bureau of health information

Hospital Quarterly

Activity and performance

in NSW public hospitals

January to March 2015

BUREAU OF HEALTH INFORMATION

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Please note: In this issue of Hospital Quarterly, significant changes have been made to the number of emergency departments included and the calculation of the time patients spent in the emergency department. Results for emergency departments in previous reports therefore cannot be compared with this issue onwards. For more information visit bhi.nsw.gov.au

Please also 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 were provided.

The Hospital Quarterly report is structured around two key types of measures; activity measures and performance measures. Activity measures are used to describe the volume and type of services provided while performance measures are used, in this instance, 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 (listed at the back of this report) 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 online interactive 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 21 April 2015. Elective surgery data were extracted from the Waiting List Collection On-line System (WLCOS) on 17 April 2015.

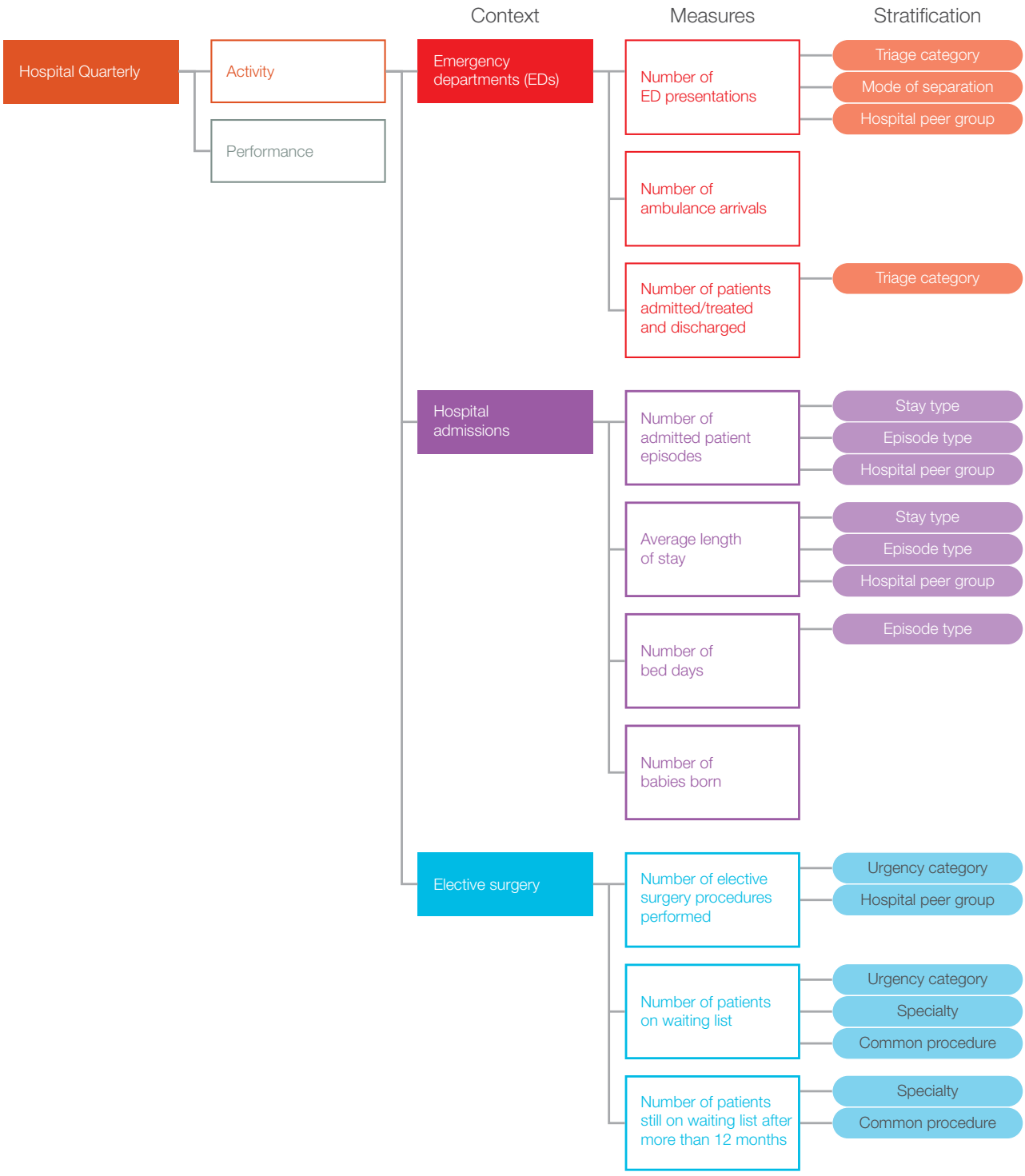
ED data are drawn from the Emergency Department Data Collection (EDDC). While not all EDs have systems in place to supply records to the EDDC, data coverage in the EDDC has increased over time. The ED data in this report cover 131 facilities for which consistent data have been reported to the EDDC for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

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. This edition of Hospital Quarterly sees the inclusion of 14 additional EDs, all of which are smaller hospitals in peer group C2 and below. Data for these hospitals have been added to the last five quarters of reporting in Hospital Quarterly. In addition, 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). Together these changes have resulted in a reported three percent increase in all ED presentations and a two percentage point increase in the percentage of patients leaving the ED within four hours than would have otherwise been reported this quarter. Results for EDs in previous reports cannot be compared with Hospital Quarterly, January to March 2015 onwards. For more information refer to the Technical Supplement: Emeregency department measures, 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 includes 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 or treatment in the ED and for people undergoing elective surgery), the median and 90th or 95th percentile times are commonly used. The median is the time period within which half of people waiting had received the relevant care or treatment. The 90th or 95th percentile represents the time period within which most people received the relevant care or treatment. Timeliness is also reported using the percentage of patients recieving care within a defined time period. For example, the percentage of patients leaving the ED within four hours and percentage of elective surgery performed within recommended timeframes.

About the analyses

The data specifications and analytic methods used for Hospital Quarterly are described in Technical Supplement, Hospital Quarterly: Performance of NSW public hospitals 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 further described in Table 4.

Making direct comparisons of activity and performance between hospitals is not straightforward because hospitals vary in size and type and in the complexity of clinical services they provide. To enable valid comparisons to be made between hospitals, it is important to consider similar hospitals together. To do this, Hospital Quarterly uses a NSW Health classification system called 'hospital peer groups' (Table 1). An index of NSW public hospitals by LHD and hospital peer group can be found at the back of this report.

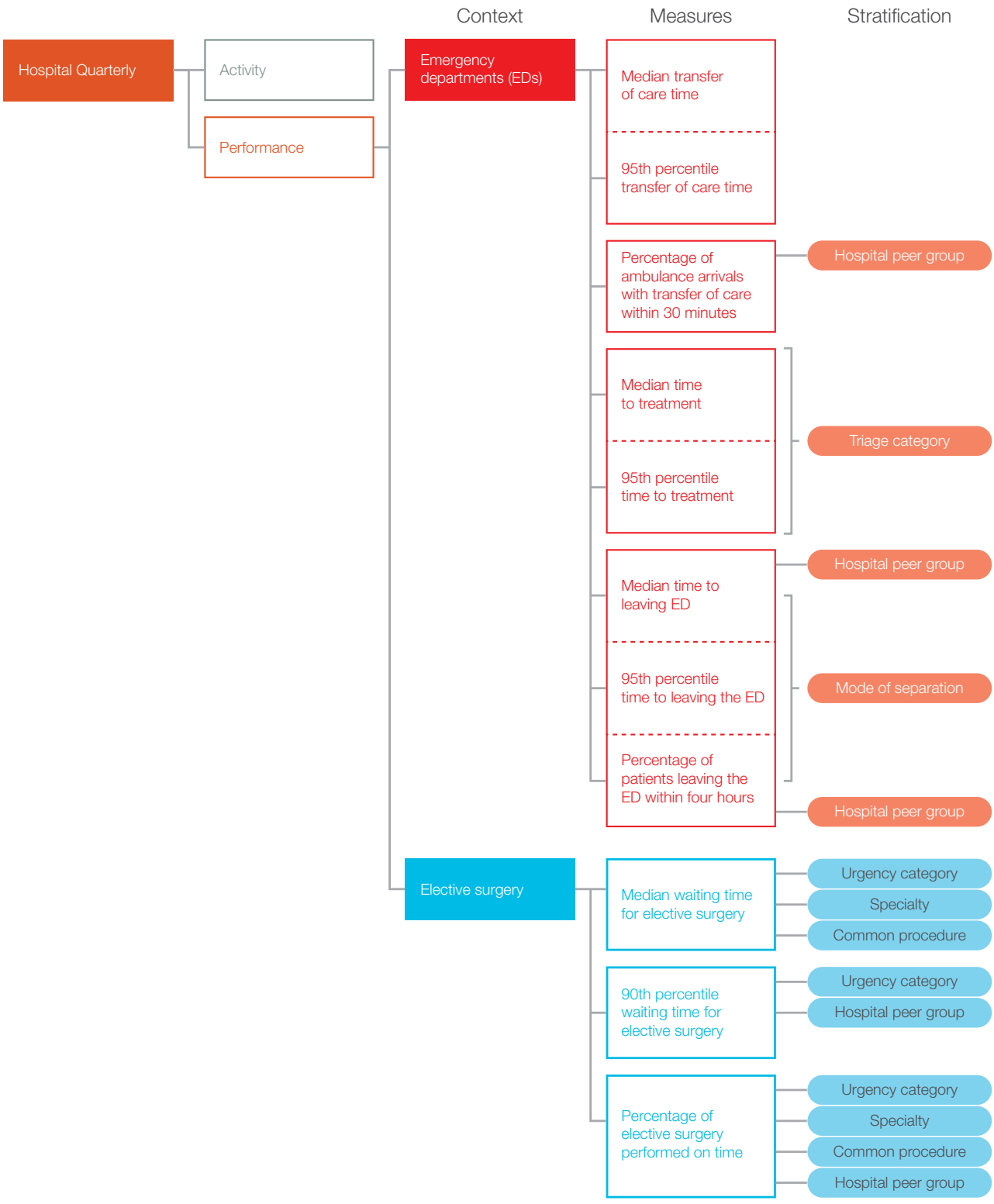
Urgency categories should also be considered in making fair comparisons in activity and performance across EDs and elective surgery. See Table 4 for a description of ED triage categories and elective surgery urgency categories.

Percentages in this report are rounded and therefore may not add 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 – January to March 2015

How many people presented at NSW emergency departments?

- This quarter, there were 644,840 presentations by people at NSW emergency departments (EDs), 17,242 more than the same quarter last year (up 3%)
- Most (96%) were emergency presentations (618,906)
- Compared to the same quarter last year, there was an increase in the number of patients in triage category two (up 8%), triage category three (up 5%) and triage category four (up 2%). There was a decrease in the number of patients in triage category five (down 5%). There was almost no change in the number of patients in triage category one this quarter.
- There were 137,021 ambulance arrivals (down 1% compared to the same quarter last year).

Where did patients go after leaving the emergency department?

- This quarter 64% of ED patients were treated and discharged (9,940 more than the same quarter last year)
- Twenty-seven percent of patients were treated and admitted to hospital (5,320 more than the same quarter last year); 5% resulted in patients leaving without or before completing treatment (665 more patients), and 2% resulted in patients being transferred to another hospital (668 more patients)
- There were 174,098 admissions to hospital from NSW EDs (up 3% compared to the same quarter last year).

How many patients were admitted to public hospitals?

- There were 444,849 admitted patient episodes this quarter, 9,032 more than in the same quarter last year (up 2%)
- The majority of admissions (96%) were for acute episodes of care
- Over half of all acute admissions (54%) were overnight episodes (229,845), the remaining 46% (198,305) were same-day episodes
- The average length of stay for acute overnight admitted patient episodes was 4.9 days, 0.1 days longer compared to the same quarter last year
- 1,601,038 bed days of care were provided. The total number of acute bed days (1,317,463) has increased compared to the same quarter last year (up 2%).
- 17,616 babies were born (down 3% compared to the same quarter last year).

How many elective surgery procedures were performed?

- There were 49,842 elective surgery procedures performed this quarter; 1% more than in the same quarter last year. Of these:
  - Urgent surgery (10,713 procedures) made up 21% of all elective surgery procedures
  - Semi-urgent surgery (15,195 procedures) made up 30% of all elective surgery procedures
  - Non-urgent surgery (20,655 procedures) made up 41% of all elective surgery procedures
  - Staged surgery (3,279 procedures) made up 7% of all elective surgery procedures.
- At the end of the quarter, there were 72,974 people ready and on the elective surgery waiting list; 1% more than the same quarter last year:
  - 1,745 (2%) were waiting for urgent surgery
  - 11,588 (16%) were waiting for semi-urgent surgery
  - 59,641 (82%) were waiting for non-urgent surgery
- Compared to the same quarter last year, the number of patients waiting for urgent surgery has decreased by 11%, the number waiting for semi-urgent surgery has increased by 1%, and the number waiting for non-urgent surgery has increased by 2%.

Table 2 provides a summary of NSW public hospital activity measures for January to March 2015.

Table 2 **Summary of NSW public hospital activity measures**

Emergency department activity		January to March 2014	January to March 2015	Difference	% change
All arrivals at NSW EDs by ambulance		138,392	137,021	-1,371	-1%
All ED presentations		627,598	644,840	17,242	3%
Emergency presentations		601,556	618,906	17,350	3%
Emergency presentations by triage category					
Triage category	T1: Resuscitation	3,731	3,735	4	<1%
	T2: Emergency	65,971	71,377	5,406	8%
	T3: Urgent	189,671	199,479	9,808	5%
	T4: Semi-urgent	267,199	273,060	5,861	2%
	T5: Non-urgent	74,984	71,255	-3,729	-5%
Admissions to hospital from NSW EDs		168,778	174,098	5,320	3%

Admitted patient activity		January to March 2014	January to March 2015	Difference	% change
All admitted patient episodes		435,817	444,849	9,032	2%
All acute episodes		419,379	428,150	8,771	2%
Overnight episodes		226,768	229,845	3,077	1%
Same-day episodes		192,611	198,305	5,694	3%
Non-acute episodes		16,438	16,699	261	2%
Average length of stay (days)	All acute episodes	3.1	3.1	0	unchanged
	Acute overnight episodes	4.8	4.9	0.1	2%
	Non-acute episodes	15.1	17	1.9	13%
Hospital bed days	All bed days	1,535,130	1,601,038	65,908	4%
	Acute bed days	1,286,355	1,317,463	31,108	2%
	Non-acute bed days	248,775	283,575	34,800	14%
Babies born in NSW public hospitals		18,090	17,616	-474	-3%

Elective surgery activity		January to March 2014	January to March 2015	Difference	% change
Elective surgery procedures performed		49,468	49,842	374	1%
Urgency category	Urgent surgery	10,634	10,713	79	1%
	Semi-urgent surgery	15,547	15,195	-352	-2%
	Non-urgent surgery	20,125	20,655	530	3%
Patients on waiting list ready for elective surgery at end of quarter		72,010	72,974	964	1%
Urgency category	Urgent surgery	1,966	1,745	-221	-11%
	Semi-urgent surgery	11,498	11,588	90	1%
	Non-urgent surgery	58,546	59,641	1,095	2%

Key findings

Hospital performance measures – January to March 2015

How long did patients wait for ED treatment?

- This quarter, the majority of patients (87%) had their care transferred from ambulance to ED staff within 30 minutes (unchanged compared to the same quarter last year)
- Compared to the same quarter last year, the median time from presentation to starting treatment was unchanged across all triage categories with the exception of triage category five, where the median time to starting treatment was one minute longer
- The 95th percentile time to starting treatment was three minutes longer for patients in triage categories two, three and five, and one minute shorter for patients in triage category four, compared to the same quarter last year.

How long were patients in the ED?

- This quarter, the median and 95th percentile times to leaving the ED were one minute and two minutes longer respectively compared to the same quarter last year
- Seventy-five percent of patients left the ED within four hours this quarter; unchanged compared to the same quarter last year
- Less than half of NSW public hospitals (38 out of 81) reported an increase in the percentage of patients leaving the ED within four hours, compared to the same quarter last year. Of these, eight hospitals increased by more than five percentage points, including one that increased by more than 10 percentage points.
- Thirty hospitals reported a decrease in the percentage of patients leaving the ED within four hours compared to the same quarter last year. Of these, seven hospitals decreased by more than five percentage points, including three that decreased by 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 remained largely stable (one day more for semi-urgent surgery), while the median waiting time for non-urgent elective surgery increased by five days
- The 90th percentile waiting time for elective surgery was stable across all urgency categories (one day less for non-urgent surgery), compared to the same quarter last year.

Was elective surgery performed on time?

- Ninety-eight percent of all elective surgery procedures in NSW public hospitals were performed within recommended timeframes. This is the highest result reported in Hospital Quarterly for this measure.
- Compared to the same quarter last year:
  - 100% of urgent elective surgery was performed on time (unchanged)
  - 98% of semi-urgent elective surgery was performed on time (up one percentage point)
  - 97% of non-urgent elective surgery was performed on time (up one percentage point)
- Compared to the same quarter last year, 29 out of 83 hospitals reported an increase in the percentage of elective surgery performed on time. These increases were seen across hospital peer groups A1 to C2. Of these, four hospitals increased by more than five percentage points, including one that increased by more than 10 percentage points.
- Fourteen hospitals reported a decrease in the percentage of elective surgery performed on time compared to the same quarter last year. Of these, three hospitals decreased by more than five percentage points including one that decreased by more than 10 percentage points, compared to the same quarter last year.

- The proportion of elective surgery performed on time varied between specialties and common surgical procedures:
  - Medical (non-specialist surgery) (100%), cardiothoracic surgery, ophthalmological surgery, neurosurgery and vascular surgery (all 99%) had the highest proportion of patients who received surgery on time this quarter, while ear, nose and throat surgery (95%) and orthopaedic surgery (97%) had the lowest
  - Myringotomy (100%), cataract extraction, coronary artery by pass, hysteroscopy and haemorrhoidectomy (all 99%) had the highest proportion of patients receiving their surgery on time this quarter while myringoplasty/ tympanoplasty (93%), tonsillectomy (94%), total knee replacement, total hip replacement, prostatectomy, septoplasty and varicose vein stripping and ligation (all 95%) had the lowest.

Table 3 provides a summary of NSW public hospital performance measures for January to March 2015.

Table 3 **Summary of NSW public hospital performance measures**

Emergency department performance			January to March 2014	January to March 2015	Difference	% change
Time to treatment by triage category	T2: Emergency	Median	8 mins	8 mins	0 mins	unchanged
		95th percentile	32 mins	35 mins	3 mins	9%
	T3: Urgent	Median	20 mins	20 mins	0 mins	unchanged
		95th percentile	1h 35mins	1h 38mins	3 mins	3%
	T4: Semi-urgent	Median	26 mins	26 mins	0 mins	unchanged
		95th percentile	2h 18mins	2h 17mins	-1 mins	-1%
	T5: Non-urgent	Median	23 mins	24 mins	1 mins	4%
		95th percentile	2h 12mins	2h 15mins	3 mins	2%
Median time to leave the ED			2h 38m	2h 39m	1 mins	<1%
95th percentile time to leave the ED			9h 16m	9h 18m	2 mins	<1%
People leaving the ED within four hours of presentation			75%	75%		unchanged

Elective surgery performance			January to March 2014	January to March 2015	Difference	% change
Waiting time (days)	Urgent	Median	10 days	10 days	0 days	unchanged
		90th percentile	25 days	25 days	0 days	unchanged
	Semi-urgent	Median	47 days	48 days	1 day	2%
		90th percentile	84 days	84 days	0 days	unchanged
	Non-urgent	Median	220 days	225 days	5 days	2%
		90th percentile	357 days	356 days	-1 day	unchanged
Elective surgery procedures performed on time	All procedures		97%	98%	one percentage point	
	Urgent surgery		100%	100%		unchanged
	Semi-urgent surgery		97%	98%	one percentage point	
	Non-urgent surgery		96%	97%	one percentage point	

Hospital activity measures

Key findings

Compared to the same quarter last year...

17,242 more emergency department presentations
644,840 presentations in total
3%

9,032 more people admitted to hospital
444,849 admissions in total
2%

More elective surgery procedures
49,842 elective surgery procedures in total
1%

65,908 more bed days of care provided
1,601,038 bed days in total

4%

1,371 fewer patients arrived by ambulance
137,021 arrivals in total
1%

474 fewer babies born
17,616 babies born in total
3%

The average length of stay for all acute overnight admissions was **4.9 days**
0.1 days longer compared to the same quarter last year


NSW emergency departments

This section provides information about emergency department presentations, 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 of bed 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 January to March 2015 quarter, there were 644,840 presentations by people at NSW public hospital emergency departments (EDs). This has increased by 3% compared to the same quarter last year (Figure 1).

This quarter, 137,021 patients arrived by ambulance at NSW EDs. This represents a decrease of 1% compared to the same quarter last year (Figure 1).

An analysis of ED figures shows that almost all presentations this quarter (618,906 or 96%) were for emergency care (Figure 1). The remainder (25,934) were for non-emergency reasons such as a planned return visit or a planned hospital admission.

Emergency patients are 'triaged' by clinical staff after they arrive in the ED and are allocated to one of five triage categories, depending on how urgently they require treatment (see Table 4).

From January to March 2015, there was an increase in the number of patients across triage categories two, three and four compared to the same quarter last year. There was almost no change in the number of patients in triage category one and a decrease in the number of patients in triage category five (Figure 1).

There has been an increasing trend in the overall number of emergency presentations over the past five years (Figure 2).

This quarter, most hospitals (59 out of 81) across all peer groups reported an increase in the number of emergency department presentations (Figure 3). Five hospitals reported an increase of more than 10% and four reported a decrease of more than 10%, compared to the same quarter last year.

Figure 1 Emergency department presentations and ambulance arrivals at NSW emergency departments, January to March 2015

		Same period last year	Change since one year ago
All presentations	644,840	627,598	3%
Emergency presentations by triage category	618,906	601,556	3%
Triage 1: Resuscitation	3,735 (1%)	3,731	<1%
Triage 2: Emergency	71,377 (12%)	65,971	8%
Triage 3: Urgent	199,479 (32%)	189,671	5%
Triage 4: Semi-urgent	273,060 (44%)	267,199	2%
Triage 5: Non-urgent	71,255 (12%)	74,984	-5%
Ambulance arrivals	137,021	138,392	-1%

Figure 2 Emergency presentations and ambulance arrivals at NSW emergency departments, January 2010 to March 2015

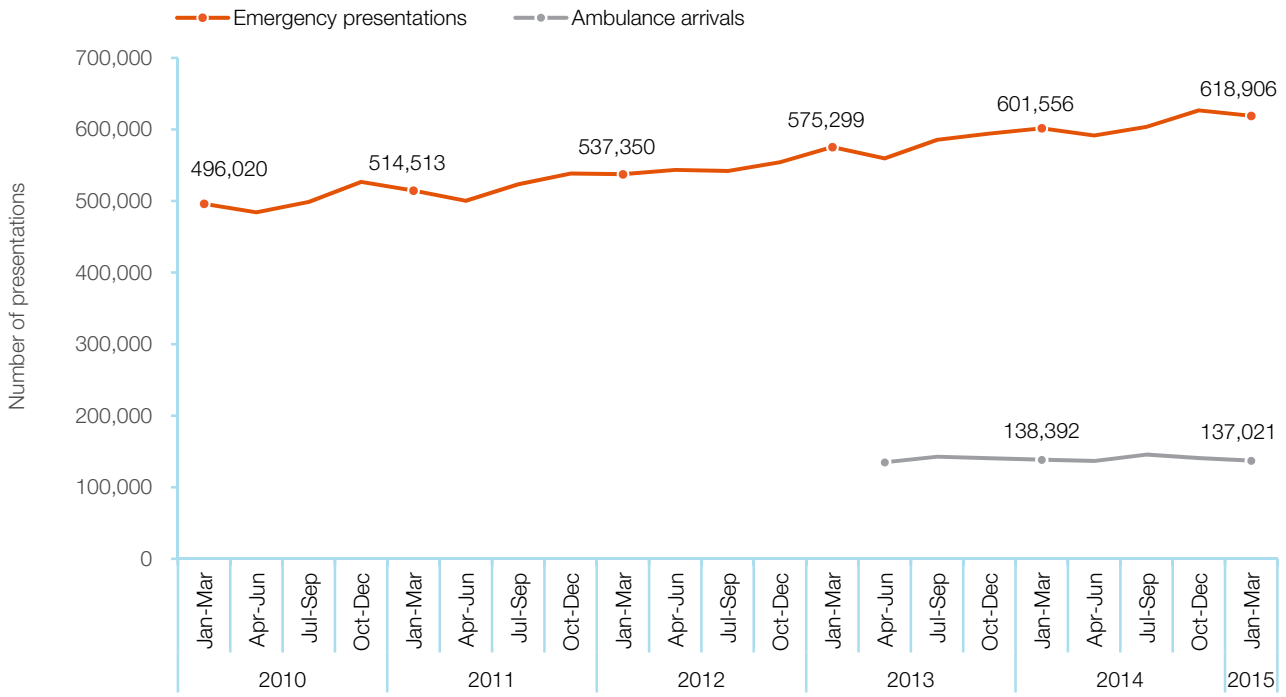
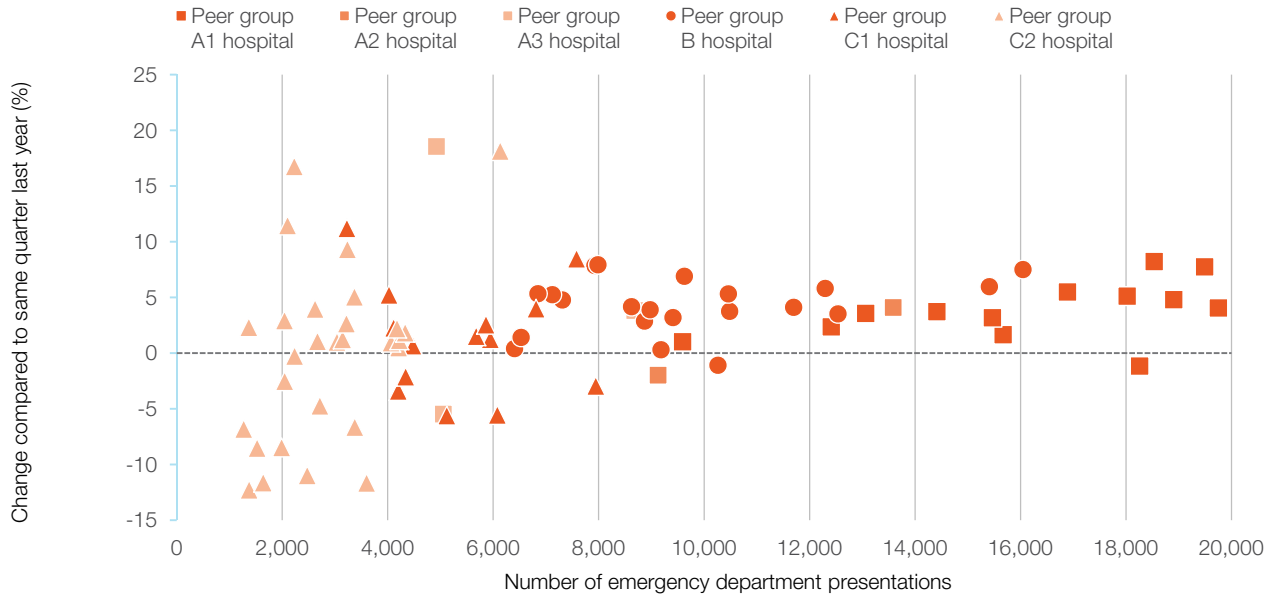


Figure 3 Change in emergency department presentations compared to same quarter last year, hospitals by peer group, January to March 2015



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 leave after their treatment is either complete or they are admitted to hospital. Some patients choose not to wait for treatment and others are transferred to another hospital.

During the January to March 2015 quarter, 64% of patients (413,106) were treated and discharged from NSW EDs (up 2% compared to the same quarter last year). Twenty-seven percent of patients (174,098) were treated and admitted to hospital (up 3% compared to the same quarter last year). The number of patients who left without, or before completing, treatment (33,985) increased by 2%, and the number transferred to another hospital (12,810) increased by 6% (Figure 4).

Figure 5 shows that emergency department patients in triage categories one, two and three were more likely to be treated and admitted to hospital this quarter, compared to those in triage categories four and five. Figure 6 shows that patients in triage categories four and five were more likely to be treated and discharged than patients in other triage categories.

There has been an increase over the past five years in the number of patients who were treated and discharged, treated and admitted to hospital from NSW EDs, and transferred to another hospital. 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 Leaving the emergency department, by mode of separation, January to March 2015

		Same period last year	Change since one year ago
Treated and discharged	413,106 (64%)	403,166	2%
Treated and admitted to hospital	174,098 (27%)	168,778	3%
Patient left without, or before completing, treatment	33,985 (5%)	33,320	2%
Transferred to another hospital	12,810 (2%)	12,142	6%
Other	10,841 (2%)	10,192	6%

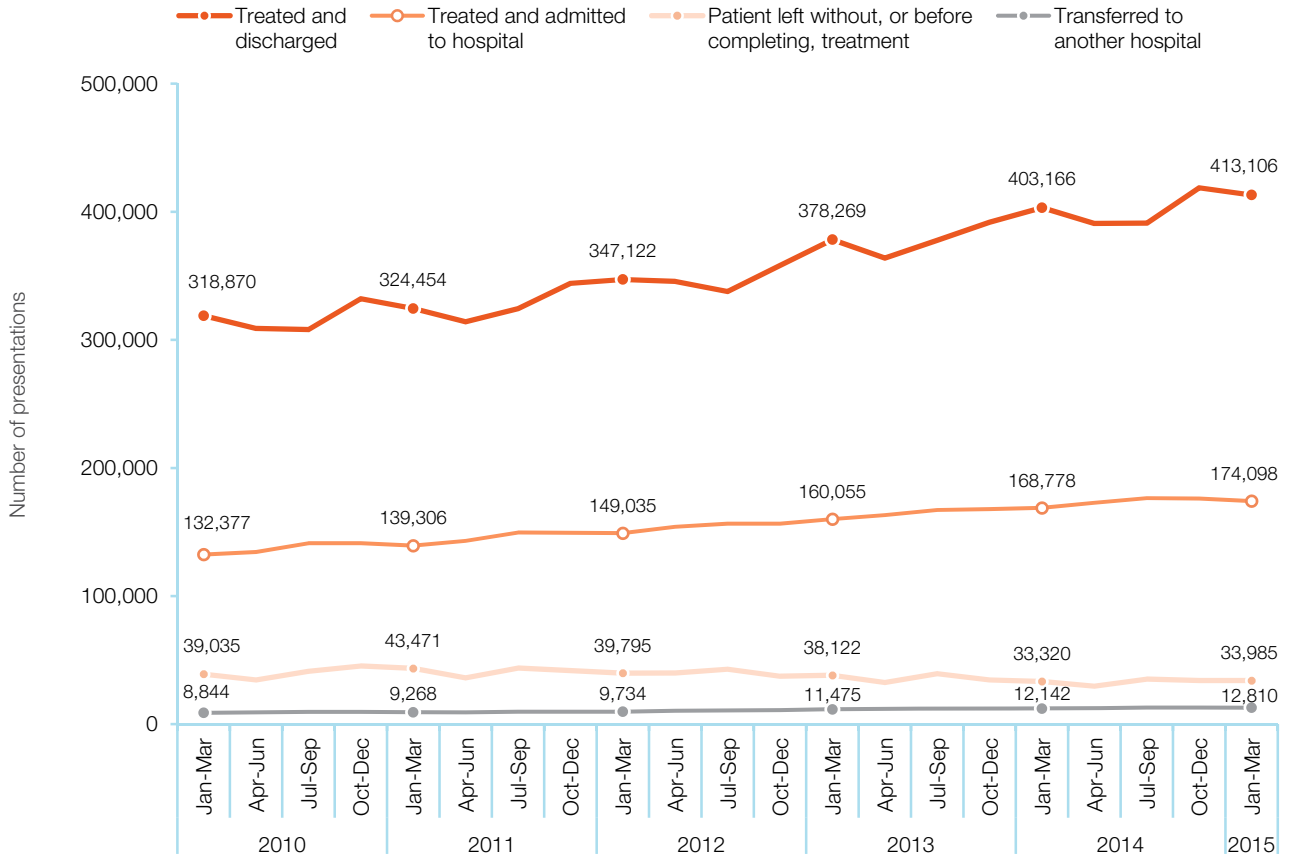
Figure 5 Percentage of patients treated and admitted, by triage category, January to March 2015

		Same period last year	Percentage point change since one year ago
All ED presentations	27%	27%	unchanged
Triage 1	83%	82%	1
Triage 2	58%	60%	-2
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, January to March 2015

		Same period last year	Percentage point change since one year ago
All ED presentations	64%	64%	unchanged
Triage 1	8%	7%	1
Triage 2	35%	34%	1
Triage 3	53%	53%	unchanged
Triage 4	75%	74%	1
Triage 5	82%	83%	-1

Figure 7 Patients leaving the emergency department, by mode of separation, January 2010 to March 2015



How many patients were admitted to public hospitals?

This section reports on hospital admissions, counted here as admitted patient episodes. When a person is admitted to hospital they begin what is termed an admitted patient episode or 'episode of care'. Patients can have more than one episode of care during the same hospital admission. For example, a person may be admitted for acute care and require an episode of rehabilitation or palliative care.

The number of admissions to NSW public hospitals continued to rise in January to March 2015. There were 444,849 hospital admissions this quarter, 2% more than in the same quarter last year (Figure 8). The majority of admissions were for acute care (96%). There has been a gradual increase in all admitted patient episodes and all acute admitted patient episodes over the past five years. The number of babies born in NSW public hospitals (17,616) decreased by 3% this quarter compared to the same quarter last year (Figure 8).

Hospital admissions can be planned (arranged in advance) or unplanned (for example, emergency hospital admissions or unplanned surgical patients). This quarter, the majority of acute same-day hospital admissions (73%) were planned. In a similar manner, almost all overnight admissions (85%) were unplanned.

During this quarter, 229,845 acute admitted patient episodes (54%) in NSW public hospitals were for overnight care and the remainder (46%) were for same-day care (198,305) (Figure 9). The number of same-day and overnight hospital admissions has increased over the past five years. During this time, the number of overnight admissions increased by 11% and the number of same-day admissions saw a steeper increase of 21% (Figure 9).

Figure 10 shows that there were differences in the proportion of all acute admissions that were for same-day care across hospital peer groups. Peer group C2 hospitals had a higher percentage of same-day patients than the other peer groups, but also had the greatest range, with individual hospitals in the C2 peer group having both the highest and the lowest percentage of same-day patients this quarter.

Figure 8 All admitted patient episodes, acute admitted patient episodes completed and babies born, January 2010 to March 2015

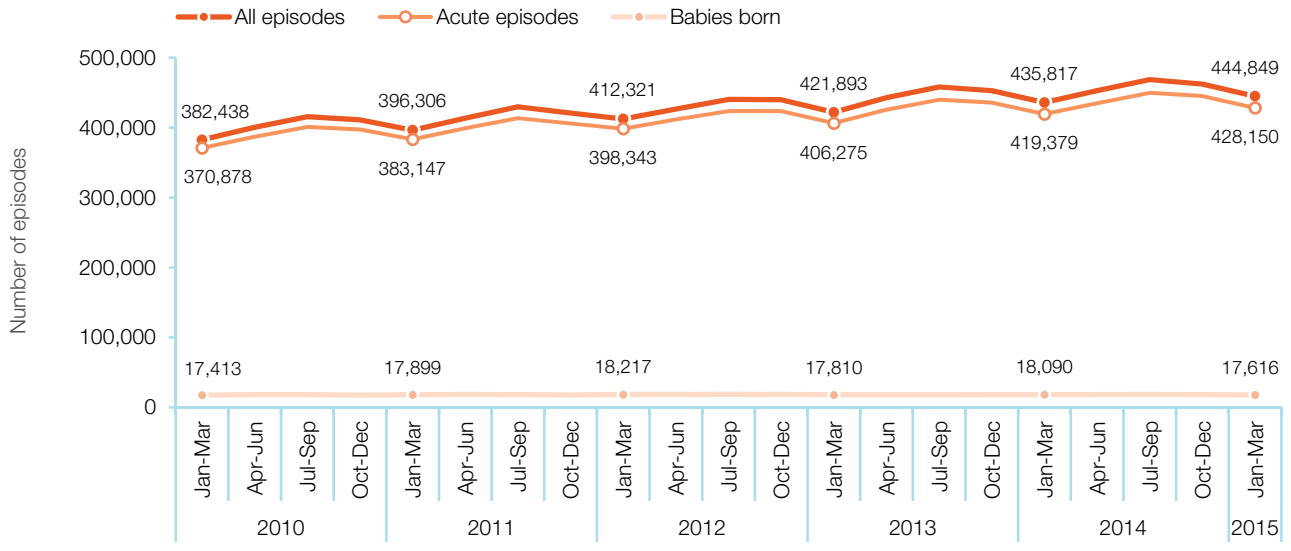


Figure 9 Same-day and overnight acute admitted patient episodes, January 2010 to March 2015

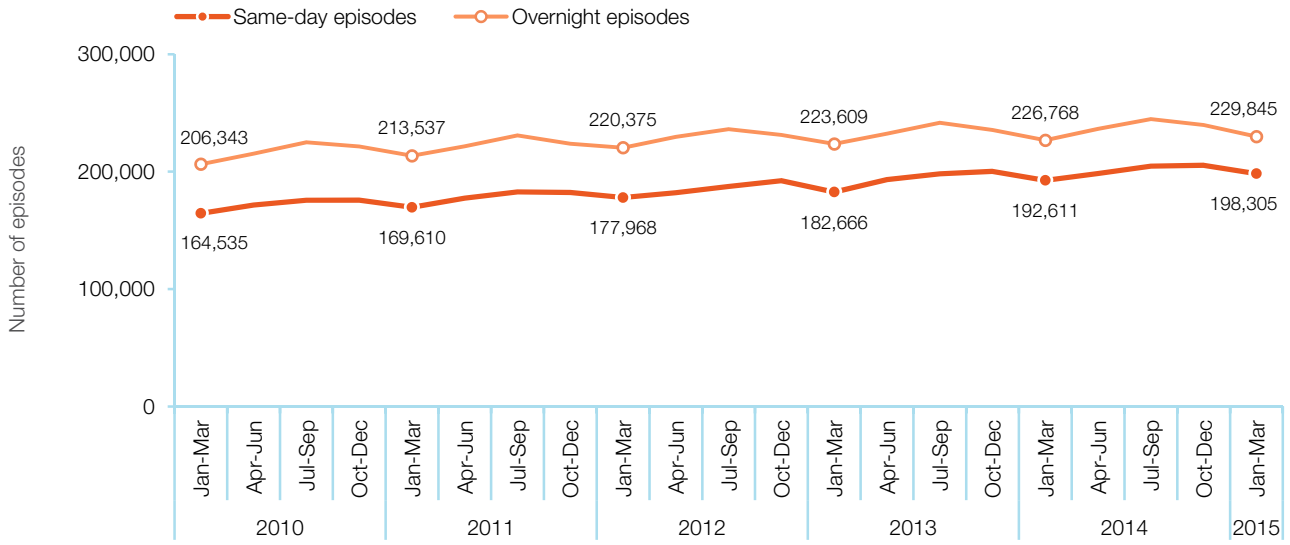
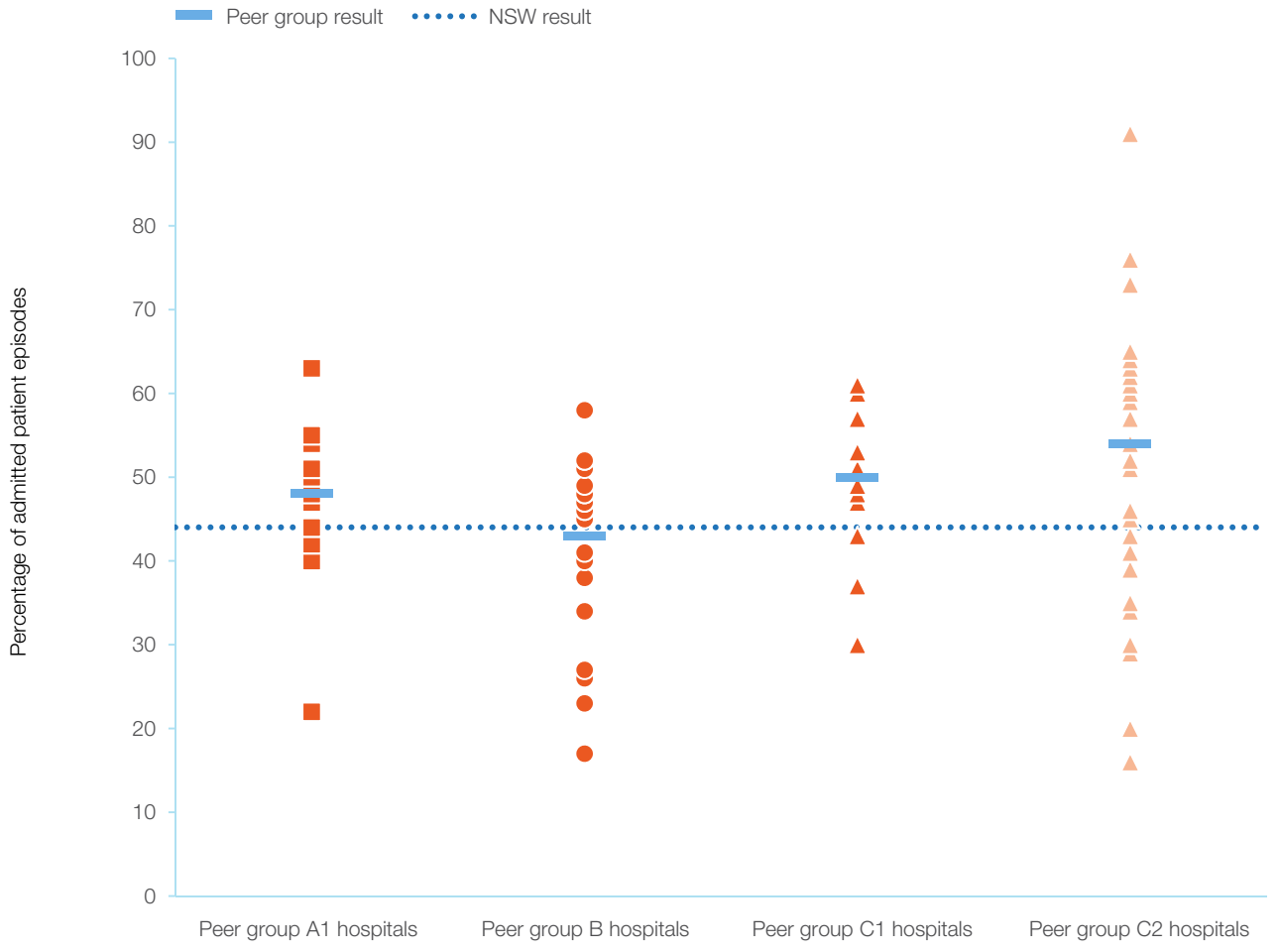


Figure 10 Percentage of same-day admitted patient episodes as percentage of all acute admitted patient episodes, by peer group, January to March 2015



How long did patients stay in hospital?

Bed days are an important measure of hospital utilisation and service provision. A total of 1,601,038 hospital bed days were recorded across all admitted patient episodes during January to March 2015. This is 4% more than in the same quarter last year. The majority of bed days (82%) were for acute care. During this quarter, the number of bed days for non-acute care has increased by 14% and the number of bed days for acute care has increased by 2%, compared to the same quarter last year (Figure 11).

There has been an overall increase of 3% in the number of bed days for acute care over the past five years. During that time, the number of bed days for non-acute care increased by 43% (Figure 12).

During the January to March 2015 quarter, the average length of stay for all hospital admissions was 3.6 days, 0.1 days longer than the same quarter last year. The average length of stay for acute overnight admissions was 4.9 days, 0.1 days longer than the same quarter last year (Figure 13). There has been a slight downward trend in the the average length of stay for all admissions and all acute admissions over the past five years (Figure 13).

There were differences in the average length of stay for acute overnight admissions, even within similar groups of hospitals. The greatest variation in average length of stay was seen in the C2 peer group of small hospitals (mainly rural), which had a more than three-fold difference in the average length of stay from approximately three to 10 days this quarter (Figure 14).

Figure 11 Total number of hospital bed days by episode type, January to March 2015

		Same period last year	Change since one year ago
Total bed days	1,601,038	1,535,130	4%
Acute	1,317,463 (82%)	1,286,355	2%
Non-acute	283,575 (18%)	248,775	14%

Figure 12 Total number of hospital bed days by episode type, January 2010 to March 2015

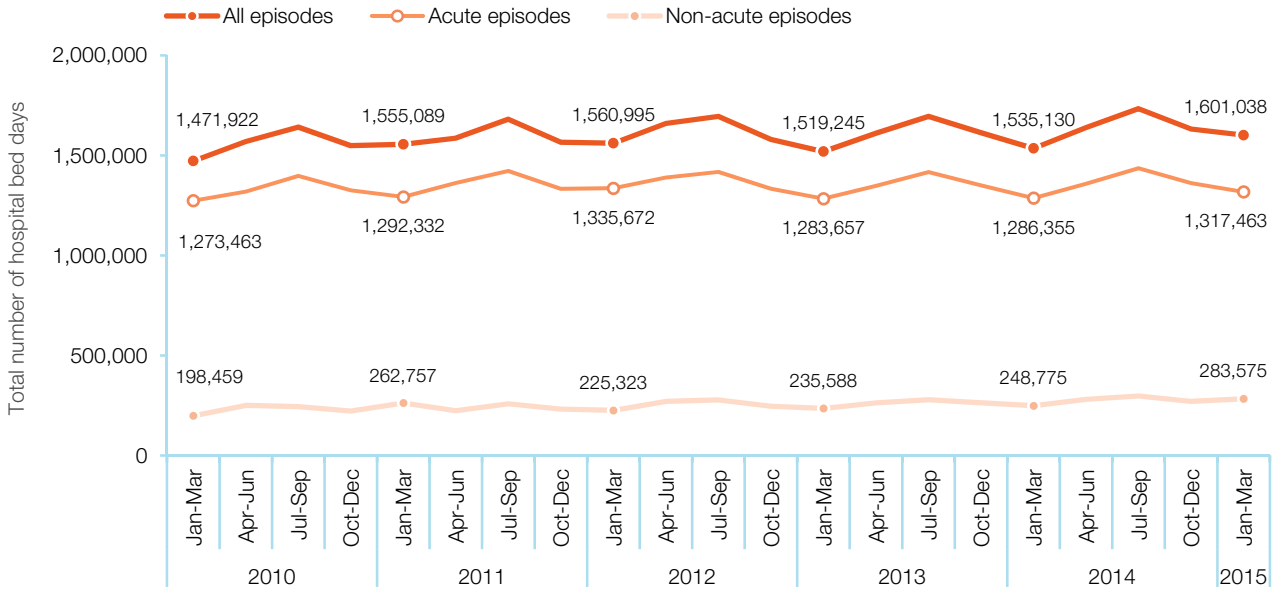


Figure 13 Average length of stay for all completed acute and acute overnight admitted patient episodes completed, January 2010 to March 2015

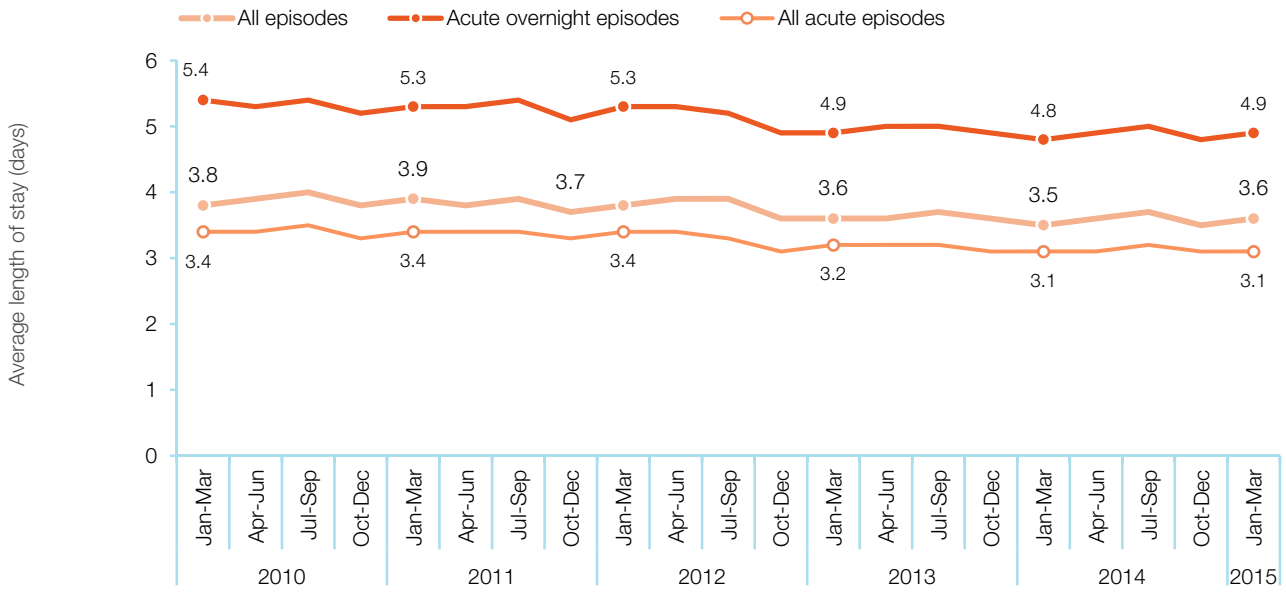
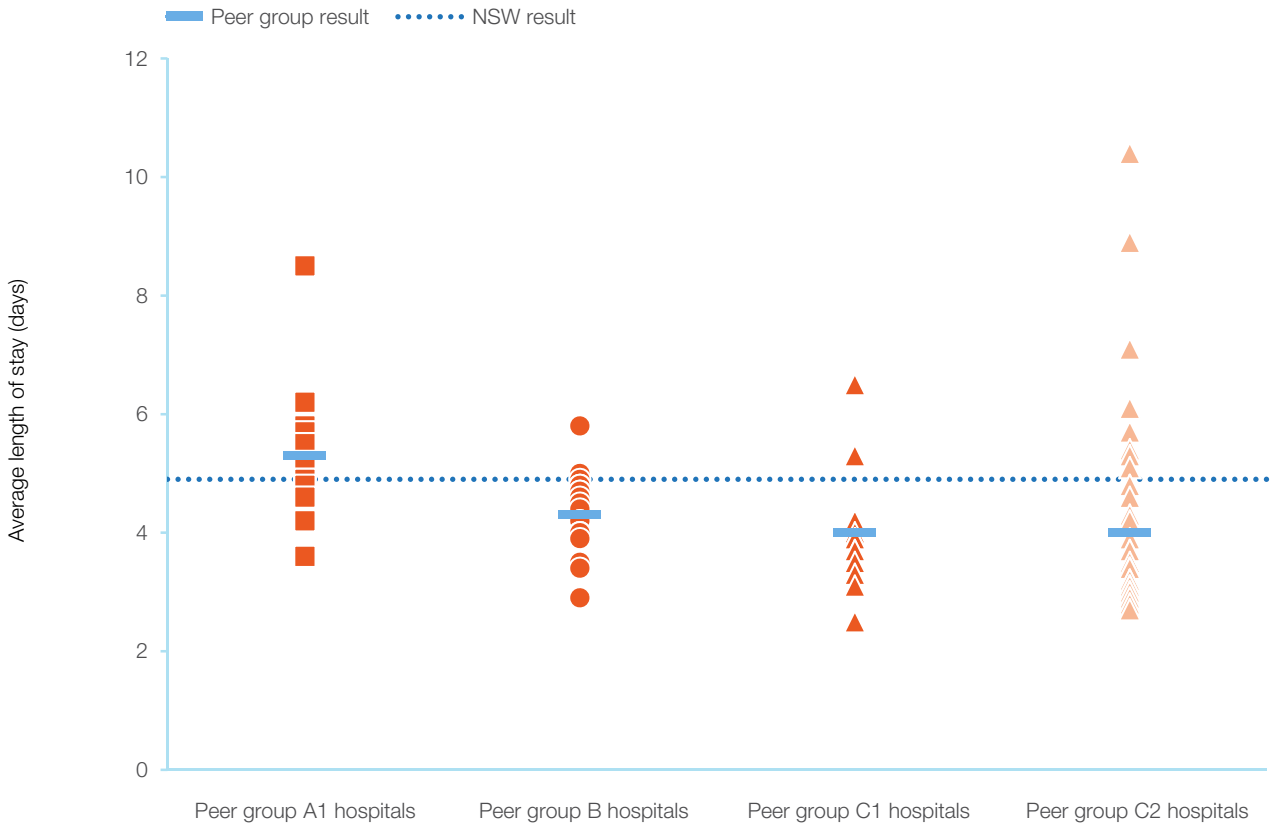


Figure 14 Average length of stay for all completed acute overnight admitted patient episodes, by peer group, January to March 2015



How many elective surgery procedures were performed?

Elective surgery, often called planned surgery, is surgery that a doctor considers necessary but can be delayed by at least 24 hours. In this case, the surgeon recommends a patient is placed on the waiting list for a procedure and assigns an urgency category. There are three categories for elective surgery: urgent, semi-urgent and non-urgent. Each category has a recommended maximum time (in days) by which procedure should be performed (see Table 4).

During the January to March 2015 quarter, there were 49,842 elective surgery procedures performed in NSW public hospitals. This is a 1% increase compared to the same quarter last year (Figure 15).

Urgent surgery made up 21% of all elective surgery performed this quarter (1% more procedures compared to the same quarter last year). Semi-urgent surgery made up 30% (2% less procedures) and non-urgent surgery made up 41% of all elective surgery (3% more procedures). Staged surgery made up 7% of all elective surgery performed this quarter with 4% more procedures performed compared to the same quarter last year (Figure 15).

Figure 15 **Elective surgery procedures performed, by urgency category, January to March 2015**

		Same period last year	Change since one year ago
Total number of elective surgery procedures	49,842	49,468	1%
Urgent	10,713 (21%)	10,634	1%
Semi-urgent	15,195 (30%)	15,547	-2%
Non-urgent	20,655 (41%)	20,125	3%
Staged	3,279 (7%)	3,162	4%

Figure 16 **Percentage of elective surgery performed in urgency categories, by peer group, January to March 2015**

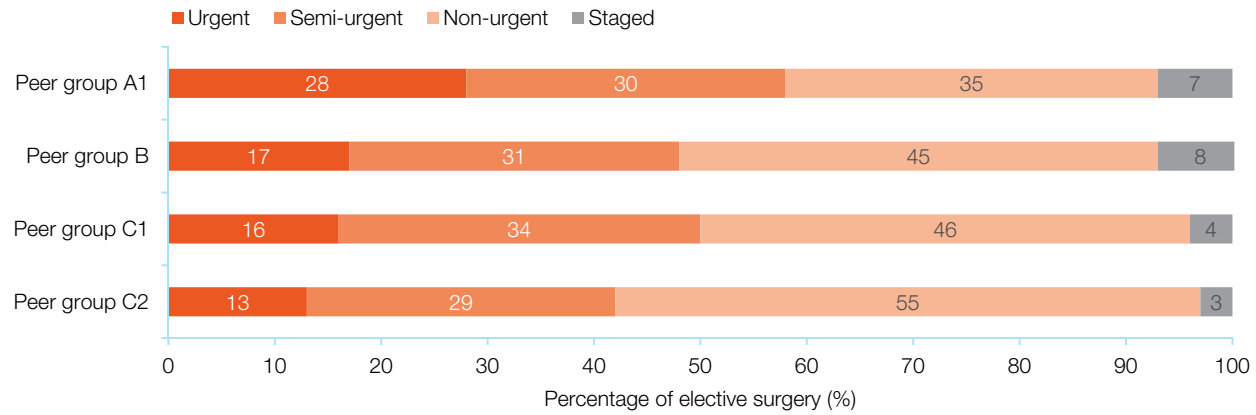
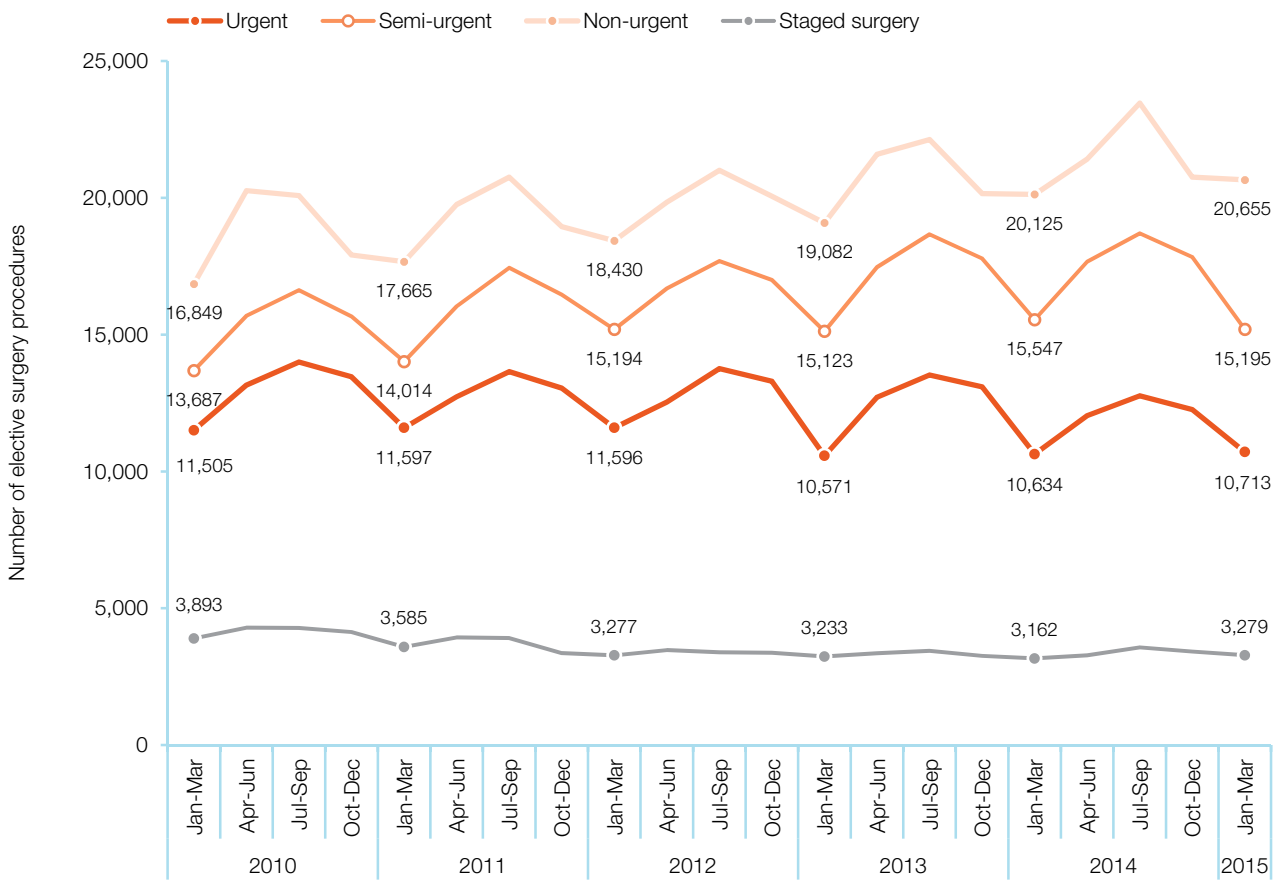


Figure 16 shows variation in the distribution, by urgency category, of all elective surgery performed across different hospital peer groups. This quarter, peer group A1 hospitals had the highest proportion of elective surgery that was urgent and the lowest proportion that was non-urgent, compared to other hospital peer groups.

There has been an overall increase in the volume of elective surgery performed in NSW public hospitals over the past five years. The number of elective surgery procedures categorised as semi-urgent has increased by 11% and the number categorised as non-urgent has increased by 23% since the same quarter in 2010. In contrast, the number of procedures categorised as urgent decreased by 7% during this time (Figure 17).

Figure 17 Elective surgery procedures performed, by urgency category, January 2010 to March 2015



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

At the end of the January to March 2015 quarter, 72,974 patients were ready for surgery and on the elective surgery waiting list; 1% more than at the end of the same quarter last year. Most patients (82%) were waiting for non-urgent surgery. The remaining patients were waiting for semi-urgent surgery (16%) or urgent surgery (2%). Compared to the same quarter last year, the number of patients waiting for urgent elective surgery decreased by 11%. The number of patients waiting for semi-urgent and non-urgent surgery increased by 1% and 2% respectively (Figure 18).

As at 31 March 2015, there were 12,645 patients not ready for surgery on the waiting list, up 4% compared with the same quarter last year (Figure 18).

Orthopaedic and ophthalmological surgery had the highest number of patients waiting for surgery at the end of the quarter. These specialties combined made up 48% of all patients waiting for elective surgery in NSW public hospitals. Cardiothoracic surgery and medical surgery had the lowest number of patients waiting (Figure 19).

At the end of this quarter, 454 patients were still waiting for surgery after more than 12 months on the waiting list; a 7% increase compared to the same quarter last year. General surgery and ophthalmological surgery had the highest number of patients still on the waiting list after more than 12 months. Compared to the same quarter last year, the largest increase in the number of patients still on the waiting list after more than 12 months was seen in ophthalmological surgery (from 22 to 98 patients, which represents a more than four-fold increase). The largest decrease was seen in orthopaedic surgery (from 148 to 96 patients, down 35%), and neurosurgery (from 30 to five patients, down 83%) (Figure 19).

Cataract extraction, the highest volume surgery (Figure 44), also had the highest number of patients waiting for surgery at the end of March 2015 compared to the same quarter last year (14,431, up 2%). Procedures with the lowest number of patients waiting were coronary artery bypass graft (up 2%) and myringotomy (down 15%) (Figure 20).

Cataract extraction and total knee replacement had the highest number of patients still on the waiting list for surgery after more than 12 months at the end of the quarter. Compared to the same quarter last year, cataract extraction also had the largest increase in the number of patients still on the waiting list after more than 12 months (from 15 to 85 patients, close to a five-fold increase), while total hip replacement had the largest decrease (from 23 to 11 patients, down 52%).

Figure 18 Elective surgery waiting list, by urgency category, as at 31 March 2015

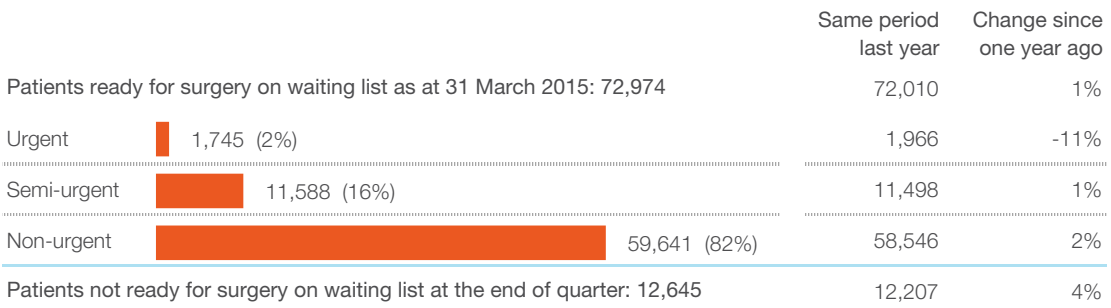


Figure 19

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 31 March 2015

	Patients on waiting list at end of quarter			Patients still waiting after more than 12 months	
	This quarter	Same period last year	Change since one year ago	This quarter	Same quarter last year
All specialties	72,974	72,010	1%	454	424
Orthopaedic surgery	18,590	18,060	3%	96	148
Ophthalmology	16,651	16,121	3%	98	22
General surgery	12,680	13,191	-4%	116	88
Ear, nose and throat surgery	9,825	9,504	3%	71	83
Gynaecology	6,312	6,236	1%	38	27
Urology	3,698	3,788	-2%	12	9
Plastic surgery	2,446	2,322	5%	14	12
Neurosurgery	1,214	1,209	unchanged	5	30
Vascular surgery	958	924	4%	<5	5
Cardiothoracic surgery	355	409	-13%	0	0
Medical	245	246	unchanged	<5	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 31 March 2015

	Patients on waiting list at end of quarter			Patients still waiting after more than 12 months	
	This quarter	Same period last year	Change since one year ago	This quarter	Same quarter last year
Cataract extraction	14,431	14,165	2%	85	15
Total knee replacement	5,250	4,952	6%	34	62
Tonsillectomy	3,774	3,653	3%	19	16
Total hip replacement	2,250	2,289	-2%	11	23
Inguinal herniorrhaphy	2,105	2,165	-3%	30	24
Cholecystectomy	1,714	1,791	-4%	9	7
Hysteroscopy	1,511	1,503	1%	<5	5
Septoplasty	1,346	1,446	-7%	12	14
Other - General	1,217	1,202	1%	13	7
Cystoscopy	1,035	1,082	-4%	0	0
Abdominal hysterectomy	776	701	11%	5	<5
Varicose veins stripping and ligation	730	718	2%	<5	5
Prostatectomy	642	673	-5%	0	<5
Haemorrhoidectomy	413	450	-8%	<5	0
Myringoplasty/tympanoplasty	322	352	-9%	<5	7
Myringotomy	116	136	-15%	<5	0
Coronary artery bypass graft	85	83	2%	0	0

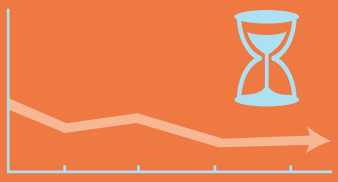
Hospital performance measures

Key findings

87% of patients arriving by ambulance had their care transferred within 30 minutes

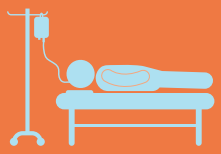
unchanged compared to the same quarter last year

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



75% of patients spent four hours or less in the emergency department

unchanged compared to the same quarter last year



98% of patients received their surgery within recommended timeframes

- **100%** urgent surgery procedures performed on time
- **98%** semi-urgent surgery procedures performed on time
- **97%** non-urgent surgery procedures performed on time

29 out of 83 hospitals had an increase in the percentage of elective surgery performed on time - 14 out of 83 had a decrease

compared to 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 emergency department treatment?

During the January to March 2015 quarter, the median time from presentation at the emergency department (ED) to starting treatment remained largely unchanged across all triage categories compared to the same quarter last year (Figure 21).

For patients in triage categories two, three and five, the 95th percentile time to starting treatment increased by three minutes. The 95th percentile time to treatment decreased by one minute for patients in triage category four, compared to the same quarter last year (Figure 21).

Figures 22 and 23 show that the median and 95th percentile times to starting treatment have decreased over the past five years for patients in triage categories three, four and five, and remained largely stable for patients in triage category two.

Figure 21 Time from presentation to starting treatment, by triage category, January to March 2015

		Same period last year	Change since one year ago
Triage 2 Emergency (e.g. chest pain, severe burns): 70,546 patients			
Median time to start treatment	8 minutes	8 minutes	unchanged
95th percentile time to start treatment	35 minutes	32 minutes	3 minutes
Triage 3 Urgent (e.g. moderate blood loss, dehydration): 194,084 patients			
Median time to start treatment	20 minutes	20 minutes	unchanged
95th percentile time to start treatment	1h 38 minutes	1h 35 minutes	3 minutes
Triage 4 Semi-urgent (e.g. sprained ankle, earache): 254,179 patients			
Median time to start treatment	26 minutes	26 minutes	unchanged
95th percentile time to start treatment	2h 17 minutes	2h 18 minutes	-1 minutes
Triage 5 Non-urgent (e.g. small cuts or abrasions): 61,221 patients			
Median time to start treatment	24 minutes	23 minutes	1 minutes
95th percentile time to start treatment	2h 15 minutes	2h 12 minutes	3 minutes

Figure 22 Median time from presentation to starting treatment, by triage category, January 2010 to March 2015

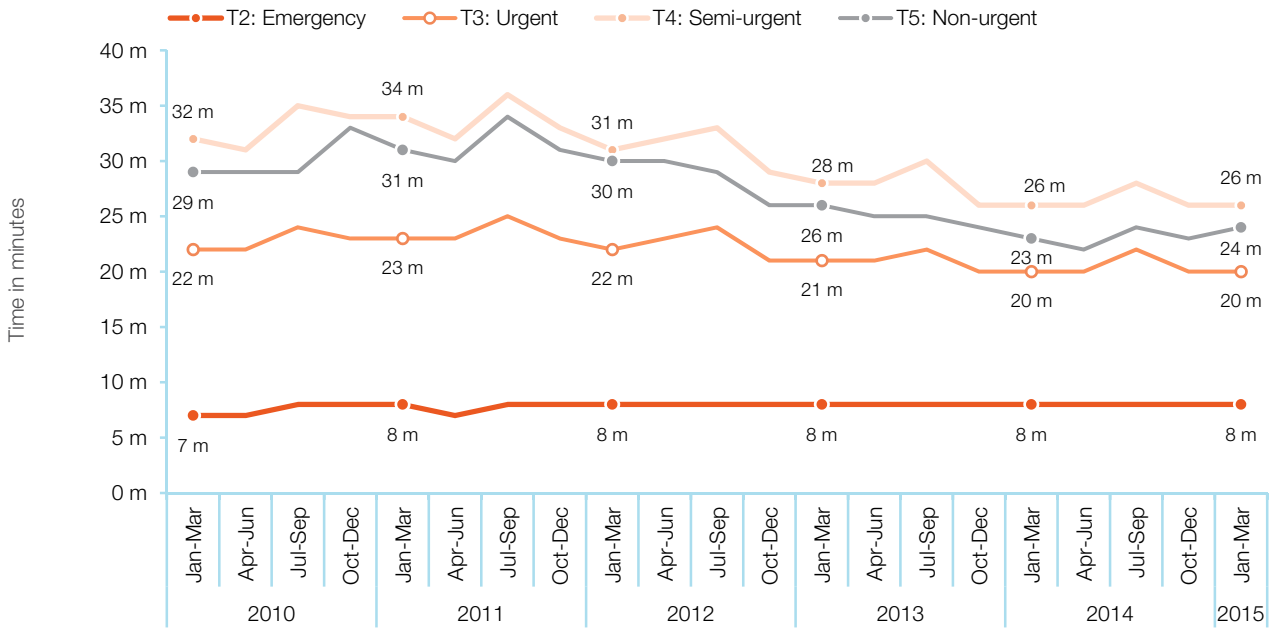
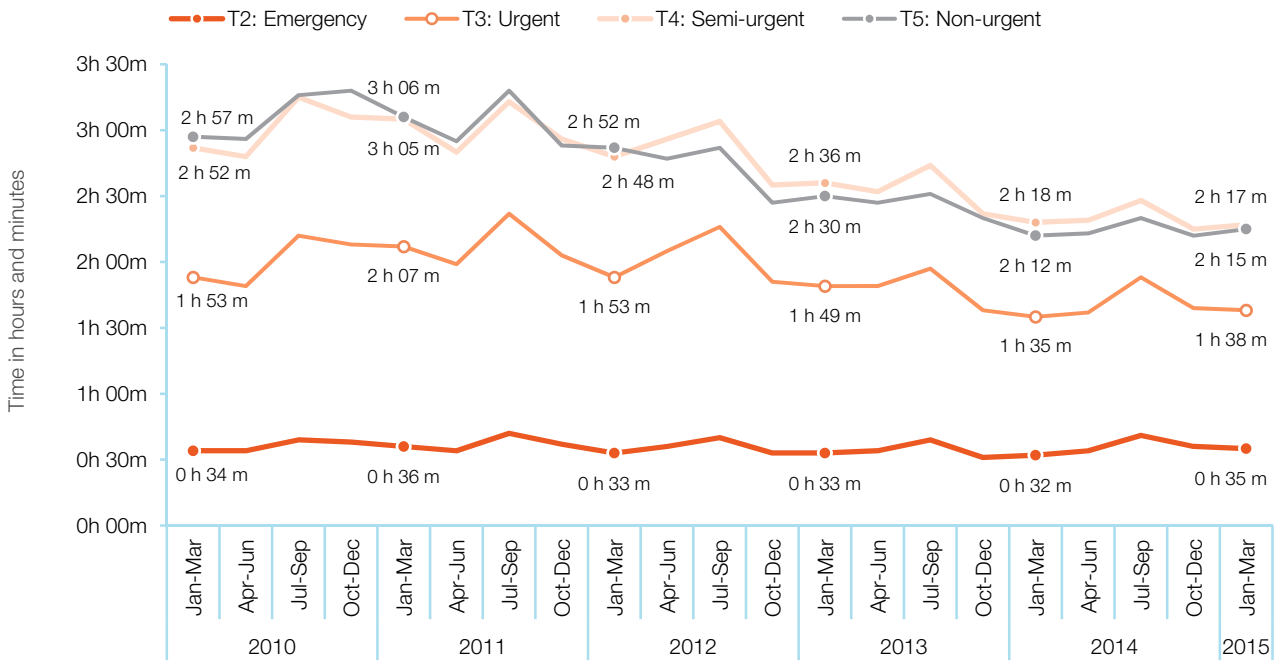


Figure 23 95th percentile time from presentation to starting treatment, by triage category, January 2010 to March 2015



How long were patients in the emergency department?

In the January to March 2015 quarter, the median time from presentation to leaving the ED was two hours and 39 minutes, one minute longer than the same quarter last year.

The 95th percentile time to leaving the ED was nine hours and 18 minutes, two minutes longer than the same quarter last year (Figure 24).

A downward trend was seen over the past five years in the median time to leaving the ED overall, and across all modes of separation (Figure 25), particularly since mid-2012. The largest improvement in median time to leaving the ED was seen for patients who were treated and admitted to hospital (from six hours and 19 minutes in the January to March quarter 2010 to four hours and 37 minutes this quarter). Compared to the same quarter in 2010, the 95th percentile time to leaving the ED has decreased for all modes of separation (Figure 26).

Patients who were treated and admitted to hospital, and those who were transferred to another hospital, spent longer in ED this quarter compared to the same quarter last year. The median time to leaving the ED this quarter was 11 minutes longer for patients who were treated and admitted to hospital, and 14 minutes longer for those who were transferred to another hospital (Figure 25). The 95th percentile time to leaving the ED was 16 minutes longer for patients who were treated and admitted to hospital, and 90 minutes longer for those who were transferred to another hospital (Figure 26).

Figure 24 Time from presentation to leaving the emergency department, January to March 2015

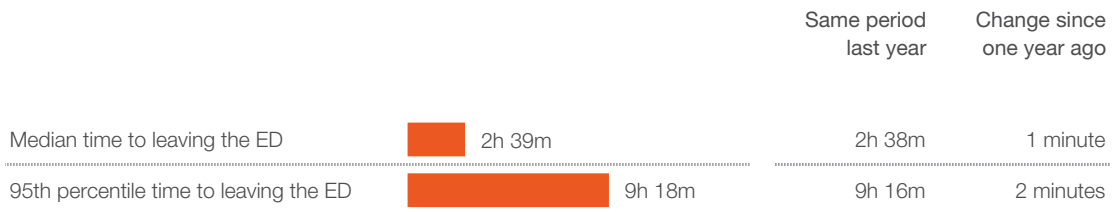


Figure 25

Median time from presentation to leaving the emergency department, January 2010 to March 2015

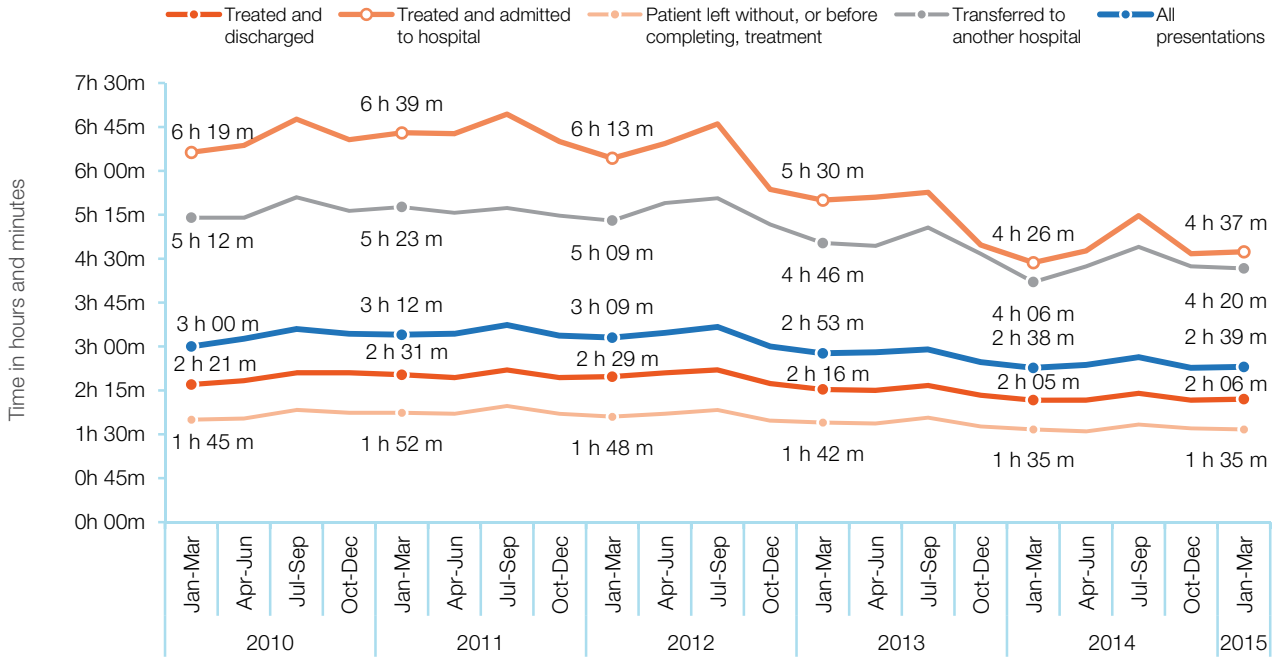
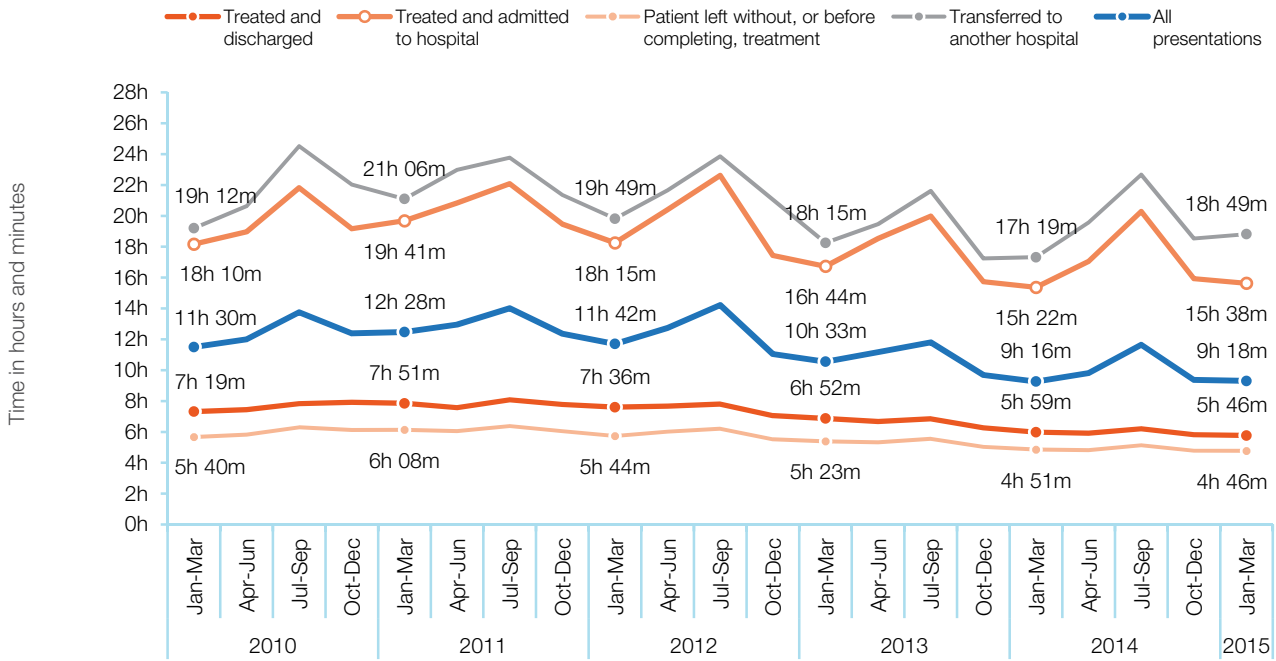


Figure 26

95th percentile time from presentation to leaving the emergency department, January 2010 to March 2015



How long were patients in the emergency department?

Does emergency department length of stay vary between hospital peer groups?

Despite an overall increase in the volume of patients presenting at NSW EDs since the same quarter in 2010, median time from presentation to leaving the ED has decreased during this time.

Figure 27 (a to d) shows the median time from presentation to leaving the ED, by quarter, over the past five years in 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. Figure 27a and 27b show that overall, peer group A1 and B hospitals have seen a decrease the median time to leaving the ED over the past five years.

Most peer group A1 hospitals achieved close to the peer group result, as shown by the narrowing of the difference between the highest and lowest results for individual hospitals this quarter. There is more variation in the median time to leaving the ED for peer group B hospitals as shown in the difference between the hospitals with the highest and lowest median time to leaving the ED.

Figure 27a Median time to leaving the emergency department and range, peer group A1 hospitals, January 2010 to March 2015

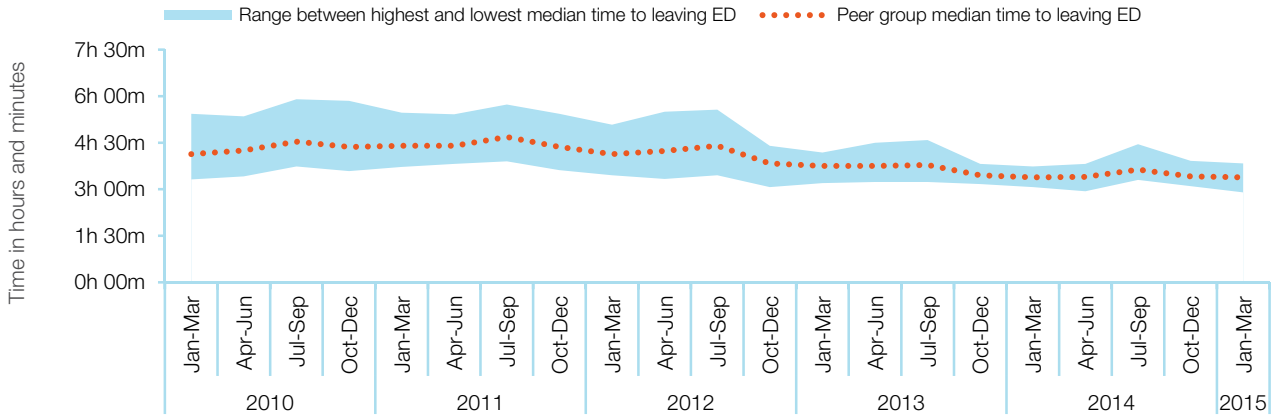


Figure 27b Median time to leaving the emergency department and range, peer group B hospitals, January 2010 to March 2015

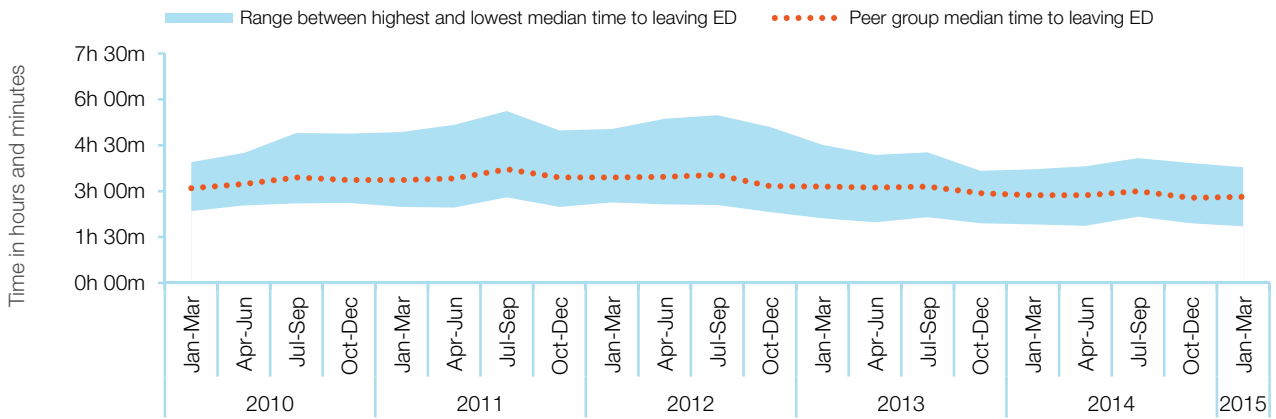


Figure 27c and 27d show that while patients generally spend less time in ED in peer group C1 and C2 hospitals (smaller hospitals), median time to leaving the ED has not improved for these peer groups over the past five years and that there is considerable variation between length of stay between hospitals within these peer groups. This quarter the median time to leaving the ED has increased slightly for peer group C1 and C2 hospitals compared to the same quarter in 2010 (Figure 27c, 27d).

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 more affected by the changes than other peer groups, as this peer group has more than doubled the number of EDs contributing data to Hospital Quarterly since 2010. For more information refer to the Technical Supplement: Emeregency department measures, at bhi.nsw.gov.au

Figure 27c

Median time to leaving the emergency department and range, peer group C1 hospitals, January 2010 to March 2015

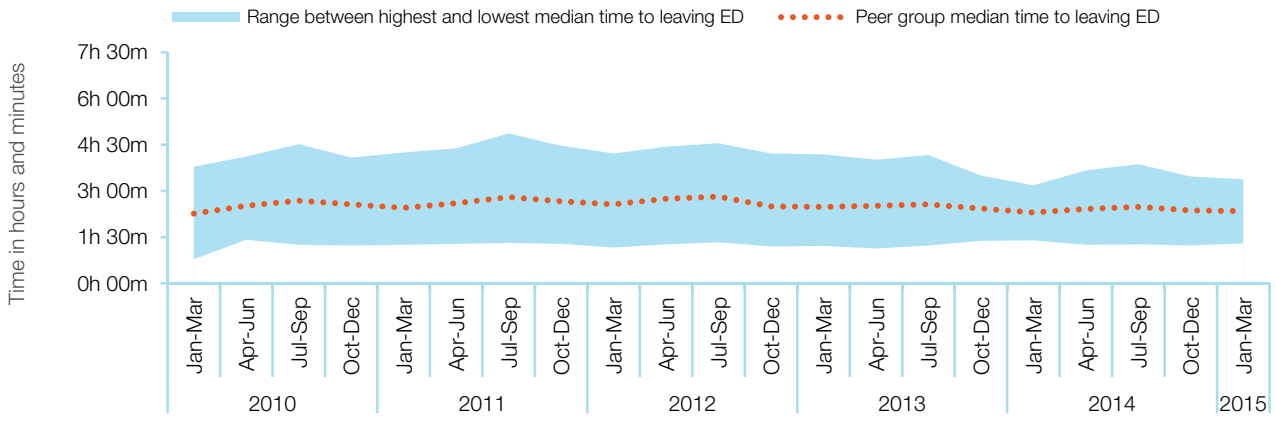
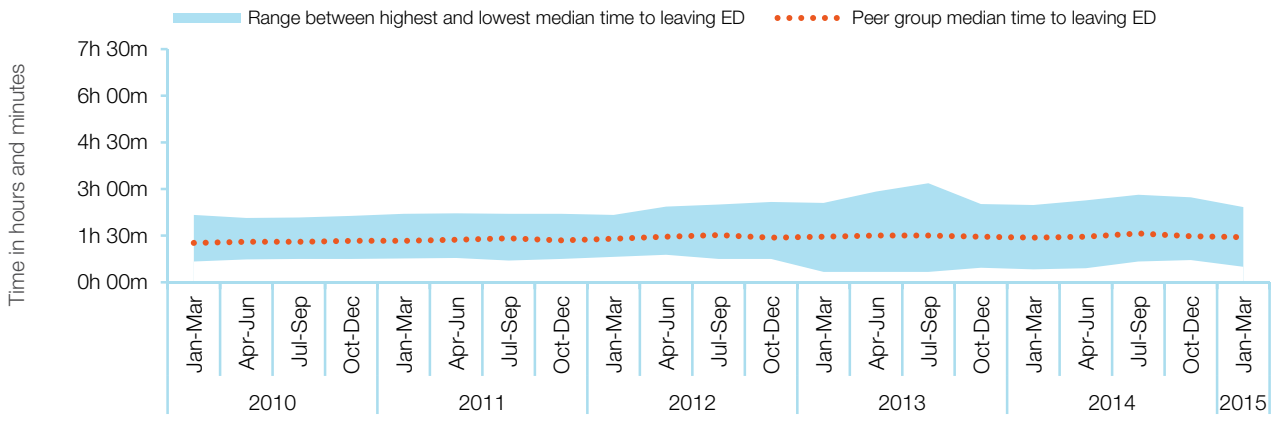


Figure 27d

Median time to leaving the emergency department and range, peer group C2 hospitals, January 2010 to March 2015



How long were patients in the emergency department?

What percentage of patients left the ED within four hours of presentation?

During the January to March 2015 quarter, 75% of patients left NSW EDs within four hours of presentation. This is unchanged compared to the same quarter last year (Figure 28) and is consistent with a slowing of improvement in this measure (Figure 29).

The majority of patients who were treated and discharged this quarter left the ED within four hours of presentation (86%). Patients who were treated and subsequently admitted to hospital, and those who were transferred to another hospital, had the lowest proportion of patients who left within four hours (44% and 47% respectively) (Figure 28). Ninety-two percent of patients who left without, or before, completing treatment had departed the ED within four hours of presentation.

In January to March 2015, 75% of patients left the ED within the first four hours of presentation, 18% left in the second four hours (eight hours from presentation) and 4% left within eight to 12 hours of first presenting at the ED (Figure 30).

Currently, patients admitted to hospital are less likely to have left the ED within four hours than patients who are treated and discharged, transferred to another hospital, or those who leave without, or before completing, treatment.

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.

This quarter, 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). This change, together with the inclusion of 14 additional EDs in Hospital Quarterly, has resulted in a two percentage point increase in the reported percentage of patients leaving the ED within four hours than would have otherwise been reported this quarter. For more information refer to the Technical Supplement: Emeregency department measures, at bhi.nsw.gov.au

Figure 28 Percentage of patients leaving the emergency department within four hours, by mode of separation, January to March 2015

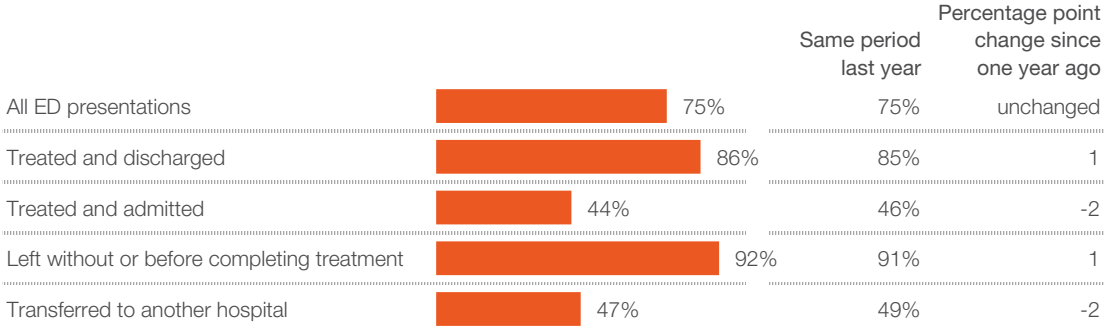


Figure 29 Percentage of patients leaving the emergency department within four hours, by mode of separation, January 2010 to March 2015

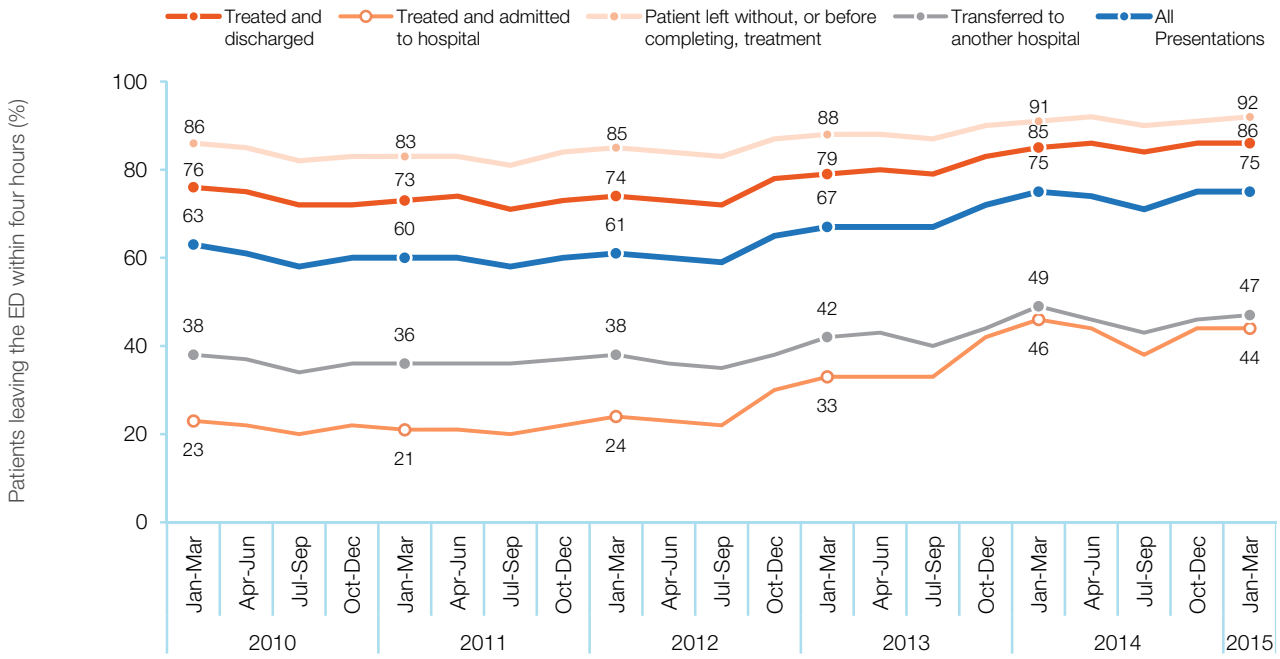
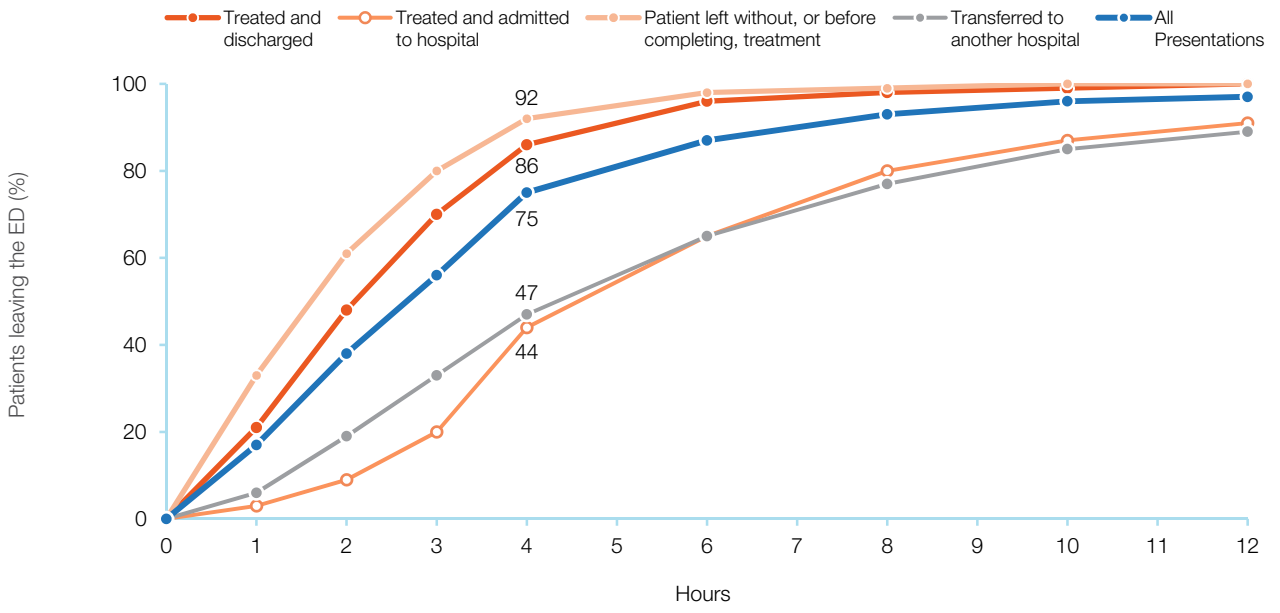


Figure 30 Percentage of patients leaving the emergency department, by time and mode of separation, January to March 2015



How long were patients in the emergency department?

Is there variation in the percentage of patients leaving within four hours?

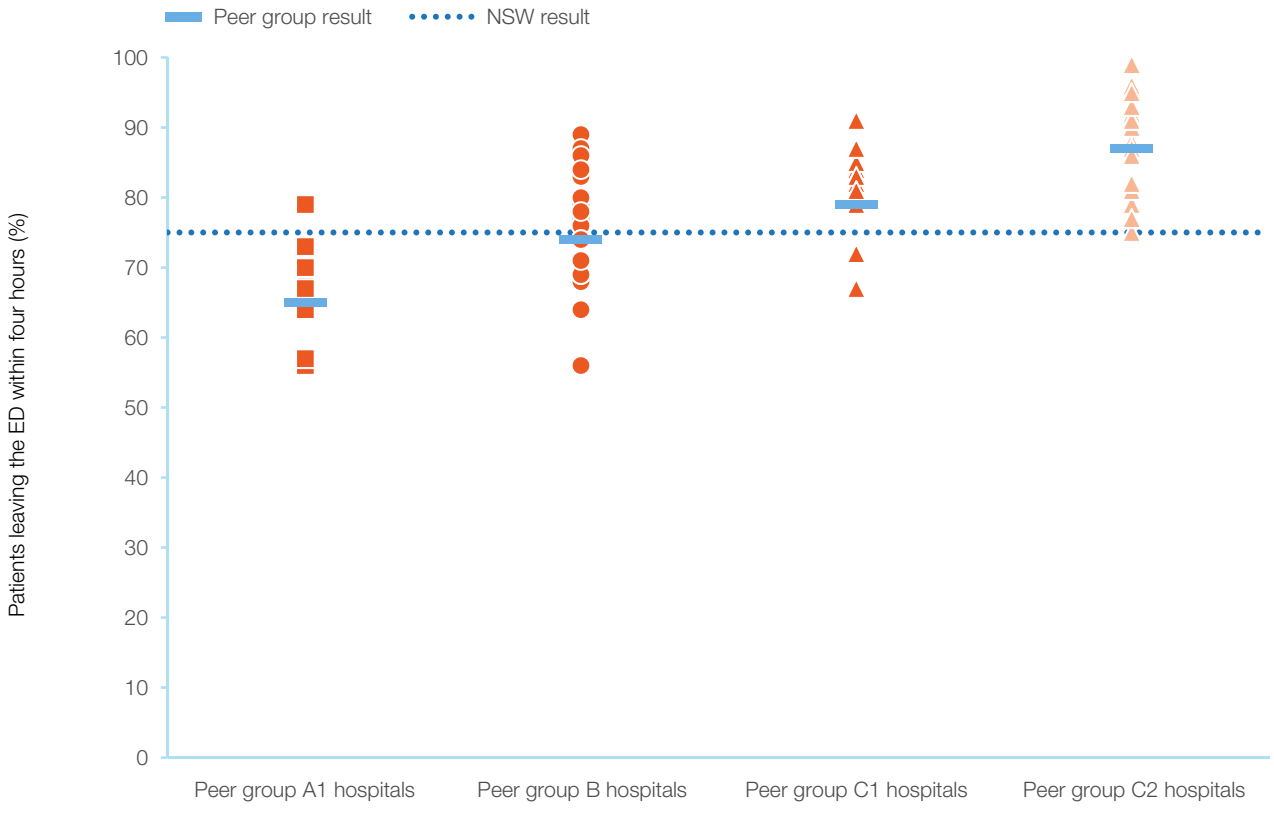
There is considerable variation between and within hospital peer groups in the percentage of patients leaving the ED within four hours. Figure 31 shows that peer group C2 hospitals (smaller district hospitals) generally have a higher proportion of patients leaving the ED within four hours compared with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

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

The Y-axis shows performance (the percentage of patients leaving within four hours) 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 to the overall NSW result, while those below this line had a lower percentage of patients leaving within four hours compared to the overall NSW result. Hospitals shown to the left of the vertical "0" line in Figure 32 had lower results compared to the same quarter last year while those shown to the right of the vertical line had higher results.

Hospitals shown in the upper right quadrant of Figure 32 have both achieved higher results than NSW overall, as well as increased the percentage of patients leaving within four hours compared to the same quarter last year. Hospitals in the upper left

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



quadrant also have results that are higher than NSW result but have decreased the percentage of patients leaving within four hours compared to the same quarter last year.

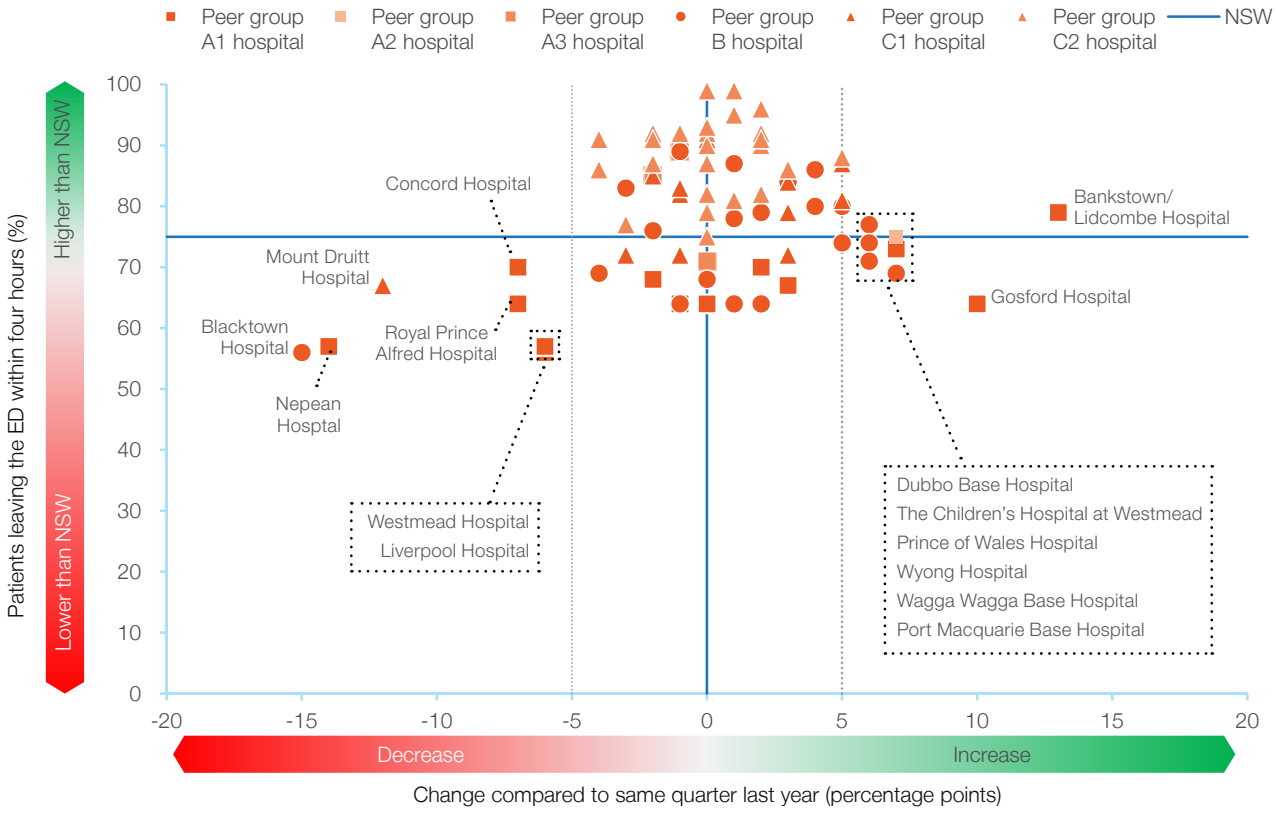
Hospitals in the lower right quadrant have results that are lower than the overall NSW result but have increased the percentage of patients leaving within four hours compared to the same quarter last year. Hospital in the lower left quadrant have results that are lower than NSW and have also decreased the percentage of patients leaving within four hours compared to the same quarter last year.

Hospitals named 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 to the same quarter last year.

This quarter, 38 out of 81 hospitals reported an increase in the percentage of patients leaving the ED within four hours of presentation. Of these, eight hospitals improved by more than five percentage points, including one that increased by more than 10 percentage points compared to the same quarter last year (Figure 32).

Thirty hospitals reported a decrease in the percentage of patients leaving the ED within four hours of presentation. Of these, seven hospitals decreased by more than five percentage points, including three that decreased by more than 10 percentage points compared to the same quarter last year (Figure 32).

Figure 32 Percentage of patients leaving the emergency department within four hours versus percentage point change since same quarter last year, hospitals by peer group, January to March 2015



How long were patients in the emergency department?

Has the percentage of patients leaving within four hours changed over time?

Figure 33 shows that there has been an increase over time in the proportion of patients leaving the ED within four hours of presentation in peer groups A1, B and C1 hospitals. 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 in the same quarter over the past five years (Figure 33).

A gradual decrease is seen in the proportion of patients leaving C2 peer group hospitals within four hours, however, this result is affected by the addition of 14 new C2 hospitals to the Hospital Quarterly report (from 14 C2 hospitals in 2010 to 28 in 2015). For more information visit bhi.nsw.gov.au

Figure 34 shows an increase, since 2010, in the percentage of patients leaving the ED within four hours across peer group A1, B and C1 hospitals and across all modes of separation, with the exception of patients who were transferred to another hospital in peer group B hospitals (unchanged).

Compared to the same quarter last year, there was a reduction in the percentage of patients transferred to another hospital who had left within four hours across all peer groups. In addition, there was a reduction in the percentage of patients treated and admitted to hospital who had left the ED within four hours in peer groups A1, C1 and C2, while peer group B hospitals remained unchanged (Figure 34).

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

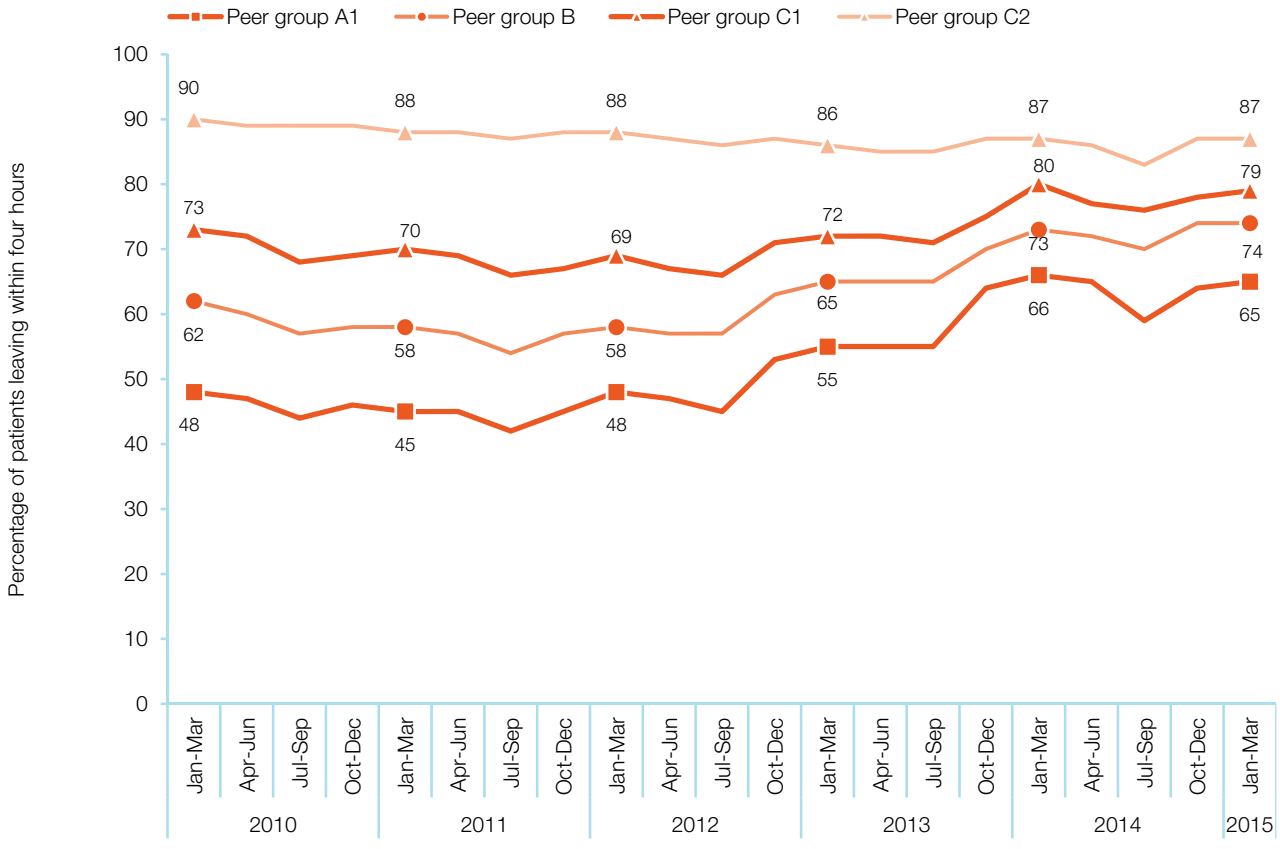
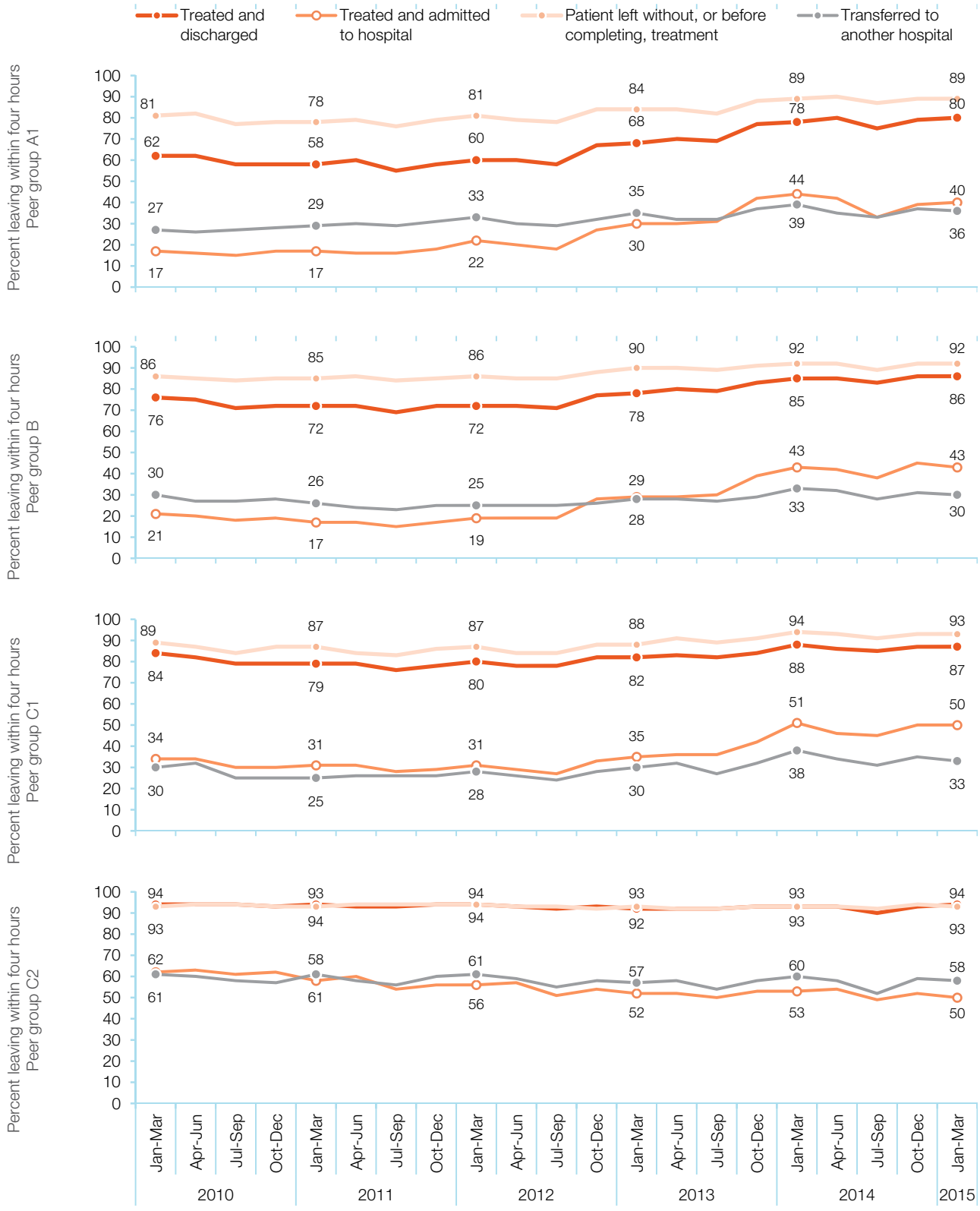


Figure 34 Percentage of patients leaving the emergency department within four hours, by mode of separation and peer group, January 2010 to March 2015



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

Transfer of care time can only be determined when the ambulance service records the patient's time of arrival at the ED and this record can be matched to records held by the ED that show the time the patient's care was transferred to ED staff. This report includes transfer of care times for matched records only.

During the January to March 2015 quarter, 137,021 patients were transported by ambulance to NSW public hospital EDs (down 1% compared to the same quarter last year) (Figure 35).

The median transfer of care time from ambulance to ED staff was unchanged this quarter (12 minutes). The 95th percentile transfer of care time was one minute shorter (52 minutes) compared to the same quarter last year (Figure 35).

In NSW, there is a target of 30 minutes within which patients arriving by ambulance should have their care transferred to ED clinicians. This quarter, 87% of patients arriving by ambulance had their care transferred from ambulance to ED staff within 30 minutes (no change compared to the same quarter last year) (Figure 36).

Figure 37 shows variation between and within hospital peer groups in the percentage of patients arriving by ambulance that had their care transferred within 30 minutes this quarter, with the largest variation seen in peer group C2 hospitals.

Figure 35 Emergency department transfer of care time, January to March 2015

		Same period last year	Change since one year ago
Arrivals used to calculate transfer of care time: 118,783 patients		120,725 patients	-2%
ED Transfer of care time			
Median time	12 minutes	12 minutes	unchanged
95th percentile time	52 minutes	53 minutes	-1 minutes

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

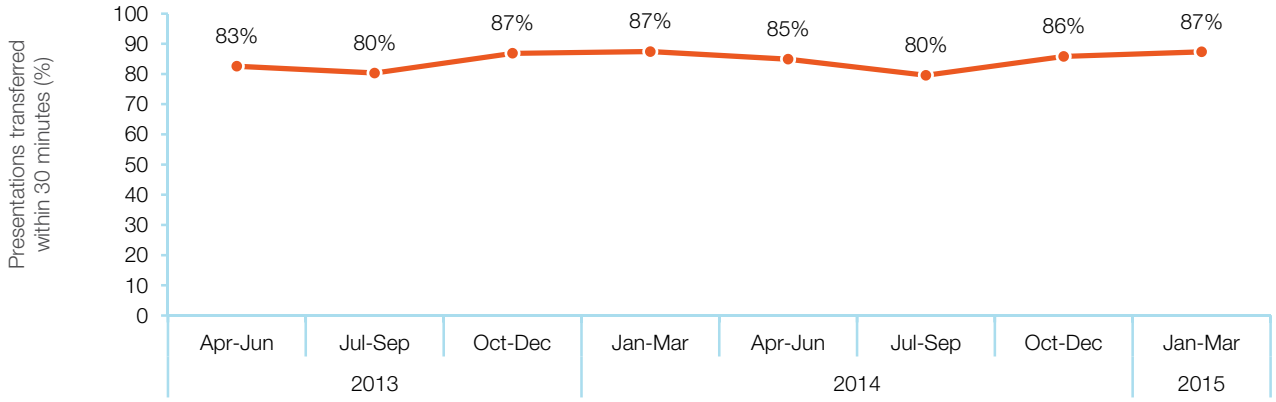
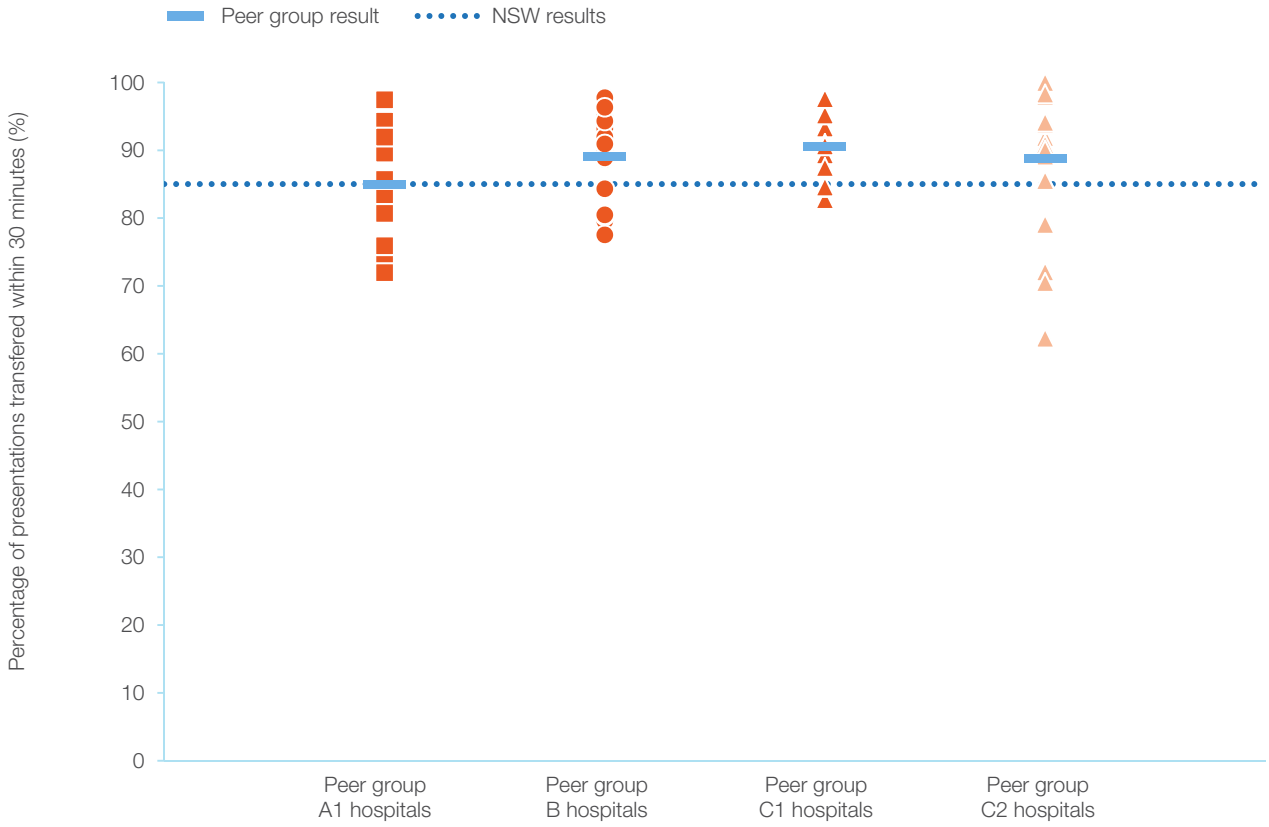


Figure 37 Percentage of ambulance arrivals with transfer of care time within 30 minutes, by peer group, January to March 2015



How long did patients wait for elective surgery?

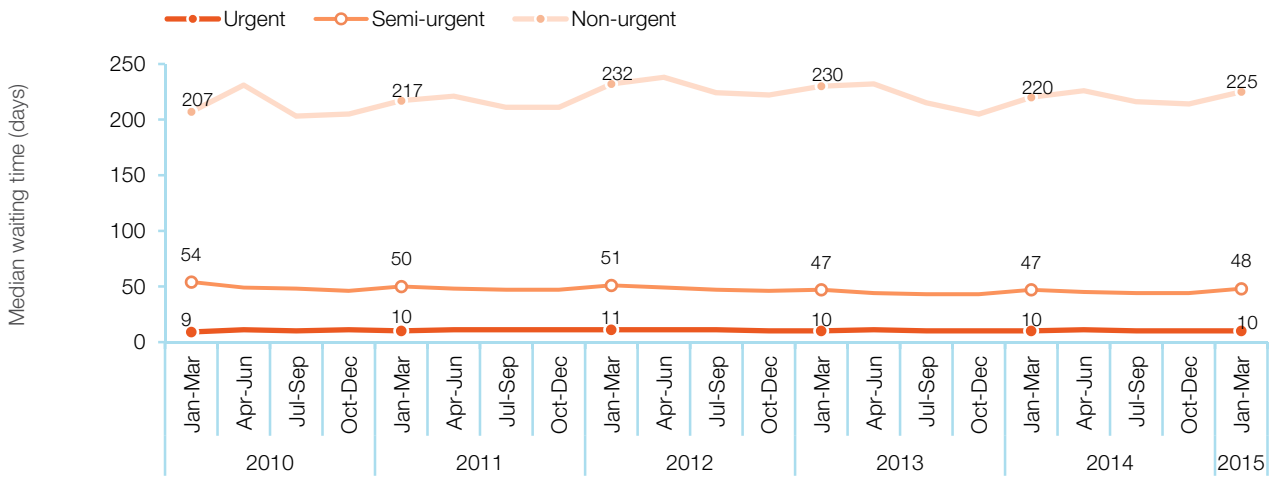
The median waiting time for semi-urgent and non-urgent elective surgery increased by one and five days respectively this quarter, compared to the same quarter last year (Figure 38). The median waiting time for urgent surgery remained unchanged at 10 days, and this has remained relatively stable over the past five years (Figure 39).

The median waiting time for non-urgent elective surgery increased over the past five years from 207 days in January to March 2010 to 225 days in January to March 2015. The median waiting time for semi-urgent surgery has decreased by six days during this time (Figure 39).

Figure 38 Waiting times for elective surgery, by urgency category, January to March 2015

		Same period last year	Change since one year ago
Urgent: 10,713 patients			
Median time to receive surgery	10 days	10 days	unchanged
90th percentile time to receive surgery	25 days	25 days	unchanged
Semi-urgent: 15,195 patients			
Median time to receive surgery	48 days	47 days	1 day
90th percentile time to receive surgery	84 days	84 days	unchanged
Non-urgent: 20,655 patients			
Median time to receive surgery	225 days	220 days	5 day
90th percentile time to receive surgery	356 days	357 days	-1 day

Figure 39 Median waiting time for elective surgery, by urgency category, January 2010 to March 2015



There has been a downward trend in the 90th percentile waiting time across all elective surgery urgency categories since the January to March quarter in 2010 (Figure 40).

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

Across NSW, most (90%) elective surgery procedures were completed before the end of the recommended timeframes this quarter (five days earlier for urgent surgery, six 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, January 2010 to March 2015

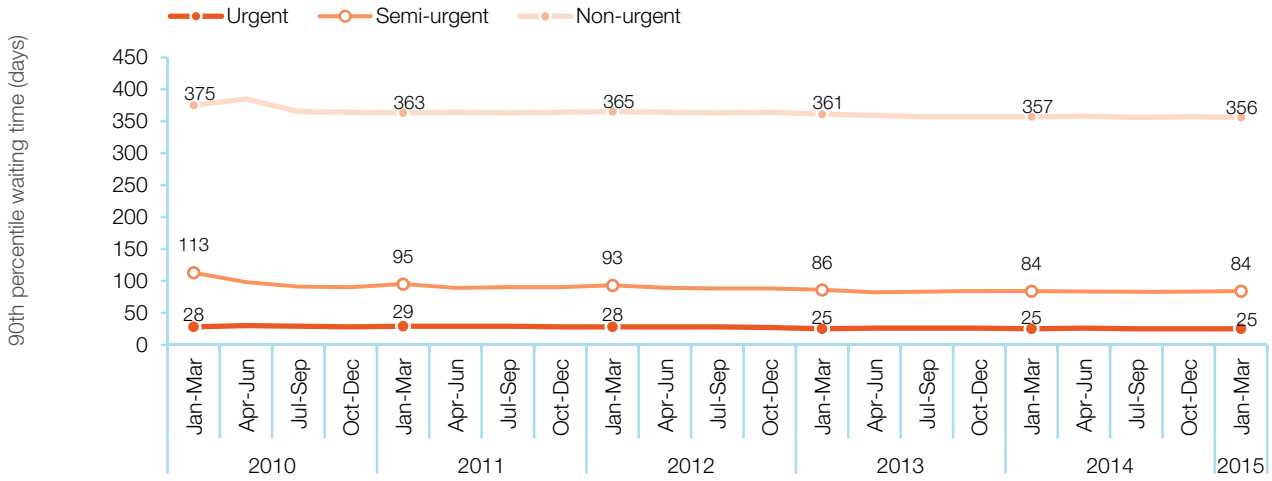
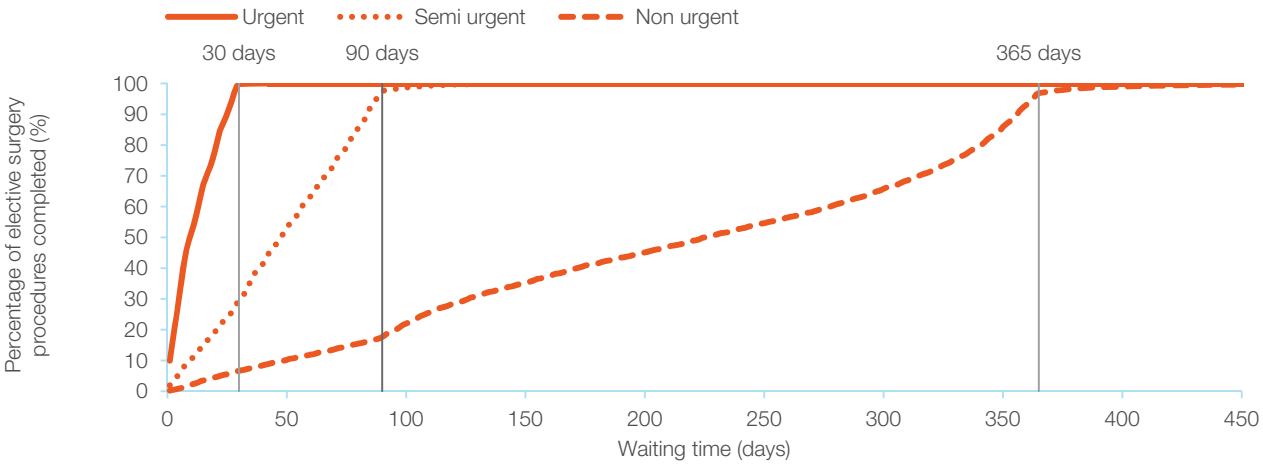


Figure 41 Cumulative percentage of elective surgery completed by day and urgency category, January to March 2015



Is there variation in the waiting times for elective surgery?

Figure 42 shows that the 90th percentile waiting times for elective surgery vary across and within NSW hospital peer groups. Hospitals across all peer groups performed well compared to the NSW result, for the majority of patients requiring elective surgery. There was variation however between and within hospital peer groups in the 90th percentile waiting times, especially for patients requiring non-urgent elective surgery.

Median waiting times by specialty ranged from 14 days for medical (non-specialist) surgery to 205 days for ophthalmological surgery (Figure 43).

Waiting times for different surgical procedures are related to their relative urgency. Procedures with the longest median waiting times this quarter were myringoplasty/tympanoplasty (329 days), septoplasty (320 days), and total knee replacement (297 days). Other – general (24 days), cystoscopy and hysteroscopy (both 32 days) were the procedures with the shortest median waiting times this quarter (Figure 44).

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

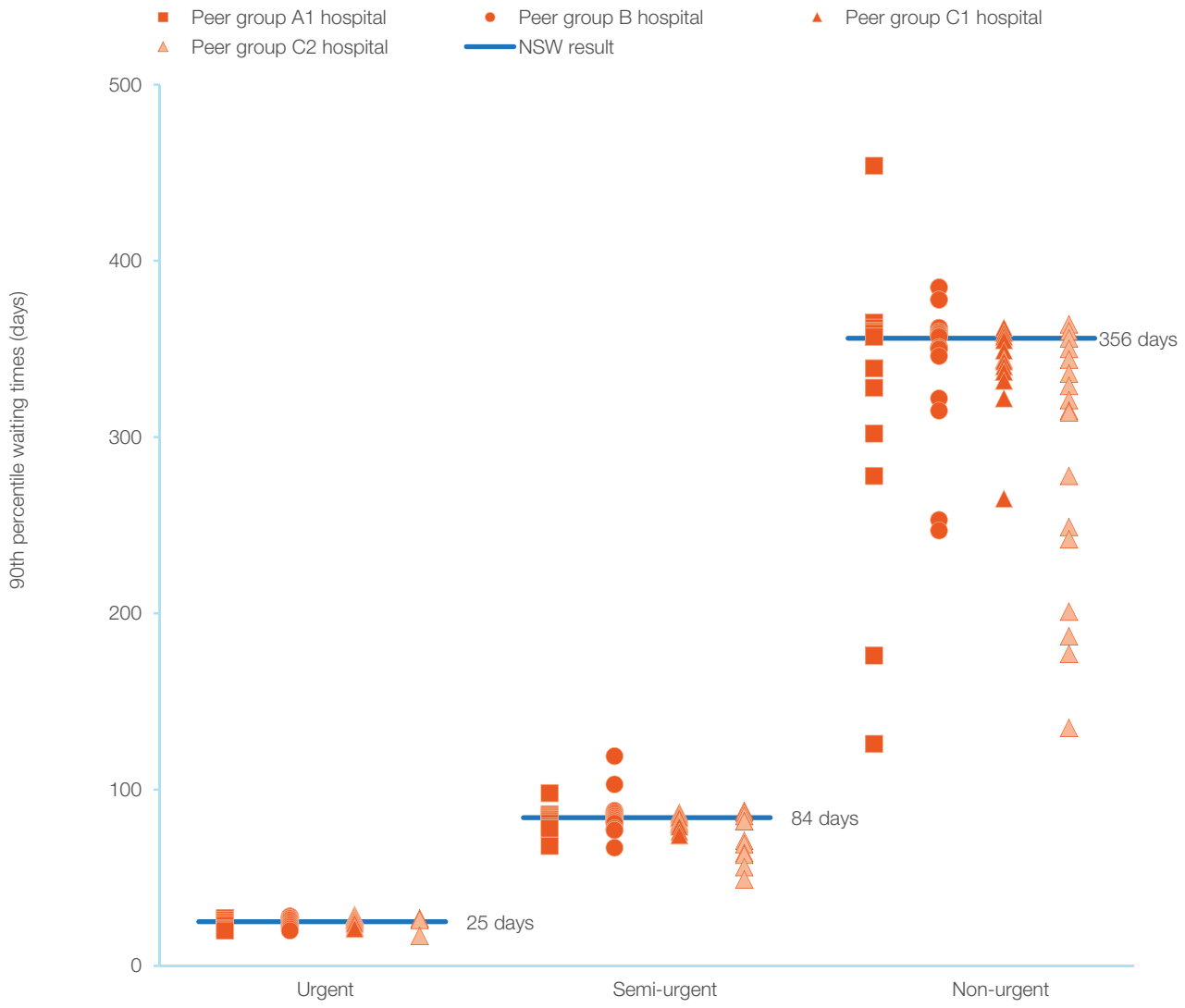


Figure 43

Median waiting time for patients who received elective surgery, by specialty, January to March 2015

		Same period last year	Change since one year ago (days)
General surgery	41 days (12,781 patients)	41	unchanged
Orthopaedic surgery	142 days (7,664 patients)	125	17
Urology	41 days (6,630 patients)	39	2
Ophthalmology	205 days (6,566 patients)	190	15
Gynaecology	40 days (6,382 patients)	43	-3
Ear, nose and throat surgery	176 days (3,746 patients)	153	23
Plastic surgery	41 days (2,126 patients)	42	-1
Vascular surgery	21 days (1,551 patients)	20	1
Neurosurgery	43 days (1,021 patients)	35	8
Cardiothoracic surgery	27 days (880 patients)	22	5
Medical	14 days (495 patients)	15	-1

Figure 44

Median waiting time for patients who received elective surgery, by common procedure, January to March 2015

		Same period last year	Change since one year ago (days)
Cataract extraction	232 days (5,209 patients)	230	2
Cystoscopy	32 days (2,835 patients)	30	2
Hysteroscopy	32 days (1,933 patients)	36	-4
Other - General	24 days (1,659 patients)	23	1
Cholecystectomy	62 days (1,504 patients)	62	unchanged
Total knee replacement	297 days (1,441 patients)	302	-5
Inguinal herniorrhaphy	79 days (1,378 patients)	76	3
Tonsillectomy	266 days (1,247 patients)	248	18
Total hip replacement	238 days (793 patients)	174	64
Prostatectomy	76 days (620 patients)	71	5
Abdominal hysterectomy	72 days (572 patients)	68	4
Septoplasty	320 days (373 patients)	329	-9
Varicose veins stripping and ligation	162 days (324 patients)	142	20
Haemorrhoidectomy	71 days (287 patients)	76	-5
Coronary artery bypass graft	42 days (206 patients)	32	10
Myringoplasty/tympanoplasty	329 days (94 patients)	329	unchanged
Myringotomy	78 days (62 patients)	78	unchanged

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

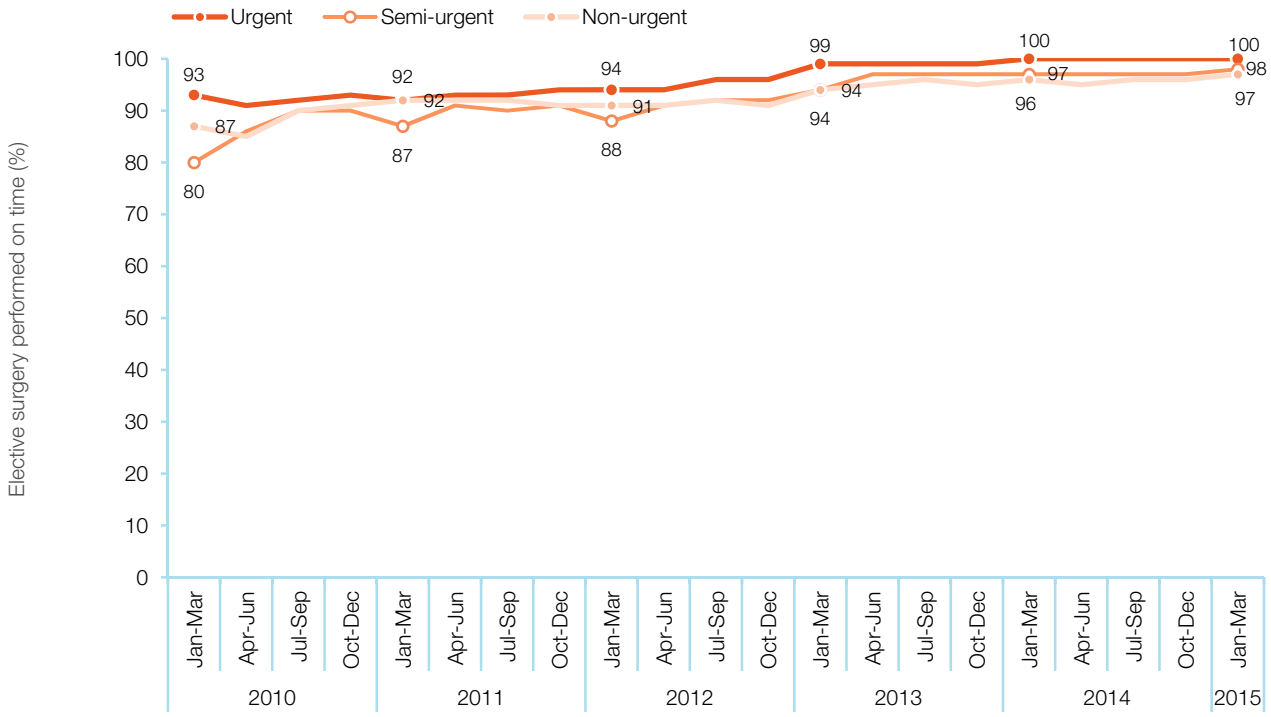
This quarter has seen the highest percentage of elective surgery perfomed within recommended timeframes in NSW. Almost all elective surgery procedures (98%) were performed within recommended timeframes with 100% of urgent surgery, 98% of semi-urgent surgery and 97% of non-urgent surgery performed on time this quarter (Figure 45). These improvements continue the steady trend of meeting recommended timeframes for all urgency categories over the past five years (Figure 46).

Has the percentage of elective surgery performed on time changed since the same quarter last year?

Figure 47 shows the change, compared to the same quarter last year, and results achieved by individual NSW public hospitals this quarter, in the percentage of elective surgery performed on time. The Y-axis shows performance (the percentage of surgery performed on time) and the X-axis shows the percentage point change since the same quarter

Figure 45 Percent of elective surgery procedures performed on time, by urgency, January to March 2015

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



last year. Hospitals above the blue NSW line had a higher percentage of surgery on time this quarter compared to the overall NSW result, while those below this line had a lower percentage compared to the overall NSW result. Hospitals shown to the left of the vertical "0" line had lower results compared to the same quarter last year while those shown to the right of the vertical line had higher results.

Hospitals shown in the upper right quadrant of Figure 47 have both achieved higher results than NSW overall, as well as increased the percentage of elective surgery on time compared to the same quarter last year. Hospitals in the upper left quadrant have also achieved higher results than NSW but have decreased the percentage of elective surgery on time compared to the same quarter last year.

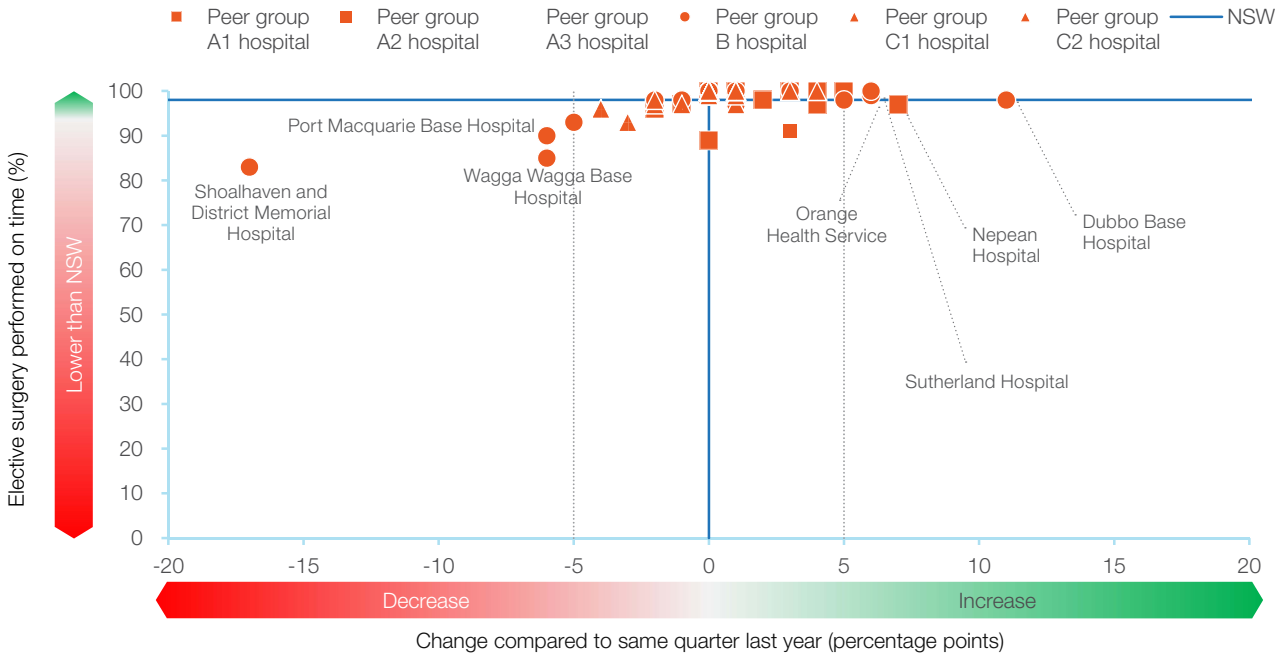
Hospitals in the lower right quadrant have results that are lower than NSW but have increased the percentage of elective surgery on time compared to the same quarter last year. Hospitals in the lower left quadrant have results lower than NSW overall and have also decreased the percentage of elective surgery on time compared to the same quarter last year.

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

This quarter, 29 out of 83 hospitals reported an increase in the percentage of surgery performed on time. Of these, four improved by more than five percentage points, including one that improved by more than 10 percentage points compared to the same quarter last year.

Fourteen hospitals reported a decrease in the percentage of surgery peformed on time. Of these, three hospitals decreased by more than five percentage points, including one that decreased by more than 10 percentage points compared to the same quarter last year (Figure 47).

Figure 47 **Percentage of elective surgery performed on time versus percentage point change since same quarter last year, hospitals by peer group, January to March 2015**



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

The percentage of elective surgery procedures performed within the recommended timeframes reached almost 100% this quarter across several specialty groups. Medical (100%), cardiothoracic surgery, ophthalmological surgery, neurosurgery and vascular surgery had the highest proportion of patients who received surgery on time (all 99%).

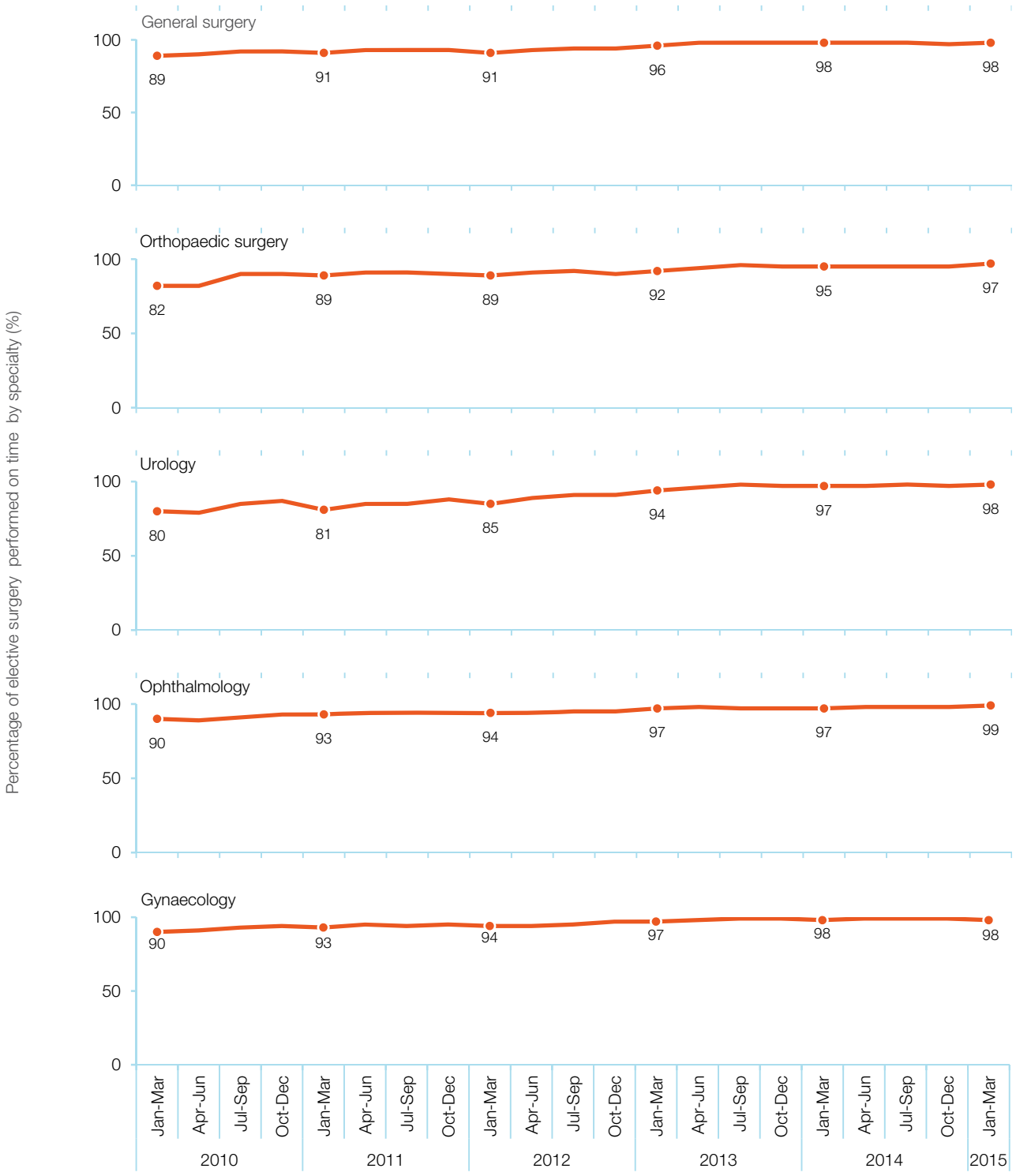
Ear, nose and throat surgery and orthopaedic surgery were the specialties with the lowest proportion of patients who received surgery on time (95% and 97% respectively) (Figure 48).

Figure 49 shows an increase over the past five years in the the percentage of elective surgery performed on time across 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 the same quarter in 2010 (an 18 and 15 percentage point increase respectively).

Figure 48 Percentage on time, elective surgery, by specialty, January to March 2015

	Patients	Percentage on time	Percentage point change since one year ago
General surgery	12,781	98%	unchanged
Orthopaedic surgery	7,664	97%	2
Urology	6,630	98%	1
Ophthalmology	6,566	99%	2
Gynaecology	6,382	98%	unchanged
Ear, nose and throat surgery	3,746	95%	2
Plastic surgery	2,126	98%	-1
Vascular surgery	1,551	99%	1
Neurosurgery	1,021	99%	3
Cardiothoracic surgery	880	99%	2
Medical	495	100%	1

Figure 49 Percentage of elective surgery performed on time, by specialty, January 2010 to March 2015



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

Is there variation by common procedure?

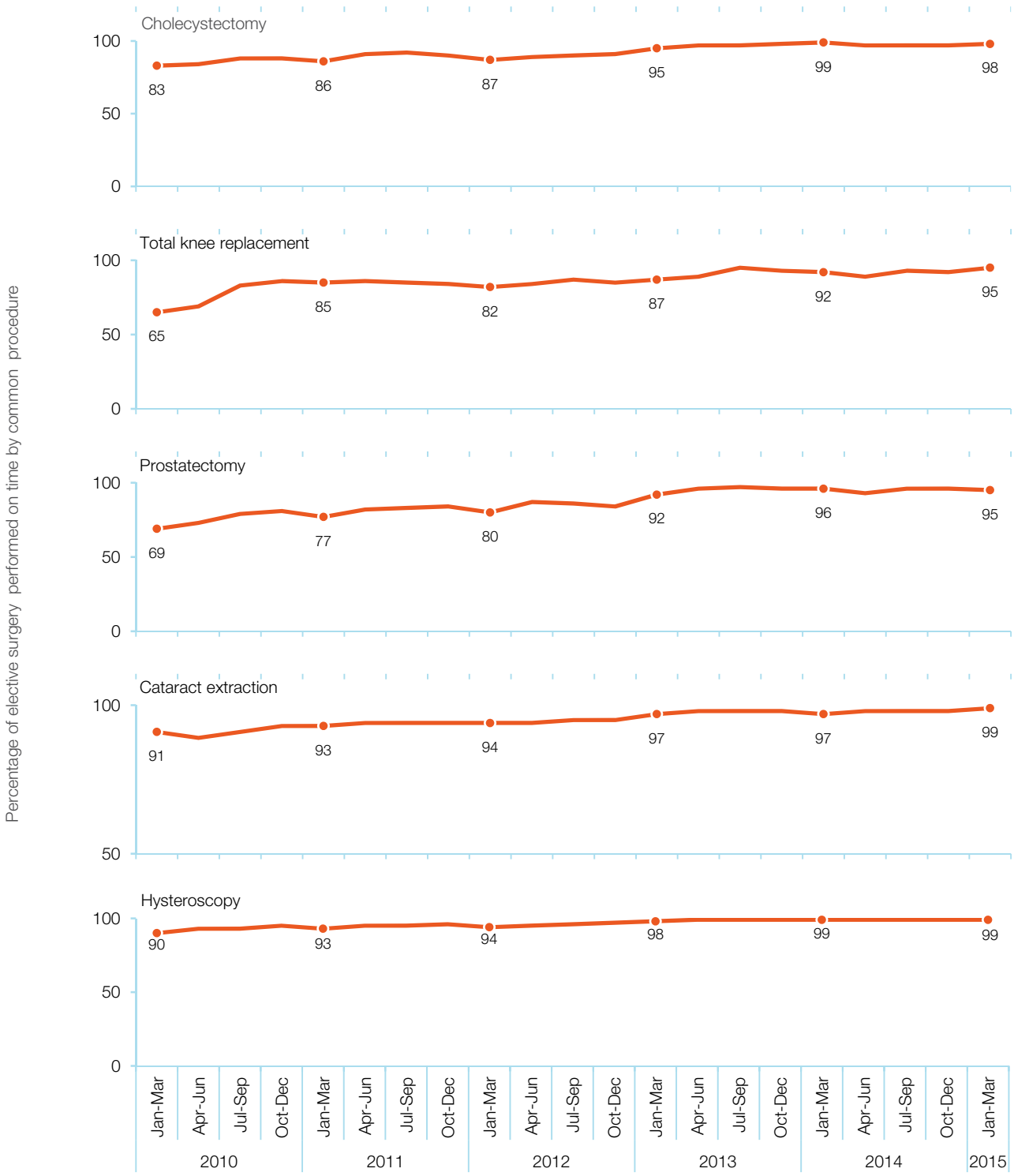
In January to March 2015, the proportion of elective surgery procedures performed within the recommended timeframes reached almost 100% across several common procedures. This included 100% of myringotomy and 99% of coronary artery bypass, haemorrhoidectomy and hysteroscopy procedures. Myringoplasty/tympanoplasty (93%), tonsillectomy (94%), total knee replacement, total hip replacement, prostatectomy, septoplasty and varicose vein stripping and ligation (all 95%) had the lowest proportion of procedures performed on time this quarter (Figure 50).

Figure 51 shows an increase over the past five years in the percentage of elective surgery procedures performed on time across key common procedures in five of the highest volume specialties. Of these common procedures, total knee replacement and prostatectomy have seen the largest increases in the percentage of procedures completed on time since the same quarter in 2010 (a 30 and 26 percentage point increase respectively).

Figure 50 Percentage on time, elective surgery, by common types of procedure, January to March 2015

	Patients	Percentage on time	Percentage point change since one year ago
Cataract extraction	5,209	99%	2
Cystoscopy	2,835	98%	unchanged
Hysteroscopy	1,933	99%	unchanged
Other - General	1,659	97%	unchanged
Cholecystectomy	1,504	98%	-1
Total knee replacement	1,441	95%	3
Inguinal herniorrhaphy	1,378	98%	1
Tonsillectomy	1,247	94%	1
Total hip replacement	793	95%	3
Prostatectomy	620	95%	-1
Abdominal hysterectomy	572	97%	-1
Septoplasty	373	95%	4
Varicose veins stripping and ligation	324	95%	unchanged
Haemorrhoidectomy	287	99%	unchanged
Coronary artery bypass graft	206	99%	4
Myringoplasty/tympanoplasty	94	93%	15
Myringotomy	62	100%	6

Figure 51 Percentage of elective surgeries performed on time, by common procedures, January 2010 to March 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: **Ready for departure time:** for patients who were treated and discharged **Actual departure time:** for all patients other than those who were treated and discharged.
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.
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

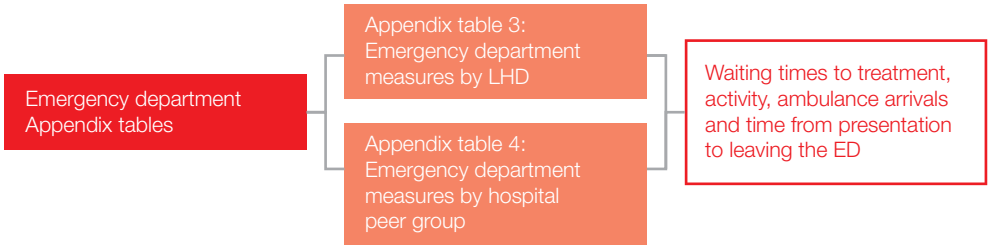
Download appendix tables by hospital peer group

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

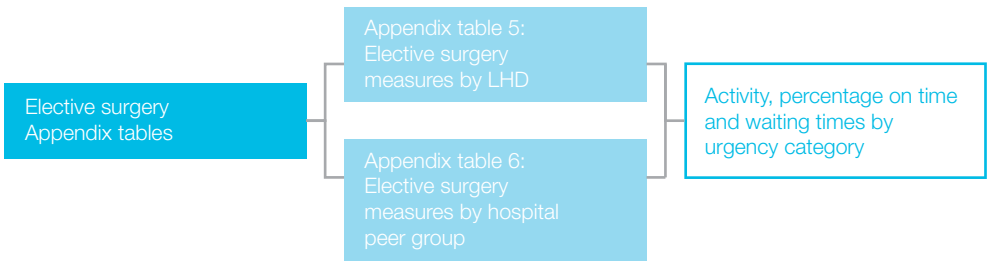


Elective surgery

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

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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.

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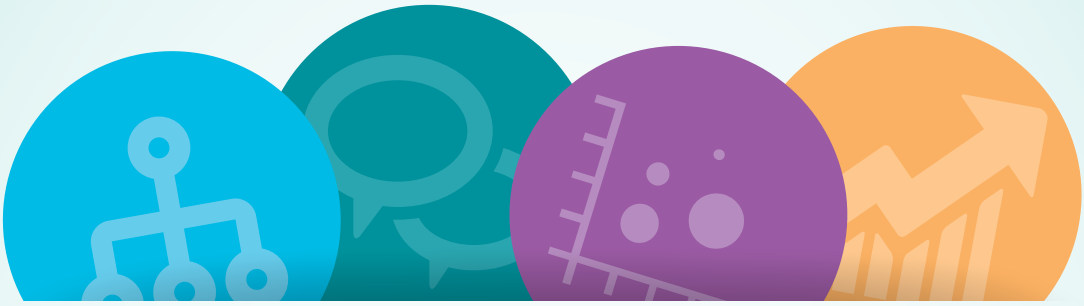

BHI's interactive portal Healthcare Observer lets you explore, analyse and download information about the performance of more than 80 NSW hospitals

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

Hospital admissions

Elective surgery

Emergency departments

Visit **www.bhi.nsw.gov.au/healthcare_observer** ▶

About the Bureau of Health Information

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.

www.bhi.nsw.gov.au

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