Appendix 1: Technical notes

Definitions

If not otherwise indicated, data elements were defined according to the 2006–07 definitions in the *National health data dictionary* versions 12, 12 supplement and 13 (NHDC 2003; AIHW 2004b; HDSC 2006) (summarised in the Glossary).

Data presentation

Except as noted below, the totals in tables include data only for those states and territories for which data were available, as indicated in the tables. For example, for some tables and figures dealing with Indigenous status, data have been presented only for selected states and territories, and the totals in these tables do not include the data for the other states and territories (tables 8.9, 9.22 and 10.20, and figures 9 and 8.1).

Other exceptions relate to tables in which data were not published for confidentiality reasons (for private hospitals in Tasmania, the Australian Capital Territory and the Northern Territory), or because only one public hospital was represented in the cell, or because a proportion related to a small number of events and was therefore not very meaningful.

Private hospital data are suppressed for a particular diagnosis, procedure or AR-DRG where:

- there are fewer than three reporting units,
- there are three or more reporting units and one contributed more than 85% of the total separations, or
- there are three or more reporting units and two contributed more than 90% of the total separations.

Data on the length of stay have been suppressed if there were fewer than 10 separations in the category being presented (50 separations in Table 4.11). Data on elective surgery waiting times were suppressed if there were fewer than 10 elective surgery admissions in the category being presented. The abbreviation 'n.p.' has been used in these tables to denote these suppressions. For these tables, the totals include the suppressed information.

Throughout the publication, percentages may not add up to 100.0 because of rounding. Percentages and population rates printed as 0.0 or 0 may denote less than 0.05 or 0.5, respectively.

Conventions used in this report

Data presented by states and territories

For the majority of tables in this report, data are presented by the state or territory of the hospital, not by the state or territory of usual residence of the patient. The exceptions are tables 4.5, 4.6, 4.7, 8.11, 9.19 and A5.1, which are based on data on the state or territory of

usual residence. In addition, the state or territory of usual residence of the patient is reported against the state or territory of hospitalisation in tables 7.7, 7.8, 7.9 and 7.10.

For tables presented by the state or territory of usual residence of the patient, the totals include unknown residence area (within a known state) but exclude overseas residents and unknown state of residence. Therefore the totals in those tables do not necessarily match other tables in the publication.

Counts

Counts of separations

For tables with counts of separations by groups of diagnoses, procedures or external causes, a separation is counted once for the group if it has at least one diagnosis/procedure/external cause reported within the group. As more than one diagnosis, procedure or external cause can be reported for each separation, the data are not additive and therefore the totals in the tables may not equal the sum of counts in the rows.

Counts of procedures

For data on the number of procedures, all procedures within a group are counted, even if more than one is reported for a separation.

Standard admitted patient care data analyses

For chapters 7, 8, 9, 10 and 11 and relevant tables in Chapter 2, the counts of separations do not include separations for *Newborns* without qualified days and records for *Hospital boarders* or *Posthumous organ procurement*, and the patient days were also not included for those records. In addition, patient days for *Newborns* that were not 'qualified days' are excluded from the counts of patient days. For more information on these exclusions, see below.

AR-DRG-based admitted patient care data analyses

For Chapter 12, and for tables elsewhere in the report that include cost weight information, separations are included only for *Acute* care, *Newborns* with at least one qualified day and where care type was not reported. Patient days for *Newborns* that were not 'qualified days' are excluded from the counts of patient days. Thus separations for *Rehabilitation care*, *Palliative care*, *Geriatric evaluation and management*, *Psychogeriatric care*, *Maintenance care*, *Other admitted patient care*, and *Newborn* care without qualified days were excluded.

Medical/Surgical/Other split

Separations have been categorised as *Medical*, *Surgical* or *Other* based on the AR-DRG classification recorded for the separation. *Surgical* DRGs are those with a second character of 0, 1, 2, or 3, *Medical* DRGs are those with a second character of 6, 7, 8, or 9 and *Other* is assigned for DRGs with a second character of 4 or 5. For Table 7.18, 'Other' includes AR-DRGs in the *Medical* and *Other* partitions.

Public/private patient analyses

Throughout the report, the category *Public patients* includes separations for patients whose funding source was reported as *Australian Health Care Agreements* and *Reciprocal health care agreements*. *Private patients* includes separations for patients whose funding source was

reported as *Private health insurance, Self-funded, Workers compensation, Motor vehicle third party personal claim, Other compensation, Department of Veterans' Affairs, Department of Defence* or *Correctional facility*. For patients whose funding source was reported as *Other hospital or public authority*, *Othe*r or *Not reported*, the category to which they belonged was determined by the reported Admitted patient election status. For 2006–07, the Admitted patient election status was not reported for 11,940 separations that could also not be classified as *Public* or *Private patients* using the reported funding source.

Indigenous status

For statistical analyses (for example age-standardised separation rates and rate ratios), data are included only for New South Wales, Victoria, Queensland, Western Australia, South Australia and the Northern Territory (public hospitals only), for which the quality of Indigenous identification is considered acceptable for the purpose of analysis. Further information on the quality of Indigenous identification in hospital data is included in chapters 5 and 8.

Population rates

Unless noted otherwise (see below), population rates (separation rates) presented in this report are age-standardised, calculated using the direct standardisation method and 5-year age groups. The total Australian population for 30 June 2001 was used as the population for which expected rates were calculated. The Australian Bureau of Statistics' population estimates for 30 June 2006 and for 31 December 2006 were used for the observed rates as detailed below (see tables A1.1, A1.2, A1.3 and A1.4 accompanying this report on the Internet).

Crude population rates in chapters 2, 3, 6, 9, 10 and 12 were calculated using the population estimates for 31 December 2006.

Age-standardisation

Standard separation rates (by hospital state and by residence state) were directly age-standardised, using the estimated resident populations as at 31 December 2006.

Separation rates by Indigenous status were directly age-standardised, using the projected Indigenous population (low series) as at 30 June 2006 and the estimated resident populations as at 30 June 2006 (tables 8.7, 8.8, 9.22 and 10.20 and figures 9 and 8.1).

Separation rates by Remoteness Areas and socioeconomic categories (for more information, see SEIFA below) were directly age-standardised, using the estimated resident populations as at 30 June 2006 (tables 4.5, 4.8, 4.9, 8.11, 8.12, 8.13, 9.20, 9.21, A5.2, A5.3 and Figure 10) .

Separation rates by country of birth (Table 8.10) were directly age-standardised, using the estimated resident populations as at 30 June 2004 (the most recent year available).

Standardised separation rate ratios

For some tables reporting comparative separation rates (tables 4.7, 4.8, 4.9, 8.7, 8.8, 8.11 to 8.13, 9.19 to 9.22 and A5.1 to A5.3), standardised separation rate ratios (SRRs) are presented. The ratios are calculated by dividing the age-standardised separation rate for a population of interest (an observed rate) by the age-standardised separation rate for a comparison

population (the expected rate). In these tables a 95% confidence interval for the SRR has also been presented.

The calculations are as follows:

$$\text{Standardised separation rate ratio} = \text{observed rate/expected rate}$$

$$\text{Standard error (SRR)} = \sqrt{}\ (\text{observed rate/expected rate})$$

$$95\%\ \text{confidence interval (SRR)} = \text{SRR} \pm 1.96 \times \text{Standard error (SRR)}$$

A confidence interval for the separation rate can be obtained by multiplying the upper and lower 95% confidence levels for the SRR by the crude rate for the population.

Thus a standardised separation ratio of 1 indicates that the population of interest (for example, *Indigenous Australians*) had a separation rate similar to that of the comparison group (for example, *Other Australians*). An SRR of 1.2 indicates that the population of interest had a rate that was 20% greater than that of the comparison population and an SRR of 0.8 indicates a rate 20% smaller. If the 95% confidence interval of the SRR contains 1, the rate for the population of interest is not significantly different (at the 95% confidence level) from that of the comparison population. Similarly, if the 95% confidence interval does not contain 1, then there is a significant difference (at the 95% confidence level).

The populations used for the observed and expected rates vary in this report, for example:

- For Indigenous status, the rate ratio is equal to the separation rate for *Indigenous Australians* divided by the separation rate for *Other Australians* (*Other Australians* includes Indigenous status not reported).
- For residence state, Remoteness Areas and socioeconomic categories, the rate ratio is equal to the separation rate for the residence state/Remoteness Area/SEIFA category divided by the separation rate for Australia

Newborn episodes of care

The *Newborn* care type was introduced in 1998–99 for the hospital morbidity data to report a single episode of care for all patients aged 9 days or less at admission, regardless of their qualification status and whether they changed qualification status during their hospital stay. Thus these episodes can include qualified days only, a mixture of qualified days and unqualified days, or only unqualified days. Qualified days are considered to be the equivalent of acute care days and *Newborn* episodes with qualified days only are considered to be equivalent to *Acute* care episodes. In this report, *Newborn* episodes with at least one qualified day have been included in all tables reporting separations. Records for *Newborn* episodes with no qualified days do not meet admission criteria for all purposes, so they have been excluded from this report, except as specified in Chapter 7. The number of patient days reported in this publication for *Newborn* episodes is equal to the number of qualified days, so for newborns with a mixture of qualified and unqualified days the number of patient days reported is less than the actual length of stay for the episode.

Hospitals in Tasmania and the Northern Territory and private hospitals in South Australia did not report any *Newborn* episodes with a mixture of qualified and unqualified days (Table 7.11), and private hospitals in Victoria did not report most *Newborn* episodes with no qualified days. In South Australia, qualified and unqualified newborn care are defined as separate episodes of care, but for the purpose of supplying data to the National Hospital

Morbidity Database (NHMD) separate episodes occurring within a single stay in hospital are bundled together. The practice of generating a new episode on a care change within a single stay in hospital is followed by public but not private hospitals in South Australia. For Tasmania, where a newborn's qualification status was considered qualified at any point during the episode of care, the entire episode was reported as qualified days. As a consequence of the reporting method used, the number of *Newborn* episodes with qualified days only includes those who may have had an unqualified component in their stay. For this reason the average length of stay for *Newborn* episodes with qualified days only in Tasmanian public hospitals is not directly comparable with that in other states.

Information on reporting practices for *Newborn* episodes before 2006–07 is available in previous *Australian hospital statistics* publications (AIHW 2002, 2003, 2004a, 2005a, 2006a, 2007a).

Hospital boarders and posthumous organ procurement

For some states and territories, the data provided to the NHMD included records for *Hospital boarders* and for *Posthumous organ procurement* activity (see Glossary). These records were provided on an optional basis as they do not represent admitted patient care.

The records for *Hospital boarders* were excluded from this report. There were 35,564 such records reported to the NHMD in 2006–07, mainly from Western Australia, Queensland and the Northern Territory.

Records for *Posthumous organ procurement* activity were also excluded from this report. There were 81 such records reported to the NHMD in 2006–07. Most of these records were from Queensland and Western Australia, with small numbers from New South Wales, Tasmania and the Northern Territory.

ICD-10-AM/ACHI coded data

Quality of coded data

Diagnosis, procedure and external cause data for 2006–07 were reported to the NHMD by all states and territories using the fifth edition of the *International statistical classification of diseases and related health problems, 10th revision, Australian modification* (ICD-10-AM/ACHI) (NCCH 2006), incorporating the *Australian classification of health interventions* (ACHI).

The quality of coded diagnosis, procedure and external cause data can be assessed using coding audits in which, in general terms, selected records are independently recoded and the resulting codes compared with the codes originally assigned for the separation. There are no national standards for this auditing, so it is not possible to use information on coding audits to make quantitative assessments of data quality on a national basis.

The quality and comparability of the coded data can, however, be gauged by information provided by the states and territories on the quality of the data, by the numbers of diagnosis and procedure codes reported and by assessment of apparent variation in the reporting of additional diagnoses. The comparability of the data can also be influenced by state-specific coding standards.

State and territory comments on the quality of the data

The following information has been provided by the states and territories to provide some insight into the quality of the coded data in the NHMD.

No statewide audit was performed on New South Wales data in 2006–07. Hospitals perform formal audits on ICD-10-AM coded data at a local level. Data edits are monitored regularly and consistent errors are identified and rectified by individual hospitals.

For Victoria, a state-wide external audit of 2005–06 data was finalised during 2006–07. This audit reviewed the ICD-10-AM/ACHI coding and the application of Australian Coding Standards along with some key demographic data. A total of 10,000 cases were audited. The overall result showed a change in DRGs of 9.01% indicating a high quality of coding, and representing an improvement on the 9.8% change reported following completion of the previous three year audit in 2000–01.

Hospitals in Queensland conduct their own coding quality checks on a regular basis, and ICD-10-AM validations are automatically conducted as part of the general processing of morbidity data in the corporate data collection. In addition, the Coding Auditing and Education Unit (CAEU) carries out audits of clinical coding that allows for corporate level understanding of coding quality. The CAEU is currently in the midst of an approximately three year cycle of clinical coding audits of all casemix funded Queensland hospitals.

The Western Australian Department of Health conducts regular audits of hospital medical records and inpatient data-reporting processes. This Clinical Information Audit Program aims to provide assurances of data quality and integrity, promoting confidence in the use of health information by hospitals and throughout the system. The results of these audits for 2006–07 admitted patient cases from teaching and non-teaching hospitals indicate that the quality of the coded data is very good. The National Centre for Classification in Health's Performance Indicators for Coding Quality (PICQ) software and in-house quality activities were also applied to all cases received by the department.

The Department of Health, South Australia, performed a major audit of coding practices in major metropolitan hospitals on random samples of 2004–05 data. The purpose of the audit was to ascertain the level of coding accuracy and the impact on DRG assignment. The audit found that coding practices in major metropolitan hospitals had improved significantly since the last major audit (conducted in 2002), with almost all hospitals reporting a reduction in their DRG error rate. In addition to this the Department conducts regular targeted desktop audits of coded data. Results are reported to all South Australian Coders in a quarterly newsletter, and individual hospitals are notified if a problem exists, and where coding needs to be corrected

In Tasmania, hospitals continue to conduct coding quality improvement activities using the Australian Coding Benchmark Audit tool and PICQ. Validation of ICD-10-AM data also occurs routinely as the data are processed from the hospitals. A Statewide Recoding Study Working Group was formed to implement recommendations from a previous statewide recoding study and a coding audit was conducted in 2006.

For 2006–07, the Australian Capital Territory Health Department (ACT Health) reported that the ICD-10-AM/ACHI coded data quality is excellent. ACT Health also reported that ongoing validation checks performed on extracts from data sources have confirmed that the collection of coded data conformed to standards. The number of episodes grouping to the 901Z, 902Z and 903Z DRGs had fallen from 92 records in 2005–06 to 41 records in 2006–07.

ACT Health noted that the improvement is not related to any particular hospital but is a general improvement in quality.

The Northern Territory maintained coding quality activities through the Coders' Forum, internal coding auditing, and the use of DRG error reporting.

Number of diagnosis codes

The NHMD contains data on principal diagnoses and additional diagnoses. Additional diagnoses include comorbidities (coexisting conditions) and/or complications which may contribute to longer lengths of stay, more intensive treatment or the use of greater resources. Ideally, the number of additional diagnoses recorded for a patient should be related to the person's clinical condition and not be restricted by administrative or technical limitations. The AIHW requested that the states and territories report a maximum of 50 diagnosis codes, but some report more.

Table A1.5 presents information on the number of diagnosis codes (principal and additional) reported to the NHMD. There are differences between the states and territories in the maximum number of diagnoses reported; for example, in the public sector, 65 for Queensland and 29 for South Australia. For both public and private sectors, the average number of diagnosis codes per separation varied little among the jurisdictions, but there was some variation in the reporting of additional diagnoses as discussed below.

Overall, the average number of codes reported for the public sector was slightly higher than for the private sector. In the public sector 19.7% of records had five or more diagnosis codes, but in the private sector only 11.0% of records fell into this category. It may be that more complicated cases were treated in public hospitals, or there may have been differences in coding practices.

Number of procedure codes

Table A1.6 presents information on the number of procedure codes reported to the NHMD. Ideally, the number of procedures recorded for a patient should reflect the procedures undertaken and not be restricted by administrative or technical limitations. There were marked differences between the states and territories in the maximum number of procedures reported, ranging from 25 for South Australia to 93 for Western Australia. However, with the exception of the Northern Territory, the average number of procedure codes per separation in the public sector varied little among the jurisdictions, as was the case in the private sector. The AIHW requested a maximum of 50 codes, so this may have restricted the number of codes reported by New South Wales, Queensland and Tasmania. The proportion of separations for which no procedures were reported was higher in the public sector (24.9%) than in the private sector (6.7%).

In recent years the reporting of five or more procedure codes for a separation has increased in both sectors. In the public sector, 7.9% of records had five or more procedure codes in 2006–07, compared with 7.8% in 2005–06 and 7.2% in 2003–04 (AIHW 2007a, 2005a). In the private sector, 9.0% of records had five or more procedure codes in 2006–07, compared with 8.9% in 2005–06, 8.6% in 2004–05 and 8.2% in 2003–04. The higher rate of recording five or more procedures in the private sector than in the public sector may be due to differences in coding practices between the sectors.

Apparent variation in reporting of additional diagnoses

A measure of apparent variation among Australian states and territories in the reporting and coding of additional diagnoses is the proportion of separations in the lowest resource split for adjacent AR-DRGs, standardised to the national distribution of adjacent AR-DRGs to take into account differing casemixes (Coory & Cornes 2005).

An adjacent AR-DRG is a set of AR-DRGs that is split on a basis supplementary to the principal diagnoses and procedures that are used to define the adjacent AR-DRG grouping. For many adjacent AR-DRGs this split is based on the inclusion of significant additional diagnoses, also known as complications or comorbidities (CCs). Adjacent AR-DRGs are signified in the AR-DRG classification by having the first three characters in common. For example, A08A *Autologous bone marrow transplant with catastrophic CC* and A08B *Autologous bone marrow transplant without catastrophic CC* are considered adjacent and the adjacent AR-DRG can be referred to as A08 *Autologous bone marrow transplant*. The allocation of a fourth character code is hierarchical, with the highest resource use level being assigned an A and the lowest resource use level being assigned the lowest letter in the sequence.

The underlying assumption is that variation in the proportions of separations assigned to individual AR-DRGs within an adjacent AR-DRG is caused by variation in the reporting and coding of additional diagnoses that are relevant to the split of the adjacent AR-DRG. A corollary of this assumption is that any variation seen was not caused by age, diagnosis, socioeconomic or other effects. This assumption is less likely to be valid when comparing hospital sectors which have differing casemixes, or the smaller jurisdictions because of differing population profiles and the limitations of the standardisation method.

The data were directly standardised by scaling the distribution of adjacent AR-DRGs in each jurisdiction/sector to the same distribution as the national total. The resulting proportions of separations in the lowest resource AR-DRG within the adjacent AR-DRG are therefore comparable.

This analysis concentrates on differences in the reporting of additional diagnoses that are significant in AR-DRG assignment within the adjacent AR-DRG groupings. Therefore this analysis excludes adjacent AR-DRGs where the partitioning involved other factors such as age, malignancy, mental health legal status, birth weight, mode of separation (including transfers, left against medical advice and death) or types of procedures.

The analysis covers five groups of adjacent AR-DRGs:

1. all applicable adjacent AR-DRGs (that is, excluding adjacent AR-DRGs with other factors affecting partitioning)
2. adjacent DRGs where the lowest split was without CCs
3. adjacent DRGs where the lowest split was without severe or catastrophic CCs
4. major medical conditions: adjacent AR-DRGs E61 *Pulmonary embolism*, F62 *Heart failure and shock*, T60 *Septicaemia*—these adjacent AR-DRGs are selected because admission for these conditions is seen to be relatively non-discretionary and less likely than for other AR-DRGs to be influenced by variation in admission practices
5. vaginal and caesarean deliveries.

The above categories overlap; in particular, *Vaginal and caesarean deliveries* is a subset of the second category, and *Major medical conditions* is a subset of the third category.

Table A1.7 shows that there is variation among jurisdictions in the proportion of separations that are grouped to the lowest resource split for adjacent AR-DRGs. In the private sector

there was slightly less variation between the highest and the lowest proportions than in the public sector.

For the Northern Territory, data for some measures were suppressed because of limitations with direct standardisation for groups that report a limited range of AR-DRGs (see the discussion of relative stay indexes below).

See Table A1.8 (accompanying this report on the Internet) for the list of AR-DRGs included.

State-specific coding standards

The Australian Coding Standards were developed for use in both public and private hospitals with the aim of satisfying sound coding convention according to the ICD-10-AM/ACHI. Although all states and territories instruct their coders to follow the Australian Coding Standards, some jurisdictions also apply state-specific coding standards to deal with state-specific reporting requirements. These standards may be in addition to or instead of the relevant Australian Coding Standard, and may affect the comparability of ICD-10-AM coded data.

For example, there are variations in coding standards between jurisdictions with regard to the reporting of external cause codes and place of occurrence codes. The Australian Coding Standard requires a place of occurrence code to be reported if an external cause code in the range V00–Y89 has been reported, and requires an activity when injured code to be recorded if the external cause code is in the range V00–Y34. The Western Australian coding standard requires the mandatory recording of a place of occurrence and activity when injured code for all records with a diagnosis code in the range S00–T98, regardless of the external cause code reported. The Victorian coding standard does not require the recording of external cause, place of occurrence or activity when injured if the care type is rehabilitation.

ICD-10-AM codes used for selected analyses

A number of tables in this report use ICD-10-AM codes to define diagnoses and procedures. The codes are presented in Table A1.9 (accompanying this report on the Internet) and relate to:

- figures 13, 14, 15 and 16 in the 'Hospitals at a glance' section
- tables 4.7, 4.8 and 4.9, which present statistics on selected procedures
- tables 4.5, 4.6, A5.1, A5.2 and A5.3, which present statistics on selected potentially preventable hospitalisations
- tables 9.19, 9.20 and 9.21, which present statistics on renal failure hospitalisations.

AR-DRG versions, cost weights and cost estimates

Information based on AR-DRGs is presented in chapters 2, 4, 7, 12 and in this appendix.

AR-DRG versions

For 2006–07 each separation in the NHMD was classified to AR-DRG version 5.1 (DoHA 2004b) on the basis of demographic and clinical characteristics of the patient.

Each AR-DRG version is based on a specific edition of the ICD-10-AM/ACHI. The ICD coded data for 1998–99 and 1999–2000 were reported using the first edition of the ICD-10-AM to which AR-DRG version 4.1 applies. For 2000–01 and 2001–02 the data were reported using the second edition of the ICD-10-AM to which AR-DRG version 4.2 applies. For 2002–03 and 2003–04 the data were reported using the third edition of the ICD-10-AM to which AR-DRG version 5.0 applies, and AR-DRG version 5.1 was relevant for the 2004–05 and 2005–06 data which were reported using the fourth edition of the ICD-10-AM. For 2006–07 the data were reported using the fifth edition of the ICD-10-AM/ACHI to which AR-DRG version 5.2 applies. However, the data provided for 2006–07 were reported in AR-DRG version 5.1.

For time series comparisons, AR-DRG-based data in tables 12.5 and 12.6 use AR-DRG version 5.0 for 2002–03 to 2005–06 and AR-DRG version 5.1 for 2006–07. For the purpose of this analysis, the ICD coded data for 2004–05 and 2005–06 were mapped backward to the third edition of the ICD-10-AM and then grouped to AR-DRG version 5.0 and the ICD coded data for 2006–07 were mapped backward to the fourth edition of the ICD-10-AM and then grouped to AR-DRG version 5.1. Due to the mapping necessary to generate the AR-DRG versions, the data presented in these tables may not be comparable for a small number of AR-DRGs.

Similarly, the AIHW's AR-DRG online data cubes (<www.aihw.gov.au>) present AR-DRG versions 4.0, 4.1 and 4.2 based on the relevant AR-DRG versions for 1997–98 to 2001–02, and for the years 2002–03 to 2004–05 the supplied third and fourth edition ICD-10-AM codes were mapped backwards to second edition codes to group the data for those years to AR-DRG version 4.2. Similarly, for the AR-DRG version 5.0/5.1 cube, which covers the years 1998–99 to 2006–07, the data for 1998–99 to 2001–02 based on earlier editions of the ICD-10-AM were mapped forwards to the third edition codes and then grouped to AR-DRG version 5.0.

AR-DRG cost weights and cost estimates

Cost weights and cost estimates are prepared each year by the Department of Health and Ageing through the National Hospital Cost Data Collection (NHCDC) (DoHA 2007). The average cost weight information provides a guide to the expected resource use for separations, with a value of 1.00 representing the theoretical average for all separations. The NHCDC essentially estimates the average cost of each AR-DRG each year and the cost weight is the average cost for that AR-DRG divided by the average cost across all AR-DRGs ($3,542 for the public sector in 2005–06). Separate cost weights are usually estimated for the public and private sectors because of the differences in the range of costs recorded in public and private hospitals.

The latest available cost weights (at the time of publication of this report) were for version 5.1 AR-DRGs for 2005–06 for public hospitals (DoHA 2007a), and version 4.2 AR-DRGs for 2002–03 for private hospitals (DoHA 2004a). When the NHCDC 2006–07 results become available updated information using those data will be provided in the tables accompanying this report on the Internet at <www.aihw.gov.au>.

In tables 2.3, 2.4, 4.1a–d, 4.2a–f, 4.3, 7.10, Chapter 12 and in this appendix, average cost weights using public cost weights are based on the AR-DRG version 5.0 2005–06 national public sector estimated cost weights. These were applied to AR-DRG version 5.0 DRGs for 2002–03 to 2005–06 and to AR-DRG version 5.1 DRGs for 2006–07. In tables 2.3 and 2.4,

average cost weights for the private sector are presented based on AR-DRG version 4.2 2002–03 national private sector estimated cost weights.

The cost by volume estimates for public hospitals presented in Table 7.10, Chapter 12 and the supplementary Chapter 12 tables (accompanying this report on the Internet) are calculated by applying the AR-DRG version 5.0 2005–06 national public sector estimated average costs to the AR-DRG version 5.1 data for 2006–07. Cost by volume estimates have not been presented for the private sector in Chapter 12 as the most recent AR-DRG cost estimates available for private hospitals were for 2002–03.

Cost per casemix-adjusted separation

The cost per casemix-adjusted separation (tables 4.1a–d, 4.2a–f and 4.3) is an indicator of the efficiency of public acute care hospitals. It is a measure of the average recurrent expenditure for each admitted patient, adjusted using AR-DRG cost weights for the resources expected to be used for the separation. A synopsis of the methods used in this analysis is presented below, and more detail is available in *Australian hospital statistics 2000–01* (AIHW 2002).

Definition

The formula used to calculate the cost per casemix-adjusted separation is:

$$\frac{\text{Recurrent expenditure} \times \text{IFRAC}}{\text{Total separations} \times \text{Average cost weight}}$$

where:

- recurrent expenditure is as defined by the recurrent expenditure data elements in the *National health data dictionary* (HDSC 2006)
- IFRAC (admitted patient cost proportion) is the estimated proportion of total hospital expenditure that relates to admitted patients
- total separations excludes *Newborns* without qualified days and records that do not relate to admitted patients (*Hospital boarders* and *Posthumous organ procurement*)
- average cost weight is a single number representing the relative expected resource use for the separations.

Recurrent expenditure

For the medical labour cost category, data are available only for public patients, as private patients are charged directly by their doctor for medical services, and these charges are not included in the recurrent expenditure figures. The proportion of patients other than public patients can vary; therefore, medical costs for these patients are estimated, and the expenditure is increased to resemble what it would be if all patients had been public patients. The estimate is based on the salary/sessional and VMO expenditure per patient day for public patients, applied to all patients.

Costs per casemix-adjusted separation for states and territories were calculated excluding depreciation, as previously, and also including depreciation (for those jurisdictions for which depreciation was available).

Admitted patient cost proportion

To determine the costs associated with admitted patients, an admitted patient cost proportion (or inpatient fraction, IFRAC) is used. The IFRAC was provided to the AIHW for most hospitals by the states and territories and is the proportion of total hospital expenditure that related to the provision of care for admitted patients. For a few small hospitals where the IFRAC was not available, the admitted patient costs were estimated using the Health and Allied Services Advisory Council (HASAC) ratio.

Total separations

The formula used to calculate the cost per casemix-adjusted separation includes all admitted patient separations and their associated costs. It is appropriate to include the acute care separations, which comprise almost 98% of the total for the hospitals included in the analysis (Table A1.10), as cost weights are available for them. However, the 2% of separations that are not acute care are also included and, as there are no cost weights for these separations, the average cost weight for the acute separations for each hospital is used. This method may affect the estimates of cost-weighted separations (see below) for each state and territory, depending on the proportion of non-acute separations for the state or territory. The non-acute admitted patients (including rehabilitation patients) generally have higher costs per separation than acute care patients because, although their daily costs are lower, these patients typically have longer lengths of stay.

Comparisons between the states and territories should therefore take into consideration the uncertainty introduced by these episodes for which the cost weights were unavailable. There is variation in the number and length of stay for the non-acute care separations between jurisdictions (Table A1.10).

To refine the method to remove this anomaly would require estimates of expenditure for acute care for admitted patients (acute care IFRACs). For 2006–07, such estimates were available for some jurisdictions, as presented below.

There is also some variation between states and territories in the ways in which periods of hospitalisation are split into episodes of care (for example, newborn care). In states or territories where there is a clear delineation in funding arrangements between acute and non-acute services, splitting episodes into acute and other components may be different from where there is no such funding delineation.

Average cost weights

Admitted patient data provided to the NHMD were used to estimate average cost weights for the hospitals reported in this analysis.

The average cost weight for a hospital or group of hospitals (tables 4.2a–f, for example) is calculated as the number of casemix-adjusted separations divided by the number of separations. It represents in a single number the overall relative expected use of resources by a hospital. For example, a hospital with an average cost weight of 1.08 has an 8% more costly casemix than the national average (by design equal to 1.00).

The average cost weight for a group of hospitals is multiplied by the total number of separations for that group to produce the number of casemix-adjusted separations (the denominator). The term ‘cost per casemix-adjusted separation’ derives from this use of the number of separations adjusted by relative costliness.

The validity of comparisons of average cost weights is limited by differences in the extent to which each jurisdiction's psychiatric care services are integrated into its public hospital system. For example, in Victoria, almost all public psychiatric hospitals are mainstreamed into acute hospital services, and psychiatric patient data are therefore included in the acute hospital reports. Cost weights are not as useful as measures of resource requirements for acute psychiatric care because the relevant AR-DRGs are less homogeneous than for other acute care.

Cost per acute care and non-psychiatric acute care casemix-adjusted separation

Because cost weights are available only for acute care separations, the cost per casemix-adjusted separation analysis applies these cost weights to all separations. The methodology would be refined if cost weights became available for other care types, or if the analysis were to be restricted to acute care activity and expenditure. As AR-DRG cost weights are likely to be less useful as measures of resource requirements for psychiatric acute care than for other acute care, a further refinement would be to restrict the analysis to non-psychiatric acute care activity and expenditure.

Restriction to acute care activity requires the states and territories to make estimates of expenditure on acute care admitted patients (supplied as acute care IFRACs), and for separations relating to non-acute care patients to be excluded from the analysis. Restriction to non-psychiatric acute care activity requires the states and territories to make estimates of expenditure on non-psychiatric acute care admitted patients (supplied as non-psychiatric acute care IFRACs), and for separations relating to non-acute care patients and to psychiatric acute care patients to be excluded from the analysis. Psychiatric acute care activity is excluded from the admitted patient data by excluding separations if one or more psychiatric care days were reported for the separation (indicating that care was provided in a specialised psychiatric unit).

New South Wales, Victoria and Western Australia provided estimates of expenditure on acute care admitted patients, so estimates of the cost per casemix-adjusted acute care separation are presented for these jurisdictions (Table A1.11). Separations were included only if their care type was acute, newborn with at least one qualified day or for which the care type was not reported.

The reported acute care and non-psychiatric acute care IFRACs were the same as the IFRACs for all care types for some hospitals that had reported non-acute admitted patient care activity. Those hospitals were excluded from the analysis if they reported more than 1,000 patient days for non-acute separations. Several hospitals reported acute care IFRACs that gave an estimated cost per day of over $1,000, which was considered an unreasonably high estimate for non-acute care types.

The analysis excludes 50 hospitals for New South Wales, 5 hospitals for Victoria and 3 hospitals for Western Australia.

The estimated cost per acute care casemix-adjusted separation for the hospitals included was $4,242 in New South Wales, $3,483 in Victoria and $4,069 in Western Australia. The cost per casemix-adjusted separation for all separations in these hospitals was $4,225, $3,854 and $4,243 respectively (Table A1.11), so the effect of restricting the analysis to acute care admitted patients was to decrease the estimated cost by 0.4% in New South Wales and to increase the estimated cost by 9.6% in Victoria and 4.1% in Western Australia.

The estimated cost per acute non-psychiatric casemix-adjusted separation for the selected hospitals was $4,389 in New South Wales, $3,433 in Victoria and $4,071 in Western Australia. The effect of restricting the analysis to acute non-psychiatric admitted patients was to decrease the estimated cost by 3.9% in New South Wales and to increase the estimated cost by 10.9% in Victoria and 4.1% in Western Australia.

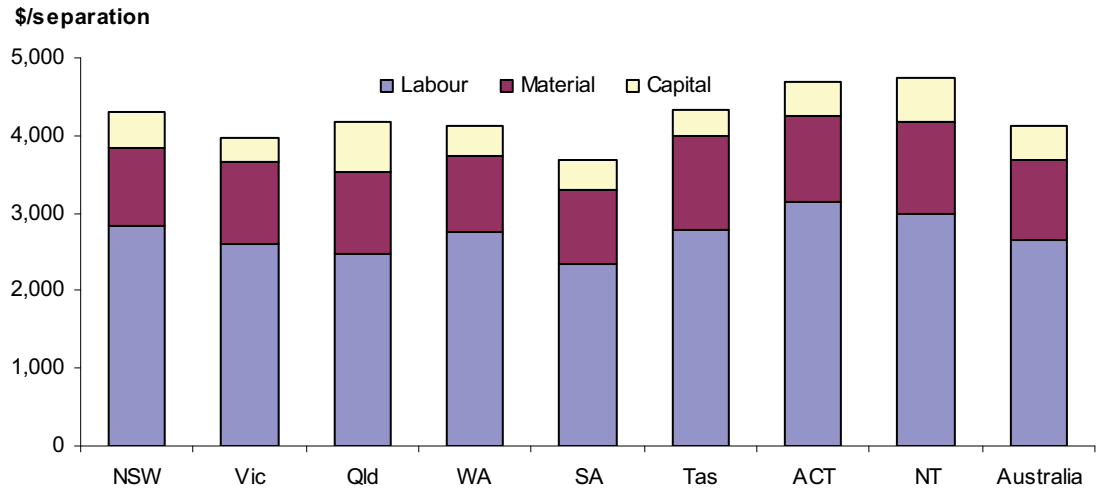
The estimated cost per acute care casemix-adjusted separation, including depreciation for the selected hospitals, was $4,408 in New South Wales, $3,619 in Victoria and $4,213 in Western Australia (Table A1.11). The estimated cost per acute non-psychiatric casemix-adjusted separation, including depreciation for the selected hospitals was $4,560 in New South Wales, $3,567 in Victoria and $4,214 in Western Australia.

These analyses would be further improved if all jurisdictions increased their capacity to separate costs for psychiatric services, other acute services, sub-acute services (for example, rehabilitation) and non-acute services.

Cost per casemix-adjusted separation, including capital

The cost per casemix-adjusted separation analysis includes recurrent expenditure and depreciation for those states that reported it (see above, and Chapter 4).

The Steering Committee for the Review of Government Service Provision (SCRGSP) reported 'total costs per casemix-adjusted separation' by state and territory for 2005–06 (SCRGSP 2008). It was defined as the recurrent cost per casemix-adjusted separation plus the capital costs (depreciation and the user cost of capital of buildings and equipment) per casemix-adjusted separation.



1. 'Labour' includes medical and non-medical labour costs. 'Material' includes other non-labour recurrent costs, such as repairs and maintenance.

2. 'Capital' includes depreciation and the user cost of capital for buildings and equipment that is associated with the delivery of admitted patient services in the public hospitals as described in the data for recurrent cost per casemix-adjusted separation. 'Capital cost' excludes the user cost of capital associated with land.

3. Variation across jurisdictions in the collection of capital-related data suggests the data are only indicative. The capital cost per casemix-adjusted separation is equal to the capital cost adjusted by the inpatient fraction, divided by the number of casemix-adjusted separations.

Source: SCRGSP 2008.

Figure A1.1: Cost per casemix-adjusted separation including capital, public hospitals, 2005–06

'Depreciation is defined as the cost of consuming an asset's services. It is measured by the reduction in value of an asset over the financial year. The user cost of capital is the opportunity cost of the capital invested in an asset, and is equivalent to the return foregone from not using the funds to deliver other government services or to retire debt. Interest payments represent a user cost of capital, so are deducted from capital costs in all jurisdictions to avoid double counting' (SCRGSP 2008).

The total cost per casemix-adjusted separation by jurisdiction (including capital costs), as published by SCRGSP for 2005–06, is presented in Figure A1.1. The data exclude the user cost of capital associated with land. Excluding the user cost of capital for land, the total cost per casemix-adjusted separation ranged from $4,735 in the Northern Territory to $3,684 in South Australia (SCRGSP 2008).

Further details about the SCRGSP calculation of total cost per casemix-adjusted separation are available in the *Report on government services 2008* (SCRGSP 2008).

Relative stay index

Relative stay indexes (RSIs) have been identified as indicators of efficiency and are presented in tables 2.3, 2.4, 4.1a–d, 4.2a–f, 4.12, 4.13, 12.1 and 12.2. They are calculated as the observed (actual) number of patient days for separations in selected AR-DRGs, divided by the number of expected patient days (based on national figures), standardised for casemix. An RSI greater than 1 indicates that an average patient's length of stay is higher than 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 expected.

The standardisation for casemix (based on AR-DRG version 5.1 and age of the patient for each separation) allows comparisons to be made that take into account variation in types of services provided, but does not take into account other influences on length of stay, such as Indigenous status.

The RSI method includes acute care separations only, and excludes separations for patients who died or were transferred within 2 days of admission, or with length of stay greater than 120 days. Excluded from the analysis were:

- AR-DRGs for rehabilitation (such as Z60A *Rehabilitation with catastrophic/severe complications or comorbidities*)
- predominantly same-day AR-DRGs (such as R63Z *Chemotherapy* and L61Z *Admit for renal dialysis*)
- AR-DRGs with a length of stay component in the definition (see Table A1.13 accompanying this report on the Internet)
- and *Error* AR-DRGs.

The analysis using AR-DRG versions 5.0/5.1 results in the exclusion of a greater number of AR-DRGs with a length of stay component in the definition than in AR-DRG version 4. In addition, some AR-DRGs no longer exist, and for some AR-DRGs which are named identically in both versions there are notable differences in the number of separations that are assigned to the AR-DRG when the data are grouped to both versions. For example in 2006–07, 297,739 separations were assigned to G44C *Other colonoscopy, sameday* in AR-DRG version 4.2 and 213,397 separations were assigned to G44C *Other colonoscopy, sameday* in AR-DRG version 5.1.

Comparisons with *Australian hospital statistics 2003–04* (AIHW 2005a) and earlier reports should be made with caution, because (in general) the exclusion of additional AR-DRGs with a length of stay in the definition results in ratios slightly further from 1 than were produced by the AR-DRG version 4-based method. This results, for example, in slight increases in private hospital RSIs (0.5% overall) and slight decreases in public hospital RSIs (–0.1% overall).

RSI standardisation methods

Two methods are used for standardisation of the length of stay data, and are analogous to direct and indirect age-standardisation methods. The method used generally in this report is analogous to indirect standardisation where the national rates (average length of stay (ALOS)) for each AR-DRG (version 5.0/5.1) are applied to the relevant population of interest (number of separations for each AR-DRG in the hospital group) to derive the expected number of patient days. Indirect standardisation methods are generally used when rate information for the population of interest (ALOS for each AR-DRG in this analysis) is unknown or subject to fluctuation because of small population sizes. This method provides a measure of efficiency for a hospital, or group of hospitals, based on their actual activity. However, an indirectly standardised rate compares a group with a 'standard population rate' so, using this method, rates for different groups are not strictly comparable because each group has a different casemix to which the national ALOS data have been applied. Therefore, the indirectly standardised data for hospital groups should be compared with the national average of 1.00.

The second method is analogous to direct standardisation where the rate (ALOS) of each AR-DRG for the group of interest is multiplied by the national population (total number of separations in each AR-DRG) to derive the expected number of patient days. This method provides a measure of efficiency for a hospital, or group of hospitals, and is suitable if all or most AR-DRGs are represented in a hospital group. Direct standardisation methods are generally used where the populations and their characteristics are stable and reasonably similar, for example for total separations for New South Wales and Victoria.

Groups can be compared using directly standardised rates as the activity of each group is weighted using the same set of weights, namely the national casemix. However, the ALOS data for AR-DRGs which are not represented in a group need to be estimated. The method in this report uses an assumption that the missing AR-DRGs for the hospital group had a relative length of stay that was the same as that for the reported AR-DRGs for the hospital group, weighted by the national distribution of the reported AR-DRGs in the group. Another weakness of direct standardisation is that this method can scale up AR-DRGs to have an impact that does not reflect their relative volume in a hospital group. This weakness can be particularly problematic if the low-volume AR-DRGs are atypical.

Because of the weaknesses of the direct standardised method, this report mainly presents RSI information using the indirect standardised method. However, the direct standardised method has also been presented in Table 2.3 as a time series and in Table 4.12 by state and territory. This allows comparison between the two methods and more direct comparison for those jurisdictions and sectors for which the data are presented. Data for the direct standardised method in the public sector in the Northern Territory are suppressed in Table 4.12, because of problems with using the direct standardisation for hospital groups that reported a limited range of AR-DRGs. For public hospitals in the Northern Territory

fewer than 600 of the 635 DRGs used in the national RSI analysis are represented, so results are likely to have been affected by estimation of the missing ALOS data.

Table A1.12 shows the number of AR-DRGs represented in each cell in Table 4.12, so that the number of AR-DRGs for which ALOS was estimated can be derived. For those jurisdictions and sectors for which RSI statistics are presented in Table 4.12, there were between 604 and 635 AR-DRGs represented, meaning that ALOS data was estimated for up to 31 AR-DRGs.

Data on geographical location

Data on geographical location are collected on hospitals in the National Public Hospital Establishments Database and on the area of usual residence of patients in the NHMD. These data have been provided as state or territory and Statistical Local Area (SLA, a small area unit within the Australian Bureau of Statistics Australian Standard Geographic Classification, ASGC) and/or postcode, and have been aggregated to Remoteness Areas.

The ASGC's remoteness structure categorises geographical areas in Australia into Remoteness Areas, described in detail on the ABS website <www.abs.gov.au>.

The classification is as follows:

- Major Cities
- Inner Regional
- Outer Regional
- Remote
- Very Remote.

Geographical location of hospital

The Remoteness Area of each public hospital was determined using geo-coded data (with latitude and longitude) for each hospital in 2001 or on the basis of its SLA, postcode or other location information as detailed in *Australian hospital statistics 2002–03* (AIHW 2004a).

Data on the Remoteness Area of hospitals are presented in Chapter 2 (Table 2.7) and Chapter 3 (Table 3.3).

Geographical location of usual residence

Data on the Remoteness Area of usual residence of admitted patients are presented in Figure 10 in the 'Hospitals at a glance' section and in tables 4.9, 8.12, 9.21 and A5.2. Data on the state or territory of usual residence are reported in Chapter 4 (tables 4.5, 4.6 and 4.7), Chapter 7 (tables 7.7, 7.8, 7.9 and 7.10), Chapter 9 (Table 9.20) and Appendix 5 (Table A5.1).

The data used for these tables were derived from data supplied by the states and territories for the NHMD on the area of usual residence of the patients. The *National health data dictionary* specifies that these data should be provided as the state or territory and the SLA of usual residence. Although most separations included data on the state or territory of usual residence, not all states and territories were able to provide information on the area of usual residence in the form of an SLA code. New South Wales, Victoria, Western Australia, Tasmania, the Australian Capital Territory and the Northern Territory were able to provide

SLA codes both for patients usually resident in the jurisdiction and for patients not usually resident in the jurisdiction. Queensland and South Australia provided SLA codes for patients usually resident in the jurisdiction and postcodes for patients not usually resident in the jurisdiction.

Where necessary, the AIHW mapped the supplied area of residence data for each separation to 2006 SLA codes and to Remoteness Area categories. This was undertaken on a probabilistic basis as necessary, using ABS concordance information describing the distribution of the population by postcode, Remoteness Areas and SLAs (2006 and previous years). The mapping process identified some missing or invalid codes, but about 99.5% of records were assigned 2006 SLA codes. For the remaining 0.5% of records, about 33% were for overseas residents, 10% were of no fixed abode, and the remainder not reported. Because of the probabilistic nature of this mapping, the SLA and Remoteness Area data for individual separations may not be accurate; however, the overall distribution of separations by geographical areas is considered useful.

Socioeconomic advantage/disadvantage

The Socio-Economic Indexes For Areas 2006 (termed SEIFA 2006 (ABS 2008)) are generated by the ABS using a combination of 2006 Census data such as income, education, health problems/disability, access to Internet, occupation/unemployment, wealth and living conditions, dwellings without motor vehicles, rent paid, mortgage repayments, and dwelling size. Composite scores are averaged across all people living in areas and defined for areas based on the Census collection districts. However, they are also compiled for higher levels of aggregation including SLA. The SEIFAs are described in detail on the ABS website <www.abs.gov.au>.

The SEIFA Index of Relative Advantage and Disadvantage was generated by the ABS using a combination of Census data, including variables measuring both advantage and disadvantage. The relative advantage and disadvantage scores indicate the collective socioeconomic status of the people living in an area, with reference to the situation and standards applying in the wider community at a given point in time. A relatively disadvantaged area is likely to have a high proportion of relatively disadvantaged people. However, such an area is also likely to contain people who are not disadvantaged, as well as people who are relatively advantaged.

Separation rates by quintile of advantage/disadvantage were generated by the AIHW by using the SEIFA scores for this index for the SLA of usual residence of the patient reported for each separation. The most disadvantaged quintile represents the areas containing the 20% of the population with the least advantage/most disadvantage, and the most advantaged quintile represents the areas containing the 20% of the population with the least disadvantage/most advantage.

Patient election status and funding source categories

From 2002–03 to 2005–06, Table 7.1 was based on Admitted patient election status, Medicare eligibility status and Funding source for hospital patient. For 2006–07, the data for Table 7.1 was based on Admitted patient election status and Funding source for hospital patient.

Tables 7.2 to 7.5 have been based on the data elements Admitted patient election status and Funding source for hospital patient for 2006–07.

For *Australian hospital statistics* from 2002–03 to this report, *Public patients* and *Private patients* have been categorised as detailed previously in the conventions section.

Due to changes in the data elements used for these tables over time, caution should be used when making comparisons over time (tables 7.1, 9.6, 10.6 and 12.6) as the categories presented are not directly comparable. In particular, before 2002–03, there was some variation between jurisdictions in the use of the data element Admitted patient election status, with some states and territories using this element to reflect the patient's choice of room or doctor and others to reflect the funding source.

Table A1.5: Separations[a], by number of diagnosis codes[b] reported and hospital sector, states and territories, 2006–07

Hospital sector	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
					Number				
Public hospitals									
Separations[b]	1,462,129	1,314,242	784,630	450,896	390,647	97,156	75,767	85,813	4,661,280
One diagnosis code only	419,335	367,743	220,552	92,436	115,086	24,072	35,440	8,948	1,283,612
Two diagnosis codes only	401,510	424,827	217,291	120,444	108,113	29,704	14,599	47,004	1,363,492
Three diagnosis codes only	195,721	182,778	117,736	92,838	55,226	15,932	8,456	7,958	676,645
Four diagnosis codes only	132,759	109,688	72,090	47,414	34,996	8,358	5,391	5,950	416,646
Five or more diagnosis codes	309,727	229,206	156,961	97,764	77,226	19,090	11,881	15,953	917,808
Mean diagnosis codes per separation	3.2	3.0	3.2	3.4	3.1	3.1	2.7	3.3	3.1
Maximum number of diagnosis codes	48	40	65	61	29	52	43	43	. .
Private hospitals									
Separations[b]	808,376	761,417	742,014	289,163	229,324	n.p.	n.p.	n.p.	2,941,637
One diagnosis code only	283,712	272,876	228,932	95,607	76,592	n.p.	n.p.	n.p.	1,000,853
Two diagnosis codes only	216,847	239,226	221,363	83,945	72,886	n.p.	n.p.	n.p.	868,229
Three diagnosis codes only	141,468	119,161	128,330	54,038	33,808	n.p.	n.p.	n.p.	493,397
Four diagnosis codes only	73,749	58,250	69,961	23,302	18,439	n.p.	n.p.	n.p.	252,139
Five or more diagnosis codes	92,600	68,791	93,428	32,271	27,599	n.p.	n.p.	n.p.	323,905
Mean diagnosis codes per separation	2.5	2.4	2.6	2.6	2.6	n.p.	n.p.	n.p.	2.5
Maximum number of diagnosis codes	20	38	56	44	30	n.p.	n.p.	n.p.	. .
					Per cent				
Public hospitals									
One diagnosis code only	28.7	28.0	28.1	20.5	29.5	24.8	46.8	10.4	27.6
Two diagnosis codes only	27.5	32.3	27.7	26.7	27.7	30.6	19.3	54.8	29.3
Three diagnosis codes only	13.4	13.9	15.0	20.6	14.1	16.4	11.2	9.3	14.5
Four diagnosis codes only	9.1	8.3	9.2	10.5	9.0	8.6	7.1	6.9	8.9
Five or more diagnosis codes	21.2	17.4	20.0	21.7	19.8	19.6	15.7	18.6	19.7
Private hospitals									
One diagnosis code only	35.1	36.0	30.9	33.1	33.4	n.p.	n.p.	n.p.	34.1
Two diagnosis codes only	26.8	31.5	29.8	29.0	31.8	n.p.	n.p.	n.p.	29.5
Three diagnosis codes only	17.5	15.7	17.3	18.7	14.7	n.p.	n.p.	n.p.	16.8
Four diagnosis codes only	9.1	7.7	9.4	8.1	8.0	n.p.	n.p.	n.p.	8.6
Five or more diagnosis codes	11.5	9.1	12.6	11.2	12.0	n.p.	n.p.	n.p.	11.0

(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) Codes reporting external causes of injury and poisoning were not included.
(c) Includes separations for which no diagnosis codes were reported.
Note: The Institute requested up to 50 diagnosis codes to be reported.

Table A1.6: Separations[a], by number of procedure codes reported and hospital sector, states and territories, 2006–07

Hospital sector	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
					Number				
Public hospitals									
Separations[b]	1,462,129	1,314,242	784,630	450,896	390,647	97,156	75,767	85,813	4,661,280
No procedure reported	396,685	295,858	227,000	84,627	96,695	25,295	13,465	20,695	1,160,320
One procedure code only	437,681	481,910	258,126	168,735	134,329	32,987	31,666	45,136	1,590,570
Two procedure codes only	259,869	237,302	133,561	89,681	76,525	17,330	13,151	9,931	837,350
Three procedure codes only	160,983	127,970	71,249	48,394	39,529	9,114	7,883	4,555	469,677
Four procedure codes only	81,287	65,290	36,253	23,950	18,097	4,672	3,783	2,071	235,403
Five or more procedure codes	125,624	105,912	58,441	35,509	25,472	7,758	5,819	3,425	367,960
Mean procedure codes per separation	2.5	2.3	2.4	2.3	2.2	2.4	2.2	1.7	2.4
Maximum number of procedure codes	50	40	50	93	25	50	48	30	. .
Private hospitals									
Separations[b]	808,376	761,417	742,014	289,163	229,324	n.p.	n.p.	n.p.	2,941,637
No procedure reported	29,403	79,020	55,925	17,479	14,643	n.p.	n.p.	n.p.	196,470
One procedure code only	158,618	180,358	213,896	77,427	55,227	n.p.	n.p.	n.p.	706,140
Two procedure codes only	294,313	256,918	251,704	89,460	74,356	n.p.	n.p.	n.p.	1,006,054
Three procedure codes only	185,882	130,002	119,457	49,450	42,867	n.p.	n.p.	n.p.	547,954
Four procedure codes only	64,882	48,960	43,084	22,393	18,074	n.p.	n.p.	n.p.	205,126
Five or more procedure codes	75,278	66,159	57,948	32,954	24,157	n.p.	n.p.	n.p.	265,749
Mean procedure codes per separation	2.6	2.5	2.4	2.6	2.6	n.p.	n.p.	n.p.	2.5
Maximum number of procedure codes	20	40	50	50	25	n.p.	n.p.	n.p.	. .
					Per cent				
Public hospitals									
No procedure reported	27.1	22.5	28.9	18.8	24.8	26.0	17.8	24.1	24.9
One procedure code only	29.9	36.7	32.9	37.4	34.4	34.0	41.8	52.6	34.1
Two procedure codes only	17.8	18.1	17.0	19.9	19.6	17.8	17.4	11.6	18.0
Three procedure codes only	11.0	9.7	9.1	10.7	10.1	9.4	10.4	5.3	10.1
Four procedure codes only	5.6	5.0	4.6	5.3	4.6	4.8	5.0	2.4	5.1
Five or more procedure codes	8.6	8.1	7.4	7.9	6.5	8.0	7.7	4.0	7.9
Private hospitals									
No procedure reported	3.6	10.4	7.5	6.0	6.4	n.p.	n.p.	n.p.	6.7
One procedure code only	19.6	23.7	28.8	26.8	24.1	n.p.	n.p.	n.p.	24.0
Two procedure codes only	36.4	33.7	33.9	30.9	32.4	n.p.	n.p.	n.p.	34.2
Three procedure codes only	23.0	17.1	16.1	17.1	18.7	n.p.	n.p.	n.p.	18.6
Four procedure codes only	8.0	6.4	5.8	7.7	7.9	n.p.	n.p.	n.p.	7.0
Five or more procedure codes	9.3	8.7	7.8	11.4	10.5	n.p.	n.p.	n.p.	9.0

(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) Includes separations for which no procedure codes were reported.
Note: The AIHW requested up to 50 procedure codes to be reported.

Table A1.7: Separation[a] statistics for selected adjacent AR-DRGs[b], by hospital sector, states and territories, 2006–07

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT[c]	Total
All adjacent AR-DRGs split by complications only									
Public hospitals									
Separations	464,314	358,293	239,092	120,023	109,984	31,597	20,654	18,400	1,362,357
Raw proportion in lowest resource level AR-DRG	0.64	0.65	0.66	0.65	0.64	0.70	0.66	0.57	0.65
Standardised proportion in lowest resource level AR-DRG	0.66	0.64	0.67	0.66	0.64	0.70	0.67	0.58	0.66
95% confidence interval of proportion	0.65–0.66	0.64–0.65	0.67–0.68	0.65–0.66	0.64–0.64	0.69–0.71	0.66–0.68	0.58–0.59	0.66–0.66
Private hospitals									
Separations	144,118	143,492	143,995	55,476	47,945	n.p.	n.p.	n.p.	558,913
Raw proportion in lowest resource level AR-DRG	0.76	0.73	0.74	0.75	0.74	n.p.	n.p.	n.p.	0.74
Standardised proportion in lowest resource level AR-DRG	0.70	0.70	0.69	0.70	0.67	n.p.	n.p.	n.p.	0.70
95% confidence interval of proportion	0.70–0.70	0.69–0.70	0.69–0.70	0.69–0.70	0.66–0.68	n.p.	n.p.	n.p.	0.69–0.70
Adjacent AR-DRGs with a moderate complication as the lowest resource level AR-DRG									
Public hospitals									
Separations	175,265	129,463	92,979	44,641	38,717	11,196	8,023	7,734	508,018
Standardised proportion in lowest resource level AR-DRG	0.54	0.52	0.57	0.53	0.52	0.58	0.57	n.p.	0.54
95% confidence interval of proportion	0.54–0.55	0.51–0.52	0.57–0.58	0.53–0.54	0.52–0.53	0.57–0.59	0.55–0.58	n.p.	0.54–0.54
Private hospitals									
Separations	33,981	37,642	36,361	15,421	11,609	n.p.	n.p.	n.p.	142,149
Standardised proportion in lowest resource level AR-DRG	0.53	0.53	0.54	0.54	0.50	n.p.	n.p.	n.p.	0.53
95% confidence interval of proportion	0.53–0.54	0.52–0.53	0.53–0.54	0.53–0.55	0.49–0.51	n.p.	n.p.	n.p.	0.53–0.54
Adjacent DRGs with a severe or catastrophic complication as the lowest resource level AR-DRG									
Public hospitals									
Separations	289,049	228,830	146,113	75,382	71,267	20,401	12,631	10,666	854,339
Standardised proportion in lowest resource level AR-DRG	0.71	0.71	0.73	0.72	0.70	0.77	0.73	n.p.	0.72
95% confidence interval of proportion	0.71–0.72	0.71–0.71	0.72–0.73	0.71–0.72	0.69–0.70	0.75–0.78	0.71–0.74	n.p.	0.72–0.72
Private hospitals									
Separations	110,137	105,850	107,634	40,055	36,336	n.p.	n.p.	n.p.	416,764
Standardised proportion in lowest resource level AR-DRG	0.79	0.78	0.77	0.78	0.76	n.p.	n.p.	n.p.	0.78
95% confidence interval of proportion	0.78–0.79	0.78–0.79	0.77–0.78	0.77–0.79	0.75–0.76	n.p.	n.p.	n.p.	0.78–0.78

(continued)

Table A1.7 (continued): Separation[a] statistics for selected adjacent AR-DRGs[b], by hospital sector, states and territories, 2006–07

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT[c]	Total
Adjacent AR-DRGs classified as major medical conditions									
Public hospitals									
Separations	19,012	13,524	7,667	4,030	3,944	1,026	636	654	50,493
Standardised proportion in lowest resource level AR-DRG	0.62	0.59	0.62	0.64	0.60	0.67	0.63	n.p.	0.62
95% confidence interval of proportion	0.61–0.63	0.58–0.60	0.61–0.64	0.62–0.66	0.58–0.62	0.63–0.72	0.58–0.68	n.p.	0.61–0.62
Private hospitals									
Separations	1,734	3,611	3,482	950	1,213	n.p.	n.p.	n.p.	11,420
Standardised proportion in lowest resource level AR-DRG	0.65	0.67	0.65	0.63	0.65	n.p.	n.p.	n.p.	0.66
95% confidence interval of proportion	0.62–0.68	0.65–0.70	0.63–0.67	0.59–0.67	0.61–0.69	n.p.	n.p.	n.p.	0.65–0.67
Adjacent AR-DRGs for vaginal and caesarean delivery									
Public hospitals									
Separations	69,224	47,540	38,614	18,856	13,466	4,120	3,415	2,816	198,051
Standardised proportion in lowest resource level AR-DRG	0.38	0.31	0.42	0.34	0.34	0.39	0.38	0.38	0.37
95% confidence interval of proportion	0.38–0.39	0.30–0.31	0.42–0.43	0.34–0.35	0.34–0.35	0.38–0.40	0.37–0.40	0.36–0.39	0.37–0.37
Private hospitals									
Separations	21,805	20,585	17,508	9,218	5,005	n.p.	n.p.	n.p.	78,487
Standardised proportion in lowest resource level AR-DRG	0.34	0.32	0.36	0.36	0.32	n.p.	n.p.	n.p.	0.34
95% confidence interval of proportion	0.33–0.34	0.32–0.33	0.36–0.37	0.35–0.36	0.31–0.33	n.p.	n.p.	n.p.	0.34–0.34

(a) Separations for which the care type was reported as *Acute*, or *Newborn* with qualified days, or was *Not reported*.
(b) AR-DRG version 5.1, using AR-DRGs as detailed in the text of Appendix 1.
(c) Northern Territory data for some cells were suppressed due to limitations of the method when applied to cells with underrepresentation of some AR-DRGs.

Table A1.10: Summary of separations in public acute hospitals selected for the cost per casemix-adjusted separation analysis[a] and data for excluded hospitals, states and territories, 2006–07

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Total separations ('000)	1,401	1,288	754	415	368	95	76	86	4,483
Total patient days ('000)	5,123	4,209	2,577	1,315	1,278	364	260	258	15,383
Acute separations[b]									
Separations ('000)	1,378	1,258	730	406	360	93	72	85	4,382
Patient days ('000)	4,736	3,488	2,222	1,170	1,173	308	206	241	13,545
Acute care psychiatric separations[c]									
Separations ('000)	25	16	19	6	8	3	1	1	79
Average cost weight[d]	1.79	2.46	1.90	1.99	2.01	1.40	2.05	2.07	1.98
Patient days ('000)	328	271	238	93	90	29	15	11	1,074
Acute care non-psychiatric separations									
Separations ('000)	1,353	1,242	711	399	353	90	71	84	4,303
Patient days ('000)	4,408	3,217	1,984	1,078	1,083	279	191	231	12,471
Separations other than acute									
Rehabilitation separations ('000)	13.2	16.2	14.2	5.7	5.5	1.0	1.8	0.5	58.1
Patient days ('000)	252.1	373.1	189.4	102.2	35.3	27.0	23.5	4.4	1,006.8
Palliative care separations ('000)	4.0	3.5	4.0	1.0	1.3	0.0	0.5	0.3	14.5
Patient days ('000)	40.7	47.6	33.7	8.1	16.8	0.3	6.2	2.8	156.1
Geriatric evaluation and management	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
separations ('000)	1.4	7.2	0.5	0.7	0.0	0.1	0.6	0.2	10.5
Patient days ('000)	10.5	188.1	8.4	6.2	0.0	1.4	6.2	4.4	225.3
Psychogeriatric separations	0.3	1.9	0.5	0.0	0.2	0.1	0.0	0.0	3.1
Patient days ('000)	8.6	57.9	11.3	0.6	22.4	0.1	0.5	0.5	102.0
Maintenance separations ('000)	4.2	1.9	4.2	1.5	1.0	0.5	0.9	0.2	14.4
Patient days ('000)	75.1	54.0	110.7	27.7	30.8	26.6	17.7	4.2	346.9
Other separations ('000)	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.3
Patient days ('000)	0.0	0.0	0.8	0.0	0.0	0.0	0.1	0.0	0.9
Total separations other than acute									
Separations ('000)	**23.0**	**30.7**	**23.7**	**8.9**	**8.0**	**1.8**	**3.8**	**1.1**	**100.9**
Patient days	**387.0**	**720.8**	**354.4**	**144.8**	**105.3**	**55.4**	**54.0**	**16.2**	**1,838.0**
Psychiatric separations[c]									
Separations ('000)	26	18	20	6	8	3	1	1	83
Patient days ('000)	341	329	294	94	113	29	16	11	1,228
Data for excluded hospitals[a]									
Separations for excluded hospitals ('000)[b]	61	23	31	36	22	2	0	0	175
Per cent of all separations	4.2	1.7	3.9	8.1	5.7	1.8	0.0	0.0	3.8
Expenditure for excluded hospitals ($m)	980	176	294	295	209	24	2	. .	1,981
Inpatient fraction for excluded hospitals	0.63	0.78	0.68	0.75	0.75	0.57	1.00	. .	0.68
Unadjusted cost per separation	10,077	6,023	6,516	6,064	7,086	7,864	n.a.	. .	7,685

(a) Psychiatric hospitals, drug and alcohol services, mothercraft hospitals, unpeered and other hospitals, hospices, rehabilitation facilities, small non-acute and multipurpose services are excluded from this table, as are some small hospitals with incomplete expenditure information. See Appendix 2 for further information.

(b) Separations for which the care type was reported as *Acute, Newborn* with at least one qualified day, or *Not reported.* Includes same-day separations.

(c) Separations with total days of psychiatric care equal to the total length of stay.

(d) Average cost weight from the National Hospital Morbidity Database, based on separations with a care type of *Acute, Newborn* with at least one qualified day, or *Not reported,* using the 2005–06 AR-DRG v 5.1 cost weights (DoHA 2006).

Table A1.11: Cost per acute, and acute non-psychiatric, casemix-adjusted separation, subset of selected public acute hospitals[a], New South Wales, Victoria and Western Australia, 2006–07

	NSW	Vic	WA
Total separations ('000)[b]	720	1,232	256
Total patient days ('000)[b]	2,620	4,035	801
Proportion of total benchmarking hospitals[c] separations	51.4%	96%	62%
Cost per casemix-adjusted separation excluding depreciation	4,225	3,854	4,243
Cost per casemix-adjusted separation including depreciation	4,390	4,005	4,393
Total recurrent expenditure excluding depreciation ($m)	4,498	6,275	1,450
Proportion of benchmarking hospitals[c]	55%	96%	63%
Total admitted patient expenditure excluding depreciation($m)	3,143	4,385	1,019
Proportion of benchmarking hospitals[c]	54.7%	95.7%	63.5%
Total recurrent expenditure including depreciation ($m)	4,683	6,527	1,503
Proportion of benchmarking hospitals[c]	55%	96%	64%
Total admitted patient expenditure including depreciation ($m)	3,272	4,562	1,056
Proportion of benchmarking hospitals[c]	54.8%	95.8%	63.7%
Cost per casemix-adjusted acute separation			
Acute separations ('000)[d]	712	1,201	250
Proportion of separations acute	98.9%	97.6%	97.9%
Acute patient days ('000)[d]	2,517	3,325	718
Proportion of patient days acute	96.1%	82.4%	89.6%
Average cost weight[e]	1.09	0.95	0.97
Casemix-adjusted acute separations ('000)	776	1,143	244
Acute IFRAC[f]	0.694	0.619	0.661
Total acute patient recurrent expenditure excluding depreciation ($m)	3,123	3,882	958
Total acute patient recurrent expenditure including depreciation ($m)	3,251	4,038	993
Cost per casemix-adjusted acute separation excluding depreciation[g]	**4,242**	**3,483**	**4,069**
Percentage this exceeds cost per casemix-adjusted separation for subset hospitals	–0.4%	9.6%	4.1%
Cost per casemix-adjusted acute separation including depreciation[g]	**4,408**	**3,619**	**4,213**
Percentage this exceeds cost per casemix-adjusted separation for subset hospitals	3.8%	3.8%	3.4%
Cost of non-acute separations in subset excluding depreciation ($m)	20	503	61
Per separation ($)	2,566	16,701	11,317
Per patient day ($)	195	709	731
Cost of non-acute separations in subset including depreciation ($m)	21	523	63
Per separation ($)	2,671	17,372	11,731
Per patient day ($)	204	737	758
Cost per casemix-adjusted acute non-psychiatric separation			
Acute non-psychiatric separations ('000)[d]	697	1,186	247
Acute non-psychiatric patient days ('000)[d]	2,354	3,065	678
Average cost weight[e]	1.09	0.95	0.97
Casemix-adjusted acute non-psychiatric separations ('000)	760	1,129	241
Acute non-psychiatric IFRAC[h]	0.694	0.589	0.644
Total acute non-psychiatric patient recurrent expenditure excluding depreciation ($m)	3,123	3,697	934
Total acute non-psychiatric patient recurrent expenditure including depreciation ($m)	3,252	3,845	968
Cost per casemix-adjusted acute non-psychiatric separation excluding depreciation[i]	**4,389**	**3,433**	**4,071**
Percentage this exceeds cost per casemix-adjusted separation for subset hospitals	–3.9%	10.9%	4.1%
Cost per casemix-adjusted acute non-psychiatric separation including depreciation[i]	**4,560**	**3,567**	**4,214**
Percentage this exceeds cost per casemix-adjusted separation for subset hospitals	7.9%	3.8%	6.4%
Cost of non-acute non-psychiatric separations in subset excluding depreciation ($m)	20	689	86
Per separation ($)	885	15,222	10,206
Per patient day ($)	74	710	698
Cost of non-acute non-psychiatric separations in subset excluding depreciation ($m)	20	716	89
Per separation ($)	921	15,834	10,579
Per patient day ($)	77	739	724

(a) Excludes psychiatric hospitals, sub-acute, non-acute and unpeered hospitals or services. This subset excludes hospitals where the IFRAC was equal to the acute IFRAC and more than 1,000 non-acute patient days were recorded. Also excludes hospitals where the apparent cost of non-acute patients exceeded $1,000 per day and more than $1,000,000 of expenditure on non-acute patients days was reported.

(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. Details of acute and non-acute separations and patient days are presented in Table A1.10

(c) For a description of benchmarking hospitals see the text and Tables 4.1a–d in Chapter 4.

(d) Separations where the care type is *Acute*, *Newborn* with qualified days, or *Not reported*. Psychiatric separations are those with psychiatric care days.

(d) Average cost weight from the National Hospital Morbidity Database, based on separations for which the care type was reported as *Acute, Newborn* with at least one qualified day, or *Not reported,* using the 2005–06 AR-DRG version 5.0 cost weights (DoHA 2007).

(f) The acute IFRAC is that portion of recurrent costs which is for acute admitted patients.

(g) Includes adjustment for private patient medical costs: $217 for New South Wales, $112 for Victoria and $148 for Western Australia.

(h) The acute non-psychiatric IFRAC is that portion of recurrent costs which is for acute non-psychiatric admitted patients.

(i) Includes adjustment for private patient medical costs: $241 for New South Wales, $92 for Victoria and $143 for Western Australia.

Table A1.12: Count of AR-DRGs version 5.1 contributing to the relative stay index, by sector, and medical/surgical/other type of AR-DRG, states and territories, 2006–07

Type of hospital	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Public hospitals	**635**	**635**	**634**	**635**	**631**	**619**	**618**	**588**	**635**
Medical	324	324	324	324	324	321	322	321	324
Surgical	279	279	278	279	276	269	265	238	279
Other	32	32	32	32	31	29	31	29	32
Private hospitals	**616**	**624**	**625**	**605**	**604**	**n.p.**	**n.p.**	**n.p.**	**626**
Medical	319	320	322	313	314	n.p.	n.p.	n.p.	322
Surgical	267	272	272	265	261	n.p.	n.p.	n.p.	272
Other	30	32	31	27	29	n.p.	n.p.	n.p.	32
All hospitals	**635**	**635**	**635**	**635**	**635**	**n.p.**	**n.p.**	**n.p.**	**635**
Medical	324	324	324	324	324	n.p.	n.p.	n.p.	324
Surgical	279	279	279	279	279	n.p.	n.p.	n.p.	279
Other	32	32	32	32	32	n.p.	n.p.	n.p.	32

Appendix 2: Hospitals contributing to this report and public hospital peer groups

Introduction

This appendix includes information on the public and private hospitals contributing to the National Hospital Morbidity Database (NHMD), the National Public Hospital Establishments Database, the National Elective Surgery Waiting Times Data Collection, the Non-admitted Patient Emergency Department Care Data Collection and the National Outpatient Care Database. Also included is information on the coverage of private hospitals in the NHMD that can assist interpretation of the data on private hospital activity. Information on the public hospital peer group classification used in chapters 2, 4, 5 and 6 is also included.

The entities that are reported as hospitals in the databases and in this report vary, depending on the type of information being reported. Explanatory information is therefore included on this variation, with a summary table on the counts of public hospitals presented for different analyses.

Throughout this report, unless otherwise specified:

- public acute hospitals and public psychiatric hospitals are included in the public hospital (public sector) category
- all public hospitals other than public psychiatric hospitals are included in the public acute hospital category
- private psychiatric hospitals, private free-standing day hospital facilities and other private hospitals are included in the private hospital (private sector) category
- all private hospitals other than private free-standing day hospital facilities are included in the other private hospitals category.

Public and private hospitals

There is currently some variation between jurisdictions in whether hospitals that predominantly provide public hospital services, and that are privately owned and/or operated, are reported as public or private hospitals. A selection of these hospitals is listed in Table A2.1 with information on whether they are reported as public or private hospitals.

These categorisations are the practices for this report, and reports produced by other agencies may categorise these hospitals differently. For example, Peel and Joondalup hospitals are private hospitals that treat predominantly public patients under contract to the Department of Health (Western Australia). In 2006–07, two new reporting units (public hospitals) were created to cover the public health services of these two hospitals, whereas in previous years all activity was reported for the private hospitals. Hawkesbury District Health Service and Port Macquarie Base hospital were categorised as private hospitals in *The state of our public hospitals, June 2005* report (DoHA 2005) and *Australian hospital statistics 2002–03* (AIHW 2004a), but they were categorised as public hospitals in AIHW reports since

2003–04 and in *The state of our public hospitals*, since the June 2006 report (DoHA 2006b). Southern Districts War Memorial Hospital is a private hospital that treats public patients under contract to the Department of Health (South Australia). Expenditure under the contract is treated as 'Purchase of services for public patients from private hospitals under contract' in *Health expenditure Australia 2003–04* (AIHW 2005b) and *Health expenditure Australia 2004–05* (AIHW 2006b). Since 2003–04 the AIHW has categorised Southern Districts War Memorial as a public hospital for services provided under the contract and as a private hospital for services provided to private patients.

Table A2.1: Selected hospitals included in this report that predominantly provide public hospital services, that are privately owned and/or operated, 2006–07

State	Hospital	How reported
NSW	Hawkesbury District Health Service	Public hospital
Vic	Mildura Base	Public hospital
Qld	Noosa	Private hospital
WA	Joondalup	Public hospital for services provided under the contract and a private hospital for services provided to private patients
WA	Peel	Public hospital for services provided under the contract and a private hospital for services provided to private patients
SA	Southern Districts War Memorial Private Hospital	Public hospital for services provided under the contract and a private hospital for services provided to private patients
Tas	May Shaw District Nursing Centre	Public hospital (does not provide financial information)
Tas	Toosey	Public hospital

Other changes in hospital ownership or management arrangements can also affect whether hospital activity is reported as public or private. For example, between 2003–04 and 2004–05 two private hospitals in Western Australia were purchased by the Western Australian Department of Health and were amalgamated with two existing public hospitals. Hence the activity associated with the former private hospitals is now included in the activity reporting of the two public hospitals. The Mersey Community Hospital in Tasmania which operated as a private hospital before 2004–05 (providing predominantly public services on a contracted basis), merged with the Northwest Regional Hospital and was categorised as a public hospital in 2004–05, 2005–06 and 2006–07.

The National Hospital Morbidity Database

The National Hospital Morbidity Database includes data relating to admitted patients from almost all hospitals: public acute hospitals, public psychiatric hospitals, private acute hospitals, private psychiatric hospitals and private free-standing day hospital facilities.

Public sector hospitals that are not included are those not within the jurisdiction of a state or territory health authority (hospitals operated by the Department of Defence or correctional authorities, for example, and hospitals located in offshore territories). In addition, for 2006–07, data were not supplied for a mothercraft hospital in the Australian Capital Territory.

Within the private sector, data were not provided for 2006–07 for private day hospital facilities in the Australian Capital Territory, for the single private free-standing day hospital facility in the Northern Territory and for a very small private hospital in Victoria. Victoria estimated that its data were essentially complete. For Tasmania, some private hospital data were not available for some periods in 2004–05, resulting in an under-enumeration of approximately 21% for Tasmanian private hospitals. Data for private hospitals in Tasmania were essentially complete in 2005–06 and 2006–07.

Table A2.2: Coverage of hospitals in the National Hospital Morbidity Database, by hospital sector, states and territories, 2006–07

	Public acute hospitals	Public psychiatric hospitals	Private free-standing day hospital facilities	Other private hospitals
NSW	Complete	Complete	Complete	Complete
Vic	Complete	Complete	Complete	Complete
Qld	Complete	Complete	Complete	Complete
WA	Complete	Complete	Complete	Complete
SA	Complete	Complete	Complete	Complete
Tas	Complete	Complete	Complete	Complete
ACT	Incomplete	Not applicable	Incomplete	Complete
NT	Complete	Not applicable	Incomplete	Complete

Note: Complete—all facilities reported data to the National Hospital Morbidity Database. Incomplete—some facilities did not provide data to the National Hospital Morbidity Database; see text for more details. Not applicable—there are no facilities in this sector for this state or territory.

Table A2.2 summarises this coverage information by state and territory and by hospital sector, and tables A2.3 and A2.4 (accompanying this report on the Internet at <www.aihw.gov.au>) list the public and private hospitals that contributed to the National Hospital Morbidity Database for 2006–07. For public hospitals, also included in the Internet tables is information on their average available bed numbers, their peer group (see below) and the Statistical Local Area and Remoteness Area of their location. The list of private hospitals includes information on whether each was a private free-standing day hospital facility.

There is some variation between states in what is regarded as a hospital and how facilities are licensed and how this affects the collection. For example, in recent years the coverage of the Queensland and Victorian collections expanded to include facilities providing same-day services not previously included. The apparent increase for some types of separations in the private sector would have been affected by the registration of relevant facilities as hospitals for the first time in Queensland in 2001 and in Victoria in 2002–03. These facilities had previously been categorised as non-hospital facilities and were therefore out of scope for the National Hospital Morbidity Database.

Coverage estimates for private hospital separations

As not all private hospital separations are included in the National Hospital Morbidity Database, the counts of private hospital separations presented in this report slightly underestimate actual counts.

Over recent years, at the national level there have been slightly fewer separations reported to the National Hospital Morbidity Database (particularly for private free-standing day hospital facilities) than to the Australian Bureau of Statistics (ABS) Private Health Establishments Collection (ABS 2007) (Table A2.5). The latter collection includes all private acute and psychiatric hospitals licensed by state and territory health authorities and all private free-standing day hospital facilities approved by the Department of Health and Ageing. In 2005–06, the difference was 78,894 separations (2.8%).

Table A2.5: Differences between private hospital separations on the National Hospital Morbidity Database and reported to the ABS Private Health Establishments Collection, 2000–01 to 2005–06

	Private free-standing day hospital facilities		Other private hospitals		Total	
Year	Separations	Per cent	Separations	Per cent	Separations	Per cent
2000–01[a]	56,816	14.6	21,649	1.1	80,655	3.4
2001–02[b]	41,002	9.8	52,727	2.6	118,064	4.6
2002–03[b]	2,094	0.5	32,942	1.6	47,755	1.8
2003–04[b]	4,348	0.9	28,268	1.4	47,279	1.8
2004–05	1,214	0.2	40,286	1.8	39,072	1.4
2005–06	32,437	5.9	46,457	2.0	78,894	2.8

(a) The type of private hospital establishment was unspecified for Tasmanian private hospitals reporting to the National Hospital Morbidity Database. The differences for private free-standing day hospital facilities and other private hospitals exclude Tasmania but the total for all private hospitals includes Tasmania.

(b) The type of private hospital establishment was unspecified for Tasmanian private hospitals reporting to the National Hospital Morbidity Database and the ABS suppressed data for Tasmania, the Australian Capital Territory and the Northern Territory. The difference for private free-standing day hospital facilities and other private hospitals exclude Tasmania, the Australian Capital Territory and the Northern Territory but the total for all private hospitals includes Tasmania, the Australian Capital Territory and the Northern Territory.

Source: ABS, unpublished Private Health Establishments Collection data.

For individual states (tables A2.6a to A2.6m accompanying this report on the Internet at <www.aihw.gov.au>), the patterns of differences between number of separations reported to the National Hospital Morbidity Database compared with the ABS Private Health Establishments Collection varied. This reflects the omission of some private hospitals from the National Hospital Morbidity Database. However, there are differences even when both collections are reported to be complete. For example, for 2005–06, more separations were reported to the National Hospital Morbidity Database than to the ABS for private free-standing day hospital facilities in Western Australia. The discrepancies may have been due to the use of differing definitions (for example, differing counting rules for *Newborn* episodes of care) or different interpretations of definitions, differing definitions of what is a hospital, or differences in the quality of the data provided for different purposes.

At the time of writing of this report, Private Health Establishments Collection data for 2006–07 were not available. When they become available, an estimate will be made of the under-enumeration of separations in the National Hospital Morbidity Database for 2005–06 by comparing it with the 2005–06 Private Health Establishments Collection data. This estimate will be included with *Australian hospital statistics 2006–07* on the Internet.

The National Public Hospital Establishments Database

The National Public Hospital Establishments Database holds establishment-level data for each public hospital in Australia, including public acute hospitals, psychiatric hospitals, drug and alcohol hospitals, and dental hospitals in all states and territories. The collection covers hospitals within the jurisdiction of the state and territory health authorities only. Hence, public hospitals not administered by the state and territory health authorities (hospitals operated by the Department of Defence or correctional authorities, for example, and hospitals located in offshore territories) are not included. Public hospitals are categorised by the AIHW into peer groups, as described below.

Table A2.3 (accompanying this report on the Internet) lists the public hospitals that contributed to the National Public Hospital Establishments Database for 2006–07. Also included is information on their average available bed numbers, their peer group and the Statistical Local Area and Remoteness Area of their location.

The National Non-admitted Patient Emergency Department Care Database

The National Non-admitted Patient Emergency Department Care Database covers public hospitals that were classified as peer groups A (*Principal referral and Specialist Women's and children's hospitals*) and B (*Large hospitals*) in *Australian hospital statistics 2005–06* (AIHW 2007a). Data were also provided for hospitals in other peer groups for some states and territories.

For 2006–07, all states and territories were able to provide data for all public hospitals in peer groups A and B that have emergency departments. The Northern Territory supplied episode-level data for all public hospitals, New South Wales provided data for 21 *Medium hospitals* and 8 *Small hospitals*; Victoria provided data for 6 *Medium hospitals*; South Australia provided data for 1 *Medium hospital*; and Western Australia provided data for 2 *Medium hospitals* and 2 *Small remote hospitals*. Overall coverage was estimated as about 78% of all public hospitals accident and emergency occasions of service.

Table 5.1 provides further information on the coverage by public hospital peer group. The list of public hospitals that contributed to the National Public Hospital Establishments Database (Table A2.2 accompanying this report on the Internet) includes information on which hospitals were also included in the National Non-admitted Patient Emergency Department Care Database for 2006–07.

The National Outpatient Care Database

The National Outpatient Care Database covers public hospitals that were classified in the public hospital peer groups of *Principal referral and Specialist women's and children's* hospitals and *Large hospitals* in *Australian hospital statistics 2005–06* (AIHW 2007a).

Some states and territories were also able to provide data for hospitals in other peer groups, so that coverage was about 73% of outpatient clinic occasions of service overall.

More information about the coverage of the National Outpatient Care Data collection (which is more complete for larger hospitals) is presented in Chapter 5. The list of public hospitals that contributed to the National Public Hospital Establishments Database (Table A2.3 accompanying this report on the Internet) includes information on which hospitals were also included in the National Outpatient Care Database for 2006–07.

The National Elective Surgery Waiting Times Data Collection

The National Elective Surgery Waiting Times Data Collection covers public acute hospitals. However, some public patients treated under contract in private hospitals in Victoria and Tasmania are also included.

All public hospitals that undertake elective surgery are generally included, but some are not. Based on the proportions of elective surgery admissions that were covered by the National Elective Surgery Waiting Times Data Collection, national coverage was about 87%, and ranged from 100% in New South Wales, Tasmania, the Australian Capital Territory and the Northern Territory, to about 64% in South Australia (Table 6.2). Coverage was highest for *Principal referral and Specialist women's and children's hospitals* at 98%, and progressively lower for the *Large hospitals* and *Medium hospitals* groups.

Tables 6.1 and 6.2 provide further information on the coverage by public hospital peer group. The list of public hospitals that contributed to the National Public Hospital Establishments Database (Table A2.3 accompanying this report on the Internet) includes information on which hospitals were also included in the National Elective Surgery Waiting Times Data Collection for 2006–07.

Counting public hospitals

Different counts of hospitals are used this report, depending on the type of information being presented and the way in which the hospitals were reported to the National Hospital Morbidity Database and the National Public Hospital Establishments Database. In summary, two counts of hospitals are used (Table A2.7):

- In chapters 2 and 3, hospitals are counted generally as they were reported to the National Public Hospital Establishments Database. These entities are generally 'physical hospitals' (buildings or campuses) but may encompass some outpost locations such as dialysis units. Conversely, however, hospitals on the one 'campus' can be reported as separate entities to this database if, for example, they are managed separately and have separate purposes, such as specialist women's services and specialist children's services. Although most of the hospitals counted in this way report separations to the National Hospital Morbidity Database, some small hospitals do not have separations every year.
- In the cost per casemix-adjusted separation analysis (Table 4.2a), entities for which there was expenditure information were reported as hospitals. The small numbers of hospitals in the National Public Hospital Establishments Database with incomplete expenditure information were omitted. In some jurisdictions, hospitals exist in networks, and expenditure data were available only for these networks, so the networks are the entities counted as hospitals for those jurisdictions for these tables.

Data on numbers of hospitals should therefore be interpreted taking these notes into consideration. Changes in the numbers of hospitals over time can be due to changes in administrative or reporting arrangements rather than changes in the number of hospital campuses or buildings.

Counts of private hospitals can also vary, depending on the source of the information. Thus, there may be discrepancies between counts of private hospitals from the ABS Private Health Establishments Collection presented in Table 2.1 and the lists of private hospitals contributing to the National Hospital Morbidity Database. The states and territories provided the latter information, which may not correspond with the way in which private hospitals report to the Private Health Establishments Collection.

Table A2.7: Numbers of public hospitals reported in this report, states and territories, 2006–07

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Hospitals									
Chapter 2 and 3	228	144	177	95	79	27	3	5	758
Table 4.2a (Expenditure data)	227	91	174	95	73	23	3	5	691

Public hospital peer groups

The AIHW worked with the National Health Ministers' Benchmarking Working Group (NHMBWG) and the National Health Performance Committee (NHPC) to develop a national public hospital peer group classification for use in presenting data on costs per casemix-adjusted separation. The aim was to allow more meaningful comparison of the data than comparison at the jurisdiction level would allow.

The peer groups were therefore designed to explain variability in the average cost per casemix-adjusted separation. They also group hospitals into broadly similar groups in terms of their range of admitted patient activity, and their geographical location, with the peer groups allocated names that are broadly descriptive of the types of hospitals included in each category.

The peer group classification is summarised in Table A2.8. Details of the derivation of the peer groups are in Appendix 11 of *Australian hospital statistics 1998–99* (AIHW 2000). From 2001–02, the method was adjusted slightly, by replacing the RRMA classification with the Remoteness Area classification for the geographical component of the peer grouping.

A flow chart can be found in *Australian hospital statistics 2002–03* (Figure A4.1 in that report) (AIHW 2004a) to illustrate the assignment of peer groups for almost all hospitals. However, on the advice of jurisdictions, hospitals may be assigned without using this logic, usually in special circumstances such as the opening or closing of a hospital during the year.

Selected characteristics of the hospitals assigned to each peer group for 2006–07 are presented in tables 4.2a–f (for each state and territory).

Although not specifically designed for purposes other than the cost per casemix-adjusted separation analysis, the peer group classification is recognised as a useful way to categorise hospitals for other purposes, including the presentation of other data. For example, the classification has been used to present data from the National Hospital Cost Data Collection (see Appendix 3), emergency department occasions of service data in Chapter 5 and elective surgery waiting times data in Chapter 6. They have also been used to specify the scopes for

national minimum data sets, for example, as noted above for the Non-Admitted Patient Emergency Department Care NMDS and the Outpatient Care NMDS although the use of the peer groups for these purposes is under review.

The peer group to which each public hospital was assigned for 2006–07 is included in Table A2.2 (accompanying this report on the Internet). In some cases, the establishments defined as hospitals for the cost per casemix-adjusted separation analysis differ from those defined as hospitals for the elective surgery waiting times data or those defined for counts of hospitals presented in chapters 2 and 3. In these cases, their peer groups may also differ, and these differences are indicated in Table A2.3 (accompanying this report on the Internet).

Table A2.8: Public hospital peer group classification[(a)]

Peer group	Subgroup	Definition
Principal referral and Specialist women's & children's hospitals	Principal referral	Major City hospitals with >20,000 acute casemix-adjusted separations, and Regional hospitals with >16,000 acute casemix-adjusted separations per annum.
	Specialist women's and children's	Specialised acute women's and children's hospitals with >10,000 acute casemix-adjusted separations per annum.
Large hospitals	Major City	Major City acute hospitals treating more than 10,000 acute casemix-adjusted separations per annum.
	Regional and Remote	Regional acute hospitals treating >8,000 acute casemix-adjusted separations per annum, and Remote hospitals with >5,000 casemix-adjusted separations.
Medium hospitals	Group 1	Medium acute hospitals in Regional and Major City areas treating between 5,000 and 10,000 acute casemix-adjusted separations per annum.
	Group 2	Medium acute hospitals in Regional and Major City areas treating between 2,000 and 5,000 acute casemix-adjusted separations per annum, and acute hospitals treating <2,000 casemix-adjusted separations per annum but with >2,000 separations per annum.
Small acute hospitals	Regional	Small Regional acute hospitals (mainly small country town hospitals), acute hospitals treating <2,000 separations per annum, and with less than 40% non-acute and outlier patient days of total patient days.
	Remote	Small Remote hospitals (<5,000 acute casemix-adjusted separations but not 'multi-purpose services' and not 'small non-acute'). Most are <2,000 separations.
Sub-acute and non-acute hospitals	Small non-acute	Small non-acute hospitals, treating <2,000 separations per annum, and with more than 40% non-acute and outlier patient days of total patient days.
	Multi-purpose services	
	Hospices	
	Rehabilitation	
	Mothercraft	
	Other non-acute	For example, geriatric treatment centres combining rehabilitation and palliative care, with a small number of acute patients.
Unpeered and other hospitals		Prison medical services, dental hospitals, special circumstance hospitals, Major City hospitals with <2,000 acute casemix-adjusted separations, hospitals with <200 separations, etc.
Psychiatric hospitals		

(a) Only the peer groups above the dashed line are included in the cost per casemix-adjusted separation analyses presented in Chapter 4.

Appendix 3: National Hospital Cost Data Collection

The National Hospital Cost Data Collection (NHCDC) was established to produce annual updates of Australian Refined Diagnosis Related Group (AR-DRG) cost weights and estimated average costs, as incorporated into tables in chapters 2, 4, 7 and 12. The NHCDC is a voluntary collection of hospital cost and activity data covering the financial year before the collection period, and is coordinated by the Department of Health and Ageing. Both public and private hospital data are included, with the results separately reported for the two sectors. The latest data available at the time of publication of this report were for the 2005–06 financial year (Round 10) for public hospitals (DoHA 2007) and the 2002–03 financial year (Round 7) for private hospitals (DoHA 2004a).

This report uses the cost data for acute admitted patients only. Unless otherwise specified, the cost weight data in this report for public hospitals use AR-DRG version 5.1 and cost weight data for AR-DRG version 5.0 (DoHA 2002). Private cost weight data, presented in Chapter 2 of this report, is based on AR-DRG version 4.2 (DHAC 2000).

The NHCDC involves arrangements whereby the hospital data are collected by the individual hospitals, and checked and validated by state/territory/private sector coordinators before being passed on to the Department of Health and Ageing. The production and publication of the final cost weights and associated tables follow extensive quality assurance procedures undertaken by the department, and endorsement of the results by the states and territories. The participating hospitals include both patient costing and cost modelling sites. Cost modelling refers to a process where estimates of costs are produced at the level of each AR-DRG. Cost modelling is a 'top down' approach where costs from the hospitals' general ledgers are allocated to acute admitted patients using a series of allocation statistics. Patient costing is a 'bottom up' approach where the costs of each service provided to an individual patient are measured or estimated to obtain the total cost of treating individual patients.

In 2006–07, 232 public hospitals were included in the collection. Although the coverage of public hospitals was approximately 46% of all public hospitals, the total number of separations was approximately 91% of total acute separations within the year (DoHA 2007). The average cost per separation was estimated at $3,542 for public hospitals for 2005–06. This estimate includes an estimate for depreciation.

Further information is provided in the NHCDC report for 2005–06 (DoHA 2007). Cost weights and associated tables for each round of the NHCDC can be obtained from the Department of Health and Ageing on the Casemix website at <www.health.gov.au>.

Appendix 4: Service Related Groups

Introduction

The Service Related Group (SRG) classification is based on Australian Refined Diagnosis Related Group (AR-DRG) aggregations and categorises admitted patient episodes into groups representing clinical divisions of hospital activity. SRGs are used to assist in the planning of services, analysing and comparing hospital activity, examining patterns of service needs and access, and projecting potential trends in services. For this purpose the AR-DRG system was not considered appropriate as it contains too many classes. Both the Major Diagnostic Categories (MDC) and the *International statistical classification of diseases and related health problems, 10th revision, Australian modification* (ICD-10-AM) were also considered unsuitable as they generally relate to body systems rather than services.

An example illustrating the assignment of selected procedures to SRGs is shown below. These examples illustrate the differences between categorising procedures on the basis of ICD-10-AM chapters, MDCs and SRGs.

Procedure	ICD-10-AM chapter	MDC	SRG
Extraction of wisdom teeth	Diseases of the digestive system	MDC 3 Ear nose and throat	Dentistry
Endoscopic retrograde cholangiopancreatography (ERCP)	Diseases of the digestive system	MDC 6 Digestive system	Gastroenterology
Excision of haemorrhoids	Diseases of the digestive system	MDC 6 Digestive system	Colorectal surgery

For the *Australian hospital statistics* 2001–02 to 2004–05 reports, this analysis used a method based on AR-DRG version 4.2, originally developed by the New South Wales Department of Health and the Commonwealth Department of Health and Ageing.

The methodology used in *Australian hospital statistics 2005–06* (AIHW 2007a) and this report for assigning SRGs based on AR-DRG versions 5.0 and 5.1 was developed by the New South Wales Department of Health (unpublished). For more information on the methodology used to assign SRGs, see Table A4.6 in the Internet version of this report.

SRGs were allocated using the data in the National Hospital Morbidity Database. The method largely involves aggregations of AR-DRG information. However, the assignment of some separations to SRGs is based on other information, such as procedures, diagnoses and care types. Separations with non-acute care are allocated to separate SRG categories according to the type of care because the main service type of these separations cannot be ascertained from their diagnoses or procedures. Separations may also have been assigned to certain specialist SRGs depending on whether or not the hospital had a specialist neurosurgery, perinatology (neonatal intensive care unit) or cardiothoracic unit, as appropriate, as reported to the National Public Hospital Establishments Database (see Chapter 3). An 'unallocated' SRG is assigned for separations with an *Error DRG* (see Chapter 12). The classification also incorporates non-specialist SRGs, which are used for smaller hospitals that do not have the specialist services or specialist equipment. There are 50 SRGs as presented in Table A4.1.

State and territory overview

Table A4.1 contains the number of establishments with more than 50 separations and the number of establishments with more than 360 patient days in each SRG by state and territory and by Remoteness Area for public hospitals only. This has been included as an indicative measure of the number of specialty units. The best indicative measure of the number of units varies between SRGs and between uses of the measure. For example, for *Maintenance* (SRG 87), 89 hospitals provided more than 50 separations a year and 329 hospitals provided more than 360 patient days, and for *Gastroenterology* (SRG 15) these measures were 347 and 205 hospitals respectively. *Cardiothoracic surgery* (SRG 42) showed no difference between the two different measures, with 27 units under both measures.

Cardiology (SRG 11) and *Surgery, no definitive specialty* (SRG 54) had the greatest number of establishments, with more than 50 separations at 388 and 381 hospitals respectively. *Maintenance* (SRG 87) and *Respiratory medicine* (SRG 24) had the greatest number of establishments with more that 360 patient days a year, with 366 and 314 hospitals respectively.

Tables A4.2 and A4.3 (accompanying this report on the Internet at <www.aihw.gov.au>) contain the number of separations in each SRG category by state and territory for all public and private hospitals respectively. *Renal dialysis* (SRG 23) had the largest number of separations in public hospitals with 784,106, followed by *Obstetrics* (SRG 72) with 317,116. In the private sector, *Diagnostic gastrointestinal endoscopy* (SRG 16) recorded the highest number of separations with 314,375, followed by *Orthopaedics* (SRG 49) with 256,802.

Tables A4.4 and A4.5 in the Internet version of this publication summarise the number of patient days in each sector by SRG and state and territory. In the public sector, *Acute psychiatry* (SRG 82) recorded the highest number of patient days with 1,475,123, and *Orthopaedics* (SRG 49) recorded the highest in the private sector with 748,309 days.

Table A4.1: Number of hospitals with more than 50 separations[a] and with more than 360 patient days in each Service Related Group, by Service Related Group and Remoteness Area, public hospitals, states and territories, 2006–07

	NSW		Vic		Qld		WA		SA		Tas		ACT		NT		Total	
Service Related Group	50 Seps	360 Days	50 Seps	360 Days	50 Seps	360 Days	50 Seps	360 Days	50 Seps	360 Days	50 Seps	360 Days	50 Seps	360 Days	50 Seps	360 Days	50 Seps	360 Days
11 Cardiology	141	103	72	58	83	44	34	21	45	27	6	3	2	2	5	3	388	261
Major City	38	38	22	21	13	12	6	7	8	8	. .	. .	2	2	. .	. .	89	88
Regional	93	64	50	37	57	31	19	11	31	17	5	3	0	0	1	1	256	164
Remote	10	1	0	0	13	1	9	3	6	2	1	0	. .	. .	4	2	43	9
12 Interventional Cardiology	30	31	15	14	6	6	4	3	4	4	2	2	1	1	1	1	63	62
Major City	25	26	12	12	4	4	4	3	4	4	. .	. .	1	1	. .	. .	50	50
Regional	5	5	3	2	2	2	0	0	0	0	2	2	0	0	1	1	13	12
Remote	0	0	0	0	0	0	0	0	0	0	0	0	. .	. .	0	0	0	0
13 Dermatology	32	12	22	10	19	6	10	4	6	4	3	2	2	1	2	1	96	40
Major City	27	12	19	10	9	5	6	4	6	4	. .	. .	2	1	. .	. .	69	36
Regional	5	0	3	0	9	1	4	0	0	0	3	2	0	0	1	1	25	4
Remote	0	0	0	0	1	0	0	0	0	0	0	0	. .	. .	1	0	2	0
14 Endocrinology	64	55	37	30	30	24	15	11	14	13	3	3	2	2	3	2	168	140
Major City	34	33	21	19	12	12	7	6	8	8	. .	. .	2	2	. .	. .	84	80
Regional	30	22	16	11	17	10	7	5	5	4	3	3	0	0	1	1	79	56
Remote	0	0	0	0	1	2	1	0	1	1	0	0	. .	. .	2	1	5	4
15 Gastroenterology	116	80	74	48	66	35	38	18	40	16	6	3	2	2	5	3	347	205
Major City	38	37	26	24	13	12	10	8	8	8	. .	. .	2	2	. .	. .	97	91
Regional	74	43	48	24	45	22	19	9	28	8	6	3	0	0	1	1	221	110
Remote	4	0	0	0	8	1	9	1	4	0	0	0	. .	. .	4	2	29	4
16 Diagnostic GI Endoscopy	81	51	61	35	38	22	29	15	27	13	3	3	2	2	4	2	245	143
Major City	34	34	21	18	12	11	10	9	8	8	. .	. .	2	2	. .	. .	87	82
Regional	47	17	40	17	23	11	14	6	17	5	3	3	0	0	1	1	145	60
Remote	0	0	0	0	3	0	5	0	2	0	0	0	. .	. .	3	1	13	1
17 Haematology	52	32	39	21	25	14	11	5	11	7	3	3	2	1	2	1	145	84
Major City	26	24	20	15	11	7	6	4	8	7	. .	. .	2	1	. .	. .	73	58
Regional	26	8	19	6	13	7	5	1	3	0	3	3	0	0	1	1	70	26
Remote	0	0	0	0	1	0	0	0	0	0	0	0	. .	. .	1	0	2	0
18 Immunology & Infections	86	69	46	41	56	31	26	17	17	12	3	3	2	2	5	5	241	180
Major City	37	37	23	23	13	12	7	6	8	8	. .	. .	2	2	. .	. .	90	88
Regional	47	32	23	18	35	17	9	7	8	4	3	3	0	0	1	1	126	82
Remote	2	0	0	0	8	2	10	4	1	0	0	0	. .	. .	4	4	25	10
19 Medical Oncology	60	61	41	40	28	22	13	8	14	12	3	5	2	2	2	2	163	152
Major City	31	33	22	20	13	11	8	6	8	8	. .	. .	2	2	. .	. .	84	80
Regional	29	28	19	20	14	10	5	2	5	4	3	5	0	0	1	1	76	70
Remote	0	0	0	0	1	1	0	0	1	0	0	0	. .	. .	1	1	3	2

(continued)

Table A4.1 (continued): Number of hospitals with more than 50 separations[(a)] and with more than 360 patient days in each Service Related Group, by Service Related Group and Remoteness Area, public hospitals, states and territories, 2006–07

	NSW		Vic		Qld		WA		SA		Tas		ACT		NT		Total	
Service Related Group	50 Seps	360 Days	50 Seps	360 Days	50 Seps	360 Days	50 Seps	360 Days	50 Seps	360 Days	50 Seps	360 Days	50 Seps	360 Days	50 Seps	360 Days	50 Seps	360 Days
20 Chemotherapy	13	2	39	28	21	11	11	8	14	8	1	1	2	0	2	1	103	59
Major City	11	2	19	14	6	4	6	5	8	7	. .	. .	2	0	. .	. .	52	32
Regional	2	0	20	14	14	7	5	3	6	1	1	1	0	0	1	1	49	27
Remote	0	0	0	0	1	0	0	0	0	0	0	0	. .	. .	1	0	2	0
21 Neurology	107	87	59	44	59	33	26	20	35	18	5	3	2	2	5	3	298	210
Major City	38	43	23	22	13	12	8	8	8	8	. .	. .	2	2	. .	. .	92	95
Regional	66	44	36	22	43	20	13	11	23	9	5	3	0	0	1	1	187	110
Remote	3	0	0	0	3	1	5	1	4	1	0	0	. .	. .	4	2	19	5
22 Renal Medicine	69	51	44	33	31	23	12	9	12	8	3	3	2	2	3	2	176	131
Major City	37	33	28	25	13	12	6	6	8	8	. .	. .	2	2	. .	. .	94	86
Regional	32	18	16	8	17	10	6	3	4	0	3	3	0	0	1	1	79	43
Remote	0	0	0	0	1	1	0	0	0	0	0	0	. .	. .	2	1	3	2
23 Renal Dialysis	48	39	58	47	16	15	11	11	13	11	2	2	1	1	4	4	153	130
Major City	14	14	20	20	7	6	6	6	7	6	. .	. .	1	1	. .	. .	55	53
Regional	30	24	38	27	9	9	4	4	4	3	2	2	0	0	1	1	88	70
Remote	4	1	0	0	0	0	1	1	2	2	0	0	. .	. .	3	3	10	7
24 Respiratory Medicine	131	124	74	70	74	49	34	29	39	30	7	5	2	2	5	5	366	314
Major City	38	41	24	23	13	12	7	8	8	8	. .	. .	2	2	. .	. .	92	94
Regional	86	79	50	47	50	34	17	13	27	19	6	5	0	0	1	1	237	198
Remote	7	4	0	0	11	3	10	8	4	3	1	0	. .	. .	4	4	37	22
25 Rheumatology	17	13	11	7	10	5	5	3	6	5	1	1	2	1	1	0	53	35
Major City	16	13	9	7	5	3	4	3	6	5	. .	. .	2	1	. .	. .	42	32
Regional	1	0	2	0	5	2	1	0	0	0	1	1	0	0	1	0	11	3
Remote	0	0	0	0	0	0	0	0	0	0	0	0	. .	. .	0	0	0	0
26 Pain Management	43	11	34	14	21	4	10	5	9	2	3	1	2	0	2	0	124	37
Major City	29	11	20	13	11	3	8	5	6	2	. .	. .	2	0	. .	. .	76	34
Regional	14	0	14	1	10	1	2	0	2	0	3	1	0	0	1	0	46	3
Remote	0	0	0	0	0	0	0	0	1	0	0	0	. .	. .	1	0	2	0
27 Medicine, No Definitive	107	92	72	59	54	35	31	18	29	19	4	7	2	2	5	3	304	235
Major City	45	46	31	27	14	13	11	10	8	9	. .	. .	2	2	. .	. .	111	107
Regional	61	46	41	32	36	21	12	7	19	9	4	7	0	0	1	1	174	123
Remote	1	0	0	0	4	1	8	1	2	1	0	0	. .	. .	4	2	19	5
41 Breast Surgery	33	5	26	11	14	5	5	2	4	2	3	0	1	0	1	0	87	25
Major City	21	5	16	11	6	4	4	2	4	2	. .	. .	1	0	. .	. .	52	24
Regional	12	0	10	0	8	1	1	0	0	0	3	0	0	0	1	0	35	1
Remote	0	0	0	0	0	0	0	0	0	0	0	0	. .	. .	0	0	0	0
42 Cardiothoracic Surgery	10	10	6	6	3	3	4	4	2	2	1	1	1	1	0	0	27	27
Major City	10	10	6	6	2	2	4	4	2	2	. .	. .	1	1	. .	. .	25	25
Regional	0	0	0	0	1	1	0	0	0	0	1	1	0	0	0	0	2	2

(continued)

Table A4.1 (continued): Number of hospitals with more than 50 separations[(a)] and with more than 360 patient days in each Service Related Group, by Service Related Group and Remoteness Area, public hospitals, states and territories, 2006–07

	NSW		Vic		Qld		WA		SA		Tas		ACT		NT		Total	
Service Related Group	50 Seps	360 Days	50 Seps	360 Days	50 Seps	360 Days	50 Seps	360 Days	50 Seps	360 Days	50 Seps	360 Days	50 Seps	360 Days	50 Seps	360 Days	50 Seps	360 Days
43 Colorectal Surgery	74	54	50	37	31	20	21	13	17	11	3	3	2	2	3	2	201	142
Major City	34	33	26	21	12	11	9	8	8	7	..	..	2	2	..	..	91	82
Regional	40	21	24	16	18	9	9	5	8	4	3	3	0	0	1	1	103	59
Remote	0	0	0	0	1	0	3	0	1	0	0	0	..	..	2	1	7	1
44 Upper GIT Surgery	68	51	46	33	31	20	21	12	17	10	3	3	2	2	3	2	191	133
Major City	34	32	23	20	12	11	9	6	8	8	..	..	2	2	..	..	88	79
Regional	34	19	23	13	18	9	9	5	8	2	3	3	0	0	1	1	96	52
Remote	0	0	0	0	1	0	3	1	1	0	0	0	..	..	2	1	7	2
45 Head & Neck Surgery	14	9	12	5	10	2	3	2	3	1	1	0	1	0	1	0	45	19
Major City	14	9	12	5	6	2	3	2	3	1	..	..	1	0	..	..	39	19
Regional	0	0	0	0	4	0	0	0	0	0	1	0	0	0	1	0	6	0
Remote	0	0	0	0	0	0	0	0	0	0	0	0	..	..	0	0	0	0
46 Neurosurgery	13	13	7	7	6	6	3	3	3	3	1	1	1	1	0	0	34	34
Major City	13	13	7	7	5	5	3	3	3	3	..	..	1	1	..	..	32	32
Regional	0	0	0	0	1	1	0	0	0	0	1	1	0	0	0	0	2	2
Remote	0	0	0	0	0	0	0	0	0	0	0	0	..	..	0	0	0	0
47 Dentistry	28	2	29	5	25	2	12	1	8	2	3	0	1	0	2	0	108	12
Major City	13	2	8	3	11	2	5	1	2	2	..	..	1	0	..	..	40	10
Regional	15	0	21	2	12	0	5	0	5	0	3	0	0	0	1	0	62	2
Remote	0	0	0	0	2	0	2	0	1	0	0	0	..	..	1	0	6	0
48 Ear, Nose & Throat	61	28	57	29	27	13	22	8	20	7	3	3	2	2	4	2	196	92
Major City	34	22	24	20	11	8	9	6	7	7	..	..	2	2	..	..	87	65
Regional	27	6	33	9	15	5	8	2	11	0	3	3	0	0	1	1	98	26
Remote	0	0	0	0	1	0	5	0	2	0	0	0	..	..	3	1	11	1
49 Orthopaedics	116	100	65	54	63	44	34	27	42	22	3	4	2	2	5	3	330	256
Major City	41	41	25	22	13	13	11	11	8	8	..	..	2	2	..	..	100	97
Regional	71	59	40	32	42	29	15	11	29	13	3	4	0	0	1	1	201	149
Remote	4	0	0	0	8	2	8	5	5	1	0	0	..	..	4	2	29	10
50 Ophthalmology	56	26	45	17	26	10	21	12	19	6	3	1	2	1	4	2	176	75
Major City	27	15	21	12	9	6	9	8	7	6	..	..	2	1	..	..	75	48
Regional	28	11	24	5	12	4	9	4	11	0	3	1	0	0	1	1	88	26
Remote	1	0	0	0	5	0	3	0	1	0	0	0	..	..	3	1	13	1
51 Plastic & Reconstructive Surgery	84	46	63	37	38	19	25	12	23	9	3	3	2	1	4	2	242	129
Major City	37	30	28	21	12	11	9	7	8	8	..	..	2	1	..	..	96	78
Regional	47	16	35	16	25	8	10	5	14	1	3	3	0	0	1	1	135	50
Remote	0	0	0	0	1	0	6	0	1	0	0	0	..	..	3	1	11	1
52 Urology	79	44	59	38	34	16	26	13	25	9	3	2	2	2	3	2	231	126
Major City	35	29	26	22	12	10	12	8	8	8	..	..	2	2	..	..	95	79
Regional	44	15	33	16	21	6	10	5	16	1	3	2	0	0	1	1	128	46
Remote	0	0	0	0	1	0	4	0	1	0	0	0	..	..	2	1	8	1

(continued)

Table A4.1 (continued): Number of hospitals with more than 50 separations[(a)] and with more than 360 patient days in each Service Related Group, by Service Related Group and Remoteness Area, public hospitals, states and territories, 2006–07

	NSW		Vic		Qld		WA		SA		Tas		ACT		NT		Total	
Service Related Group	50 Seps	360 Days	50 Seps	360 Days	50 Seps	360 Days	50 Seps	360 Days	50 Seps	360 Days	50 Seps	360 Days	50 Seps	360 Days	50 Seps	360 Days	50 Seps	360 Days
53 Vascular Surgery	46	41	31	30	20	16	7	6	8	7	3	4	2	1	2	2	119	107
Major City	31	29	21	18	10	8	5	5	7	6	. .	. .	2	1	. .	. .	76	67
Regional	15	12	10	12	10	8	2	0	1	1	3	4	0	0	1	1	42	38
Remote	0	0	0	0	0	0	0	1	0	0	0	0	. .	. .	1	1	1	2
54 Surgery, No Definitive Subspecialty	127	85	71	54	89	45	39	27	44	19	4	3	2	2	5	5	381	240
Major City	39	38	28	26	14	12	11	11	8	8	. .	. .	2	2	. .	. .	102	97
Regional	81	47	43	28	58	31	16	11	29	10	3	3	0	0	1	1	231	131
Remote	7	0	0	0	17	2	12	5	7	1	1	0	. .	. .	4	4	48	12
61 Transplantation	3	4	3	4	1	2	1	2	1	2	0	0	0	0	0	0	9	14
Major City	3	4	3	4	1	2	1	2	1	2	. .	. .	0	0	. .	. .	9	14
Regional	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Remote	0	0	0	0	0	0	0	0	0	0	0	0	. .	. .	0	0	0	0
62 Extensive Burns	3	4	2	2	2	2	2	2	2	2	1	1	0	0	1	1	13	14
Major City	3	3	2	2	2	2	2	2	2	2	. .	. .	0	0	. .	. .	11	11
Regional	0	1	0	0	0	0	0	0	0	0	1	1	0	0	1	1	2	3
Remote	0	0	0	0	0	0	0	0	0	0	0	0	. .	. .	0	0	0	0
63 Tracheostomy & ECMO	17	32	13	19	10	16	4	4	3	5	2	3	1	2	1	2	51	83
Major City	17	23	13	13	6	10	4	4	3	5	. .	. .	1	2	. .	. .	44	57
Regional	0	9	0	6	4	6	0	0	0	0	2	3	0	0	1	1	7	25
Remote	0	0	0	0	0	0	0	0	0	0	0	0	. .	. .	0	1	0	1
66 Social admissions	0	3	3	1	1	1	0	0	2	2	0	0	0	0	0	1	6	8
Major City	0	2	1	0	1	1	0	0	1	1	. .	. .	0	0	. .	. .	3	4
Regional	0	0	2	1	0	0	0	0	1	1	0	0	0	0	0	1	3	3
Remote	0	1	0	0	0	0	0	0	0	0	0	0	. .	. .	0	0	0	1
71 Gynaecology	73	47	63	37	36	20	28	13	24	14	3	3	2	2	4	2	233	138
Major City	33	28	27	19	9	9	11	5	8	8	. .	. .	2	2	. .	. .	90	71
Regional	40	19	36	18	24	10	11	7	15	6	3	3	0	0	1	1	130	64
Remote	0	0	0	0	3	1	6	1	1	0	0	0	. .	. .	3	1	13	3
72 Obstetrics	82	74	58	45	47	34	31	28	25	19	4	3	2	2	5	4	254	209
Major City	29	26	19	17	9	7	9	8	4	4	. .	. .	2	2	. .	. .	72	64
Regional	52	48	39	28	33	24	15	13	20	14	4	3	0	0	1	1	164	131
Remote	1	0	0	0	5	3	7	7	1	1	0	0	. .	. .	4	3	18	14
73 Qualified Neonate	43	39	29	26	20	20	13	7	9	6	3	2	2	2	3	3	122	105
Major City	24	24	15	14	9	10	7	5	4	4	. .	. .	2	2	. .	. .	61	59
Regional	19	15	14	12	10	9	4	1	5	2	3	2	0	0	1	1	56	42
Remote	0	0	0	0	1	1	2	1	0	0	0	0	. .	. .	2	2	5	4
74 Unqualified Neonate	74	0	51	0	39	0	28	0	24	0	3	0	2	0	4	0	225	0
Major City	25	0	14	0	7	0	7	0	3	0	. .	. .	2	0	. .	. .	58	0
Regional	48	0	37	0	27	0	14	0	20	0	3	0	0	0	1	0	150	0
Remote	1	0	0	0	5	0	7	0	1	0	0	0	. .	. .	3	0	17	0

(continued)

Table A4.1 (continued): Number of hospitals with more than 50 separations[(a)] and with more than 360 patient days in each Service Related Group, by Service Related Group and Remoteness Area, public hospitals, 2006–07

		NSW		Vic		Qld		WA		SA		Tas		ACT		NT		Total	
	Service Related Group	Seps	Days	50 Seps	Days	Seps	Days	Seps	Days	Seps	Days	Seps	Days	Seps	Days	Seps	Days	Seps	Days
75	Perinatology	12	11	4	4	3	3	1	1	2	2	1	1	1	1	1	1	25	24
	Major City	10	10	4	4	2	2	1	1	2	2	..	..	1	1	..	..	20	20
	Regional	2	1	0	0	1	1	0	0	0	0	1	1	0	0	1	1	5	4
	Remote	0	0	0	0	0	0	0	0	0	0	0	0	..	..	0	0	0	0
76	Definitive Paediatric Medicine	59	32	29	17	31	16	19	6	8	5	3	3	2	1	5	4	156	84
	Major City	27	21	15	12	7	6	4	4	4	4	..	..	2	1	..	..	59	48
	Regional	31	11	14	5	23	9	8	1	4	1	3	3	0	0	1	1	84	31
	Remote	1	0	0	0	1	1	7	1	0	0	0	0	..	..	4	3	13	5
81	Drug & Alcohol	82	50	37	21	36	15	20	9	19	8	4	4	2	2	2	2	202	111
	Major City	38	33	20	16	12	7	8	7	8	7	..	..	2	2	..	..	88	72
	Regional	44	17	17	5	22	8	9	2	9	1	4	4	0	0	1	1	106	38
	Remote	0	0	0	0	2	0	3	0	2	0	0	0	..	..	1	1	8	1
82	Acute Psychiatry	95	60	48	43	34	21	27	19	28	16	5	7	2	2	2	2	241	170
	Major City	44	37	30	30	11	11	8	8	9	9	..	..	2	2	..	..	104	97
	Regional	49	23	18	13	22	10	13	9	18	6	5	7	0	0	1	1	126	69
	Remote	2	0	0	0	1	0	6	2	1	1	0	0	..	..	1	1	11	4
84	Rehabilitation	64	82	28	33	20	41	10	19	10	11	3	3	2	2	1	3	138	194
	Major City	36	39	17	17	10	12	8	12	6	6	..	..	2	2	..	..	79	88
	Regional	28	43	11	16	10	29	2	7	4	5	3	3	0	0	1	1	59	104
	Remote	0	0	0	0	0	0	0	0	0	0	0	0	..	..	0	2	0	2
85	Non Acute Geriatric	13	18	33	37	4	7	7	8	2	2	2	1	2	2	1	2	64	77
	Major City	9	10	20	21	3	4	6	7	2	2	..	..	2	2	..	..	42	46
	Regional	4	8	13	16	1	3	1	1	0	0	2	1	0	0	1	1	22	30
	Remote	0	0	0	0	0	0	0	0	0	0	0	0	..	..	0	1	0	1
86	Palliative Care	32	37	16	22	21	22	6	10	3	5	2	2	2	2	1	1	83	101
	Major City	18	19	10	10	10	10	5	5	3	3	..	..	2	2	..	..	48	49
	Regional	14	18	6	12	10	10	1	5	0	2	2	2	0	0	1	1	34	50
	Remote	0	0	0	0	1	2	0	0	0	0	0	0	..	..	0	0	1	2
87	Maintenance	31	97	8	48	29	77	11	43	4	50	3	8	2	2	1	4	89	329
	Major City	16	22	8	15	11	12	6	11	4	6	..	..	2	2	..	..	47	68
	Regional	15	69	0	32	17	51	5	23	0	32	3	8	0	0	1	1	41	216
	Remote	0	6	0	1	1	14	0	9	0	12	0	0	..	..	0	3	1	45
88	Acute Definitive Geriatrics	57	65	30	31	21	22	10	12	9	11	3	4	2	2	1	1	133	148
	Major City	34	36	21	20	10	10	5	6	8	8	..	..	2	2	..	..	80	82
	Regional	23	29	9	11	11	11	5	6	1	3	3	4	0	0	1	1	53	65
	Remote	0	0	0	0	0	1	0	0	0	0	0	0	..	..	0	0	0	1
99	Unallocated	18	20	9	11	3	5	4	3	3	5	1	2	0	1	1	1	39	48
	Major City	17	19	9	11	3	3	4	3	3	5	..	..	0	1	..	..	36	42
	Regional	1	1	0	0	0	2	0	0	0	0	1	2	0	0	1	1	3	6
	Remote	0	0	0	0	0	0	0	0	0	0	0	0	..	..	0	0	0	0

(a) Records for *Hospital boarders* and *Posthumous organ procurement* have been excluded.

Note: Rows for regions with no apparent units are not shown. SRG definitions based on version 5.0 AR-DRGs have been applied to version 5.1 AR-DRGs.

Abbreviations: ECMO—extracorporeal membrane oxygenation; GI/GIT—gastrointestinal.

Appendix 5: Potentially preventable hospitalisations

The selected potentially preventable hospitalisations (PPHs) are those conditions where hospitalisation is thought to be 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 potentially preventable hospitalisation may indicate an increased prevalence of the conditions in the community or poorer functioning of the non-hospital care system. On the other hand it may indicate 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.

The three broad categories of PPHs that have been used in this report include *Vaccine-preventable*, *Acute* and *Chronic* (see Chapter 4 for descriptions of these categories). PPH categories have been sourced from *The Victorian ambulatory care sensitive conditions study* (Department of Human Services Victoria 2002):

A full description of all conditions presented in these tables, including ICD-10-AM codes, can be found in Table A1.9 accompanying this report on the Internet.

Tables A5.1, A5.2 and A5.3 present the number of separations, the proportion of residents treated in hospitals outside their state of residence and the age-standardised separation rates for each PPH condition for the state or territory (Table A5.1) or Remoteness Area of usual residence of the patient (Table A5.2) or the quintile of socioeconomic advantage/disadvantage (Table A5.3; see Appendix 1 for information on geographical data). These tables also include the standardised separation rate ratio (SRR) against the national total as well as the 95% confidence interval of the SRR. Statistics are presented for the total PPH rate, the rates for each of the three broad PPH categories as well as rates for individual conditions.

There were almost 700,000 selected PPHs in Australia in 2006–07 (Table A5.1), 9.2% of all separations, which translates to a rate of 32.5 per 1,000 population. The rates ranged from 22.2 per 1,000 population in the Australian Capital Territory to 47.9 per 1,000 population in the Northern Territory. The separation rate for *Vaccine-preventable* PPHs in the Northern Territory was 3.3 times the national rate, and the separation rate for the Australian Capital Territory was 0.7 times the national rate.

Table A5.2 highlights that separation rates were higher for the more remote areas for most PPHs. For example, the rate for *Chronic obstructive pulmonary disease* in Major Cities was 2.4 per 1,000 separations, 2.7 for Inner Regional, 3.3 for Outer Regional, 4.9 for Remote and 6.1 for Very Remote areas.

Table A5.3 presents these data by quintile of socioeconomic advantage/disadvantage using the SEIFA 2006 Index of Socio-Economic Advantage/Disadvantage (ABS 2008) of the statistical local area of the patient's usual residence (see Appendix 1). The *Most disadvantaged* quintile represents the areas containing the 20% of the population with the least advantage/most disadvantage and the *Most advantaged* quintile represents the areas containing the 20% of the population with the most advantage /least disadvantage.

For most PPHs the *Most disadvantaged* quintile has around 1.2 times the hospital separation rate of the *Most advantaged* quintile, with the ratio of *Most disadvantaged* to *Most advantaged* being 1.6 for the total of all PPHs. Of the PPH categories, hospitalisation rates for *Angina, Chronic obstructive pulmonary disease, Diabetes complications* and *Hypertension* were at least twice as common for the *Most disadvantaged* quintile than for the *Most advantaged* quintile. There was little difference in separation rates for *Other vaccine-preventable conditions*, *Iron deficiency anaemia*, *Dental conditions* and *Appendicitis with generalised peritonitis* between the *Most advantaged* and *Most disadvantaged* quintiles.

Table A5.1: Separation statistics[a] for selected potentially preventable hospitalisations[b], by state or territory of usual residence, all hospitals, 2006–07

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total[c]
Vaccine-preventable conditions									
Influenza and pneumonia									
Separations[d]	3,408	1,869	1,958	825	652	231	112	235	9,292
Separations not within state of residence (%)	3	3	2	1	4	3	4	7	
Separation rate[e]	0.47	0.35	0.47	0.40	0.38	0.43	0.37	1.27	0.43
Standardised separation rate ratio (SRR)	1.09	0.80	1.09	0.93	0.88	0.98	0.85	2.94	
95% confidence interval of SRR	1.06–1.13	0.76–0.84	1.04–1.14	0.87–0.99	0.81–0.94	0.86–1.11	0.69–1.01	2.56–3.32	
Other vaccine-preventable conditions									
Separations[d]	959	1,131	560	235	223	14	17	133	3,272
Separations not within state of residence (%)	3	0	0	1	1	40	31	8	
Separation rate[e]	0.14	0.21	0.13	0.11	0.13	0.03	0.05	0.70	0.15
Standardised separation rate ratio (SRR)	0.89	1.39	0.87	0.73	0.87	0.19	0.30	4.54	
95% confidence interval of SRR	0.83–0.94	1.31–1.47	0.80–0.94	0.64–0.82	0.76–0.99	0.09–0.29	0.16–0.45	3.76–5.31	
Total vaccine-preventable conditions									
Separations[d]	4,357	2,997	2,513	1,060	874	245	129	366	12,543
Proportion of total separations[d](%)	0.2	0.1	0.2	0.1	0.1	n.p.	n.p.	n.p.	0.2
Separations not within state of residence (%)	3	0	0	1	1	40	31	8	
Separation rate[e]	0.61	0.56	0.61	0.52	0.51	0.46	0.41	1.96	0.59
Standardised separation rate ratio (SRR)	1.04	0.95	1.03	0.88	0.88	0.78	0.71	3.34	
95% confidence interval of SRR	1.01–1.07	0.92–0.99	0.99–1.07	0.83–0.93	0.82–0.93	0.68–0.87	0.58–0.83	3.00–3.68	
Acute conditions									
Appendicitis with generalised peritonitis									
Separations[d]	1,129	947	597	439	261	72	72	51	3,569
Separations not within state of residence (%)	4	2	2	1	3	3	7	0	
Separation rate[e]	0.17	0.19	0.14	0.21	0.17	0.14	0.22	0.23	0.17
Standardised separation rate ratio (SRR)	0.96	1.08	0.84	1.24	0.96	0.82	1.26	1.35	
95% confidence interval of SRR	0.91–1.02	1.01–1.15	0.77–0.90	1.12–1.35	0.85–1.08	0.63–1.01	0.97–1.55	0.98–1.73	
Cellulitis									
Separations[d]	11,382	8,698	7,148	2,966	2,777	722	443	839	34,980
Separations not within state of residence (%)	3	2	2	1	3	4	4	2	
Separation rate[e]	1.58	1.61	1.72	1.44	1.59	1.37	1.39	4.53	1.63
Standardised separation rate ratio (SRR)	0.97	0.99	1.06	0.88	0.98	0.84	0.86	2.79	
95% confidence interval of SRR	0.95–0.99	0.97–1.01	1.04–1.09	0.85–0.91	0.94–1.02	0.78–0.90	0.78–0.94	2.60–2.97	

(continued)

Table A5.1 (continued): Separation statistics[a] for selected potentially preventable hospitalisations[b], by state or territory of usual residence, all hospitals, 2006–07

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total[c]
Convulsions and epilepsy									
Separations[d]	11,649	7,457	6,371	2,910	2,476	756	422	682	32,724
Separations not within state of residence (%)	2	2	3	2	2	5	11	3	
Separation rate[e]	1.71	1.45	1.55	1.41	1.59	1.55	1.30	3.31	1.58
Standardised separation rate ratio (SRR)	1.08	0.92	0.98	0.90	1.00	0.98	0.83	2.10	
95% confidence interval of SRR	1.06–1.10	0.89–0.94	0.96–1.01	0.86–0.93	0.97–1.04	0.91–1.05	0.75–0.90	1.94–2.26	
Dehydration and gastroenteritis									
Separations[d]	15,666	16,713	9,936	4,538	4,688	1,107	578	330	53,571
Separations not within state of residence (%)	3	1	2	1	1	2	8	10	
Separation rate[e]	2.18	3.10	2.39	2.18	2.70	2.09	1.82	2.06	2.49
Standardised separation rate ratio (SRR)	0.88	1.25	0.96	0.88	1.09	0.84	0.73	0.83	
95% confidence interval of SRR	0.86–0.89	1.23–1.27	0.94–0.98	0.85–0.90	1.06–1.12	0.79–0.89	0.67–0.79	0.74–0.92	
Dental conditions									
Separations[d]	15,416	14,172	11,114	7,241	4,712	874	526	453	54,549
Separations not within state of residence (%)	3	1	1	0	0	2	3	6	
Separation rate[e]	2.28	2.79	2.71	3.51	3.06	1.81	1.64	1.95	2.65
Standardised separation rate ratio (SRR)	0.86	1.05	1.02	1.32	1.15	0.68	0.62	0.74	
95% confidence interval of SRR	0.85–0.87	1.04–1.07	1.00–1.04	1.29–1.35	1.12–1.19	0.64–0.73	0.57–0.67	0.67–0.80	
Ear, nose and throat infections									
Separations[d]	10,881	7,126	6,716	3,085	3,544	603	405	547	32,909
Separations not within state of residence (%)	3	2	2	1	1	1	6	4	
Separation rate[e]	1.62	1.42	1.64	1.51	2.44	1.28	1.22	2.28	1.62
Standardised separation rate ratio (SRR)	1.00	0.88	1.02	0.94	1.51	0.79	0.75	1.41	
95% confidence interval of SRR	0.98–1.02	0.86–0.90	0.99–1.04	0.90–0.97	1.46–1.56	0.73–0.85	0.68–0.83	1.29–1.53	
Gangrene									
Separations[d]	1,052	1,380	864	491	384	79	39	111	4,403
Separations not within state of residence (%)	5	1	0	1	2	4	11	5	
Separation rate[e]	0.14	0.25	0.21	0.24	0.21	0.15	0.13	0.73	0.20
Standardised separation rate ratio (SRR)	0.70	1.24	1.03	1.17	1.06	0.72	0.62	3.62	
95% confidence interval of SRR	0.66–0.75	1.18–1.31	0.96–1.10	1.06–1.27	0.95–1.16	0.56–0.88	0.43–0.82	2.95–4.30	

(continued)

Table A5.1 (continued): Separation statistics[a] for selected potentially preventable hospitalisations[b], by state or territory of usual residence, all hospitals, 2006–07

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total[c]
Pelvic inflammatory disease									
Separations[d]	1,565	1,311	1,091	476	370	95	88	116	5,113
Separations not within state of residence (%)	3	1	3	1	2	2	9	4	
Separation rate[e]	0.23	0.25	0.27	0.23	0.24	0.21	0.25	0.50	0.25
Standardised separation rate ratio (SRR)	0.93	1.03	1.08	0.93	0.98	0.84	1.01	2.00	
95% confidence interval of SRR	0.89–0.98	0.97–1.08	1.02–1.15	0.84–1.01	0.88–1.08	0.67–1.01	0.80–1.22	1.64–2.37	
Perforated/bleeding ulcer									
Separations[d]	1,632	1,369	865	554	446	124	72	41	5,105
Separations not within state of residence (%)	5	2	2	0	1	3	3	5	
Separation rate[e]	0.22	0.25	0.21	0.27	0.24	0.22	0.24	0.29	0.23
Standardised separation rate ratio (SRR)	0.95	1.06	0.90	1.17	1.02	0.95	1.03	1.26	
95% confidence interval of SRR	0.91–1.00	1.01–1.12	0.84–0.96	1.07–1.27	0.92–1.11	0.78–1.12	0.79–1.27	0.87–1.64	
Pyelonephritis									
Separations[d]	15,774	13,071	9,001	4,380	3,640	843	655	562	47,939
Separations not within state of residence (%)	2	1	2	1	2	2	4	4	
Separation rate[e]	2.14	2.39	2.18	2.14	2.04	1.56	2.20	3.62	2.20
Standardised separation rate ratio (SRR)	0.97	1.08	0.99	0.97	0.93	0.71	1.00	1.64	
95% confidence interval of SRR	0.96–0.99	1.06–1.10	0.97–1.01	0.94–1.00	0.90–0.96	0.66–0.76	0.92–1.08	1.51–1.78	
Total acute conditions									
Separations[d]	86,109	72,201	53,666	27,065	23,277	5,274	3,298	3,728	274,702
Proportion of total separations[d](%)	3.7	3.5	3.6	3.7	3.8	n.p.	n.p.	n.p.	3.6
Separations not within state of residence (%)	3	1	2	1	1	3	6	4	
Separation rate[e]	12.27	13.69	13.02	13.13	14.27	10.37	10.40	19.47	13.01
Standardised separation rate ratio (SRR)	0.94	1.05	1.00	1.01	1.10	0.80	0.80	1.50	
95% confidence interval of SRR	0.94–0.95	1.04–1.06	0.99–1.01	1.00–1.02	1.08–1.11	0.78–0.82	0.77–0.83	1.45–1.55	
Chronic conditions									
Angina									
Separations[d]	11,565	9,743	10,570	3,320	2,907	983	320	322	39,738
Separations not within state of residence (%)	3	1	2	1	3	2	5	4	
Separation rate[e]	1.55	1.75	2.53	1.61	1.52	1.71	1.14	2.36	1.79
Standardised separation rate ratio (SRR)	0.86	0.98	1.41	0.90	0.85	0.95	0.64	1.32	
95% confidence interval of SRR	0.85–0.88	0.96–0.99	1.38–1.44	0.87–0.93	0.82–0.88	0.89–1.01	0.57–0.70	1.17–1.46	

(continued)

Table A5.1 (continued): Separation statistics[a] for selected potentially preventable hospitalisations[b], by state or territory of usual residence, all hospitals, 2006–07

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total[c]
Asthma									
Separations[d]	13,182	9,387	5,847	2,870	3,755	675	368	349	36,433
Separations not within state of residence (%)	2	2	3	1	2	3	9	1	
Separation rate[e]	1.96	1.88	1.42	1.40	2.56	1.41	1.15	1.50	1.79
Standardised separation rate ratio (SRR)	1.10	1.05	0.80	0.78	1.43	0.79	0.64	0.84	
95% confidence interval of SRR	1.08–1.12	1.03–1.07	0.78–0.82	0.75–0.81	1.39–1.48	0.73–0.85	0.58–0.71	0.75–0.93	
Chronic obstructive pulmonary disease									
Separations[d]	18,881	14,042	11,142	4,520	5,354	1,397	451	796	56,593
Separations not within state of residence (%)	3	1	1	0	1	2	2	3	
Separation rate[e]	2.52	2.51	2.70	2.24	2.81	2.43	1.65	5.52	2.56
Standardised separation rate ratio (SRR)	0.98	0.98	1.05	0.88	1.10	0.95	0.64	2.16	
95% confidence interval of SRR	0.97–1.00	0.96–1.00	1.03–1.07	0.85–0.90	1.07–1.13	0.90–1.00	0.58–0.70	2.01–2.31	
Congestive cardiac failure									
Separations[d]	14,394	12,211	8,028	3,797	3,834	936	510	351	44,063
Separations not within state of residence (%)	2	2	2	2	2	2	2	3	
Separation rate[e]	1.85	2.11	1.94	1.88	1.89	1.58	1.91	2.53	1.94
Standardised separation rate ratio (SRR)	0.95	1.08	1.00	0.97	0.97	0.81	0.98	1.30	
95% confidence interval of SRR	0.94–0.97	1.07–1.10	0.98–1.02	0.93–1.00	0.94–1.00	0.76–0.87	0.90–1.07	1.16–1.43	
Diabetes complications									
Separations[d]	54,353	49,416	42,006	55,021	15,437	7,456	1,559	2,249	227,620
Separations not within state of residence (%)	7	9	10	26	8	13	5	15	
Separation rate[e]	7.38	8.98	10.15	26.43	8.35	13.36	5.28	15.34	10.43
Standardised separation rate ratio (SRR)	0.71	0.86	0.97	2.54	0.80	1.28	0.51	1.47	
95% confidence interval of SRR	0.70–0.71	0.85–0.87	0.96–0.98	2.51–2.56	0.79–0.81	1.25–1.31	0.48–0.53	1.41–1.53	
Hypertension									
Separations[d]	2,329	1,443	1,459	426	531	143	59	37	6,430
Separations not within state of residence (%)	2	2	2	2	2	1	7	6	
Separation rate[e]	0.31	0.26	0.35	0.21	0.29	0.26	0.20	0.24	0.29
Standardised separation rate ratio (SRR)	1.07	0.89	1.20	0.71	0.98	0.88	0.69	0.83	
95% confidence interval of SRR	1.03–1.12	0.84–0.94	1.13–1.26	0.64–0.77	0.90–1.07	0.74–1.02	0.51–0.87	0.56–1.10	

(continued)

Table A5.1 (continued): Separation statistics[a] for selected potentially preventable hospitalisations[b], by state or territory of usual residence, all hospitals, 2006–07

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total[c]
Iron deficiency anaemia									
Separations[d]	7,025	9,001	3,983	2,876	2,331	656	211	176	26,267
Separations not within state of residence (%)	3	0	1	0	0	0	3	3	
Separation rate[e]	0.96	1.65	0.96	1.41	1.28	1.19	0.69	1.10	1.21
Standardised separation rate ratio (SRR)	0.79	1.37	0.80	1.17	1.06	0.98	0.58	0.91	
95% confidence interval of SRR	0.78–0.81	1.34–1.39	0.77–0.82	1.12–1.21	1.02–1.11	0.91–1.06	0.50–0.65	0.78–1.05	
Nutritional deficiencies	0	0	0						
Separations[d]	35	27	30	26	8	4	1	17	148
Separations not within state of residence (%)	0	0	0	0	0	0	0	0	0
Separation rate[e]	0.00	0.00	0.01	0.01	0.00	0.01	0.00	0.06	0.01
Standardised separation rate ratio (SRR)	0.72	0.71	1.01	1.81	0.63	0.99	0.62	9.26	
95% confidence interval of SRR	0.48–0.95	0.44–0.97	0.65–1.38	1.12–2.51	0.19–1.07	n.a.	-0.60–1.84	4.86–13.66	
Rheumatic heart disease[f]									
Separations[d]	678	503	685	248	149	45	26	177	2,511
Separations not within state of residence (%)	11	2	1	0	3	18	18	37	0
Separation rate[e]	0.09	0.09	0.17	0.12	0.08	0.08	0.09	0.82	0.12
Standardised separation rate ratio (SRR)	0.80	0.79	1.43	1.03	0.71	0.68	0.74	7.05	
95% confidence interval of SRR	0.74–0.86	0.72–0.86	1.33–1.54	0.90–1.16	0.59–0.82	0.48–0.87	0.46–1.02	6.01–8.09	
Total chronic conditions									
Separations[d]	115,077	99,288	78,743	70,964	32,154	11,816	3,315	4,174	415,679
Proportion of total separations[d](%)	5.0	4.8	5.2	9.6	5.2	n.p.	n.p.	n.p.	5.5
Separations not within state of residence (%)	4	1	1	0	1	1	10	11	0
Separation rate[e]	15.66	18.07	19.02	34.25	17.69	21.18	11.43	27.25	19.05
Standardised separation rate ratio (SRR)	0.82	0.95	1.00	1.80	0.93	1.11	0.60	1.43	
95% confidence interval of SRR	0.82–0.83	0.94–0.95	0.99–1.01	1.79–1.81	0.92–0.94	1.09–1.13	0.58–0.62	1.39–1.47	
Total selected potentially preventable hospitalisations									
Separations[d]	204,673	173,770	134,293	98,682	56,006	17,271	6,717	8,142	699,788
Proportion of total separations[d](%)	8.9	8.4	8.9	13.3	9.1	n.p.	n.p.	n.p.	9.2
Separations not within state of residence (%)	3	1	2	0	1	2	8	8	0
Separation rate[e]	28.41	32.19	32.50	47.70	32.31	31.89	22.16	47.94	32.49
Standardised separation rate ratio (SRR)	0.87	0.99	1.00	1.47	0.99	0.98	0.68	1.48	
95% confidence interval of SRR	0.87–0.88	0.99–1.00	0.99–1.01	1.46–1.48	0.99–1.00	0.97–1.00	0.67–0.70	1.44–1.51	

(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) These conditions are defined using ICD-10-AM codes in Appendix 1.
(c) Includes other territories and excludes overseas residents and unknown state of residence.
(d) Excludes multiple diagnoses for the same separation within the same group.
(e) Rate per 1,000 population was directly age-standardised as detailed in Appendix 1.
(f) *Rheumatic heart disease* includes acute rheumatic fever as well as the chronic disease.

Table A5.2: Separation statistics[a] for selected potentially preventable hospitalisations[b], by Remoteness Area of usual residence, all hospitals, 2006–07

	Major Cities	Inner Regional	Outer Regional	Remote	Very Remote	Total[c]
Vaccine-preventable conditions						
Influenza and pneumonia						
Separations[d]	5,497	2,128	1,153	274	231	9,292
Separation rate[e]	0.38	0.48	0.57	0.93	1.46	0.44
Standardised separation rate ratio (SRR)	0.88	1.10	1.29	2.11	3.34	
95% confidence interval of SRR	0.86–0.90	1.05–1.15	1.22–1.36	1.86–2.36	2.91–3.77	
Other vaccine-preventable conditions						
Separations[d]	2,451	343	309	69	95	3,272
Separation rate[e]	0.17	0.08	0.16	0.21	0.59	0.16
Standardised separation rate ratio (SRR)	1.10	0.54	1.06	1.36	3.77	
95% confidence interval of SRR	1.06–1.14	0.48–0.60	0.94–1.18	1.04–1.68	3.01–4.53	
Total vaccine-preventable						
Separations[d]	7,935	2,468	1,459	342	325	12,543
Proportion of total separations(%)	0.2	0.2	0.2	0.3	0.4	0.2
Separation rate[e]	0.55	0.56	0.73	1.13	2.04	0.59
Standardised separation rate ratio (SRR)	0.93	0.95	1.24	1.92	3.46	
95% confidence interval of SRR	0.91–0.95	0.91–0.99	1.17–1.30	1.71–2.12	3.08–3.83	
Acute conditions						
Appendicitis with generalised peritonitis						
Separations[d]	2,321	751	379	63	53	3,569
Separation rate[e]	0.17	0.18	0.20	0.19	0.32	0.17
Standardised separation rate ratio (SRR)	1.00	1.06	1.18	1.12	1.88	
95% confidence interval of SRR	0.96–1.04	0.98–1.13	1.06–1.29	0.84–1.39	1.38–2.39	
Cellulitis						
Separations[d]	21,126	7,616	4,354	1,025	835	34,980
Separation rate[e]	1.46	1.75	2.17	3.33	5.41	1.64
Standardised separation rate ratio (SRR)	0.89	1.07	1.32	2.03	3.30	
95% confidence interval of SRR	0.88–0.90	1.04–1.09	1.28–1.36	1.91–2.15	3.08–3.52	
Convulsions and epilepsy						
Separations[d]	20,523	6,670	3,771	1,025	705	32,724
Separation rate[e]	1.46	1.67	1.95	3.18	4.18	1.59
Standardised separation rate ratio (SRR)	0.92	1.05	1.23	2.00	2.63	
95% confidence interval of SRR	0.91–0.93	1.03–1.08	1.19–1.27	1.88–2.12	2.43–2.82	

(continued)

Table A5.2 (continued): Separation statistics[a] for selected potentially preventable hospitalisations[b], by Remoteness Area of usual residence, all hospitals, 2006–07

	Major Cities	Inner Regional	Outer Regional	Remote	Very Remote	Total[c]
Dehydration and gastroenteritis						
Separations[d]	34,338	11,506	6,216	949	543	53,571
Separation rate[e]	2.36	2.68	3.13	3.33	4.09	2.51
Standardised separation rate ratio (SRR)	0.94	1.07	1.25	1.33	1.63	
95% confidence interval of SRR	0.93–0.95	1.05–1.09	1.22–1.28	1.24–1.41	1.49–1.77	
Dental conditions						
Separations[d]	34,490	12,129	6,293	975	647	54,549
Separation rate[e]	2.49	3.03	3.22	2.86	3.28	2.67
Standardised separation rate ratio (SRR)	0.93	1.13	1.21	1.07	1.23	
95% confidence interval of SRR	0.92–0.94	1.11–1.16	1.18–1.24	1.00–1.14	1.13–1.32	
Ear, nose and throat infections						
Separations[d]	19,983	7,126	4,265	899	617	32,909
Separation rate[e]	1.45	1.82	2.23	2.70	3.09	1.63
Standardised separation rate ratio (SRR)	0.89	1.12	1.37	1.66	1.90	
95% confidence interval of SRR	0.88–0.90	1.09–1.14	1.33–1.41	1.55–1.76	1.75–2.05	
Gangrene						
Separations[d]	2,671	966	468	140	157	4,403
Separation rate[e]	0.18	0.21	0.23	0.47	1.09	0.20
Standardised separation rate ratio (SRR)	0.90	1.05	1.15	2.35	5.45	
95% confidence interval of SRR	0.87–0.93	0.98–1.12	1.05–1.25	1.96–2.74	4.60–6.30	
Pelvic inflammatory disease						
Separations[d]	3,310	1,016	516	126	144	5,113
Separation rate[e]	0.23	0.27	0.29	0.40	0.81	0.25
Standardised separation rate ratio (SRR)	0.92	1.08	1.16	1.60	3.24	
95% confidence interval of SRR	0.89–0.95	1.01–1.15	1.06–1.26	1.32–1.88	2.71–3.77	
Perforated/bleeding ulcer						
Separations[d]	3,442	1,073	492	64	32	5,105
Separation rate[e]	0.24	0.23	0.23	0.23	0.24	0.24
Standardised separation rate ratio (SRR)	1.00	0.96	0.96	0.96	1.00	
95% confidence interval of SRR	0.97–1.03	0.90–1.02	0.87–1.04	0.72–1.19	0.65–1.35	

(continued)

Table A5.2 (continued): Separation statistics[a] for selected potentially preventable hospitalisations[b], by Remoteness Area of usual residence, all hospitals, 2006–07

	Major Cities	Inner Regional	Outer Regional	Remote	Very Remote	Total[c]
Pyelonephritis						
Separations[d]	32,592	9,339	4,492	865	635	47,939
Separation rate[e]	2.23	2.09	2.23	3.06	4.64	2.23
Standardised separation rate ratio (SRR)	1.00	0.94	1.00	1.37	2.08	0
95% confidence interval of SRR	0.99–1.01	0.92–0.96	0.97–1.03	1.28–1.46	1.92–2.24	
Total acute conditions						
Separations[d]	174,695	58,162	31,229	6,122	4,365	274,702
Proportion of total separations(%)	3.4	3.8	4.2	5.2	5.7	3.6
Separation rate[e]	12.25	13.93	15.87	19.72	27.13	13.12
Standardised separation rate ratio (SRR)	0.93	1.06	1.21	1.50	2.07	
95% confidence interval of SRR	0.93–0.94	1.05–1.07	1.20–1.22	1.47–1.54	2.01–2.13	
Chronic conditions						
Angina						
Separations[d]	22,705	10,928	5,001	760	334	39,738
Separation rate[e]	1.56	2.28	2.33	2.70	2.69	1.82
Standardised separation rate ratio (SRR)	0.86	1.25	1.28	1.48	1.48	
95% confidence interval of SRR	0.85–0.87	1.23–1.28	1.24–1.32	1.38–1.59	1.32–1.64	
Asthma						
Separations[d]	24,514	7,034	3,818	629	425	36,433
Separation rate[e]	1.80	1.75	1.93	1.92	2.48	1.80
Standardised separation rate ratio (SRR)	1.00	0.97	1.07	1.07	1.38	
95% confidence interval of SRR	0.99–1.01	0.95–0.99	1.04–1.11	0.98–1.15	1.25–1.51	
Chronic obstructive pulmonary disease						
Separations[d]	34,329	13,261	6,963	1,329	698	56,593
Separation rate[e]	2.36	2.74	3.25	4.89	6.12	2.59
Standardised separation rate ratio (SRR)	0.91	1.06	1.25	1.89	2.36	
95% confidence interval of SRR	0.90–0.92	1.04–1.08	1.23–1.28	1.79–1.99	2.19–2.54	
Congestive cardiac failure						
Separations[d]	28,210	9,863	4,753	752	478	44,063
Separation rate[e]	1.88	2.01	2.26	2.99	4.17	1.98
Standardised separation rate ratio (SRR)	0.95	1.02	1.14	1.51	2.11	
95% confidence interval of SRR	0.94–0.96	1.00–1.04	1.11–1.17	1.40–1.62	1.92–2.29	

(continued)

Table A5.2 (continued): Separation statistics[a] for selected potentially preventable hospitalisations[b], by Remoteness Area of usual residence, all hospitals, 2006–07

	Major Cities	Inner Regional	Outer Regional	Remote	Very Remote	Total[c]
Diabetes complications						
Separations[d]	134,496	50,415	29,247	9,852	3,565	227,620
Separation rate[e]	9.38	10.71	13.62	31.84	26.58	10.55
Standardised separation rate ratio (SRR)	0.89	1.02	1.29	3.02	2.52	
95% confidence interval of SRR	0.88–0.89	1.01–1.02	1.28–1.31	2.96–3.08	2.44–2.60	
Hypertension						
Separations[d]	3,093	1,670	1,301	241	123	6,430
Separation rate[e]	0.21	0.36	0.62	0.91	1.08	0.30
Standardised separation rate ratio (SRR)	0.70	1.20	2.07	3.03	3.60	
95% confidence interval of SRR	0.68–0.72	1.14–1.26	1.95–2.18	2.65–3.42	2.96–4.24	
Iron deficiency anaemia						
Separations[d]	18,181	5,563	2,169	216	135	26,267
Separation rate[e]	1.26	1.21	1.04	0.78	0.95	1.22
Standardised separation rate ratio (SRR)	1.03	0.99	0.85	0.64	0.78	
95% confidence interval of SRR	1.02–1.05	0.97–1.02	0.82–0.89	0.55–0.72	0.65–0.91	
Nutritional deficiencies						
Separations[d]	93	25	8	11	11	148
Separation rate[e]	0.01	0.01	0.00	0.03	0.05	0.01
Standardised separation rate ratio (SRR)	1.00	1.00	0.00	3.00	5.00	
95% confidence interval of SRR	0.80–1.20	0.61–1.39	. .	1.23–4.77	2.05–7.95	
Rheumatic heart disease[f]						
Separations[d]	1,436	546	277	100	150	2,511
Separation rate[e]	0.10	0.12	0.13	0.31	0.83	0.12
Standardised separation rate ratio (SRR)	0.83	1.00	1.08	2.58	6.92	
95% confidence interval of SRR	0.79–0.88	0.92–1.08	0.96–1.21	2.08–3.09	5.81–8.02	
Total chronic conditions						
Separations[d]	251,759	93,960	50,879	13,418	5,571	415,679
Proportion of total separations(%)	4.9	6.2	6.9	11.4	7.3	5.5
Separation rate[e]	17.50	20.07	23.95	44.64	42.20	19.27
Standardised separation rate ratio (SRR)	0.91	1.04	1.24	2.32	2.19	
95% confidence interval of SRR	0.90–0.91	1.03–1.05	1.23–1.25	2.28–2.36	2.13–2.25	

(continued)

Table A5.2 (continued): Separation statistics[a] for selected potentially preventable hospitalisations[b], by Remoteness Area of usual residence, all hospitals, 2006–07

	Major Cities	Inner Regional	Outer Regional	Remote	Very Remote	Total[c]
Total potentially preventable hospitalisations						
Separations[d]	432,546	153,951	83,162	19,755	10,139	699,788
Proportion of total separations(%)	8.4	10.2	11.3	16.9	13.3	9.2
Separation rate[e]	30.18	34.42	40.35	65.08	70.54	32.84
Standardised separation rate ratio (SRR)	0.92	1.05	1.23	1.98	2.15	
95% confidence interval of SRR	0.92–0.92	1.04–1.05	1.22–1.24	1.95–2.01	2.11–2.19	

(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) These conditions are defined using ICD-10-AM codes in Appendix 1.
(c) Includes unknown Remoteness Area and excludes overseas residents and unknown state of residence.
(d) Excludes multiple diagnoses for the same separation within the same group.
(e) Rate per 1,000 population was directly age-standardised as detailed in Appendix 1.
(f) *Rheumatic heart disease* includes acute rheumatic fever as well as the chronic disease.

Table A5.3: Separation statistics[a] for selected potentially preventable hospitalisations[b], by quintile of socioeconomic advantage/disadvantage[c], all hospitals, 2006–07

	Most disadvantaged	Second most disadvantaged	Middle quintile	Second most advantaged	Most advantaged	Total[d]
Vaccine-preventable conditions						
Influenza and pneumonia						
Separations[e]	2,368	2,034	1,779	1,496	1,613	9,292
Separation rate[f]	0.55	0.47	0.42	0.37	0.39	0.44
Standardised separation rate ratio (SRR)	1.25	1.07	0.96	0.84	0.88	
95% confidence interval of SRR	1.20–1.30	1.02–1.11	0.91–1.00	0.80–0.88	0.84–0.92	
Other vaccine-preventable conditions						
Separations[e]	772	520	575	662	742	3,272
Separation rate[f]	0.19	0.12	0.14	0.16	0.17	0.16
Standardised separation rate ratio (SRR)	1.20	0.80	0.87	1.03	1.12	
95% confidence interval of SRR	1.11–1.28	0.73–0.87	0.80–0.94	0.95–1.10	1.04–1.20	
Total vaccine-preventable						
Separations[e]	3,133	2,549	2,353	2,157	2,348	12,543
Proportion of total separations (%)	0.2	0.2	0.2	0.2	0.2	0.2
Separation rate[f]	0.73	0.59	0.55	0.53	0.56	0.59
Standardised separation rate ratio (SRR)	1.23	1.00	0.94	0.89	0.94	
95% confidence interval of SRR	1.19–1.28	0.96–1.04	0.90–0.97	0.85–0.93	0.91–0.98	
Acute conditions						
Appendicitis with generalised peritonitis						
Separations[e]	728	691	690	736	723	3,569
Separation rate[f]	0.18	0.17	0.16	0.18	0.17	0.17
Standardised separation rate ratio (SRR)	1.01	0.99	0.95	1.03	1.01	
95% confidence interval of SRR	0.94–1.09	0.91–1.06	0.88–1.02	0.96–1.11	0.94–1.08	
Cellulitis						
Separations[e]	8,643	7,251	6,797	6,363	5,919	34,980
Separation rate[f]	2.02	1.68	1.60	1.55	1.37	1.64
Standardised separation rate ratio (SRR)	1.23	1.02	0.97	0.94	0.84	
95% confidence interval of SRR	1.20–1.25	1.00–1.05	0.95–1.00	0.92–0.97	0.82–0.86	
Convulsions and epilepsy						
Separations[e]	7,885	7,061	6,401	6,038	5,324	32,724
Separation rate[f]	1.91	1.75	1.53	1.48	1.30	1.59
Standardised separation rate ratio (SRR)	1.20	1.10	0.96	0.93	0.82	
95% confidence interval of SRR	1.18–1.23	1.07–1.13	0.94–0.99	0.91–0.95	0.80–0.84	

(continued)

Table A5.3 (continued): Separation statistics[a] for selected potentially preventable hospitalisations[b], by quintile of socioeconomic advantage/disadvantage[c], all hospitals, 2006–07

	Most disadvantaged	Second most disadvantaged	Middle quintile	Second most advantaged	Most advantaged	Total[d]
Dehydration and gastroenteritis						
Separations[e]	12,648	10,984	9,585	10,757	9,592	53,571
Separation rate[f]	2.95	2.56	2.24	2.61	2.23	2.51
Standardised separation rate ratio (SRR)	1.17	1.02	0.89	1.04	0.89	
95% confidence interval of SRR	1.15–1.19	1.00–1.04	0.87–0.91	1.02–1.06	0.87–0.90	
Dental conditions						
Separations[e]	10,631	11,805	11,056	10,786	10,265	54,549
Separation rate[f]	2.57	2.96	2.67	2.65	2.51	2.67
Standardised separation rate ratio (SRR)	0.97	1.11	1.00	0.99	0.94	
95% confidence interval of SRR	0.95–0.98	1.09–1.13	0.98–1.02	0.97–1.01	0.92–0.96	
Ear, nose and throat infections						
Separations[e]	8,098	7,249	6,613	6,045	4,901	32,909
Separation rate[f]	1.96	1.84	1.61	1.49	1.24	1.63
Standardised separation rate ratio (SRR)	1.20	1.13	0.99	0.92	0.76	
95% confidence interval of SRR	1.17–1.23	1.10–1.16	0.96–1.01	0.89–0.94	0.74–0.78	
Gangrene						
Separations[e]	1,054	904	781	883	781	4,403
Separation rate[f]	0.24	0.20	0.18	0.22	0.18	0.20
Standardised separation rate ratio (SRR)	1.17	0.99	0.89	1.07	0.89	
95% confidence interval of SRR	1.10–1.24	0.93–1.06	0.83–0.96	1.00–1.14	0.83–0.95	
Pelvic inflammatory disease						
Separations[e]	1,098	1,034	1,059	1,039	883	5,113
Separation rate[f]	0.28	0.27	0.25	0.25	0.21	0.25
Standardised separation rate ratio (SRR)	1.12	1.07	1.00	0.99	0.83	
95% confidence interval of SRR	1.05–1.19	1.01–1.14	0.94–1.06	0.93–1.05	0.78–0.89	
Perforated/bleeding ulcer						
Separations[e]	1,164	1,055	986	1,011	888	5,105
Separation rate[f]	0.26	0.23	0.23	0.25	0.20	0.24
Standardised separation rate ratio (SRR)	1.12	0.98	0.98	1.06	0.87	
95% confidence interval of SRR	1.05–1.18	0.92–1.04	0.92–1.04	1.00–1.13	0.81–0.93	

(continued)

Table A5.3 (continued): Separation statistics[a] for selected potentially preventable hospitalisations[b], by quintile of socioeconomic advantage/disadvantage[c], all hospitals, 2006–07

	Most disadvantaged	Second most disadvantaged	Middle quintile	Second most advantaged	Most advantaged	Total[d]
Pyelonephritis						
Separations[e]	10,933	9,659	9,291	9,433	8,622	47,939
Separation rate[f]	2.50	2.18	2.17	2.32	1.98	2.23
Standardised separation rate ratio (SRR)	1.12	0.98	0.98	1.04	0.89	
95% confidence interval of SRR	1.10–1.14	0.96–1.00	0.96–1.00	1.02–1.06	0.87–0.91	
Total acute conditions						
Separations[e]	62,843	57,661	53,218	53,064	47,877	274,702
Proportion of total separations (%)	3.8	3.7	3.6	3.8	3.2	3.6
Separation rate[f]	14.86	13.83	12.63	12.99	11.40	13.12
Standardised separation rate ratio (SRR)	1.13	1.05	0.96	0.99	0.87	
95% confidence interval of SRR	1.12–1.14	1.05–1.06	0.95–0.97	0.98–1.00	0.86–0.88	
Chronic conditions						
Angina						
Separations[e]	11,958	9,616	7,514	6,635	4,013	39,738
Separation rate[f]	2.64	2.06	1.75	1.64	0.92	1.82
Standardised separation rate ratio (SRR)	1.46	1.14	0.96	0.91	0.50	
95% confidence interval of SRR	1.43–1.48	1.11–1.16	0.94–0.98	0.88–0.93	0.49–0.52	
Asthma						
Separations[e]	8,774	7,641	7,696	6,850	5,470	36,433
Separation rate[f]	2.10	1.92	1.87	1.71	1.40	1.80
Standardised separation rate ratio (SRR)	1.17	1.06	1.04	0.95	0.78	
95% confidence interval of SRR	1.14–1.19	1.04–1.09	1.02–1.06	0.93–0.97	0.76–0.80	
Chronic obstructive pulmonary disease						
Separations[e]	16,375	12,593	10,964	9,424	7,235	56,593
Separation rate[f]	3.58	2.66	2.57	2.39	1.69	2.59
Standardised separation rate ratio (SRR)	1.38	1.02	0.99	0.92	0.65	
95% confidence interval of SRR	1.36–1.40	1.01–1.04	0.97–1.01	0.90–0.94	0.64–0.67	
Congestive cardiac failure						
Separations[e]	10,994	9,395	8,452	7,757	7,465	44,063
Separation rate[f]	2.39	1.95	1.95	1.92	1.64	1.98
Standardised separation rate ratio (SRR)	1.21	0.99	0.99	0.97	0.83	
95% confidence interval of SRR	1.18–1.23	0.97–1.01	0.97–1.01	0.95–0.99	0.81–0.85	

(continued)

Table A5.3 (continued): Separation statistics[a] for selected potentially preventable hospitalisations[b], by quintile of socioeconomic advantage/disadvantage[c], all hospitals, 2006–07

	Most disadvantaged	Second most disadvantaged	Middle quintile	Second most advantaged	Most advantaged	Total[d]
Diabetes complications						
Separations[e]	59,024	51,400	49,106	40,744	27,337	227,620
Separation rate[f]	13.15	11.19	11.53	10.18	6.52	10.55
Standardised separation rate ratio (SRR)	1.25	1.06	1.09	0.97	0.62	
95% confidence interval of SRR	1.24–1.26	1.05–1.07	1.08–1.10	0.96–0.97	0.61–0.63	
Hypertension						
Separations[e]	2,059	1,518	970	988	895	6,430
Separation rate[f]	0.46	0.33	0.23	0.24	0.21	0.30
Standardised separation rate ratio (SRR)	1.56	1.12	0.77	0.82	0.70	
95% confidence interval of SRR	1.50–1.63	1.06–1.17	0.72–0.81	0.77–0.87	0.65–0.74	
Iron deficiency anaemia						
Separations[e]	5,641	5,331	4,885	5,483	4,925	26,267
Separation rate[f]	1.28	1.19	1.14	1.36	1.14	1.22
Standardised separation rate ratio (SRR)	1.05	0.97	0.94	1.11	0.93	
95% confidence interval of SRR	1.02–1.08	0.95–1.00	0.91–0.96	1.08–1.14	0.91–0.96	
Nutritional deficiencies						
Separations[e]	43	22	28	33	22	148
Separation rate[f]	0.01	0.00	0.01	0.01	0.01	0.01
Standardised separation rate ratio (SRR)	1.41	0.71	0.95	1.15	0.73	
95% confidence interval of SRR	0.99–1.84	0.41–1.00	0.60–1.30	0.76–1.55	0.42–1.03	
Rheumatic heart disease[g]						
Separations[e]	683	541	468	439	380	2,511
Separation rate[f]	0.16	0.12	0.11	0.11	0.09	0.12
Standardised separation rate ratio (SRR)	1.34	1.01	0.93	0.94	0.77	
95% confidence interval of SRR	1.24–1.44	0.93–1.10	0.85–1.02	0.85–1.03	0.70–0.85	
Total chronic conditions						
Separations[e]	108,751	92,609	85,242	74,272	54,789	415,679
Proportion of total separations (%)	6.6	6.0	5.7	5.3	3.7	5.5
Separation rate[f]	24.28	20.27	20.03	18.53	12.93	19.27
Standardised separation rate ratio (SRR)	1.26	1.05	1.04	0.96	0.67	
95% confidence interval of SRR	1.25–1.27	1.05–1.06	1.03–1.05	0.95–0.97	0.67–0.68	

(continued)

Table A5.3 (continued): Separation statistics[a] for selected potentially preventable hospitalisations[b], by quintile of socioeconomic advantage/disadvantage[c], all hospitals, 2006–07

	Most disadvantaged	Second most disadvantaged	Middle quintile	Second most advantaged	Most advantaged	Total[d]
Total potentially preventable hospitalisations						
Separations[e]	173,903	152,128	140,196	128,931	104,572	699,788
Proportion of total separations (%)	10.5	9.8	9.4	9.1	7.1	9.2
Separation rate[f]	39.68	34.54	33.06	31.90	24.78	32.84
Standardised separation rate ratio (SRR)	1.21	1.05	1.01	0.97	0.75	
95% confidence interval of SRR	1.20–1.21	1.05–1.06	1.00–1.01	0.97–0.98	0.75–0.76	

(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) These conditions are defined using ICD-10-AM codes in Appendix 1.
(c) Based on the Australian Bureau of Statistics SEIFA 2006 Index of Advantage/Disadvantage score for the statistical local area of the patients usual residence.
(d) Includes unknown residence area and excludes overseas residents and unknown state of residence.
(e) Excludes multiple diagnoses for the same separation within the same group.
(f) Rate per 1,000 population was directly age-standardised as detailed in Appendix 1.
(g) *Rheumatic heart disease* includes acute rheumatic fever as well as the chronic disease.

Appendix 6: The state of our public hospitals, June 2008 report

The state of our public hospitals, June 2008 report is to be published by the Australian Government Department of Health and Ageing. This report is a requirement of the Australian Health Care Agreements 2003–2008 that the Australian Government has signed with each of the states and territories. The report is expected to present a range of data on public hospitals relating to the years 1998–99 to 2006–07, using data supplied to the Department by the states and territories, and some previously published data, including data in *Australian hospital statistics*.

Some of the statistics on public hospitals in *The state of our public hospitals, June 2008 report* may differ from statistics presented in *Australian hospital statistics 2006–07*. Although they are both based largely on the same national minimum data sets specified in the *National heath data dictionary*, some differences result from minor variations in the analysis methods used to derive particular statistics.

Further notes on differences between the two reports will be published on the *Australian hospital statistics 2006–07* Internet site after *The state of our public hospitals, June 2008 report* is published.

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Glossary

For further information on the terms used in this report, refer to the definitions in use in the *National health data dictionary* version 12, version 12 supplement and version 13 (NHDC 2003, AIHW 2004b, HDSC 2006). Each definition contains an identification number from the METeOR Metadata Online Registry. METeOR is Australia's central repository for health, community services and housing assistance metadata, or 'data about data'. It provides definitions for data for health and community services-related topics, and specifications for related national minimum data sets (NMDSs), such as the NMDSs which form the basis of this report. METeOR can be viewed on the AIHW website at <www.aihw.gov.au>.

Accident and emergency occasion of service	A non-admitted patient occasion of service reported to the National Public Hospital Establishments Database with a *Type of non-admitted patient occasion of service* type of *Emergency services*.
Activity when injured	The type of activity being undertaken by a person at the time of injury. METeOR identifier: 333849
Acute	Having a short and relatively severe course.
Acute care	See *Care type*.
Acute care hospitals	See *Establishment type*.
Additional diagnosis	Conditions or complaints either coexisting with the principal diagnosis or arising during the episode of care. METeOR identifier: 333832
Adjustment	A summarising procedure for a statistical measure in which the effects of differences in composition of the populations being compared have been minimised by statistical methods.
Administrative and clerical staff	See *Full-time equivalent staff*.
Administrative expenditure	All expenditure incurred by establishments (but not central administrations) of a management expense/administrative support nature, such as any rates and taxes, printing, telephone, stationery and insurance expenses (including workers compensation). METeOR identifier: 270107
Admitted patient	A patient who undergoes a hospital's formal admission process to receive treatment and/or care. This treatment and/or care is provided over a period of time and can occur in hospital and/or in the person's home (for hospital-in-the-home patients). METeOR identifier: 268957
Admitted patient cost proportion	The ratio of admitted patient costs to total hospital costs, also known as the inpatient fraction or *IFRAC*.
Adverse event	An incident in which harm resulted to a person receiving health care.
Age-standardisation	A set of techniques used to remove as far as possible the effects of differences in age when comparing two or more populations.
Alcohol and drug treatment centre	See *Establishment type*.
Arrival mode—transport	The mode of transport by which the person arrives at the emergency department. METeOR identifier: 270000
Australian Refined Diagnosis Related Groups (AR-DRGs)	An Australian system of Diagnosis Related Groups (DRGs). DRGs provide a clinically meaningful way of relating the number and type of patients treated in a hospital (that is, its casemix) to the resources required by the hospital. Each AR-DRG represents a class of patients with similar clinical conditions requiring similar hospital services. METeOR identifier: 270195

Available beds	Beds immediately available for use by admitted patients as required. METeOR identifier: 270133
Average length of stay	The average number of patient days for admitted patient episodes. Patients admitted and separated on the same day are allocated a length of stay of 1 day.
Capital expenditure	Expenditure on large-scale fixed assets (for example, new buildings and equipment with a useful life extending over a number of years). METeOR identifier: 270516
Care type	The care type defines the overall nature of a clinical service provided to an admitted patient during an episode of care (admitted care), or the type of service provided by the hospital for boarders or posthumous organ procurement (other care). Admitted patient care consists of the following categories: Acute care Rehabilitation care Palliative care Geriatric evaluation and management Psychogeriatric care Maintenance care Newborn care Other care Other care is where the principal clinical intent does not meet the criteria for any of the above. Other care can be one of the following: Organ procurement—posthumous Hospital boarder METeOR identifier: 270174
Casemix	The range and types of patients (the mix of cases) treated by a hospital or other health service. Casemix classifications (such as AR-DRGs) provide a way of describing and comparing hospitals and other services for management purposes.
Chronic	Persistent and long-lasting.
Clinical urgency	A clinical assessment of the urgency with which a patient requires elective hospital care. METeOR identifier: 270008
Compensable patients	An individual who is entitled to receive or has received a compensation payment with respect to an injury or disease. METeOR identifier: 270100
Cost weights	The costliness of an AR-DRG relative to all other AR-DRGs such that the average cost weight for all separations is 1.00. A separation for an AR-DRG with a cost weight of 5.0, therefore, on average, costs 10 times as much as a separation with a cost weight of 0.5. There are separate cost weights for AR-DRGs in the public and private sectors, reflecting the differences in the range of costs in the different sectors. In this report, average cost weights using public cost weights are based on AR-DRG version 5.0 2005–06 public sector estimated cost weights (DoHA 2007). These were applied to AR-DRG version 5.1 DRGs for 2002–02 to 2006–07 reference years. Average private cost weights for the private sector (presented in tables 2.3 and 2.4 in this report) use the most recent private sector estimated cost weights are based on the AR-DRG version 4.2 2002–03 (DoHA 2004a) applied to AR-DRG version 4.2 DRGs.
Department of Veterans' Affairs patient	A person whose charges for the hospital admission are met by the Department of Veterans' Affairs (DVA). These patients include eligible veterans and war widows/widowers. The data are supplied by the states and territories and the eligibility to receive hospital treatment as a DVA patient may not necessarily have been confirmed by the Department of Veterans' Affairs. METeOR identifier: 270092

Diagnosis related group (DRG)	A widely used casemix classification system, used to classify admissions into groups with similar clinical conditions (related diagnoses) and similar resource usage. This allows the activity and performance of hospitals to be compared on a common basis. In Australian acute hospitals, Australian refined DRGs are used. METeOR identifier: 270195
Diagnostic and allied health professionals	See *Full-time equivalent staff*.
Domestic and other staff	See *Full-time equivalent staff*.
Domestic services expenditure	The cost of all domestic services, including electricity, other fuel and power, domestic services for staff, accommodation and kitchen expenses, but not including salaries and wages, food costs or equipment replacement and repair costs. METeOR identifier: 270283
Drug supplies expenditure	The cost of all drugs, including the cost of containers. METeOR identifier: 270282
Elective care	Care that, in the opinion of the treating clinician, is necessary and for which admission can be delayed for at least 24 hours. METeOR identifier: 335023
Elective surgery	Elective care in which the procedures required by patients are listed in the surgical operations section of the Medicare Benefits Schedule, with the exclusion of specific procedures frequently done by non-surgical clinicians and some procedures for which the associated waiting time is strongly influenced by factors other than the supply of services. METeOR identifier: 270589
Emergency department waiting time to service delivery	The time elapsed for each patient from presentation to the emergency department to commencement of service by a treating medical officer or nurse. It is calculated by deducting the date and time the patient presents from the date and time of the service event. METeOR identifier: 270007
Enrolled nurses	See *Full-time equivalent staff*.
Episode end status	The status of the patient at the end of the non-admitted patient emergency department occasion of service. METeOR identifier: 322641
Episode of care	The period of admitted patient care between a formal or statistical admission and a formal or statistical separation, characterised by only one care type (see *Care type* and *Separation*). METeOR identifier: 270174 (Care type) METeOR identifier: 268956 (Episode of admitted patient care)
Error DRGs	AR-DRGs to which separations are grouped if their records contain clinically inconsistent or invalid information.
Establishment type	Type of establishment (defined in terms of legislative approval, service provided and patients treated) for each separately administered establishment. Establishment types include: Acute care hospitals Psychiatric hospitals Alcohol and drug treatment centres Hospices METeOR identifier: 269971
External cause	The environmental event, circumstance or condition as the cause of injury, poisoning and other adverse effect. METeOR identifier: 333853

Full-time equivalent staff	Full-time equivalent staff units are the on-job hours paid for (including overtime) and hours of paid leave of any type for a staff member (or contract employee where applicable) divided by the number of ordinary time hours normally paid for a full-time staff member when on the job (or contract employee where applicable) under the relevant award or agreement for the staff member (or contract employee occupation where applicable). Staffing categories include: Salaried medical officers Registered nurses Enrolled nurses Student nurses Other personal care staff Diagnostic and allied health professionals Administrative and clerical staff Domestic and other staff METeOR identifier: 270543
Funding source for hospital patient	Expected principal source of funds for an admitted patient episode or non-admitted patient service event. METeOR identifier: 270103
Geriatric evaluation and management	See *Care type*.
Group session	A service provided to two or more patients, but excludes services provided to two or more family members, which are treated as services provided to an individual. METeOR identifier: 269119
HASAC (Health and Allied Services Advisory Council) ratio	For hospitals where the IFRAC is not available or is clearly inconsistent with the data, admitted patient costs are estimated by the HASAC ratio (see Appendix 1).
Hospice	See *Establishment type*.
Hospital	A health care facility established under Commonwealth, state or territory legislation as a hospital or a free-standing day procedure unit and authorised to provide treatment and/or care to patients. METeOR identifier: 268971
Hospital boarder	See *Care type*.
Hospital-in-the-home care	Provision of care to hospital admitted patients in their place of residence as a substitute for hospital accommodation. Place of residence may be permanent or temporary. METeOR identifier: 270305
IFRAC (inpatient fraction)	A measure used to calculate the cost per casemix-adjusted separation. It is the ratio of admitted patient costs to total hospital costs, also known as the admitted patient cost proportion ratio (see Appendix 1).
Indicator procedure	A procedure which is of high volume, and is often associated with long waiting periods. Elective surgery waiting time statistics for indicator procedures give a specific indication of waiting time for these in particular areas of elective care provision. METeOR identifier: 334984
Indigenous status	A measure of whether a person identifies as being of Aboriginal or Torres Strait Islander origin. This is in accord with the first two of three components of the Commonwealth definition below: An Aboriginal or Torres Strait Islander is a person of Aboriginal or Torres Strait Islander descent who identifies as an Aboriginal or Torres Strait Islander and is accepted as such by the community in which he or she lives. METeOR identifier: 291036
Inpatient	Another term for admitted patient. METeOR identifier: 268957
Interactive data cubes	A multidimensional representation of data which provides fast retrieval from multiple layers of information.

Inter-hospital contracted care	An episode of care for an admitted patient whose treatment and/or care is provided under an arrangement (either written or verbal) between a hospital purchaser (contracting hospital) and a provider of an admitted service (contracted hospital), and for which the activity is recorded by both hospitals. METeOR identifier: 270409
International Classification of Diseases (ICD)	The World Health Organization's internationally accepted classification of diseases and related health conditions. The 10th revision, Australian modification (ICD-10-AM) is currently in use in Australian hospitals for admitted patients.
Length of stay	The length of stay of an overnight patient is calculated by subtracting the date the patient is admitted from the date of separation and deducting days the patient was on leave. A same-day patient is allocated a length of stay of 1 day. METeOR identifier: 269982
Licensed bed	A bed in a private hospital, licensed by the relevant state or territory health authority.
Maintenance care	See *Care type*.
Major Diagnostic Categories (MDCs)	A high level of groupings of patients used in the AR-DRG classification. They correspond generally to the major organ systems of the body. METeOR identifier: 270400
Medical and surgical supplies expenditure	The cost of all consumables of a medical or surgical nature (excluding drug supplies) but not including expenditure on equipment repairs. METeOR identifier: 270358
Mode of admission	The mechanism by which a person begins an episode of admitted patient care. METeOR identifier: 269976
Mode of separation	Status at separation of person (discharge/transfer/death) and place to which person is released (where applicable). METeOR identifier: 270094
National health data dictionary (NHDD)	A publication that contains a core set of uniform definitions relating to the full range of health services and a range of population parameters.
Newborn care	See *Care type*.
Non-admitted patient occasion of service	Occurs when a patient attends a functional unit of the hospital for the purpose of receiving some form of service, but is not admitted. A visit for administrative purposes is not an occasion of service. METeOR identifier: 270506
Non-admitted patients	Patients who receive care from a recognised non-admitted patient service/clinic of a hospital. METeOR identifier: 268973
Number of days of hospital-in-the-home care	The number of hospital-in-the-home days occurring within an episode of care for an admitted patient. METeOR identifier: 270305
Occasion of service	Non-admitted patient occasion of service.
Organ procurement—posthumous	See *Care type*.
Other personal care staff	See *Full-time equivalent staff*.
Other recurrent expenditure	Recurrent expenditure not included elsewhere in any of the recurrent expenditure categories. METeOR identifier: 270126
Other revenue	All other revenue received by the establishment that is not included under patient revenue or recoveries (but not including revenue payments received from state or territory governments). This includes revenue such as investment income from temporarily surplus funds and income from charities, bequests and accommodation provided to visitors. METeOR identifier: 270128

Outpatient	Another term for non-admitted patient. METeOR identifier: 268973
Outpatient clinic service	An examination, consultation, treatment or other service provided to non-admitted non-emergency patients in a specialty unit or under an organisational arrangement administered by a hospital. METeOR identifier: 327310
Outpatient clinic type	The nature of services which are provided by outpatient clinic services. METeOR identifier: 291073
Overnight-stay patients	A patient who, following a clinical decision, receives hospital treatment for a minimum of 1 night (that is, who is admitted to and separated from the hospital on different dates).
Palliative care	See *Care type*.
Patient days	The total number of days for patients who were admitted for an episode of care and who separated during a specified reference period. A patient who is admitted and separated on the same day is allocated 1 patient day. METeOR identifier: 270045
Patient election status	Accommodation chargeable status elected by patient on admission. The categories are: Public (receives public hospital services free of charge) Private (does not receive hospital services free of charge) METeOR identifier: 270044
Patient presentation at emergency department	The presentation of a patient at an emergency department occurs following the arrival of the patient at the emergency department. It is the earliest occasion of being registered clerically, or triaged. METeOR identifier: 270393
Patient revenue	Revenue received by, and due to, an establishment in respect of individual patient liability for accommodation and other establishment charges. METeOR identifier: 270047
Patient transport	The direct cost of transporting patients, excluding salaries and wages of transport staff. METeOR identifier: 270048
Payments to visiting medical officers	All payments made to visiting medical officers for medical services provided to hospital (public) patients on a sessionally paid or fee-for-service basis. METeOR identifier: 270049
Peer group	Groupings of hospitals into broadly similar groups in terms of their volume of admitted patient activity and their geographical location.
Percentile	Any one of 99 values that divide the range of probability distribution or sample into 100 intervals of equal probability or frequency.
Performance indicator	A statistic or other unit of information that reflects, directly or indirectly, the extent to which an expected outcome is achieved or the quality of processes leading to that outcome.
Place of occurrence of external cause	The place where the external cause of injury, poisoning or adverse effect occurred. METeOR identifier: 333874
Potentially preventable hospitalisation (selected)	Those conditions where hospitalisation is thought to be avoidable if timely and adequate non-hospital care is provided.
Pre-MDC (Pre-major diagnostic category)	Twelve AR-DRGs to which separations are grouped, regardless of their principal diagnoses, if they involve procedures that are particularly resource-intensive (transplants, tracheostomies or extra-corporeal membrane oxygenation without cardiac surgery).
Principal diagnosis	The diagnosis established after study to be chiefly responsible for occasioning an episode of admitted patient care. METeOR identifier: 333838

Private hospital	A privately owned and operated institution, catering for patients who are treated by a doctor of their own choice. Patients are charged fees for accommodation and other services provided by the hospital and relevant medical and paramedical practitioners. Acute care and psychiatric hospitals are included, as are private free-standing day hospital facilities. See also *Establishment type*.
Private patients	Patients admitted to a hospital who decide to choose the doctor(s) who will treat them and/or to have private ward accommodation. They are charged for medical services, food and accommodation.
Procedure	A clinical intervention that is surgical in nature, carries a procedural risk, carries an anaesthetic risk, requires specialised training and/or requires special facilities or equipment available only in the acute care setting. METeOR identifier: 333828
Psychogeriatric care	See *Care type*.
Public hospital	A hospital controlled by a state or territory health authority. Public hospitals offer free diagnostic services, treatment, care and accommodation to all eligible patients.
Public patient	A patient admitted to a hospital who has agreed to be treated by doctors of the hospital's choice and to accept shared accommodation. This means the patient is not charged.
Qualified days	The number of qualified days within newborn episodes of care. Days within newborn episodes of care are either qualified or unqualified. This definition includes all babies who are 9 days old or less. A newborn day is qualified (acute) when a newborn meets at least one of the following criteria: is the second or subsequent liveborn infant of a multiple birth, whose mother is currently an admitted patient is admitted to an intensive care facility in a hospital, being a facility approved by the Australian Government Health Minister for the purpose of the provision of special care remains in hospital without its mother is admitted to the hospital without its mother. METeOR identifier: 268957 (Admitted patient) and METeOR identifier: 270033 (Newborn qualification status)
Recoveries	All revenue received that is in the nature of a recovery of expenditure incurred. This includes income from provision of meals and accommodation to hospital staff, income from the use of hospital facilities for private practice and some recoveries relating to inter-hospital services. METeOR identifier: 269974
Recurrent expenditure	Expenditure on goods and services which are used up during the year, for example, salaries and wages expenditure and non-salary expenditure such as payments to visiting medical officers. METeOR identifier: 269132
Registered nurses	See *Full-time equivalent staff*.
Rehabilitation care	See *Care type*.
Relative stay index (RSI)	The actual number of patient days for acute care separations in selected AR-DRGs divided by the expected number of patient days adjusted for casemix. An RSI greater than 1 indicates that an average patient's length of stay is higher than would be expected given the jurisdiction's casemix distribution. An RSI of less than 1 indicates that the number of patient days used was less than would have been expected. See Appendix 1 for further information.
Remoteness Area	A classification of the remoteness of a location using the Australian Standard Geographical Classification Remoteness Structure, based on the Accessibility /Remoteness Index of Australia (ARIA) which measures the remoteness of a point based on the physical road distance to the nearest urban centre. The categories are: Major Cities Inner Regional Outer Regional Remote Very Remote Migratory.

Removal from waiting list	The reason a patient is removed from an elective surgery waiting list. The reason-for-removal categories are: 1 Admitted as an elective patient for awaited procedure in this hospital or another hospital 2 Admitted as an emergency patient for awaited procedure in this hospital or another hospital 3 Could not be contacted (includes patients who have died while waiting whether or not the cause of death was related to the condition requiring treatment) 4 Treated elsewhere for awaited procedure, but not as a patient of this hospital's waiting list 5 Surgery not required or declined 6 Transferred to another hospital's waiting list 9 Not known. METeOR identifier: 269959
Repairs and maintenance expenditure	The costs incurred in maintaining, repairing, replacing and providing additional equipment, maintaining and renovating buildings and minor additional works. METeOR identifier: 269970
Salaried medical officers	See *Full-time equivalent staff*.
Same-day patients	Admitted patients who are admitted and separate on the same date.
Separation	An episode of care for an admitted patient, which can be a total hospital stay (from admission to discharge, transfer or death), or a portion of a hospital stay beginning or ending in a change of type of care (for example, from acute to rehabilitation). Separation also means the process by which an admitted patient completes an episode of care either by being discharged, dying, transferring to another hospital or changing type of care.
Separation rate ratio	The separation rate for one population divided by the separation rate of another.
Separations	The total number of episodes of care for admitted patients, which can be total hospital stays (from admission to discharge, transfer or death), or portions of hospital stays beginning or ending in a change of type of care (for example, from acute to rehabilitation) that cease during a reference period. METeOR identifier: 270407
Service Related Group (SRG)	A classification based on Australian Refined Diagnostic Related Group (AR-DRG) aggregations for categorising admitted patient episodes into groups representing clinical divisions of hospital activity.
Specialised service	A facility or unit dedicated to the treatment or care of patients with particular conditions or characteristics, such as an intensive care unit. METeOR identifier: 269612
Superannuation employer contributions	Contributions paid on behalf of establishment employees either by the establishment or a central administration such as a state health authority. METeOR identifier: 270371
Surgical procedure	A procedure used to define surgical Australian Refined Diagnosis Related Groups version 5.0 (DoHA 2002).
Surgical specialty	The area of clinical expertise held by the doctor who will perform the surgery of interest. METeOR identifier: 270146
Triage category	Used in the emergency departments of hospitals to indicate the urgency of the patient's need for medical and nursing care. Patients are triaged into one of five categories on the National Triage Scale. The triage category is allocated by an experienced registered nurse or medical practitioner. METeOR identifier: 270078
Type of non-admitted patient occasion of service	A broad classification of services provided to non-admitted patients, including emergency, dialysis, pathology, radiology and organ imaging, endoscopy, other medical/surgical/diagnostic, mental health, drug and alcohol, dental, pharmacy, allied health, community health, district nursing, and other outreach. METeOR identifier: 270395, 270502–270514 (Type of non-admitted patient occasion of service)

Visiting medical officer	A medical practitioner appointed by the hospital to provide medical services for hospital (public) patients on an honorary, sessionally paid, or fee-for-service basis. METeOR identifier: 270049
Waiting time at admission	The time elapsed for a patient on the elective surgery waiting list from the date they were added to the waiting list for the procedure to the date they were admitted to hospital for the procedure. METeOR identifier: 269477

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