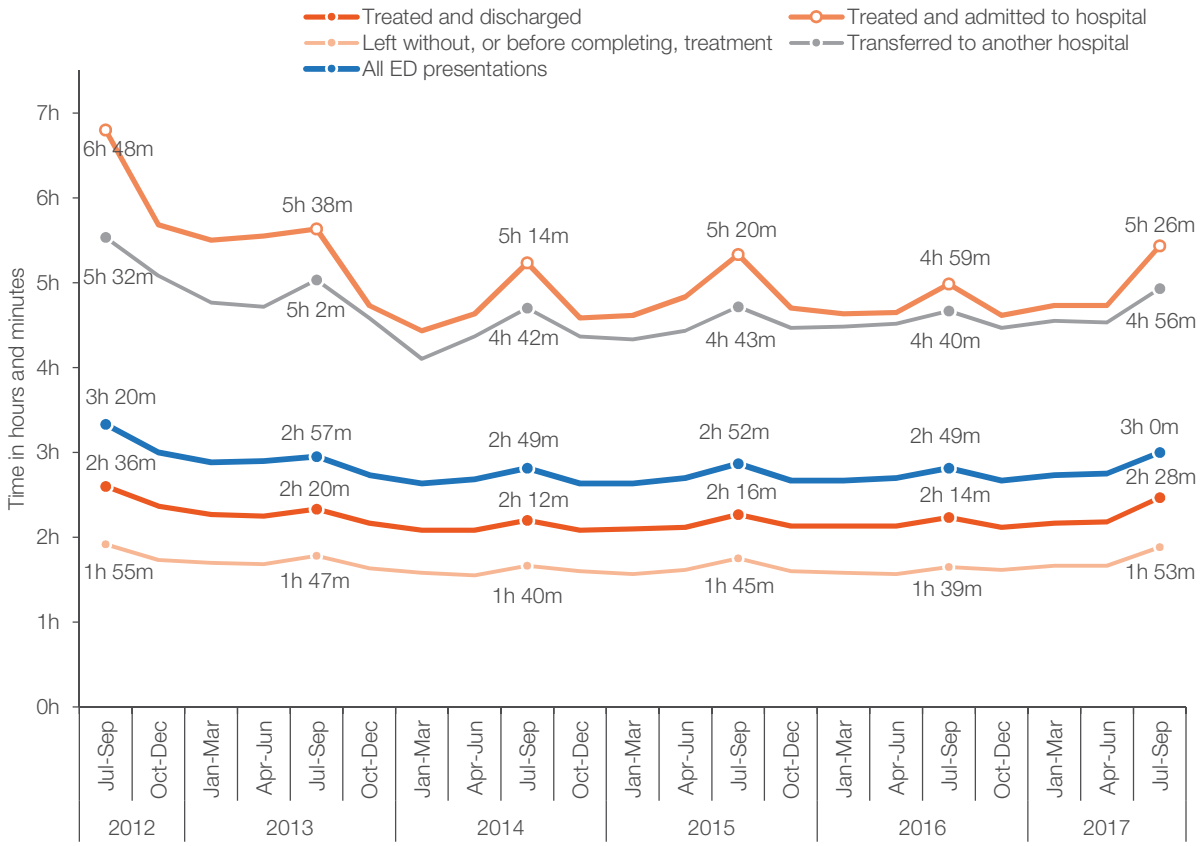
Figure 14 Time patients spent in the emergency department, July to September 2017

	This quarter	Same quarter last year	Change since one year ago
Median time spent in the ED	3h 0m	2h 49m	11m
90th percentile time spent in the ED	8h 2m	7h 28m	34m
Triage 2 Emergency (e.g. chest pain, severe burns):			
Triage 2 Median	4h 6m	3h 58m	8m
Triage 2 90th percentile	12h 51m	11h 30m	1h 21m
Triage 3 Urgent (e.g. moderate blood loss, dehydration)			
Triage 3 Median	3h 43m	3h 33m	10m
Triage 3 90th percentile	9h 48m	9h 4m	44m
Triage 4 Semi-urgent (e.g. sprained ankle, earache)			
Triage 4 Median	2h 31m	2h 19m	12m
Triage 4 90th percentile	6h 13m	5h 42m	31m
Triage 5 Non-urgent (e.g. small cuts or abrasions)			
Triage 5 Median	1h 18m	1h 12m	6m
Triage 5 90th percentile	3h 49m	3h 34m	15m

* Mode of separation refers to the administrative code that describes where patients went at the conclusion of their emergency department visit. The main codes are: treated and discharged; treated and admitted to hospital; left without, or before completing, treatment; and transferred to another hospital.

Figure 15 shows the seasonal fluctuations over the past five years in the median time patients spent in the ED across all modes of separation. While seasonal increases in waiting times are normally seen in the July to September quarters, a notable rise occurred in the July to September 2017 quarter, particularly for those treated and admitted to hospital (up 27 minutes).

Figure 15 Median time patients spent in the emergency department, by mode of separation, July 2012 to September 2017



Percentage of patient stays of four hours or less

In the July to September 2017 quarter, 68.4% of patients spent four hours or less in the ED; 3.3 percentage points lower compared with the same quarter last year (Figures 16). In the context of the seasonal decreases that are normally seen across all modes of separation in the July to September quarters, a sharper drop occurred in the July to September 2017 quarter (Figure 17).

Patients who require admission to hospital from the ED usually have more complex health needs than those who are treated and discharged, and therefore often spend longer periods in the ED.

Among patients who were treated and discharged this quarter, 80.9% spent four hours or less in the ED. This percentage was lower for patients who were treated and subsequently admitted to hospital (35.3%), and those who were transferred to another hospital (40.7%). Of those who left without, or before completing, treatment, 86.4% spent four hours or less in the ED before leaving (Figure 16).

Figure 18 maps hospital results this quarter compared with the same quarter last year. Hospitals labelled are those that had a change of more than five percentage points in the proportion of patients who spent four hours or less in the ED, compared with the same quarter last year.

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

Figure 16 Percentage of patients who spent four hours or less in the emergency department, by mode of separation, July to September 2017

	Number	This quarter	Same quarter last year	Percentage point change since one year ago
All ED presentations	492,508	68.4%	71.7%	-3.3
Treated and discharged	361,588	80.9%	85.6%	-4.7
Treated and admitted	69,140	35.3%	39.8%	-4.5
Left without, or before completing, treatment	42,157	86.4%	91.0%	-4.6
Transferred to another hospital	5,923	40.7%	43.8%	-3.1

Figure 17 Percentage of patients who spent four hours or less in the emergency department, by mode of separation, July 2012 to September 2017

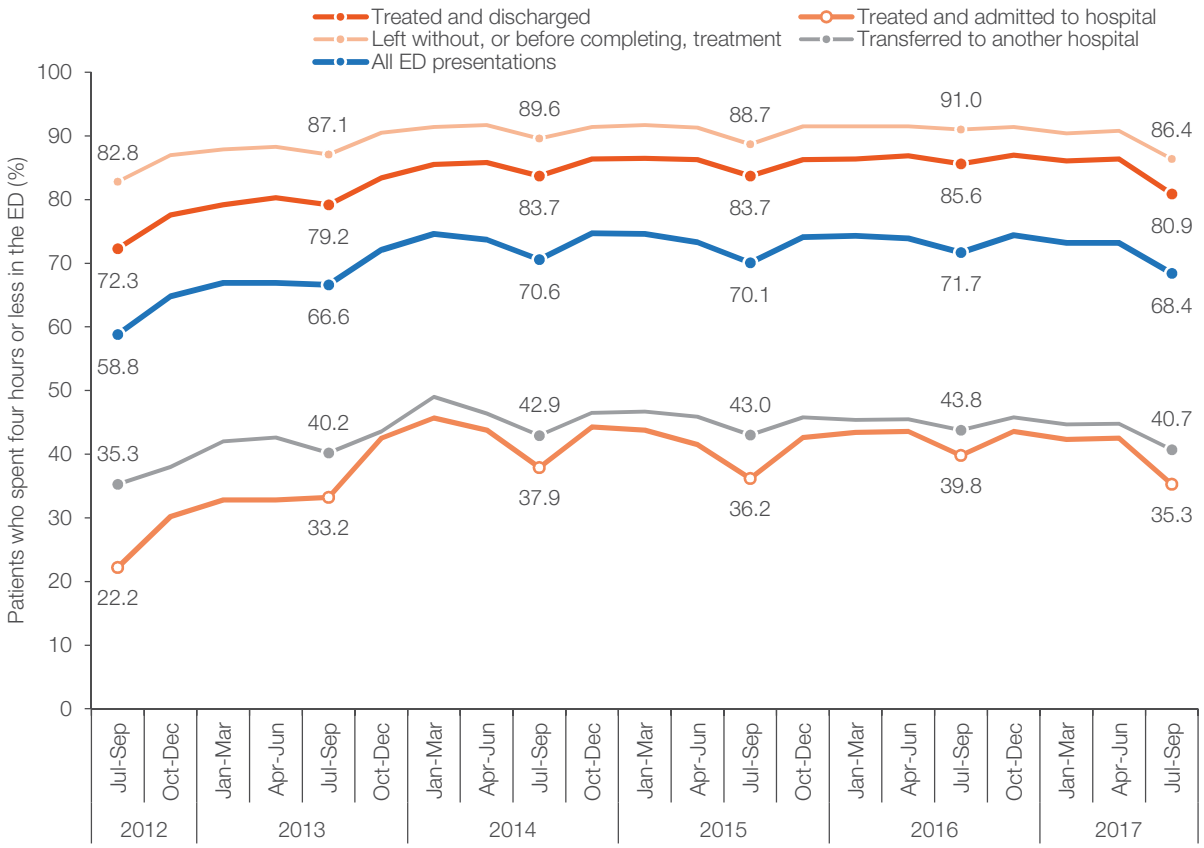
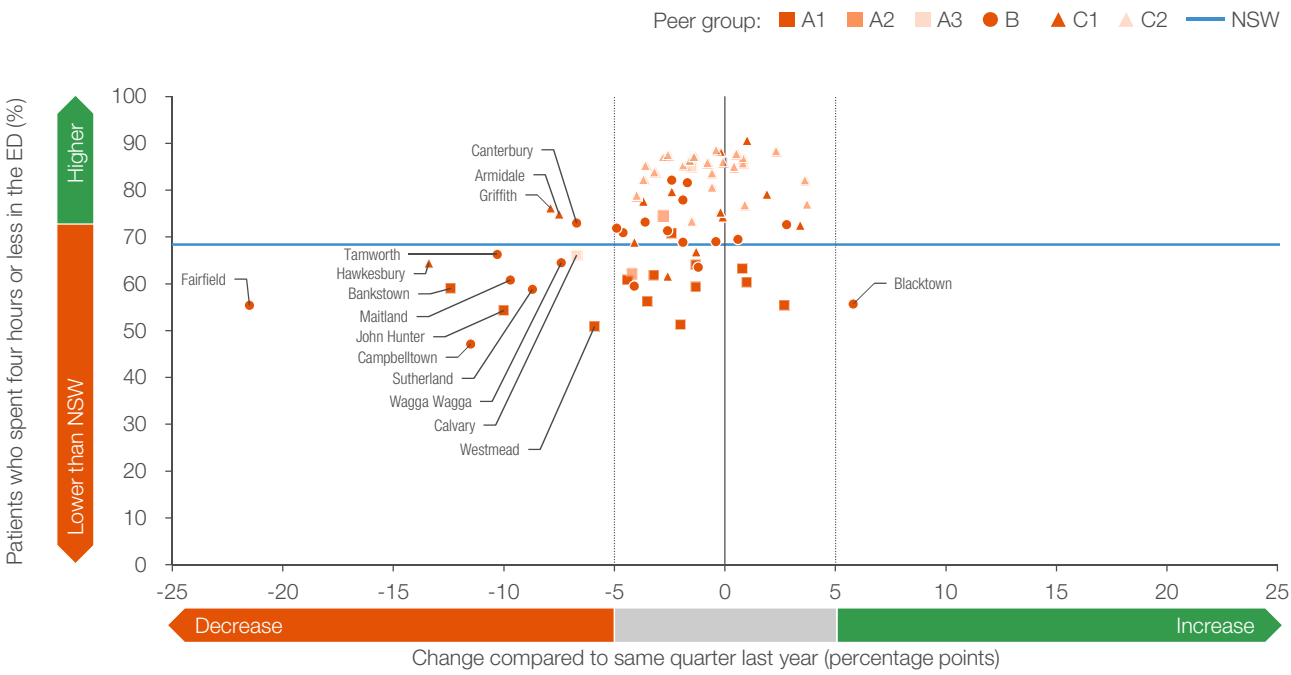


Figure 18 Percentage of patients who spent four hours or less in the emergency department, and percentage point change since same quarter last year, hospitals by peer group, July to September 2017



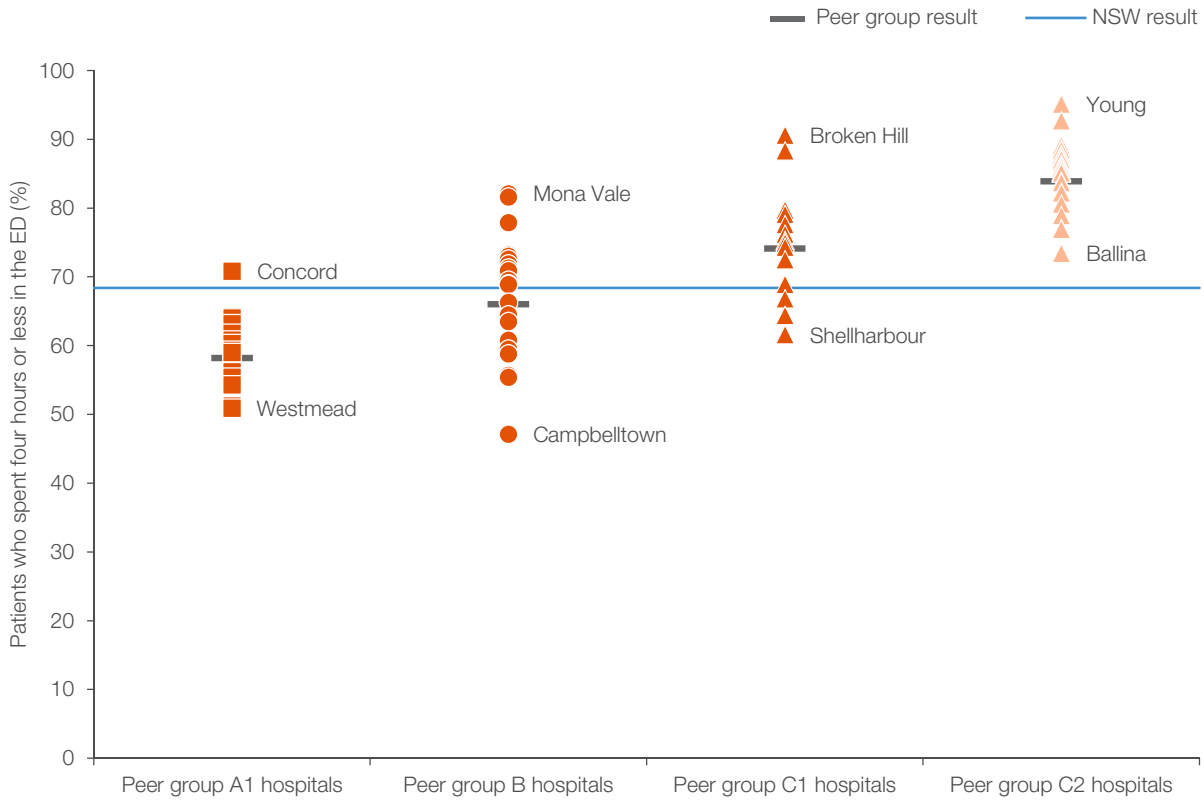
Percentage of patient stays of four hours or less – peer group variation

There is considerable variation between and within hospital peer groups in the percentage of patients who spent four hours or less in the ED. Across peer groups, smaller district hospitals (peer group C2) have a higher percentage of patients who spent four hours or less in the ED. Principal referral hospitals (peer group A1) generally have a smaller percentage of patients who spent four hours or less in the ED (Figure 19).

Compared with the same quarter last year, the percentage of patients who spent four hours or less in the ED was lower across all peer groups with the largest drop occurring in major hospitals (peer group B); down 5.0 percentage points (Figure 20).

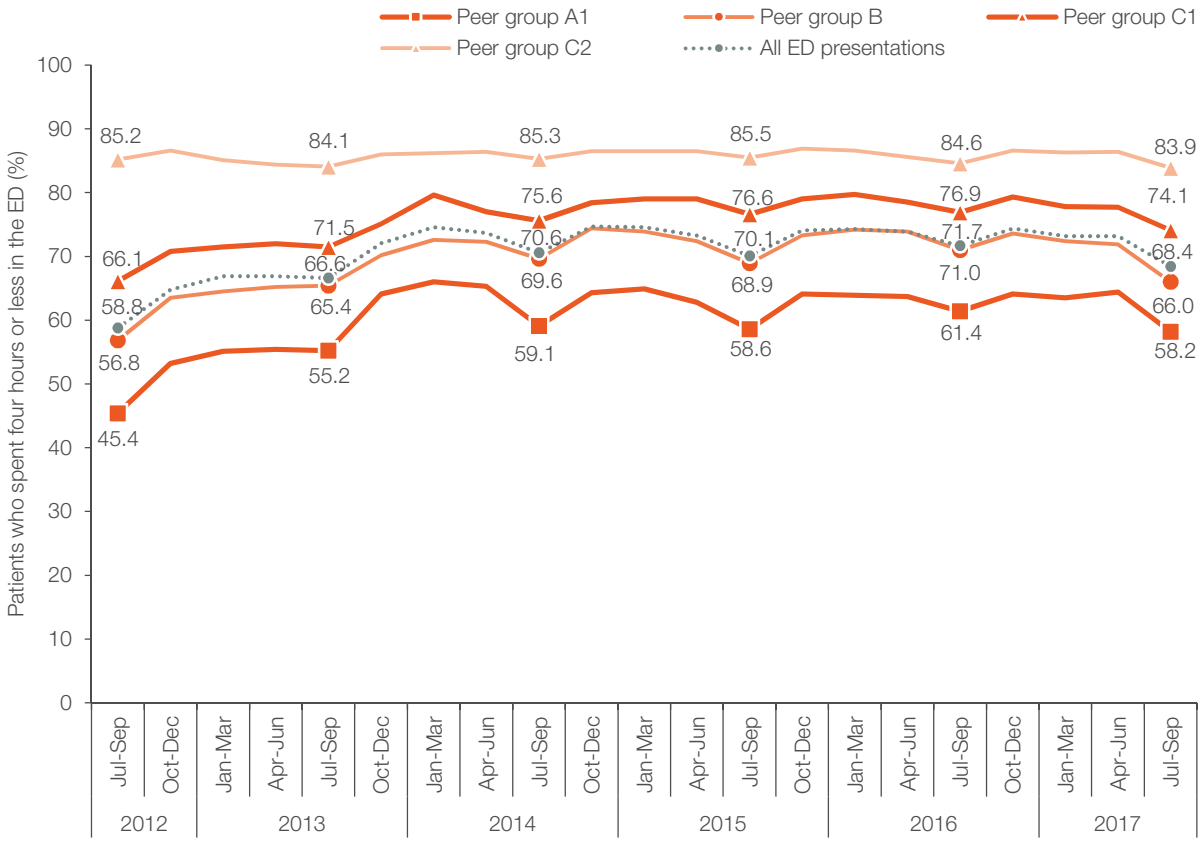
Over the past five years, there has been an increase in the percentage of patients who spent four hours or less in the ED across most hospital peer groups,

Figure 19 Percentage of patients who spent four hours or less in the emergency department, by peer group, July to September 2017



including a 12.8 percentage point increase in peer group A1. The exception was peer group C2 (down 1.3 percentage points compared with the same quarter in 2012) (Figure 20). Despite the seasonally lower results that are normally seen in the July to September quarters, a sharper drop was seen for principal referral (peer group A1), major (peer group B) and district (peer group C1) hospitals.

Figure 20 Percentage of patients who spent four hours or less in the emergency department, by peer group, July 2012 to September 2017



Transfer of care from the ambulance to the emergency department

During the July to September 2017 quarter, a total of 162,350 patients arrived at NSW EDs by ambulance (up 9.0% compared with the same quarter last year). This quarter, 148,186 patient records (matched between ambulance service and ED records) were used to calculate transfer of care time (Figure 21).

The median and 90th percentile transfer of care times from ambulance paramedics to ED staff were longer this quarter compared with the same quarter last year (up one minute and six minutes, respectively) (Figure 21).

In NSW, the agreed target time for transfer of care from ambulance to ED staff is 30 minutes for at least 90% of patients. This quarter, 85.6% of patients who arrived by ambulance had their care transferred within 30 minutes; 3.5 percentage points lower than in the same quarter last year (Figure 22).

Figure 23 shows variation between and within hospital peer groups in the percentage ofpatients who had their care transferred within 30 minutes this quarter. District hospitals (peer groups C1 and C2) had the highest percentages of patients transferred within 30 minutes (90.8% and 92.0%, respectively).

Figure 21 Emergency department transfer of care time, July to September 2017

	This quarter	Same quarter last year	Change since one year ago
Emergency presentations	699,236	637,792	9.6%
Ambulance arrivals (number used to calculate transfer of care time)	148,186	134,245	10.4%
ED transfer of care time			
Median time	13m	12m	1m
90th percentile time	36m	30m	6m
Percentage of patients transferred from ambulance to ED within 30 minutes	85.6%	89.1%	-3.5 percentage points

Figure 22 Percentage of ambulance arrivals with transfer of care time within 30 minutes, July 2013 to September 2017

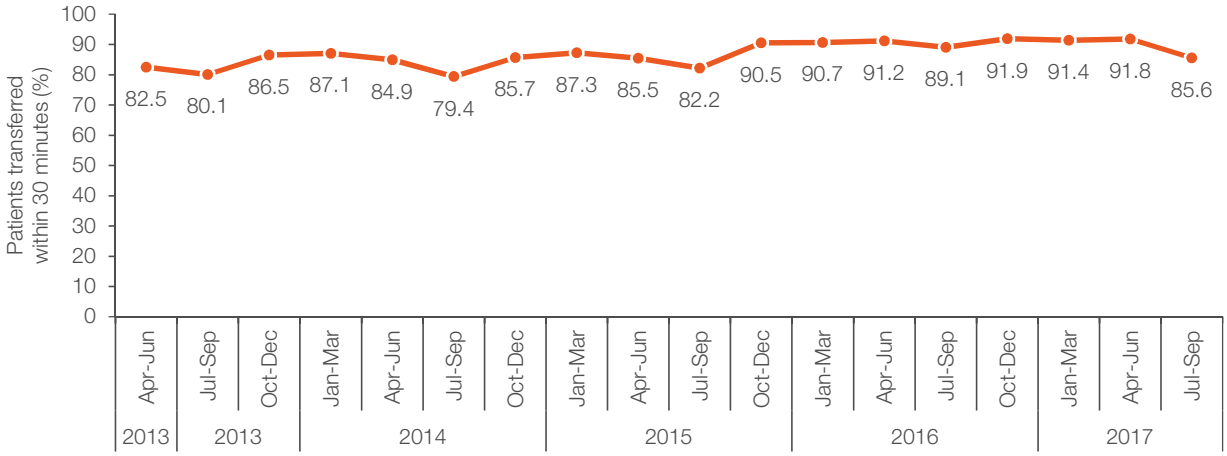
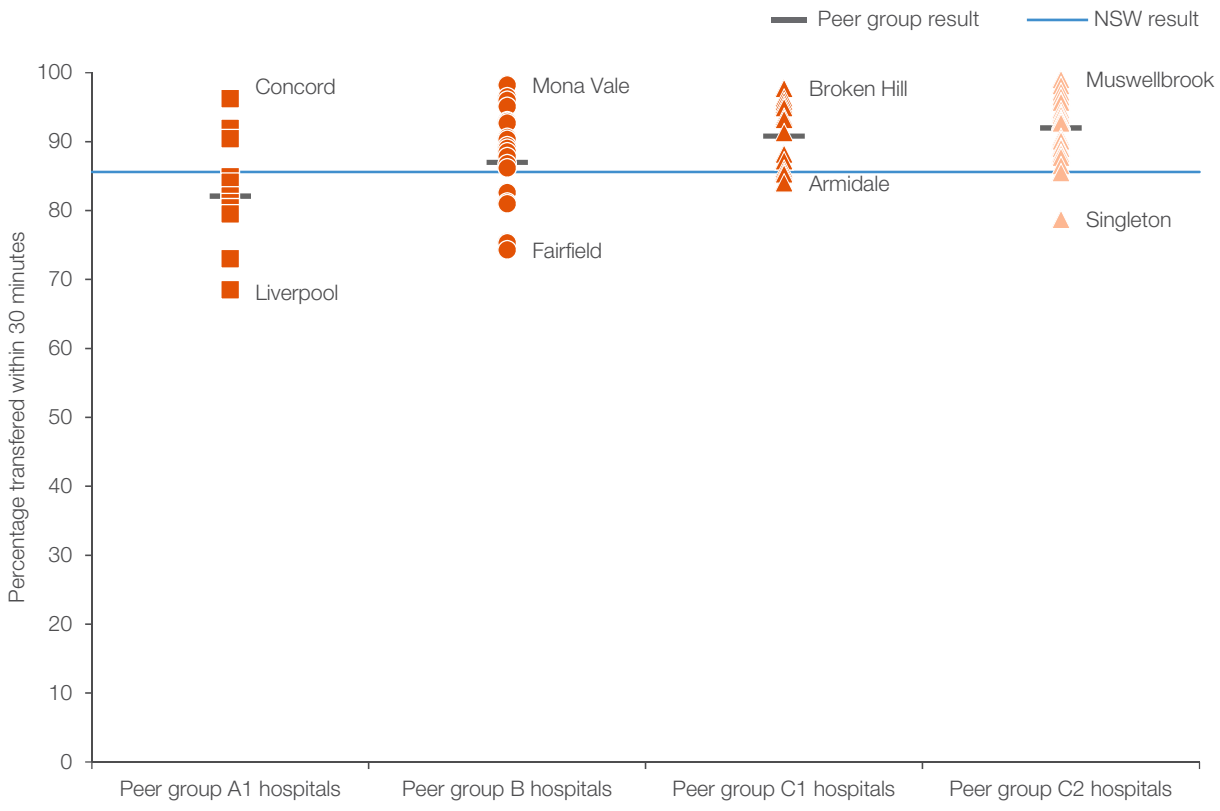


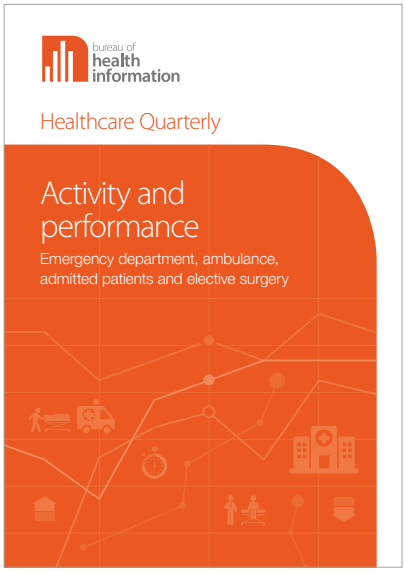
Figure 23 Percentage of ambulance arrivals whose care was transferred within 30 minutes, by peer group, July to September 2017



Healthcare Quarterly

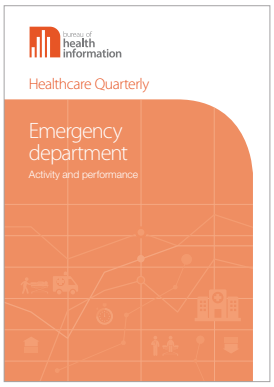
Healthcare Quarterly is a series of regular reports that describes the number and types of services provided to the people of NSW and the timeliness with which they are provided.

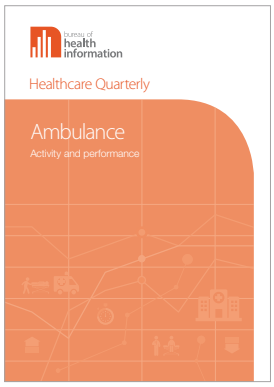
The reports feature key indicators of activity and performance across ambulance and public hospital services in NSW.

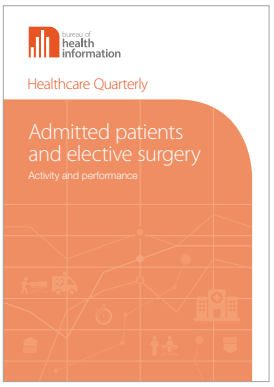


Every day around 25,000 people receive care in the NSW public hospital system and around 1,800 are transported to hospital by ambulance.

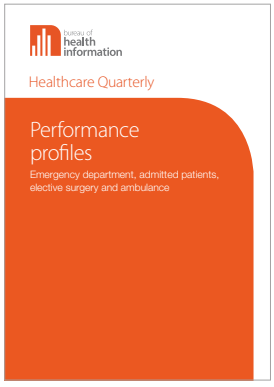
Healthcare Quarterly is published alongside three standalone modules that provide more detailed information about emergency department care, admitted patients and elective surgery, and ambulance services.

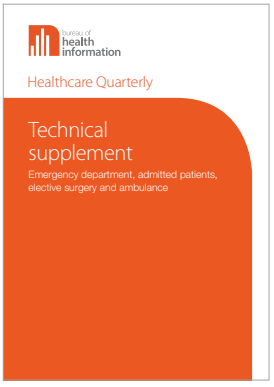






Additional information on local performance is available in our hospital profiles or from BHI's interactive portal Healthcare Observer, at **bhi.nsw.gov.au/healthcare_observer**





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

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bureau of health information

About the Bureau of Health Information

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

BHI was established in 2009 to provide system-wide support through transparent reporting.

BHI 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 in public hospitals and other healthcare facilities.

BHI publishes a range of reports and tools that provide relevant, accurate and impartial information about how the health system is measuring up in terms of:

- Accessibility – healthcare when and where needed
- Appropriateness – the right healthcare, the right way
- Effectiveness – making a difference for patients
- Efficiency – value for money
- Equity – health for all, healthcare that's fair
- Sustainability – caring for the future

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 report 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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bureau of health information

Healthcare Quarterly

Admitted patients and elective surgery

Activity and performance

July to September 2017

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

Published December 2017

Healthcare Quarterly reports present data at the point in time when data become available to BHI. Changes in data coverage and analytic methods from quarter to quarter mean that figures published in this document are superseded by subsequent reports. At any time, the most up-to-date data are available on BHI's online data portal, Healthcare Observer, at **bhi.nsw.gov.au/healthcare_observer**

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.

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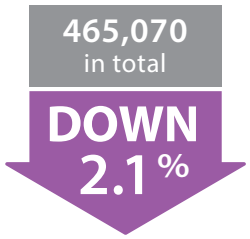
In the July to September 2017 quarter...

Admitted patients

There were **9,915** fewer acute episodes to hospital compared to the same quarter last year



The average length of stay for acute overnight episodes was **4.5 days**

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

Admitted patient activity		July to September 2017	July to September 2016	Difference	% change
All admitted patient episodes		494,767	494,950	-183	0.0%
All acute episodes		465,070	474,985	-9,915	-2.1%
Overnight episodes		255,737	257,351	-1,614	-0.6%
Same-day episodes		209,333	217,634	-8,301	-3.8%
Non-acute episodes*		29,697	19,965	9,732	48.7%
Average length of stay (days)	All acute episodes	2.9	3.1	-0.2	-6.5%
	Acute overnight episodes	4.5	4.9	-0.4	-8.2%
	Non-acute episodes	13.4	15.3	-1.9	-12.4%
Hospital bed days	All bed days	1,764,261	1,782,932	-18,671	-1.0%
	Acute bed days*	1,367,626	1,476,664	-109,038	-7.4%
	Non-acute bed days*	396,635	306,268	90,367	29.5%
Babies born in NSW public hospitals		18,782	18,532	250	1.3%

* The increase in the number of bed days for non-acute care this quarter may reflect changes in the designation of mental health care stay types, creating a artefactual spike in results. The decrease in the number of acute bed days is due to a lower number of bed days for overnight psychiatric patients.

Elective surgery

There were **58,289** elective surgical procedures performed

UP 0.4%

243 more than same quarter last year

Almost all (97.9%) were performed within recommended time frames

Median waiting times were unchanged or shorter than same quarter last year

10, 43 and 213 days for urgent, semi-urgent and non-urgent surgery, respectively

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

Elective surgery activity		July to September 2017	July to September 2016	Difference	% change
Elective surgical procedures performed		58,289	58,046	243	0.4%
Urgency category	Urgent surgery	12,291	12,660	-369	-2.9%
	Semi-urgent surgery	19,216	18,418	798	4.3%
	Non-urgent surgery	23,951	24,247	-296	-1.2%
Patients on waiting list ready for elective surgery at end of quarter		75,815	73,226	2,589	3.5%
Urgency category	Urgent surgery	1,670	1,657	13	0.8%
	Semi-urgent surgery	12,644	11,877	767	6.5%
	Non-urgent surgery	61,501	59,692	1,809	3.0%

Elective surgery performance		July to September 2017	July to September 2016	Difference
Median waiting time (days)	Urgent surgery	10 days	10 days	unchanged
	Semi-urgent surgery	43 days	44 days	-1 day
	Non-urgent surgery	213 days	220 days	-7 days
Urgency category	All surgeries	97.9%	97.9%	unchanged
	Urgent surgery	99.9%	99.8%	0.1 percentage points
	Semi-urgent surgery	98.1%	98.0%	0.1 percentage points
	Non-urgent surgery	96.8%	96.9%	-0.1 percentage points

Admitted patient activity and performance

Patients admitted to a public hospital

In the July to September 2017 quarter, there were 494,767 admitted patient episodes in NSW public hospitals; which was similar compared with the same quarter last year (Figure 1). Most were acute admitted patient episodes (94.0%) and of these, 55.0% were for overnight care and 45.0% were for same-day care (Figure 2).

Admissions to hospital can be planned (arranged in advance) or unplanned (emergency hospital admissions or surgical procedures). This quarter, most acute same-day admitted patient episodes (76.3%) were planned. In contrast, most acute overnight episodes (84.6%) were unplanned [data not shown].

There has been a gradual increase over the past five years in total and acute admitted patient episodes (Figure 1). Since the July to September quarter in 2012, the number of acute overnight admitted patient episodes has increased by 8.3% and the number of same-day episodes has increased by 11.7%. Compared to the same quarter last year, however, the number of episodes has dropped for same-day and overnight episodes (down 1,614 and down 8,301, respectively) (Figure 2).

Figure 3 shows differences in the proportion of acute admitted patient episodes that were same-day episodes this quarter across hospital peer groups. District hospitals (peer group C2) had a higher percentage of same-day episodes compared with other peer groups. This peer group also had the greatest variation – ranging across hospitals from 28.7% to 74.2% of all acute admitted patient episodes.

The number of babies born in NSW public hospitals (18,782) was 1.3% higher this quarter compared with the same quarter last year (Figure 1).

Patients can have more than one admitted episode during the same hospitalisation. For example, a person may be admitted for acute care and then require an episode of rehabilitation or palliative care prior to being discharged.

Figure 1 All admitted patient episodes, acute admitted patient episodes and babies born, July 2012 to September 2017

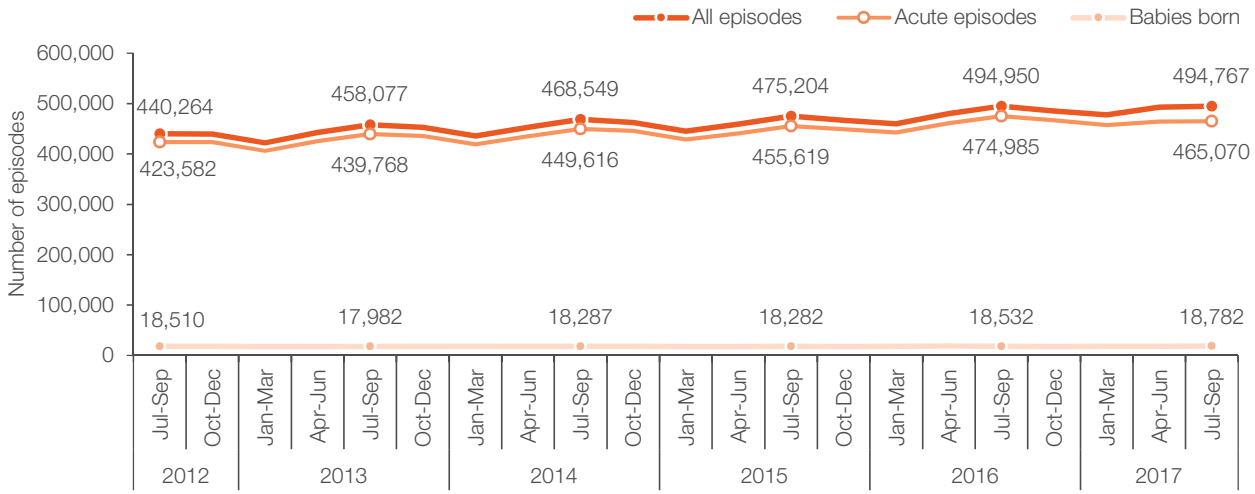


Figure 2 Overnight and same day acute admitted patient episodes, July 2012 to September 2017

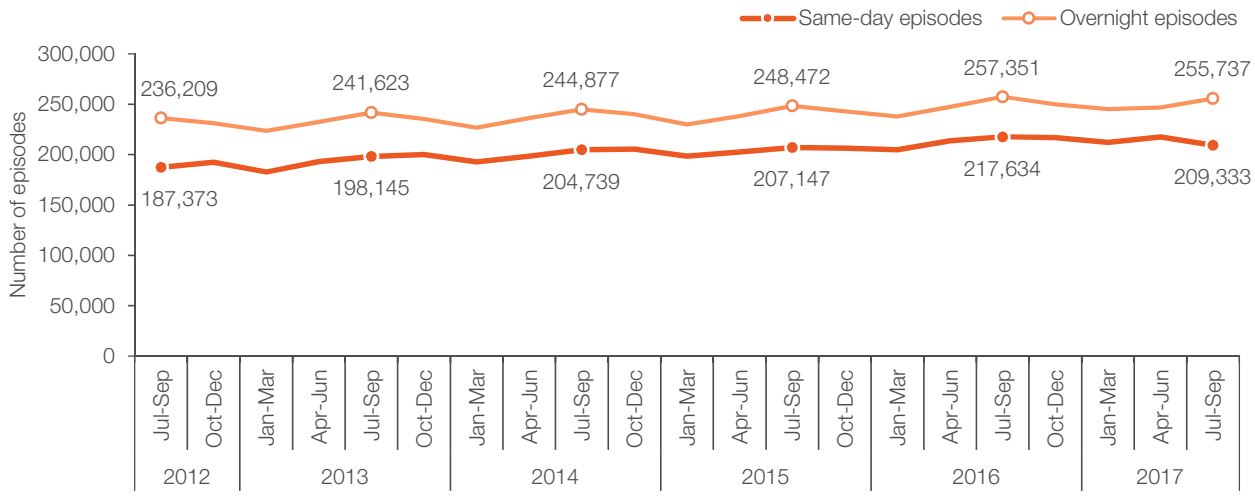
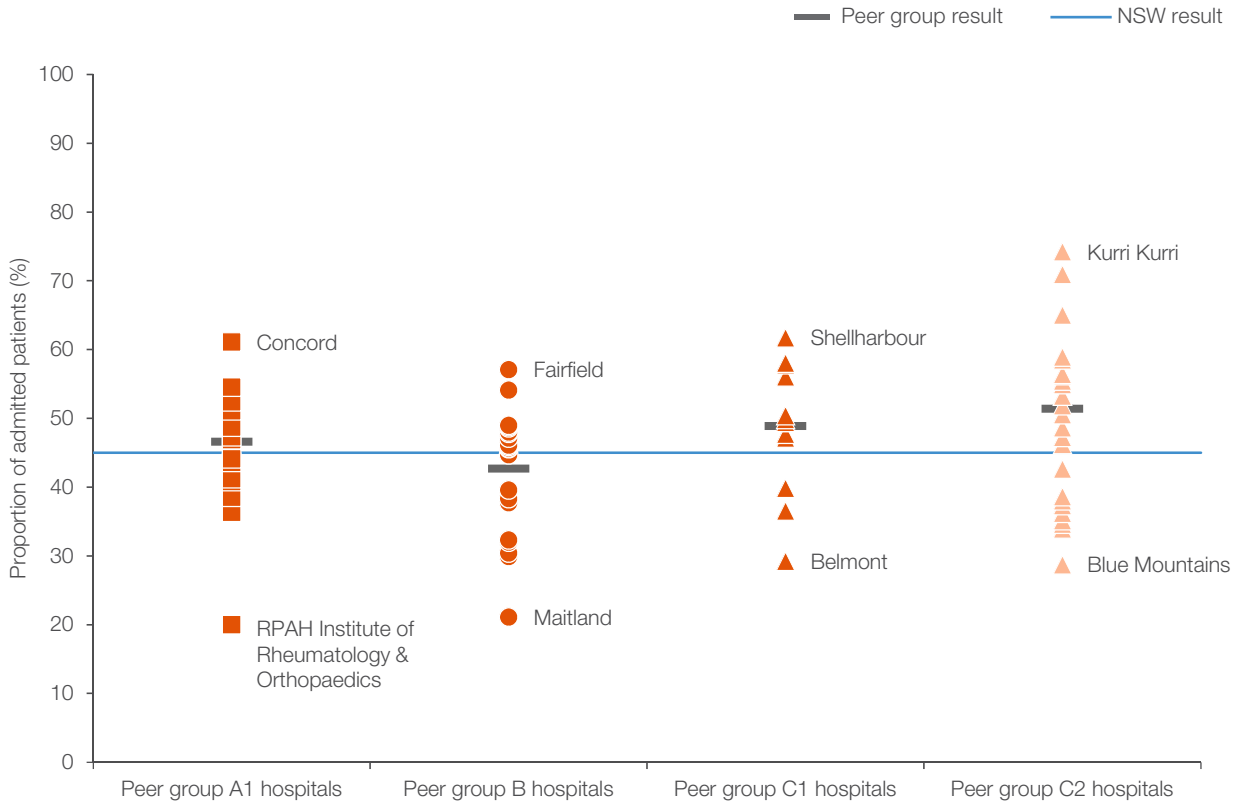


Figure 3 Same-day admitted patient episodes as percentage of all acute admitted patient episodes, by peer group, July to September 2017



Note: Same-day refers to patients who are admitted and discharged on the same day. Same-day episodes count as one bed day.

Bed days and length of stay in hospital

Bed days are calculated for all admitted patient episodes completed during the period. Total bed days for an overnight episode is the difference, in days, between the episode start date and the episode end date, minus the number of episode leave days recorded. Same-day episodes count as one bed day.

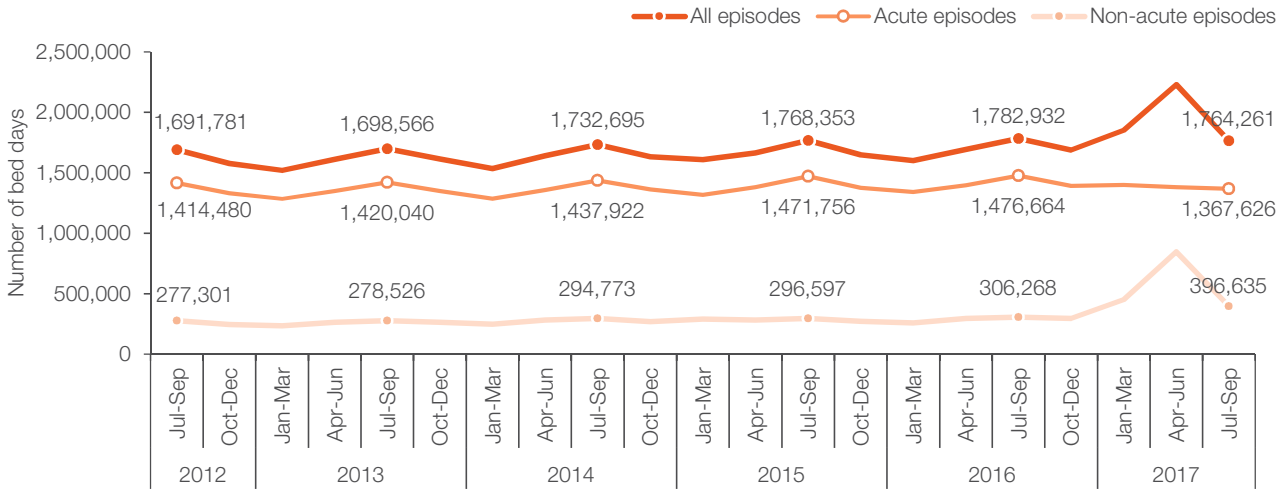
In the July to September 2017 quarter, there were 1,764,261 hospital bed days, down 1.0% compared with the same quarter last year. The number of acute bed days this quarter was 7.4% lower than in the same quarter last year. The number of non-acute bed days was 29.5% higher than in the same quarter last year* (Figure 4). There were 3.3% fewer acute bed days compared with the same quarter in 2012 (Figure 5).

Compared with the same quarter last year, the average length of stay was 2.9 days for all acute admitted patient episodes and 4.5 days for all acute overnight episodes (down 0.2 and 0.4 days, respectively). The average length of stay for all episodes was unchanged (Figure 6).

Figure 4 **Total number of hospital bed days, by episode type, July to September 2017**

		This quarter	Same quarter last year	Change since one year ago
Total bed days		1,764,261	1,782,932	-1.0%
Acute	77.5%	1,367,626	1,476,664	-7.4%
Non-acute	22.5%	396,635	306,268	29.5%

Figure 5 **Total number of hospital bed days by episode type, July 2012 to September 2017**



* The increase in the number of bed days for non-acute care may reflect changes in the designation of mental health care stay types, creating a spike in results. The decrease in the number of acute bed days is due to a lower number of bed days for overnight psychiatric patients.

There were hospital-level differences in the average length of stay for acute overnight episodes, even within peer groups. The greatest variation was in smaller district hospitals (peer group C2), with a 5.8 day range (Figure 7).

Differences in case-mix of patients both between and within hospital peer groups have not been taken into account in these analyses and may affect length of stay measures.

Figure 6 Average length of stay, by type of admitted patient episode, July 2012 to September 2017

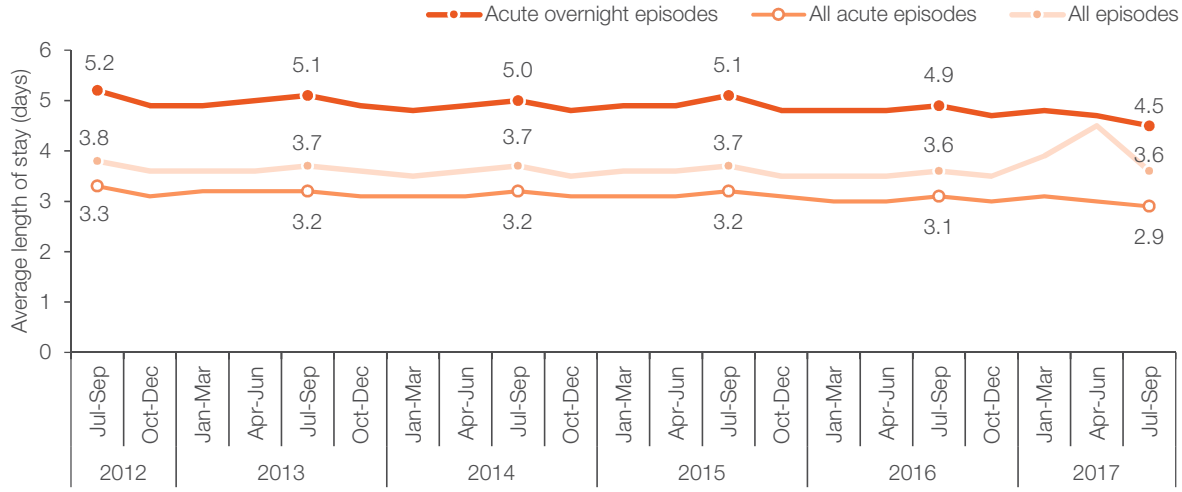
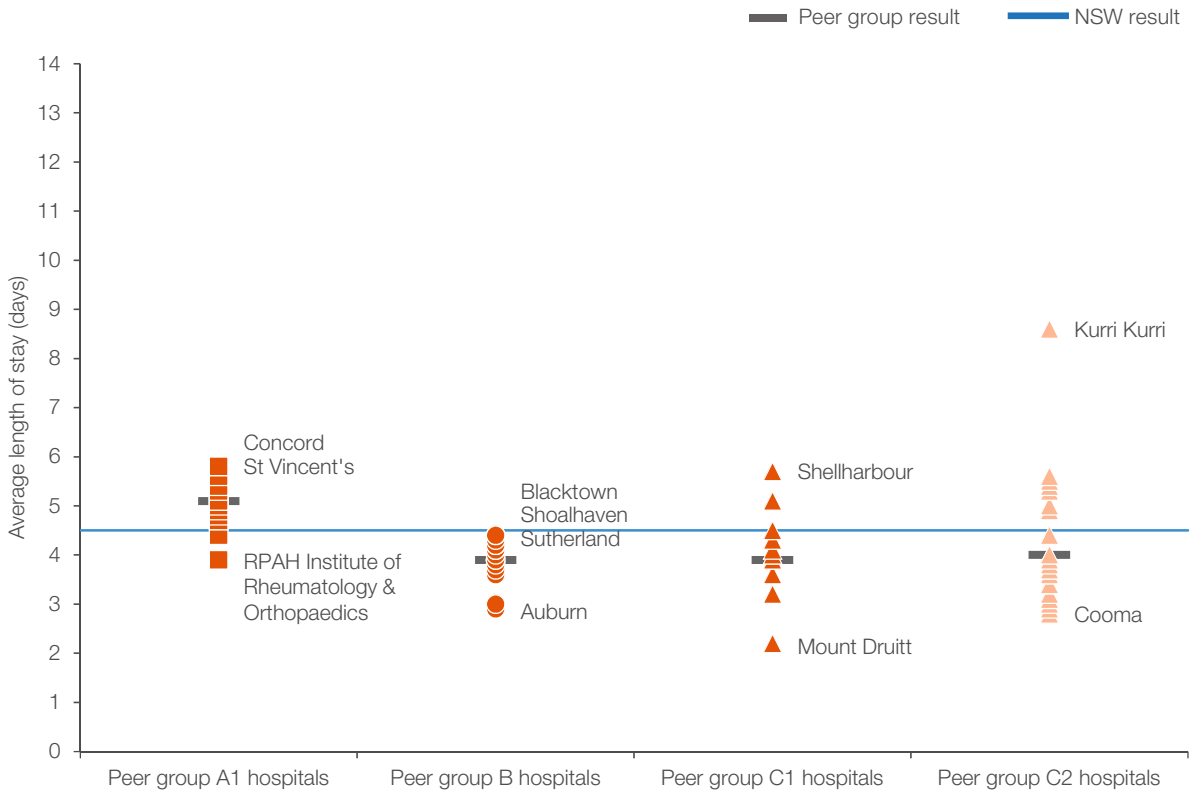


Figure 7 Average length of stay for acute overnight admitted patient episodes, by peer group, July to September 2017



Elective surgery activity and performance

Elective surgical procedures

In the July to September 2017 quarter, 58,289 elective surgical procedures were performed. This was 243 (0.4%) more than in the same quarter last year. Of the elective surgical procedures performed this quarter, 21.1% were categorised as urgent, 33.0% as semi-urgent, and 41.1% as non-urgent. A further 4.9% were categorised as staged (Figure 8).

Compared with the same quarter last year, there were changes in the number of urgent (down 2.9%), semi-urgent (up 4.3%), non-urgent (down 1.2%) and staged (up 4.0%) procedures (Figure 8).

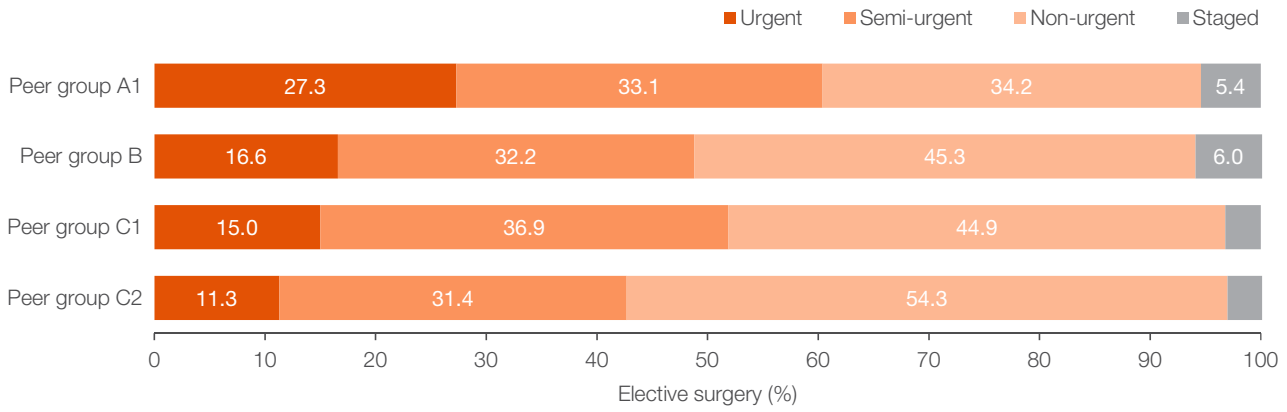
Comparing across peer groups, principal referral hospitals (peer group A1) had the highest proportion of elective surgical procedures that were urgent and the lowest proportion that were non-urgent (Figure 9).

There are three elective surgery urgency categories, each with a clinically recommended maximum time by which the procedure should be performed: urgent (within 30 days), semi-urgent (within 90 days) and non-urgent surgery (within 365 days).

Figure 8 **Elective surgical procedures performed, by urgency category, July to September 2017**

	This quarter	Same quarter last year	Change since one year ago
Total number of elective surgical procedures	58,289	58,046	0.4%
Urgent 21.1%	12,291	12,660	-2.9%
Semi-urgent 33.0%	19,216	18,418	4.3%
Non-urgent 41.1%	23,951	24,247	-1.2%
Staged* 4.9%	2,831	2,721	4.0%

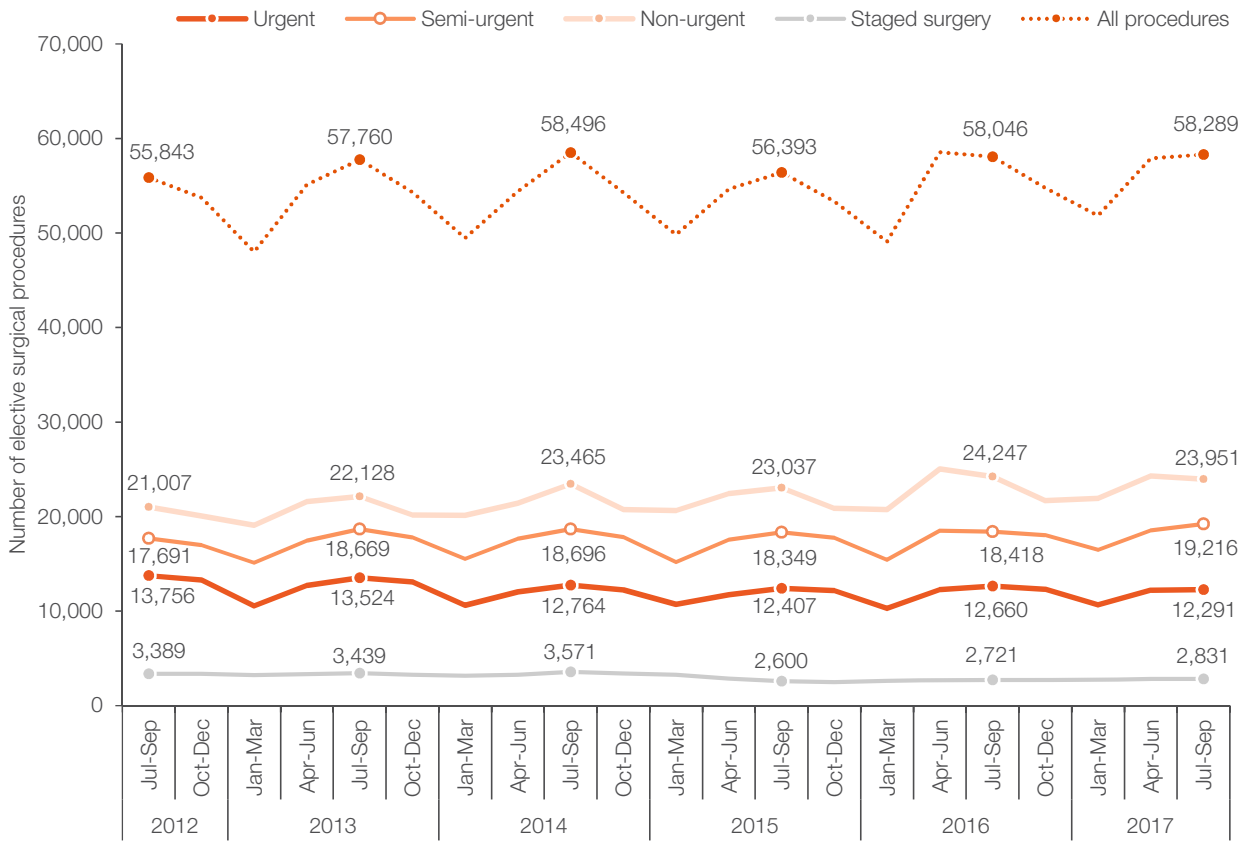
Figure 9 **Distribution of elective surgery, by urgency category and peer group, July to September 2017**



* Surgery that, for medical reasons, cannot take place before a certain amount of time has elapsed. BHI uses this term to define all patients that could be identified as being a staged patient for most of their time on the waiting list and all non-urgent cystoscopy patients.

Amidst seasonal effects, the number of elective surgical procedures performed in the July to September quarter increased over the past five years. Compared with 2012, the number of semi-urgent and non-urgent procedures increased by 8.6% and 14.0%, respectively. In contrast, the number of urgent and staged procedures decreased by 10.6% and 16.5%, respectively (Figure 10).

Figure 10 Elective surgical procedures performed, by urgency category, July 2012 to September 2017



Waiting time for elective surgery

In the July to September 2017 quarter, median waiting times for elective surgery times were 10 days for urgent procedures (unchanged), 43 days for semi-urgent procedures (down 1 day) and 213 days for non-urgent procedures (down 7 days) (Figure 11).

Over a longer time horizon, median waiting times have fallen in urgent, semi-urgent and non-urgent surgery categories by one day, four days and 11 days, respectively (Figure 12).

These five-year decreases in median waiting times have occurred in the context of changes in the number of procedures performed - urgent procedures down 10.6%; semi-urgent up 8.6%; and non-urgent up 14.0% (Figure 10).

There has also been a modest downward trend in the 90th percentile waiting times for elective surgery across urgent and semi-urgent categories since 2012 (Figure 13).

Figure 11 Waiting time for elective surgery, by urgency category, July to September 2017

	This quarter	Same quarter last year	Change since one year ago
Urgent: 12,291 patients			
Median time to receive surgery	10 days	10 days	unchanged
90th percentile time to receive surgery	26 days	26 days	unchanged
Semi-urgent: 19,216 patients			
Median time to receive surgery	43 days	44 days	-1 day
90th percentile time to receive surgery	82 days	82 days	unchanged
Non-urgent: 23,951 patients			
Median time to receive surgery	213 days	220 days	-7 days
90th percentile time to receive surgery	354 days	353 days	1 day

Figure 12 Median waiting time for elective surgery, by urgency category, July 2012 to September 2017

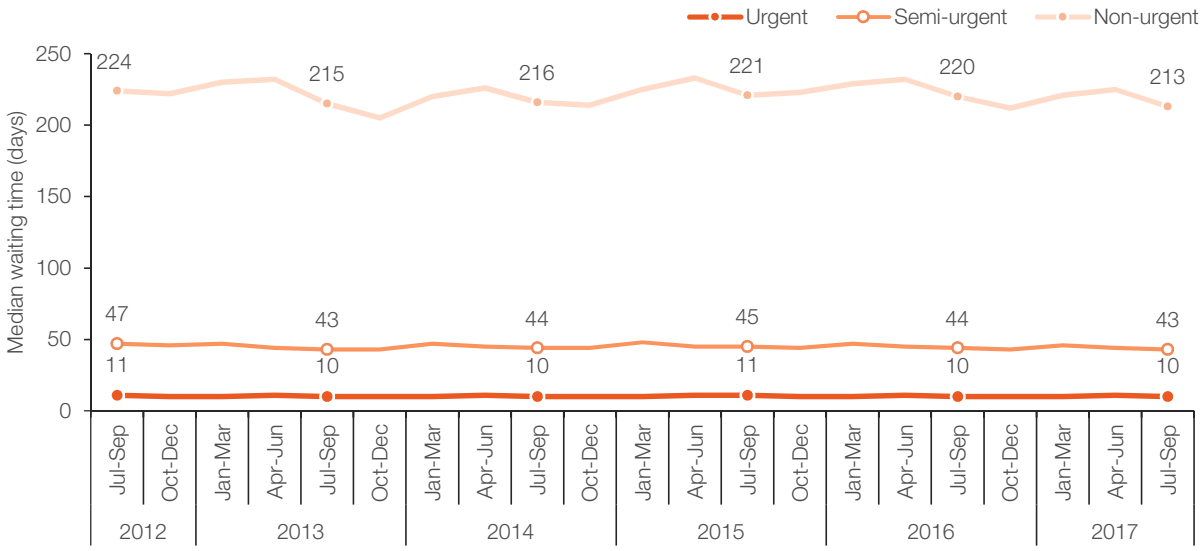
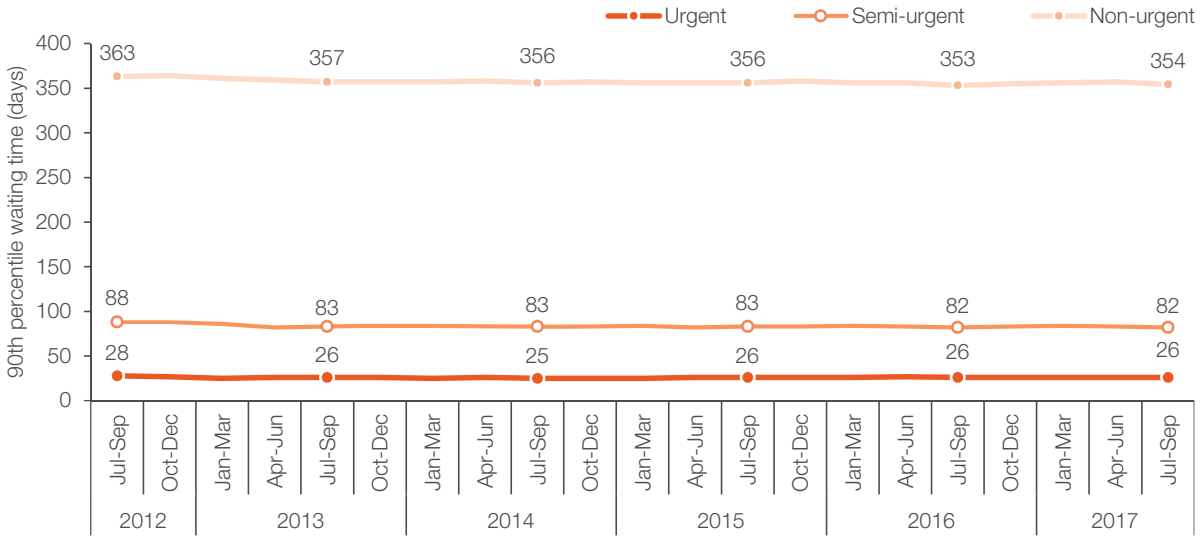


Figure 13 90th percentile waiting time for elective surgery, by urgency category, July 2012 to September 2017



Percentage of elective surgery on time

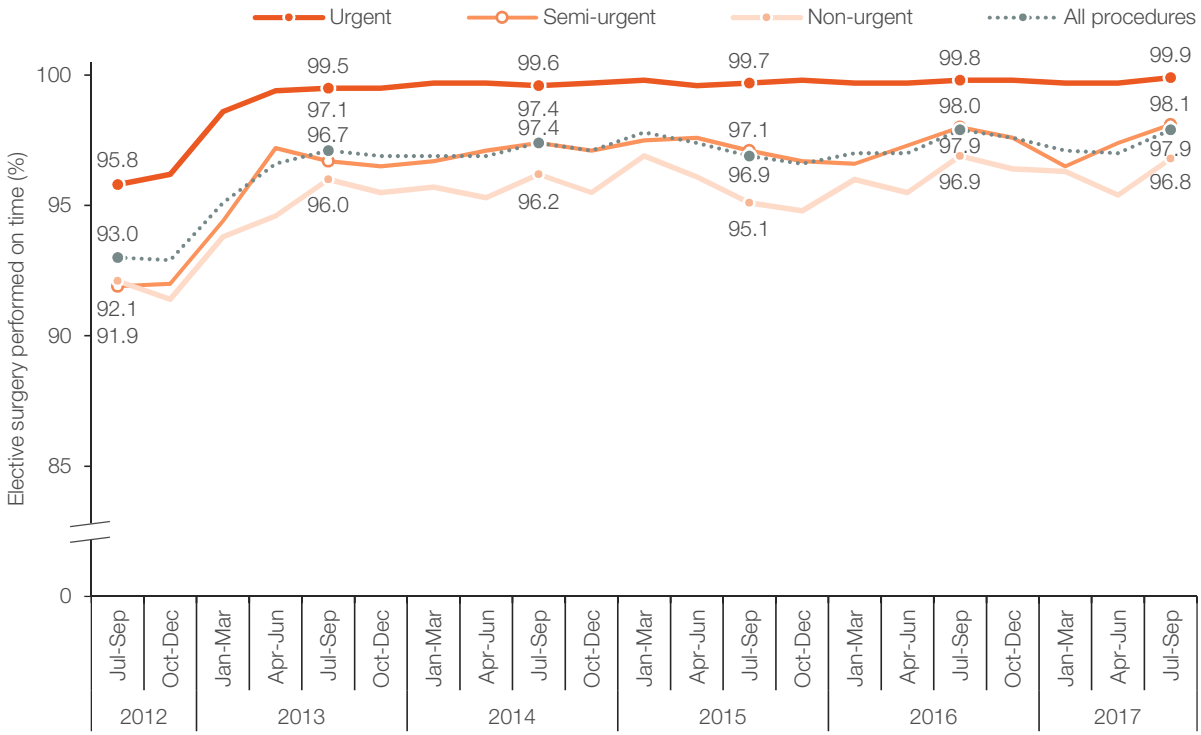
Most elective surgical procedures (97.9%) were performed on time this quarter – 99.9% of urgent surgical procedures, 98.1% of semi-urgent surgery and 96.8% of non-urgent surgery (Figure 14). Since 2014, results for the July to September quarters have remained stable for urgent surgery but with some fluctuation for semi-urgent and non-urgent surgery (Figure 15).

Figure 16 maps hospital results for this quarter on two axes: the percentage of elective surgery 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. For hospitals below this line, a lower percentage of procedures were performed on time. Hospitals shown to the left of the vertical '0' line had lower results, compared with the same quarter last year, while those shown to the right of the vertical line had higher results.

Figure 14 **Percentage of elective surgical procedures performed on time, by urgency, July to September 2017**

		This quarter	Same quarter last year	Percentage point change since one year ago
All procedures		97.9%	97.9%	unchanged
Urgent	Recommended: 30 days	99.9%	99.8%	0.1
Semi-urgent	Recommended: 90 days	98.1%	98.0%	0.1
Non-urgent	Recommended: 365 days	96.8%	96.9%	-0.1

Figure 15 **Percentage of elective surgical procedures performed on time, by urgency, July 2012 to September 2017**



Hospitals in the upper right quadrant achieved both higher results than NSW overall, and an increase in the percentage of elective surgical procedures performed on time this quarter, compared with the same quarter last year. Hospitals in the upper left quadrant achieved results higher than NSW this quarter and a decrease in the percentage of procedures performed on time.

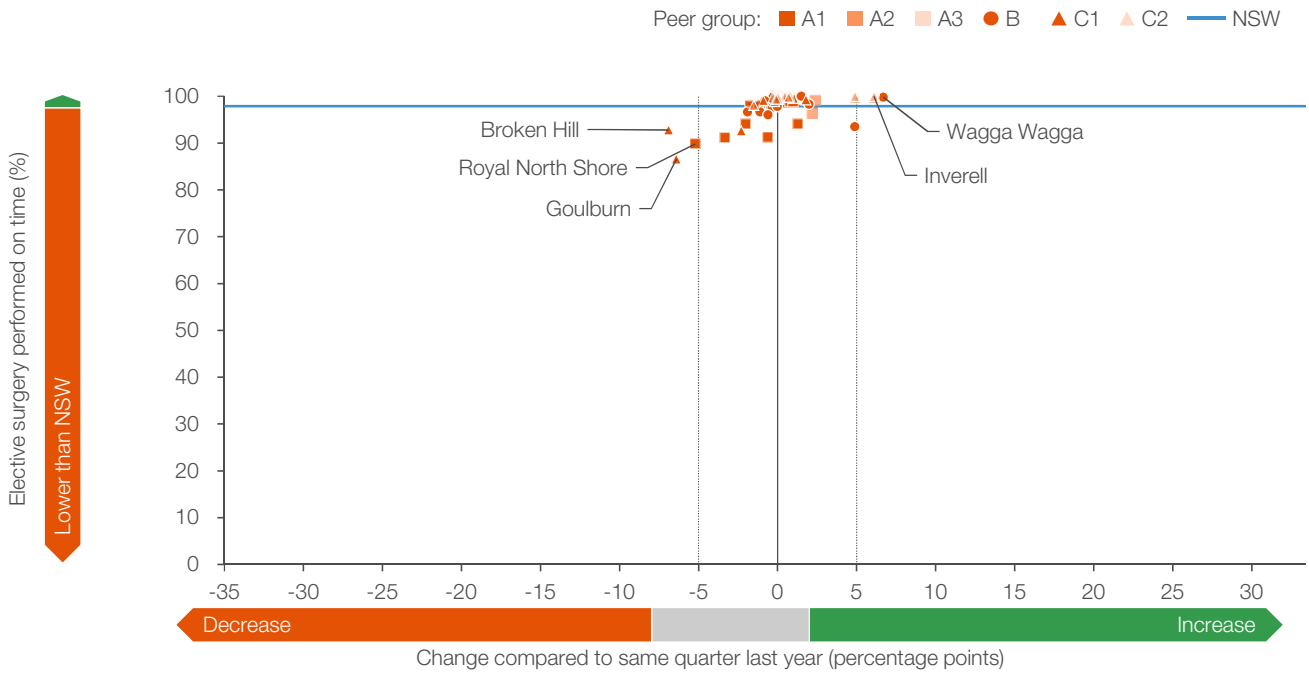
Hospitals in the lower right quadrant had results that were lower than NSW overall, and an increase in the percentage of procedures performed on time this quarter, compared with the same quarter last year. Hospitals in the lower left quadrant had results that were lower than NSW and a decrease in the percentage of procedures performed on time, compared with the same quarter last year.

Hospitals identified in Figure 16 are those for which the proportion of procedures performed on time this quarter had changed by more than five percentage points, compared with the same quarter last year.

Across hospitals, the percentage of elective surgical procedures performed on time increased in 23 out of 79 hospitals. For two hospitals, Wagga Wagga and Inverell, the increase was more than five percentage points (Figure 16).

The percentage of procedures performed on time decreased in 24 hospitals. For three hospitals, Royal North Shore, Goulburn and Broken Hill, the decrease was more than five percentage points (Figure 16).

Figure 16 Percentage of elective surgical procedures performed on time and percentage point change since same quarter last year, hospitals by peer group, July to September 2017



Median waiting time for specialties and specific procedures

Across specialties in the July to September 2017 quarter, the longest median waiting times were for ear, nose and throat surgery (184 days), ophthalmological surgery (175 days), and orthopaedic surgery (111 days). The shortest median waiting times was for medical (non-specialist) surgery (17 days). The largest difference in median waiting times since the same quarter last year was seen in ophthalmological surgery (22 days; down 11.2%). The largest increase was for ear, nose and throat surgery (14 days; up 8.2%) (Figure 17).

Figure 17 **Median waiting time for patients who received elective surgery, by specialty, July to September 2017**

	Number of procedures	This quarter	Same quarter last year	Change since one year ago
Ear, nose and throat surgery	4,524	184 days	170 days	14 days
Ophthalmology	8,112	175 days	197 days	-22 days
Orthopaedic surgery	9,387	111 days	118 days	-7 days
Neurosurgery	1,129	42 days	39 days	3 days
Gynaecology	7,572	39 days	38 days	1 day
General surgery	13,909	36 days	35 days	1 day
Urology	8,026	36 days	36 days	unchanged
Plastic surgery	2,581	35 days	33 days	2 days
Cardiothoracic surgery	867	21 days	22 days	-1 day
Vascular surgery	1,701	20 days	18 days	2 days
Medical	481	17 days	14 days	3 days

Across common surgical procedures, the longest median waiting times were for septoplasty (325 days), and tonsillectomy (297 days). Other-general (22 days) and coronary artery bypass graft procedures (27 days) had the shortest median waiting times. The largest drop was seen in cataract extractions (30 days; down 12.9%). The largest increase was seen in tonsillectomy (16 days; up 5.7%) (Figure 18).

Figure 18 Median waiting time for patients who received elective surgery, by common procedure, July to September 2017

	Number of procedures	This quarter	Same quarter last year	Change since one year ago
Septoplasty	490	325 days	318 days	7 days
Tonsillectomy	1,470	297 days	281 days	16 days
Myringoplasty / Tympanoplasty	112	289 days	301 days	-12 days
Total knee replacement	1,763	281 days	293 days	-12 days
Total hip replacement	1,039	209 days	220 days	-11 days
Cataract extraction	6,330	203 days	233 days	-30 days
Varicose veins stripping and ligation	368	119 days	119 days	unchanged
Inguinal herniorrhaphy	1,573	74 days	73 days	1 day
Haemorrhoidectomy	334	67 days	57 days	10 days
Prostatectomy	699	64 days	57 days	7 days
Abdominal hysterectomy	661	63 days	64 days	-1 day
Myringotomy	79	55 days	53 days	2 days
Cholecystectomy	1,585	53 days	53 days	unchanged
Hysteroscopy	2,619	34 days	33 days	1 day
Cystoscopy	3,329	30 days	31 days	-1 day
Coronary artery bypass graft	194	27 days	26 days	1 day
Other - General	1,772	22 days	24 days	-2 days

Percentage of elective surgery for specific procedures on time

The percentage of elective surgical procedures performed on time reached almost 100% this quarter across several specialty groups.

Medical (non-specialist), ophthalmology, vascular surgery and cardiothoracic surgery had the highest percentage of patients who received surgery on time (99.8%, 99.4%, 99.2% and 99.0%, respectively). Ear, nose and throat surgery (95.0%) had the lowest percentage of surgery on time (Figure 19).

Neurosurgery had the largest increase in the percentage of patients who received surgery on time this quarter (up 1.3 percentage points), while ear, nose and throat surgery, and orthopaedic surgery had the largest percentage point decreases (each down 0.8 percentage points), compared with the same quarter last year.

Figure 19 **Percentage of elective surgical procedures performed on time, by specialty, July to September 2017**

	Number of procedures	Percentage on time	Same quarter last year	Percentage point change since one year ago
General surgery	13,909	98.9%	98.5%	0.4
Orthopaedic surgery	9,387	96.1%	96.9%	-0.8
Ophthalmology	8,112	99.4%	98.7%	0.7
Urology	8,026	98.1%	97.7%	0.4
Gynaecology	7,572	98.4%	98.7%	-0.3
Ear, nose and throat surgery	4,524	95.0%	95.8%	-0.8
Plastic surgery	2,581	96.7%	97.2%	-0.5
Vascular surgery	1,701	99.2%	99.3%	-0.1
Neurosurgery	1,129	97.8%	96.5%	1.3
Cardiothoracic surgery	867	99.0%	97.9%	1.1
Medical	481	99.8%	99.1%	0.7

Among common surgical procedures, cataract extraction had the highest percentage performed on time (99.6%), while myringoplasty/tympanoplasty (86.6%) had the lowest (Figure 20).

Coronary artery bypass graft had the largest increase in the percentage of patients who received surgery on time this quarter (up 3.5 percentage points), while myringoplasty/tympanoplasty had the largest decrease (down 5.5 percentage points) compared with the same quarter last year (Figure 20).

Figure 20 **Percentage of elective surgical procedures performed on time, by common procedure, July to September 2017**

	Number of procedures	Percentage on time	Same quarter last year	Percentage point change since one year ago
Cataract extraction	6,330	99.6%	98.6%	1.0
Cystoscopy	3,329	98.4%	97.8%	0.6
Hysteroscopy	2,619	99.2%	99.0%	0.2
Other - General	1,772	99.1%	97.2%	1.9
Total knee replacement	1,763	92.5%	96.0%	-3.5
Cholecystectomy	1,585	98.4%	98.0%	0.4
Inguinal herniorrhaphy	1,573	98.8%	97.5%	1.3
Tonsillectomy	1,470	95.7%	96.6%	-0.9
Total hip replacement	1,039	94.1%	96.8%	-2.7
Prostatectomy	699	96.9%	97.7%	-0.8
Abdominal hysterectomy	661	95.9%	97.6%	-1.7
Septoplasty	490	91.6%	95.0%	-3.4
Varicose veins stripping and ligation	368	99.4%	97.5%	1.9
Haemorrhoidectomy	334	98.8%	98.9%	-0.1
Coronary artery bypass graft	194	97.4%	93.9%	3.5
Myringoplasty / Tympanoplasty	112	86.6%	92.1%	-5.5
Myringotomy	79	98.7%	98.9%	-0.2

End of quarter elective surgery waiting list

On the 30th of September 2017, there were 75,815 patients who were ready for surgery and on the elective surgery waiting list. Of these, 2.2% were waiting for urgent surgery, 16.7% were waiting for semi-urgent surgery and 81.1% were waiting for non-urgent surgery (Figure 21).

The waiting list is dynamic and this statistic provides a snapshot of the list on a single day. Among the patients on the list on 30 September 2017, there were 16,352 (21.6%) who had been waiting for 30 days or less.

Compared with the last day of the same quarter last year, there was an increase in the number of patients on the waiting list for urgent (1,670, up 0.8%), semi-urgent (12,644, up 6.5%), and non-urgent (61,501, up 3.0%) (Figure 21).

At the end of the quarter, there were 14,614 patients 'not ready for surgery'* and on the elective surgery waiting list, up 1.8% compared with the same quarter last year (Figure 21).

Across specialties, patients waiting for orthopaedic surgery and ophthalmological surgery represented the largest proportion of patients on the list. Together, these specialties represented 47.9% of all patients on the elective surgery waiting list (Figure 22).

In terms of specialist procedures, most patients were waiting for cataract extraction (15,300 patients); 2.6% more than in the same quarter last year. Procedures with relatively few patients on the waiting list at the end of the quarter were coronary artery bypass graft (104 patients) and myringotomy (112 patients) (Figure 23).

At the end of the quarter, there were 315 patients still waiting for surgery after more than 12 months on the waiting list; an increase of 58 patients (22.6%) compared with the same quarter last year. Nearly half of these patients (147 patients; 46.7%) were waiting for orthopaedic surgery (Figure 22).

Figure 21 Elective surgery waiting list, by urgency category, as at 30 September 2017

	This quarter	Same quarter last year	Change since one year ago
Patients ready for surgery on waiting list as at 30 September 2017	75,815	73,226	3.5%
Urgent 2.2%	1,670	1,657	0.8%
Semi-urgent 16.7%	12,644	11,877	6.5%
Non-urgent 81.1%	61,501	59,692	3.0%
Patients not ready for surgery on waiting list at the end of quarter	14,614	14,357	1.8%

* These patients are either staged patients (whose medical condition does not require, or is not amenable to, surgery until a future date) or deferred patients who for personal reasons are not yet prepared to be admitted to hospital.

Figure 22 **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 specialty, as at 30 September 2017**

	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	**75,815**	**73,226**	**3.5**	**315**	**257**
Orthopaedic surgery	18,681	18,579	0.5	147	139
Ophthalmology	17,616	17,305	1.8	10	6
General surgery	12,617	12,121	4.1	36	20
Ear, nose and throat surgery	11,027	10,029	10.0	68	46
Gynaecology	6,180	6,020	2.7	7	18
Urology	4,264	4,060	5.0	6	<5
Plastic surgery	2,332	2,309	1.0	21	9
Neurosurgery	1,412	1,183	19.4	19	15
Vascular surgery	1,036	1,038	-0.2	<5	<5
Cardiothoracic surgery	436	316	38.0	0	0
Medical	214	266	-19.5	0	0

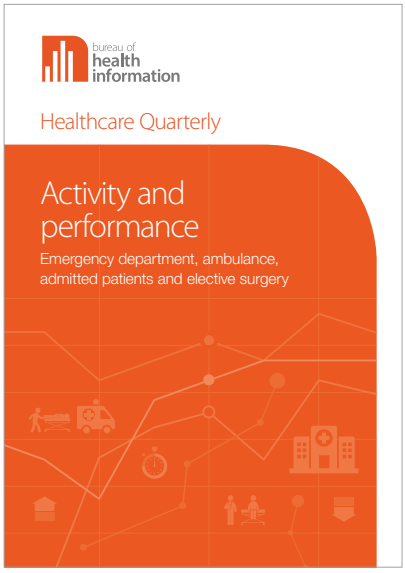
Figure 23 **Patients waiting for elective surgery and patients still waiting after more than 12 months on the waiting list at the end of the quarter, by common procedure, as at 30 September 2017**

	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	15,300	14,912	2.6	6	<5
Total knee replacement	5,732	5,514	4.0	61	36
Tonsillectomy	4,362	3,965	10.0	11	19
Total hip replacement	2,644	2,397	10.3	20	19
Inguinal herniorrhaphy	2,183	2,095	4.2	<5	5
Hysteroscopy	1,663	1,541	7.9	0	<5
Cholecystectomy	1,624	1,572	3.3	<5	<5
Septoplasty	1,620	1,359	19.2	10	10
Cystoscopy	1,263	1,121	12.7	0	0
Other - General	1,125	1,242	-9.4	<5	0
Abdominal hysterectomy	744	787	-5.5	<5	5
Prostatectomy	695	746	-6.8	0	0
Varicose veins stripping and ligation	630	675	-6.7	0	<5
Haemorrhoidectomy	381	412	-7.5	<5	<5
Myringoplasty / Tympanoplasty	369	335	10.1	<5	0
Myringotomy	112	89	25.8	0	0
Coronary artery bypass graft	104	59	76.3	0	0

Healthcare Quarterly

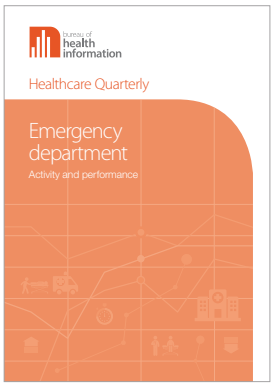
Healthcare Quarterly is a series of regular reports that describes the number and types of services provided to the people of NSW and the timeliness with which they are provided.

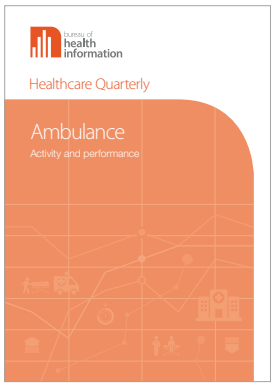
The reports feature key indicators of activity and performance across ambulance and public hospital services in NSW.

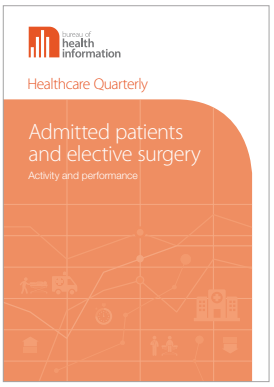


Every day around 25,000 people receive care in the NSW public hospital system and around 1,800 are transported to hospital by ambulance.

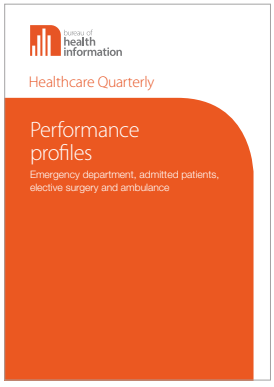
Healthcare Quarterly is published alongside three standalone modules that provide more detailed information about emergency department care, admitted patients and elective surgery, and ambulance services.

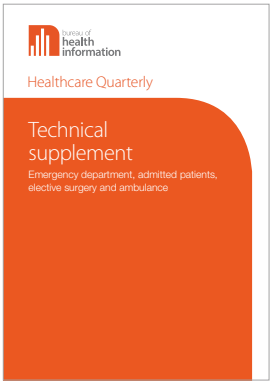






Additional information on local performance is available in our hospital profiles or from BHI's interactive portal Healthcare Observer, at **bhi.nsw.gov.au/healthcare_observer**





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

Additional information on local performance is available from BHI's interactive portal Healthcare Observer, at **bhi.nsw.gov.au/healthcare_observer**

bureau of health information

About the Bureau of Health Information

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

BHI was established in 2009 to provide system-wide support through transparent reporting.

BHI 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 in public hospitals and other healthcare facilities.

BHI publishes a range of reports and tools that provide relevant, accurate and impartial information about how the health system is measuring up in terms of:

- Accessibility – healthcare when and where needed
- Appropriateness – the right healthcare, the right way
- Effectiveness – making a difference for patients
- Efficiency – value for money
- Equity – health for all, healthcare that's fair
- Sustainability – caring for the future

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 report 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