

Hospital Quarterly

Activity and performance in NSW public hospitals

April to June 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 Changes in the data from quarter to quarter mean that figures published in this document will be superseded by subsequent reports.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.

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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 in 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 17 July 2015. Elective surgery data were extracted from the Waiting List Collection On-line System (WLCOS) on 16 July 2015.

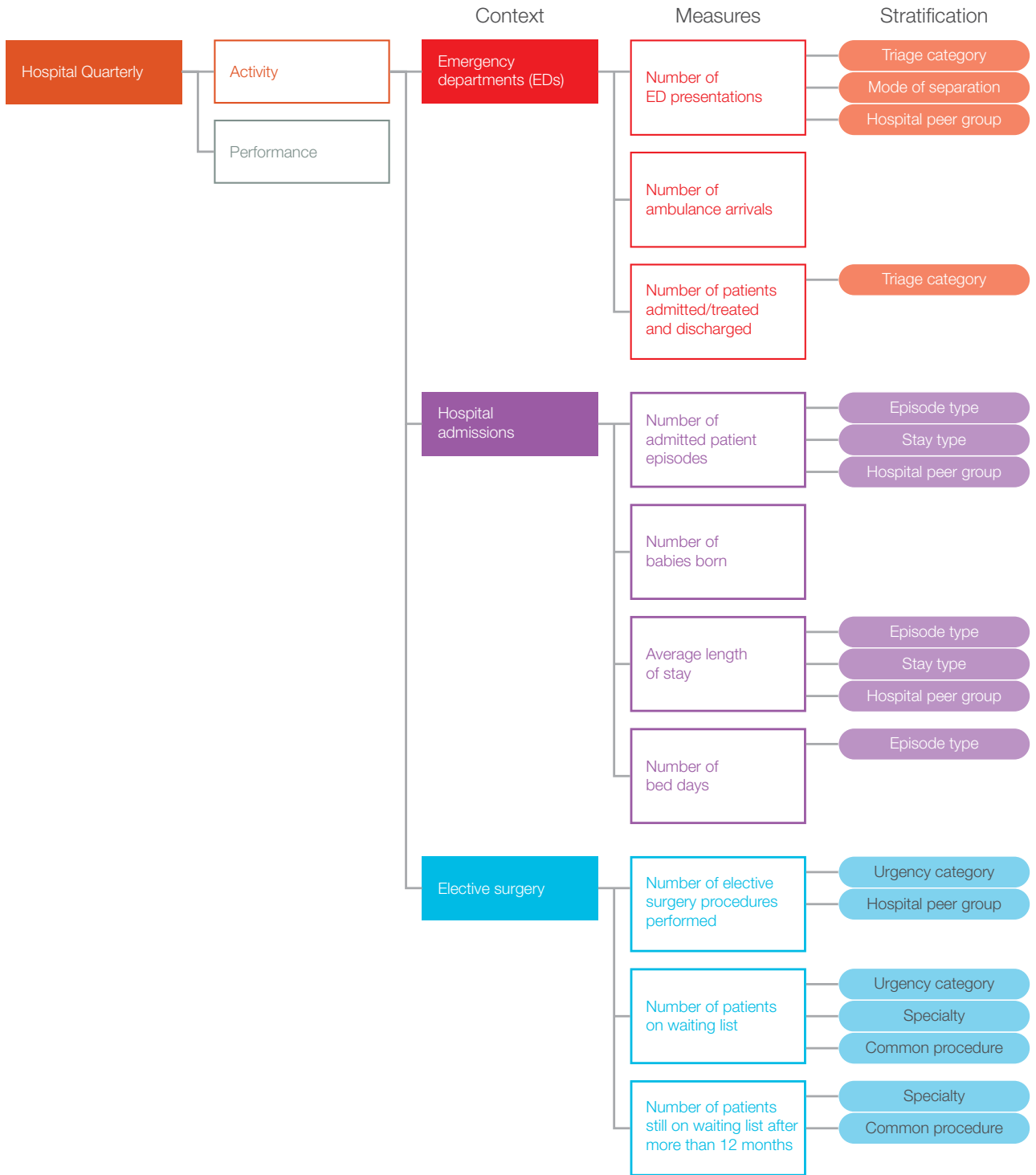
ED data are drawn from the Emergency Department Data Collection (EDDC). While not all EDs have systems in place to supply records to the EDDC, data coverage has increased over time. The ED data in this report cover 131 facilities for which consistent data have been reported to the EDDC for at least five 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, percentage of patients leaving the ED within four hours, and the percentage of elective surgery performed within recommended timeframes. These measures are described in Table 4 (page 49).

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.

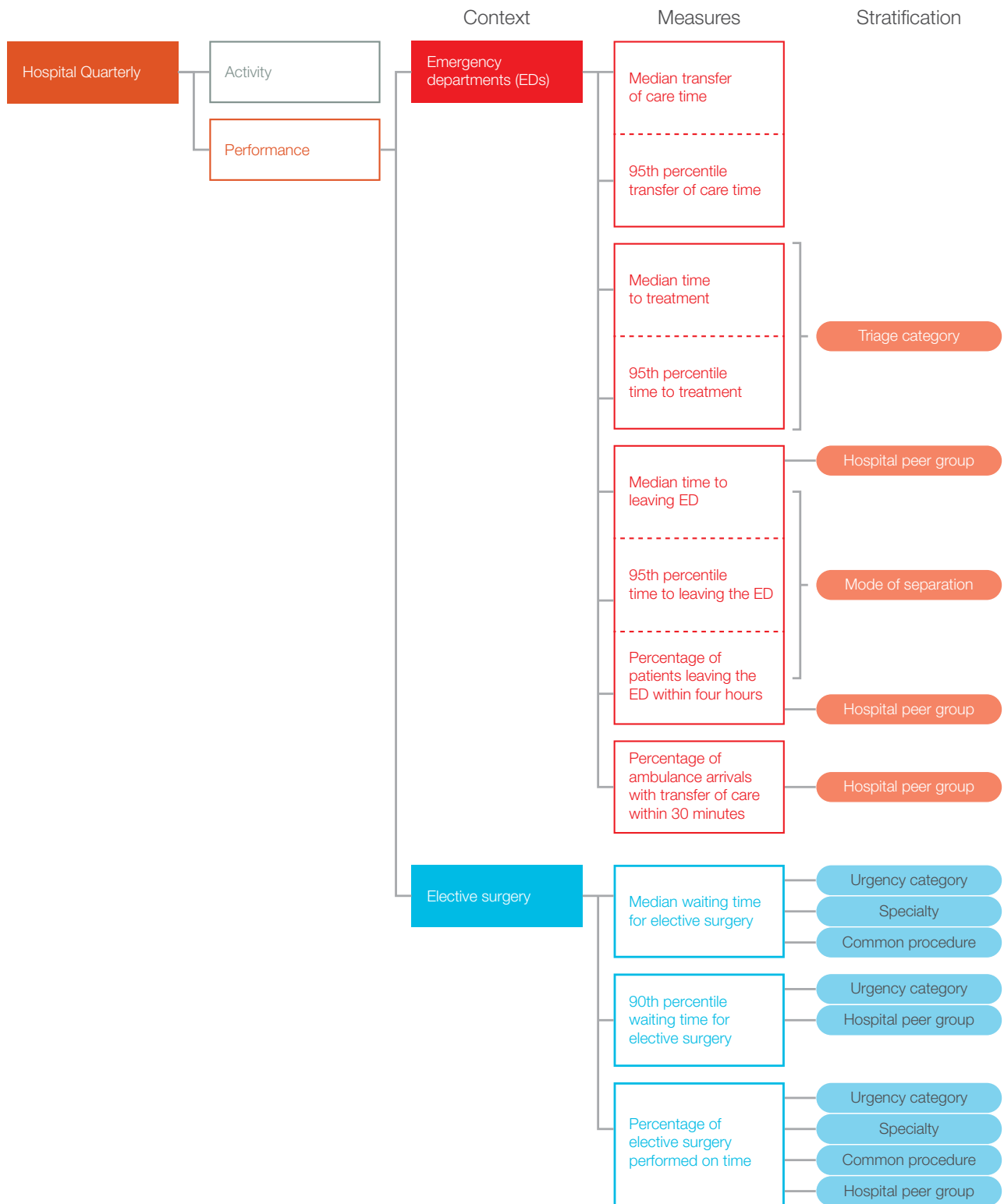
Percentages in this report are rounded and therefore may not sum to 100%. Percentages greater than 99.5% are rounded to 100%.

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 – April to June 2015

How many people presented at NSW emergency departments?

Compared with the same quarter last year:

- 11,926 more patients presented to NSW emergency departments (EDs) (628,525 presentations in total; up 2%). Most presentations (96%) were unplanned (emergency presentations).
- 4,627 more patients were in triage category two (up 7%), 10,637 more were in triage category three (up 5%), there was almost no change in the number of patients in triage category four and 3,533 fewer patients were in triage category five (down 5%)
- About two in every 10 patients (22%) who presented at the ED arrived by ambulance (138,486 patients in total; up 1%).

Where did patients go after leaving the emergency department?

- 63% of ED patients were treated and discharged (7,059 more than the same quarter last year)
- 28% were treated and admitted to hospital (3,458 more patients)
- 5% left without, or before completing, treatment (722 more patients)
- 2% were transferred to another hospital (902 more patients).

How many patients were admitted to public hospitals?

Compared with the same quarter last year:

- There were 5,505 more admitted patients episodes (458,313 episodes in total; up 1%). Most (96%) were acute care episodes.
- Over half of all acute admitted patient episodes (54%) were for overnight care and the remainder were for same-day care
- 20,712 more bed days were recorded (1,659,842 bed days in total; up 1%), and the total number of acute bed days (1,379,860) increased by 2%

- The average length of stay for an acute overnight admitted patient episode (4.9 days) was unchanged
- 362 fewer babies were born (17,662 babies in total; down 2%).

How many elective surgery procedures were performed?

Compared with the same quarter last year:

- There was almost no change in the number of elective surgery procedures performed (54,646 procedures in total). Of all elective surgery procedures performed in this quarter:
 - 11,754 (22%) were categorised as urgent
 - 17,560 (32%) were categorised as semi-urgent
 - 22,451 (41%) were categorised as non-urgent
 - 2,881 (5%) were categorised as staged.

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

Compared with the same quarter last year:

- There was almost no change in the number of people ready for surgery and on the elective surgery waiting list at the end of the quarter (73,063 in total). Of these:
 - 1,829 people (3%) were waiting for urgent surgery
 - 11,775 (16%) were waiting for semi-urgent surgery
 - 59,459 (81%) were waiting for non-urgent surgery.
- Fewer people were still waiting for urgent surgery (down 3%) and semi-urgent surgery (down 1%) at the end of the quarter. There was almost no change in the number waiting for non-urgent surgery.

Table 2 provides a summary of NSW public hospital activity measures for April to June 2015.

Table 2

Summary of NSW public hospital activity measures, April to June 2015

Emergency department activity		April to June 2015	Same quarter last year	Difference	% change
All arrivals at NSW EDs by ambulance		138,486	136,578	1,908	1%
All ED presentations		628,525	616,599	11,926	2%
Emergency presentations		603,347	591,556	11,791	2%
Emergency presentations by triage category					
T1: Resuscitation		4,004	3,983	21	<1%
T2: Emergency		73,328	68,701	4,627	7%
Triage category	T3: Urgent	204,369	193,732	10,637	5%
T4: Semi-urgent		258,167	258,128	39	<1%
T5: Non-urgent		63,479	67,012	-3,533	-5%
Admissions to hospital from NSW EDs		176,350	172,892	3,458	2%
Admitted patient activity		April to June 2015	Same quarter last year	Difference	% change
All admitted patient episodes		458,313	452,808	5,505	1%
All acute episodes		440,263	434,812	5,451	1%
Overnight episodes		237,956	236,390	1,566	1%
Same-day episodes		202,307	198,422	3,885	2%
Non-acute episodes		18,050	17,996	54	<1%
Average length of stay (days)	All acute episodes	3.1	3.1	0	0%
	Acute overnight episodes	4.9	4.9	0	0%
	Non-acute episodes	15.5	15.6	-0.1	-1%
Hospital bed days	All bed days	1,659,842	1,639,130	20,712	1%
	Acute bed days	1,379,860	1,357,740	22,120	2%
	Non-acute bed days	279,982	281,390	-1,408	-1%
Babies born in NSW public hospitals		17,662	18,024	-362	-2%
Elective surgery activity		April to June 2015	Same quarter last year	Difference	% change
Elective surgery procedures performed		54,646	54,396	250	<1%
Urgency category	Urgent surgery	11,754	12,037	-283	-2%
	Semi-urgent surgery	17,560	17,664	-104	-1%
	Non-urgent surgery	22,451	21,417	1,034	5%
Patients on waiting list ready for elective surgery		73,063	73,098	-35	<1%
Urgency category	Urgent surgery	1,829	1,884	-55	-3%
	Semi-urgent surgery	11,775	11,895	-120	-1%
	Non-urgent surgery	59,459	59,319	140	<1%

Key findings

Hospital performance measures – April to June 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 unchanged at 85%
- The median time from first presentation at the ED to starting treatment was unchanged for patients in triage categories two and four (eight and 26 minutes respectively), and one minute longer for patients in triage categories three and five (21 and 23 minutes respectively)
- The 95th percentile time to starting treatment increased for patients in triage categories two, three and four (three, five and one minute longer respectively) and unchanged for patients in triage category five.

How long were patients in the ED?

Compared to the same quarter last year:

- The median and 95th percentile times to leaving the ED were one minute and nine minutes longer respectively
- There was a decrease in the percentage of patients who left the ED within four hours (73%; down one percentage point)
- Of 81 hospitals, 35 saw an increase in the percentage of patients leaving within four hours. Five hospitals saw an increase of more than five percentage points.
- In contrast, 34 hospitals saw a decrease in the percentage of patients leaving within four hours. Four hospitals saw a decrease of 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 time for urgent and semi-urgent elective surgery was unchanged (11 and 45 days respectively), while the median waiting time for non-urgent surgery (233 days) increased by seven days
- The 90th percentile waiting time for urgent elective surgery was unchanged at 26 days, and decreased by one and two days respectively for semi-urgent and non-urgent surgery.

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)
 - 98% of semi-urgent surgery (up one percentage point)
 - 96% of non-urgent surgery (up one percentage point).
- Of 83 hospitals, 26 saw an increase in the percentage of elective surgery performed on time. Seven hospitals increased by more than five percentage points; with one that increased more than 10 percentage points.
- In contrast, 23 hospitals saw a decrease in the percentage of elective surgery performed on time; with two that decreased more than 10 percentage points.
- The percentage of elective surgery performed on time varied this quarter. Among specialties:
 - vascular surgery, neurosurgery and medical (non-specialist surgery) had the highest percentage of patients who received surgery on time (all 99%)

- ear, nose and throat surgery (95%), orthopaedic surgery and plastic surgery (both 97%) had the lowest
- myringoplasty/tympanoplasty (89%), total knee replacement, and tonsillectomy (both 95%) had the lowest.
- Among common procedures:
 - cystoscopy (99%), cataract extraction, hysteroscopy, cholecystectomy, other-general, prostatectomy, coronary artery bypass graft, and myringotomy (all 98%) had the highest percentage of patients who received surgery on time

Table 3 provides a summary of NSW public hospital performance measures for April to June 2015.

Table 3 Summary of NSW public hospital performance measures, April to June 2015

Emergency department performance			April to June 2015	Same quarter last year	Difference	
Time to treatment by triage category	T2: Emergency	Median	0h 8min	0h 8min	0h 0min	
		95th percentile	0h 37min	0h 34min	0h 3min	
	T3: Urgent	Median	0h 21min	0h 20min	0h 1min	
		95th percentile	1h 42min	1h 37min	0h 5min	
	T4: Semi-urgent	Median	0h 26min	0h 26min	0h 0min	
		95th percentile	2h 20min	2h 19min	0h 1min	
	T5: Non-urgent	Median	0h 23min	0h 22min	0h 1min	
		95th percentile	2h 13min	2h 13min	0h 0min	
	Median time to leave the ED			2h 42min	2h 41min	0h 1min
	95th percentile time to leave the ED			9h 58min	9h 49min	0h 9min
Patients leaving the ED within four hours of presentation			73%	74%	-1 percentage point	

Elective surgery performance			April to June 2015	Same quarter last year	Difference
Waiting time (days)	Urgent	Median	11 days	11 days	unchanged
		90th percentile	26 days	26 days	unchanged
	Semi-urgent	Median	45 days	45 days	unchanged
		90th percentile	82 days	83 days	-1 day
	Non-urgent	Median	233 days	226 days	7 days
		90th percentile	356 days	358 days	-2 days
Elective surgery procedures performed on time	All procedures		97%	97%	unchanged
	Urgent surgery		100%	100%	unchanged
	Semi-urgent surgery		98%	97%	1 percentage point
	Non-urgent surgery		96%	95%	1 percentage point

Hospital activity measures

Key findings

Compared with the same quarter last year...

11,926

more emergency department presentations
628,525 presentations in total



5,505

more people admitted to hospital
458,313 admissions in total



54,646

elective surgery procedures performed



20,712

more bed days of care provided
1,659,842 bed days in total



1,908



more patients arrived by ambulance
138,486 arrivals in total

362



fewer babies born
17,662 babies born in total

The average length of stay for all acute overnight admissions was

4.9 days

unchanged 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 emergency department patients and ambulance arrivals	11
Patients leaving the emergency department by mode of separation	13

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 of bed days provided.

Hospital admissions and babies born	15
Hospital bed days	17
Average length of stay	17

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.

Elective surgery performed by urgency category	19
Elective surgery waiting list	21

How many people presented at NSW emergency departments?

During the April to June 2015 quarter, a total of 628,525 people presented to NSW public hospital emergency departments (EDs), an increase of 2% compared with the same quarter last year. Almost all were emergency presentations (603,347 patients or 96%) (Figure 1). The remaining 4% (25,178 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 (4,627 more patients) and a 5% increase in the number in triage category three (10,637 more patients). There was almost no change in the number of patients in triage category one and four, and a decrease (5%) in the number of patients in triage category five (Figure 1).

There has been a sizeable increase over time in the number of emergency presentations, from 484,220 in April to June 2010 to 603,347 this quarter, representing a 25% increase over the past five years (Figure 2).

The majority of NSW hospitals (52 out of 81) saw an increase in the number of ED presentations this quarter (Figure 3). Seventeen hospitals saw an increase of more than 5%, including five that increased by more than 10%. Eight hospitals saw 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, 138,486 emergency department patients arrived by ambulance, an increase of 1% compared with the same quarter last year (Figure 1).

Emergency presentations have a triage category and are classified as emergency presentations, unplanned return visits or disaster.

Figure 1 Emergency department presentations and ambulance arrivals at NSW emergency departments, April to June 2015

		Same quarter last year	Change since one year ago
All presentations	628,525	616,599	2%
Emergency presentations by triage category	603,347	591,556	2%
Triage 1: Resuscitation	4,004 (1%)	3,983	<1%
Triage 2: Emergency	73,328 (12%)	68,701	7%
Triage 3: Urgent	204,369 (34%)	193,732	5%
Triage 4: Semi-urgent	258,167 (43%)	258,128	<1%
Triage 5: Non-urgent	63,479 (11%)	67,012	-5%
Ambulance arrivals	138,486	136,578	1%

Figure 2 Emergency presentations and ambulance arrivals at NSW emergency departments, April 2010 to June 2015

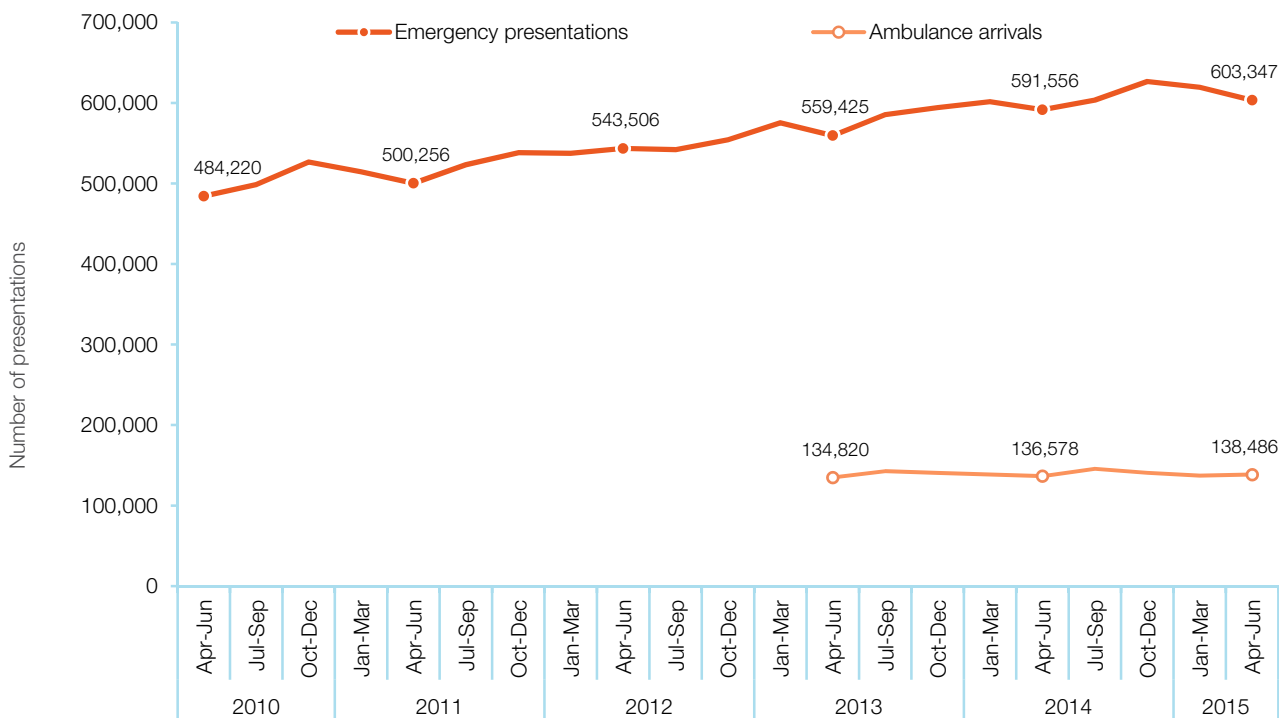
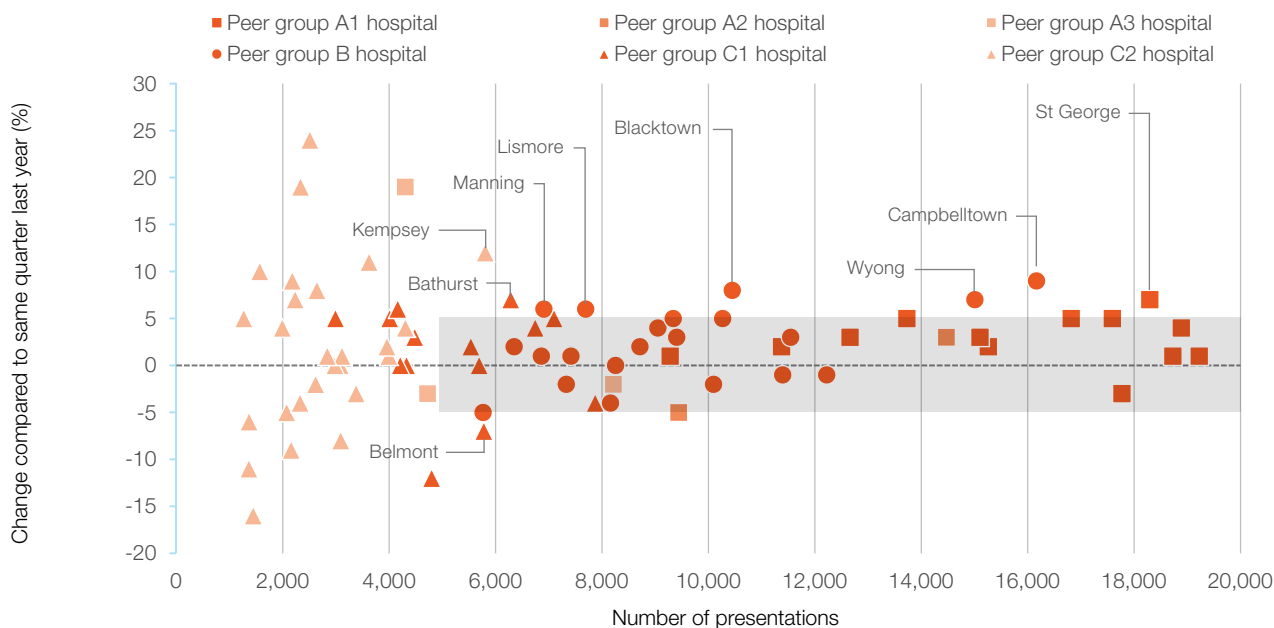


Figure 3 Change in emergency department presentations compared to same quarter last year, hospitals by peer group, April to June 2015



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 April to June 2015 quarter, 63% of patients (397,885) were treated and discharged from the ED, and 28% (176,350 patients) were treated and admitted to hospital. For both groups, there was a 2% increase in the number of patients compared with the same quarter last year.

The number of patients transferred to another hospital increased by 7% this quarter (13,290) and the number who left without, or before completing, treatment (30,409 patients) increased by 2%, compared with the same quarter last year (Figure 4).

Emergency department 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, compared with the same quarter in 2010. During the same period, 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, April to June 2015

		Same quarter last year	Change since one year ago
Treated and discharged	397,885 (63%)	390,826	2%
Treated and admitted to hospital	176,350 (28%)	172,892	2%
Patient left without, or before completing, treatment	30,409 (5%)	29,687	2%
Transferred to another hospital	13,290 (2%)	12,388	7%
Other	10,591 (2%)	10,806	-2%

Figure 5 Percentage of patients treated and admitted, by triage category, April to June 2015

		Same quarter last year	Percentage point change since one year ago
All ED presentations	28%	28%	unchanged
Triage 1	82%	83%	-1
Triage 2	59%	61%	-2
Triage 3	40%	41%	-1
Triage 4	16%	17%	-1
Triage 5	5%	5%	unchanged

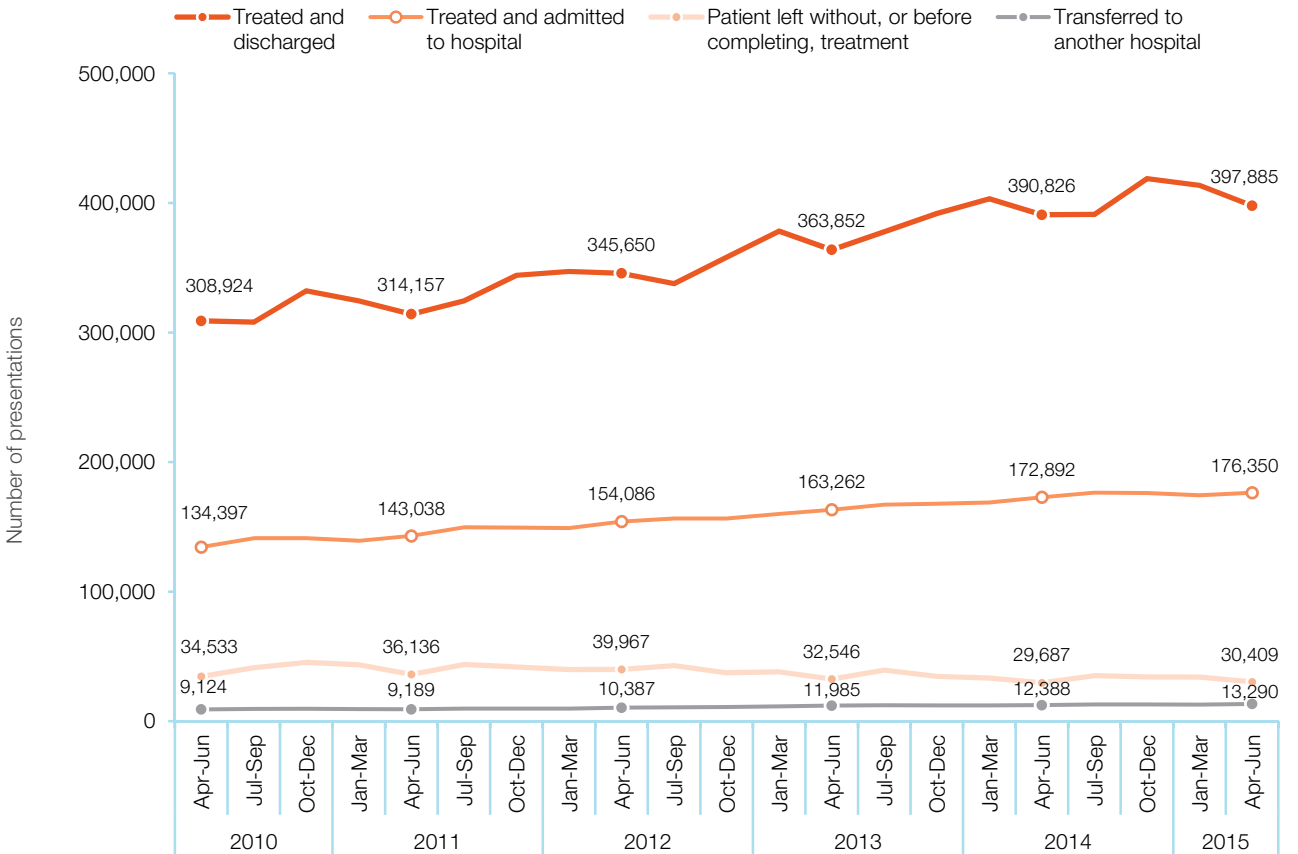
Figure 6

Percentage of patients treated and discharged, by triage category, April to June 2015

		Same quarter last year	Percentage point change since one year ago
All ED presentations	63%	63%	unchanged
Triage 1	7%	7%	unchanged
Triage 2	34%	33%	1
Triage 3	53%	52%	1
Triage 4	75%	74%	1
Triage 5	83%	82%	1

Figure 7

Patients leaving the emergency department, by mode of separation, April 2010 to June 2015



How many patients were admitted to public hospitals?

During the April to June 2015 quarter, there were 458,313 admitted patient episodes; 1% more than in the same quarter last year (Figure 8). The majority were acute admitted patient episodes (96%). Of the 440,263 acute admitted patient episodes this quarter, 54% were for overnight care and the remainder (46%) were for same-day care (202,307 episodes) (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 (74%) were planned. Similarly, almost all overnight episodes (84%) 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 overnight admitted patient episodes increased by 11% 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 – 8% to 89% of all acute admissions being for same-day care.

The number of babies born in NSW public hospitals (17,662) decreased by 2% this quarter 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, April 2010 to June 2015

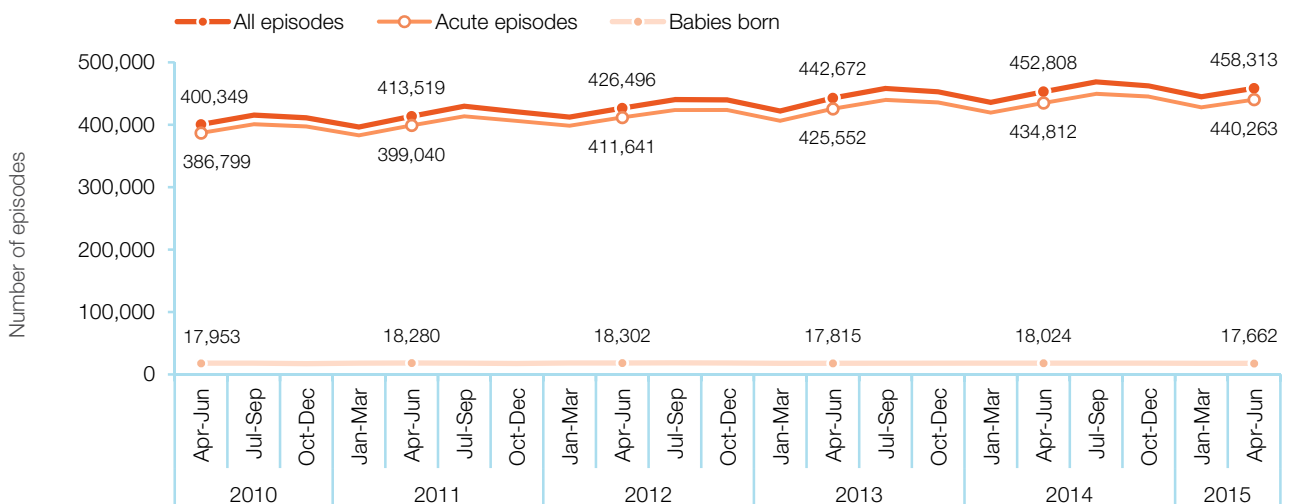


Figure 9 Overnight and same-day acute admitted patient episodes, April 2010 to June 2015

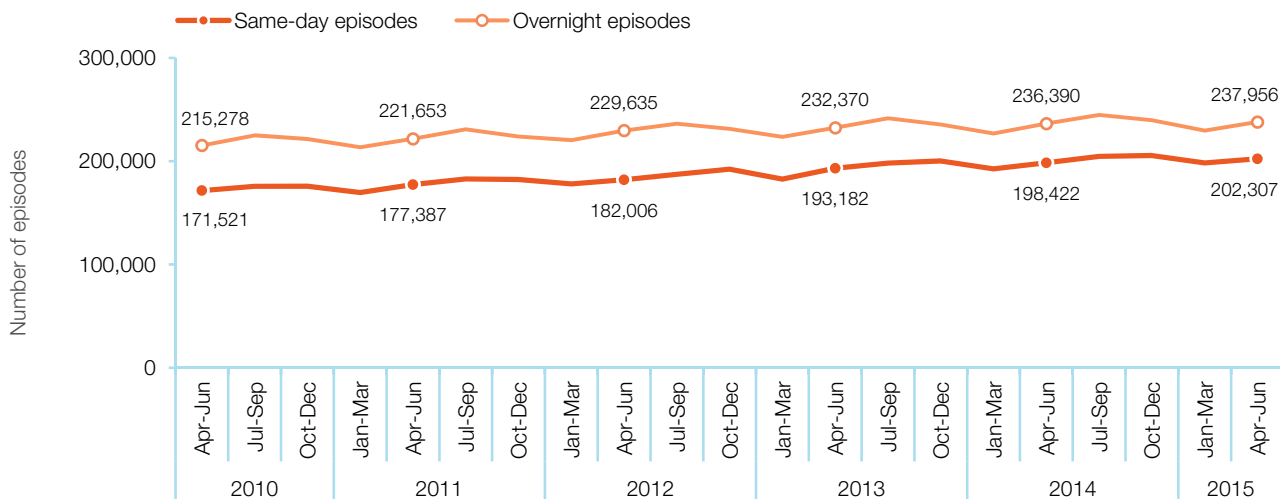
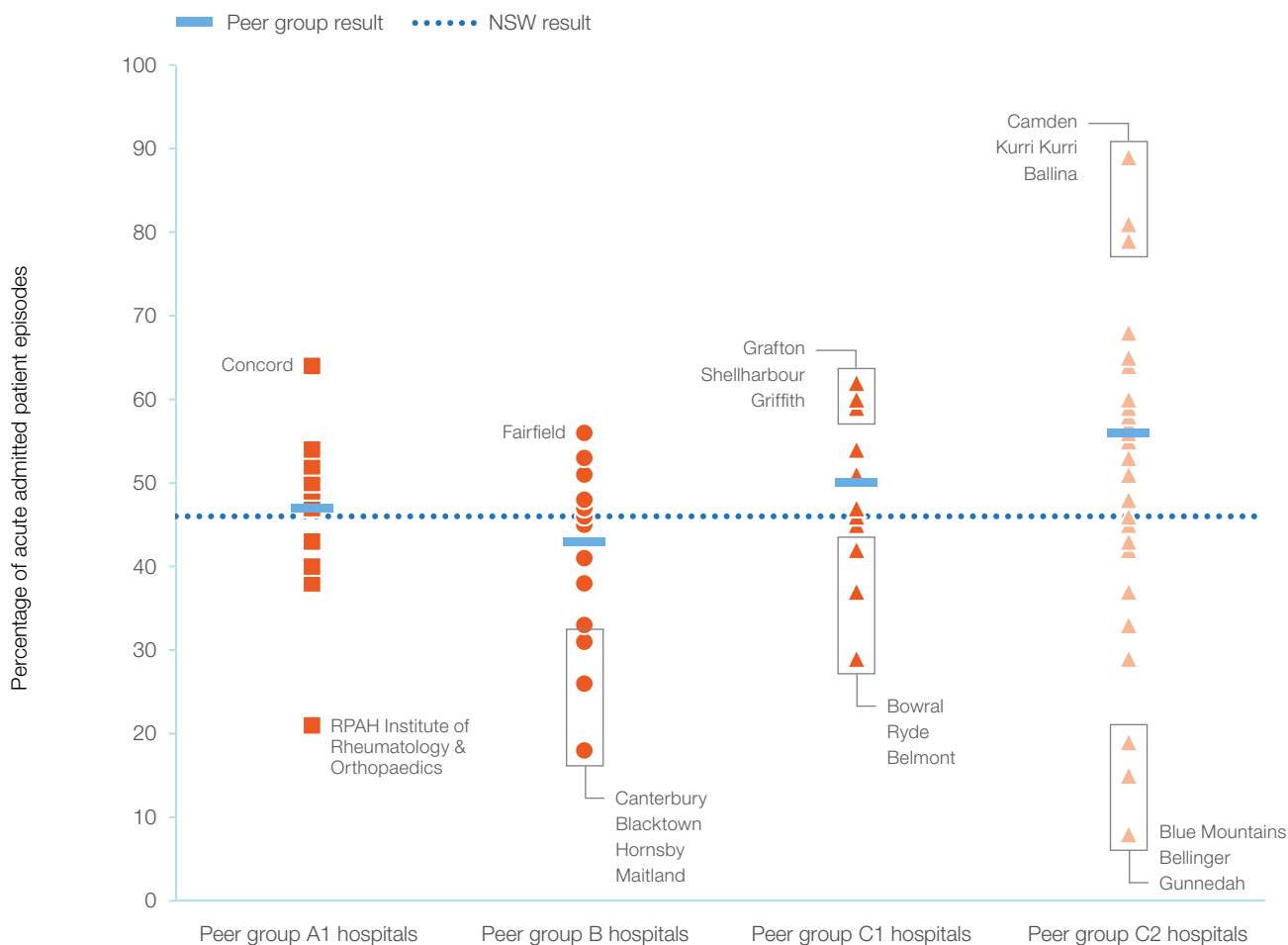


Figure 10 Same-day admitted patient episodes as percentage of all acute admitted patient episodes, by peer group, April to June 2015



How long did patients stay in hospital?

Bed days are an important measure of hospital utilisation and service provision. During the April to June 2015 quarter, 1,659,842 hospital bed days were recorded across all admitted patient episodes. This is 1% more than in the same quarter last year. The majority of bed days (83%) were for the delivery of acute care. The number of bed days for acute care was 2% higher this quarter, and the number for non-acute care was 1% lower compared with the same quarter last year (Figure 11).

Between April 2010 and June 2015, there was an increase of 5% in the number of bed days for acute care. During this time, the number of bed days for non-acute care increased by 12% (Figure 12).

The average length of stay for all hospital admissions was 3.1 days this quarter, unchanged compared with the same quarter last year. The average length of stay for acute overnight admissions was 4.9 days, also unchanged. Figure 13 shows that there has been a slight downward trend in the average length of stay for all admissions and all acute admissions over the past five 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 seen in the C2 peer group, which saw a more than three-fold variation in the average length of stay for individual hospitals (ranging from 2.9 days to 11.4 days) (Figure 14).

Figure 11 Total number of hospital bed days by episode type, April to June 2015

		Same quarter last year	Change since one year ago
Total bed days	1,659,842	1,639,130	1%
Acute	1,379,860 (83%)	1,357,740	2%
Non-acute	279,982 (17%)	281,390	-1%

Figure 12 Total number of hospital bed days by episode type, April 2010 to June 2015

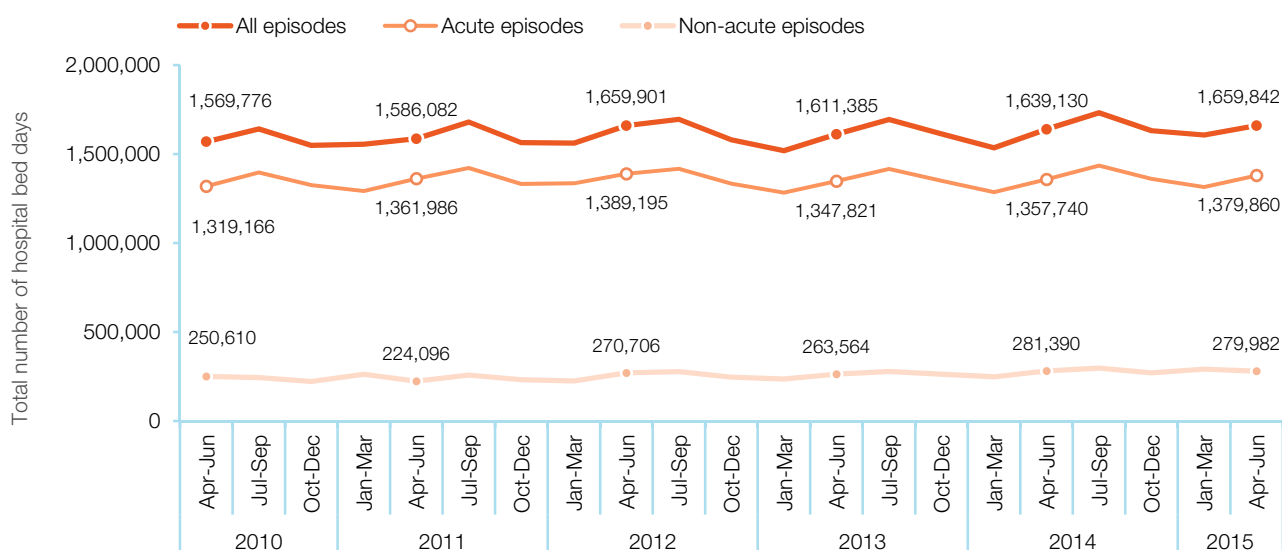


Figure 13 Average length of stay for all acute, and acute overnight admitted patient episodes, April 2010 to June 2015

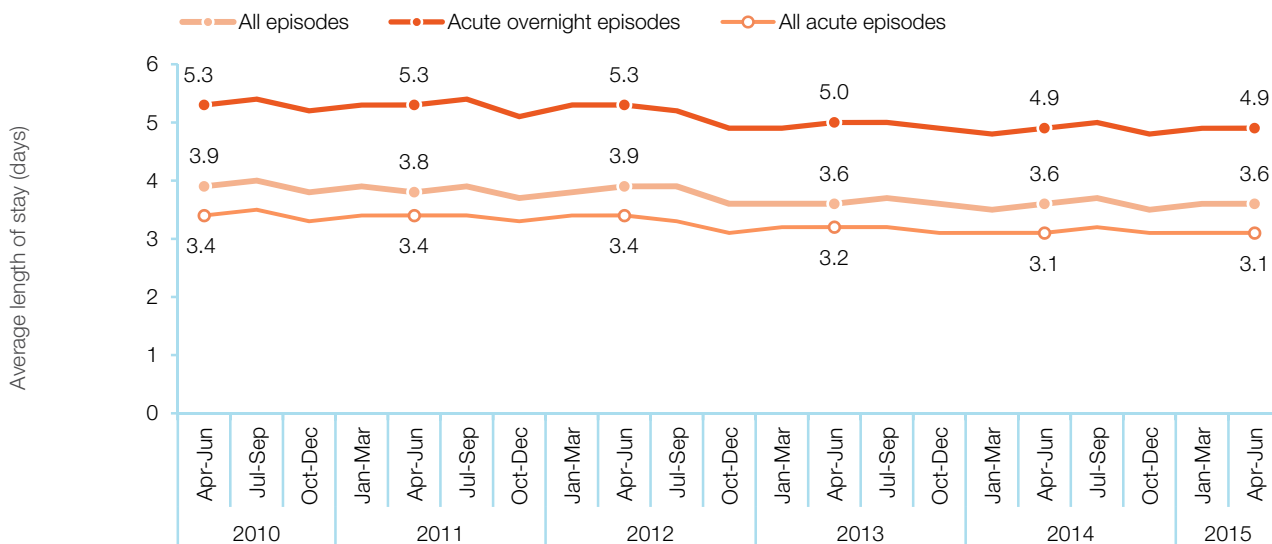
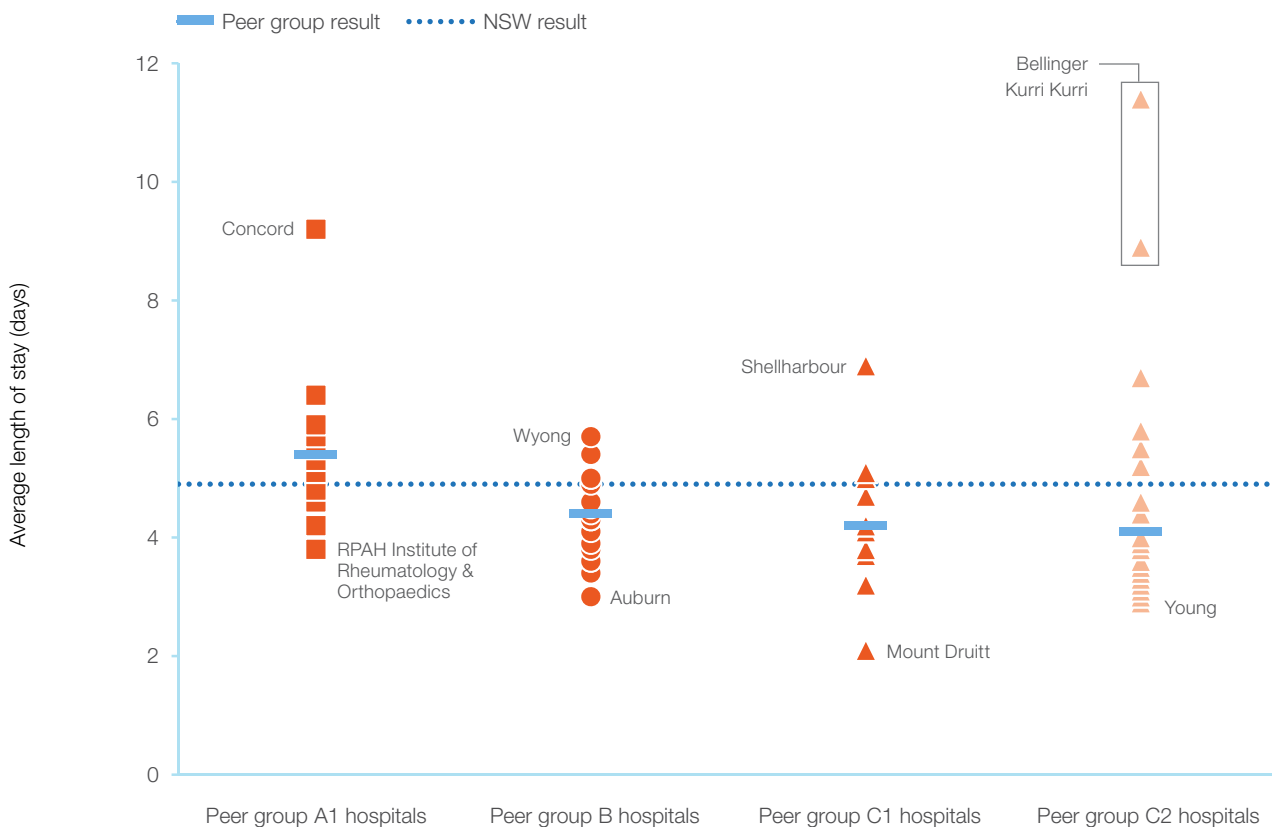


Figure 14 Average length of stay for acute overnight admitted patient episodes, by peer group, April to June 2015



How many elective surgery procedures were performed?

During the April to June 2015 quarter, a total of 54,646 elective surgery procedures were performed, largely unchanged compared with the same quarter last year. Of all the elective surgery procedures performed this quarter, 22% were categorised as urgent, 32% as semi-urgent, and 41% as non-urgent. A further 5% were categorised as staged (Figure 15).

Compared with the same quarter last year, the number of urgent, semi-urgent, and staged procedures decreased by 2%, 1% and 12% respectively; the number of non-urgent procedures increased by 5% (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.

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, April to June 2015

		Same quarter last year	Change since one year ago
Total number of elective surgery procedures	54,646	54,396	<1%
Urgent	11,754 (22%)	12,037	-2%
Semi-urgent	17,560 (32%)	17,664	-1%
Non-urgent	22,451 (41%)	21,417	5%
Staged	2,881 (5%)	3,278	-12%

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

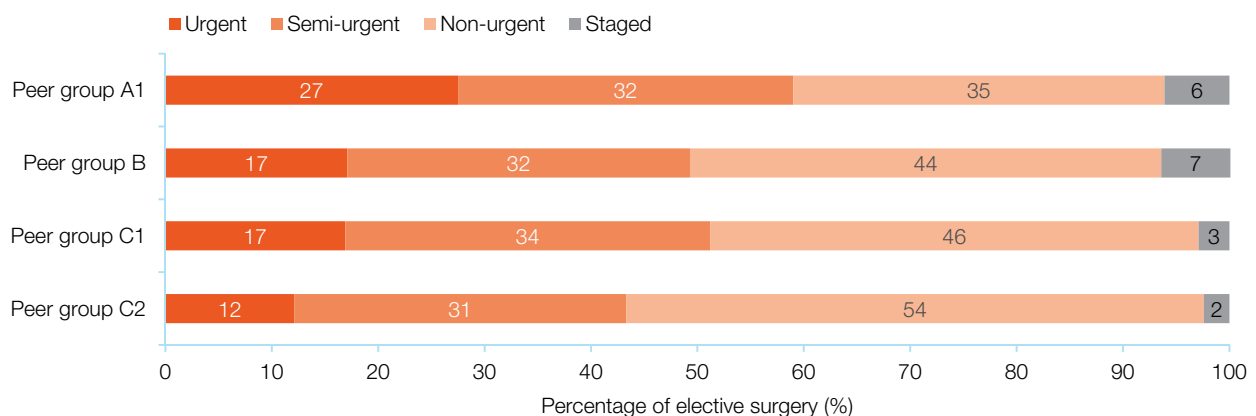
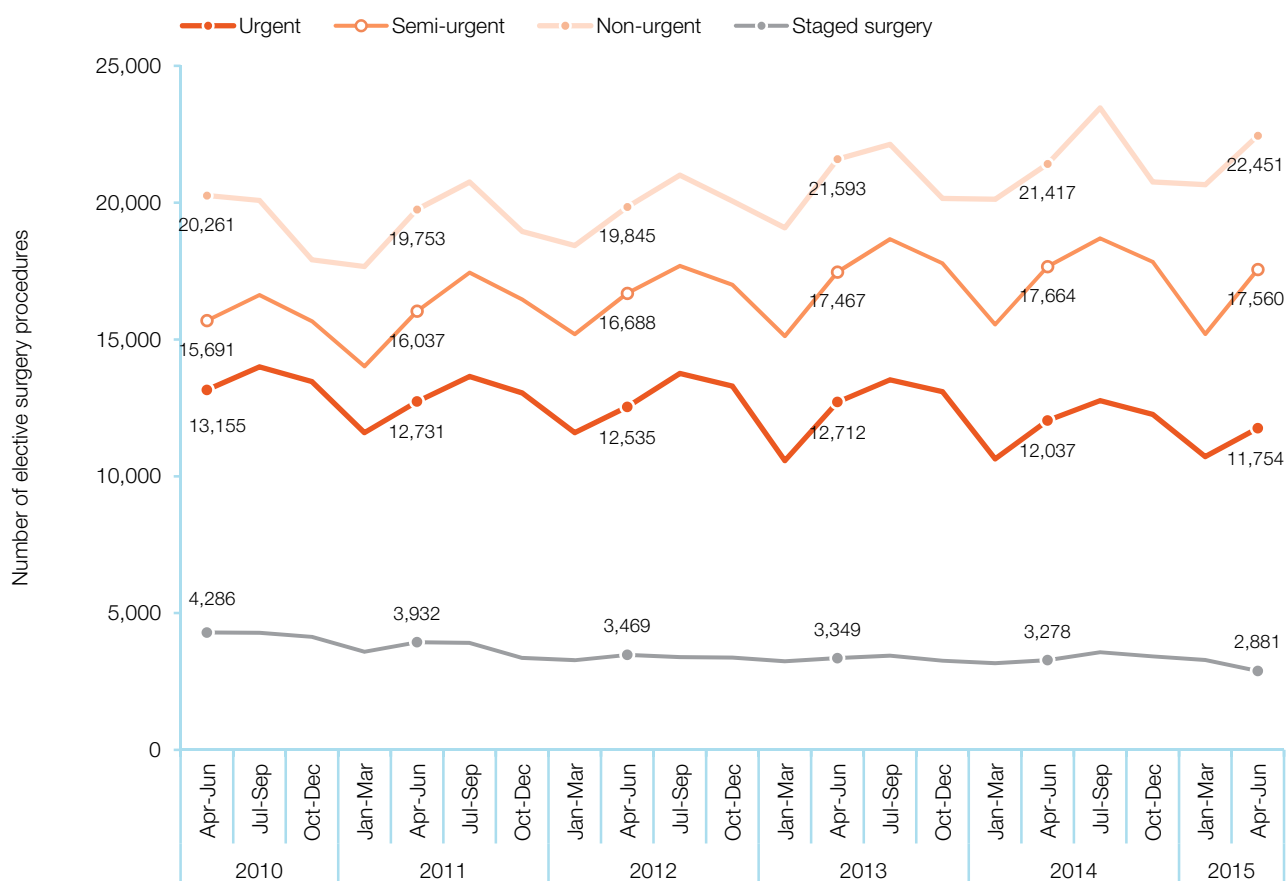


Figure 16 shows variation in the distribution, by urgency category, of all elective surgery procedures performed across different hospital peer groups. Peer group A1 hospitals had the highest percentage of elective surgery procedures that were urgent and the lowest percentage that were non-urgent, compared 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 surgery has increased by 12% and 11% respectively. In contrast, the number categorised as urgent has decreased by 11% and the number categorised as staged has decreased by 33% during this time (Figure 17).

Figure 17 Elective surgery procedures performed, by urgency category, April 2010 to June 2015



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

At the end of June 2015, 73,063 patients were ready for surgery and on the elective surgery waiting list. Of these, 3% were waiting for urgent surgery, 16% 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 and semi-urgent elective surgery decreased by 3% and 1% respectively, and the number waiting for non-urgent surgery was largely unchanged (Figure 18).

At the end of the quarter, 13,088 patients were not ready for surgery 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 596 patients still waiting for surgery after more than 12 months on the waiting list; a 51% increase compared with the same quarter last year. Ophthalmological surgery,

ear, nose and throat surgery and orthopaedic 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 was seen for ophthalmological surgery, with a more than three-fold increase in the number still waiting after more than 12 months (from 45 to 156 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 (14,622 patients, up 2% compared with the same quarter last year). Procedures with the least patients waiting were myringotomy (94 patients; down 27%) and coronary artery bypass graft (98 patients; up 53%) (Figure 20).

At the end of the quarter, cataract extraction and septoplasty 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 was seen for cataract extraction, with a more than three-fold increase in the number still waiting after more than 12 months (from 31 to 133 patients). The largest decrease was seen for total knee replacement (from 42 to 15 patients) (Figure 20).

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

		Same quarter last year	Change since one year ago
Patients ready for surgery on waiting list as at 30 June 2015: 73,063		73,098	<1%
Urgent	1,829 (3%)	1,884	-3%
Semi-urgent	11,775 (16%)	11,895	-1%
Non-urgent	59,459 (81%)	59,319	<1%
Patients not ready for surgery on waiting list at the end of quarter: 13,088		12,837	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 speciality, as at 30 June 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	73,063	73,098	unchanged	596	396
Orthopaedic surgery	18,532	18,717	-1%	134	131
Ophthalmology	16,851	16,432	3%	156	45
General surgery	12,508	13,332	-6%	97	81
Ear, nose and throat surgery	9,681	9,442	3%	136	100
Gynaecology	6,320	6,367	-1%	30	<5
Urology	3,670	3,878	-5%	19	11
Plastic surgery	2,561	2,291	12%	17	15
Neurosurgery	1,326	1,107	20%	<5	9
Vascular surgery	1,006	945	6%	<5	0
Cardiothoracic surgery	399	352	13%	0	<5
Medical	209	235	-11%	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 June 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	14,622	14,395	2%	133	31
Total knee replacement	5,205	5,136	1%	15	42
Tonsillectomy	3,665	3,613	1%	21	13
Total hip replacement	2,278	2,345	-3%	8	19
Inguinal herniorrhaphy	2,124	2,147	-1%	13	14
Cholecystectomy	1,650	1,833	-10%	<5	7
Hysteroscopy	1,562	1,553	1%	<5	0
Septoplasty	1,371	1,417	-3%	35	26
Other - general	1,250	1,170	7%	15	9
Cystoscopy	1,066	1,172	-9%	0	<5
Abdominal hysterectomy	794	751	6%	6	<5
Varicose veins stripping and ligation	742	726	2%	<5	0
Prostatectomy	661	597	11%	<5	<5
Haemorrhoidectomy	440	461	-5%	0	0
Myringoplasty / Tympanoplasty	324	354	-8%	8	7
Coronary artery bypass graft	98	64	53%	0	0
Myringotomy	94	129	-27%	<5	0

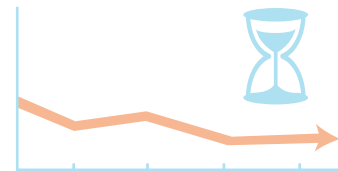
Hospital performance measures

Key findings

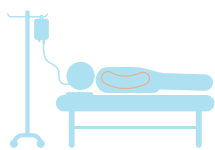
85% of patients arriving by ambulance had their care transferred within 30 minutes unchanged compared with the same quarter last year



Median time to ED treatment was mostly stable across all triage categories



73% 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

98% semi-urgent surgery procedures performed on time

96% non-urgent surgery procedures performed on time



26 out of 83 hospitals reported an increase in the percentage of elective surgery performed on time - 23 reported a decrease, compared with the same quarter last year

NSW emergency departments

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

Time to treatment	25
Time spent in the emergency department	27
Percentage of patients who left the emergency department within four hours	31
Transfer of care	37

NSW elective surgery

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

Waiting times for elective surgery	39
Percentage of elective surgery procedures performed on time	43

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

During the April to June 2015 quarter, the median time from a patient first presenting at the emergency department (ED) to starting treatment was largely unchanged across all triage categories, compared with the same quarter last year (Figure 21).

The 95th percentile time to starting treatment increased for patients in triage categories two, three and four by three minutes, five minutes and one minute respectively. There was no change for patients in triage category five, compared with the same quarter last year (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 remained largely unchanged in triage category two during this time.

Figure 21 Time from presentation to starting treatment, by triage category, April to June 2015

		Same quarter last year	Change since one year ago
Triage 2 Emergency (e.g. chest pain, severe burns): 72,545 patients			
Median time to start treatment	8m	8m	unchanged
95th percentile time to start treatment	37m	34m	3m
Triage 3 Urgent (e.g. moderate blood loss, dehydration): 199,211 patients			
Median time to start treatment	21m	20m	1m
95th percentile time to start treatment	1h 42m	1h 37m	5m
Triage 4 Semi-urgent (e.g. sprained ankle, earache): 240,664 patients			
Median time to start treatment	26m	26m	unchanged
95th percentile time to start treatment	2h 20m	2h 19m	1m
Triage 5 Non-urgent (e.g. small cuts or abrasions): 54,925 patients			
Median time to start treatment	23m	22m	1m
95th percentile time to start treatment	2h 13m	2h 13m	unchanged

Figure 22 Median time from presentation to starting treatment, by triage category, April 2010 to June 2015

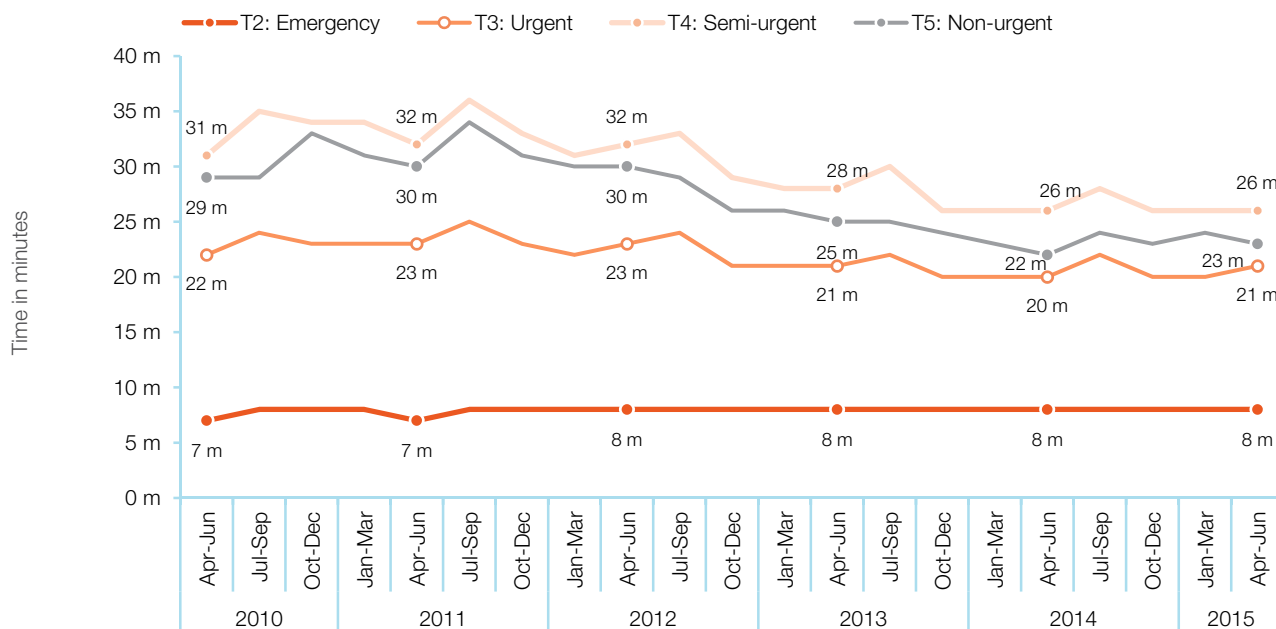
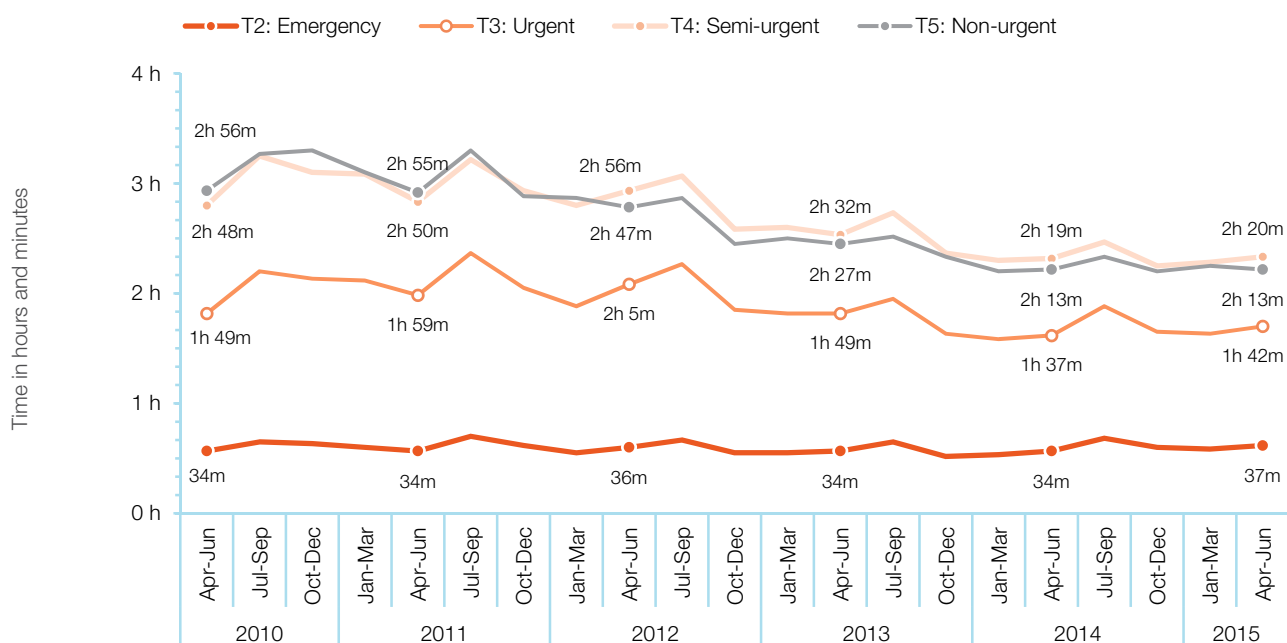


Figure 23 95th percentile time from presentation to starting treatment, by triage category, April 2010 to June 2015



How long were patients in the emergency department?

Time to leaving the ED

The length of time spent in the ED is an important issue for patients and their families. During the April to June 2015 quarter, the median time from presentation to leaving the ED was two hours and 42 minutes, one minute longer than the same quarter last year. The 95th percentile time to leaving was nine hours and 58 minutes, nine minutes longer 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, by quarter, 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 10 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).

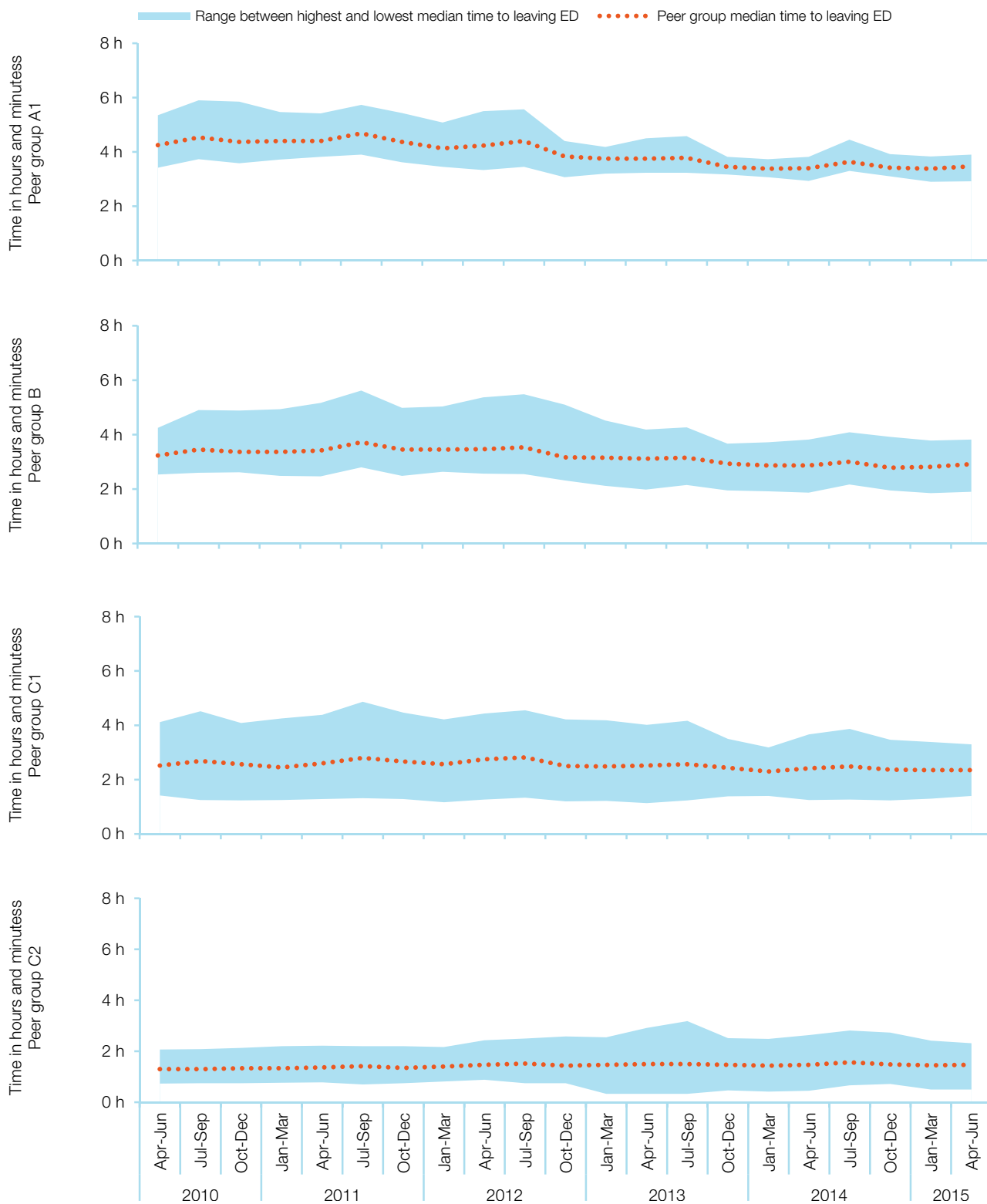
Patients generally spend less time in the ED in peer group C1 and C2 hospitals (Figure 25). Correspondingly, these hospitals generally have a higher percentage of patients who leave within four hours of presentation, compared with other peer groups (Figure 31).

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, April to June 2015

		Same quarter last year	Change since one year ago
Median time to leaving the ED	2h 42m	2h 41m	1m
95th percentile time to leaving the ED	9h 58m	9h 49m	9m

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



How long were patients in the emergency department?

Time to leaving the ED by mode of separation

The median time to leaving the ED increased this quarter across all modes of separation, compared with the same quarter last year (Figure 26). For patients whose ED visit ended in admission to hospital, the median time to leaving the ED was 12 minutes longer (Figure 26).

The 95th percentile time to leaving the ED was 14 minutes longer this quarter for patients treated and admitted to hospital, and six minutes shorter 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 18 minutes shorter (Figure 27).

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

Despite a 27% increase in the volume of ED presentations since the April to June quarter in 2010, 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 to leaving the ED across all modes of separation. The largest decrease was seen for patients who were treated and admitted to hospital (from six hours and 26 minutes in the April to June 2010 to four hours and 50 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 treated and admitted to hospital saw the largest decrease (from 18 hours and 58 minutes in April to June 2010, to 17 hours and 17 minutes this quarter) (Figure 27).

Figure 26 Median time from presentation to leaving the emergency department, April 2010 to June 2015

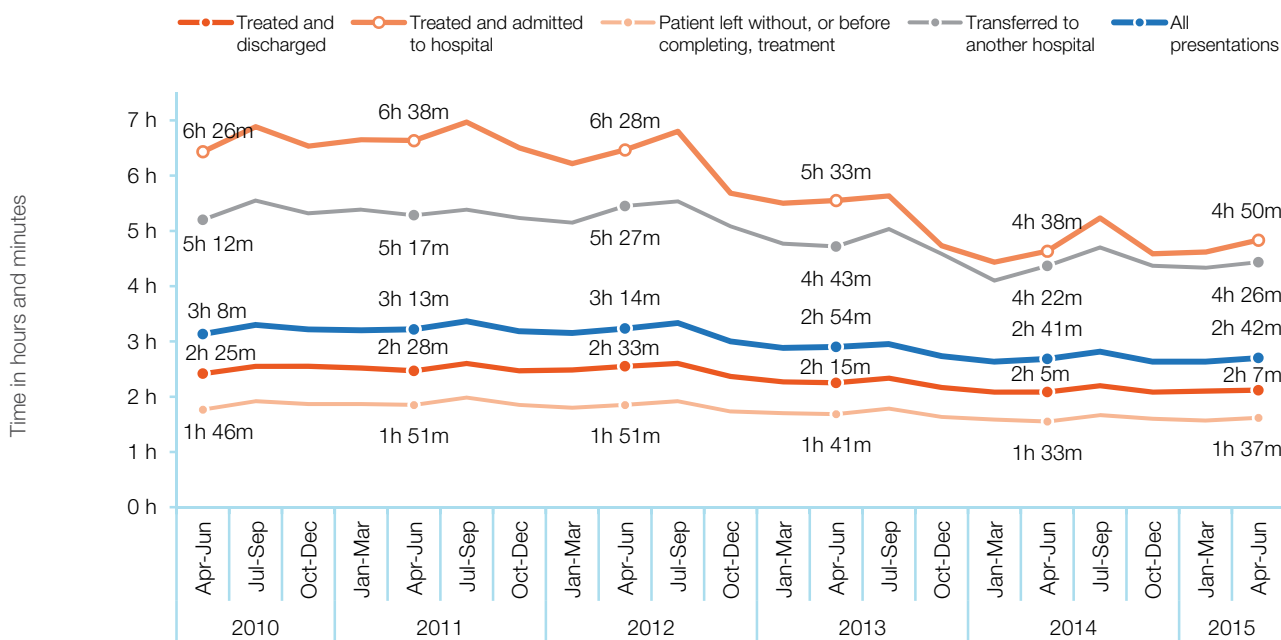
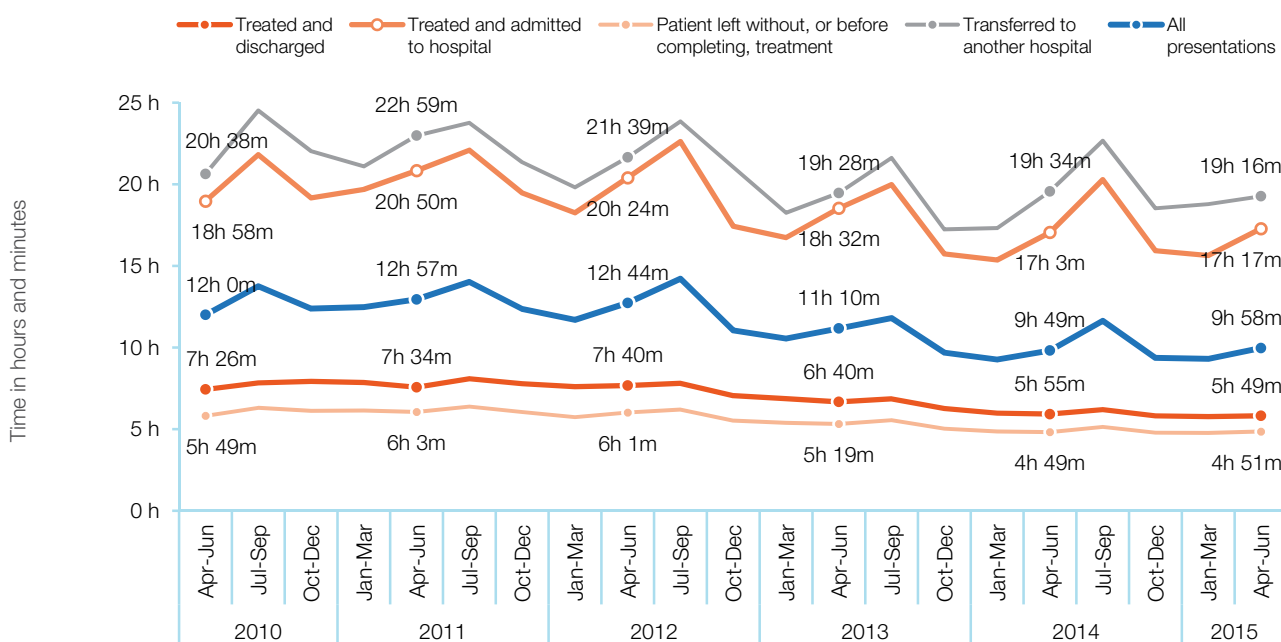


Figure 27 95th percentile time from presentation to leaving the emergency department, April 2010 to June 2015



How long were patients in the emergency department?

Percentage of patients leaving the ED within four hours of presentation

During the April to June 2015 quarter, 73% 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 (86%). 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 (41% and 46% respectively). Of patients who left without, or before, completing treatment, 91% 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 73% of patients left the ED in the first four hours of presentation this quarter, a further 19% 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, April to June 2015

		Same quarter last year	Percentage point change since one year ago
All ED presentations	73%	74%	-1
Treated and discharged	86%	86%	unchanged
Treated and admitted	41%	44%	-3
Left without or before completing treatment	91%	92%	-1
Transferred to another hospital	46%	46%	unchanged

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

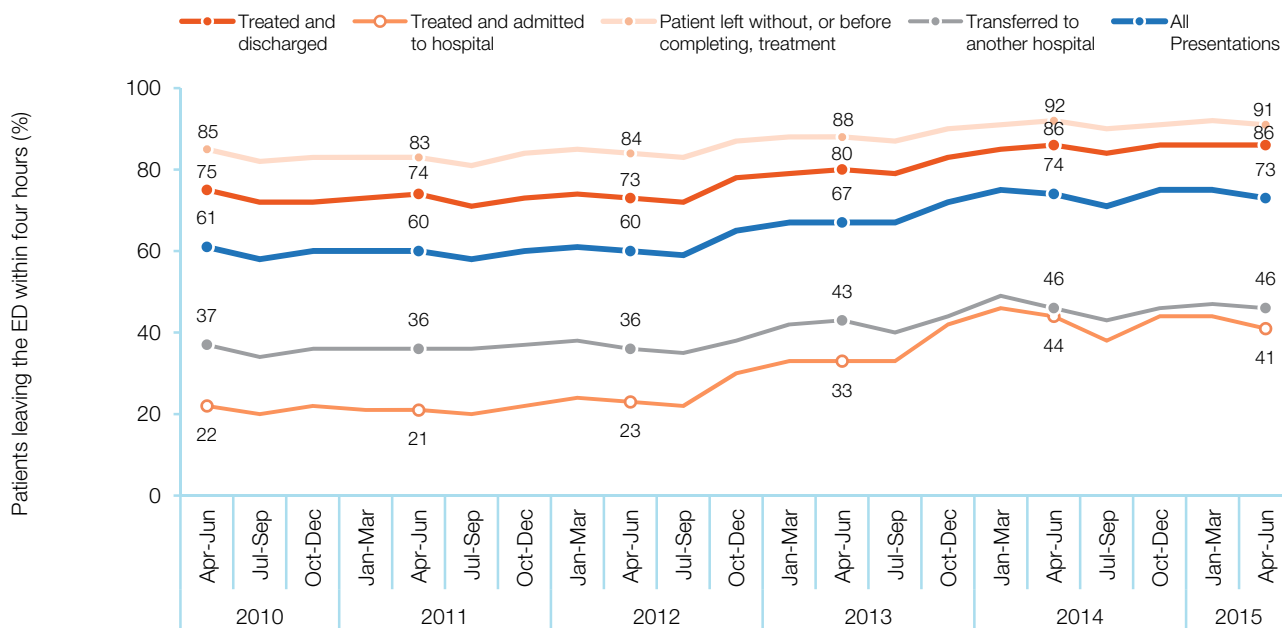
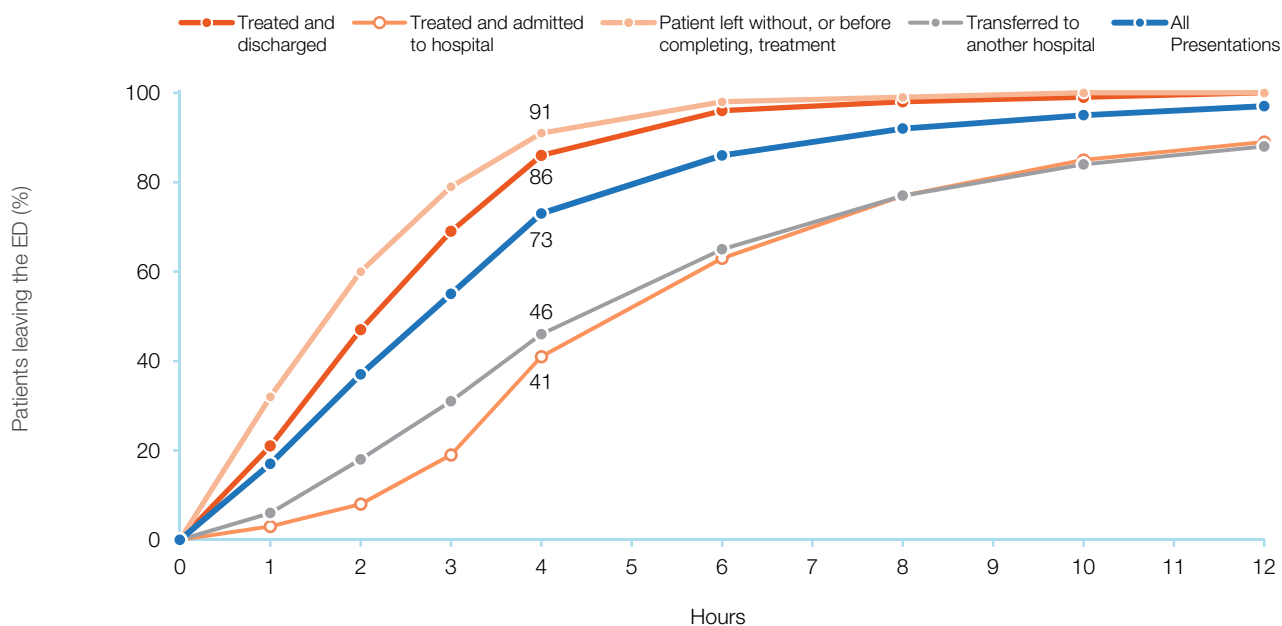


Figure 30 Percentage of patients leaving the emergency department, by time and mode of separation, April to June 2015



How long were patients in the emergency department?

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

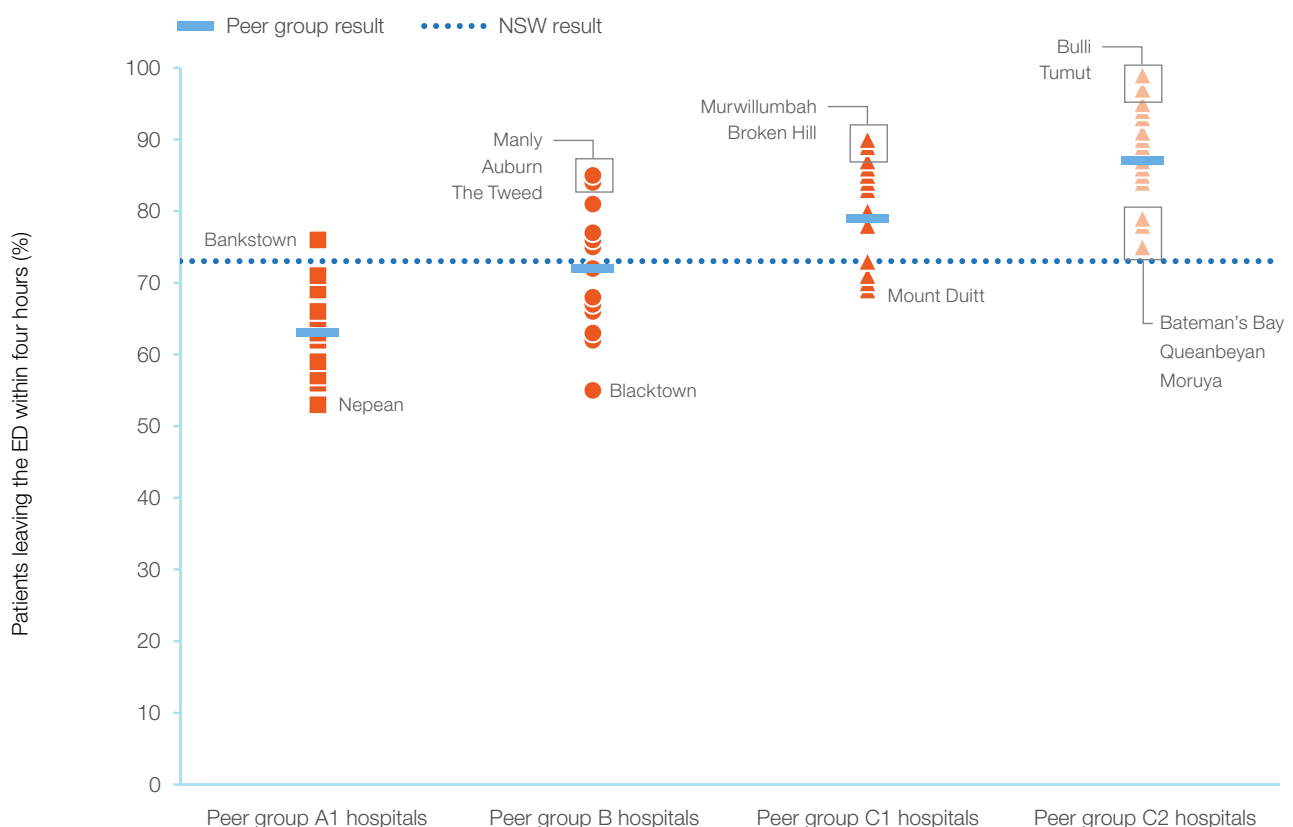
There is considerable variation between and within hospital peer groups in the percentage of patients leaving the ED within four hours. Figure 31 shows that peer group C2 hospitals generally have a higher percentage of patients leaving the ED within four hours compared with other peer group hospitals.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

Figure 32 shows the change, compared with the same quarter last year, and results achieved by individual NSW public hospitals, in the percentage of patients leaving the ED within four hours. 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 of 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 saw a decrease in the percentage leaving within four hours.

Figure 31 Percentage of patients leaving the emergency department within four hours of presentation, by peer group, April to June 2015



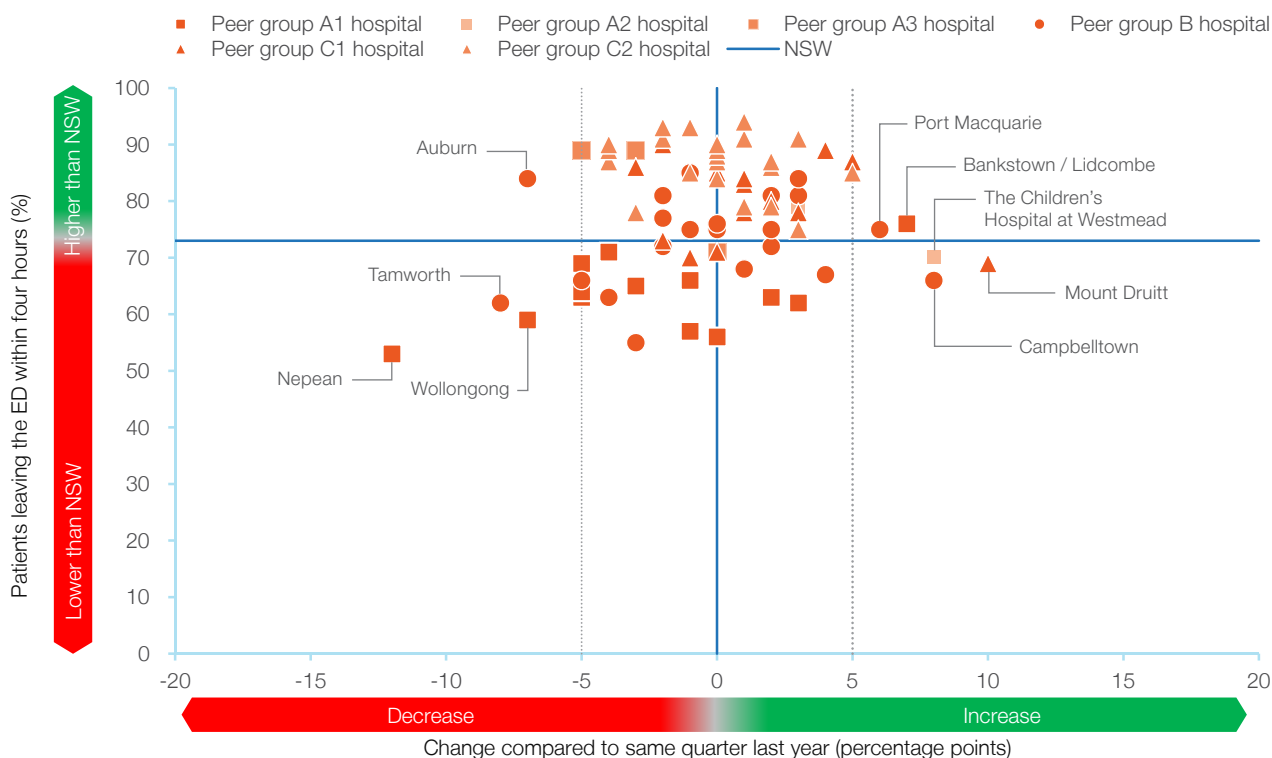
Hospitals in the lower right quadrant had results that were lower than NSW overall, but saw an increase in the percentage of patients leaving within four hours. Hospitals in the lower left quadrant had results that were lower than NSW and saw a decrease in the percentage leaving within four hours, compared 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, 35 out of 81 hospitals saw an increase in the percentage of patients leaving the ED within four hours of presentation. Of these, five hospitals increased by more than five percentage points, compared with the same quarter last year (Figure 32).

Thirty-four hospitals saw a decrease in the percentage of patients leaving the ED within four hours. Of these, four 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, April to June 2015



How long were patients in the emergency department?

Change over time in percentage leaving within four hours

Compared with the same quarter last year, peer group A1 hospitals saw an overall decrease in the percentage of patients leaving within four hours (Figure 33). Peer groups A1, B and C2 saw a decrease in the percentage treated and admitted to hospital who had left within four hours. Peer group A1 hospitals also saw a decrease in the percentage treated and discharged 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, improvement rates 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, April 2010 to June 2015

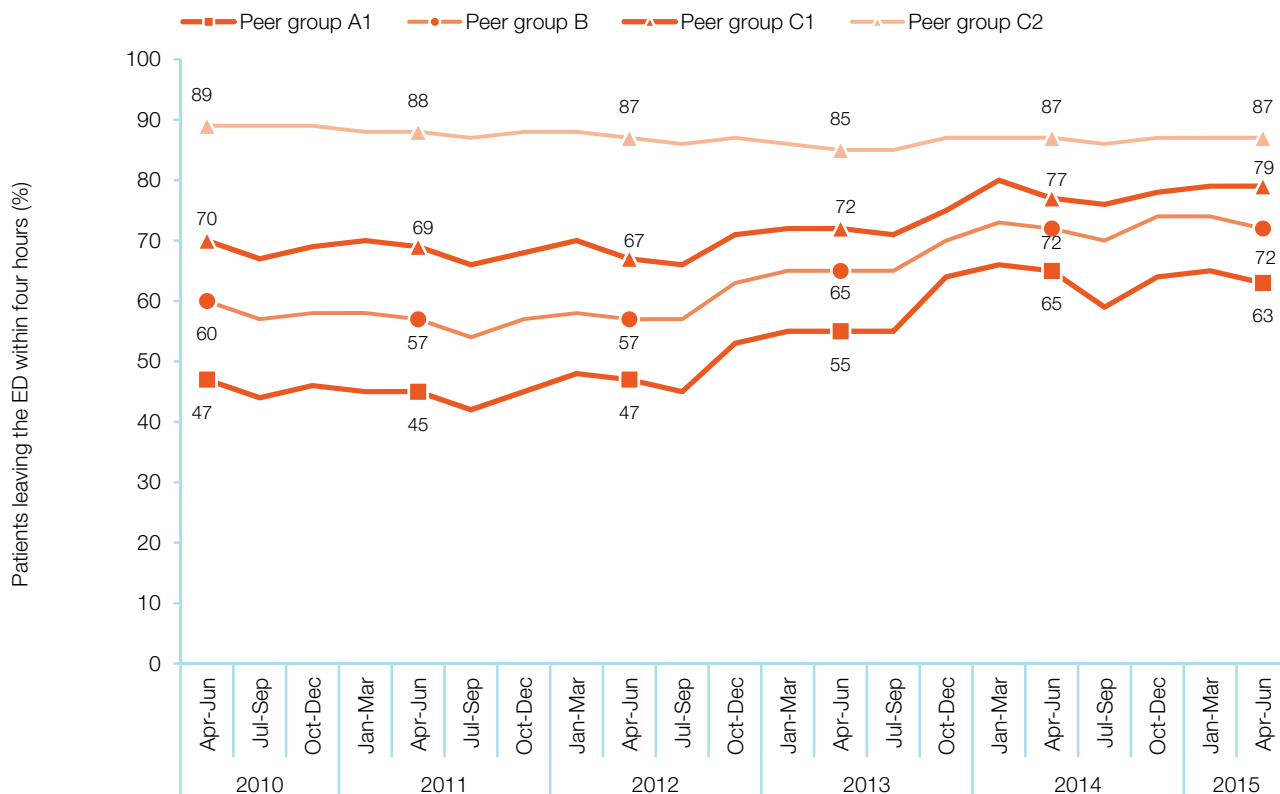
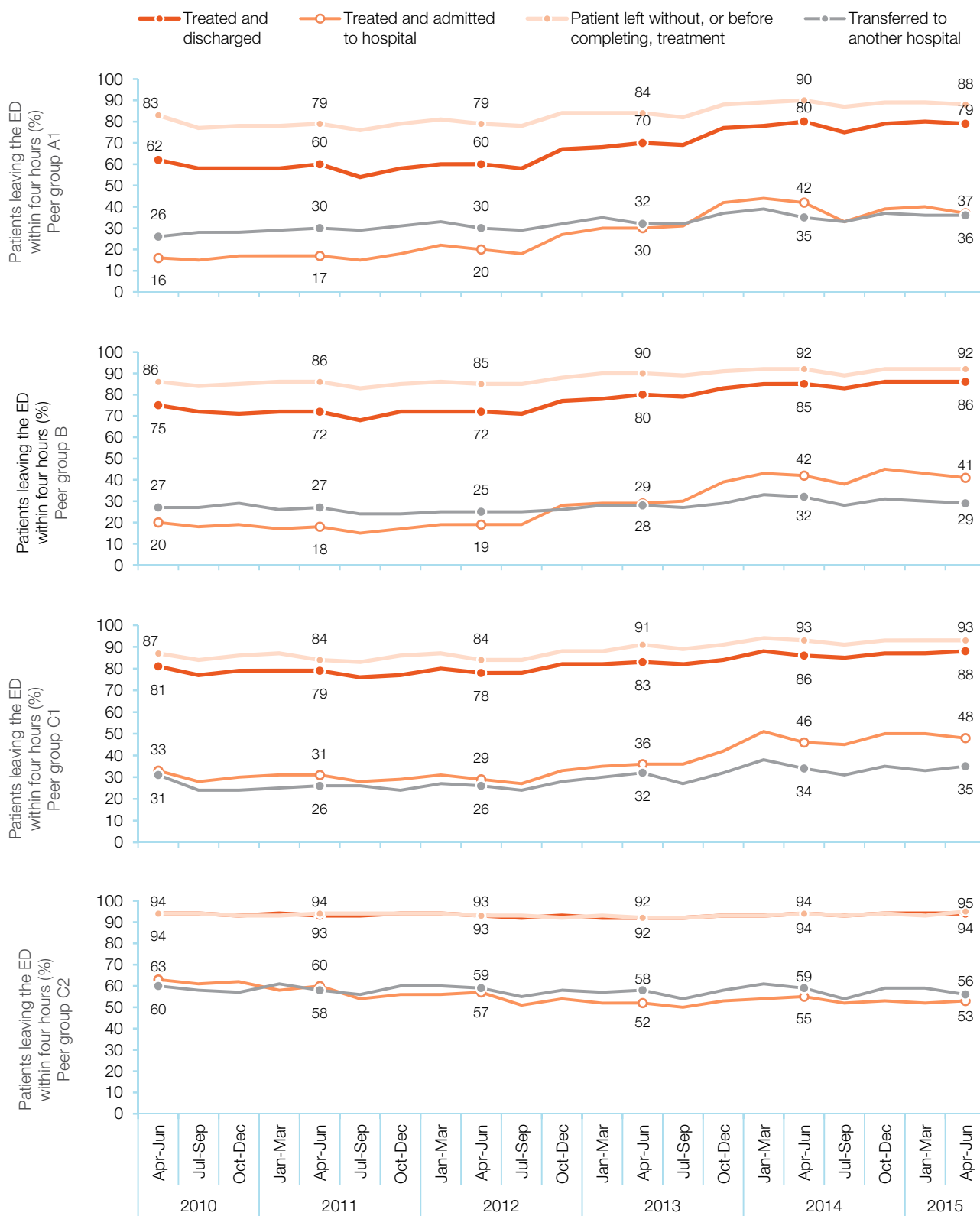


Figure 34 Percentage of patients leaving the emergency department within four hours, by mode of separation and peer group, April 2010 to June 2015



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

During the April to June 2015 quarter, 138,486 patients arrived at NSW EDs by ambulance (up 1% compared with the same quarter last year) (Figure 35). This quarter, 121,091 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 (13 minutes). The 95th percentile transfer of care time (one hour) was three 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, 85% of patients arriving by ambulance had their care transferred within 30 minutes and this is unchanged compared with 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, April to June 2015

	Same quarter last year	Change since one year ago
Arrivals used to calculate transfer of care time: 121,091 patients	118,867 patients	2%
ED Transfer of care time		
Median time	13m	0m
95th percentile time	63m	-3m

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

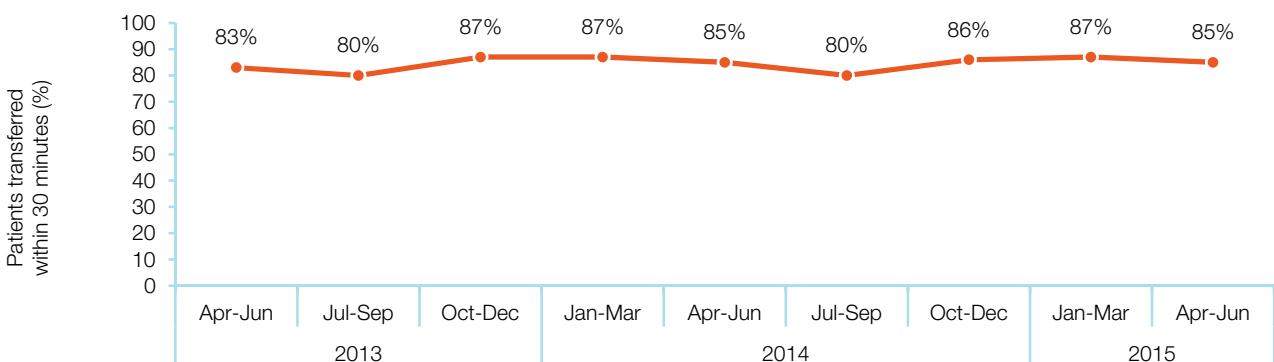
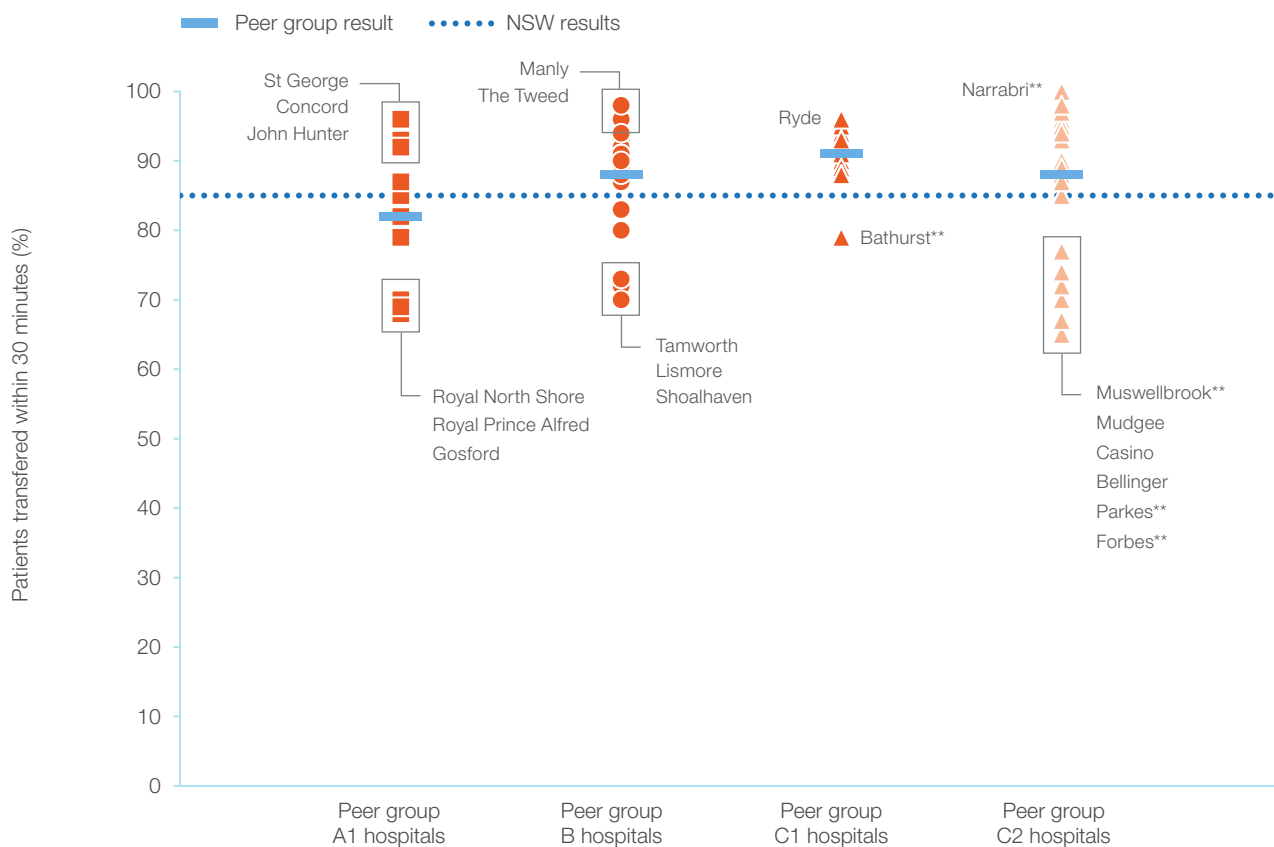


Figure 37 Percentage of ambulance arrivals with transfer of care time within 30 minutes, by peer group, April to June 2015



(**) 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 April to June 2015 quarter, the median waiting time for urgent surgery was 11 days (Figure 38) and this has remained unchanged in the same quarter over the past five years (Figure 39). The median waiting time for semi-urgent surgery (45 days) was unchanged compared with the same quarter last year, while the median waiting time for non-urgent surgery (233 days) increased by seven days (Figure 38).

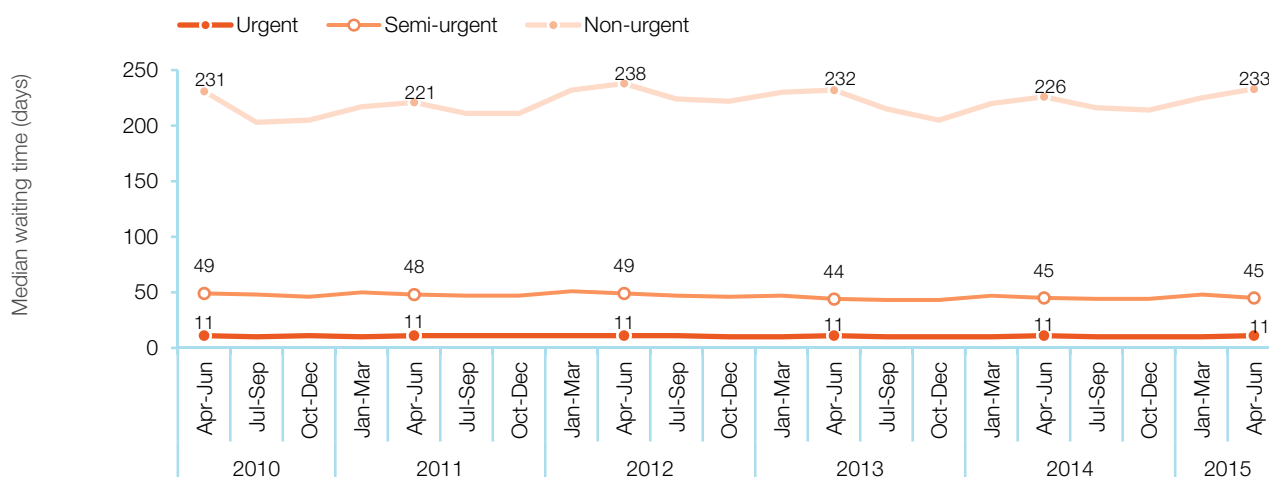
Compared with the same quarter in 2010, the median waiting time for semi-urgent surgery has decreased by four days and the median waiting time for non-urgent surgery has increased by two days (Figure 39).

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

Figure 38 Waiting times for elective surgery, by urgency category, April to June 2015

		Same quarter last year	Change since one year ago
Urgent: 11,754 patients			
Median time to receive surgery	11 days	11 days	unchanged
90th percentile time to receive surgery	26 days	26 days	unchanged
Semi-urgent: 17,560 patients			
Median time to receive surgery	45 days	45 days	unchanged
90th percentile time to receive surgery	82 days	83 days	-1 day
Non-urgent: 22,451 patients			
Median time to receive surgery	233 days	226 days	7 days
90th percentile time to receive surgery	356 days	358 days	-2 days

Figure 39 Median waiting time for elective surgery, by urgency category, April 2010 to June 2015



Procedures categorised as non-urgent saw the largest decrease in the 90th percentile waiting time for elective surgery compared with the same quarter in 2010 (29 days less) (Figure 40).

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

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

Figure 40 90th percentile waiting time for elective surgery, by urgency category, April 2010 to June 2015

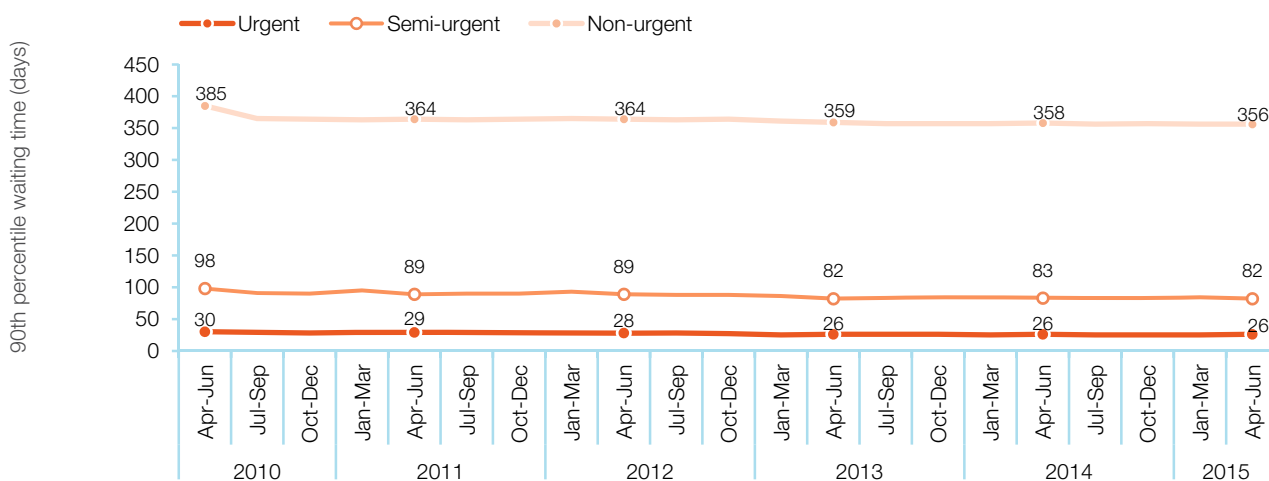
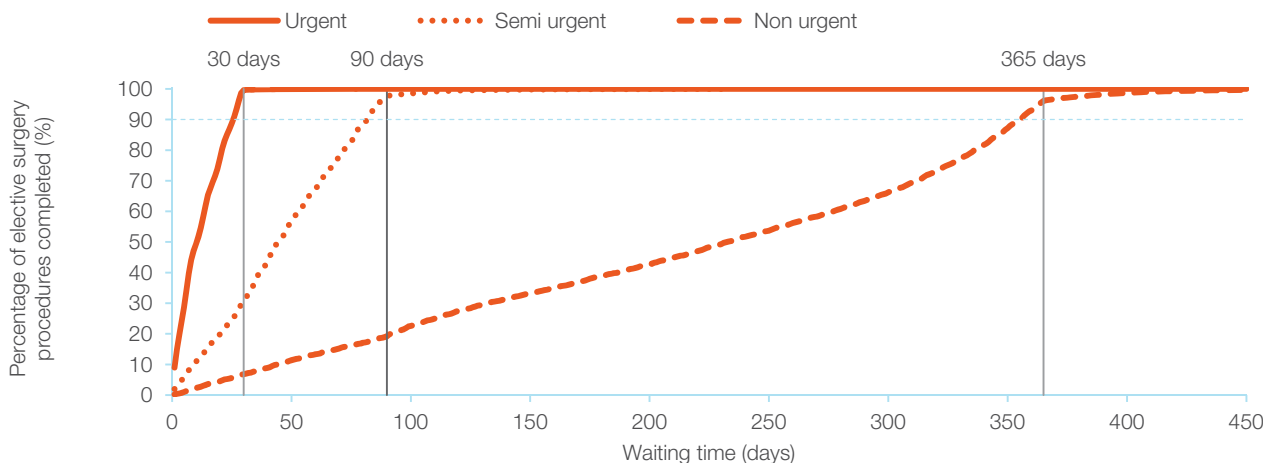


Figure 41 Cumulative percentage of elective surgery completed by day and urgency category, April to June 2015



Is there variation in the waiting times for elective surgery?

During the April to June 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 this quarter, compared with the same quarter last year, with the exception of urology (unchanged) and plastic surgery (decreased by six days). Median waiting times ranged from 17 days for medical (non-specialist) surgery to 216 days for ophthalmological surgery (Figure 43).

Across common surgical procedures, myringoplasty/tympanoplasty (325 days), septoplasty (314 days), and total knee replacement (300 days) had the longest median waiting times this quarter. Other-general (23 days), coronary artery bypass graft (24 days) and cystoscopy (31 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, April to June 2015

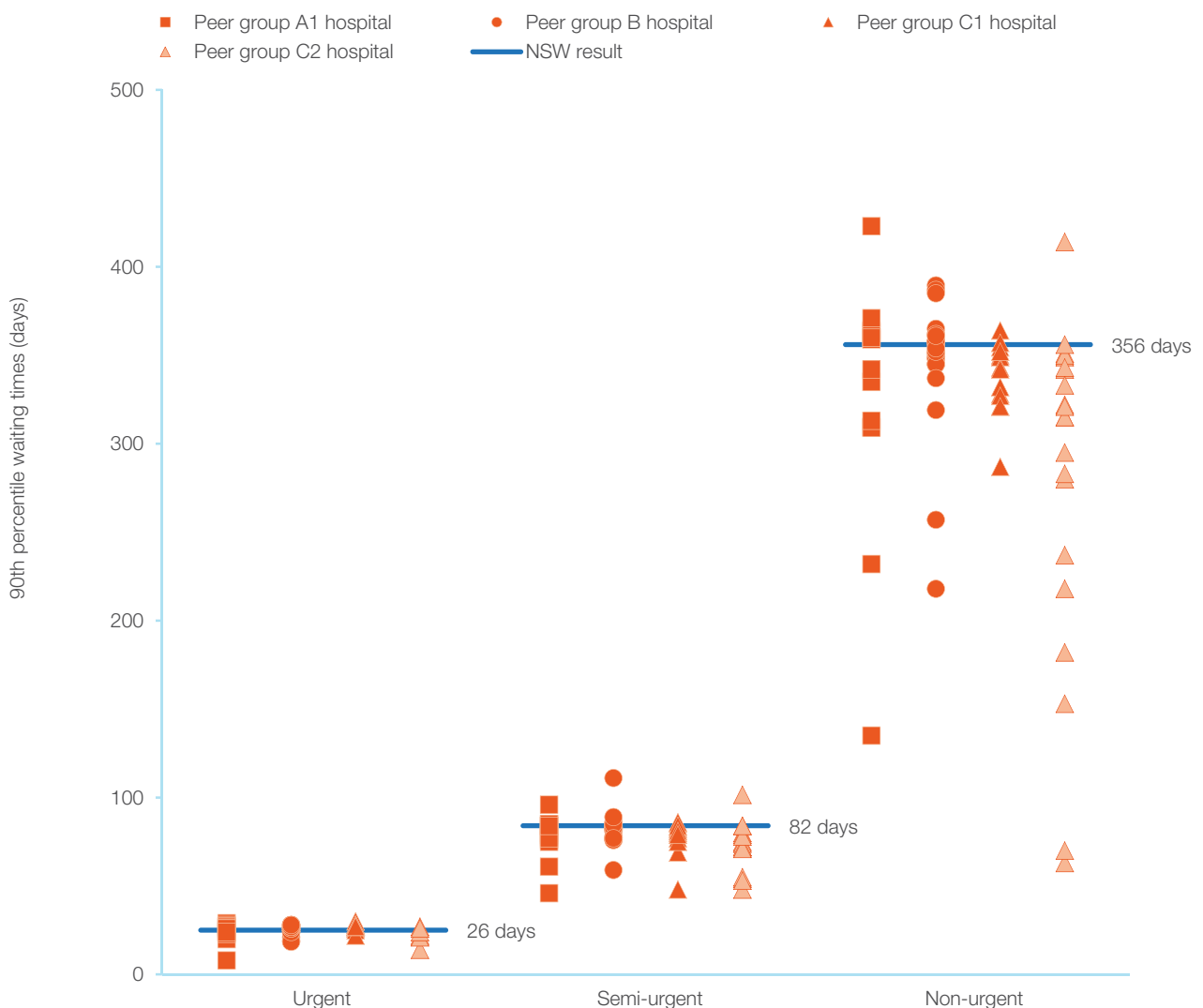


Figure 43 Median waiting time for patients who received elective surgery, by specialty, April to June 2015

Specialty	Median waiting time (days) (Number of patients)	Same quarter last year	Change since one year ago
General surgery	38 days (13,787 patients)	35 days	3 days
Orthopaedic surgery	151 days (8,628 patients)	121 days	30 days
Ophthalmology	216 days (7,539 patients)	195 days	21 days
Gynaecology	39 days (7,213 patients)	36 days	3 days
Urology	36 days (6,805 patients)	36 days	unchanged
Ear, nose and throat surgery	189 days (4,250 patients)	170 days	19 days
Plastic surgery	37 days (2,343 patients)	43 days	-6 days
Vascular surgery	21 days (1,576 patients)	20 days	1 day
Neurosurgery	42 days (1,109 patients)	31 days	11 days
Cardiothoracic surgery	25 days (889 patients)	24 days	1 day
Medical	17 days (507 patients)	14 days	3 days

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

Common procedure	Median waiting time (days) (Number of patients)	Same quarter last year	Change since one year ago
Cataract extraction	237 days (5,949 patients)	224 days	13 days
Cystoscopy	31 days (2,901 patients)	31 days	unchanged
Hysteroscopy	34 days (2,290 patients)	32 days	2 days
Cholecystectomy	56 days (1,703 patients)	57 days	-1 day
Other-general	23 days (1,664 patients)	22 days	1 day
Total knee replacement	300 days (1,615 patients)	303 days	-3 days
Inguinal herniorrhaphy	68 days (1,486 patients)	70 days	-2 days
Tonsillectomy	257 days (1,434 patients)	255 days	2 days
Total hip replacement	210 days (884 patients)	208 days	2 days
Abdominal hysterectomy	62 days (606 patients)	55 days	7 days
Prostatectomy	55 days (598 patients)	68 days	-13 days
Septoplasty	314 days (379 patients)	327 days	-13 days
Varicose veins stripping and ligation	160 days (375 patients)	121 days	39 days
Haemorrhoidectomy	65 days (328 patients)	59 days	6 days
Coronary artery bypass graft	24 days (193 patients)	32 days	-8 days
Myringoplasty/Tympanoplasty	325 days (113 patients)	316 days	9 days
Myringotomy	78 days (93 patients)	125 days	-47 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, 98% of semi-urgent surgery and 96% of non-urgent surgery) (Figure 45). These improvements continue the steady trend of meeting clinically recommended timeframes for all urgency categories over the past five 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

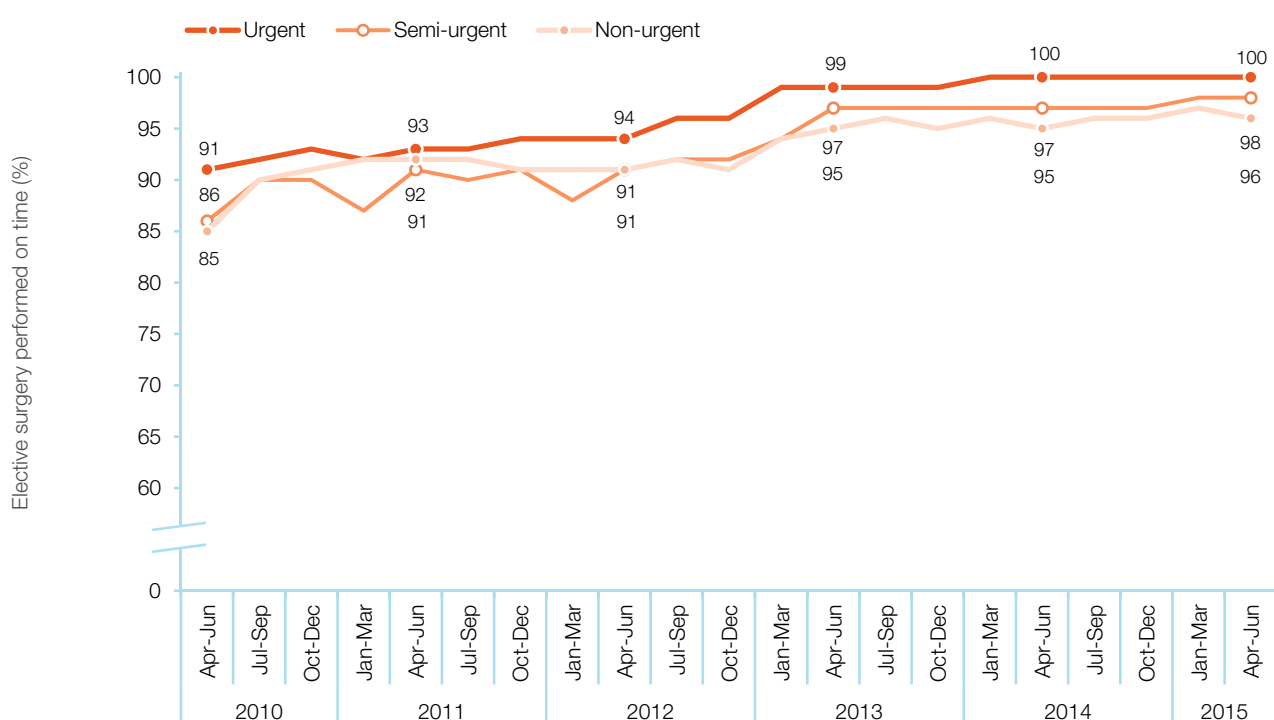
shows this quarter's result and the X-axis shows the percentage point change in performance since the same quarter last year.

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,

Figure 45 Percentage of elective surgery procedures performed on time, by urgency, April to June 2015

		Same quarter last year	Percentage point change since one year ago
All elective surgery	97%	97%	unchanged
Urgent	Recommended: 30 days 100%	100%	unchanged
Semi-urgent	Recommended: 90 days 98%	97%	1
Non-urgent	Recommended: 365 days 96%	95%	1

Figure 46 Percentage of elective surgery procedures performed on time, by urgency, April 2010 to June 2015



while those shown to the right of the vertical line had higher results.

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 had results that were higher than NSW this quarter but saw a decrease in the 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 saw an increase in 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 saw

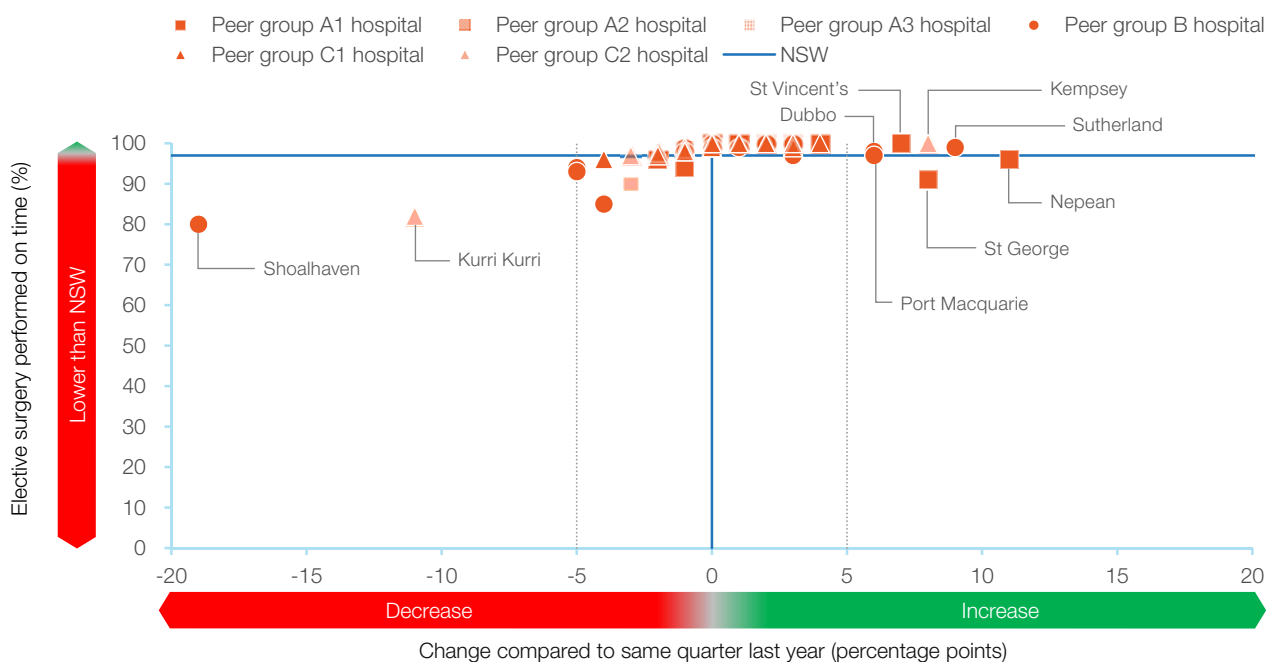
a decrease in the percentage of elective surgery performed on time, compared with the same quarter last year.

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, 26 out of 83 hospitals saw an increase in the percentage of surgery performed on time. Of these, seven improved by more than five percentage points, including one that improved by more than 10 percentage points.

Twenty-three hospitals saw a decrease in the percentage of surgery performed on time. Of these, two hospitals 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, April to June 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.

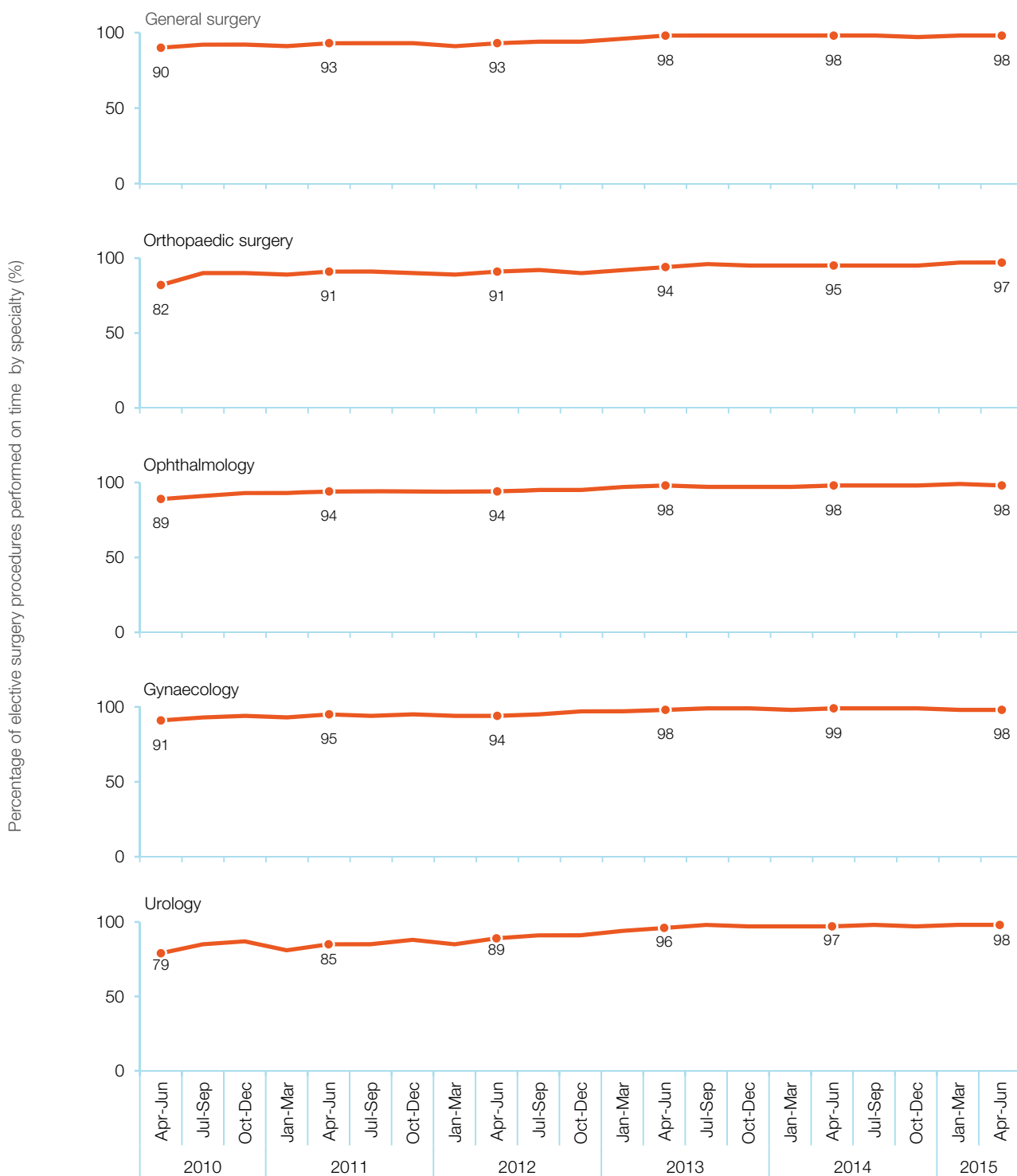
Vascular surgery, neurosurgery and medical (non-specialist) surgery had the highest percentage of patients who received surgery on time this quarter (all 99%). Ear, nose and throat surgery (95%), orthopaedic and plastic surgery (both 97%) had the lowest (Figure 48).

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 orthopaedic surgery have seen the largest increase in the percentage of elective surgery completed within recommended timeframes since April to June 2010 (19 and 15 percentage point increase respectively).

Figure 48 Percentage on time, elective surgery, by specialty, April to June 2015

	Patients	Percentage on time	Same quarter last year	Percentage point change since one year ago
General surgery	13,787	98%	98%	unchanged
Orthopaedic surgery	8,628	97%	95%	2
Ophthalmology	7,539	98%	98%	unchanged
Gynaecology	7,213	98%	99%	-1
Urology	6,805	98%	97%	1
Ear, nose and throat surgery	4,250	95%	94%	1
Plastic surgery	2,343	97%	96%	1
Vascular surgery	1,576	99%	98%	1
Neurosurgery	1,109	99%	97%	2
Cardiothoracic surgery	889	98%	96%	2
Medical	507	99%	97%	2

Figure 49 Percentage of elective surgery performed on time, by specialty, April 2010 to June 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 (99%), cataract extraction, hysteroscopy, cholecystectomy, other-general, prostatectomy, coronary artery bypass graft, and myringotomy (all 98%) were the procedures with the highest percentage of patients who received surgery on time this quarter, while myringoplasty/tympanoplasty (89%), total knee replacement, and tonsillectomy (both 95%) were the procedures with the lowest.

Total knee replacement saw the largest increase in the percentage of surgery performed on time this quarter compared with the same quarter last year (up six 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, total knee replacement and prostatectomy have seen the largest increase in the percentage of on time surgery (26 and 25 percentage point increase respectively).

Figure 50 Percentage on time, elective surgery, by common types of procedure, April to June 2015


















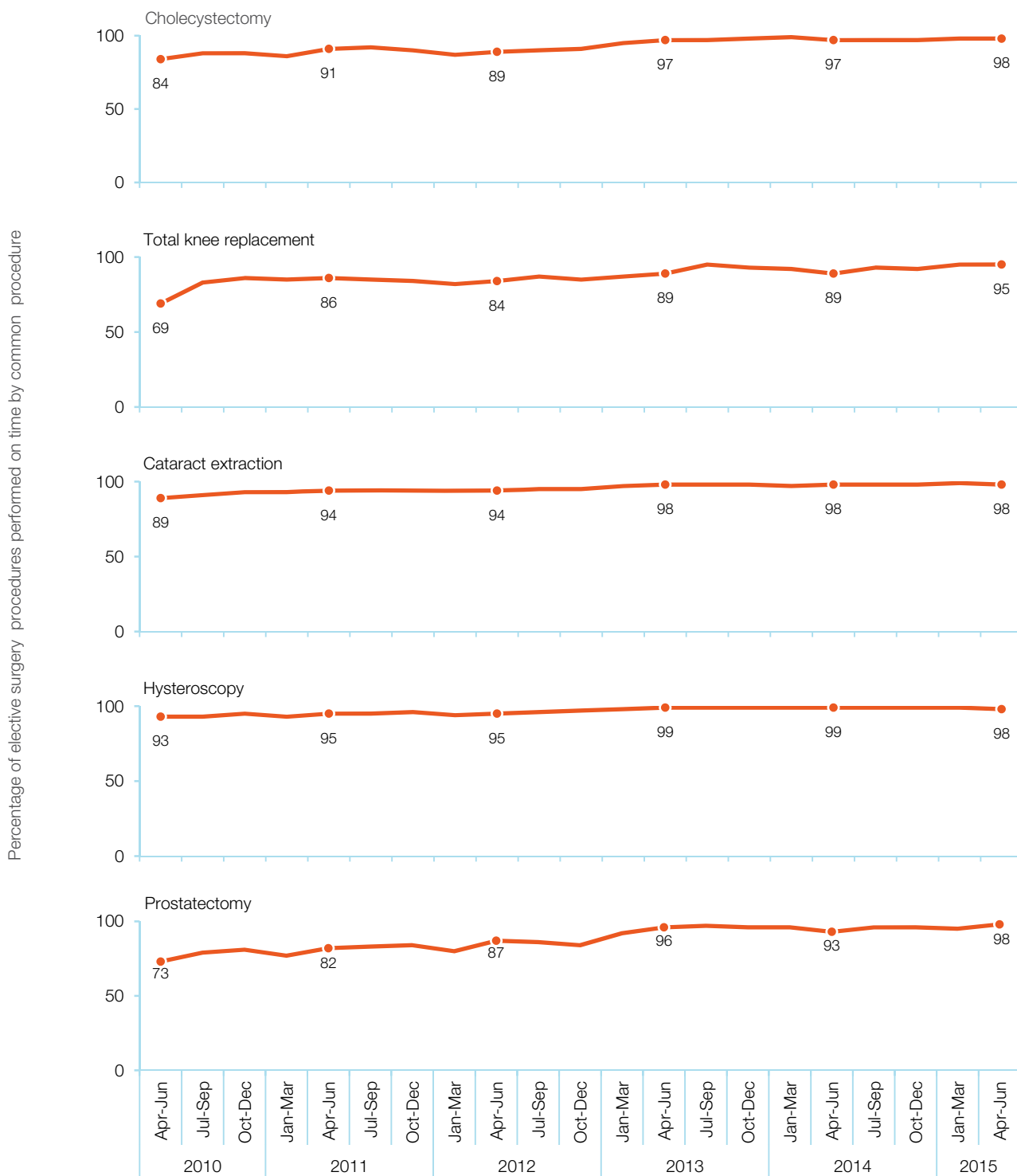
	Patients	Percentage on time		Same quarter last year	Percentage point change since one year ago
Cataract extraction	5,949		98%	98%	unchanged
Cystoscopy	2,901		99%	98%	1
Hysteroscopy	2,290		98%	99%	-1
Cholecystectomy	1,703		98%	97%	1
Other-general	1,664		98%	98%	unchanged
Total knee replacement	1,615		95%	89%	6
Inguinal herniorrhaphy	1,486		97%	97%	unchanged
Tonsillectomy	1,434		95%	95%	unchanged
Total hip replacement	884		97%	93%	4
Abdominal hysterectomy	606		97%	97%	unchanged
Prostatectomy	598		98%	93%	5
Septoplasty	379		96%	93%	3
Varicose veins stripping and ligation	375		96%	94%	2
Haemorrhoidectomy	328		97%	99%	-2
Coronary artery bypass graft	193		98%	94%	4
Myringoplasty/Tympanoplasty	113		89%	85%	4
Myringotomy	93		98%	97%	1

Figure 51 Percentage of elective surgeries performed on time, by common procedures, April 2010 to June 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	<p>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):</p> <p>Arrival time: the date and time the patient presented at the ED</p> <p>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.</p>
Treatment time	<p>Treatment time is the earlier of the following fields in the ED visit database of the HIE:</p> <p>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)</p> <p>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).</p> <p>Some patients are excluded from ED treatment time measures due to calculation requirements.</p>
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	<p>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).</p> <p>Departure time is defined as follows:</p> <p>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.</p>
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	<p>The way in which a patient leaves the ED.</p> <p>Emergency presentations by mode of separation includes all presentations at the ED that have a departure time recorded.</p>

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

Emergency departments	
Percentage of patients leaving the ED within four hours	<p>The percentage of patients leaving ED within four hours is calculated from all ED presentations with a valid time to departing the ED.</p> <p>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.</p> <p>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</p>
Transfer of care time	<p>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.</p>
Triage category	<p>A classification system based on how urgent the patient's need is for treatment:</p> <p>Triage 1: Resuscitation (for example, cardiac arrest)</p> <p>Triage 2: Emergency (for example, chest pain, severe burns)</p> <p>Triage 3: Urgent (for example, moderate blood loss, dehydration)</p> <p>Triage 4: Semi-urgent (for example, sprained ankle, earache)</p> <p>Triage 5: Non-urgent (for example, small cuts, abrasions).</p>
Hospital admissions	
Episode of care	<p>A period of care in a hospital or other healthcare facility with a defined start and end.</p> <p>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.</p> <p>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.</p>
Stay type	<p>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.</p> <p>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).</p>
Average length of stay	<p>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.</p>
Bed days	<p>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.</p>

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	<p>A classification system based on how urgent the patient's need for surgery is:</p> <p>Urgent surgery: Admission within 30 days is desirable for a condition that has potential to deteriorate quickly and become an emergency</p> <p>Semi-urgent surgery: Admission within 90 days is desirable for a condition unlikely to deteriorate quickly</p> <p>Non-urgent surgery: Admission within 365 days acceptable for a condition unlikely to deteriorate quickly.</p>
Staged surgery	<p>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.</p> <p>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.</p>
Elective surgery waiting list	<p>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.</p> <p>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.</p> <p>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.</p>

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

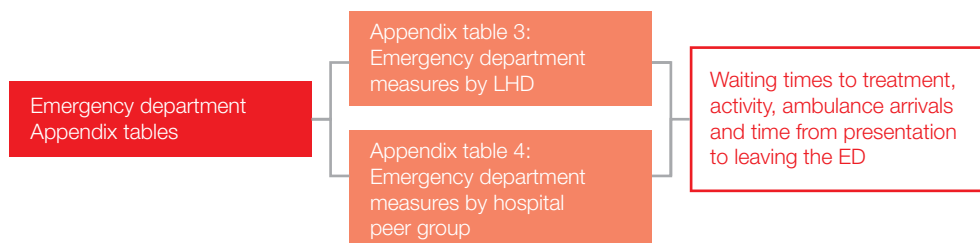
Appendix tables 1 and 2 present hospital admission activity measures for public hospitals in NSW for this quarter, by local health district (LHD) and hospital peer group.

- 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.

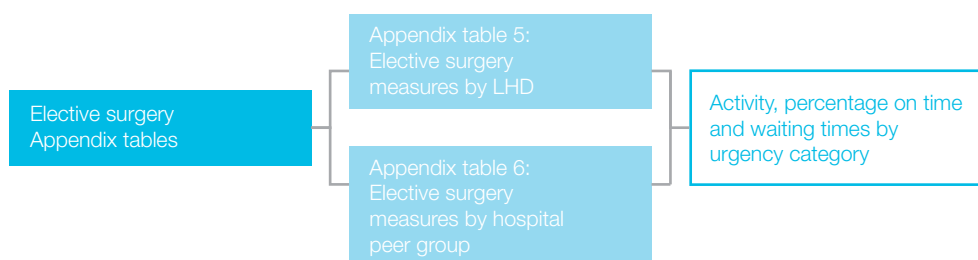
- Download appendix tables by LHD
- Download appendix tables by hospital peer group



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
Bellingen 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
Macleay 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 public healthcare system. The NSW-based board-governed organisation, BHI, is led by Chairperson Professor Bruce Armstrong AM and Chief Executive Jean-Frederic Levesque MD, PhD.

BHI would like to thank our expert advisors, reviewers and staff who contributed to the Hospital Quarterly report. BHI acknowledges the contribution of the NSW Ministry of Health, including through the provision and validation of data and peer review of the report.

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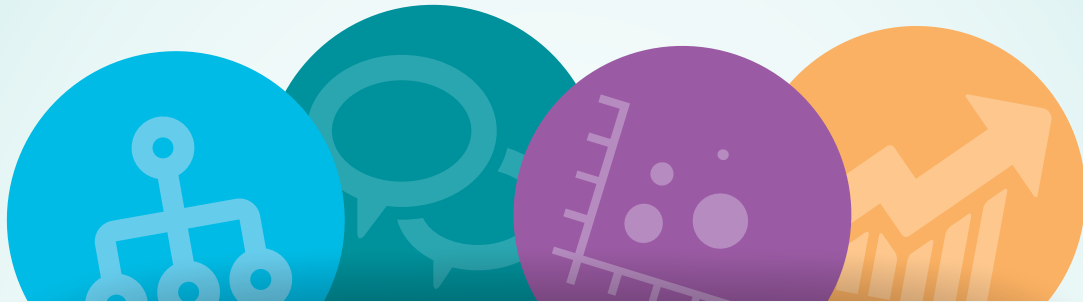
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The Bureau of Health Information (BHI) is a NSW-based board-governed organisation that provides independent information about the performance of the NSW public healthcare system.

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 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
- Sustainability: caring for the future.

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

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