

## 4 Hospital performance indicators

### Introduction

This chapter presents information on performance indicators that relate to the provision of hospital services. Performance indicators are defined as statistics or other units of information that reflect, directly or indirectly, the extent to which an anticipated outcome is achieved or the quality of the processes leading to that outcome (NHPC 2001).

In 2001, the National Health Performance Committee (NHPC) developed a framework to report on the performance of the Australian health system, which has been adopted by health ministers. In late 2006, the NHPC identified the need to review the framework and in 2008 AHMAC's National Health Information Standards and Statistics Committee (NHISSC) endorsed a revised framework. The revision incorporates a small number of relatively minor amendments that aimed to simplify the framework. The Health System Performance domain of the revised framework is presented in Table 4.A. It contains six dimensions, simplifying the original nine dimensions for that domain.

This chapter places the performance indicators presented in this report within the context of the revised framework. For most hospital performance indicators, the data are presented in this chapter, but some data are presented elsewhere for example, in *Chapter 5* for emergency department waiting times and in *Chapter 6* for elective surgery waiting times.

### The National Health Performance Framework

The NHPC describes 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. 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.

The Health System Performance domain is most directly relevant to assessment of the provision of hospital and other health-care services. It is organised into six dimensions: Effectiveness, Safety, Responsiveness, Continuity of care, Accessible and Efficiency & sustainability.

The questions asked for this domain 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 4.A: The National Health Performance Framework: Health System Performance Domain**

<b>Effectiveness</b>	<b>Safety</b>	<b>Responsiveness</b>
Care/intervention/action provided is relevant to the client's needs and based on established standards. Care, intervention or action achieves desired outcome.	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.	Service is client orientated. Clients are treated with dignity, confidentiality, and encouraged to participate in choices related to their care.
<b>Continuity of care</b>	<b>Accessible</b>	<b>Efficiency &amp; sustainability</b>
Ability to provide uninterrupted, coordinated care or service across programs, practitioners, organisations and levels over time.	People can obtain health care at the right place and right time irrespective of income, physical location and cultural background.	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 indicators in this report

Table 4.B presents performance indicator information in this report (both in this chapter and elsewhere) for the National Health Performance Framework Health System Performance domain. Information relevant to the interpretation of these performance indicator data is in the text and footnotes accompanying the tables. As noted above, some indicators can be related to more than one dimension, even though they are presented here against only one dimension. For example, hospital accreditation could be related to Safety and Responsiveness, as well as Effectiveness.

The column headed 'Presentation that relates to equity' summarises those aspects of the indicator presentation that bears on the question 'Is it the same for everyone?'

**Table 4.B: Performance indicator information in this report, by National Health Performance Framework dimension**

<b>Table(s)</b>	<b>Indicator</b>	<b>Level(s) of care to which it relates</b>	<b>Presentation that relates to equity</b>	<b>Related NHA indicator</b>
<b>Effectiveness</b>				
4.4	Accreditation of hospitals and beds	Acute care	Presented by state and territory of hospital, and for the public and private sectors	
4.5, 4.6, A5.1, A5.2, A5.3	Separation rates for selected potentially preventable hospitalisations	Primary care Population health	Presented in summary by state and territory of usual residence of the patient, remoteness area of usual residence and quintile of socioeconomic advantage/disadvantage (tables 4.5, A5.1, A5.2, A5.3) and as a time-series (Table 4.6)	✓

(continued)

**Table 4.B (continued): Performance indicator information in this report, by National Health Performance Framework dimension**

Table(s)	Indicator	Level(s) of care to which it relates	Presentation that relates to equity	Related NHA indicator
<b>Safety</b>				
4.13	Separations with adverse events	Acute care	Presented for the public and private sectors	
<b>Responsiveness</b>				
No indicators available for acute care				
<b>Continuity of care</b>				
7.15, 7.16	Separations with non-acute care, by mode of separation, age group, sex and patient election status	Continuing care	Presented by patient election status (Table 7.15) and age group and sex (Table 7.16).	
<b>Accessible</b>				
2.4	Separation rates	Acute care	Presented by state and territory of hospitalisation, public and private sectors and for same-day and overnight separations	✓
4.7, 4.8, 4.9	Separation rates for selected procedures	Acute care	Presented by state and territory of usual residence of the patient (Table 4.7), remoteness area of usual residence (Table 4.8) and quintile of socioeconomic status (Table 4.9)	
5.2, 5.3	Emergency department waiting times (proportions waiting longer than clinically desirable, and times waited at the 50th and the 90th percentiles)	Acute care	Presented as a time series (Table 5.2) and by state and territory of hospital and by public hospital peer group (Table 5.3)	✓
6.1, 6.2, 6.4, 6.5	Waiting times for elective surgery (times waited at the 50th and 90th percentiles)	Acute care	Presented as a time series (Table 6.1), by state and territory of hospital, and by public hospital peer group (Table 6.2), by surgical specialty (Table 6.4) and by indicator procedure (Table 6.5)	✓
			Tables based on information on the patient's area of usual residence included in other dimensions also relate to accessibility. These include the selected procedures and selected potentially preventable hospitalisations tables (tables 4.4, 4.5, 4.7 to 4.9, 8.11 to 8.13 and A5.1 to A5.3)	
7.3	Separation rates	Acute care	Presented by state and territory of hospitalisation, by admitted patient election status and funding source, and for the public and private sectors	
7.13, 7.14	Separation rates	Acute care	Presented by state and territory of hospitalisation, care type, and for the public and private sectors	✓

(continued)

**Table 4.B (continued): Performance indicator information in this report, by National Health Performance Framework dimension**

Table(s)	Indicator	Level(s) of care to which it relates	Presentation that relates to equity	Related NHA indicator
<b>Accessible (continued)</b>				
8.11, 8.12, 8.13	Separation rates	Acute care	Presented by state and territory of usual residence of the patient (Table 8.11), remoteness area of usual residence (Table 8.12) and quintile of socioeconomic status (Table 8.13) for the public and private sectors	
8.7, 8.8	Separation rates	Acute care	Presented by state and territory of hospital, hospital sector and Indigenous status	
<b>Efficiency &amp; sustainability</b>				
3.5	Average salary by staffing category	Acute care	Presented by state and territory of hospital	
4.1c, 4.1d, 4.2a–f	Cost per casemix-adjusted separation	Acute care	Presented by state and territory of hospital (Tables 4.1c, 4.1d), and by public hospital peer group (tables 4.2a–f)	✓
4.1c–d, 4.2a–e, 4.3, 4.11, 4.12, 12.1, 12.2	Relative stay index	Acute care	Presented by state and territory of hospital (Table 4.1c), by public hospital peer group (tables 4.2a–e and 4.3) and, for the public and private sectors, by admitted patient election status and funding source (tables 4.11, 4.12), and by Major Diagnostic Category (tables 12.1, 12.2)	
4.10	Average length of stay (ALOS) for a selection of AR-DRGs	Acute care	Presented by state and territory of hospital, and for the public and private sectors	

Some of the performance indicators are likely to reflect those included in the National Healthcare Agreement (COAG 2009). The National Healthcare Agreement (NHA) indicators are yet to be reported and they may differ in specification from the performance indicators in this report. However they include selected potentially preventable hospitalisations, rates of services provided by public and private hospitals (including overnight separations and non-acute separations), waiting times for services (including waiting times for elective surgery and emergency departments) and cost per casemix-adjusted separation. Other performance indicators for hospital and related care in the NHA include selected adverse events in acute and sub-acute care settings, unplanned/unexpected readmissions within 28 days of a surgical admission and survival of people with cancer.

## Cost per casemix-adjusted separation

The cost per casemix-adjusted separation is an indicator of the efficiency of the acute care sector; it is placed in the Efficiency and sustainability dimension in the revised National Health Performance Framework. It has been published in *Australian hospital statistics* since the 1996–97 reference year (AIHW 1998), and included within frameworks of indicators by the National Health Ministers' Benchmarking Working Group (NHMBWG 1999), the Steering Committee for the Review of Government Service Provision (SCRGSP 2009), the NHPC (NHPC 2004) and the National Healthcare Agreement (COAG 2009).

### Calculation method and interpretation

This performance indicator is a measure of the average recurrent expenditure for each admitted patient, adjusted using AR-DRG cost weights for the relative complexity of the patient's clinical condition and for the hospital services provided. Details of the methods used in this analysis are presented in *Appendix 1* of this report and in more detail in *Australian hospital statistics 1999–00* (AIHW 2001).

The calculation of these figures is sensitive to a number of deficiencies in available data. In particular:

- The proportion of recurrent expenditure that relates to admitted patients (the numerator) is estimated in different ways in different hospitals, and so is not always comparable.
- Capital costs are not included in numerators. In addition to the cost per casemix-adjusted separation (excluding depreciation), extra rows including depreciation in the calculation of costs are included for those jurisdictions that have supplied it (see also *Appendix 1* for SCRGSP estimates of cost per casemix-adjusted separation including capital costs).
- Only cost weights applicable to acute care separations are available, so these have been applied to all separations, including the 2% that were not acute. *Appendix 1* includes details of the separations in this analysis, by care type, and also separate data for acute care separations only for New South Wales, Victoria and Western Australia.
- The proportion of patients other than public patients can vary, and the estimation of medical costs for these patients (undertaken to adjust expenditure to resemble what it would be if all patients had been public patients) is subject to error.

The comparability of financial data is also affected by changes in accounting practices across jurisdictions. In 2007–08, South Australia changed from cash to accrual accounting and Tasmania changed accrual accounting policies. This in part, accounts for the higher average costs per casemix-adjusted separation (also see *Chapter 3*).

The scope of the analysis includes public hospitals that provide mainly acute care. These are the hospitals in the public hospital peer groups of *Principal referral and Specialist women's and children's hospitals*, *Large hospitals*, *Medium hospitals* and *Small acute hospitals* (see *Appendix 1*). Excluded are *Small non-acute hospitals*, *Multi-purpose services*, *Hospices*, *Rehabilitation hospitals*, *Mothercraft hospitals*, *Other non-acute hospitals*, *Psychiatric hospitals*, and hospitals in the *Unpeered and other hospitals* peer group. Also excluded are hospitals for which expenditure or separation data were incomplete, although most of these hospitals were excluded for other reasons (for example, they are small non-acute hospitals). The scope restrictions improve the comparability of data among the jurisdictions and increase the accuracy of the analysis.

Hospitals included in this analysis accounted for 95% of separations in public acute and psychiatric hospitals in 2007–08, and 92% of recurrent expenditure (excluding depreciation).

Hospital activity in the 350 selected public acute hospitals is shown in Table 4.1a (see *Box 4.1*, which follows Table 4.1d, for an explanation of the hospitals included/excluded from the analysis). There were 4.6 million separations from these selected public acute hospitals in 2007–08; nearly 98% of these were acute separations. Public patients accounted for 83% of the 15.8 million patient days reported and 88% of patient days were for acute separations. Over 177,000 *Newborns* with no qualified days were reported for these selected public acute hospitals in 2007–08.

In 2007–08, for the selected public acute hospitals, total recurrent expenditure including depreciation was \$27.7 billion and \$26.7 billion excluding depreciation (Table 4.1b). Almost 33% of the total recurrent expenditure was in New South Wales (\$8.7 billion), 26% in Victoria (\$7.0 billion) and 18% in Queensland (\$4.8 billion). Expenditure in these three states accounted for 77% of the total recurrent expenditure (excluding depreciation) for the selected public acute hospitals in 2007–08.

Interpretation of the cost per casemix-adjusted separation data should take into consideration other factors, such as costs incurred that are beyond the control of a jurisdiction. For example, the Northern Territory has high staffing and transport costs, and treats a greater proportion of Aboriginal and Torres Strait Islander patients than other jurisdictions. The cost disabilities associated with providing hospital services in the Northern Territory have been recognised by the Commonwealth Grants Commission.

A small number of hospitals may be classified to peer groups included in the analysis in some years, but to other peer groups excluded from the analysis in other years; this applies mainly to the *Small acute hospitals* and *Non-acute* peer groups. This is because the peer grouping is largely based on hospital activity, which can change from year to year.

As noted in *Chapter 3*, the average costs reported here are based on expenditure by public hospitals in a state or territory. These average costs do not necessarily include state and territory government contracted services with private hospitals or allow for the source of funds.

The average cost weight for the selected public acute hospitals was 1.02, and the relative stay index was the same as the national average (see below for more information on relative stay indexes).

## What the data show

Table 4.1c shows the cost per casemix-adjusted separation for selected acute public hospitals by state and territory for 2007–08. Nationally, the average cost per casemix-adjusted separation was \$4,232 excluding depreciation and \$4,376 including depreciation.

A large portion of the costs was attributed to *Non-medical labour* and *Medical labour* costs. Nationally these costs were \$2,140 and \$894, respectively, per casemix-adjusted separation (Table 4.1d). *Depreciation* was supplied for all jurisdictions, though only for a subset of Tasmanian hospitals. *Depreciation* added an average of 3.4% (\$144) to the cost of each separation, with Queensland being the highest with \$181 (4.3%).

## Public hospital peer groups

Public hospital peer groups have been developed for presenting data on costs per casemix-adjusted separation (see *Appendix 1*). The peer group classification allocates hospitals into broadly similar groups in terms of their level of admitted patient activity and their geographical location. The classification allows more meaningful comparison of cost data than comparison at the jurisdiction level would allow.

Table 4.2a provides totals for all public hospitals in the analysis including acute, non-acute, psychiatric and unpeered hospitals. These data are not considered directly comparable across states and territories. Tables 4.2a–g also present a range of other statistics about the peer groups for each state and territory, such as the number of hospitals in each, average length of stay and relative stay index (see below and in *Appendix 1*). The average number of AR-DRGs with five or more acute separations reported for each hospital is also presented; this provides information on the breadth of activity of each type of hospital, as measured using AR-DRGs.

For 2007–08, the dominant hospital peer group category was the *Principal referral and Specialist women's and children's hospitals* group. The 80 hospitals in this group had an average of 42,163 separations each at a cost (excluding depreciation) of \$4,223 per separation (Table 4.2b). The 69 *Principal referral hospitals* had an average of 45,620 separations each. New South Wales had 26 hospitals, and Victoria and Queensland both had 15 hospitals in this peer group, accounting for 81% of Australia's *Principal referral hospitals*. Separations ranged from an average of 35,278 separations per hospital in New South Wales to 67,865 separations per hospital in Victoria. The cost per casemix-adjusted separation (excluding depreciation) for this peer group was highest in the Northern Territory (\$4,561 per separation).

The 40 *Large hospitals* averaged 14,278 separations each at a cost (excluding depreciation) of \$4,160 per separation (Table 4.2c). The 86 *Medium hospitals* averaged 5,222 separations each at a cost (excluding depreciation) of \$4,199 per separation (Table 4.2d). The 144 *Small acute hospitals* (41.1% of acute hospitals) averaged 1,213 separations each at a cost per separation of \$4,803 (excluding depreciation) (Table 4.2e).

Table 4.2f shows expenditure and other statistics for non-acute hospitals. Table 4.2g shows expenditure and other statistics for selected psychiatric, un-peered and other acute hospitals.

Table 4.3 shows a range of statistics for *Teaching hospitals*. These hospitals can be in any peer group; however, 80% are in the *Principal referral and Specialist women's and children's hospitals* peer groups. Queensland had 22 and New South Wales had 20 of the 69 *Teaching hospitals* in Australia in 2007–08.

## Hospital accreditation

Hospital accreditation has been placed in the Effectiveness dimension in the revised National Health Performance Framework.

Table 4.4 includes accreditation through any body including the Australian Council on Healthcare Standards EQuIP, Business Excellence Australia and the Quality Improvement Council, and hospitals certified as compliant with the International Organization for Standardization's (ISO) 9000 quality family. For private hospitals, the data have been sourced from the ABS Private Health Establishments Collection for 2006–07 and relate to accreditation by any body. Accreditation at any point in time does not assume a fixed or continuing status as accredited.

For Australia as a whole, 652 public hospitals with 52,708 public hospital beds (93% of public hospital beds) were known to be accredited at 30 June 2008 (Table 4.4). These hospitals delivered 95% of public hospital separations and 94% of patient days. The proportion of public hospital patient days in accredited hospitals varied from 100% in Victoria, Western Australia, the Australian Capital Territory and the Northern Territory to 85% in New South Wales.

A total of 371 private hospitals and 23,917 private hospital beds (70% of hospitals but 90% of the beds) were accredited in 2006–07 (Table 4.4).

As accreditation status for public hospitals was counted as at the 30 June 2008, some New South Wales hospitals that were accredited for the majority of the financial year, but had their accreditation status lapse shortly before this date, were counted as *Non-accredited*.

The comparability of the accreditation data among the states and territories is limited because of the voluntary nature of participation in the award schemes for hospitals in some jurisdictions.

## Separation rates for selected potentially preventable hospitalisations

The selected potentially preventable hospitalisations (PPHs) indicator is in the Effectiveness dimension of the revised National Health Performance Framework. PPHs are those conditions where hospitalisation is thought to have been avoidable if timely and adequate non-hospital care had been provided. Separation rates for PPHs therefore have potential as indicators of the quality or effectiveness of non-hospital care. A high rate of PPH may indicate an increased prevalence of the conditions in the community, poorer functioning of the non-hospital care system or an appropriate use of the hospital system to respond to greater need. It is important to note that the list of PPHs is not comprehensive – there are other hospital admissions which may be preventable. The ICD-10-AM code specifications and the categories included for PPHs may therefore be subject to change in future reports.

Three broad categories of PPHs have been used in this chapter. These have been sourced from *The Victorian Ambulatory Care Sensitive Conditions Study* (DHS, Victoria 2002).

- **Vaccine-preventable.** These diseases can be prevented by proper vaccination and include influenza, bacterial pneumonia, tetanus, measles, mumps, rubella, pertussis and polio. The conditions are considered to be preventable, rather than the hospitalisation.
- **Acute.** These conditions may not be preventable, but theoretically would not result in hospitalisation if adequate and timely care (usually non-hospital) was received. These include complicated appendicitis, dehydration/gastroenteritis, pyelonephritis, perforated ulcer, cellulitis, pelvic inflammatory disease, ear nose and throat infections and dental conditions.
- **Chronic.** These conditions may be preventable through behaviour modification and lifestyle change, but they can also be managed effectively through timely care (usually non-hospital) to prevent deterioration and hospitalisation. These conditions include diabetes, asthma, angina, hypertension, congestive heart failure and chronic obstructive pulmonary disease.

A full description of all conditions presented in these tables, including ICD-10-AM codes, can be found in *Appendix 1* (Table A1.6 accompanying this report on the Internet).



Table 4.5 presents the age-standardised separation rate for the three broad categories of PPHs for the state or territory of usual residence, the remoteness area of usual residence of the patient and the quintile of socioeconomic advantage/disadvantage. The quintile of socioeconomic advantage/disadvantage is determined using the ABS's Socio-Economic Indexes For Areas 2006 (termed SEIFA 2006; ABS 2008a) (see *Appendix 1*).

There were 33 separations per 1,000 people in Australia for PPHs in 2007–08. The rate of PPH separations ranged from 50 per 1,000 in Western Australia to 22 per 1,000 in the Australian Capital Territory. The rate was highest for residents of *Very remote* areas (76 per 1,000 population) and lowest for residents of *Major cities* (30 per 1,000 population). Residents of *Most disadvantaged* regions are more likely to be separated from hospital for a PPH than residents of other regions. The rate decreases with increased levels of advantage from 42 per 1,000 for residents of *Most disadvantaged* regions to 25 per 1,000 for residents of the *Most advantaged* regions.

Over the last 5 years, the rate of PPH separations in most states and territories was relatively stable (Table 4.6). The increased rate of PPH separations in Western Australia over this period was mainly due to the recoding of diabetes as an additional diagnosis when a patient with diabetes was admitted for dialysis treatment. This was not done in all jurisdictions and because dialysis may be required several times per week, the number of separations which are included in *Complications of diabetes* was markedly higher than in other jurisdictions (Table A5.1). Practices vary both within and across the jurisdictions in terms of how these cases are coded.

*Appendix 5* presents detailed statistics for each PPH condition. The appendix includes standardised separation rates and standardised separation rate ratios (SRR) for each PPH condition by:

- states and territories (Table A5.1)
- remoteness area of usual residence (Table A5.2)
- quintile of socioeconomic advantage/disadvantage (Table A5.3).

## Separation rates for selected procedures

Separation rates for selected procedures appear within the Appropriateness dimension of the revised National Health Performance Framework. However, for several procedures, the indicator may also be relevant to accessibility or performance of non-hospital health services.

Most of the procedures were originally selected as indicators of appropriateness by the National Health Ministers Benchmarking Working Group (NHMBWG) because of the frequency with which they are undertaken, because they are often elective and discretionary, and because there are sometimes treatment alternatives available (NHMBWG 1998).

ICD-10-AM codes used to define the procedures are listed in Table A1.6 of *Appendix 1*.

Information on public patients in tables 4.7, 4.8 and 4.9 relate to separations for which the patient election status was reported as *Public* (see *Chapter 7*). For example, the proportion of separations for public patients who had a *Hip replacement* was 39% nationally, ranging from 33% for Tasmania to 55% for the Northern Territory.

Table 4.7 presents age-standardised separation rates for each procedure for the state or territory of usual residence of the patient, accompanied by the standardised separation rate ratio (SRR) against the national total. If the SRR is greater than 1, then the rate for the state

was higher than the national average and vice versa. The 95% confidence interval of the SRR is also included. If the confidence interval includes 1, then a difference between jurisdictions is considered less likely (see *Appendix 1*).

For example, the separation rate for *Tonsillectomy* for residents of New South Wales was 2.08 separations per 1,000 population. The SRR was 1.01 with a 95% confidence interval of 0.99–1.03, indicating that the difference was not statistically significant. The separation rate for the South Australia was 2.77 per 1,000 population, with an SRR of 1.34 and a 95% confidence interval of 1.30–1.38, indicating the difference was statistically significant.

Table 4.8 presents similar statistics by the remoteness area of usual residence of the patient. For example, the rate for *Knee Replacement* for residents of *Major cities* was 1.53 separations per 1,000 population. The SRR was 0.95 and the 95% confidence interval was 0.94–0.96, indicating a statistically significant difference.

Table 4.9 presents these data by the socioeconomic advantage/disadvantage categories (see *Appendix 1*). For all of the selected procedures, the *Most advantaged* quintiles had lower proportions of public patients than the *Most disadvantaged* quintiles.

The relationship between the quintile of socioeconomic advantage/disadvantage and the hospital separation rate varied among the procedures. For example, *Coronary artery bypass grafts* were more frequent in the *Most disadvantaged* and *Second most disadvantaged* quintiles, with an SRR of 1.10 and 1.02 respectively, and *Prostatectomy* were most common in the *Most advantaged* quintile, with an SRR of 1.14.

The number of *Caesarean sections* depends on the birth rate as well as the population size, so the population rate is less meaningful. The number of in-hospital births has therefore been included in the tables, and the number of *Caesarean sections* is reported for separations for which in-hospital birth was reported. Comparability is, however, still complicated by potential under-identification of in-hospital births in this analysis, variation in numbers of non-hospital births, and the age at which the mothers are giving birth. The *Most advantaged* quintile (37.8 *Caesarean sections* per 100 in-hospital births; Table 4.9), residents of *Major cities* (32.8 per 100; Table 4.8) and residents of Western Australia (33.4 per 100; Table 4.7) had the highest rates.

As for other separation rates, these data should be interpreted with caution. While the rates would reflect hospital system performance, they also reflect variation in underlying needs for hospitalisation, admission and data recording practices, and availability of non-hospital services. In addition, the National Hospital Morbidity Database does not include data for some private hospitals (as noted in *Appendix 2*). This may result in underestimation of separation rates for some of the procedures, particularly those more common for private hospitals. The separation rates are age-standardised to take into account the different age structures of the populations of the states and territories.

## Average lengths of stay for 20 selected AR-DRGs

The average length of stay for 20 selected version 5.1 AR-DRGs has been included within the Efficiency dimension of the revised National Health Performance Framework. The selected AR-DRGs (Table 4.10) 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.

In addition, only non-complication and/or comorbidity (non-CC) AR-DRGs were chosen from groups of adjacent AR-DRGs. AR-DRGs with CCs may be relatively less homogeneous, as they potentially include a range of complications and/or comorbidities.

These data are not equivalent to the data presented in the tables in *Chapter 12* because separations with lengths of stay over 120 days are excluded.

The average length of stay of the chosen AR-DRGs ranged from 1.3 days for G09Z *Inguinal and femoral hernia procedures age>0* to 15.7 days for U63B *Major affective disorders age <70 without catastrophic or severe complications and comorbidities* (Table 4.10).

The average length of stay for E65B *Chronic obstructive airway disease without catastrophic or severe complications and comorbidities* was 5.1 days for all hospitals in Australia, 4.7 days for public hospitals and 7.3 days for private hospitals. There was also some variation between states and territories, with Victorian hospitals reporting an average length of stay of 4.5 days and New South Wales hospitals 5.5 days.

## Relative stay indexes

Relative stay indexes (RSIs) have been included within the Efficiency dimension of the revised National Health Performance Framework. They are calculated as the observed number of patient days for separations in selected AR-DRGs, divided by the expected number of patient days expected (based on national figures), standardised for casemix. The adjustment for casemix (based on the AR-DRG version 5.1 and age of the patient for each separation) allows variation in types of services provided to be taken into account, but does not take into account other influences on length of stay.

An RSI greater than 1 indicates that an average patient's length of stay is higher than would be expected given the casemix for the group of separations of interest. An RSI of less than 1 indicates that the length of stay was less than would have been expected. See *Appendix 1* for details of the current methodology.

This report uses two methods of standardisation and three comparator sets. The method used in most tables (tables 4.1c, 4.2a to 4.2e, 4.3 and 4.11, and part of tables 2.3 and 4.12) is an indirect standardisation method. Indirectly standardised RSI compares each groups observed length of stay (LOS) with the expected LOS for all hospitals. The indirectly standardised rates of different groups are not strictly comparable as the different groups have different casemixes. The RSIs in tables 4.1c, 4.2a to 4.2e and 4.3 are based on comparisons with the averages for public hospitals only for 2007–08. The RSIs in Tables 4.11 and 4.12 are based on comparisons with the averages for all hospitals for 2007–08. The RSIs in Table 2.3 are based on comparisons with the combined average across all hospitals for all 5 years presented.

In addition to the indirect method, tables 2.3 and 4.12 present a directly standardised RSI. The direct method allows comparison of RSI values across groups of hospitals. More detail on these methods is included in *Appendix 1*.

Tables 4.1c, 4.2a to 4.2e and 4.3 present RSI information for public hospitals, using the indirect method and public hospital data to calculate expected lengths of stay. For the hospitals included in the cost per casemix-adjusted separation analysis, the RSI was 1.00 overall, and ranged from 1.17 in the Northern Territory to 0.90 in the Australian Capital Territory (Table 4.1c).

Tables 4.11 and 4.12 present RSI information using public and private sector data together to calculate expected lengths of stay. Overall, the RSI for private hospitals was 1.03 indirectly standardised and 1.06 directly standardised, and the RSI for public hospitals was 0.99 indirectly standardised and 0.96 directly standardised (Table 4.12). According to this measure, the lower directly standardised RSI in the public sector indicates relatively shorter lengths of stay compared with the private sector.

Table 4.12 also presents RSI information for the *Medical*, *Surgical* and *Other* categories of AR-DRGs (DoHA 2002). In the public sector, the RSI for *Medical AR-DRGs* was 0.96 indirectly standardised and 0.94 directly standardised, and the RSI for *Surgical AR-DRGs* was 1.04 indirectly standardised and 1.03 directly standardised. In the private sector, the RSI for *Medical AR-DRGs* was 1.14 indirectly standardised and 1.20 directly standardised, and the RSI for *Surgical AR-DRGs* was 0.95 indirectly standardised and 0.98 directly standardised.

## Separations with adverse events

Adverse events are defined as incidents in which harm resulted to a person receiving health care. They include infections, falls resulting in injuries, and medication and medical device problems. Some of these adverse events may be preventable. Separations with adverse events are included within the Safety dimension of the revised National Health Performance Framework.

The separations data include ICD-10-AM diagnoses, places of occurrence, and external causes of injury and poisoning which indicate that an adverse event was treated and may have occurred during the hospitalisation. However, other ICD-10-AM codes may also indicate that an adverse event occurred or was treated, and some adverse events are not identifiable using these codes. The data presented in Table 4.13 can therefore 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.

In 2007–08, there were 382,000 separations with an ICD-10-AM code for an adverse event (4.8 per 100 separations) (Table 4.13). There were 268,000 separations with adverse events in the public sector (5.6 per 100 separations) and 115,000 separations in the private sector (3.7 per 100 separations). However, the data for public hospitals are not comparable with the data for private hospitals because their casemixes differ and recording practices may be different.

*Procedures causing abnormal reactions/complications* (Y83–Y84) were reported for 238,000 separations. About 106,000 separations were reported with *Adverse effects of drugs, medicaments and biological substances* (Y40–Y59) and 75,000 separations were reported with *Complications of internal prosthetic devices, implants and grafts* (T82–T85).

Some of the adverse events included in Table 4.13 may represent events that occurred before admission. A condition onset flag will be available in the NHMD from the 2008–09 reference year. This information could be used in the future to exclude conditions that arose before the admission and to include conditions not identifiable with the codes currently used to indicate adverse events (see *Appendix 1*), to provide more accurate estimates of adverse events occurring and treated within single episodes of care.

**Table 4.1a: Hospital activity, selected public acute hospitals<sup>(a)</sup>, states and territories, 2007–08**

	Total separations ('000) <sup>(b)</sup>	Proportion of separations acute <sup>(c)</sup>	Casemix-adjusted separations ('000) <sup>(d)</sup>	Total admitted patient days ('000) <sup>(b)</sup>	Public patient day proportion <sup>(e)</sup>	Proportion of bed days acute	Newborn episodes with no qualified days ('000)
NSW	1,407	98.3%	1,512	5,272	75.7%	92.6%	63
Vic	1,320	97.7%	1,273	4,261	84.0%	83.7%	42
Qld	801	96.7%	820	2,695	91.8%	86.4%	34
WA	428	97.6%	421	1,372	85.1%	88.7%	18
SA	347	97.5%	381	1,281	83.8%	90.0%	11
Tas	94	98.1%	96	335	79.5%	86.3%	3
ACT	81	94.2%	84	277	83.7%	78.0%	3
NT <sup>(f)</sup>	90	98.6%	64	261	94.0%	92.9%	3
<b>Total</b>	<b>4,568</b>	<b>97.7%</b>	<b>4,651</b>	<b>15,753</b>	<b>82.7%</b>	<b>88.2%</b>	<b>177</b>

See table notes in Box 4.1.

**Table 4.1b: Expenditure, selected public acute hospitals<sup>(a)</sup>, states and territories, 2007–08**

	Total recurrent expenditure excluding depreciation (\$m)	Total recurrent expenditure including depreciation (\$m)	Admitted patient recurrent expenditure excluding depreciation (\$m)	Admitted patient recurrent expenditure including depreciation (\$m)
NSW	8,745	9,020	6,144	6,338
Vic	6,985	7,266	5,150	5,357
Qld	4,820	5,034	3,361	3,510
WA	2,594	2,663	1,791	1,839
SA	2,066	2,137	1,431	1,480
Tas	599	616	426	438
ACT	519	535	364	375
NT <sup>(f)</sup>	387	390	297	300
<b>Total</b>	<b>26,715</b>	<b>27,660</b>	<b>18,965</b>	<b>19,636</b>

See table notes in Box 4.1.

**Table 4.1c: Cost per casemix-adjusted separation<sup>(b)</sup> and selected other statistics, selected public acute hospitals<sup>(a)</sup>, states and territories, 2007–08**

	Average cost weight <sup>(g)</sup>	Total cost per casemix-adjusted separation (\$)				Admitted patient cost proportion <sup>(h)</sup>		Relative stay index <sup>(i)</sup>
		Excluding depreciation		Including depreciation		All seps	Acute seps	
		All seps	Acute seps	All seps	Acute seps			
NSW	1.07	4,295	4,519	4,423	4,647	0.70	0.69	1.07
Vic	0.96	4,172	3,672	4,334	3,817	0.74	0.63	0.91
Qld	1.02	4,172	n.a.	4,353	n.a.	0.70	n.a.	0.97
WA	0.99	4,405	4,278	4,515	4,401	0.69	0.64	1.00
SA	1.10	3,900	n.a.	4,028	n.a.	0.69	n.a.	1.04
Tas	1.03	4,605	n.a.	4,731	n.a.	0.71	n.a.	1.01
ACT	1.03	4,513	n.a.	4,644	n.a.	0.70	n.a.	0.90
NT <sup>(f)</sup>	0.71	4,668	n.a.	4,709	n.a.	0.77	n.a.	1.17
<b>Total</b>	<b>1.02</b>	<b>4,232</b>	<b>n.a.</b>	<b>4,376</b>	<b>n.a.</b>	<b>0.71</b>	<b>n.a.</b>	<b>1.00</b>

See table notes in Box 4.1.

**Table 4.1d: Average cost data for selected public acute hospitals<sup>(a)</sup>, states and territories, 2007–08**

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT <sup>(f)</sup>	Total
<b>Non-medical labour costs per casemix-adjusted separation (\$)</b>									
Nursing	1,108	1,137	1,071	1,053	1,029	1,088	1,228	1,298	1,101
Diagnostic/allied health <sup>(j)</sup>	328	366	263	305	234	248	295	294	313
Administrative	281	265	258	338	265	234	300	303	277
Other staff	202	227	292	309	136	273	139	367	231
Superannuation	193	228	241	221	196	273	329	211	218
<i>Total non-medical labour costs</i>	<i>2,112</i>	<i>2,222</i>	<i>2,124</i>	<i>2,226</i>	<i>1,859</i>	<i>2,116</i>	<i>2,292</i>	<i>2,472</i>	<i>2,140</i>
<b>Other recurrent costs per casemix-adjusted separation (\$)</b>									
Domestic services	105	98	119	110	94	< 1	162	126	104
Repairs/maintenance	94	76	82	106	91	68	53	110	87
Medical supplies <sup>(j)</sup>	432	367	453	305	279	567	399	318	395
Drug supplies	214	229	223	246	181	255	135	216	219
Food supplies	38	47	27	31	24	44	15	44	36
Administration	261	244	228	185	68	432	232	213	230
Other	87	108	25	165	439	237	175	333	126
<i>Total other recurrent costs excluding depreciation</i>	<i>1,230</i>	<i>1,169</i>	<i>1,157</i>	<i>1,148</i>	<i>1,176</i>	<i>1,605</i>	<i>1,171</i>	<i>1,361</i>	<i>1,197</i>
Depreciation <sup>(k)</sup>	128	163	181	113	128	126	131	41	144
<i>Total excluding medical labour costs and depreciation</i>	<i>3,342</i>	<i>3,391</i>	<i>3,281</i>	<i>3,373</i>	<i>3,035</i>	<i>3,721</i>	<i>3,463</i>	<i>3,833</i>	<i>3,338</i>
<b>Medical labour costs per casemix-adjusted separation (\$)</b>									
Public patients									
Salaried/sessional staff	504	591	739	729	540	585	625	741	600
Visiting medical officer payments	218	65	79	147	185	117	254	44	140
Private patients (estimated) <sup>(l)</sup>	231	125	73	153	140	181	172	50	155
<i>Total medical labour costs</i>	<i>953</i>	<i>781</i>	<i>891</i>	<i>1,029</i>	<i>865</i>	<i>884</i>	<i>1,050</i>	<i>835</i>	<i>894</i>
<b>Total cost per casemix-adjusted separation excluding depreciation</b>	<b>4,295</b>	<b>4,172</b>	<b>4,172</b>	<b>4,405</b>	<b>3,900</b>	<b>4,605</b>	<b>4,513</b>	<b>4,668</b>	<b>4,232</b>
<b>Total cost per casemix-adjusted separation including depreciation</b>	<b>4,423</b>	<b>4,334</b>	<b>4,353</b>	<b>4,515</b>	<b>4,028</b>	<b>4,731</b>	<b>4,644</b>	<b>4,709</b>	<b>4,376</b>

See table notes in Box 4.1.



**Box 4.1: Table notes for tables 4.1a to 4.1d**

- (a) Psychiatric hospitals, Drug and alcohol services, Mothercraft hospitals, Unpeered and other, Hospices, Rehabilitation facilities, Small non-acute hospitals and Multi-purpose services are excluded from this table. The data are based on hospital establishments for which expenditure data were provided, including networks of hospitals in some jurisdictions. Some small hospitals with incomplete expenditure data were not included. See Appendix 1 for further information.
- (b) Separations for which the care type was reported as Newborn with no qualified days, and records for Hospital boarders and Posthumous organ procurement have been excluded.
- (c) Separations for which the care type was reported as Acute, Newborn with at least one qualified day or was Not reported.
- (d) Casemix-adjusted separations is the product of Total separations and Average cost weight.
- (e) Eligible public patient days as a proportion of total patient days, excluding Newborns with no qualified days. Public patients defined by patient election status equal to public.
- (f) These figures should be interpreted in conjunction with the consideration of cost disabilities associated with hospital service delivery in the Northern Territory (see text).
- (g) Average cost weight from the National Hospital Morbidity Database, using the 2006–07 AR-DRG version 5.1 cost weights (DoHA 2008) for separations for which the care type was reported as Acute, Newborn with at least one qualified day or was Not reported.
- (h) Of the selected hospitals, three small hospitals have had their Admitted patient cost proportion estimated by the Health and Allied Services Advisory Council (HASAC) ratio (see Appendix 1).
- (i) Relative stay index based on public hospitals using the indirect method. The indirectly standardised relative stay index is not technically comparable between cells but is a comparison of the hospital group with the national average of public hospitals based on the casemix of that group (Appendix 1). Based on AR-DRG version 5.1.
- (j) Queensland pathology services are purchased from the state-wide pathology service rather than being provided by each hospital's employees, resulting in higher medical supply costs and lower diagnostic staff costs.
- (k) Depreciation reported for a subset of Tasmanian hospitals.
- (l) Estimated private patient medical costs calculated as the sum of Salary/sessional and Visiting medical officer payments divided by the number of public patient days multiplied by the number of private patient days. This is a notional estimate of the medical costs for all non-public patients, including those Self-funded and those funded by Private health insurance, Compensation and the Department of Veterans' Affairs.

**Table 4.2a: Cost per casemix-adjusted separation<sup>(a)</sup> and other statistics, acute, non-acute and total selected public hospitals<sup>(b)</sup>, states and territories, 2007-08**

	Number of hospitals <sup>(b)</sup>	Separations per hospital <sup>(a)</sup>	AR-DRGs (5+) per hospital <sup>(c)</sup>	Average cost weight <sup>(d)</sup>	Relative stay index <sup>(e)</sup>	Cost/casemix-adjusted sep excl dep <sup>(f)</sup>	Cost/casemix-adjusted sep inc dep <sup>(g)</sup>
<b>Total benchmarking hospitals in cost per casemix-adjusted separation analysis<sup>(b)</sup></b>							
NSW	124	11,348	195	1.07	1.07	4,295	4,423
Vic	65	20,309	204	0.96	0.91	4,172	4,334
Qld	72	11,119	163	1.02	0.97	4,172	4,353
WA	36	11,881	172	0.99	1.00	4,405	4,515
SA	37	9,388	157	1.10	1.04	3,900	4,028
Tas	9	10,403	159	1.03	1.01	4,605	4,731
ACT	2	40,564	441	1.03	0.90	4,513	4,644
NT	5	18,052	220	0.71	1.17	4,668	4,709
<i>Total</i>	<i>350</i>	<i>13,051</i>	<i>184</i>	<i>1.02</i>	<i>1.00</i>	<i>4,232</i>	<i>4,376</i>
<b>Non-acute hospitals in cost per casemix-adjusted separation analysis<sup>(b)</sup></b>							
NSW	65	635	22	0.89	1.07	8,215	8,481
Vic	12	1,023	27	0.87	1.26	4,503	4,769
Qld	30	877	38	0.77	0.91	4,098	4,329
WA	43	612	14	0.71	1.04	6,477	6,688
SA	23	644	25	0.80	1.09	8,672	9,048
Tas	4	221	12	1.02	1.72	7,484	7,582
ACT	1	n.a.	n.a.	1.00	n.a.	n.a.	n.a.
NT	0	..	..	..	..	..	..
<i>Total</i>	<i>178</i>	<i>685</i>	<i>23</i>	<i>0.81</i>	<i>1.06</i>	<i>6,761</i>	<i>7,023</i>
<b>Public hospitals (including Psychiatric and unpeered) in cost per casemix-adjusted separation analysis<sup>(b)</sup></b>							
NSW	228	6,433	130	1.08	1.07	4,517	4,651
Vic	91	14,836	160	0.96	0.91	4,219	4,384
Qld	174	4,781	99	1.01	0.97	4,319	4,511
WA	94	4,874	78	0.98	1.01	4,623	4,743
SA	74	4,977	93	1.09	1.05	4,214	4,354
Tas	24	3,994	84	1.03	1.03	4,675	4,804
ACT	3	27,042	441	1.03	0.90	4,512	4,642
NT	5	18,052	220	0.71	1.17	4,668	4,709
<i>Total</i>	<i>693</i>	<i>6,843</i>	<i>116</i>	<i>1.01</i>	<i>1.00</i>	<i>4,394</i>	<i>4,544</i>

See table notes in Box 4.2.

**Table 4.2b: Cost per casemix-adjusted separation<sup>(a)</sup> and selected other statistics, *Principal referral and Specialist women's and children's hospitals*, states and territories, 2007–08**

	Number of hospitals <sup>(b)</sup>	Separations per hospital <sup>(a)</sup>	AR-DRGs (5+) per hospital <sup>(c)</sup>	Average cost weight <sup>(d)</sup>	Relative stay index <sup>(e)</sup>	Cost/casemix-adjusted sep excl dep <sup>(f)</sup>	Cost/casemix-adjusted sep inc dep <sup>(g)</sup>
<b>Principal referral hospitals: Major cities and Regional<sup>(h)</sup></b>							
NSW	26	35,278	445	1.13	1.10	4,274	4,395
Vic	15	67,865	486	0.99	0.89	4,136	4,284
Qld	15	39,045	426	1.08	0.99	4,199	4,381
WA	4	52,571	481	1.10	1.02	4,373	4,472
SA	4	49,611	489	1.18	1.07	3,846	3,981
Tas	2	39,740	492	1.01	0.98	4,449	4,588
ACT	1	62,527	550	1.02	n.p.	n.p.	n.p.
NT	2	38,104	406	0.75	1.19	4,561	4,599
<i>Total</i>	<i>69</i>	<i>45,620</i>	<i>456</i>	<i>1.06</i>	<i>1.00</i>	<i>4,207</i>	<i>4,346</i>
<b>Specialist women's &amp; children's hospitals<sup>(h)</sup></b>							
NSW	3	17,271	239	1.31	1.13	4,687	4,904
Vic	2	29,867	239	1.28	0.99	4,768	5,054
Qld	3	13,853	194	1.19	0.94	4,254	4,383
WA	2	21,064	198	1.21	1.05	4,050	4,161
SA	1	30,005	321	1.16	n.p.	n.p.	n.p.
Tas	0	..	..	..	..	..	..
ACT	0	..	..	..	..	..	..
NT	0	..	..	..	..	..	..
<i>Total</i>	<i>11</i>	<i>20,476</i>	<i>227</i>	<i>1.24</i>	<i>1.05</i>	<i>4,436</i>	<i>4,610</i>
<b>Total Principal referral and specialist women's &amp; children's hospitals<sup>(h)</sup></b>							
NSW	29	33,415	424	1.14	1.10	4,295	4,423
Vic	17	63,395	457	1.00	0.89	4,178	4,336
Qld	18	34,846	387	1.09	0.99	4,201	4,379
WA	6	42,068	387	1.12	1.03	4,315	4,416
SA	5	45,690	455	1.17	1.08	3,883	4,005
Tas	2	39,740	492	1.01	0.98	4,449	4,588
ACT	1	62,527	550	1.02	n.p.	n.p.	n.p.
NT	2	38,104	406	0.75	1.19	4,561	4,599
<b>Total</b>	<b>80</b>	<b>42,163</b>	<b>425</b>	<b>1.07</b>	<b>1.00</b>	<b>4,223</b>	<b>4,365</b>

See table notes in Box 4.2.

**Table 4.2c: Cost per casemix-adjusted separation<sup>(a)</sup> and selected other statistics, *Large hospitals, states and territories, 2007–08***

	Number of hospitals <sup>(b)</sup>	Separations per hospital <sup>(a)</sup>	AR-DRGs (5+) per hospital <sup>(c)</sup>	Average cost weight <sup>(d)</sup>	Relative stay index <sup>(e)</sup>	Cost/casemix-adjusted sep excl dep <sup>(f)</sup>	Cost/casemix-adjusted sep inc dep <sup>(g)</sup>
<b>Large hospitals: Major cities</b>							
NSW	8	13,292	286	1.10	1.01	3,982	4,090
Vic	2	17,705	122	0.82	0.88	5,164	5,450
Qld	2	17,334	261	0.88	0.92	3,193	3,287
WA	2	18,119	278	0.75	0.97	4,122	4,211
SA	2	16,303	305	1.25	1.01	4,144	4,316
Tas	0	..	..	..	..	..	..
ACT	1	18,600	331	1.08	n.p.	n.p.	n.p.
NT	0	..	..	..	..	..	..
<i>Total</i>	<i>17</i>	<i>15,521</i>	<i>268</i>	<i>1.00</i>	<i>0.98</i>	<i>4,093</i>	<i>4,231</i>
<b>Large hospitals: Regional and Remote</b>							
NSW	7	12,204	285	0.92	0.98	4,275	4,412
Vic	8	13,676	276	0.83	0.96	3,672	3,786
Qld	3	15,145	278	0.77	0.93	4,661	4,806
WA	4	14,043	268	0.77	0.94	4,459	4,579
SA	0	..	..	..	..	..	..
Tas	1	10,833	300	1.22	n.p.	n.p.	n.p.
ACT	0	..	..	..	..	..	..
NT	0	..	..	..	..	..	..
<i>Total</i>	<i>23</i>	<i>13,360</i>	<i>279</i>	<i>0.85</i>	<i>0.96</i>	<i>4,216</i>	<i>4,338</i>
<b>Total Large hospitals</b>							
NSW	15	12,784	286	1.02	1.00	4,102	4,222
Vic	10	14,482	245	0.83	0.94	3,985	4,143
Qld	5	16,020	271	0.81	0.92	3,975	4,096
WA	6	15,401	271	0.76	0.95	4,329	4,436
SA	2	16,303	305	1.25	1.01	4,144	4,316
Tas	1	10,833	300	1.22	n.p.	n.p.	n.p.
ACT	1	18,600	331	1.08	n.p.	n.p.	n.p.
NT	0	..	..	..	..	..	..
<b>Total</b>	<b>40</b>	<b>14,278</b>	<b>274</b>	<b>0.92</b>	<b>0.97</b>	<b>4,160</b>	<b>4,290</b>

See table notes in Box 4.2.

**Table 4.2d: Cost per casemix-adjusted separation<sup>(a)</sup> and selected other statistics, *Medium hospitals, states and territories, 2007–08***

	Number of hospitals <sup>(b)</sup>	Separations per hospital <sup>(a)</sup>	AR-DRGs (5+) per hospital <sup>(c)</sup>	Average cost weight <sup>(d)</sup>	Relative stay index <sup>(e)</sup>	Cost/casemix-adjusted sep excl dep <sup>(f)</sup>	Cost/casemix-adjusted sep inc dep <sup>(g)</sup>
<b>Medium hospitals: Major cities (&lt;10,000) and Regional (&lt;8,000)<sup>(h)</sup></b>							
NSW	12	8,767	204	0.85	0.98	4,202	4,318
Vic	3	7,888	206	0.76	0.96	3,964	4,165
Qld	3	7,664	195	0.74	0.65	3,506	3,658
WA	5	9,164	153	0.83	0.98	4,714	4,835
SA	4	9,022	214	0.80	0.94	3,717	3,818
Tas	0	..	..	..	..	..	..
ACT	0	..	..	..	..	..	..
NT	0	..	..	..	..	..	..
<i>Total</i>	<i>27</i>	<i>8,658</i>	<i>195</i>	<i>0.82</i>	<i>0.94</i>	<i>4,148</i>	<i>4,275</i>
<b>Medium hospitals: Major cities and Regional (&lt;5,000 acute weighted separations)<sup>(h)</sup></b>							
NSW	27	3,481	113	0.86	1.09	4,668	4,782
Vic	12	4,106	122	0.71	1.06	4,143	4,341
Qld	9	3,730	131	0.78	0.88	3,587	3,830
WA	2	3,456	129	0.80	0.89	4,465	4,623
SA	9	3,506	135	0.87	0.91	3,723	3,862
Tas	0	..	..	..	..	..	..
ACT	0	..	..	..	..	..	..
NT	0	..	..	..	..	..	..
<i>Total</i>	<i>59</i>	<i>3,649</i>	<i>121</i>	<i>0.82</i>	<i>1.02</i>	<i>4,241</i>	<i>4,393</i>
<b>Total Medium hospitals<sup>(h)</sup></b>							
NSW	39	5,107	141	0.85	1.04	4,430	4,545
Vic	15	4,862	139	0.72	1.03	4,080	4,279
Qld	12	4,714	147	0.77	0.79	3,561	3,769
WA	7	7,533	146	0.83	0.96	4,683	4,809
SA	13	5,203	160	0.84	0.92	3,723	3,841
Tas	0	..	..	..	..	..	..
ACT	0	..	..	..	..	..	..
NT	0	..	..	..	..	..	..
<b>Total</b>	<b>86</b>	<b>5,222</b>	<b>145</b>	<b>0.82</b>	<b>0.98</b>	<b>4,199</b>	<b>4,338</b>

See table notes in Box 4.2.

**Table 4.2e: Cost per casemix-adjusted separation<sup>(a)</sup> and selected other statistics, *Small hospitals, states and territories, 2007–08***

	Number of hospitals <sup>(b)</sup>	Separations per hospital <sup>(a)</sup>	AR-DRGs (5+) per hospital <sup>(c)</sup>	Average cost weight <sup>(d)</sup>	Relative stay index <sup>(e)</sup>	Cost/casemix-adjusted sep excl dep <sup>(f)</sup>	Cost/casemix-adjusted sep inc dep <sup>(g)</sup>
<b>Small regional acute hospitals<sup>(h)</sup></b>							
NSW	38	1,154	52	0.81	1.02	4,544	4,792
Vic	23	1,071	42	0.79	1.25	4,941	5,278
Qld	21	1,210	54	0.75	0.89	3,829	4,085
WA	4	1,357	68	0.78	1.08	5,438	5,740
SA	13	960	47	0.85	1.00	3,743	3,905
Tas	5	559	25	0.90	1.40	4,587	4,729
ACT	0	..	..	..	..	..	..
NT	0	..	..	..	..	..	..
<i>Total</i>	<i>104</i>	<i>1,102</i>	<i>49</i>	<i>0.80</i>	<i>1.05</i>	<i>4,436</i>	<i>4,695</i>
<b>Remote acute hospitals<sup>(h)</sup></b>							
NSW	3	1,094	38	0.59	1.06	7,757	8,025
Vic	0	..	..	..	..	..	..
Qld	16	705	33	0.75	1.08	7,047	7,650
WA	13	1,904	72	0.82	0.88	5,061	5,289
SA	4	1,543	61	0.84	0.89	4,065	4,274
Tas	1	525	24	0.74	n.p.	n.p.	n.p.
ACT	0	..	..	..	..	..	..
NT	3	4,683	96	0.51	1.07	5,520	5,582
<i>Total</i>	<i>40</i>	<i>1,502</i>	<i>53</i>	<i>0.72</i>	<i>0.96</i>	<i>5,511</i>	<i>5,789</i>
<b>Total Small acute hospitals<sup>(h)</sup></b>							
NSW	41	1,149	51	0.79	1.02	4,716	4,966
Vic	23	1,071	42	0.79	1.25	4,941	5,278
Qld	37	992	45	0.75	0.95	4,822	5,184
WA	17	1,775	71	0.81	0.92	5,133	5,372
SA	17	1,098	50	0.85	0.96	3,847	4,026
Tas	6	553	25	0.87	1.32	4,436	4,620
ACT	0	..	..	..	..	..	..
NT	3	4,683	96	0.51	1.07	5,520	5,582
<b>Total</b>	<b>144</b>	<b>1,213</b>	<b>50</b>	<b>0.77</b>	<b>1.02</b>	<b>4,803</b>	<b>5,067</b>

See table notes in Box 4.2.

**Table 4.2f: Expenditure and other statistics, *Non-acute hospitals*, states and territories, 2007–08**

	Number of hospitals <sup>(b)</sup>	Separations per hospital <sup>(a)</sup>	Total exp. excl dep (\$'000) <sup>(i)</sup>	Total exp. incl dep (\$'000) <sup>(j)</sup>	Cost/casemix-adjusted sep excl dep <sup>(f)</sup>	Cost/casemix-adjusted sep inc dep <sup>(g)</sup>
<b>Small non-acute hospitals<sup>(h)</sup></b>						
NSW	27	654	123,020	129,345	6,168	6,471
Vic	3	927	22,730	24,050	6,442	6,803
Qld	20	922	82,263	86,862	4,190	4,418
WA	4	965	26,933	27,838	6,963	7,195
SA	17	565	59,292	61,940	5,930	6,184
Tas	1	489	n.p.	n.p.	n.p.	n.p.
ACT	0	..	..	..	..	..
NT	0	..	..	..	..	..
<i>Total</i>	72	734	316,480	332,319	5,579	5,848
<b>Multi-purpose service<sup>(h)</sup></b>						
NSW	18	273	58,510	61,246	10,334	10,808
Vic	7	712	44,021	46,758	7,483	7,941
Qld	9	686	36,426	38,860	4,705	5,015
WA	38	240	62,808	65,726	4,821	5,036
SA	4	813	20,586	21,728	6,458	6,799
Tas	2	79	5,636	5,744	10,702	10,907
ACT	0	..	..	..	..	..
NT	0	..	..	..	..	..
<i>Total</i>	78	367	227,987	240,062	6,424	6,754
<b>Hospice</b>						
NSW	0	..	..	..	..	..
Vic	0	..	..	..	..	..
Qld	0	..	..	..	..	..
WA	0	..	..	..	..	..
SA	0	..	..	..	..	..
Tas	1	238	n.p.	n.p.	n.p.	n.p.
ACT	0	..	..	..	..	..
NT	0	..	..	..	..	..
<i>Total</i>	1	238	n.p.	n.p.	n.p.	n.p.

See table notes in Box 4.2.

(continued)

**Table 4.2f (continued): Expenditure and other statistics, Non-acute hospitals, states and territories, 2007–08**

	Number of hospitals <sup>(b)</sup>	Separations per hospital <sup>(a)</sup>	Total exp. excl dep (\$'000) <sup>(i)</sup>	Total exp. incl dep (\$'000) <sup>(j)</sup>	Cost/casemix-adjusted sep excl dep <sup>(f)</sup>	Cost/casemix-adjusted sep incl dep <sup>(g)</sup>
<b>Rehabilitation<sup>(h)</sup></b>						
NSW	5	471	69,388	71,341	23,336	23,981
Vic	0	..	..	..	..	..
Qld	0	..	..	..	..	..
WA	1	13,315	n.p.	n.p.	n.p.	n.p.
SA	2	980	42,835	44,522	15,519	16,124
Tas	0	..	..	..	..	..
ACT	0	..	..	..	..	..
NT	0	..	..	..	..	..
<i>Total</i>	8	2,204	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>
<b>Mothercraft<sup>(h)</sup></b>						
NSW	3	1,993	17,425	17,689	2,769	2,810
Vic	2	2,256	10,149	10,698	1,620	1,708
Qld	1	1,703	n.p.	n.p.	n.p.	n.p.
WA	0	..	..	..	..	..
SA	0	..	..	..	..	..
Tas	0	..	..	..	..	..
ACT	1	n.a.	n.p.	n.p.	n.p.	n.p.
NT	0	..	..	..	..	..
<i>Total</i>	7	1,742	34,279	35,139	2,190	2,244
<b>Other non-acute hospitals<sup>(h)</sup></b>						
NSW	12	861	148,725	151,322	8,046	8,183
Vic	0	..	..	..	..	..
Qld	0	..	..	..	..	..
WA	0	..	..	..	..	..
SA	0	..	..	..	..	..
Tas	0	..	..	..	..	..
ACT	0	..	..	..	..	..
NT	0	..	..	..	..	..
<i>Total</i>	12	861	148,725	151,322	8,046	8,183

See table notes in Box 4.2.



**Table 4.2g: Expenditure and other statistics for selected psychiatric, unpeered, and other acute hospitals, states and territories, 2007-08**

	Number of hospitals <sup>(b)</sup>	Separations per hospital <sup>(a)</sup>	Total exp. excl dep (\$'000) <sup>(i)</sup>	Total exp. incl dep (\$'000) <sup>(j)</sup>	Cost/casemix-adjusted sep excl dep <sup>(f)</sup>	Cost/casemix-adjusted sep incl dep <sup>(g)</sup>
<b>Psychiatric hospitals<sup>(h)(k)</sup></b>						
NSW	9	1,067	363,964	371,723	13,894	14,188
Vic	1	404	n.p.	n.p.	n.p.	n.p.
Qld	4	104	110,867	116,801	n.p.	n.p.
WA	1	1,563	n.p.	n.p.	n.p.	n.p.
SA	2	1,053	112,754	115,835	14,770	15,173
Tas	0	..	..	..	..	..
ACT	0	..	..	..	..	..
NT	0	..	..	..	..	..
<i>Total</i>	<i>17</i>	<i>829</i>	<i>693,357</i>	<i>712,873</i>	<i>17,369</i>	<i>17,854</i>
<b>Unpeered and other acute<sup>(h)</sup> (includes hospitals with &lt; 200 separations)</b>						
NSW	30	293	153,696	159,345	9,942	10,300
Vic	13	1,329	199,709	207,625	7,227	7,512
Qld	68	68	90,149	96,714	9,503	10,191
WA	14	185	64,391	66,113	19,224	19,731
SA	12	337	24,472	25,508	5,657	5,886
Tas	11	122	17,000	17,735	8,460	8,820
ACT	0	..	..	..	..	..
NT	0	..	..	..	..	..
<i>Total</i>	<i>148</i>	<i>261</i>	<i>549,417</i>	<i>573,039</i>	<i>10,154</i>	<i>10,582</i>

See table notes in Box 4.2.

**Table 4.3: Teaching hospitals (excluding psychiatric)–cost per casemix-adjusted separation<sup>(a)</sup> and selected other statistics, states and territories, 2007–08**

	Number of hospitals <sup>(b)</sup>	Separations per hospital <sup>(a)</sup>	AR-DRGs (5+) per hospital <sup>(c)</sup>	Average cost weight <sup>(d)</sup>	Relative stay index <sup>(e)</sup>	Cost/casemix - adjusted sep excl dep <sup>(f)</sup>	Cost/casemix - adjusted sep incl dep <sup>(g)</sup>
NSW	20	37,898	422	1.17	1.12	4,382	4,509
Vic	5	29,321	243	1.11	0.98	4,694	4,914
Qld	22	29,630	357	1.09	0.99	4,267	4,446
WA	6	39,343	337	1.13	1.04	4,449	4,554
SA	9	30,576	384	1.16	1.06	4,013	4,142
Tas	3	30,104	428	1.03	0.99	4,613	4,737
ACT	2	40,564	441	1.03	0.90	4,513	4,644
NT	2	38,104	406	0.75	1.19	4,561	4,599
<b>Total</b>	<b>69</b>	<b>33,555</b>	<b>376</b>	<b>1.11</b>	<b>1.05</b>	<b>4,343</b>	<b>4,486</b>

See table notes in Box 4.2

**Box 4.2: Table notes for tables 4.2a to 4.2g and Table 4.3**

- (a) Separations for which the care type was reported as Newborn with no qualified days, and records for Hospital boarders and Posthumous organ procurement have been excluded.
- (b) The data are based on public hospital establishments for which expenditure data were provided, including networks of hospitals in some jurisdictions. Some small hospitals with incomplete expenditure data were not included. See Appendix 1 for further information.
- (c) The number of different version 5.1 AR-DRGs provided by a hospital for which there were at least five acute separations.
- (d) Average cost weight from the National Hospital Morbidity Database, using the 2006–07 AR-DRG version 5.1 cost weights (DoHA 2008) for separations for which the care type was reported as Acute, Newborn with at least one qualified day or was Not reported., using the 2006–07 AR-DRG version 5.1 cost weights (DoHA 2008).
- (e) Relative stay index based on observed versus expected length of stay based on age and AR-DRG version 5.1, public hospitals using the indirect method. The indirectly standardised relative stay index is not technically comparable between cells but is a comparison of the hospital group with the national average of public hospitals based on the casemix of that group. See Appendix 1 for details on the methodology.
- (f) Average cost per casemix-adjusted separation excluding depreciation.
- (g) Average cost per casemix-adjusted separation including depreciation. Depreciation reported for a subset of Tasmanian hospitals.
- (h) Definitions of the peer groups used in this publication can be found in Appendix 1.
- (i) Total expenditure excluding depreciation.
- (j) Total expenditure including depreciation. Depreciation reported for a subset of South Australian and Tasmanian hospitals.
- (k) Psychiatric hospitals consist of a mix of short-term acute, long-term, psychogeriatric and forensic psychiatric hospitals.

**Table 4.4: Selected statistics<sup>(a)(b)</sup>, by accreditation status, states and territories, public hospitals 2007–08, private hospitals 2006–07**

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
<b>Public hospitals (2007–08)</b>									
Accredited hospitals	193	146	134	92	74	5	3	5	652
Non-accredited hospitals	35	2	43	2	6	22	0	0	110
Hospitals accredited (%)	85	99	76	98	93	19	100	100	86
<i>Total public hospitals</i>	228	148	177	94	80	27	3	5	762
Accredited beds	16,915	12,668	10,364	5,392	4,858	1,044	851	616	52,708
Non-accredited beds	3,092	14	287	13	123	231	0	0	3,759
Beds accredited (%)	85	100	97	100	98	82	100	100	93
<i>Total available beds for admitted patients</i>	20,006	12,682	10,651	5,405	4,981	1,275	851	616	56,467
Separations from accredited hospitals	1,269,300	1,350,804	818,809	457,823	366,254	90,397	81,127	90,258	4,524,772
Separations from non-accredited hospitals	197,437	368	13,156	379	2,062	5,780	..	..	219,182
Separations with unknown accreditation status	..	..	..	..	14	93	..	..	107
Proportion of separations in accredited hospitals	87	100	98	100	99	94	100	100	95
<i>Total separations</i>	1,466,737	1,351,172	831,965	458,202	368,330	96,270	81,127	90,258	4,744,061
Patient days from accredited hospitals	5,293,566	4,447,083	2,957,281	1,627,555	1,593,510	329,065	277,429	260,559	16,786,048
Patient days from non-accredited hospitals	933,232	880	35,540	2,730	20,179	55,089	0	0	1,047,650
Patient days with unknown accreditation status	..	..	..	..	1,678	569	..	..	2,247
Proportion of patient days in accredited hospitals	85	100	99	100	99	86	100	100	94
<i>Total patient days</i>	6,226,798	4,447,963	2,992,821	1,630,285	1,615,367	384,723	277,429	260,559	17,835,945
<b>Private hospitals (2006–07)</b>									
Accredited hospitals	107	95	83	28	41	n.p.	n.p.	n.p.	371
Non-accredited hospitals	68	60	26	12	13	n.p.	n.p.	n.p.	186
Hospitals accredited (%)	61	61	76	70	76	n.p.	n.p.	n.p.	70
<i>Total private hospitals</i>	175	155	109	40	54	n.p.	n.p.	n.p.	533
Accredited beds	5,778	6,350	5,973	2,850	1,865	n.p.	n.p.	n.p.	23,917
Non-accredited beds	1,340	834	267	138	143	n.p.	n.p.	n.p.	2,760
Beds accredited (%)	81	88	96	95	93	n.p.	n.p.	n.p.	90
<i>Total available beds for admitted patients</i>	7,118	7,184	6,240	2,988	2,008	n.p.	n.p.	n.p.	26,677
<b>Total (estimated)</b>									
Accredited hospitals	300	241	217	120	115	n.p.	n.p.	n.p.	1,023
Non-accredited hospitals	103	62	69	14	19	n.p.	n.p.	n.p.	296
Hospitals accredited (%)	74	80	76	90	86	n.p.	n.p.	n.p.	79
<i>Total hospitals</i>	403	303	286	134	134	n.p.	n.p.	n.p.	1,295
Accredited beds	22,693	19,018	16,337	8,242	6,723	n.p.	n.p.	n.p.	76,625
Non-accredited beds	4,432	848	554	151	266	n.p.	n.p.	n.p.	6,519
Beds accredited (%)	84	96	97	98	96	n.p.	n.p.	n.p.	92
<i>Total available beds for admitted patients</i>	27,124	19,866	16,891	8,393	6,989	n.p.	n.p.	n.p.	83,144

(a) Where average available beds for the year were not available, bed numbers at 30 June 2008 were used.

(b) Separations for which establishment level data were not reported separately or the care type was reported as *Newborn* with no qualified days, and records for *Hospital boarders* and *Posthumous organ procurement* have been excluded.

Note: Private hospital data are provided from the Australian Bureau of Statistics' Private Health Establishments Collection.

**Table 4.5: Separation rates<sup>(a)(b)</sup> for potentially preventable hospitalisations<sup>(c)</sup>, by state or territory of usual residence, remoteness area and quintile of socioeconomic advantage/disadvantage, 2007–08**

	Vaccine preventable conditions	Acute conditions	Chronic conditions	Potentially preventable hospitalisations <sup>(c)</sup>
<b>Australia</b>	<b>0.71</b>	<b>13.34</b>	<b>19.24</b>	<b>33.13</b>
95% CI <sup>(d)</sup>	0.0 – 1.8	8.5 – 18.3	13.5 – 25.0	25.5 – 40.8
<b>State or territory of usual residence<sup>(e)</sup></b>				
NSW	0.67	12.30	15.16	28.00
Vic	0.68	14.26	18.35	33.16
Qld	0.76	13.61	19.69	33.90
WA	0.64	13.06	36.61	50.12
SA	0.76	15.24	16.93	32.75
Tas	0.42	11.00	20.93	32.18
ACT	0.77	10.51	11.09	22.28
NT	2.31	17.92	25.53	44.98
<b>Remoteness</b>				
Major cities	0.67	12.46	17.47	30.46
Inner regional	0.69	14.44	20.32	35.31
Outer regional	0.83	16.23	24.62	41.45
Remote	1.43	22.99	50.02	73.98
Very remote	2.36	29.28	45.43	76.15
<b>Quintile of socioeconomic advantage/disadvantage</b>				
Most disadvantaged	0.89	16.02	25.37	42.07
Second most disadvantaged	0.72	14.32	21.47	36.34
Middle quintile	0.67	13.58	21.01	35.10
Second most advantaged	0.70	13.20	18.50	32.25
Most advantaged	0.66	11.64	12.86	25.06

(a) Rate per 1,000 population was directly age-standardised as detailed in *Appendix 1*.

(b) Separations for which the care type was reported as *Newborn* with no qualified days, and records for *Hospital boarders* and *Posthumous organ procurement* have been excluded. Excludes multiple diagnoses for the same separation within the same group.

(c) The conditions included in the groups *Vaccine preventable conditions*, *Acute conditions* and *Chronic conditions* are listed in *Appendix 5*.

(d) 95% confidence intervals calculated based on weighted sums of poisson parameters (Dobson et al. 1991).

(e) Includes records with unknown remoteness area but with known state of residence, and excludes overseas residents and unknown state of residence.

**Table 4.6: Separations<sup>(a)(b)</sup> per 1,000 population (age-standardised<sup>(c)</sup>) for potentially preventable hospitalisations, by state or territory of usual residence, 2003–04 to 2007–08**

	2003–04	2004–05	2005–06	2006–07	2007–08
<b>State or territory of usual residence</b>					
NSW	27.59	27.43	28.13	28.40	28.00
Vic	31.73	32.94	31.73	32.17	33.16
Qld	31.76	32.10	31.87	32.47	33.90
WA	35.99	44.90	46.78	47.62	50.12
SA	31.42	30.93	32.58	32.29	32.75
Tas	29.57	27.40	31.22	31.87	32.18
ACT	20.17	19.40	21.86	22.13	22.28
NT	48.60	46.29	48.19	48.00	44.98
<b>Australia<sup>(b)</sup></b>	<b>30.63</b>	<b>31.70</b>	<b>32.06</b>	<b>32.47</b>	<b>33.13</b>

(a) Separations for which the care type was reported as *Newborn* with no qualified days, and records for *Hospital boarders* and *Posthumous organ procurement* have been excluded. Excludes multiple diagnoses for the same separation within the same group of potentially preventable hospitalisations.

(b) Includes unknown state of residence and excludes overseas residents.

(c) Rate per 1,000 population was directly age-standardised as detailed in *Appendix 1*.

**Table 4.7: Separation statistics<sup>(a)</sup> for selected procedures<sup>(b)</sup>, by state or territory of usual residence, all hospitals<sup>(c)</sup>, 2007-08**

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total <sup>(d)</sup>
<b>Caesarean section</b>									
Separations <sup>(e)</sup>	27,874	21,108	19,813	9,931	6,111	1,804	1,308	799	88,760
Separations not within state of residence (%)	3	0	1	0	0	1	2	4	
Proportion of separations public patients (%)	56	58	54	51	59	52	45	92	56
Separation rate <sup>(e)</sup>	4.20	4.13	4.88	4.82	4.31	4.40	3.63	3.22	4.37
Standardised separation rate ratio (SRR)	0.96	0.94	1.12	1.10	0.99	1.01	0.83	0.74	
95% confidence interval of SRR	0.95-0.97	0.93-0.95	1.10-1.14	1.08-1.12	0.97-1.01	0.96-1.06	0.79-0.87	0.69-0.79	
In-hospital birth separations	87,798	69,005	59,625	29,760	19,330	6,310	4,634	2,923	279,415
Proportion of births to public patients (%)	71	66	68	63	68	61	60	94	68
In-hospital birth separation rate <sup>(e)</sup>	13.2	13.4	14.6	14.3	13.5	15.3	12.6	11.7	13.7
Separations per 100 in-hospital birth separations <sup>(f)</sup>	31.7	30.6	33.2	33.4	31.6	28.6	28.2	27.3	31.8
Public hospitals	26.4	27.3	27.1	27.1	28.0	26.4	21.5	27.1	26.9
Public patients	25.0	26.9	26.6	26.8	27.4	24.8	20.9	26.8	26.1
Private patients	36.0	35.2	39.5	31.3	36.0	39.2	30.9	32.3	35.9
Private hospitals	55.3	38.2	47.7	46.0	41.4	32.3	40.4	59.1	45.4
<b>Cholecystectomy</b>									
Separations <sup>(e)</sup>	15,301	11,814	9,702	4,558	3,735	1,124	621	266	47,182
Separations not within state of residence (%)	3	1	1	0	0	1	5	14	
Proportion of separations public patients (%)	53	54	46	49	54	47	46	70	51
Separation rate <sup>(e)</sup>	2.13	2.18	2.27	2.10	2.20	2.18	1.84	1.37	2.17
Standardised separation rate ratio (SRR)	0.99	1.01	1.05	0.97	1.02	1.00	0.85	0.63	
95% confidence interval of SRR	0.97-1.01	0.99-1.03	1.03-1.07	0.94-1.00	0.99-1.05	0.94-1.06	0.78-0.92	0.55-0.71	
<b>Coronary angioplasty</b>									
Separations <sup>(e)</sup>	12,149	9,139	5,784	3,086	2,540	811	495	147	34,164
Separations not within state of residence (%)	10	1	1	1	1	2	4	100	
Proportion of separations public patients (%)	46	45	49	41	50	58	48	69	47
Separation rate <sup>(e)</sup>	1.61	1.62	1.33	1.43	1.37	1.39	1.58	0.94	1.51
Standardised separation rate ratio (SRR)	1.07	1.07	0.88	0.95	0.91	0.92	1.04	0.62	
95% confidence interval of SRR	1.05-1.09	1.05-1.09	0.86-0.90	0.92-0.98	0.87-0.95	0.86-0.98	0.95-1.13	0.52-0.72	
<b>Coronary artery bypass graft</b>									
Separations <sup>(e)</sup>	4,661	3,382	2,834	848	1,219	308	125	92	13,480
Separations not within state of residence (%)	8	1	1	1	1	7	8	100	
Proportion of separations public patients (%)	53	50	48	50	48	51	46	50	50
Separation rate <sup>(e)</sup>	0.62	0.60	0.66	0.40	0.65	0.52	0.42	0.62	0.60
Standardised separation rate ratio (SRR)	1.03	1.00	1.10	0.66	1.08	0.87	0.70	1.04	
95% confidence interval of SRR	1.00-1.06	0.97-1.03	1.06-1.14	0.62-0.70	1.02-1.14	0.77-0.97	0.58-0.82	0.83-1.25	

(continued)

Table 4.7 (continued): Separation statistics<sup>(a)</sup> for selected procedures<sup>(b)</sup>, by state or territory of usual residence, all hospitals<sup>(c)</sup>, 2007–08

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total <sup>(d)</sup>
<b>Hip replacement</b>									
Separations <sup>(a)</sup>	10,003	8,212	4,977	3,255	2,804	960	447	83	30,775
Separations not within state of residence (%)	6	2	2	0	0	3	6	47	
Proportion of separations public patients (%)	40	39	39	41	37	33	43	55	39
Separation rate <sup>(e)</sup>	1.30	1.43	1.16	1.53	1.43	1.63	1.52	0.78	1.35
Standardised separation rate ratio (SRR)	0.96	1.06	0.86	1.14	1.06	1.21	1.13	0.58	
95% confidence interval of SRR	0.94–0.98	1.04–1.08	0.84–0.88	1.10–1.18	1.02–1.10	1.13–1.29	1.03–1.23	0.46–0.70	
<b>Revision of hip replacement</b>									
Separations <sup>(a)</sup>	1,110	989	628	377	287	85	64	11	3,555
Separations not within state of residence (%)	10	3	1	0	0	7	11	91	
Proportion of separations public patients (%)	34	31	35	39	32	39	45	27	34
Separation rate <sup>(e)</sup>	0.14	0.17	0.15	0.18	0.15	0.15	0.22	0.12	0.16
Proportion of hip replacements	0.11	0.12	0.13	0.12	0.10	0.09	0.14	0.13	0.12
Standardised separation rate ratio (SRR)	0.92	1.10	0.94	1.16	0.94	0.95	1.39	0.74	
95% confidence interval of SRR	0.87–0.97	1.03–1.17	0.87–1.01	1.04–1.28	0.83–1.05	0.75–1.15	1.05–1.73	0.30–1.18	
<b>Hysterectomy, females aged 15–69</b>									
Separations <sup>(a)</sup>	8,739	6,214	5,633	2,707	2,445	702	412	123	26,991
Separations not within state of residence (%)	5	1	1	0	0	2	9	14	
Proportion of separations public patients (%)	41	49	37	37	45	39	30	61	42
Separation rate <sup>(e)</sup>	1.24	1.16	1.31	1.23	1.49	1.39	1.19	0.57	1.25
Standardised separation rate ratio (SRR)	0.99	0.93	1.05	0.99	1.19	1.11	0.95	0.45	
95% confidence interval of SRR	0.97–1.01	0.91–0.95	1.02–1.08	0.95–1.03	1.14–1.24	1.03–1.19	0.86–1.04	0.37–0.53	
Age and sex restricted adjusted separation rate <sup>(g)</sup>	3.5	3.3	3.7	3.5	4.2	3.9	3.3	1.6	3.5
<b>Knee replacement</b>									
Separations <sup>(a)</sup>	13,213	7,509	6,827	3,657	3,274	880	532	97	36,076
Separations not within state of residence (%)	6	2	1	0	0	3	6	70	
Proportion of separations public patients (%)	34	31	29	35	27	25	28	26	31
Separation rate <sup>(e)</sup>	1.74	1.33	1.59	1.73	1.73	1.47	1.75	0.68	1.59
Standardised separation rate ratio (SRR)	1.09	0.83	1.00	1.08	1.08	0.92	1.10	0.43	
95% confidence interval of SRR	1.07–1.11	0.81–0.85	0.98–1.02	1.04–1.12	1.04–1.12	0.86–0.98	1.01–1.19	0.34–0.52	

(continued)

**Table 4.7 (continued): Separation statistics<sup>(a)</sup> for selected procedures<sup>(b)</sup>, by state or territory of usual residence, all hospitals<sup>(c)</sup>, 2007–08**

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total <sup>(d)</sup>
<b>Lens insertion</b>									
Separations <sup>(a)</sup>	63,536	44,924	40,163	18,277	14,296	4,478	1,564	699	188,255
Separations not within state of residence (%)	3	1	2	0	0	1	4	17	
Proportion of separations public patients (%)	30	27	16	38	29	10	52	80	27
Separation rate <sup>(e)</sup>	8.32	7.86	9.61	8.88	7.30	7.60	5.67	6.53	8.37
Standardised separation rate ratio (SRR)	0.99	0.94	1.15	1.06	0.87	0.91	0.68	0.78	
95% confidence interval of SRR	0.98–1.00	0.93–0.95	1.14–1.16	1.04–1.08	0.86–0.88	0.88–0.94	0.65–0.71	0.72–0.84	
<b>Myringotomy (with insertion of tube)</b>									
Separations <sup>(a)</sup>	9,202	8,154	5,744	3,951	3,892	608	558	99	32,224
Separations not within state of residence (%)	6	1	1	0	1	1	4	14	
Proportion of separations public patients (%)	31	40	27	33	35	31	32	87	33
Separation rate <sup>(e)</sup>	1.39	1.64	1.36	1.91	2.71	1.27	1.72	0.39	1.58
Standardised separation rate ratio (SRR)	0.88	1.04	0.86	1.21	1.71	0.80	1.09	0.24	
95% confidence interval of SRR	0.86–0.90	1.02–1.06	0.84–0.88	1.17–1.25	1.66–1.76	0.74–0.86	1.00–1.18	0.19–0.29	
<b>Prostatectomy</b>									
Separations <sup>(a)</sup>	10,208	8,533	5,219	2,654	2,597	888	373	87	30,614
Separations not within state of residence (%)	6	1	3	1	0	1	9	41	
Proportion of separations public patients (%)	32	34	26	35	33	25	20	51	32
Separation rate <sup>(e)</sup>	1.33	1.49	1.20	1.23	1.34	1.46	1.24	0.76	1.34
Standardised separation rate ratio (SRR)	0.99	1.11	0.90	0.92	1.00	1.09	0.92	0.56	
95% confidence interval of SRR	0.97–1.01	1.09–1.13	0.88–0.92	0.88–0.96	0.96–1.04	1.02–1.16	0.83–1.01	0.44–0.68	
<b>Tonsillectomy</b>									
Separations <sup>(a)</sup>	13,723	9,583	8,493	4,617	4,017	617	736	175	42,000
Separations not within state of residence (%)	5	2	1	0	1	1	3	10	
Proportion of separations public patients (%)	35	47	24	40	43	34	32	79	37
Separation rate <sup>(e)</sup>	2.08	1.92	2.02	2.22	2.77	1.32	2.20	0.70	2.06
Standardised separation rate ratio (SRR)	1.01	0.93	0.98	1.07	1.34	0.64	1.07	0.34	
95% confidence interval of SRR	0.99–1.03	0.91–0.95	0.96–1.00	1.04–1.10	1.30–1.38	0.59–0.69	0.99–1.15	0.29–0.39	

(a) Separations for which the care type was reported as *Newborn* with no qualified days, and records for *Hospital boarders* and *Postthumous organ procurement* have been excluded.

(b) The procedures and diagnoses are defined using ICD-10-AM codes in *Appendix 1*.

(c) Includes records with unknown remoteness area but with known state of residence, and excludes overseas residents and unknown state of residence.

(d) Excludes multiple procedures for the same separation within the same group.

(e) Rate per 1,000 population was directly age-standardised as detailed in *Appendix 1*.

(f) Caesarean section separations divided by separations for which in-hospital birth was reported. This is an approximate measure of the proportion of all births that are by caesarean section, as births out of hospital are not included.

(g) Females aged 15–69 years only.



**Table 4.8: Separation statistics<sup>(a)</sup> for selected procedures<sup>(b)</sup>, by remoteness area of usual residence, all hospitals<sup>(c)</sup>, Australia, 2007–08**

	Major cities	Inner regional	Outer regional	Remote	Very remote	Australia <sup>(c)</sup>
<b>Caesarean section</b>						
Separations <sup>(a)</sup>	63,694	15,134	7,583	1,467	842	88,760
Proportion of separations public patients (%)	51	67	69	69	81	56
Separation rate <sup>(d)</sup>	4.35	4.60	4.55	4.76	4.57	4.39
Standardised separation rate ratio (SRR)	0.99	1.05	1.04	1.08	1.04	
95% confidence interval of SRR	0.98–1.00	1.03–1.07	1.02–1.06	1.02–1.14	0.97–1.11	
In-hospital birth separations	193,718	51,253	26,374	4,983	2,972	279,415
Proportion of separations public patients (%)	63.8	76.9	75.9	77.2	87.1	67.8
Separation rate <sup>(d)</sup>	13.11	15.54	15.89	16.30	16.05	13.76
Separations per 100 in-hospital birth separations <sup>(e)</sup>	32.9	29.5	28.8	29.4	28.3	31.8
Public hospitals	27.0	26.7	26.5	27.1	26.7	26.9
Public patients	26.2	25.9	26.0	26.2	26.5	26.1
Private patients	37.1	35.5	31.2	33.9	31.7	35.9
Private hospitals	45.9	44.0	40.0	45.6	44.3	45.4
<b>Cholecystectomy</b>						
Separations <sup>(a)</sup>	31,243	10,519	4,503	634	265	47,182
Proportion of separations public patients (%)	49	55	59	64	74	51
Separation rate <sup>(d)</sup>	2.13	2.43	2.19	2.05	1.70	2.19
Standardised separation rate ratio (SRR)	0.97	1.11	1.00	0.94	0.78	
95% confidence interval of SRR	0.96–0.98	1.09–1.13	0.97–1.03	0.87–1.01	0.69–0.87	
<b>Coronary angioplasty</b>						
Separations <sup>(a)</sup>	23,494	7,238	2,905	369	146	34,164
Proportion of separations public patients (%)	44	51	53	60	71	47
Separation rate <sup>(d)</sup>	1.59	1.46	1.28	1.24	1.10	1.53
Standardised separation rate ratio (SRR)	1.04	0.96	0.84	0.81	0.72	
95% confidence interval of SRR	1.03–1.05	0.94–0.98	0.81–0.87	0.73–0.89	0.60–0.84	

(continued)

**Table 4.8 (continued): Separation statistics<sup>(a)</sup> for selected procedures<sup>(b)</sup>, by remoteness area of usual residence, all hospitals<sup>(c)</sup>, Australia, 2007–08**

	Major cities	Inner regional	Outer regional	Remote	Very remote	Australia <sup>(c)</sup>
<b>Coronary artery bypass graft</b>						
Separations <sup>(a)</sup>	8,812	3,065	1,362	168	67	13,480
Proportion of separations public patients (%)	48	53	59	60	75	50
Separation rate <sup>(d)</sup>	0.60	0.61	0.60	0.58	0.57	0.61
Standardised separation rate ratio (SRR)	1.00	1.01	0.99	0.95	0.94	
95% confidence interval of SRR	0.98–1.02	0.97–1.05	0.94–1.04	0.81–1.09	0.71–1.17	
<b>Hip replacement</b>						
Separations <sup>(a)</sup>	19,493	7,578	3,258	325	99	30,775
Proportion of separations public patients (%)	37	41	46	43	62	39
Separation rate <sup>(d)</sup>	1.31	1.51	1.46	1.21	1.01	1.37
Standardised separation rate ratio (SRR)	0.96	1.10	1.07	0.88	0.74	
95% confidence interval of SRR	0.95–0.97	1.08–1.12	1.03–1.11	0.78–0.98	0.59–0.89	
<b>Revision of hip replacement</b>						
Separations <sup>(a)</sup>	2,219	881	402	36	12	3,555
Proportion of separations public patients (%)	31	39	41	33	58	34
Separation rate <sup>(d)</sup>	0.15	0.18	0.18	0.14	0.11	0.16
Standardised separation rate ratio (SRR)	0.94	1.11	1.14	0.86	0.72	
95% confidence interval of SRR	0.90–0.98	1.04–1.18	1.03–1.25	0.58–1.14	0.31–1.13	
<b>Hysterectomy, females aged 15–69</b>						
Separations <sup>(a)</sup>	17,235	6,331	2,906	354	156	26,991
Proportion of separations public patients (%)	37	48	53	53	65	42
Separation rate <sup>(d)</sup>	1.19	1.49	1.41	1.07	0.99	1.26
Standardised separation rate ratio (SRR)	0.94	1.18	1.12	0.85	0.79	
95% confidence interval of SRR	0.93–0.95	1.15–1.21	1.08–1.16	0.76–0.94	0.67–0.91	
Age and sex restricted adjusted separation rate <sup>(f)</sup>	3.33	4.19	3.95	3.00	2.78	3.54
<b>Knee replacement</b>						
Separations <sup>(a)</sup>	22,490	9,023	4,020	421	114	36,076
Proportion of separations public patients (%)	30	34	37	35	31	31
Separation rate <sup>(d)</sup>	1.53	1.79	1.77	1.51	1.03	1.61
Standardised separation rate ratio (SRR)	0.95	1.11	1.10	0.94	0.64	
95% confidence interval of SRR	0.94–0.96	1.09–1.13	1.07–1.13	0.85–1.03	0.52–0.76	

(continued)

**Table 4.8 (continued): Separation statistics<sup>(a)</sup> for selected procedures<sup>(b)</sup>, by remoteness area of usual residence, all hospitals<sup>(c)</sup>, Australia, 2007–08**

	Major cities	Inner regional	Outer regional	Remote	Very remote	Australia <sup>(c)</sup>
<b>Lens insertion</b>						
Separations <sup>(a)</sup>	121,920	44,861	18,713	1,929	793	188,255
Proportion of separations public patients (%)	24	30	32	46	60	27
Separation rate <sup>(d)</sup>	8.29	8.94	8.57	7.63	8.13	8.46
Standardised separation rate ratio (SRR)	0.98	1.06	1.01	0.90	0.96	
95% confidence interval of SRR	0.97–0.99	1.05–1.07	1.00–1.02	0.86–0.94	0.89–1.03	
<b>Myringotomy (with insertion of tube)</b>						
Separations <sup>(a)</sup>	22,495	6,489	2,632	432	170	32,224
Proportion of separations public patients (%)	28	45	45	49	71	33
Separation rate <sup>(d)</sup>	1.65	1.61	1.31	1.21	0.80	1.60
Standardised separation rate ratio (SRR)	1.04	1.01	0.82	0.76	0.50	
95% confidence interval of SRR	1.03–1.05	0.99–1.03	0.79–0.85	0.69–0.83	0.42–0.58	
<b>Prostatectomy</b>						
Separations <sup>(a)</sup>	20,035	7,107	3,074	303	85	30,614
Proportion of separations public patients (%)	29	35	42	44	46	32
Separation rate <sup>(d)</sup>	1.35	1.39	1.36	1.11	0.78	1.36
Standardised separation rate ratio (SRR)	1.00	1.03	1.00	0.82	0.58	
95% confidence interval of SRR	0.99–1.01	1.01–1.05	0.96–1.04	0.73–0.91	0.46–0.70	
<b>Tonsillectomy</b>						
Separations <sup>(a)</sup>	27,632	9,699	3,846	600	214	42,000
Proportion of separations public patients (%)	32	44	47	50	51	37
Separation rate <sup>(d)</sup>	2.01	2.45	1.99	1.80	1.08	2.08
Standardised separation rate ratio (SRR)	0.97	1.18	0.96	0.87	0.52	
95% confidence interval of SRR	0.96–0.98	1.16–1.20	0.93–0.99	0.80–0.94	0.45–0.59	

(a) Separations for which the care type was reported as *Newborn* with no qualified days, and records for *Hospital boarders* and *Posthumous organ procurement* have been excluded. Excludes multiple procedures in the same separation within the same group.

(b) The procedures are defined using ICD-10-AM codes in *Appendix 1*.

(c) Includes records with unknown remoteness area but with known state of residence, and excludes overseas residents and unknown state of residence.

(d) Rate per 1,000 population was directly age-standardised as detailed in *Appendix 1*.

(e) Caesarean sections divided by separations for which in-hospital birth was reported. This is an approximate measure of the proportion of all births that are by caesarean section, as births out of hospital are not included.

(f) Females aged 15–69 years only.

**Table 4.9: Separation statistics<sup>(a)</sup> for selected procedures<sup>(b)</sup>, by quintile of socioeconomic advantage/disadvantage<sup>(c)</sup>, all hospitals, Australia, 2007–08**

	Most disadvantaged	Second most disadvantaged	Middle quintile	Second most advantaged	Most advantaged	Total <sup>(d)</sup>
<b>Caesarean section</b>						
Separations <sup>(a)</sup>	16,952	16,401	18,132	18,565	18,673	88,760
Proportion of separations public patients (%)	76	67	58	50	31	56
Separation rate <sup>(e)</sup>	4.50	4.50	4.32	4.41	4.54	4.46
Standardised separation rate ratio (SRR)	1.01	1.01	0.97	0.99	1.02	
95% confidence interval of SRR	0.99–1.03	0.99–1.03	0.96–0.98	0.98–1.00	1.01–1.03	
In-hospital birth separations	61,844	54,527	58,015	55,499	49,423	279,415
Proportion of separations public patients (%)	83.6	77.5	69.3	61.5	42.8	67.8
Separation rate <sup>(e)</sup>	16.30	14.89	13.74	13.16	12.03	13.98
Separations per 100 in-hospital birth separations <sup>(f)</sup>	27.4	30.1	31.3	33.5	37.8	31.8
Public hospitals	25.5	26.7	27.1	27.8	28.8	26.9
Private patients	24.8	26.2	26.3	27.0	27.2	26.1
Private hospitals	35.4	32.8	34.4	37.9	39.9	35.9
	42.5	47.6	44.5	44.6	46.4	45.4
<b>Cholecystectomy</b>						
Separations <sup>(a)</sup>	10,370	9,945	9,768	9,086	7,999	47,182
Proportion of separations public patients (%)	65	58	53	45	30	51
Separation rate <sup>(e)</sup>	2.46	2.35	2.29	2.20	1.88	2.23
Standardised separation rate ratio (SRR)	1.11	1.05	1.03	0.98	0.84	
95% confidence interval of SRR	1.09–1.13	1.03–1.07	1.01–1.05	0.96–1.00	0.82–0.86	
<b>Coronary angioplasty</b>						
Separations <sup>(a)</sup>	6,971	7,379	6,688	6,327	6,789	34,164
Proportion of separations public patients (%)	62	51	47	42	29	47
Separation rate <sup>(e)</sup>	1.54	1.59	1.56	1.57	1.59	1.57
Standardised separation rate ratio (SRR)	0.99	1.01	1.00	1.00	1.02	
95% confidence interval of SRR	0.97–1.01	0.99–1.03	0.98–1.02	0.98–1.02	1.00–1.04	

(continued)

**Table 4.9 (continued): Separation statistics<sup>(a)</sup> for selected procedures<sup>(b)</sup>, by quintile of socioeconomic advantage/disadvantage<sup>(c)</sup>, all hospitals, Australia, 2007–08**

	Most disadvantaged	Second most disadvantaged	Middle quintile	Second most advantaged	Most advantaged	Total <sup>(d)</sup>
<b>Coronary artery bypass graft</b>						
Separations <sup>(a)</sup>	3,112	2,990	2,673	2,400	2,300	13,480
Proportion of separations public patients (%)	64	56	52	43	29	50
Separation rate <sup>(e)</sup>	0.68	0.64	0.63	0.61	0.55	0.62
Standardised separation rate ratio (SRR)	1.10	1.02	1.01	0.98	0.89	
95% confidence interval of SRR	1.06–1.14	0.98–1.06	0.97–1.05	0.94–1.02	0.85–0.93	
<b>Hip replacement</b>						
Separations <sup>(a)</sup>	5,991	6,744	6,059	5,544	6,417	30,775
Proportion of separations public patients (%)	51	45	42	35	23	39
Separation rate <sup>(e)</sup>	1.31	1.42	1.41	1.39	1.49	1.40
Standardised separation rate ratio (SRR)	0.93	1.01	1.01	0.99	1.06	
95% confidence interval of SRR	0.91–0.95	0.99–1.03	0.98–1.04	0.96–1.02	1.03–1.09	
<b>Revision of hip replacement</b>						
Separations <sup>(a)</sup>	678	767	736	611	758	3,555
Proportion of separations public patients (%)	43	41	40	28	19	34
Separation rate <sup>(f)</sup>	0.15	0.16	0.17	0.15	0.18	0.16
Standardised separation rate ratio (SRR)	0.91	1.00	1.06	0.94	1.10	
95% confidence interval of SRR	0.84–0.98	0.93–1.07	0.98–1.14	0.87–1.01	1.02–1.18	
<b>Hysterectomy, females aged 15–69</b>						
Separations <sup>(a)</sup>	5,494	6,027	5,493	5,093	4,875	26,991
Proportion of separations public patients (%)	58	49	44	34	20	42
Separation rate <sup>(e)</sup>	1.35	1.47	1.29	1.21	1.11	1.28
Standardised separation rate ratio (SRR)	1.05	1.15	1.00	0.94	0.87	
95% confidence interval of SRR	1.02–1.08	1.12–1.18	0.97–1.03	0.91–0.97	0.85–0.89	
Age and sex restricted standardised separation rate <sup>(g)</sup>	3.8	4.1	3.6	3.4	3.1	3.6
<b>Knee replacement</b>						
Separations <sup>(a)</sup>	7,651	8,393	7,109	6,461	6,455	36,076
Proportion of separations public patients (%)	42	37	33	26	16	31
Separation rate <sup>(e)</sup>	1.66	1.77	1.66	1.64	1.55	1.66
Standardised separation rate ratio (SRR)	1.00	1.07	1.00	0.99	0.94	
95% confidence interval of SRR	0.98–1.02	1.05–1.09	0.98–1.02	0.97–1.01	0.92–0.96	

(continued)

**Table 4.9 (continued): Separation statistics<sup>(a)</sup> for selected procedures<sup>(b)</sup>, by quintile of socioeconomic advantage/disadvantage<sup>(c)</sup>, all hospitals, Australia, 2007–08**

	Most disadvantaged	Second most disadvantaged	Middle quintile	Second most advantaged	Most advantaged	Total <sup>(d)</sup>
<b>Lens insertion</b>						
Separations <sup>(a)</sup>	40,564	41,280	37,148	32,475	36,752	188,255
Proportion of separations public patients (%)	33	34	28	21	14	27
Separation rate <sup>(e)</sup>	8.81	8.64	8.74	8.34	8.77	8.67
Standardised separation rate ratio (SRR)	1.02	1.00	1.01	0.96	1.01	
95% confidence interval of SRR	1.01–1.03	0.99–1.01	1.00–1.02	0.95–0.97	1.00–1.02	
<b>Myringotomy (with insertion of tube)</b>						
Separations <sup>(a)</sup>	5,443	6,125	6,268	6,703	7,679	32,224
Proportion of separations public patients (%)	51	45	37	27	13	33
Separation rate <sup>(e)</sup>	1.30	1.56	1.55	1.69	2.05	1.62
Standardised separation rate ratio (SRR)	0.80	0.96	0.96	1.05	1.26	
95% confidence interval of SRR	0.78–0.82	0.94–0.98	0.94–0.98	1.02–1.08	1.23–1.29	
<b>Prostatectomy</b>						
Separations <sup>(a)</sup>	6,198	6,547	5,601	5,539	6,720	30,614
Proportion of separations public patients (%)	44	39	35	26	15	32
Separation rate <sup>(e)</sup>	1.34	1.37	1.31	1.39	1.59	1.40
Standardised separation rate ratio (SRR)	0.96	0.98	0.94	1.00	1.14	
95% confidence interval of SRR	0.94–0.98	0.96–1.00	0.92–0.96	0.97–1.03	1.11–1.17	
<b>Tonsillectomy</b>						
Separations <sup>(a)</sup>	8,127	8,689	8,707	8,145	8,323	42,000
Proportion of separations public patients (%)	51	47	41	28	16	37
Separation rate <sup>(e)</sup>	1.98	2.23	2.13	2.03	2.15	2.10
Standardised separation rate ratio (SRR)	0.94	1.06	1.01	0.96	1.02	
95% confidence interval of SRR	0.92–0.96	1.04–1.08	0.99–1.03	0.94–0.98	1.00–1.04	

(a) Separations for which the care type was reported as *Newborn* with no qualified days, and records for *Hospital boarders* and *Posthumous organ procurement* have been excluded. Excludes multiple procedures in the same separation within the same group.

(b) The procedures are defined using ICD-10-AM codes in *Appendix 1*.

(c) Based on the ABS SEIFA 2006 Index of Advantage/Disadvantage score for the statistical local area of the patient's usual residence.

(d) Includes records with unknown remoteness area but with known state of residence, and excludes overseas residents and unknown state of residence.

(e) Rate per 1,000 population was directly age-standardised as detailed in *Appendix 1*.

(f) Caesarean section separations divided by separations for which in-hospital birth was reported. This is an approximate measure of the proportion of all births that are by caesarean section, as births out of hospital are not included.

(g) Females aged 15–69 years only.

Table 4.10: Average length of stay (days)<sup>(a)</sup> for selected AR-DRGs version 5.1, by hospital sector, states and territories, 2007-08

AR-DRG	Hospital sector	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
<b>E62C Respiratory infections/inflamations W/O CC</b>	ALOS (days)									
	Public	3.7	2.9	3.1	3.4	3.4	3.5	3.0	3.9	3.3
	Private	5.8	5.2	4.8	5.0	4.7	n.p.	n.p.	n.p.	5.1
	Total	3.9	3.3	3.5	3.6	3.6	n.p.	n.p.	n.p.	3.6
Separations	Public	9,803	5,752	4,709	2,257	1,755	590	404	599	25,869
	Private	968	1,324	1,468	389	384	n.p.	n.p.	n.p.	4,706
	Total	10,771	7,076	6,177	2,646	2,139	n.p.	n.p.	n.p.	30,575
<b>E65B Chronic obstructive airway disease W/O catastrophic or severe CC</b>	ALOS (days)									
	Public	5.2	3.9	4.5	4.7	4.6	5.6	4.5	4.1	4.7
	Private	8.9	7.0	7.3	7.0	5.9	n.p.	n.p.	n.p.	7.3
	Total	5.5	4.5	5.2	5.1	4.8	n.p.	n.p.	n.p.	5.1
Separations	Public	9,117	5,238	4,851	2,206	2,326	741	184	515	25,178
	Private	902	1,311	1,683	497	600	n.p.	n.p.	n.p.	5,201
	Total	10,019	6,549	6,534	2,703	2,926	n.p.	n.p.	n.p.	30,379
<b>E69C Bronchitis and asthma age&lt;50 W/O CC</b>	ALOS (days)									
	Public	1.7	1.4	1.5	1.7	1.8	1.6	1.6	1.7	1.6
	Private	2.1	2.6	2.3	2.0	2.5	n.p.	n.p.	n.p.	2.3
	Total	1.7	1.4	1.6	1.7	1.8	n.p.	n.p.	n.p.	1.6
Separations	Public	9,981	6,958	4,912	2,331	2,854	494	265	256	28,051
	Private	146	268	598	123	111	n.p.	n.p.	n.p.	1,302
	Total	10,127	7,226	5,510	2,454	2,965	n.p.	n.p.	n.p.	29,353
<b>F62B Heart failure and shock W/O catastrophic CC</b>	ALOS (days)									
	Public	5.7	4.2	4.5	5.0	5.2	5.5	4.6	3.9	5.0
	Private	9.4	7.4	7.5	8.1	7.2	n.p.	n.p.	n.p.	7.8
	Total	6.1	5.0	5.5	5.6	5.6	n.p.	n.p.	n.p.	5.6
Separations	Public	8,995	6,242	3,957	1,950	2,027	603	281	226	24,281
	Private	1,039	2,063	1,884	486	636	n.p.	n.p.	n.p.	6,356
	Total	10,034	8,305	5,841	2,436	2,663	n.p.	n.p.	n.p.	30,637
<b>F71B Non-major arrhythmia and conduction disorders W/O catastrophic or severe CC</b>	ALOS (days)									
	Public	2.4	2.0	2.2	1.8	2.3	2.1	2.1	1.9	2.2
	Private	2.1	2.3	2.5	1.7	2.1	n.p.	n.p.	n.p.	2.2
	Total	2.4	2.1	2.3	1.8	2.3	n.p.	n.p.	n.p.	2.2
Separations	Public	10,842	7,848	5,410	2,411	2,485	841	543	210	30,590
	Private	1,941	3,041	3,232	1,342	1,410	n.p.	n.p.	n.p.	11,432
	Total	12,783	10,889	8,642	3,753	3,895	n.p.	n.p.	n.p.	42,022

(continued)

Table 4.10 (continued): Average length of stay (days)<sup>(a)</sup> for selected AR-DRGs version 5.1, by hospital sector, states and territories, 2007-08

AR-DRG	Hospital sector	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
<b>G07B Appendicectomy W/O Catastrophic or Severe CC</b> ALOS (days)	Public	2.9	2.6	2.4	2.4	2.6	2.6	2.7	2.9	2.6
	Private	2.5	2.6	2.1	2.4	2.4	n.p.	n.p.	n.p.	2.4
	<i>Total</i>	2.8	2.6	2.3	2.4	2.6	n.p.	n.p.	n.p.	2.6
Separations	Public	6,370	4,518	3,309	1,996	1,264	379	442	185	18,463
	Private	789	1,035	1,633	598	355	n.p.	n.p.	n.p.	4,679
	<i>Total</i>	7,159	5,553	4,942	2,594	1,619	n.p.	n.p.	n.p.	23,142
<b>G08B Abdominal and other hernia procedures age 1 to 59 or W catastrophic or severe CC</b> ALOS (days)	Public	1.5	1.5	1.4	1.6	1.8	1.6	1.6	1.9	1.5
	Private	1.4	1.4	1.3	1.6	1.5	n.p.	n.p.	n.p.	1.4
	<i>Total</i>	1.5	1.5	1.3	1.6	1.7	n.p.	n.p.	n.p.	1.5
Separations	Public	2,233	1,885	1,430	829	615	110	91	81	7,274
	Private	2,300	1,521	1,953	855	520	n.p.	n.p.	n.p.	7,527
	<i>Total</i>	4,533	3,406	3,383	1,684	1,135	n.p.	n.p.	n.p.	14,801
<b>G09Z Inguinal and femoral hernia procedures age&gt;0</b> ALOS (days)	Public	1.4	1.4	1.3	1.3	1.5	1.2	1.4	1.4	1.4
	Private	1.3	1.3	1.2	1.4	1.4	n.p.	n.p.	n.p.	1.3
	<i>Total</i>	1.3	1.4	1.2	1.4	1.4	n.p.	n.p.	n.p.	1.3
Separations	Public	5,400	4,372	2,757	1,761	1,420	263	203	154	16,330
	Private	7,140	5,301	5,169	2,289	1,572	n.p.	n.p.	n.p.	22,712
	<i>Total</i>	12,540	9,673	7,926	4,050	2,992	n.p.	n.p.	n.p.	39,042
<b>H08B Laparoscopic cholecystectomy W/O closed CDE W/O catastrophic or severe CC</b> ALOS (days)	Public	1.9	1.9	1.7	1.9	1.9	1.7	1.9	2.6	1.9
	Private	1.6	1.9	1.7	1.9	1.9	n.p.	n.p.	n.p.	1.7
	<i>Total</i>	1.8	1.9	1.7	1.9	1.9	n.p.	n.p.	n.p.	1.8
Separations	Public	6,667	4,947	3,397	1,825	1,575	331	254	153	19,149
	Private	5,204	3,839	4,092	1,707	1,253	n.p.	n.p.	n.p.	17,052
	<i>Total</i>	11,871	8,786	7,489	3,532	2,828	n.p.	n.p.	n.p.	36,201
<b>I03C Hip replacement W/O catastrophic or severe CC</b> ALOS (days)	Public	6.9	7.3	7.0	5.9	6.6	7.0	6.2	n.p.	6.9
	Private	7.0	7.3	6.9	8.8	7.2	n.p.	n.p.	n.p.	7.2
	<i>Total</i>	7.0	7.3	6.9	7.7	7.0	n.p.	n.p.	n.p.	7.1
Separations	Public	2,700	1,785	1,173	855	664	224	167	16	7,584
	Private	3,830	3,447	2,183	1,283	1,224	n.p.	n.p.	n.p.	12,711
	<i>Total</i>	6,530	5,232	3,356	2,138	1,888	n.p.	n.p.	n.p.	20,295

(continued)



Table 4.10 (continued): Average length of stay (days)<sup>(a)</sup> for selected AR-DRGs version 5.1, by hospital sector, states and territories, 2007-08

AR-DRG	Hospital sector	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
<b>I04Z Knee replacement and reattachment</b> ALOS (days)	Public	7.0	7.8	7.2	7.3	6.3	7.3	6.6	n.p.	7.2
	Private	7.1	7.5	7.0	9.8	7.1	n.p.	n.p.	n.p.	7.4
	<i>Total</i>	7.1	7.6	7.1	8.9	6.9	n.p.	n.p.	n.p.	7.4
Separations	Public	4,507	2,535	2,031	1,310	978	216	222	28	11,827
	Private	7,138	4,834	4,655	2,189	2,323	n.p.	n.p.	n.p.	22,239
	<i>Total</i>	11,645	7,369	6,686	3,499	3,301	n.p.	n.p.	n.p.	34,066
<b>I16Z Other shoulder procedures</b> ALOS (days)	Public	1.7	1.6	1.4	1.5	1.8	1.9	1.7	2.4	1.6
	Private	1.4	1.4	1.4	1.5	1.5	n.p.	n.p.	n.p.	1.4
	<i>Total</i>	1.5	1.5	1.4	1.5	1.6	n.p.	n.p.	n.p.	1.5
Separations	Public	1,636	1,411	983	922	538	77	123	59	5,749
	Private	7,427	6,964	5,792	4,587	2,639	n.p.	n.p.	n.p.	28,715
	<i>Total</i>	9,063	8,375	6,775	5,509	3,177	n.p.	n.p.	n.p.	34,464
<b>L63B Kidney and urinary tract infections age&gt;69 W/O catastrophic CC</b> ALOS (days)	Public	5.9	4.1	4.7	5.3	5.2	4.3	4.8	6.3	5.1
	Private	8.0	6.8	5.7	6.8	6.9	n.p.	n.p.	n.p.	6.6
	<i>Total</i>	6.0	4.7	5.0	5.5	5.5	n.p.	n.p.	n.p.	5.4
Separations	Public	6,707	4,400	2,920	1,485	1,335	300	245	137	17,529
	Private	600	1,235	1,419	295	359	n.p.	n.p.	n.p.	4,068
	<i>Total</i>	7,307	5,635	4,339	1,780	1,694	n.p.	n.p.	n.p.	21,597
<b>M02B Transurethral prostatectomy W/O catastrophic or severe CC</b> ALOS (days)	Public	3.1	2.7	2.6	2.9	2.7	3.6	3.6	n.p.	2.9
	Private	3.0	3.0	3.0	3.0	3.3	n.p.	n.p.	n.p.	3.0
	<i>Total</i>	3.0	2.9	2.9	3.0	3.0	n.p.	n.p.	n.p.	3.0
Separations	Public	2,038	1,921	926	618	774	133	66	16	6,492
	Private	3,670	3,285	2,327	974	1,018	n.p.	n.p.	n.p.	11,862
	<i>Total</i>	5,708	5,206	3,253	1,592	1,792	n.p.	n.p.	n.p.	18,354
<b>N04Z Hysterectomy for non-malignancy</b> ALOS (days)	Public	3.8	3.8	3.4	3.8	3.6	3.6	3.9	4.3	3.7
	Private	3.9	4.4	3.6	4.0	4.4	n.p.	n.p.	n.p.	4.0
	<i>Total</i>	3.9	4.0	3.5	3.9	4.0	n.p.	n.p.	n.p.	3.9
Separations	Public	3,774	3,306	2,099	1,011	1,193	246	152	99	11,880
	Private	4,463	2,764	3,330	1,553	1,207	n.p.	n.p.	n.p.	14,193
	<i>Total</i>	8,237	6,070	5,429	2,564	2,400	n.p.	n.p.	n.p.	26,073

(continued)

Table 4.10 (continued): Average length of stay (days)<sup>(a)</sup> for selected AR-DRGs version 5.1, by hospital sector, states and territories, 2007–08

AR-DRG	Hospital sector	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
<b>N06Z Female reproductive system reconstructive procedures</b> ALOS (days)	Public	2.8	2.6	2.1	2.8	2.4	2.7	3.0	n.p.	2.6
	Private	3.2	2.9	2.4	3.1	3.1	n.p.	n.p.	n.p.	2.9
	<i>Total</i>	3.0	2.8	2.3	3.0	2.8	n.p.	n.p.	n.p.	2.8
Separations	Public	2,154	1,556	1,270	582	729	138	79	31	6,539
	Private	3,455	1,996	2,612	1,006	1,082	n.p.	n.p.	n.p.	10,690
	<i>Total</i>	5,609	3,552	3,882	1,588	1,811	n.p.	n.p.	n.p.	17,229
<b>O01C Caesarean delivery W moderate complicating diagnosis</b> ALOS (days)	Public	4.3	4.2	3.7	4.2	4.5	3.9	4.0	5.5	4.1
	Private	5.3	5.2	4.7	5.9	5.5	n.p.	n.p.	n.p.	5.2
	<i>Total</i>	4.6	4.6	4.1	5.0	4.9	n.p.	n.p.	n.p.	4.6
Separations	Public	14,253	10,009	8,722	3,862	2,880	788	580	503	41,597
	Private	7,619	6,442	7,156	3,868	1,752	n.p.	n.p.	n.p.	28,335
	<i>Total</i>	21,872	16,451	15,878	7,730	4,632	n.p.	n.p.	n.p.	69,932
<b>O60B Vaginal delivery W severe complicating diagnosis</b> ALOS (days)	Public	2.9	2.7	2.5	2.9	2.9	2.8	2.4	3.5	2.8
	Private	4.4	4.2	3.9	4.7	4.4	n.p.	n.p.	n.p.	4.3
	<i>Total</i>	3.2	3.1	2.9	3.4	3.3	n.p.	n.p.	n.p.	3.1
Separations	Public	35,956	27,401	19,124	9,889	6,934	1,895	1,860	1,345	104,404
	Private	8,124	10,320	7,188	4,110	2,443	n.p.	n.p.	n.p.	34,498
	<i>Total</i>	44,080	37,721	26,312	13,999	9,377	n.p.	n.p.	n.p.	138,902
<b>R61B Lymphoma and non-acute leukaemia W/O catastrophic CC</b> ALOS (days)	Public	5.3	4.2	4.8	4.8	5.5	5.8	9.1	n.p.	5.0
	Private	4.5	4.1	4.6	2.9	3.8	n.p.	n.p.	n.p.	4.1
	<i>Total</i>	5.2	4.1	4.7	3.7	4.8	n.p.	n.p.	n.p.	4.6
Separations	Public	2,676	2,114	1,101	658	818	205	117	39	7,728
	Private	690	2,244	1,778	981	610	n.p.	n.p.	n.p.	6,430
	<i>Total</i>	3,366	4,358	2,879	1,639	1,428	n.p.	n.p.	n.p.	14,158
<b>U63B Major affective disorders age&lt;70 W/O catastrophic or severe CC</b> ALOS (days)	Public	14.2	13.3	13.7	15.1	11.7	13.1	16.2	13.5	13.7
	Private	21.2	17.9	19.4	14.1	18.6	n.p.	n.p.	n.p.	18.5
	<i>Total</i>	16.6	15.7	16.3	14.7	13.4	n.p.	n.p.	n.p.	15.7
Separations	Public	5,899	3,664	2,679	1,784	2,267	365	268	131	17,057
	Private	3,026	3,956	2,234	1,703	707	n.p.	n.p.	n.p.	12,167
	<i>Total</i>	8,925	7,620	4,913	3,487	2,974	n.p.	n.p.	n.p.	29,224

(a) Separations for which the care type was reported as Acute, Unknown and Newborn with qualified days. Excludes separations where the length of stay was greater than 120 days. Abbreviations: ALOS—average length of stay, CC—complications and comorbidities, CDE—common duct exploration, W/O—without, W—with.

**Table 4.11: Relative stay index<sup>(a)(b)</sup>, by hospital sector, patient election status and funding source, states and territories, 2007-08**

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
<b>Public hospitals</b>									
Public patients <sup>(c)</sup>	1.04	0.91	0.95	0.99	1.00	0.98	0.91	1.15	0.98
Public <sup>(d)</sup>	1.04	0.91	0.95	0.99	1.00	0.98	0.91	1.15	0.98
Private patients	1.09	0.95	0.98	1.04	1.07	1.04	0.92	1.25	1.04
Private health insurance	1.09	0.96	0.99	1.06	1.09	1.04	1.00	0.96	1.05
Self-funded	1.05	0.91	0.85	0.89	0.88	..	1.08	1.49	0.98
Workers compensation	1.13	1.04	1.09	1.22	1.08	1.10	0.92	1.58	1.11
Motor vehicle third party personal claim	1.24	0.90	1.26	1.14	1.21	1.12	0.92	1.68	1.09
Department of Veterans' Affairs	1.01	0.90	0.93	0.91	1.03	1.03	0.76	1.05	0.97
Other <sup>(e)</sup>	1.99	1.66	1.08	1.04	1.00	0.74	0.82	0.99	1.42
Patient election status not reported	0.85	0.90	..	..	..	1.56	..	..	0.90
<i>Total</i>	<i>1.05</i>	<i>0.91</i>	<i>0.95</i>	<i>1.00</i>	<i>1.01</i>	<i>0.99</i>	<i>0.91</i>	<i>1.15</i>	<i>0.99</i>
<b>Private hospitals</b>									
Public patients <sup>(c)</sup>	0.58	1.05	0.91	1.30	1.11	n.p.	n.p.	n.p.	0.95
Public <sup>(d)</sup>	0.58	1.05	0.91	1.30	1.11	n.p.	n.p.	n.p.	0.95
Private patients	1.06	1.03	1.03	1.05	0.99	n.p.	n.p.	n.p.	1.03
Private health insurance	1.06	1.03	1.02	1.03	0.99	n.p.	n.p.	n.p.	1.03
Self-funded	0.90	0.88	0.82	0.83	0.76	n.p.	n.p.	n.p.	0.86
Workers compensation	0.99	1.02	0.88	0.90	0.96	n.p.	n.p.	n.p.	0.96
Motor vehicle third party personal claim	0.95	0.96	0.94	1.05	1.04	n.p.	n.p.	n.p.	0.99
Department of Veterans' Affairs	1.20	1.06	1.17	1.30	1.04	n.p.	n.p.	n.p.	1.15
Other <sup>(e)</sup>	1.03	0.76	0.94	1.08	1.57	n.p.	n.p.	n.p.	1.07
Patient election status not reported	..	1.03	..	..	..	n.p.	n.p.	n.p.	0.99
<i>Total</i>	<i>1.06</i>	<i>1.03</i>	<i>1.03</i>	<i>1.05</i>	<i>0.99</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>1.03</i>
<b>All hospitals</b>									
Public patients <sup>(c)</sup>	1.03	0.91	0.95	0.99	1.00	n.p.	n.p.	n.p.	0.98
Public <sup>(d)</sup>	1.03	0.91	0.95	0.99	1.00	n.p.	n.p.	n.p.	0.98
Private patients	1.07	1.01	1.02	1.05	1.01	n.p.	n.p.	n.p.	1.04
Private health insurance	1.07	1.02	1.02	1.04	1.01	n.p.	n.p.	n.p.	1.04
Self-funded	0.96	0.89	0.83	0.84	0.78	n.p.	n.p.	n.p.	0.89
Workers compensation	1.05	1.03	0.97	1.00	0.99	n.p.	n.p.	n.p.	1.02
Motor vehicle third party personal claim	1.23	0.90	1.25	1.13	1.19	n.p.	n.p.	n.p.	1.08
Department of Veterans' Affairs	1.08	0.98	1.13	1.17	1.03	n.p.	n.p.	n.p.	1.07
Other <sup>(e)</sup>	1.93	1.60	1.03	1.05	1.33	n.p.	n.p.	n.p.	1.29
Patient election status not reported	0.85	0.91	..	..	..	n.p.	n.p.	n.p.	0.95
<i>Total</i>	<i>1.05</i>	<i>0.95</i>	<i>0.98</i>	<i>1.02</i>	<i>1.00</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>1.00</i>

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

(b) Indirectly standardised relative stay index based on all hospitals using AR-DRG version 5.1. The indirectly standardised relative stay index is not technically comparable between cells but is a comparison of the hospital group with the national average.

(c) Includes separations whose patient election status was *Public* and whose funding source was reported as *Australian Health Care Agreements*, *Reciprocal Health Care Agreements*, *Other hospital or public authority*, *Other*, *No charge raised* or *Not reported*, and most patients in Public psychiatric hospitals.

(d) Includes patients whose funding source was reported as *Australian Health Care Agreements*, *Other hospital or public authority* and most patients in Public psychiatric hospitals.

(e) Includes patients whose funding source was reported as *Other compensation*, *Department of Defence*, *Correctional facilities*, *Other hospital or public authority*, *Other*, *No charge raised* and *Unknown*.

**Table 4.12: Relative stay index<sup>(a)</sup>, directly and indirectly standardised by hospital sector, and medical/surgical/other type of AR-DRG, states and territories, 2007–08**

Type of hospital	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
<b>Indirectly standardised relative stay index<sup>(b)</sup></b>									
<b>Public hospitals</b>	<b>1.05</b>	<b>0.91</b>	<b>0.95</b>	<b>1.00</b>	<b>1.01</b>	<b>0.99</b>	<b>0.91</b>	<b>1.15</b>	<b>0.99</b>
Medical	1.03	0.88	0.92	0.99	0.99	0.98	0.92	1.09	0.96
Surgical	1.09	0.99	1.01	1.03	1.05	1.01	0.90	1.34	1.04
Other	1.16	0.95	1.07	0.99	1.04	1.05	0.92	1.19	1.05
<b>Private hospitals</b>	<b>1.06</b>	<b>1.03</b>	<b>1.03</b>	<b>1.05</b>	<b>0.99</b>	<b>n.p.</b>	<b>n.p.</b>	<b>n.p.</b>	<b>1.03</b>
Medical	1.28	1.10	1.13	1.09	1.06	n.p.	n.p.	n.p.	1.14
Surgical	0.93	0.97	0.94	1.03	0.95	n.p.	n.p.	n.p.	0.95
Other	0.90	0.94	0.96	0.96	0.92	n.p.	n.p.	n.p.	0.94
<b>All hospitals</b>	<b>1.05</b>	<b>0.95</b>	<b>0.98</b>	<b>1.02</b>	<b>1.00</b>	<b>n.p.</b>	<b>n.p.</b>	<b>n.p.</b>	<b>1.00</b>
Medical	1.06	0.93	0.98	1.01	1.01	n.p.	n.p.	n.p.	1.00
Surgical	1.02	0.98	0.98	0.97	1.03	n.p.	n.p.	n.p.	1.00
Other	1.06	0.95	1.01	0.97	0.99	n.p.	n.p.	n.p.	1.00
<b>Directly standardised relative stay index<sup>(c)</sup></b>									
<b>Public hospitals</b>	<b>1.02</b>	<b>0.90</b>	<b>0.92</b>	<b>0.99</b>	<b>0.99</b>	<b>0.97</b>	<b>0.89</b>	<b>1.16</b>	<b>0.96</b>
Medical	1.01	0.86	0.89	0.97	0.97	0.95	0.88	1.08	0.94
Surgical	1.05	1.01	0.98	1.04	1.04	1.02	0.94	1.44	1.03
Other	1.16	1.01	1.09	0.99	1.03	1.10	0.91	1.40	1.07
<b>Private hospitals</b>	<b>1.07</b>	<b>1.06</b>	<b>1.05</b>	<b>1.10</b>	<b>1.04</b>	<b>n.p.</b>	<b>n.p.</b>	<b>n.p.</b>	<b>1.06</b>
Medical	1.31	1.17	1.18	1.18	1.16	n.p.	n.p.	n.p.	1.20
Surgical	0.96	0.99	0.95	1.07	0.97	n.p.	n.p.	n.p.	0.98
Other	0.96	0.97	0.98	0.98	0.97	n.p.	n.p.	n.p.	0.97
<b>All hospitals</b>	<b>1.04</b>	<b>0.96</b>	<b>0.97</b>	<b>1.03</b>	<b>1.01</b>	<b>n.p.</b>	<b>n.p.</b>	<b>n.p.</b>	<b>1.00</b>
Medical	1.06	0.94	0.97	1.02	1.01	n.p.	n.p.	n.p.	1.00
Surgical	1.00	1.00	0.96	1.06	1.01	n.p.	n.p.	n.p.	1.00
Other	1.02	0.99	1.01	0.98	0.99	n.p.	n.p.	n.p.	1.00

(a) Separations for which the care type was reported as Acute or Newborn with qualified days, or was Not reported. Relative stay index based on all hospitals using AR-DRG version 5.1.

(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 re-scaled so each group represents the national casemix and is therefore directly comparable between cells.

**Table 4.13: Separations<sup>(a)</sup> with an adverse event<sup>(b)</sup>, by hospital sector<sup>(c)</sup>, Australia, 2007–08**

Adverse event	Public			Private			Total		
	Separations with adverse events	Adverse event separations per 100 separations	Separations with adverse events	Adverse event separations per 100 separations	Separations with adverse events	Adverse event separations per 100 separations	Separations with adverse events	Adverse event separations per 100 separations	
<b>External cause codes</b>									
Y40–Y59 Adverse effects of drugs, medicaments and biological substances	86,345	1.8	19,667	0.6	106,012	1.3			
Y60–Y82 Misadventures to patients during surgical and medical care	10,080	0.2	3,953	0.1	14,033	0.2			
Y83–Y84 Procedures causing abnormal reactions/complications	153,300	3.2	84,772	2.7	238,072	3.0			
Y88 & Y95 Other external causes of adverse events	5,558	0.1	863	0.0	6,421	0.1			
<b>Place of occurrence codes</b>									
Y92.22 Health service area	250,285	5.2	110,774	3.5	361,059	4.5			
<b>Diagnosis codes</b>									
E89, G97, H59, H95, I97, J95, K91, M96, N99 Selected post-procedural disorders	40,861	0.9	21,098	0.7	61,959	0.8			
T81.0 Haemorrhage and haematoma complicating a procedure, n.e.c.	23,446	0.5	12,773	0.4	36,219	0.5			
T81.4 Infection following a procedure, n.e.c.	22,614	0.5	10,445	0.3	33,059	0.4			
T82–T85 Complications of internal prosthetic devices, implants and grafts	48,685	1.0	26,764	0.9	75,449	1.0			
Other diagnoses of complications of medical and surgical care (T80 to T88 and T98.3, not including above)	38,877	0.8	16,116	0.5	54,993	0.7			
<b>Total<sup>(d)</sup></b>	<b>267,686</b>	<b>5.6</b>	<b>114,566</b>	<b>3.7</b>	<b>382,252</b>	<b>4.8</b>			

(a) Separations for which the care type was reported as *Newborn* with no qualified days, and records for *Hospital boarders* and *Posthumous organ procurement* have been excluded.

(b) 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. Other ICD-10-AM codes may also indicate that an adverse event has occurred, and some adverse events are not identifiable using ICD-10-AM codes. Hence these data will underestimate the total number of adverse events.

(c) The data for public hospitals is not comparable with the data for private hospitals because their casemixes differ and recording practices may also differ.

(d) Categories do not sum to the totals because multiple diagnoses and external causes can be recorded for each separation and external cause codes and diagnosis codes can be used together to describe an adverse event.