

## 10 Elective surgery

This chapter presents information related to access to elective surgery.

The chapter first presents an overview of elective surgery in public and private hospitals, based on information about close to 1.9 million elective surgery separations, sourced from the National Hospital Morbidity Database (NHMD). See Box 10.1 for more information about the definition of elective surgery as used in the NHMD.

The chapter then presents information on 'elective surgery' as defined in the *National health data dictionary version 14* (HDSC 2008), based on :

- data for over 609,000 patients admitted from public acute hospital elective surgery waiting lists. These data are sourced from the National Elective Surgery Waiting Times Data Collection (NESWTDC). The records include information on waiting times, surgical specialty of the scheduled doctor and indicator procedures
- linked public hospital elective surgery waiting times and admitted patient data for about 661,000 records (Table 10.1 and figures 10.8 to 10.15 and 10.19). The linkage allowed demographic and diagnosis information to be analysed in conjunction with information on waiting times, surgical specialty and indicator procedure from the NESWTDC.

Timely provision of the NESWTDC data by state and territory health authorities allowed this information to be reported in *Australian hospital statistics 2009–10: emergency department care and elective surgery waiting times* (AHS: EDES, AIHW 2010c) in November 2010. This report presents selected headline statistics from the earlier report, as well as additional information not provided in that report because the admitted patient data were not available.

The *AHS: EDES* online report will include updates for the tables included in the report presenting coverage estimates based on data from the Admitted patient care NMDS and the Public hospital establishments NMDS , as well as updates due to data resupplies.

### What data are reported?

#### Box 10.1: How is elective surgery defined in this chapter?

The use of the term **Elective surgery** using the Admitted patient care data from the NHMD is not necessarily the same as elective surgery as defined for the National Elective Surgery Waiting Times Data Collection (NESWTDC).

For the NHMD elective surgery was defined as separations:

- with an urgency of admission of *Elective* (admission could be delayed by at least 24 hours) and
- with a 'surgical procedure' reported, based on the procedures used to define 'surgical' DRGs in Australian Refined Diagnosis Related Groups (AR-DRG), version 5.2 (DoHA 2006). Separations for cosmetic surgery or with childbirth-related AR-DRGs were excluded.

Elective surgery separations were also categorised as *Public elective surgery* or *Other elective surgery* as follows:

(continued)

### **Box 10.1 (continued)**

- *Public elective surgery* refers to separations for elective surgery in public hospitals and includes elective surgery separations for *Public patients* in private hospitals.
- *Other elective surgery* refers to separations for elective surgery for patients who were not *Public patients*, in private hospitals.

The procedures defined as surgical differ between those used to define the scope of the NESWTDC and those used to define elective surgery in the NHMD.

For the NESWTDC, elective surgery comprises elective care where the procedures required by patients are listed in the surgical operations section of the Medicare Benefits Schedule, with the exclusion of specific procedures frequently done by non-surgical clinicians (HDSC 2008).

## **Admitted patient care data for elective surgery**

Information on admitted patient care for elective surgery is derived from the NHMD (see *Chapter 7*). The scope of the NHMD is episodes of care for admitted patients in all public and private acute and psychiatric hospitals, free standing day hospital facilities, and alcohol and drug treatment centres.

As the NHMD includes information on admitted patient care for essentially all public and private hospitals, it can provide an overview of elective surgery that is beyond the scope of the NESWTDC, which is restricted to waiting lists managed by public hospitals only (see below). Rates are calculated for elective surgery for public and private hospitals and for various demographic groups.

The definition used to classify admitted patient care as elective surgery differs from the definition of elective surgery for the purposes of the NESWTDC (see Box 10.1).

## **Waiting times data for elective surgery**

The scope of the NESWTDC is patients on waiting lists for elective surgery that are managed by public hospitals. This may include *Public patients* treated in private hospitals and patients other than *Public patients* treated in public hospitals.

The waiting times data presented in this chapter are for patients who completed their wait and were admitted to their surgery on an elective basis. The data are generally used as the main summary measure of elective surgery waiting times.

However, some patients are removed from waiting lists for other reasons including: that the patient was admitted as an emergency patient for the awaited procedure; was transferred to another hospital's waiting list; had been treated elsewhere; was not contactable; had died or had declined surgery. Information on time spent on waiting lists is also presented for those reasons for removal.

## **Linked admitted patient care and elective surgery waiting times data**

For 2009–10, most states and territories provided the elective surgery waiting times either pre-linked or linkable to the admitted patient data, so that the information on waiting times could be linked to the information on the surgery that occurred at the end of the wait. Where

necessary, the AIHW linked the data with permission of the relevant state or territory and the AIHW Ethics Committee. The linkage was not possible for Tasmania.

The linked elective surgery and admitted patient data allowed analysis of waiting times for public elective surgery for Indigenous and non-Indigenous Australians, by remoteness area of usual residence of the patient, and by socioeconomic status (SES) groups. Included are estimates of the separation rates for indicator procedures (see Box 10.2 and *Appendix 1*) and for neoplasm-related diagnoses.

### **An example: urology surgery**

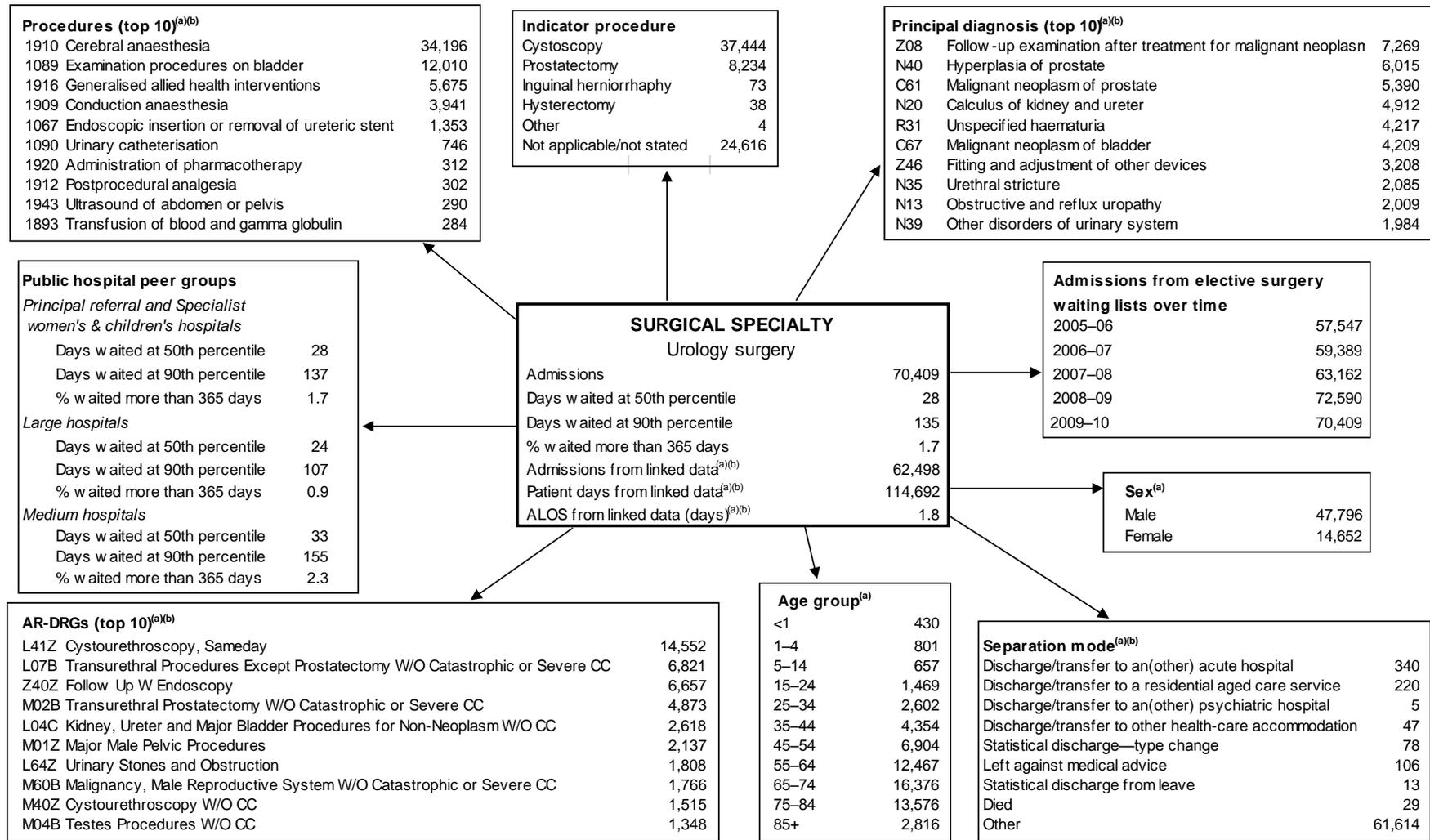
Figure 10.1 presents data on patients admitted to hospital from elective surgery waiting lists for surgery performed by a doctor whose surgical specialty was *Urology surgery*. The information presented by indicator procedure and public hospital peer groups is sourced from the NESWTDC. The other information was available for records where the data for elective surgery waiting times could be linked to the NHMD (89% of records with a surgical specialty of *Urology surgery*).

In 2009–10:

- there were 70,000 admissions from elective surgery waiting lists for surgery performed by a doctor whose surgical specialty was *Urology surgery*
- the median waiting time for these patients was 28 days
- 1.7% waited more than 365 days for admission
- the most common indicator procedure was cystoscopy.

The linked NESWTDC and NHMD records show that for the 89% of records linked:

- these separations accounted for almost 115,000 patient days
- the average length of stay was 1.8 days
- the most common procedure (other than *Cerebral anaesthesia*) was *Examination procedures on bladder* (Block 1089)
- the most common principal diagnosis reported was *Follow up examination after treatment for malignant neoplasm* (Z08), followed by *Hyperplasia of prostate* (N40)
- the most common AR-DRG reported was *Cystourethroscopy, sameday* (L41Z)
- the most common age group was 65–74 years and there were more separations for males than females
- 99% of these episodes had a separation mode of *Other*, suggesting that these patients went home after separation from hospital
- Admissions for Urology had increased by 22% between 2005–06 and 2009–10.



(a) These data are supplied to the National Hospital Morbidity Database.

(b) Separations for which the care type was reported as *Newborn* (without qualified days) and records for *Hospital boarders* and *Posthumous organ procurement* have been excluded.

Abbreviations: ALOS—average length of stay; Cat—catastrophic; CC—complications and comorbidities; OR—operating room; W/O—without.

**Figure 10.1: Interrelationships of a specialty of surgeon (Urology surgery) with other data elements, elective surgery, public hospitals, 2009–10**

## **Box 10.2: What are the limitations of the data?**

### **Limitations of admitted patient care data**

- Limitations of the data on admitted patient care are presented in *Chapter 7* and *Appendix 1*.
- The quality of Indigenous status data in the NHMD is variable and these data should be used with caution. For more information on the quality of Indigenous status data see *Appendix 1*.

### **Limitations of the elective surgery waiting times data**

#### *Coverage*

- The data collection covered most public hospitals that undertake elective surgery (see *Appendix 2*). 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 reporting hospitals. Some smaller remote hospitals may have different patterns of service delivery compared with other hospitals because specialists providing elective surgery services visit these hospitals only periodically.
- For 2009–10, about 91% of public elective surgery admissions were performed by hospitals that also reported to the NESWTDC. This proportion varied by state and territory and also by hospital peer group. It ranged from 100% for New South Wales, Tasmania, the Australian Capital Territory and the Northern Territory to 69% in South Australia (see Table 3.3 of *Australian hospital statistics 2009–10: emergency department care and elective surgery waiting times (AHS: EDES)*, AIHW 2010c).
- The elective surgery waiting times data collection covers public hospitals only, however some patients treated in private hospitals under contract in Victoria and Tasmania were included.
- Methods to calculate waiting times have varied across states and territories and over time (see *Appendix 1*)
- From 2009–10, the data for the Albury Base Hospital was reported by the Victorian Department of Health as part of the Albury Wodonga Health Service. The Albury Wodonga Health Service was formed by the integration of Wodonga Regional Health Service in Victoria and acute services at the Albury Base Hospital in New South Wales. Data for Albury Base Hospital are therefore now included in statistics for Victoria whereas they were formerly reported by and included in statistics for New South Wales.
- In 2009–10 for patients who were admitted after being transferred from another hospital's waiting list, New South Wales, Queensland, South Australia and the Northern Territory reported the total time waited on all hospital waiting lists. This could have an effect of increasing the waiting times reported for overall removals for those jurisdictions relative to others. Queensland has indicated that it is uncommon for patients to be transferred from a waiting list managed by one public hospital to that managed by another. *(continued)*

### **Box 10.2 (continued)**

#### **Limitations of the linked admitted patient care and elective surgery waiting times data**

For Tasmania, the linkage of admitted patient data with elective surgery waiting times data was not possible due to the implementation of a new information system in public hospitals.

Coverage of the linked data by remoteness area ranged from 62% in *Very remote* areas to 96% in *Major cities*. Coverage by socioeconomic status (SES) group ranged from 77% for the most disadvantaged group (1–Lowest) to 96% for the least disadvantaged group (5–Highest). These variations in coverage should be considered when interpreting the age-standardised rates presented below.

### **Box 10.3: What methods were used?**

#### **Analyses of the NHMD and linked NHMD and NESWTDC data**

- Elective surgery separations, including *Public* and *Other elective surgery*, were defined as stated in Box 10.1.
- Separations for which the care type was reported as *Newborns* (without qualified days), and records for *Hospital boarders* and *Posthumous organ procurement* have been excluded.
- Separation rates are age standardised to the estimated resident population 30 June 2001 (see *Appendix 1*).
- Separation rate ratios are calculated as outlined in *Appendix 1*.

#### **Analyses of NESWTDC**

Information on the number of days waited at the 50th and 90th percentiles by patients admitted from waiting lists for elective surgery, the proportion of patients waiting greater than 365 days, and the number of patients admitted is presented by public hospital peer group. Information is also included by the specialty of the surgeon who was to perform the elective surgery and by indicator procedure.

## **Admitted patient care data for elective surgery**

### **How has elective surgery activity changed over time?**

Between 2005–06 and 2009–10, total elective surgery separations increased from 1.6 million to nearly 1.9 million (Table 10.1). Over that period, there was a 3.6% average annual increase in overall elective surgery separations. While the number of separations per 1,000 population for *Public elective surgery* was relatively stable between 2005–06 and 2009–10, the rate for *Other elective surgery* rose by an average of 2.9% per year.

**Table 10.1: Separations for public and other elective surgery, 2005–06 to 2009–10**

	2005–06	2006–07	2007–08	2008–09	2009–10	Change (per cent)	
						Ave since 2005–06	Since 2008–09
<b>Public Elective surgery</b>							
Separations	622,686	622,458	627,924	649,837	660,552	1.5	1.6
Separations per 1000 population	30.3	29.8	29.6	30.0	29.8	-0.4	-0.7
<b>Other Elective surgery</b>							
Separations	1,002,432	1,046,268	1,112,104	1,140,726	1,214,346	4.9	6.5
Separations per 1000 population	48.8	50.1	52.4	52.7	54.8	2.9	4.0
<b>All Elective surgery</b>							
<b>Separations</b>	<b>1,625,118</b>	<b>1,668,726</b>	<b>1,740,028</b>	<b>1,790,563</b>	<b>1,874,898</b>	<b>3.6</b>	<b>4.7</b>
<b>Separations per 1000 population</b>	<b>79.1</b>	<b>79.9</b>	<b>81.9</b>	<b>82.7</b>	<b>84.6</b>	<b>1.7</b>	<b>2.3</b>

(a) Rates are directly age-standardised to the Australian population as at 30 June each year. The Australian population as at 30 June 2001 is used as the reference population.

Note: See boxes 10.1, 10.2 and 10.3 for notes on definitions of elective surgery, data limitations and methods.

Abbreviation: Ave—average.

Source: National Hospital Morbidity Database.

## How much activity was there in 2009–10?

In 2009–10, the separation rate for *Public elective surgery* varied from 25.5 per 1,000 population in the Northern Territory to 39.0 per 1,000 in South Australia (Table 10.2). The separation rate for *Other elective surgery* ranged from 24.3 per 1,000 in the Northern Territory to 60.2 per 1,000 in South Australia.

**Table 10.2: Separation statistics for public and other elective surgery, states and territories, 2009–10**

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
<b>Public Elective surgery</b>									
Separations	186,305	200,697	115,797	64,467	63,656	14,323	9,498	5,809	660,552
Separations per 1000 population	25.9	36.5	25.9	28.4	39.0	28.3	26.8	25.5	29.8
<b>Other Elective surgery</b>									
Separations	373,595	299,390	260,507	129,580	98,422	30,035	17,294	5,523	1,214,346
Separations per 1000 population	51.9	54.5	58.2	57.1	60.2	59.4	48.7	24.3	54.8
<b>All Elective surgery</b>									
<b>Separations</b>	<b>559,900</b>	<b>500,087</b>	<b>376,304</b>	<b>194,047</b>	<b>162,078</b>	<b>44,358</b>	<b>26,792</b>	<b>11,332</b>	<b>1,874,898</b>
<b>Separations per 1000 population</b>	<b>77.9</b>	<b>91.0</b>	<b>84.1</b>	<b>85.5</b>	<b>99.2</b>	<b>87.8</b>	<b>75.5</b>	<b>49.8</b>	<b>84.6</b>

(a) Separation rates were age-standardised to the estimated resident population as at 30 June 2001, as detailed in *Appendix 1*.

Note: See boxes 10.1, 10.2 and 10.3 for notes on definitions of elective surgery, data limitations and methods.

Source: National Hospital Morbidity Database.

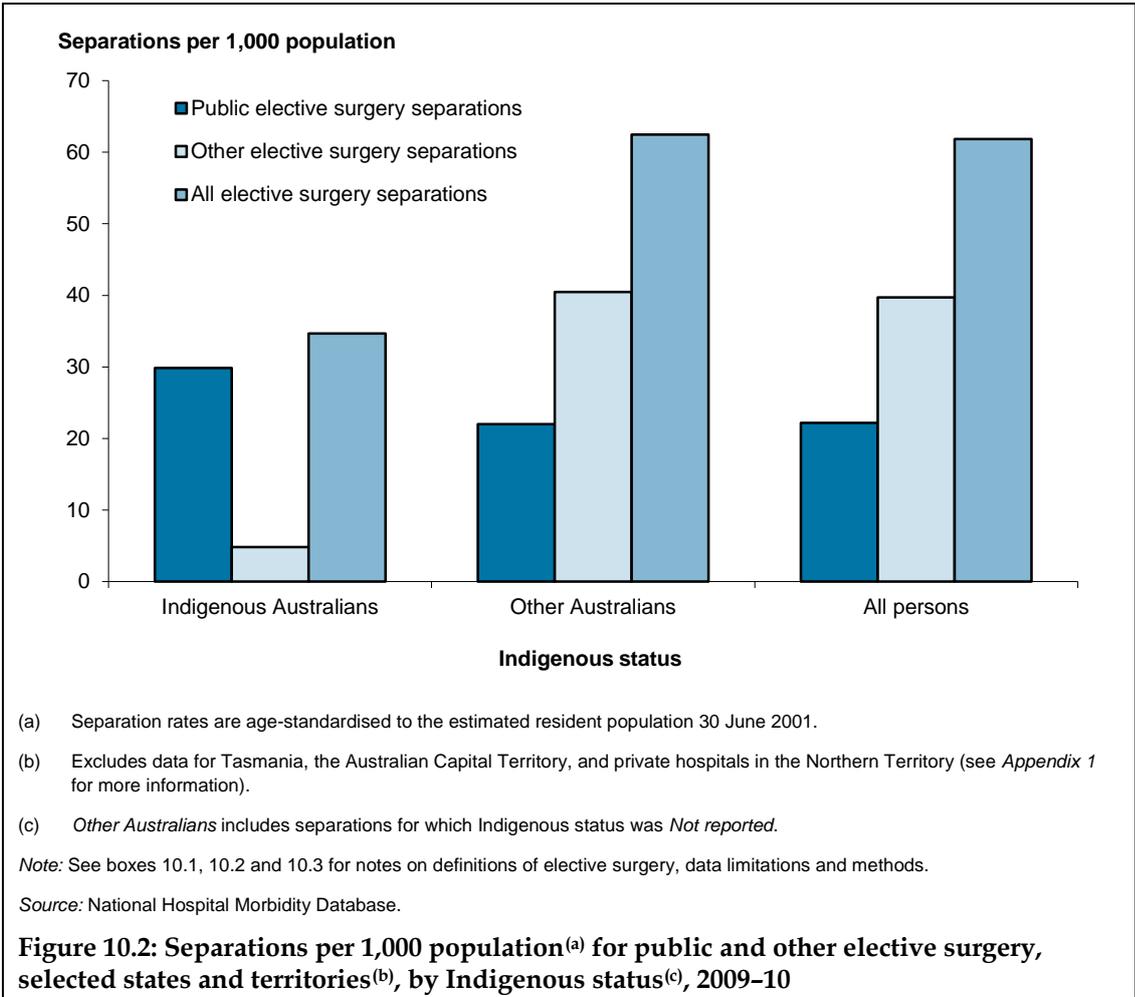
## Who used these services?

Separation rates for elective surgery are one measure of access to elective surgery and can provide indications of whether access is equitable for different population sub-groups. In this section, the rates are presented by the remoteness area of usual residence, by socioeconomic status (SES) group and Indigenous status.

### Aboriginal and Torres Strait Islander people

Excluding data for Tasmania, the Australian Capital Territory, and private hospitals in the Northern Territory, there were nearly 18,000 separations for elective surgery in 2009–10 for *Indigenous Australians*. Over 86% of these separations were for *Public elective surgery*. The overall rate of separations for elective surgery for *Indigenous Australians* was 35 per 1,000 population, about 55% of the rate for *Other Australians* (63 per 1,000).

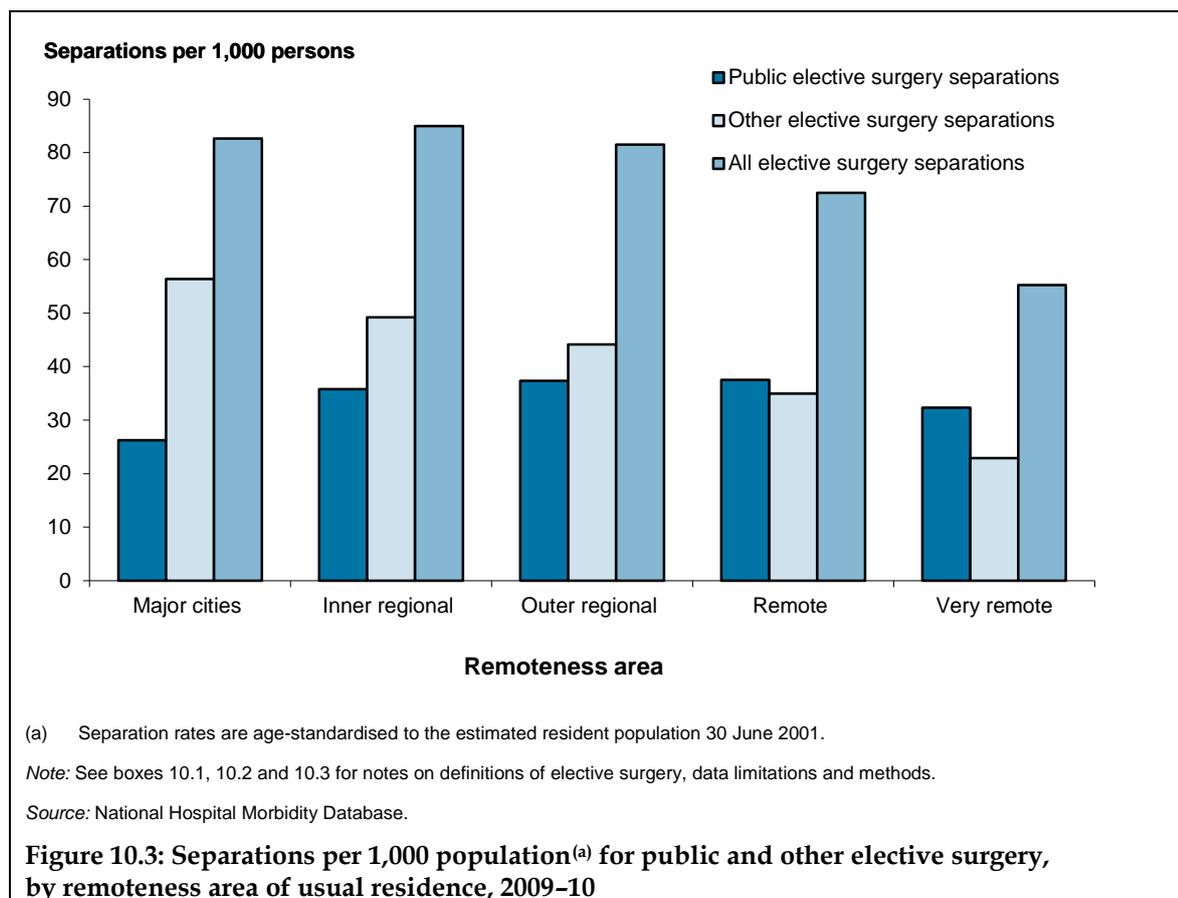
The separation rate for *Public elective surgery* for *Indigenous Australians* (30 per 1,000 population) was about 35% higher than the rate for *Other Australians* (22 per 1,000). The separation rate for *Other elective surgery* for *Other Australians* (41 per 1,000) was markedly higher than the rate for *Indigenous Australians* (5 per 1,000) (Figure 10.2).



## Remoteness area of usual residence

The overall separation rate for elective surgery was highest for those living in *Inner regional* areas (85 per 1,000 population) and decreased with increased remoteness to 55 per 1,000 in *Very remote* areas (Figure 10.3).

The rate of *Public elective surgery* separations was lowest for those living in *Major cities* (26 per 1,000) and highest for those living in *Remote areas* (38 per 1,000). The separation rate for *Other elective surgery* was highest for those living in *Major cities* (56 per 1,000 population) and decreased with increasing remoteness to 23 per 1,000 for *Very remote* areas. This may reflect variations in the availability of private hospital services in the more remote areas of Australia.



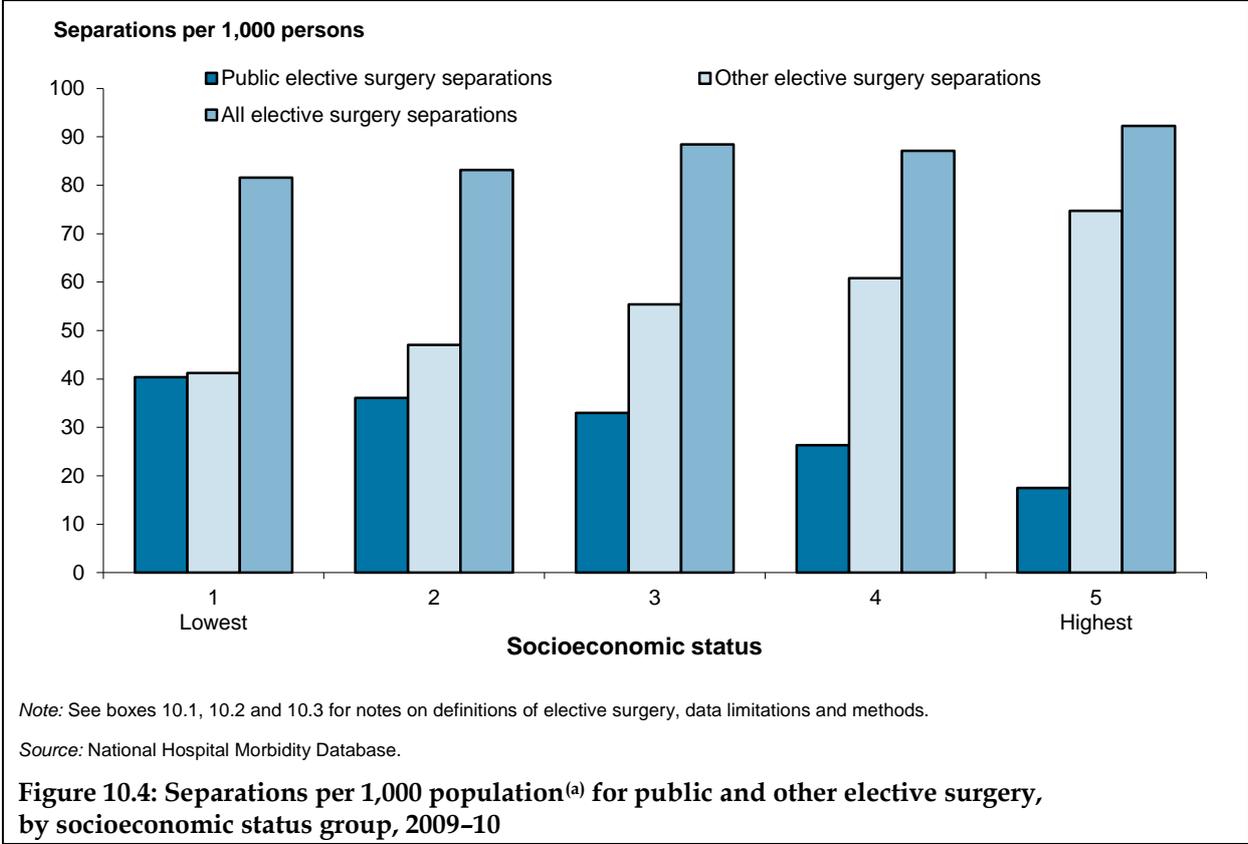
## Socioeconomic status

Figure 10.4 presents separation rates per 1,000 population for elective surgery by SES group (see *Appendix 1*). There was some variation in both public and other elective surgery separations rates.

In 2009–10, the elective surgery separation rate was highest for people living in areas classified as being in the highest SES group (92 per 1,000 population) and tended to decrease with increasing disadvantage to 82 per 1,000 population for people living in areas classified in the lowest SES group.

The separation rate for *Public elective surgery* separations was lowest for people living in areas classified as being in the highest SES group (18 per 1,000 population) and highest for those classified to the lowest SES group (40 per 1,000). The separation rate for *Other elective surgery*

was highest for the highest SES group (75 per 1,000) and decreased to 41 per 1,000 for the lowest SES group.



## Waiting times data for elective surgery

This section includes information sourced from the NESWTDC and the linked data sourced from the NHMD. The linked data does not include data for Tasmania.

### How has activity changed over time?

Between 2005–06 and 2009–10, the number of admissions for elective surgery from waiting lists increased by an annual average of 2.0% (Table 10.3). However, there was also a rise in the proportion of public elective surgery reported in the NESWTDC over that period, from 88% to 91%, which should be taken into account in interpreting the change.

Over the same period, the proportion of admissions for hospitals in the *Principal referral* and *Specialist women’s and children’s hospitals* peer group increased from 69% to 73% of admissions from elective surgery waiting lists.

The period from 2007–08 to 2009–10 includes the period in which the Elective Surgery Waiting List Reduction Plan was implemented by the Australian Government and the states and territories.

**Table 10.3: Estimated coverage statistics for patients admitted from waiting lists for elective surgery, by public hospital peer group, states and territories, 2005–06 to 2009–10**

	2005–06	2006–07	2007–08	2008–09	2009–10	Change (per cent)	
						Ave since 2005–06	Since 2008–09
<b>Principal referral and Specialist women's and children's hospitals</b>							
Number of reporting hospitals	78	81	82	84	85	1.8	1.2
Estimated proportion of surgical separations (%)	100	100	100	100	100	0.0	0.0
Number of admissions	386,203	394,831	401,518	431,675	445,239	3.6	3.1
<b>Large hospitals</b>							
Number of reporting hospitals	34	30	35	32	36	1.4	12.5
Estimated proportion of surgical separations (%)	83	81	84	87	87	1.1	–0.5
Number of admissions	97,816	88,433	96,468	91,766	98,015	0.1	6.8
<b>Medium hospitals</b>							
Number of reporting hospitals	51	50	51	51	46	–2.5	–9.8
Estimated proportion of surgical separations (%)	64	63	62	62	58	–2.0	–6.3
Number of admissions	63,641	63,658	59,083	62,815	56,936	–2.7	–9.4
<b>Total</b>							
<b>Number of reporting hospitals</b>	<b>192</b>	<b>191</b>	<b>192</b>	<b>193</b>	<b>192</b>	<b>0.0</b>	<b>–0.5</b>
<b>Estimated proportion of surgical separations (%)</b>	<b>89</b>	<b>88</b>	<b>89</b>	<b>90</b>	<b>91</b>	<b>0.5</b>	<b>1.4</b>
<b>Number of admissions</b>	<b>556,951</b>	<b>556,770</b>	<b>565,501</b>	<b>595,009</b>	<b>609,089</b>	<b>2.3</b>	<b>2.4</b>
<b>Admissions per 1,000 population</b>	<b>27.1</b>	<b>26.7</b>	<b>26.6</b>	<b>27.5</b>	<b>27.5</b>	<b>0.4</b>	<b>0.0</b>

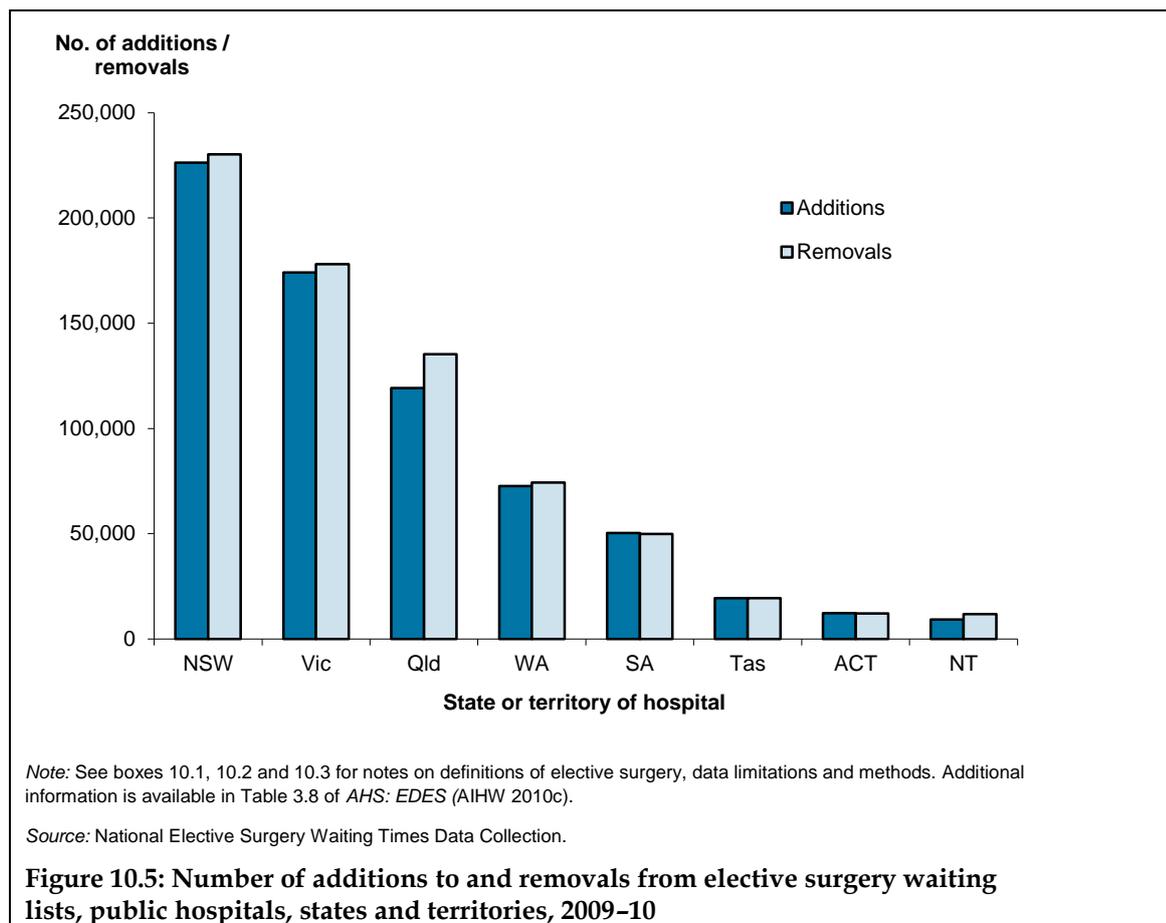
Note: See boxes 10.1, 10.2 and 10.3 for notes on definitions of elective surgery, data limitations and methods.

Abbreviation: Ave—average.

Source: National Elective Surgery Waiting Times Data Collection.

## How much activity was there in 2009–10?

Figure 10.5 shows the movement of patients on and off waiting lists in 2009–10. In 2009–10, there were almost 684,000 additions to elective surgery waiting lists and 711,000 removals from elective surgery waiting lists. Removals included patients who were admitted for the procedure they were waiting for, or were removed for other reasons. For more information, see Table 3.8 in *AHS: EDES* (AIHW 2010c).



## Who used these services?

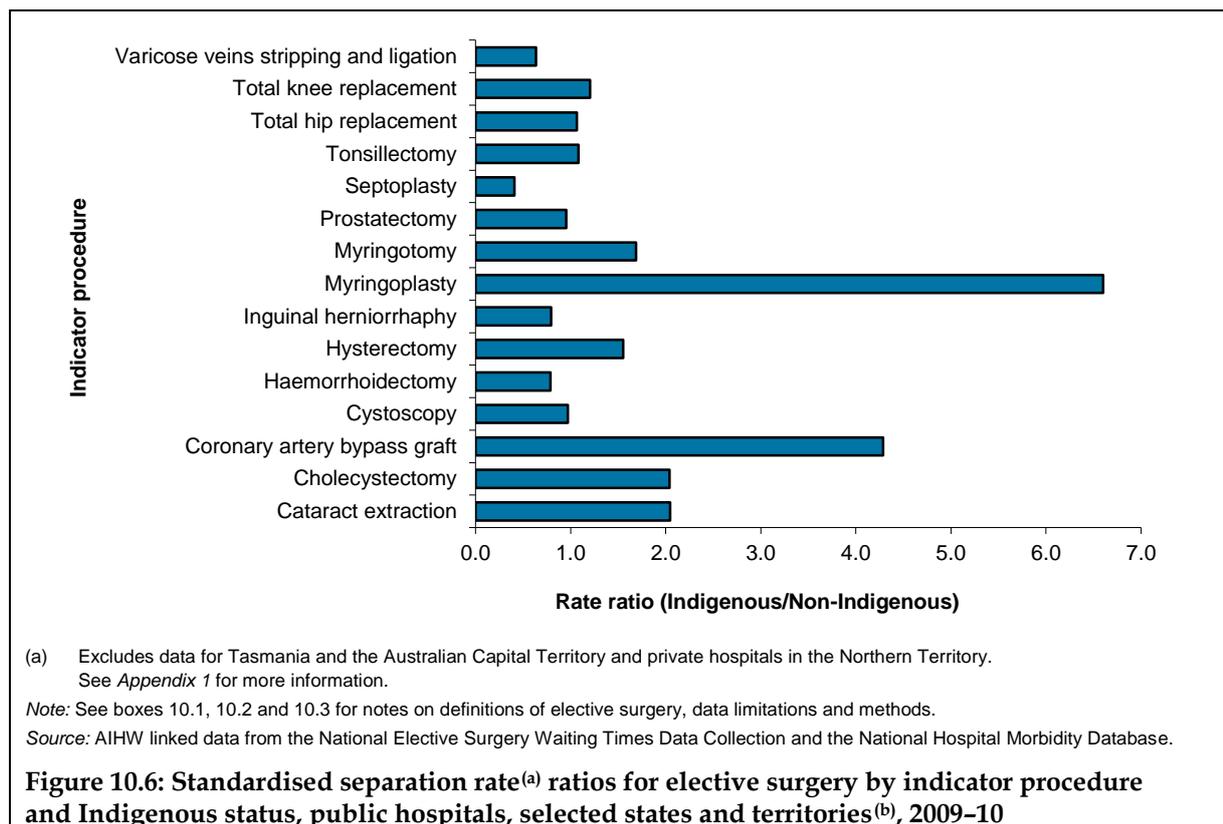
Analysis of the linked NHMD and ESWTDC data provides an opportunity to understand how elective surgery activity for people admitted from waiting lists varied across population groups. The data in this section are presented by indicator procedure.

### Aboriginal and Torres Strait Islander people

The SRRs presented in Figure 10.6 compare the standardised separation rates for *Indigenous Australians* to the rates for *Other Australians*. An SRR greater than 1.0 indicates that *Indigenous Australians* had a higher separation rate for the indicator procedure than *Other Australians* admitted for elective surgery from elective surgery waiting lists.

For 10 of the 15 indicator procedures, the data suggest that the rates for *Indigenous Australians* were markedly different from the rates for *Other Australians*. The rates were not significantly different for *Haemorrhoidectomy*, *Inguinal herniorrhaphy*, *Prostatectomy*, *Total hip replacement* and *Varicose vein stripping and ligation*.

The highest SRRs were reported for *Myringoplasty* (6.6) and *Coronary artery bypass graft* (4.3). *Indigenous Australians* had lower SRRs for *Septoplasty* and *Varicose veins stripping and ligation*.

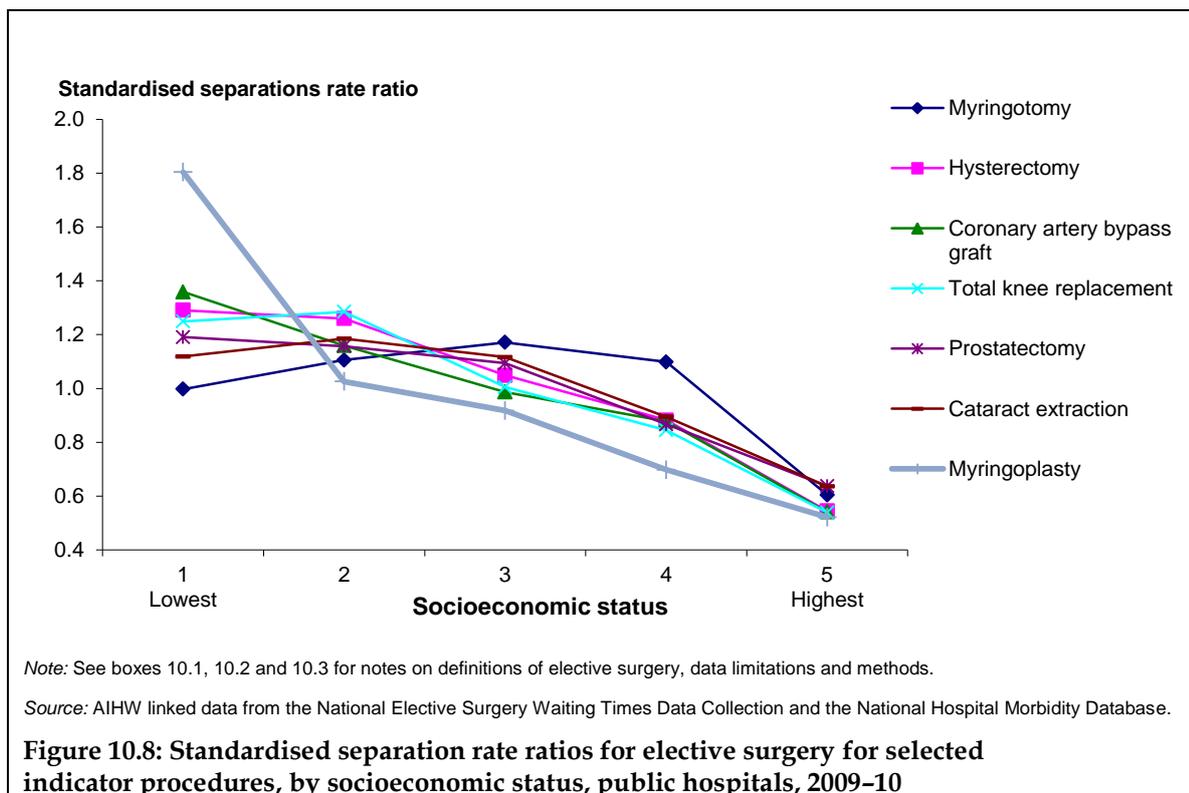
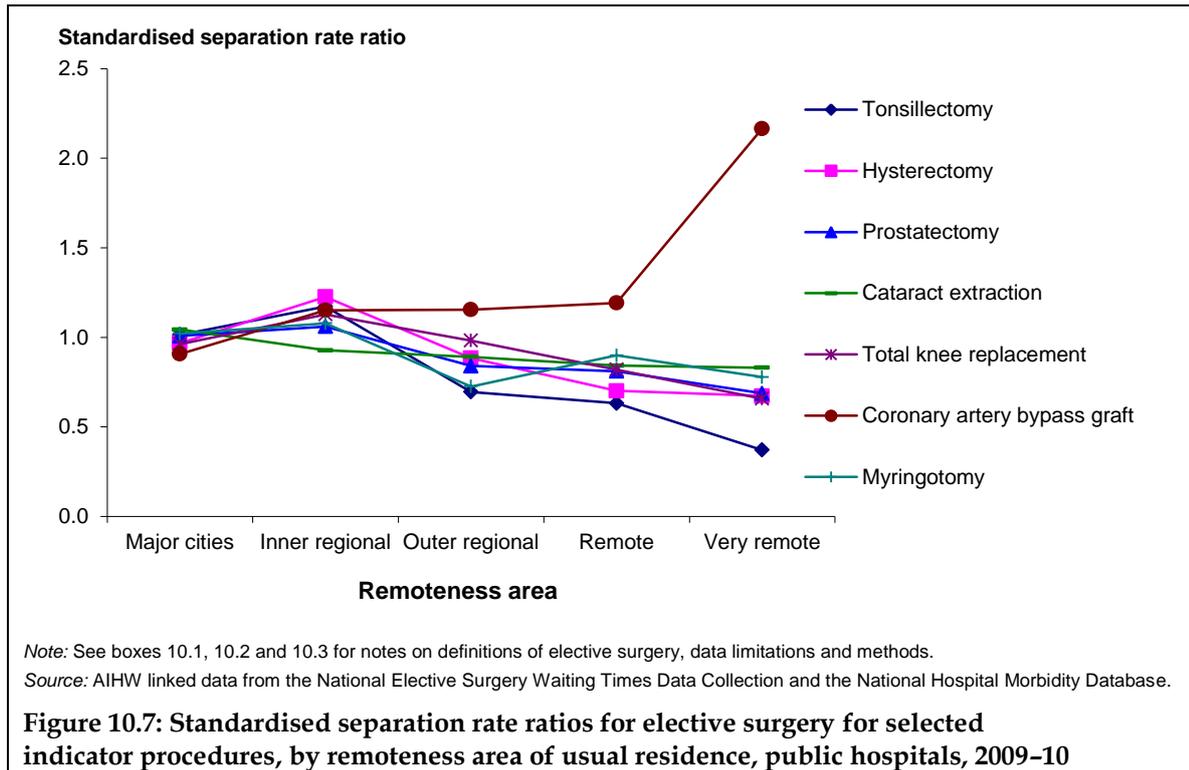


## Remoteness area

Figure 10.7 presents standardised separation rate ratios by indicator procedure and remoteness area. The SRR for *Coronary artery bypass graft* for people living in *Very remote* areas was about 3 times the national rate.

## Socioeconomic status

The greatest variation in SRRs by socioeconomic status were for *Myringoplasty*, with the SRRs ranging from 1.8 for people living in areas classified as being in the lowest SES group (about 80% higher than the overall rate) to 0.5 for the highest SES group (about 50% lower than the overall rate). The SRRs for *Cataract extraction* were more evenly distributed among socioeconomic groups, with people living in areas classified as being in the lowest SES group having separation rates about 10% higher than the overall rate, and those in the highest SES group having separation rates about 40% lower than the overall rate (Figure 10.8).



## How long did people wait for care?

Table 3.3 of *AHS: EDES* (AIHW 2010c) presents information on:

- the number of days waited at the 50th and 90th percentiles by patients admitted from waiting lists for elective surgery
- the proportion of patients who waited greater than 365 days
- the number of patients admitted by public hospital peer group.

Information is also included by the specialty of the surgeon who performed the elective surgery and by indicator procedure (tables 3.9 and 3.10, *AHS: EDES* (AIHW 2010c)).

## How did waiting times for care change over time?

Overall the median waiting times for elective surgery increased from 32 days in 2005–06 to 36 days in 2009–10. The days waited at the 90th percentile increased from 237 days to 247 days during the same period. In contrast, the proportion of patients who waited greater than 365 days to be admitted decreased from 4.6% in 2005–06 to 3.6% in 2009–10.

Waiting time statistics for patients admitted from waiting lists, by public hospital peer group, 2005–06 to 2009–10, are published in Tables 3.1 and 3.2 of *AHS: EDES* (AIHW 2010c).

## How did waiting times vary by reason for removal from waiting lists?

Waiting time statistics for patients removed from waiting lists for elective surgery by reason for removal are published in Table 3.8 of *AHS: EDES* (AIHW 2010c).

Overall, the reason for removal with the shortest median waiting time in 2009–10 was *Emergency admission* (3 days) and the longest median waiting time was for *Not contactable/died* (175 days).

As was the case with median waiting times, the reason for removal with the shortest waiting time by which 90% of patients were removed was *Emergency admission* (80 days) and the reason for removal with the longest waiting time was *Not contactable/died* (464 days). The length of time by which 90% of patients were removed from waiting lists varied substantially between states and territories in most categories.

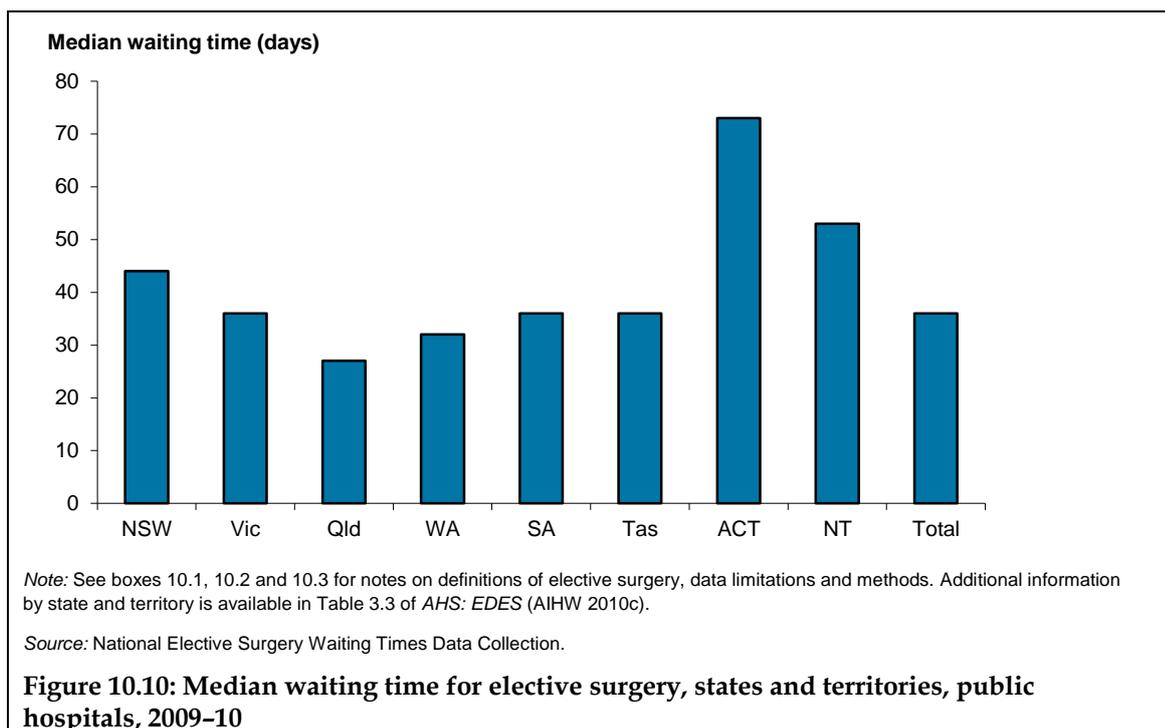
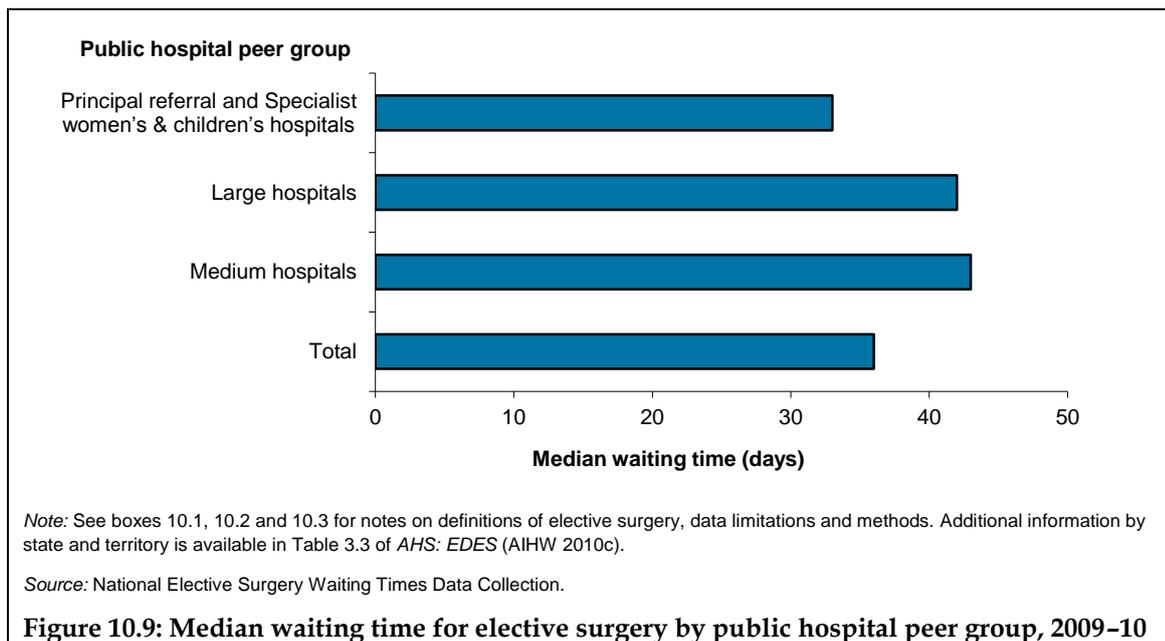
In 2009–10, the reason for removal with the lowest proportion of patients who waited more than 365 days before removal was *Emergency admission* (1.0%) and the category with the highest proportion was *Not contactable/died* (18.8%).

## How did waiting times vary across public hospital peer groups?

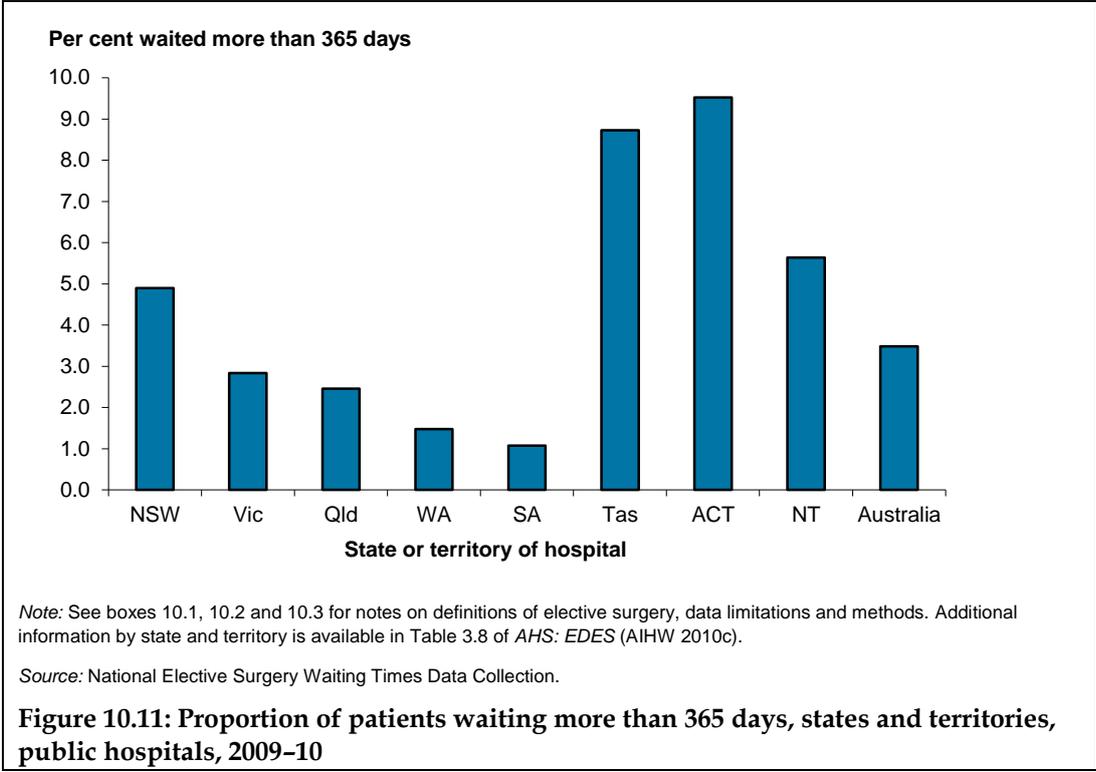
Overall, the median waiting time for patients who were admitted from waiting lists was 36 days in 2009–10. In 2009–10, the median waiting time for patients admitted from waiting lists for hospitals in the *Principal referral and specialist women's and children's hospitals* peer group (33 days) was shorter than for the *Large hospitals* (42 days) and *Medium hospitals* peer groups (43 days) (Figure 10.9).

## How did waiting times vary across states and territories?

In 2009–10, the median waiting time ranged from 27 days in Queensland to 73 days in the Australian Capital Territory (Figure 10.10). More information on elective surgery waiting times by peer group for states and territories is published in Table 3.3 of *AHS: EDES* (AIHW 2010c).



The proportion of patients waiting more than 365 days differed substantially among states and territories in 2009–10. Overall, it ranged from 1.1% in South Australia to 9.5% in the Australian Capital Territory (Figure 10.11).



**Figure 10.11: Proportion of patients waiting more than 365 days, states and territories, public hospitals, 2009-10**

**How did waiting times vary by specialty of surgeon?**

The **specialty of the surgeon** describes the area of clinical expertise held by the doctor who was to perform the elective surgery.

Table 10.4 shows the number of admissions from waiting lists, the distribution of days waited and the proportion of admissions for people who waited more than 365 days in 2009–10. These data are presented by the specialty of the surgeon who performed the surgery.

*Ophthalmology*; *Ear, nose and throat surgery* and *Orthopaedic surgery* were the surgical specialties with the longest median waiting times in 2009–10 (70 days, 63 days and 62 days, respectively). *Cardio-thoracic surgery* had the shortest median waiting time (14 days) (Table 10.4).

*Orthopaedic surgery* and *Ear, nose and throat surgery* were the specialties with the highest proportion of patients who waited more than 365 days to be admitted (7.9% and 6.8%, respectively). *Cardio-thoracic surgery* had the lowest proportion of patients who waited more than 365 days (0.4%).

There was marked variation among the states and territories in the proportion of patients who waited more than 365 days to be admitted for some surgical specialties. For more information, see *AHS: EDES* Table 3.10 (AIHW 2010c).

**Table 10.4: Waiting time statistics for patients admitted from waiting lists for elective surgery, by speciality of surgeon, public hospitals, 2009–10**

<b>Surgical speciality</b>	<b>Admissions</b>	<b>Days waited at 50th percentile</b>	<b>Days waited at 90th percentile</b>	<b>% waited more than 365 days</b>
Cardio-thoracic surgery	11,773	14	71	0.4
Ear, nose & throat surgery	53,314	63	340	6.8
General surgery	143,124	31	173	2.2
Gynaecology	78,765	30	136	1.0
Neurosurgery	10,259	30	197	2.3
Ophthalmology	71,048	70	329	4.1
Orthopaedic surgery	92,225	62	352	7.9
Plastic surgery	44,150	22	164	2.7
Urology	71,269	28	134	1.7
Vascular surgery	14,003	20	183	3.9
Other	19,159	22	103	1.1
<b>Total</b>	<b>609,089</b>	<b>36</b>	<b>247</b>	<b>3.6</b>

Note: See boxes 10.1, 10.2 and 10.3 for notes on definitions of elective surgery, data limitations and methods. Additional information by state and territory is available in Table 3.10 of *AHS: EDES* (AIHW 2010c).

Source: National Elective Surgery Waiting Times Data Collection.

### How did waiting times vary by Indicator procedure?

**Indicator procedures** are procedures which are of high volume and are often associated with long waits.

Overall, 33.8% of patients admitted for elective surgery had been waiting for one of the 15 indicator procedures (Table 10.5). There was some variation among the states and territories – New South Wales had the highest proportion of admissions for the indicator procedures (36.1%) and Tasmania had the lowest proportion (27.9%). *Cataract extraction* was the highest volume indicator procedure in all jurisdictions.

Nationally, the indicator procedure with the lowest median waiting time in 2009–10 was *Coronary artery bypass graft* (15 days) and the one with the highest median waiting time was *Total knee replacement* (180 days) (Table 10.5).

The length of time by which 90% of patients had been admitted also varied by indicator procedure, from 80 days for *Coronary artery bypass graft* to 416 days for *Septoplasty*.

The proportions of admissions for which patients waited more than 365 days also varied by indicator procedure.

Median waiting times varied markedly across the states and territories. For more information on the variation between states and territories, see *AHS: EDES* Table 3.9 (AIHW 2010c).

**Table 10.5: Waiting time statistics for patients admitted from waiting lists for elective surgery, by Indicator procedure, public hospitals, 2009–10**

Indicator procedure	Admissions	Days waited at 50th percentile	Days waited at 90th percentile	% waited more than 365 days
Cataract extraction	52,284	86	336	4.3
Cholecystectomy	18,043	51	188	2.2
Coronary artery bypass graft	3,899	15	80	0.7
Cystoscopy	39,946	25	127	1.3
Haemorrhoidectomy	3,456	66	260	3.4
Hysterectomy	9,897	50	196	1.9
Inguinal herniorrhaphy	14,788	57	251	3.1
Myringoplasty	1,935	105	382	12.4
Myringotomy	6,085	48	151	1.2
Prostatectomy	8,397	47	189	2.9
Septoplasty	4,519	144	416	16.4
Tonsillectomy	16,878	91	357	8.4
Total hip replacement	8,580	116	373	11.1
Total knee replacement	12,538	180	414	18.1
Varicose veins stripping & ligation	4,439	97	390	12.8
Not applicable/not stated	403,405	28	185	2.7
<b>Total</b>	<b>609,089</b>	<b>36</b>	<b>247</b>	<b>3.6</b>

Note: See boxes 10.1, 10.2 and 10.3 for notes on definitions of elective surgery, data limitations and methods. Additional information by state and territory is available in Table 3.9 of *AHS: EDES* (AIHW 2010c).

Source: National Elective Surgery Waiting Times Data Collection.

### How did waiting times vary for Indigenous and non-Indigenous Australians?

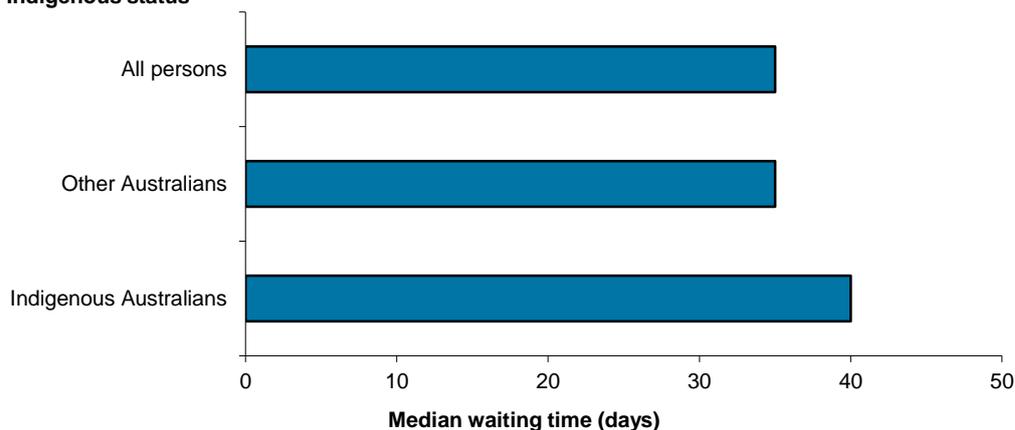
For 2009–10, there were over 12,300 admissions from waiting lists for elective surgery for patients identified as Aboriginal and/or Torres Strait Islander people in New South Wales, Victoria, Queensland, Western Australia, South Australia and the Northern Territory.

Overall, the median waiting time for *Indigenous Australians* was greater than the median waiting time for *Other Australians* (40 days and 35 days respectively, Figure 10.12).

#### Indicator procedures

*Indigenous Australians* had higher median waiting times for ten of the eleven procedures for which there were at least 100 separations for *Indigenous Australians*. The greatest difference in median waiting times was for *Total knee replacement*, for which *Indigenous Australians* waited longer than *Other Australians* (260 and 173 days, respectively). *Hysterectomy*, *Myringoplasty*, *Myringotomy* and *Cholecystectomy* had the least variation in median waiting times by Indigenous status (Figure 10.13).

### Indigenous status



(a) *Other Australians* includes separations for which Indigenous status was *Not reported*.

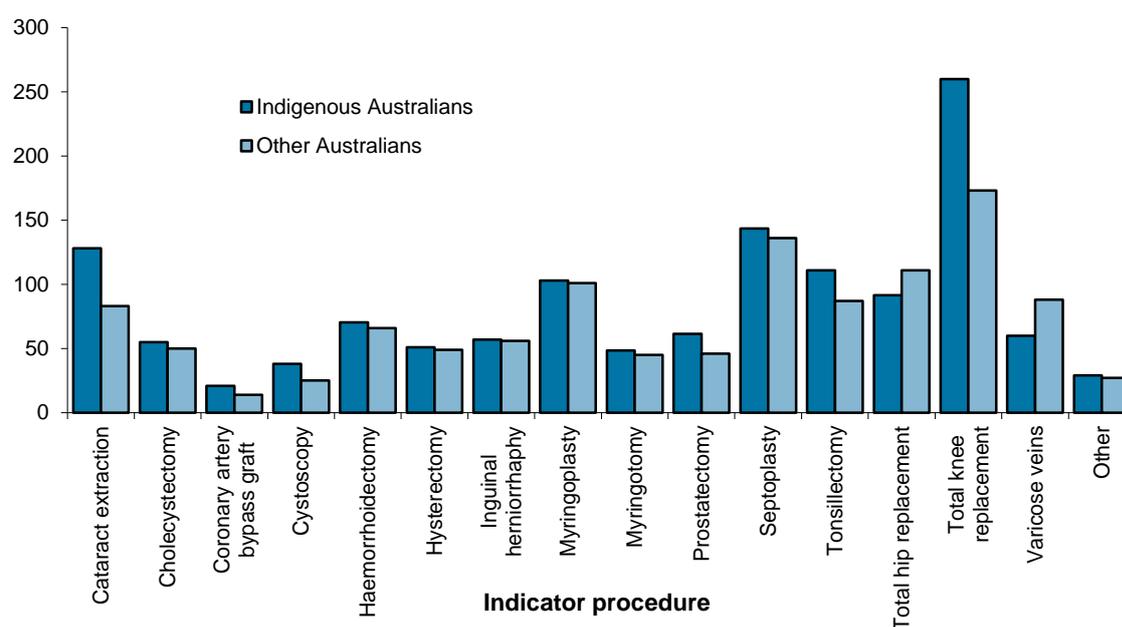
(b) Excludes data for Tasmania, the Australian Capital Territory, and private hospitals in the Northern Territory.

Note: See boxes 10.1, 10.2 and 10.3 for notes on definitions of elective surgery, data limitations and methods.

Source: AIHW linked data from the National Elective Surgery Waiting Times Data Collection and the National Hospital Morbidity Database.

**Figure 10.12: Median waiting times for elective surgery by Indigenous status<sup>(a)</sup>, selected states and territories<sup>(b)</sup>, public hospitals, 2009–10**

### Median waiting time (days)



(a) *Other Australians* includes separations for which Indigenous status was *Not reported*.

(b) Excludes data for Tasmania, the Australian Capital Territory, and private hospitals in the Northern Territory.

Note: See boxes 10.1, 10.2 and 10.3 for notes on definitions of elective surgery, data limitations and methods.

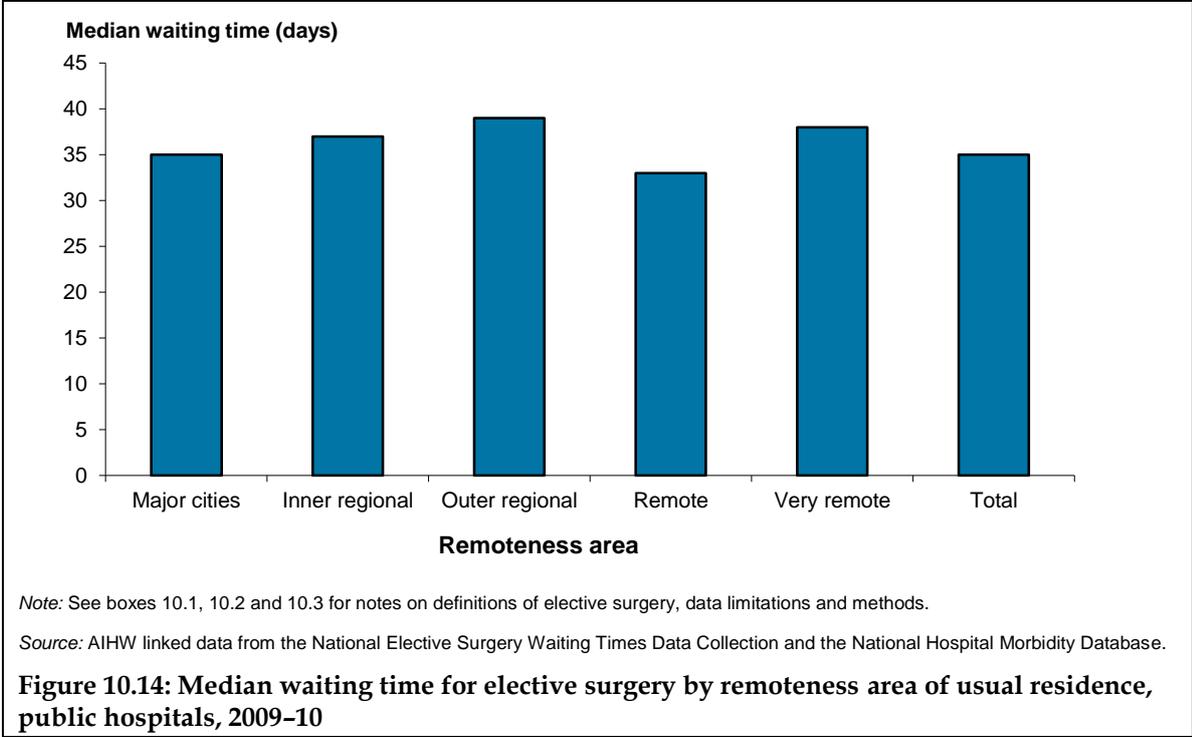
Source: AIHW linked data from the National Elective Surgery Waiting Times Data Collection and the National Hospital Morbidity Database.

**Figure 10.13: Median waiting time for elective surgery by indicator procedure and Indigenous status, selected states and territories, public hospitals, 2009–10**

**How did waiting times vary by remoteness area?**

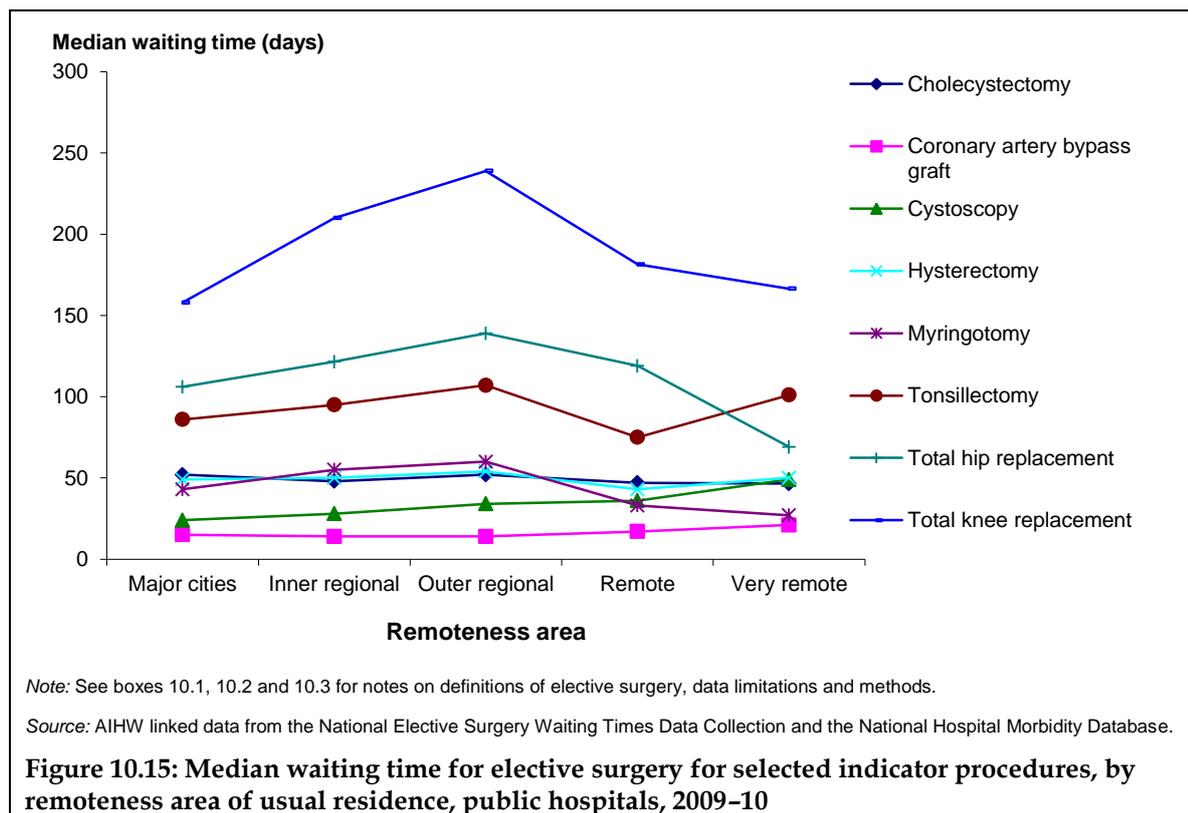
Overall, about 68% of admissions from waiting lists for elective surgery were for patients residing in *Major cities*, 22% were in *Inner regional* areas and 8% in *Outer regional* areas.

The median waiting time varied somewhat by remoteness, ranging from 33 days for people living in *Remote* areas to 39 days for people living in *Outer regional* areas (Figure 10.14).



**Indicator procedures**

There was some variation in the median waiting time for remoteness areas by indicator procedure. For indicator procedures (having at least 50 admissions in *Remote* and *Very remote* areas), *Total knee replacement* had the greatest variation in waiting times by remoteness area. People from *Outer regional* areas had the highest median waiting time of 239 days, and people from *Major cities* had the lowest (158 days), followed by those from *Very remote* areas (167 days) (Figure 10.15). *Coronary artery bypass graft* had the least variation by remoteness area.



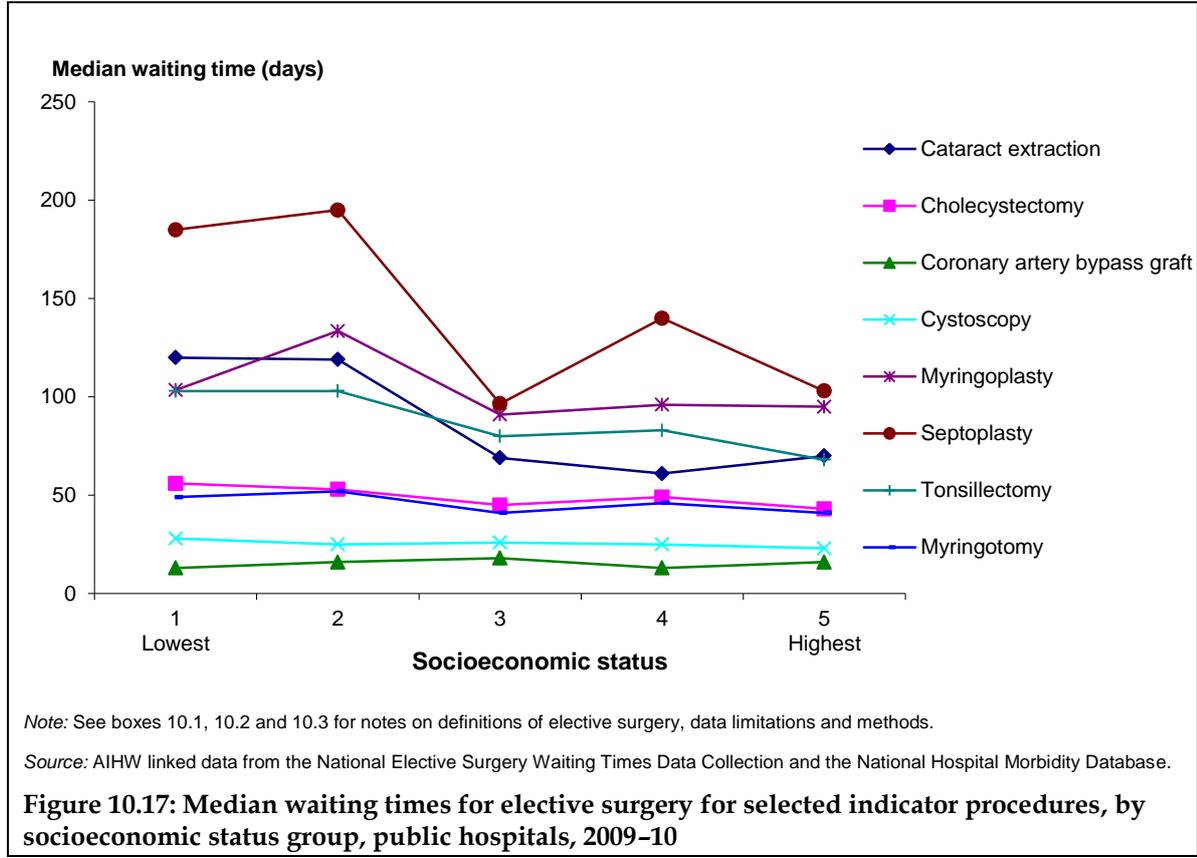
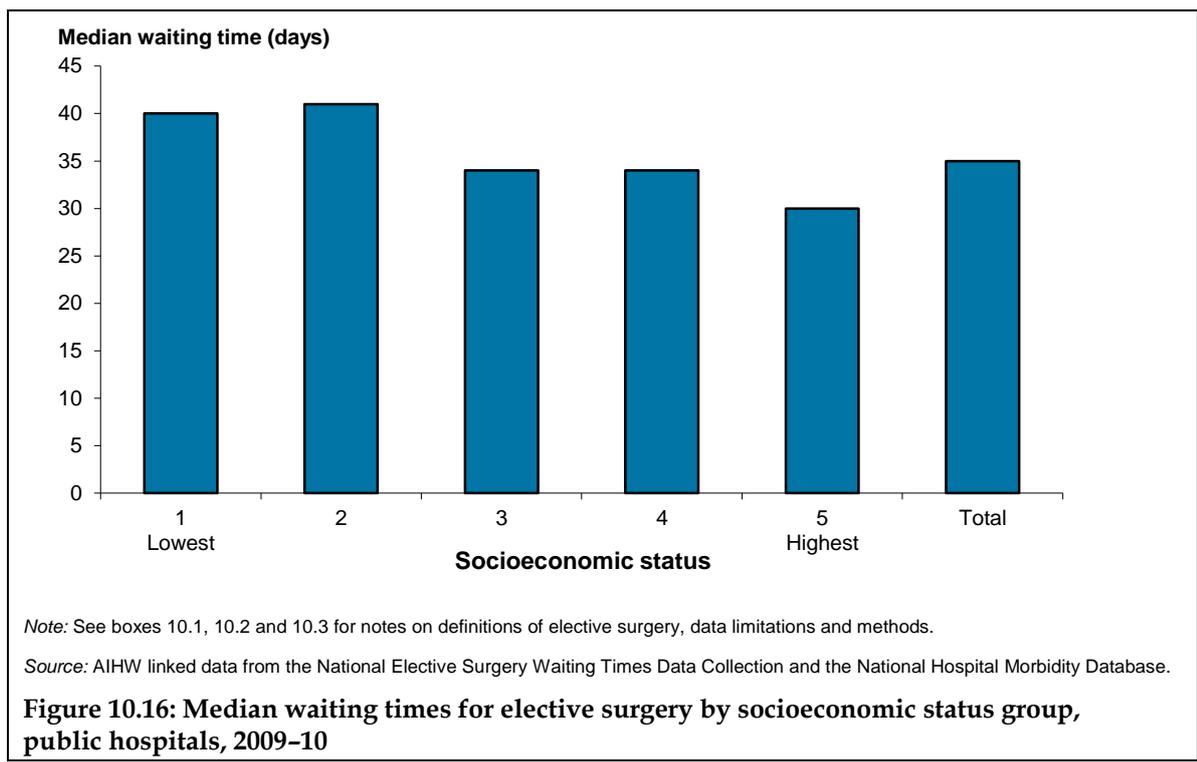
### How did waiting vary by socioeconomic status?

Overall, about 25% of admissions from waiting lists were for people living in areas classified as being in the lowest SES group, decreasing to about 13% for people living in areas classified as being in the highest SES group.

Median waiting times varied by socioeconomic status, ranging from 30 days for people living in areas classified as the highest SES group to 41 days for the second lowest SES group (Figure 10.16).

### Indicator procedures

*Septoplasty* was the indicator procedure with the greatest variation in waiting times by socioeconomic status, ranging from 195 days for people living in areas classified as being in the second lowest SES group to 97 days for people in the middle SES group. *Cholecystectomy*, *Coronary artery bypass graft* and *Cystoscopy* had the least variation by socioeconomic status group (Figure 10.17).

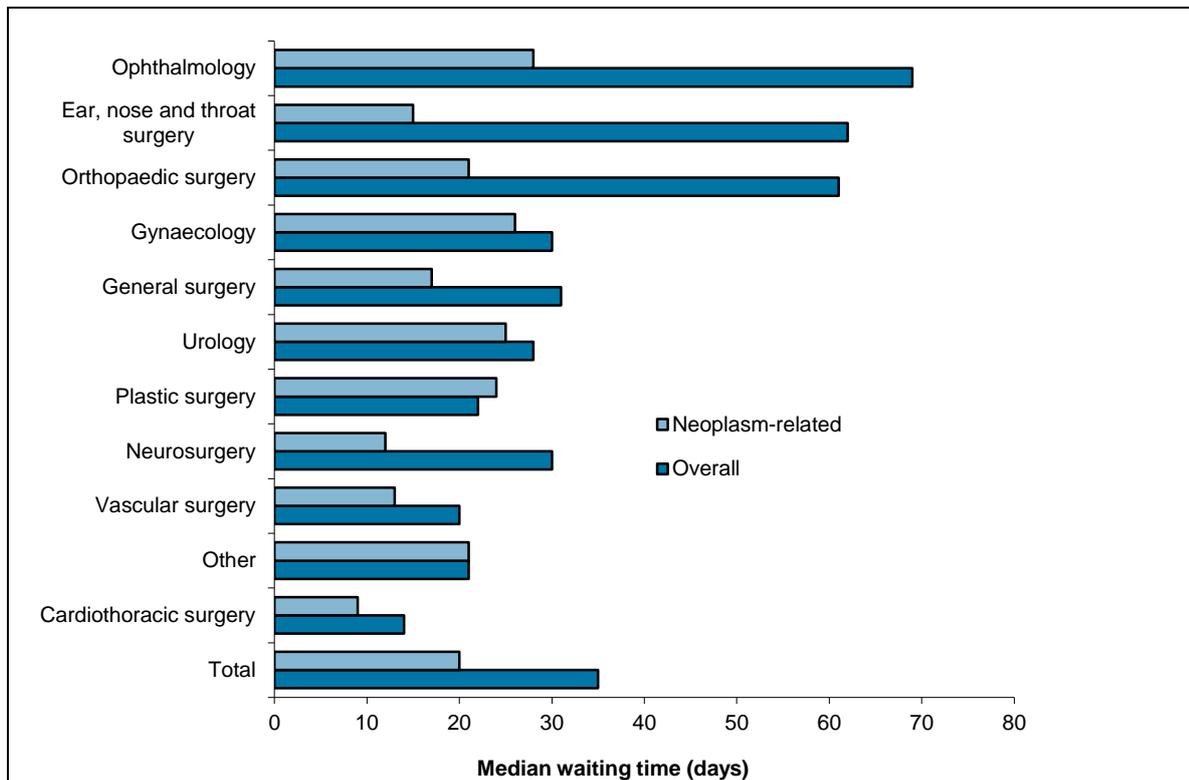


## How did waiting times vary by diagnosis?

The diagnosis information available in the linked data from the NHMD can be used to compare the waiting times for patients for whom elective surgery is more urgent with the waiting times for other patients. In this way, the waiting times for patients awaiting surgery with neoplasms (malignant or benign tumours), for example, can be compared to the waiting times for patients awaiting the same surgery for other conditions.

Figure 10.18 shows that there are shorter overall waiting times for admissions with a principal diagnosis of a neoplasm compared with other admissions, and for most surgical specialties. Neoplasm-related principal diagnoses were defined by ICD-10-AM diagnosis codes included in Chapter 2 Neoplasms (C00–D48) (NCCH 2008).

Overall, the median waiting times for patients with neoplasm-related principal diagnoses were 15 days shorter than the median waiting times for patients with other conditions (median 20 days, compared with 35 days). The largest variation in median waiting time by surgical specialty was for *Ear, nose and throat surgery* for which patients with a neoplasm waited 15 days, compared with 62 days overall. The only specialty which did not have shorter median waiting times for neoplasms than for other diagnoses was *Plastic surgery* (22 days overall, compared to 24 days for neoplasms).



Note: See boxes 10.1, 10.2 and 10.3 for notes on definitions of elective surgery, data limitations and methods.

Source: AIHW linked data from the National Elective Surgery Waiting Times Data Collection and the National Hospital Morbidity Database.

**Figure 10.18: Waiting times for patients admitted from waiting lists for elective surgery by selected principal diagnoses and specialty of surgeon, public hospitals, 2009–10**

There is also some variation in the waiting times for elective surgery for other principal diagnoses. For example, for *Orthopaedic surgery* waiting times were higher for patients with a principal diagnosis of *Gonarthrosis of the knee*, with a median waiting time of 160 days, compared with a median waiting time of 62 days overall.

## **Additional information**

Further detailed information by reason for removal, indicator procedure and specialty of surgeon is provided in tables 3.8 to 3.10 of *AHS: EDES* (AIHW 2010c) and in the tables accompanying this report online.