bureau of health information

Hospital Quarterly

Activity and performance

in NSW public hospitals

July to September 2015

BUREAU OF HEALTH INFORMATION

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Hospital Quarterly reports present data at the point in time when data become available to BHI. Changes in the data from quarter to quarter mean that figures published in this document will be superseded by subsequent reports.

At any time, the most up-to-date data is available on BHI's interactive online portal, Healthcare Observer, at **bhi.nsw.gov.au/healthcare_observer**

Please note that 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.

Contents

Introduction

Every day around 25,000 people receive care in the NSW public hospital system. *Hospital Quarterly* is a series of regular reports that tracks services provided to the people of NSW and the timeliness with which they are provided.

The *Hospital Quarterly* report is structured around two key types of measures; activity and performance. Activity measures are used to describe the volume and type of services provided, while performance measures are used to describe the timeliness of service provision.

Within the section on activity, data are provided for emergency department (ED) presentations; hospital admissions; and elective surgery procedures (Figure i). Within the section on performance, data are provided for ED presentations and elective surgery procedures (Figure ii).

Hospital Quarterly appendix tables provide information about activity and performance in NSW public hospitals at a state, local health district (LHD), peer group and individual hospital level. Additional and comparative information about activity and performance in NSW public hospitals is available on the BHI interactive online portal, Healthcare Observer, at bhi.nsw.gov.au/healthcare_observer

About the data

The data used in *Hospital Quarterly* analyses are transmitted by the state's hospitals to centralised data warehouses administered by the NSW Ministry of Health. Hospital admission and ED data in this report were extracted from the NSW Health Information Exchange (HIE) on 16 and 23 October 2015 respectively. Elective surgery data were extracted from the Waiting List Collection On-line System (WLCOS) on 16 October 2015.

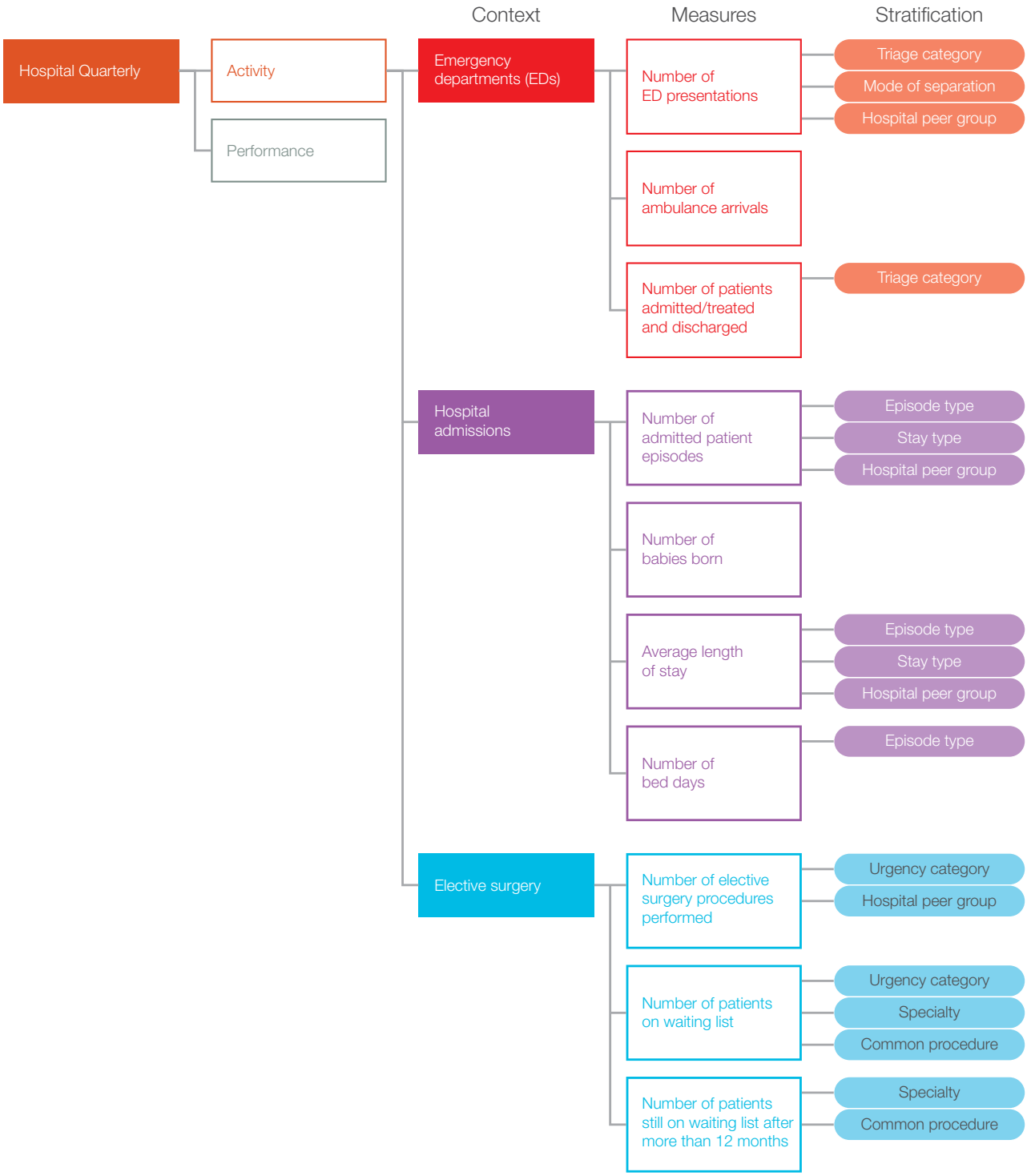
ED data are drawn from the Emergency Department Data Collection (EDDC). While not all EDs have systems in place to supply records to the EDDC, data coverage has increased over time. The ED data in this report cover 131 facilities for which consistent data have been reported to the EDDC for at least five quarters. These account for approximately 98% of all records in the EDDC and approximately 95% of ED presentations in NSW.

Hospital Quarterly reports on the percentage of patients who left the ED within four hours of presentation. Due to differences in data definitions, period of reporting and the number of hospitals included, *Hospital Quarterly* results, for this measure, 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

Hospital admission data includes hospitalisations in public hospitals, privately managed hospitals contracted to supply services for public patients, public multi-purpose services, and public psychiatric hospitals. Non-admitted patients (including community residential care), organ donors (posthumously admitted), and hospital boarders are not included in these data. Newborn babies who are aged nine days or less at the time of admission and who do not require treatment for health problems are also not included in these data.

Elective surgery data include procedures performed during the quarter, and patients currently on the waiting list to receive surgery.

Figure i **Hospital activity measures included in this report**



About the measures

Hospital Quarterly uses a number of measures to report activity and performance in NSW public hospitals (Figures i and ii). Where the focus is on measuring activity, numbers and percentages are commonly used. Where the focus is on measuring performance in terms of timeliness of care (for example, waiting times for treatment in the ED or for elective surgery), the median and 90th or 95th percentile times are used. Timeliness is also reported using the percentage of patients receiving care within a defined time period. For example, the percentage of patients who arrived by ambulance that had their care transferred within 30 minutes, the percentage of patients leaving the ED within four hours, and the percentage of elective surgery performed within recommended timeframes are reported.

About the analyses

The data specifications and analytic methods used for *Hospital Quarterly* are described in the technical supplements section of the BHI website at bhi.nsw.gov.au

Hospital Quarterly includes a number of commonly used terms and classifications to describe activity and performance across EDs, hospital admissions and elective surgery. These are described in Table 4 (page 49).

Making direct comparisons of activity and performance between hospitals is not straightforward. For valid comparisons to be made it is important to consider similar hospitals together. To do this, *Hospital Quarterly* uses a NSW Health classification system called 'hospital peer groups' as the basis for comparison (Table 1). An index of NSW public hospitals by LHD and hospital peer group can be found on page 53 of this report.

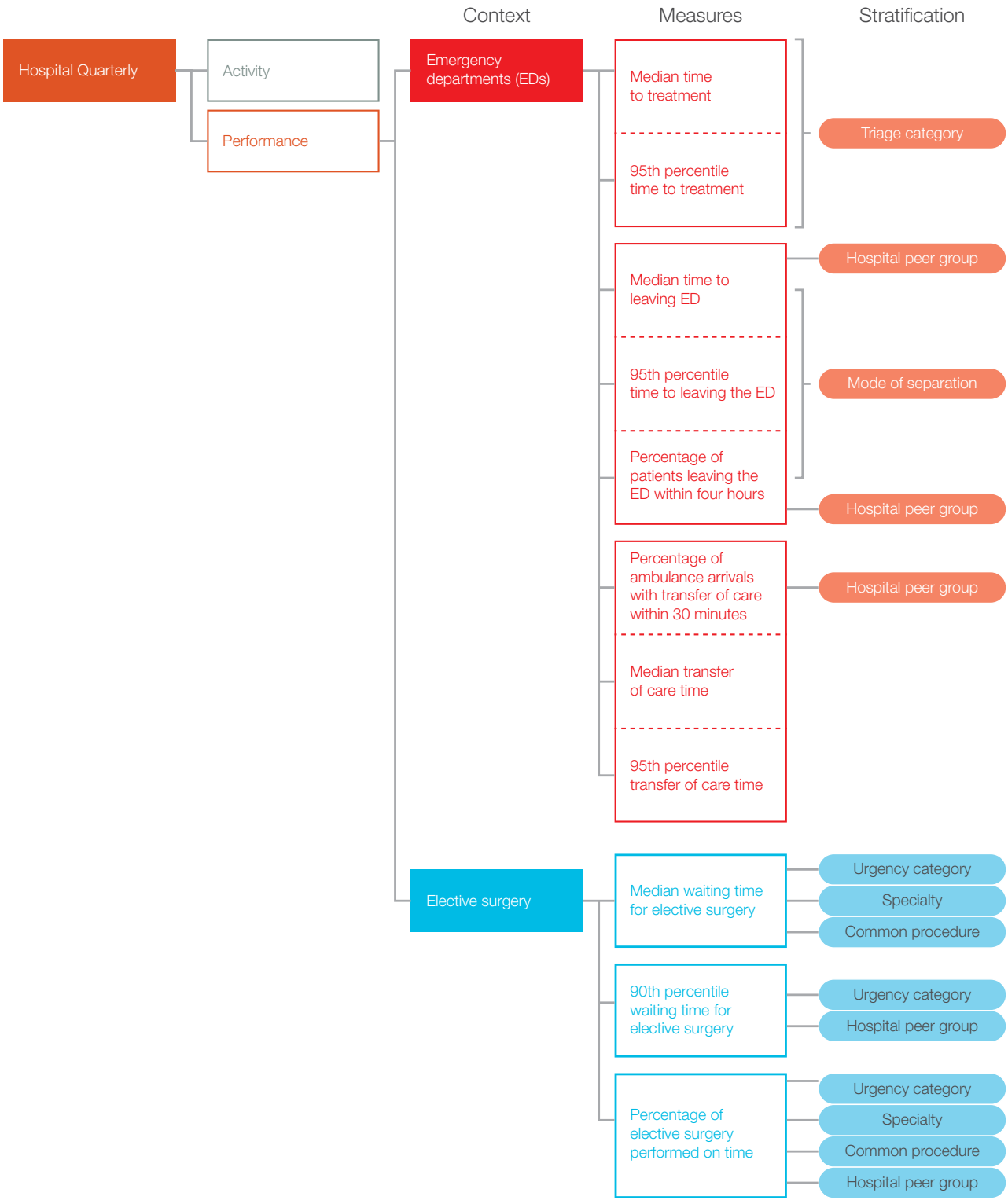
Urgency categories should also be considered in making fair comparisons in activity and performance across EDs and for elective surgery. See Table 4 (page 49) for a description of ED triage categories and elective surgery urgency categories.

Percentages in this report are rounded and therefore may not sum to 100%. Percentages greater than 99.5% are rounded to 100%.

Table 1 **NSW public hospital peer groups**

Peer group	Name	Description
A1	Principal referral	Very large hospitals providing a broad range of services, including specialised units at a state or national level.
A2	Paediatric specialist	Specialist hospitals for children and young people.
A3	Ungrouped acute – tertiary referral	Major specialist hospitals that are not similar enough to any other peer group to be classified with them.
B	Major	Large metropolitan and non-metropolitan hospitals.
C1	District group 1	Medium sized hospitals treating between 5,000–10,000 patients each year.
C2	District group 2	Smaller hospitals typically in rural locations.

Figure ii **Hospital performance measures included in this report**



Key findings

Hospital activity measures – July to September 2015

How many people presented at NSW emergency departments?

Compared with the same quarter last year:

- 21,746 more patients presented to NSW emergency departments (EDs) (648,668 presentations in total; up 3%). Most presentations (96%) were unplanned (emergency presentations).
- 5,251 more patients were in triage category two (up 7%), 12,887 more were in triage category three (up 6%), 4,522 more were in triage category four (up 2%) and 1,270 less were in triage category five (down 2%)
- 22% of patients who presented at the ED arrived by ambulance (141,322 patients in total; down 3%).

Where did patients go after leaving the emergency department?

Compared with the same quarter last year:

- 62% of ED patients were treated and discharged (12,925 more than the same quarter last year)
- 28% were treated and admitted to hospital (5,020 more patients)
- 6% left without, or before completing, treatment (3,647 more patients)
- 2% were transferred to another hospital (497 more patients).

How many patients were admitted to public hospitals?

Compared with the same quarter last year:

- There were 6,022 more admitted patient episodes (474,568 episodes in total; up 1%). Most (96%) were acute care episodes.
- Over half of all acute admitted patient episodes (55%) were for overnight care and the remainder were for same-day care
- 29,185 more bed days were recorded (1,760,446 bed days in total; up 2%), and the total number of acute bed days (1,461,001) increased by 2%
- The average length of stay for an acute overnight admitted patient episode (5.1 days); 0.1 days longer
- 18,287 babies in total were born in NSW public hospitals; unchanged.

How many elective surgery procedures were performed?

Compared with the same quarter last year:

- 3% fewer elective surgery procedures were performed (56,503 procedures in total). Of all elective surgery procedures performed this quarter:
  - 12,421 (22%) were categorised as urgent
  - 18,384 (33%) were categorised as semi-urgent
  - 23,094 (41%) were categorised as non-urgent
  - 2,604 (5%) were categorised as staged.

How many patients were on the waiting list for elective surgery?

Compared with the same quarter last year:

- 1% more people were ready for surgery and on the elective surgery waiting list at the end of the quarter (73,397 in total). Of these:
  - 1,689 people (2%) were waiting for urgent surgery
  - 12,253 (17%) were waiting for semi-urgent surgery
  - 59,455 (81%) were waiting for non-urgent surgery.
- More people were still waiting for surgery at the end of the quarter across all urgency categories (all up 1%) .

Table 2 provides a summary of NSW public hospital activity measures for July to September 2015.

Table 2 **Summary of NSW public hospital activity measures, July to September 2015**

Emergency department activity		July to September 2014	July to September 2015	Difference	% change
All arrivals at NSW EDs by ambulance		145,693	141,322	-4,371	-3%
All ED presentations		626,922	648,668	21,746	3%
Emergency presentations		603,468	624,976	21,508	4%
Emergency presentations by triage category					
Triage category	T1: Resuscitation	4,317	4,435	118	3%
	T2: Emergency	70,890	76,141	5,251	7%
	T3: Urgent	201,287	214,174	12,887	6%
	T4: Semi-urgent	263,268	267,790	4,522	2%
	T5: Non-urgent	63,706	62,436	-1,270	-2%
Admissions to hospital from NSW EDs		176,381	181,401	5,020	3%

Admitted patient activity		July to September 2014	July to September 2015	Difference	% change
All admitted patient episodes		468,546	474,568	6,022	1%
All acute episodes		449,559	455,063	5,504	1%
Overnight episodes		244,832	248,095	3,263	1%
Same-day episodes		204,727	206,968	2,241	1%
Non-acute episodes		18,987	19,505	518	3%
Average length of stay (days)	All acute episodes	3.2	3.2	0	0%
	Acute overnight episodes	5	5.1	0.1	2%
	Non-acute episodes	15.6	15.4	-0.2	-1%
Hospital bed days	All bed days	1,731,261	1,760,446	29,185	2%
	Acute bed days	1,435,945	1,461,001	25,056	2%
	Non-acute bed days	295,316	299,445	4,129	1%
Babies born in NSW public hospitals		18,290	18,287	-3	0%

Elective surgery activity		July to September 2014	July to September 2015	Difference	% change
Elective surgery procedures performed		58,495	56,503	-1,992	-3%
Urgency category	Urgent surgery	12,764	12,421	-343	-3%
	Semi-urgent surgery	18,696	18,384	-312	-2%
	Non-urgent surgery	23,465	23,094	-371	-2%
Patients on waiting list ready for elective surgery at end of quarter		72,387	73,397	1,010	1%
Urgency category	Urgent surgery	1,680	1,689	9	1%
	Semi-urgent surgery	12,097	12,253	156	1%
	Non-urgent surgery	58,610	59,455	845	1%

Key findings

Hospital performance measures – July to September 2015

How long did patients wait for ED treatment?

Compared with the same quarter last year:

- The percentage of patients that had their care transferred from ambulance to ED staff within 30 minutes was two percentage points higher at 82%
- The median time from presentation at the ED to starting treatment was largely unchanged across all triage categories
- The 95th percentile time to starting treatment increased for patients in triage categories two, three, four and five (four, six, eight and seven minutes longer respectively).

How long were patients in the ED?

Compared with the same quarter last year:

- The median time to leaving the ED was three minutes longer and 95th percentile time to leaving was seven minutes shorter
- There was a decrease in the percentage of patients who left the ED within four hours (70% this quarter; down one percentage point)
- The percentage of patients leaving within four hours increased in 36 out of 81 hospitals, compared with the same quarter last year. Four hospitals increased more than five percentage points.
- The percentage of patients leaving within four hours decreased in 38 hospitals, compared with the same quarter last year. Five hospitals decreased more than five percentage points; with one that decreased more than 10 percentage points.

How long did patients wait for elective surgery?

Compared with the same quarter last year:

- The median waiting times for urgent and semi-urgent elective surgery increased by one day (11 and 45 days respectively), while the median waiting time for non-urgent surgery increased by five days to 221 days.
- The 90th percentile waiting time for urgent elective surgery increased by one day (26 days), and was unchanged for semi-urgent and non-urgent surgery (83 and 356 days respectively).

Was elective surgery performed on time?

Compared with the same quarter last year:

- The percentage of elective surgery performed within recommended timeframes was unchanged at 97%. This included:
  - 100% of urgent surgery (unchanged)
  - 97% of semi-urgent surgery (unchanged)
  - 95% of non-urgent surgery (down one percentage point).
- The percentage of elective surgery performed on time increased in 25 out of 83 hospitals, compared with the same quarter last year. Three hospitals increased more than five percentage points; including two that increased more than 10 percentage points.
- The percentage of elective surgery performed on time decreased in 22 hospitals, compared with the same quarter last year. Four hospitals decreased more than five percentage points; including two that decreased more than 10 percentage points.

- Among specialties:
  - Vascular surgery and medical (non-specialist) surgery had the highest percentage of patients who received surgery on time (both 99%)
  - Ear, nose and throat surgery and orthopaedic surgery (93% and 95% respectively) had the lowest.
- Among common procedures:
  - Cystoscopy, hysteroscopy and coronary artery bypass graft (all 99%) had the highest percentage of patients who received surgery on time
  - Myringoplasty/tympanoplasty (83%), myringotomy (92%) and septoplasty (93%) had the lowest.

Table 3 provides a summary of NSW public hospital performance measures for July to September 2015.

Table 3 **Summary of NSW public hospital performance measures, July to September 2015**

Emergency department performance			July to September 2014	July to September 2015	Difference
Time to treatment by triage category	T2: Emergency	Median	8m	9m	1m
		95th percentile	41m	45m	4m
	T3: Urgent	Median	22m	22m	0m
		95th percentile	1h 53m	1h 59m	6m
	T4: Semi-urgent	Median	28m	29m	1m
		95th percentile	2h 28m	2h 36m	8m
	T5: Non-urgent	Median	24m	25m	1m
		95th percentile	2h 19m	2h 26m	7m
Median time to leave the ED			2h 49m	2h 52m	3m
95th percentile time to leave the ED			11h 38m	11h 31m	-7m
Patients leaving the ED within four hours of presentation			71%	70%	-1 percentage point

Elective surgery performance			July to September 2014	July to September 2015	Difference
Waiting time (days)	Urgent	Median	10 days	11 days	1 day
		90th percentile	25 days	26 days	1 day
	Semi-urgent	Median	44 days	45 days	1 day
		90th percentile	83 days	83 days	unchanged
	Non-urgent	Median	216 days	221 days	5 days
		90th percentile	356 days	356 days	unchanged
Elective surgery procedures performed on time	All procedures		97%	97%	unchanged
	Urgent surgery		100%	100%	unchanged
	Semi-urgent surgery		97%	97%	unchanged
	Non-urgent surgery		96%	95%	-1 percentage point

Hospital activity measures

Key findings – July to September 2015

Compared with the same quarter last year...

21,746 more emergency department presentations
648,668 presentations in total
3% ↑

6,022 more people admitted to hospital
474,568 admissions in total
1% ↑

1,992 fewer elective surgery procedures performed
56,503 elective surgery procedures in total
3% ↓

29,185 more bed days of care provided
1,760,446 bed days in total
2% ↑

4,371 fewer patients arrived by ambulance
3% ↓
141,322 arrivals in total

18,287 babies born in total
unchanged

The average length of stay for all acute overnight admissions was **5.1 days**

up 0.1 days compared with the same quarter last year

NSW emergency departments

This section provides information about patients who presented to emergency departments, ambulance arrivals, how urgently patients required care (triage category) and how they left the emergency department (mode of separation).

NSW hospital admissions

This section provides information about the number and type of hospital admissions (admitted patient episodes), number of babies born, average length of stay and number ofbed days provided.

NSW elective surgery

This section provides information about the number of elective surgery procedures performed, how urgently patients required surgery and the number of patients on the elective surgery waiting list.

How many people presented at NSW emergency departments?

During the July to September 2015 quarter, a total of 648,668 people presented to NSW public hospital emergency departments (EDs), an increase of 3% compared with the same quarter last year. Almost all were emergency presentations (624,976 patients or 96%) (Figure 1). The remaining 4% (23,692 patients) presented to ED for non-emergency reasons such as a planned return visit, or a planned hospital admission.

Most of the increase in ED presentations this quarter was due to a 7% increase in the number of patients in triage category two (5,251 more patients) and a 6% increase in the number in triage category three (12,887 more patients). There was a 3% increase in the number of patients in triage category one (118 more patients), a 2% increase in triage category four (4,522 more patients), and a decrease of 2% in triage category five (1,270 less patients) (Figure 1).

There has been a sizeable increase over time in the number of emergency presentations, from 498,671 in July to September 2010 to 624,976 this quarter, representing a 25% increase over the past five years (Figure 2).

The number of ED presentations increased this quarter in the majority of NSW hospitals (60 out of 81) (Figure 3). Twenty-eight hospitals had an increase of more than 5%, including eight that increased by more than 10%. Seven hospitals had a decrease of more than 5% in the number of ED presentations this quarter, including three that decreased by more than 10%. Hospitals identified in Figure 3 are those that had more than 5,000 ED presentations this quarter (at least 55 patients each day), and more than a 5% change in the number of presentations compared with the same quarter last year.

This quarter, 141,322 ED patients arrived by ambulance, a decrease of 3% compared with the same quarter last year (Figure 1).

Emergency presentations are ED presentations for emergencies, unplanned return visits or disaster.

Figure 1 **Emergency department presentations and ambulance arrivals at NSW emergency departments, July to September 2015**

	This quarter	Same quarter last year	Change since one year ago
All presentations	648,668	626,922	3%
Emergency presentations by triage category	624,976	603,468	4%
Triage 1: Resuscitation 1%	4,435	4,317	3%
Triage 2: Emergency 12%	76,141	70,890	7%
Triage 3: Urgent 34%	214,174	201,287	6%
Triage 4: Semi-urgent 43%	267,790	263,268	2%
Triage 5: Non-urgent 10%	62,436	63,706	-2%
Ambulance arrivals	141,322	145,693	-3%

Figure 2 Emergency presentations and ambulance arrivals at NSW emergency departments, July 2010 to September 2015

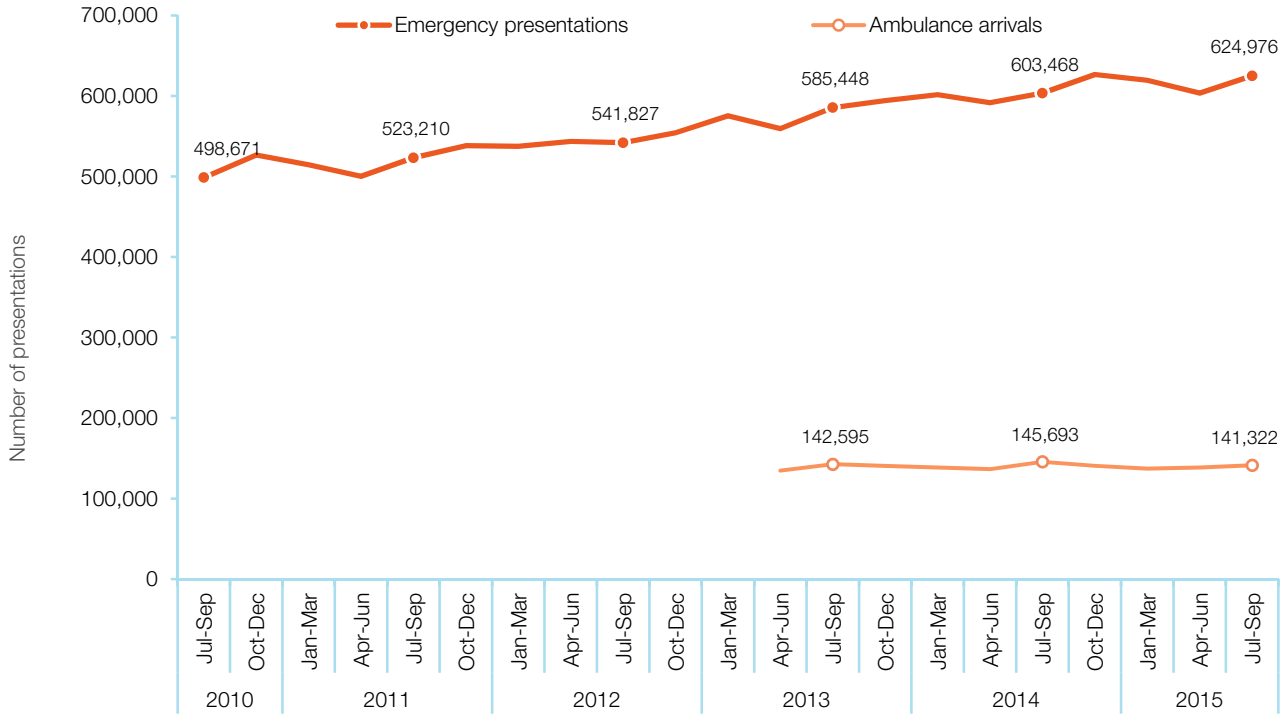
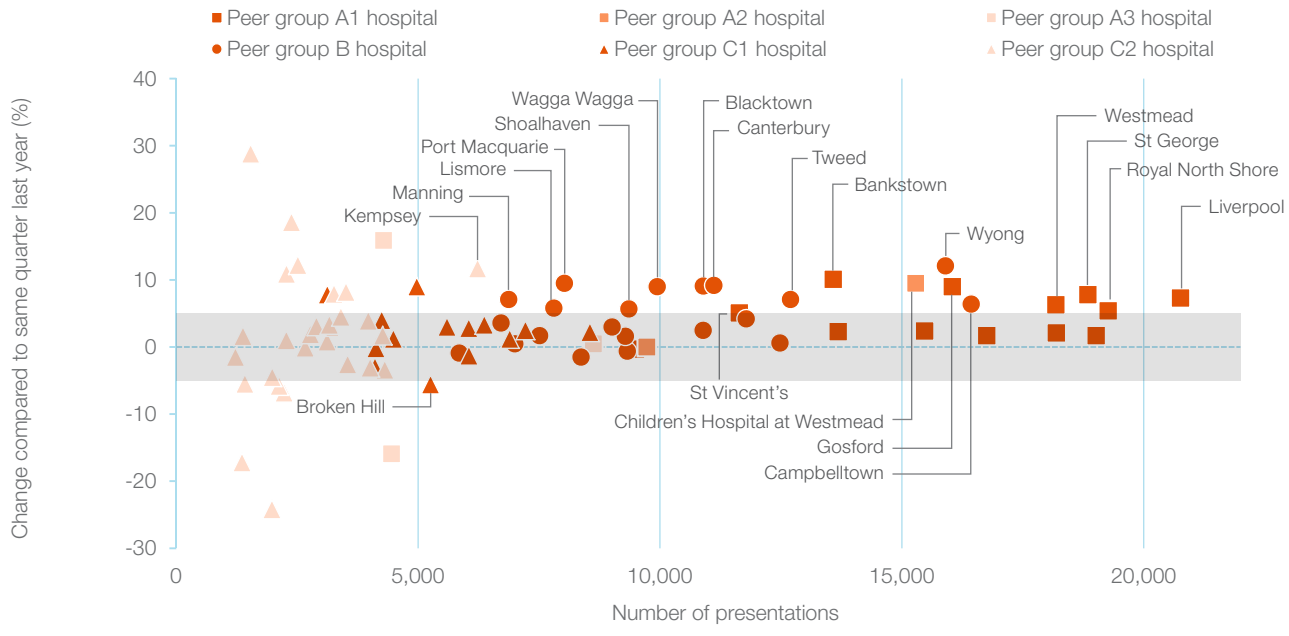


Figure 3 Change in emergency department presentations compared with the same quarter last year, hospitals by peer group, July to September 2015



Where did patients go after leaving the emergency department?

There are different ways in which a patient can leave the ED (referred to as mode of separation). The majority of patients either leave after their treatment is complete or they are admitted to hospital. Some patients choose not to wait for treatment and leave, and others are transferred to a different hospital.

During the July to September 2015 quarter, 62% of patients (404,038) were treated and discharged from the ED, and 28% (181,401 patients) were treated and admitted to hospital. For both groups, there was a 3% increase in the number of patients compared with the same quarter last year.

The number of patients transferred to another hospital increased by 4% this quarter (13,414) and the number who left without, or before completing, treatment (38,773 patients) increased by 10%, compared with the same quarter last year (Figure 4).

ED patients in triage categories one and two were more likely to be treated and admitted to hospital this quarter (Figure 5), whereas those in triage categories three, four and five were more likely to be treated and discharged (Figure 6).

There has been an increase in the number of patients who were treated and discharged, treated and admitted to hospital, and transferred to another hospital since the same quarter in 2010. During this time, there has been a decrease in the number of patients who left without, or before completing, treatment (Figure 7).

Figure 4 **Patients leaving the emergency department, by mode of separation, July to September 2015**

		This quarter	Same quarter last year	Change since one year ago
Treated and discharged	62%	404,038	391,113	3%
Treated and admitted to hospital	28%	181,401	176,381	3%
Patient left without, or before completing, treatment	6%	38,773	35,126	10%
Transferred to another hospital	2%	13,414	12,917	4%
Other	2%	11,042	11,385	-3%

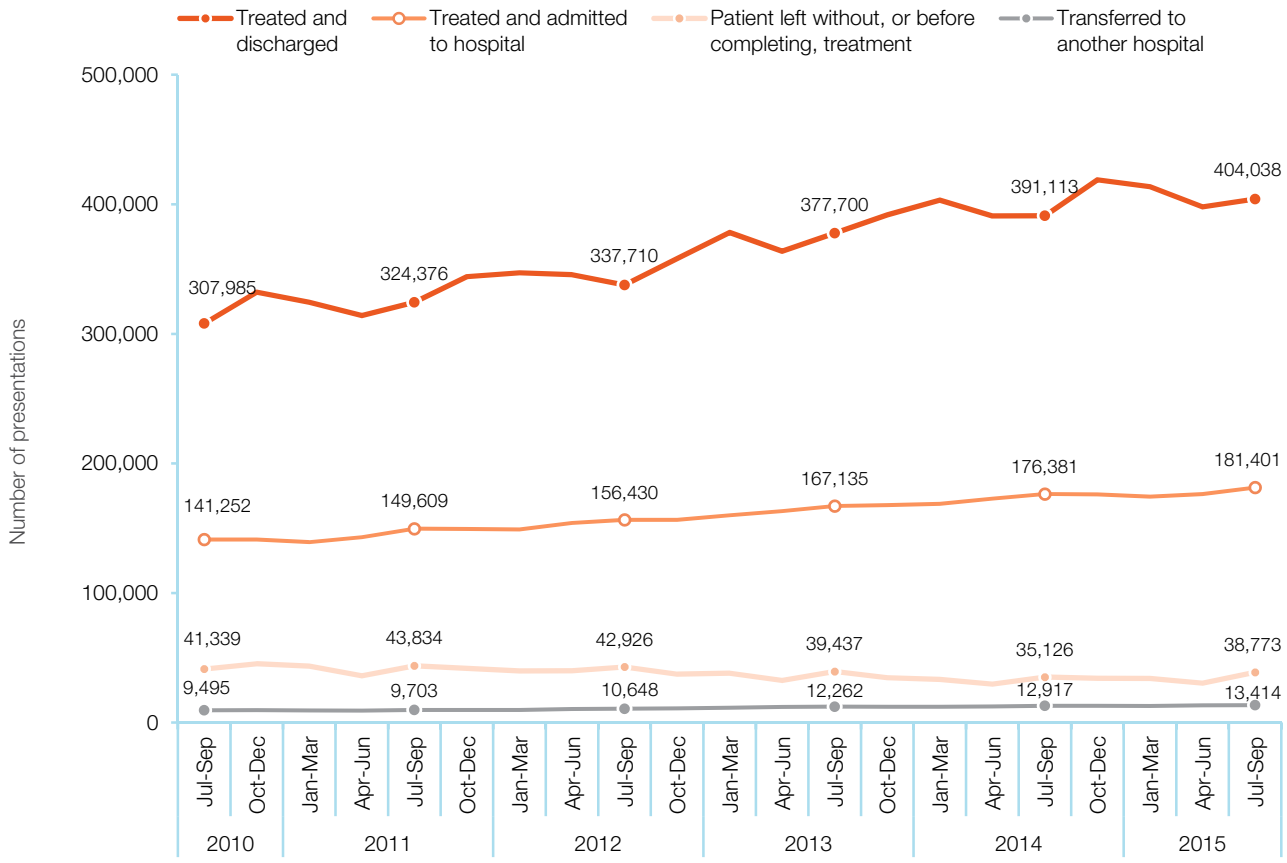
Figure 5 **Percentage of patients treated and admitted, by triage category, July to September 2015**

		Same quarter last year	Percentage point change since one year ago
All ED presentations	28%	28%	unchanged
Triage 1	83%	83%	unchanged
Triage 2	59%	60%	-1
Triage 3	40%	40%	unchanged
Triage 4	16%	16%	unchanged
Triage 5	5%	5%	unchanged

Figure 6 Percentage of patients treated and discharged, by triage category, July to September 2015

		Same quarter last year	Percentage point change since one year ago
All ED presentations	62%	62%	unchanged
Triage 1	7%	7%	unchanged
Triage 2	34%	33%	1
Triage 3	53%	52%	1
Triage 4	74%	74%	unchanged
Triage 5	81%	81%	unchanged

Figure 7 Patients leaving the emergency department, by mode of separation, July 2010 to September 2015



How many patients were admitted to public hospitals?

During the July to September 2015 quarter, there were 474,568 admitted patient episodes; 1% more than in the same quarter last year (Figure 8). The majority were acute admitted patient episodes (96%) and of this, 55% were for overnight care and 45% were for same-day care (Figure 9).

Hospital admissions can be planned (arranged in advance) or unplanned (for example, emergency hospital admissions or unplanned surgical procedures). This quarter, the majority of acute same-day admitted patient episodes (75%) were planned. Similarly, the majority of overnight episodes (85%) were unplanned.

There has been a gradual increase over the past five years in all admitted patient episodes and all acute admitted patient episodes (Figure 8). During this time, the number of acute overnight admitted patient episodes has increased by 10% and the number of same-day episodes increased by 18% (Figure 9).

Figure 10 shows differences in the percentage of all same-day acute care admissions this quarter across hospital peer groups. Peer group C2 hospitals had a higher percentage of same-day admissions than other peer groups and also had the widest range – 20% to 85% of all acute admissions being for same-day care.

The number of babies born in NSW public hospitals (18,287) was unchanged compared with the same quarter last year (Figure 8).

Patients can have more than one admitted episode during the same hospital admission. 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 8 All admitted patient episodes, acute admitted patient episodes and babies born, July 2010 to September 2015

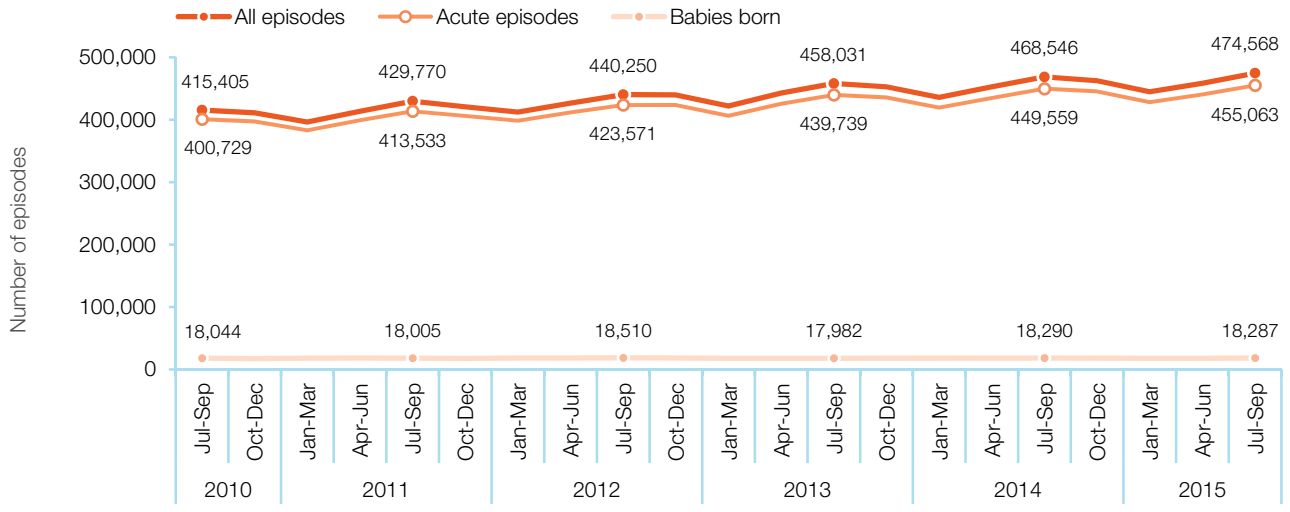


Figure 9 Overnight and same-day acute admitted patient episodes, July 2010 to September 2015

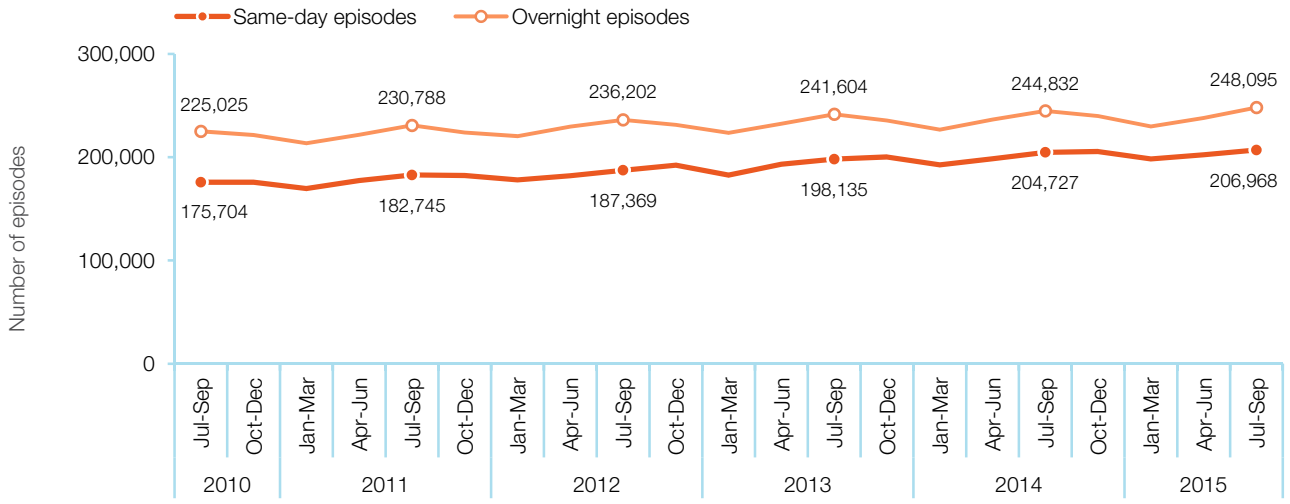
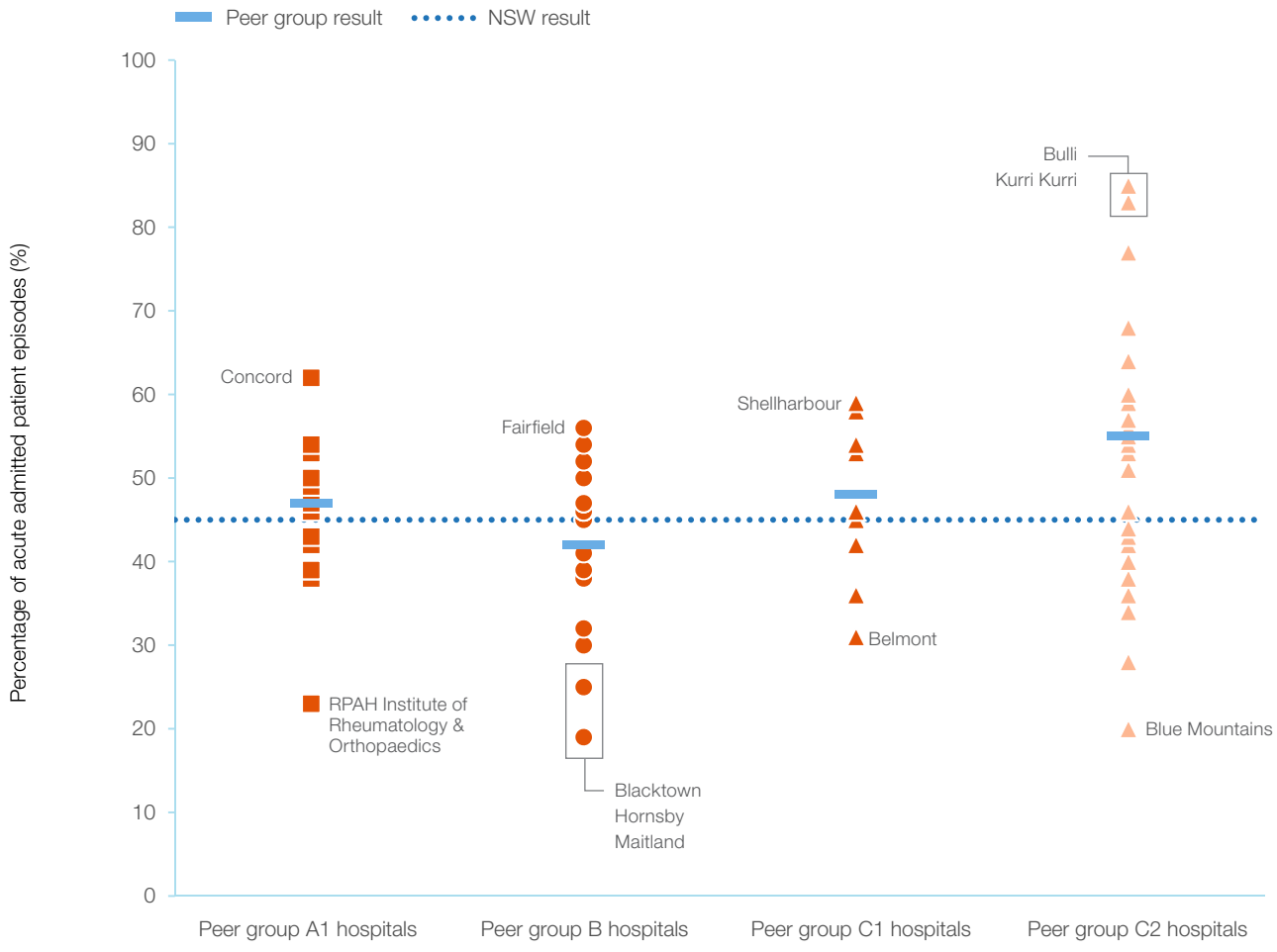


Figure 10 Same-day admitted patient episodes as percentage of all acute admitted patient episodes, by peer group, July to September 2015



How long did patients stay in hospital?

Bed days are an important measure of hospital utilisation and service provision. During the July to September 2015 quarter, 1,760,446 hospital bed days were recorded across all admitted patient episodes. This is 2% higher than in the same quarter last year. The majority of bed days (83%) were for acute care, which increased 2% this quarter. The number of non-acute bed days was 1% higher compared with the same quarter last year (Figure 11).

There has been a 5% increase in the number of bed days for acute care between July 2010 and September 2015. During this time, the number of bed days for non-acute care increased by 23% (Figure 12).

The average length of stay for all hospital admissions was 3.7 days this quarter, unchanged compared with the same quarter last year. The average length of stay for acute overnight admissions was 5.1 days, an increase of 0.1 days compared with the same quarter last year. Figure 13 shows that the average length of stay for all admissions and all acute admissions has remained unchanged in the same quarter over the past three years.

There were hospital-level differences in the average length of stay for acute overnight admissions this quarter, even within peer groups. The greatest variation was in the C2 peer group, where there was a 10.4 day difference between the highest and lowest average length of stay for individual hospitals, compared with a 2.6 day difference in the B peer group (Figure 14).

Figure 11 **Total number of hospital bed days by episode type, July to September 2015**

		This quarter	Same quarter last year	Change since one year ago
Total bed days		1,760,446	1,731,261	2%
Acute	83%	1,461,001	1,435,945	2%
Non-acute	17%	299,445	295,316	1%

Figure 12 **Total number of hospital bed days by episode type, July 2010 to September 2015**

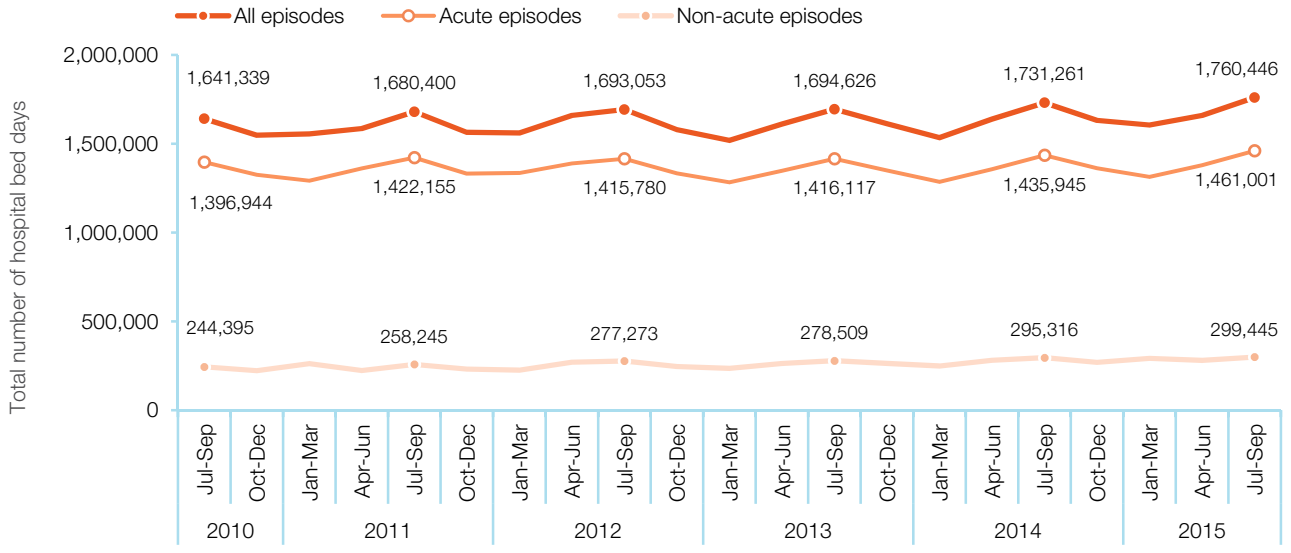


Figure 13 Average length of stay for all acute, and acute overnight admitted patient episodes, July 2010 to September 2015

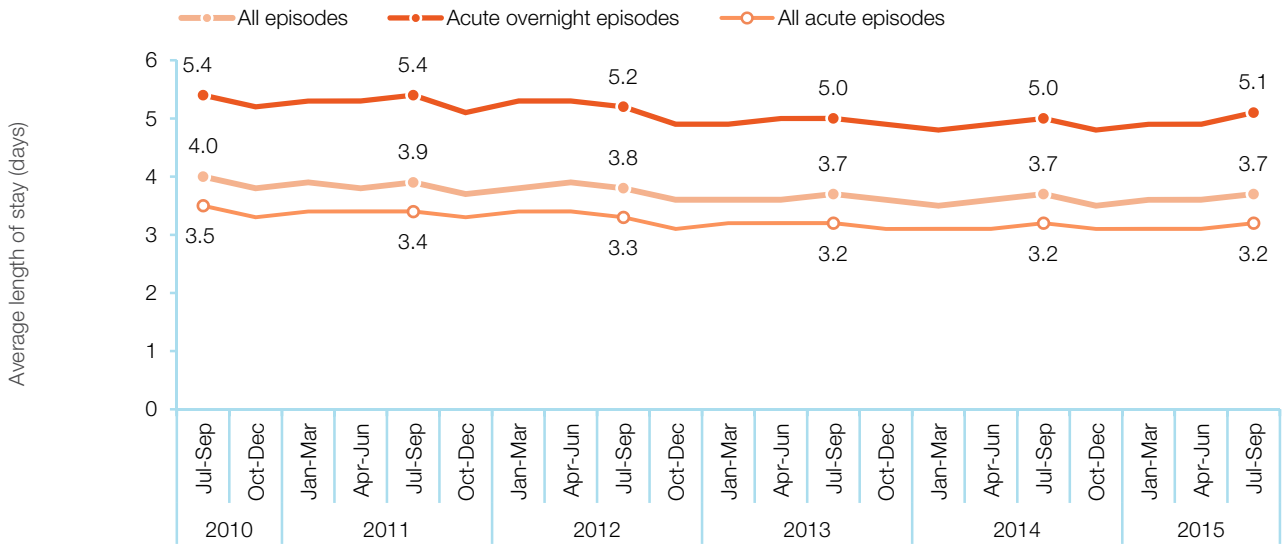
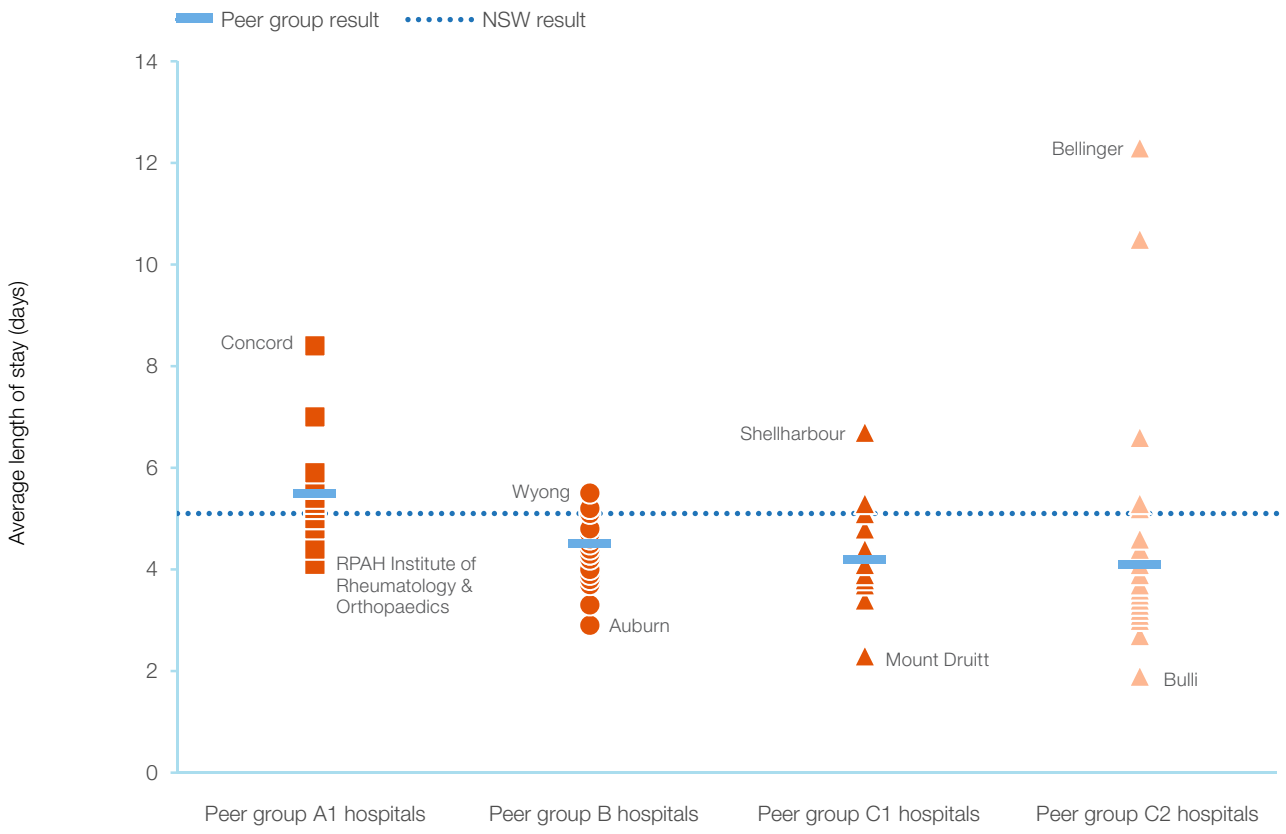


Figure 14 Average length of stay for acute overnight admitted patient episodes, by peer group, July to September 2015



How many elective surgery procedures were performed?

During the July to September 2015 quarter, a total of 56,503 elective surgery procedures were performed, 1,992 (3%) fewer than in the same quarter last year. Of all the elective surgery procedures performed this quarter, 22% were categorised as urgent, 33% as semi-urgent, and 41% as non-urgent. A further 5% were categorised as staged (Figure 15).

Staged surgery is surgery that, for medical reasons, cannot take place before a certain amount of time has elapsed. For measures of surgical activity, BHI includes all non-urgent cystoscopy procedures in the staged category. This quarter, 3% fewer urgent procedures, and 2% fewer semi-urgent and non-urgent procedures were performed compared with the same quarter last year. The number of staged procedures performed decreased by 27% compared with the same quarter last year (Figure 15).

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 15 Elective surgery procedures performed, by urgency category, July to September 2015

	This quarter	Same quarter last year	Change since one year ago
Total number of elective surgery procedures	56,503	58,495	-3%
Urgent 22%	12,421	12,764	-3%
Semi-urgent 33%	18,384	18,696	-2%
Non-urgent 41%	23,094	23,465	-2%
Staged 5%	2,604	3,570	-27%

Figure 16 Distribution of urgency categories within all elective surgery procedures, by peer group, July to September 2015

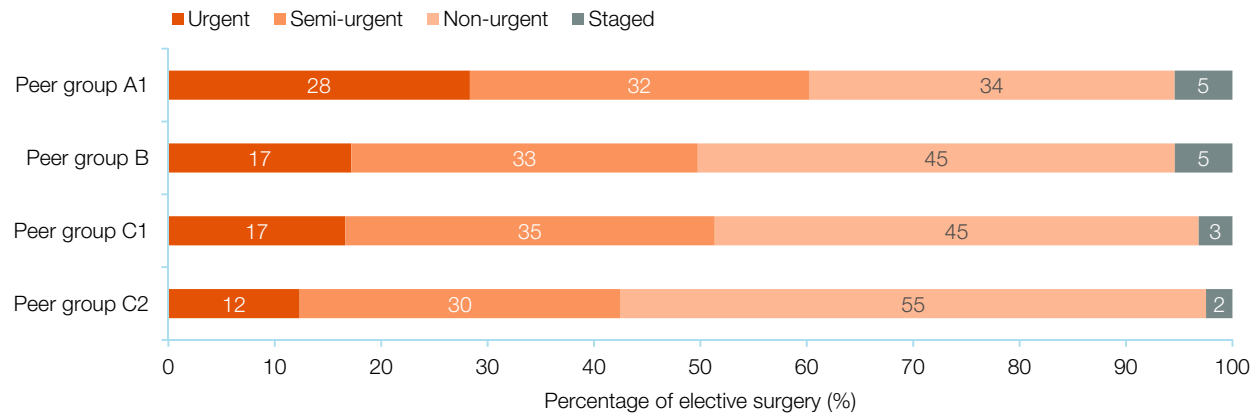
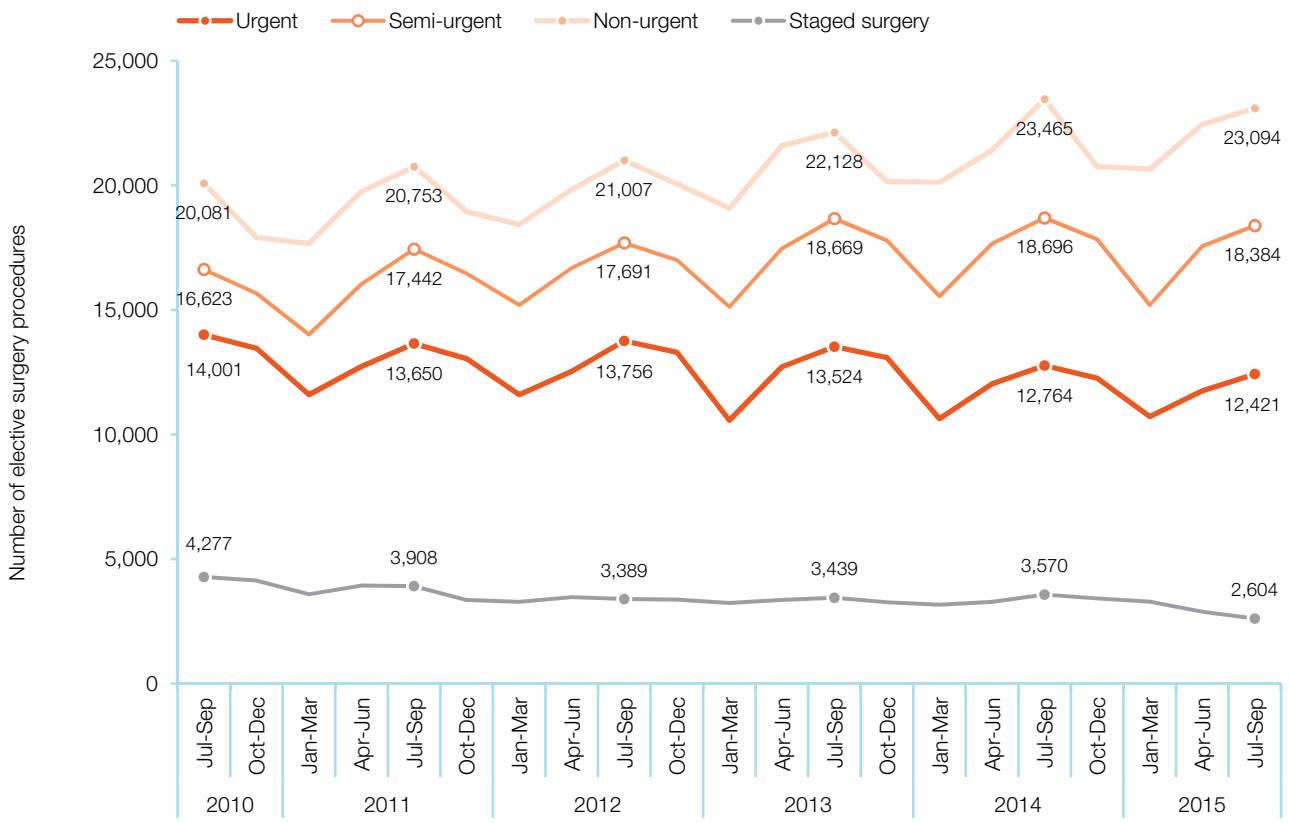


Figure 16 shows variation in the distribution, by urgency category, of all elective surgery procedures performed across different hospital peer groups. Peer group A1 hospitals had the highest percentage of elective surgery procedures that were urgent and the lowest percentage that were non-urgent, compared with other hospital peer groups.

There has been an overall increase in the volume of elective surgery procedures performed over the past five years. The number categorised as semi-urgent and non-urgent increased by 11% and 15% respectively. The number categorised as urgent decreased by 11% and the number categorised as staged decreased by 39% during this time (Figure 17).

Figure 17 Elective surgery procedures performed, by urgency category, July 2010 to September 2015



How many patients were on the elective surgery waiting list at the end of the quarter?

At the end of September 2015, 73,397 patients were ready for surgery and on the elective surgery waiting list. Of these, 2% were waiting for urgent surgery, 17% were waiting for semi-urgent surgery and 81% were waiting for non-urgent surgery. Compared with the same quarter last year, the number of patients waiting for urgent, semi-urgent and non-urgent elective surgery have all increased by 1% (Figure 18).

At the end of the quarter, 13,490 patients were not ready for surgery and on the elective surgery waiting list, up 2% compared with the same quarter last year (Figure 18).

Comparing across surgical specialties

Orthopaedic surgery and ophthalmological surgery were the specialties with the most patients waiting at the end of the quarter. Together, these specialties made up 48% of all patients waiting for elective surgery in NSW public hospitals. Cardiothoracic surgery and medical (non-specialist) surgery had the least number of patients waiting (Figure 19).

At the end of the quarter, there were 724 patients still waiting for surgery after more than 12 months on the waiting list; a 24% increase compared with the same quarter last year. Ear, nose and throat surgery, orthopaedic surgery and ophthalmological surgery had the most patients still waiting after more than 12 months on the waiting list.

Compared with the same quarter last year, the largest increase in absolute numbers was for ear, nose and throat surgery which increased from 156 to 230 patients (Figure 19).

Comparing across common procedures

Cataract extraction, the highest volume procedure, had the most patients waiting for surgery at the end of the quarter (14,610 patients, up 2% compared with the same quarter last year). Procedures with the least patients waiting were myringotomy (100 patients; down 24%) and coronary artery bypass graft (109 patients; up 31%) (Figure 20).

At the end of the quarter, cataract extraction and tonsillectomy had the most patients still waiting for surgery after more than 12 months on the waiting list. Compared with the same quarter last year, the largest increase in absolute numbers was for cataract extraction, which doubled the number of patients still waiting from 55 to 110 patients. The largest decrease in absolute numbers was for inguinal herniorrhaphy which decreased the number still waiting from 36 to 22 patients (Figure 20).

Figure 18 Elective surgery waiting list, by urgency category, as at 30 September 2015

	This quarter	Same quarter last year	Change since one year ago
Patients ready for surgery on waiting list as at 30 September 2015:	73,397	72,387	1%
Urgent 2%	1,689	1,680	1%
Semi-urgent 17%	12,253	12,097	1%
Non-urgent 81%	59,455	58,610	1%
Patients not ready for surgery on waiting list at the end of quarter:	13,490	13,233	2%

Figure 19

Patients waiting for elective surgery and patients still on waiting list at the end of the quarter, after more than 12 months, by specialty, as at 30 September 2015

	Patients on waiting list at end of quarter			Patients still waiting after more than 12 months	
	This quarter	Same quarter last year	Change since one year ago	This quarter	Same quarter last year
All specialties	73,397	72,387	1%	724	584
Orthopaedic surgery	18,541	18,516	unchanged	184	175
Ophthalmology	16,773	16,505	2%	125	76
General surgery	12,516	12,896	-3%	111	121
Ear, nose and throat surgery	10,257	9,596	7%	230	156
Gynaecology	6,052	6,074	unchanged	13	11
Urology	3,718	3,726	unchanged	20	12
Plastic surgery	2,529	2,394	6%	37	20
Neurosurgery	1,374	1,101	25%	<5	7
Vascular surgery	977	974	unchanged	<5	5
Cardiothoracic surgery	436	348	25%	0	<5
Medical	224	257	-13%	0	0

Figure 20

Patients waiting for elective surgery and patients still on waiting list at the end of the quarter, after more than 12 months, by common procedure, as at 30 September 2015

	Patients on waiting list at end of quarter			Patients still waiting after more than 12 months	
	This quarter	Same quarter last year	Change since one year ago	This quarter	Same quarter last year
Cataract extraction	14,610	14,352	2%	110	55
Total knee replacement	5,276	5,097	4%	40	49
Tonsillectomy	3,949	3,681	7%	49	26
Total hip replacement	2,371	2,240	6%	22	24
Inguinal herniorrhaphy	2,169	2,165	unchanged	22	36
Cholecystectomy	1,719	1,709	1%	6	12
Hysteroscopy	1,502	1,399	7%	0	<5
Septoplasty	1,362	1,362	unchanged	44	39
Other - General	1,216	1,177	3%	17	6
Cystoscopy	1,115	1,001	11%	0	0
Abdominal hysterectomy	768	764	1%	<5	0
Varicose veins stripping and ligation	690	710	-3%	<5	5
Prostatectomy	634	613	3%	<5	<5
Haemorrhoidectomy	456	470	-3%	<5	<5
Myringoplasty/Tympanoplasty	332	327	2%	13	8
Coronary artery bypass graft	109	83	31%	0	0
Myringotomy	100	131	-24%	<5	0

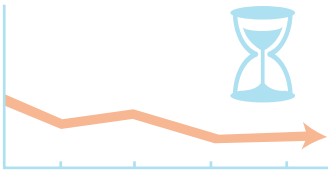
Hospital performance measures

Key findings – July to September 2015

82% of patients arriving by ambulance had their care transferred within 30 minutes

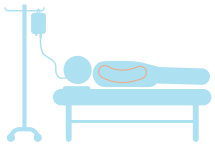
up two percentage points compared with the same quarter last year

Median time to ED treatment was largely unchanged across all triage categories



70% of patients spent four hours or less in the emergency department

down one percentage point compared with the same quarter last year



97% of patients received their surgery within recommended timeframes

- **100%** urgent surgery procedures performed on time
- **97%** semi-urgent surgery procedures performed on time
- **95%** non-urgent surgery procedures performed on time

25 out of 83 hospitals reported an increase in the percentage of elective surgery performed on time – 22 reported a decrease, compared with the same quarter last year

NSW emergency departments

This section provides information about timeliness measures for NSW emergency departments.

NSW elective surgery

This section provides information about timeliness measures for elective surgery in NSW public hospitals.

How long did patients wait for treatment in the emergency department?

During the July to September 2015 quarter, the median time from a patient first presenting at the emergency department (ED) to starting treatment was one minute longer across triage categories two, four and five and unchanged for patients in triage category three, compared with the same quarter last year (Figure 21).

The 95th percentile time to starting treatment increased across triage categories two (four minutes longer), three (six minutes longer), four (eight minutes longer) and five (seven minutes longer) (Figure 21).

How have ED treatment waiting times changed over time?

Figures 22 and 23 show a downward trend over the past five years in the median and 95th percentile time to starting treatment in triage categories three, four and five. Time to starting treatment has increased for patients in triage category two during this time.

Figure 21 Time from presentation to starting treatment, by triage category, July to September 2015

	This quarter	Same quarter last year	Change since one year ago
Triage 2 Emergency (e.g. chest pain, severe burns): 75,129 patients			
Median time to start treatment	9m	8m	1m
95th percentile time to start treatment	45m	41m	4m
Triage 3 Urgent (e.g. moderate blood loss, dehydration): 207,658 patients			
Median time to start treatment	22m	22m	unchanged
95th percentile time to start treatment	1h 59m	1h 53m	6m
Triage 4 Semi-urgent (e.g. sprained ankle, earache): 246,071 patients			
Median time to start treatment	29m	28m	1m
95th percentile time to start treatment	2h 36m	2h 28m	8m
Triage 5 Non-urgent (e.g. small cuts or abrasions): 53,035 patients			
Median time to start treatment	25m	24m	1m
95th percentile time to start treatment	2h 26m	2h 19m	7m

Figure 22 Median time from presentation to starting treatment, by triage category, July 2010 to September 2015

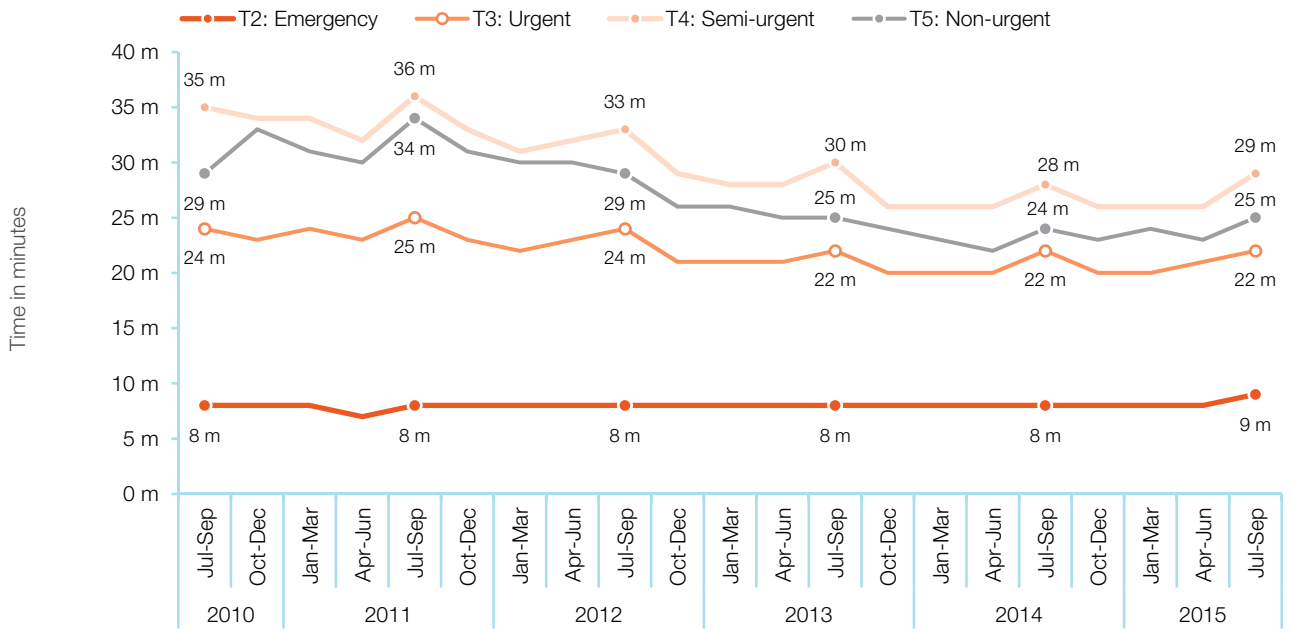
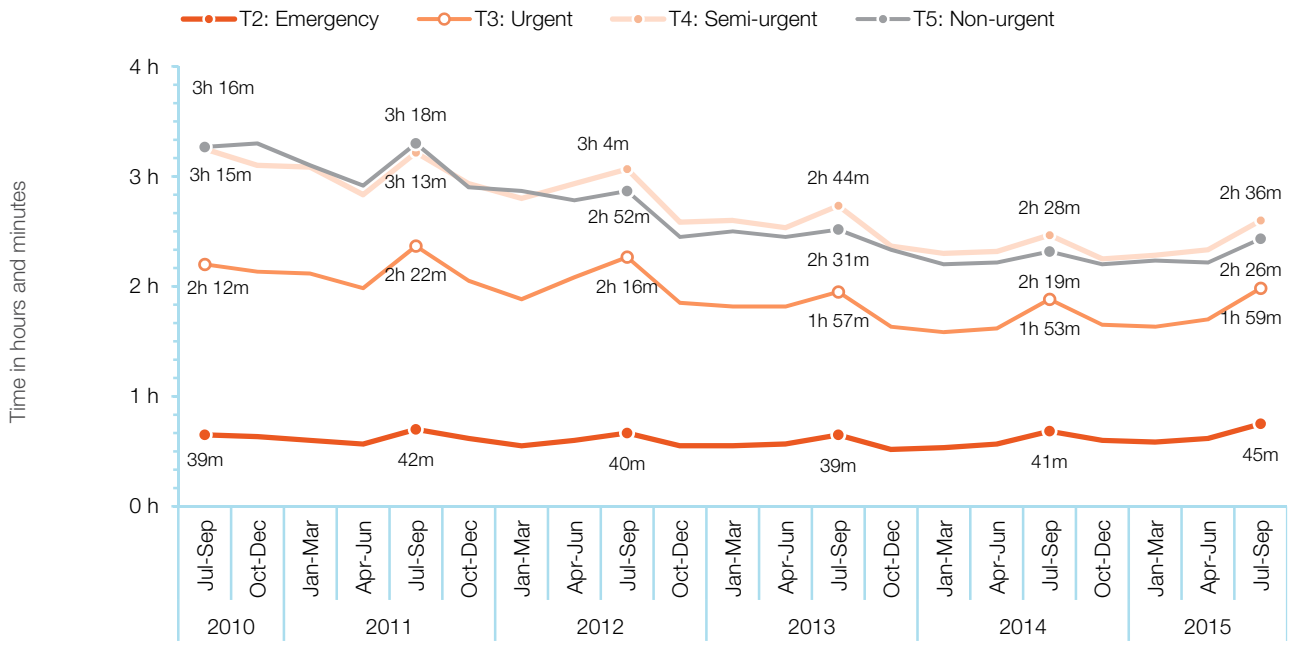


Figure 23 95th percentile time from presentation to starting treatment, by triage category, July 2010 to September 2015



How long were patients in the emergency department?

Time to leaving the ED

During the July to September 2015 quarter, the median time from presentation to leaving the ED was two hours and 52 minutes, three minutes longer than the same quarter last year. The 95th percentile time to leaving was 11 hours and 31 minutes, seven minutes shorter than the same quarter last year (Figure 24).

Does time to leaving the ED vary between hospital peer groups?

Figure 25 shows the median time from presentation to leaving the ED over the past five years for peer group A1, B, C1 and C2 hospitals. The shaded areas illustrate the range of values between the highest and lowest median times for hospitals in each peer group.

Overall, peer group A1, B and C1 hospitals have seen a decrease in the median time to leaving the ED over the past five years. For peer group C2 hospitals, however, the median time to leaving has increased, and was 14 minutes longer this quarter than in the same quarter in 2010 (Figure 25).

There is now little variation in the median time to leaving the ED between hospitals in peer group A1, as evidenced by a narrowing of the difference between the highest and lowest median times for individual hospitals. More variation is seen in the median time to leaving the ED for peer group B, C1 and C2 hospitals (Figure 25).

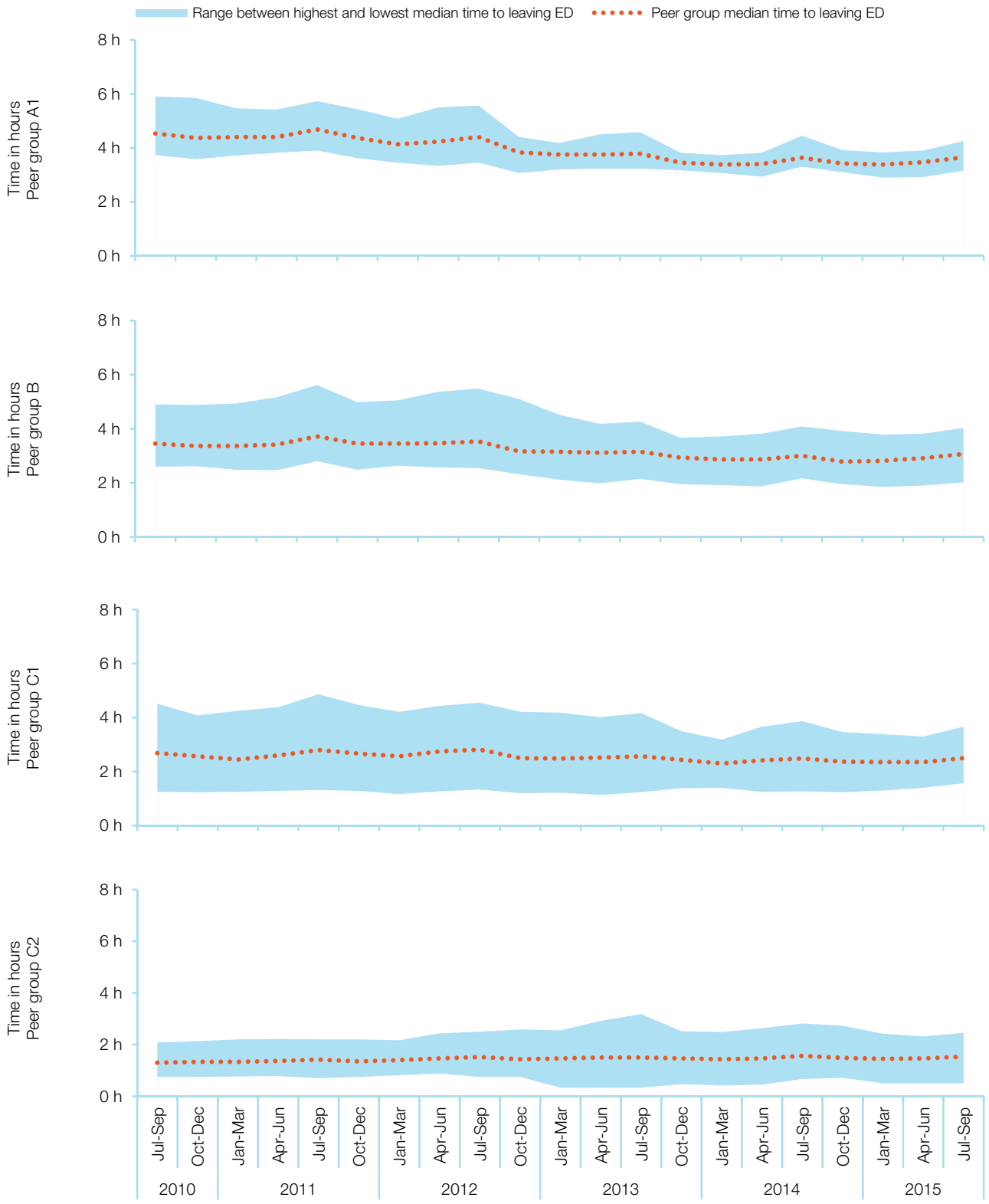
Patients generally spend less time in the ED in peer group C1 and C2 hospitals (Figure 25). Correspondingly, these hospitals generally have a higher percentage of patients who leave within four hours of presentation, compared with other peer groups (Figure 31).

The cohort of EDs included in this report has changed over the past five years, and this has affected overall volumes and performance measures. Results for peer group C2 hospitals are most affected by these changes. The number of EDs in peer group C2 hospitals that contribute data to *Hospital Quarterly* has more than doubled since 2010. For more information refer to the technical supplements section of the BHI website at bhi.nsw.gov.au

Figure 24 Time from presentation to leaving the emergency department, July to September 2015

	This quarter	Same quarter last year	Change since one year ago
Median time to leaving the ED	2h 52m	2h 49m	3m
95th percentile time to leaving the ED	11h 31m	11h 38m	-7m

Figure 25 Median time to leaving the emergency department and range, peer group hospitals, July 2010 to September 2015



How long were patients in the emergency department?

Time to leaving the emergency department by mode of separation

With the exception of patients who were transferred to another hospital, the median time to leaving the ED increased this quarter across all modes of separation, compared with the same quarter last year. For patients whose ED visit ended in admission to hospital, the median time to leaving the ED was seven minutes longer (Figure 26).

The 95th percentile time to leaving the ED was 11 minutes shorter this quarter for patients treated and admitted to hospital, and one minute longer for those treated and discharged, compared with the same quarter last year. For patients transferred to another hospital, the 95th percentile time to leaving ED was 16 minutes shorter (Figure 27).

Has time to leaving the ED changed by mode of separation?

Despite a 27% increase in the volume of presentations since the July to September quarter in 2010, overall, the median time from presentation to leaving the ED has decreased during this time.

Figure 26 shows a downward trend over the past five years in the median time across all modes of separation. The largest decrease was seen for patients who were treated and admitted to hospital, from six hours and 53 minutes in July to September 2010 to five hours and 21 minutes this quarter.

Compared with the same quarter in 2010, the 95th percentile time to leaving the ED has decreased across all modes of separation. Patients transferred to another hospital had the largest decrease, from 24 hours and 31 minutes in July to September 2010 to 22 hours and 24 minutes this quarter (Figure 27).

Figure 26

Median time from presentation to leaving the emergency department, July 2010 to September 2015

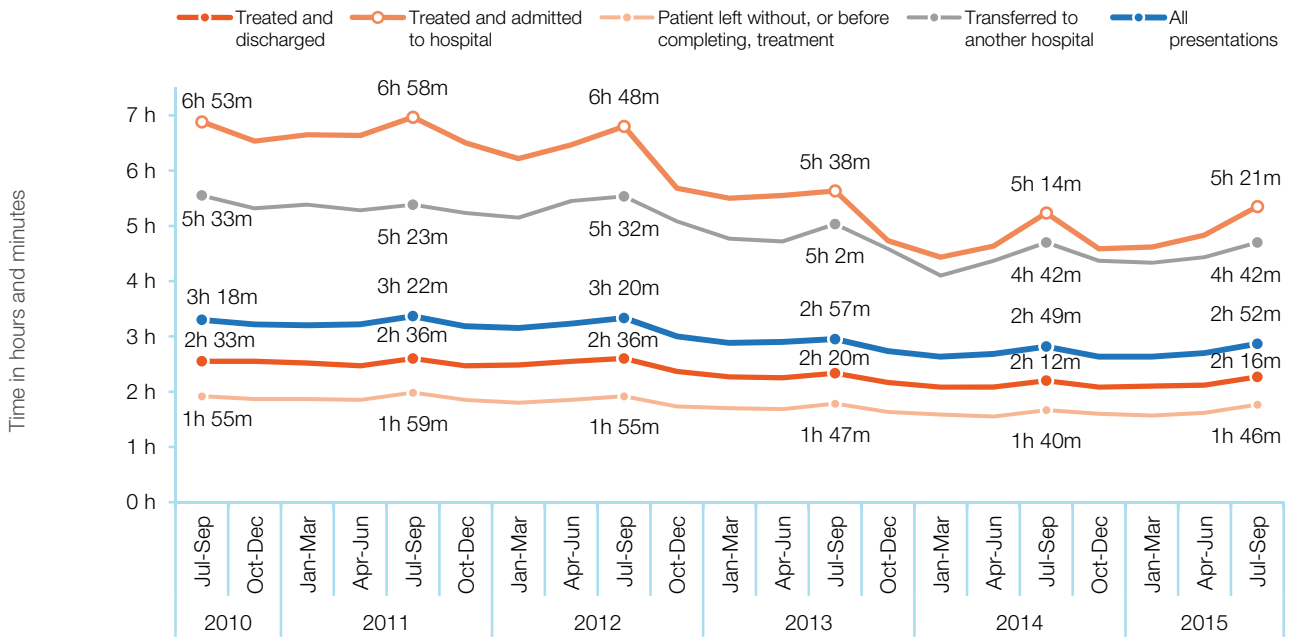
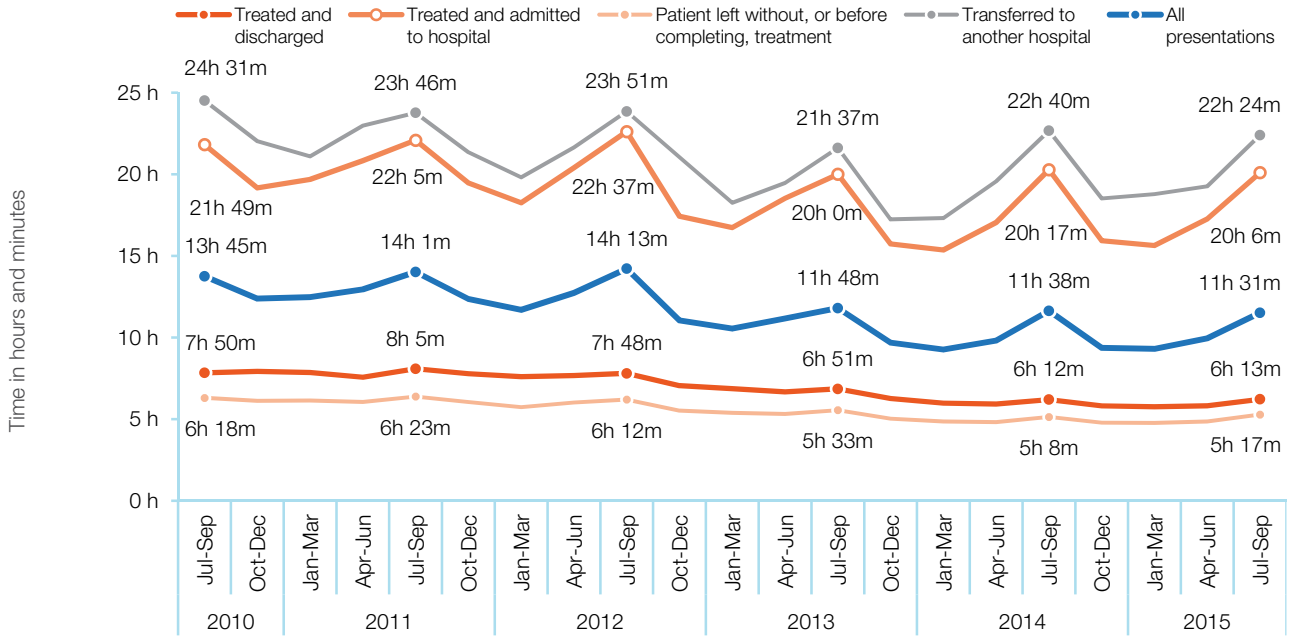


Figure 27

95th percentile time from presentation to leaving the emergency department, July 2010 to September 2015



How long were patients in the emergency department?

Percentage of patients leaving the ED within four hours of presentation

During the July to September 2015 quarter, 70% of patients left NSW EDs within four hours of presentation, a decrease of one percentage point compared with the same quarter last year (Figure 28). The trend of improvement seen from mid-2012 onwards is no longer evident in these results (Figure 29).

The majority of patients who were treated and discharged this quarter left the ED within four hours (84%). Patients who were treated and subsequently admitted to hospital, and those who were transferred to another hospital, had the lowest percentage of patients who left within four hours this quarter (36% and 43% respectively). Of patients who left without, or before, completing treatment, 89% had departed the ED within four hours of presentation (Figure 28).

Currently, patients admitted to hospital are less likely to leave within four hours than patients who are treated and discharged, transferred to another hospital, or who leave without, or before completing, treatment (Figure 28).

While 70% of patients left the ED in the first four hours of presentation this quarter, a further 20% left between four and eight hours, and a further 5% left within the period of eight to 12 hours of presentation (Figure 30).

Due to differences in data definitions, period of reporting and the number of hospitals included, *Hospital Quarterly* results for the percentage of patients who left the ED within four hours 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 28 Percentage of patients leaving the emergency department within four hours, by mode of separation, July to September 2015

	This quarter	Same quarter last year	Percentage point change since one year ago
All ED presentations	70%	71%	-1
Treated and discharged	84%	84%	unchanged
Treated and admitted	36%	38%	-2
Left without, or before completing, treatment	89%	90%	-1
Transferred to another hospital	43%	43%	unchanged

Figure 29 Percentage of patients who left the emergency department within four hours, by mode of separation, July 2010 to September 2015

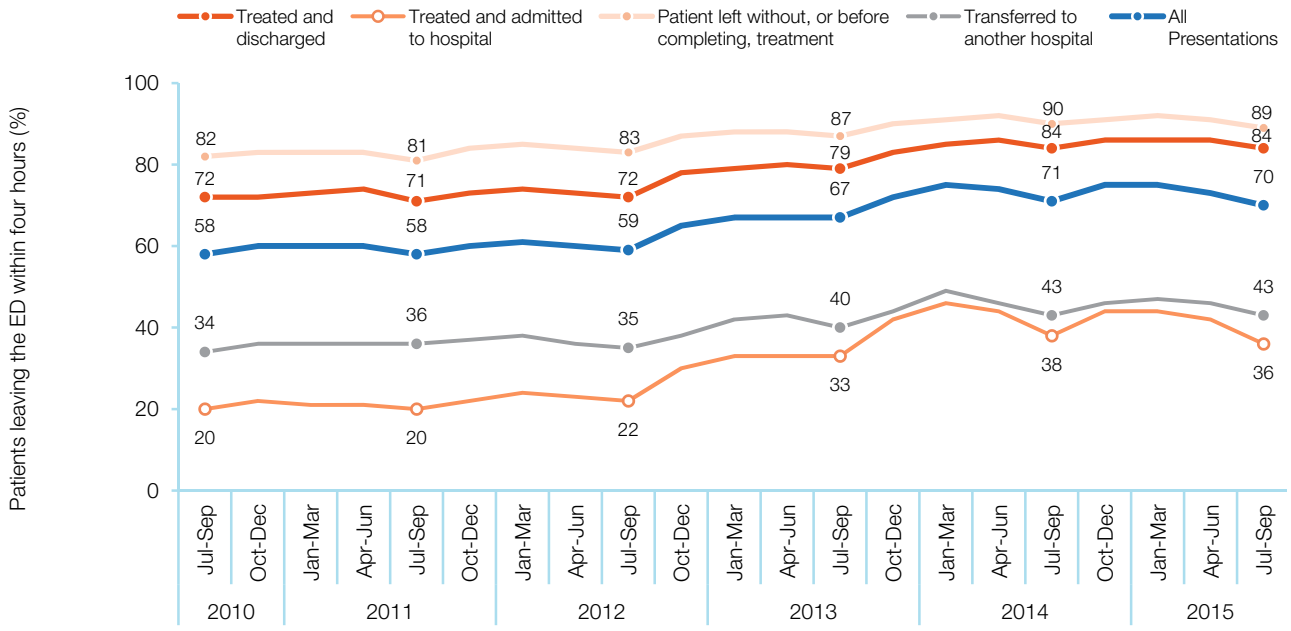
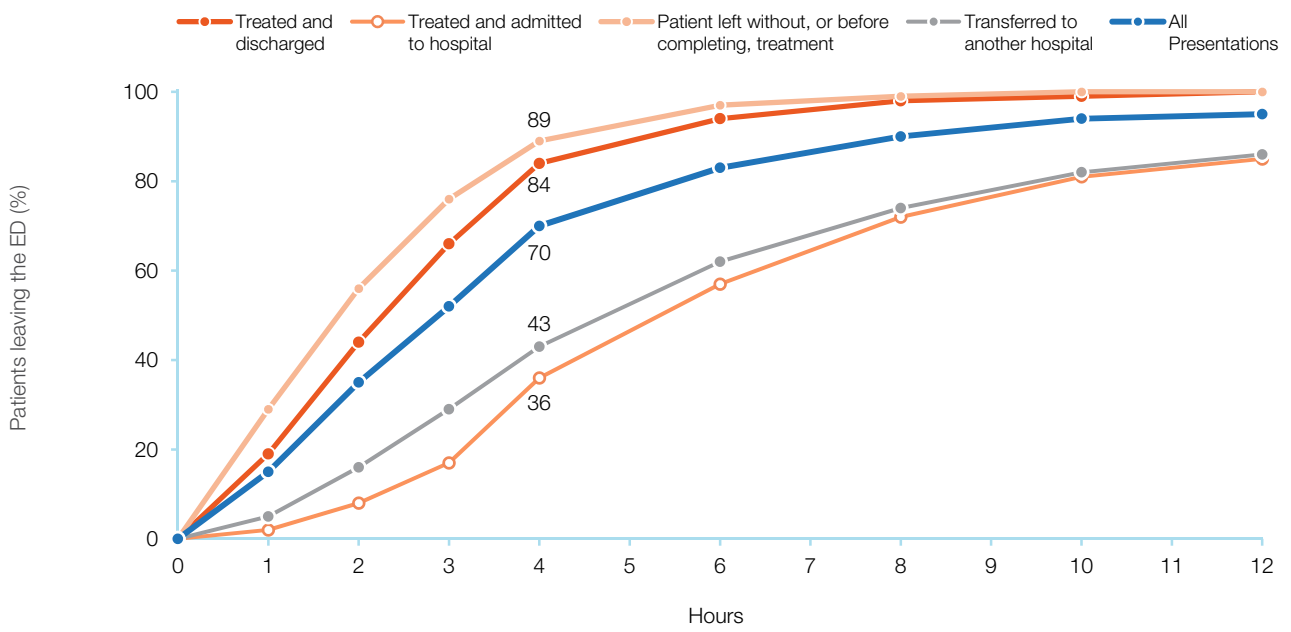


Figure 30 Percentage of patients leaving the emergency department, by time and mode of separation, July to September 2015



How long were patients in the emergency department?

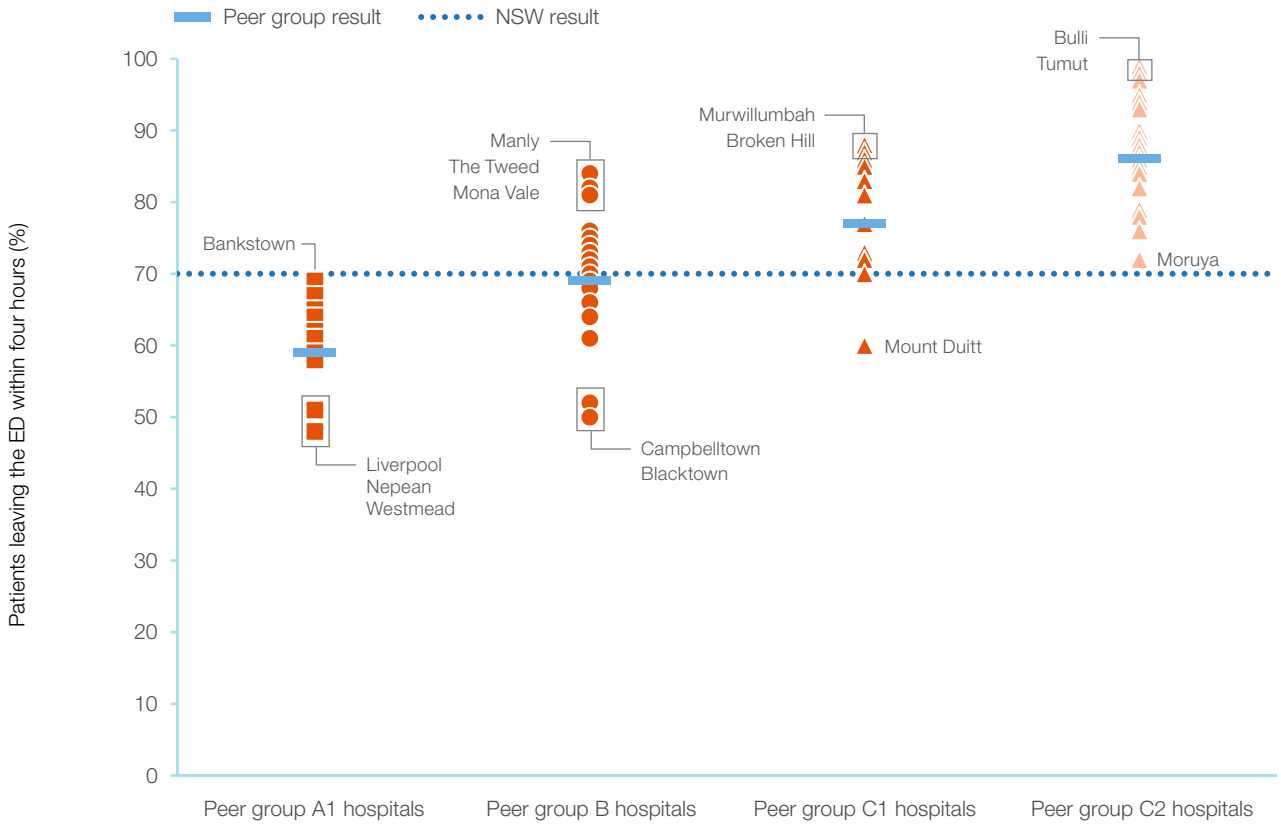
Variation in the percentage of patients leaving the ED within four hours

There is considerable variation between and within hospital peer groups in the percentage of patients leaving the ED within four hours. Figure 31 shows that peer group C2 hospitals generally have a higher percentage of patients leaving the ED within four hours compared with other peer group hospitals. Peer group A1 hospitals generally have a smaller percentage of patients leaving within four hours.

Figure 32 shows the results achieved by individual NSW public hospitals in the percentage of patients leaving the ED within four hours, and the change compared with the same quarter last year. The Y-axis shows this quarter's result and the X-axis shows the percentage point change in performance since the same quarter last year. Hospitals shown above the blue NSW line had a higher percentage of patients leaving the ED within four hours this quarter compared with the overall NSW result, while those below this line had a lower percentage of patients leaving within four hours compared with the 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 in the upper right quadrant (Figure 32) achieved higher results than NSW overall, and increased the percentage leaving within four hours, compared with the same quarter last year. Hospitals in the upper left quadrant also had results that were higher than NSW but decreased the percentage leaving within four hours.

Figure 31 **Percentage of patients leaving the emergency department within four hours of presentation, by peer group, July to September 2015**



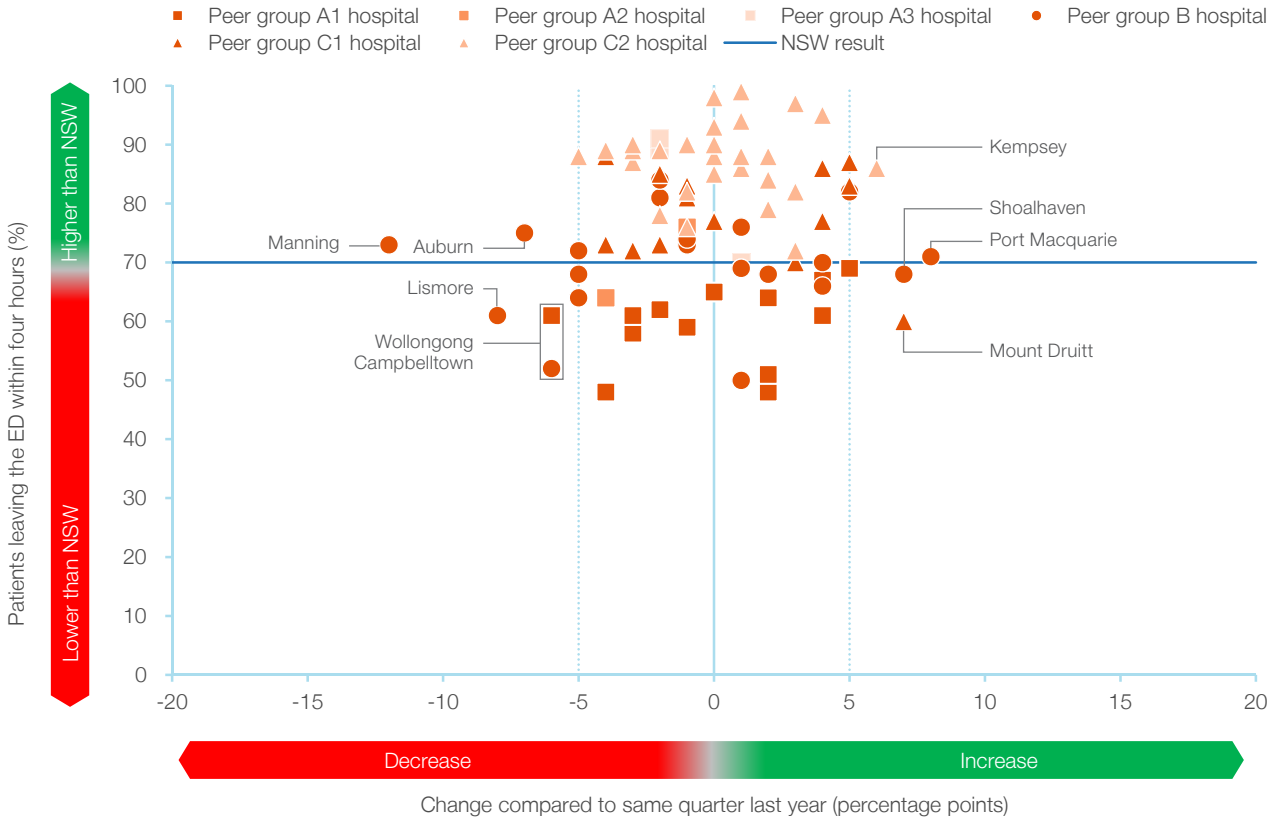
Hospitals in the lower right quadrant had results that were lower than NSW overall, but increased the percentage of patients leaving within four hours. Hospitals in the lower left quadrant had results that were lower than NSW and decreased the percentage leaving within four hours, compared with the same quarter last year.

Hospitals identified in Figure 32 are those that have increased or decreased the percentage of patients leaving within four hours by more than five percentage points compared with the same quarter last year.

This quarter, the percentage of patients leaving the ED within four hours of presentation increased in 36 out of 81 hospitals. Of these, four hospitals increased by more than five percentage points, compared with the same quarter last year (Figure 32).

The percentage of patients leaving the ED within four hours decreased in 38 hospitals. Of these, five hospitals decreased by more than five percentage points, including one that decreased by more than 10 percentage points (Figure 32).

Figure 32 **Percentage of patients leaving the emergency department within four hours and percentage point change since same quarter last year, hospitals by peer group, July to September 2015**



How long were patients in the emergency department?

Change over time in percentage of patients leaving within four hours

Compared with the same quarter last year, there was no change in the percentage of patients leaving ED within four hours in hospital peer groups A1 and C2. There was a decrease of one percentage point in peer group B and an increase of one percentage point in peer group C1 (Figure 33). All peer groups had a decrease in the percentage treated and admitted to hospital who had left within four hours. Peer group A1 hospitals also had a decrease in the percentage transferred to another hospital who had left within four hours (Figure 34).

Within peer groups over the past five years, there has been an increase in the percentage of patients who left within four hours across all modes of separation, with the exception of peer group C2 (Figure 34). The most marked improvements were seen in the 18 months following mid-2012. More recently however, results have plateaued, and in some cases started to decline (Figure 33).

Over the past five years, peer group C1 and C2 hospitals have had a consistently higher percentage of patients who left the ED within four hours compared with peer group A1 and B hospitals (Figure 33). The slight decrease seen over the past five years in the percentage of patients leaving C2 peer group hospitals within four hours may be, in part, due to the addition of 14 new C2 hospitals to the *Hospital Quarterly* report since 2010.

Figure 33 Percentage of patients leaving the emergency department within four hours, by peer group, July 2010 to September 2015

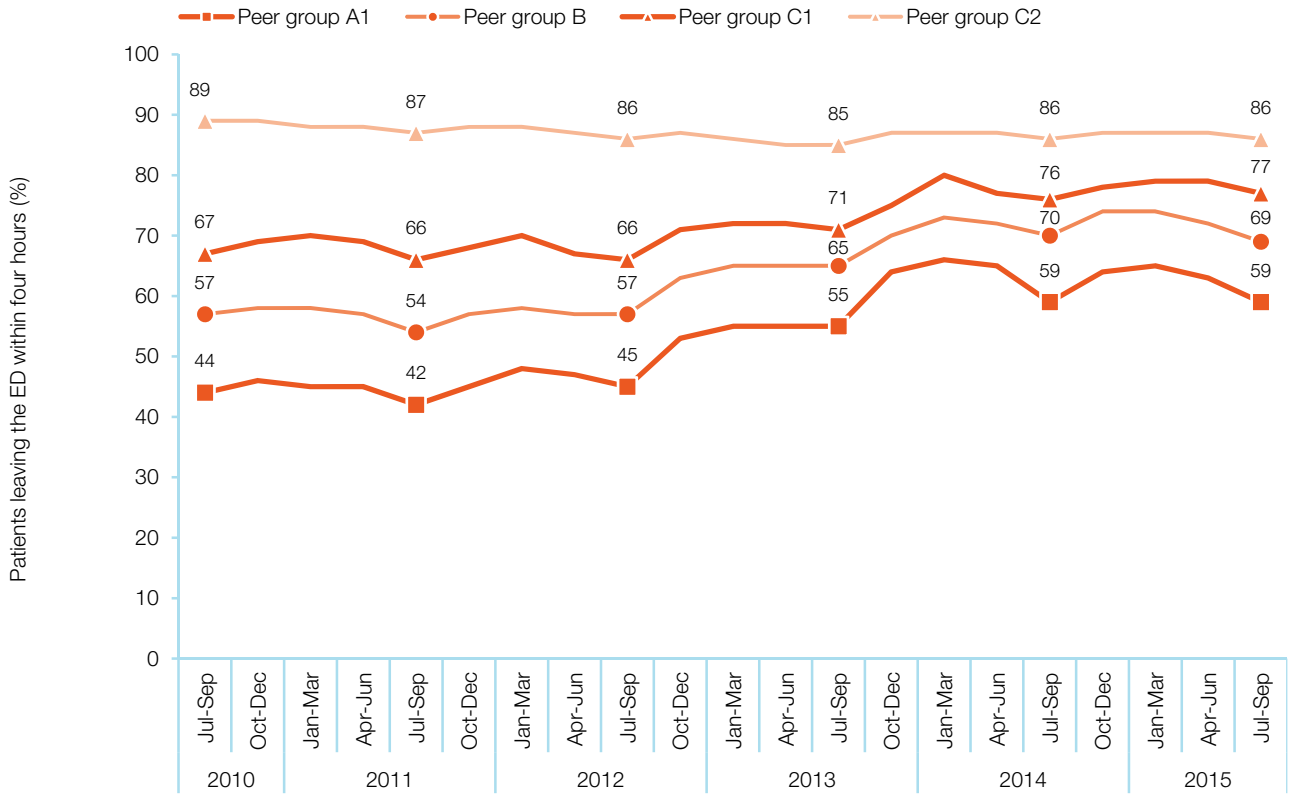
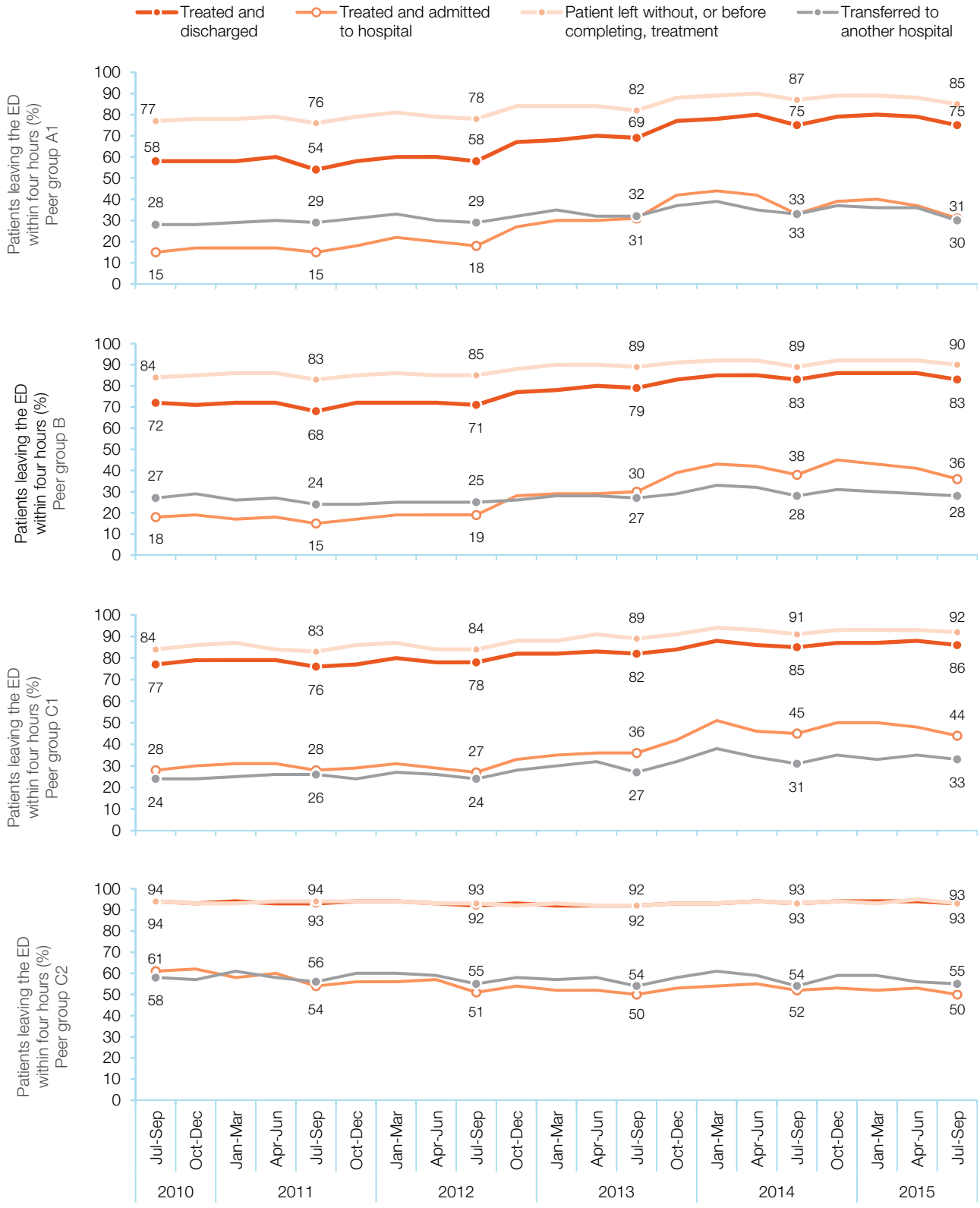


Figure 34

Percentage of patients leaving the emergency department within four hours, by mode of separation and peer group, July 2010 to September 2015



How many patients who arrived by ambulance had their care transferred within 30 minutes?

During the July to September 2015 quarter, 141,322 patients arrived at NSW EDs by ambulance (down 3% compared with the same quarter last year). This quarter, 124,151 matched patient records (matched between ambulance service and ED records) were used to calculate transfer of care time (Figure 35).

The median transfer of care time from ambulance to ED staff was unchanged this quarter (14 minutes). The 95th percentile transfer of care time (73 minutes) was 16 minutes shorter compared with the same quarter last year (Figure 35).

In NSW, there is a target of 30 minutes within which 90% of patients arriving by ambulance should have their care transferred to ED staff. This quarter, 82% of patients arriving by ambulance had their care transferred within 30 minutes; two percentage points higher than in the same quarter last year (Figure 36).

Figure 37 shows variation between and within hospital peer groups this quarter in the percentage of patients who had their care transferred within 30 minutes.

Figure 35 Emergency department transfer of care time, July to September 2015

	This quarter	Same quarter last year	Change since one year ago
Arrivals used to calculate transfer of care time:	124,151	126,540	-2%
ED Transfer of care time			
Median time	14m	14m	unchanged
95th percentile time	1h 13m	1h 29m	-16m

Figure 36 Percentage of ambulance arrivals with transfer of care time within 30 minutes, April 2013 to September 2015

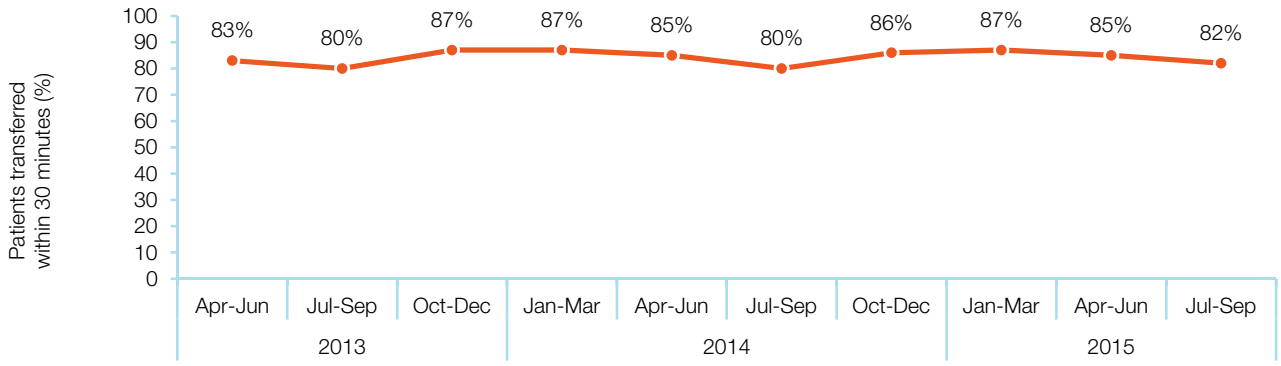
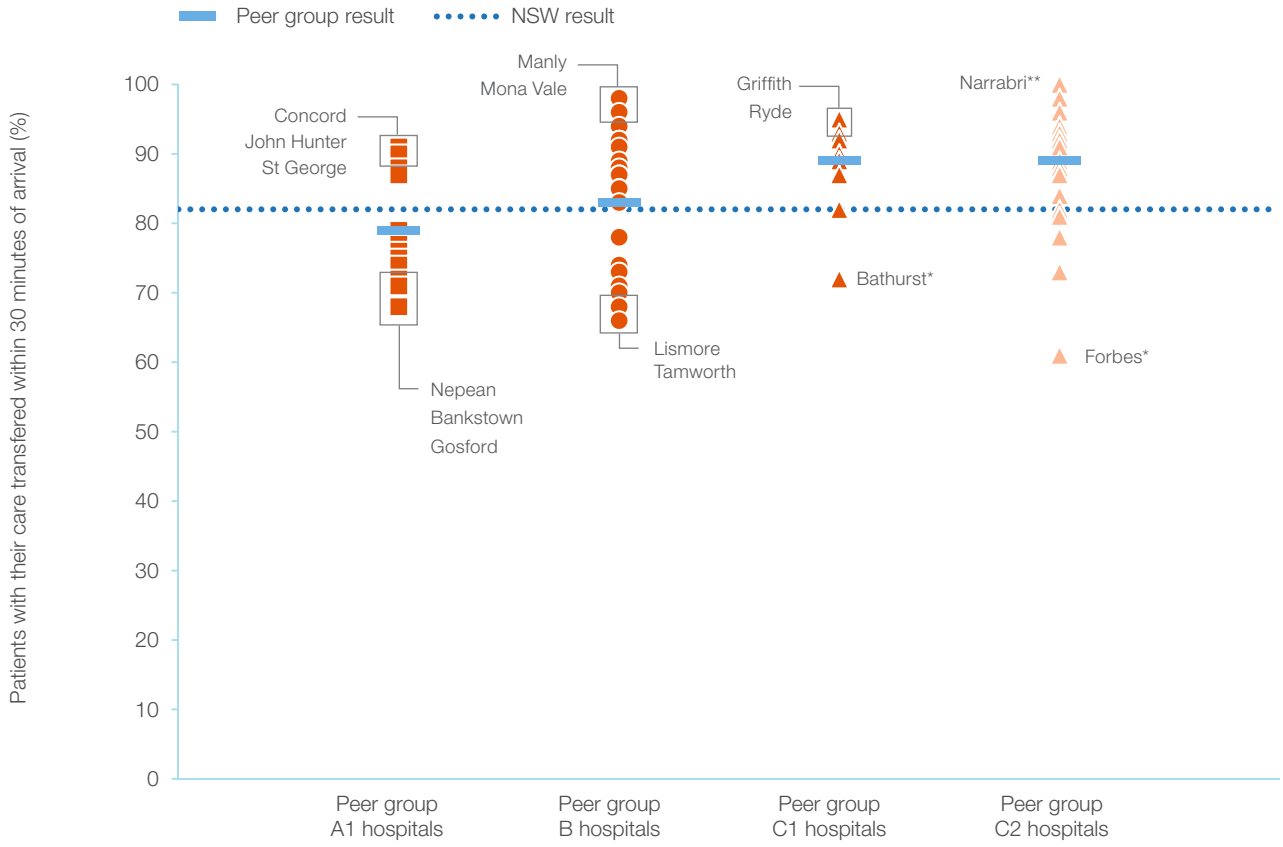


Figure 37 Percentage of ambulance arrivals with transfer of care time within 30 minutes, by peer group, July to September 2015



(*) Use caution when interpreting these results – more than 30% of total records where transfer of care cannot be calculated.

How long did patients wait for elective surgery?

During the July to September 2015 quarter, the median waiting time for urgent surgery was 11 days (Figure 38) and this has remained largely unchanged in the same quarter over the past five years (Figure 39). The median waiting time for semi-urgent surgery (45 days) was one day longer compared with the same quarter last year, while the median waiting time for non-urgent surgery (221 days) increased by five days (Figure 38).

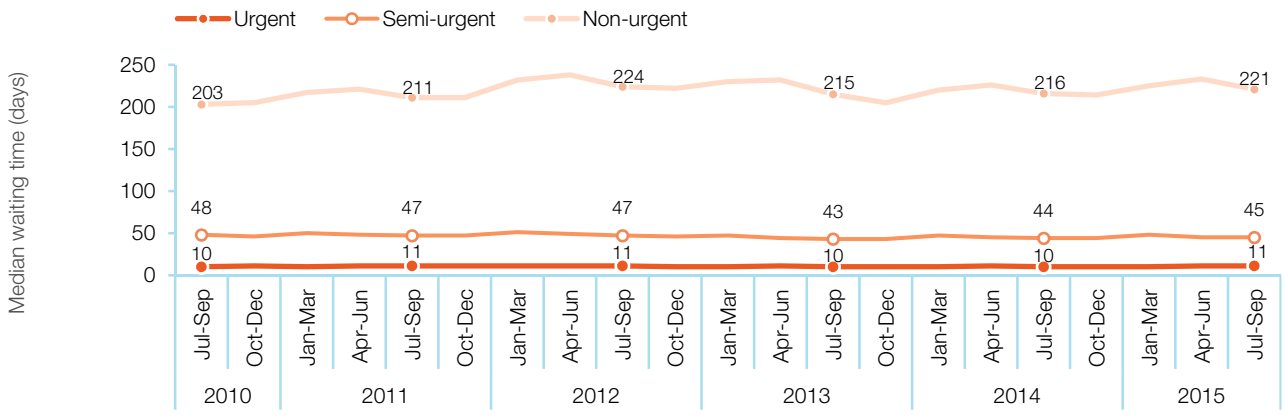
Compared with the same quarter in 2010, the median waiting time for semi-urgent surgery has decreased by three days and the median waiting time for non-urgent surgery has increased by 18 days (Figure 39).

There has been a downward trend in the 90th percentile waiting times for elective surgery across all urgency categories since the July to September 2010 quarter (Figure 40).

Figure 38 **Waiting times for elective surgery, by urgency category, July to September 2015**

	This quarter	Same quarter last year	Change since one year ago
Urgent: 12,421 patients			
Median time to receive surgery	11 days	10 days	1 day
90th percentile time to receive surgery	26 days	25 days	1 day
Semi-urgent: 18,384 patients			
Median time to receive surgery	45 days	44 days	1 day
90th percentile time to receive surgery	83 days	83 days	Unchanged
Non-urgent: 23,094 patients			
Median time to receive surgery	221 days	216 days	5 days
90th percentile time to receive surgery	356 days	356 days	Unchanged

Figure 39 **Median waiting time for elective surgery, by urgency category, July 2010 to September 2015**



Compared with the same quarter in 2010, the largest decrease in the 90th percentile waiting time for elective surgery was for procedures categorised as non-urgent saw (nine days less) (Figure 40).

Figure 41 shows the percentage of elective surgery completed by day and urgency category for the July to September 2015 quarter. The lines drawn at 30 days, 90 days and 365 days represent the recommended times for patients to receive surgery in each urgency category.

Across NSW, 90% of elective surgery procedures were completed before the end of the recommended timeframes this quarter (four days earlier for urgent surgery, seven days earlier for semi-urgent surgery and nine days earlier for non-urgent surgery) (Figure 41).

Figure 40 **90th percentile waiting time for elective surgery, by urgency category, July 2010 to September 2015**

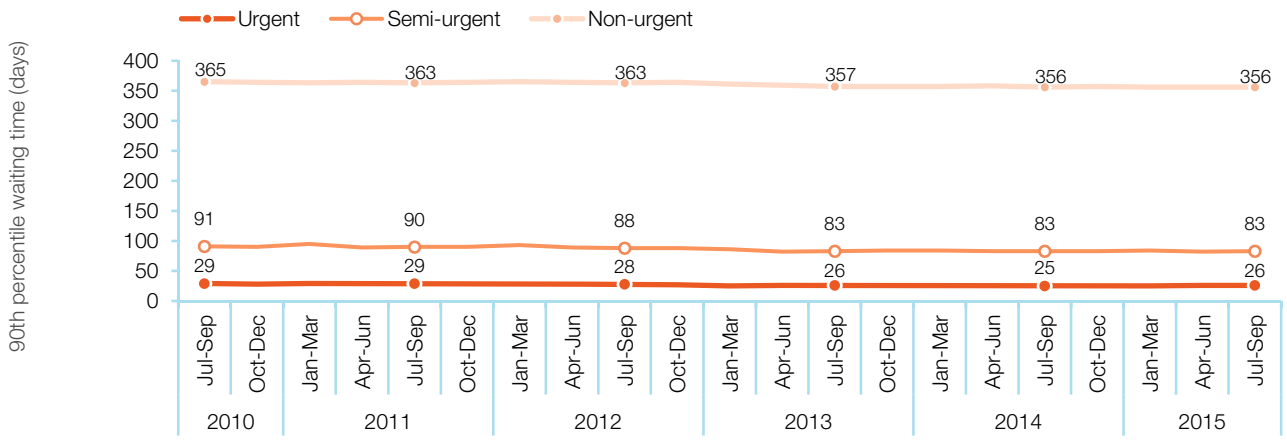
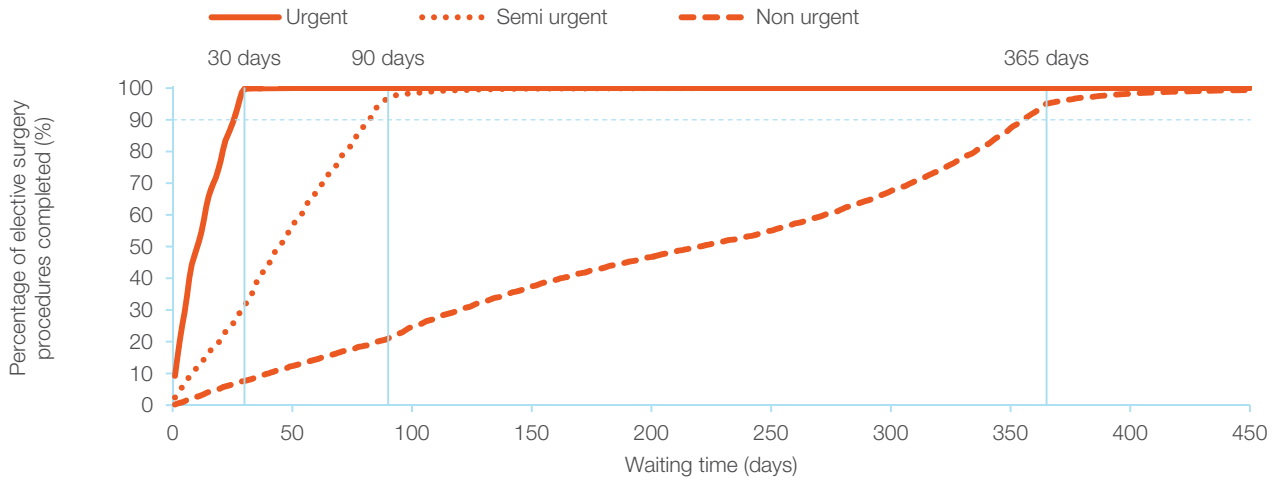


Figure 41 **Cumulative percentage of elective surgery completed by day and urgency category, July to September 2015**



Is there variation in the waiting times for elective surgery?

During the July to September 2015 quarter, there was variation between and within hospital peer groups in the 90th percentile waiting times for elective surgery. This variation was most marked for patients requiring non-urgent surgery (Figure 42).

Across specialty groups, median waiting times increased or remained unchanged this quarter, compared with the same quarter last year, with the exception of ear, nose and throat surgery (decreased by 40 days), general surgery and plastic surgery (both decreased by one day). Median waiting times ranged from 15 days for medical (non-specialist) surgery to 197 days for ophthalmological surgery (Figure 43).

Across common surgical procedures, myringoplasty/tympanoplasty (323 days), septoplasty (308 days) and total knee replacement (289 days) had the longest median waiting times this quarter. Other–general (22 days), coronary artery bypass graft (26 days) and cystoscopy (29 days) had the shortest median waiting times (Figure 44).

Due to the large amount of information presented, individual facilities are not identified in Figure 42. This information is available in Healthcare Observer.

Figure 42 **90th percentile waiting time for elective surgery, by urgency category and peer group, July to September 2015**

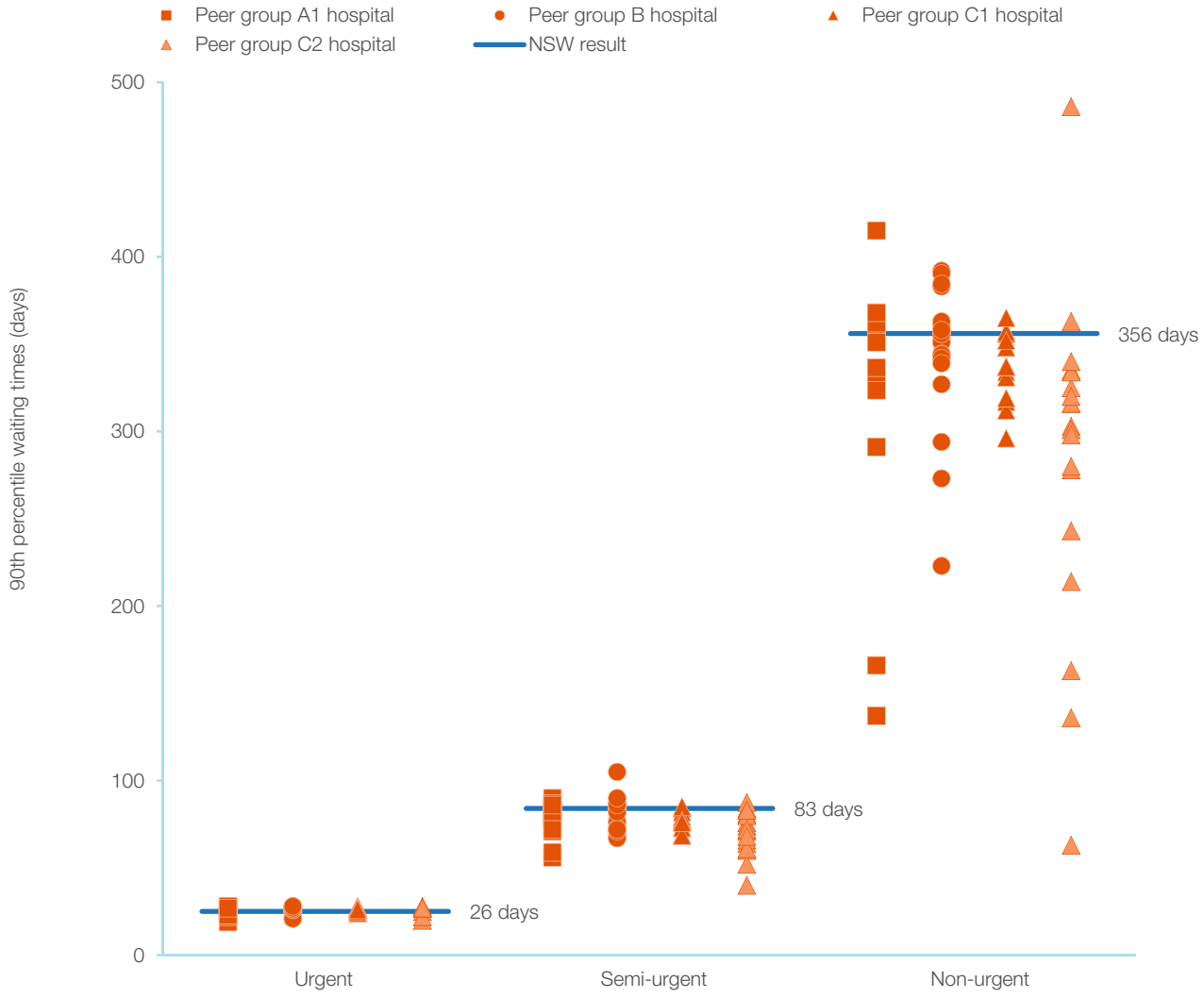


Figure 43 Median waiting time for patients who received elective surgery, by specialty, July to September 2015

	Number of procedures	This quarter	Same quarter last year	Change since one year ago
General surgery	14,085	35 days	36 days	-1 day
Orthopaedic surgery	8,981	128 days	128 days	unchanged
Gynaecology	7,800	39 days	36 days	3 days
Ophthalmology	7,663	197 days	168 days	29 days
Urology	7,364	34 days	34 days	unchanged
Ear, nose and throat surgery	4,123	147 days	187 days	-40 days
Plastic surgery	2,345	39 days	40 days	-1 day
Vascular surgery	1,578	20 days	20 days	unchanged
Neurosurgery	1,130	39 days	30 days	9 days
Cardiothoracic surgery	963	24 days	21 days	3 days
Medical	471	15 days	14 days	1 day

Figure 44 Median waiting time for patients who received elective surgery, by common procedure, July to September 2015

	Number of procedures	This quarter	Same quarter last year	Change since one year ago
Cataract extraction	6,033	231 days	202 days	29 days
Cystoscopy	3,322	29 days	28 days	1 day
Hysteroscopy	2,521	34 days	31 days	3 days
Other - General	1,813	22 days	21 days	1 day
Cholecystectomy	1,674	55 days	56 days	-1 day
Total knee replacement	1,668	289 days	292 days	-3 days
Inguinal herniorrhaphy	1,639	68 days	68 days	unchanged
Tonsillectomy	1,288	254 days	273 days	-19 days
Total hip replacement	921	214 days	210 days	4 days
Prostatectomy	677	63 days	63 days	unchanged
Abdominal hysterectomy	641	65 days	56 days	9 days
Septoplasty	422	308 days	329 days	-21 days
Haemorrhoidectomy	402	57 days	70 days	-13 days
Varicose veins stripping and ligation	359	148 days	116 days	32 days
Coronary artery bypass graft	229	26 days	22 days	4 days
Myringoplasty / Tympanoplasty	91	323 days	279 days	44 days
Myringotomy	78	68 days	90 days	-22 days

How many elective surgery procedures were performed within the recommended timeframes?

Most elective surgery procedures (97%) were performed on time this quarter (100% of urgent surgery, 97% of semi-urgent surgery and 95% of non-urgent surgery) (Figure 45). These results have been largely stable for all urgency categories in the same quarter over the past three years (Figure 46).

Figure 47 shows the change, compared with the same quarter last year, and results achieved by individual hospitals this quarter, in the percentage of elective surgery performed on time.

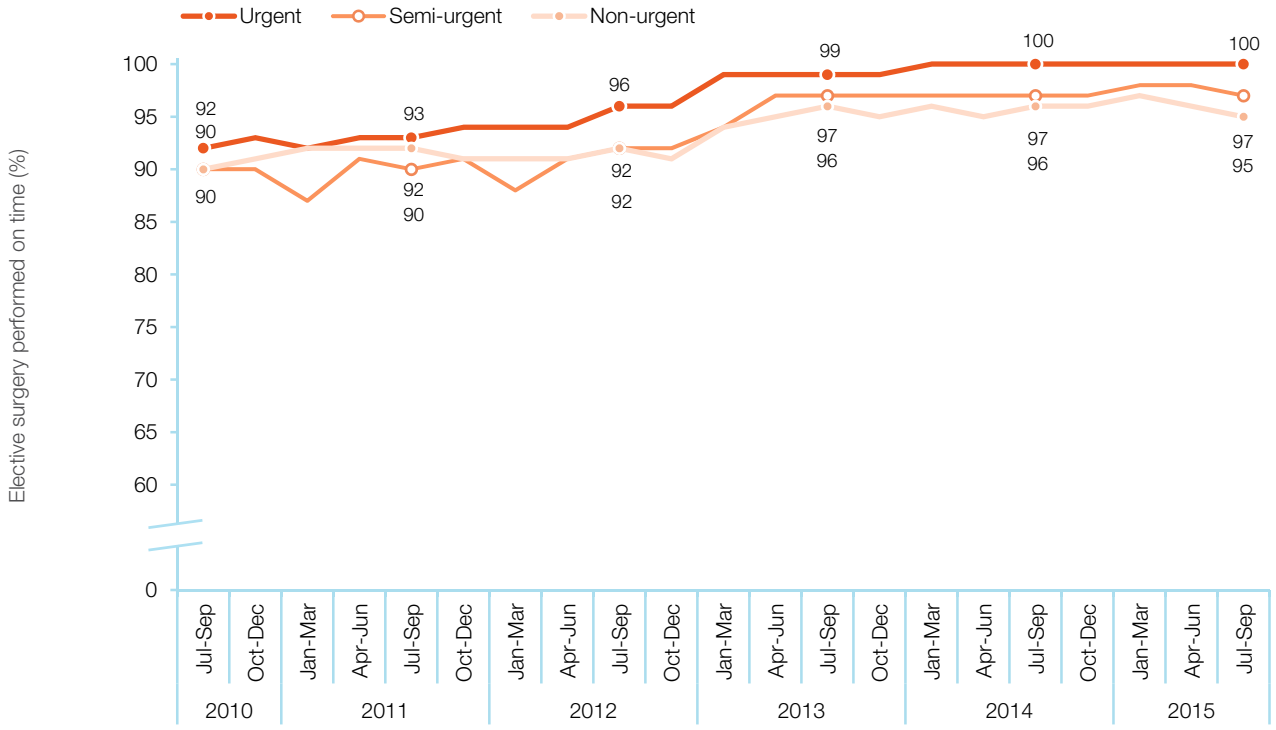
The Y-axis shows this quarter's result and the X-axis shows the percentage point change in performance since the same quarter last year.

Hospitals shown above the blue NSW line had a higher percentage of surgery performed on time this quarter compared with the overall NSW result, while those below this line had a lower percentage 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.

Figure 45 **Percentage of elective surgery procedures performed on time, by urgency, July to September 2015**

	This quarter	Same quarter last year	Change since one year ago
All elective surgery	97%	97%	unchanged
Urgent	Recommended: 30 days 100%	100%	unchanged
Semi-urgent	Recommended: 90 days 97%	97%	unchanged
Non-urgent	Recommended: 365 days 95%	96%	-1

Figure 46 **Percentage of elective surgery procedures performed on time, by urgency, July 2010 to September 2015**



Hospitals in the upper right quadrant of Figure 47 have achieved higher results than NSW overall, and increased the percentage of elective surgery performed on time this quarter, compared with the same quarter last year. Hospitals in the upper left quadrant also achieved results higher than NSW this quarter but decreased the percentage of elective surgery performed on time, compared with the same quarter last year.

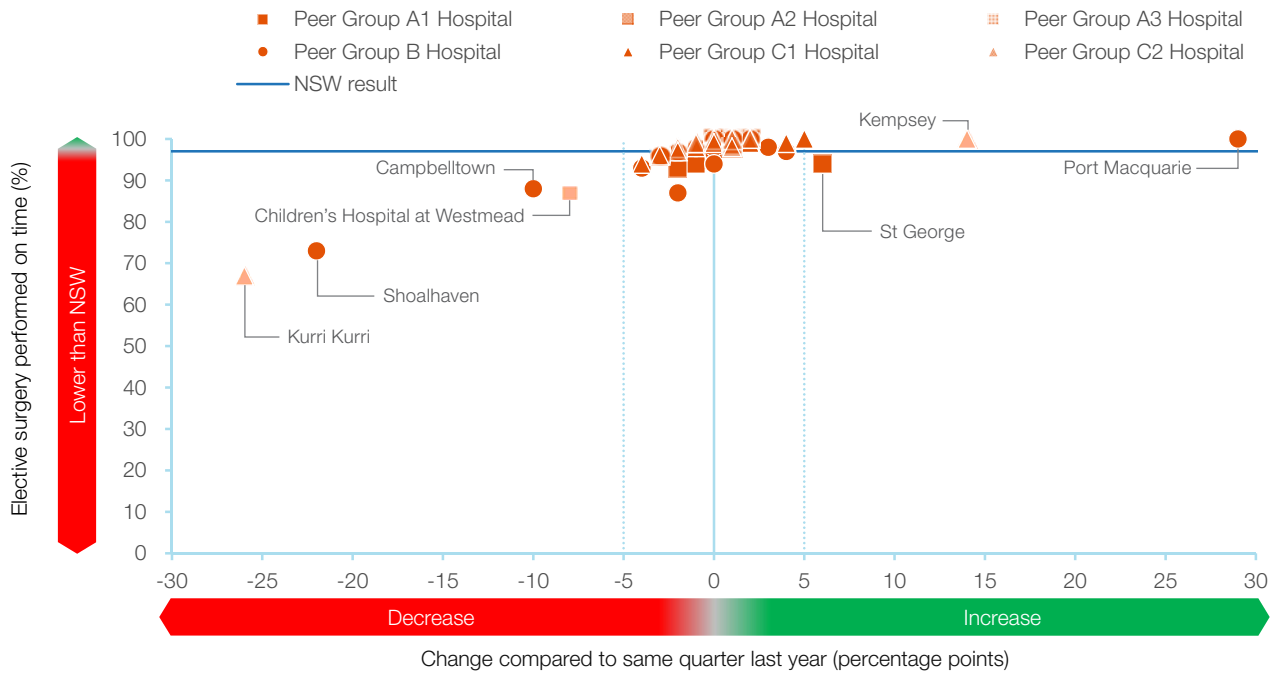
Hospitals in the lower right quadrant had results that were lower than NSW overall, but increased the percentage of elective surgery performed on time this quarter, compared with the same quarter last year. Hospitals in the lower left quadrant had results that were lower than NSW and decreased the percentage of elective surgery performed on time, compared with the same quarter last year.

Hospitals identified in Figure 47 are those that have increased or decreased the percentage of elective surgery performed on time this quarter by more than five percentage points, compared with the same quarter last year.

This quarter, the percentage of surgery performed on time increased in 25 out of 83 hospitals. Of these, three increased by more than five percentage points, including two that increased by more than 10 percentage points.

The percentage of surgery peformed on time decreased in 22 hospitals. Of these, four hospitals decreased by more than five percentage points, including two that decreased by more than 10 percentage points, compared with the same quarter last year (Figure 47).

Figure 47 Percentage of elective surgery procedures performed on time and percentage point change since same quarter last year, hospitals by peer group, July to September 2015



Is there variation by specialty in the percentage of elective surgery performed on time?

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

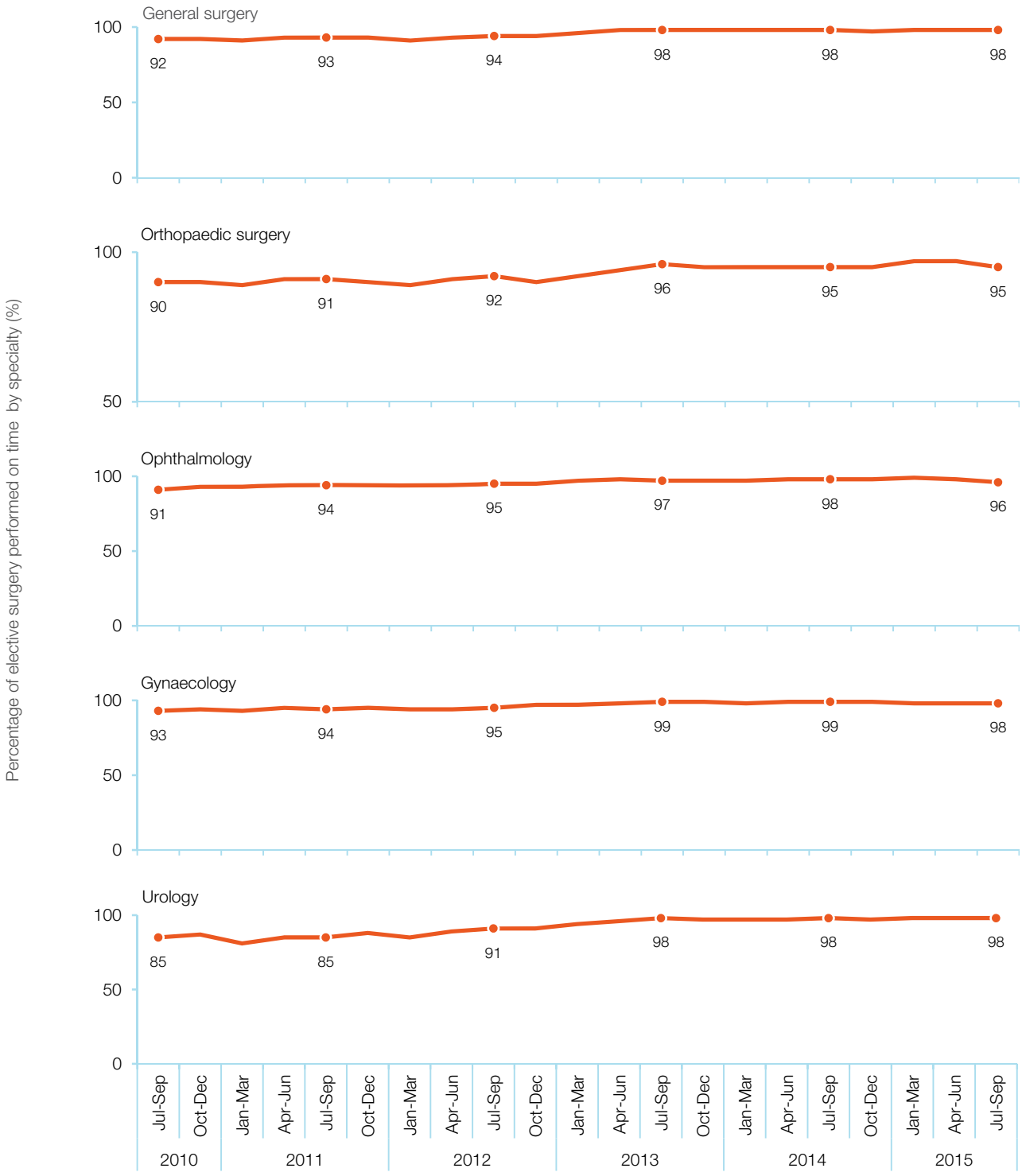
Vascular surgery and medical (non-specialist) surgery had the highest percentage of patients who received surgery on time this quarter (both 99%). Ear, nose and throat surgery and orthopaedic surgery (93% and 95% respectively) had the lowest (Figure 48).

Figure 49 shows change over the past five years in the percentage of elective surgery performed on time for the five highest volume surgical specialty groups. Urology and general surgery have seen the largest increase in the percentage of elective surgery completed within recommended timeframes since July to September 2010 (13 and six percentage point increase respectively).

Figure 48 **Percentage on time, elective surgery, by specialty, July to September 2015**

	Number of procedures	Percentage on time	Same quarter last year	Percentage point change since one year ago
General surgery	14,085	98%	98%	unchanged
Orthopaedic surgery	8,981	95%	95%	unchanged
Gynaecology	7,800	98%	99%	-1
Ophthalmology	7,663	96%	98%	-2
Urology	7,364	98%	98%	unchanged
Ear, nose and throat surgery	4,123	93%	95%	-2
Plastic surgery	2,345	97%	98%	-1
Vascular surgery	1,578	99%	98%	1
Neurosurgery	1,130	96%	98%	-2
Cardiothoracic surgery	963	98%	98%	unchanged
Medical	471	99%	99%	unchanged

Figure 49 Percentage of elective surgery performed on time, by specialty, July 2010 to September 2015



Is there variation by common procedure in the percentage of elective surgery performed on time?

The percentage of elective surgery procedures performed on time reached almost 100% this quarter across several common procedures.

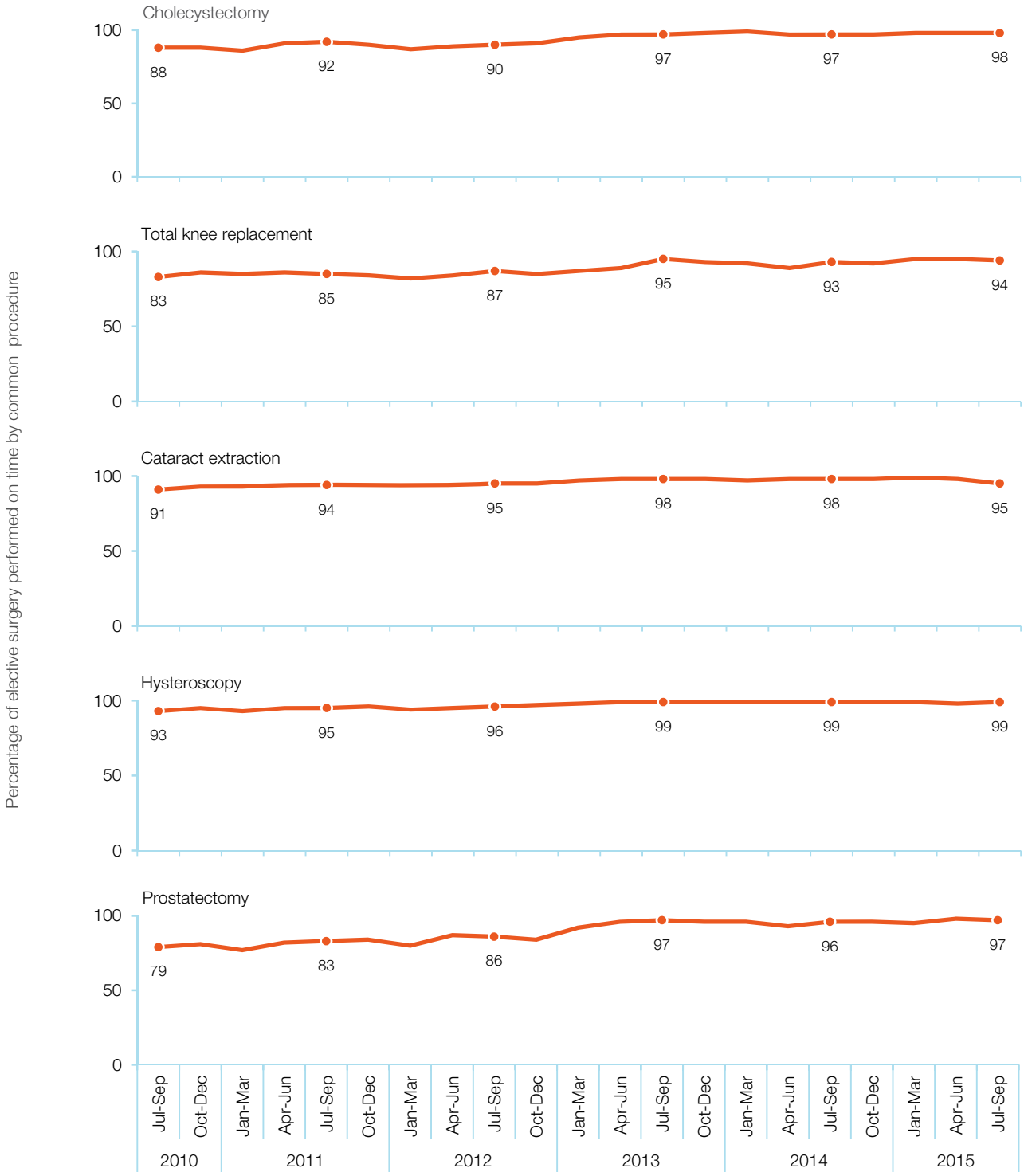
Cystoscopy, hysteroscopy and coronary artery bypass graft (all 99%) were the procedures with the highest percentage of patients who received surgery on time this quarter, while myringoplasty/tympanoplasty (83%), myringotomy (92%) and septoplasty (93%) were the procedures with the lowest. Total hip replacement had the largest increase in the percentage of surgery performed on time this quarter compared with the same quarter last year (up two percentage points). Myringoplasty/tympanoplasty had the largest decrease (down eight percentage points) (Figure 50).

Figure 51 shows change over the past five years in the percentage of surgery performed on time across key common procedures in five of the highest volume specialties. Since the same quarter in 2010, prostatectomy and total knee replacement have seen the largest increase in the percentage of on time surgery (18 and 11 percentage point increase respectively).

Figure 50 **Percentage on time, elective surgery, by common types of procedure, July to September 2015**

	Number of procedures	Percentage on time	Same quarter last year	Percentage point change since one year ago
Cataract extraction	6,033	95%	98%	-3
Cystoscopy	3,322	99%	98%	1
Hysteroscopy	2,521	99%	99%	unchanged
Other - General	1,813	97%	98%	-1
Cholecystectomy	1,674	98%	97%	1
Total knee replacement	1,668	94%	93%	1
Inguinal herniorrhaphy	1,639	98%	98%	unchanged
Tonsillectomy	1,288	94%	95%	-1
Total hip replacement	921	96%	94%	2
Prostatectomy	677	97%	96%	1
Abdominal hysterectomy	641	97%	98%	-1
Septoplasty	422	93%	93%	unchanged
Haemorrhoidectomy	402	98%	99%	-1
Varicose veins stripping and ligation	359	96%	97%	-1
Coronary artery bypass graft	229	99%	98%	1
Myringoplasty / Tympanoplasty	91	83%	91%	-8
Myringotomy	78	92%	95%	-3

Figure 51 Percentage of elective surgery performed on time, by common procedures, July 2010 to September 2015



Terms and classifications

Table 4 Terms and classifications used in the report

Emergency departments	
All presentations	All emergency and non-emergency attendances at the emergency department (ED).
Emergency presentations	All presentations that have a triage category and are coded as emergency presentations or unplanned return visits or disaster.
Presentation time	Presentation time is the earliest time recorded of the patient being in the ED and the earlier of the following fields in the emergency visit database of the Health Information Exchange (HIE): **Arrival time:** the date and time the patient presented at the ED **Triage time:** the date and time when the patient was assessed by a triage nurse. Times to starting treatment and times to leaving the ED are both measured starting from presentation time.
Treatment time	Treatment time is the earlier of the following fields in the ED visit database of the HIE: **First seen by clinician time:** the date and time when the patient is first seen by a medical officer and has a physical examination / treatment performed that is relevant to their presenting problem(s) **First seen by nurse time:** the date and time when the patient is first seen by a nurse and has an assessment/treatment performed that is relevant to their presenting problem(s). Some patinets are excluded from ED treatment time measures due to calculation requirements.
Median time to starting treatment	The time from presentation by which half of patients started treatment. The other half of patients took equal to or longer than this time.
95th percentile time to starting treatment	The time from presentation by which 95% of patients started treatment. The final 5% of patients took equal to or longer than this time.
Departure time	BHI has revised the definition used for calculating the time taken to leave the ED in line with the definition of the Commonwealth National Emergency Access Target (NEAT). Departure time is defined as follows: For patients who were treated and discharged, departure time is the time when treatment was completed. For all other patients, departure time is the time when the patient actually left the ED.
Median time to leaving the ED	The time within which half the patients left the ED. The other half of patients took equal to or longer than this time. The median time to leaving the ED is calculated from all ED presentations with a valid departure time.
95th percentile time to leaving the ED	The time by which 95% of patients left the ED. The remaining 5% took equal to or longer than this time. The 95th percentile time to leaving the ED is calculated from all ED presentations with a valid departure time.
Mode of separation	The way in which a patient leaves the ED. Emergency presentations by mode of separation includes all presentations at the ED that have a departure time recorded.

Table 4 Terms and classifications used in the report (cont)

Emergency departments	
Percentage of patients leaving the ED within four hours	The percentage of patients leaving ED within four hours is calculated from all ED presentations with a valid time to departing the ED. The percentage of patients leaving the ED within four hours reported in Hospital Quarterly is not directly comparable to figures reported by the NSW Ministry of Health or the Commonwealth due to slight differences in definitions, period of reporting and the number of hospitals included. Revision of departure time definition, together with the inclusion of 14 additional EDs in this issue of *Hospital Quarterly* has resulted in a two percentage point increase in the percentage of patients leaving the ED within four hours than would have otherwise been reported this quarter. For more information visit bhi.nsw.gov.au
Transfer of care time	The period between arrival of patients at the ED by ambulance and transfer of responsibility for their care from paramedics to ED staff in an ED treatment zone. Transfer of care time is calculated for records that can be matched between the ED and ambulance information systems. This report includes transfer of care times for matched records only.
Triage category	A classification system based on how urgent the patient's need is for treatment: **Triage 1:** Resuscitation (for example, cardiac arrest) **Triage 2:** Emergency (for example, chest pain, severe burns) **Triage 3:** Urgent (for example, moderate blood loss, dehydration) **Triage 4:** Semi-urgent (for example, sprained ankle, earache) **Triage 5:** Non-urgent (for example, small cuts, abrasions).

Hospital admissions	
Episode of care	A period of care in a hospital or other healthcare facility with a defined start and end. When a person is admitted to hospital they begin what is termed an admitted patient episode or 'episode of care'. Acute episodes are typically short-term admissions for immediate care or treatment. Non-acute episodes include admissions for rehabilitation, palliative care and other non-acute reasons. Patients can have more than one episode of care during the same hospital admission. For example, a patient may begin with acute care and then change to rehabilitation or palliative care.
Stay type	Admitted patient episodes can be for 'same-day' or 'overnight' care. Same-day refers to patients who are admitted and discharged on the same day. Overnight refers to patients who spend at least one night in hospital. Admitted patient episodes can be either 'planned' or 'unplanned'. Planned refers to admissions that are arranged in advance (for example, patients who are admitted for planned elective surgery). Unplanned refers to emergency admissions (for example, for unplanned surgical patients).
Average length of stay	The total number of days in hospital for all admitted patient episodes (including same-day and overnight patients) divided by the total number of admitted patient episodes. The average length of stay is usually measured from midnight.
Bed days	Bed days are calculated for all admitted patient episodes completed during the reference period. Total acute bed days is the sum of bed days for all acute episodes with an episode end date within the defined period. Total acute 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.

Terms and classifications

Table 4 Terms and classifications used in the report (cont)

Elective surgery	
Common procedure	Commonly performed elective surgery procedures.
Specialty	The area of clinical expertise held by the doctor who performed the surgery. Medical (specialty) refers to any surgery performed by a non-specialist medical practitioner.
Median waiting time	The number of days by which half of patients received surgery. The other half took equal to or longer than this time.
90th percentile waiting time	The number of days by which 90% of patients received surgery. The remaining 10% took equal to or longer than this time.
Urgency category	A classification system based on how urgent the patient's need for surgery is: **Urgent surgery**: Admission within 30 days is desirable for a condition that has potential to deteriorate quickly and become an emergency **Semi-urgent surgery**: Admission within 90 days is desirable for a condition unlikely to deteriorate quickly **Non-urgent surgery**: Admission within 365 days acceptable for a condition unlikely to deteriorate quickly.
Staged surgery	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. Because of differences in how hospitals have historically coded cystoscopy, BHI includes all non-urgent cystoscopy in the staged surgery category for measures of surgical activity.
Elective surgery waiting list	Patients ready for elective surgery and on the waiting list excludes those waiting for staged procedures. Patients ready for non-urgent surgery on the waiting list also excludes those waiting for non-urgent cystoscopy. Patients not ready for surgery on the waiting list includes those waiting for staged procedures, non-urgent cystoscopy, and patients currently not available for personal reasons. The time a patient waited for the initial appointment with a specialist is not included in the time a patient spent on the waiting list for elective surgery.

Appendix tables

These tables present activity and performance measures for individual hospitals from principal referral (peer group A1), paediatric specialist hospitals (peer group A2), ungrouped acute – tertiary referral hospitals (peer group A3), major hospitals (peer group B), district group 1 (peer group C1) and district group 2 hospitals (peer group C2). Information for smaller hospitals is presented under the category 'Other'.

Hospital admissions

Appendix tables 1 and 2 present hospital admission activity measures for public hospitals in NSW for this quarter, by local health district (LHD) and hospital peer group.

Download appendix tables by LHD

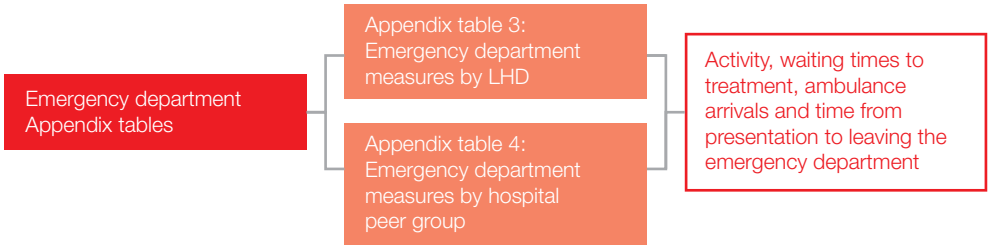
Download appendix tables by hospital peer group

Emergency departments

Appendix tables 3 and 4 present emergency department activity and performance measures for public hospitals in NSW for this quarter, by LHD and hospital peer group.

Download appendix tables by LHD

Download appendix tables by hospital peer group

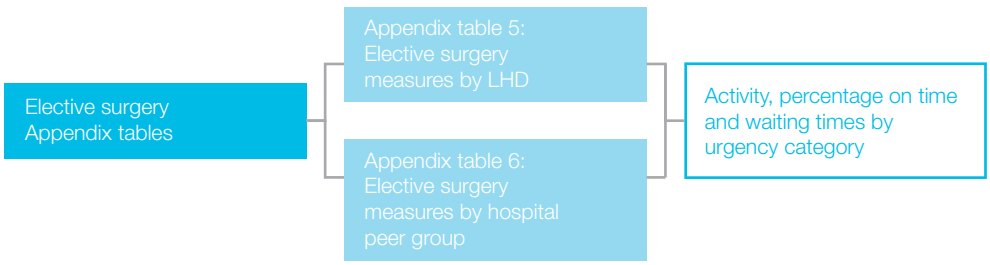


Elective surgery

Appendix tables 5 and 6 present elective surgery activity and performance measures for public hospitals in NSW for this quarter, by LHD and hospital peer group.

Download appendix tables by LHD

Download appendix tables by hospital peer group



Index of hospitals by local health district and hospital peer group

Hospital name	Local health district	Hospital peer group
Armidale and New England Hospital	Hunter New England	C1
Auburn Hospital	Western Sydney	B
Ballina District Hospital	Northern NSW	C2
Bankstown/Lidcombe Hospital	South Western Sydney	A1
Bateman's Bay District Hospital	Southern NSW	C2
Bathurst Base Hospital	Western NSW	C1
Bega District Hospital	Southern NSW	C1
Bellinger River District Hospital	Mid North Coast	C2
Belmont Hospital	Hunter New England	C1
Blacktown Hospital	Western Sydney	B
Blue Mountains District Anzac Memorial Hospital	Nepean Blue Mountains	C2
Bowral and District Hospital	South Western Sydney	C1
Broken Hill Base Hospital	Far West	C1
Bulli District Hospital	Illawarra Shoalhaven	C2
Calvary Mater Newcastle	Hunter New England	A3
Camden Hospital	South Western Sydney	C2
Campbelltown Hospital	South Western Sydney	B
Canterbury Hospital	Sydney	B
Casino and District Memorial Hospital	Northern NSW	C2
Cessnock District Hospital	Hunter New England	C2
Coffs Harbour Base Hospital	Mid North Coast	B
Concord Hospital	Sydney	A1
Cooma Health Service	Southern NSW	C2
Cowra District Hospital	Western NSW	C2
Deniliquin Health Service	Murrumbidgee	C2
Dubbo Base Hospital	Western NSW	B
Fairfield Hospital	South Western Sydney	B
Forbes District Hospital	Western NSW	C2
Gosford Hospital	Central Coast	A1
Goulburn Base Hospital	Southern NSW	C1
Grafton Base Hospital	Northern NSW	C1
Griffith Base Hospital	Murrumbidgee	C1
Gunnedah District Hospital	Hunter New England	C2
Hawkesbury District Health Services (public hospital services only)	Nepean Blue Mountains	C1
Hornsby and Ku-Ring-Gai Hospital	Northern Sydney	B
Inverell District Hospital	Hunter New England	C2
John Hunter Hospital	Hunter New England	A1
Kempsey Hospital	Mid North Coast	C2
Kurri Kurri District Hospital	Hunter New England	C2
Lismore Base Hospital	Northern NSW	B
Lithgow Health Service	Nepean Blue Mountains	C2
Liverpool Hospital	South Western Sydney	A1
Macksville District Hospital	Mid North Coast	C2
Maclean District Hospital	Northern NSW	C2

Hospital name	Local health district	Hospital peer group
Maitland Hospital	Hunter New England	B
Manly District Hospital	Northern Sydney	B
Manning Base Hospital	Hunter New England	B
Milton and Ulladulla Hospital	Illawarra Shoalhaven	C2
Mona Vale and District Hospital	Northern Sydney	B
Moree District Hospital	Hunter New England	C2
Moruya District Hospital	Southern NSW	C2
Mount Druitt Hospital	Western Sydney	C1
Mudgee District Hospital	Western NSW	C2
Murwillumbah District Hospital	Northern NSW	C1
Muswellbrook District Hospital	Hunter New England	C2
Narrabri District Hospital	Hunter New England	C2
Nepean Hospital	Nepean Blue Mountains	A1
Orange Health Service	Western NSW	B
Parkes District Hospital	Western NSW	C2
Port Macquarie Base Hospital	Mid North Coast	B
Prince of Wales Hospital	South Eastern Sydney	A1
Queanbeyan Health Service	Southern NSW	C2
Royal Hospital for Women	South Eastern Sydney	A3
Royal North Shore Hospital	Northern Sydney	A1
Royal Prince Alfred Hospital	Sydney	A1
RPAH Institute of Rheumatology & Orthopaedics	Sydney	A1
Ryde Hospital	Northern Sydney	C1
Shellharbour Hospital	Illawarra Shoalhaven	C1
Shoalhaven and District Memorial Hospital	Illawarra Shoalhaven	B
Singleton District Hospital	Hunter New England	C2
St George Hospital	South Eastern Sydney	A1
St Vincent's Hospital, Darlinghurst	St Vincent's Health Network	A1
Sutherland Hospital	South Eastern Sydney	B
Sydney Children's Hospital	Sydney Children's Network	A2
Sydney Eye Hospital	South Eastern Sydney	A3
Sydney Hospital	South Eastern Sydney	A3
Tamworth Base Hospital	Hunter New England	B
The Children's Hospital at Westmead	Sydney Children's Network	A2
The Tweed Hospital	Northern NSW	B
Tumut Health Service	Murrumbidgee	C2
Wagga Wagga Base Hospital	Murrumbidgee	B
Westmead Hospital	Western Sydney	A1
Wollongong Hospital	Illawarra Shoalhaven	A1
Wyong Hospital	Central Coast	B
Young Health Service	Murrumbidgee	C2

Acknowledgements

The Bureau of Health Information (BHI) is the main source of information for the people of NSW about the performance of their healthcare system. A NSW-based board-governed organisation, BHI, is led by Acting Chairperson Liz Rummery AM and Chief Executive Jean-Frédéric Lévesque MD, PhD.

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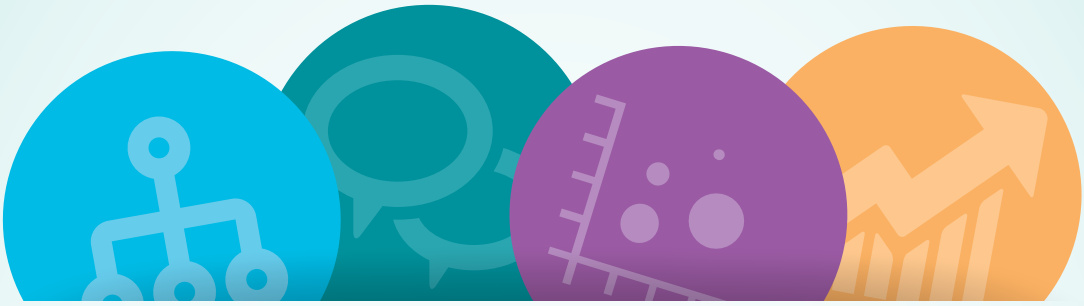

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Hospital Quarterly provides information on performance and activity of NSW public hospitals across:

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Elective surgery

Emergency departments

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bureau of health information

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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 publishes a range of reports and tools that provide relevant, accurate and impartial information about how the NSW healthcare 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
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