

### 3 Hospital performance indicators

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

#### National health performance reporting

In Australia, national public reporting of hospital performance is undertaken by a number of organisations under nationally agreed arrangements.

The national arrangements for hospital performance reporting in Australia comprise the:

- National Health Performance Framework (NHPF) – a conceptual framework for performance assessment that is not linked to any agreement. At the request of health ministers, a set of performance indicators are reported biennially in *Australia's health* (AIHW 2012a).
- National Healthcare Agreement (NHA) – agreed performance indicators and benchmarks are reported annually by the COAG Reform Council (CRC) (CRC 2013a). The NHA performance indicators based on 2007–08 to 2011–12 hospital data have been published by the CRC (CRC 2010, 2011 and 2012). The performance indicators presented here are based on data for 2012–13 and on specifications anticipated to be used for the council's 2014 report.
- National Partnership Agreements (NPA) – specified indicators or benchmarks for each agreement are reported annually by the CRC (CRC 2013b). The NPA-IPHS includes reporting of performance related to emergency departments and elective surgery in public hospitals.
- National Health Reform Agreement (NHRA) and associated Performance and Accountability Framework – information on the performance of public and private hospitals and Local Hospital Networks are reported by the National Health Performance Authority (NHPA) on the *MyHospitals* website.
- The Australian Commission on Safety and Quality in Health Care (ACSQHC) also has performance reporting-related roles under the NHRA, reporting publicly on the state of safety and quality, including performance against national standards (ACSQHC 2013).
- Review of Government Service Provision – information on the equity, efficiency and effectiveness of government services (including hospitals) are reported by the Steering Committee for the Review of Government Service Provision (SCRGSP 2014).

The AIHW provides data from its national hospitals databases to support this range of reporting, and reports many of the hospitals-related performance indicators in the *Australian hospital statistics* series each year.

This chapter presents hospital performance indicators within the context of the National Health Performance Framework (NHPF).

# The National Health Performance Framework

In 2001, the National Health Performance Committee (NHPC) developed a framework to report on the performance of the Australian health system, which was adopted by health ministers. In 2008, the Australian Health Ministers Advisory Committee's National Health Information Standards and Statistics Committee (NHISSC) endorsed a revised framework, termed the National Health Performance Framework 2009 (NHPF). It is consistent with health performance frameworks used internationally (International Organization for Standardization 2010; Organization for Economic Cooperation and Development 2013, ISO 2010) and therefore can also support comparisons of Australia's performance internationally.

The NHPC described the framework as a structure to guide the understanding and evaluation of the health system, facilitating consideration of how well the health system or program is performing. The framework has three domains: 'Health Status', 'Determinants of Health' and 'Health System Performance'. Questions are posed for each domain and a number of dimensions have been identified within each domain. The dimensions guide the development and selection of performance indicators that can be used together to answer that domain's questions. Sometimes, single indicators can provide information relevant to several dimensions of the framework.

A set of indicators was developed to populate these domains and, since 2008, at the request of health ministers, the AIHW has reported on these National Health Performance Indicators biennially in *Australia's health* (AIHW 2012a). There are 40 indicators across the 14 dimensions of the 3 domains.

The Health System Performance domain is most directly relevant to the assessment of the provision of hospital and other health-care services. Its 6 dimensions are: *Effectiveness, Safety, Responsiveness, Continuity of care, Accessibility* and *Efficiency & sustainability* (Table 3.1).

The questions asked for the Health System Performance domain in the NHPF are:

- How does the health system perform?
- What is the level of quality of care across the range of patient care needs?
- Does the system deliver value for money and is it sustainable?
- Is it the same for everyone?

**Table 3.1: The National Health Performance Framework – Health System Performance domain**

<p><b>Effectiveness</b> Care/intervention/action provided is relevant to the client's needs and based on established standards. Care, intervention or action achieves desired outcome.</p>	<p><b>Safety</b> The avoidance or reduction to acceptable limits of actual or potential harm from healthcare management or the environment in which health care is delivered.</p>
<p><b>Continuity of care</b> Ability to provide uninterrupted, coordinated care or service across programs, practitioners, organisations and levels over time.</p>	<p><b>Accessibility</b> People can obtain health care at the right place and right time irrespective of income, physical location and cultural background.</p>
<p><b>Responsiveness</b> Service is client orientated. Clients are treated with dignity, confidentiality, and encouraged to participate in choices related to their care.</p>	<p><b>Efficiency and sustainability</b> Achieving desired results with most cost-effective use of resources. Capacity of system to sustain workforce and infrastructure, to innovate and respond to emerging needs.</p>

## What data are reported?

Seven hospital performance indicators are presented in this chapter.

Information for another 2 indicators that do not relate to hospital performance is included in other chapters.

Indicators related to hospital performance are listed in Table 3.2 against the dimensions of the NHPF. Some indicators can be related to more than one dimension of the NHPF, even though they are presented here against only one dimension.

Table 3.2 also shows which set of nationally agreed performance indicators the indicator relates to.

## Performance indicators related to hospitals

### National Health Performance Framework

*Australian hospital statistics* reports 6 indicators under the health system performance domain:

- adverse events treated in hospitals
- falls resulting in patient harm in hospitals
- rates of services: hospital procedures
- cost per casemix-adjusted separation for acute care episodes (calculation method currently under review)
- relative stay index
- average length of stay for selected AR-DRGs.

### National Healthcare Agreement

The NHA includes 33 performance indicators (disaggregated by Indigenous status, disability status, remoteness area and socio-economic status where possible) and 7 performance benchmarks that are to be reported regularly under the Intergovernmental Agreement on Federal Financial Relations.

Of the 9 NHA performance indicators based on hospital data, 6 relate to the outcome of *Australians receive appropriate high quality and affordable hospital and hospital related care*, and 1 of these is presented in this chapter:

- unplanned/unexpected readmissions following selected surgical episodes of care (same public hospital).

Four of the remaining five NHA hospital performance indicators based on the 2012–13 hospital data have already been reported in earlier AIHW publications. Those indicators are:

- waiting times for emergency department care: proportion seen on time – in *Australian hospitals statistics 2012–13: emergency department care* (AIHW 2013c)
- waiting times for emergency department care: proportion completed within 4 hours – in *Australian hospitals statistics 2012–13: emergency department care* (AIHW 2013c)
- waiting times for elective surgery: waiting time (in days) – in *Australian hospitals statistics 2012–13: elective surgery waiting times* (AIHW 2013d)

- Healthcare associated infections – in *Australian hospitals statistics 2012–13: Staphylococcus aureus bacteraemia in Australian public hospitals* (AIHW 2013e).

The AIHW and the CRC did not report the performance indicator ‘waiting times for elective surgery: proportion seen on time’, due to apparent variations in reporting of clinical urgency categories. For more information refer to *Australian hospital statistics 2012–13: elective surgery waiting times* (AIHW 2013d).

## Other performance indicators

Of the 3 NHA performance indicators based on hospital data that relate to different outcome areas, 2 are presented elsewhere in this report and 1 has been reported in a previous AIHW publication (see Table 3.3):

- *Selected potentially preventable hospitalisations* relates to the outcome *Australians receive appropriate high quality and affordable primary and community health services* and is presented in Chapter 6.
- *Hospital patient days used by those eligible and waiting for residential aged care* relates to the outcome *Older Australians receive appropriate high quality and affordable health and aged services* and is presented in Chapter 10.
- *Selected potentially avoidable GP type presentations to emergency departments* – has been reported in *Australian hospitals statistics 2012–13: emergency department care* (AIHW 2013c).

### Box 3.1: What are the limitations of the data?

Any interpretation of the performance indicators presented here should take into consideration the limitations of the data from which they are derived. Information on variation in data recording practices, data quality and database coverage is presented in Appendix A.

While the rates could be interpreted as reflecting hospital system performance, they may also reflect variation in underlying needs for hospitalisation, admission and data recording practices, and availability of non-hospital services.

**Table 3.2: National hospital performance indicators, by National Health Performance Framework dimension**

Where in <i>Australian hospital statistics</i> (AHS) reports?	Indicator	Related national indicator set	
		NHA	NHPF
<b>Effectiveness</b>			
No indicators available			
<b>Safety</b>			
Tables 3.4, S3.1 and S3.2	Adverse events treated in hospitals		✓
Table 3.5	Unplanned/unexpected readmissions following selected surgical episodes of care (same public hospital)	✓	
AHS: SAB 2012–13	Healthcare associated infections	✓	
Table 3.6	Falls resulting in patient harm in hospitals		✓
<b>Responsiveness</b>			
No indicators available			
<b>Continuity of care</b>			
No indicators available			
<b>Accessibility</b>			
Tables 3.9, 3.10, S3.3, S3.4 and S3.5	Rates of services: hospital procedures		✓
AHS: ED 2012–13	Waiting time for emergency hospital care: proportion seen on time	✓	
AHS: ED 2012–13	Waiting time for emergency hospital care: proportion of emergency department presentations completed in 4 hours or less	✓	
AHS: ESWT 2012–13	Waiting times for elective surgery: waiting times in days (indicator procedure)	✓	
<b>Efficiency &amp; sustainability</b>			
The method for this indicator is currently under review.	Cost per casemix-adjusted separation for acute care episodes		✓
Tables 3.10 and 3.11	Relative stay index		✓
Figure 3.4 and Table 3.15	Average length of stay for selected AR-DRGs		✓

AHS: ED 2012–13—*Australian hospital statistics 2012–13: emergency department care.*

AHS: ESWT 2012–13—*Australian hospital statistics 2012–13: elective surgery waiting times.*

AHS: SAB 2012–13—*Australian hospitals statistics 2012–13: Staphylococcus aureus bacteraemia in Australian public hospitals.*

AR-DRG—Australian Refined Diagnosis Related Group.

NHA—National Healthcare Agreement.

NHPF—National Health Performance Framework.

**Table 3.3: Other performance indicators that use hospitals data in this report**

Indicator	Related national indicator set		Where
	NHA	NHPF	
Selected potentially avoidable GP type presentations to emergency departments	✓		AHS: ED 2012–13
Selected potentially preventable hospitalisations	✓	✓	<b>Chapter 6.</b> Tables 6.17, 6.18, 6.19 and 6.35.
Hospital patient days used by those eligible and waiting for residential aged care	✓ Proxy		<b>Chapter 10.</b> Table 10.16.

AHS: ED 2012–13—*Australian hospital statistics 2012–13: emergency department care.*

NHA—National Healthcare Agreement.

NHPF—National Health Performance Framework.

### Box 3.2: What methods were used?

The following should be noted:

- unless otherwise indicated in footnotes, separations with a care type of *Newborn* (without qualified days) and records for *Hospital boarders* and *Posthumous organ procurement* have been excluded
- separation rates are age-standardised (see Appendix B)
- public hospitals include *Public acute* and *Public psychiatric hospitals*
- private hospitals include *Private free-standing day hospital facilities* and *Other private hospitals*
- the abbreviation n.p. – not published may appear in a table to protect the confidentiality of private hospital or other data, or for measures based on counts of less than 100 (see Appendix B).

Details of methods, including the selection of AR-DRGs, diagnoses and procedures used, are presented in Appendix B for:

- adverse events treated in hospitals
- rates of service: hospital procedures
- relative stay index
- average length of stay for selected AR-DRGs
- unplanned readmissions (METeOR identifier: 497129).

## How did hospitals perform in 2012–13?

### Effectiveness

Care/intervention/action provided is relevant to the client's needs and based on established standards. Care, intervention or action achieves desired outcome.

There are no indicators of effectiveness available for hospitals.

## Safety

The avoidance or reduction to acceptable limits of actual or potential harm from health-care management or the environment in which health care is delivered.

### Performance indicator: adverse events treated in hospitals

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.

Hospital separations data include information on diagnoses, places of occurrence and external causes of injury and poisoning that 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, and some adverse events are not identifiable using these codes. A separation may be recorded against more than 1 category in Table 3.4 as some adverse events are reported as diagnoses and others as external causes or places of occurrence (of the injury or poisoning).

The data in Table 3.4 can be interpreted as representing selected adverse events in health care that have resulted in, or have affected, hospital admissions, rather than all adverse events that occurred in hospitals. Some of the adverse events included in these tables may represent events that occurred before admission. Condition onset flag (COF) information (see Chapter 6 and Appendix B) can be used to provide other information about adverse events occurring, and treated within, single episodes of care.

In 2012–13, 5.5% of separations reported 1 or more *International Statistical Classification of Diseases and Related Health Problems, 10th Revision, Australian Modification (ICD-10-AM)* codes indicating 1 or more adverse events (Table 3.4). The proportion of separations with an adverse event was 6.5% for public hospitals and 4.0% for private hospitals. The data for public hospitals are not comparable with the data for private hospitals because their casemixes differ and recording practices may be different.

The proportion of same-day separations with an adverse event was 1.7% overall, and 10.7% of overnight separations had an adverse event (Table 3.4).

Separations for sub- and non-acute care had higher rates of adverse events than acute care separations (10.7 and 5.2 separations with an adverse event per 100, respectively), and emergency admissions had higher rates of adverse events than non-emergency admissions (9.7 and 3.9 separations with an adverse event per 100, respectively).

For public hospitals, about 53% of separations with an adverse event reported *Procedures causing abnormal reactions/complications* and 37% reported *Adverse effects of drugs, medicaments and biological substances*.

For private hospitals, about 69% of separations with an adverse event reported *Procedures causing abnormal reactions/complications* and 20% reported *Adverse effects of drugs, medicaments and biological substances*.

**Table 3.4: Separations with an adverse event<sup>(a)</sup> per 100 separations, public and private hospitals, 2012–13**

Adverse event	Public hospitals		Private hospitals		Total	
	Separations	Per 100	Separations	Per 100	Separations	Per 100
<b>External cause of injury or poisoning</b>						
Adverse effects of drugs, medicaments and biological substances	133,040	2.4	31,273	0.8	164,313	1.8
Misadventures to patients during surgical and medical care	16,277	0.3	7,326	0.2	23,603	0.3
Procedures causing abnormal reactions/complications	189,535	3.4	106,457	2.8	295,992	3.2
Other external causes of adverse events	9,308	0.2	1,128	0.0	10,436	0.1
<b>Place of occurrence of injury and poisoning</b>						
Place of occurrence: Health service area	350,259	6.3	149,308	3.9	499,567	5.3
<b>Diagnoses</b>						
Selected post-procedural disorders	45,401	0.8	27,968	0.7	73,369	0.8
Haemorrhage and haematoma complicating a procedure	26,249	0.5	14,962	0.4	41,211	0.4
Infection following a procedure	22,994	0.4	12,480	0.3	35,474	0.4
Complications of internal prosthetic devices	73,965	1.3	43,389	1.1	117,354	1.3
Other diagnoses of complications of medical and surgical care	51,177	0.9	21,811	0.6	72,988	0.8
<b>Total (any of the above)</b>	<b>359,390</b>	<b>6.5</b>	<b>153,178</b>	<b>4.0</b>	<b>512,568</b>	<b>5.5</b>
<b>Length of stay<sup>(b)</sup></b>						
Same-day separations	52,701	1.9	38,866	1.5	91,567	1.7
Overnight separations	306,689	11.2	114,312	9.6	421,001	10.7
<b>Type of care<sup>(b)</sup></b>						
Acute care separations	330,298	6.2	133,897	3.7	464,195	5.2
Subacute and non-acute care separations	29,092	14.9	19,281	7.6	48,373	10.7
<b>Urgency of admission<sup>(b)</sup></b>						
Emergency admissions	217,079	9.5	24,705	12.0	241,784	9.7
Non-emergency admissions	142,311	4.4	128,473	3.5	270,784	3.9

(a) Separations that included ICD-10-AM diagnosis and/or external cause codes that indicated an adverse event was treated and/or occurred during the hospitalisation.

(b) The categories *Length of stay*, *Type of care* and *Urgency of admission* are not mutually exclusive. Each separation with an adverse event is included in 3 categories; for example as a *Same-day* separation, an *Acute* care separation and an *Emergency* admission.

### **Performance indicator: unplanned/unexpected readmissions within 28 days of selected surgical procedures**

‘Unplanned or unexpected readmissions after surgery’ is defined as the number of separations involving selected procedures where readmission occurred within 28 days of the previous separation, and was considered to be ‘unplanned or unexpected’ because the principal diagnosis related to an adverse event. The measure is regarded as an indicator of the safety of care. It could also be regarded as an indicator of effectiveness of care; however, the specifications identify adverse events as causes of readmission, rather than reasons that could indicate effectiveness.

The specified principal diagnoses are the same as the diagnoses listed in Table 3.4 for *Selected post-procedural disorders*, *Haemorrhage and haematoma complicating a procedure*, *Infection following*

a procedure, Complications of internal prosthetic devices and Other diagnoses of complications of medical and surgical care.

Rates of unplanned or unexpected readmissions were highest for *Tonsillectomy and adenoidectomy* (33 per 1,000 separations), *Prostatectomy* and *Hysterectomy* (both 31 per 1,000 separations) (Table 3.5). For *Cataract extraction*, fewer than 4 per 1,000 separations were readmitted within 28 days.

**Table 3.5: Separations<sup>(a)</sup> and rate per 1,000 separations, unplanned/unexpected readmissions for selected procedures, states and territories, 2012–13**

	NSW	Vic	Qld	WA <sup>(b)</sup>	SA	Tas	ACT	NT	Total <sup>(c)</sup>
<b>Appendicectomy</b>									
Separations	9,095	7,012	5,639	3,075	1,929	565	686	345	25,271
Number of readmissions	204	160	124	88	52	15	14	15	584
Per 1,000 separations	22.4	22.8	22.0	28.6	27.0	26.5	20.4	43.5	23.1
<b>Cataract extraction</b>									
Separations	18,706	15,990	6,321	9,292	5,848	1,131	1,093	665	49,754
Number of readmissions	64	48	29	24	17	5	1	4	168
Per 1,000 separations	3.4	3.0	4.6	2.6	2.9	4.4	0.9	6.0	3.4
<b>Hip replacement</b>									
Separations	2,881	2,173	1,245	1,071	726	203	155	45	7,428
Number of readmissions	53	35	20	17	14	6	n.p.	n.p.	131
Per 1,000 separations	18.4	16.1	16.1	15.9	19.3	29.6	n.p.	n.p.	17.6
<b>Hysterectomy</b>									
Separations	3,070	2,704	1,980	963	837	250	130	67	9,038
Number of readmissions	97	70	63	42	24	13	n.p.	n.p.	277
Per 1,000 separations	31.6	25.9	31.8	43.6	28.7	52.0	n.p.	n.p.	30.6
<b>Knee replacement</b>									
Separations	4,488	2,448	1,854	1,302	858	216	211	56	10,131
Number of readmissions	97	37	65	29	16	n.p.	0	n.p.	227
Per 1,000 separations	21.6	15.1	35.1	22.3	18.6	n.p.	0.0	n.p.	22.4
<b>Prostatectomy</b>									
Separations	2,342	2,077	1,032	677	622	173	97	23	6,366
Number of readmissions	64	55	42	23	18	10	n.p.	n.p.	198
Per 1,000 separations	27.3	26.5	40.7	34.0	28.9	57.8	n.p.	n.p.	31.1
<b>Tonsillectomy and adenoidectomy</b>									
Separations	6,500	6,558	4,087	2,357	2,322	347	291	253	20,358
Number of readmissions	197	191	146	100	87	18	13	21	673
Per 1,000 separations	30.3	29.1	35.7	42.4	37.5	51.9	44.7	83.0	33.1

(a) Separations are counted in the denominator if the admission for the selected procedure occurred between 1 July 2012 and 19 May 2013.

(b) Data for Western Australia were separately calculated and provided by Western Australia. Data for all other jurisdictions were sourced from the National Hospital Morbidity Database.

(c) Total excludes data for Western Australia.

Note: See boxes 3.1 and 3.2 for notes on data limitations and methods.

## Performance indicator: falls resulting in patient harm in hospitals

This indicator is intended to report hospital separations where a fall occurred in hospitals, resulting in patient harm. The rates presented here may underestimate falls occurring in hospitals as the place of occurrence was not reported (or unspecified) for about 26% of separations with an external cause of injury of falls. It is also possible that these rates may overestimate falls as it is not currently possible to identify falls specifically in hospitals – the current data identifies falls occurring in any health service area. However, separations with an injury or poisoning principal diagnosis are excluded to minimise the inclusion of falls that occurred before admission.

In 2012–13, more than 27,000 separations reported a fall that occurred in a health service area (Table 3.6). More falls per 1,000 separations were reported for public hospitals than for private hospitals and there were large variations in the rates reported among states and territories.

**Table 3.6: Separations for falls resulting in patient harm in hospitals, per 1,000 separations, states and territories, 2012–13**

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total <sup>(a)</sup>	
									Rate	Number
<b>Hospital sector</b>										
Public	4.8	3.5	3.5	3.6	4.3	5.3	3.8	1.6	4.0	21,920
Private	1.5	1.4	1.7	1.3	1.4	n.p.	n.p.	n.p.	1.5	5,776
<b>Indigenous status<sup>(b)</sup></b>										
Indigenous	1.6	1.5	1.0	0.6	1.3	2.4	1.3	0.9	1.1	420
Other Australians	3.6	2.6	2.8	2.8	3.2	3.0	2.7	2.5	3.0	27,050
<b>Remoteness of residence<sup>(c)</sup></b>										
Major cities	3.7	2.4	2.8	2.7	3.3	3.1	3.5	0.8	3.0	19,197
Inner regional	3.2	3.3	2.7	2.6	2.5	3.9	1.3	2.9	3.1	5,526
Outer regional	2.8	3.6	2.3	3.0	2.9	3.2	6.5	2.3	2.8	2,486
Remote and Very remote	2.0	2.6	1.8	1.4	2.0	3.0	n.p.	1.0	1.5	386
<b>Socioeconomic status of area of residence<sup>(d)</sup></b>										
1—Lowest	3.7	2.8	2.9	3.0	3.3	3.9	2.3	1.0	3.2	6,349
2	3.4	3.0	2.9	2.8	3.4	4.2	4.8	2.1	3.2	5,965
3	3.7	2.7	2.9	2.6	3.0	3.3	3.6	2.0	3.0	5,791
4	3.7	2.4	2.4	2.5	3.0	3.3	3.5	2.0	2.8	4,951
5—Highest	3.1	2.2	2.0	2.5	2.3	2.3	3.2	2.0	2.6	4,348
<b>Total</b>	<b>3.5</b>	<b>2.6</b>	<b>2.7</b>	<b>2.6</b>	<b>3.1</b>	<b>n.p.</b>	<b>n.p.</b>	<b>n.p.</b>	<b>3.0</b>	<b>27,696</b>

(a) The total includes separations for which the place of usual residence was not reported.

(b) *Other Australians* includes separations for which the Indigenous status was not reported.

(c) Disaggregation by remoteness area of usual residence, not remoteness of hospital. However, state/territory data are reported by jurisdiction of the hospital, regardless of the jurisdiction of usual residence.

(d) Disaggregation by socioeconomic group is based on the usual residence of the patient, not the location of the hospital. The socioeconomic status of area of residence is based on the ABS Index of Relative Socio-economic Disadvantage (IRSD). These socioeconomic groups represent approximately 20% of the national population, but do not necessarily represent 20% of the population in each state or territory.

### **Responsiveness**

Service is client orientated. Clients are treated with dignity, confidentiality, and encouraged to participate in choices related to their care.

There are no indicators of responsiveness available for hospitals.

### **Continuity of care**

Ability to provide uninterrupted, coordinated care or service across programs, practitioners, organisations and levels over time.

There are no indicators of continuity of care available for hospitals.

### **Accessibility**

People can obtain health care at the right place and right time irrespective of income, physical location and cultural background.

## **Performance indicator: rates of services—hospital procedures**

This indicator relates to accessibility of hospital services and may also relate to the appropriateness of hospital care. Generally, the procedures were selected because of the frequency with which they are undertaken, because they are often elective and discretionary and because alternative treatments are sometimes available.

Table 3.7 presents the separations per 1,000 population for selected hospital procedures. *Cataract extraction* was the most common procedure (9.1 per 1,000 population). The rates varied between public and private sectors (2.8 and 6.2 per 1,000 population, respectively) but were fairly similar by Indigenous status and by socioeconomic status. Persons usually resident in *Very remote* areas had the highest separation rates for *Cataract extraction*.

There was some variation in the numbers of separations per 1,000 population for the selected procedures among states and territories. For example, separations for *Cataract extraction* ranged from 7.4 per 1,000 population in the Australian Capital Territory to 11.0 per 1,000 in Western Australia (Table 3.8). However, as data are not available for private free-standing day hospitals in the Australian Capital Territory, this is likely to underestimate the separation rate for *Cataract extraction* in the Australian Capital Territory.

Additional information for these procedures for public and private hospitals, and by Indigenous status, remoteness area and socioeconomic status of area of residence is in tables that accompany this report online at <[www.aihw.gov.au/hospitals/](http://www.aihw.gov.au/hospitals/)>.

**Table 3.7: Rates of service: selected hospital procedures<sup>(a)</sup>, all hospitals, 2012–13**

	Cataract extraction	Cholecystectomy	Coronary angioplasty	Coronary artery bypass graft	Cystoscopy	Haemorrhoidectomy	Hip replacement	Hysterectomy <sup>(b)</sup>	
<b>Hospital sector</b>	<b>Separations per 1,000 population</b>								
Public	2.8	1.4	0.9	0.3	2.3	0.7	0.6	1.0	
Private	6.2	0.9	0.7	0.2	3.1	1.3	0.9	1.3	
<b>Indigenous status<sup>(c)</sup></b>									
Indigenous	8.7	3.1	2.2	1.1	3.6	1.2	0.8	2.1	
Other Australians	8.9	2.3	1.5	0.5	5.4	2.0	1.5	2.2	
<b>Remoteness area of residence</b>									
Major cities	8.8	2.2	1.6	0.5	5.6	1.9	1.5	2.1	
Inner regional	9.3	2.4	1.4	0.5	5.0	2.4	1.6	2.7	
Outer regional	9.8	2.4	1.5	0.5	4.9	2.2	1.7	2.7	
Remote	8.7	2.2	1.3	0.6	4.6	1.5	1.5	2.3	
Very remote	10.1	2.0	1.5	0.7	4.0	0.9	1.1	2.2	
<b>Socioeconomic status of area of residence</b>									
1—Lowest	9.3	2.7	1.5	0.6	5.0	2.2	1.5	2.4	
2	8.8	2.4	1.5	0.5	5.1	2.1	1.5	2.4	
3	9.7	2.4	1.6	0.5	5.7	2.0	1.6	2.5	
4	9.0	2.2	1.5	0.5	5.8	1.9	1.6	2.2	
5—Highest	8.3	1.8	1.4	0.4	5.2	1.8	1.5	2.0	
<b>Total</b>	<b>9.1</b>	<b>2.3</b>	<b>1.5</b>	<b>0.5</b>	<b>5.4</b>	<b>2.0</b>	<b>1.5</b>	<b>2.3</b>	

(continued)

Table 3.7 (continued): Rates of service: selected hospital procedures<sup>(a)</sup>, all hospitals, 2012–13

	Inguinal herniorrhaphy	Knee replacement	Myringotomy	Prostatectomy <sup>(d)</sup>	Septoplasty	Tonsillectomy	Varicose veins stripping and ligation
<b>Hospital sector</b>	<b>Separations per 1,000 population</b>						
Public	1.0	0.6	0.7	0.9	0.3	1.0	0.2
Private	1.2	1.3	1.2	1.8	0.8	1.5	0.4
<b>Indigenous status<sup>(c)</sup></b>							
Indigenous	1.4	1.2	1.8	1.6	0.4	1.6	0.2
Other Australians	2.2	1.9	1.8	2.6	1.1	2.5	0.6
<b>Remoteness area of residence</b>							
Major cities	2.2	1.8	1.9	2.8	1.2	2.4	0.6
Inner regional	2.1	2.0	1.8	2.7	1.0	2.8	0.6
Outer regional	2.3	2.2	1.6	2.6	1.0	2.7	0.5
Remote	2.0	1.9	1.9	1.9	0.6	2.2	0.4
Very remote	1.8	1.5	1.8	2.0	0.5	1.4	0.3
<b>Socioeconomic status of area of residence</b>							
1—Lowest	2.1	2.0	1.6	2.5	1.0	2.3	0.5
2	2.1	1.9	1.7	2.5	1.1	2.5	0.6
3	2.2	2.0	1.9	2.8	1.1	2.5	0.6
4	2.2	1.8	1.9	2.9	1.2	2.5	0.6
5—Highest	2.1	1.6	2.1	2.8	1.3	2.5	0.7
<b>Total</b>	<b>2.2</b>	<b>1.9</b>	<b>1.8</b>	<b>2.7</b>	<b>1.1</b>	<b>2.5</b>	<b>0.6</b>

(a) The procedures are defined using Australian Classification of Health Interventions (ACHI) codes as detailed in tables accompanying this report online in Appendix B.

(b) For *Hysterectomy*, the rate per 1,000 population was calculated for the estimated resident female population aged 15 to 69 years.

(c) Separation rates by Indigenous status were directly age-standardised, using the projected Indigenous population (low series) as at 30 June 2012, based on the 2006 Census data. The population for other Australians was based on the estimated resident populations as at 30 June 2012, based on the 2006 Census data. As the projected estimates use a highest age group of 65 and over and population data for June 2012, standardised rates calculated for analyses by Indigenous status are not directly comparable to the rates presented elsewhere.

(d) For *Prostatectomy*, the rate per 1,000 population was calculated for the estimated resident male population.

Note: See boxes 3.1 and 3.2 for notes on data limitations and methods.

**Table 3.8: Rates of service: selected hospital procedures<sup>(a)</sup> and other selected statistics, all hospitals, states and territories, 2012–13**

Procedure	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
<b>Cataract extraction</b>									
Separations	71,471	52,494	43,624	25,125	17,269	6,974	2,270	1,224	220,451
Separations not within state of residence (%)	2	2	3	<1	3	<1	24	3	2
Proportion of separations public patients (%)	29	32	16	40	36	18	55	63	29
Separations per 1,000 population	8.7	8.5	9.5	11.0	8.4	10.9	7.4	9.8	9.1
Standardised separation rate ratio	1.0	0.9	1.0	1.2	0.9	1.2	0.8	1.1	
<b>Cholecystectomy</b>									
Separations	16,695	13,556	10,766	5,086	4,003	1,297	910	368	52,681
Separations not within state of residence (%)	2	2	2	1	2	<1	22	5	2
Proportion of separations public patients (%)	53	54	49	51	58	53	53	67	53
Separations per 1,000 population	2.2	2.4	2.4	2.1	2.3	2.4	2.5	1.7	2.3
Standardised separation rate ratio	1.0	1.0	1.0	0.9	1.0	1.0	1.1	0.7	
<b>Coronary angioplasty</b>									
Separations	12,319	9,535	7,412	3,550	2,742	737	1,104	..	37,399
Separations not within state of residence (%)	1	4	8	2	10	1	45	..	5
Proportion of separations public patients (%)	45	45	45	44	51	55	48	..	46
Separations per 1,000 population	1.5	1.6	1.6	1.5	1.4	1.2	3.3	..	1.5
Standardised separation rate ratio	1.0	1.0	1.0	1.0	0.9	0.8	2.2	..	
<b>Coronary artery bypass graft</b>									
Separations	3,902	3,252	2,556	911	1,163	204	245	..	12,233
Separations not within state of residence (%)	4	4	9	2	13	1	53	..	6
Proportion of separations public patients (%)	52	51	47	48	53	47	54	..	51
Separations per 1,000 population	0.5	0.5	0.5	0.4	0.6	0.3	0.8	..	0.5
Standardised separation rate ratio	1.0	1.1	1.1	0.8	1.2	0.6	1.5	..	

(continued)

**Table 3.8 (continued): Rates of service: selected hospital procedures<sup>(a)</sup> and other selected statistics, all hospitals, states and territories, 2012–13**

<b>Procedure</b>	<b>NSW</b>	<b>Vic</b>	<b>Qld</b>	<b>WA</b>	<b>SA</b>	<b>Tas</b>	<b>ACT</b>	<b>NT</b>	<b>Total</b>
<b>Cystoscopy</b>									
Separations	32,809	35,591	25,372	18,130	12,079	3,290	2,085	446	129,802
Separations not within state of residence (%)	2	2	3	<1	1	<1	27	3	2
Proportion of separations public patients (%)	36	45	35	39	39	28	48	62	39
Separations per 1,000 population	4.1	5.9	5.5	7.7	6.2	5.3	6.2	3.1	5.4
Standardised separation rate ratio	0.8	1.1	1.0	1.4	1.2	1.0	1.2	0.6	
<b>Haemorrhoidectomy</b>									
Separations	21,485	10,252	7,473	2,847	2,560	1,156	356	516	46,645
Separations not within state of residence (%)	1	2	2	<1	1	<1	17	1	1
Proportion of separations public patients (%)	30	41	19	40	30	27	32	34	31
Separations per 1,000 population	2.8	1.8	1.6	1.2	1.4	2.1	1.0	2.4	2.0
Standardised separation rate ratio	1.4	0.9	0.8	0.6	0.7	1.0	0.5	1.2	
<b>Hip replacement</b>									
Separations	11,586	10,102	6,574	4,283	3,460	1,285	802	104	38,196
Separations not within state of residence (%)	2	3	5	<1	4	1	33	6	3
Proportion of separations public patients (%)	36	35	34	39	35	28	39	71	36
Separations per 1,000 population	1.4	1.6	1.4	1.8	1.7	2.0	2.4	0.8	1.5
Standardised separation rate ratio	0.9	1.1	0.9	1.2	1.1	1.3	1.6	0.5	
<b>Hysterectomy, females aged 15–69<sup>(b)</sup></b>									
Separations	7,780	6,231	6,029	2,943	2,131	674	443	175	26,406
Separations not within state of residence (%)	2	2	4	<1	3	<1	21	3	3
Proportion of separations public patients (%)	42	46	36	35	47	43	36	47	41
Separations per 1,000 population <sup>(b)</sup>	2.1	2.2	2.6	2.7	2.5	2.6	2.4	1.6	2.3
Standardised separation rate ratio	0.9	0.9	1.1	1.2	1.1	1.1	1.0	0.7	

(continued)

**Table 3.8 (continued): Rates of service: selected hospital procedures<sup>(a)</sup> and other selected statistics, all hospitals, states and territories, 2012–13**

Procedure	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
<b>Inguinal herniorrhaphy</b>									
Separations	16,729	12,562	10,278	5,394	3,575	1,363	834	379	51,114
Separations not within state of residence (%)	1	2	3	1	1	<1	21	4	2
Proportion of separations public patients (%)	41	41	35	39	43	40	39	45	40
Separations per 1,000 population	2.2	2.1	2.2	2.3	2.0	2.3	2.4	1.9	2.2
Standardised separation rate ratio	1.0	1.0	1.0	1.0	0.9	1.1	1.1	0.9	
<b>Knee replacement</b>									
Separations	15,974	9,895	9,211	5,255	4,115	1,120	811	129	46,510
Separations not within state of residence (%)	1	3	5	<1	5	<1	36	1	3
Proportion of separations public patients (%)	33	31	25	31	26	24	31	54	30
Separations per 1,000 population	1.9	1.6	1.9	2.2	2.0	1.7	2.4	0.9	1.9
Standardised separation rate ratio	1.0	0.9	1.0	1.2	1.1	0.9	1.3	0.5	
<b>Myringotomy (with insertion of tube)</b>									
Separations	11,193	9,403	7,454	5,375	4,450	713	796	251	39,635
Separations not within state of residence (%)	2	3	3	<1	1	<1	26	<1	2
Proportion of separations public patients (%)	28	36	37	32	41	30	23	57	34
Separations per 1,000 population	1.6	1.8	1.7	2.3	3.0	1.5	2.3	1.0	1.8
Standardised separation rate ratio	0.9	1.0	0.9	1.3	1.6	0.8	1.2	0.5	
<b>Prostatectomy<sup>(c)</sup></b>									
Separations	10,444	8,617	6,064	2,924	2,284	934	572	46	31,885
Separations not within state of residence (%)	3	3	5	<1	2	<1	30	n.p.	3
Proportion of separations public patients (%)	31	31	27	32	31	25	28	n.p.	30
Separations per 1,000 population <sup>(c)</sup>	2.7	3.0	2.6	2.6	2.4	3.0	3.7	n.p.	2.7
Standardised separation rate ratio	1.0	1.1	1.0	0.9	0.9	1.1	1.4	n.p.	

(continued)

**Table 3.8 (continued): Rates of service: selected hospital procedures<sup>(a)</sup> and other selected statistics, all hospitals, states and territories, 2012–13**

Procedure	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
<b>Septoplasty</b>									
Separations	8,161	7,426	4,089	2,285	2,479	293	395	125	25,253
Separations not within state of residence (%)	3	2	4	<1	2	<1	27	0	3
Proportion of separations public patients (%)	25	29	20	22	30	23	28	24	25
Separations per 1,000 population	1.1	1.3	0.9	1.0	1.5	0.6	1.0	0.5	1.1
Standardised separation rate ratio	1.0	1.2	0.8	0.9	1.3	0.5	0.9	0.5	
<b>Tonsillectomy</b>									
Separations	15,962	12,705	10,368	6,332	4,451	844	1,284	351	52,297
Separations not within state of residence (%)	2	4	3	<1	2	<1	24	1	3
Proportion of separations public patients (%)	36	47	33	32	44	35	22	63	38
Separations per 1,000 population	2.4	2.5	2.4	2.8	3.0	1.8	3.6	1.4	2.5
Standardised separation rate ratio	1.0	1.0	1.0	1.1	1.2	0.7	1.5	0.6	
<b>Varicose veins stripping and ligation</b>									
Separations	4,223	4,301	2,309	1,417	1,002	222	426	79	13,979
Separations not within state of residence (%)	1	1	2	<1	2	<1	27	n.p.	2
Proportion of separations public patients (%)	33	36	21	23	42	14	42	n.p.	32
Separations per 1,000 population	0.6	0.7	0.5	0.6	0.6	0.4	1.2	n.p.	0.6
Standardised separation rate ratio	0.9	1.2	0.8	1.0	1.0	0.7	1.9	n.p.	

(a) The procedures are defined using Australian Classification of Health Interventions (ACHI) codes as detailed in tables accompanying this report online in Appendix B.

(b) For *Hysterectomy*, the rate per 1,000 population was calculated for the estimated resident female population aged 15 to 69 years.

(c) For *Prostatectomy*, the rate per 1,000 population was calculated for the estimated resident male population.

Note: See boxes 3.1 and 3.2 for notes on data limitations and methods.

### **Efficiency and sustainability**

Achieving desired results with most cost-effective use of resources. Capacity of system to sustain workforce and infrastructure, to innovate and respond to emerging needs.

### **Performance indicator: cost per casemix-adjusted separation**

The methodology for the cost per casemix-adjusted separation analysis is being reviewed, taking into consideration developments in costing approaches of other agencies, including the IHPA.

The AIHW aims to publish the results in an addendum to this report in the second half of 2014.

### **Performance indicator: relative stay index**

Relative stay indexes (RSIs) are calculated as the observed number of patient days for separations in selected AR-DRGs, divided by the expected number of patient days (based on national figures), standardised for casemix. The adjustment for casemix allows variation in the types of services provided to be taken into account.

An RSI greater than 1 indicates that an average patient's length of stay is longer than would be expected given the casemix for the category of interest (for example, hospital sector or jurisdiction). An RSI of less than 1 indicates that the length of stay was shorter than would have been expected. More detail on these methods is in Appendix B.

Table 3.9 presents both indirectly and directly standardised RSIs for all hospitals for 2012–13. Additional information on RSI by funding source is included in Table 3.10.

The indirectly standardised RSI is not technically comparable between cells (for example, between hospital groups) but is a comparison of the hospital group with the national average based on the casemix of that group. The directly standardised RSI is re-scaled so that each group represents the national casemix and allows comparison of RSI values across groups of hospitals.

Overall, the directly standardised RSI for private hospitals was 1.15, compared with 0.98 for public hospitals, indicating relatively shorter lengths of stay in the public sector compared with the private sector.

Table 3.9 also presents RSI information for the *Medical*, *Surgical* and *Other* categories of AR-DRGs (DoHA 2010). These figures indicate relatively shorter lengths of stay for *Medical* separations in public hospitals, and for *Surgical* and *Other* separations in private hospitals.

**Table 3.9: Relative stay index by medical/surgical/other type of AR-DRG<sup>(a)</sup>, public and private hospitals, states and territories, 2012–13**

Type of hospital	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
<b>Indirectly standardised relative stay index<sup>(b)</sup></b>									
<i>Public hospitals</i>	1.04	0.93	0.86	0.98	1.04	1.01	1.02	1.13	0.97
Medical	1.02	0.93	0.82	0.94	1.02	1.02	1.00	1.06	0.95
Surgical	1.08	0.94	0.95	1.05	1.06	0.99	1.04	1.34	1.02
Other	1.14	0.95	0.94	1.01	1.08	0.97	1.08	1.24	1.04
<i>Private hospitals</i>	1.09	1.07	1.09	1.01	1.00	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	1.07
Medical	1.29	1.18	1.20	1.10	1.02	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	1.19
Surgical	0.98	0.99	0.98	0.95	0.99	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	0.98
Other	0.89	0.92	0.99	0.97	0.94	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	0.94
<b>All hospitals</b>	<b>1.05</b>	<b>0.98</b>	<b>0.94</b>	<b>0.99</b>	<b>1.02</b>	<b>n.p.</b>	<b>n.p.</b>	<b>n.p.</b>	<b>1.00</b>
<b>Medical</b>	<b>1.06</b>	<b>0.99</b>	<b>0.92</b>	<b>0.98</b>	<b>1.02</b>	<b>n.p.</b>	<b>n.p.</b>	<b>n.p.</b>	<b>1.00</b>
<b>Surgical</b>	<b>1.04</b>	<b>0.96</b>	<b>0.97</b>	<b>1.00</b>	<b>1.03</b>	<b>n.p.</b>	<b>n.p.</b>	<b>n.p.</b>	<b>1.00</b>
<b>Other</b>	<b>1.07</b>	<b>0.94</b>	<b>0.97</b>	<b>1.00</b>	<b>1.03</b>	<b>n.p.</b>	<b>n.p.</b>	<b>n.p.</b>	<b>1.00</b>
<b>Directly standardised relative stay index<sup>(c)</sup></b>									
<i>Public hospitals</i>	1.05	0.95	0.88	1.00	1.05	1.01	1.05	1.19	0.98
Medical	1.02	0.94	0.82	0.95	1.03	1.02	1.04	1.07	0.95
Surgical	1.10	0.97	0.98	1.08	1.08	0.99	1.07	1.39	1.03
Other	1.16	0.99	0.99	1.04	1.09	0.99	1.11	1.32	1.06
<i>Private hospitals</i>	1.23	1.14	1.17	1.09	1.12	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	1.15
Medical	1.37	1.23	1.27	1.18	1.19	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	1.24
Surgical	1.00	1.00	1.01	0.94	0.99	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	1.00
Other	1.00	1.01	1.06	1.05	0.99	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	1.01
<b>All hospitals</b>	<b>1.05</b>	<b>0.99</b>	<b>0.94</b>	<b>0.99</b>	<b>1.03</b>	<b>n.p.</b>	<b>n.p.</b>	<b>n.p.</b>	<b>1.00</b>
<b>Medical</b>	<b>1.06</b>	<b>1.00</b>	<b>0.92</b>	<b>0.99</b>	<b>1.04</b>	<b>n.p.</b>	<b>n.p.</b>	<b>n.p.</b>	<b>1.00</b>
<b>Surgical</b>	<b>1.04</b>	<b>0.97</b>	<b>0.97</b>	<b>1.01</b>	<b>1.03</b>	<b>n.p.</b>	<b>n.p.</b>	<b>n.p.</b>	<b>1.00</b>
<b>Other</b>	<b>1.07</b>	<b>0.94</b>	<b>0.97</b>	<b>1.01</b>	<b>1.03</b>	<b>n.p.</b>	<b>n.p.</b>	<b>n.p.</b>	<b>1.00</b>

(a) Separations for which the care type was reported as *Acute* or *Newborn with qualified days*, or was not reported.

(b) The indirectly standardised relative stay index is not technically comparable between cells but is a comparison of the hospital group with the national average based on the casemix of that group.

(c) The directly standardised relative stay index is comparable between cells.

Note: See boxes 3.1 and 3.2 for notes on data limitations and methods.

## Performance indicator: average lengths of stay for selected AR-DRGs

The selected AR-DRGs (Table 3.11) were chosen on the basis of:

- homogeneity, where variation is more likely to be attributable to the hospital's performance rather than variations in the patients themselves
- representativeness across clinical groups (Major Diagnostic Categories [MDCs]) and surgical and medical AR-DRGs
- differences between jurisdictions and/or sectors
- policy interest as evidenced by:
  - inclusion of similar groups in other tables in *Australian hospital statistics*, such as indicator procedures for elective surgery waiting times
  - high volume and/or cost
  - changes in volume over years.

Due to changes in the classification between AR-DRG version 5.2, AR-DRG version 6.0 and AR-DRG version 6.0x, the data presented here are not comparable with the data presented in previous reports.

There were notable differences (more than 1 day) in the ALOS between public and private hospitals for 8 of the 20 selected AR-DRGs. For example, the ALOS for E65B *Chronic obstructive airways disease without catastrophic complications or comorbidities* was 4.3 days for public hospitals and 7.7 days for private hospitals.

There were some notable differences in ALOS between states and territories. For example, for F62B *Heart failure and shock without catastrophic complications or comorbidities*, the ALOS in public hospitals ranged from 3.7 days in Queensland to 4.7 days in South Australia (Table 3.11). For private hospitals, the ALOS for F62B ranged from 6.7 days in Queensland to 8.4 days in New South Wales.

## Additional material

An additional table accompanies this report online:

Table S3.1: Separations per 1,000 population for selected procedures, all hospitals, states and territories, 2012–13.

**Table 3.10: Relative stay index (indirectly standardised), by funding source, public and private hospitals, states and territories, 2012–13**

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
<b>Public hospitals</b>									
Public patients <sup>(a)</sup>	1.03	0.93	0.85	0.96	1.02	1.00	1.01	1.13	0.96
Private health insurance	1.06	0.96	0.91	1.10	1.14	1.02	1.11	1.00	1.02
Self-funded	0.97	0.95	0.90	0.90	0.92	0.90	0.69	1.25	0.95
Workers compensation	1.06	1.02	0.98	1.24	1.22	0.99	1.06	1.41	1.06
Motor vehicle third party personal claim	1.28	0.91	1.02	1.20	1.23	1.14	1.25	1.33	1.10
Department of Veterans' Affairs	0.96	0.94	0.77	0.87	1.06	1.08	0.90	1.19	0.94
Other <sup>(b)</sup>	1.75	0.96	0.91	1.07	1.03	1.04	0.99	1.04	1.21
<i>Total public hospitals</i>	<i>1.04</i>	<i>0.93</i>	<i>0.86</i>	<i>0.98</i>	<i>1.04</i>	<i>1.01</i>	<i>1.02</i>	<i>1.13</i>	<i>0.97</i>
<b>Private hospitals</b>									
Public patients <sup>(a)</sup>	0.91	1.25	1.06	1.01	1.00	n.p.	n.p.	n.p.	1.04
Private health insurance	1.08	1.07	1.08	1.01	0.99	n.p.	n.p.	n.p.	1.06
Self-funded	1.02	0.96	0.86	0.86	0.83	n.p.	n.p.	n.p.	0.96
Workers compensation	1.06	1.02	0.97	0.88	0.92	n.p.	n.p.	n.p.	1.00
Motor vehicle third party personal claim	0.77	1.05	1.10	0.95	1.10	n.p.	n.p.	n.p.	1.00
Department of Veterans' Affairs	1.31	1.15	1.25	1.19	1.16	n.p.	n.p.	n.p.	1.23
Other <sup>(b)</sup>	1.13	1.07	1.23	0.98	1.00	n.p.	n.p.	n.p.	1.04
<i>Total private hospitals</i>	<i>1.09</i>	<i>1.07</i>	<i>1.09</i>	<i>1.01</i>	<i>1.00</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>1.07</i>
<b>All hospitals</b>									
Public patients <sup>(a)</sup>	1.03	0.93	0.85	0.96	1.02	n.p.	n.p.	n.p.	0.96
Private health insurance	1.08	1.04	1.05	1.02	1.02	n.p.	n.p.	n.p.	1.05
Self-funded	1.01	0.95	0.87	0.87	0.84	n.p.	n.p.	n.p.	0.96
Workers compensation	1.06	1.02	0.97	0.97	0.99	n.p.	n.p.	n.p.	1.02
Motor vehicle third party personal claim	1.25	0.93	1.03	1.18	1.22	n.p.	n.p.	n.p.	1.09
Department of Veterans' Affairs	1.07	1.06	1.14	1.06	1.11	n.p.	n.p.	n.p.	1.09
Other <sup>(b)</sup>	1.71	0.97	1.14	1.06	1.02	n.p.	n.p.	n.p.	1.16
<b>Total</b>	<b>1.05</b>	<b>0.98</b>	<b>0.94</b>	<b>0.99</b>	<b>1.02</b>	<b>n.p.</b>	<b>n.p.</b>	<b>n.p.</b>	<b>1.00</b>

(a) Public patients includes separations with a funding source of *Health service budget, Other hospital or public authority* (with a *Public patient election status*), *Health service budget (due to eligibility for Reciprocal health care agreements)* and *Health service budget—no charge raised due to hospital decision* (in public hospitals).

(b) Other includes separations with a funding source of *Other compensation, Department of Defence, Correctional facilities, Other hospital or public authority* (without a *Public patient election status*), *Other, Health service budget—no charge raised due to hospital decision* (in private hospitals) and not reported.

Table 3.11: Average length of stay (days)<sup>(a)</sup> for selected AR-DRGs<sup>(b)</sup> version 6.0x, public and private hospitals, states and territories, 2012–13

AR-DRG	Hospital sector	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
<b>C03Z</b>	<b>Retinal procedures</b>									
	ALOS (days)									
	Public	1.5	1.3	1.2	1.3	1.7	1.0	1.3	n.p.	1.3
	Private	1.0	1.0	1.0	1.0	1.0	n.p.	n.p.	n.p.	1.0
	<i>Total</i>	<i>1.1</i>	<i>1.1</i>	<i>1.0</i>	<i>1.1</i>	<i>1.1</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>1.1</i>
	Separations									
	Public	2,223	2,215	2,322	1,652	754	152	281	61	9,660
	Private	15,532	9,693	11,156	7,808	6,196	n.p.	n.p.	n.p.	55,296
	<i>Total</i>	<i>17,755</i>	<i>11,908</i>	<i>13,478</i>	<i>9,460</i>	<i>6,950</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>64,956</i>
<b>D11Z</b>	<b>Tonsillectomy and/or adenoidectomy</b>									
	ALOS (days)									
	Public	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.2	1.1
	Private	1.0	1.0	1.0	1.0	1.0	n.p.	n.p.	n.p.	1.0
	<i>Total</i>	<i>1.1</i>	<i>1.1</i>	<i>1.1</i>	<i>1.0</i>	<i>1.1</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>1.1</i>
	Separations									
	Public	5,612	5,879	3,466	2,019	2,125	323	263	265	19,952
	Private	10,039	5,910	6,375	3,350	2,242	n.p.	n.p.	n.p.	29,144
	<i>Total</i>	<i>15,651</i>	<i>11,789</i>	<i>9,841</i>	<i>5,369</i>	<i>4,367</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>49,096</i>
<b>E62C</b>	<b>Respiratory infections/inflammations without CCC</b>									
	ALOS (days)									
	Public	3.1	2.7	2.3	2.7	3.0	3.5	2.9	2.7	2.8
	Private	5.7	4.8	4.4	4.2	5.3	n.p.	n.p.	n.p.	4.7
	<i>Total</i>	<i>3.3</i>	<i>3.1</i>	<i>2.7</i>	<i>2.9</i>	<i>3.4</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>3.1</i>
	Separations									
	Public	9,094	4,565	5,663	3,106	2,052	379	383	477	25,719
	Private	436	1,251	1,485	407	413	n.p.	n.p.	n.p.	4,180
	<i>Total</i>	<i>9,530</i>	<i>5,816</i>	<i>7,148</i>	<i>3,513</i>	<i>2,465</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>29,899</i>
<b>E65B</b>	<b>Chronic obstructive airways disease without CCC</b>									
	ALOS (days)									
	Public	4.6	4.3	3.6	4.2	4.4	5.1	5.1	4.3	4.3
	Private	9.4	7.4	7.5	7.4	7.2	n.p.	n.p.	n.p.	7.7
	<i>Total</i>	<i>4.9</i>	<i>5.0</i>	<i>4.4</i>	<i>4.6</i>	<i>4.7</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>4.8</i>
	Separations									
	Public	15,280	7,430	8,726	3,779	3,827	1,026	443	950	41,461
	Private	858	2,124	2,501	604	551	n.p.	n.p.	n.p.	6,884
	<i>Total</i>	<i>16,138</i>	<i>9,554</i>	<i>11,227</i>	<i>4,383</i>	<i>4,378</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>48,345</i>

(continued)

**Table 3.11 (continued): Average length of stay (days)<sup>(a)</sup> for selected AR-DRGs<sup>(b)</sup> version 6.0x, public and private hospitals, states and territories, 2012–13**

AR-DRG	Hospital sector	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
<b>E69B</b>	<b>Bronchitis and asthma without CC</b>									
ALOS (days)	Public	1.7	1.5	1.4	1.7	1.7	1.5	1.7	1.6	1.6
	Private	3.7	3.4	3.2	3.5	4.4	n.p.	n.p.	n.p.	3.5
	<i>Total</i>	1.7	1.6	1.6	1.8	1.9	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	1.7
Separations	Public	11,556	6,891	6,244	2,611	2,829	511	394	320	31,356
	Private	186	674	928	167	220	n.p.	n.p.	n.p.	2,214
	<i>Total</i>	11,742	7,565	7,172	2,778	3,049	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	33,570
<b>F62B</b>	<b>Heart failure and shock without CCC</b>									
ALOS (days)	Public	4.6	4.1	3.7	4.0	4.7	4.6	4.4	4.3	4.3
	Private	8.4	6.8	6.7	7.0	6.8	n.p.	n.p.	n.p.	7.1
	<i>Total</i>	5.0	5.0	4.6	4.5	5.2	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	4.9
Separations	Public	9,121	5,007	4,600	2,567	2,197	618	276	336	24,722
	Private	975	2,243	1,948	476	636	n.p.	n.p.	n.p.	6,528
	<i>Total</i>	10,096	7,250	6,548	3,043	2,833	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	31,250
<b>F76B</b>	<b>Arrhythmia, cardiac arrest and conduction disorders without CSCC</b>									
ALOS (days)	Public	2.2	1.9	1.7	1.7	2.2	2.1	1.9	2.4	2.0
	Private	1.8	2.0	2.2	1.5	1.9	n.p.	n.p.	n.p.	2.0
	<i>Total</i>	2.1	2.0	1.9	1.6	2.1	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	2.0
Separations	Public	14,511	7,759	8,382	3,664	3,341	661	682	422	39,422
	Private	2,849	3,875	4,392	2,003	1,518	n.p.	n.p.	n.p.	15,307
	<i>Total</i>	17,360	11,634	12,774	5,667	4,859	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	54,729
<b>G07B</b>	<b>Appendicectomy without malignancy or peritonitis without CSCC</b>									
ALOS (days)	Public	2.3	2.1	1.9	2.1	2.1	2.1	2.3	2.8	2.1
	Private	1.9	2.1	1.8	1.9	2.3	n.p.	n.p.	n.p.	2.0
	<i>Total</i>	2.3	2.1	1.9	2.1	2.2	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	2.1
Separations	Public	6,319	4,439	3,939	2,424	1,307	417	471	239	19,555
	Private	653	1,079	1,449	521	253	n.p.	n.p.	n.p.	4,153
	<i>Total</i>	6,972	5,518	5,388	2,945	1,560	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	23,708

(continued)

**Table 3.11 (continued): Average length of stay (days)<sup>(a)</sup> for selected AR-DRGs<sup>(b)</sup> version 6.0x, public and private hospitals, states and territories, 2012–13**

AR-DRG	Hospital sector	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
<b>G10B</b>	<b>Hernia procedures without CC</b>									
	ALOS (days)									
	Public	1.3	1.3	1.2	1.4	1.4	1.2	1.4	1.5	1.3
	Private	1.3	1.3	1.2	1.3	1.3	n.p.	n.p.	n.p.	1.3
	<i>Total</i>	<i>1.3</i>	<i>1.3</i>	<i>1.2</i>	<i>1.3</i>	<i>1.4</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>1.3</i>
	Separations									
	Public	9,650	6,999	5,065	2,939	2,282	642	400	264	28,241
	Private	11,058	8,609	8,453	3,974	2,405	n.p.	n.p.	n.p.	36,448
	<i>Total</i>	<i>20,708</i>	<i>15,608</i>	<i>13,518</i>	<i>6,913</i>	<i>4,687</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>64,689</i>
<b>I03B</b>	<b>Hip replacement without CCC</b>									
	ALOS (days)									
	Public	6.3	5.3	5.7	5.9	6.2	6.0	5.6	n.p.	5.9
	Private	5.9	6.3	5.8	5.8	6.6	n.p.	n.p.	n.p.	6.0
	<i>Total</i>	<i>6.1</i>	<i>6.0</i>	<i>5.8</i>	<i>5.8</i>	<i>6.5</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>6.0</i>
	Separations									
	Public	3,717	2,452	1,593	1,378	897	296	202	53	10,588
	Private	5,205	5,023	3,198	1,962	1,695	n.p.	n.p.	n.p.	18,247
	<i>Total</i>	<i>8,922</i>	<i>7,475</i>	<i>4,791</i>	<i>3,340</i>	<i>2,592</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>28,835</i>
<b>I04B</b>	<b>Knee replacement without CSCC</b>									
	ALOS (days)									
	Public	5.2	4.8	5.0	5.8	5.0	5.1	3.4	n.p.	5.1
	Private	5.9	6.0	5.4	6.0	5.9	n.p.	n.p.	n.p.	5.8
	<i>Total</i>	<i>5.6</i>	<i>5.7</i>	<i>5.3</i>	<i>6.0</i>	<i>5.6</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>5.6</i>
	Separations									
	Public	4,135	1,905	1,731	1,249	847	174	172	51	10,264
	Private	7,086	4,990	5,262	2,715	2,320	n.p.	n.p.	n.p.	23,467
	<i>Total</i>	<i>11,221</i>	<i>6,895</i>	<i>6,993</i>	<i>3,964</i>	<i>3,167</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>33,731</i>
<b>I16Z</b>	<b>Other shoulder procedures</b>									
	ALOS (days)									
	Public	1.4	1.4	1.4	1.3	1.4	n.p.	1.1	n.p.	1.4
	Private	1.3	1.3	1.2	1.2	1.3	n.p.	n.p.	n.p.	1.3
	<i>Total</i>	<i>1.3</i>	<i>1.3</i>	<i>1.2</i>	<i>1.2</i>	<i>1.3</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>1.3</i>
	Separations									
	Public	2,153	1,551	1,113	1,398	620	97	101	78	7,111
	Private	8,797	8,553	7,520	6,113	3,152	n.p.	n.p.	n.p.	35,355
	<i>Total</i>	<i>10,950</i>	<i>10,104</i>	<i>8,633</i>	<i>7,511</i>	<i>3,772</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>42,466</i>

(continued)

**Table 3.11 (continued): Average length of stay (days)<sup>(a)</sup> for selected AR-DRGs<sup>(b)</sup> version 6.0x, public and private hospitals, states and territories, 2012–13**

AR-DRG	Hospital sector	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
<b>L63B</b>	<b>Kidney and urinary tract infections without CSCC</b>									
ALOS (days)	Public	2.9	2.5	2.0	2.4	2.8	3.0	2.3	2.6	2.5
	Private	4.8	4.4	4.4	3.8	4.5	n.p.	n.p.	n.p.	4.4
	<i>Total</i>	3.0	2.8	2.5	2.6	3.1	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	2.8
Separations	Public	12,587	7,269	9,246	4,676	2,836	419	566	517	38,116
	Private	884	1,729	2,330	626	570	n.p.	n.p.	n.p.	6,392
	<i>Total</i>	13,471	8,998	11,576	5,302	3,406	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	44,508
<b>M02B</b>	<b>Transurethral prostatectomy without CSCC</b>									
ALOS (days)	Public	2.8	2.5	2.3	2.5	2.9	n.p.	n.p.	n.p.	2.6
	Private	2.6	2.6	2.4	2.4	3.1	n.p.	n.p.	n.p.	2.6
	<i>Total</i>	2.7	2.6	2.4	2.4	3.0	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	2.6
Separations	Public	1,756	1,407	822	537	440	82	66	16	5,126
	Private	3,202	2,981	2,351	1,019	845	n.p.	n.p.	n.p.	10,871
	<i>Total</i>	4,958	4,388	3,173	1,556	1,285	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	15,997
<b>N04B</b>	<b>Hysterectomy for non-malignancy without CSCC</b>									
ALOS (days)	Public	3.0	3.0	2.7	2.8	3.0	3.0	3.0	n.p.	2.9
	Private	3.4	3.6	3.0	3.0	3.7	n.p.	n.p.	n.p.	3.3
	<i>Total</i>	3.2	3.3	2.9	2.9	3.4	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	3.1
Separations	Public	2,821	2,183	1,693	876	811	226	135	60	8,805
	Private	3,720	2,777	3,260	1,609	881	n.p.	n.p.	n.p.	12,911
	<i>Total</i>	6,541	4,960	4,953	2,485	1,692	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	21,716
<b>N06B</b>	<b>Female reproductive system reconstructive procedures without CSCC</b>									
ALOS (days)	Public	2.1	2.0	1.7	2.0	2.0	2.1	n.p.	n.p.	2.0
	Private	2.6	2.5	2.0	2.3	2.7	n.p.	n.p.	n.p.	2.4
	<i>Total</i>	2.4	2.3	1.9	2.2	2.4	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	2.2
Separations	Public	1,857	1,356	1,020	449	500	106	66	21	5,375
	Private	3,302	2,174	2,298	1,088	877	n.p.	n.p.	n.p.	10,259
	<i>Total</i>	5,159	3,530	3,318	1,537	1,377	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	15,634

(continued)

**Table 3.11 (continued): Average length of stay (days)<sup>(a)</sup> for selected AR-DRGs<sup>(b)</sup> version 6.0x, public and private hospitals, states and territories, 2012–13**

AR-DRG	Hospital sector	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
<b>O01C</b>	<b>Caesarean delivery without CSCC</b>									
ALOS (days)	Public	3.8	3.7	3.3	3.7	4.0	3.8	3.8	4.4	3.7
	Private	5.2	5.0	4.6	5.0	5.2	n.p.	n.p.	n.p.	5.0
	<i>Total</i>	4.3	4.2	3.9	4.3	4.4	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	4.2
Separations	Public	15,170	11,944	8,954	4,737	3,573	775	953	561	46,667
	Private	8,508	7,157	6,992	4,156	1,543	n.p.	n.p.	n.p.	29,680
	<i>Total</i>	23,678	19,101	15,946	8,893	5,116	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	76,347
<b>O60C</b>	<b>Vaginal delivery single uncomplicated</b>									
ALOS (days)	Public	1.8	1.8	1.5	1.7	1.7	1.8	1.4	2.1	1.7
	Private	3.8	3.9	3.4	3.3	3.9	n.p.	n.p.	n.p.	3.6
	<i>Total</i>	2.1	2.2	1.8	2.0	2.0	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	2.0
Separations	Public	9,115	4,863	6,623	2,456	1,975	619	584	402	26,637
	Private	1,468	1,282	1,260	599	246	n.p.	n.p.	n.p.	5,328
	<i>Total</i>	10,583	6,145	7,883	3,055	2,221	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	31,965
<b>P67D</b>	<b>Neonate, admWt &gt;2499 g without significant OR procedure without problem</b>									
ALOS (days)	Public	2.2	2.9	1.9	2.3	2.0	2.6	2.8	2.5	2.2
	Private	4.3	2.5	3.1	3.5	2.4	n.p.	n.p.	n.p.	3.8
	<i>Total</i>	2.6	2.8	2.1	2.6	2.1	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	2.5
Separations	Public	25,489	3,258	3,678	1,956	1,345	861	433	297	37,317
	Private	5,696	1,417	702	658	353	n.p.	n.p.	n.p.	8,937
	<i>Total</i>	31,185	4,675	4,380	2,614	1,698	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	46,254
<b>R61B</b>	<b>Lymphoma and non-acute leukaemia without CCC</b>									
ALOS (days)	Public	4.9	4.1	4.4	4.5	5.0	5.8	5.8	n.p.	4.6
	Private	5.5	3.7	5.6	3.2	4.9	n.p.	n.p.	n.p.	4.4
	<i>Total</i>	5.0	3.9	5.1	3.7	5.0	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	4.5
Separations	Public	2,359	1,923	1,069	748	755	219	145	47	7,265
	Private	421	2,386	1,693	1,068	403	n.p.	n.p.	n.p.	6,066
	<i>Total</i>	2,780	4,309	2,762	1,816	1,158	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	13,331

admwt—admission weight; CC—complications and comorbidities; CCC—catastrophic complications and comorbidities; CSCC—catastrophic and/or severe complications and comorbidities; OR—operating room.

(a) Separations for which the care type was reported as *Acute, Newborn* (with qualified days) or was not reported. Excludes separations where the length of stay was greater than 120 days. Average length of stay suppressed for private hospitals in Tasmania, the Australian Capital Territory and the Northern Territory, or if fewer than 100 separations were reported.

(b) For more information on the selected AR-DRGs, see Appendix B and tables accompanying this report online.