





Australian hospital statistics





748,000

patients were admitted to Australian public hospitals from elective surgery waiting lists in 2016–17.



22%

were admitted for **General surgery** (surgery on the abdominal organs, including breast surgery).



15%

were admitted for **Orthopaedic surgery** (surgery on bones, joints, ligaments and tendons, including knee and hip replacements).



was the average annual increase in **patients being added to public hospital elective surgery waiting lists** between 2012–13
and 2016–17 (after adjusting for the number of hospitals included).



was the average annual increase in **patients admitted from public hospital elective surgery waiting lists** between 2012–13 and 2016–17 (after adjusting for the number of hospitals included).



was the time within which **50% of all patients were** admitted from public hospital waiting lists in 2016–17.



was the time within which **90% of all patients were** admitted from public hospital waiting lists in 2016–17.



of all patients waited more than a year for their surgery in 2016–17.



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Elective surgery waiting times 2016–17

Australian hospital statistics

Australian Institute of Health and Welfare Canberra

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Abbreviations

ACT Australian Capital Territory

AIHW Australian Institute of Health and Welfare

ESWT NMDS Elective surgery waiting times (removals and census data) national

minimum data set

GP general practitioner

ICD-10-AM International Statistical Classification of Diseases and Related Health

Problems, 10th revision, Australian Modification

METeOR Metadata Online Registry

NESWTDC National Elective Surgery Waiting Times Data Collection

NHA National Healthcare Agreement

NHMD National Hospital Morbidity Database

NMDS national minimum data set

NSW New South Wales

NT Northern Territory

Qld Queensland

RACS Royal Australasian College of Surgeons

SA South Australia

Tas Tasmania

Vic Victoria

WA Western Australia

Symbols

.. not applicable

n.a. not available

n.p. not published

> greater than

< less than

Summary

Waiting times for elective surgery were reported for 259 of Australia's public hospitals in 2016–17. This report presents information on elective surgery waiting times for these public hospitals for the period 1 July 2016 to 30 June 2017, as well as comparative information for the previous 4 reporting periods.

For the first time, it includes waiting times information for a much wider range of surgical procedures than previously available—including arthroscopies, removal of skin lesions, removal or biopsy of breast lumps and carpal tunnel release surgery.

Further information on elective surgery waiting times, including comparisons for public and private health insurance patients, will be published in early 2018 when the information is available to the AIHW.

How much elective surgery was provided?

In 2016-17:

- Australia's public hospitals admitted about 748,000 patients from elective surgery waiting lists (as either elective or emergency admissions)
- the most common surgical specialties were *General surgery* (surgery on abdominal organs, including endocrine surgery and breast surgery) and *Orthopaedic surgery* (surgery on bones, joints, ligaments and tendons, including knee and hip replacements), which accounted for 22% (163,000 admissions) and 15% (113,000) of admissions from waiting lists, respectively
- the most common intended surgical procedure for admissions from public hospital elective surgery waiting lists was *Cataract extraction* (71,000 admissions).

Between 2012-13 and 2016-17:

- additions to public hospital elective surgery waiting lists (patients placed on a waiting list) increased by 3.2% on average each year. After adjusting for the number of hospitals included, it is estimated that additions would have increased by about 2.9% on average each year
- admissions from public hospital elective surgery waiting lists (patients admitted to
 hospital for the awaited surgery) increased by 2.8% on average each year. After
 adjusting for the number of hospitals included, it is estimated that admissions would have
 increased by about 2.0% each year
- admissions per 1,000 population increased by 1.2% on average each year. After adjusting for the number of hospitals included, it is estimated that admissions per 1,000 population would have increased by about 0.9% each year
- there were relatively large annual average increases in admissions for Cystoscopy (5.0% per year) and Total hip replacement (4.4% per year). Over the same period, admissions for Varicose veins treatment decreased by 2.6% on average each year.

How long did patients wait for surgery?

In 2016-17:

- across the states and territories, the median waiting time (the time within which 50% of all patients were admitted) ranged from 28 days in the Northern Territory to 54 days in New South Wales
- the surgical specialties with the longest median waiting times were Ophthalmology surgery (73 days), Otolaryngology, head and neck surgery (70 days), and Orthopaedic surgery (69 days). Cardiothoracic surgery had the shortest median waiting times (16 days)
- Coronary artery bypass graft was the intended surgical procedure with the shortest median waiting time (13 days), and Septoplasty (to fix a deviated nasal septum) had the longest (209 days)
- the median waiting time for Indigenous Australians (45 days) was higher than for other Australians (38 days)
- a higher proportion of Indigenous Australians waited more than a year for elective surgery than other Australians (2.0% and 1.7%, respectively).

Between 2012-13 and 2016-17:

- the overall median waiting time tended to increase. In 2016–17, the median waiting time was 38 days—compared with 36 days in both 2012–13 and 2013–14, 35 days in 2014–15, and 37 days in 2015–16
- the 90th percentile waiting time decreased from 265 days to 258 days
- the proportion of patients who waited longer than 365 days to be admitted for their procedure generally decreased from 2.7% to 1.7%.

1 Introduction

Elective surgery waiting times 2016–17: Australian hospital statistics focuses on information about public hospital elective surgery waiting lists. It continues the Australian Institute of Health and Welfare's (AIHW) Australian hospital statistics series of annual reports describing the characteristics and activity of Australia's hospitals.

This report presents information on elective surgery waiting times for public hospitals for the period 1 July 2016 to 30 June 2017. It includes information on overall activity and nationally agreed performance indicators for waiting times. It also includes comparative information for the previous 4 reporting periods.

The release of this report is accompanied by a report on hospital-associated *Staphylococcus* aureus bacteraemia cases—Staphylococcus aureus bacteraemia in Australian hospitals 2016–17: Australian hospital statistics.

A report on emergency department care data for the same period *Emergency department* care 2016–17: Australian hospital statistics (AIHW 2017c) was released in November 2017, which presented emergency department care data for the same period. Reports on care provided for admitted patients, non-admitted patients and on hospital resources for 2016–17, and a summary overview of Australia's hospitals for 2016–17 will be published in early 2018.

Admitted patient care 2016–17: Australian hospital statistics will present additional information about surgery in Australia's hospitals not available for this report. Information on all elective and emergency admissions involving surgery (including those in private hospitals), the age and sex of the patient, as well as the remoteness and the socioeconomic status of their area of usual residence, will be included.

1.1 What's in this report?

Structure of the report

This introductory chapter provides contextual information on the data reported and their limitations, along with a description of the key terms used. Other chapters present information on the following subjects:

- 'Chapter 2 How much elective surgery was provided?'—presents information on the number of hospitals reporting elective surgery activity and the numbers of patients added to, or removed from, elective surgery waiting lists.
- 'Chapter 3 What elective surgery was provided?'—presents information on admissions by the specialty of the surgeon and for selected surgical procedures.
- 'Chapter 4 How long did people wait for elective surgery?'—presents performance indicator information on how long patients waited for elective surgery in public hospitals, median and 90th percentile waiting times and how waiting times differed by clinical urgency category.
- 'Chapter 5 What was the safety and quality of the care?'—presents information on adverse events and unplanned readmissions following admission for elective surgery.

Where possible these chapters present information on:

- changes over time
- activity in 2016–17

where to go for more information.

Appendix A presents data quality information. It includes information on apparent variations in the reporting of the data used in this report and on the quality of Indigenous identification.

Appendix B presents technical notes on the methods used in this report.

Appendix C includes information on the public hospital peer groups used in this report.

The Glossary defines many of the common terms used in this report.

Hospital performance indicators

Performance measurement is an important way in which we assess the health of our population and the success of health services and of the health system (AIHW 2016a).

Performance indicators are defined as statistics or other units of information that, directly or indirectly, reflect either the extent to which an expected outcome is achieved or the quality of the processes leading to that outcome (NHPC 2001).

This report presents data on the following National Healthcare Agreement (NHA) performance indicator relevant to elective surgery waiting times:

 Waiting times for elective surgery—waiting time in days—see 'Chapter 4 How long did people wait for elective surgery?'

It also includes information for the following safety and quality indicators previously reported under the National Health Reform Agreement:

- adverse events following admission for elective surgery—see 'Chapter 5 What was the safety and quality of care?'
- readmissions following admission for elective surgery—see 'Chapter 5 What was the safety and quality of care?'

1.2 What data are reported?

This section presents information on the data used in this report and their limitations, and a summary of the key terms used throughout the report.

National Elective Surgery Waiting Times Data Collection

The AIHW has undertaken the collection and reporting of the data in this report under the auspices of the Australian Health Ministers' Advisory Council, through the National Health Information Agreement.

The data supplied by state and territory health authorities were used by the AIHW to assemble the National Elective Surgery Waiting Times Data Collection (NESWTDC), covering waiting times and other characteristics of elective surgery in all public hospitals.

The NESWTDC covers most public hospitals that undertake elective surgery. Hospitals that were not included may not undertake elective surgery, may not have had waiting lists, or may have had different waiting list characteristics from those of reporting hospitals. Some smaller remote hospitals may have different patterns of service delivery to those of other hospitals because specialists providing elective surgery services visit these hospitals only periodically.

Detailed information about the AIHW's NESWTDC is in the Data Quality Statement, which is summarised in Appendix A and accompanies this report online at <www.aihw.gov.au>.

Changes in the national minimum data set between 2015–16 and 2016–17

Before 2016–17, the elective surgery waiting list data were reported to two separate national minimum data sets (NMDSs), which are available on the AIHW's Metadata Online Register (METeOR):

- Elective surgery waiting times (census data) NMDS—which included patients on waiting lists for elective surgery who were yet to be admitted to hospital or removed for another reason (see METeOR identifier 600059).
- Elective surgery waiting times (removals data) NMDS—which included patients removed from waiting lists for elective surgery (for admission or another reason) (see METeOR identifier 600056).

From 1 July 2016, the Elective surgery waiting times NMDS comprises both removals and census data—that is, patients on, or removed from, elective surgery waiting lists (see METeOR identifier 623795).

Intended procedures

Before 2016–17, information about the surgical procedure for which the patient was waiting was collected using the data element *Elective surgery waiting list episode—indicator procedure* (indicator procedure) (METeOR identifier 514033). The indicator procedure data element included 15 specific procedures, and an 'other' category, and was used in the reporting of national performance indicators and other statistics.

From 1 July 2016, surgical procedure information is collected using the data element *Elective* surgery waiting list episode—intended procedure (intended procedure) (METeOR identifier 637500). The intended procedure data element contains 152 specific procedures (including all of the previous 'indicator procedures'), and an 'other' category.

The following *Intended procedures* are considered to be equivalent to the corresponding *Indicator procedures*:

- Cataract extraction (with or without intra-ocular lens insertion)
- Cholecystectomy (open/laparoscopic)
- Coronary artery bypass grafting
- Cystoscopy
- Hysterectomy (abdominal/vaginal/laparoscopic)
- Prostatectomy
- Tonsillectomy (with/without adenoidectomy).

In addition, *Myringotomy* (without insertion of grommets) and *Pressure equalising tubes—insertion of*, combined, are considered to be equivalent to the indicator procedure *Myringotomy*.

There are some minor differences between the following Intended procedures and the corresponding Indicator procedures:

- Inguinal herniotomy/herniorrhaphy
- Total hip replacement
- Total knee replacement
- Varicose veins treatment.

There was some variation in the reporting of intended procedures among jurisdictions, which indicates that the data element was not completely implemented, or that there are

differences among jurisdictions in the types of procedures that are managed through elective surgery waiting lists. See Table 3.5 and additional material accompanying this report online.

For 2016–17, the majority of states and territories provided some patient counts for most of the 152 intended procedures. For Tasmania, 96 of the 152 intended procedures were not reported and for New South Wales, 29 were not reported. About 29.0% of intended procedures were categorised as 'Other'; and this varied among jurisdictions, ranging from 24.4% in Victoria to 46.8% in Tasmania.

Therefore, the data by intended procedure for jurisdictions that did not report against all intended procedure categories may not be comparable with the data provided by other jurisdictions.

Surgical specialties

Before 2016–17, information about the specialty of the surgeon who was to perform the procedure was collected using the data element *Elective surgery waiting list episode—surgical specialty* (of scheduled doctor) (METeOR identifier 270146). It included 10 specific surgical specialties, and an 'other' category.

From 1 July 2016, the surgical specialty data element was revised to include *Paediatric surgery*, and some surgical specialties were relabelled (METeOR identifier 605195). The revised surgical speciality data element now contains 11 specific surgical specialties, and an 'other' category.

In previous years, records for which the surgical specialty may have been *Paediatric surgery* would have been allocated to another surgical specialty or as 'Other' (surgical specialty other than one of the 10 specified specialties). Therefore, the data for 2016–17 are not comparable with data presented for earlier years.

Use of the *Paediatric surgery* category varied among jurisdictions:

- Paediatric surgery was reported by Western Australia, South Australia, Tasmania and the Australian Capital Territory.
- Paediatric surgery was not reported by New South Wales, Victoria, Queensland and the Northern Territory.

Therefore, the data by surgical specialty for jurisdictions that did report *Paediatric surgery* are not comparable with the data provided by jurisdictions that did not report *Paediatric surgery*, and changes over time are reported separately in this report.

What are the limitations of the data?

Overall, the quality of the data in the NESWTDC is sufficient for them to be published in this report. However, the limitations of the data should be taken into consideration when they are interpreted.

States and territories are primarily responsible for the quality of the data they provide. However, the AIHW undertakes extensive validations on receipt of data, checking for valid values, logical consistency and historical consistency. Where possible, data in individual data sets are checked against data from other data sets. Potential errors are queried with jurisdictions, and corrections and resubmissions may be made in response to these queries. Except as noted, the AIHW does not adjust data to account for possible data errors or missing or incorrect values.

Comparisons between states and territories and reporting years should be made with reference to the accompanying notes in the chapters and in appendixes.

Caution should be used when interpreting the data presented in this report, as they have not been confirmed against the data on elective surgery in the National Hospital Morbidity Database (NHMD) because those data are not yet available. The NHMD includes information on patient characteristics and on the procedures performed, which can be used to check the data in the NESWTDC. These data will be reported in early 2018.

How has data coverage changed over time?

For the purposes of this report, the coverage of the NESWTDC is estimated by comparing admissions for elective surgery reported to the NESWTDC with elective surgical separations reported to the NHMD, expressed as a percentage. For more information on elective surgical separations and the estimate of coverage, see Appendix B.

The coverage of the data collection has fluctuated between 92% and 95% over the last 5 years. Coverage was highest for *Principal referral and women's and children's hospitals* and for *Public acute group A* and *Public acute group B hospitals* (Table 1.1).

As 2016–17 NHMD data are not yet available, the estimates of the coverage are preliminary, based on 2015–16 NHMD data. For 2016–17, the preliminary estimate of public hospital elective surgery covered by the NESWTDC was 95%. The estimated coverage was 100% in New South Wales, Queensland, Western Australia, Tasmania, the Australian Capital Territory and the Northern Territory. For Victoria and South Australia, the majority of public hospital elective surgery was covered by the NESWTDC (85% and 97%, respectively) (Table 1.2).

Changes in reporting

For New South Wales:

• Bulli Hospital, Temora Hospital and Pambula District Hospital ceased providing elective surgery from 2016–17. Combined, these hospitals reported about 400 admissions from elective surgery waiting lists in 2015–16. This does not constitute a change in coverage.

For Victoria:

- the Wodonga and Warnambool hospitals reported elective surgery data for the first time in 2016–17. This constituted a change in coverage
- for 2015–16, the Women's Hospital at Sandringham reported elective surgery data separately; in previous years, these data were reported with elective surgery data for the Royal Women's Hospital. This change in organisational arrangements did not represent an increase in coverage.

For Queensland:

- the Sunshine Coast University Hospital opened in March 2017, but this did not constitute a change in coverage, as elective surgery services were previously provided by a number of smaller hospitals in the region, which reported data for the NESWTDC
- for 2015–16, data for an additional 18 smaller hospitals were reported for the first time.
 This constituted a change in coverage as the activity was previously not reported for the NESWTDC
- the Lady Cilento Children's Hospital opened in November 2014, replacing the Royal Children's Hospital and the Mater Children's Hospital. The Lady Cilento Children's Hospital and the Royal Children's Hospital are both included in the 2014–15 data. This did not constitute a change in coverage
- for 2012–13 and 2014–15, data were not provided for 2 hospitals (which reported about 9,300 admissions (combined) from elective surgery waiting lists in 2015–16) and

5 months of data for a third hospital (which closed in late 2014 and had reported about 3,700 admissions in 2013–14). The 3 hospitals comprised 2 *Principal referral and women's and children's hospitals* and 1 *Public acute group A hospital.* These periods of missing data constituted changes in coverage.

For Western Australia:

- the Fiona Stanley Hospital opened in October 2014, replacing the Royal Perth Hospital (Shenton Park campus) and Kaleeya Hospital. All 3 of these hospitals are included for 2014–15 in tables 2.1 and 2.2
- in November 2015, the St John of God Midland Public Hospital opened, replacing the Swan District Hospital, and both hospitals are included for 2015–16 in tables 2.1 and 2.2
- all of these changes in organisational arrangements for Western Australia did not represent an increase in coverage over this period.

For South Australia, 3 small hospitals ceased providing elective surgery between 2012–13 and 2015–16. This did not represent a decrease in coverage.

A list of all public hospitals contributing to this report is available in Table S1.1, which accompanies this report online at <www.aihw.gov.au/hospitals>.

Table 1.1: Estimated proportion (%) of elective surgery reported to the NESWTDC, by public hospital peer group, 2012–13 to 2016–17

Hospital peer group	2012–13	2013–14	2014–15	2015–16 ^(a)	2016-17 ^(b)
Principal referral and women's and children's hospitals	100	100	99	97	100
Public acute group A hospitals	96	96	94	94	97
Public acute group B hospitals	96	96	96	96	99
Other hospitals ^(c)	75	75	71	75	76
Total	94	94	92	93	95

⁽a) For 2015–16, excludes data for the Australian Capital Territory from the numerator only.

Note: See appendixes A, B and C for notes on data limitations and methods.

Table 1.2: Estimated proportion (%) of elective surgery reported to the NESWTDC, states and territories, 2012–13 to 2016–17

State/territory	2012–13	2013–14	2014–15	2015-16 ^(a)	2016–17
New South Wales	100	100	100	100	100
Victoria	79	80	80	81	85
Queensland	98	98	91	100	100
Western Australia	100	100	100	100	100
South Australia	97	96	97	97	97
Tasmania	100	100	100	100	100
Australian Capital Territory	100	100	100	n.a.	100
Northern Territory	100	100	100	100	100
Total	94	94	92	93	95

⁽a) For 2015–16, excludes data for the Australian Capital Territory from the numerator only.

Note: See appendixes A and B for notes on data limitations and methods.

⁽b) Coverage estimate is preliminary, based on comparison with admitted patient data reported for 2015–16.

⁽c) Includes hospitals not included in the specified hospital peer groups. See Appendix C for details.

1.3 What terms and methods are used?

This section briefly describes of some of the terms and methods used in this report. For more information, see Appendix B and the Glossary.

Terms

For the NESWTDC, **surgery** is where the procedures required by patients are listed in the surgical operations section of the Medicare Benefits Schedule, excluding specific procedures frequently done by non-surgical clinicians (AIHW 2012; METeOR id: 604410).

Elective surgery describes planned surgery that can be booked in advance as a result of a specialist clinical assessment, resulting in placement on an elective surgery waiting list (METeOR id: 568780).

The term **admissions from elective surgery waiting lists** has been used to describe episodes for patients who were admitted for elective surgery as either an elective or emergency admission.

The **waiting times** data presented in this report represent the time elapsed (in days) for a patient on the elective surgery waiting list from the date they were added to the waiting list for the procedure to the date they were removed from the waiting list.

The number of days waited does not include days when the patient was not ready for care or the time waited for the initial appointment with the specialist after referral by the patient's general practitioner (GP).

Changes over time

Tables presenting the numbers of admissions from elective surgery waiting lists over time show the average annual changes from 2012–13 to 2016–17 and from 2015–16 to 2016–17.

The rate of annual change between 2015–16 and 2016–17 for counts of additions, admissions and other removals presented in time series tables have excluded the Australian Capital Territory data, as the 2015–16 data for this jurisdiction were not available at the time of publication. The rates were not adjusted for other changes in data coverage, except where noted in the text, as described in Section 1.2.

Public hospital peer groups

Public hospital peer groups are used to classify hospitals that share similar characteristics, as a basis for meaningful comparisons.

This report presents analyses by hospital peer group, including the NHA performance indicator *Waiting times for elective surgery—waiting time in days*, using the AIHW's *Australian hospital statistics* peer group classification as detailed in *Australian hospital peer groups* (AIHW 2015a) and Appendix C. The Steering Committee for the Review of Government Service Provision will also use these peer groups for reporting against the NHA performance indicator in the *Report on government services 2018*.

In earlier reports, this information was presented using the previous peer group classification. Therefore, the data presented here by public hospital peer group are not directly comparable with those presented in AIHW reports before 2014–15.

1.4 Additional information

This report is available on the AIHW website at <www.aihw.gov.au/hospitals> in PDF format and all tables are available as downloadable Excel spreadsheets. Additional information for all reported intended surgical procedures is included in online tables accompanying this report.

MyHospitals

Elective surgery performance information for individual public hospitals is available on the AIHW's *MyHospitals* website: http://www.myhospitals.gov.au/>.

The information is presented for all surgeries combined and also grouped by specialty of surgeon and presented for selected intended procedures. Reported measures include:

- median waiting time
- percentage of patients who received their surgery within the recommended time
- percentage of patients who waited longer than 365 days.

The website includes changes in these performance measures over the past 6 years and comparisons with the performance of the hospital peer group.

Although the peer groupings used in this report and on the *MyHospitals* website are based on the same peer grouping classification (AIHW 2015a), there are some differences in the names and the groupings. For example, *Principal referral* hospitals are described as *Major hospitals* on the *MyHospitals* web site. For an explanation of these differences see http://www.myhospitals.gov.au/about-the-data.

Interactive data

Also on the AIHW website are interactive data from the NESWTDC, including summary statistics for elective surgery waiting times by reason for removal, surgical specialty and surgical procedure.

Updates

Online tables are updated in the event of errors being found in the report after publication.

Where to go for more information

More information on Australia's public hospitals is available in:

- Emergency department care 2016–17: Australian hospital statistics (AIHW 2017c)
- Staphylococcus aureus bacteraemia in Australia's hospitals 2016–17: Australian hospital statistics (AIHW 2017f)
- Admitted patient care 2015–16: Australian hospital statistics (AIHW 2017a)
- Australia's hospitals 2015–16: at a glance (AIHW 2017b)
- Hospital resources 2015–16: Australian hospital statistics (AIHW 2017d)
- Non-admitted patient care 2015–16: Australian hospital statistics (AIHW 2017e).

2 How much elective surgery was provided?

This chapter presents information on additions to and removals from public hospital elective surgery waiting lists in 2016–17, as well as information for the 4 previous periods. It includes:

- the number and type of public hospitals that admitted patients from elective surgery waiting lists
- the number of patients added to and removed from waiting lists
- the number of patients admitted for their awaited procedure.

The term 'admissions from elective surgery waiting lists' describes episodes for patients whose reason for removal from a waiting list was either Admitted as an elective patient for the awaited procedure by or on behalf of this hospital or state/territory or Admitted as an emergency patient for the awaited procedure by or on behalf of this hospital or state/territory.

This chapter does not include information related to total elective surgery activity in public and private hospitals or information on patient characteristics and diagnoses sourced from the NHMD, which will be presented in *Admitted patient care 2016–17: Australian hospital statistics* (to be published in early 2018).

Key findings

How many hospitals provided elective surgery?

In 2016–17, 259 of Australia's public hospitals reported admissions from elective surgery waiting lists to the NESWTDC. These included the major public hospitals in each state and territory, classified as *Principal referral and women's and children's hospitals* and *Public acute group A hospitals*, as well as other hospitals located in regional and remote areas.

How many additions to and removals from waiting lists were there?

In 2016–17, about 866,000 patients were added to and 867,000 patients removed from public hospital elective surgery waiting lists. Most patients (86%) removed from waiting lists were admitted for their awaited procedure; some patients were removed for other reasons.

How many admissions were reported?

In 2016–17, Australia's public hospitals admitted about 748,000 patients from elective surgery waiting lists as either elective or emergency admissions. *Principal referral and women's and children's hospitals* and *Public acute group A hospitals* accounted for three-guarters of these admissions (40% and 35%, respectively).

Between 2012–13 and 2016–17, the number of admissions from public hospital elective surgery waiting lists increased by 2.8% on average each year. After adjusting for changes in reporting for Victoria and Queensland it is estimated that admissions increased by 2.0%, on average, each year. After adjusting for changes in coverage for Victoria and the Australian Capital Territory, admissions increased by 1.6% between 2015–16 and 2016–17.

Between 2012–13 and 2016–17, admissions per 1,000 population were relatively stable, ranging between 29.2 and 30.7 per 1,000 (rising by 1.2% on average each year). After adjusting for coverage changes in Victoria and Queensland, it is estimated that admissions per 1,000 population would have increased by about 0.9% each year.

2.1 How many public hospitals provided elective surgery?

This section presents information on the number of public hospitals that reported admissions from elective surgery waiting lists, over time and for 2016–17.

Changes over time

Between 2015–16 and 2016–17, there was no overall change in the number of public hospitals that reported admissions from elective surgery waiting lists (Table 2.1).

However, there were changes in the numbers of hospitals reporting for individual jurisdictions. The number of reporting hospitals decreased in New South Wales and increased in Victoria and Queensland (Table 2.2). For more information on changes in reporting, see Section 1.2.

The numbers of hospitals reported here may underestimate the number of hospitals with elective surgery waiting lists, because the coverage of the data collection is incomplete, as detailed in Section 1.2.

Table 2.1: Number of hospitals reporting admissions from waiting lists for elective surgery, by public hospital peer group, 2012–13 to 2016–17

Hospital peer group	2012–13	2013–14	2014–15	2015-16 ^(a)	2016–17
Principal referral and women's and children's hospitals	39	39	40	41	43
Public acute group A hospitals	59	59	58	59	60
Public acute group B hospitals	42	42	42	42	43
Other hospitals ^(b)	106	104	101	117	113
Total	246	244	241	259	259

⁽a) Includes public hospitals for the Australian Capital Territory, for which 2015–16 data were not available at the time of publication. Interpretation of all changes over time presented in this report should take into account changes in coverage as noted in Section 1.2.

⁽b) Includes hospitals not included in the specified hospital peer groups. See Appendix C for details.

Table 2.2: Number of hospitals reporting admissions from waiting lists for elective surgery, states and territories, 2012–13 to 2016–17

State/territory	2012–13	2013–14	2014–15	2015-16 ^(a)	2016–17
New South Wales ^(b)	96	96	95	96	93
Victoria ^(c)	32	32	32	33	35
Queensland ^(d)	33	33	31	50	51
Western Australia ^(e)	35	34	35	33	33
South Australia ^(f)	39	38	37	36	36
Tasmania	4	4	4	4	4
Australian Capital Territory	2	2	2	2	2
Northern Territory	5	5	5	5	5
Total	246	244	241	259	259

⁽a) Includes public hospitals for the Australian Capital Territory, for which 2015–16 data were not available at the time of publication.

Interpretation of all changes over time presented in this report should take into account changes in coverage as noted in Section 1.2.

Hospitals reporting elective surgery in 2016–17

In 2016–17, admissions from elective surgery waiting lists were provided by:

- all 43 *Principal referral and women's and children's hospitals* (Table 2.3)—these are mainly located in *Major cities* and provide a very broad range of specialist services
- 60 of the 62 *Public acute group A hospitals*—about half of these hospitals are located in regional and remote areas and provide a wide range of specialist services
- 43 of the 45 *Public acute group B hospitals*—these provide a narrower range of services than *Principal referral and women's and children's hospitals* and *Public acute group A hospitals*.

Admissions from elective surgery waiting lists were also reported for 113 other hospitals. For more information on public hospital peer groups, see Appendix C.

Table 2.3: Number of hospitals providing admissions from public hospital elective surgery waiting lists, by public hospital peer group, states and territories, 2016–17

Hospital peer group	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Principal referral and women's and children's hospitals	14	10	8	5	3	1	1	1	43
Public acute group A hospitals	22	13	12	5	4	2	1	1	60
Public acute group B hospitals	17	8	8	5	4	1			43
Other hospitals	40	4	23	18	25	0	0	3	113
Total	93	35	51	33	36	4	2	5	259

⁽b) For New South Wales, 3 small hospitals ceased providing elective surgery between 2015-16 and 2016-17.

⁽c) From 2015–16 for Victoria, the Women's Hospital at Sandringham reported elective surgery data separately, whereas in previous years these data were reported with elective surgery data for the Royal Women's Hospital. Wodonga Hospital and Warnambool Hospital reported elective surgery data for the first time in 2016–17.

⁽d) For 2012–13 and 2014–15, Queensland did not provide data for 3 hospitals and these hospitals reported data for only 3 of the 4 quarterly periods in 2012–13. The Lady Cilento Children's Hospital in Queensland opened in November 2014, replacing the Royal Children's Hospital and the Mater Children's Hospital. For 2014–15, the Lady Cilento Children's Hospital and the Royal Children's Hospital are both included in this table. For 2015–16, Queensland provided data for an additional 18 small hospitals which accounted for about 3,000 admissions from waiting lists. The Sunshine Coast University Hospital opened in March 2017.

⁽e) During 2014–15, Kaleeya Hospital and Royal Perth Hospital Shenton Park Campus closed, and Fiona Stanley Hospital opened; all three hospitals were reported for 2014–15. In 2015–16, Swan District Hospital closed and St John of God Midland Public Hospital opened; data for these hospitals were combined in reporting for 2015–16.

⁽f) For South Australia, 3 small hospitals ceased providing elective surgery between 2012-13 and 2015-16.

2.2 How many patients were added to or removed from elective surgery waiting lists?

This section presents information on the numbers of additions to and removals from elective surgery waiting lists, for 2016–17 and over time. Interpretation of changes over time should take into account changes in coverage as noted in Section 1.2.

Changes over time

Between 2012–13 and 2016–17, the number of additions to public hospital elective surgery waiting lists increased by an average of 3.2% each year; it increased by 5.5% between 2015–16 and 2016–17 (Table 2.4). After adjusting for the changes in coverage for Victoria and Queensland, additions were estimated to have increased by 2.9% on average each year.

Between 2012–13 and 2016–17, the number of removals from public hospital elective surgery waiting lists increased by an average of 2.8% each year. After adjusting for the changes in coverage for Victoria and Queensland, removals were estimated to have increased by 2.5% on average each year.

Between 2015–16 and 2016–17, the number of removals from public hospital elective surgery waiting lists increased by an average of 4.7% each year. After adjusting for changes in coverage for Victoria and the Australian Capital Territory, removals were estimated to have increased by 1.6%.

Table 2.4: Numbers of additions to, and removals from, public hospital elective surgery waiting lists, 2012-13 to $2016-17^{(a)}$

						Change	(%) ^(a)
	2012–13	2013–14	2014–15	2015–16 ^(b)	2016–17	Average since 2012–13	Since 2015–16
Additions	763,358	794,401	810,223	820,825	866,363	3.2	5.5
Removals							
Admissions							
Elective admission	667,294	695,099	693,486	707,039	743,231	2.7	5.1
Emergency admission	3,739	3,924	4,107	4,815	4,860	6.8	0.9
Total admissions	671,033	699,023	697,593	711,854	748,091	2.8	5.1
Other reasons for removal							
Not contactable/died	7,504	7,868	7,311	7,295	7,554	0.2	3.6
Treated elsewhere	20,622	21,944	21,502	23,214	21,697	1.3	-6.5
Surgery not required	61,370	65,029	62,470	65,701	69,506	3.2	5.8
Transferred	11,609	15,177	16,412	15,622	15,827	8.1	1.3
Not reported	4,384	4,595	3,838	3,896	4,077	-1.8	4.6
Total removals	776,522	813,636	809,126	827,582	866,752	2.8	4.7

⁽a) Interpretation of changes over time should take into account changes in coverage as noted in Section 1.2.

 $[\]begin{tabular}{ll} \textbf{(b)} & \textbf{Excludes data for the Australian Capital Territory, which were not available at the time of publication.} \end{tabular}$

Additions and removals in 2016-17

In 2016–17, there were around 866,000 additions to elective surgery waiting lists and about 867,000 removals (Table 2.5). Most patients were admitted for the awaited procedure after waiting; however, about 14% of patients were removed from waiting lists for other reasons:

- 69,500 (8%) were removed for Surgery not required or declined
- 21,700 patients (3%) were removed from waiting lists because they were Treated elsewhere
- 15,800 patients (2%) were *Transferred to another hospital's waiting list*—these patients could appear as more than 1 addition and/or more than 1 removal during the year.

There was some variation in the proportion of patients *Transferred to another hospital's waiting list*, ranging from 0.4% in Tasmania to 5.0% in Queensland. The Northern Territory did not report the number of patients who were *Transferred to another hospital's waiting list*.

Where to go for more information

Information on time to removal from waiting list by reason for removal is available in 'Table S4.1: Additions to waiting lists, and waiting time statistics for patients removed from waiting lists, by reason for removal, states and territories, 2016–17', which accompanies this report online.

Information on data limitations and methods is available in appendixes A and B.

Table 2.5: Numbers of additions to, and removals from, public hospital elective surgery waiting lists, by reason for removal, states and territories, 2016–17

	NSW	Vic	QLD	WA	SA	Tas	ACT	NT	Total
Additions	251,641	222,271	176,812	101,428	67,550	21,180	15,571	9,910	866,363
Removals									
Elective admission	221,354	195,693	141,749	86,095	58,253	19,093	12,784	8,210	743,231
Emergency admission	1,539	393	1,698	652	402	94	42	40	4,860
Total admissions	222,893	196,086	143,447	86,747	58,655	19,187	12,826	8,250	748,091
Other reasons for removal									
Not contactable/died	2,206	2,436	507	1,096	770	204	134	201	7,554
Treated elsewhere	11,910	3,285	2,073	2,062	1,493	390	360	124	21,697
Surgery not required or declined	18,973	20,155	14,907	8,251	3,619	1,234	1,029	1,338	69,506
Transferred to another hospital's waiting list	0	2,118	8,511	3,316	1,541	95	246	n.a.	15,827
Not reported	0	363	145	1,536	1,251	564	199	19	4,077
Total removals	255,982	224,443	169,590	103,008	67,329	21,674	14,794	9,932	866,752

2.3 How many admissions were there from waiting lists?

This section presents the number of admissions from public hospital elective surgery waiting lists, over time and for 2016–17, as collected in the NESWTDC.

Changes over time

Between 2012–13 and 2016–17, the number of admissions from public hospital elective surgery waiting lists increased by an average of 2.8% each year, and by 5.1% between 2015–16 and 2016–17 (Table 2.6). After adjusting for changes in coverage for Victoria and Queensland, admissions were estimated to have increased by 2.0% on average each year.

The majority of public hospital elective surgery is performed in the larger public hospitals. Between 2012–13 and 2016–17, three-quarters of admissions from elective surgery waiting lists each year were reported for *Principal referral and women's and children's hospitals* and *Public acute group A hospitals*.

Table 2.6: Admissions from public hospital elective surgery waiting lists, by public hospital peer group, 2012–13 to 2016–17

						Change	(%) ^(a)	
Hospital peer group	2012–13	2013–14	2014–15	2015–16 ^(b)	2016–17	Average since 2012–13	Since 2015–16	
Principal referral and women's and children's hospitals	268,191	277,675	279,804	281,661	299,248	2.8	6.2	
Public acute group A hospitals	230,300	242,192	243,896	251,897	263,992	3.5	4.8	
Public acute group B hospitals	95,018	100,104	101,222	101,802	107,971	3.2	6.1	
Other hospitals	77,524	79,052	72,671	76,494	76,880	-0.2	0.5	
Total	671,033	699,023	697,593	711,854	748,091	2.8	5.1	

⁽a) Interpretation of changes over time should take into account changes in coverage as noted in Section 1.2.

Note: See Section 1.2 and appendixes A, B and C for notes on data limitations and methods.

Between 2012–13 and 2016–17, the number of admissions from elective surgery waiting lists increased in all states and territories except South Australia (Table 2.7). For Queensland, the increase was 3.1%; after adjusting for coverage changes in 2014–15, it was estimated to be about 2.4% each year.

Between 2015–16 and 2016–17, admissions for elective surgery increased in several states and territories:

- the largest increase was in Victoria (9.6%). After adjusting for a change in coverage, admissions in Victoria increased by about 4.0%
- admissions for elective surgery for South Australia decreased by 1.8%
- after adjusting for coverage changes, admissions for elective surgery in Queensland decreased by about 0.2%.

Between 2012–13 and 2016–17, admissions per 1,000 population were relatively stable, between 29.2 to 30.7 per 1,000 (increasing by 1.2% on average each year) (Table 2.7). After adjusting for coverage changes in Victoria and Queensland, it is estimated that admissions per 1,000 would have increased by about 0.9% each year.

⁽b) Excludes data for the Australian Capital Territory, which were not available at the time of publication.

Table 2.7: Admissions from public hospital elective surgery waiting lists, states and territories, 2012–13 to 2016–17

						Change	e (%) ^(a)
	2012–13	2013–14	2014_15	2015–16 ^(b)	2016–17	Average since 2012–13	Since 2015–16
New South Wales	2012 10	2010 14	2014 10	2010 10	2010 17	2012 10	2010 10
Number of admissions	213,799	216,675	217,727	217,817	222,893	1.0	2.3
Admissions per 1,000 population ^(c)	29.1	29.0	28.8	28.4	28.6	-0.4	0.8
Victoria							
Number of admissions ^(d)	153,415	170,314	173,307	178,932	196,086	6.3	9.6
Admissions per 1,000 population ^(c)	26.9	29.2	29.0	29.3	31.4	4.0	7.0
Queensland							
Number of admissions	119,767	127,494	126,275	141,250	143,447	4.6	1.6
Admissions per 1,000 population ^(c)	26.0	27.2	26.6	29.3	29.4	3.1	0.1
Western Australia							
Number of admissions	84,981	86,882	82,742	87,125	86,747	0.5	-0.4
Admissions per 1,000 population ^(c)	34.5	34.6	32.7	34.2	33.8	-0.5	-1.1
South Australia							
Number of admissions	64,136	62,968	62,429	59,738	58,655	-2.2	-1.8
Admissions per 1,000 population ^(c)	38.6	37.5	36.9	35.0	34.2	-3.0	-2.4
Tasmania							
Number of admissions	15,487	15,315	15,598	18,973	19,187	5.5	1.1
Admissions per 1,000 population ^(c)	30.2	29.8	30.3	36.8	37.0	5.1	0.5
Australian Capital Territory							
Number of admissions	11,640	11,781	11,881	n.a.	12,826	2.5	n.a.
Admissions per 1,000 population ^(c)	30.6	30.5	30.3	n.a.	31.6	0.7	n.a.
Northern Territory							
Number of admissions	7,808	7,594	7,634	8,019	8,250	1.4	2.9
Admissions per 1,000 population ^(c)	32.6	31.2	31.4	32.8	33.7	0.8	2.6
Total							
Number of admissions	671,033	699,023	697,593	711,854	748,091	2.8	5.1
Admissions per 1,000 population ^(c)	29.2	30.0	29.5	29.6	30.7	1.2	3.5

⁽a) Interpretation of changes over time should take into account changes in coverage as noted in Section 1.2.

 $[\]begin{tabular}{ll} \textbf{(b)} & \textbf{Excludes data for the Australian Capital Territory}, which were not available at the time of publication. \end{tabular}$

⁽c) Crude rate based on the estimated resident population as at 30 June at beginning of the reference period.

⁽d) There was a change in coverage for Victoria between 2015–16 and 2016–17. See Section 1.2.

Admissions in 2016-17

In 2016–17, there were around 748,000 admissions from public hospital elective surgery waiting lists (Table 2.7). *Emergency admissions* accounted for 0.6% of admissions from public hospital elective surgery waiting lists, ranging from about 0.2% in Victoria to 1.0% in Queensland.

The number of admissions per 1,000 population varied among states and territories, ranging from 28.6 per 1,000 in New South Wales to 37.0 per 1,000 in Tasmania. Differences in these rates should be interpreted with care, taking into account the differences in coverage; coverage was not complete for Victoria (85%) and South Australia (97%; see Table 1.2).

In 2016–17, the majority of elective surgery was performed in the larger public hospitals, with *Principal referral and women's and children's hospitals* accounting for 40% of admissions and *Public acute group A hospitals* accounting for a further 35% (Table 2.8).

For Western Australia and South Australia, hospitals in peer groups other than *Principal* referral and women's and children's hospitals and *Public acute group A hospitals* accounted for about 36% and 32%, respectively, of admissions from elective surgery waiting lists.

Aboriginal and Torres Strait Islander people

In 2016–17, about 3.6% of admissions from public hospital elective surgery waiting lists (26,600) were reported for people of Aboriginal and Torres Strait Islander origin (Table 2.9) who represent about 3.0% of the Australian population. See Box 2.1 for information on the quality of Indigenous status data.

Indigenous Australians accounted for about 31% of admissions from public hospital elective surgery waiting lists in the Northern Territory.

For admissions for persons reported as Indigenous Australians, 91% were reported as being of Aboriginal but not Torres Strait Islander origin, about 4.2% as Torres Strait Islander but not Aboriginal origin and about 4.8% as Aboriginal and Torres Strait Islander origin.

Box 2.1: Limitations of data provided for Indigenous status

The quality of the data reported for Indigenous status in elective surgery waiting lists has not been formally assessed. Therefore, the information on Indigenous status presented in this report should be interpreted with caution. See Appendix A for more information.

Where to go for more information

Information on waiting times is available in:

- 'Chapter 4 How long did people wait for elective surgery?'
- 'Table S4.1: Additions to waiting lists and waiting time statistics for patients removed from waiting lists, by reason for removal, states and territories, 2016–17' (which accompanies this report online).

Additional information on surgery for both emergency and elective admissions in public and private hospitals, as well as additional public hospital waiting times information, will be available in *Admitted patient care 2016–17: Australian hospital statistics*, to be released in early 2018. Information on data limitations and methods is available in appendixes A and B.

Table 2.8: Admissions from public hospital elective surgery waiting lists, by public hospital peer group, states and territories, 2016–17

Hospital peer group	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Principal referral and women's and children's hospitals	90,048	67,467	65,997	33,079	21,740	7,755	7,735	5,427	299,248
Public acute group A hospitals	72,829	72,074	61,178	22,770	18,242	9,608	5,091	2,200	263,992
Public acute group B hospitals	38,413	33,979	12,590	14,280	6,885	1,824			107,971
Other hospitals	21,603	22,566	3,682	16,618	11,788	0	0	623	76,880
Total	222,893	196,086	143,447	86,747	58,655	19,187	12,826	8,250	748,091

Table 2.9: Admissions from public hospital elective surgery waiting lists, by Indigenous status, states and territories, 2016–17

Indigenous status	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Aboriginal but not Torres Strait Islander origin	8,291	1,761	5,987	3,205	1,373	807	366	2,420	24,210
Torres Strait Islander but not Aboriginal origin	158	71	762	36	26	29	5	42	1,129
Aboriginal and Torres Strait Islander origin	282	192	546	88	54	59	10	58	1,289
Indigenous Australians	8,731	2,024	7,295	3,329	1,453	895	381	2,520	26,628
Neither Aboriginal nor Torres Strait Islander origin	213,625	191,695	135,512	83,413	55,312	17,968	12,351	5,719	715,595
Not reported	537	2,367	640	5	1,890	324	94	11	5,868
Other Australians ^(a)	214,162	194,062	136, 152	83,418	57,202	18,292	12,445	5,730	721,463
Total	222,893	196,086	143,447	86,747	58,655	19,187	12,826	8,250	748,091

⁽a) Other Australians includes admissions for which the Indigenous status was not reported.

3 What elective surgery was provided?

This chapter presents information on the types of elective surgery provided by public hospitals in 2016–17, and over time. It includes information on the numbers of admissions from elective surgery waiting lists by:

- surgical specialty (the area of clinical expertise held by the doctor performing the surgery)
- intended surgical procedure (for selected procedures only).

Between 2012–13 and 2016–17, the coverage of the data collection changed for Victoria, Queensland and the Australian Capital Territory (see Section 1.2 for more information).

For 2016–17, Western Australia, South Australia, Tasmania and the Australian Capital Territory reported admissions from public hospital elective surgery waiting lists for the surgical specialty *Paediatric surgery*. Therefore, the surgical specialty data for those 4 jurisdictions are not comparable with the surgical specialty data for New South Wales, Victoria, Queensland and the Northern Territory.

Key findings

Surgical specialty

Between 2012–13 and 2016–17, for jurisdictions that reported *Paediatric surgery* in 2016–17, the largest annual average increases in admissions were for *Neurosurgery* (increasing by 5.1% per year) and *Plastic and reconstructive surgery* (4.3% per year). For jurisdictions that did not report *Paediatric surgery* in 2016–17, *Plastic surgery* had the largest annual average increases in admissions (5.1% per year).

In 2016–17, around 22% of patients were admitted for *General surgery* (surgery on abdominal organs, including endocrine surgery and breast surgery) and about 15% were admitted for *Orthopaedic surgery* (surgery on bones, joints, ligaments and tendons, including knee and hip replacements).

Intended surgical procedure

In 2016–17, the most common intended surgical procedure for admissions from public hospital elective surgery waiting lists was *Cataract extraction* (71,000 admissions).

Between 2012–13 and 2016–17, there were large average annual increases in admissions for *Cystoscopy* (increasing by 5.0% per year), and *Total hip replacement* (4.4% per year).

Between 2012–13 and 2016–17, admissions for *Varicose vein treatment* decreased by 2.6%, on average, each year.

3.1 Surgical specialties

The surgical specialty describes the area of clinical expertise held by the doctor performing the elective surgery.

For 2016–17 for the NESWTDC, 11 categories of surgical specialty are specified and these are presented in this report. There is also an 'other' category which contains data for surgeons whose specialty was not one of the 11 specific categories.

The surgical specialty data element was revised to include *Paediatric surgery* from 1 July 2016. See Section 1.2 for more information.

Due to variation among jurisdictions in the use of the *Paediatric surgery* category, changes over time for admissions by surgical specialty are presented separately for jurisdictions that did report *Paediatric surgery* (Western Australia, South Australia, Tasmania and the Australian Capital Territory) and for jurisdictions that did not report *Paediatric surgery* (New South Wales, Victoria, Queensland and the Northern Territory).

The data by surgical specialty for jurisdictions that did report *Paediatric surgery* are not comparable with the data provided by jurisdictions that did not report *Paediatric surgery*.

Changes over time

Between 2012–13 and 2016–17, excluding Paediatric surgery:

- for Western Australia, South Australia, Tasmania and the Australian Capital Territory:
 - Neurosurgery had the largest increase in the number of admissions from waiting lists, with an average increase of 5.1% each year (Table 3.1)
 - Plastic and reconstructive surgery (which includes craniofacial surgery, hand surgery, microsurgery and the treatment of burns, but excludes cosmetic surgery in this report) increased by 4.3% each year (Table 3.1)
- for New South Wales, Victoria, Queensland and the Northern Territory:
 - Plastic and reconstructive surgery had the largest increase in the number of admissions from waiting lists, with an average increase of 5.1% each year (Table 3.2)
 - Urology (which includes the majority of Cystoscopy procedures) increased by 4.9% each year
 - Neurosurgery and Ophthalmology surgery (which includes Cataract extraction) also had large increases in admissions (3.3% and 3.7% each year, respectively).

Admissions by surgical specialty in 2016–17

In 2016–17, around 22% of patients were admitted for *General surgery* (surgery on the abdominal organs, including endocrine surgery and breast surgery) and about 15% were admitted for *Orthopaedic surgery* (surgery on bones, joints, ligaments and tendons, including knee and hip replacements) (Table 3.3).

The proportion of patients admitted for *General surgery* ranged from 18% in Western Australia to 35% in the Northern Territory.

Table 3.1: Admissions from public hospital elective surgery waiting lists, for Western Australia, South Australia, Tasmania and the Australian Capital Territory, by surgical specialty, 2012–13 to 2016–17

						Change (%) ^(a)	
Surgical specialty	2012–13	2013–14	2014–15	2015–16 ^(b)	2016–17	Average since 2012–13	Since 2015–16 ^(c)
Cardiothoracic surgery	2,333	2,316	2,052	1,876	2,281	-0.6	n.p.
Otolaryngology, head and neck surgery ^(d)	14,777	14,264	13,932	12,886	13,346	-2.5	n.p.
General surgery	35,109	35,108	33,752	33,001	32,476	-1.9	n.p.
Gynaecology	20,241	20,712	20,303	19,310	19,353	-1.1	n.p.
Neurosurgery	1,956	2,191	2,136	1,956	2,386	5.1	n.p.
Ophthalmology surgery	25,445	25,315	25,583	25,248	26,330	0.9	n.p.
Orthopaedic surgery	24,059	24,550	23,575	23,055	24,720	0.7	n.p.
Plastic and reconstructive surgery ^(e)	13,097	13,078	13,712	13,059	15,518	4.3	n.p.
Urological surgery	22,568	22,857	22,350	21,055	23,166	0.7	n.p.
Vascular surgery	3,496	3,566	3,535	2,990	3,643	1.0	n.p.
Paediatric surgery					3,694		
Other	13,163	12,989	11,720	11,400	10,502	-5.5	n.p.
Total ^(f)	176,244	176,946	172,650	165,836	177,415	0.2	n.p.

⁽a) Interpretation of changes over time should take into account changes in coverage as noted in Section 1.2.

⁽b) Excludes data for the Australian Capital Territory, which were not available at the time of publication.

⁽c) Change since 2015–16 is not shown because 2015–16 data for the Australian Capital Territory were not available at the time of publication.

⁽d) Previously labelled as Ear, nose and throat surgery.

⁽e) Previously labelled as Plastic surgery.

⁽f) Includes admissions for which the Surgical specialty was not reported.

Table 3.2: Admissions from public hospital elective surgery waiting lists, for New South Wales, Victoria, Queensland and the Northern Territory, by surgical specialty, 2012–13 to 2016–17

						Cha	ange (%) ^(a)
Surgical specialty	2012–13	2013–14	2014–15	2015–16	2016–17	Average since 2012–13	Since 2015–16
Cardiothoracic surgery	9,910	10,293	10,160	10,357	10,049	0.2	0.8
Otolaryngology, head and neck surgery ^(b)	41,218	44,213	44,630	46,530	49,998	3.1	6.6
General surgery	121,933	127,399	126,320	128,491	130,982	1.0	1.2
Gynaecology surgery	62,740	66,112	65,324	68,540	68,685	1.5	0.2
Neurosurgery	9,051	9,696	9,665	9,957	10,148	3.3	5.2
Ophthalmology surgery	57,787	59,850	60,469	64,192	70,018	3.7	7.7
Orthopaedic surgery	76,767	80,561	81,988	84,625	87,944	2.8	4.6
Plastic and reconstructive surgery ^(c)	33,905	36,333	36,463	39,451	41,886	5.1	9.3
Urological surgery	61,168	66,438	68,593	72,094	78,418	4.9	9.1
Vascular surgery	11,836	12,502	12,522	13,291	13,716	3.2	6.6
Other ^(d)	8,474	8,680	8,809	8,490	8,832	-2.8	-2.9
Total ^{(d}	494,789	522,077	524,943	546,018	570,676	3.6	4.5

⁽a) Interpretation of changes over time should take into account changes in coverage as noted in Section 1.2.

⁽b) Previously labelled as Ear, nose and throat surgery.

⁽c) Previously labelled as Plastic surgery.

⁽d) Includes admissions for which the Surgical specialty was not reported.

Table 3.3: Admissions from public hospital elective surgery waiting lists, by surgical specialty, states and territories, 2016–17

Surgical specialty	NSW ^(a)	Vic ^(a)	$\mathbf{QId}^{(a)}$	WA	SA	Tas	ACT	NT ^(a)	Total
Cardiothoracic surgery	3,535	3,443	3,065	887	849	292	253	0	12,324
Otolaryngology, head and neck surgery	17,029	17,330	14,705	5,195	5,728	1,293	1,130	934	63,344
General surgery	54,139	40,228	33,771	15,251	11,704	3,706	1,815	2,844	163,458
Gynaecology surgery	27,862	20,539	18,921	7,174	8,350	2,570	1,259	1,363	88,038
Neurosurgery	4,507	3,325	2,303	862	651	592	281	13	12,534
Ophthalmology surgery	30,928	24,905	13,009	13,665	8,099	3,066	1,500	1,176	96,348
Orthopaedic surgery	35,870	24,422	26,889	12,521	8,228	2,349	1,622	763	112,664
Plastic and reconstructive surgery	9,792	20,215	11,429	6,323	6,256	1,955	984	450	57,404
Urological surgery	30,653	33,482	13,812	12,124	6,256	2,611	2,175	471	101,584
Vascular surgery	6,508	3,836	3,223	1,735	1,012	306	590	149	17,359
Paediatric surgery				1,692	1,008	386	608		3,694
Other ^(b)	2,070	4,361	2,320	9,318	514	61	609	87	19,340
Total ^(b)	222,893	196,086	143,447	86,747	58,655	19,187	12,826	8,250	748,091

⁽a) The surgical specialty Paediatric surgery was not reported for New South Wales, Victoria, Queensland and the Northern Territory.

Where to go for more information

Information on waiting times by surgical specialty is available in 'Chapter 4 How long did people wait for elective surgery?' Information on data limitations and methods is available in appendixes A and B.

⁽b) Includes admissions for which the Surgical specialty was not reported.

3.2 Intended surgical procedures

Between 2015–16 and 2016–17, the data element *Indicator procedure* was replaced by *Intended procedure* in the ESWT NMDS. The *Intended procedure* (intended surgical procedure) data element (METeOR identifier 637500) contains 152 categories of surgical procedures, and includes the 15 procedures that were previously reported for the *Indicator procedure* data element (METeOR identifier 514033). See Section 1.2 for more information.

There was some variation in the reporting of intended surgical procedures among jurisdictions, which indicates that either the data element was not completely implemented, or that there are differences among jurisdictions in the types of procedures that are managed through elective surgery waiting lists. Therefore, the data by intended surgical procedure for jurisdictions that did not report against all intended surgical procedure categories may not be comparable with the data provided by other jurisdictions. For more information, see Section 1.2 and Appendix A.

The previous list of 15 *Indicator procedures* represented high-volume procedures that were potentially associated with longer waiting times. These are presented in this report, along with the 10 most commonly reported intended surgical procedures (that were not in the previous set of indicator procedures).

For 2016–17, 2 separate *Intended procedures—Myringotomy* and *Pressure equalising tubes* (grommets) - insertion of—are regarded as equivalent to the *Myringotomy* indicator procedure. The increase in admissions for *Myringotomy* between 2015–16 and 2016–17 reflects, in part, the inclusion of New South Wales admissions for *Pressure equalising tubes* (grommets) - insertion of, that had not previously been reported under the indicator procedure *Myringotomy*.

Changes over time

Between 2012-13 and 2016-17:

- Cataract extraction was the most commonly reported intended surgical procedure with about 71,000 patients admitted in 2016–17; admissions for Cataract extraction increased by an average of 3.2% each year (Table 3.4)
- Cystoscopy was the next most common intended surgical procedure (56,000); and this procedure had the largest increase in the number of admissions (5.0%, on average, each year)
- Total hip replacement also had a large increase in the number of admissions from waiting lists (4.4%, on average, each year)
- admissions for *Varicose veins treatment* (previously labelled *Varicose vein stripping and ligation*) decreased by 2.6% on average each year (Table 3.4).

Between 2015–16 and 2016–17, there were relatively large increases in admissions for *Cystoscopy* (14.6%).

Admissions by intended surgical procedure, 2016–17

Before 2016–17, this report presented information on admissions for the 15 *Indicator* procedures.

For 2016–17, information is presented for the 15 *Indicator procedures* and the 10 most commonly reported intended surgical procedures. Overall, about half of the patients admitted for elective surgery had been waiting for one of these 25 procedures (Table 3.4).

Cataract extraction accounted for about 9.5% of all admissions from public hospital elective surgery waiting lists. The proportion of admissions from public hospital elective surgery waiting lists that were for *Cataract extraction* ranged from 5.7% in Queensland to 12.3% in Tasmania (Table 3.5).

Cystoscopy (a procedure using a scope to examine the bladder) was the next most common intended surgical procedure. It accounted for about 7.5% of admissions, and the proportion ranged from 4.3% in South Australia to 9.3% in Victoria.

Table 3.4: Admissions from public hospital elective surgery waiting lists, by intended surgical procedure, 2012–13 to 2016–17

						Change	e (%) ^(a)
Intended surgical procedure	2012–13	2013–14	2014–15	2015–16 ^(b)	2016–17 ^(c)	Average since 2012–13	Since 2015–16
Cataract extraction	62,933	64,481	65,182	67,755	71,377	3.2	5.3
Cholecystectomy	18,915	19,316	18,578	18,767	18,611	-0.4	-0.8
Coronary artery bypass graft	3,858	4,084	3,837	3,641	3,531	-2.2	-3.0
Cystoscopy	45,952	47,464	48,208	48,721	55,819	5.0	14.6
Haemorrhoidectomy	4,304	4,729	4,490	4,618	4,593	1.6	-0.5
Hysterectomy	9,670	10,021	9,989	10,409	11,457	4.3	10.1
Inguinal herniorrhaphy ^(d)	15,912	16,229	16,267	17,234	16,809	1.4	-2.5
Myringoplasty	1,842	1,933	1,925	1,835	1,867	0.3	1.7
Myringotomy	5,712	5,725	4,991	4,864	6,742	4.2	38.6
Prostatectomy	7,535	7,790	7,311	7,629	8,216	2.2	7.7
Septoplasty	4,539	4,926	5,065	5,229	5,062	2.8	-3.2
Tonsillectomy	17,656	18,337	18,163	18,112	19,466	2.5	7.5
Total hip replacement ^(d)	9,395	10,073	10,456	11,120	11,151	4.4	0.3
Total knee replacement ^(d)	14,252	15,219	15,483	16,245	16,853	4.3	3.7
Varicose veins treatment(d)	4,234	4,221	4,002	4,169	3,818	-2.6	-8.4
Other procedures	444,324	464,475	463,646	471,506	492,719	2.6	4.5
Total	671,033	699,023	697,593	711,854	748,091	2.8	5.1

⁽a) Interpretation of changes over time should take into account changes in coverage as noted in Section 1.2.

⁽b) Excludes data for the Australian Capital Territory, which were not available at the time of publication.

⁽c) For 2016–17, Intended procedure replaced Indicator procedure. Changes over time in the data element definition should be taken into account when interpreting changes over time.

⁽d) For 2016–17, the intended surgical procedure may not be equivalent to the corresponding indicator procedure.

Where to go for more information

Information on waiting times by surgical procedure is available in:

- 'Chapter 4 How long did people wait for elective surgery?'
- 'Table S4.2: Waiting time statistics for admissions from public hospital waiting lists for elective surgery, by intended surgical procedure, and public hospital peer group, states and territories, 2016–17' (which accompanies this report online)
- 'Table S4.3: Waiting time statistics for admissions from public hospital waiting lists for elective surgery, by intended surgical procedure, and Indigenous status, states and territories, 2016–17' (which accompanies this report online).

Information on the complete list of intended surgical procedures for 2016–17 is available online at <www.aihw.gov.au>. Information on data limitations and methods is available in appendixes A and B.

Table 3.5: Admissions from public hospital elective surgery waiting lists, by intended surgical procedure, states and territories, 2016–17

	<u> </u>		<u> </u>						
Intended surgical procedure	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Arthroscopy	4,522	2,469	2,512	1,369	2,071	311	148	127	13,529
Breast lump—excision and/or biopsy	2,694	2,930	1,807	941	471	238	127	24	9,232
Carpal tunnel release	3,491	2,429	2,423	1,302	840	344	105	77	11,011
Cataract extraction (with or without intra-ocular lens insertion)	24,502	17,433	8,189	10,626	6,152	2,353	1,227	895	71,377
Cholecystectomy (open/laparoscopic)	6,480	4,382	3,890	1,665	1,306	497	246	145	18,611
Colectomy/anterior resection/large bowel resection	2,059	1,134	783	245	291	n.a.	63	12	4,587
Coronary artery bypass grafting	670	998	1,112	274	288	126	63	0	3,531
Cystoscopy	18,088	18,298	6,373	7,686	2,538	1,007	1,748	81	55,819
Haemorrhoidectomy	1,294	1,757	514	525	220	74	49	160	4,593
Herniorrhaphy	4,242	3,139	2,652	1,425	174	n.a.	191	129	11,952
Hysterectomy (abdominal/vaginal/laparoscopic)	3,481	2,783	2,557	1,230	853	352	152	49	11,457
Hysteroscopy, dilatation and curettage	11,614	8,561	6,494	1,588	1,993	940	584	288	32,062
Inguinal herniotomy/herniorrhaphy	6,069	3,663	3,294	1,774	1,247	411	191	160	16,809
Laparoscopy	2,712	3,111	2,238	751	384	239	192	79	9,706
Myringoplasty/tympanoplasty	444	324	484	272	97	29	23	194	1,867
Myringotomy	1,698	1,866	1,273	670	804	162	160	109	6,742
Prostatectomy (transurethral or open)	2,751	2,527	1,587	729	449	60	92	21	8,216
Salpingo-oophorectomy/oophorectomy/ovarian cystectomy	1,150	1,719	1,108	449	153	n.a.	57	29	4,665
Septoplasty	1,664	1,431	759	393	521	86	150	58	5,062
Skin lesion—excision of	12,087	12,614	14,441	5,925	2,287	n.a.	708	720	48,782
Thyroidectomy/hemi-thyroidectomy	2,114	1,523	991	466	275	93	59	2	5,523
Tonsillectomy (with or without adenoidectomy)	5,638	5,305	4,605	1,686	1,228	393	396	215	19,466
Total hip replacement	3,906	2,466	2,028	1,299	815	340	262	35	11,151
Total knee replacement	6,748	2,903	3,296	1,852	1,241	415	342	56	16,853
Varicose veins treatment	1,432	1,206	512	212	251	38	143	24	3,818
Other procedures	91,343	89,115	67,525	41,393	31,706	10,679	5,348	4,561	341,670
Total	222,893	196,086	143,447	86,747	58,655	19,187	12,826	8,250	748,091

Note: See Section 1.2 and appendixes A and B for notes on data limitations and methods.

4 How long did people wait for elective surgery?

This chapter presents information on the length of time waited by patients on public hospital elective surgery waiting lists before being admitted for surgery in 2016–17, as well as information for the 4 previous periods.

This chapter includes information on the number of days waited at the 50th percentile (median) and at the 90th percentile, and the proportion of patients who waited more than 365 days. It also includes the NHA performance indicator: *Waiting times for elective surgery—waiting time in days*.

The waiting times information for 2015–16 presented in this chapter does not include the Australian Capital Territory.

Key findings

Between 2012-13 and 2016-17:

- the overall median waiting time (the time within which 50% of all patients were admitted) tended to increase. In 2016–17, the median waiting time was 38 days—compared with 36 days in both 2012–13 and 2013–14, 35 days in 2014–15 and 37 days in 2015–16
- the 90th percentile waiting time decreased from 265 days to 258 days
- the proportion of patients who waited more than 365 days to be admitted for their procedure generally decreased from 2.7% to 1.7%.

Hospital peer groups

In 2016–17, the median waiting time was shortest for *Principal referral and women's and children's hospitals* (32 days). The proportion of patients who waited more than 365 days was lowest in *Public acute group B hospitals* (0.8%).

Surgical specialties

The surgical specialties with the longest median waiting times in 2016–17 were Ophthalmology surgery (73 days), Otolaryngology, head and neck surgery (70 days) and Orthopaedic surgery (69 days). Cardiothoracic surgery had the shortest median waiting time (16 days).

Surgical procedures

Coronary artery bypass graft was the intended surgical procedure with the shortest median waiting time (13 days) and Septoplasty (to fix a deviated nasal septum) had the longest median waiting time (209 days).

Indigenous status

In 2016–17, the median waiting time for Indigenous Australians (45 days) was higher than for other Australians (38 days).

A higher proportion of Indigenous Australians waited more than 1 year for their surgery, compared with other Australians (2.0% and 1.7%, respectively).

4.1 How did waiting times vary across states and territories and by type of hospital?

The number of days a patient waits for elective surgery is calculated by states and territories as the number of calendar days between the date the patient was placed on the waiting list and the date that the patient was removed from the waiting list (the removal date), minus any days when the patient was 'not ready for care', and any days when the patient was waiting with a clinical urgency category that was less urgent than their clinical urgency category at removal (that is, if the patient's urgency category was reassigned as being more urgent while they were waiting). See Box 4.1 for more information on clinical urgency categories.

The number of days waited also does not include the time waited for an initial appointment with the specialist—from the time of referral by the patient's GP—because this information is not available. The AIHW is currently working with states and territories to develop a consistent and nationally agreed approach to measuring access time for elective surgery from the time of referral by the patient's GP. The aim is that nationally consistent data will become available on the time spent between GP referral and the initial specialist appointment.

Changes over time

The waiting times information for 2015–16 does not include data for the Australian Capital Territory. National waiting times for all other periods include data for the Australian Capital Territory.

Median (50th percentile) waiting time

The median waiting time indicates the time within which 50% of patients were admitted for the awaited procedure. Half of the patients had a shorter waiting time, and half had a longer waiting time.

Between 2012–13 and 2016–17, the overall median waiting time (the time within which 50% of all patients were admitted) tended to increase. In 2016–17, the median waiting time was 38 days—compared with 36 days in both 2012–13 and 2013–14, 35 days in 2014–15 and 37 days in 2015–16 (Table 4.1).

The median waiting time was relatively stable between 2012–13 and 2016–17 for most public hospital peer groups with rises or falls of the order of 2 to 3 days overall. Between 2015–16 and 2016–17, the median waiting time for *Principal referral and women's and children's hospitals* increased from 29 days to 32 days.

Between 2012–13 and 2016–17, the median waiting time to admission decreased for Victoria (from 36 to 30 days) and the Northern Territory (from 40 to 28 days) (Table 4.2).

Over the same period median waiting time to admission increased for New South Wales (from 49 to 54 days), Queensland (from 27 to 32 days), Western Australia (from 30 to 34 days) and South Australia (from 34 to 39 days).

90th percentile waiting time

The 90th percentile waiting time indicates the amount of time within which 90% of patients were admitted for the awaited procedure. For the remaining 10% of patients, the wait was longer.

Between 2012–13 and 2014–15, the amount of time within which 90% of patients were admitted for the awaited procedure decreased from 265 days to 253 days (Table 4.1). It increased to 260 days in 2015–16, and then decreased to 258 days in 2016–17.

For most states and territories, the 90th percentile waiting time increased between 2012–13 and 2016–17 (Table 4.2), with relatively large increases in the 90th percentile waiting times for South Australia and Queensland.

Patients who waited more than 365 days

Patients who wait more than a year for their surgery can be regarded as not having their surgery 'on time'.

Between 2012-13 and 2016-17:

- the national proportion of patients who waited more than 365 days to be admitted decreased from 2.7% to 1.7% (Table 4.1)
- the proportion of patients who waited more than 365 days generally fluctuated or decreased in most states and territories. For South Australia and the Northern Territory, the proportion of admissions for patients who waited more than 365 days increased from 1.0% to 1.8%, and from 3.3% to 4.2%, respectively (Table 4.2).

In 2016–17, a higher proportion of Indigenous Australians waited more than a year for elective surgery than other Australians (2.0% and 1.7%, respectively) (Table 4.7).

Waiting times in 2016–17

Hospital peer group

In 2016–17, the median waiting time (32 days) and the 90th percentile waiting time (219 days) were shortest for *Principal referral and women's and children's hospitals* (Table 4.1). The proportion of patients who waited more than 365 days was lowest in *Public acute group B hospitals* (0.8%).

States and territories

In 2016-17:

- the median waiting time ranged from 28 days in the Northern Territory to 54 days in New South Wales (Table 4.2)
- the 90th percentile waiting time ranged from 162 days in Victoria to 327 days in New South Wales
- the proportion of patients who waited more than 365 days ranged from 0.4% in Queensland to 6.6% in Tasmania.

Table 4.1: Waiting time statistics for admissions from public hospital elective surgery waiting lists, by public hospital peer group, 2012–13 to 2016–17

	2012–13	2013–14	2014–15	2015-16 ^(a)	2016–17
Principal referral and women's and children's	hospitals				
Days waited at 50th percentile	29	30	29	32	32
Days waited at 90th percentile	224	222	207	215	219
Percentage waited more than 365 days	3.2	2.9	1.9	2.0	1.8
Public acute group A hospitals					
Days waited at 50th percentile	42	42	39	40	42
Days waited at 90th percentile	307	298	291	292	293
Percentage waited more than 365 days	3.4	2.8	2.2	2.5	2.1
Public acute group B hospitals					
Days waited at 50th percentile	45	43	43	44	44
Days waited at 90th percentile	275	276	287	289	274
Percentage waited more than 365 days	1.6	1.2	1.0	1.0	0.8
Total ^(b)					
Days waited at 50th percentile	36	36	35	37	38
Days waited at 90th percentile	265	262	253	260	258
Percentage waited more than 365 days	2.7	2.4	1.8	2.0	1.7

⁽a) Interpretation of changes over time should take into account changes in coverage as noted in Section 1.2. Excludes 2015–16 data for the Australian Capital Territory, which were not available at the time of publication.

Note: See Section 1.2 and appendixes A, B and C for notes on data limitations and methods.

⁽b) Includes hospitals not included in the specified hospital peer groups.

Table 4.2: Waiting time statistics for admissions from public hospital elective surgery waiting lists, states and territories, 2012-13 to $2016-17^{(a)}$

	2012–13	2013–14	2014–15	2015–16 ^(b)	2016–17
New South Wales					
Days waited at 50th percentile	49	49	54	55	54
Days waited at 90th percentile	335	329	330	328	327
Percentage waited more than 365 days	2.8	1.8	1.6	2.0	1.6
Victoria					
Days waited at 50th percentile	36	35	29	30	30
Days waited at 90th percentile	223	222	177	174	162
Percentage waited more than 365 days	3.3	3.2	2.4	2.3	2.0
Queensland					
Days waited at 50th percentile	27	28	27	29	32
Days waited at 90th percentile	163	186	147	163	211
Percentage waited more than 365 days	2.5	2.8	0.5	0.4	0.4
Western Australia					
Days waited at 50th percentile	30	29	29	30	34
Days waited at 90th percentile	159	142	148	161	185
Percentage waited more than 365 days	1.5	0.7	0.7	0.8	1.5
South Australia					
Days waited at 50th percentile	34	35	37	40	39
Days waited at 90th percentile	182	180	210	233	237
Percentage waited more than 365 days	1.0	0.8	1.1	1.8	1.8
Tasmania					
Days waited at 50th percentile	41	45	55	72	45
Days waited at 90th percentile	406	401	424	452	313
Percentage waited more than 365 days	11.5	11.5	12.9	15.5	6.6
Australian Capital Territory					
Days waited at 50th percentile	51	48	45	n.a.	46
Days waited at 90th percentile	277	270	245	n.a.	279
Percentage waited more than 365 days	4.1	4.7	5.3	n.a.	3.8
Northern Territory					
Days waited at 50th percentile	40	36	32	29	28
Days waited at 90th percentile	196	183	217	229	202
Percentage waited more than 365 days	3.3	2.8	3.9	4.2	4.2
Total					
Days waited at 50th percentile	36	36	35	37	38
Days waited at 90th percentile	265	262	253	260	258
Percentage waited more than 365 days	2.7	2.4	1.8	2.0	1.7

⁽a) Interpretation of changes over time should take into account changes in coverage as noted in Section 1.2.

 $\textit{Note:} \ \text{See Section 1.2 and appendixes A and B for notes on data limitations and methods}.$

⁽b) Excludes data for the Australian Capital Territory, which were not available at the time of publication.

4.2 How did waiting times vary by surgical specialty?

The surgical specialty describes the area of clinical expertise held by the doctor performing the elective surgery.

For the NESWTDC, 11 categories of surgical specialty are specified and these are presented in this report. There is also an 'other' category which contains data for surgeons whose specialty was not one of the 11 specific categories.

The surgical specialty data element was revised to include *Paediatric surgery* from 1 July 2016. See Section 1.2 for more information.

Due to variation among jurisdictions in the use of the *Paediatric surgery* category, changes over time for admissions by surgical specialty are presented separately for jurisdictions that did report *Paediatric surgery* (Western Australia, South Australia, Tasmania and the Australian Capital Territory) and for jurisdictions that did not report *Paediatric surgery* (New South Wales, Victoria, Queensland and the Northern Territory).

It should be noted that the data by surgical specialty for jurisdictions that did report *Paediatric surgery* are not comparable with the data provided by jurisdictions that did not report *Paediatric surgery*.

Changes over time

Between 2012-13 and 2016-17:

- for jurisdictions that reported *Paediatric surgery* in 2016–17:
 - the surgical specialty with the lowest median waiting time was Cardiothoracic surgery; the median waiting time fluctuated between 13 and 19 days (Table 4.3)
 - median waiting times increased for 8 of the 11 surgical specialties. The largest increase in median waiting time was for Otolaryngology, head and neck surgery (previously labelled Ear, nose and throat surgery)—from 61 days in 2012–13 to 69 days in 2016–17 (Table 4.3)
 - Otolaryngology, head and neck surgery and Orthopaedic surgery were the surgical specialties with the highest proportion of patients who waited more than 365 days to be admitted (6.7% and 4.2%, respectively, in 2016–17, respectively) (Table 4.3).
- for jurisdictions that did not report Paediatric surgery in 2016–17:
 - between 2012–13 and 2016–17, the surgical specialty with the lowest median waiting time was *Cardiothoracic surgery*; the median waiting time fluctuated between 17 and 19 days (Table 4.4)
 - median waiting times fluctuated for most of the 11 surgical specialties. For example, the median waiting time for *Ophthalmology surgery* was 81 days in 2012–13, 73 days in 2013–14, it then rose to 85 days in 2015–16 and fell to 77 days in 2016–17 (Table 4.4)
 - Otolaryngology, head and neck surgery and Orthopaedic surgery were the surgical specialties with the highest proportion of patients who waited more than 365 days to be admitted (3.7% and 3.0%, respectively, in 2016–17) (Table 4.4).

Waiting times in 2016–17

Nationally, the surgical specialty with the lowest median waiting time in 2016–17 was *Cardiothoracic surgery* (16 days) (Table 4.5). The median waiting time for *Cardiothoracic surgery* ranged from 9 days in Queensland and the Australian Capital Territory to 27 days in Tasmania. The highest median waiting time was for *Ophthalmology surgery* (73 days), and it ranged from 41 days in Victoria to 196 days in New South Wales.

Cardiothoracic surgery was also the surgical specialty with the lowest 90th percentile waiting time in 2016–17 (77 days). The 90th percentile waiting time for Cardiothoracic surgery ranged from 52 days in Queensland to 111 days in Tasmania.

Otolaryngology, head and neck surgery had the highest proportion of patients who waited more than 365 days to be admitted (4.0%), ranging from 0.4% in Queensland to 21.4% in the Australian Capital Territory.

Where to go for more information

More information on waiting times for surgical specialties for patients with a neoplasm-related principal diagnosis is available in *Admitted patient care 2015–16*: Australian hospital statistics (AIHW 2017a).

Table 4.3: Waiting time statistics for admissions from public hospital elective surgery waiting lists, for Western Australia, South Australia, Tasmania and the Australian Capital Territory, by surgical specialty, 2012–13 to 2016–17 $^{(a)(b)}$

Surgical specialty	2012–13	2013–14	2014–15	2015-16 ^(a)	2016–17
Cardiothoracic surgery					
Days waited at 50th percentile	16	19	17	13	15
Days waited at 90th percentile	75	77	76	67	74
Percentage waited more than 365 days	0.1	0.0	0.0	0.1	0.1
Otolaryngology, head and neck surgery					
Days waited at 50th percentile	61	65	71	71	69
Days waited at 90th percentile	280	300	338	341	350
Percentage waited more than 365 days	4.1	3.7	5.4	5.5	6.7
General surgery					
Days waited at 50th percentile	27	27	28	28	28
Days waited at 90th percentile	126	113	134	145	119
Percentage waited more than 365 days	1.6	1.1	1.6	2.0	1.2
Gynaecology					
Days waited at 50th percentile	26	28	28	28	33
Days waited at 90th percentile	99	101	116	124	136
Percentage waited more than 365 days	0.3	0.3	0.7	1.6	1.1
Neurosurgery					
Days waited at 50th percentile	34	34	34	31	38
Days waited at 90th percentile	189	190	141	143	154
Percentage waited more than 365 days	3.5	4.3	1.8	1.5	0.7
Ophthalmology surgery					
Days waited at 50th percentile	61	58	61	59	65
Days waited at 90th percentile	294	300	294	301	290
Percentage waited more than 365 days	4.1	3.6	3.3	4.0	2.3
Orthopaedic surgery					
Days waited at 50th percentile	61	57	64	67	68
Days waited at 90th percentile	292	265	292	316	308
Percentage waited more than 365 days	4.7	3.8	4.2	5.0	4.2
Paediatric surgery ^(b)					
Days waited at 50th percentile					42
Days waited at 90th percentile					147
Percentage waited more than 365 days					0.1
Plastic and reconstructive surgery					
Days waited at 50th percentile	25	26	28	35	30
Days waited at 90th percentile	139	126	146	172	180
Percentage waited more than 365 days	1.6	1.5	1.8	3.2	3.4

Table 4.3 (continued): Waiting time statistics for admissions from public hospital elective surgery waiting lists, for Western Australia, South Australia, Tasmania and the Australian Capital Territory, by surgical specialty, 2012–13 to 2016–17^{(a)(b)}

Surgical specialty	2012–13	2013–14	2014–15	2015-16 ^(a)	2016–17
Urological surgery					
Days waited at 50th percentile	28	26	25	28	28
Days waited at 90th percentile	125	109	109	129	128
Percentage waited more than 365 days	1.4	1.1	1.1	1.7	1.5
Vascular surgery					
Days waited at 50th percentile	17	15	19	21	21
Days waited at 90th percentile	130	94	120	102	129
Percentage waited more than 365 days	1.9	0.5	0.9	0.9	1.3
Other					
Days waited at 50th percentile	24	23	21	19	20
Days waited at 90th percentile	108	108	105	98	112
Percentage waited more than 365 days	0.4	0.3	0.3	0.2	0.6
Total ^(c)					
Days waited at 50th percentile	34	34	35	36	37
Days waited at 90th percentile	190	180	200	223	220
Percentage waited more than 365 days	2.3	1.9	2.2	2.8	2.3

⁽a) Interpretation of changes over time should take into account changes in coverage as noted in Section 1.2. Excludes 2015–16 data for the Australian Capital Territory, which were not available at the time of publication.

Note: See Section 1.2 and appendixes A and B for notes on data limitations and methods.

⁽b) Western Australia, South Australia, Tasmania and the Australian Capital Territory reported the surgical specialty of *Paediatric surgery* in 2016–17.

⁽c) Includes admissions for which the ${\it Surgical specialty}$ was not reported.

Table 4.4: Waiting time statistics for admissions from public hospital elective surgery waiting lists, for New South Wales, Victoria, Queensland and the Northern Territory, by surgical specialty, 2012–13 to 2016–17 $^{(a)(b)}$

Surgical specialty	2012–13	2013-14	2014–15	2015–16	2016–17
Cardiothoracic surgery					
Days waited at 50th percentile	17	18	18	19	17
Days waited at 90th percentile	81	88	83	85	77
Percentage waited more than 365 days	0.3	0.2	0.3	0.2	0.2
Otolaryngology, head and neck surgery					
Days waited at 50th percentile	71	73	74	75	71
Days waited at 90th percentile	356	353	349	346	344
Percentage waited more than 365 days	6.6	5.4	4.7	4.2	3.7
General surgery					
Days waited at 50th percentile	33	32	30	30	30
Days waited at 90th percentile	194	180	156	166	166
Percentage waited more than 365 days	1.9	1.5	0.9	0.9	0.7
Gynaecology					
Days waited at 50th percentile	34	35	33	31	33
Days waited at 90th percentile	176	168	166	146	147
Percentage waited more than 365 days	1.5	1.1	0.7	0.7	0.5
Neurosurgery					
Days waited at 50th percentile	29	30	28	34	36
Days waited at 90th percentile	215	216	177	195	179
Percentage waited more than 365 days	2.4	3.0	0.9	1.3	1.7
Ophthalmology surgery					
Days waited at 50th percentile	81	73	75	85	77
Days waited at 90th percentile	341	333	330	332	332
Percentage waited more than 365 days	2.9	2.2	1.3	1.8	1.4
Orthopaedic surgery					
Days waited at 50th percentile	67	69	65	67	69
Days waited at 90th percentile	348	345	334	335	334
Percentage waited more than 365 days	5.8	5.1	3.0	3.5	3.0
Plastic and reconstructive surgery					
Days waited at 50th percentile	23	25	22	24	25
Days waited at 90th percentile	206	244	155	174	185
Percentage waited more than 365 days	3.2	3.9	2.2	2.2	2.5

Table 4.4 (continued): Waiting time statistics for admissions from public hospital elective surgery waiting lists, for New South Wales, Victoria, Queensland and the Northern Territory, by surgical specialty, 2012–13 to 2016–17^{(a)(b)}

Surgical specialty	2012–13	2013–14	2014–15	2015–16	2016–17
Urological surgery					
Days waited at 50th percentile	24	25	24	25	25
Days waited at 90th percentile	109	110	94	93	95
Percentage waited more than 365 days	0.9	0.9	0.5	0.5	0.4
Vascular surgery					
Days waited at 50th percentile	21	21	20	21	21
Days waited at 90th percentile	161	167	165	173	168
Percentage waited more than 365 days	2.0	2.1	2.5	1.4	1.2
Other					
Days waited at 50th percentile	28	24	25	24	26
Days waited at 90th percentile	113	114	92	107	119
Percentage waited more than 365 days	0.5	0.8	0.3	0.1	0.4
Total ^(c)					
Days waited at 50th percentile	38	38	36	38	38
Days waited at 90th percentile	287	286	268	270	268
Percentage waited more than 365 days	2.9	2.5	1.6	1.7	1.5

⁽a) Interpretation of changes over time should take into account changes in coverage as noted in Section 1.2.

Note: See Section 1.2 and appendixes A and B for notes on data limitations and methods.

⁽b) New South Wales, Victoria, Queensland and the Northern Territory did not report the surgical specialty of Paediatric surgery in 2016–17.

⁽c) Includes admissions for which the Surgical specialty was not reported, and a small number of records for which it was reported as Paediatric surgery in 2016–17.

Table 4.5: Waiting time statistics for admissions from public hospital elective surgery waiting lists, by surgical specialty, states and territories, 2016–17^(a)

Surgical specialty	NSW ^(a)	Vic ^(a)	$\mathbf{QId}^{(a)}$	WA	SA	Tas	ACT	NT ^(a)	Total
Cardiothoracic surgery									
Days waited at 50th percentile	25	19	9	12	19	27	9		16
Days waited at 90th percentile	85	85	52	77	70	111	35		77
Percentage waited more than 365 days	0.1	0.4	0.0	0.1	0.2	0.0	0.0		0.2
Otolaryngology, head and neck surgery									
Days waited at 50th percentile	168	59	49	83	56	55	171	58	70
Days waited at 90th percentile	359	246	301	346	344	310	449	487	345
Percentage waited more than 365 days	5.2	4.4	0.4	5.9	4.6	5.9	21.4	13.7	4.3
General surgery									
Days waited at 50th percentile	35	28	28	28	28	28	37	23	29
Days waited at 90th percentile	236	129	141	130	104	127	163	111	155
Percentage waited more than 365 days	0.8	0.7	0.3	1.5	8.0	1.5	0.4	1.8	0.8
Gynaecology surgery									
Days waited at 50th percentile	36	26	41	33	28	42	41	15	33
Days waited at 90th percentile	201	102	147	103	148	227	128	101	145
Percentage waited more than 365 days	0.7	0.5	0.1	0.0	0.9	5.0	0.5	1.0	0.6
Neurosurgery									
Days waited at 50th percentile	42	43	23	29	31	59	36	15	36
Days waited at 90th percentile	232	176	89	155	128	170	143	27	172
Percentage waited more than 365 days	2.2	2.1	0.1	0.6	8.0	0.8	0.4	0.0	1.5
Ophthalmology surgery									
Days waited at 50th percentile	196	41	55	47	78	150	97	98	73
Days waited at 90th percentile	347	166	322	219	313	368	323	312	326
Percentage waited more than 365 days	1.1	1.9	0.7	0.8	1.3	10.4	4.3	7.1	1.6

Table 4.5 (continued): Waiting time statistics for admissions from public hospital elective surgery waiting lists, by surgical specialty, states and territories 2016–17^(a)

Surgical specialty	NSW ^(a)	Vic ^(a)	QId ^(a)	WA	SA	Tas	ACT	NT ^(a)	Total
Orthopaedic surgery									
Days waited at 50th percentile	114	61	49	58	72	119	104	31	69
Days waited at 90th percentile	350	285	276	227	328	435	343	190	330
Percentage waited more than 365 days	3.5	5.1	0.6	1.8	3.6	17.5	6.7	2.2	3.3
Paediatric surgery									
Days waited at 50th percentile				46	30	41	42		42
Days waited at 90th percentile				174	107	115	139		147
Percentage waited more than 365 days				0.0	0.1	0.3	0.2		0.1
Plastic and reconstructive surgery									
Days waited at 50th percentile	34	21	28	34	32	28	22	18	27
Days waited at 90th percentile	256	188	126	174	139	378	131	162	183
Percentage waited more than 365 days	2.1	3.7	0.6	2.5	2.4	10.7	1.6	3.8	2.7
Urological surgery									
Days waited at 50th percentile	29	21	26	26	34	29	28	45	26
Days waited at 90th percentile	114	85	85	156	106	136	94	277	102
Percentage waited more than 365 days	0.5	0.4	0.2	1.5	1.1	2.5	0.7	6.6	0.6
Vascular surgery									
Days waited at 50th percentile	20	28	19	20	22	24	18	23	21
Days waited at 90th percentile	152	242	84	114	117	111	276	150	158
Percentage waited more than 365 days	0.7	2.8	0.1	0.3	1.0	1.3	4.7	2.7	1.2
Other									
Days waited at 50th percentile	15	32	26	21	42	25	57	7	24
Days waited at 90th percentile	85	129	127	117	310	108	242	39	128
Percentage waited more than 365 days	0.1	0.7	0.0	0.5	0.3	0.0	0.3	1.2	0.4
Total									
Days waited at 50th percentile	54	30	32	34	39	45	46	28	38
Days waited at 90th percentile	327	162	211	185	237	313	279	202	258
Percentage waited more than 365 days	1.6	2.0	0.4	1.5	1.8	6.6	3.8	4.2	1.7

⁽a) New South Wales, Victoria, Queensland and the Northern Territory did not report data for the surgical specialty Paediatric surgery in 2016–17.

Note: See Section 1.2 and appendixes A and B for notes on data limitations and methods.

⁽b) Includes admissions for which the Surgical specialty was not reported.

4.3 How did waiting times vary by intended surgical procedure?

Waiting list statistics for intended surgical procedures can indicate performance in particular areas of elective surgery provision.

For time series, the 15 indicator procedures are presented, including the 2016–17 data based on the *Intended procedure* data element. There is also an 'other' category which contains data for procedures not included in the 15 indicator procedure categories.

For the 2016–17 data, a longer list of 25 intended surgical procedures is presented. This includes the 15 'indicator procedures' and the 10 most common intended surgical procedures that were not 'indicator procedures'.

There was some variation in the reporting of intended surgical procedures among jurisdictions, which indicates that the data element was not completely implemented, or that there are differences among jurisdictions in the types of procedures that are managed through elective surgery waiting lists.

For 2016–17, the majority of states and territories provided some patient counts for most of the 152 procedure categories. For Tasmania, 96 of the 152 intended procedures were not reported and for New South Wales, 29 of the intended procedures were not reported.

Therefore, the data by intended surgical procedure for jurisdictions that did not report against all intended surgical procedure categories may not be comparable with the data provided by other jurisdictions.

Changes over time

Between 2012-13 and 2016-17:

- Coronary artery bypass graft was consistently the intended surgical procedure with the lowest median waiting time; it fluctuated between 13 and 18 days (Table 4.6)
- the median waiting time increased for several of the 15 'indicator procedures', with the largest increase in median waiting time being for *Myringoplasty/tympanoplasty*, increasing from 123 days in 2012–13 to 173 days in 2015–16, falling to 170 days in 2016–17
- the length of time within which 90% of patients were admitted for Cholecystectomy decreased from 181 days to 132 days
- there were marked decreases in the proportions of patients who waited more than 365 days to be admitted for *Total knee replacement* (from 12.1% to 6.0%), *Septoplasty* (from 15.7% to 9.1%), and *Varicose veins treatment* (from 7.7% to 4.0%).

Where to go for more information

Information on waiting times by surgical procedure for 2016–17 is available in:

- 'Section 4.5: Performance indicator: Waiting times for elective surgery—waiting time in days'
- 'Table S4.2: Waiting time statistics for admissions from public hospital waiting lists for elective surgery, by surgical procedure, and public hospital peer group, states and territories, 2016–17' (accompanies this report online)
- 'Table S4.3: Waiting time statistics for admissions from public hospital waiting lists for elective surgery, by surgical procedure, and Indigenous status, states and territories, 2016–17' (accompanies this report online).

Information on data limitations and methods is available in appendixes A and B.

Table 4.6: Waiting time statistics for admissions from public hospital elective surgery waiting lists, by intended surgical procedure, 2012–13 to 2016–17 $^{(a)}$

Intended surgical procedure	2012–13	2013-14	2014–15	2015-16 ^(b)	2016–17 ^(c)
Cataract extraction					
Days waited at 50th percentile	89	79	83	93	85
Days waited at 90th percentile	339	333	331	334	330
Percentage waited more than 365 days	3.1	2.4	1.8	2.5	1.4
Cholecystectomy					
Days waited at 50th percentile	50	46	43	42	41
Days waited at 90th percentile	181	148	137	139	132
Percentage waited more than 365 days	1.7	0.7	0.7	0.7	0.3
Coronary artery bypass graft					
Days waited at 50th percentile	16	18	14	13	13
Days waited at 90th percentile	77	82	73	70	62
Percentage waited more than 365 days	0.2	0.0	0.0	0.0	0.0
Cystoscopy					
Days waited at 50th percentile	23	23	22	23	24
Days waited at 90th percentile	107	100	93	95	92
Percentage waited more than 365 days	0.9	0.6	0.5	0.5	0.5
Haemorrhoidectomy					
Days waited at 50th percentile	59	59	56	54	49
Days waited at 90th percentile	257	222	208	225	196
Percentage waited more than 365 days	3.5	2.3	1.0	2.2	0.7
Hysterectomy					
Days waited at 50th percentile	53	52	55	52	55
Days waited at 90th percentile	218	211	217	216	236
Percentage waited more than 365 days	1.9	1.4	1.2	1.8	1.0
Inguinal herniorrhaphy					
Days waited at 50th percentile	60	56	51	52	52
Days waited at 90th percentile	284	246	242	233	242
Percentage waited more than 365 days	3.1	1.8	1.5	1.8	0.9
Myringoplasty/tympanoplasty ^(d)					
Days waited at 50th percentile	123	128	137	173	170
Days waited at 90th percentile	365	383	383	382	368
Percentage waited more than 365 days	9.7	11.8	11.8	12.0	10.7
Myringotomy					
Days waited at 50th percentile	49	55	56	57	56
Days waited at 90th percentile	142	191	190	196	225
Percentage waited more than 365 days	1.3	1.0	1.3	1.0	1.1

Table 4.6 (continued): Waiting time statistics for admissions from public hospital elective surgery waiting lists, by intended surgical procedure, 2012–13 to 2016–17^(a)

Intended surgical procedure	2012–13	2013–14	2014–15	2015–16 ^(b)	2016–17 ^(c)
Prostatectomy					
Days waited at 50th percentile	39	43	40	42	41
Days waited at 90th percentile	167	157	121	125	132
Percentage waited more than 365 days	1.7	1.3	0.7	0.9	0.7
Septoplasty					
Days waited at 50th percentile	197	221	214	209	209
Days waited at 90th percentile	390	385	370	365	364
Percentage waited more than 365 days	15.7	12.8	10.5	9.7	9.1
Tonsillectomy					
Days waited at 50th percentile	98	99	124	120	97
Days waited at 90th percentile	359	354	353	350	347
Percentage waited more than 365 days	7.3	5.0	5.1	4.3	3.4
Total hip replacement					
Days waited at 50th percentile	116	106	109	114	110
Days waited at 90th percentile	357	354	344	348	344
Percentage waited more than 365 days	7.5	6.5	4.4	4.8	3.9
Total knee replacement					
Days waited at 50th percentile	196	194	191	188	195
Days waited at 90th percentile	374	365	359	361	358
Percentage waited more than 365 days	12.1	9.9	6.6	7.5	6.1
Varicose veins treatment ^(e)					
Days waited at 50th percentile	96	97	105	104	90
Days waited at 90th percentile	356	353	357	348	328
Percentage waited more than 365 days	7.7	7.2	8.3	5.0	4.0
Other procedures					
Days waited at 50th percentile	28	28	28	28	29
Days waited at 90th percentile	195	199	186	191	196
Percentage waited more than 365 days	2.2	2.1	1.5	1.6	1.6
Total					
Days waited at 50th percentile	36	36	35	37	38
Days waited at 90th percentile	265	262	253	260	258
Percentage waited more than 365 days	2.7	2.4	1.8	2.0	1.7

⁽a) Interpretation of changes over time should take into account changes in coverage as noted in Section 1.2.

Note: See Section 1.2 and appendixes A and B for notes on data limitations and methods.

⁽b) Excludes data for the Australian Capital Territory, which were not available at the time of publication.

⁽c) For 2016–17, Intended procedure replaced Indicator procedure. Changes over time should take into account changes in the data element definition in Section 4.3.

⁽d) Myringoplasty before 2016–17.

⁽e) Varicose vein stripping and ligation before 2016–17.

4.4 How did waiting times vary by Indigenous status?

The quality of the data reported for Indigenous status in elective surgery waiting lists has not been formally assessed. Therefore, the information on Indigenous status presented in this report should be interpreted with caution (see Appendix A).

For 2016–17, there were about 27,000 admissions from elective surgery waiting lists for patients who identified as being of Aboriginal and/or Torres Strait Islander origin.

Overall, the median waiting time for Indigenous Australians was higher than that for other Australians (45 days compared with 38 days) (Table 4.7). For South Australia, the median waiting time for Indigenous Australians was lower than that for other Australians.

Overall, the proportion of Indigenous Australians who waited more than 365 days for elective surgery was higher than for other Australians (2.0% and 1.7%, respectively).

Intended surgical procedures by Indigenous status

Indigenous Australians had higher median waiting times than other Australians for most of the selected intended surgical procedures (Table 4.8).

For intended surgical procedures for which there were at least 100 admissions for Indigenous persons, the most notable differences in median waiting times between Indigenous Australians and other Australians were for *Septoplasty* (301 days and 208 days, respectively) and *Total knee replacement* (251 days and 193 days, respectively).

Indigenous Australians had a notably lower median waiting time than other Australians for *Myringoplasty/tympanoplasty* (125 days and 186 days, respectively), and *Thyroidectomy/hemi-thyroidectomy* (44 days and 52 days, respectively).

For Indigenous Australians, the highest proportion of patients who waited more than 365 days to be admitted was for *Septoplasty* (12.3%), followed by *Myringoplasty/tympanoplasty* (12.0%).

Table 4.7: Waiting time statistics for admissions from public hospital elective surgery waiting lists, by Indigenous status^(a), states and territories, 2016–17

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Indigenous Australians									
Number of admissions	8,731	2,024	7,295	3,329	1,453	895	381	2,520	26,628
Days waited at the 50th percentile	62	35	41	35	33	47	52	37	45
Days waited at the 90th percentile	335	182	237	196	185	274	286	306	295
Percentage who waited more than 365 days	1.8	2.2	0.4	1.2	1.4	5.5	4.2	6.8	2.0
Other Australians ^(b)									
Number of admissions	214,162	194,062	136,152	83,418	57,202	18,292	12,445	5,730	721,463
Days waited at the 50th percentile	54	30	32	34	39	45	46	26	38
Days waited at the 90th percentile	327	161	210	185	238	314	279	171	256
Percentage who waited more than 365 days	1.6	2.0	0.4	1.5	1.8	6.7	3.8	3.0	1.7

⁽a) The quality of the data reported for Indigenous status in elective surgery waiting lists has not been formally assessed. Therefore, the information on Indigenous status presented in this report should be interpreted with caution

Note: See Section 1.2, Box 2.1 and appendixes A and B for notes on data limitations and methods.

⁽b) Other Australians includes patients for whom Indigenous status was Not reported.

Table 4.8: Waiting time statistics for admissions from public hospital elective surgery waiting lists, by Indigenous status^(a) and intended surgical procedure, 2016–17

		Indigenous	Australians			Other Au	stralians ^(b)	
Intended surgical procedure	Admissions	Days waited at the 50th percentile	Days waited at the 90th percentile	Percentage waited more than 365 days	Admissions	Days waited at the 50th percentile	Days waited at the 90th percentile	Percentage waited more than 365 days
Arthroscopy	508	96	331	2.0	13,021	67	305	1.6
Breast lump—excision and/or biopsy	233	17	72	0.0	8,999	15	43	0.1
Carpal tunnel release	294	72	292	1.4	10,717	56	246	0.9
Cataract extraction (with or without intra-ocular lens insertion)	1,944	130	344	3.1	69,433	85	330	1.3
Cholecystectomy (open/laparoscopic)	863	49	163	0.2	17,748	41	130	0.3
Colectomy/anterior resection/large bowel resection	88	22	69	0.0	4,499	17	51	0.1
Coronary artery bypass grafting	198	11	48	0.0	3,333	13	62	0.0
Cystoscopy	1,050	26	98	0.3	54,769	23	92	0.5
Haemorrhoidectomy	129	42	234	0.0	4,464	49	195	0.8
Herniorrhaphy	491	69	307	1.4	11,461	63	273	1.0
Hysterectomy (abdominal/vaginal/laparoscopic)	485	64	261	0.4	10,972	55	233	1.0
Hysteroscopy, dilatation and curettage	1,172	25	89	0.3	30,890	23	85	0.1
Inguinal herniotomy/herniorrhaphy	407	58	267	0.5	16,402	52	241	0.9
Laparoscopy	423	58	265	0.5	9,283	47	173	0.5
Myringoplasty/tympanoplasty	467	125	432	12.0	1,400	186	367	10.2
Myringotomy	825	55	229	1.0	5,917	56	224	1.2
Prostatectomy (transurethral or open)	130	47	193	0.8	8,086	41	131	0.7
Salpingo-oophorectomy/oophorectomy/ovarian cystectomy	152	46	123	0.0	4,513	40	109	0.3
Septoplasty	122	301	368	12.3	4,940	208	364	9.0
Skin lesion—excision of	876	30	196	1.1	47,906	25	88	0.3
Thyroidectomy/hemi-thyroidectomy	159	44	192	0.0	5,364	52	189	1.1

Table 4.8 (continued): Waiting time statistics for admissions from public hospital elective surgery waiting lists, by Indigenous status^(a) and intended surgical procedure, 2016–17

		Indigenous	Australians		Other Australians ^(b)					
Intended surgical procedure	Admissions	Days waited at the 50th percentile	Days waited at the 90th percentile	Per cent waited more than 365 days	Admissions	Days waited at the 50th percentile	Days waited at the 90th percentile	Per cent waited more than 365 days		
Tonsillectomy (with or without adenoidectomy)	1,578	113	348	2.9	17,888	96	346	3.5		
Total hip replacement	174	144	353	5.7	10,977	110	344	3.9		
Total knee replacement	360	251	362	6.4	16,493	193	358	6.1		
Varicose veins treatment	68	88	343	5.9	3,750	90	328	3.9		
Other procedures	13,432	29	244	1.9	328,238	29	221	2.1		
Total	26,628	45	295	2.0	721,463	38	256	1.7		

⁽a) The quality of the data reported for Indigenous status in elective surgery waiting lists has not been formally assessed. Therefore, the information on Indigenous status presented in this report should be interpreted with caution

Note: See Section 1.2, Box 2.1 and appendixes A and B for notes on data limitations and methods.

⁽b) Other Australians includes patients for whom Indigenous status was Not reported.

4.5 Performance indicator: Waiting times for elective surgery—waiting time in days

Waiting times for elective surgery are an indicator of the provision of timely care and are included as an NHA performance indicator in the outcome area of *Australians receive* appropriate high quality and affordable hospital and hospital related care (COAG 2011).

This performance indicator can be related to the National Health Performance Framework dimension 'Accessibility' within the domain 'Health System Performance'.

The indicator reports on the median and 90th percentile waiting times for elective surgery in public hospitals, by surgical procedure, and overall. It includes disaggregations by states and territories, public hospital peer group and Indigenous status (see 'Section 4.4 How did waiting times vary by Indigenous status?').

In AIHW reports before 2014–15, this information was presented using the previous peer group classification. The change from the previous peer group classification to the current peer group classification has resulted in a 'break in series' for data disaggregated by peer group. Therefore, the performance indicator information presented here by public hospital peer group is not directly comparable with information presented in AIHW reports before 2014–15.

How did waiting times vary across public hospital peer groups?

Variations between hospital groups may reflect differences in the mix of patients and in the types of surgery performed.

Overall in 2016–17, the median waiting time for patients admitted from waiting lists for *Principal referral and women's and children's hospitals* (32 days) was shorter than for *Public acute group A hospitals* and *Public acute group B hospitals* (42 days and 44 days, respectively) (Table 4.9).

For *Principal referral and women's and children's hospitals*, the median waiting time ranged from 26 days in the Northern Territory to 51 days in Tasmania. For *Public acute group A hospitals*, the median waiting time ranged from 25 days in the Northern Territory to 67 days in the Australian Capital Territory.

How did waiting times vary by intended surgical procedure?

Nationally, *Coronary artery bypass graft* was the intended surgical procedure with the lowest median waiting time in 2016–17 (13 days) (excluding the Australian Capital Territory, see Table 4.10). The median waiting time for *Coronary artery bypass graft* ranged from 6 days in Queensland to 33 days in Tasmania.

Coronary artery bypass graft was also the procedure with the lowest 90th percentile waiting time in 2016–17 (62 days). The 90th percentile waiting time for Coronary artery bypass graft ranged from 29 days in Queensland to 122 days in Tasmania.

Septoplasty had the highest median waiting time in 2016–17 (209 days). The median waiting time for Septoplasty ranged from 89 days in Victoria to 360 days in the Australian Capital Territory.

Table 4.9: Waiting time statistics for admissions from public hospital elective surgery waiting lists, by public hospital peer group, states and territories, 2016–17

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Principal referral and women's and children's hospitals									
Days waited at the 50th percentile	35	30	29	29	39	51	34	26	32
Days waited at the 90th percentile	292	163	195	168	210	262	259	195	219
Percentage waited more than 365 days	2.0	1.9	0.5	2.0	1.9	5.5	3.1	4.3	1.8
Public acute group A hospitals									
Days waited at the 50th percentile	65	28	37	39	52	42	67	25	42
Days waited at the 90th percentile	342	175	236	209	315	342	295	147	293
Percentage waited more than 365 days	2.0	2.4	0.3	2.0	3.4	8.4	4.9	1.7	2.1
Public acute group B hospitals									
Days waited at the 50th percentile	77	34	29	29	28	41			44
Days waited at the 90th percentile	331	142	168	174	163	314			274
Percentage waited more than 365 days	0.4	1.3	0.1	0.7	0.5	1.9			0.8
Other hospitals									
Days waited at the 50th percentile	59	31	35	43	28			86	40
Days waited at the 90th percentile	312	146	183	193	218			402	233
Percentage waited more than 365 days	0.3	2.3	0.5	0.4	0.0			12.0	1.0
Total ^(a)									
Days waited at the 50th percentile	54	30	32	34	39	45	46	28	38
Days waited at the 90th percentile	327	162	211	185	237	313	279	202	258
Percentage waited more than 365 days	1.6	2.0	0.4	1.5	1.8	6.6	3.8	4.2	1.7

⁽a) Includes hospitals not included in the specified hospital peer groups.

Note: See Section 1.2 and appendixes A, B and C for notes on data limitations and methods.

Table 4.10: Waiting time statistics for admissions from public hospital elective surgery waiting lists, by intended surgical procedure, states and territories, 2016-17

Intended surgical procedure	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Arthroscopy									
Days waited at 50th percentile	140	41	64	47	56	79	86	58	68
Days waited at 90th percentile	344	129	296	175	242	326	280	166	306
Percentage waited more than 365 days	2.8	0.7	8.0	0.9	0.9	7.4	2.0	1.6	1.7
Breast lump—excision and/or biopsy									
Days waited at 50th percentile	16	13	15	15	19	16	20	21	15
Days waited at 90th percentile	50	30	45	49	43	44	62	53	44
Percentage waited more than 365 days	0.0	0.1	0.0	0.2	0.0	0.0	0.0	0.0	0.1
Carpal tunnel release									
Days waited at 50th percentile	78	42	54	51	33	77	78	41	56
Days waited at 90th percentile	322	134	210	173	107	284	204	173	246
Percentage waited more than 365 days	1.3	0.9	0.2	0.5	0.5	4.1	1.0	3.9	0.9
Cataract extraction (with or without intra-ocular lens insertion)									
Days waited at 50th percentile	224	41	70	51	93	185	123	117	86
Days waited at 90th percentile	349	133	334	220	318	373	330	310	330
Percentage waited more than 365 days	1.2	0.6	0.7	0.7	1.1	11.4	4.7	6.8	1.4
Cholecystectomy (open/laparoscopic)									
Days waited at 50th percentile	51	31	45	35	37	33	52	43	41
Days waited at 90th percentile	220	94	164	91	93	105	180	119	132
Percentage waited more than 365 days	0.6	0.1	0.3	0.1	0.5	0.0	0.4	0.0	0.3
Colectomy/anterior resection/large bowel resection									
Days waited at 50th percentile	18	17	18	15	18	n.a.	12	10	17
Days waited at 90th percentile	50	63	48	55	42	n.a.	42	25	52
Percentage waited more than 365 days	0.0	0.4	0.0	0.0	0.0	n.a.	0.0	0.0	0.1

Table 4.10 (continued): Waiting time statistics for admissions from public hospital elective surgery waiting lists, by intended surgical procedure, states and territories, 2016–17

Intended surgical procedure	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Coronary artery bypass grafting									
Days waited at 50th percentile	27	16	6	11	21	33	10		13
Days waited at 90th percentile	94	63	29	51	56	122	35		62
Percentage waited more than 365 days	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Cystoscopy									
Days waited at 50th percentile	27	19	26	28	31	27	28	50	24
Days waited at 90th percentile	100	70	85	163	105	147	89	227	92
Percentage waited more than 365 days	0.3	0.1	0.0	1.8	1.0	2.0	0.7	0.0	0.5
Haemorrhoidectomy									
Days waited at 50th percentile	63	41	64	46	42	38	92	24	49
Days waited at 90th percentile	295	151	281	177	94	177	200	77	196
Percentage waited more than 365 days	1.1	0.5	1.0	0.6	0.5	1.4	2.0	0.0	0.7
Herniorrhaphy									
Days waited at 50th percentile	83	48	69	43	45	n.a.	98	49	63
Days waited at 90th percentile	337	139	270	146	115	n.a.	244	141	274
Percentage waited more than 365 days	1.8	0.5	0.5	0.4	0.6	n.a.	0.5	3.9	1.0
Hysterectomy (abdominal/vaginal/laparoscopic)									
Days waited at 50th percentile	64	44	61	43	37	77	66	67	55
Days waited at 90th percentile	305	143	258	134	246	363	161	157	236
Percentage waited more than 365 days	1.3	0.8	0.2	0.0	0.7	9.9	1.3	0.0	1.0
Hysteroscopy, dilatation and curettage									
Days waited at 50th percentile	28	17	27	21	27	27	29	19	23
Days waited at 90th percentile	102	66	80	77	87	155	95	98	85
Percentage waited more than 365 days	0.1	0.0	0.0	0.0	0.1	2.3	0.0	0.0	0.1
Inguinal herniotomy/herniorrhaphy									
Days waited at 50th percentile	72	38	58	39	38	37	72	36	52
Days waited at 90th percentile	329	116	216	125	118	148	226	112	242
Percentage waited more than 365 days	1.7	0.2	0.3	0.1	1.0	2.2	0.5	0.0	0.9

Table 4.10 (continued): Waiting time statistics for admissions from public hospital elective surgery waiting lists, by intended surgical procedure, states and territories, 2016-17

Intended surgical procedure	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Laparoscopy									
Days waited at 50th percentile	50	41	57	34	50	63	49	43	47
Days waited at 90th percentile	240	112	246	100	207	249	131	144	177
Percentage waited more than 365 days	0.8	0.1	0.3	0.3	0.3	5.0	0.5	2.5	0.5
Myringoplasty/tympanoplasty									
Days waited at 50th percentile	270	104	187	99	81	83	431	234	170
Days waited at 90th percentile	365	525	357	336	364	378	803	914	368
Percentage waited more than 365 days	9.5	17.0	2.7	2.9	8.2	13.8	69.6	27.3	10.7
Myringotomy									
Days waited at 50th percentile	73	50	50	58	48	69	69	34	56
Days waited at 90th percentile	329	120	219	265	92	131	336	166	225
Percentage waited more than 365 days	2.2	0.8	0.2	0.6	0.6	0.6	6.3	2.8	1.1
Prostatectomy (transurethral or open)									
Days waited at 50th percentile	57	30	36	32	51	59	31	154	41
Days waited at 90th percentile	213	111	88	153	141	116	133	288	132
Percentage waited more than 365 days	1.1	0.3	0.1	1.0	1.6	0.0	0.0	9.5	0.7
Salpingo-oophorectomy/oophorectomy/ovarian cystectomy									
Days waited at 50th percentile	49	33	49	36	43	n.a.	53	63	41
Days waited at 90th percentile	220	92	88	97	111	n.a.	95	210	110
Percentage waited more than 365 days	0.4	0.3	0.0	0.0	1.3	n.a.	0.0	3.4	0.3
Septoplasty									
Days waited at 50th percentile	322	89	173	161	276	188	360	222	209
Days waited at 90th percentile	364	299	347	376	378	411	505	808	364
Percentage waited more than 365 days	8.3	5.9	0.4	11.5	14.8	18.6	46.7	43.1	9.1
Skin lesion—excision of									
Days waited at 50th percentile	29	22	24	30	22	n.a.	26	15	25
Days waited at 90th percentile	105	90	80	99	69	n.a.	112	75	89
Percentage waited more than 365 days	0.3	0.5	0.1	0.7	0.1	n.a.	0.4	0.6	0.4

Table 4.10 (continued): Waiting time statistics for admissions from public hospital elective surgery waiting lists, by intended surgical procedure, states and territories, 2016–17

Intended surgical procedure	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Thyroidectomy/hemi-thyroidectomy									
Days waited at 50th percentile	66	54	39	27	43	50	31	28	52
Days waited at 90th percentile	306	149	93	135	97	135	94	35	189
Percentage waited more than 365 days	1.9	0.2	0.2	1.5	0.7	2.2	1.7	0.0	1.0
Tonsillectomy (with or without adenoidectomy)									
Days waited at 50th percentile	265	69	88	129	67	89	233	49	97
Days waited at 90th percentile	360	197	316	355	339	335	379	309	347
Percentage waited more than 365 days	5.6	1.8	0.1	6.3	4.1	7.9	11.6	8.8	3.4
Total hip replacement									
Days waited at 50th percentile	217	83	80	86	174	185	120	120	110
Days waited at 90th percentile	354	243	299	278	358	442	325	392	344
Percentage waited more than 365 days	3.7	3.6	0.6	3.2	7.0	20.6	5.3	17.1	3.9
Total knee replacement									
Days waited at 50th percentile	290	97	140	100	254	320	223	147	195
Days waited at 90th percentile	360	297	346	315	369	512	366	365	358
Percentage waited more than 365 days	5.8	5.6	1.5	4.2	11.0	40.5	10.2	8.9	6.1
Varicose veins treatment									
Days waited at 50th percentile	121	76	72	48	80	60	225	176	90
Days waited at 90th percentile	331	305	318	280	346	189	431	686	328
Percentage waited more than 365 days	3.0	4.9	0.8	1.4	3.6	2.6	16.8	29.2	3.9
Other procedures									
Days waited at 50th percentile	34	31	26	28	33	33	34	21	29
Days waited at 90th percentile	297	216	158	164	169	231	233	155	222
Percentage waited more than 365 days	1.6	3.4	0.4	1.7	1.8	5.4	3.5	3.2	2.1
Total									
Days waited at 50th percentile	54	30	32	34	39	45	46	28	38
Days waited at 90th percentile	327	162	211	185	237	313	279	202	258
Percentage waited more than 365 days	1.6	2.0	0.4	1.5	1.8	6.7	3.8	4.2	1.7

Note: See Section 1.2 and appendixes A and B for notes on data limitations and methods.

4.6 How did waiting times differ by clinical urgency category?

When a patient is placed on the public hospital waiting list, a clinical assessment is made of the urgency (clinically recommended time) within which they require elective surgery. For more information, see Box 4.1.

The information in this section includes the proportion of patients removed from waiting lists within the clinically recommended time, the median waiting time and the average overdue waiting time for patients remaining on waiting lists at the end of the year.

The proportion of patients seen within the recommended time is the percentage of patients removed from elective surgery waiting lists who were admitted for surgery within the clinically recommended time for each clinical urgency category.

The 'overdue wait' is the amount of time spent waiting while overdue—that is, after 30, 90 or 365 days for clinical urgency categories 1, 2 and 3, respectively. The average overdue wait time (in days) is calculated for patients who were still waiting for their elective surgery as at 30 June 2017, who were ready for care, and who had waited beyond the recommended time.

Due to the apparent lack of comparability of clinical urgency categories between states and territories (see Table 4.11), these data are presented for each state and territory separately. Comparisons between states and territories and between reporting years should be made with reference to Box 4.1, Table 4.11 and Appendix A.

Box 4.1: Clinical urgency categorisation

In general, at the time of being placed on the public hospital waiting list, a clinical assessment is made of the urgency with which the patient requires elective surgery. The clinical urgency categories are:

- Category 1—procedures that are clinically indicated within 30 days
- Category 2—procedures that are clinically indicated within 90 days
- Category 3—procedures that are clinically indicated within 365 days.

Analyses of clinical urgency category data have shown notable variation in the assignment of these categories, both among and within jurisdictions, and for individual surgical specialties and surgical procedures, as well as overall (AIHW 2013b). This apparent lack of comparability of clinical urgency categories among jurisdictions means that measures based on these categories are also not comparable between jurisdictions. The concepts of the proportion 'overdue' and the 'average overdue wait time' may also not be meaningful or comparable because they depend on the urgency categorisation.

As for earlier years, there is apparent variation in the assignment of urgency categories among states and territories for 2016–17. For example, the proportion of patients admitted from waiting lists who were assigned to *Category 3* was 44% for New South Wales and less than 25% for Queensland (Table 4.10).

Despite the differences in how clinicians assign clinical urgency categories, interpreting state and territory waiting times statistics could be assisted by having context information about the proportion of patients in each urgency category.

Box 4.1 (continued): Clinical urgency categorisation

For example, a state or territory could report relatively long median waiting times in association with a relatively high proportion of patients assessed by clinicians in the state (or territory) as being in *Category 3* (procedure clinically indicated within 365 days). Conversely, a state or territory in which a relatively high proportion of patients are assessed by clinicians as being in *Category 1* or 2 (procedure clinically indicated within 30 days and 90 days, respectively) could have relatively short overall median waiting times.

In 2012, the AIHW, in collaboration with the Royal Australasian College of Surgeons, developed a package of integrated reforms for national definitions for elective surgery urgency categories (AIHW 2013b), which were agreed by the Australian Health Ministers' Advisory Council.

The revised definitions for urgency categories were implemented from 1 July 2015. The data element *Intended procedure* and the revised data element for Surgical specialty were implemented on 1 July 2016. Guidelines on the assignment of the 'usual' clinical urgency category for each intended procedure were released in 2015 (AHMAC 2015).. With these changes, it is expected that the comparability of the urgency categorisation data will improve over coming years.

See appendixes A and B for more information.

Table 4.11: Admissions from public hospital elective surgery waiting lists, by clinical urgency category, states and territories, 2016–17

Clinical urgency									
category	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
			Ad	missions					
Category 1	49,454	55,536	51,155	22,504	15,855	7,100	4,251	2,875	208,730
Category 2	74,525	89,825	56,066	27,176	21,189	7,160	4,620	3,601	284,162
Category 3	98,914	50,725	36,226	37,067	21,611	4,927	3,955	1,774	255,199
Total admissions	222,893	196,086	143,447	86,747	58,655	19,187	12,826	8,250	748,091
			Percentag	e of admis	sions				
Category 1	22.2	28.3	35.7	25.9	27.0	37.0	33.1	34.8	27.9
Category 2	33.4	45.8	39.1	31.3	36.1	37.3	36.0	43.6	38.0
Category 3	44.4	25.9	25.3	42.7	36.8	25.7	30.8	21.5	34.1

Category 1—within 30 days; Category 2—within 90 days; Category 3—within 365 days.

Note: See Section 1.2, Box 4.1 and appendixes A and B for notes on data limitations and methods.

New South Wales

For New South Wales, 98% of patients were admitted within the clinically recommended time, overall (Table 4.12).

Almost all *Category 1* patients were admitted for surgery within 30 days, and the median waiting time was 10 days.

For patients remaining on the waiting list as at 30 June 2017, the average overdue waiting time for *Category 1* patients was 150 days. The average overdue waiting time was 19.7 days for *Category 2* patients and 36.2 days for *Category 3* patients.

Table 4.12: Selected statistics for public hospital elective surgery waiting lists, by clinical urgency, New South Wales, 2016–17

	Category 1 (within 30 days)	Category 2 (within 90 days)	Category 3 (within 365 days)	Total
Number of admissions	49,454	74,525	98,914	222,893
Number admitted within clinically recommended time	49,373	72,710	95,354	217,437
Proportion admitted within clinically recommended time (%)	99.8	97.6	96.4	97.6
Days waited at 50th percentile	10	42	208	54
Patients remaining on waiting lists as at 30 June 2017				
Average overdue wait time (days)	150.0	19.7	36.2	32.7

Victoria

For Victoria, 89% of all patients were admitted within the clinically recommended time, overall (Table 4.13).

All *Category 1* patients were admitted for surgery within 30 days, and the median waiting time was 11 days. About 80% of *Category 2* patients and 94% of *Category 3* patients were admitted within the clinically recommended times.

There were no overdue *Category 1* patients remaining on the waiting list as at 30 June 2017. The average overdue waiting time was 95.9 days for *Category 2* patients and 174.3 days for *Category 3* patients.

Table 4.13: Selected statistics for public hospital elective surgery waiting lists, by clinical urgency, Victoria, 2016–17

	Category 1 (within 30 days)	Category 2 (within 90 days)	Category 3 (within 365 days)	Total
Number of admissions	55,536	89,825	50,725	196,086
Number admitted within clinically recommended time	55,535	72,007	47,842	175,384
Proportion admitted within clinically recommended time (%)	100.0	80.2	94.3	89.4
Days waited at 50th percentile	11	46	71	30
Patients remaining on waiting lists as at 30 June 2017				
Average overdue wait time (days)		95.9	174.3	112.6

Note: See Section 1.2, Box 4.1 and appendixes A and B for notes on definitions and data limitations.

Queensland

For Queensland, about 97% of all patients were admitted within the clinically recommended time, overall (Table 4.14).

About 39% of Queensland admissions were *Category 2* patients—requiring admission within 90 days—and 96% of these were admitted within the clinically recommended time.

For *Category 1,2* and 3 patients remaining on the waiting list as at 30 June 2017, the average overdue wait was similar; 46.7, 45.5 and 46.8 days, respectively.

Table 4.14: Selected statistics for public hospital elective surgery waiting lists, by clinical urgency, Queensland, 2016–17

	Category 1 (within 30 days)	Category 2 (within 90 days)	Category 3 (within 365 days)	Total
Number of admissions	51,155	56,066	36,226	143,447
Number admitted within clinically recommended time	50,032	53,866	35,690	139,588
Proportion admitted within clinically recommended time (%)	97.8	96.1	98.5	97.3
Days waited at 50th percentile	12	49	162	32
Patients remaining on waiting lists as at 30 June 2017				
Average overdue wait time (days)	46.7	45.5	46.8	45.9

Western Australia

For Western Australia, 92% of all patients were admitted within the clinically recommended time, overall (Table 4.15).

For patients remaining on the waiting list as at 30 June 2017, the average overdue waiting time was 12.2 days for *Category 1* patients, 72.8 days for *Category 2* patients and 82.0 days for *Category 3* patients.

Table 4.15: Selected statistics for public hospital elective surgery waiting lists, by clinical urgency, Western Australia, 2016–17

	Category 1 (within 30 days)	Category 2 (within 90 days)	Category 3 (within 365 days)	Total
	30 days)	90 days)	303 days)	Total
Number of admissions	22,504	27,176	37,067	86,747
Number admitted within clinically recommended time	20,069	23,767	35,887	79,723
Proportion admitted within clinically recommended time (%)	89.2	87.5	96.8	91.9
Days waited at 50th percentile	12	44	71	34
Patients remaining on waiting lists as at 30 June 2017				
Average overdue wait time (days)	12.2	72.8	82.0	66.5

Note: See Section 1.2, Box 4.1 and appendixes A and B for notes on definitions and data limitations.

South Australia

For South Australia, about 91% of all patients were admitted within the clinically recommended time, overall (Table 4.16).

The median wait for admission was 13 days for *Category 1* patients, 50 days for *Category 2* patients and 105 days for *Category 3* patients.

For patients remaining on the waiting list as at 30 June 2017, the average overdue waiting time was 16.3 days for *Category 1* patients, 32.9 days for *Category 2* patients and 62.2 days for *Category 3* patients.

Table 4.16: Selected statistics for public hospital elective surgery waiting lists, by clinical urgency, South Australia, 2016–17

	Category 1 (within 30 days)	Category 2 (within 90 days)	Category 3 (within 365 days)	Total
Number of admissions	15,855	21,189	21,611	58,655
Number admitted within clinically recommended time	14,036	18,539	20,544	53,119
Proportion admitted within clinically recommended time (%)	88.5	87.5	95.1	90.6
Days waited at 50th percentile	13	50	105	39
Patients remaining on waiting lists as at 30 June 2017				
Average overdue wait time (days)	16.3	32.9	62.2	40.9

Tasmania

For Tasmania, about 73% of all patients were admitted within the clinically recommended time, overall (Table 4.17).

About 79% of patients in *Category 1* were admitted within clinically recommended times, and about 62% of *Category 2* patients were admitted within clinically recommended times.

For patients remaining on the waiting list as at 30 June 2017, the average overdue waiting time was 66.4 days for *Category 3* patients (that is, they had been on the waiting list for an average of 431.4 days).

Table 4.17: Selected statistics for public hospital elective surgery waiting lists, by clinical urgency, Tasmania, 2016–17

	Category 1 (within 30 days)	Category 2 (within 90 days)	Category 3 (within 365 days)	Total
Number of admissions	7,100	7,160	4,927	19,187
Number admitted within clinically recommended time	5,631	4,414	3,934	13,979
Proportion admitted within clinically recommended time (%)	79.3	61.6	79.8	72.9
Days waited at 50th percentile	16	69	206	45
Patients remaining on waiting lists as at 30 June 2017				
Average overdue wait time (days)	23.6	87.9	66.4	69.3

Note: See Section 1.2, Box 4.1 and appendixes A and B for notes on definitions and data limitations.

Australian Capital Territory

For the Australian Capital Territory, almost 87% of all patients were admitted within the clinically recommended time overall (Table 4.18).

The average waiting time for admission for *Category 1* patients was 17 days.

For *Category 1* patients remaining on the waiting list as at 30 June 2017, the average overdue wait was 4.6 days beyond the clinically recommended time.

Table 4.18: Selected statistics for public hospital elective surgery waiting lists, by clinical urgency, Australian Capital Territory, 2016–17

	Category 1 (within 30 days)	Category 2 (within 90 days)	Category 3 (within 365 days)	Total
Number of admissions	4,251	4,620	3,955	12,826
Number admitted within clinically recommended time	3,887	3,737	3,488	11,112
Proportion admitted within clinically recommended time (%)	91.4	80.9	88.2	86.6
Days waited at 50th percentile	17	56	182	46
Patients remaining on waiting lists as at 30 June 2017				
Average overdue wait time (days)	4.6	65.3	110.4	85.6

Northern Territory

For the Northern Territory, almost 86% of all patients were admitted within the clinically recommended time overall (Table 4.19).

The average waiting time for admission for Category 1 patients was 9 days.

For *Category 1* patients remaining on the waiting list as at 30 June 2016, the average overdue wait was 208.1 days beyond the clinically recommended time.

Table 4.19: Selected statistics for public hospital elective surgery waiting lists, by clinical urgency, Northern Territory, 2016–17

	Category 1 (within 30 days)	Category 2 (within 90 days)	Category 3 (within 365 days)	Total
Number of admissions	2,875	3,601	1,774	8,250
Number admitted within clinically recommended time	2,751	2,857	1,450	7,058
Proportion admitted within clinically recommended time (%)	95.7	79.3	81.7	85.6
Days waited at 50th percentile	9	42	164	28
Patients remaining on waiting lists as at 30 June 2017				
Average overdue wait time (days)	208.1	153.2	213.9	167.9

Note: See Section 1.2, Box 4.1 and appendixes A and B for notes on definitions and data limitations.

Where to go for more information

More information on waiting times by clinical urgency and by quarter for each state and territory for 2016–17 is available in tables S4.4 to S4.11: 'Selected statistics for admissions from public hospital waiting lists, by clinical urgency category and quarter, 2016–17' (which accompany this report online).

5 What were the safety and quality of the care?

This chapter presents information on some aspects of the safety and quality of public hospital elective surgery. It includes information for:

- adverse events reported for elective surgery admissions
- unplanned readmissions following elective surgery.

Information on adverse events and unplanned readmissions was calculated and provided by the states and territories. The AIHW is therefore unable to assess the quality of the data.

Adverse events information was not available for:

- New South Wales, Victoria and the Australian Capital Territory, for the June 2014 guarter
- New South Wales and Queensland, for the June 2016 quarter
- Australian Capital Territory, for September 2015 to March 2017.

Unplanned readmissions following surgery information was not available for:

- New South Wales, Victoria and the Australian Capital Territory, for the June 2014 quarter
- New South Wales and Queensland, for the June 2016 quarter.

Key findings

Adverse events

Western Australia, South Australia, Tasmania and the Northern Territory provided adverse events data for the 4 years from 1 April 2013 to 31 March 2017. The proportion of admissions from elective surgery waiting lists for which an adverse event was reported was relatively stable for these jurisdictions combined over the 4-year period, ranging from 5.9% to 6.1%.

Between 1 April 2016 and 31 March 2017, the rate of adverse events reported for public hospital elective surgery admissions (for jurisdictions that provided data) ranged from 6.0% in Western Australia to 7.8% in Victoria (Table 5.1).

Readmission following surgery

Western Australia, South Australia and the Northern Territory provided data on readmissions following surgery for the 4 years from 1 April 2013 to 31 March 2017. The rate of unplanned readmission to hospital following elective surgery was relatively stable for these jurisdictions combined over the 4-year period, at around 1.1% each year.

Between 1 April 2016 and 31 March 2017, the rate of unplanned readmission to hospital following elective surgery ranged from 1.1% in New South Wales and Victoria to 1.9% in Queensland (Table 5.2).

5.1 Adverse events reported for elective surgery admissions

Adverse events are generally defined as incidents in which harm resulted to a person receiving health care. They include infections, falls resulting in injuries, and problems with medication and medical devices—some of which may be preventable (see Box 5.1 for information about adverse events).

Information on adverse events was calculated and provided by the states and territories.

Box 5.1: Adverse events reported for elective surgery—data limitations

Hospital separations data (which the states and territories use to report adverse events related to elective surgery) include information on diagnoses, places of occurrence and external causes of injury and poisoning which can indicate that an adverse event was treated and/or occurred during the hospitalisation. However, other diagnosis codes may also suggest that an adverse event has occurred, while some adverse events are not identifiable using these codes.

The data in Table 5.1 can be interpreted as representing selected adverse events in health care that resulted in, or affected, hospital admissions—rather than all adverse events that occurred in association with elective surgery. Some of the adverse events may represent events that occurred before admission. For information on the specification used to identify adverse events, see Appendix B.

The diagnosis information in the hospitals separations data that can indicate that adverse events occurred is available only after the end of the episode of care. Therefore, information on adverse events may be incomplete at the end of the reporting period during which the surgery was undertaken. For that reason, data are presented here for the 12 months ending 31 March, rather than for the 12 months ending 30 June.

For the period 1 April 2014 to 31 March 2015, data were not available for the 1 April 2014 to 30 June 2014 quarter for New South Wales, Victoria and the Australian Capital Territory. Therefore, the data presented for those jurisdictions in Table 5.1 are for the period 1 July 2014 to 31 March 2015.

For the period 1 April 2016 to 31 March 2017, data were not available for the 1 April 2016 to 30 June 2016 quarter for New South Wales and Queensland. Therefore, the data presented for those jurisdictions in Table 5.1 are for the period 1 July 2016 to 31 March 2017.

Adverse events data for the period from 1 June 2015 to 31 March 2017, were not available for the Australian Capital Territory at the time of publication.

It should be noted that the use of the NESWTDC data for purposes such as reporting adverse events has not been validated for accuracy in Australia. The results should therefore be treated with caution.

Between 1 April 2013 and 31 March 2017, for Western Australia, South Australia, Tasmania and the Northern Territory (for which data were provided for all 4 years) combined, the overall proportion of admissions from elective surgery waiting lists for which an adverse event was reported was relatively stable (Table 5.1).

The calculation of the rate is limited to records for which an adverse event flag was reported as either 1 (adverse event recorded) or 2 (no adverse event reported). It does not include records for which the adverse event flag was not assigned (about 17% of admissions).

Between 1 April 2016 and 31 March 2017, the rate of adverse events following elective surgery was 6.9% (Table 5.1).

Table 5.1: Adverse events reported for admissions^(a) from public hospital elective surgery waiting lists, states and territories, April 2013 to March 2017

State or territory	April 2013 to March 2014	April 2014 to March 2015	April 2015 to March 2016	April 2016 to March 2017
New South Wales ^(b)				
Admissions with adverse events	10,791	8,707	11,269	9,045
Admissions	211,495	159,127	209,980	161,926
Proportion with an adverse event (%)	5.1	5.5	5.4	5.6
Victoria ^(c)				
Admissions with adverse events	13,306	10,549	13,057	13,987
Admissions	156,972	123,473	167,181	179,430
Proportion with an adverse event (%)	8.5	8.5	7.8	7.8
Queensland ^(d)				
Admissions with adverse events	8,020	8,283	9,338	7,567
Admissions	110,758	114,025	126,476	97,664
Proportion with an adverse event (%)	7.2	7.3	7.4	7.7
Western Australia				
Admissions with adverse events	4,717	4,565	4,895	5,100
Admissions	84,832	81,955	84,535	84,703
Proportion with an adverse event (%)	5.6	5.6	5.8	6.0
South Australia				
Admissions with adverse events	4,083	3,761	3,655	3,523
Admissions	63,542	61,839	59,672	58,015
Proportion with an adverse event (%)	6.4	6.1	6.1	6.1
Tasmania				
Admissions with adverse events	1,265	1,015	998	1,280
Admissions	16,021	14,503	16,645	20,217
Proportion with an adverse event (%)	7.9	7.0	6.0	6.3
Australian Capital Territory ^(e)				
Admissions with adverse events	799	554	n.a.	n.a.
Admissions	11,340	8,825	n.a.	n.a.
Proportion with an adverse event (%)	7.0	6.3	n.a.	n.a.
Northern Territory				
Admissions with adverse events	386	371	329	382
Admissions	7,100	6,856	6,784	7,377
Proportion with an adverse event (%)	5.4	5.4	4.8	5.2
Total				
Admissions with adverse events	43,367	37,805	43,541	40,884
Admissions	662,060	570,603	671,273	609,332
Proportion with an adverse event (%) ^(f)	6.6	6.4	6.5	6.9

⁽a) Admissions represents the number of records for which an adverse event flag was reported as either 1 (adverse event recorded) or 2 (no adverse event reported). It does not include records for which the adverse event flag was not assigned.

Note: See Section 1.2, Box 5.1 and appendixes A and B for notes on definitions and data limitations.

⁽b) For New South Wales, data were not available for the 1 April 2014 to 30 June 2014 quarter and for the 1 April 2016 to 30 June 2016 quarter.

⁽c) For Victoria, data were not available for the 1 April 2014 to 30 June 2014 quarter.

⁽d) For Queensland, data were not available for the 1 April 2016 to 30 June 2016 quarter.

⁽e) For the Australian Capital Territory, data were not available for the 1 April 2014 to 30 June 2014 quarter and for the period 1 April 2016 to 31 March 2017.

⁽f) For April 2013 to March 2014, the national Proportion with an adverse event is calculated for all jurisdictions. For April 2014 to March 2015, the national Proportion with an adverse event is calculated for Queensland, Western Australia, South Australia, Tasmania, the Australian Capital Territory and the Northern Territory. For April 2015 to March 2016 the national Proportion with an adverse event is calculated for New South Wales, Victoria, Queensland, Western Australia, South Australia, Tasmania and the Northern Territory. For April 2016 to March 2017 the national Proportion with an adverse event is calculated for Victoria, Western Australia, South Australia, Tasmania and the Northern Territory.

5.2 Unplanned readmissions following admission from elective surgery waiting lists

Unplanned readmissions following admission from elective surgery waiting lists are defined as separations where the principal diagnosis indicated an unplanned or unexpected readmission and where admission to the same hospital occurred within 28 days of the episode in which the surgery occurred. The 28-day readmission period is calculated from the patient's date of separation (for the initial episode that included the surgery) to the patient's date of admission for subsequent hospital treatment (See Box 5.2 for information about unplanned readmissions following surgery).

Information on unplanned readmissions was calculated and provided by the states and territories.

The indicator is likely to underestimate all possible unplanned readmissions because:

- it is only calculated for readmissions to the same hospital, whereas readmissions can take place in other hospitals and even across state and territory borders
- the unplanned readmissions are limited to those having a principal diagnosis of a
 post-operative adverse event for which a specified *International Statistical Classification*of *Diseases and Related Health Problems, 10th Revision, Australian Modification*(ICD-10-AM) diagnosis code has been assigned. This does not include all possible
 diagnoses that may relate to unplanned readmissions
- the indicator includes only unplanned readmissions where the urgency of admission was Emergency, whereas some readmissions can be on an elective (non-emergency) basis
- in addition, the numbers of readmissions following surgery may not be final for patients who were readmitted but not separated by 30 June.

Box 5.2: Unplanned readmissions following elective surgery—data limitations

Data on readmissions within 28 days following elective surgery are incomplete at the end of the reporting period during which the surgery occurred, as the readmission may occur during the following period. For that reason, data presented for readmissions are for the 12 months ending 31 March, rather than the 12 months ending 30 June.

For the period 1 April 2014 to 31 March 2015, data were not available for the 1 April 2014 to 30 June 2014 quarter for New South Wales, Victoria and the Australian Capital Territory. Therefore, the data presented for those jurisdictions in Table 5.2 are for the period 1 July 2014 to 31 March 2015.

For the period 1 April 2015 to 31 March 2016, data were not available for the 1 July 2015 to 30 September 2015, the 1 October 2015 to 31 December 2015 and the 1 January 2016 to 31 March 2016 quarters for the Australian Capital Territory.

For the period 1 April 2016 to 31 March 2017, data were not available for the 1 April 2016 to 30 June 2016 quarter for New South Wales, Queensland and the Australian Capital Territory. Therefore, the data presented for those jurisdictions in Table 5.2 are for the period 1 July 2016 to 31 March 2017.

It should be noted that the use of the NESWTDC data for purposes such as reporting readmissions has not been validated for accuracy in Australia. The results should therefore be treated with caution. For information on the specification used for unplanned readmissions following elective surgery, see Appendix B.

Between 1 April 2013 and 31 March 2017, for Western Australia, South Australia and the Northern Territory (for which data were provided for all 4 years) combined, the rate of unplanned readmission to hospital following elective surgery was relatively stable (Table 5.2).

The calculation of the rate is limited to records for which a readmission flag was reported as either 1 (readmission reported) or 2 (no readmission reported). It does not include records for which the readmission flag was not assigned (about 17% of admissions).

Between 1 April 2016 and 31 March 2017, for Victoria, Western Australia, South Australia, Tasmania and the Northern Territory (for which data were provided for the entire year) combined, approximately 1.2% of patients who were admitted from a public hospital elective surgery waiting list had an unplanned readmission to hospital within 28 days following an admission from an elective surgery waiting list.

Between 1 April 2016 and 31 March 2017, for states and territories that reported readmission information for the entire period, the rate of unplanned readmission to hospital following elective surgery ranged from 1.1% in New South Wales and Victoria to 1.9% in Queensland.

Where to go for more information

More information on adverse events, and on readmissions following selected procedures for all admitted patients, will be available in *Admitted patient care 2016–17: Australian hospital statistics*, to be released in early 2018.

Table 5.2: Unplanned readmissions reported as following admission^(a) from an elective surgery waiting list, states and territories, April 2013 to March 2017

State or territory	April 2013 to March 2014	April 2014 to March 2015	April 2015 to March 2016	April 2016 to March 2017
New South Wales ^(b)				
Readmissions within 28 days	2,281	1,765	2,282	1,814
Admissions	211,495	159,127	209,980	161,926
Proportion with readmission (%)	1.1	1.1	1.1	1.1
Victoria ^(c)				
Readmissions within 28 days	1,697	1,357	1,663	1,937
Admissions	156,972	123,473	167,181	179,430
Proportion with readmission (%)	1.1	1.1	1.0	1.1
Queensland ^(d)				
Readmissions within 28 days	1,796	1,815	2,351	1,826
Admissions	110,757	114,025	126,476	97,664
Proportion with readmission (%)	1.6	1.6	1.9	1.9
Western Australia				
Readmissions within 28 days	941	911	942	987
Admissions	84,832	81,955	84,535	84,703
Proportion with readmission (%)	1.1	1.1	1.1	1.2
South Australia				
Readmissions within 28 days	753	780	827	686
Admissions	63,542	61,839	59,672	58,015
Proportion with readmission (%)	1.2	1.3	1.4	1.2
Tasmania				
Readmissions within 28 days	1	3	4	1
Admissions	16,021	14,503	16,645	20,217
Proportion with readmission (%)	0.0	0.0	0.0	0.0
Australian Capital Territory ^(e)				
Readmissions within 28 days	161	115	n.a.	148
Admissions	11,340	8,825	n.a.	9,132
Proportion with readmission (%)	1.4	1.3	n.a.	1.6
Northern Territory				
Readmissions within 28 days	147	186	180	216
Admissions	7,100	6,856	6,784	7,377
Proportion with readmission (%)	2.1	2.7	2.7	2.9
Total				
Readmissions within 28 days	7,777	6,932	8,249	7,615
Admissions	662,059	570,603	671,273	618,464
Proportion with readmission (%) ^(f)	1.2	1.4	1.2	1.2

⁽a) Admissions represents the number of records for which a readmission flag was reported as either 1 (readmission reported) or 2 (no readmission reported). It does not include records for which the readmission flag was not assigned.

Note: See Section 2.1, Box 5.2 and appendixes A and B for notes on definitions and data limitations.

⁽b) For New South Wales, data were not available for the 1 April 2014 to 30 June 2014 quarter and for the 1 April 2016 to 30 June 2016 quarter.

⁽c) For Victoria, data were not available for the 1 April 2014 to 30 June 2014 quarter.

⁽d) For Queensland, data were not available for the 1 April 2016 to 30 June 2016 quarter.

⁽e) For the Australian Capital Territory, data were not available for the 1 April 2014 to 30 June 2014, and for the period 1 July 2015 to 30 June 2016.

⁽f) For April 2013 to March 2014, the national *Proportion with readmission* is calculated for all jurisdictions. For April 2014 to March 2015, the national *Proportion with readmission* is calculated for Queensland, Western Australia, South Australia, Tasmania, the Australian Capital Territory and the Northern Territory. For April 2015 to March 2016 the national Proportion with readmission is calculated for New South Wales, Victoria, Queensland, Western Australia, South Australia, Tasmania and the Northern Territory. For April 2016 to March 2017 the national *Proportion with readmission* is calculated for Victoria, Western Australia, South Australia, Tasmania and the Northern Territory.

Appendix A: Data quality information

This appendix includes a Data Quality Statement summary relevant to interpreting the NESWTDC. It also contains further information on variation in hospital reporting that may affect the interpretation of the data presented in this report.

The Data Quality Statement for the NESWTDC is also available online at www.aihw.gov.au.

Data quality summary for National Elective Surgery Waiting Times Data Collection 2016–17

The NESWTDC provides episode-level data on patients added to or removed from elective surgery waiting lists managed by public hospitals. This includes private patients treated in public hospitals, and may include public patients treated in private hospitals. 'Public hospitals' may include hospitals that are set up to provide services for public patients (as public hospitals do), but are managed privately. Removals are counted for patients who have been removed for admission, or for another reason.

The data supplied for 1 July 2016 to 30 June 2017 are based on the ESWT NMDS for 2016–17.

Also reported are data provided by states and territories for admissions from waiting lists that had an adverse event or unplanned readmission within 28 days of separation. These data are not defined under the ESWT NMDS.

The NESWTDC includes data for each year from 1999–00 to 2016–17.

Summary of key data quality issues

- For 2016–17, the NESWTDC covered most hospitals that undertook elective surgery.
 Hospitals that were not included may not undertake elective surgery, may not have had
 waiting lists, or may have had different waiting list characteristics compared with other
 hospitals.
- Between 2012–13 and 2016–17, the coverage of the NESWTDC fluctuated between 92% and 94% (excluding data for the Australian Capital Territory from the numerator for 2015–16). Changes in coverage should be taken into account when interpreting changes over time:
 - for New South Wales, Bulli Hospital, Temora Hospital and Pambula District Hospital ceased providing elective surgery from 2016–17.
 - for Victoria:
 - the Wodonga and Warnambool hospitals reported elective surgery data for the first time in 2016–17
 - the Women's Hospital at Sandringham began reporting elective surgery data separately in 2015–16, whereas in previous years this data was reported with elective surgery data for the Royal Women's Hospital. This change in organisational arrangements did not represent an increase in coverage over this period.

for Queensland:

- the Sunshine Coast University Hospital opened in March 2017, providing elective surgery services were previously provided by a number of smaller hospitals in the region
- for 2015–16, data for an additional 18 smaller hospitals were reported for the first time
- the Lady Cilento Children's Hospital opened in November 2014, replacing the Royal Children's Hospital and the Mater Children's Hospital
- for 2012–13 and 2014–15, data were not provided for 2 hospitals (which reported about 9,300 admissions (combined) from elective surgery waiting lists in 2015–16) and 5 months of data for a third hospital (which closed in late 2014 and had reported about 3,700 admissions in 2013–14). The 3 hospitals comprised 2 Principal referral and women's and children's hospitals and 1 Public acute group A hospital.

for Western Australia:

- the Fiona Stanley Hospital opened in October 2014, replacing the Royal Perth Hospital (Shenton Park campus) and Kaleeya Hospital
- In November 2015, the St John of God, Midland Public Hospital opened, replacing the Swan District Hospital.
- for South Australia, 3 small hospitals ceased providing elective surgery between 2012–13 and 2015–16.
- for 2015–16, Australian Capital Territory data were not available at the time of publication.
- For 2016–17, the preliminary estimate of public hospital elective surgery covered by the NESWTDC was 95% (Table 1.2).
 - The estimated coverage was 100% in New South Wales, Queensland, Western Australia, Tasmania, the Australian Capital Territory and the Northern Territory. For Victoria and South Australia, the majority of public hospital elective surgery was covered by the NESWTDC (85% and 97%, respectively).
 - These estimates will be updated when the total number of elective surgery separations for public hospitals is available in the NHMD, early in 2018.
- Although there are national standards for data on elective surgery waiting times, methods to calculate waiting times have varied between states and territories and over time. For example, in Victoria, Queensland and Tasmania, for patients who were transferred from a waiting list managed by 1 hospital to that managed by another, the time waited on the first list is not included in the waiting time reported to the NESWTDC from the second hospital. Therefore, the number of days waited in those jurisdictions reflected the waiting time on the list managed by the reporting hospital only.
- In 2016–17, the Northern Territory did not report the number of patients who were *Transferred to another hospital's waiting list*.
- There is an apparent lack of comparability of clinical urgency categories among jurisdictions, which may result in statistics that are not meaningful or comparable between jurisdictions (see Table 4.11).
- The quality of the data reported for Indigenous status for the NESWTDC has not been formally assessed; therefore, caution should be exercised when interpreting these data.

• The AIHW is unable to assess the quality of the data provided by states and territories to indicate whether admissions from waiting lists had an adverse event or were followed by an unplanned readmission.

Other data quality information

Clinical urgency categorisation

There is an apparent lack of comparability of clinical urgency categories among jurisdictions which may result in statistics that are not meaningful or comparable between jurisdictions.

As in previous years, analyses of clinical urgency category data for 2016–17 have shown notable variation in the assignment of clinical urgency categories, both among and within jurisdictions, and for individual surgical specialties and surgical procedures, as well as overall. See Box 4.1 for more information.

With the aim of promoting more nationally consistent and comparable elective surgery urgency categorisation, the AIHW worked with the Royal Australasian College of Surgeons (RACS) to develop national definitions for elective surgery urgency categories, including 'not ready for care'.

The AIHW and the RACS reviewed the existing practices across Australia and reported the findings of their review and recommendations for action in the report *National definitions for elective surgery urgency categories* (AIHW 2013b) which was presented to the Standing Council on Health in late 2012.

The Australian Health Ministers' Advisory Council was asked to progress the implementation of the report's recommendations:

- 1. Adopt a statement of an overarching principle for urgency category assignment.
- 2. Adopt simplified, time-based definitions of urgency categories.
- 3. A listing of usual urgency categories for higher volume procedures, to be developed by surgical specialty groups.
- 4. Establish a national process to provide information on comparative urgency categorisation between states and territories.
- 5. Adopt 'treat in turn' as a principle for elective surgery management.
- 6. Clarified approaches for patients who are not ready for surgery because of clinical or personal reasons.

As a result of this work, revised definitions for clinical urgency categories and for the glossary items *elective surgery*, *emergency surgery* and *other surgery* were developed and were implemented in the ESWT NMDSs from 1 July 2015.

Revised definitions for the concept of *ready for surgery* and for *Intended procedure* (replacing the *Indicator procedure* data element) were implemented from 1 July 2016.

Intended surgical procedures

In 2016–17 the list of 15 *Indicator procedures* (METeOR identifier 637500) was replaced by a more extensive list of 152 *Intended procedures* (METeOR identifier 637500).

There was some variation in the reporting of intended procedures among jurisdictions, which indicates that the data element was not completely implemented, or that there are differences among jurisdictions in the types of procedures that are managed through elective surgery waiting lists.

For 2016–17, the majority of states and territories provided some patient counts for most of the 152 intended procedures. For Tasmania, 96 of the 152 intended procedures were not reported and for New South Wales, 29 of the 152 intended procedures were not reported.

The *Intended procedure* data element includes an 'Other' category for procedures other than the 152 individual procedures. In 2016–17, nationally, 29.0% of intended procedures were categorised as 'Other'. The proportion of admissions from public hospital elective surgery waiting lists where the intended procedure was reported as 'Other' ranged from 24.4% in Victoria to 46.8% in Tasmania.

Therefore, the data by intended procedure for jurisdictions that did not report against all intended procedure categories may not be comparable with the data provided by other jurisdictions.

Quality of Indigenous status data

The quality of Indigenous status information in the data provided for the NESWTDC has not been formally assessed. Therefore, the information presented for Indigenous status for elective surgery waiting times in Chapter 4 should be used with caution.

The AIHW report *Indigenous identification in hospital separations data: quality report* (AIHW 2013a) found that, nationally, about 88% of Indigenous Australians were identified correctly in hospital admissions data in the 2011–12 study period, and the 'true' number of separations for Indigenous Australians was about 9% higher than reported. This underidentification could similarly affect the NESWTDC data.

The following information has been supplied by the states and territories to provide some insight into the quality of Indigenous status data in the NESWTDC.

New South Wales

The New South Wales Ministry of Health advised that Indigenous status has been collected for elective surgery waiting times data from 2010–11.

Victoria

The Victorian Department of Health reports that Indigenous status data is of acceptable quality, with valid information recorded for more than 98% of patients admitted and/or removed from elective surgery waiting lists. However, the number of identified Aboriginal and Torres Strait Islander patients is likely to be more accurate within the admitted patient care data, compared with the waiting list data.

Queensland

Available evidence suggests that the number of Indigenous patients is understated in Queensland hospital data due to both non-reporting and misreporting of Indigenous status. Despite this, Queensland Health regards the Indigenous status data used in this report to be of an appropriate quality for publication.

Western Australia

The Western Australian Department of Health regards its Indigenous status data for elective surgery waiting times as being of good quality. Quality improvement activities, including cross-referencing across patient administration systems, continue to enhance the accuracy of this data element.

South Australia

The South Australian Department for Health and Ageing reports that the quality of Indigenous status data in its elective surgery waiting times collection has improved over recent years and is of sufficient quality to be appropriate for publication.

Tasmania

The Tasmanian Department of Health and Human Services reports that the quality and level of Indigenous status identification, across public hospital information collections, are of a high standard. However, as with all data collections, there is continued work on maintaining and improving the collection of this data element, where needed.

Australian Capital Territory

The Australian Capital Territory Health Directorate advised that the quality of its Indigenous status data for elective surgery waiting times is of sufficient quality to be appropriate for publication.

Northern Territory

The Northern Territory Department of Health considers the quality of its Indigenous status data for elective surgery waiting times patients to be good, with accuracy at over 90%. The department retains historical reporting of Indigenous status. All management and statistical reporting, however, is based on a person's most recently reported Indigenous status.

Appendix B: Technical notes

Definitions

If not otherwise indicated, data elements were defined according to the 2016–17 definitions in the *National health data dictionary*, versions 16, 16.1 and 16.2 (AIHW 2012, 2015b, 2015c) (summarised in the Glossary).

Data presentation

Data are presented by the state or territory of the hospital, not by the state or territory of usual residence of the patient. The totals in tables include data only for those states and territories for which data were available, as indicated in the tables. Throughout the report, percentages may not add up to 100.0 because of rounding. Percentages and rates printed as 0.0 or 0 generally indicate a zero; the symbols '<0.1' and '>-0.1' are used to denote numbers between zero and 0.05 and zero and negative 0.05, respectively.

Data on 50th and 90th percentile waiting times and the proportion of patients who waited more than 365 days for their surgery have been suppressed if there were fewer than 100 admissions in the category being presented. The abbreviation 'n.p.' has been used to denote these suppressions. For these tables, the totals include the suppressed information.

Methods

Median and 90th percentile waiting times

The waiting times data presented in this report are for patients who completed their wait and were admitted for their surgery as either an elective or emergency admission.

In reports before 2011–12, waiting times information was presented for elective admissions only. Therefore, the data presented are not directly comparable with those presented in *Australian hospital statistics* reports before 2011–12.

The 50th percentile (the median or middle value in a group of data arranged from lowest to highest value) represents the number of days within which 50% of patients were admitted for the awaited surgery; half the waiting times will have been shorter, and half the waiting times longer, than the median.

The 90th percentile data represent the number of days within which 90% of patients were admitted for the awaited surgery. The remaining 10% of patients waited longer.

The 50th percentile and 90th percentile waiting times are calculated using an empirical distribution function with averaging. Using this method, observations are sorted in ascending order.

The 50th and 90th percentiles have been rounded to the nearest whole number of days.

The calculation is where:

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n is the number of observations and p is the percentile value divided by 100, then n \times p = i + f (where i is an integer and f is the fractional part of n \times p).
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If $n \times p$ is an integer, the percentile value will correspond to the average of the values for the i^{th} and $(i+1)^{th}$ observations.

If $n \times p$ is not an integer, the percentile value will correspond to the value for the $(i+1)^{th}$ observation.

For example, if there were 100 observations, the median waiting time will correspond to the average waiting time for the 50th and 51st observations (ordered according to ascending waiting time). Similarly, the 90th percentile waiting time will correspond to the average waiting time for the 90th and 91st observations if there are 100 observations.

If there were 101 observations, the median waiting time will correspond to the waiting time for the 51st observation and the 90th percentile waiting time will correspond to the waiting time for the 91st observation.

Elective surgical episodes with one or more adverse events

This analysis presents the number and proportion of admissions from elective surgery waiting lists where an adverse event was reported. In general, adverse events are defined as incidents in which harm resulted to a person receiving health care. They include infections, falls resulting in injuries, and problems with medication and medical devices. Some of these adverse events may be preventable.

The National Elective Surgery Waiting Times Data Collection (NESWTDC) included a flag indicating whether an adverse event had been reported for a patient after admission from the elective surgery waiting list. The flag was derived by the states and territories from the data reported for the admitted patient episode, not by the AIHW. States and territories were provided with the specification to assist calculation.

The flag was specified as one or more of the following *International Statistical Classification* of *Diseases and Related Health Problems, 10th Revision, Australian Modification* (ICD-10-AM) (9th edition) diagnosis codes were reported, accompanied by a listed external cause code:

- For diagnoses:
 - T80–T88 code range for complications of surgical and medical care, not elsewhere classified
 - T98.3 Sequelae of complications of surgical and medical care, not elsewhere classified
 - ICD-10-AM chapter-specific diagnosis codes for post-procedural disorders (E89, G97, H59, H95, I97, J95, K91, M96 or N99).
- For external causes of injury and poisoning:
 - Y60–Y69 Misadventures to patients during surgical and medical care
 - Y70–Y82 Medical devices associated with misadventures in diagnostic and therapeutic use
 - Y83–Y84 Surgical and other medical procedures as the cause of abnormal reaction of the patient, or of later complication, without mention of misadventure at the time of the procedure.

Unplanned readmissions

The NESWTDC included a flag indicating where a patient admitted from an elective surgery waiting list was readmitted to the same hospital within 28 days. The flag was derived from

the data reported for the admitted patient episode by the states and territories, not by the AIHW. States and territories were provided with the specification to assist calculation.

The specification was that the 28-day period was calculated from patient's date of separation from the admitted patient episode during which the surgery occurred to the patient's admission date for subsequent hospital treatment. Where a patient had more than one subsequent admission, only the first admission was flagged.

Records were flagged where the subsequent separation had an urgency of admission of *Emergency* and had one of the following ICD-10-AM (8th edition) principal diagnosis codes:

- T80–T88 code range for complications of surgical and medical care, not elsewhere classified
- T98.3 Sequelae of complications of surgical and medical care, not elsewhere classified
- ICD-10-AM chapter-specific diagnosis codes for post-procedural disorders (E89, G97, H59, H95, I97, J95, K91, M96 or N99).

Estimated coverage of the NESWTDC

The estimated proportion of elective surgical separations covered by the NESWTDC data is calculated as the number of admissions for elective surgery reported to the NESWTDC, divided by the number of elective surgical separations (separations with an *Elective* urgency of admission and a *Surgical* Australian Refined Diagnosis Related Group) reported to the National Hospital Morbidity Database (NHMD), as a percentage.

For 2016–17, as the corresponding admitted patient care data were not available, this estimate was based on a comparison of the numbers of admissions and hospitals that were reported to the NESWTDC for 2015–16 and 2016–17, and the number of elective surgical separations reported to the NHMD for 2015–16.

For example:

- if the same hospitals were reported by a jurisdiction for the NESWTDC for both 2015–16 and 2016–17, the jurisdiction's coverage was assumed to be the same for both years
- if the hospitals reported by a jurisdiction changed between 2015–16 and 2016–17, the jurisdiction's coverage was adjusted by increasing (or decreasing) the numerator counts (NESWTDC admissions for 2015–16), based on the number of elective surgical separations reported for the individual hospital(s) to the NHMD for 2015–16
- If a hospital that was included in the NESWTDC for the first time in 2016–17 was not included in the NHMD for 2015–16, the number of elective surgical separations was assumed to be equal to the number of admissions from elective surgery waiting lists.

Appendix C: Public hospital peer groups

This report uses the Australian hospital peer group classification (AIHW 2015a). A summary of the public hospital peer group classification is presented in Table C.1.

Table C.1: Public hospital peer groups

Group	Description
Acute public hospitals	Are identified according to the hospital's service profile:
Principal referral hospitals	Provide a very broad range of services, including some very sophisticated services, and have very large patient volumes. Most include an intensive care unit, a cardiac surgery unit, a neurosurgery unit, an Infectious diseases unit and a 24-hour emergency department.
Public acute group A hospitals	Provide a wide range of services to a large number of patients and are usually situated in metropolitan centres or inner regional areas. Most have an intensive care unit and a 24-hour emergency department. They are among the largest hospitals, but provide a narrower range of services than the Principal referral group. They have a range of specialist units, potentially including bone marrow transplant, coronary care and oncology units.
Public acute group B hospitals	Most have a 24-hour emergency department and perform elective surgery. They provide a narrower range of services than the Principal referral and Public acute group A hospitals. They have a range of specialist units, potentially including obstetrics, paediatrics, psychiatric and oncology units.
Public acute group C hospitals	These hospitals usually provide an obstetric unit, surgical services and some form of emergency facility. They are generally smaller than the Public acute group B hospitals.
Public acute group D hospitals	Often situated in regional and remote areas and offer a smaller range of services relative to the other public acute hospitals (groups A–C). Hospitals in this group tend to have a greater proportion of non-acute separations compared with the larger acute public hospitals.
Very small hospitals	Generally have less than 200 admitted patient separations each year.
Specialist hospital groups	Perform a readily identified role within the health system
Women's and children's hospitals	
Children's hospitals	Specialise in the treatment and care of children.
Women's hospitals	Specialise in treatment of women.
Women's and children's hospitals	Specialise in the treatment of both women and children.
Early parenting centres	Specialise in care and assistance for mothers and their very young children.
Drug and alcohol hospitals	Specialise in the treatment of disorders relating to drug or alcohol use.

(continued)

Table C.1 (continued): Public hospital peer groups

Group	Description
Psychiatric hospitals	Specialise in providing psychiatric care and/or treatment for people with a mental disorder or psychiatric disability.
Psychogeriatric hospitals	Specialise in the psychiatric treatment of older people.
Child, adolescent and young adult psychiatric hospitals	Specialise in the psychiatric treatment of children and young people.
General acute psychiatric hospitals	Provide acute psychiatric treatment.
General non-acute psychiatric hospitals	Provide non-acute psychiatric treatment—mainly to the general adult population.
Forensic psychiatric hospitals	Provide assessment and treatment of people with a mental disorder and a history of criminal offending, or those who are at risk of offending.
Same-day hospitals	Treat patients on a same-day basis. The hospitals in the same-day hospital peer groups tend to be highly specialised.
Other day procedure hospitals	Provide a variety of specialised services on a same-day basis.
Other acute specialised hospitals	Specialise in a particular form of acute care, not grouped elsewhere. This group is too diverse to be considered a peer group for comparison purposes. It includes hospitals that specialise in the treatment of cancer, rheumatology, eye, ear and dental disorders.
Subacute and non-acute hospitals	
Rehabilitation and geriatric evaluation and management hospitals	Primarily provide rehabilitation and/or geriatric evaluation and management in which the clinical purpose or treatment goal is improvement in the functioning of a patient.
Mixed subacute and non-acute hospitals	Primarily provide a mixture of subacute (rehabilitation, palliative care, geriatric evaluation and management, psychogeriatric care) and non-acute (maintenance) care that is not covered by the hospitals in the rehabilitation and geriatric evaluation and management hospital peer group.
Outpatient hospitals	Provide a range of non-admitted patient services. Generally do not admit patients.
Unpeered hospitals	Could not be placed in one of the other peer groups.

Glossary

Most definitions in this glossary contain an identification number from the Metadata Online Register (METeOR), Australia's central repository for health, community services and housing assistance metadata, or 'data about data'. It provides definitions for data for topics related to health and community services, and specifications for related national minimum data sets (NMDSs). METeOR can be viewed on the AIHW website at <www.aihw.gov.au>.

For further information on the terms used in this report, refer to the definitions for the 2016–17 Elective surgery waiting times (removals and census data) NMDSs in the *National health data dictionary* versions 16, 16.1 and 16.2 (AIHW 2012, 2015b, 2015c).

admission: The process whereby the hospital accepts responsibility for the patient's care and/or treatment. Admission follows a clinical decision based upon specified criteria that a patient requires same-day or overnight care or treatment. METeOR id: 327206

In this report, the term 'admissions from elective surgery waiting lists' describes episodes for patients who were admitted for elective surgery as either an elective or emergency admission.

admitted patient: A patient who undergoes a hospital's admission process to receive treatment and/or care. This treatment and/or care is provided over a period of time and can occur in hospital and/or in the person's home (for hospital-in-the-home patients). METeOR id: 268957

clinical urgency: A clinical assessment of the urgency with which a patient requires elective hospital care. METeOR id: 598034

elective surgery: Planned surgery that can be booked in advance as a result of a specialist clinical assessment resulting in placement on an elective surgery waiting list. METeOR id: 568780

hospital: A health-care facility established under Australian Government, state or territory legislation as a hospital or a free-standing day procedure unit and authorised to provide treatment and/or care to patients. METeOR id: 268971

intended procedure: The procedure for which a patient has been placed on an elective surgery waiting list. Waiting list statistics for selected intended procedures give a specific indication of performance in particular areas of elective care provision. METeOR id: 637500

Indigenous status: A measure of whether a person identifies as being of Aboriginal or Torres Strait Islander origin. This is in accord with the first 2 of 3 components of the Australian Government definition:

An Aboriginal or Torres Strait Islander is a person of Aboriginal or Torres Strait Islander descent who identifies as an Aboriginal or Torres Strait Islander person and is accepted as such by the community in which he or she lives.

METeOR id: 291036

overdue patient: A patient is classified as overdue if ready for care and waiting time at admission or waiting time at a census date is longer than 30 days for patients in clinical urgency *Category 1*, 90 days for patients in clinical urgency *Category 2*, or 365 days for patients in clinical urgency *Category 3*. METeOR id: 613691

peer group: A classification of hospitals into broadly similar groups in terms of characteristics (see Appendix C).

performance indicator: A statistic or other unit of information that reflects, directly or indirectly, the extent to which an expected outcome is achieved, or the quality of processes leading to that outcome.

private hospital: A privately owned and operated institution, catering for patients who are treated by a doctor of their own choice. Patients are charged fees for accommodation and other services provided by the hospital and relevant medical and paramedical practitioners. Acute care and psychiatric hospitals are included, as are private free-standing day hospital facilities.

public hospital: A hospital controlled by a state or territory health authority. Public hospitals offer free diagnostic services, treatment, care and accommodation to all eligible patients.

public patient: A patient treated at no charge in a public hospital (or provided with care by a private hospital on behalf of a public hospital). METeOR id: 566080

reason for removal from waiting list: The reason a patient is removed from an elective surgery waiting list. METeOR id: 471735

separation: An episode of care for an admitted patient, which can be a total hospital stay (from admission to discharge, transfer or death) or a portion of a hospital stay beginning or ending in a change of type of care (for example, from acute care to rehabilitation). METeOR id: 327268

surgery: where the procedures required by patients are listed in the surgical operations section of the Medicare Benefits Schedule, excluding specific procedures frequently done by non-surgical clinicians. METeOR id: 604410

surgical specialty: The area of clinical expertise held by the doctor who will perform the elective surgery. METeOR id: 605195

waiting time at admission/removal: The time elapsed (in days) for a patient on the elective surgery waiting list from the date they were added to the waiting list for the procedure to the date they were removed from the waiting list. METeOR id: 598074

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