Australian hospital statistics 1998–99

The Australian Institute of Health and Welfare is Australia's national health and welfare statistics and information agency. The Institute's mission is to improve the health and well-being of Australians by informing community discussion and decision making through national leadership in developing and providing health and welfare statistics and information.

HEALTH SERVICES SERIES
Number 15

Australian hospital statistics 1998–99

Australian Institute of Health and Welfare
Canberra
AIHW cat. no. HSE 11

This publication is part of the Australian Institute of Health and Welfare's Health Services Series. A complete list of the Institute's publications is available from the Publications Unit, Australian Institute of Health and Welfare, GPO Box 570, Canberra ACT 2601, or via the Institute's web site (http://www.aihw.gov.au).

ISSN 1036-613X
ISBN 1 74024 058 8

Suggested citation

Australian Institute of Health and Welfare (AIHW) 2000. Australian hospital statistics 1998–99. AIHW cat. No. HSE 11. Canberra: AIHW (Health Services Series no. 15).

Any enquiries about or comments on this publication should be directed to:

Narelle Grayson (patient statistics): Phone (02) 6244 1081
Ian Titulaer (hospital statistics): Phone (02) 6244 1107
Australian Institute of Health and Welfare
GPO Box 570
Canberra ACT 2601

Published by Australian Institute of Health and Welfare

Printed by National Capital Printing

Foreword

Hospitals comprise one of the largest single industries in Australia, with a total expenditure of about $17.4 billion in 1998–99, and the equivalent of 220,000 full time employees providing almost 6 million episodes of admitted patient care each year, and a range of non-admitted patient care. The Institute is therefore pleased to be able to present this comprehensive report on Australia's public hospitals and on the admitted patient activity of the public and private sectors. It is the latest in the Institute's series of reports providing annual summaries of data collected for the six years from 1993–94 as the National Hospital Morbidity Database and the National Public Hospital Establishments Database.

For the first time, this publication presents diagnosis, procedure and external cause information using the new International Statistical Classification of Diseases and Related Health Problems, 10th Revision, Australian Modification (ICD-10-AM). This classification was developed in Australia by the National Centre for Classification in Health (NCCH), with the disease and external cause classifications based on the World Health Organization's ICD-10, and the procedure classification based on the procedure lists of the Medicare Benefits Schedule. It was adopted by New South Wales, Victoria, the Australian Capital Territory and the Northern Territory in July 1998, and in the other States from July 1999. As the Head of the WHO Collaborating Centre for the Classification of Diseases in Australia, I pay credit to the efforts of the NCCH, whose work is recognised worldwide.

The split implementation of ICD-10-AM has meant that it was necessary to map data from the four States forward to ICD-10-AM for this report. The mapping has allowed the data from each group of jurisdictions to be compiled and presented as national data, at a high level of aggregation. Some information on the new classification is included to assist readers in interpreting differences compared with previous years, and the differences that remain after mapping between data compiled in ICD-10-AM and data compiled in ICD-9-CM and mapped to ICD-10-AM. Next year's report will be based on ICD-10-AM data provided by all States and Territories.

With this publication, six years of comparable data on the Australian hospital system are now available from the Institute. Provision of the data represents a major load for all involved. Full compliance with this national collection provides an opportunity to move towards a more unified hospital information system for Australia.

The publication of this report once again reflects a huge effort by Institute staff and by data providers, both in the State and Territory health authorities, and in individual public and private hospitals which are acknowledged this year by name in an appendix. The Australian Hospital Statistics Advisory Committee has also contributed, generously guiding the Institute's preparation of the report.

The report and the data that form the basis of it are under continuing review, so comments from readers are always welcome.

Richard Madden
Director

June 2000

Contents

Acknowledgments

This report would not have been possible without the valued co-operation and efforts of the data providers: the health authorities of the States and Territories and individual public and private hospitals (see Appendix 7). The Institute thanks them for their timely supply of the data, validation of the Institute's databases and assistance in the preparation of this report.

The Institute's Australian Hospital Statistics Advisory Committee has also been of great assistance in this project. Members of the Committee are:

- Paul Basso (South Australian Department of Human Services)
- Keith Carter (Australian Bureau of Statistics)
- Paul Collins (Private Health Insurance Administration Council)
- Sue Cornes (Queensland Health)
- Stephen Duckett
- Bruce Dunn (Northern Territory Health Services)
- Mal Greig (Australian Bureau of Statistics)
- Phil Hagan (Department of Health and Aged Care)
- Nellie Hall (New South Wales Health Department)
- Leon Kempen (Australian Healthcare Association)
- Gary Kennedy (Australian Capital Territory Department of Health and Community Care)
- Raina MacIntyre
- Ric Marshall (Victorian Department of Human Services)
- Jo Murray (National Hospital Cost Data Collection)
- Danuta Pszczolkowski (Western Australian Department of Health)
- Steve Quilliam (Australian Private Hospitals Association)
- Geoff Sims (Australian Institute of Health and Welfare)
- Murray Rye (Department of Veterans' Affairs)
- Tony Sansom (Tasmanian Department of Health and Human Services)
- Onno van der Wel (Casemix Information Development Exchange)
- Sue Walker (National Centre for Classification in Health)

Thanks are also due to the Department of Health and Aged Care (and Jo Murray and Mike Clarke in particular) for providing unpublished results from the 1998–99 National Hospital Cost Data Collection for incorporation into this report.

Within the Institute, the report was prepared by John Goss, Narelle Grayson, Jenny Hargreaves, James Morris, Ruth Penm, Ian Titulaer and Lucianne Vagg. Warwick Emanuel, Geoff Davis and David Hamilton prepared and managed the databases, and Jonathan Cartledge, Warwick Conn, Gillian Hall, Sharon Negri and Alannah Smith provided other assistance. Amanda Nobbs coordinated the printing and publication process.

Jenny Hargreaves and John Goss managed the project.

Highlights

Australian Hospital Statistics 1998–99 is the fourth in the Australian Institute of Health and Welfare's series of annual summary reports describing the characteristics and activity of Australia's hospitals. It summarises 1998–99 data reported to the Institute's National Public Hospital Establishments Database and National Hospital Morbidity Database.

Hospital performance indicators

- Nationally, the cost per casemix-adjusted separation in public hospitals was $2,611. This performance indicator is a measure of the average cost of providing care for an admitted patient, adjusted for the relative complexity of the patient's condition and hospital services provided. Nursing salaries ($706) and medical labour ($475) were large components of the cost.
- Queensland reported the lowest cost per casemix-adjusted separation ($2,390) and the Australian Capital Territory reported the highest ($3,326).
- Nationally, 48% of public hospitals were accredited, and 76% of all public hospital beds were in accredited public hospitals. In the private sector, 79% of hospitals were accredited, and 89% of all private hospital beds were in accredited private hospitals.

Hospitals, beds, staff and expenditure

- There were 726 public acute hospitals and 29 public psychiatric hospitals in Australia in 1998–99, a total of 755 public hospitals. There were 190 free-standing day hospital facilities and 312 other private hospitals, making a total of 502 private hospitals.
- Numbers of hospitals can vary from year to year, often because of changes in administrative arrangements. A more useful indicator of the quantum of hospital services is the number of available beds. In 1998–99 there were 53,885 public hospital beds, a decline from the 55,735 beds reported in the previous year. The number of private hospital beds rose from 24,439 in 1997–98 to 25,206 in 1998–99.
- Nurses made up 45% of total full time equivalent staff of public hospitals. Salaried medical officers comprised 9% of the staff, diagnostic and allied health professionals comprised 13%, and 15% were administrative and clerical staff.
- Total recurrent expenditure of public hospitals in Australia in 1998–99 was $13,677 million, or about $726 per person. Salaries and wages totalled $8,552 million.

Patient numbers and lengths of stay

- The throughput of patients of both public and private hospitals in Australia continues to increase from year to year. There was a total of 5.7 million separations in 1998–99.
- Between 1997–98 and 1998–99, separations from public acute hospitals increased by 2.4% to 3.8 million, and from private hospitals increased by 4.6% to 1.9 million. The private hospitals' share of overall patient separations was 33% in 1998–99.
- Numbers of patient days in public acute hospitals declined by 1% compared with 1997–98, to 15.0 million. Private hospital patient days increased by 1%, to 6.0 million and were 27% of all patient days.

- The average length of stay in hospitals decreased in 1998–99, to 3.9 days from 4.1 days in 1997–98, following the overall pattern of decline shown in previous years. Private hospital stays averaged 3.2 days compared with 3.9 in public acute hospitals. A major factor in the shorter lengths of stay was an increased number of same day separations, now close to half of all separations (47.9%). For patients staying at least one night, average lengths of stay have fallen more slowly over recent years.
- About one in 12 public acute hospital patients were private patients in 1998–99, compared with one in seven in 1994–95.

Patient characteristics

Age, sex and Aboriginal and Torres Strait Islander status

- Females accounted for 54% of separations in 1998–99 although they comprised 50.2% of the population. There were more separations for females than males in all age groups from 15 to 54 years (which include child-bearing ages for women) and in the 75 years and over age groups, in which women outnumber men in the population.
- Australians aged over 65 years, comprising 12% of the total population, accounted for 32% of total hospital separations and 46% of patient days. The average length of stay for these patients was 5.8 days, compared with 3.9 days for all patients.
- Aboriginal and Torres Strait Islander peoples had twice the age-adjusted separation rate of other persons. This higher rate is likely to be an underestimate because the identification of Aboriginal and Torres Strait Islanders as patients is incomplete.

Diagnoses, procedures and AN-DRGs

- Principal diagnoses in the National Health Priority Areas of cardiovascular health, cancer control, injury prevention and control, mental health, diabetes and asthma accounted for over 1.5 million separations and almost 9 million patient days in 1998–99. Cardiovascular disease accounted for the highest number of separations (426,000) and mental disorders accounted for the highest number of patient days (nearly 3 million).
- Fewer patient days were associated with diabetes as a principal diagnosis (167,184) than for other Priority Areas. However, when diabetes as an additional diagnosis was counted, the number of associated patient days increased to 2.2 million.
- For 75% of separations, there was an operation or other procedure reported. In public hospitals, procedures on the digestive system and the urinary system were the most common. In private hospitals, procedures on the digestive system were the most common, followed by procedures on the musculoskeletal system.
- In public hospitals, *Admit for renal dialysis* was the most common AR-DRG, accounting for 11.3% (422,846) of separations. Other leading AR-DRGs included *Chemotherapy* with 3.3% (122,355), and *Vaginal delivery without complicating diagnosis* with 2.9%.
- The corresponding top three AR-DRGs in the private sector were *Other colonoscopy, sameday* with 6.5% (119,459) of separations, *Other gastroscopy for non-major digestive disease, sameday* with 4.9% (89,032), and *Chemotherapy* with 4.1% (74,658).

1 Introduction

Australian Hospital Statistics 1998–99 is the fourth in the Australian Institute of Health and Welfare's series of annual summary reports describing the characteristics and activity of Australia's hospitals. This report follows previous annual information for the years 1993–94 to 1997–98 (AIHW 1997a, 1997b, 1998, 1999a).

This series of reports has been based on data for the financial years 1993–94 to 1998–99 supplied to the Institute's hospital databases by the State and Territory health authorities. The National Public Hospital Establishments Database is a collation of the hospital-level data, and includes information about public hospitals, their resources, expenditure and revenue, and a summary of the services they provided to admitted and non-admitted patients. The National Hospital Morbidity Database collates the patient-level data on the diagnoses and other characteristics of admitted patients in both public and private hospitals, and on the hospital care they receive.

The collection and reporting of the data in this report were undertaken by the Institute under the auspices of the Australian Health Ministers' Advisory Council through the National Health Information Agreement. Most of the data collected were as specified in the National Minimum Data Set for Institutional Health Care and data element definitions were as specified for 1998–99 in the *National Health Data Dictionary* Version 7.0 (National Health Data Committee 1998).

This report

This report summarises 1998–99 data reported to the National Public Hospital Establishments Database and the National Hospital Morbidity Database. This chapter describes the two databases and briefly discusses their overall limitations.

Chapter 2 presents hospital performance indicator data, drawn from both the databases and a number of other sources. The indicators are nationally agreed, and based on indicators initially developed by the National Health Ministers' Benchmarking Working Group. In previous years they have been published in the Working Group's reports, and also adopted by the Steering Committee for the Review of Commonwealth/State Service Provision in their reports of government service provision.

Chapter 3 summarises other data on public hospitals, mainly from the National Public Hospital Establishments Database.

Chapter 4 uses both databases to provide an overview of activity in Australian hospitals based on establishment characteristics.

Chapters 5 to 10 present a range of patient-based information from the National Hospital Morbidity Database, including information on the diagnoses of the patients (Chapter 7), the procedures they underwent (Chapter 8) and the Australian Refined Diagnosis Related Groups for each hospital separation (Chapter 10).

In all chapters, unless otherwise specified:

- public acute hospitals and public psychiatric hospitals are included in the public hospital (public sector) category, and 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.

The appendixes provide more detailed technical notes on the data and analyses than are included in the chapters. In particular, Appendix 3 includes notes on the presentation of

data in the tables and Appendix 8 includes the population estimates used for population rate calculations.

Summary information from the Department of Health and Aged Care's 1998–99 National Hospital Cost Data Collection is provided in Appendix 10. This collection is the source of Australian Refined Diagnosis Related Group (AR-DRG) cost weight and average cost information used in Chapters 2, 4, 5 and 10.

The National Public Hospital Establishments Database

The National Public Hospital Establishments Database holds a record for each public hospital in Australia. It is collated from the routine administrative collections of public acute hospitals, psychiatric hospitals, drug and alcohol hospitals and dental hospitals in all States and Territories.

The collection only covers hospitals within the jurisdiction of the State and Territory health authorities. Hence, public hospitals not administered by the State and Territory health authorities (for example, some hospitals run by correctional authorities in some jurisdictions and those in off-shore territories) are not included. A list of the hospitals included in the database for 1998–99 is provided on the Internet (see Appendix 7).

Information is included on hospital resources (beds, staff and specialised services), recurrent expenditure, non-appropriation revenue and services to admitted and non-admitted patients. Data on capital expenditure and depreciation are also collected for each jurisdiction. The collection is based on the establishment-level activity and resource data elements, and the system-level data elements, of the National Minimum Data Set for Institutional Health Care.

Validation processes for 1998–99 data involved detailed consultation by the Institute with data providers in each State and Territory, to ensure data quality. Nevertheless, the collection does have some limitations and missing values. Although the data collections are based on national data item definitions, in some cases the actual definitions used vary among the States and Territories.

The National Hospital Morbidity Database

The National Hospital Morbidity Database is a compilation of electronic summary records collected in admitted patient morbidity data collection systems in Australian hospitals. Data relating to admitted patients in almost all hospitals are included: public acute hospitals, public psychiatric hospitals, private acute hospitals, private psychiatric hospitals and private free-standing day hospital facilities. Lists of the public and private hospitals included in the database for 1998–99 are provided on the Internet (see Appendix 7).

Public sector hospitals that were not included were 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 off-shore territories). In addition, data were not supplied for one small 'outpatient clinic' in Queensland, a forensic hospital in Tasmania, and a mothercraft hospital in the Australian Capital Territory.

Private sector hospitals that were not included were 12 private free-standing day hospital facilities and one other private hospital in Victoria, three private free-standing day hospital facilities in South Australia, one private free-standing day hospital facility and four other private hospitals in Tasmania, six private free-standing day hospital facilities and one private hospital in the Australian Capital Territory, and the one private hospital in the Northern Territory. In addition, about 5.6% of private hospital separations data for Western Australia were not included (mainly for hospitals other than free-standing day hospital facilities); the Western Australian data were provided as at 31 December 1999, and some

private hospitals had been unable to finalise their data by then due to system problems associated with the introduction of ICD-10-AM.

The data supplied for the National Hospital Morbidity Database were based on the patient-level data items of the National Minimum Data Set for Institutional Health Care. They include demographic, administrative and length of stay data, and data on the diagnoses of the patient, the procedures they underwent in hospital and external causes of injury and poisoning.

A process of validation of the morbidity database was jointly undertaken by the Institute and the data providers to ensure data quality. When data were supplied using non-standard definitions or classifications, the Institute mapped them to the *National Health Data Dictionary* definitions, where possible, in collaboration with the data providers. Further information on the mapping of data for newborn episodes of care (those for patients aged 9 days or less on admission) and of data for the area of usual residence of the patients is presented in Appendix 3.

Diagnosis, procedure and external cause data for 1998–99 were reported to the National Hospital Morbidity Database by Queensland, Western Australia, South Australia and Tasmania using the *Australian Version of the International Classification of Diseases, 9th Revision, Clinical Modification* (ICD-9-CM) (National Coding Centre 1996). The data were reported by New South Wales, Victoria, the Australian Capital Territory and the Northern Territory using the *International Statistical Classification of Diseases and Related Health Problems, 10th Revision, Australian Modification* (ICD-10-AM) (National Centre for Classification in Health 1998). The data reported in ICD-9-CM were mapped by the Institute to ICD-10-AM so that national data could be presented in a single classification in this report. Further information about the introduction of ICD-10-AM and this mapping is presented in Appendix 4.

Most data providers were able to supply records for separations of patients aged 9 days or less on admission (*Newborn* episodes of care) with no 'qualified days' (see Glossary); however, Tasmania was not able to provide data for most of these separations for both the public and private sectors and some other jurisdictions were unable to provide these data for all relevant private sector separations. These patients do not meet admission criteria for all purposes, so they have been excluded from this report, except as specified in Chapter 5. Records for hospital boarders were also removed from the database, in consultation with the data providers, as they are not admitted patients.

Records for 1998–99 are for hospital separations (discharges, transfers, deaths or changes in type of episode of care) in the period 1 July 1998 to 30 June 1999. Data on patients who were admitted on any date before 1 July 1998 are included, provided that they also separated between 1 July 1998 and 30 June 1999. A record is included for each separation, not for each patient, so patients who separated more than once in the year have more than one record in the database.

Limitations of the data

The major variations from the *National Health Data Dictionary* definitions, substantial differences in scope, the effects of different populations and other major impacts on data quality have been noted within appropriate sections of this report. These general notes should also be used to guide interpretation of the data.

- Although the *National Health Data Dictionary* definitions form the basis of the two databases, the actual definitions used may have varied among the data providers and from one year to another. In addition, fine details of the scope of the data collections may vary from one jurisdiction to another. Comparisons between the two databases, the States and Territories, reporting years and hospital sectors should therefore be made with reference to the accompanying notes.

- Not all private hospital separations are included in the National Hospital Morbidity Database so the counts of private hospital separations presented in this report are likely to be underestimates of the actual counts. In 1998–99, the National Hospital Morbidity Database reported 110,941 (5.6%) fewer separations than the Australian Bureau of Statistics' Private Health Establishments Collection, which has wider coverage. This discrepancy is described further in Appendix 3.
- Each State and Territory has a particular demographic structure that differs from other jurisdictions, and factors such as age and Aboriginal and Torres Strait Islander status can have a substantial effect on the nature of health care delivery amongst jurisdictions. For example, the average length of stay in hospital, or the frequency of different procedures, can be affected by the demographic composition of the population in a particular region or jurisdiction.
- Although data on separations from the National Hospital Morbidity Database can reflect an aspect of the burden of disease in the community, they do not usually provide measures of the incidence or prevalence of conditions. This is because not all persons with a type or degree of illness are treated in hospital and the number and pattern of hospitalisations can be affected by differing admission practices, differing levels and patterns of service provision, and multiple admissions for some chronic conditions, in addition to the differing patterns of morbidity in the population.

This report and additional data on the Internet

This report is available on the Internet at

http://www.aihw.gov.au/publications/health/ahs98-9.html

The text of the report is presented in PDF format and the tables as downloadable Excel spreadsheets.

This site also includes lists of hospitals that contributed to the databases for 1998–99 (see Appendix 7) and additional data from the National Hospital Morbidity Database, in Excel spreadsheets. The spreadsheets provide tables that present further detail on diagnoses, procedures and AR-DRGs, version 4.0/4.1 for admitted patients. A short time after this report is published, tables of data on the Australian National Diagnosis Related Groups (AN-DRGs), version 3.1 will also be available on the Internet site. More information about the Internet tables is in Chapters 7, 8 and 10 and Appendixes 1 and 7.

2 Hospital performance indicators

Introduction

This chapter describes hospital performance indicators in terms of the average cost per separation, average salaries of staff employed, proportion of accredited hospitals, and sentinel procedures and the length of stay for the most common diagnoses. These indicators are determined under the framework developed by the National Health Ministers' Benchmarking Working Group (see NHMBWG 1999). The indicators have also been reported previously in *Australian Hospital Statistics 1998–99* and by the Steering Committee for the Review of Commonwealth/State Service Provision (SCRCSSP 2000). The indicators also draw on the casemix classification for acute admitted services. The data relate to the activity and resources of public institutions, and there are also some data presented for private hospitals and for private patients in public hospitals.

Those indicators that can be derived from data collected through the National Minimum Data Set for Institutional Health Care, established under the National Health Information Agreement process, have been included in this report. The principal elements for reviewing the performance of health care service delivery are efficiency (for which the principal indicator is cost per unit of output) and effectiveness (for which broad indicators are quality, appropriateness and access and equity). Indicators available for the current report that provide a measure of hospital efficiency include cost per casemix-adjusted separation in public acute hospitals; average salaries for medical and non-medical staff in public acute hospitals; and average length of stay for AN-DRGs with the highest number of separations. Only two effectiveness measures are available for reporting: the proportion of available beds in accredited hospitals, which is the only available measure of quality; and separation rates for selected procedures in public and private hospitals, which is a measure of the appropriateness of acute hospital service delivery. Access and equity indicators are not included in this report.

Improving data quality is a key strategy in the development of performance reporting in the hospital sector. Those indicators for which regular high quality data are available have benefited from collaborative data development and standardisation processes which health agencies have had in place under the National Health Information Agreement process. However, data for a substantial number of performance indicators required for reporting under the agreed framework remain unavailable for reporting. The effort required to implement a new performance indicator is not trivial in a national service delivery system as large and as complex as exists in the health services field. The National Health Information Agreement provides an established process for endorsing national data standards and for including new data elements in national minimum data sets. Through this process, the Institute is initiating developmental work for the future reporting of a wider range of hospital sector performance indicators.

Cost per casemix-adjusted separation

Table 2.1 shows the total cost per casemix-adjusted separation for all States and Territories for 1998–99. At the national level, the cost per casemix-adjusted separation was $2,611. A large portion of these costs is attributed to nursing salaries and medical labour costs; nationally these costs are $706 and $475 respectively, per casemix-adjusted separation.

This performance indicator is a measure of the average cost of providing care for an admitted patient (whether an overnight-stay patient or a same day patient), adjusted for the relative complexity of the patient's clinical condition and for the hospital services provided.

The current methodology includes all admitted patient separations and their associated costs. It is appropriate to include the 97.5% of separations which are acute in this calculation, as cost weights are available for each of the acute separations. However the 2.5% of separations which are not acute are also included, and as there are no cost weights for the non-acute separations, the overall cost per separation is biased.

To provide an estimate of the average casemix-adjusted cost of acute non-psychiatric patients both New South Wales and Victoria provided the Institute with estimates of the expenditure on acute non-psychiatric patients. The effect of restricting the analysis to only acute non-psychiatric patients was to reduce the cost per casemix-adjusted separation by 4.9% in New South Wales and 5.7% in Victoria (Table 2.2) The overall framework of cost analysis is discussed in Appendix 5.

The Institute hopes that all jurisdictions will soon be in a position to provide reasonably accurate data on the costs of treating acute admitted patients that are separated in a year. When all States and Territories are able to make this estimate, it will be possible to publish a cost per acute admitted separation in *Australian Hospital Statistics*. In addition if the States are able to provided cost weights, e.g. AN-SNAP weights for the admitted patient episodes which are not acute, then it will also be possible to publish a cost per palliative separation, a cost per rehabilitative separation, a cost per maintenance episode etc.

The pros and cons of changing the performance indicator from cost per total separation to cost per acute separation, the National Health Performance Committee will consider the timing of such a change, and the appropriate methodology to be used later this year.

This report also splits the hospitals further into peer groups (Appendix 11). This will aid the explanation of the variations in cost per casemix-adjusted separation at the jurisdiction level and enable comparison at a more appropriate level.

As more and more hospitals come into the National Hospital Cost Data Collection (NHCDC) it will be increasingly possible to use NHCDC data to refine the data that is provided for the Hospital Establishments collection so as to improve the performance indicators that come from the Hospital Establishments collection. For example, the nursing cost per casemix-adjusted separation is currently calculated by applying the overall inpatient fraction to nursing costs. It would be better to use NHCDC data to work out a nursing cost inpatient fraction. The nursing cost per casemix-adjusted separation calculated in this way would be better for benchmarking purposes.

A full description of the methodology used to derive the cost per casemix-adjusted separation figures is provided at Appendix 5. Users of the indicator should refer to the information in that appendix when interpreting the data. Note that the calculation of these figures is sensitive to a number of assumptions made to overcome deficiencies in available data. In particular:

- capital costs (including depreciation where available) are not included in numerators (see Tables 3.8 for available data on depreciation);
- recurrent expenditure on admitted patients (the numerator) is estimated in different ways by jurisdictions applying an inpatient fraction (see Glossary) to recurrent expenditure for admitted and not admitted patients combined; and
- adjustment of separations for case complexity ('casemix') is achieved using average cost weights within jurisdictions for acute episodes of care only, even though episodes other than acute are included in the separations data from which the denominator is constructed.

New South Wales, Victoria, the Australian Capital Territory and the Northern Territory were based on ICD-10-AM data and grouped to AR-DRG Version 4.1 while Queensland, South Australia Western Australia and Tasmania were based on ICD-9-CM and grouped to AR-DRG version 4.0. There are possibly slight differences between the ICD-9-CM States and the ICD-10-AM jurisdictions because of this use of the different ICD classifications, as discussed in Appendix 4. The 1998–99 AR-DRG version 4.0/4.1 combined cost weights (DHAC, unpublished, see Appendix 10) were applied to all jurisdictions.

Average salaries and wages expenditure

Average salaries paid to public hospital staff by States and Territories are presented in Table 2.3. A number of jurisdictions were unable to report staffing numbers and salaries for the different nurse categories and, therefore, average nursing salaries have been produced as a single figure for this report. As noted elsewhere in this report (see Chapter 3), some States and Territories have difficulty in differentiating 'other personal care staff' and 'domestic and other staff'. Thus, some of the variation in average salaries reported within these categories may be a result of different reporting practices.

The data show variation in the distribution of labour costs among jurisdictions. States and Territories that reported the highest rates of staff resources did not necessarily report higher costs per casemix-adjusted separation (Table 2.1). The variations in the data are likely to be affected by different practices in 'outsourcing' services, and different arrangements for purchasing domestic and catering functions among jurisdictions. Where services are outsourced, the ratio of salary to non-salary costs will be reduced. The degree of outsourcing of high paid versus low paid staff will be a factor that affects the comparison of averages, for example; outsourcing the domestic services and retaining domestic service managers to oversee the activities of the contractors.

Salaries paid to nurses, overall, were relatively consistent nationally. Average salaries paid to salaried medical officers, in contrast, showed a marked variation across jurisdictions. Information on average payments to visiting medical officers for sessions and services in public hospitals is not available. The total number of medical practitioners who provided services in public hospitals is presented at Table 3.7.

Hospital accreditation

Available administrative indicators of hospital quality include a number of accreditation, certification and award schemes. In particular the number of hospitals that have accreditation by the Australian Council on Healthcare Standards (ACHS) has been used by NHMBWG and SCRCSSP as a process indicator of quality. Table 2.4 presents a comparison of the percentage of hospitals accredited by the Australian Council on Healthcare Standards (ACHS 1999) between the public and private sectors. ACHS accreditation is awarded when hospitals demonstrate a continuing adherence to the ACHS quality assurance standards, and is regarded as one of the few indicators of hospital quality that is available nationally. Data for public hospitals are based on 1998–99 reports and data for private hospitals are based on 1997–98 reports and exclude the private free-standing day hospital facilities. Nationally, 48% (362) of all public hospitals were accredited, and accounted for 76% (40,839) of all public hospital beds reported for 1998–99. In the private sector, 79% (248) of acute hospitals were accredited, and accounted for 89% (21,070) of acute private hospital beds reported

Comparison of ACHS accreditation rates shown in Table 2.4 among the States and Territories is limited because of the voluntary nature of a hospital's participation in the award scheme and because accreditation at any point in time does not assume a fixed or

continuing status for a hospital. In addition, ACHS accreditation of larger hospitals can substantially increase the proportion of beds that are accredited in a jurisdiction. A number of hospitals have been certified as International Organisation of Standards, ISO 9000 or ISO 9001 compliant, which is a different process to ACHS accreditation. There is no agreed national process to collect information on which hospitals are certified as ISO 9000 or ISO 9001 compliant. Victoria reports one small hospital was certified ISO 9000 compliant. Fifteen New South Wales public hospitals (629 beds), previously accredited by the ACHS, were working under either the Australian Quality Council or CHASP (Community Health Accreditation and Standards Program administered by the Australian Community Health Association) framework in 1998–99. If counted as accredited, 64% of New South Wales public hospitals (80% of beds) would have been accredited on 30 June 1999.

Although other organisations offer similar services, ACHS is the most widely used in Australia for hospitals and its accreditation status is reported in other national publications such as the *Report on Government Services 2000* (SCRCSSP 2000) and the *Third National Report on Health Sector Performance Indicators* (NHMBWG 1999).

Amalgamations of public hospital services may also affect the number of accredited hospitals, and thus the number of accredited available beds, over time (see Chapter 3 for a discussion of this issue).

Separation rates for selected procedures

Separation rates for 'sentinel' procedures have been selected because of the frequency with which they are undertaken and because they are often elective and discretionary, and there are often treatment alternatives available (NHMBWG 1998). Use of particular procedures should therefore be interpreted with care as their relative importance can vary from place to place and over time. The additional procedures in the table were included after consultation with States and Territories. Users of this indicator should note the scope restrictions of the National Hospital Morbidity Database, in particular private hospitals in the Northern Territory and other hospitals as discussed in Chapter 1. This may result in under reporting of procedure rates for some of the procedures and in particular those procedures that are more likely to be performed in private and private freestanding hospitals, which will be under counted for some jurisdictions.

The ICD-9-CM and ICD-10-AM coded states are reported separately. The age- and sex-standardised separation rates that are presented take account of the different age and sex structures of the populations of the States and Territories within the two groups of jurisdictions. In Table 2.5, the standardised rate for each procedure for each State and Territory is accompanied by the standardised rate for all other jurisdictions using the same version of ICD excluding the reference State or Territory within the two groups of jurisdictions. For example, the rate for appendicectomy in Victoria was 1.49 separations per 1,000 population. The standardised rate for the other ICD-10-AM coded States and Territories combined was 1.39 per 1,000 population. Thus, Victoria had a separation rate for appendicectomy that was 6.9% higher than the rate for all the other ICD-10-AM coded jurisdictions combined. This difference was statistically significant (that is, there is a less than 1% chance that the difference between Victoria and the other ICD-10-AM coded jurisdictions occurred by chance).

A number of alterations to the table have been to account for conversion to ICD-10-AM. A subcommittee of the Australian Hospital Statistics Advisory Committee was formed to guide and assist the Institute in the review of Table 2.4. Appendix 6 discusses the problems introduced by the differences in coding frameworks in detail.

The mapping of the ICD-9-CM data to ICD-10-AM introduces a degree of uncertainty to the inter-jurisdictional comparisons. The table is therefore separated into the two groups of jurisdictions representing the different versions of the classifications of procedures. The

major ICD-9-CM to ICD-10-AM differences lay in the data on Arthroscopy and Diagnostic gastrointestinal endoscopies.

The codings do not appear to be problematic for Cholecystectomies, Coronary artery bypass grafts, Myringotomy with insertion of tube, Prostatectomies, Hip replacements and Knee replacements. There are some inconsistencies in the codes for Angioplasty, Hysterectomies, Tonsillectomies and Lens insertion but the impact on the statistics is expected to be minimal.

The table is based on State of residence and the effect of the different coding systems on patients being treated interstate, affects Northern Territory data most as it is an ICD-10-AM coded jurisdiction mainly importing services from South Australia and Queensland for a number of procedures. For example, the Northern Territory has inflated figures for arthroscopy due to the inclusion of the arthroscopic procedures performed in the ICD-9-CM coded states on Northern Territory residents.

The most common of the procedures were endoscopy, lens insertions and arthroscopic procedure separations. There was marked variation in rates among the jurisdictions for these (and other) procedures; some of this may reflect differences in the coverage of private and private free-standing day hospital facilities in the database. See Chapter 1 for a fuller description of the scope of the database.

Caesarean section was the fourth most common of the selected procedures. The rate was highest in South Australia and lowest in the Australian Capital Territory. The number of caesarean sections is dependent on the birth rate as well as the population thus it is useful to express the rate per birth as well as per population. The number of in-hospital births has been included for the first time this year as a second point of reference. There are completeness problems in terms of non-hospital births and comparability problems with age differences in the per birth rate of caesarean sections. Further information on caesarian sections compared to other delivery data can be found in the Australia's Mothers and Babies reports, which is based on the Midwives' collection (Day et al. 1999, www.aihw.gov.au/ npsu/ps9.pdf).

The coding differences between the ICD-9-CM and ICD-10-AM jurisdictions also show that there are significant differences that can occur due to problems in coding changeovers. For example: the arthroscopy data for Victoria seem overstated, being over double the apparent rate for the other ICD-10-AM coded jurisdictions. In 1997–98, when all jurisdictions were using ICD-9-CM, New South Wales had 5,450 and Victoria had 3,186 arthroscopies as principal procedures. This compares with the 29,656 and 25,535 separations respectively when procedures in all positions are counted (AIHW 1999a). Coding Standard 0023 relating to Laparoscopic/Arthroscopic/Endoscopic surgery states if a procedure is performed using one of the three approaches and there is no code provided that encompasses both the 'scopy' and the procedure (e.g. 51.23 laparoscopic cholecystectomy), then both procedures should be coded. The 'code approach as well' codes should not have been coded as principal procedure unless they were the only procedure. The Institute therefore thinks that there is probably a coding problem in Victoria as the data is consistent for New South Wales. The analysis of arthroscopic procedures for ICD-10-AM coded jurisdictions was divided into arthroscopy codes only and arthroscopic procedures (including arthroscopies) to reflect the two possible interpretations of the ICD-9-CM codes.

The Institute will review the entire methodology of this table as it fits into a broader analysis framework in conjunction with the National Health Performance Committee and the Australian Hospital Statistics Advisory Committee.

Average lengths of stay for the top 10 AR-DRGs

Within the performance indicator framework for the hospital sector, the average length of stay for overnight separations for the most commonly reported AR-DRGs is an indicator of efficiency in service delivery. Table 2.6 presents data on the average length of stay for overnight separations for the ten AR-DRGs for which the highest number of overnight separations were reported for 1998–99. These data are not equivalent to the data presented in the tables in Chapter 10 as same day separations were excluded, as were separations with lengths of stay over 365 days.

The change of version between AN-DRG version 3.1 and AR-DRG version 4 has lead to a number of changes, mostly due to the coding structure. It is important to note that the ICD-9-CM coded jurisdictions are grouped to AR-DRG version 4.0 and the ICD-10-AM jurisdictions are grouped to AR-DRG version 4.1 which leads to some comparability problems.

The table illustrates variation in the average length of stay for some AR-DRGs across the States and Territories and between the sectors. Of the top 10, AR-DRG F62B *Heart Failure and shock without catastrophic complication* had the longest average length of stay of 6.8 days nationally, with considerable variation between sectors and across jurisdictions, ranging from 9.8 days to 5.4 days. Following this, length of stay for AR-DRG J64B *Cellulitis (Age>59 without catastrophic or severe complications) or Age<60* was 4.41 and AR-DRG E62C *Respiratory infections and inflammations without complications* was 4.35 days nationally. The average length of stay for AR-DRG O60D *Vaginal delivery without complicating diagnosis* was 3.71 days 3.58 days in the public sector and 4.99 days in the private sector.

Table 2.1: Cost[a] per casemix-adjusted separation, selected public acute hospitals,[b] States and Territories, 1998–99

Variable	NSW	Vic	Qld	WA	SA	Tas[c]	ACT	NT[d]	Total
Total separations ('000)[e]	1,213	944	674	342	332	74	59	55	3,692
Acute separations('000)[e]	1,185	917	647	338	327	73	58	54	3,599
Proportion of separations not acute %	2.3	2.8	4.0	1.3	1.5	1.6	1.8	1.0	2.5
Average cost weight[f]	1.03	1.00	0.99	0.95	1.00	1.02	0.99	0.78	1.00
Casemix-adjusted separations ('000)[g]	1,245	946	667	326	332	76	58	43	3,693
Total admitted patient days('000)[e]	4,668	3,549	2,324	1,242	1,142	273	216	191	13,605
Admitted patient days for acute patients('000)[e]	4,251	3,020	2,094	1,132	1,067	238	199	181	12,183
Proportion of bed days not acute %	8.9	14.9	9.9	8.9	6.6	12.5	7.9	5.2	10.5
Total recurrent expenditure ($m)	4,441	3,118	1,980	1,240	983	254	272	183	12,472
Inpatient fraction[h]	0.75	0.72	0.79	0.78	0.80	0.74	0.70	0.77	0.75
Total admitted patient recurrent expenditure ($m)	3,310	2,231	1,573	966	782	188	189	141	9,380
Public patient day proportion[i]	0.81	0.87	0.91	0.88	0.84	0.82	0.88	0.94	0.85
Newborn episodes with no qualified days('000)	57.5	38.1	29.4	14.7	10.6	0.0	3.0	2.6	156
Data for excluded hospitals									
Separations for excluded hospitals ('000)[b][e]	61	26	35	15	24	6	1	0	161
Per cent of all separations %	4.8	2.7	4.9	4.3	6.7	8.0	1.3	. .	4.2
Expenditure for excluded hospitals ($m)	532	149	232	119	145	23	1.47	. .	1,178
Inpatient fraction for excluded hospitals	0.78	0.50	0.70	0.77	0.89	n.a.	1.00	. .	0.74
Unadjusted cost per separation	6,810	2,842	4,660	5,913	5,414	n.a.	1,856	. .	5,411
Average cost data for selected hospitals									
Non-medical labour costs per casemix-adjusted separation ($)									
Nursing	741	676	693	726	642	676	766	850	706
Diagnostic/allied health[k]	205	224	145	227	168	190	269	165	199
Administrative	193	193	166	250	189	180	243	231	194
Other staff	204	145	209	231	124	209	129	434	186
Superannuation[j]	129	107	136	153	122	151	231	128	128
Total non-medical labour costs	*1,472*	*1,345*	*1,349*	*1,587*	*1,245*	*1,406*	*1,638*	*1,808*	*1,413*

(continued)

Table 2.1: (continued): Cost[(a)] per casemix-adjusted separation, selected public acute hospitals,[(b)] States and Territories, 1998–99

Variable	NSW	Vic	Qld	WA	SA	Tas[(c)]	ACT	NT[(c)]	Total
Other recurrent costs per casemix-adjusted separation ($)									
Domestic services	67	67	74	79	72	69	120	160	72
Repairs/maintenance	61	56	48	91	94	75	85	70	64
Medical supplies[(k)]	159	187	243	201	161	192	284	154	187
Drug supplies	137	118	142	155	119	128	163	165	133
Food supplies	33	28	22	22	20	32	40	32	28
Administration	152	130	113	169	138	80	192	221	140
Other	133	66	14	186	104	128	175	239	99
Total other recurrent costs	*742*	*652*	*656*	*903*	*708*	*704*	*1,059*	*1,041*	*723*
Total excluding medical labour costs	**2,214**	**1,997**	**2,005**	**2,490**	**1,953**	**2,110**	**2,697**	**2,849**	**2,136**
Medical labour costs per casemix-adjusted separation ($)									
Public patients									
Salaried/sessional staff	280	299	292	321	262	281	348	376	291
VMO payments	165	61	59	153	141	94	208	45	114
Private patients (estimated)[(l)]	107	56	34	62	74	83	73	27	70
Total medical labour costs	*552*	*416*	*385*	*536*	*477*	*458*	*629*	*448*	*475*
Total cost per casemix adjusted separation[(g)]	**2,766**	**2,413**	**2,390**	**3,026**	**2,430**	**2,568**	**3,326**	**3,297**	**2,611**

(a) Excluding depreciation

(b) Psychiatric hospitals, drug and alcohol services, mothercraft hospitals, Unpeered and other, hospices, rehabilitation facilities Small non-acute and multi-purpose services excluded from this table.

(c) Tasmania is the only jurisdiction with a significant payroll tax burden. As a result, payroll tax has been estimated at 6.7% of salary plus superannuation and removed from the above. Consequently the above data do not balance with Table 3.8.

(d) These figures should be interpreted in conjunction with the consideration of cost disabilities associated with hospital service delivery in the Northern Territory (see Appendix 5).

(e) From the National Hospital Morbidity Database, including same day separations and newborns with qualified days.

(f) Average cost weight from the National Hospital Morbidity Database, based on acute and unspecified separations and newborn episodes of care with qualified days, using the 1998–99 AR-DRG v 4.0/4.1 combined cost weights (DHAC, unpublished). New South Wales, Victoria, the Australian Capital Territory and the Northern Territory report in ICD-10-AM grouped to AR-DRG v4.1. Queensland, Western Australia, South Australia and Tasmania report in ICD-9-CM grouped to AR-DRG v4.0. There are possibly slight differences because of this use of the different ICD classifications (see Appendix 4.)

(g) Casemix-adjusted separations is the product of Total separations and Average cost weight.

(h) Inpatient fractions have been estimated using the HASAC method for 3 very small excluded hospitals in Queensland, 1 small selected and 6 excluded hospitals in New South Wales, 1 excluded hospital in the Australian Capital Territory, 1 small selected and 3 small excluded hospitals in Victoria, 5 small excluded hospitals in South Australia, 1 small selected and 2 small excluded hospitals in Western Australia.

(i) Eligible public patient days as a proportion of total patient days, excluding newborns with no qualified days.

(j) In the Northern Territory the major superannuation scheme is funded by Treasury—hospitals make no contribution. The superannuation for this jurisdiction was estimated using the average of the other States and Territories. Consequently, the above data do not balance with Table 3.8.

(k) Queensland pathology services are now being purchased from the statewide pathology service rather than being provided by each hospitals employees

(l) Estimated private patient medical costs calculated as the sum of salary/sessional and VMO payments divided by the number of public patient days multiplied by the number of private patient days. This is a notional estimate of the medical costs for all non-public patients, including private, compensable and ineligible.

. . not applicable

n.a. not available

Table 2.2: Cost per acute casemix-adjusted separation, selected public acute hospitals, excluding mental health programs [(a)] New South Wales and Victoria, 1998–99

Variable	NSW	Vic
Total separations ('000)[(b)]	1,213	944
Acute separations excluding psychiatric unit separations ('000)[(a)]	1,166	897
Proportion of separations not acute %	3.9	4.9
Average cost weight[(c)]	1.02	0.98
Casemix-adjusted acute non-psychiatric separations ('000)	1,190	884
Total recurrent expenditure ($m)	4,441	3,118
Acute non-psychiatric Inpatient fraction[(d)]	0.68	0.63
Total acute patient(excluding Mental health program) recurrent expenditure ($m)	3,007	1,956
Public patient day proportion for acute non-psychiatric patients[(e)]	0.80	0.86
Average cost per casemix-adjusted separation for selected hospitals from Table 2.1		
Cost per casemix-adjusted separation	2,766	2,413
Difference from cost per acute non-psychiatric separaion	-4.9%	-5.7%
Average cost per acute non-psychiatric separation data for selected hospitals		
Non-medical labour costs per acute non-psychiatric casemix-adjusted separation ($)		
Nursing	704	585
Diagnostic/allied health	195	185
Administrative	184	181
Other staff	194	133
Superannuation	123	103
Total non-medical labour costs	*1,400*	*1,187*
Other recurrent costs per acute non-psychiatric casemix-adjusted separation ($)		
Domestic services	63	68
Repairs/maintenance	58	58
Medical supplies	151	202
Drug supplies	130	128
Food supplies	31	24
Administration	145	105
Other	126	55
Total other recurrent costs	*704*	*640*
Total excluding medical labour costs	**2,104**	**1,827**
Medical labour costs per acute non-psychiatric casemix-adjusted separation ($)		
Public patients		
Salaried/sessional staff	266	312
VMO payments	157	74
Private patients (estimated)[(f)]	104	62
Total medical labour costs	*527*	*448*
Total cost per acute non-psychiatric casemix-adjusted separation	**2,631**	**2,275**

(a) Excludes psychiatric, mothercraft, hospices, small non-acute, other not acute, un-peered and other hospitals, rehabilitation facilities, and multi-purpose services.

(b) From the National Hospital Morbidity Database, including same day separations and newborns with qualified days. Excludes patients with total days of psychiatric care equal to the total length of stay.

(c) Average cost weight from the National Hospital Morbidity Database, based on acute and unspecified separations and newborn episodes of care with qualified days, using the 1998–99 revised AR-DRG version 4.1/4.0 combined cost weights (DHAC, unpublished). Excludes patients with total days of psychiatric care equal to the total length of stay.

(d) Proportion of total expenditure relating to acute non-psychiatric admitted patients.

(e) Eligible public patient days as a proportion of total patient days, excluding newborns with no qualified days, non-acute patients and patients with total days of psychiatric care equal to the total length of stay.

(f) Estimated private patient medical costs calculated as the sum of salary/sessional and VMO payments divided by the number of public patient days multiplied by the number of private patient days. This is a notional estimate of the medical costs for all non public patients including private, compensible and ineligible patients.

. . not applicable

n.a. not available

Table 2.3: Average salary ($), full time equivalent staff,[a] public acute and psychiatric hospitals, States and Territories, 1998–99

Staffing category	NSW[b]	Vic[c]	Qld	WA	SA[b]	Tas[b,d]	ACT	NT	Total
Salaried medical officers	87,423	105,375	79,223	94,704	76,988	96,340	103,892	99,196	90,205
Nurses	51,358	53,566	46,970	46,520	44,965	47,220	47,704	48,964	49,811
Other personal care staff	n.a.	24,746	32,874	27,566	n.a.	n.a.	31,872	39,033	29,357
Diagnostic & health professionals	46,802	48,553	46,509	45,396	41,502	55,337	49,110	64,079	46,968
Administrative & clerical staff	42,398	41,101	34,970	36,554	32,849	46,301	43,670	41,527	39,273
Domestic & other staff	34,490	36,276	32,332	32,037	27,480	34,755	32,716	40,505	33,641
Total staff	**49,641**	**53,041**	**45,549**	**45,646**	**42,889**	**47,579**	**50,911**	**51,323**	**48,670**

(a) Where average full time equivalent staff numbers were not available, staff numbers at 30 June 1998 were used.

(b) *Other personal care staff* are included in *Diagnostic & health professionals* and *Domestic & other staff*.

(c) For Victoria different sources are used for FTE and salaries and FTEs may be slightly understated.

(d) For Tasmania staff numbers were only available for the 3 major hospitals which accounted for 92% of total separations. Staff numbers for the remaining 22 hospitals were not available. Data are for those 3 hospitals only.

n.a. not available.

Table 2.4: Number of hospitals[a] and available beds[b] by sector and ACHS accreditation status,[c] States and Territories[d], 1998–99

Hospital accreditation	NSW[d]	Vic[e]	Qld	WA	SA[f]	Tas[g]	ACT[d]	NT[f]	Total
Public hospitals									
Accredited hospitals	125	98	40	34	57	4	3	1	362
Non-accredited hospitals	93	44	148	60	23	21	0	4	393
Hospitals accredited (%)	57	69	21	36	71	16	100	20	48
Total public hospitals	*218*	*142*	*188*	*94*	*80*	*25*	*3*	*5*	*755*
Accredited beds	14,447	10,190	7,011	3,365	3,957	861	710	297	40,839
Non-accredited beds	4,309	1,448	3,633	1,971	1,138	278	0	270	13,046
Beds accredited (%)	77	88	66	63	78	76	100	52	76
Total available beds for admitted patients	*18,756*	*11,638*	*10,644*	*5,336*	*5,095*	*1,139*	*710*	*567*	*53,885*
Private hospitals[h]									
Accredited hospitals	81	73	42	18	26	8	n.p.	n.p.	248
Non-accredited hospitals	9	22	10	10	12	1	n.p.	n.p.	64
Hospitals accredited (%)	90	77	81	64	68	89	n.p.	n.p.	79
Total private hospitals	*90*	*95*	*52*	*28*	*38*	*9*	*n.p.*	*n.p.*	*312*
Accredited beds	6,245	5,506	4,626	2,017	n.p.	n.p.	n.p.	n.p.	21,070
Non-accredited beds	283	851	364	877	n.p.	n.p.	n.p.	n.p.	2,676
Beds accredited (%)	96	87	93	70	n.p.	n.p.	n.p.	n.p.	89
Total available beds for admitted patients	*6,528*	*6,357*	*4,990*	*2,894*	*2,199*	*778*	*n.p.*	*n.p.*	*23,746*
All hospitals[h]									
Accredited hospitals	206	171	82	52	83	12	n.p.	n.p.	610
Non-accredited hospitals	102	66	158	70	35	22	n.p.	n.p.	457
Hospitals accredited (%)	67	72	34	43	70	35	n.p.	n.p.	57
Total hospitals	*308*	*237*	*240*	*122*	*118*	*34*	*n.p.*	*n.p.*	*1,067*
Accredited beds	20,692	15,696	11,637	5,382	n.p.	n.p.	n.p.	n.p.	61,909
Non-accredited beds	4,592	2,299	3,997	2,848	n.p.	n.p.	n.p.	n.p.	15,722
Beds accredited (%)	82	87	74	65	n.p.	n.p.	n.p.	n.p.	80
Total available beds for admitted patients	*25,284*	*17,995*	*15,634*	*8,230*	*7,294*	*1,917*	*n.p.*	*n.p.*	*77,631*

(a) Apparent differences in the number of hospitals reported are, in many instances, caused more by changes in administrative or reporting arrangements than by actual differences in the number of buildings.

(b) Where average available beds for the year were not available, bed numbers at 30 June 1998 were used.

(c) ACHS Accreditation status at 30 June 1999 for public hospitals. One small Victorian public hospital was ISO 9000 certified and 15 New South Wales public hospitals (629 beds) were working under either the Australian Quality Council or Community Health Accreditation and Standards Program framework in 1998–99.

(d) Australian Capital Territory private hospital data are included with New South Wales.

(e) In Victoria two major public hospitals with a total of 857 beds had lapsed accreditation on 30 June 1999 but were re-accredited shortly afterwards and are counted as accredited in this table.

(f) Northern Territory private hospital data are included with South Australia. Private hospital accredited beds and non-accredited beds not printed separately but included in total.

(g) Tasmanian private hospital accredited and non-accredited beds not printed separately but included in total.

(h) Excludes private free-standing day hospital facilities.

n.p. not published.

Note: Private hospital data are provided from the Australian Bureau of Statistics Private Health Establishments Collection and accreditation data are provided by the Australian Council on Healthcare Standards.

Table 2.5: Separation statistics for selected procedures[a] by State or Territory of usual residence, all hospitals,[b] States and Territories, 1998–99

Procedure					
Appendicectomy ICD-10-AM States	**NSW**	**Vic**	**ACT**	**NT**	**Total**
Separations[c]	8,477	6,710	449	241	15,877
Separations within State of residence (%)	97	98	95	96	
Separation rate[d]	1.40	1.49	1.44	1.21	1.43
Separation rate[d] for other States	1.47	1.39	1.43	1.43	
Difference, State/Territory & other rate (%)	-5.1	6.9	0.5	-15.5	
Significance of difference	**	**	–	**	
Appendicectomy ICD-9-CM States	**Qld**	**WA**	**SA**	**Tas**	**Total**
Separations[c]	5,027	2,939	1,874	580	10,420
Separations within State of residence (%)	99	99	99	99	
Separation rate[d]	1.47	1.61	1.33	1.30	1.47
Separation rate[d] for other States	1.47	1.42	1.51	1.48	
Difference, State/Territory & other rate (%)	0.4	13.7	-11.8	-12.7	
Significance of difference	–	**	**	**	
Coronary artery bypass graft ICD-10-AM States	**NSW**	**Vic**	**ACT**	**NT**	**Total**
Separations[c]	6,927	4,416	168	61	11,572
Separations within State of residence (%)	93	99	83	0	
Separation rate[d]	0.99	0.86	0.67	0.56	0.93
Separation rate[d] for other States	0.85	0.97	0.93	0.93	
Difference, State/Territory & other rate (%)	16.0	-11.1	-28.0	-40.1	
Significance of difference	**	**	n.a.	**	
Coronary artery bypass graft ICD-9-CM States	**Qld**	**WA**	**SA**	**Tas**	**Total**
Separations[c]	3,115	1,194	1,178	338	5,825
Separations within State of residence (%)	99	100	99	98	
Separation rate[d]	0.88	0.66	0.67	0.63	0.76
Separation rate[d] for other States	0.66	0.79	0.79	0.77	
Difference, State/Territory & other rate (%)	32.9	-16.3	-15.5	-18.6	
Significance of difference	**	**	**	**	
Angioplasty ICD-10-AM States	**NSW**	**Vic**	**ACT**	**NT**	**Total**
Separations[c]	6,294	5,523	121	89	12,027
Separations within State of residence (%)	95	99	17	0	
Separation rate[d]	0.90	1.08	0.43	0.76	0.96
Separation rate[d] for other States	1.05	0.88	0.98	0.97	
Difference, State/Territory & other rate (%)	-13.8	22.6	-56.3	-21.8	
Significance of difference	**	**	n.a.	*	
Angioplasty ICD-9-CM States	**Qld**	**WA**	**SA**	**Tas**	**Total**
Separations[c]	2,446	1,753	1,497	544	6,240
Separations within State of residence (%)	99	99	99	98	
Separation rate[d]	0.68	0.97	0.86	1.02	0.81
Separation rate[d] for other States	0.93	0.77	0.80	0.80	
Difference, State/Territory & other rate (%)	-26.5	26.3	8.3	28.4	
Significance of difference	**	**	**	**	
Caesarean section ICD-10-AM States	**NSW**	**Vic**	**ACT**	**NT**	**Total**
Separations[c]	17,178	13,134	757	616	31,685
Separations within State of residence (%)	97	100	98	97	
In-hospital births	85,996	59,757	3,978	2,695	152,426
Separations per 100 in-hospital births	20	22	19	23	21
Separation rate[d]	2.86	2.91	2.42	2.85	2.87
Separation rate[d] for other States	2.88	2.83	2.88	2.87	
Difference, State/Territory & other rate (%)	-0.8	2.8	-15.8	-0.7	
Significance of difference	–	*	**	–	
Caesarean section ICD-9-CM States	**Qld**	**WA**	**SA**	**Tas**	**Total**
Separations[c]	10,976	5,846	4,528	1,194	22,544
Separations within State of residence (%)	99	100	100	99	
In-hospital births	47,665	24,260	18,313	5,713	95,951
Separations per 100 in-hospital births	23	24	25	21	23
Separation rate[d]	3.33	3.28	3.38	2.97	3.31
Separation rate[d] for other States	3.28	3.32	3.29	3.33	
Difference, State/Territory & other rate (%)	1.7	-1.1	2.8	-10.7	
Significance of difference	–	–	–	**	

(continued)

Table 2.5:(continued) Separation statistics for selected procedures[a] by State or Territory of usual residence, all hospitals,[b] States and Territories, 1998–99

Procedure					
Cholecystectomy ICD-10-AM States	**NSW**	**Vic**	**ACT**	**NT**	**Total**
Separations[c]	15,521	10,795	472	210	26,998
Separations within State of residence (%)	97	99	95	93	
Separation rate[d]	2.29	2.18	1.57	1.30	2.22
Separation rate[d] for other States	2.12	2.24	2.23	2.23	
Difference, State/Territory & other rate (%)	8.1	-2.9	-29.5	-41.7	
Significance of difference	**	*	n.a.	n.a.	
Cholecystectomy ICD-9-CM States	**Qld**	**WA**	**SA**	**Tas**	**Total**
Separations[c]	8,306	3,910	3,800	899	16,915
Separations within State of residence (%)	99	100	100	98	
Separation rate[d]	2.32	2.10	2.34	1.81	2.23
Separation rate[d] for other States	2.16	2.28	2.21	2.26	
Difference, State/Territory & other rate (%)	7.7	-7.8	5.8	-20.1	
Significance of difference	**	**	**	**	
Diagnostic gastrointestinal endoscopy ICD-10-AM States	**NSW**	**Vic**	**ACT**	**NT**	**Total**
Separations[c]	162,580	125,069	3,378	1,935	292,962
Separations within State of residence (%)	98	99	95	90	
Separation rate[d]	23.61	24.83	11.74	12.88	23.71
Separation rate[d] for other States	23.83	22.94	24.00	23.83	
Difference, State/Territory & other rate (%)	-0.9	8.2	-51.1	-46.0	
Significance of difference	*	**	n.a.	n.a.	
Diagnostic gastrointestinal endoscopy ICD-9-CM States	**Qld**	**WA**	**SA**	**Tas**	**Total**
Separations[c]	98,362	43,643	36,766	10,662	189,433
Separations within State of residence (%)	99	100	100	99	
Separation rate[d]	27.29	23.41	21.72	20.52	24.67
Separation rate[d] for other States	22.36	25.07	25.50	24.97	
Difference, State/Territory & other rate (%)	22.0	-6.6	-14.8	-17.8	
Significance of difference	**	**	**	**	
Hip replacement ICD-10-AM States	**NSW**	**Vic**	**ACT**	**NT**	**Total**
Separations[c]	7,291	5,728	357	36	13,412
Separations within State of residence (%)	94	99	94	75	
Separation rate[d]	1.00	1.08	1.46	0.49	1.04
Separation rate[d] for other States	1.08	1.01	1.03	1.04	
Difference, State/Territory & other rate (%)	-7.5	6.4	42.2	-52.9	
Significance of difference	**	**	**	**	
Hip replacement ICD-9-CM States	**Qld**	**WA**	**SA**	**Tas**	**Total**
Separations[c]	3,341	2,092	2,147	679	8,259
Separations within State of residence (%)	99	100	99	99	
Separation rate[d]	0.92	1.16	1.13	1.22	1.05
Separation rate[d] for other States	1.16	1.01	1.02	1.03	
Difference, State/Territory & other rate (%)	-20.6	14.8	11.1	18.4	
Significance of difference	**	**	**	**	
Hysterectomy ICD-10-AM States	**NSW**	**Vic**	**ACT**	**NT**	**Total**
Separations[c]	10,866	8,054	511	138	19,569
Separations within State of residence (%)	96	100	94	91	
Separation rate[d]	1.58	1.59	1.61	0.77	1.57
Separation rate[d] for other States	1.56	1.56	1.57	1.58	
Difference, State/Territory & other rate (%)	1.1	2.0	2.4	-51.4	
Significance of difference	–	–		n.a.	
Hysterectomy ICD-9-CM States	**Qld**	**WA**	**SA**	**Tas**	**Total**
Separations[c]	6,384	3,676	3,161	890	14,111
Separations within State of residence (%)	99	100	100	100	
Separation rate[d]	1.73	1.88	1.92	1.75	1.81
Separation rate[d] for other States	1.88	1.78	1.78	1.81	
Difference, State/Territory & other rate (%)	-8.2	5.5	8.0	-3.3	
Significance of difference	**	**	**	–	

(continued)

Table 2.5:(continued) Separation statistics for selected procedures[a] by State or Territory of usual residence, all hospitals,[b] States and Territories, 1998–99

Procedure					
Lens insertion ICD-10-AM States	**NSW**	**Vic**	**ACT**	**NT**	**Total**
Separations[c]	44,547	26,455	796	340	72,138
Separations within State of residence (%)	98	99	93	87	
Separation rate[d]	6.02	4.89	3.45	4.25	5.50
Separation rate[d] for other States	4.83	5.93	5.54	5.50	
Difference, State/Territory & other rate (%)	24.4	-17.6	-37.8	-22.8	
Significance of difference	**	**	n.a.	**	
Lens insertion ICD-9-CM States	**Qld**	**WA**	**SA**	**Tas**	**Total**
Separations[c]	23,072	11,357	8,027	2,249	44,705
Separations within State of residence (%)	98	100	100	99	
Separation rate[d]	6.37	6.35	4.11	3.88	5.64
Separation rate[d] for other States	5.02	5.43	6.13	5.78	
Difference, State/Territory & other rate (%)	26.9	16.9	-32.9	-32.9	
Significance of difference	**	**	**	**	
Tonsillectomy ICD-10-AM States	**NSW**	**Vic**	**ACT**	**NT**	**Total**
Separations[c]	11,206	8,782	426	122	20,536
Separations within State of residence (%)	97	99	99	84	
Separation rate[d]	1.88	2.03	1.40	0.55	1.90
Separation rate[d] for other States	1.92	1.82	1.92	1.93	
Difference, State/Territory & other rate (%)	-2.1	11.9	-26.9	-71.6	
Significance of difference	–	**	**	n.a.	
Tonsillectomy ICD-9-CM States	**Qld**	**WA**	**SA**	**Tas**	**Total**
Separations[c]	5,937	3,372	3,191	477	12,977
Separations within State of residence (%)	99	100	100	99	
Separation rate[d]	1.77	1.89	2.39	1.07	1.87
Separation rate[d] for other States	1.97	1.87	1.75	1.93	
Difference, State/Territory & other rate (%)	-10.4	0.9	36.4	-44.6	
Significance of difference	**	–	**	**	
Myringotomy ICD-10-AM States	**NSW**	**Vic**	**ACT**	**NT**	**Total**
Separations[c]	10,344	10,058	431	130	20,963
Separations within State of residence (%)	96	99	98	89	
Separation rate[d]	1.71	2.31	1.47	0.59	1.92
Separation rate[d] for other States	2.18	1.66	1.93	1.94	
Difference, State/Territory & other rate (%)	-21.6	39.4	-23.7	-69.6	
Significance of difference	**	**	**	n.a.	
Myringotomy ICD-9-CM States	**Qld**	**WA**	**SA**	**Tas**	**Total**
Separations[c]	5,974	3,860	4,440	604	14,878
Separations within State of residence (%)	99	100	100	99	
Separation rate[d]	1.78	2.18	3.33	1.33	2.15
Separation rate[d] for other States	2.50	2.14	1.87	2.21	
Difference, State/Territory & other rate (%)	-29.1	1.8	78.0	-39.7	
Significance of difference	**	–	**	**	
Knee replacement ICD-10-AM States	**NSW**	**Vic**	**ACT**	**NT**	**Total**
Separations[c]	7,367	3,569	312	35	11,283
Separations within State of residence (%)	95	99	90	54	
Separation rate[d]	1.04	0.69	1.32	0.39	0.90
Separation rate[d] for other States	0.71	1.04	0.89	0.90	
Difference, State/Territory & other rate (%)	46.3	-34.2	49.0	-56.1	
Significance of difference	**	**	**	**	
Knee replacement ICD-9-CM States	**Qld**	**WA**	**SA**	**Tas**	**Total**
Separations[c]	3,195	1,854	1,769	432	7,250
Separations within State of residence (%)	99	99	99	98	
Separation rate[d]	0.91	1.06	0.97	0.79	0.95
Separation rate[d] for other States	0.98	0.92	0.95	0.96	
Difference, State/Territory & other rate (%)	-7.0	15.7	2.8	-18.0	
Significance of difference	**	**	–	**	

(continued)

Table 2.5:(continued) Separation statistics for selected procedures[a] by State or Territory of usual residence, all hospitals,[b] States and Territories, 1998–99

Procedure					
Prostatectomy ICD-10-AM States	**NSW**	**Vic**	**ACT**	**NT**	**Total**
Separations[c]	8,085	6,990	333	45	15,453
Separations within State of residence (%)	95	98	96	71	
Separation rate[d]	1.14	1.34	1.42	0.58	1.22
Separation rate[d] for other States	1.33	1.14	1.22	1.23	
Difference, State/Territory & other rate (%)	-14.5	17.2	16.3	-52.5	
Significance of difference	**	**	*	**	
Prostatectomy ICD-9-CM States	**Qld**	**WA**	**SA**	**Tas**	**Total**
Separations[c]	3,529	1,886	1,865	624	7,904
Separations within State of residence (%)	99	100	100	100	
Separation rate[d]	1.00	1.08	1.02	1.14	1.03
Separation rate[d] for other States	1.06	1.01	1.03	1.02	
Difference, State/Territory & other rate (%)	-6.0	6.0	-1.3	11.8	
Significance of difference	**	*	–	*	
Arthroscopy ICD-10-AM States	**NSW**	**Vic**	**ACT**	**NT**	**Total**
Separations[c]	5,277	8,983	208	287	14,755
Separations within State of residence (%)	90	98	84	16	
Separation rate[d]	0.82	1.88	0.66	1.52	1.26
Separation rate[d] for other States	1.79	0.83	1.27	1.25	
Difference, State/Territory & other rate (%)	-54.3	125.6	-48.0	21.5	
Significance of difference	n.a.	n.a.	n.a.	n.a.	
Arthroscopy ICD-9-CM States	**Qld**	**WA**	**SA**	**Tas**	**Total**
Separations[c]	14,415	10,340	12,187	2,241	39,183
Separations within State of residence (%)	99	100	100	97	
Separation rate[d]	4.09	5.53	7.92	4.75	5.28
Separation rate[d] for other States	6.36	5.20	4.59	5.32	
Difference, State/Territory & other rate (%)	-35.7	6.3	72.5	-10.8	
Significance of difference	**	**	**	**	
Arthroscopic procedures ICD-10-AM States (includes arthroscopies)	**NSW**	**Vic**	**ACT**	**NT**	**Total**
Separations[c]	32,144	25,372	1,313	601	59,430
Separations within State of residence (%)	96	98	89	55	
Separation rate[d]	4.92	5.29	4.19	3.15	5.02
Separation rate[d] for other States	5.15	4.84	5.05	5.05	
Difference, State/Territory & other rate (%)	-4.6	9.2	-16.9	-37.5	
Significance of difference	**	**	n.a.	n.a.	

(a) The procedures are defined using ICD-9-CM and ICD-10-AM codes in Appendix 6. Procedures include National Health Minister's Benchmarking Working Group sentinel procedures and additional procedures requested by States and Territories.

(b) Excludes private hospitals in the Northern Territory and other hospitals as discussed in chapter 1. This may result in under reporting of procedure rates for some of the above procedures.

(c) Excludes multiple procedures during the same separation within the same sentinel group.

(d) Rate per 1,000 population was directly age- and sex-standardised to the Australian population at 30 June 1991.

– not significant, * significant at 5%, ** significant at 1%.

Table 2.6: Average length of stay (days) for the 10 AR-DRGs (version 4[(a)]) with the highest number of separations,[(b)] excluding same day separations, by hospital sector, States and Territories, 1998–99

AR-DRG		Hospital sector	NSW	Vic	Qld	WA	SA	Tas	ACT	NT
O60D	Vaginal Delivery W/O Complicating Diagnosis	Public	3.21	3.28	2.81	3.30	3.13	3.27	3.01	3.77
		Private	4.93	5.15	5.00	4.88	5.00	4.25	5.62	n.a.
		Total	*3.56*	*3.72*	*3.33*	*3.78*	*3.57*	*3.62*	*3.62*	*3.77*
F62B	Heart Failure and Shock W/O Catastrophic CC	Public	6.93	6.04	5.93	5.88	6.14	7.12	6.50	5.37
		Private	9.84	8.57	8.08	7.79	7.59	7.38	9.44	n.a.
		Total	*7.28*	*6.69*	*6.59*	*6.30*	*6.49*	*7.20*	*6.97*	*5.37*
J64B	Cellulitis (Age>59 W/O Catastrophic or Severe CC) or Age<60	Public	4.58	4.63	3.68	3.81	3.79	4.28	5.13	4.45
		Private	5.48	5.91	5.71	4.68	5.57	5.12	3.79	n.a.
		Total	*4.66*	*4.85*	*3.98*	*3.95*	*4.10*	*4.56*	*5.06*	*4.45*
O65B	Other Antenatal Admission W Moderate or No Complicating Diagnosis	Public	2.42	2.34	2.08	2.38	2.22	2.12	2.84	2.49
		Private	3.05	2.95	2.38	2.44	2.37	2.03	3.31	n.a.
		Total	*2.51*	*2.44*	*2.13*	*2.40*	*2.24*	*2.10*	*2.95*	*2.49*
E62C	Respiratry Infectn/Inflammations W/O CC	Public	4.32	4.03	3.83	3.64	3.98	4.45	3.89	4.49
		Private	5.77	6.19	5.47	5.10	6.17	5.42	5.81	n.a.
		Total	*4.45*	*4.47*	*4.21*	*3.90*	*4.34*	*4.72*	*4.02*	*4.49*
F72B	Unstable Angina W/O Catastrophic or Severe CC	Public	3.84	3.26	3.58	2.77	3.47	3.97	3.58	3.93
		Private	4.51	4.16	4.01	3.06	3.57	3.54	9.80	n.a.
		Total	*3.89*	*3.40*	*3.65*	*2.86*	*3.48*	*3.88*	*3.79*	*3.93*
I18Z	Knee Procedures	Public	2.99	2.31	1.85	2.12	2.01	2.00	2.51	3.54
		Private	1.79	1.84	1.85	1.84	1.88	1.53	1.55	n.a.
		Total	*2.09*	*1.99*	*1.85*	*1.91*	*1.91*	*1.59*	*1.88*	*3.54*
E69C	Bronchitis and Asthma Age<50 W/O CC	Public	2.17	1.97	2.19	2.16	2.25	2.18	2.37	2.37
		Private	2.48	2.61	2.57	2.25	3.15	2.67	2.33	n.a.
		Total	*2.18*	*2.01*	*2.24*	*2.18*	*2.31*	*2.27*	*2.37*	*2.37*
G67B	Oesophagitis, Gastroent & Misc Digestive Systm Disorders Age>9 W/O Cat/Sev CC	Public	2.93	2.67	2.36	2.52	2.55	3.30	2.96	2.88
		Private	4.33	4.08	3.71	3.64	3.65	3.55	3.94	n.a.
		Total	*3.07*	*2.99*	*2.76*	*2.81*	*2.80*	*3.40*	*3.11*	*2.88*
H04B	Cholecystectomy W/O Closed CDE W/O Catastrophic or Severe CC	Public	2.70	2.48	2.08	2.69	2.25	2.28	2.74	3.40
		Private	2.70	2.98	2.55	2.72	2.92	2.61	3.08	n.a.
		Total	*2.70*	*2.66*	*2.28*	*2.70*	*2.49*	*2.47*	*2.88*	*3.40*

(a) AR-DRG v 4.1 for New South Wales, Victoria, Australian Capital Territory and the Northern Territory, AR-DRG v 4.0 for Queensland, Western Australia, South Australia and Tasmania. See appendix 4.

(b) Separations for which the type of episode of care was reported as acute, or was not reported, and the length of stay was less than 366 days.

n.a. not available.

Abbreviations: CC — complications and comorbidities, CDE — common bile duct exploration, W/O — without, W — with.

3 Overview of public hospital establishments

Introduction

This chapter describes the public hospital sector in terms of the number of hospitals, availability of hospital beds, number of medical practitioners, staff employed and specialised services provided. This chapter also provides information on public hospital expenditure, revenue and capital expenditure. The main source of data reported in this chapter is the National Public Hospital Establishments Database.

The data in this chapter relate to public hospitals; however, data on private hospitals are also presented in several comparative tables: time-series comparison, description of the number of hospitals and hospital beds by hospital sector, and the medical workforce (Tables 3.1, 3.2 and 3.7).

Hospitals by sector, 1994–95 to 1998–99

A range of data on hospitals, available beds, expenditure and revenue are presented in Table 3.1. Over the five-year period a number of jurisdictions changed from accounting on a cash basis to accrual accounting. A number of other changes to reporting arrangements have occurred over the period, and therefore comparisons across years are limited.

The count of public hospitals is subject to variation due to changes in administrative arrangements from year to year, and so provides limited comparative data. The number of beds in public hospitals, which is a more stable measure, has decreased by 9% from 59,273 to 53,885 since 1994–95. The number of beds in overnight private hospitals has increased by 6% with an increase from 22,370 beds in 1994–95 to 23,746 beds in 1998–99, while the number of private free-standing day hospital facilities grew by 52%, from 125 to 190, in the same period.

Expenditure reported from 1994–95 to 1998–99 increased by 44% in the private sector while expenditure in the public sector grew by 27%. Revenue for the public sector over the same period has grown only by 4% while private sector revenue has grown by 37%.

Hospitals and hospital beds

Information on the number of hospitals and hospital beds available by State and Territory is provided in Table 3.2. Data in this table are provided for both public and private hospitals. Nationally, there were 1,257 hospitals, of which 755 were public hospitals. Public hospitals provided 53,885 beds nationally (68% of the national total), compared to the 25,206 beds provided in private hospitals (32% of beds nationally).

Apparent changes and differences in the number of hospitals reported by States and Territories are mainly caused by changes in administrative or reporting arrangements and not necessarily by changes to the number of hospital campuses or buildings. Some groups of hospitals have been amalgamated into single units since the 1997–98 report and have been counted as one unit in the 1998–99 report. Conversely some hospitals which were previously counted under networks in 1997–98 have been counted separately in 1998–99. In

addition, the service delivery structure differs between jurisdictions and the count of hospitals in States and Territories does not provide useful comparative data.

It is on account of changes in reporting at the hospital campus level that comparing increases or decreases in the number of available beds across years has become a more reliable indicator of shifts in the availability of hospital services. Nationally, there were 1.850 fewer available beds in public hospitals in 1998–99 when compared with 1997–98. This represents a national decline of 3.3% in available public hospital beds, although was a small increase in Western Australia and Tasmania included 177 psychiatric hospital beds in 1998–99, which were not reported in 1997–98 data.

Hospital size

Table 3.3 presents information on the distribution of hospitals by their size, which has been determined by the number of available beds. The median bed size of public hospitals Australia-wide was 28 beds. There were more small sized hospitals, particularly in those jurisdictions that cover large geographic areas. The majority of beds were in larger hospitals and in more densely populated areas. Again the caveats about the definitions of hospitals need to be regarded.

Regional distribution of beds

The distribution of public hospital beds across metropolitan, rural and remote areas is presented in Table 3.4. Information on the number of available beds per 1,000 population is also provided as a comparative measure across States and Territories. This table does not, however, provide data on the distribution and availability of private hospital beds, nor does it take account of the differences in areas serviced by a hospital or the different types of services provided. The availability of beds ranged between 2.6 beds per 1,000 population nationally in metropolitan areas, 3.4 beds per 1,000 population in rural areas and 4.9 beds per 1,000 population in remote areas. However, there is not an exact geographic fit between population distribution and the distribution of hospital services. Hospitals based in central locations may also serve patients who reside in rural and remote areas of a State or Territory or in other jurisdictions.

There is a higher rate of public hospital beds in rural and remote areas than in metropolitan areas. The higher rate of beds in non-metropolitan areas also balances other health infrastructure differentials such as the shortages of medical practitioners in rural and remote areas (Strong et al. 1998). This difference in the supply of beds also affects utilisation rates by hospital sector (see Figures 5.1 and 5.2). Many of the rural and remote hospitals have a high proportion of nursing home type patients who, in metropolitan areas, are cared for in nursing homes or hostels.

Specialised services

Data relating to the availability of specialised services (such as obstetric/maternity services, intensive care units, cancer treatment centres and organ transplant services) for all States and Territories are presented in Table 3.5. By far, the most common specialised services offered by hospitals nationally were obstetric/maternity services, and services provided by domiciliary care units and nursing home care units. By contrast, acute spinal cord injury units and pancreas, heart and liver transplant services were provided by only a few hospitals nationally, reflecting the highly specialised nature of those services and the limited demand. Data on specialised services were not available for all hospitals and are under counted for some jurisdictions.

Staffing

Information on the number of staff employed in public hospitals by State and Territory is presented in Table 3.6. Data on full time equivalent staff are reported here as the average available staff for the year. The collection of data by staffing category is not consistent among States and Territories—for some jurisdictions, best estimates in some staffing categories only are reported. New South Wales, Western Australia and Tasmania were unable to provide information by nurse categories, although data on total nurse numbers are provided.

Nationally, 175,535 full time equivalent staff were employed in the public hospital sector in 1998–99. Nurses constituted 45% (78,319) of public hospital staff; registered nurses were the largest group in those States and Territories that reported a break down of the nursing categories.

There were 16,458 salaried medical officers employed in public hospitals throughout Australia, representing 9% of the public hospital labour force. Information on numbers of visiting medical officers (VMOs), who are contracted by hospitals to provide services to public patients and paid on a sessional or fee-for-service basis in public hospitals, is not available due to problems in the collection of systematic data on the hours, sessions and/or services provided by VMOs in many hospitals. (See Table 3.8 for data on payments to VMOs.) The total number of medical practitioners is presented in Table 3.7.

Variation in some staffing categories (in particular, 'other personal care staff' and 'domestic & other staff') is most likely due to different reporting practices within the States. Queensland, in particular, has noted that there is little difference between these categories, and that an employee may perform different functions within these two categories on different days. South Australia and New South Wales did not provide data on 'other personal care staff' and these staff are included in the 'diagnostic/allied health' and 'domestic' staffing categories.

Advice from the States and Territories indicates that there has been an increase in the outsourcing of services with a large labour-related component (e.g. food services and domestic services). Increased outsourcing may explain some of the apparent decline in full time equivalent staff in some staffing categories and also some of the differences between the States and Territories.

Medical practitioners in public and private hospitals

The data presented in Table 3.7 shows that the majority of medical practitioners in both the public and private hospital sector were specialists and practised in clinical roles. Medical practitioners employed in administrative positions were the largest group in non-clinical practice accounting for 1.4% and 0.6% respectively of all medical practitioners working in public or private hospitals.

This table differs in scope and source from data presented elsewhere in this report. It is based on a survey of medical practitioners rather than on data provided by hospitals, and provides a count of the persons who practised rather than the number of full time equivalents. A practitioner may be counted in both the public and private sectors but is counted once only in each sector.

The medical practitioner survey is conducted in conjunction with the annual renewal of practice registration in each State and Territory. Coverage may exclude practitioners with a recent initial registration and those with a conditional registration for a fixed period who do not receive a renewal notice. The national response rate of those surveyed is estimated at 81%, after adjustment for practitioners who may be registered in more than one State or Territory but who responded in only one (AIHW 2000 (a)).

The survey may understate the number of medical practitioners practising in hospitals. Medical practitioners practising in more than one location, for example, private rooms and a hospital, may not report all practice locations. The questionnaire is being reviewed to alleviate this problem.

Recurrent expenditure

Commonwealth and State government expenditure for 1998–99 on public hospitals, including public psychiatric hospitals, accounts for over one-third of all government sector expenditure on health in this period (AIHW 2000(b)). For the purpose of this report, expenditure is a mixture of:

- expenditure for hospitals in the States and Territories that reported on an accrual basis relating to 1998–99 and
- payments made during 1998–99 for those States and Territories that reported on a 'cash' basis.

Data reported to the National Public Hospital Establishments Database are not comparable with other data sources (for example, data reported in the Institute's annual *Health Expenditure Bulletin* (AIHW 2000(b)). The data presented in this report excludes expenditure for population health, primary and community based services administered by hospitals, and trust fund expenditure.

Nationally, recurrent expenditure on public acute and psychiatric hospitals was $13.7 billion in 1998–99. Information on gross recurrent expenditure, categorised into salary and non-salary expenditure, is presented in Table 3.8. Real recurrent expenditure in 1998–99 was $13.3 billion (referenced to 1996–97 constant prices) and there was a real increase in recurrent expenditure in the 1998–99 year of 2.0% (real recurrent expenditure in 1997–98 was $12.8 billion referenced to 1996–97 constant prices).

The largest share of expenditure was for salary payments. Even when payments to VMOs and payments for outsourced services, which include large labour components, are excluded, salary payments accounted for 63% of the $13.7 billion spent within the public hospital system. Salary payments include salaries and wages, payments to staff on paid leave, workers' compensation leave and salaries paid to contract staff where the contract was for the supply of labour and where full time equivalent staffing data are available.

Medical and surgical supplies (which include consumable supplies only and not equipment purchases), administrative expenses and drug supplies were the major non-salary expenses for public hospitals nationally. Queensland have included payments for pathology provided by the statewide pathology services, rather than being provided by each hospital's employees.

There are a few problems with the data in that 1997–98 workers compensation payments were included with Superannuation, but for 1998–99 they are included with Administrative expenses.

Depreciation has also been reported in Table 3.8, and the data show that there is variation between States and Territories in reporting, ranging from 4.5% of total expenditure in New South Wales to 1.0% in Tasmania. It is anticipated that as accrual accounting becomes universally adopted by health authorities, comparable data on depreciation will become available. Depreciation data effectively provides a smoothed out annual report on capital expenditure (how capital is expended or used up). Depreciation is typically not applied to land.

Increasing efficiency in recurrent expenditure can be achieved through outlays on capital such as improved buildings and equipment. Shifts in costs between capital and recurrent expenditure can also be caused by changes in, for example, leasing arrangements. The

participation of the private sector in providing capital for public hospital services may also be a source of difference between jurisdictions.

Revenue

Hospital revenue (excluding general revenue payments received from State or Territory governments) is reported in Table 3.9. In this table, States and Territories have reported revenue against three categories: patient revenue, recoveries (income from the use of hospital facilities by salaried medical officers or private practitioners exercising their rights of private practice, and other recoveries), and other revenues. In data reported for Queensland, 'patient revenue' includes revenue for items such as pharmacy and ambulance, which could be considered as 'recoveries'.

There is some inconsistency in the treatment of income from asset sales. Western Australia netted out asset sales in their capital expenditure accounts, South Australia netted out land sales in their capital expenditure accounts and reported sales from other surplus goods in the revenue figures. Both the Australian Capital Territory and the Northern Territory reported revenue from asset disposal as part of other revenue. Victoria and Queensland account for asset sales in their capital expenditure accounts. The income from asset disposal (apart from major assets such as land, buildings and some motor vehicles) is usually not very significant as capital assets are generally retained until they are either worn out or obsolete, making their residual value comparatively small. Sometimes there is even a net cost incurred in disposing of an asset.

Australian public hospitals received $1.2 billion in revenue in 1998–99. This was equivalent to 9% of total recurrent expenditure. Revenue as a proportion of total expenditure was, however, variable across States and Territories. Public hospital revenue in Tasmania ant the Australian Capital Territory represented 12% of expenditure, whereas public hospital revenue in Queensland was equivalent to only 4% of expenditure.

Patient revenue, the largest revenue category, accounted for 62% of all revenue, and was equivalent to 5% of total expenditure.

Quality of establishments data

Timeliness and quality of hospital performance indicators has improved substantially over recent years, however limitations remain, particularly due to the quality of financial reporting.

Capital expenditure is not reported this publication. Not all jurisdictions were able to report using the *National Health Data Dictionary* (NHDC 1998) categories.

There remains more developmental work to be carried out in the area of capital and in the capacity of the States to report as specified in the *NHDD*. *Australian Hospital Statistics 1997–98* used data from the Australian Bureau of Statistics' Public Finance Database (ABS 1999), in conjunction with data sourced from the Victorian Department of Human Services annual report for that year. Capital expenditure is also allied with other concepts such as amortisation, cost of capital, opportunity cost and total levels of gross fixed capital assets at replacement, current market and depreciated values. Outlays on capital can also be confused with capital works which can include repairs and maintenance.

The Institute will continue to seek to improve reporting on capital outlays and depreciation through the National Health Information Agreement process and through consultation with the Australian Bureau of Statistics.

The National Health Data Committee is undertaking the resolution of inconsistent financial reporting in consultation with senior finance and information officers in the States and Territories. Recommendations are to be developed for improved classification standards and methods for consistent identification and reporting at the hospital or health service delivery level. This will include areas of expenditure that have been identified as being inconsistently reported, such as:

- expended revenue from trust funds;
- expenditure at the area (or district/regional) health service administration level; and
- group services expenditure (e.g. central laundry and pathology services).

It should also be noted that, because some States and Territories have not fully implemented accrual accounting procedures and systems, expenditure and revenue presented in the current report are mixtures of expenditure/payments and revenue/receipts, respectively. Depreciation represents a significant portion of expenditure, and has been excluded from expenditure totals to ensure comparability across jurisdictions. As noted above, moves toward accrual accounting will improve the quality of financial data.

Table 3.1: Summary of hospitals, Australia, 1994–95 to 1998–99

	1994–95	1995–96[a]	1996–97[b]	1997–98	1998–99
Public acute and psychiatric hospitals					
Hospitals[c]	745	756	727	764	755
Available beds	59,273	59,720	56,836	55,735	53,885
Beds per 1,000 population	3.3	3.3	3.1	3.0	2.9
Non-admitted occasions of service[d]	31,567,409 [e]	34,543,875	32,030,998	32,605,248	34,251,233
Total salary expenditure ($'000)	7,039,268 [f]	7,704,239	7,839,999	8,242,305	8,551,873
Total non-salary expenditure ($'000)	3,710,175 [f]	4,160,121	4,320,898	4,783,440	5,125,518
Total recurrent expenditure ($'000)	10,749,443 [f]	11,864,360	12,160,897	13,025,745	13,677,391
Total revenue ($'000)	1,130,468	1,116,942	1,009,502	1,068,763	1,175,653
Private hospitals					
Hospitals	328	323	319	317	312
Available beds	22,370	22,757	22,966	23,091	23,746
Beds per 1,000 population	1.2	1.3	1.2	1.2	1.3
Total recurrent expenditure ($'000)	2,503,067	2,823,781	3,087,710	3,231,530	3,613,591
Total revenue ($'000)	2,763,174	3,083,859	3,374,271	3,517,030	3,797,681
Private free-standing day hospital facilities					
Day hospital facilities	125	140	153	175	190
Total recurrent expenditure ($'000)	70,044	80,238	95,410	122,311	137,480
Total revenue ($'000)	85,805	99,305	119,215	145,278	161,400

(a) Data for 1995–96 have been corrected since originally published in *Australian Hospital Statistics 1995–96* by the issuing of an errata.
(b) From 1996–97 New South Wales excluded population health and primary and community-based program expenditure, and expended trust funds, which had been included prior to 1995–96. This causes a discontinuity in the expenditure data between 1995–96 and 1996–97.
(c) Apparent differences in the number of hospitals reported are, in many instances, caused more by changes in administrative or reporting arrangements than by actual differences in the number of buildings.
(d) Excludes public psychiatric hospitals. Reporting arrangements have varied significantly across years.
(e) Excludes Western Australia.
(f) Excludes some Victorian public psychiatric hospitals.

Table 3.2: Number of hospitals[a] and available beds by hospital sector and type, States and Territories, 1998–99

	NSW[c]	Vic[d]	Qld	WA	SA[e]	Tas	ACT[c]	NT[e]	Total
Hospitals									
Public acute hospitals	210	140	180	87	79	22	3	5	726
Public psychiatric hospitals[f]	8	2	8	7	1	3	0	0	29
Total public hospitals	*218*	*142*	*188*	*94*	*80*	*25*	*3*	*5*	*755*
Private free-standing day hospital facilities	83	41	30	11	15	4	6	0	190
Private other[g]	87	95	52	28	37	9	3	1	312
Total private hospitals	*170*	*136*	*82*	*39*	*52*	*13*	*9*	*1*	*502*
Total hospitals	**388**	**278**	**270**	**133**	**132**	**38**	**12**	**6**	**1,257**
Available beds									
Public acute hospitals	17,649	11,565	9,814	4,894	4,630	1,022	710	567	50,851
Public psychiatric hospitals[f]	1,108	73	829	442	465	117	. .	. .	3,034
Total beds available in public hospitals	*18,757*	*11,638*	*10,643*	*5,336*	*5,095*	*1,139*	*710*	*567*	*53,885*
Private free-standing day hospital facilities	685	256	306	87	102	24	n.p.	. .	1,460
Private other[g]	6,528	6,357	4,990	2,894	2,199	778	n.p.	n.p.	23,746
Total beds available in private hospitals	*7,213*	*6,613*	*5,296*	*2,981*	*2,301*	*802*	*n.p.*	*n.p.*	*25,206*
Total available beds	**25,970**	**18,251**	**15,939**	**8,317**	**7,396**	**1,941**	**710**	**567**	**79,091**

(a) The number of hospitals reported can be affected by administrative and/or reporting arrangements and is not necessarily a measure of the number of physical hospital buildings or campuses.

(c) Available beds in *private* hospitals for the Australian Capital Territory are included with New South Wales.

(d) The count of hospitals in Victoria is a count of the campuses which report data separately to the Victorian Admitted Episodes Database.

(e) Available beds in *private other* hospitals for the Northern Territory are included with South Australia.

(f) Includes public psychiatric and alcohol and drug hospitals.

(g) Includes private acute and private psychiatric hospitals.

. . not applicable.

n.p. not published.

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

Table 3.3: Number of public acute and psychiatric hospitals[(a)] and available beds by hospital size, States and Territories, 1998–99

Hospital size[(b)]	NSW	Vic[(c)]	Qld	WA	SA	Tas	ACT	NT	Total
Hospitals									
Less than 11	15	39	74	22	7	14	1	0	172
11–50	117	46	78	52	55	7	0	2	357
51–100	36	23	12	6	9	0	0	1	87
101–200	27	15	7	8	3	1	1	1	63
201–500	15	17	14	4	5	2	0	1	58
501+	8	2	3	2	1	0	1	0	17
Total	**218**	**142**	**188**	**94**	**80**	**24**	**3**	**5**	**754**
Available beds									
Less than 11	88	122	212	159	44	70	10	. .	705
11–50	3,132	1,236	2,021	1,194	1,489	153	. .	50	9,275
51–100	2,613	1,649	961	374	625	. .	. .	60	6,282
101–200	3,870	2,111	1,007	1,034	494	136	162	160	8,974
201–500	4,297	5,277	4,065	1,207	1,804	710	. .	297	17,657
501+	4,756	1,244	2,378	1,367	638	. .	538	. .	10,921
Total	**18,756**	**11,639**	**10,644**	**5,335**	**5,094**	**1,069**	**710**	**567**	**53,814**

(a) The number of hospitals reported can be affected by administrative and/or reporting arrangements and is not necessarily a measure of the number of physical hospital buildings or campuses.
(b) Size is based on the number of available beds.
(c) The count of hospitals in Victoria is a count of the campuses which report data separately to the Victorian Admitted Episodes Database.
. . not applicable.

Table 3.4: Number of hospitals[(a)] and available beds per 1,000 population by metropolitan, rural and remote region, public acute and psychiatric hospitals, States and Territories, 1998–99

Region	NSW	Vic[(b)]	Qld	WA	SA	Tas	ACT	NT	Total
Hospitals									
Capital cities	49	46	29	20	15	6	3	1	169
Other metropolitan centres	18	2	4	. .	. .	. .	. .	. .	24
Total metropolitan	*67*	*48*	*33*	*20*	*15*	*6*	*3*	*1*	193
Large rural centres	11	6	8	. .	1	2	. .	. .	28
Small rural centres	24	12	6	3	5	1	. .	. .	51
Other rural areas	97	74	54	33	47	14	0	0	319
Total rural	*132*	*92*	*68*	*36*	*53*	*17*	*0*	*0*	398
Remote centres	. .	. .	16	9	. .	. .	. .	2	27
Other remote areas	19	2	71	29	12	2	. .	2	137
Total remote	*19*	*2*	*87*	*38*	*12*	*2*	. .	*4*	164
Total all regions	**218**	**142**	**188**	**94**	**80**	**25**	**3**	**5**	**755**
Available beds per 1,000 population									
Capital cities	2.6	2.3	3.1	2.6	2.9	2.9	2.3	3.5	2.6
Other metropolitan centres	2.9	2.8	2.3	. .	. .	. .	. .	. .	2.7
Total metropolitan	*2.7*	*2.3*	*2.9*	*2.6*	*2.9*	*2.9*	*2.3*	*3.5*	*2.6*
Large rural centres	4.4	4.3	4.2	. .	3.2	3.2	. .	. .	4.2
Small rural centres	3.4	3.8	2.1	2.3	4.5	2.4	. .	. .	3.2
Other rural areas	4.0	2.6	2.6	4.0	5.0	1.1	. .	. .	3.3
Total rural	*3.9*	*3.2*	*3.1*	*3.3*	*4.8*	*2.0*	. .	*. .*	*3.4*
Remote centres	. .	. .	3.7	4.5	. .	. .	. .	6.2	4.4
Other remote areas	5.8	2.3	7.2	5.2	6.5	3.2	. .	1.0	5.2
Total remote	*5.8*	*2.3*	*5.5*	*4.8*	*6.5*	*3.2*	. .	*3.1*	*4.9*
Total all regions	**3.0**	**2.5**	**3.1**	**3.0**	**3.4**	**2.4**	**2.3**	**3.0**	**2.9**

(a) The number of hospitals reported can be affected by administrative and/or reporting arrangements and is not necessarily a measure of the number of physical hospital buildings or campuses.

(b) The count of hospitals in Victoria is a count of the campuses which report data separately to the Victorian Admitted Episodes Database.

. . not applicable.

Table 3.5: Number of public acute hospitals[a] with specialised services, States and Territories, 1998–99

Specialised services	NSW	Vic[b]	Qld	WA	SA[b]	Tas	ACT	NT	Total
Acute renal dialysis unit	12	10	6	4	4	2	1	2	41
Acute spinal cord injury unit	2	1	1	2	1				7
AIDS unit	10	2	4	3	1		1	1	22
Alcohol and drug unit	43	17	7	6	5			1	79
Burns unit (level III)	4	2	3	2	2	1			14
Cardiac surgery unit	11	7	3	4	3	1	1		30
Clinical genetics unit	6	6	3	2	2		1		20
Coronary care unit	53	29	17	8	9	3	2	2	123
Diabetes unit	20	15	11	5	5	3	1	1	61
Domiciliary care service	116	107	15	49	36	1		3	327
Geriatric assessment unit	48	35	10	19	15	1	1		129
Hospice care unit	33	42	13	20	20				128
Infectious diseases unit	9	8	8	5	4		1	2	37
Intensive care unit (level III)	42	24	3	7	6	3	1	2	88
In-vitro fertilisation unit	3	5		1	2				11
Maintenance renal dialysis centre	28	53	15	10	6	2	1	2	117
Major plastic/reconstructive surgery unit	9	13	6	5	6	1	1		41
Neonatal intensive care unit (level III)	14	6	3	2	2	1	1	1	30
Neurosurgical unit	11	7	6	3	4	1	1		33
Nursing home care unit	79	85	19	42	37	9			271
Obstetric/maternity service	107	77	66	39	39	5	3	5	341
Oncology unit	33	24	14	6	7	3	1		88
Psychiatric unit/ward	38	36	16	11	8	2	2	2	115
Refractory epilepsy unit	4	4		2	1	1			12
Rehabilitation unit	48	31	12	11	18	3	1	2	126
Sleep centre	10	8	5	2	4				29
Specialist paediatric service	55	35	22	13	9	3	2	3	142
Transplantation unit—bone marrow	8	6	2	5	2	1	1		25
Transplantation unit—heart (including heart/lung)	1	2	1	1					5
Transplantation unit—liver	3	2	2	1	1				9
Transplantation unit—pancreas	1	1			1				3
Transplantation unit—renal	9	6	1	2	1				19

(a) Excludes psychiatric and drug and alcohol hospitals.

(b) May be a slight underestimate as some small multi campus rural services reported at network rather than campus level. Consequently if two campuses within the group had a specialised type of service, it was counted as one.

Note: These data for some jurisdictions were not available for all hospitals so the number of services is therefore under-enumerated.

Table 3.6: Average full time equivalent staff,[(a)] public acute and psychiatric hospitals, States and Territories, 1998–99

Staffing category	NSW[(b)]	Vic[(c)]	Qld[(d)]	WA[(e)]	SA[(f)]	Tas[(g)]	ACT	NT	Total
Full time equivalent staff numbers									
Salaried medical officers	5,646	3,767	3,261	1,488	1,505	298	280	213	16,458
Registered nurses	n.a.	14,887	11,935	7,021	5,861	n.a.	1,167	828	n.a.
Enrolled nurses	n.a.	2,327	2,284	489	1,497	n.a.	192	146	n.a.
Student nurses	n.a.	. .	. .	4	. .	n.a.	0	0	n.a.
Trainee/pupil nurses	n.a.	. .	. .	n.a.	0	n.a.	0	0	n.a.
Total nurses	*28,218*	*17,214*	*14,219*	*7,514*	*7,358*	*1,463*	*1,359*	*974*	78,319
Other personal care staff	. .	723	848	497	. .	. .	125	96	2,289
Diagnostic & allied health professionals	8,188	6,408	3,028	2,224	1,885	352	457	144	22,686
Administrative & clerical staff	8,519	6,616	4,363	3,064	2,672	396	468	312	26,410
Domestic & other staff	11,671	5,112	5,750	3,097	2,410	613	212	508	29,373
Total staff	**62,242**	**39,840**	**31,469**	**17,884**	**15,830**	**3,122**	**2,901**	**2,247**	**175,535**

(a) Where average full time equivalent staff numbers were not available, staff numbers at 30 June 1998 were used.

(b) New South Wales *Other personal care staff* are included in *Diagnostic & health professionals* and *Domestic & other staff*.

(c) For Victoria FTEs may be slightly understated.

(d) For Queensland many hospitals were unable to provide a split between *Registered* and *Enrolled nurses* or between *Other personal care* staff and *Domestic & other* or *Diagnostic & health professional* staff. In these cases, the data are a best estimate only.

(e) *Other personal care staff* for Western Australia excludes staff on retention who do not work regular hours. Many hospitals were unable to provide a split between nurse categories and these have been coded as *Registered nurses.*

(f) South Australian *Other personal care staff* are included in *Diagnostic & health professionals* and *Domestic & other staff*. Most *Trainee/pupil nurses* are enrolled in tertiary institutions.

(g) For Tasmania staff numbers were only available for the three major hospitals, which account for 92% of total separations. Data has been calculated using only those 3 hospitals.

n.a. not available.

. . not applicable.

Table 3.7: Medical practitioners working in public and private hospitals,[(a)] by type of occupation, States and Territories, December 1998

Occupation[(b)]	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Public hospitals									
Clinician									
Primary care	1,490	649	249	167	218	46	17	6	2,837
Hospital non-specialist	854	146	872	410	232	36	91	78	2,641
Specialist	4,222	3,246	1,426	867	1,024	235	140	91	11,161
Specialist-in-training	1,529	850	720	422	344	50	83	42	3,997
Total	*8,095*	*4,890*	*3,267*	*1,866*	*1,819*	*367*	*332*	*217*	*20,636*
Administrator	111	92	36	24	19	3	8	2	296
Teacher/educator	20	5	0	4	10	0	0	0	38
Researcher	54	32	7	8	4	0	0	1	105
Public health physician	30	18	50	34	21	7	0	11	171
Occupational health physician	12	7	0	0	3	2	6	0	29
Other	121	56	55	23	23	9	13	0	300
Total public	**8,443**	**5,099**	**3,416**	**1,960**	**1,897**	**388**	**359**	**231**	**21,576**
Private hospitals									
Clinician									
Primary care	747	553	141	33	66	13	22	4	1,576
Hospital non-specialist	106	63	90	12	19	16	11	0	319
Specialist	1,896	1,216	345	174	162	63	59	6	3,916
Specialist-in-training	203	131	39	19	31	5	2	0	429
Total	*2,952*	*1,964*	*615*	*238*	*278*	*98*	*94*	*10*	*6,239*
Administrator	21	5	3	5	3	0	2	0	40
Teacher/educator	2	4	0	0	1	0	0	0	7
Researcher	12	2	3	0	0	0	0	0	16
Public health physician	8	7	2	3	1	0	0	0	21
Occupational health physician	2	2	0	0	0	0	0	0	4
Other	53	45	8	2	10	0	2	0	120
Total private	**3,049**	**2,029**	**631**	**249**	**294**	**98**	**98**	**10**	**6,448**

(a) The annual medical labour force survey gives medical practitioners the option to report up to three jobs which are related to their medical qualifications. Therefore, a practitioner can report a job in both public and private sectors and be counted in each. Medical practitioners practising in more than one location, for example, private rooms and a hospital, may not report all practice locations.

(b) A medical practitioner who reports working as a clinician in any medical-related job is counted as a clinician in these data. For example, a practitioner whose main job is as a researcher but who also reports some clinical work will be counted as a clinician. An administrator who does research as a second job will be counted as an administrator if that is his/her main job. 'Main job' is the job in which the most hours per week are worked.

Source: AIHW 2000a

Table 3.8: Recurrent expenditure ($'000), public acute and psychiatric hospitals, States and Territories, 1998–99

Recurrent expenditure category	NSW[a]	Vic	Qld[b]	WA[c]	SA[d]	Tas[e]	ACT	NT[f]	Total
Salaried medical officers	493,609	396,950	258,310	140,903	115,834	28,691	29,046	21,109	1,484,452
Registered nurses	n.a.	810,740	586,124	333,767	275,546	n.a.	58,208	42,119	2,106,504
Enrolled nurses	n.a.	111,364	81,717	15,735	55,317	n.a.	6,612	5,570	276,315
Student nurses	n.a.	. .	. .	90	. .	n.a.	0	0	90
Trainee/pupil nurses	n.a.	. .	. .	n.a.	0	n.a.	0	0	0
Total nurses	*1,449,214*	*922,104*	*667,841*	*349,592*	*330,863*	*69,090*	*64,820*	*47,689*	*3,901,213*
Other personal care staff	n.a.	17,889	27,889	13,709	n.a.	n.a.	3,992	3,730	67,209
Diagnostic & health professionals	383,216	311,125	140,853	100,979	78,212	19,459	22,419	9,235	1,065,498
Administrative & clerical staff	361,193	271,928	152,588	112,008	87,781	18,358	20,427	12,943	1,037,226
Domestic & other staff	402,523	185,443	185,924	99,210	66,228	21,317	6,943	20,592	988,180
Not reported	. .	7,722	. .	. .	. .	373	. .	. .	8,095
Total salary & wages expenditure	**3,089,755**	**2,113,161**	**1,433,405**	**816,401**	**678,918**	**157,288**	**147,647**	**115,298**	**8,551,873**
Payments to visiting medical officers	293,088	83,936	52,027	67,857	65,159	9,643	17,428	2,526	591,664
Superannuation payments	243,126	146,342	129,937	71,654	58,469	15,465	19,395	n.a.	684,388
Drug supplies	237,963	158,011	124,885	66,688	53,392	13,106	13,626	9,236	676,907
Medical & surgical supplies	276,702	251,514	208,771	85,120	69,280	19,596	23,699	8,625	943,307
Food supplies	64,212	38,928	22,314	11,479	10,822	3,303	3,407	1,779	156,244
Domestic services	122,493	92,477	72,364	37,024	34,326	7,098	10,154	8,958	384,894
Repairs & maintenance	114,895	76,135	45,505	41,288	45,578	7,618	7,119	3,905	342,043
Patient transport	34,337	13,905	13,857	10,891	8,816	2,901	916	4,156	89,779
Administrative expenses	292,833	181,773	108,033	79,699	61,771	15,970	16,118	12,389	768,586
Interest payments	1,136	561	n.a.	23,870	1,700	0	40	n.a.	27,307
Depreciation	236,544	n.a.	n.a.	55,951	n.a.	2,888	10,576	n.a.	305,959
Other recurrent expenditure	202,346	105,261	564	46,782	40,168	13,960	13,667	9,235	431,983
Not reported	. .	5,586	. .	. .	. .	22,830	. .	. .	28,416
Total non-salary expenditure excluding depreciation	**1,883,131**	**1,154,429**	**778,257**	**542,352**	**449,481**	**131,490**	**125,569**	**60,809**	**5,125,518**
Total expenditure excluding depreciation	**4,972,886**	**3,267,590**	**2,211,662**	**1,358,753**	**1,128,399**	**288,778**	**273,216**	**176,107**	**13,677,391**

(a) New South Wales expenditure recorded against special purposes and trust funds is excluded. *Other personal care staff* are not reported separately.

(b) Queensland *Interest payments* are included in *Administrative expenses*. Pathology services are now purchased from a statewide pathology service rather than being provided by each hospitals employees.

(c) Western Australian *Superannuation* may vary substancially from previous years which were largely based on cash rather than accrual accounting.

(d) South Australian *Other personal care staff* are included in *Diagnostic & health professionals* and *Domestic & other staff*. *Interest payments* are included in *Administrative expenses*. Most *Trainee/pupil nurses* are enrolled in tertiary institutions. Termination payments are included in *Other recurrent expenditure*.

(e) Tasmanian hospitals pay payroll tax, with most being included in *Administrative expenses* and the remainder in *Other recurrent expenditure*. *Other personal care* staff are not reported separately.

(f) Hospitals in the Northern Territory make no contribution to *Superannuation. Interest payments* are not reported.

n.a. not available.

. . not applicable.

Table 3.9: Revenue ($'000), public acute and psychiatric hospitals, States and Territories, 1998–99

Revenue source	NSW	Vic	Qld[(a)]	WA	SA	Tas	ACT	NT	Total
Patient revenue	330,549	208,873	63,043	49,034	44,425	18,658	14,122	3,053	731,757
Recoveries	106,342	46,878	16,445	24,245	151	5,251	6,722	3,045	209,079
Other revenue	48,145	93,287	18,076	33,741	6,771	3,355	10,768	13,743	227,886
Not reported	. .	. .	. .	. .	. .	6,931	. .	. .	6,931
Total revenue	**485,036**	**349,038**	**97,564**	**107,020**	**51,347**	**34,195**	**31,612**	**19,841**	**1,175,653**

(a) *Patient revenue* includes revenue for items such as pharmacy and ambulance, which may be considered as *Recoveries.*

. . not applicable.

4 Overview of activity in Australian hospitals

Introduction

This chapter presents summary statistics for admitted patients in public and private hospitals, and for non-admitted patients in public hospitals. Information is included on the number of separations for patients and their aggregated and average lengths of stay, presented on the basis of the sector of the hospital (public or private) and the type of hospital within the sector. Later chapters present information on the basis of characteristics of the patients and their hospital stays (Chapters 5 to 10).

Tables 4.1 and 4.2 are derived from the National Hospital Morbidity Database and present summary separation, patient day, average length of stay and average cost weight information by hospital sector and type. Table 4.1 reports the available national statistics for the years 1994–95 to 1998–99 and Table 4.2 reports the statistics for 1998–99 by State and Territory. All types of episode of care are included, except as noted below for the average cost weight information. That is, separations for which the type of episode of care was *Acute care*, *Rehabilitation care*, *Palliative care*, *Non-acute care* and *Other care* are included, as are *Newborn* episodes of care, provided that they had at least one qualified patient day.

Newborn is a new episode type, introduced in 1998–99 for use for all patients aged 9 days or less on admission. It was implemented by New South Wales, Victoria, Queensland and South Australia, and may have slightly reduced the numbers of separations reported by New South Wales, Queensland and South Australia (public hospitals) in 1998–99 compared with 1997–98, and slightly increased their average lengths of stay. Victoria had been reporting separations for these patients according to the *Newborn* definition (that is, using a single episode for these patients) prior to 1998–99 so this implementation is not likely to have markedly affected Victorian separation or average length of stay data. Tasmania and the Northern Territory reported a new episode of care for patients aged less than 10 days at admission with each change in qualification status. The Australian Capital Territory and Western Australia counted separations for patients aged 10 days or less on admission as qualified (*Acute care*) if at least one day was qualified. This variation should be considered when State and Territory data are being compared. Further information on *Newborn* episodes and the reporting of separations data for patients aged 9 days or less on admission is included in the Glossary and in Appendix 3.

For 1998–99, the hospital sectors and types reported in this chapter are public acute hospitals, public psychiatric hospitals, private free-standing day facilities and other private hospitals. Data are also presented for all public hospitals combined, all acute hospitals (that is, excluding public psychiatric hospitals), all private hospitals and all hospitals.

Tables 4.3 and 4.4 present summary separation and patient day information for public hospitals from the National Public Hospital Establishments Database by type of admitted patient episode. The categories in this table (defined in the *National Health Data Dictionary* Version 7) describe the broad programs of health care provided to admitted patients.

In most States and Territories, there are some differences between the reporting of separations and patient days to the National Hospital Morbidity and the National Hospital Establishments Databases as presented in this chapter. A brief discussion of these differences may be found in the technical notes (Appendix 3).

Data on non-admitted patient occasions of service in public hospitals, also derived from the National Public Hospital Establishments Database, are summarised in Table 4.5. The occasions of service are categorised by service type and provide information on the range of emergency department, outpatient and other non-admitted services provided by public hospitals.

Admitted patients by sector and hospital type

Separations

There were 5,735,049 separations reported from public and private acute and psychiatric hospitals in 1998–99 (Table 4.2), an increase of 171,975 (3.1%) compared with 1997–98 (Table 4.1). Public hospital separations increased by 2.4% (89,593) compared with 1997–98 and there was a 4.6% (82,382) increase in the private sector.

Public patient separations comprised 87.2% of public acute hospital separations, an increase over the 86% reported in 1997–98, 84% in 1996–97, 83% in 1995–96 and 80% reported in
1994–95. There was a decrease in private patient separations in public acute hospitals. Further detail on patient accommodation status is presented in Chapter 5.

The number of separations reported for public psychiatric hospitals (20,276) decreased by 2,290 when compared with 1997–98, a decrease of 10%.

The private sector accounted for 32.7% of the 5.74 million separations (1,875,358), compared with 32.2% (1,792,976) in 1997–98. Private free-standing day hospital facilities accounted for 261,139 or 13.9% of private sector separations, compared with 248,045 or 13.8% in 1997–98.

There was some variation in the number of separations reported for each month of the year, for both the public and private sectors (Figures 4.3 and 4.4). The fewest separations were reported for January for both sectors, apparent for both same day and non-same day separations.

Same day separations

1998–99 saw a continuation of the recent annual increases in the proportions of admitted patients being treated on a same day basis, that is, admitted and separated on the same date.

Same day separations have been distinguished from other separations in this report to illustrate the proportions of total separations which they represent, and also to demonstrate the effect on average lengths of stay when patients receiving this type of hospital care are classified as admitted. In most countries of the Organisation for Economic Co-operation and Development (OECD), same day patients are not admitted, and reported average lengths of stay are therefore greater than those calculated for Australia (OECD 1999).

In Australia in 1998–99, a total of 2,747,617 separations were on a same day basis, an increase of 6.6% compared with 1997–98 and 39.9% compared with 1994–95. These separations comprised 47.9% of overall separations (compared with 46.3% (2,577,652) in 1997–98) and there were increases in the proportions of same day patients in both public acute hospitals (from 43.3% to 44.7%) and private hospitals (from 53.1% to 54.8%).

There was some variation among the States and Territories in the proportion of separations that were same day separations. For public acute hospitals, New South Wales had a lower proportion than the national average (40.7%), whereas the Australian Capital Territory

(50.1%) and the Northern Territory (50.4%) had markedly higher proportions. In the private sector, New South Wales (58.8%) and Victoria (55.5%) reported higher proportions than average. The Australian Capital Territory (37.4%) and Tasmania (44.6%) reported lower proportions, reflecting the incomplete coverage of private free-standing day hospital facilities for these two jurisdictions.

Separation rates

The age-standardised separation rate per 1,000 population increased by 0.9% between 1997–98 and 1998–99 for public acute hospitals and by 2.5% for private hospitals (Table 4.1, Figure 4.1).

Among the States and Territories, the Northern Territory reported the highest age-standardised public acute hospital separation rate in 1998–99 (347.6 per 1,000 population) and Tasmania reported the lowest (164.1 per 1,000 population) (Table 4.2). Private hospital separation rates ranged from 59.4 per 1,000 population in the Australian Capital Territory (for which separations from same day facilities and one other public hospital were not included in the database) to 115.1 per 1,000 population in Queensland. For all hospitals combined, the Northern Territory reported the highest age-standardised separation rate (347.6 per 1,000 population), despite its private hospital not being included in the database.

These rates are likely to have been affected by whether or not separate episodes of care (see Glossary) within a hospital stay were counted as individual separations, and the way in which hospital stays for patients aged 9 days or less on admission were counted (see Appendix 3). The private sector in the Australian Capital Territory and Tasmania had not implemented separate episodes of care in 1998–99 and this would have had the effect of reducing the number of separations and increasing the average length of stay for these hospitals in comparison with the others.

The age-standardised separation rate for public psychiatric hospitals varied widely, from 0.2 per 1,000 population in Victoria, to 2.5 per 1,000 population in South Australia. This variation reflects differences in the extent to which public psychiatric services have been mainstreamed into public acute hospitals.

Average cost weight of separations

In Table 4.2, average cost weights are presented for 1998–99 based on the cost weights for the version 4.0/4.1 Australian Refined Diagnosis Related Group (AR-DRG) into which each separation was classified on the basis of demographic and clinical characteristics of the patient. Separations were only included where the type of episode of care was reported as *Acute*, or was not reported, or where the episode type was *Newborn* and the separation had at least one qualified day. Thus separations for rehabilitation, palliative care, non-acute care, other care and newborns with no qualified days were excluded.

The average cost weight information provides a guide to the relative complexity and resource use of admissions within hospitals, with a value of 1.00 representing the theoretical average for all separations. Separate private and public sector cost weights were used, as they reflect the differing cost structures of the two sectors. Public sector cost weights were used for the rows for *Public acute and private hospitals* and *Total*.

In Table 4.1 and Table 4.2, average cost weights for 1998–99 are based on AR-DRG version 4.1 for States that provided data in ICD-10-AM and AR-DRG version 4.0 for States and Territories that provided data in ICD-9-CM (see Appendix 4 for more information), and combined cost weights for versions 4.0 and 4.1 (see Appendix 10 for further information). In Table 4.1, average cost weights for 1997–98 are based on AN-DRG version 3.1 and 1997–98 cost weights. Average cost weights for 1996–97 are based on AN-DRG version 3.1

and its corresponding cost weights. Comparisons of average cost weights between the reporting years and between the sectors should therefore be made with caution. Further information about the AR-DRG classification and cost weights is included in Chapter 10.

Table 4.2 indicates that, within the public sector, most States and Territories had average cost weights close to the national average for public acute hospitals. The Northern Territory was the only exception, with an average cost weight of 0.78. This reflects the high proportion (32.7%) of separations in the Northern Territory that were for *Admit for renal dialysis* (AR-DRG L61Z), an AR-DRG with a relatively low cost weight (see Chapter 10).

The validity of comparisons of average cost weights is limited by differences in the extent to which each jurisdiction's psychiatric services are integrated into its public hospital system. For example, in Victoria, almost all public psychiatric hospitals are now mainstreamed and are therefore included in the public acute hospital data. Cost weights are of little use as a measure of resource requirements for these services because the relevant AR-DRGs are much less homogeneous than for other acute services.

The average cost weight for private free-standing day hospitals was markedly lower (0.51) than for other private hospitals (0.98), reflecting the lesser complexity and day-only nature of most admissions in these hospitals. The average cost weights for the 'other' private hospitals differed slightly among the States and Territories.

Patient days

Patient days represent the number of full or partial days stay for patients who separated from hospital during the reporting period, and represent the aggregated length of stay for all patients (see Glossary). They have previously been referred to as bed days. A total of 22,319,041 patient days were reported for 1998–99, 72.9% in the public sector and 27.0% in the private sector.

There was a decrease in patient days reported for public acute hospitals (162,807, 1.1%) in 1998–99 compared with 1997–98, but there was an increase reported for private hospitals (50,112, 0.8%). Patient days for public acute and private hospitals combined decreased by 0.53% (112,695) and for all hospitals combined, it decreased by 1.0% (236,089).

Public psychiatric hospital patient days decreased by 8.75% (123,394) nationally. Age-standardised rates for 1998–99 ranged from 4.7 patient days per 1,000 population in Victoria to 146.0 per 1,000 population in Queensland.

The number of age-standardised patient days per 1,000 population in 1998–99 fell by 2.5% for public acute and private hospitals combined compared with 1997–98. Public acute hospital patient days per 1,000 fell by 2.9%, with those for private hospitals decreasing by 1.6%.

Of the States and Territories, the Northern Territory reported the highest number of patient days per 1,000 population for public acute hospitals in 1998–99 (1,293.0 per 1,000 population) and Tasmania reported the lowest (649.8 per 1,000 population). The highest age-standardised population rate for patient days in private hospitals was reported by Queensland (386.9 per 1,000 population). Age-standardised, the highest rate for all hospitals combined was reported by the Northern Territory (1,293.0 per 1,000 population) and the lowest by Victoria (1,051.9 per 1,000 population).

Average length of stay

The average length of stay for public acute and private hospitals combined was 3.7 days, a slight reduction from 3.8 days in 1997–98, reflecting the increases in same day separations and a continuation of the trend suggested by the data over the last few years (Figure 4.2). For public acute hospitals, there was a slight decrease from 4.0 days in 1997–98 to 3.9 days

in 1998–99, and a decrease was evident for public patients, while private patients remained the same as in 1997–98. For private hospitals, the average length of stay was 3.2 days in 1998–99, a reduction from 3.3 days in the previous year. The average length of stay for public psychiatric hospitals increased from 62.4 days in 1997–98 to 63.4 days in 1998–99.

New South Wales reported the greatest average length of stay for public acute hospitals (4.3 days) and the Northern Territory reported the shortest (3.5 days). For private hospitals other than free-standing day hospital facilities, the Australian Capital Territory reported the greatest average length of stay (4.0 days) and Western Australia reported the shortest (3.3 days).

With same day separations excluded (as is the practice in most OECD countries), average lengths of stay have not reduced markedly over the last few years (Table 4.1, Figure 4.2). The average length of stay in 1998–99 was shorter than in 1997–98 for public acute hospitals (6.3 days compared with 6.4 days). For private hospitals, the average length of stay decreased from 6.0 days in 1997–98 to 5.9 days in 1998–99. These figures indicate that most of the reductions in average length of stay overall are a result of increasing proportions of same day separations, rather than reductions in length of stay for non-same day stays. The average lengths of stay are within the range of those reported for 1996 and 1997 average lengths of stay for acute care for other OECD countries (OECD 1999).

Admitted patients by public hospital program areas

Data on the number of separations and patient days spent in public hospitals, by type of admitted patient episode, are provided in Tables 4.3 and 4.4. The type of admitted patient episode classifies separations and patient days into the broad programs of health care. Detailed information on patient diagnoses and procedures and on the AR-DRGs of admitted patient episodes are provided in later chapters (see Chapters 7, 8 and 10).

Public hospitals reported 3,862,295 separations for 1998–99. By far, the majority of separations were for *Medical/surgical/obstetrics*, which together accounted for 76% of all separations. The next most frequent separation categories were *Dialysis* and *Endoscopy*, which accounted for 11% and 5% of all separations respectively.

However, Table 4.4, which provides information on the number of patient days spent in public hospitals by type of episode, shows a different picture. Over 16 million patient days were reported for public hospitals in 1998–99. *Medical/surgical/obstetrics* separations again dominated, accounting for the majority of patient days (67%). *Mental health* separations, which accounted for 3.5% of separations, accounted for 12% of all patient days. Other episode types which had high average lengths of stay (as derived from Tables 4.3 and 4.4) included *Intellectual handicap*, *Nursing home type patients*, *Rehabilitation*, and *Non-medical and social* patients. *Dialysis* and *Endoscopy* had relatively short average lengths of stay (1.0 day and 2.1 days), and thus accounted for relatively fewer patient days.

Non-admitted patients in public hospitals

Information on non-admitted patient occasions of service delivered by Australian public acute and psychiatric hospitals is provided in Table 4.5.

Over 34 million non-admitted patient occasions of service were delivered to individuals through Australian public acute hospitals in 1998–99. The largest group of these were *Other medical/surgical/obstetric* encounters (32.9% of the total), followed by *Accident and emergency* services (14.6%) and *Pathology* (12.2%). *Allied health* and *Community health* were also frequently provided services, together accounting for 14.5%of non-admitted patient

services. These categories include services such as: physiotherapy, speech therapy, dietary advice, baby clinics, aged care assessment teams and immunisation clinics.

In addition to the services provided to individuals, 486,202 group sessions were delivered through public acute hospitals. These services include group activities conducted in the same areas against which individual non-admitted patient services are recorded. A group service is defined as 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. Because of the inconsistent reporting of group sessions against the sub-categories, the total number of sessions only is reported.

Users of these data should note that there is considerable variation among States and Territories and between reporting years, for the way in which non-admitted patient occasions of service data are collected. In particular, South Australian hospitals reported non-admitted patient services using a different set of categories that are not consistent with those used by other States and Territories. South Australia's casemix payment system determines the categories for reporting non-admitted patient services and these only partially align with the national categories. Categories for which there is no equivalent category are reported as 'not applicable'. Over the last few years, New South Wales, South Australia, Western Australia, Queensland and Tasmania all had changes in reporting arrangements for non-admitted occasions of service. For example, in New South Wales the large increase from 117,025 mental health occasions of service in 1997–98 to 995,176 in 1998–99 is due to reclassification of a class of occasions of service previously reported under community health.

Differing admission practices between the States and Territories will also lead to variation among jurisdictions in the services reported in Table 4.5. States and Territories may also differ in the extent to which these types of services are provided in non-hospital settings (such as community health centres), which is beyond the scope of this data collection.

Data on the number of non-admitted patient occasions of service provided through public psychiatric hospitals are also requested, although data collection in this area is poor. A total of 198,297 services was provided in New South Wales and Queensland, the only States or Territories for which these data were supplied (Table 4.5). These services include emergency and outpatient care and outreach/community care provided to individuals or groups. Information collected for these hospitals is not disaggregated further, due to the restricted range of services usually provided through psychiatric hospitals.

Table 4.1: Summary of separation, same day separation, average cost weight, patient day and average length of stay statistics, by hospital type, Australia, 1994–95 to 1998–99

	1994–95[a]	1995–96[b]	1996–97	1997–98[c]	1998–99
Separations ('000)					
Public acute hospitals[d]	3,420	3,568	3,622	3,748	3,839
Public patients[e]	2,720	2,963	3,058	3,222	3,347
Private patients	489	438	393	355	319
Public psychiatric hospitals[f]	n.a.	25	20	23	20
Private hospitals[g]	1,460	1,577	1,685	1,793	1,875
Public acute & private hospitals[h]	4,880	5,146	5,307	5,541	5,715
Total	**4,880**	**5,171**	**5,327**	**5,563**	**5,735**
Same day separations ('000)					
Public acute hospitals[d]	1,290	1,419	1,520	1,622	1,716
Public patients[e]	1,039	1,197	1,302	1,412	1,512
Private patients	178	168	160	152	141
Public psychiatric hospitals[f]	n.a.	1	1	2	2
Private hospitals[g]	673	772	859	953	1,028
Public acute & private hospitals[h]	1,964	2,192	2,379	2,575	2,745
Total	**1,964**	**2,192**	**2,380**	**2,578**	**2,748**
Same day separations as a % of total					
Public acute hospitals[d]	37.7	39.8	42.0	43.3	44.7
Public patients[e]	38.2	40.4	42.6	43.8	45.2
Private patients	36.5	38.4	40.9	42.7	44.4
Public psychiatric hospitals[f]	n.a.	5.5	3.9	10.6	11.3
Private hospitals[g]	46.1	48.9	51.0	53.1	54.8
Public acute & private hospitals[h]	40.1	42.5	44.8	46.5	48.0
Total	**40.2**	**42.4**	**44.7**	**46.3**	**47.9**
Separations per 1,000 population[i]					
Public acute hospitals[d]	183.9	190.6	193.1	197.0	198.7
Public patients[e]	146.5	158.7	163.6	170.0	173.9
Private patients	26.1	23.2	20.8	18.5	16.3
Public psychiatric hospitals[f]	n.a.	1.7	1.1	1.2	1.1
Private hospitals[g]	80.4	85.1	89.2	93.2	95.5
Public acute & private hospitals[h]	263.0	274.7	281.6	289.4	293.5
Total	**263.0**	**276.0**	**282.7**	**290.6**	**294.5**
Average cost weight of separations[j]					
Public acute hospitals[d]	n.a.	1.04	1.02	1.00	0.99
Public patients[e]	n.a.	1.01	0.99	0.97	0.98
Private patients	n.a.	1.09	1.08	1.07	1.07
Public psychiatric hospitals[f]	n.a.	1.23	1.37	1.58	1.79
Private hospitals[g]	n.a.	0.95	0.94	0.96	0.91
Public acute & private hospitals[h]	n.a.	1.01	0.99	0.98	0.97
Total	**n.a.**	**1.01**	**1.00**	**0.99**	**0.97**
Patient days ('000)					
Public acute hospitals[d]	15,567	15,607	15,181	15,152	14,989
Public patients[e]	12,086	12,608	12,494	12,460	12,691
Private patients	2,173	1,878	1,622	1,419	1,274
Public psychiatric hospitals[f]	n.a.	948	1,350	1,409	1,285
Private hospitals[g]	5,407	5,893	5,834	5,995	6,045
Public acute & private hospitals[h]	20,974	21,499	21,015	21,146	21,034
Total	**20,974**	**22,448**	**22,366**	**22,555**	**22,319**

(continued)

Table 4.1 (continued): Summary of separation, same day separation, average cost weight, patient day and average length of stay statistics, by hospital type, Australia, 1994–95 to 1998–99

	1994–95[a]	1995–96[b]	1996–97	1997–98[c]	1998–99
Patient days per 1,000 population[i]					
Public acute hospitals[d]	826.7	817.8	789.4	774.1	751.3
Public patients[e]	642.5	662.3	652.1	640.4	639.6
Private patients	114.9	97.8	83.6	71.7	62.6
Public psychiatric hospitals[f]	n.a.	89.8	72.3	74.7	66.6
Private hospitals[g]	293.2	311.6	302.0	303.8	299.4
Public acute & private hospitals[h]	1,115.9	1,125.9	1,089.4	1,075.9	1,048.7
Total	**1,115.9**	**1,177.1**	**1,161.7**	**1,150.6**	**1,115.3**
Average length of stay (days)					
Public acute hospitals[d]	4.6	4.4	4.2	4.0	3.9
Public patients[e]	4.4	4.3	4.1	3.9	3.8
Private patients	4.4	4.3	4.1	4.0	4.0
Public psychiatric hospitals[f][k]	n.a.	52.1	66.3	62.4	63.4
Private hospitals[g]	3.7	3.7	3.5	3.3	3.2
Public acute & private hospitals[h]	4.3	4.2	4.0	3.8	3.7
Total	**4.3**	**4.3**	**4.2**	**4.1**	**3.9**
Average length of stay, excluding same day separations (days)					
Public acute hospitals[d]	6.7	6.6	6.5	6.4	6.3
Public patients[e]	6.6	6.5	6.4	6.1	6.1
Private patients	6.4	6.3	6.3	6.2	6.4
Public psychiatric hospitals[f][k]	n.a.	54.4	69.0	69.7	71.4
Private hospitals[g]	6.0	6.4	6.0	6.0	5.9
Public acute & private hospitals[h]	6.5	6.5	6.4	6.3	6.2
Total	**6.5**	**6.8**	**6.8**	**6.7**	**6.6**

(a) For 1994–95 Victorian private hospital data are incomplete. About 98% of the separations were included.

(b) Statistical separations were introduced in 1995–96 and would have resulted in an increase in separations reported for that and subsequent years compared with previous years.

(c) Some data on patient days have been revised since previously published.

(d) Includes the Department of Veterans' Affairs hospitals.

(e) Although public and private patients account for the bulk of separations from public hospitals, there are also separations for other categories of patients, as detailed in Table 5.1.

(f) Public psychiatric hospital data were not included until 1995–96, and that year Queensland was unable to report. Victoria was not able to provide patient days data for all separations in 1995–96 and for 407 separations in 1996–97, as leave days could not be identified.

(g) Includes private psychiatric hospitals and private free-standing day hospital facilities.

(h) Excludes public psychiatric hospitals.

(i) Figures are rates per 1,000 directly age-standardised to the Australian population at 30 June 1991. For public psychiatric hospitals and private hospitals, rates were derived using populations of the reporting States and Territories only, without adjustment for incomplete reporting.

(j) Separations for which the type of episode of care was reported as acute, or as newborn with qualified patient days, or was not reported. For further details see Chapter 10. Public national cost weights were used for the *Public acute & private hospitals* and *Total* rows. AR-DRG version 4.0/4.1 was used for 1998–99, AN-DRG version 3.1 for 1996–97 and 1997–98, and version 3.0 for 1995–96.

(k) Caution should be used with average length of stay for public psychiatric hospitals. The figures include a small percentage of long stay patients who affect the average markedly. The median length of stay for Australia was 7 days and the median length of stay excluding same day separations for Australia was 10 days.

n.a. not available.

Table 4.2: Summary of separation, same day separation, average cost weight, patient day and average length of stay statistics, by hospital type, States and Territories, 1998–99

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Separations									
Public hospitals	1,273,396	970,150	708,713	357,569	355,863	80,517	58,598	54,885	3,859,691
Public acute hospitals	1,263,161	968,993	707,227	354,441	352,125	79,985	58,598	54,885	3,839,415
Public psychiatric hospitals	10,235	1,157	1,486	3,128	3,738	532	. .	. .	20,276
Private hospitals[a]	566,617	495,667	411,279	186,997	150,741	47,167	16,890	n.a.	1,875,358
Private free-standing day hospital facilities	123,835	47,063	70,831	9,994	8,310	1,106	n.a.	. .	261,139
Other private hospitals	442,782	448,604	340,448	177,003	142,431	46,061	16,890	n.a.	1,614,219
Public acute & private hospitals[b]	1,829,778	1,464,660	1,118,506	541,438	502,866	127,152	75,488	54,885	5,714,773
Total	**1,840,013**	**1,465,817**	**1,119,992**	**544,566**	**506,604**	**127,684**	**75,488**	**54,885**	**5,735,049**
Same day separations									
Public hospitals	516,646	468,028	317,948	161,062	159,318	38,705	29,359	27,653	1,718,719
Public acute hospitals	514,635	467,997	317,925	161,008	159,151	38,697	29,359	27,653	1,716,425
Public psychiatric hospitals	2,011	31	23	54	167	8	. .	. .	2,294
Private hospitals[a]	333,444	275,266	227,631	92,564	72,068	21,016	6,319	n.a.	1,028,308
Private free-standing day hospital facilities	122,238	47,063	70,828	9,990	8,310	1,106	n.a.	. .	259,535
Other private hospitals	211,206	228,203	156,803	82,574	63,758	19,910	6,319	n.a.	768,773
Public acute & private hospitals[b]	848,079	743,263	545,556	253,572	231,219	59,713	35,678	27,653	2,744,733
Total	**850,090**	**743,294**	**545,579**	**253,626**	**231,386**	**59,721**	**35,843**	**28,078**	**2,747,617**
Same day separations as a % of total									
Public hospitals	40.6	48.2	44.9	45.0	44.8	48.1	50.1	50.4	44.5
Public acute hospitals	40.7	48.3	45.0	45.4	45.2	48.4	50.1	50.4	44.7
Public psychiatric hospitals	19.6	2.7	1.5	1.7	4.5	1.5	. .	. .	11.3
Private hospitals[a]	58.8	55.5	55.3	49.5	47.8	44.6	37.4	n.a.	54.8
Private free-standing day hospital facilities	98.7	100.0	100.0	100.0	100.0	100.0	n.a.	. .	99.4
Other private hospitals	47.7	50.9	46.1	46.7	44.8	43.2	37.4	n.a.	47.6
Public acute & private hospitals[b]	46.3	50.7	48.8	46.8	46.0	47.0	47.3	50.4	48.0
Total	**46.2**	**50.7**	**48.7**	**46.6**	**45.7**	**46.8**	**47.5**	**51.2**	**47.9**
Separations per 1,000 population[c]									
Public hospitals	192.1	199.4	202.8	196.0	226.6	165.2	205.9	347.6	199.7
Public acute hospitals	190.5	199.2	202.4	194.3	224.0	164.1	205.9	347.6	198.7
Public psychiatric hospitals	1.7	0.2	0.4	1.7	2.5	1.1	. .	. .	1.1
Private hospitals[a]	83.8	99.4	115.1	101.5	91.0	94.1	59.4	n.a.	95.5
Private free-standing day hospital facilities	18.5	9.4	19.8	5.5	4.9	2.0	n.a.	. .	13.3
Other private hospitals	65.4	90.0	95.3	96.0	86.1	92.1	59.4	n.a.	82.2
Public acute & private hospitals[b]	274.3	298.6	317.5	295.8	315.1	258.1	265.3	347.6	293.5
Total	**276.0**	**298.8**	**317.9**	**297.6**	**317.6**	**259.3**	**265.3**	**347.6**	**294.5**

(continued)

Table 4.2 (continued): Summary of separation, same day separation, average cost weight, patient day and average length of stay statistics, all hospitals, States and Territories, 1998–99

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Average cost weight of separations[(d)]									
Public hospitals	1.03	1.00	0.98	0.96	1.00	1.01	0.99	0.78	1.00
Public acute hospitals	1.02	1.00	0.98	0.95	0.99	1.01	0.99	0.78	0.99
Public psychiatric hospitals	1.56	1.81	2.04	2.04	2.06	1.86	. .	. .	1.79
Private hospitals[(a)]	0.88	0.93	0.92	0.89	0.98	0.95	1.06	n.a.	0.91
Private free-standing day hospital facilities	0.51	0.45	0.52	0.52	0.69	0.81	n.a.	. .	0.51
Other private hospitals	1.00	0.98	1.00	0.91	1.00	0.95	1.06	n.a.	0.98
Public acute & private hospitals[(b)]	0.98	0.97	0.96	0.93	0.99	0.99	1.01	0.78	0.97
Total	0.98	0.97	0.96	0.93	0.99	0.99	1.01	0.78	0.97
Patient days									
Public hospitals	5,869,605	3,710,720	3,040,511	1,409,868	1,453,184	383,163	216,337	190,840	16,274,228
Public acute hospitals	5,398,366	3,688,596	2,527,633	1,276,022	1,354,529	336,503	216,337	190,840	14,988,826
Public psychiatric hospitals	471,239	22,124	512,878	133,846	98,655	46,660	. .	. .	1,285,402
Private hospitals[(a)]	1,670,588	1,634,549	1,407,207	587,435	518,214	160,082	66,738	n.a.	6,044,813
Private free-standing day hospital facilities	123,835	47,063	70,831	9,994	8,310	1,106	n.a.	. .	261,139
Other private hospitals	1,546,753	1,587,486	1,336,376	577,441	509,904	158,976	66,738	n.a.	5,783,674
Public acute & private hospitals[(b)]	7,068,954	5,323,145	3,934,840	1,863,457	1,872,743	496,585	283,075	190,840	21,033,639
Total	**7,540,193**	**5,345,269**	**4,447,718**	**1,997,303**	**1,971,398**	**543,245**	**283,075**	**190,840**	**22,319,041**
Patient days per 1,000 population[(c)]									
Public hospitals	853.3	734.8	857.3	770.0	857.4	748.7	797.6	1,293.0	817.8
Public acute hospitals	781.1	730.1	711.2	697.6	795.6	649.8	797.6	1,293.0	751.3
Public psychiatric hospitals	72.2	4.7	146.0	72.4	61.8	99.0	. .	. .	66.6
Private hospitals[(a)]	240.0	317.1	386.9	319.8	294.8	306.7	247.6	n.a.	299.4
Private free-standing day hospital facilities	18.5	9.4	19.8	5.5	4.9	2.0	n.a.	. .	13.3
Other private hospitals	221.5	307.7	367.0	314.2	289.9	304.7	247.6	n.a.	286.1
Public acute & private hospitals[(b)]	1,021.1	1,047.2	1,098.1	1,017.4	1,090.3	956.4	1,045.2	1,293.0	1,048.7
Total	**1,093.3**	**1,051.9**	**1,244.1**	**1,089.7**	**1,152.1**	**1,055.4**	**1,045.2**	**1,293.0**	**1,115.3**
Average length of stay (days)									
Public hospitals	4.6	3.8	4.3	3.9	4.1	4.8	3.7	3.5	4.2
Public acute hospitals	4.3	3.8	3.6	3.6	3.8	4.2	3.7	3.5	3.9
Public psychiatric hospitals[(e)]	46.0	19.1	345.1	42.8	26.4	87.7	. .	. .	63.4
Private hospitals[(a)]	2.9	3.3	3.4	3.1	3.4	3.4	4.0	n.a.	3.2
Private free-standing day hospital facilities	1.0	1.0	1.0	1.0	1.0	1.0	n.a.	. .	1.0
Other private hospitals	3.5	3.5	3.9	3.3	3.6	3.5	4.0	n.a.	3.6
Public acute & private hospitals[(b)]	3.9	3.6	3.5	3.4	3.7	3.9	3.7	3.5	3.7
Total	**4.1**	**3.6**	**4.0**	**3.7**	**3.9**	**4.3**	**3.7**	**3.5**	**3.9**

(continued)

Table 4.2 (continued): Summary of separation, same day separation, average cost weight, patient day and average length of stay statistics, all hospitals, States and Territories, 1998–99

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Average length of stay, excluding same day separations (days)									
Public hospitals	7.1	6.5	7.0	6.4	6.6	8.2	6.4	6.0	6.8
Public acute hospitals	6.5	6.4	5.7	5.8	6.2	7.2	6.4	6.0	6.3
Public psychiatric hospitals[(e)]	57.1	19.6	350.6	43.5	27.6	89.0	. .	. .	71.4
Private hospitals[(a)]	5.7	6.2	6.4	5.2	5.7	5.3	5.7	n.a.	5.9
Private free-standing day hospital facilities	1.0	. .	1.0	1.0	. .	. .	. .	. .	1.0
Other private hospitals	5.8	6.2	6.4	5.2	5.7	5.3	5.7	n.a.	5.9
Public acute & private hospitals[(b)]	6.3	6.3	5.9	5.6	6.0	6.5	6.2	6.0	6.2
Total	**6.8**	**6.4**	**6.8**	**6.0**	**6.3**	**7.1**	**6.2**	**6.1**	**6.6**

(a) Includes private psychiatric hospitals.

(b) Excludes public psychiatric hospitals.

(c) Figures are directly age-standardised to the Australian population at 30 June 1991. In the *Total* column, the rates for private hospitals were derived using populations of the reporting States and Territories only, without adjustment for incomplete reporting.

(d) Separations for which the type of episode of care was reported as acute,or as newborn with qualified patient days, or was not reported. For further details, see Chapter 10. Public national cost weights were used for the *Public acute and private hospitals* and *Total* rows.

(e) Caution should be used with average length of stay for public psychiatric hospitals. The figures include a small percentage of long stay patients who affect the average markedly. The median length of stay for Australia was 7 days and the median length of stay excluding same day separations for Australia was 10 days.

. . not applicable.

n.a. not available.

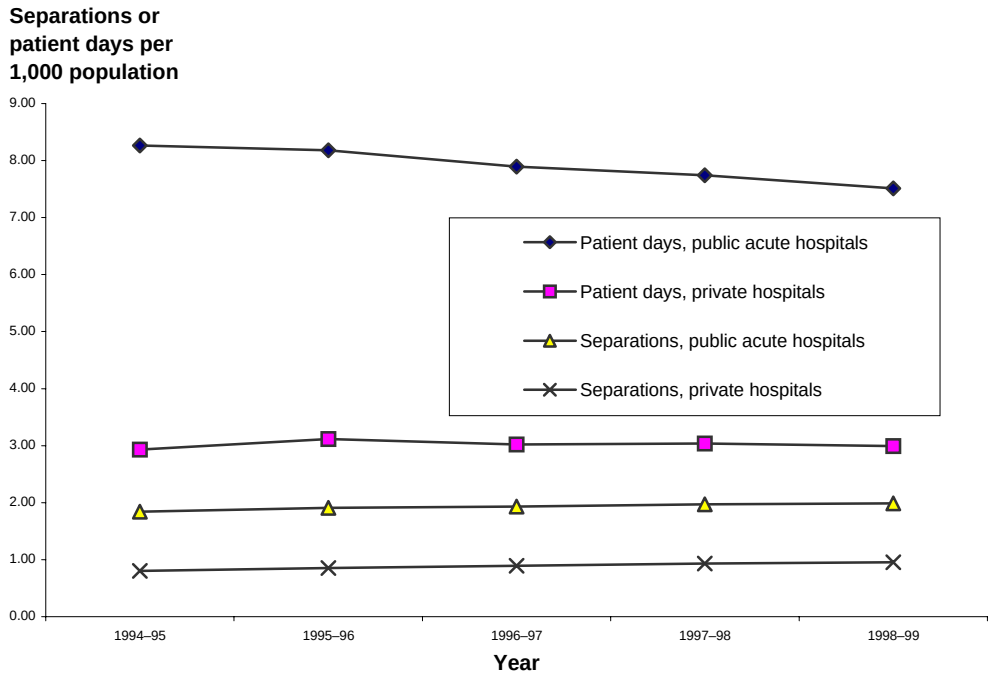

Figure 4.1: Separations and patient days per 1,000 population, public acute and private hospitals, Australia, 1994–95 to 1998–99

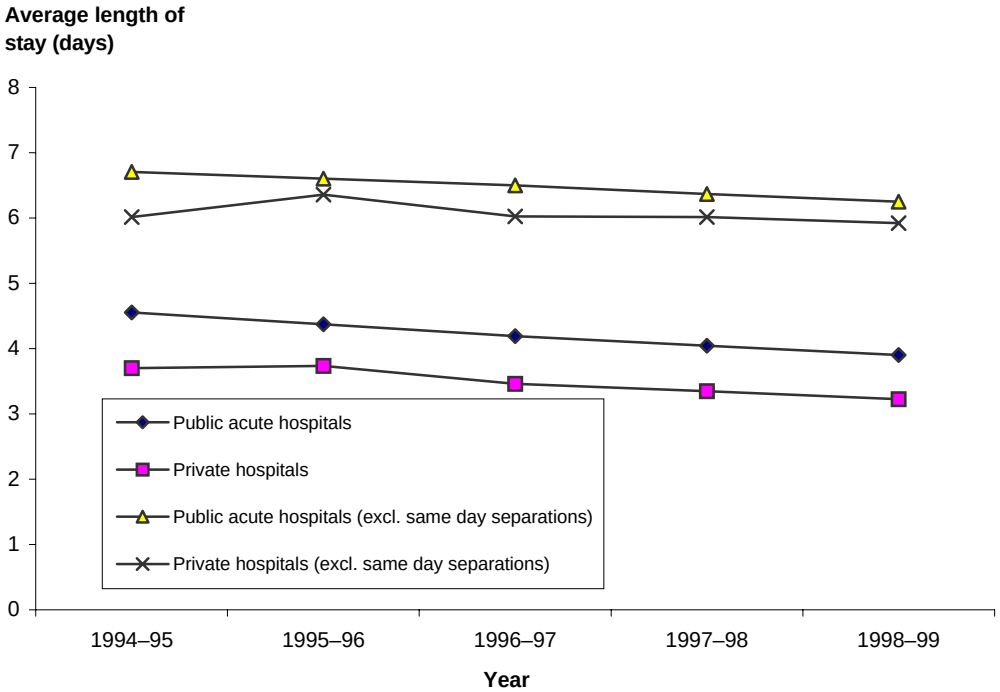

Figure 4.2: Average length of stay, public acute and private hospitals, Australia, 1994–95 to 1998–99

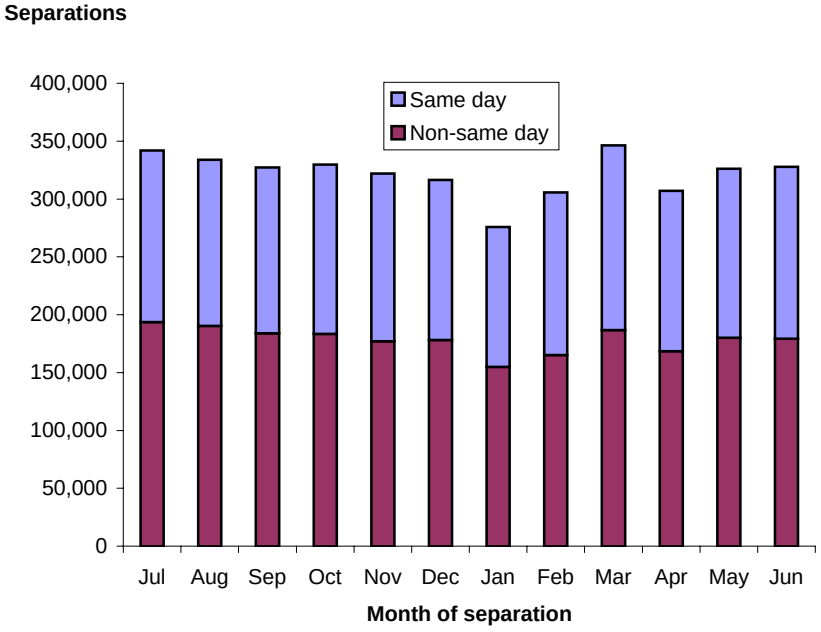

Figure 4.3: Separations by month of separation and length of stay, public hospitals, Australia, 1998–99

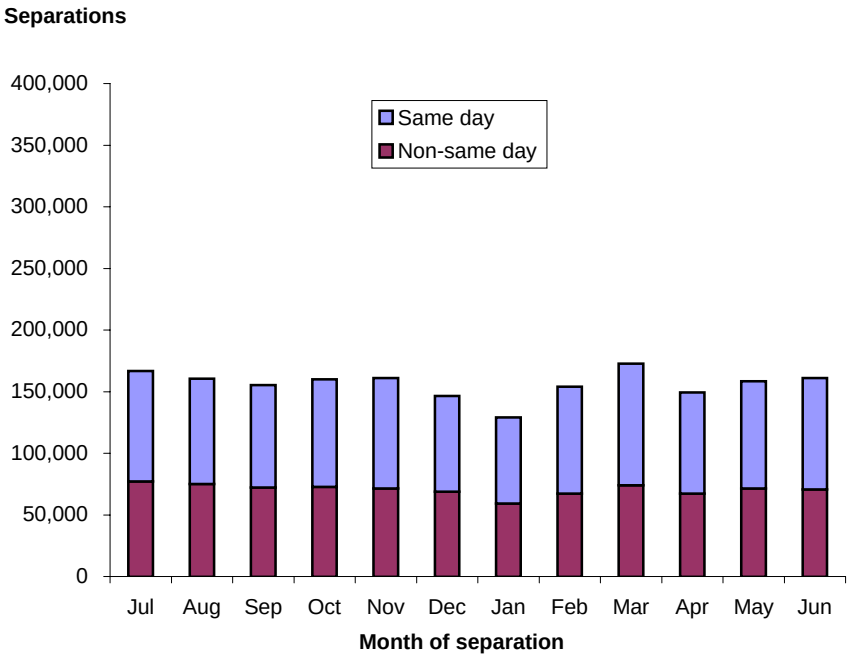

Figure 4.4: Separations by month of separation and length of stay, private hospitals, Australia, 1998–99

Table 4.3: Separations by type of admitted patient episode, public acute and psychiatric hospitals, States and Territories, 1998–99

Type of admitted patient episode	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Mental health	38,862	27,737	23,680	15,205	13,074	3,870	1,141	741	124,310
Alcohol & drug	11,225	4,048	5,878	3,027	863	337	139	231	25,748
Nursing home type	2,540	1,865	2,040	133	810	317	52	40	7,797
Rehabilitation	24,523	18,776	15,033	3,092	3,318	441	318	223	65,724
Intellectual handicap	48	102	60	11	12	6	10	6	255
Dental	6,921	7,688	6,339	2,826	2,950	901	511	422	28,558
Non-medical & social	6,638	2,481	2,658	1,173	895	312	60	150	14,367
Dialysis	120,118	128,625	64,317	45,207	29,319	9,808	11,176	17,851	426,421
Endoscopy	84,460	58,078	26,840	16,487	16,683	3,662	5,156	964	212,330
Perinatal	12,569	10,003	6,348	2,260	1,986	733	954	1,440	36,293
Medical/surgical/obstetrics	965,498	710,732	555,519	268,202	286,146	60,247	40,589	33,559	2,920,492
Total separations	**1,273,402**	**970,135**	**708,712**	**357,623**	**356,056**	**80,634**	**60,106**	**55,627**	**3,862,295**

Table 4.4: Patient days by type of admitted patient episode, public acute and psychiatric hospitals, States and Territories, 1998–99

Type of admitted patient episode	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Mental health	677,681	321,608	575,680	227,562	148,225	51,474	15,804	6,920	2,024,954
Alcohol & drug	80,428	16,925	71,703	15,435	5,689	2,045	569	1,005	193,799
Nursing home type	295,082	87,989	155,001	26,576	132,829	36,667	2,542	4,170	740,856
Rehabilitation	373,814	318,898	94,081	78,651	69,952	9,125	8,808	4,424	957,753
Intellectual handicap	1,411	365	554	128	51	22	214	22	2,767
Dental	8,532	8,624	7,220	3,341	3,480	1,012	665	594	33,468
Non-medical & social	101,816	29,197	28,833	9,161	6,450	12,532	572	1,505	190,066
Dialysis	120,590	128,885	64,569	45,344	29,354	9,876	11,254	18,162	428,034
Endoscopy	188,541	111,248	55,129	33,153	35,452	7,219	12,031	2,631	445,404
Perinatal	120,384	87,404	62,597	27,040	27,615	8,570	10,016	11,274	354,900
Medical/surgical/obstetrics	3,914,344	2,599,617	1,925,123	943,531	995,662	245,120	156,535	142,364	10,922,296
Total patient days	**5,882,623**	**3,710,760**	**3,040,490**	**1,409,922**	**1,454,759**	**383,662**	**219,010**	**193,071**	**16,294,297**

Table 4.5: Non-admitted patient occasions of service, by type of non-admitted patient care, public acute and psychiatric hospitals, States and Territories, 1998–99

Type of non-admitted patient care	NSW	Vic	Qld	WA	SA	Tas[a]	ACT	NT	Total[b]
Public acute hospitals									
Accident & emergency	1,442,842	1,102,011	1,137,045	606,726	461,240	70,984	83,207	106,400	5,010,455
Dialysis	. .	. .	1,997	. .	. .	938	. .	. .	2,935
Pathology	1,711,718	702,880	939,510	638,479	. .	95,855	32,400	58,595	4,179,437
Radiology & organ imaging	752,735	499,299	791,166	324,442	248,758	43,573	57,893	64,966	2,782,832
Endoscopy & related procedures	. .	. .	1,980	. .	. .	3,453	. .	. .	5,433
Other medical/surgical/obstetric	6,011,019	1,336,099	2,109,044	511,972	847,006	184,747	182,087	71,715	11,253,689
Mental health	995,176	814,119	130,448	89,813	18,972	238	5,717	. .	2,054,483
Alcohol & drug	. .	49,374	91,429	. .	. .	. .	. .	. .	140,803
Dental	. .	193,459	444,793	7,987	8,596	1,233	. .	. .	656,068
Pharmacy	444,406	345,234	763,324	176,036	. .	63,165	404	14,064	1,806,633
Allied health	. .	987,760	607,230	698,641	297,281	83,666	65,350	16,882	2,756,810
Community health	992,307	430,173	152,862	634,879	. .	. .	. .	. .	2,210,221
District nursing	69,782	405,192	46,729	129,018	. .	. .	. .	. .	650,721
Other outreach	. .	12,692	103,654	155,684	451,633	5,880	11,170	. .	740,713
Total services	**12,419,985**	**6,878,292**	**7,321,211**	**3,973,677**	**2,333,486**	**553,732**	**438,228**	**332,622**	**34,251,233**
Group sessions	179,430	56,305	36,552	26,348	179,141	n.a.	8,426	. .	486,202
Public psychiatric hospitals									
Emergency & outpatient individual sessions	23,240	n.a.	13,493	n.a.	n.a.	n.a.	. .	. .	36,733
Emergency & outpatient group sessions	. .	n.a.	1,413	n.a.	n.a.	n.a.	. .	. .	1,413
Outreach/community individual sessions	. .	n.a.	157,903	n.a.	n.a.	n.a.	. .	. .	157,903
Outreach/community group sessions	. .	n.a.	2,248	n.a.	n.a.	n.a.	. .	. .	2,248
Total services	**23,240**	**n.a.**	**175,057**	**n.a.**	**n.a.**	**n.a.**	. .	. .	**198,297**

(a) For Tasmania data were only available for the 3 major hospitals.

(b) For public psychiatric hospitals, includes only those States and Territories for which data are available.

n.a. not available.

. . not applicable.

5 Administrative data for admitted patients

Introduction

Data in this chapter are derived from the National Hospital Morbidity Database at the Institute, the compilation of patient-level data for all separations from public and private hospitals in Australia. For each separation in the database, a range of administrative and related data elements was reported including patient accommodation status, hospital insurance status, compensable status, State or Territory of usual residence, type of episode of care, source of referral, mode of separation and inter-hospital contracted patient status. The tables in this chapter present separation, patient day, average cost weight and average length of stay statistics for these variables. All types of episode of care are included, except as noted below for the average cost weight information. That is, separations for which the type of episode of care was *Acute care*, *Rehabilitation care*, *Palliative care*, *Non-acute care* and *Other care* are included, as are *Newborn* episodes of care, provided that they had at least one qualified patient day. Tables 5.11 and 5.12 also include *Newborn* episodes that did not include qualified days.

Data providers supplied information on each patient's accommodation status, which incorporates a distinction between patients who are and are not eligible for treatment in accordance with the Australian Health Care (previously the Medicare) Agreements. 'Eligible' patients are further categorised as *Eligible public patients*, *Eligible private patients*, *Eligible Department of Veterans' Affairs patients* or *Eligible other patients*. These data are as supplied by the States and Territories and, in the case of Department of Veterans' Affairs (DVA) patients, their eligibility to receive hospital treatment as a DVA patient may not necessarily have been confirmed by DVA. Additional definitional material regarding these categories can be found in the Glossary and in the *National Health Data Dictionary* Version 7. Data on accommodation status were not available for public psychiatric hospitals in Western Australia.

Data on insurance status indicates whether a patient has hospital insurance; that is, insurance providing benefits related to charges for hospital accommodation and services. Insurance status should not be confused with whether the patient is admitted as a public, private or other type of patient. Individuals can elect to be admitted in public hospitals as public or private patients irrespective of their insurance status. It is apparent that the data reported on insurance status are of poor quality. Consequently, they are not published here but are available to interested users.

Data on the compensable status of each patient were also supplied, a compensable patient being defined as any person who is entitled to the payment of, or who has been paid, compensation, damages or other benefits (including a payment in settlement of a claim for compensation, damages or other benefits) in respect of the injury, illness or disease for which he or she is receiving care and treatment. Data on compensable status were not available for public psychiatric hospitals in Western Australia.

Compensable status reflects the status of the patient at the time of separation. The *National Health Data Dictionary* specifies that the compensable status of the patient should be

reported as *Compensable* or *Not compensable*; however, some data providers also used a *Not reported* category.

State or Territory of usual residence could be reported as one of the six States, the Australian Capital Territory, the Northern Territory, other territories (including Cocos (Keeling) Islands, Christmas Island, Jervis Bay Territory) or other (including resident overseas, at sea, no fixed address). More detailed information on the area of usual residence of the patient is stored in the National Hospital Morbidity Database as the Statistical Local Area of residence and has been used to generate maps in this chapter (Figures 5.1 and 5.2) and Chapter 7 (Figures 7.3 to 7.8).

Type of episode of care was also reported for most separations, but was not available for public psychiatric hospitals in Western Australia and most private hospital separations in Tasmania. An episode of care is defined as a phase of treatment for an admitted patient. It may correspond to a patient's entire hospital stay, or the hospital stay may be divided into separate episodes of care of different types. In the latter case, a 'statistical separation' occurs between such episodes, and a new separation record is generated. Thus, separations in the database are actually for phases of treatment, not necessarily for entire hospital stays. Definitions of each type of care are contained in the *National Health Data Dictionary* Version 7. They are:

- acute care
- rehabilitation care—delivered in a designated unit
- rehabilitation care—according to a designated program
- rehabilitation care—principal clinical intent
- palliative care—delivered in a designated unit
- palliative care—according to a designated program
- palliative care—principal clinical intent
- non-acute care
- newborn
- other care.

Not all States and Territories supplied information to this level of detail for rehabilitation and palliative care. For rehabilitation, a category of *Rehabilitation, not further specified* was used by some and is included in the tables in this chapter. As very few palliative care separations were reported using the detailed categories, only the category of *Palliative care, not further specified* has been used in Tables 5.11 and 5.12. The *Newborn* category was a new care type for 1998–99, used for all patients aged 9 days or less at admission. Newborn episodes of care comprise qualified days only, separations with a mixture of qualified and unqualified days and separations with unqualified days only. Four jurisdictions did not implement this *Newborn* definition; therefore, for these States and Territories, there are no separations with a mixture of qualified and unqualified days reported (see the Glossary and Appendix 3 for more information).

Source of referral indicates the source from which a person was transferred or referred to the hospital. The *National Health Data Dictionary* specifies one reporting category for public acute, private hospitals (acute and psychiatric) and another for public psychiatric hospitals, as shown in Table 5.13.

The mode of separation records the status of the patient (discharged, transferred, episode type change, died) at the time of separation and for some categories the place to which the person was discharged or transferred as seen in Table 5.14.

Data on inter-hospital same day contracted patient status were provided by five jurisdictions and are shown in Table 5.16. An inter-hospital same day contracted patient is defined in the *National Health Data Dictionary* as an admitted same day patient whose treatment and/or care is provided under a specific arrangement with another hospital at which the patient is an admitted patient. Separations can be reported as *Inter-hospital same day contracted patient* or *Other*. New South Wales provided information on contracted patients regardless of whether they were admitted on a same day basis. Victoria, Western Australia South Australia, Tasmania and the Northern Territory also used a *Not reported* category.

Patient accommodation status

Eligible public patients accounted for 87% of separations from public hospitals (3,363,790) compared with 8% for eligible private patients (318,860) (Table 5.1). Eligible Department of Veterans' Affairs patients made up the majority of the remainder. The two major categories were reversed in private hospitals, with eligible public patients making up 3% of separations (54,389) and eligible private patients 84% (1,556,680). Overall 60% of separations were for eligible public patients (3,418,179) and 33% (1,875,540) for eligible private patients. There was a more marked distribution in the number of patient days (Table 5.4), with 62% (13,746,176) of bed days recorded for eligible public patients and 28% (6,317,470) for eligible private patients.

For both sectors combined there were 178 separations per 1,000 population (age-standardised) for eligible public patients compared with 95 for eligible private patients (Table 5.2). The latter figure is underestimated because separations were not available for the Northern Territory private hospital, nor for a number of private hospitals and/or private free-standing day hospital facilities in Victoria, the Australian Capital Territory, Tasmania and South Australia (see Chapter 1 for details). The Northern Territory recorded the highest eligible public patient separation rate (330 per 1,000), consistent with its high public hospital separation rate. The separation rates for eligible public patients in private hospitals in New South Wales (3.3 per 1,000) and especially Western Australia (14.5 per 1,000) were markedly higher than those recorded for other States and Territories.

Table 5.3 presents the average cost weight of separations in each State and Territory by hospital sector and accommodation status. The table has been restricted to separations with an episode of care type of *Acute, Newborn* (for separations with at least one qualified day*)* (see Appendix 3 for more information) or *Not reported*. In all States and Territories, the average cost weights for eligible private patients in public hospitals was higher than that for eligible public patients. In almost every case in both public acute and private hospitals, Department of Veterans' Affairs patients showed average cost weights markedly higher than these hospitals' main patient groups of eligible public and eligible private patients respectively. More detail about the AR-DRG classification and cost weights is included in Chapter 10 and, in reference to the effects of the integration of public psychiatric services into public hospital systems, in Chapter 4.

Since 1994–95 there have been declines in the numbers of separations and patient days recorded on eligible private patients in public hospitals (Table 5.5). The proportion of public hospital patient days attributable to private patients fell from 14% to 10% over this period. On the other hand, private hospitals increased their proportion of patient days attributable to eligible public patients from 2% to 3% over the same time. Private hospitals also showed steady growth in eligible Department of Veterans' Affairs patients treated, increasing from 7% of patient days in 1994–95 to 13% in 1998–99.

During this period, Department of Veterans' Affairs either integrated its repatriation hospitals into State public systems or sold them to private companies. Many veterans continue to access former repatriation hospitals, including the two privatised hospitals in Western Australia and Queensland. In addition, as each repatriation hospital was integrated or sold, the Repatriation Private Patient Scheme was introduced in that State. The Repatriation Private Patient Scheme allows veterans easier access to the private sector if public hospital services are not available. The rising numbers of people entitled to treatment at Department of Veterans' Affairs expense, in conjunction with easier access to the private system, have also contributed to more veterans being treated in the private sector.

Compensable status

Overall, around 2% of patients (111,876) were compensable in 1998–99 (Table 5.6). In the public sector, 1% of patients (41,178) fell into this category, while in the private sector 4% of patients (70,698) were compensable.

Area of usual residence

Data on the State or Territory of usual residence were provided for over 99% of separations. Table 5.7 indicates how many separations in each State and Territory were by patients who were interstate residents. Overall, 98% (5602913) of separations were by patients who resided in the State or Territory where they were treated. However, in the Australian Capital Territory, of those separations with reported residence only about three-quarters of the separations were for Australian Capital Territory residents (50,567), with the majority of the remainder resident in New South Wales. This is mainly because the Australian Capital Territory acts as a referral centre for the surrounding districts, which are part of New South Wales.

Age-standardised separation rates per 1,000 population for each State and Territory, by hospital sector and State or Territory of usual residence, are presented in Table 5.8. In the public sector, residents of the Northern Territory had the highest separation rate per 1,000 population, 337.4, and residents of the Australian Capital Territory had the lowest, 162.8. In the private sector, residents of Queensland had the highest separation rate per 1,000 population, 110.8. Residents of the Australian Capital Territory had low separation rates per 1,000 population at 28.3; however data were not provided for private free-standing day hospital facilities nor for one other private hospital in the Australian Capital Territory. New South Wales residents had the next lowest private hospital separation rate per 1,000 population, 85.0. No data were provided for the hospital private sector for the Northern Territory.

The average cost weight of separations in each State and Territory by each hospital sector and State or Territory of usual residence is presented in Table 5.10. As for Table 5.3, this table has been restricted to separations with an episode of care type of *Acute, Newborn* (for separations with at least one qualified day) or *Not reported* (for more detail see Chapter 10 and Chapter 4). Public hospitals generally had average cost weights that were higher for inter-state patients than for patients from their own State. Separations for Northern Territory residents had higher average cost weights for the public sector in all States than in the Northern Territory, consistent with a tendency for movement of Territory residents with more complex treatment requirements to hospitals in other States. New South Wales, Western Australia and Tasmania residents had higher average cost weights for treatment provided by the private sector in other States and Territories than in their own State.

Separation rates per 1,000 population varied by Statistical Division of the usual residence of the patient for both public and private hospitals (Figures 5.1 and 5.2). The data for these maps were derived from data provided on the area of usual residence of the patients, aggregated to Statistical Divisions as described in Appendix 3.

Type of episode of care

Table 5.11 presents separations by type of episode of care. For public and private sectors together, 92% of separations were classified as episodes of *Acute care*, 4% as *Newborn* and 2% as *Rehabilitation care*. There was some variation among the States and Territories and between the public and private sectors. For example, the proportion of public hospital separations that was for *Rehabilitation care* ranged from 0.003% (195) in the Australian Capital Territory to 3% in Queensland (21,087). The majority of private hospital separations for Tasmania had an episode type of *Not reported*.

Not all jurisdictions implemented the *Newborn* definition so some jurisdictions did not have any *Newborn* separations with a mixture of qualified and unqualified days (see Appendix 3 for more information). *Newborn* separations with all unqualified days have only been included in Tables 5.11 and 5.12 in this report and, as such, will cause total separations in Table 5.11 to differ from those of other tables. They account for an additional 192,072 separations, the majority (159,751 83%) in the public sector. Tasmania was unable to provide data for most of their *Newborn* separations with unqualified days only which means that the total number of newborns is incomplete in this State.

Average length of stay for episodes of *Acute care* in private hospitals (3.0 days) was shorter than in public hospitals (3.5 days) (Table 5.12). The average length of stay for *Newborn* episodes with a mixture of qualified and unqualified days has been presented split into the average number of qualified days and the average number of unqualified days. In the public sector, the average length of stay overall for these 'mixed' separations was 3.0 qualified days and 2.6 unqualified days, compared with 11.3 days for qualified newborns and 3.1 days for unqualified newborns. The long average length of stay for *Non-acute* care in Victorian private hospitals reflects some very long lengths of stay in some Victorian rural bush nursing hospitals; 18 of these patients had lengths of stay over 365 days.

Source of referral

In both public acute and private hospitals (Table 5.13), most separations recorded a source of referral of *Other* (96%, 5,459,849), the term used to refer to all planned and unplanned admissions, except transfers from other hospitals and statistical admissions. Public acute hospitals recorded higher proportions of both transfers from other hospitals (4.0%, 154,883) and statistical admissions (0.9%, 33,653) than were reported for private hospitals (2.7%, 50,294) and (0.2%, 4,624) respectively.

For public psychiatric hospitals, about one-third of separations had a source of referral of *Other health care establishments* (33%, 6,657); however, this varied widely among jurisdictions, with South Australia recording only 4.3% (162) of separations with this source of referral and Western Australia 52.6% (1,644).

Mode of separation

The majority of patients (5,322,629 over 93%) were included in the *Other* category, suggesting that most persons go home after separation from hospital. This was particularly the case in the private sector, where 97% of separations (1,811,157) were categorised as *Other*; in the public sector, this figure was 91% (3,511,472) (Table 5.14). The main difference between the sectors was that more patients were transferred to other hospitals in the public sector (4.5%) than in the private sector (1.8%). There were also greater proportions of separations in the public sector for statistical discharges, deaths and the *Left against medical advice/discharge at own risk* category.

Data on patients aged over 70 years may provide information that may be useful to assess continuity of care. Table 5.15 presents information by type of episode of care and mode of separation for patients aged over 70 years. For most episode types, the mode of separation with the highest number of separations reported was *Other*, which includes discharge to usual residence/own accommodation/welfare institution. For separations where episode type was palliative care, the mode of separation with the most separations was *Died* (5,682, 54.6%). Of the patients whose mode of separation was *Discharge/transfer to an aged care facility*, 77.7% (29,904) had an episode type of acute care, 7.7% (2,952) had an episode type of rehabilitation, 1.0% (376) had an episode type of palliative care and 13.0% (5,029) had an episode type of non-acute care.

There is a discrepancy between the number of patients reporting a mode of separation of discharged/transferred to another acute hospital (209,205) and the number of patients who recorded a source of referral of transfer from another hospital (205,177) (Tables 5.13, 5.14). This may indicate that not all patients who are transferred from one hospital to another are having this recorded as their source of referral.

Inter-hospital contracted patient status

Table 5.16 presents information on separations by inter-hospital contracted patient status and hospital sector for each State and Territory. Data was not provided or was incomplete for half the States, and data on inter-hospital contracted patients was not provided for non same day separations, except in New South Wales.

For the four States and Territories for which these data were comprehensively reported (New South Wales, Victoria, Queensland and Australian Capital Territory), the number of inter-hospital same day contracted patients was higher for private hospitals (11,420) than for public hospitals (2,316). New South Wales reported the highest number of separations that were for inter-hospital contracted patients (9,465, 0.5%) and the Australian Capital Territory reported none. New South Wales included 578 separations that were not same day in the public sector, and 204 in the private sector.

As inter-hospital contracted patients are admitted patients of both the contracting and contracted hospital, these separations represent some double counting of hospital activity in the National Hospital Morbidity Database. There are 17,103 same day recorded separations known to be in this category, with unknown or incomplete numbers for Western Australia, South Australia, Tasmania and the Northern Territory. There are also unknown numbers of non-same day separations in all jurisdictions except New South Wales.

Table 5.1: Separations by accommodation status and hospital sector, States and Territories, 1998–99

Accommodation status	NSW	Vic	Qld	WA(a)	SA	Tas	ACT	NT	Total
					Public hospitals				
Eligible public patient	1,061,877	855,470	641,332	319,113	311,437	69,111	53,237	52,213	3,363,790
Eligible private patient	139,007	65,231	55,109	23,351	25,558	5,838	3,716	1,050	318,860
Eligible Department of Veterans' Affairs patient	49,780	33,578	5,246	6,490	14,729	3,986	722	182	114,713
Eligible other patient	13,468	13,113	4,527	4,387	3,599	1,333	670	138	41,235
Ineligible patient	6,411	2,758	2,499	1,100	540	76	253	1,081	14,718
Not reported	2,853	0	0	3,128	0	173	0	221	6,375
Total	*1,273,396*	*970,150*	*708,713*	*357,569*	*355,863*	*80,517*	*58,598*	*54,885*	*3,859,691*
					Private hospitals				
Eligible public patient	22,286	3,192	1,076	26,574	947	314	0	n.a.	54,389
Eligible private patient	446,143	439,663	347,998	135,088	138,835	34,851	14,102	n.a.	1,556,680
Eligible Department of Veterans' Affairs patient	51,084	31,248	50,250	17,197	2,637	4,197	1,665	n.a.	158,278
Eligible other patient	23,615	21,202	9,964	7,936	8,247	1,866	987	n.a.	73,817
Ineligible patient	2,894	362	1,991	202	75	3	0	n.a.	5,527
Not reported	20,595	0	0	0	0	5,936	136	n.a.	26,667
Total	*566,617*	*495,667*	*411,279*	*186,997*	*150,741*	*47,167*	*16,890*	*n.a.*	*1,875,358*
					All hospitals				
Eligible public patient	1,084,163	858,662	642,408	345,687	312,384	69,425	53,237	52,213	3,418,179
Eligible private patient	585,150	504,894	403,107	158,439	164,393	40,689	17,818	1,050	1,875,540
Eligible Department of Veterans' Affairs patient	100,864	64,826	55,496	23,687	17,366	8,183	2,387	182	272,991
Eligible other patient	37,083	34,315	14,491	12,323	11,846	3,199	1,657	138	115,052
Ineligible patient	9,305	3,120	4,490	1,302	615	79	253	1,081	20,245
Not reported	23,448	0	0	3,128	0	6,109	136	221	33,042
Total separations	**1,840,013**	**1,465,817**	**1,119,992**	**544,566**	**506,604**	**127,684**	**75,488**	**54,885**	**5,735,049**

(a) Accommodation status data were not available for public psychiatric hospitals so separations for those hospitals were included in the Not reported category.

n.a. not available.

Table 5.2: Separation rates[(a)] per 1,000 population by accommodation status and hospital sector, States and Territories, 1998–99

	NSW	Vic	Qld	WA[(b)]	SA	Tas	ACT	NT	Total
Accommodation status				**Public hospitals**					
Eligible public patient	161.4	176.5	183.8	174.9	200.4	143.1	186.0	329.5	174.8
Eligible private patient	20.6	13.5	15.5	12.8	16.1	11.9	13.7	7.2	16.3
Eligible Department of Veterans' Affairs patient	6.5	6.0	1.4	3.6	7.2	6.8	3.2	3.2	5.3
Eligible other patient	2.1	2.8	1.3	2.4	2.5	3.0	2.1	0.6	2.2
Ineligible patient	1.0	0.6	0.7	0.6	0.4	0.2	0.9	5.6	0.8
Not reported	0.5	0.0	0.0	1.7	0.0	0.3	0.0	1.5	0.3
Total	*192.1*	*199.4*	*202.8*	*196.0*	*226.6*	*165.2*	*205.9*	*347.6*	*199.7*
				Private hospitals					
Eligible public patient	3.3	0.6	0.3	14.5	0.6	0.6	0.0	n.a.	2.8
Eligible private patient	63.1	83.2	93.5	70.7	77.0	65.2	48.5	n.a.	75.5
Eligible Department of Veterans' Affairs patient	8.1	9.0	15.5	10.1	6.7	9.0	7.6	n.a.	9.6
Eligible other patient	4.1	4.9	3.9	5.2	5.2	4.6	3.5	n.a.	4.5
Ineligible patient	0.4	0.1	0.5	0.1	0.1	0.0	0.0	n.a.	0.3
Not reported	2.9	0.0	0.0	0.0	0.0	11.3	0.5	n.a.	1.3
Total	*83.8*	*99.4*	*115.1*	*101.5*	*91.0*	*94.1*	*59.4*	*n.a.*	*95.5*
				All hospitals					
Eligible public patient	164.8	177.2	184.1	189.5	201.0	143.7	186.0	329.5	177.6
Eligible private patient	87.1	102.2	113.4	86.0	99.9	81.6	62.4	7.2	95.4
Eligible Department of Veterans' Affairs patient	13.2	11.7	15.0	13.1	8.6	13.9	10.4	3.2	12.7
Eligible other patient	5.7	7.2	4.1	6.5	7.8	7.0	5.1	0.6	6.0
Ineligible patient	1.4	0.7	1.3	0.7	0.4	0.2	0.9	5.6	1.1
Not reported	3.7	0.0	0.0	1.7	0.0	12.9	0.5	1.5	1.7
Total separations	**276.0**	**298.8**	**317.9**	**297.6**	**317.6**	**259.3**	**265.3**	**347.6**	**294.5**

(a) The rates were directly age-standardised to the Australian population at 30 June 1991. For details see Appendix 3.

(b) Accommodation status data were not available for public psychiatric hospitals so separations for those hospitals were included in the *Not reported* category.

n.a. not available.

Table 5.3: Average cost weight of separations[(a)] by accommodation status and hospital sector, States and Territories, 1998–99

	NSW	Vic	Qld	WA[(b)]	SA	Tas	ACT	NT	Total
Accommodation status				**Public acute hospitals**					
Eligible public patient	1.00	0.97	0.97	0.92	0.98	0.98	0.96	0.76	0.97
Eligible private patient	1.09	1.06	1.02	1.06	1.01	1.14	1.13	0.96	1.07
Eligible Department of Veterans' Affairs patient	1.25	1.26	1.04	1.31	1.33	1.23	2.33	1.79	1.27
Eligible other patient	1.36	1.62	1.64	1.56	1.59	1.74	1.53	0.83	1.53
Ineligible patient	1.39	1.03	1.14	1.25	1.08	0.92	1.14	1.71	1.27
Not reported	1.11	. .	. .	2.04	. .	1.04	. .	0.38	1.59
Total	**1.03**	**1.00**	**0.98**	**0.96**	**1.00**	**1.01**	**0.99**	**0.78**	**1.00**
				Private hospitals					
Eligible public patient	1.02	0.49	1.81	0.82	0.68	0.87	. .	n.a.	0.88
Eligible private patient	0.84	0.90	0.89	0.88	0.98	0.94	1.02	n.a.	0.89
Eligible Department of Veterans' Affairs patient	1.21	1.25	1.17	1.10	1.12	1.26	1.36	n.a.	1.19
Eligible other patient	0.99	0.98	0.71	0.94	0.98	0.95	1.11	n.a.	0.94
Ineligible patient	1.01	1.31	0.87	1.03	1.03	1.22	. .	n.a.	0.98
Not reported	0.71	. .	. .	. .	. .	0.77	0.97	n.a.	0.72
Total	**0.88**	**0.93**	**0.92**	**0.89**	**0.98**	**0.95**	**1.06**	**n.a.**	**0.91**

(a) Separations for which the type of episode of care was reported as acute, or as newborn with qualified patient days, or was not reported. For further details see Chapter 10.

(b) Accommodation status data were not available for public psychiatric hospitals so separations for those hospitals were included in the *Not reported* category.

n.a. not available.

. . not applicable.

Table 5.4: Patient days by accommodation status and hospital sector, States and Territories, 1998–99

Accommodation status	NSW	Vic	Qld	WA[(a)]	SA	Tas	ACT	NT	Total
				Public hospitals					
Eligible public patient	4,483,762	3,204,967	2,793,948	1,125,362	1,241,936	323,244	191,177	179,374	13,543,770
Eligible private patient	882,015	238,658	195,006	90,754	107,063	20,679	13,884	2,424	1,550,483
Eligible Department of Veterans' Affairs patient	328,807	201,368	22,570	32,703	82,983	20,574	7,160	1,507	697,672
Eligible other patient	68,450	57,537	20,561	23,854	19,123	7,014	3,036	373	199,948
Ineligible patient	30,763	8,190	8,426	3,349	2,079	234	1,080	6,789	60,910
Not reported	75,808	0	0	133,846	0	11,418	0	373	221,445
Total	*5,869,605*	*3,710,720*	*3,040,511*	*1,409,868*	*1,453,184*	*383,163*	*216,337*	*190,840*	*16,274,228*
				Private hospitals					
Eligible public patient	73,960	4,974	29,321	90,954	2,804	393	0	n.a.	202,406
Eligible private patient	1,258,160	1,369,929	1,092,326	390,409	487,449	115,104	53,610	n.a.	4,766,987
Eligible Department of Veterans' Affairs patient	241,907	157,543	263,606	88,487	10,925	22,600	9,183	n.a.	794,251
Eligible other patient	58,485	100,837	15,915	17,122	16,689	5,184	3,241	n.a.	217,473
Ineligible patient	5,979	1,266	6,039	463	347	7	0	n.a.	14,101
Not reported	32,097	0	0	0	0	16,794	704	n.a.	49,595
Total	*1,670,588*	*1,634,549*	*1,407,207*	*587,435*	*518,214*	*160,082*	*66,738*	*n.a*	*6,044,813*
				All hospitals					
Eligible public patient	4,557,722	3,209,941	2,823,269	1,216,316	1,244,740	323,637	191,177	179,374	13,746,176
Eligible private patient	2,140,175	1,608,587	1,287,332	481,163	594,512	135,783	67,494	2,424	6,317,470
Eligible Department of Veterans' Affairs patient	570,714	358,911	286,176	121,190	93,908	43,174	16,343	1,507	1,491,923
Eligible other patient	126,935	158,374	36,476	40,976	35,812	12,198	6,277	373	417,421
Ineligible patient	36,742	9,456	14,465	3,812	2,426	241	1,080	6,789	75,011
Not reported	107,905	0	0	133,846	0	28,212	704	373	271,040
Total patient days	**7,540,193**	**5,345,269**	**4,447,718**	**1,997,303**	**1,971,398**	**543,245**	**283,075**	**190,840**	**22,319,041**

(a) Accommodation status data were not available for public psychiatric hospitals so separations for those hospitals were included in the *Not reported* category.

n.a. not available.

Table 5.5: Separations and patient days by accommodation status, hospital sector and year, Australia, 1994–95 to 1998–99

	1994–95		1995–96		1996–97		1997–98		1998–99	
	Separations	Patient days	Separations	Patient days	Separations	Patient days	Separations	Patient days	Separations	Patient days
Accommodation status					**Public hospitals**					
Eligible public patient	2,720,378	12,086,092	2,983,446	13,301,071	3,075,874	13,542,776	3,241,015	13,405,319	3,363,790	13,543,770
Eligible private patient	488,620	2,172,939	437,746	1,924,078	392,773	1,725,621	355,281	1,673,008	318,860	1,550,483
Eligible DVA patient	115,027	785,727	110,061	776,588	114,428	765,996	108,597	675,436	114,713	697,672
Eligible other patient	32,989	255,855	46,001	348,219	44,258	318,535	40,847	215,789	41,235	199,948
Ineligible patient	10,595	47,924	11,406	46,856	12,046	54,662	13,765	58,956	14,718	60,910
Not reported	52,368	218,509	4,675	158,367	2,588	124,137	10,593	531,921	6,375	221,445
Total	*3,419,977*	*15,567,046*	*3,593,335*	*16,555,179*	*3,641,967*	*16,531,727*	*3,770,098*	*16,560,429*	*3,859,691*	*16,274,228*
					Private hospitals					
Eligible public patient	22,317	97,920	36,814	156,375	39,603	169,578	43,563	175,263	54,389	202,406
Eligible private patient	1,113,348	3,957,500	1,365,827	4,909,980	1,443,600	4,779,123	1,511,274	4,807,651	1,556,680	4,766,987
Eligible DVA patient	62,300	361,701	93,152	535,971	109,231	600,227	134,622	714,365	158,278	794,251
Eligible other patient	42,870	124,677	77,720	270,040	71,139	248,251	76,932	251,857	73,817	217,473
Ineligible patient	1,879	7,260	2,925	11,564	2,723	7,431	4,921	13,089	5,527	14,101
Not reported	217,575	857,574	1,036	8,580	18,652	29,488	21,664	42,702	26,667	49,595
Total	*1,460,289*	*5,406,632*	*1,577,474*	*5,892,510*	*1,684,948*	*5,834,098*	*1,792,976*	*6,004,927*	*1,875,358*	*6,044,813*
					All hospitals					
Eligible public patient	2,742,695	12,184,012	3,020,260	13,457,446	3,115,477	13,712,354	3,284,578	13,580,582	3,418,179	13,746,176
Eligible private patient	1,601,968	6,130,439	1,803,573	6,834,058	1,836,373	6,504,744	1,866,555	6,480,659	1,875,540	6,317,470
Eligible DVA patient	177,327	1,147,428	203,213	1,312,559	223,659	1,366,223	243,219	1,389,801	272,991	1,491,923
Eligible other patient	75,859	380,532	123,721	618,259	115,397	566,786	117,779	467,646	115,052	417,421
Ineligible patient	12,474	55,184	14,331	58,420	14,769	62,093	18,686	72,045	20,245	75,011
Not reported	269,943	1,076,083	5,711	166,947	21,240	153,625	32,257	574,623	33,042	271,040
Total separations/patient days	**4,880,266**	**20,973,678**	**5,170,809**	**22,447,689**	**5,326,915**	**22,365,825**	**5,563,074**	**22,565,356**	**5,735,049**	**22,319,041**

Note: Abbreviation: DVA—Department of Veterans' Affairs.

Table 5.6: Separations by compensable status and hospital sector, States and Territories, 1998–99

	NSW	Vic	Qld	WA[(a)]	SA	Tas	ACT	NT[(a)]	Total
Compensable status				**Public hospitals**					
Compensable	13,103	13,119	4,540	4,220	3,599	1,158	670	769	41,178
Non-compensable	1,257,440	956,903	704,173	350,221	352,264	79,186	57,928	53,895	3,812,010
Not reported	2,853	128	0	3,128	0	173	0	221	6,503
Total	**1,273,396**	**970,150**	**708,713**	**357,569**	**355,863**	**80,517**	**58,598**	**54,885**	**3,859,691**
				Private hospitals					
Compensable	21,822	21,202	9,974	7,137	8,247	1,831	485	n.a.	70,698
Non-compensable	524,200	474,465	401,305	179,860	142,494	39,400	16,405	n.a.	1,778,129
Not reported	20,595	0	0	0	0	5,936	0	n.a.	26,531
Total	**566,617**	**495,667**	**411,279**	**186,997**	**150,741**	**47,167**	**16,890**	**n.a.**	**1,875,358**
				All hospitals					
Compensable	34,925	34,321	14,514	11,357	11,846	2,989	1,155	769	111,876
Non-compensable	1,781,640	1,431,368	1,105,478	530,081	494,758	118,586	74,333	53,895	5,590,139
Not reported	23,448	128	0	3,128	0	6,109	0	221	33,034
Total separations	**1,840,013**	**1,465,817**	**1,119,992**	**544,566**	**506,604**	**127,684**	**75,488**	**54,885**	**5,735,049**

(a) Compensable status data were not available for public psychiatric hospitals so separations for those hospitals were included in the *Not reported* category.

n.a. not available.

Table 5.7: Separations by State or Territory of usual residence and hospital sector, States and Territories, 1998–99

State or Territory of usual residence	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
					Public hospitals				
New South Wales	1,253,971	14,468	10,017	406	1,915	158	14,085	301	1,295,321
Victoria	6,048	949,967	1,664	392	2,188	213	162	251	960,885
Queensland	7,109	853	691,816	248	314	113	104	252	700,809
Western Australia	420	392	293	354,910	256	28	25	964	357,288
South Australia	605	1,081	405	178	348,556	93	44	1,736	352,698
Tasmania	220	1,006	169	51	73	79,827	11	28	81,385
Australian Capital Territory	2,281	140	169	32	29	14	43,952	26	46,643
Northern Territory	175	232	338	169	1,927	40	1	51,014	53,896
Other territories[(a)]	88	1	28	99	0	0	0	0	216
Not elsewhere classified[(b)]	2,479	1,199	3,096	1,084	605	31	0	313	8,807
Not reported	0	811	718	0	0	0	214	0	1,743
Total	**1,273,396**	**970,150**	**708,713**	**357,569**	**355,863**	**80,517**	**58,598**	**54,885**	**3,859,691**
					Private hospitals				
New South Wales	556,481	4,075	13,363	104	1,042	45	3,911	n.a.	579,021
Victoria	4,799	489,679	944	93	714	72	16	n.a.	496,317
Queensland	2,747	486	394,864	92	117	16	12	n.a.	398,334
Western Australia	156	119	155	186,341	106	11	7	n.a.	186,895
South Australia	158	373	153	36	147,998	10	3	n.a.	148,731
Tasmania	104	524	117	17	36	46,922	0	n.a.	47,720
Australian Capital Territory	1,356	113	71	10	21	1	6,615	n.a.	8,187
Northern Territory	124	118	335	52	606	2	4	n.a.	1,241
Other territories[(a)]	34	1	57	28	0	0	6	n.a.	126
Not elsewhere classified[(b)]	658	169	994	224	101	88	0	n.a.	2,234
Not reported	0	10	226	0	0	0	6,316	n.a.	6,552
Total	**566,617**	**495,667**	**411,279**	**186,997**	**150,741**	**47,167**	**16,890**	**n.a.**	**1,875,358**

(a) Includes Cocos (Keeling) Islands, Christmas Island, Jervis Bay Territory.

(b) Includes resident overseas, at sea, no fixed address.

n.a. not available.

Table 5.8: Separation rates[(a)] per 1,000 population by State or Territory of usual residence and hospital sector, States and Territories, 1998–99

State or Territory of usual residence	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
					Public hospitals				
New South Wales	189.1	2.2	1.5	0.1	0.3	0.0	2.1	0.0	195.4
Victoria	1.2	195.2	0.3	0.1	0.5	0.0	0.0	0.1	197.4
Queensland	2.0	0.2	197.9	0.1	0.1	0.0	0.0	0.1	200.5
Western Australia	0.2	0.2	0.2	194.6	0.1	0.0	0.0	0.5	195.9
South Australia	0.4	0.7	0.3	0.1	221.8	0.1	0.0	1.2	224.6
Tasmania	0.5	2.1	0.3	0.1	0.2	163.8	0.0	0.1	167.1
Australian Capital Territory	7.6	0.5	0.6	0.1	0.1	0.0	153.8	0.1	162.8
Northern Territory	1.1	1.2	2.0	1.0	12.7	0.3	0.0	319.0	337.4
Other territories[(b)]	34.6	16.3	28.7	31.2	0.0	0.0	6.2	0.0	117.0
					Private hospitals				
New South Wales	81.7	5.1	1.9	0.0	0.2	0.0	0.6	n.a.	85.0
Victoria	1.0	97.5	0.2	0.0	0.1	0.0	0.0	n.a.	98.9
Queensland	0.8	0.1	109.8	0.0	0.0	0.0	0.0	n.a.	110.8
Western Australia	0.1	0.1	0.1	100.4	0.1	0.0	0.0	n.a.	100.7
South Australia	0.1	0.2	0.1	0.0	88.7	0.0	0.0	n.a.	89.1
Tasmania	0.2	1.0	0.2	0.0	0.1	92.9	0.0	n.a.	94.5
Australian Capital Territory	4.5	0.4	0.3	0.0	0.1	0.0	23.0	n.a.	28.3
Northern Territory	0.9	0.7	2.0	0.3	3.5	0.0	0.0	n.a.	7.5
Other territories[(b)]	14.2	0.3	50.1	8.0	0.0	0.0	4.5	n.a.	76.9
					All hospitals				
New South Wales	270.9	7.3	3.4	0.1	0.4	0.0	2.7	0.0	281.0
Victoria	2.2	292.7	0.5	0.1	0.6	0.1	0.0	0.1	297.0
Queensland	2.8	0.4	307.7	0.1	0.1	0.0	0.0	0.1	312.0
Western Australia	0.3	0.3	0.2	295.0	0.2	0.0	0.0	0.5	297.3
South Australia	0.5	1.0	0.3	0.1	310.5	0.1	0.0	1.2	314.3
Tasmania	0.7	3.2	0.6	0.1	0.2	256.7	0.0	0.1	262.3
Australian Capital Territory	12.1	0.9	0.8	0.1	0.2	0.1	176.8	0.1	191.3
Northern Territory	2.0	1.9	4.0	1.4	16.2	0.3	0.0	319.0	344.9
Other territories[(b)]	48.7	16.6	78.7	39.2	0.0	0.0	10.7	0.0	158.6

(a) The rates were directly age-standandised to the Australian population at 30 June 1991. For details see Appendix 3.

(b) Includes Cocos (Keeling) Islands, Christmas Island, Jervis Bay Territory.

n.a. not available.

Table 5.9: Per cent of separations by State or Territory of usual residence and hospital sector, States and Territories, 1998–99

State or Territory of usual residence	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
					Public hospitals				
New South Wales	98.5	1.5	1.4	0.1	0.5	0.2	24.0	0.5	33.6
Victoria	0.5	97.9	0.2	0.1	0.6	0.3	0.3	0.5	24.9
Queensland	0.6	0.1	97.6	0.1	0.1	0.1	0.2	0.5	18.2
Western Australia	<0.1	<0.1	<0.1	99.3	0.1	<0.1	<0.1	1.8	9.3
South Australia	<0.1	0.1	0.1	<0.1	97.9	0.1	0.1	3.2	9.1
Tasmania	<0.1	0.1	<0.1	<0.1	<0.1	99.1	<0.1	0.1	2.1
Australian Capital Territory	0.2	<0.1	<0.1	<0.1	<0.1	<0.1	75.0	<0.1	1.2
Northern Territory	<0.1	<0.1	<0.1	<0.1	0.5	<0.1	<0.1	92.9	1.4
Other territories[(a)]	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Not elsewhere classified[(b)]	0.2	0.1	0.4	0.3	0.2	<0.1	<0.1	0.6	0.2
Not reported	<0.1	0.1	0.1	<0.1	<0.1	<0.1	0.4	<0.1	<0.1
Total	**99.9**	**99.9**	**99.9**	**99.9**	**100.0**	**99.9**	**99.9**	**100.0**	**99.9**
					Private hospitals				
New South Wales	98.2	0.8	3.2	0.1	0.7	0.1	23.2	n.a.	30.9
Victoria	0.8	98.8	0.2	<0.1	0.5	0.2	0.1	n.a.	26.5
Queensland	0.5	0.1	96.0	<0.1	0.1	<0.1	0.1	n.a.	21.2
Western Australia	<0.1	<0.1	<0.1	99.6	0.1	<0.1	<0.1	n.a.	10.0
South Australia	<0.1	0.1	<0.1	<0.1	98.2	<0.1	<0.1	n.a.	7.9
Tasmania	<0.1	0.1	<0.1	<0.1	<0.1	99.5	<0.1	n.a.	2.5
Australian Capital Territory	0.2	<0.1	<0.1	<0.1	<0.1	<0.1	39.2	n.a.	0.4
Northern Territory	<0.1	<0.1	0.1	<0.1	0.4	<0.1	<0.1	n.a.	0.1
Other territories[(a)]	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	n.a.	<0.1
Not elsewhere classified[(b)]	0.1	<0.1	0.2	0.1	0.1	0.2	<0.1	n.a.	0.1
Not reported	<0.1	<0.1	0.1	<0.1	<0.1	<0.1	37.4	n.a.	0.3
Total	**99.9**	**100.0**	**99.9**	**99.8**	**100.0**	**100.0**	**99.9**	**n.a.**	**100.0**

(a) Includes Cocos (Keeling) Islands, Christmas Island, Jervis Bay Territory.

(b) Includes resident overseas, at sea, no fixed address.

n.a. not available.

Table 5.10: Average cost weight of separations[(a)] by State or Territory of usual residence and hospital sector, States and Territories, 1998–99

State or Territory of usual residence	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
					Public hospitals				
New South Wales	1.02	1.04	1.39	0.92	1.54	1.28	1.19	1.13	1.03
Victoria	0.98	0.99	1.05	1.08	1.28	1.00	1.91	0.80	0.99
Queensland	1.02	1.14	0.97	1.10	1.33	0.81	1.40	0.94	0.97
Western Australia	1.05	2.73	1.25	0.96	1.20	0.70	1.64	0.74	0.96
South Australia	1.44	1.83	1.08	1.33	0.99	0.57	0.93	0.74	0.99
Tasmania	1.43	2.52	1.09	1.17	1.26	1.01	1.66	1.84	1.04
Australian Capital Territory	1.49	1.46	1.20	0.66	1.27	0.41	0.92	0.99	0.95
Northern Territory	1.40	1.79	1.25	1.14	2.13	2.29	0.92	0.78	0.84
Other territories[(b)]	0.92	1.20	1.30	0.76	. .	. .	. .	. .	0.90
Not elsewhere classified[(c)]	. .	1.46	1.20	. .	. .	. .	1.41	. .	1.35
Not reported	1.40	1.36	1.40	1.25	1.32	1.87	. .	. .	1.32
Total	**1.03**	**1.00**	**0.98**	**0.96**	**1.00**	**1.01**	**0.99**	**0.78**	**1.00**
					Private hospitals				
New South Wales	0.88	1.20	1.06	1.22	1.27	1.41	1.04	n.a.	0.89
Victoria	0.80	0.92	1.02	1.15	1.19	1.24	1.25	n.a.	0.92
Queensland	0.74	1.05	0.91	0.97	1.05	1.06	1.12	n.a.	0.91
Western Australia	1.48	1.15	1.28	0.89	0.97	1.18	1.19	n.a.	0.89
South Australia	1.71	1.15	1.07	1.08	0.98	0.96	0.51	n.a.	0.98
Tasmania	1.21	1.44	1.19	1.24	1.63	0.95	. .	n.a.	0.96
Australian Capital Territory	1.33	1.10	1.26	0.57	1.05	0.87	1.03	n.a.	1.08
Northern Territory	1.02	1.03	1.05	1.08	1.36	0.49	0.60	n.a.	1.19
Other territories[(b)]	0.81	3.33	1.15	0.83	. .	. .	0.99	n.a.	1.00
Not elsewhere classified[(c)]	. .	1.24	0.93	. .	. .	. .	1.10	n.a.	1.09
Not reported	1.36	1.41	0.99	0.89	0.92	1.32	. .	n.a.	1.13
Total	**0.88**	**0.93**	**0.92**	**0.89**	**0.98**	**0.95**	**1.06**	**n.a.**	**0.91**

(a) Separations for which the type of episode of care was reported as acute, or as newborn with qualified patient days, or was not reported. For further details see Chapter 10.
(b) Includes Cocos (Keeling) Islands, Christmas Island, Jervis Bay Territory.
(c) Includes resident overseas, at sea, no fixed address.

n.a. not available.
. . not applicable.

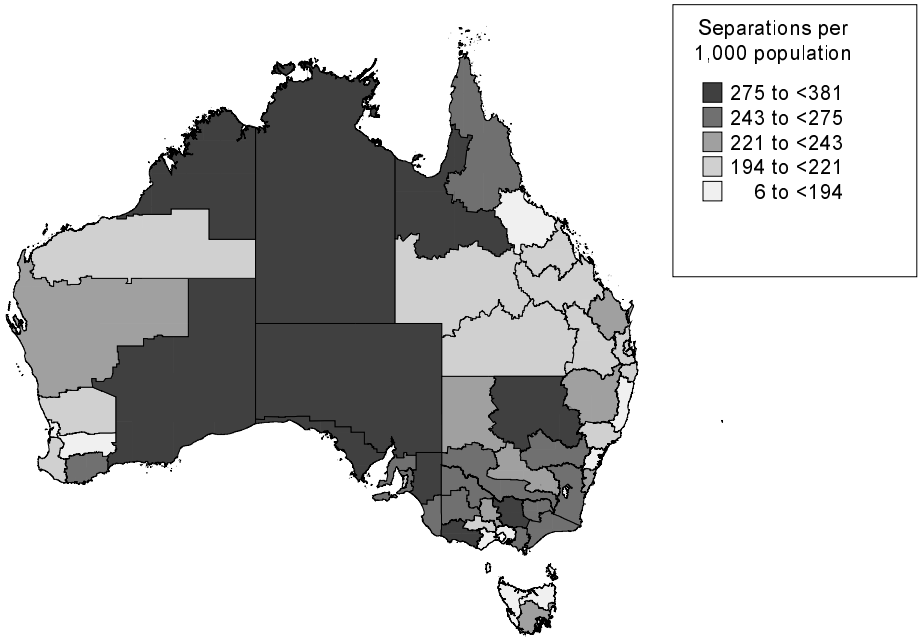

Figure 5.1: Separations per 1,000 population, by Statistical Division of usual residence, public hospitals, Australia, 1998-99

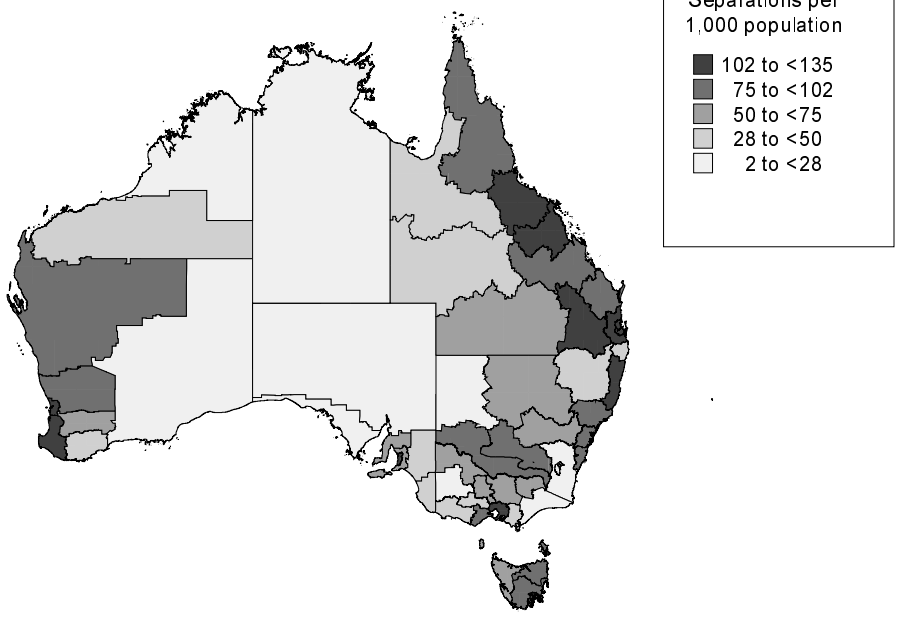

Figure 5.2: Separations per 1,000 population, by Statistical Division of usual residence, private hospitals, Australia, 1998-99

Table 5.11: Separations by type of episode of care and hospital sector, States and Territories, 1998–99

Type of episode of care	NSW	Vic	Qld	WA[(a)]	SA	Tas	ACT	NT[(b)]	Total
					Public hospitals				
Acute care	1,215,067	930,916	672,880	347,203	344,631	77,854	56,759	53,258	3,698,568
Rehabilitation care—not further specified	25,953	18,776	0	0	3,225	0	0	204	48,158
Rehabilitation care—delivered in a designated unit	n.a.	n.a.	15,033	3	n.a.	0	195	n.a.	15,231
Rehabilitation care—according to a designed program	n.a.	n.a.	4,612	1	n.a.	650	0	n.a.	5,263
Rehabilitation care—principal clinical intent	n.a.	n.a.	1,442	3,112	n.a.	0	0	n.a.	4,554
Rehabilitation total	*25,953*	*18,776*	*21,087*	*3,116*	*3,225*	*650*	*195*	*204*	*73,206*
Palliative care, not further specified	7,727	3,225	2,486	450	966	399	241	50	15,544
Non-acute care	8,165	6,554	4,772	1,278	909	630	218	251	22,777
Newborn—qualified days only	9,142	7,668	4,690	2,392	2,248	836	772	980	28,728
Newborn—qualified and unqualified days	5,241	3,011	2,289	0	1,649	0	0	0	12,190
Newborn—unqualified days only	57,678	38,584	30,378	16,184	11,261	111	3,001	2,554	159,751
Newborn total	*72,061*	*49,263*	*37,357*	*18,576*	*15,158*	*947*	*3,773*	*3,534*	*200,669*
Other care	2,101	0	509	2	2,235	139	413	25	5,424
Not reported	0	0	0	3,128	0	9	0	117	3,254
Total	**1,331,074**	**1,008,734**	**739,091**	**373,753**	**367,124**	**80,628**	**61,599**	**57,439**	**4,019,442**
					Private hospitals				
Acute care	537,881	485,676	400,723	183,172	147,337	1,120	15,647	n.a.	1,771,556
Rehabilitation care—not further specified	13,581	7,031	0	0	779	n.a.	n.a.	n.a.	21,391
Rehabilitation care—delivered in a designated unit	n.a.	n.a.	3,810	969	n.a.	n.a.	n.a.	n.a.	4,779
Rehabilitation care—according to a designed program	n.a.	n.a.	641	34	n.a.	n.a.	n.a.	n.a.	675
Rehabilitation care—principal clinical intent	n.a.	n.a.	1,549	61	n.a.	n.a.	n.a.	n.a.	1,610
Rehabilitation total	*13,581*	*7,031*	*6,000*	*1,064*	*779*	*n.a.*	*n.a.*	*n.a.*	28,455
Palliative care, not further specified	527	0	1,152	1,322	329	n.a.	0	n.a.	3,330
Non-acute care	1,271	104	631	157	1,813	n.a.	37	n.a.	4,013
Newborn—qualified days only	2,913	2,856	907	1,282	481	n.a.	1,203	n.a.	9,642
Newborn—qualified and unqualified days	206	0	554	0	0	n.a.	0	n.a.	760
Newborn—unqualified days only	15,243	33	10,032	6,860	153	n.a.	n.a.	n.a.	32,321
Newborn total	*18,362*	*2,889*	*11,493*	*8,142*	*634*	*0*	*1,203*	n.a.	42,723
Other care	10,238	0	1,312	0	2	1	3	n.a.	11,556
Not reported	0	0	0	0	0	46,046	0	n.a.	46,046
Total	**581,860**	**495,700**	**421,311**	**193,857**	**150,894**	**47,167**	**16,890**	**n.a.**	**1,907,679**

(a) Type of episode of care data were not available for public psychiatric hospitals so separations for these hospitals were included in the *Not reported* category.

(b) For the Northern Territory, psychiatric care has been included in *Acute care.* However, the Northern Territory has advised that not all separations in this category were acute.

n.a. not available.

Table 5.12: Average length of stay (days) by type of episode of care and hospital sector, States and Territories, 1998–99

Type of episode of care	NSW	Vic	Qld	WA[(a)]	SA	Tas	ACT	NT[(b)]	Total
				Public hospitals					
Acute care	3.9	3.3	3.3	3.2	3.3	3.8	3.4	3.2	3.5
Rehabilitation care—not further specified	16.1	17.0	. .	. .	27.9	. .	. .	20.2	17.2
Rehabilitation care—delivered in a designated unit	n.a.	n.a.	6.3	24.0	n.a.	. .	26.1	. .	6.5
Rehabilitation care—according to a designed program	n.a.	n.a.	1.9	40.0	n.a.	23.0	. .	. .	4.5
Rehabilitation care—principal clinical intent	n.a.	n.a.	15.5	25.5	n.a.	. .	. .	. .	22.3
Rehabilitation total	*16.1*	*17.0*	*5.9*	*25.5*	*27.9*	*23.0*	*26.1*	*20.2*	*14.4*
Palliative care, not further specified	12.4	16.5	10.3	11.7	11.8	10.4	16.9	4.0	12.8
Non-acute care	64.0	32.8	116.7	28.2	168.6	66.8	14.1	21.7	67.3
Newborn—qualified days only	10.6	10.7	12.5	11.7	13.0	10.9	11.2	8.8	11.3
Newborn—qualified and unqualified days (qualified days)	3.3	3.2	2.5	. .	2.4	. .	. .	. .	3.0
Newborn—qualified and unqualified days (unqualified days)	2.5	2.8	2.5	. .	2.6	. .	. .	. .	2.6
Newborn—unqualified days only	3.1	3.3	2.8	3.4	3.2	3.4	3.1	3.4	3.1
Newborn total	*4.2*	*4.6*	*4.1*	*4.5*	*4.8*	*10.0*	*4.8*	*4.9*	*4.4*
Other care	15.5	. .	149.9	3.0	5.0	140.8	11.6	4.1	26.7
Not reported	. .	. .	. .	42.8	. .	8.7	. .	4.1	41.3
Total[(c)]	**4.6**	**3.8**	**4.3**	**3.9**	**4.1**	**4.8**	**3.7**	**3.5**	**4.2**
				Private hospitals					
Acute care	2.7	3.0	3.1	2.9	3.1	1.0	3.8	n.a.	3.0
Rehabilitation care—not further specified	9.7	18.9	. .	. .	17.4	n.a.	n.a.	n.a.	13.0
Rehabilitation care—delivered in a designated unit	n.a.	n.a.	7.8	22.3	n.a.	n.a.	n.a.	n.a.	10.7
Rehabilitation care—according to a designed program	n.a.	n.a.	9.3	8.3	n.a.	n.a.	n.a.	n.a.	9.3
Rehabilitation care—principal clinical intent	n.a.	n.a.	7.3	15.6	n.a.	n.a.	n.a.	n.a.	7.6
Rehabilitation total	*9.7*	*18.9*	*7.8*	*21.4*	*17.4*	*n.a.*	*n.a.*	*n.a.*	*12.2*
Palliative care, not further specified	15.7	. .	11.4	11.5	14.4	n.a.	. .	n.a.	12.4
Non-acute care	5.4	205.9	115.2	16.2	20.4	n.a.	11.7	n.a.	35.1
Newborn—qualified days only	6.8	5.5	11.8	8.0	6.4	n.a.	5.7	n.a.	6.6
Newborn—qualified and unqualified days (qualified days)	6.8	. .	2.9	. .	. .	n.a.	. .	n.a.	4.0
Newborn—qualified and unqualified days (unqualified days)	3.0	. .	4.0	. .	. .	n.a.	. .	n.a.	3.7
Newborn—unqualified days only	4.9	5.6	5.1	5.0	4.8	n.a.	n.a.	n.a.	5.0
Newborn total	*5.3*	*5.5*	*5.8*	*5.4*	*6.0*	*n.a.*	*5.7*	*n.a.*	*5.5*
Other care	5.6	. .	1.2	. .	4.0	1.0	8.3	n.a.	5.1
Not reported	. .	. .	. .	. .	. .	3.5	. .	n.a.	3.5
Total[(c)]	**2.9**	**3.3**	**3.4**	**3.1**	**3.4**	**3.4**	**4.0**	**n.a.**	**3.2**

(a) Type of episode of care data were not available for public psychiatric hospitals so separations for these hospitals were included in the *Not reported* category.

(b) For the Northern Territory, psychiatric care has been included in *Acute care.* However, the Northern Territory has advised that not all separations in this category were acute.

(c) Excluding newborn episodes with unqualified days only.

n.a. not available.

. . not applicable.

Table 5.13: Separations by source of referral and hospital sector, States and Territories, 1998–99

Source of referral	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
					Public acute hospitals				
Admitted patient transferred from another hospital	57,365	35,863	22,496	9,709	13,026	2,057	13,648	719	154,883
Statistical admission: type change	13,054	7,165	7,423	0	4,139	986	206	450	33,423
Statistical admission from leave	0	0	0	0	230	0	0	0	230
Other[(a)]	1,190,215	925,965	677,308	344,732	328,944	76,942	43,900	53,716	3,641,722
Not reported	2,527	0	0	0	5,786	0	844	0	9,157
Total	**1,263,161**	**968,993**	**707,227**	**354,441**	**352,125**	**79,985**	**58,598**	**54,885**	**3,839,415**
					Public psychiatric hospitals				
Private psychiatric practice	494	0	14	36	2,892	1	. .	. .	3,437
Other private medical practice	627	122	45	0	28	35	. .	. .	857
Other public psychiatric hospital	0	92	42	175	0	81	. .	. .	390
Other health care establishment	3,837	263	709	1,644	162	42	. .	. .	6,657
Other private hospital	0	7	10	109	6	1	. .	. .	133
Law enforcement agency	979	138	101	212	0	3	. .	. .	1,433
Other agency	733	24	81	121	318	2	. .	. .	1,279
Outpatient department	629	0	133	0	124	349	. .	. .	1,235
Other	2,840	510	351	692	208	18	. .	. .	4,619
Not reported	96	1	0	139	0	0	. .	. .	236
Total	**10,235**	**1,157**	**1,486**	**3,128**	**3,738**	**532**	. .	. .	**20,276**
					Private hospitals				
Admitted patient transferred from another hospital	16,135	16,925	7,675	2,073	6,570	47	869	n.a.	50,294
Statistical admission: type change	2,421	619	1,084	0	86	333	0	n.a.	4,543
Statistical admission from leave	0	0	0	0	81	0	0	n.a.	81
Other[(a)]	546,070	478,123	402,520	184,924	143,958	46,787	15,745	n.a.	1,818,127
Not reported	1,991	0	0	0	46	0	276	n.a.	2,313
Total	**566,617**	**495,667**	**411,279**	**186,997**	**150,741**	**47,167**	**16,890**	**n.a.**	**1,875,358**

(a) Other refers to all planned and unplanned admissions except transfers from other hospitals and statistical admissions.

n.a. not available.

. . not applicable.

Table 5.14: Separations by mode of separation and hospital sector, States and Territories, 1998–99

Mode of separation	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
					Public hospitals				
Discharge/transfer to an(other) acute hospital	66,645	46,751	28,049	13,301	15,620	877	1,668	1,665	174,576
Discharge/transfer to a nursing home	14,389	7,512	4,971	1,917	6,265	857	588	149	36,648
Discharge/transfer to an(other) psychiatric hospital	2,228	194	519	1,296	1,065	0	8	0	5,310
Discharge/transfer to other health care accommodation[(a)]	2,584	224	1,726	943	1,189	1,006	309	0	7,981
Statistical discharge: type change	10,051	3,549	5,421	3,155	1,909	428	116	1,321	25,950
Left against medical advice/discharge at own risk	13,506	7,514	7,549	687	3,442	1,465	139	701	35,003
Statistical discharge from leave	3,682	17	499	2,322	532	0	0	1	7,053
Died	21,643	13,321	8,862	3,501	4,724	873	673	336	53,933
Other[(b)]	1,138,668	891,068	651,117	330,447	320,933	75,011	55,097	49,131	3,511,472
Not reported	0	0	0	0	184	0	0	1,581	1,765
Total	**1,273,396**	**970,150**	**708,713**	**357,569**	**355,863**	**80,517**	**58,598**	**54,885**	**3,859,691**
					Private hospitals				
Discharge/transfer to an(other) acute hospital	9,352	11,939	6,871	2,021	4,134	40	272	n.a.	34,629
Discharge/transfer to a nursing home	1,284	1,656	1,459	332	2,145	1	23	n.a.	6,900
Discharge/transfer to an(other) psychiatric hospital	107	0	8	60	184	0	0	n.a.	359
Discharge/transfer to other health care accommodation[(a)]	241	6	807	111	50	3	12	n.a.	1,230
Statistical discharge: type change	1,959	511	1,085	872	89	226	0	n.a.	4,742
Left against medical advice/discharge at own risk	647	201	117	197	22	203	5	n.a.	1,392
Statistical discharge from leave	172	0	7	48	2	0	0	n.a.	229
Died	2,500	3,571	3,660	1,522	1,352	56	72	n.a.	12,733
Other[(b)]	550,355	477,783	397,265	181,834	140,776	46,638	16,506	n.a.	1,811,157
Not reported	0	0	0	0	1,987	0	0	n.a.	1,987
Total	**566,617**	**495,667**	**411,279**	**186,997**	**150,741**	**47,167**	**16,890**	**n.a.**	**1,875,358**

(a) Includes mothercraft hospitals and hostels recognised by the Commonwealth Department of Health and Aged Care, unless this is the usual place of residence.

(b) Includes discharge to usual residence/own accommodation/welfare institution (including prisons, hostels and group homes providing primarily welfare services).

n.a. not available.

Table 5.15: Separations for patients over 70 years by type of episode of care and mode of separation, all hospitals, Australia, 1998–99

Type of episode of care	Discharge/ transfer to an(other) acute hospital	Discharge/ transfer to an aged care facility	Discharge/ transfer to an(other) psychiatric hospital	Discharge/ transfer to other health care accommo-dation[a]	Statistical discharge: type change	Left against medical advice/ discharge at own risk	Statistical discharge from leave	Died	Other[b]	Not reported	Total
Acute care	78,989	29,904	741	3,067	21,619	1,618	573	38,056	1,119,900	162	1,294,629
Rehabilitation care—not further specified	2,942	2,242	3	255	2,340	115	210	372	31,825	3	40,307
Rehabilitation care—delivered in a designated unit	141	290	6	111	625	9	2	83	8,069	0	9,336
Rehabilitation care—according to a designed program	12	61	1	6	114	20	0	12	1,456	0	1,682
Rehabilitation care—principal clinical intent	453	359	18	137	313	6	33	91	2,431	0	3,841
Rehabilitation total	*3,548*	*2,952*	*28*	*509*	*3,392*	*150*	*245*	*558*	*43,781*	*3*	*55,166*
Palliative care—not further specified	318	278	1	23	109	9	80	4,239	2,435	0	7,492
Palliative care—delivered in a designated unit	35	51	0	19	58	2	2	775	914	0	1,856
Palliative care—according to a designated program	1	2	0	0	1	0	0	42	20	0	66
Palliative care—principal clinical intent	42	45	0	5	48	0	1	626	226	0	993
Palliative care total	*396*	*376*	*1*	*47*	*216*	*11*	*83*	*5,682*	*3,595*	*0*	*10,407*
Non-acute care	1,662	5,029	9	294	1,887	81	145	1,670	8,213	224	19,213
Other care	66	64	2	19	279	2	3	38	2,174	1	2,648
Not reported	37	138	32	3	157	89	181	72	11,666	0	12,375
Total	**84,698**	**38,463**	**813**	**3,939**	**27,550**	**1,951**	**1,230**	**46,076**	**1,189,329**	**390**	**1,394,439**

(a) Includes mothercraft hospitals and hostels recognised by the Commonwealth Department of Health and Aged Care, unless this is the usual place of residence.

(b) Includes discharge to usual residence/own accommodation/welfare institution (including prisons, hostels and group homes providing primarily welfare services).

Table 5.16: Separations by inter-hospital contracted patient status and hospital sector, States and Territories, 1998–99

	NSW[(a)]	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Inter-hospital contracted patient status					**Public hospitals**				
Inter-hospital same day contracted	1,676	572	68	336	0	0	0	0	2,652
Other	1,271,720	968,421	708,645	224	0	0	58,598	0	3,007,608
Not reported	0	1,157	0	357,009	355,863	80,517	0	54,885	849,431
Total	*1,273,396*	*970,150*	*708,713*	*357,569*	*355,863*	*80,517*	*58,598*	*54,885*	*3,859,691*
					Private hospitals				
Inter-hospital same day contracted	7,789	1,471	2,160	3,031	0	0	0	n.a.	14,451
Other	558,828	494,196	409,119	0	0	0	16,890	n.a.	1,479,033
Not reported	0	0	0	183,966	150,741	47,167	0	n.a.	381,874
Total	*566,617*	*495,667*	*411,279*	*186,997*	*150,741*	*47,167*	*16,890*	*n.a.*	*1,875,358*
					All hospitals				
Inter-hospital same day contracted	9,465	2,043	2,228	3,367	0	0	0	0	17,103
Other	1,830,548	1,462,617	1,117,764	224	0	0	75,488	0	4,486,641
Not reported	0	1,157	0	540,975	506,604	127,684	0	54,885	1,231,305
Total separations	**1,840,013**	**1,465,817**	**1,119,992**	**544,566**	**506,604**	**127,684**	**75,488**	**54,885**	**5,735,049**

(a) 782 separations for inter-hospital contracted care were non-same day separations, 578 in public hospitals and 204 in private hospitals.

n.a. not available.

6 Demographic profile for admitted patients

Introduction

This chapter presents a demographic profile of admitted patients who separated from hospital during 1998–99.

Data on the sex of each patient was reported to the National Hospital Morbidity Database as male, female, indeterminate or not stated/inadequately described. The nine separations for patients who were not reported as male or female are included in totals for persons in the tables in this chapter.

Most States and Territories supplied the date of birth of the patient for the database, in which case the Institute calculated the age of the patient by subtracting the date of birth from the date of admission. The exceptions were Victoria and Queensland, which supplied the age in years or days for each patient.

The data on Aboriginal and Torres Strait Islander status were supplied by most data providers, categorised as:

- Aboriginal but not Torres Strait Islander origin
- Torres Strait Islander but not Aboriginal origin
- Aboriginal and Torres Strait Islander origin
- not Aboriginal or Torres Strait Islander origin
- not stated.

The additional category *Aboriginal or Torres Strait Islander origin, not further specified* was created by the Institute (Table 6.7) to cater for definitional variations between jurisdictions, including the use of the superseded version of this data element. Victoria provided data for this category until 31 December 1998 and for the more specific categories from 1 January 1999.

All States and Territories supplied country of birth details coded to the Australian Bureau of Statistics' Australian Standard Classification of Countries for Social Statistics.

All the rates in this chapter were derived using 30 June population estimates for both Aboriginal and Torres Strait Islander and non-Aboriginal and Torres Strait Islander groups because 31 December (mid-year) estimates were not available for the Aboriginal and Torres Strait Islander and overseas-born populations; this includes age-standardised rates calculated for separations for Aboriginal and Torres Strait Islander persons and non-Aboriginal and Torres Strait Islander persons (Table 6.7) and by country of birth (Table 6.8). Thus, while standardised rates within this chapter can be directly compared, there will be small discrepancies between them and standardised rates reported in Chapter 4 and Chapter 5, which were based on 31 December 1998 estimates (see Appendix 8 for details).

Sex

There were more separations for females than males in the child-bearing age groups (15 to 44 years), and also in the 75 years and over age groups (Table 6.1). Females accounted for higher proportions of separations than males, 53% of total separations in public hospitals

(2,051,239) (Table 6.2) and 56% in private hospitals (1,043,365) (Table 6.3). Separations per 1,000 population were higher for females than males in age groups from 15 to 54 years for both hospital sectors; however, this was reversed in the age groups over 65 years and under 15 years (Figures 6.1 and 6.2).

Females also accounted for more patient days (12,140,153) than males (10,178,664) (Table 6.4). In public hospitals, they accounted for 53% (8,573,188) of patient days, and for more patient days than males in the age groups from 15 to 44 years and in the 75 years and over age groups (Table 6.5). In private hospitals, females accounted for 59% (3,566,965) of patient days, and for more patient days than males in the age groups from 15 to 74 years (Table 6.6). Similar patterns were evident in the number of patient days reported per 1,000 population in the child-bearing age groups (15 to 44 years) in both public and private hospitals (Figures 6.3 and 6.4).

Age

In public hospitals, separations peaked in two age groups. The first was in the 65 to 74 years age group, which was most commonly reported for male patients, and the second was in the 25 to 34 years age group, which was the age group most commonly reported for female patients (Table 6.2). The pattern of separations per 1,000 population peaked in two age groups, the under 1 year age group and the 65 years and over age groups (Figure 6.1). The highest number of patient days for females was reported in the 25 to 34 years age group and in the 65 years and over age groups, and for males in the age groups 65 years and over (Table 6.5). Average length of stay was highest for the under 1 year and the 75 years and over age groups (Figure 6.5).

In private hospitals, separations peaked in the 75 years and over age group, reflecting the most commonly reported age group for both male and female patients (Table 6.3). Patients in the 75 years and over age group accounted for the most patient days (Table 6.6), and had the highest number of separations per 1,000 population (Figure 6.2). As for public hospitals, the average length of stay was longest for the very young (under 1 year) and for the older patients (75 years and over) (Figure 6.6).

In both sectors combined the population in the age groups 65 years and over accounted for a high proportion of admitted patient activity. This population (2,281748), which comprised 12% of the total Australian population, accounted for 1.8 million separations (32%) and 10.4 million patient days (46%). There were 796 separations per 1,000 population for this age group compared with an overall rate of 294.5 per 1,000 for the total population. The average length of stay for these patients was 5.7 days, compared with 3.9 days for all patients.

Aboriginal and Torres Strait Islander status

Table 6.7 presents the data reported on Aboriginal and Torres Strait Islander status by hospital sector and State and Territory, including age-standardised separation rates. For Aboriginal and Torres Strait Islander patients, the rates were calculated using the Australian Bureau of Statistics experimental projections of the Aboriginal and Torres Strait Islander population for June 1998 (Appendix Table A4.2).

There were 159,296 separations for patients reported as Aboriginal or Torres Strait Islander, mainly in New South Wales, Queensland, Western Australia and the Northern Territory. Overall, on an age-standardised basis, there were 562 separations for Aboriginal and Torres Strait Islander patients reported per 1,000 Aboriginal and Torres Strait Islander population for Australia. This was markedly higher than the corresponding figure for the overall population of 296 per 1,000.

The Northern Territory reported the highest number of Aboriginal and Torres Strait Islander separations per 1,000 Aboriginal and Torres Strait Islander population (887 per 1,000), even though its private hospital was not included. Western Australia and South Australia reported the next highest rates (816 and 691 per 1,000, respectively), ahead of Queensland and Victoria (597 and 361 per 1,000 population, respectively).

Figure 6.7 presents separation rates per 1,000 population by reported Aboriginal and Torres Strait Islander status and age group and sex. Aboriginal and Torres Strait Islander status categories included as 'Aboriginal and Torres Strait Islander' were *Aboriginal but not Torres Strait Islander origin, Torres Strait Islander but not Aboriginal origin, Aboriginal and Torres Strait Islander origin,* and *Aboriginal or Torres Strait Islander origin, not further specified.*

The rates for both Aboriginal and Torres Strait Islander males and females were higher than those for other patients in all age groups, and markedly so for patients aged over 34 years. The highest rates overall were recorded for Aboriginal and Torres Strait Islander females in the 55–64 years age group.

Quality of Aboriginal and Torres Strait Islander status data

The variation in the number of Aboriginal and Torres Strait Islander separations per 1,000 Aboriginal and Torres Strait Islander population among the States and Territories suggests that there was variation in the proportion of Aboriginal and Torres Strait Islander persons who were identified as such in the morbidity data collections and/or in the total population.

The quality of the data provided for Aboriginal and Torres Strait Islander status in 1998–99, although better than previous years, is still in need of improvement, being considered acceptable for only the Northern Territory, South Australia and Western Australia. Data on Aboriginal and Torres Strait Islander status in this chapter should therefore be interpreted cautiously.

For 1998–99 the New South Wales Health Department reports that its data were in need of improvement. To address this, the Department issued Better Practice Guidelines to improve the level of Aboriginal and Torres Strait Islander identification and associated with their introduction has implemented a statewide training program.

The Victorian Department of Human Services reports that its 1998–99 data were in need of improvement. The *National Health Data Dictionary* question on Aboriginal and Torres Strait Islander status is asked in all hospitals. Hospitals are encouraged to assess the quality of their data, but are not required to do so.

Queensland Health reports that its 1998–99 data were regarded as being in need of improvement. The Department is conducting a program of audits and is working to improve overall Aboriginal and Torres Strait Islander identification in all mainstream administrative data collections.

The Health Department of Western Australia regards its 1998–99 Aboriginal and Torres Strait Islander status data status data as being of acceptable quality. It is currently undertaking an assessment of the quality, with surveys in rural and metropolitan areas using the methodology developed in 1998 by the Aboriginal and Torres Strait Islander Health and Welfare Information Unit of the Australian Bureau of Statistics and the Australian Institute of Health and Welfare.

The South Australian Department of Human Services regards its 1998–99 Aboriginal and Torres Strait Islander status data as being of acceptable quality. The Department conducts training courses in data collection every year and these reinforce the need to comply with *National Health Data Dictionary* standards for Aboriginal and Torres Strait Islander identification. There is a 30% loading for casemix payments for separations for Aboriginal

and Torres Strait Islander patients and this may act as an incentive for quality data to be collected.

The Tasmanian Department of Human Services reports that its 1998–99 data were in need of improvement. An outposted Australian Bureau of Statistics staff member is working with the Department to improve the data quality throughout the State. The number of patients not responding to the Aboriginal and Torres Strait Islander questions is low.

The Australian Capital Territory Department of Health and Community Care considers that its 1998–99 data were in need of improvement; there is known under-reporting. There is no formal process for assessment of data quality in the Territory; however, a training program for staff is being planned.

The Northern Territory's Territory Health Services reports that the quality of its 1998–99 Aboriginal and Torres Strait Islander status data is considered to be acceptable. Territory Health Services is working to develop data recording rules for situations in which individual patients report different Aboriginal and Torres Strait Islander statuses at different encounters with Territory Health Services.

Country of birth

Australian-born patients accounted for 75% (4,277,392) of total separations, 74% in the public sector and 76% in the private sector (Table 6.8). There was some variation in the proportions of separations in the public and private sectors by country of birth. For Australian-born persons, 66.9% were in the public sector, as were 79.6% for persons born in Greece, 78.8% for persons born in the Middle East and North Africa, 51.9% for persons born in Japan and 53.1% for persons born in the United States of America.

The age-standardised separation rate for Australian-born patients was higher (305.4 per 1,000) than that for the overseas-born population (235.5 per 1,000).

Table 6.1: Separations by age group and sex, all hospitals, States and Territories, 1998–99

Sex	Age group	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Females	Under 1	18,810	14,234	10,103	5,098	4,960	1,113	1,381	1,288	56,987
	1–4	25,631	14,952	15,167	7,790	6,978	1,378	1,110	1,237	74,243
	5–14	32,032	21,306	20,177	10,649	8,497	2,018	1,450	984	97,113
	15–24	92,156	67,664	60,064	31,056	26,061	6,881	3,501	4,551	291,934
	25–34	167,115	139,657	99,640	52,552	44,968	11,566	7,463	6,190	529,151
	35–44	127,192	106,780	77,002	41,406	34,229	9,137	5,505	4,744	405,995
	45–54	113,615	99,952	76,226	36,695	32,897	9,611	5,394	4,877	379,267
	55–64	110,014	93,542	69,260	32,530	29,763	7,643	5,003	3,669	351,424
	65–74	138,197	111,590	79,335	35,527	37,766	9,031	4,603	1,168	417,217
	75 and over	171,447	130,688	85,543	40,273	47,805	10,798	3,977	733	491,264
	Not reported	8	0	0	0	0	0	0	1	9
	Total	*996,217*	*800,365*	*592,517*	*293,576*	*273,924*	*69,176*	*39,387*	*29,442*	*3,094,604*
Males	Under 1	26,768	20,930	13,739	7,416	7,084	1,526	1,611	1,610	80,684
	1–4	38,101	22,861	21,331	11,256	10,236	1,827	1,574	1,575	108,761
	5–14	45,431	28,401	26,948	13,489	11,336	2,601	1,878	1,333	131,417
	15–24	55,136	40,712	39,359	17,128	14,881	3,601	2,510	1,568	174,895
	25–34	67,919	54,826	45,547	25,554	19,829	5,142	3,374	3,094	225,285
	35–44	85,339	69,085	56,027	29,036	23,711	6,750	4,616	4,830	279,394
	45–54	108,063	84,495	71,103	34,157	30,900	7,652	5,278	4,879	346,527
	55–64	118,769	101,437	80,168	35,510	31,953	8,630	5,668	3,034	385,169
	65–74	156,142	133,284	92,448	41,142	42,521	10,966	5,852	2,648	485,003
	75 and over	142,118	109,397	80,805	36,295	40,226	9,785	3,738	855	423,219
	Not reported	0	5	0	0	0	0	0	3	8
	Total	*843,786*	*665,433*	*527,475*	*250,983*	*232,677*	*58,480*	*36,099*	*25,429*	*2,640,362*
Persons[(a)]	Under 1	45,583	35,181	23,842	12,515	12,044	2,639	2,994	2,898	137,696
	1–4	63,732	37,814	36,498	19,046	17,214	3,205	2,684	2,813	183,006
	5–14	77,463	49,707	47,125	24,138	19,833	4,619	3,328	2,317	228,530
	15–24	147,292	108,376	99,423	48,184	40,942	10,483	6,011	6,126	466,837
	25–34	235,036	194,483	145,187	78,107	64,797	16,709	10,837	9,288	754,444
	35–44	212,533	175,865	133,029	70,444	57,941	15,888	10,121	9,576	685,397
	45–54	221,679	184,448	147,329	70,852	63,797	17,275	10,672	9,756	725,808
	55–64	228,783	194,979	149,428	68,043	61,716	16,273	10,671	6,703	736,596
	65–74	294,339	244,874	171,783	76,669	80,288	20,008	10,455	3,816	902,232
	75 and over	313,565	240,085	166,348	76,568	88,032	20,585	7,715	1,588	914,486
	Not reported	8	5	0	0	0	0	0	4	17
Total separations		**1,840,013**	**1,465,817**	**1,119,992**	**544,566**	**506,604**	**127,684**	**75,488**	**54,885**	**5,735,049**

(a) Includes separations for which sex was not reported as male or female.

Table 6.2: Separations by age group and sex, public hospitals, States and Territories, 1998–99

Sex	Age group	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Females	Under 1	16,873	11,976	8,648	3,792	4,576	872	771	1,288	48,796
	1–4	22,584	12,739	12,292	6,237	5,969	1,106	977	1,237	63,141
	5–14	25,965	16,505	15,718	7,955	6,902	1,374	1,170	984	76,573
	15–24	68,884	50,639	47,035	21,216	21,224	4,835	2,822	4,551	221,206
	25–34	117,467	98,158	67,905	33,880	34,997	7,230	5,583	6,190	371,410
	35–44	79,736	65,774	46,153	25,550	23,418	5,071	3,965	4,744	254,411
	45–54	66,026	56,323	42,353	20,851	18,988	5,334	3,939	4,877	218,691
	55–64	69,032	57,453	38,862	20,145	18,802	4,474	3,959	3,669	216,396
	65–74	92,954	69,392	44,116	23,428	24,726	5,363	3,735	1,168	264,882
	75 and over	122,154	80,897	46,174	26,814	29,768	6,249	2,943	733	315,732
	Not reported	0	0	0	0	0	0	0	1	1
	Total	*681,675*	*519,856*	*369,256*	*189,868*	*189,370*	*41,908*	*29,864*	*29,442*	*2,051,239*
Males	Under 1	23,729	17,442	11,390	5,555	6,519	1,144	968	1,610	68,357
	1–4	33,030	19,554	17,275	8,899	8,857	1,369	1,371	1,575	91,930
	5–14	38,429	23,064	21,619	10,373	9,443	1,836	1,631	1,333	107,728
	15–24	40,899	27,774	29,851	11,555	10,582	2,570	1,920	1,568	126,719
	25–34	49,185	39,083	34,883	18,531	14,808	3,691	2,863	3,094	166,138
	35–44	58,421	45,675	39,229	20,199	17,008	4,520	3,987	4,830	193,869
	45–54	68,139	52,640	43,474	21,193	19,628	4,344	4,206	4,879	218,503
	55–64	77,391	66,606	48,812	23,417	21,699	5,961	4,600	3,034	251,520
	65–74	106,618	90,382	55,070	27,421	29,461	7,223	4,582	2,648	323,405
	75 and over	95,874	68,063	37,854	20,551	28,485	5,923	2,606	855	260,211
	Not reported	0	5	0	0	0	0	0	3	8
	Total	*591,715*	*450,288*	*339,457*	*167,694*	*166,490*	*38,581*	*28,734*	*25,429*	*1,808,388*
Persons[(a)]	Under 1	40,607	29,423	20,038	9,348	11,095	2,016	1,739	2,898	117,164
	1–4	55,614	32,294	29,567	15,136	14,826	2,475	2,348	2,813	155,073
	5–14	64,394	39,569	37,337	18,328	16,345	3,210	2,801	2,317	184,301
	15–24	109,783	78,413	76,886	32,771	31,806	7,406	4,742	6,126	347,933
	25–34	166,653	137,241	102,788	52,412	49,805	10,922	8,446	9,288	537,555
	35–44	138,157	111,449	85,382	45,751	40,427	9,592	7,952	9,576	448,286
	45–54	134,165	108,963	85,827	42,044	38,616	9,690	8,145	9,756	437,206
	55–64	146,423	124,059	87,674	43,565	40,501	10,435	8,559	6,703	467,919
	65–74	199,572	159,774	99,186	50,849	54,188	12,597	8,317	3,816	588,299
	75 and over	218,028	148,960	84,028	47,365	58,254	12,174	5,549	1,588	575,946
	Not reported	0	5	0	0	0	0	0	4	9
Total separations		**1,273,396**	**970,150**	**708,713**	**357,569**	**355,863**	**80,517**	**58,598**	**54,885**	**3,859,691**

(a) Includes separations for which sex was not reported as male or female.

Table 6.3: Separations by age group and sex, private hospitals, States and Territories, 1998–99

Sex	Age group	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Females	Under 1	1,937	2,258	1,455	1,306	384	241	610	n.a.	8,191
	1–4	3,047	2,213	2,875	1,553	1,009	272	133	n.a.	11,102
	5–14	6,067	4,801	4,459	2,694	1,595	644	280	n.a.	20,540
	15–24	23,272	17,025	13,029	9,840	4,837	2,046	679	n.a.	70,728
	25–34	49,648	41,499	31,735	18,672	9,971	4,336	1,880	n.a.	157,741
	35–44	47,456	41,006	30,849	15,856	10,811	4,066	1,540	n.a.	151,584
	45–54	47,589	43,629	33,873	15,844	13,909	4,277	1,455	n.a.	160,576
	55–64	40,982	36,089	30,398	12,385	10,961	3,169	1,044	n.a.	135,028
	65–74	45,243	42,198	35,219	12,099	13,040	3,668	868	n.a.	152,335
	75 and over	49,293	49,791	39,369	13,459	18,037	4,549	1,034	n.a.	175,532
	Total	*314,542*	*280,509*	*223,261*	*103,708*	*84,554*	*27,268*	*9,523*	*n.a.*	*1,043,365*
Males	Under 1	3,039	3,488	2,349	1,861	565	382	643	n.a.	12,327
	1–4	5,071	3,307	4,056	2,357	1,379	458	203	n.a.	16,831
	5–14	7,002	5,337	5,329	3,116	1,893	765	247	n.a.	23,689
	15–24	14,237	12,938	9,508	5,573	4,299	1,031	590	n.a.	48,176
	25–34	18,734	15,743	10,664	7,023	5,021	1,451	511	n.a.	59,147
	35–44	26,918	23,410	16,798	8,837	6,703	2,230	629	n.a.	85,525
	45–54	39,924	31,855	27,629	12,964	11,272	3,308	1,072	n.a.	128,024
	55–64	41,378	34,831	31,356	12,093	10,254	2,669	1,068	n.a.	133,649
	65–74	49,524	42,902	37,378	13,721	13,060	3,743	1,270	n.a.	161,598
	75 and over	46,244	41,334	42,951	15,744	11,741	3,862	1,132	n.a.	163,008
	Total	*252,071*	*215,145*	*188,018*	*83,289*	*66,187*	*19,899*	*7,365*	*n.a.*	*831,974*
Persons[(a)]	Under 1	4,976	5,758	3,804	3,167	949	623	1,255	n.a.	20,532
	1–4	8,118	5,520	6,931	3,910	2,388	730	336	n.a.	27,933
	5–14	13,069	10,138	9,788	5,810	3,488	1,409	527	n.a.	44,229
	15–24	37,509	29,963	22,537	15,413	9,136	3,077	1,269	n.a.	118,904
	25–34	68,383	57,242	42,399	25,695	14,992	5,787	2,391	n.a.	216,889
	35–44	74,376	64,416	47,647	24,693	17,514	6,296	2,169	n.a.	237,111
	45–54	87,514	75,485	61,502	28,808	25,181	7,585	2,527	n.a.	288,602
	55–64	82,360	70,920	61,754	24,478	21,215	5,838	2,112	n.a.	268,677
	65–74	94,767	85,100	72,597	25,820	26,100	7,411	2,138	n.a.	313,933
	75 and over	95,537	91,125	82,320	29,203	29,778	8,411	2,166	n.a.	338,540
Total separations		**566,617**	**495,667**	**411,279**	**186,997**	**150,741**	**47,167**	**16,890**	**n.a.**	**1,875,358**

(a) Includes separations for which sex was not reported as male or female.

n.a. not available.

Table 6.4: Patient days by age group and sex, all hospitals, States and Territories, 1998–99

Sex	Age group	NSW	Vic	Qld	WA	SA	Tas	ACT	NT [(a)]	Total
Females	Under 1	102,719	75,872	57,325	28,161	26,553	7,045	9,053	10,511	317,239
	1–4	51,573	26,173	26,632	15,002	11,878	2,336	2,057	6,575	142,226
	5–14	71,610	44,344	40,706	23,245	16,697	3,996	3,021	3,459	207,078
	15–24	249,212	166,587	171,098	82,738	62,545	17,746	10,490	15,099	775,515
	25–34	517,675	398,926	284,097	163,290	127,716	36,034	25,934	19,304	1,572,976
	35–44	377,975	286,617	210,546	120,754	98,522	27,371	18,328	13,038	1,153,151
	45–54	353,805	266,417	249,234	102,927	97,224	27,561	16,775	10,615	1,124,558
	55–64	371,210	273,154	256,433	99,848	95,474	28,907	16,010	8,984	1,150,020
	65–74	617,553	466,701	337,960	148,857	158,466	50,745	20,767	5,047	1,806,096
	75 and over	1,361,940	1,002,421	677,124	304,505	409,550	99,040	30,983	5,709	3,891,272
	Not reported	17	0	0	0	0	0	0	5	22
	Total	*4,075,289*	*3,007,212*	*2,311,155*	*1,089,327*	*1,104,625*	*300,781*	*153,418*	*98,346*	*12,140,153*
Males	Under 1	128,108	99,418	71,788	38,022	32,082	8,445	10,155	10,827	398,845
	1–4	67,681	38,842	36,877	20,808	17,128	2,806	2,906	6,794	193,842
	5–14	92,145	57,202	50,538	27,367	21,708	5,274	3,643	4,989	262,866
	15–24	208,653	120,077	144,200	56,277	45,537	10,910	8,153	7,785	601,592
	25–34	245,521	158,154	210,917	81,745	58,454	25,387	8,854	10,693	799,725
	35–44	283,551	177,461	179,205	79,012	68,566	16,576	12,831	13,530	830,732
	45–54	372,018	230,480	252,277	104,596	86,239	22,173	14,987	12,913	1,095,683
	55–64	460,245	301,392	293,313	110,178	101,935	35,693	17,504	9,849	1,330,109
	65–74	694,696	498,905	394,008	166,774	175,061	50,430	25,558	10,206	2,015,638
	75 and over	912,208	655,966	503,440	223,179	260,020	64,743	25,058	4,848	2,649,462
	Not reported	0	54	0	0	0	0	0	16	70
	Total	*3,464,826*	*2,337,951*	*2,136,563*	*907,958*	*866,730*	*242,437*	*129,649*	*92,450*	*10,178,564*
Persons[(b)]	Under 1	230,900	175,381	129,113	66,184	58,635	15,490	19,216	21,338	716,257
	1–4	119,254	65,018	63,509	35,810	29,006	5,142	4,963	13,370	336,072
	5–14	163,755	101,546	91,244	50,612	38,405	9,270	6,664	8,448	469,944
	15–24	457,865	286,664	315,298	139,015	108,082	28,657	18,643	22,917	1,377,141
	25–34	763,198	557,080	495,014	245,038	186,170	61,422	34,788	30,003	2,372,713
	35–44	661,528	464,078	389,751	199,772	167,097	43,948	31,159	26,572	1,983,905
	45–54	725,824	496,909	501,511	207,523	183,463	49,746	31,762	23,528	2,220,266
	55–64	831,455	574,546	549,746	210,034	197,409	64,600	33,514	18,833	2,480,137
	65–74	1,312,249	965,606	731,968	315,631	333,547	101,186	46,325	15,253	3,821,765
	75 and over	2,274,148	1,658,387	1,180,564	527,684	669,584	163,784	56,041	10,557	6,540,749
	Not reported	17	54	0	0	0	0	0	21	92
Total patient days		**7,540,193**	**5,345,269**	**4,447,718**	**1,997,303**	**1,971,398**	**543,245**	**283,075**	**190,840**	**22,319,041**

(a) Public hospitals only in the Northern Territory.

(b) Includes patient days for which sex was not reported as male or female.

Table 6.5: Patient days by age group and sex, public hospitals, States and Territories, 1998–99

Sex	Age group	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Females	Under 1	90,817	64,474	48,686	22,072	24,745	5,960	5,525	10,511	272,790
	1–4	46,322	23,567	22,663	12,759	10,772	1,961	1,920	6,575	126,539
	5–14	61,076	36,886	33,958	19,026	14,418	3,116	2,706	3,459	174,645
	15–24	206,079	131,035	143,058	64,029	52,660	13,607	9,078	15,099	634,645
	25–34	380,026	270,825	188,296	105,628	95,040	22,565	18,253	19,304	1,099,937
	35–44	265,762	178,739	132,882	77,678	66,949	15,961	12,436	13,038	763,445
	45–54	243,874	158,381	166,571	63,384	59,090	15,664	11,935	10,615	729,514
	55–64	264,681	175,473	171,514	65,534	60,964	19,235	12,307	8,984	778,692
	65–74	464,154	308,252	208,871	102,078	107,361	34,626	15,968	5,047	1,246,357
	75 and over	1,078,774	670,069	392,176	217,419	289,099	70,608	22,765	5,709	2,746,619
	Not reported	0	0	0	0	0	0	0	5	5
	Total	*3,101,565*	*2,017,701*	*1,508,675*	*749,607*	*781,098*	*203,303*	*112,893*	*98,346*	*8,573,188*
Males	Under 1	113,073	84,904	60,660	29,730	29,920	7,044	6,674	10,827	342,832
	1–4	61,013	35,044	31,433	17,706	15,610	2,247	2,669	6,794	172,516
	5–14	79,827	47,446	42,560	23,139	19,344	4,192	3,357	4,989	224,854
	15–24	183,896	93,110	128,168	45,056	37,146	8,950	7,253	7,785	511,364
	25–34	209,912	122,373	191,647	68,670	48,762	22,783	7,922	10,693	682,762
	35–44	233,016	129,439	147,492	61,664	54,243	11,885	11,311	13,530	662,580
	45–54	282,629	163,025	186,116	75,750	60,859	14,514	11,914	12,913	807,720
	55–64	362,059	215,375	215,390	79,054	74,001	28,281	14,117	9,849	998,126
	65–74	541,383	357,848	262,765	117,551	131,527	36,223	20,319	10,206	1,477,822
	75 and over	701,158	444,391	265,605	141,923	200,631	43,714	17,908	4,848	1,820,178
	Not reported	0	54	0	0	0	0	0	16	70
	Total	*2,767,966*	*1,693,009*	*1,531,836*	*660,243*	*672,043*	*179,833*	*103,444*	*92,450*	*7,700,824*
Persons[(a)]	Under 1	203,963	149,385	109,346	51,803	54,665	13,004	12,199	21,338	615,703
	1–4	107,335	58,614	54,096	30,465	26,382	4,208	4,589	13,370	299,059
	5–14	140,903	84,332	76,518	42,165	33,762	7,308	6,063	8,448	399,499
	15–24	389,975	224,145	271,226	109,085	89,806	22,558	16,331	22,917	1,146,043
	25–34	589,939	393,198	379,943	174,301	143,802	45,349	26,175	30,003	1,782,710
	35–44	498,778	308,178	280,374	139,348	121,201	27,847	23,747	26,572	1,426,045
	45–54	526,503	321,406	352,687	139,134	119,949	30,190	23,849	23,528	1,537,246
	55–64	626,740	390,848	386,904	144,596	134,965	47,516	26,424	18,833	1,776,826
	65–74	1,005,537	666,100	471,636	219,629	238,908	70,860	36,287	15,253	2,724,210
	75 and over	1,779,932	1,114,460	657,781	359,342	489,744	114,323	40,673	10,557	4,566,812
	Not reported	0	54	0	0	0	0	0	21	75
Total patient days		**5,869,605**	**3,710,720**	**3,040,511**	**1,409,868**	**1,453,184**	**383,163**	**216,337**	**190,840**	**16,274,228**

(a) Includes patient days for which sex was not reported as male or female.

Table 6.6: Patient days by age group and sex, private hospitals, States and Territories, 1998–99

Sex	Age group	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Females	Under 1	11,902	11,398	8,639	6,089	1,808	1,085	3,528	n.a.	44,449
	1–4	5,251	2,606	3,969	2,243	1,106	375	137	n.a.	15,687
	5–14	10,534	7,458	6,748	4,219	2,279	880	315	n.a.	32,433
	15–24	43,133	35,552	28,040	18,709	9,885	4,139	1,412	n.a.	140,870
	25–34	137,649	128,101	95,801	57,662	32,676	13,469	7,681	n.a.	473,039
	35–44	112,213	107,878	77,664	43,076	31,573	11,410	5,892	n.a.	389,706
	45–54	109,931	108,036	82,663	39,543	38,134	11,897	4,840	n.a.	395,044
	55–64	106,529	97,681	84,919	34,314	34,510	9,672	3,703	n.a.	371,328
	65–74	153,399	158,449	129,089	46,779	51,105	16,119	4,799	n.a.	559,739
	75 and over	283,166	332,352	284,948	87,086	120,451	28,432	8,218	n.a.	1,144,653
	Total	*973,724*	*989,511*	*802,480*	*339,720*	*323,527*	*97,478*	*40,525*	*n.a.*	*3,566,965*
Males	Under 1	15,035	14,514	11,128	8,292	2,162	1,401	3,481	n.a.	56,013
	1–4	6,668	3,798	5,444	3,102	1,518	559	237	n.a.	21,326
	5–14	12,318	9,756	7,978	4,228	2,364	1,082	286	n.a.	38,012
	15–24	24,757	26,967	16,032	11,221	8,391	1,960	900	n.a.	90,228
	25–34	35,609	35,781	19,270	13,075	9,692	2,604	932	n.a.	116,963
	35–44	50,535	48,022	31,713	17,348	14,323	4,691	1,520	n.a.	168,152
	45–54	89,389	67,455	66,161	28,846	25,380	7,659	3,073	n.a.	287,963
	55–64	98,186	86,017	77,923	31,124	27,934	7,412	3,387	n.a.	331,983
	65–74	153,313	141,057	131,243	49,223	43,534	14,207	5,239	n.a.	537,816
	75 and over	211,050	211,575	237,835	81,256	59,389	21,029	7,150	n.a.	829,284
	Total	*696,860*	*644,942*	*604,727*	*247,715*	*194,687*	*62,604*	*26,205*	*n.a.*	*2,477,740*
Persons[(a)]	Under 1	26,937	25,996	19,767	14,381	3,970	2,486	7,017	n.a.	100,554
	1–4	11,919	6,404	9,413	5,345	2,624	934	374	n.a.	37,013
	5–14	22,852	17,214	14,726	8,447	4,643	1,962	601	n.a.	70,445
	15–24	67,890	62,519	44,072	29,930	18,276	6,099	2,312	n.a.	231,098
	25–34	173,259	163,882	115,071	70,737	42,368	16,073	8,613	n.a.	590,003
	35–44	162,750	155,900	109,377	60,424	45,896	16,101	7,412	n.a.	557,860
	45–54	199,321	175,503	148,824	68,389	63,514	19,556	7,913	n.a.	683,020
	55–64	204,715	183,698	162,842	65,438	62,444	17,084	7,090	n.a.	703,311
	65–74	306,712	299,506	260,332	96,002	94,639	30,326	10,038	n.a.	1,097,555
	75 and over	494,216	543,927	522,783	168,342	179,840	49,461	15,368	n.a.	1,973,937
Total patient days		**1,670,571**	**1,634,549**	**1,407,207**	**587,435**	**518,214**	**160,082**	**66,738**	**n.a.**	**6,044,813**

(a) Includes patient days for which sex was not reported as male or female.

n.a. not available.

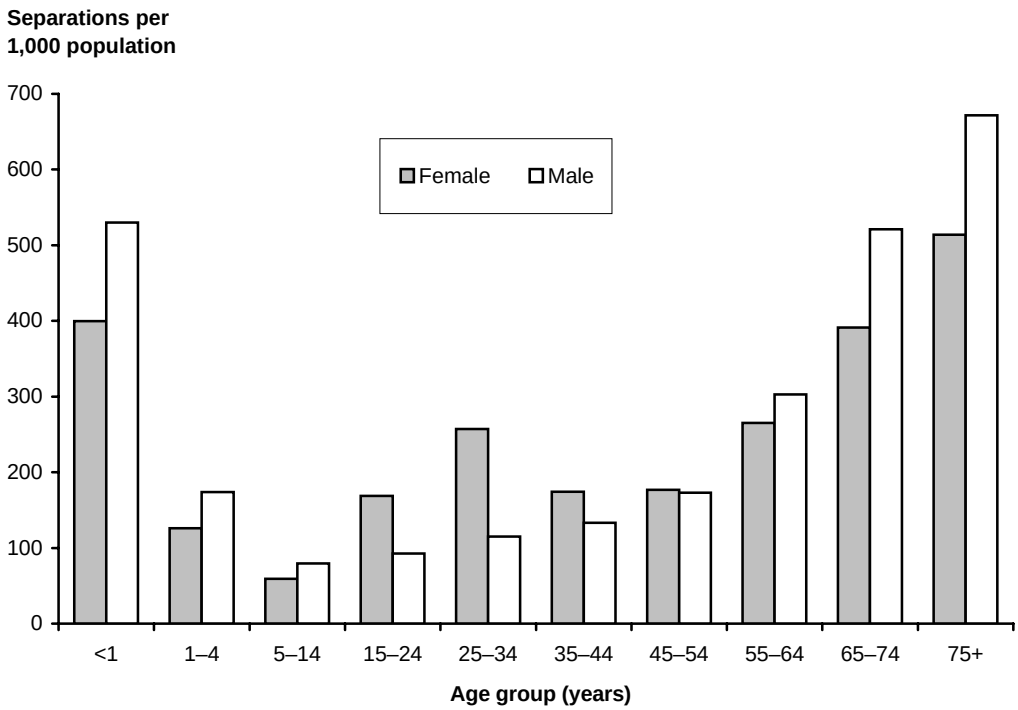

Figure 6.1: Separations per 1,000 population by age group and sex, public hospitals, Australia, 1998–99

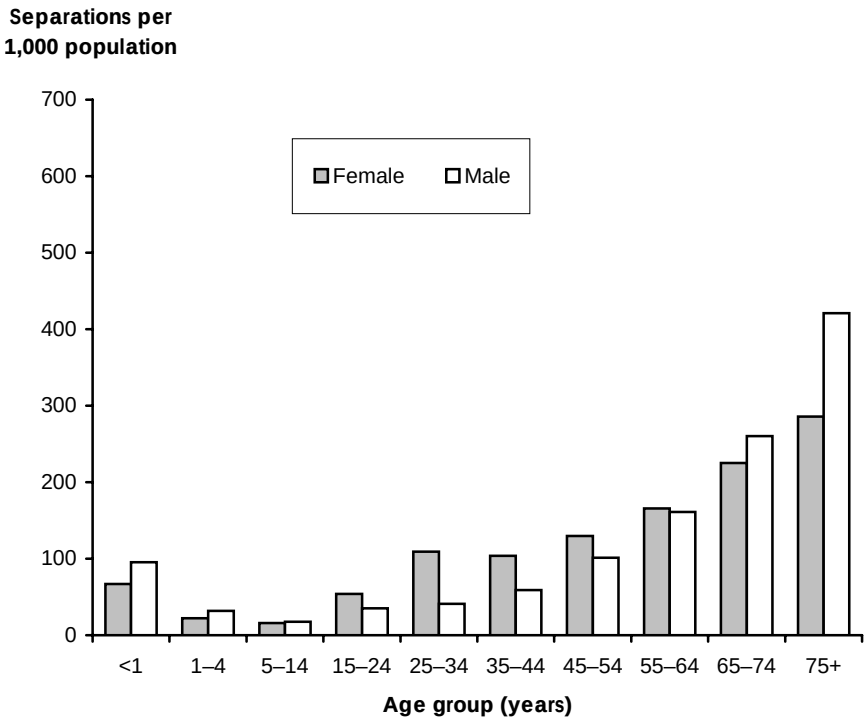

Figure 6.2: Separations per 1,000 population by age group and sex, private hospitals, Australia, 1998–99

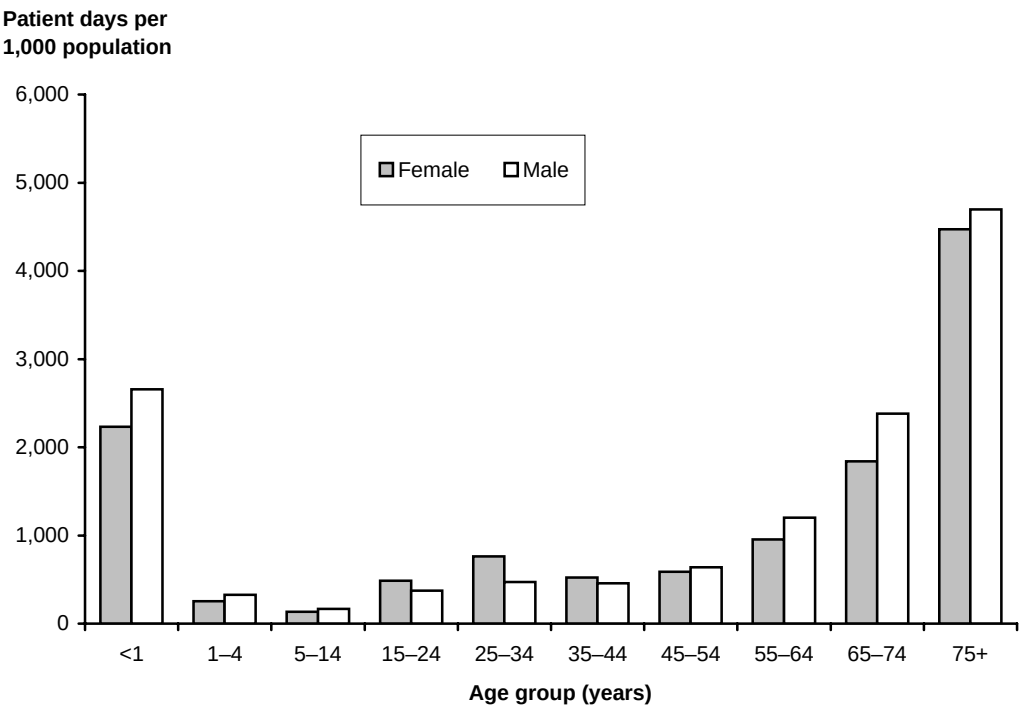

Figure 6.3: Patient days per 1,000 population by age group and sex, public hospitals, Australia, 1998–99

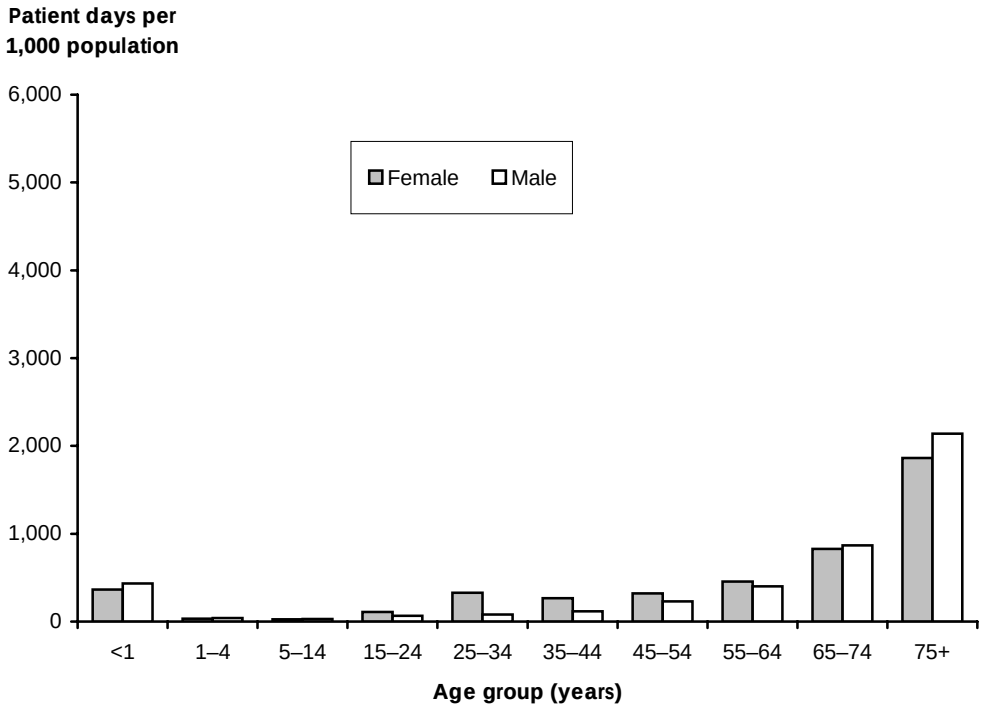

Figure 6.4: Patient days per 1,000 population by age group and sex, private hospitals, Australia, 1998–99

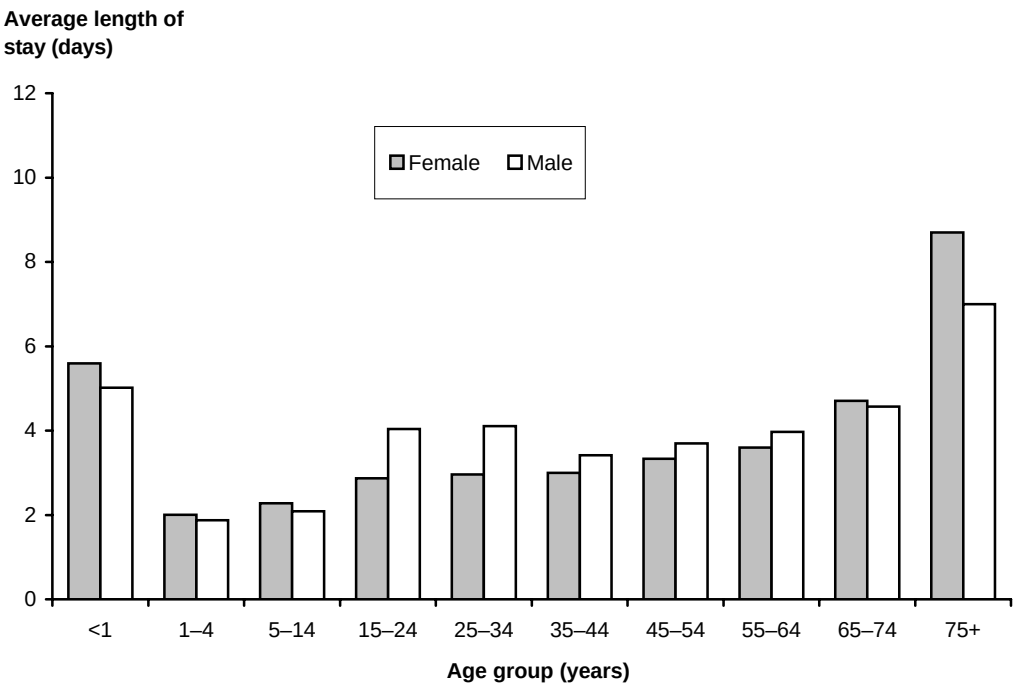

Figure 6.5: Average length of stay by age group and sex, public hospitals, Australia, 1998–99

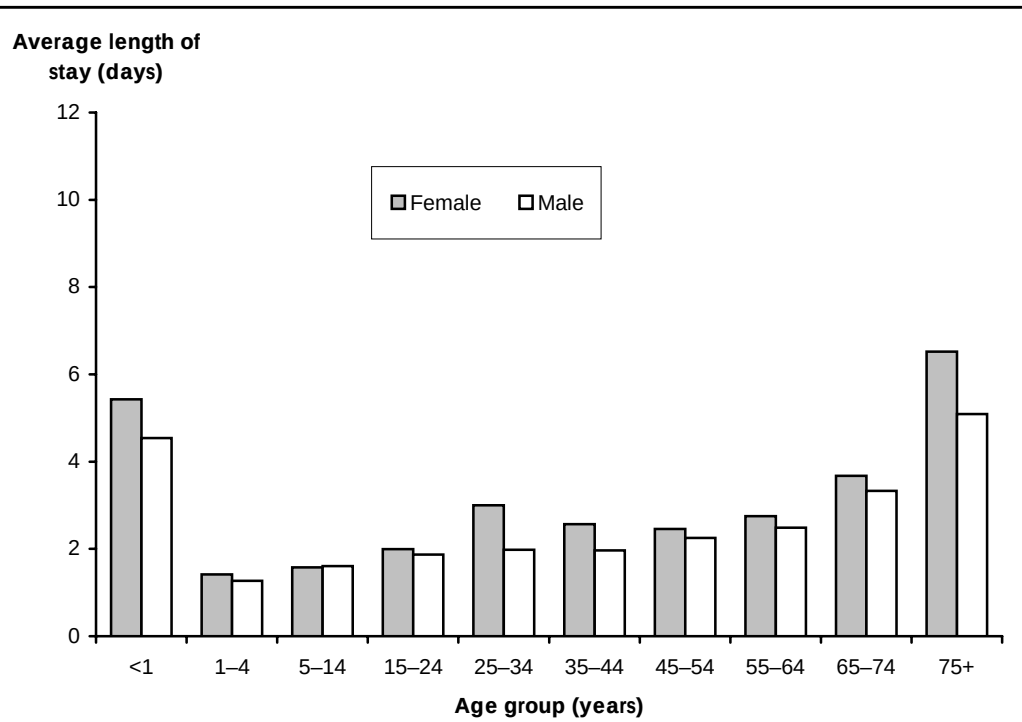

Figure 6.6: Average length of stay by age group and sex, private hospitals, Australia, 1998–99

Table 6.7: Separations by Aboriginal or Torres Strait Islander status[a] and hospital sector, States and Territories, 1998–99

Aboriginal or Torres Strait Islander status	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
					Public hospitals				
Aboriginal but not Torres Strait Islander origin	28,224	2,668	35,816	33,218	10,748	246	42	31,210	142,172
Torres Strait Islander but not Aboriginal origin	357	20	7,321	39	23	0	0	78	7,838
Aboriginal and Torres Strait Islander origin	238	114	1,959	389	31	6	0	476	3,213
Aboriginal or Torres Strait Islander origin, not further specified	0	3,366	0	0	0	0	0	0	3,366
Not Aboriginal or Torres Strait Islander origin	1,244,577	963,933	638,099	323,910	336,666	26,874	57,405	21,864	3,613,328
Not reported	0	49	25,518	13	8,395	53,391	1,151	1,257	89,774
Total	*1,273,396*	*970,150*	*708,713*	*357,569*	*355,863*	*80,517*	*58,598*	*54,885*	*3,859,691*
					Private hospitals				
Aboriginal but not Torres Strait Islander origin	905	6	204	537	193	24	2	n.a.	1,871
Torres Strait Islander but not Aboriginal origin	286	6	103	6	10	0	0	n.a.	411
Aboriginal and Torres Strait Islander origin	34	7	26	36	4	0	0	n.a.	107
Aboriginal or Torres Strait Islander origin, not further specified	0	318	0	0	0	0	0	n.a.	318
Not Aboriginal or Torres Strait Islander origin	565,392	490,297	293,369	186,418	142,403	11,867	15,912	n.a.	1,705,658
Not reported	0	5,033	117,577	0	8,131	35,276	976	n.a.	166,993
Total	*566,617*	*495,667*	*411,279*	*186,997*	*150,741*	*47,167*	*16,890*	*n.a.*	*1,875,358*
					All hospitals[b]				
Aboriginal but not Torres Strait Islander origin	29,129	2,674	36,020	33,755	10,941	270	44	31,210	144,043
Torres Strait Islander but not Aboriginal origin	643	26	7,424	45	33	0	0	78	8,249
Aboriginal and Torres Strait Islander origin	272	121	1,985	425	35	6	0	476	3,320
Aboriginal or Torres Strait Islander origin, not further specified	0	3,684	0	0	0	0	0	0	3,684
Not Aboriginal or Torres Strait Islander origin	1,809,969	1,454,230	931,468	510,328	479,069	38,741	73,317	21,864	5,318,986
Not reported	0	5,082	143,095	13	16,526	88,667	2,127	1,257	256,767
Total	**1,840,013**	**1,465,817**	**1,119,992**	**544,566**	**506,604**	**127,684**	**75,488**	**54,885**	**5,735,049**
Separation rate[c] for Aboriginal and/or Torres Strait Islanders per 1,000	357	361	597	816	691	n.p.	n.p.	887	562
Separation rate[c] for others per 1,000	277	300	273	289	305	n.p.	302	149	280
Separation rate for all per 1,000	278	301	321	301	314	259	267	352	296

(a) Identification of Aboriginal and Torres Strait Islander patients is not considered to be complete and completeness varies amongst the jurisdictions. See the text of Chapter 6 for further detail.

(b) Public hospitals only in the Northern Territory.

(c) The rates were directly age-standardised to the Australian population at 30 June 1991. For details, see Appendix 3. Aboriginal and Torres Strait Islander population data are included in Appendix 8.

n.a. not available.

n.p. not published, as Aboriginal or Torres Strait Islander status was not reported for 69% of separations in Tasmania,and there was known under-reporting in the Australian Capital Territory.

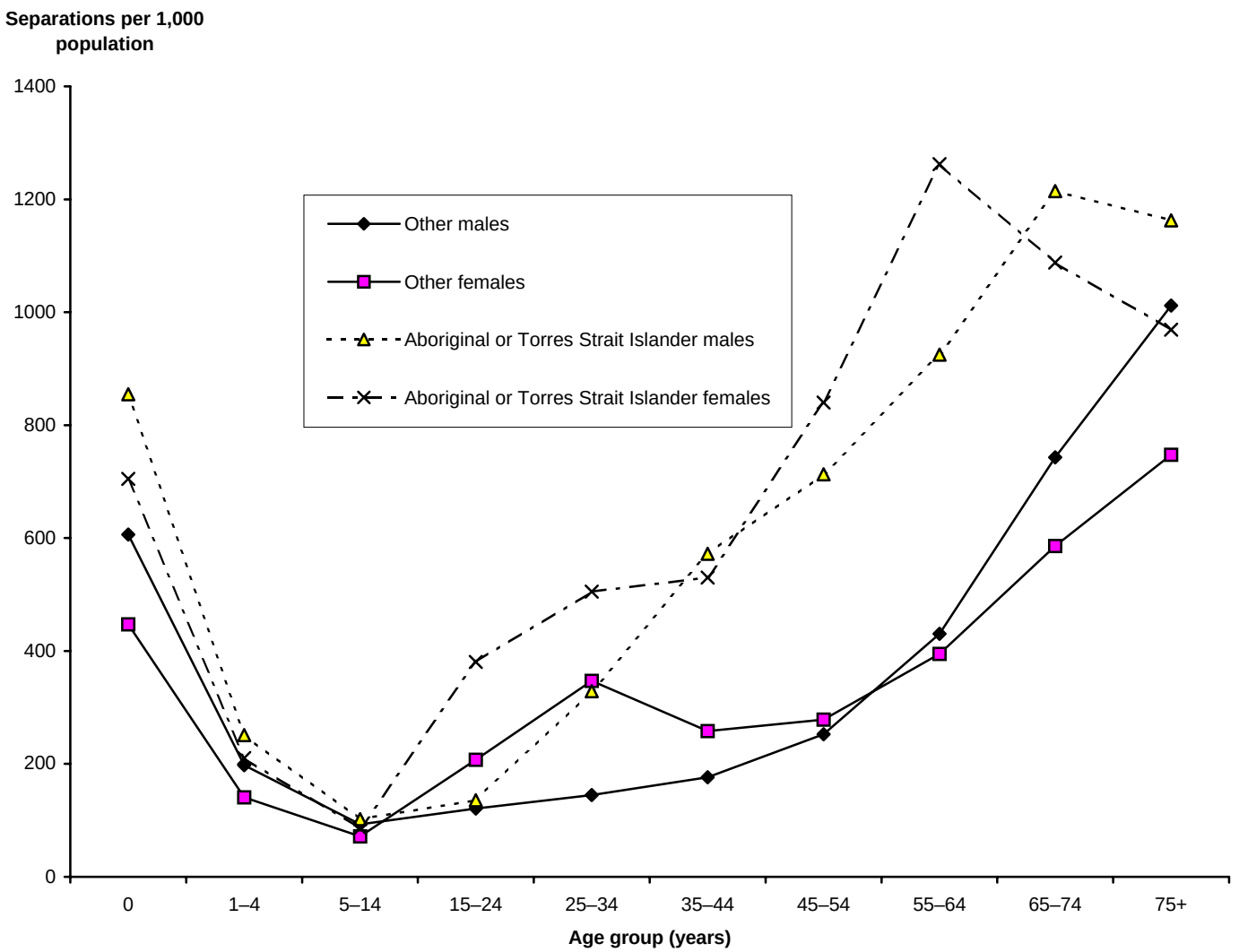

Figure 6.7: Separations per 1,000 population by sex, age group and reported Aboriginal or Torres Strait Islander origin status, all hospitals, Australia, 1998–99

Table 6.8: Separations by selected country/region of birth and hospital sector, Australia, 1998–99

Country/region	Separations			Separations per 1,000 population[(a)]		
	Public hospitals	Private hospitals	All sectors	Public hospitals	Private hospitals	All sectors
Australia	2,859,861	1,417,531	4,277,392	203.1	102.4	305.4
New Zealand	58,633	21,756	80,389	179.6	66.3	245.9
Papua New Guinea	4,887	2,345	7,232	245.7	116.4	362.2
Fiji	9,634	2,556	12,190	304.0	78.4	382.3
Oceania (other)	10,914	3,481	14,395	421.1	137.9	559.0
Oceania (total)	*2,943,929*	*1,447,669*	*4,391,598*	*203.1*	*101.5*	*304.6*
United Kingdom and Ireland	264,353	129,884	394,237	155.7	71.9	227.5
Greece	47,644	12,188	59,832	196.3	60.0	256.3
Italy	81,107	37,843	118,950	176.8	83.8	260.6
Malta	14,972	5,365	20,337	176.1	65.2	241.2
Former Yugoslavia	47,154	11,773	58,927	177.7	42.3	220.1
Former USSR and Baltic States	20,253	5,860	26,113	179.4	58.4	237.8
Hungary	8,576	4,626	13,202	157.1	75.5	232.5
Poland	19,264	8,395	27,659	148.1	63.1	211.2
Romania	3,128	1,086	4,214	183.6	63.6	247.3
Austria	4,748	2,950	7,698	154.1	120.5	274.6
France	3,610	2,131	5,741	167.4	95.9	263.3
Germany	27,263	14,047	41,310	154.9	74.7	229.6
Netherlands	24,484	9,706	34,190	160.5	60.9	221.5
Europe and the former USSR (other)	31,038	12,530	43,568	197.6	75.2	272.7
Europe and the former USSR (total)	*597,594*	*258,384*	*855,978*	*166.9*	*69.3*	*236.2*
Lebanon	23,639	4,467	28,106	288.8	48.3	337.1
Turkey	8,816	1,464	10,280	277.0	45.3	322.2
Iran	3,127	942	4,069	195.4	47.6	242.9
Egypt	10,499	4,928	15,427	197.5	77.3	274.7
Middle East and North Africa (other)	11,243	3,032	14,275	224.6	57.8	282.4
Middle East and North Africa (total)	*57,324*	*14,833*	*72,157*	*244.5*	*58.7*	*303.1*

(continued)

Table 6.8 (continued): Separations by selected country/region of birth and hospital sector, Australia, 1998–99

Country/region	Separations			Separations per 1,000 population[(a)]		
	Public hospitals	Private hospitals	All sectors	Public hospitals	Private hospitals	All sectors
Myanmar	1,975	1,130	3,105	137.5	70.8	208.2
Indonesia	6,181	2,856	9,037	139.5	62.4	201.9
Cambodia	4,113	880	4,993	193.8	40.5	234.4
Malaysia	8,566	5,387	13,953	143.4	76.4	219.8
Philippines	18,010	3,538	21,548	170.9	29.5	200.4
Singapore	3,496	2,281	5,777	191.4	121.5	312.8
Vietnam	24,462	4,861	29,323	144.0	27.8	171.7
Thailand	2,346	661	3,007	130.4	38.7	169.1
China	21,920	7,093	29,013	117.9	37.2	155.1
Hong Kong and Macau	5,551	3,771	9,322	173.0	114.1	287.1
Japan	2,285	2,116	4,401	203.2	147.0	350.2
Korea	3,581	1,043	4,624	108.7	30.5	139.2
India	16,283	7,113	23,396	154.7	62.2	216.8
Sri Lanka	9,548	3,761	13,309	167.3	60.9	228.2
Asia (other)	8,328	2,637	10,965	230.2	78.5	308.7
Asia (total)	*136,645*	*49,128*	*185,773*	*146.5*	*51.1*	*197.5*
Canada	3,881	2,782	6,663	137.6	94.3	231.9
United States of America	6,703	5,913	12,616	116.5	97.5	214.0
North America (other)	338	60	398	907.4	128.1	1,035.5
North America (total)	*10,922*	*8,755*	*19,677*	*125.5*	*96.0*	*221.5*
Argentina	1,803	826	2,629	142.9	63.9	206.9
Chile	4,634	1,446	6,080	181.9	50.4	232.3
The Caribbean	1,289	678	1,967	340.3	167.4	507.6
Other	8,020	2,232	10,252	205.9	52.4	258.3
South America, Central America and The Caribbean (total)	*15,746*	*5,182*	*20,928*	*198.8*	*59.4*	*258.2*
Mauritius	3,515	1,956	5,471	177.8	84.0	261.9
South Africa	8,370	6,592	14,962	126.3	93.5	219.8
Africa excluding North Africa (other)	6,991	3,126	10,117	182.3	83.7	266.0
Africa excluding North Africa (total)	*18,876*	*11,674*	*30,550*	*151.2*	*87.9*	*239.1*
Overseas (total)	*921,175*	*378,094*	*1,299,269*	*171.1*	*64.4*	*235.5*
Not stated or inadequately described	78,655	79,733	158,388	. .	. .	. .
Total	**3,859,691**	**1,875,358**	**5,735,049**	**200.9**	**95.4**	**296.3**

(a) The rates were directly age-standarised to the Australian population at 30 June 1991. For details, see Appendix 3. Population data by country of birth are included in Appendix 8.

. . not applicable.

7 Principal diagnoses for admitted patients

Introduction

The principal diagnosis is defined as the diagnosis established, after study, to be chiefly responsible for occasioning the admitted patient's episode of care in hospital. Data on principal diagnoses provide information on the diseases and conditions for which hospitalisations occur and can provide an indirect measure of community morbidity.

The principal diagnosis is usually a disease, injury or poisoning, but can also be the limited care or service provided for a current condition (for example, dialysis for renal disease), or other reasons for hospitalisation.

Principal diagnoses for 1998–99 were classified, coded and reported to the National Hospital Morbidity Database by Queensland, Western Australia, South Australia and Tasmania using the *Australian Version of the International Classification of Diseases, 9th Revision, Clinical Modification* (ICD-9-CM) (National Coding Centre 1996), and by New South Wales, Victoria, the Australian Capital Territory and the Northern Territory using the *International Statistical Classification of Diseases and Related Health Problems, 10th Revision, Australian Modification* (ICD-10-AM) (National Centre for Classification in Health 1998). The data reported in ICD-9-CM were mapped by the Institute to ICD-10-AM so that national data could be presented in a single classification in this report. Further information about this mapping is presented in Appendix 4.

The ICD-10-AM disease classification is hierarchical, with a small number of summary disease chapters that are divided into a large number of more specific disease groupings (represented by 3-character codes) which, in turn, can mostly be divided into an even larger number of very specific disease categories represented by 4- and 5-character codes. The tables and figures in this chapter use the codes and abbreviated descriptions of the ICD-10-AM disease classification. Full descriptions of the categories are available in the ICD-10-AM publication.

Most of the information is presented using three methods of grouping records based on the ICD-10-AM disease classification:

- ICD-10-AM disease chapters—these 19 groups provide information aggregated at the ICD-10-AM chapter level (Figures 7.1 and 7.2);
- ICD-10-AM disease groupings—these 73 groups were chosen to provide more detailed information than ICD-10-AM chapters, but still cover the entire disease classification at a manageable level (Tables 7.3 to 7.10); and
- 3-character ICD-10-AM groupings—1,540 categories describe the diseases at a quite specific level. Detailed information is presented for the 30 of these groups with the highest number of separations (Tables 7.12 to 7.19) and summary information is provided for all of the groups (for which separations were reported) on the Internet at http://www.aihw.gov.au/publications/health/ahs98-9.html (Tables S7.1 and S7.2).

In addition:

- Tables 7.1 and 7.2 present information aggregating 3-, 4- and 5-character ICD-10-AM categories corresponding to the National Health Priority Areas.

- Table 7.11 presents information on the number of diagnoses reported. These include the principal diagnosis and any additional diagnoses (conditions or complaints either co-existing with the principal diagnosis, or arising during the episode of care).
- Table 7.20 uses a mixture of ICD-10-AM chapters, 3- and 4-character categories and other groupings to present information on diagnoses reported for public psychiatric hospitals.

Tables are presented with summary separation, patient day and length of stay statistics for public and private hospitals, nationally and by State and Territory. National information on age group and sex distributions is also presented. The data on relative rankings of the various disease groups (by numbers of separations or patient days) depend to some extent on the chosen groups of diagnosis codes.

Although a principal diagnosis is expected to be reported for every separation, in practice it is missing for a small number of records (indicated as *Not reported* in the tables). The majority of records without a principal diagnosis were reported by Victoria (mainly for private hospitals).

Some data for private hospitals in Tasmania and the Australian Capital Territory have not been included in Tables 7.6, 7.8, 7.15 and 7.17. These data were supplied but are not published for confidentiality reasons.

ICD-10-AM chapters

Figures 7.1 and 7.2 provide a summary of the proportions of separations and patient days reported for each of the ICD-10-AM disease chapters.

Ignoring the diverse categories that make up the *Factors influencing health status and contact with health services* group, the chapter with the highest number of separations in the public sector was *Diseases of the digestive system*, followed by *Pregnancy, childbirth and the puerperium* and *Injury and poisoning and certain other consequences of external causes*. In the private sector, *Diseases of the digestive system* had the largest number of separations, followed by *Neoplasms* and *Diseases of the musculoskeletal system and connective tissue.*

The highest numbers of patient days for the public sector were reported for the *Mental disorders* and *Diseases of the circulatory system* chapters. The *Diseases of the musculoskeletal system and connective tissue*, *Diseases of the circulatory system* and *Neoplasms* chapters accounted for the highest numbers of patient days in the private sector.

For the public and private sectors combined, the two chapters with the most separations mirrored those in the public system (*Diseases of the digestive system* and *Pregnancy, childbirth and the puerperium*). The largest numbers of patient days were reported for the *Mental disorders* and *Diseases of the circulatory system* chapters.

National Health Priority Areas

The National Health Priority Areas is a policy initiative, run jointly by the Commonwealth and the State and Territory Governments, focusing on the diseases and other conditions that contribute most significantly to Australia's burden of illness (Australian Institute of Health and Welfare & Department of Health and Family Services 1997) and for which there is potential for the burden to be significantly reduced. The priority areas are asthma, cancer control, cardiovascular health, mental health, diabetes, and injury prevention and control.

Tables 7.1 and 7.2 and Figures 7.3 to 7.8 provide information on hospital separations relevant to these priority areas. The priority areas are not defined by standard groupings of ICD-10-AM codes, so diagnoses encompassing broad definitions of asthma, cancer,

cardiovascular disease, mental disorders, diabetes and injury and poisoning are included in the tables. Detail is also provided to enable more specifically defined diagnoses to be distinguished. In addition to principal diagnoses of diseases, injuries and poisonings, relevant principal diagnoses of other reasons for hospitalisation (codes beginning with Z, for example, Z51.1 C*hemotherapy session for neoplasm*) are included.

A number of the priority area diseases are contributory factors for hospitalisation for many other conditions. However, only separations for which the principal diagnosis corresponded with one of the priority areas have been included in the tables. Separations for patients with these conditions reported only as additional diagnoses are not included in these tables. This will have understated the total number of separations for which priority area diseases or conditions contributed. This is particularly the case for diabetes, which was reported as a principal diagnosis for 23,773 separations but as a principal or additional diagnosis for 325,440 separations involving 2,218,850 patient days. This effect is also marked for cardiovascular disease, which was reported as the principal diagnosis for 425,882 separations but for 1,340,174 separations and 8,971,627 patient days when reported as the principal diagnosis or as an additional diagnosis.

Given the focus on prevention, the information for the injury prevention and control area is presented by the cause of the injury or poisoning (external cause). Individual records were selected for inclusion in this group if the principal diagnosis was an injury or poisoning for which an external cause should be reported (ICD-10-AM codes S00–T98 and Z04.1–Z04.5). These records were then grouped together based on the reported external cause. There is some overlap between these tables and the injury and poisoning information presented in Chapter 9.

Principal diagnoses in the National Health Priority Areas accounted for 27% of total separations (1,548,914) and 40% of total patient days (8,969,454) for Australia for 1998–99. *Cardiovascular disease* accounted for the majority of the separations, followed by *Injury and poisoning*. *Mental disorders* accounted for nearly 3,000,000 patient days and *Cardiovascular disease* for over 2,300,000. *Cancer* accounted for the largest number of separations in New South Wales, Victoria and the Australian Capital Territory, with *Cardiovascular disease* ranking first in South Australia and Tasmania. For the Northern Territory, Queensland and Western Australia, *Injury and poisoning* accounted for the most separations.

Figures 7.3 to 7.8 present age-standardised separation rates per 1,000 population for each of the six National Health Priority Areas, by Statistical Division of usual residence of the patient. See Appendix 3 for further information on the data on Statistical Division of usual residence.

Broad disease groupings

Tables 7.3 and 7.4 summarise the principal diagnosis data. In the public sector (Table 7.3), the highest number of separations was reported for *Encounter with health service for specific procedure* (Z40–Z54), which includes three of the top four diagnoses (in 3-character groupings) of *Care involving dialysis*, *Other medical care* and *Care involving use of rehabilitation procedures* (Table 7.14). *Mental and behavioural disorders* (F00–F99) stands out as a high volume group (83.8 separations per 10,000 population), for its high use of beds (1,299 patient days per 10,000 population) and for the long average length of stay (15.5 days). Other high utilisation diagnosis groups included *Signs, symptoms and abnormal findings* (R00–R99), *Complications relating to labour and delivery* (O30–O82), *Diseases of musculoskeletal and connective tissue* (M00–M99), *Injuries to upper and lower limbs* (S40–S99) and *Ischaemic heart disease* (I20–I25).

In the private sector (Table 7.4), *Encounter with health service for specific procedure* (Z40–Z54) recorded the highest number of separations. High numbers of separations were also

reported for *Diseases of musculoskeletal and connective tissue* (M00–M99) and *Diseases of oesophagus, stomach and duodenum* (K20–K31). *Diseases of musculoskeletal and connective tissue* (M00–M99), *Encounter with health service for specific procedure* (Z40–Z54) and *Mental and behavioural disorders* (F00–F99) recorded the highest numbers of patient days.

The groups with the highest proportions of separations in the public sector (rather than in the private sector) were *HIV disease* (B20–B24) (97% in the public sector, 358) and *Poisonings and toxic effects* (T36–T65) (95%, 35,886) (derived from Tables 7.3 and 7.4). The groups with the highest proportions of separations in the private sector (rather than in the public sector) were *Diseases of the oral cavity, salivary glands and jaws* (K00–K14) (64% in the private sector, 60,188) and *Diseases of the eye and adnexa* (H00–H59) (61%, 97,605).

States and Territories

Tables 7.5 to 7.8 contain detail on the pattern of hospital use in the States and Territories for the diagnosis groups, in both the public and private sectors. These tables enable State by State comparisons of overall hospital use for the different diagnosis groups, and the share of separations between the private and public sectors. For example, the proportions of separations for *Intestinal infectious diseases* (A00–A09) in public hospitals (rather than private hospitals) was higher in New South Wales (92%, 11,888) than in Queensland (71%, 5,463). The proportion of total patient days for *Influenza and pneumonia* (J10–J18) that were in private hospitals (rather than public hospitals) varied markedly by State, from 13% in New South Wales (19,678) to 30% in Queensland (24,201). Some of these differences could reflect the fact that data from Queensland, Western Australia, South Australia and Tasmania were mapped from ICD-9-CM to ICD-10-AM for this report.

Age group and sex

In Tables 7.9 and 7.10, information on the number of separations by age group and diagnosis groups is presented for males and females. These tables show a number of different patterns in the age distributions of separations for the various disease groups. For example, patients admitted for *Intestinal infectious diseases* (A00–A09) were mostly in the younger age groups, while the opposite was the case for neoplasms. Other groups of diseases had a peak in the middle age groups, for example obstetric cases (O00–O99) for females, and *Diseases of the musculoskeletal and connective tissue* (M00–M99) for males and *Mental and behavioural disorders* (F00–F99) for both females and males.

These tables also indicate the relative importance of the disease groups as causes of hospitalisation for each sex and age group. For example, in the group of males over 75 years common diagnoses were *Diseases of eye and adnexa* (H00–H59), *Signs, symptoms and abnormal findings* (R00–R99) and *Ischaemic heart disease* (I20–I25) groups. For females in the 1–4 years age group, *Diseases of ear and mastoid processes* (H60–H99), *Intestinal infectious diseases*
(A00–A09) and *Signs, symptoms and abnormal findings* (R00–R99) were commonly reported.

Number of diagnosis codes

The National Hospital Morbidity Database contains data on principal diagnosis and additional diagnoses. Additional diagnoses include comorbidities (co-existing 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.

Table 7.11 presents information on the number of diagnosis codes (principal and additional) reported to the National Hospital Morbidity Database. There were marked differences between the States and Territories in the maximum number of diagnoses reported; for example, in the public sector, 11 diagnoses for Victoria and 40 for Tasmania. However, the average number of diagnosis codes per separation varied little among the jurisdictions, for both the public and private sectors. The Institute requested a maximum of 31 diagnosis codes so this may have restricted the number of codes reported by Queensland.

Overall, the average number of codes reported for the public sector was slightly higher than for the private sector. In the public sector over 20% of records had five or more diagnosis codes (775,907), but in the private sector only 12% of records fell into this category (223,739). This may have occurred if more complicated cases were treated in public hospitals.

High volume diagnoses

Tables 7.12 to 7.19 present information on the most common principal diagnoses (at the 3-character level of the ICD-10-AM classification).

Tables 7.12 and 7.13 contain summary separation, patient day and average length of stay statistics for the 30 diagnoses with the most separations in public and private hospitals. In the public sector, the most common principal diagnosis groups were *Care involving dialysis* (Z49) and *Other medical care* (Z51, 93% of which, 124,272, were for chemotherapy, Z51.1 and Z51.2). For both of these, the proportion of separations that were same day separations was over 98% (99.6% and 98.9%, respectively) and the average length of stay was relatively short. The highest numbers of patient days were reported for *Care involving use of rehabilitation procedures* (Z50) and for *Schizophrenia* (F20), for which the average length of stay was 14.5 and 39.4 days, respectively.

In the private sector, the most frequently reported principal diagnosis was *Other medical care* (Z51, 97% of which, 75,294, were for chemotherapy), with the second most frequent being *Care involving dialysis* (Z49). The principal diagnosis with the highest number of patient days, *Care involving use of rehabilitation procedures* (Z50), also had the longest average length of stay (10.7 days).

There was some variation between the States and Territories in the relative number of separations for the most common diagnoses (Tables 7.14 and 7.15). Some of this variation may reflect the fact that the data for Queensland, South Australia, Western Australia and Tasmania were mapped from ICD-9-CM to ICD-10-AM for this report. For example, *Embedded and impacted teeth* (K01) was only reported as a principal diagnosis by private hospitals in New South Wales, Victoria, and the Australian Capital Territory. The nearest equivalent ICD-9-CM code (520.6, *Disturbances in tooth eruption*) includes, but is not specific for, embedded and impacted teeth. It is therefore mapped to the ICD-10-AM code group *Disorders of tooth development and eruption* (K00). Thus, Queensland, South Australia, Western Australia and Tasmania have relatively high numbers of separations reported for the latter ICD-10-AM category, but none for the former.

Information on the average lengths of stay by State and Territory is presented in Tables 7.16 and 7.17. The age and sex distributions of these separations are presented in Tables 7.18 and 7.19.

Additional data

The accompanying tables on the Internet at http://www.aihw.gov.au/publications/health/ahs98-9.html provide national summary statistics for public and private hospitals

for each 3-character ICD-10-AM disease code (as presented for the top 30 principal diagnosis codes in Tables 7.12 and 7.13). For confidentiality, the statistics for some codes in the private sector have been suppressed. The information was suppressed if there were fewer than 50 private hospital separations reported for the code and fewer than three reporting units (hospitals, or States where the hospitals were not individually identified), or if there were three reporting units and one contributed more than 85% of the total separations, or two contributed more than 90% of the separations for the code.

Public psychiatric hospitals

Overall, a diagnosis was included for 97% of public psychiatric hospital separations (Table 7.20). Most diagnoses were in the *Mental and behavioural disorders* chapter (F00–F99). *Schizophrenia* (F20) was the most common diagnosis reported (4,406), the next most common being *Mental and behavioural disorders due to other psychoactive substance abuse* (F11–F19, 2,417). *Schizophrenia* (F20) accounted for the more patient days than any other group (583,835), with the next highest being *Mental and behavioural disorders due to use of alcohol* (F10, 91,801).

The average length of stay was high for most of the disease groups and only 11% of separations (2,294) were same day separations, compared with 45% in public acute hospitals. The average length of stay for *Schizophrenia* in public psychiatric hospitals (133 days) was markedly higher than that in public hospitals overall (Table 7.12: 39 days). Similarly, the average length of stay for *Dementia* (F00–F03) (108 days) was longer than in hospitals overall (Table 7.1, 39 days).

Separations in public psychiatric hospitals include some with very long lengths of stay, up to several years. Hence the average lengths of stay should be interpreted taking into consideration the inclusion of some very long stay and non-acute separations.

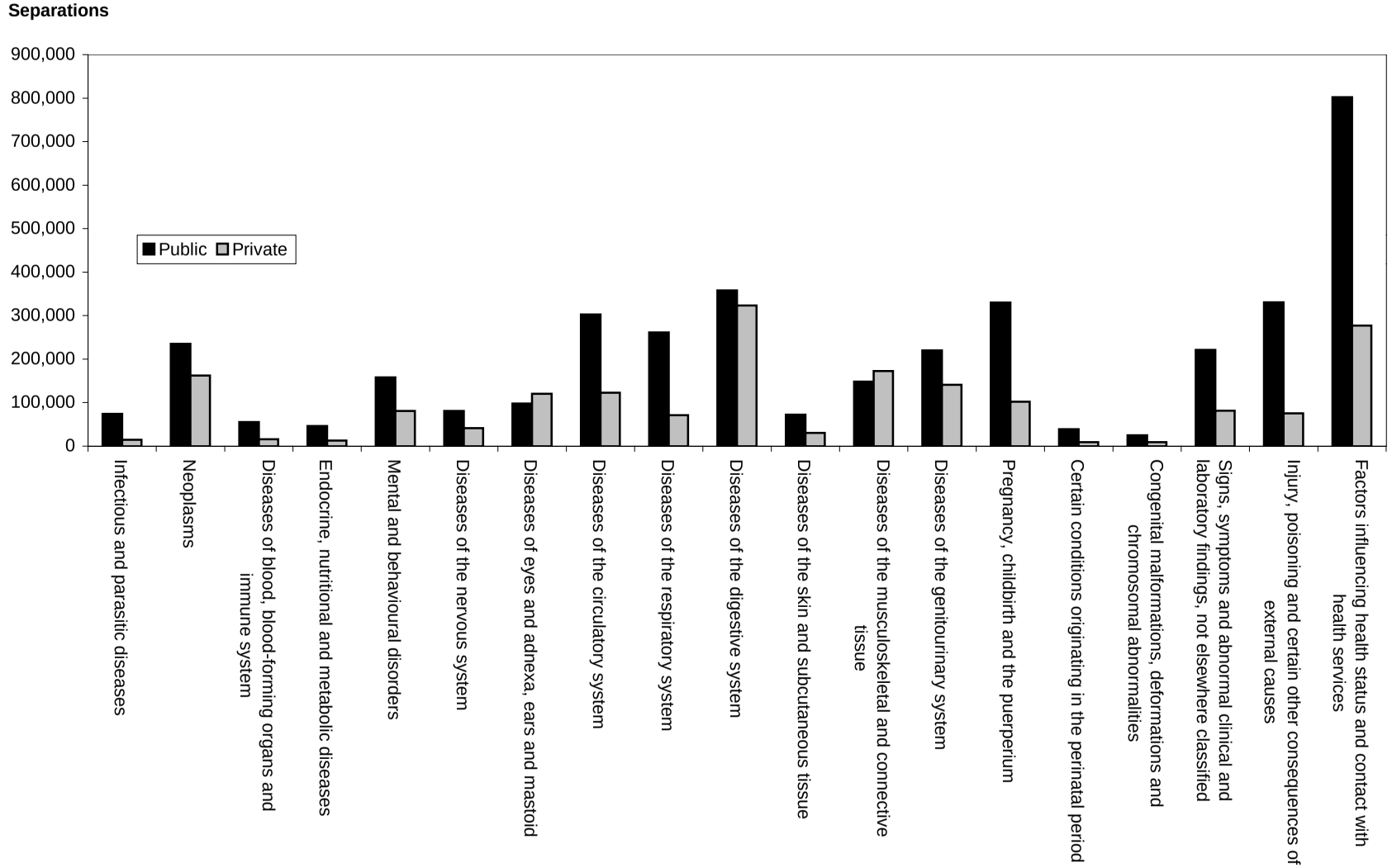

Figure 7.1: Separations by principal diagnosis in ICD-10-AM chapter groupings and hospital sector, Australia, 1998–99

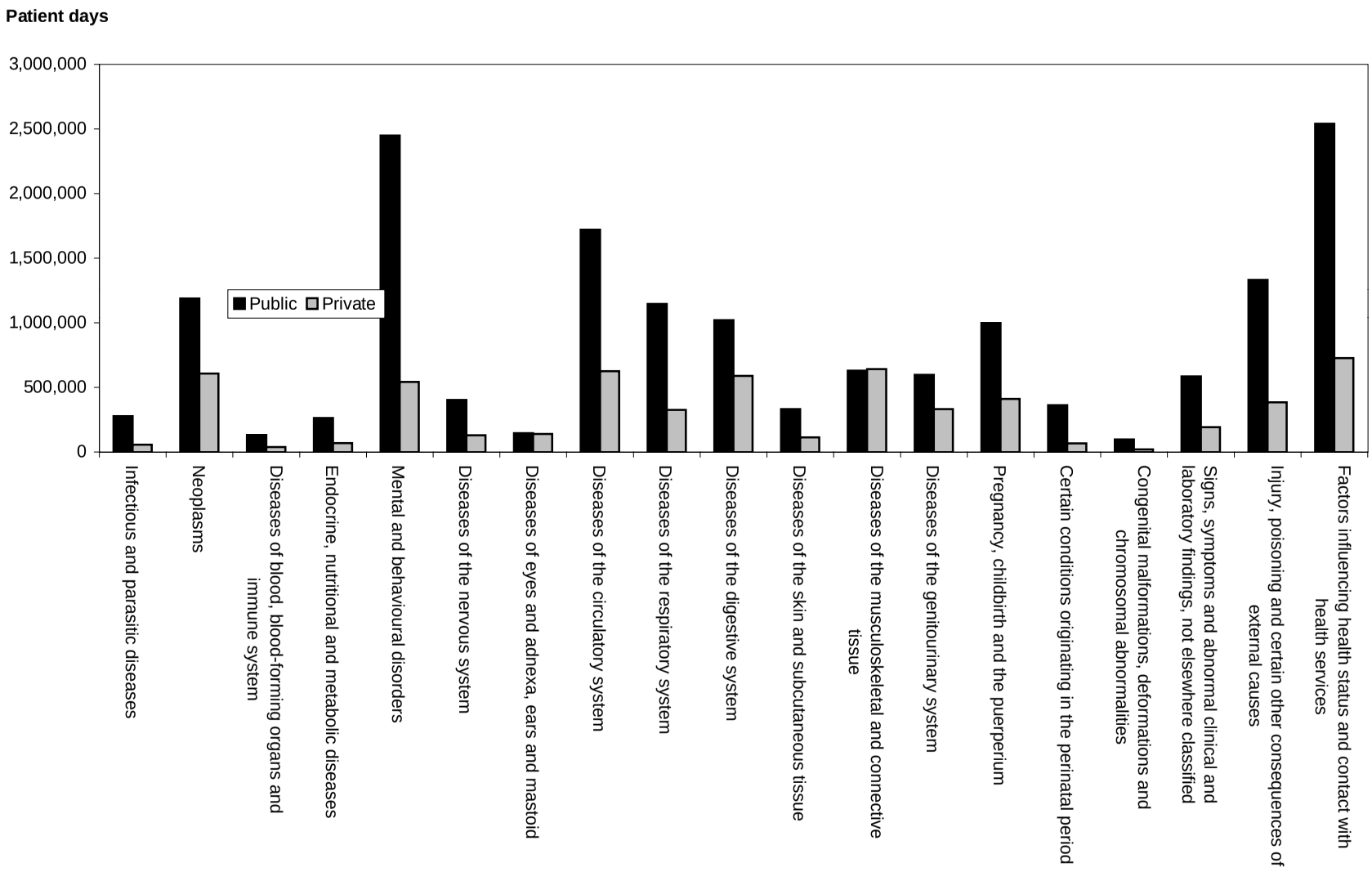

Figure 7.2: Patient days by principal diagnosis in ICD-10-AM chapter groupings and hospital sector, Australia, 1998–99

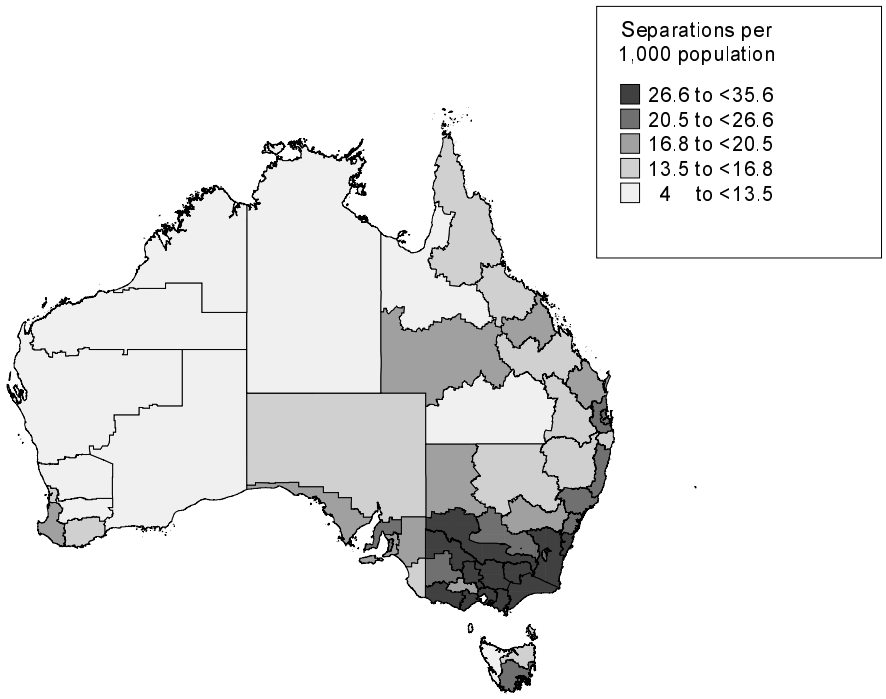

Figure 7.3: Separations per 1,000 population for cancer, by Statistical Division of usual residence, Australia, 1998-99

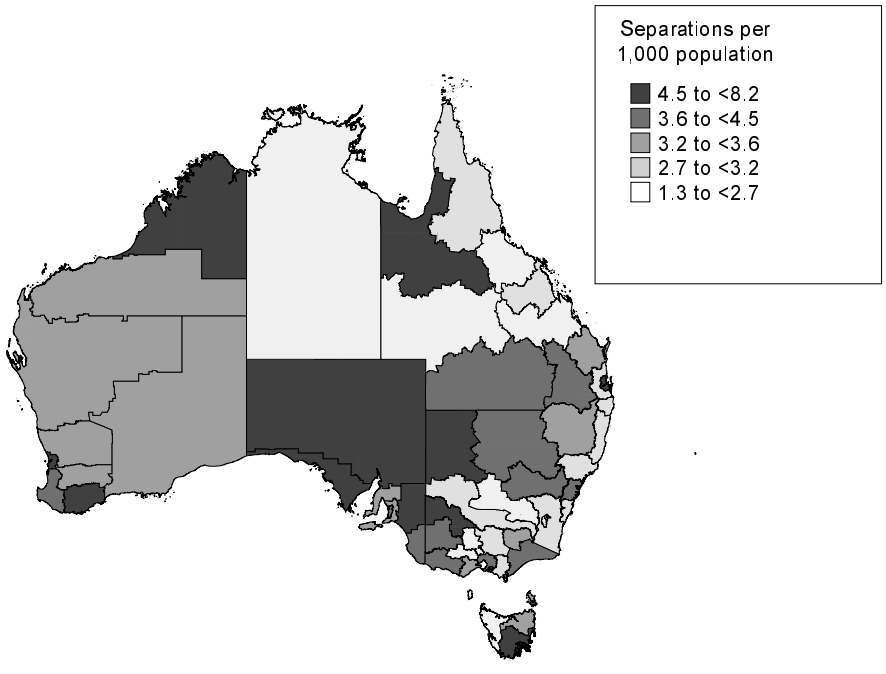

Figure 7.4: Separations per 1,000 population for mental disorders, by Statistical Division of usual residence, Australia, 1998-99

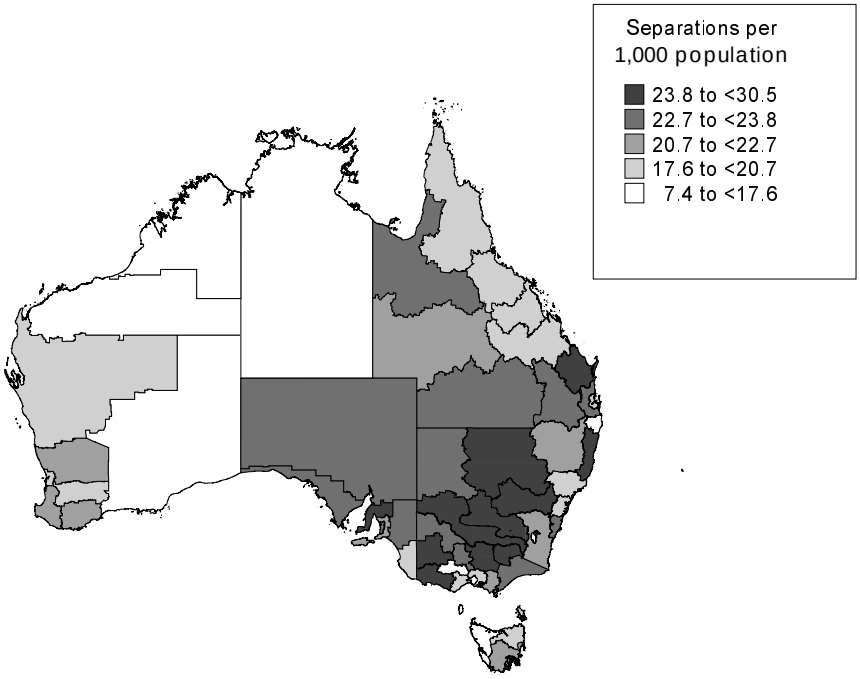

Figure 7.5: Separations per 1,000 population for cardiovascular disease, by Statistical Division of usual residence, Australia, 1998-99

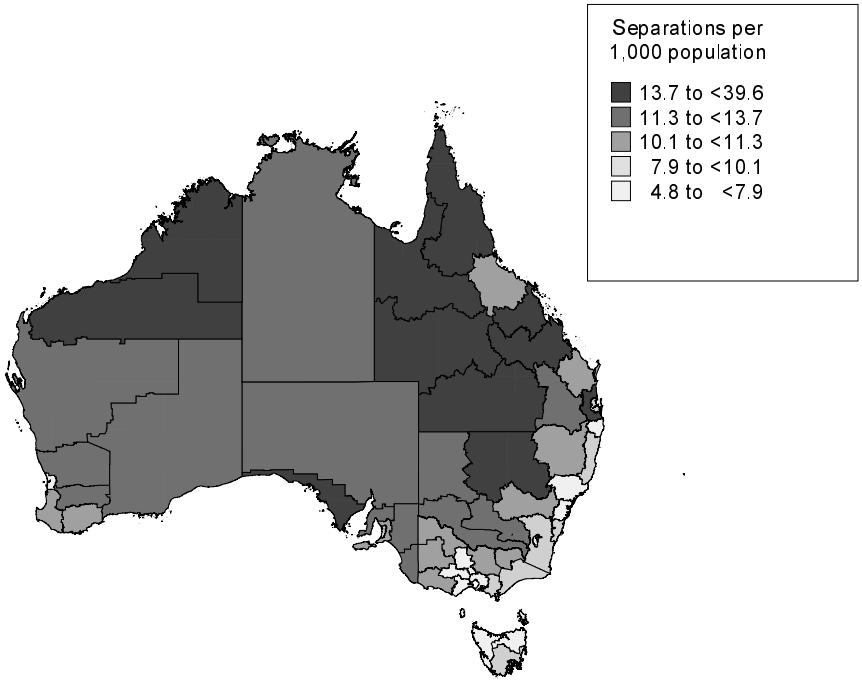

Figure 7.6: Separations per 1,000 population for injury and poisoning, by Statistical Division of usual residence, Australia, 1998-99

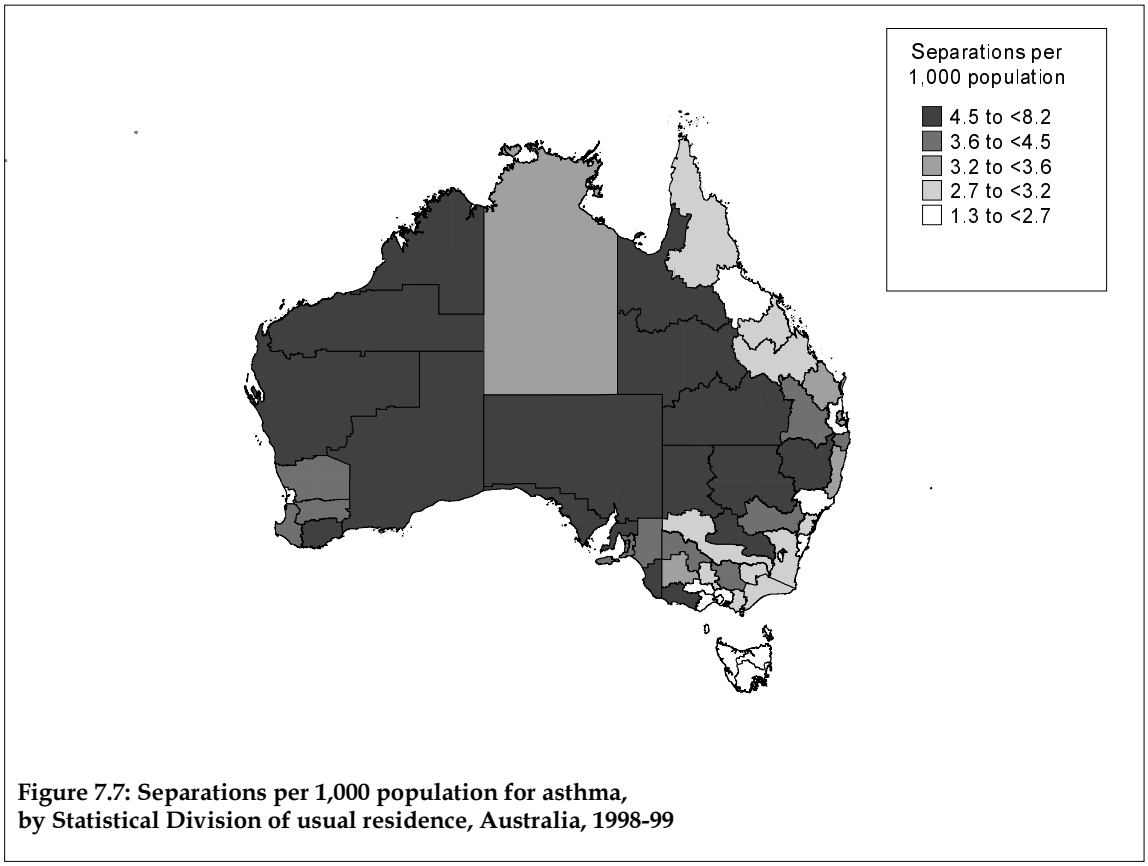

Figure 7.7: Separations per 1,000 population for asthma, by Statistical Division of usual residence, Australia, 1998-99

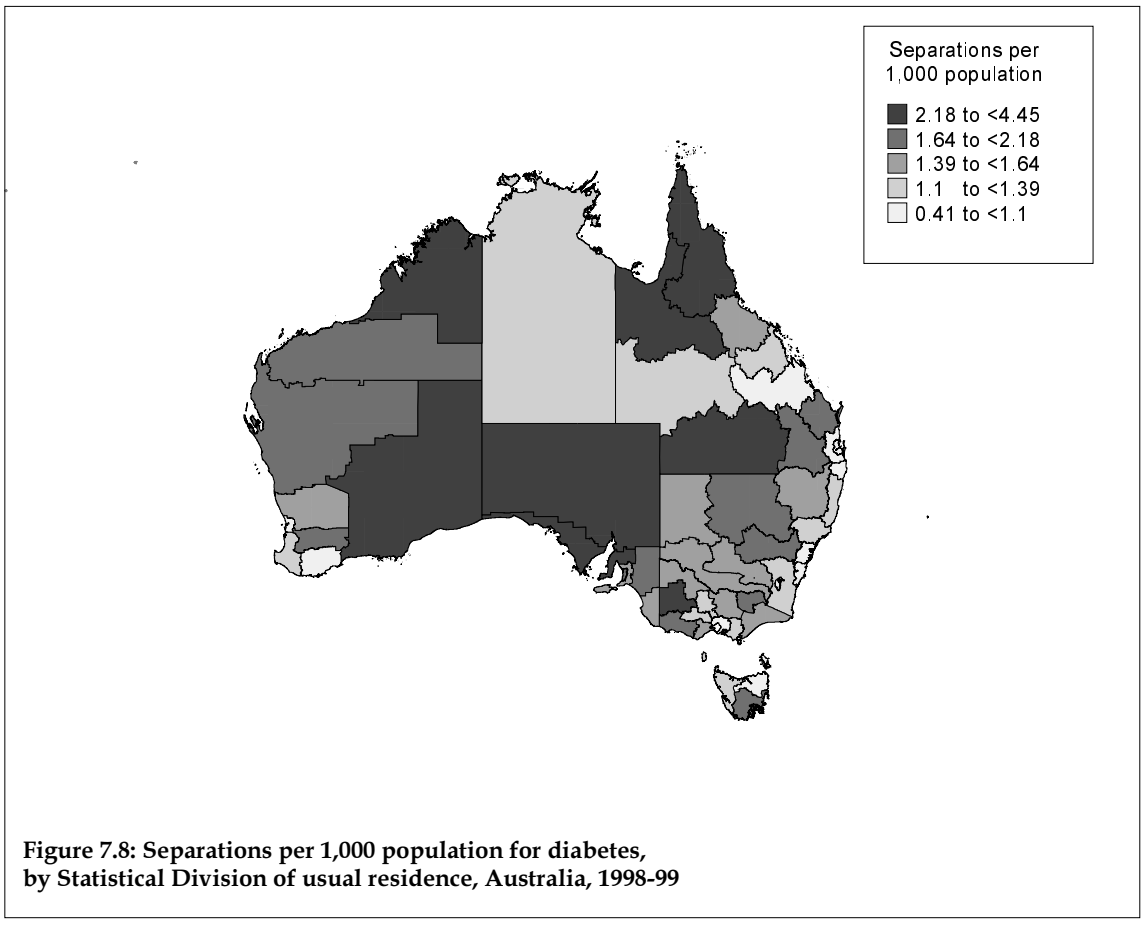

Figure 7.8: Separations per 1,000 population for diabetes, by Statistical Division of usual residence, Australia, 1998-99

Table 7.1: Separation, same day separation, patient day and average length of stay statistics for National Health Priority Areas, all hospitals, Australia, 1998–99

Principal diagnosis or external cause		Separations	Same day separations	Per cent same day separations	Separations per 10,000 population	Patient days	Patient days per 10,000 population	ALOS (days)	ALOS (days) excluding same day
					Cancer				
C00	Cancer of lip	846	542	64.1	0.4	1,598	0.8	1.9	3.5
C01–C14	Cancer of oral cavity and pharynx	4,555	814	17.9	2.4	38,279	20.3	8.4	10.0
C15	Cancer of oesophagus	3,878	1,315	33.9	2.1	26,814	14.2	6.9	9.9
C16	Cancer of stomach	4,947	1,369	27.7	2.6	37,835	20.1	7.6	10.2
C17	Cancer of small intestine	431	83	19.3	0.2	4,687	2.5	10.9	13.2
C18–C19	Cancer of colon and rectosigmoid junction	15,271	3,917	25.6	8.1	139,707	74.1	9.1	12.0
C20–C21	Cancer of rectum and anus	669	178	26.6	0.4	5,049	2.7	7.5	9.9
C22	Cancer of liver and intrahepatic bile ducts	1,731	305	17.6	0.9	11,737	6.2	6.8	8.0
C23–C26	Cancer of other digestive organs	4,988	697	14.0	2.6	48,193	25.6	9.7	11.1
C30–C31	Cancer of nasal cavity, middle ear and sinuses	381	86	22.6	0.2	3,061	1.6	8.0	10.1
C33	Cancer of trachea	60	11	18.3	<0.1	493	0.3	8.2	9.8
C34	Cancer of bronchus and lung	16,578	3,139	18.9	8.8	125,769	66.7	7.6	9.1
C32, C35–C39	Other cancer of respiratory and intrathoracic organs	2,250	545	24.2	1.2	17,767	9.4	7.9	10.1
C40–C41	Cancer of bone and articular cartilage	1,292	239	18.5	0.7	7,268	3.9	5.6	6.7
C43	Malignant melanoma of skin	6,639	4,052	61.0	3.5	16,746	8.9	2.5	4.9
C44	Other malignant neoplasms of skin	54,678	41,011	75.0	29.0	102,398	54.3	1.9	4.5
C45–C49	Mesothelioma and other cancer of soft tissue	2,853	652	22.9	1.5	18,602	9.9	6.5	8.2
C50	Cancer of breast	18,474	4,172	22.6	9.8	87,247	46.3	4.7	5.8
C53	Cancer of cervix uteri	2,020	502	24.9	1.1	9,904	5.3	4.9	6.2
C54–C55	Cancer of uterus and corpus uteri	2,678	689	25.7	1.4	14,920	7.9	5.6	7.2
C51–C52, C56–C58	Other cancer of female genital organs	4,429	511	11.5	2.3	29,917	15.9	6.8	7.5
C61	Cancer of prostate	11,769	2,199	18.7	6.2	74,909	39.7	6.4	7.6
C62	Cancer of testis	1,033	130	12.6	0.5	2,728	1.4	2.6	2.9
C60, C63	Other cancer of male genital organs	162	38	23.5	0.1	973	0.5	6.0	7.5
C67	Cancer of bladder	15,130	7,020	46.4	8.0	48,056	25.5	3.2	5.1
C64–C66, C68	Other cancer of urinary tract	3,824	526	13.8	2.0	33,228	17.6	8.7	9.9
C69	Cancer of eye and adnexa	624	275	44.1	0.3	1,641	0.9	2.6	3.9
C70–C72	Cancer of brain, other central nervous system	389	150	38.6	0.2	2,464	1.3	6.3	9.7
C73	Cancer of thyroid	2,112	63	3.0	1.1	7,589	4.0	3.6	3.7
C74–C75	Cancer of other endocrine glands	506	159	31.4	0.3	3,123	1.7	6.2	8.5
C76–C80	Cancer of ill-defined, secondary and unspecified sites	40,694	9,703	23.8	21.6	307,550	163.1	7.6	9.6
C81–C88	Hodgkins disease and non-Hodgkin's lymphoma	16,940	6,880	40.6	9.0	85,555	45.4	5.1	7.8
C90	Multiple myeloma, malignant plasma cell cancers	10,554	7,716	73.1	5.6	34,938	18.5	3.3	9.6
C91–C93	Leukaemia	14,516	7,985	55.0	7.7	75,442	40.0	5.2	10.3
C96	Other cancer of lymphoid, haemopoetic, related tissue	111	54	48.6	0.1	384	0.2	3.5	5.8

(continued)

Table 7.1 (continued): Separation, same day separation, patient day and average length of stay statistics for National Health Priority Areas, all hospitals, Australia, 1998–99

Principal diagnosis or external cause		Separations	Same day separations	Per cent same day separations	Separations per 10,000 population	Patient days	Patient days per 10,000 population	ALOS (days)	ALOS (days) excluding same day
				Cancer (continued)					
C97	Cancer of independent (primary) multiple sites	10	0	0.0	<0.1	10	<0.1	1.0	1.0
Z08–Z09	Follow-up care for cancer	6,855	321	4.7	3.6	268,459	142.4	39.2	41.0
Z80, Z85–Z86	Personal or family history of cancer	18,769	18,501	98.6	10.0	19,046	10.1	1.0	2.0
Z51.0, Z54.1	Radiation for cancer	606	452	74.6	0.3	1,837	1.0	3.0	9.0
Z51.1, Z54.2	Chemotherapy for cancer	108,716	107,941	99.3	57.7	110,279	58.5	1.0	3.0
Cancer total		*395,992*	*234,567*	*59.2*	*210.1*	*1,557,349*	*826.1*	*3.9*	*8.2*
				Diabetes					
E10	Insulin dependent diabetes mellitus (includes type I)	11,166	1,479	13.2	5.9	67,381	35.7	6.0	6.8
E11	Non-insulin dependent diabetes mellitus (includes type II)	12,386	2,718	21.9	6.6	98,328	52.2	7.9	9.9
E12–E14	Other and unspecified diabetes	209	28	13.4	0.1	1,462	0.8	7.0	7.9
Z13.1	Screening for diabetes	2	1	50.0	<0.1	3	<0.1	1.5	2.0
Z83.3	Family history of diabetes	10	10	100.0	<0.1	10	<0.1	1.0	. .
Diabetes total		*23,773*	*4,236*	*17.8*	*12.6*	*167,184*	*88.7*	*7.0*	*8.3*
				Mental disorders					
F00–F03	Dementia	6,855	321	4.7	3.6	268,459	142.4	39.2	41.0
F04–F09	Other organic mental disorders	8,250	791	9.6	4.4	183,380	97.3	22.2	24.5
F10	Mental, behavioural disorders due to use of alcohol	23,490	7,855	33.4	12.5	197,185	104.6	8.4	12.1
F11–F19	Mental, behav. disorders due to other psychoactive substances use	14,902	2,958	19.8	7.9	81,782	43.4	5.5	6.6
F20	Schizophrenia	25,460	5,372	21.1	13.5	891,705	473.0	35.0	44.1
F21–F29	Other schizophrenic, schizotypal, delusional disorders	14,536	4,046	27.8	7.7	200,496	106.4	13.8	18.7
F30	Manic episode	1,182	151	12.8	0.6	31,534	16.7	26.7	30.4
F31	Bipolar affective disorders	14,463	4,225	29.2	7.7	224,622	119.2	15.5	21.5
F32–F33	Depressive disorders	58,682	29,998	51.1	31.1	460,690	244.4	7.9	15.0
F34–F39	Other mood (affective) disorders	6,620	3,242	49.0	3.5	38,072	20.2	5.8	10.3
F40–F48	Neurotic, stress-related and somatoform disorders	39,935	18,576	46.5	21.2	184,798	98.0	4.6	7.8
F50	Eating disorders	6,906	5,103	73.9	3.7	49,744	26.4	7.2	24.8
F51–F59	Other behav. syndromes associated with physiological disturbances, physical factors	3,457	425	12.3	1.8	16,754	8.9	4.8	5.4
F60–F69	Disorders of adult personality and behaviour	8,625	2,840	32.9	4.6	54,487	28.9	6.3	8.9
F70–F79	Mental retardation	343	98	28.6	0.2	46,069	24.4	134.3	187.6
F80–F89	Disorders of psychological development	1,099	753	68.5	0.6	45,076	23.9	41.0	128.1
F90–F98	Disorders onset usually occurring in childhood, adolescence	4,119	2,654	64.4	2.2	16,266	8.6	3.9	9.3

(continued)

Table 7.1 (continued): Separation, same day separation, patient day and average length of stay statistics for National Health Priority Areas, all hospitals, Australia, 1998–99

Principal diagnosis or external cause		Separations	Same day separations	Per cent same day separations	Separations per 10,000 population	Patient days	Patient days per 10,000 population	ALOS (days)	ALOS (days) excluding same day
					Mental disorders (continued)				
F99	Mental disorder not otherwise specified	166	43	25.9	0.1	979	0.5	5.9	7.6
Z03.2	Observation for suspected mental and behav. disorder	147	22	15.0	0.1	750	0.4	5.1	5.8
Z81, Z86.5	Personal or family history of mental and behav. disorder	0	0	. .	<0.1	0	<0.1	. .	. .
Mental disorders total		*239,237*	*89,473*	*37.4*	*126.9*	*2,992,848*	*1,587.6*	*12.5*	*19.4*
					Cardiovascular disease				
I00–I09	Rheumatic heart disease	2,122	421	19.8	1.1	15,979	8.5	7.5	9.1
I10–I15	Hypertensive disease	7,969	1,108	13.9	4.2	36,637	19.4	4.6	5.2
I21	Acute myocardial infarction	33,542	3,081	9.2	17.8	219,169	116.3	6.5	7.1
I20,I22–I24	Other ischaemic heart disease	95,556	13,428	14.1	50.7	399,282	211.8	4.2	4.7
I25	Chronic ischaemic heart disease	29,048	10,087	34.7	15.4	117,976	62.6	4.1	5.7
I26–I28	Pulmonary heart disease, diseases of pulmonary circulation	7,769	435	5.6	4.1	63,933	33.9	8.2	8.7
I50	Heart failure	41,894	2,477	5.9	22.2	343,417	182.2	8.2	8.6
I30–I49, I51–I52	Other and ill-defined heart disease	61,135	14,629	23.9	32.4	260,233	138.0	4.3	5.3
I60–I62	Intracranial haemorrhage	7,821	1,245	15.9	4.1	88,330	46.9	11.3	13.2
I63–I64	Cerebral infarction and stroke	23,326	1,171	5.0	12.4	285,701	151.6	12.2	12.8
I65–I69	Other cerebrovascular disease	9,127	759	8.3	4.8	67,553	35.8	7.4	8.0
I70–I79	Diseases of arteries, arterioles and capillaries	30,326	5,556	18.3	16.1	230,130	122.1	7.6	9.1
I83	Varicose veins of lower limbs	20,814	3,922	18.8	11.0	51,925	27.5	2.5	2.8
I84	Haemorrhoids	32,282	22,014	68.2	17.1	51,591	27.4	1.6	2.9
I80–I82, I85–I99	Other diseases of veins, lymphatics, circulatory system	22,783	4,972	21.8	12.1	113,893	60.4	5.0	6.1
Z82.3–4, Z86.7, Z95	Personal/family history, post-surgical states, aftercare	73	61	83.6	<0.1	123	0.1	1.7	5.2
Z01.3, Z03.4–5, Z13.6	Observation, screening	295	243	82.4	0.2	341	0.2	1.2	1.9
Cardiovascular disease total		*425,882*	*85,609*	*20.1*	*225.9*	*2,346,213*	*1,244.6*	*5.5*	*6.6*
					Asthma				
J45	Asthma	40,143	6,020	15.0	21.3	105,979	56.2	2.6	2.9
J46	Status asthmaticus	13,764	1,444	10.5	7.3	41,517	22.0	3.0	3.3
Asthma total		*53,907*	*7,464*	*13.8*	*28.6*	*147,496*	*78.2*	*2.7*	*3.0*

(continued)

Table 7.1 (continued): Separation, same day separation, patient day and average length of stay statistics for National Health Priority Areas, all hospitals, Australia, 1998–99

Principal diagnosis or external cause		Separations	Same day separations	Per cent same day separations	Separations per 10,000 population	Patient days	Patient days per 10,000 population	ALOS (days)	ALOS (days) excluding same day
					Injury or poisoning				
V01–V19	Pedestrian or pedal cyclist injured in transport accident	11,501	2,940	25.6	6.1	49,223	26.1	4.3	5.4
V20–V59	Rider or occupant of motor vehicle injured in transport accident	27,003	7,252	26.9	14.3	122,116	64.8	4.5	5.8
V60–V89	Occupant of heavy vehicle, bus injured in transport accident	6,033	1,595	26.4	3.2	21,566	11.4	3.6	4.5
V90–V99	Other transport accidents	2,177	562	25.8	1.2	7,763	4.1	3.6	4.5
W00–W19	Falls	109,398	24,602	22.5	58.0	609,476	323.3	5.6	6.9
W20–W49	Inanimate mechanical forces	54,466	21,587	39.6	28.9	105,711	56.1	1.9	2.6
W50–W64	Animate mechanical forces	8,169	2,741	33.6	4.3	18,211	9.7	2.2	2.9
W65–W74	Accidental drowning and submersion	575	128	22.3	0.3	1,403	0.7	2.4	2.9
W75–W84	Other accidental threats to breathing	850	317	37.3	0.5	1,703	0.9	2.0	2.6
W85–W99	Electric current, radiation, extreme temperature, pressure	1,464	871	59.5	0.8	2,766	1.5	1.9	3.2
X00–X09	Smoke, fire, flames	1,962	466	23.8	1.0	14,189	7.5	7.2	9.2
X10–X19	Heat, hot substances	3,087	701	22.7	1.6	15,616	8.3	5.1	6.3
X20–X29	Venomous plants and animals	4,013	1,883	46.9	2.1	5,341	2.8	1.3	1.6
X30–X39	Forces of nature	609	142	23.3	0.3	2,417	1.3	4.0	4.9
X40–X49	Accidental poisoning	13,580	5,344	39.4	7.2	24,273	12.9	1.8	2.3
X50–X59	Other and unspecified exposure	32,994	13,728	41.6	17.5	84,638	44.9	2.6	3.7
X60–X84	Intentional self-harm	20,151	5,998	29.8	10.7	52,150	27.7	2.6	3.3
X85–Y09	Assault	17,324	6,992	40.4	9.2	38,883	20.6	2.2	3.1
Y10–Y34	Event of undetermined intent	2,112	865	41.0	1.1	4,513	2.4	2.1	2.9
Y35–Y36	Legal intervention and operations of war	48	17	35.4	<0.1	270	0.1	5.6	8.2
Y40–Y59	Drugs, medicaments, biological substances in therapeutic use	3,722	764	20.5	2.0	14,681	7.8	3.9	4.7
Y60–Y82	Misadventures during surgical and medical care, medical device incidents	1,308	279	21.3	0.7	8,256	4.4	6.3	7.8
Y83–Y84	Abnormal reactions, complications of medical and surgical care	58,278	10,367	17.8	30.9	379,022	201.1	6.5	7.7
Y85–Y98	Sequelae and supplementary factors	665	197	29.6	0.4	4,120	2.2	6.2	8.4
	External cause not reported	28,634	5,901	20.6	15.2	170,057	90.2	5.9	7.2
Injury and poisoning total		*410,123*	*116,239*	*28.3*	*217.6*	*1,758,364*	*932.8*	*4.3*	*5.6*
Total separations for National Health Priority Areas		**1,548,914**	**537,588**	**34.7**	**821.7**	**8,969,454**	**4,758.0**	**5.8**	**8.3**

Note: Abbreviation: behav.—behavioural

Table 7.2: Separations for National Health Priority Areas, all hospitals, States and Territories, 1998-99

Principal diagnosis or external cause		NSW	Vic	Qld	WA	SA	Tas	ACT	NT[(a)]	Total
						Cancer				
C00	Cancer of lip	235	186	231	73	72	34	5	10	846
C01–C14	Cancer of oral cavity and pharynx	1,547	1,063	1,035	322	407	84	49	48	4,555
C15	Cancer of oesophagus	1,178	1,065	743	335	421	67	60	9	3,878
C16	Cancer of stomach	1,752	1,346	742	441	491	109	53	13	4,947
C17	Cancer of small intestine	142	118	84	35	37	10	5	0	431
C18–C19	Cancer of colon and rectosigmoid junction	5,266	4,218	2,828	1,106	1,277	364	182	30	15,271
C20–C21	Cancer of rectum and anus	211	146	183	72	41	9	7	0	669
C22	Cancer of liver and intrahepatic bile ducts	601	578	230	192	82	31	10	7	1,731
C23–C26	Cancer of other digestive organs	1,820	1,356	809	352	451	123	69	8	4,988
C30–C31	Cancer of nasal cavity, middle ear and sinuses	134	128	49	15	42	9	4	0	381
C33	Cancer of trachea	13	21	21	2	3	0	0	0	60
C34	Cancer of bronchus and lung	5,248	4,079	3,582	1,318	1,720	406	172	53	16,578
C32, C35–C39	Other cancer of respiratory and intrathoracic organs	564	553	502	297	263	27	28	16	2,250
C40–C41	Cancer of bone and articular cartilage	400	352	332	100	66	26	14	2	1,292
C43	Malignant melanoma of skin	2,073	1,408	1,767	449	682	177	70	13	6,639
C44	Other malignant neoplasms of skin	17,418	9,970	15,504	3,855	6,476	867	511	77	54,678
C45C49	Mesothelioma and other cancer of soft tissue	1,155	901	315	187	185	67	31	12	2,853
C50	Cancer of breast	5,648	5,458	3,350	1,469	1,614	504	391	40	18,474
C53	Cancer of cervix uteri	646	544	457	176	134	36	16	11	2,020
C54C55	Cancer of uterus and corpus uteri	835	773	543	163	268	56	35	5	2,678
C51–C52, C56–C58	Other cancer of female genital organs	1,463	1,267	705	312	493	137	44	8	4,429
C61	Cancer of prostate	3,674	3,588	2,115	827	923	361	269	12	11,769
C62	Cancer of testis	319	241	196	111	109	16	40	1	1,033
C60, C63	Other cancer of male genital organs	59	45	30	7	17	0	4	0	162
C67	Cancer of bladder	5,074	3,927	2,505	1,450	1,544	421	187	22	15,130
C64–C66, C68	Other cancer of urinary tract	1,400	899	804	253	298	97	64	9	3,824
C69	Cancer of eye and adnexa	223	114	179	40	63	3	2	0	624
C70–C72	Cancer of brain, other central nervous system	95	124	53	20	87	0	9	1	389
C73	Cancer of thyroid	977	331	368	167	178	60	26	5	2,112
C74–C75	Cancer of other endocrine glands	185	101	112	52	21	31	2	2	506
C76–C80	Cancer of ill-defined, secondary and unspecified sites	10,708	13,669	8,303	3,108	3,341	1,044	435	86	40,694
C81–C88	Hodgkins disease and non-Hodgkin's lymphoma	4,133	5,081	4,102	1,367	1,450	502	281	24	16,940
C90	Multiple myeloma, malignant plasma cell cancers	2,245	3,212	2,285	943	1,320	262	286	1	10,554
C91–C93	Leukaemia	4,017	3,802	3,919	946	1,337	229	247	19	14,516
C96	Other cancer of lymphoid, haemopoetic, related tissue	24	27	34	12	6	8	0	0	111
C97	Cancer of independent (primary) multiple sites	1	0	0	0	0	0	0	0	1
Z08–Z09	Follow-up care for cancer	19,326	13,055	11,159	4,851	5,031	1,273	453	144	55,292

(continued)

Table 7.2: Separations for National Health Priority Areas, all hospitals, States and Territories, 1998-99 (continued)

Principal diagnosis or external cause		NSW	Vic	Qld	WA	SA	Tas	ACT	NT[(a)]	Total
		Cancer (continued)								
Z80, Z85–Z86	Personal or family history of cancer	7,449	5,155	3,217	1,812	513	344	215	64	18,769
Z51.0, Z54.1	Radiation for cancer	99	355	109	12	15	9	5	2	606
Z51.1, Z54.2	Chemotherapy for cancer	43,825	59,587	218	2	26	18	4,841	199	108,716
Cancer total		*152,182*	*148,843*	*73,720*	*27,251*	*31,504*	*7,821*	*9,122*	*953*	*451,396*
		Diabetes								
E10	Insulin dependent diabetes mellitus (includes type I)	3,447	2,584	2,360	900	1,281	347	158	89	11,166
E11	Non-insulin dependent diabetes mellitus (includes type II)	2,875	2,930	2,474	1,133	1,972	566	139	297	12,386
E12–E14	Other and unspecified diabetes	132	74	0	0	0	0	2	1	209
Z13.1	Screening for diabetes	0	0	0	0	1	1	0	0	2
Z83.3	Family history of diabetes	0	0	10	0	0	0	0	0	10
Diabetes total		*6,454*	*5,588*	*4,844*	*2,033*	*3,254*	*914*	*299*	*387*	*23,773*
		Mental disorders								
F00–F03	Dementia	2,291	1,872	1,136	721	709	63	47	16	6,855
F04–F09	Other organic mental disorders	1,885	1,950	1,914	1,157	986	276	59	23	8,250
F10	Mental, behavioural disorders due to use of alcohol	9,111	4,783	5,395	2,267	1,359	360	80	135	23,490
F11–F19	Mental, behav. disorders due to other psychoactive substances use	6,858	2,873	2,784	1,347	722	148	74	96	14,902
F20	Schizophrenia	8,313	6,751	5,313	1,836	2,165	606	264	212	25,460
F21–F29	Other schizophrenic, schizotypal, delusional disorders	4,765	3,415	2,736	1,462	1,516	380	157	105	14,536
F30	Manic episode	345	270	252	161	103	32	12	7	1,182
F31	Bipolar affective disorders	3,951	3,622	2,622	1,652	1,667	696	190	63	14,463
F32–F33	Depressive disorders	16,295	18,151	10,034	7,789	4,121	1,808	368	116	58,682
F34–F39	Other mood (affective) disorders	922	984	1,814	1,811	664	380	40	5	6,620
F40–F48	Neurotic, stress-related and somatoform disorders	12,463	7,398	7,806	6,976	3,287	1,652	206	147	39,935
F50	Eating disorders	1,730	3,193	1,058	646	213	46	14	6	6,906
F51–F59	Other behav. syndromes associated with physiological disturbances, physical factors	1,369	1,725	106	136	66	35	14	6	3,457
F60–F69	Disorders of adult personality and behaviour	2,505	1,968	1,350	1,371	966	276	163	26	8,625
F70–F79	Mental retardation	85	103	89	21	22	7	10	6	343
F80–F89	Disorders of psychological development	589	124	216	44	83	17	20	6	1,099
F90–F98	Disorders onset usually occurring in childhood, adolescence	2,626	493	483	321	133	45	13	5	4,119
F99	Mental disorder not otherwise specified	44	120	0	0	0	0	2	0	166
Z03.2	Observation for suspected mental and behav. disorder	45	13	38	45	2	2	0	2	147
Z81, Z86.5	Personal or family history of mental and behav. disorder	0	0	0	0	0	0	0	0	0
Mental disorders total		*76,192*	*59,808*	*45,146*	*29,763*	*18,784*	*6,829*	*1,733*	*982*	*239,237*

(continued)

Table 7.2: Separations for National Health Priority Areas, all hospitals, States and Territories, 1998-99 (continued)

Principal diagnosis or external cause		NSW	Vic	Qld	WA	SA	Tas	ACT	NT[(a)]	Total
		Cardiovascular disease								
I00–I09	Rheumatic heart disease	590	497	469	203	175	64	32	92	2,122
I10–I15	Hypertensive disease	2,782	1,573	1,939	683	669	235	44	44	7,969
I21	Acute myocardial infarction	11,311	8,106	6,908	3,020	2,965	697	373	162	33,542
I20,I22–I24	Other ischaemic heart disease	31,973	25,175	19,596	8,215	6,424	2,389	1,333	451	95,556
I25	Chronic ischaemic heart disease	12,014	5,074	4,777	1,864	4,476	503	305	35	29,048
I26–I28	Pulmonary heart disease, diseases of pulmonary circulation	3,366	1,505	1,370	610	600	152	114	52	7,769
I50	Heart failure	14,170	11,126	7,376	3,566	4,183	862	347	264	41,894
I30–I49, I51–I52	Other and ill-defined heart disease	20,905	14,375	12,668	5,134	5,367	1,599	786	301	61,135
I60–I62	Intracranial haemorrhage	2,840	2,062	1,323	557	678	184	117	60	7,821
I63–I64	Cerebral infarction and stroke	8,339	6,424	3,764	1,778	2,140	543	222	116	23,326
I65–I69	Other cerebrovascular disease	2,577	2,469	1,873	838	1,036	229	90	15	9,127
I70–I79	Diseases of arteries, arterioles and capillaries	8,606	8,518	5,526	3,003	3,313	812	489	59	30,326
I83	Varicose veins of lower limbs	6,530	5,820	3,534	1,964	2,055	589	258	64	20,814
I84	Haemorrhoids	12,739	6,956	5,232	3,574	2,703	600	386	92	32,282
I80–I82, I85–I99	Other diseases of veins, lymphatics, circulatory system	7,036	6,840	4,128	1,893	2,030	463	293	100	22,783
Z82.3–4, Z86.7, Z95	Personal/family history, post-surgical states, aftercare	63	5	4	0	0	1	0	0	73
Z01.3, Z03.4–5, Z13.6	Observation, screening	66	100	22	15	29	32	27	4	295
Cardiovascular disease total		*145,907*	*106,625*	*80,509*	*36,917*	*38,843*	*9,954*	*5,216*	*1,911*	*425,882*
		Asthma								
J45	Asthma	13,726	9,154	8,449	4,555	2,726	645	451	437	40,143
J46	Status asthmaticus	6,042	1,700	1,840	986	2,976	54	89	77	13,764
Asthma total		*19,768*	*10,854*	*10,289*	*5,541*	*5,702*	*699*	*540*	*514*	*53,907*

(continued)

Table 7.2: Separations for National Health Priority Areas, all hospitals, States and Territories, 1998-99 (continued)

Principal diagnosis or external cause		NSW	Vic	Qld	WA	SA	Tas	ACT	NT[(a)]	Total
		Injury or poisoning								
V01–V19	Pedestrian or pedal cyclist injured in transport accident	4,029	2,888	1,929	1,267	1,005	245	94	44	11,501
V20–V59	Rider or occupant of motor vehicle injured in transport	9,073	6,716	4,498	3,112	2,606	691	206	101	27,003
V60–V89	Occupant of heavy vehicle, bus injured in transport accident	2,062	1,087	1,539	699	412	172	30	32	6,033
V90–V99	Other transport accidents	835	306	499	321	158	45	6	7	2,177
W00–W19	Falls	42,436	26,117	19,933	9,982	9,231	1,386	312	1	109,398
W20–W49	Inanimate mechanical forces	16,459	11,617	14,356	5,952	4,764	1,033	284	1	54,466
W50–W64	Animate mechanical forces	3,218	2,194	1,723	555	358	83	38	0	8,169
W65–W74	Accidental drowning and submersion	204	58	202	76	25	8	2	0	575
W75–W84	Other accidental threats to breathing	194	160	273	88	124	11	0	0	850
W85–W99	Electric current, radiation, extreme temperature, pressure	302	278	431	183	209	59	2	0	1,464
X00–X09	Smoke, fire, flames	729	410	242	261	274	24	16	6	1,962
X10–X19	Heat, hot substances	1,129	787	247	455	374	71	21	3	3,087
X20–X29	Venomous plants and animals	1,110	398	1,486	534	393	52	1	39	4,013
X30–X39	Forces of nature	179	169	79	61	101	13	0	7	609
X40–X49	Accidental poisoning	4,061	2,875	3,688	1,234	1,384	246	29	63	13,580
X50–X59	Other and unspecified exposure	11,604	7,893	6,285	3,230	3,446	386	64	86	32,994
X60–X84	Intentional self-harm	6,834	5,192	3,114	2,396	1,984	411	135	85	20,151
X85–Y09	Assault	5,798	3,031	3,781	2,760	1,386	292	57	219	17,324
Y10–Y34	Event of undetermined intent	531	1,210	142	145	31	8	22	23	2,112
Y35–Y36	Legal intervention and operations of war	15	13	4	11	5	0	0	0	48
Y40–Y59	Drugs, medicaments, biological substances in therapeutic use	1,149	897	751	395	395	77	45	13	3,722
Y60–Y82	Misadventures during surgical and medical care, medical device incidents	400	700	73	66	50	12	4	3	1,308
Y83–Y84	Abnormal reactions, complications of medical and surgical care	18,904	15,061	9,495	7,184	5,297	1,694	381	262	58,278
Y85–Y98	Sequelae and supplementary factors	331	133	56	42	45	17	29	12	665
	External cause not reported	878	918	16,749	402	1,569	1,562	2,900	3,656	28,634
Injury and poisoning total		*132,464*	*91,108*	*91,575*	*41,411*	*35,626*	*8,598*	*4,678*	*4,663*	*410,123*
Total separations for National Health Priority Areas		**552,293**	**435,881**	**317,242**	**147,767**	**138,744**	**36,088**	**22,041**	**9,554**	**1,659,610**

Notes: 1. ICD-9-CM data reported by Queensland, Western Australia, South Australia and Tasmania have been mapped to ICD-10-AM. Comparisons with data reported by the other jurisdictions in ICD-10-AM should be made cautiously, with reference to the classifications and maps, as appropriate.

2. Abbreviation: behav.—behavioural.

(a) Public hospitals only.

Table 7.3: Separation, same day separation, patient day and average length of stay statistics by principal diagnosis in ICD-10-AM groupings, public hospitals, Australia, 1998–99

Principal diagnosis		Separations	Same day separations	Per cent same day separations	Separations per 10,000 population	Patient days	Patient days per 10,000 population	ALOS (days)	ALOS (days) excluding same day
A00–A09	Intestinal infectious diseases	30,936	6,507	21.0	16.4	71,077	37.7	2.3	2.6
A15–A19	Tuberculosis	791	128	16.2	0.4	10,910	5.8	13.8	16.3
A20–A49	Zoonotic and other bacterial diseases	10,974	1,004	9.1	5.8	99,270	52.7	9.0	9.9
A50–A64	Predominantly sexually transmitted diseases	1,187	761	64.1	0.6	2,982	1.6	2.5	5.2
A65–B19	Other spirochaetal, chlamydial, rickettsial and viral diseases	10,880	4,460	41.0	5.8	36,397	19.3	3.3	5.0
B20–B24	HIV disease	358	184	51.4	0.2	2,489	1.3	7.0	13.2
B25–B99	Other and unspecified infectious and parasitic diseases	19,113	4,507	23.6	10.1	53,286	28.3	2.8	3.3
C00–C14	Mal. neoplasm of lip, oral cavity and pharynx	4,279	985	23.0	2.3	33,501	17.8	7.8	9.9
C15–C26	Mal. neoplasm of digestive system	23,365	4,945	21.2	12.4	213,149	113.1	9.1	11.3
C30–C39	Mal. neoplasm of respiratory and intrathoracic organs	14,574	2,964	20.3	7.7	108,549	57.6	7.4	9.1
C40–C50	Mal. neoplasm of bone, connective tissue and breast	40,600	22,419	55.2	21.5	128,147	68.0	3.2	5.8
C51–C68	Mal. neoplasm of genitourinary organs	23,478	6,278	26.7	12.5	130,917	69.4	5.6	7.2
C69–C80	Other and unspecified malignant neoplasms	34,852	7,972	22.9	18.5	263,042	139.5	7.5	9.5
C81–C97	Mal. neoplasms of lymphoid and haematopoetic tissue	31,406	16,748	53.3	16.7	156,907	83.2	5.0	9.6
D00–D09	Neoplasms in situ	10,105	7,631	75.5	5.4	18,302	9.7	1.8	4.3
D10–D36	Benign neoplasms	42,886	25,817	60.2	22.7	108,398	57.5	2.5	4.8
D37–D48	Neoplasms of unknown or uncertain behaviour	9,683	6,203	64.1	5.1	26,802	14.2	2.8	5.9
D50–D89	Dis. of blood and blood-forming organs and immune mechanism	55,444	35,444	63.9	29.4	131,834	69.9	2.4	4.8
E00–E90	Diseases of thyroid and endocrine system	46,365	12,291	26.5	24.6	263,958	140.0	5.7	7.4
F00–F99	Mental and behavioural disorders	157,979	38,769	24.5	83.8	2,449,437	1,299.4	15.5	20.2
G00–G99	Diseases of the nervous system	80,750	28,105	34.8	42.8	402,240	213.4	5.0	7.1
H00–H59	Diseases of the eye and adnexa	62,737	45,184	72.0	33.3	90,730	48.1	1.4	2.6
H60–H99	Diseases of ear and mastoid process	34,860	20,994	60.2	18.5	55,056	29.2	1.6	2.5
I00–I09	Rheumatic heart disease	1,554	294	18.9	0.8	11,563	6.1	7.4	8.9
I10–I15	Hypertensive heart disease	5,831	876	15.0	3.1	24,294	12.9	4.2	4.7
I20–I25	Ischaemic heart disease	116,961	18,837	16.1	62.0	540,848	286.9	4.6	5.3
I26–I28	Pulmonary heart disease	6,126	399	6.5	3.2	47,082	25.0	7.7	8.2
I30–I52	Other heart disease	78,084	13,106	16.8	41.4	447,673	237.5	5.7	6.7
I60–I69	Cerebrovascular disease	31,926	2,868	9.0	16.9	355,812	188.7	11.1	12.1
I70–I99	Other diseases of the circulatory system	62,158	18,960	30.5	33.0	293,766	155.8	4.7	6.4
J00–J06	Acute upper respiratory infections	27,730	6,347	22.9	14.7	54,149	28.7	2.0	2.2
J10–J18	Influenza and pneumonia	54,512	3,246	6.0	28.9	347,075	184.1	6.4	6.7
J20–J22	Acute lower respiratory infections	21,800	1,853	8.5	11.6	82,185	43.6	3.8	4.0
J30–J39	Other diseases of upper respiratory tract	40,000	7,082	17.7	21.2	57,721	30.6	1.4	1.5
J40–J70	Chronic lower respiratory diseases	95,063	10,800	11.4	50.4	467,252	247.9	4.9	5.4
J80–J99	Other respiratory diseases	22,158	3,558	16.1	11.8	137,046	72.7	6.2	7.2
K00–K14	Diseases of oral cavity, salivary glands and jaws	34,229	27,906	81.5	18.2	45,309	24.0	1.3	2.8
K20–K31	Diseases of oesophagus, stomach and duodenum	89,161	66,082	74.1	47.3	174,978	92.8	2.0	4.7

(continued)

Table 7.3 (continued): Separation, same day separation, patient day and average length of stay statistics by principal diagnosis in ICD-10-AM groupings, public hospitals, Australia, 1998–99

Principal diagnosis		Separations	Same day separations	Per cent same day separations	Separations per 10,000 population	Patient days	Patient days per 10,000 population	ALOS (days)	ALOS (days) excluding same day
K35–K38	Appendicitis	18,516	888	4.8	9.8	60,668	32.2	3.3	3.4
K40–K46	Hernias	39,241	13,326	34.0	20.8	85,407	45.3	2.2	2.8
K50–K52	Non-infective enteritis and colitis	21,888	9,395	42.9	11.6	65,413	34.7	3.0	4.5
K55–K67	Other diseases of intestines	72,079	32,290	44.8	38.2	253,637	134.5	3.5	5.6
K70–K87	Diseases of liver, gallbladder and pancreas	62,859	9,076	14.4	33.3	273,456	145.1	4.4	4.9
K90–K93	Other diseases of digestive system	19,773	10,222	51.7	10.5	60,845	32.3	3.1	5.3
L00–L99	Diseases of skin and subcutaneous tissue	72,452	26,912	37.1	38.4	332,828	176.6	4.6	6.7
M00–M99	Diseases of musculoskeletal and connective tissue	148,457	57,845	39.0	78.8	629,406	333.9	4.2	6.3
N00–N39	Diseases of the urinary system	85,074	26,041	30.6	45.1	326,246	173.1	3.8	5.1
N40–N51	Diseases of the male genital organs	24,506	9,506	38.8	13.0	66,779	35.4	2.7	3.8
N60–N64	Diseases of the breast	8,481	5,526	65.2	4.5	12,509	6.6	1.5	2.4
N70–N98	Diseases of the female pelvic organs and genital tract	99,182	64,887	65.4	52.6	182,778	97.0	1.8	3.4
N99	Other disorders of the genitourinary system	2,510	524	20.9	1.3	9,532	5.1	3.8	4.5
O00–O09	Pregnancy with abortive outcome	46,943	31,245	66.6	24.9	56,899	30.2	1.2	1.6
O10–O29	Complications relating to pregnancy	52,473	14,827	28.3	27.8	151,199	80.2	2.9	3.6
O30–O82	Complications relating to labour and delivery	207,481	21,612	10.4	110.1	725,342	384.8	3.5	3.8
O85–O99	Complications relating to the puerperium	23,140	5,823	25.2	12.3	65,255	34.6	2.8	3.4
P00–P96	Conditions originating in the perinatal period	38,818	2,829	7.3	20.6	363,332	192.7	9.4	10.0
Q00–Q99	Congenital abnormalities	24,849	11,259	45.3	13.2	96,781	51.3	3.9	6.3
R00–R99	Signs, symptoms and abnormal findings	220,911	86,087	39.0	117.2	585,123	310.4	2.6	3.7
S00–S19	Injuries to head and neck	59,820	24,972	41.7	31.7	163,672	86.8	2.7	4.0
S20–S39	Injuries to thorax, abdomen, back, spine and pelvis	24,909	4,365	17.5	13.2	160,841	85.3	6.5	7.6
S40–S99	Injuries to upper and lower limbs	141,106	38,536	27.3	74.9	567,187	300.9	4.0	5.2
T00–T19	Injuries to multi- or unspecified region; foreign body effects	10,328	4,598	44.5	5.5	21,220	11.3	2.1	2.9
T20–T35	Burns and frostbite	6,891	1,696	24.6	3.7	41,689	22.1	6.0	7.7
T36–T65	Poisoning and toxic effects	35,886	12,636	35.2	19.0	72,953	38.7	2.0	2.6
T66–T79	Other and unspecified effects of external causes	6,827	2,720	39.8	3.6	16,458	8.7	2.4	3.3
T80–T88	Complications of medical and surgical care	44,575	8,045	18.0	23.6	286,567	152.0	6.4	7.6
T89–T98	Other trauma complications; external cause sequelae	184	57	31.0	0.1	2,090	1.1	11.4	16.0
Z00–Z13	Encounter for examination and investigation	39,359	34,053	86.5	20.9	50,248	26.7	1.3	3.1
Z20–Z29	Encounter relating to communicable diseases	4,827	4,665	96.6	2.6	5,461	2.9	1.1	4.9
Z30–Z39	Encounter for services relating to reproduction	37,770	26,159	69.3	20.0	58,655	31.1	1.6	2.8
Z40–Z54	Encounter with health service for specific procedures	688,183	622,523	90.5	365.1	1,772,242	940.1	2.6	17.5
Z55–Z76	Encounter with health service in other circumstances	24,820	3,766	15.2	13.2	644,562	341.9	26.0	30.4
Z80–Z99	Encounter relating to personal and family history	7,040	6,696	95.1	3.7	9,026	4.8	1.3	6.8
	Not reported	2,638	598	22.7	1.4	53,789	28.5	20.4	26.1
Total		**3,859,691**	**1,718,719**	**44.5**	**2,047.5**	**16,274,228**	**8,633.0**	**4.2**	**6.8**

Note: Abbreviations: ALOS—average length of stay, mal.—malignant, dis.—diseases.

Table 7.4: Separation, same day separation, patient day and average length of stay statistics by principal diagnosis in ICD-10-AM groupings, private hospitals, Australia, 1998–99

Principal diagnosis		Separations	Same day separations	Per cent same day separations	Separations per 10,000 population	Patient days	Patient days per 10,000 population	ALOS (days)	ALOS (days) excluding same day
A00–A09	Intestinal infectious diseases	5,830	2,316	39.7	3.1	15,053	8.1	2.6	3.6
A15–A19	Tuberculosis	62	9	14.5	<0.1	578	0.3	9.3	10.7
A20–A49	Zoonotic and other bacterial diseases	1,862	110	5.9	1.0	17,271	9.3	9.3	9.8
A50–A64	Predominantly sexually transmitted diseases	461	397	86.1	0.2	701	0.4	1.5	4.8
A65–B19	Spirochaetal, chlamydial, rickettsial and viral diseases	2,550	1,296	50.8	1.4	9,699	5.2	3.8	6.7
B20–B24	HIV disease	11	1	9.1	<0.1	169	0.1	15.4	16.8
B25–B99	Other and unspecified infectious and parasitic diseases	3,742	1,103	29.5	2.0	12,589	6.7	3.4	4.4
C00–C14	Mal. neoplasm of lip, oral cavity and pharynx	1,122	371	33.1	0.6	6,376	3.4	5.7	8.0
C15–C26	Mal. neoplasm of digestive system	14,353	4,780	33.3	7.7	110,279	59.1	7.7	11.0
C30–C39	Mal. neoplasm of respiratory and intrathoracic organs	4,695	817	17.4	2.5	38,541	20.7	8.2	9.7
C40–C50	Mal. neoplasm of bone, connective tissue and breast	43,336	27,707	63.9	23.2	104,114	55.8	2.4	4.9
C51–C68	Mal. neoplasm of genitourinary organs	17,567	5,337	30.4	9.4	83,718	44.9	4.8	6.4
C69–C80	Other and unspecified mal. neoplasms	13,643	2,957	21.7	7.3	104,979	56.3	7.7	9.5
C81–C97	Mal. neoplasms of lymphoid and haematopoetic tissue	11,010	6,005	54.5	5.9	41,041	22.0	3.7	7.0
D00–D09	Neoplasms in situ	6,615	4,535	68.6	3.5	12,648	6.8	1.9	3.9
D10–D36	Benign neoplasms	45,191	32,067	71.0	24.2	90,898	48.7	2.0	4.5
D37–D48	Neoplasms of unknown or uncertain behaviour	4,947	2,933	59.3	2.7	13,809	7.4	2.8	5.4
D50–D89	Dis. of blood and blood-forming organs and immune mechanism	16,087	9,294	57.8	8.6	38,356	20.6	2.4	4.3
E00–E90	Diseases of thyroid and endocrine system	13,061	3,015	23.1	7.0	69,319	37.1	5.3	6.6
F00–F99	Mental and behavioural disorders	81,111	50,682	62.5	43.5	542,661	290.8	6.7	16.2
G00–G99	Diseases of the nervous system	41,603	13,234	31.8	22.3	129,568	69.4	3.1	4.1
H00–H59	Diseases of the eye and adnexa	97,605	73,043	74.8	52.3	110,017	59.0	1.1	1.5
H60–H99	Diseases of ear and mastoid process	22,823	16,882	74.0	12.2	29,833	16.0	1.3	2.2
I00–I09	Rheumatic heart disease	568	127	22.4	0.3	4,416	2.4	7.8	9.7
I10–I15	Hypertensive heart disease	2,138	232	10.9	1.1	12,343	6.6	5.8	6.4
I20–125	Ischaemic heart disease	41,185	7,759	18.8	22.1	195,579	104.8	4.7	5.6
I26–I28	Pulmonary heart disease	1,643	36	2.2	0.9	16,851	9.0	10.3	10.5
I30–I52	Other heart disease	24,945	4,000	16.0	13.4	155,977	83.6	6.3	7.3
I60–I69	Cerebrovascular disease	8,348	307	3.7	4.5	85,772	46.0	10.3	10.6
I70–I99	Other diseases of the circulatory system	44,047	17,504	39.7	23.6	153,773	82.4	3.5	5.1
J00–J06	Acute upper respiratory infections	2,967	315	10.6	1.6	9,883	5.3	3.3	3.6
J10–J18	Influenza and pneumonia	10,668	230	2.2	5.7	91,092	48.8	8.5	8.7
J20–J22	Acute lower respiratory infections	2,797	84	3.0	1.5	18,727	10.0	6.7	6.9
J30–J39	Other diseases of upper respiratory tract	33,996	5,970	17.6	18.2	44,031	23.6	1.3	1.4
J40–J70	Chronic lower respiratory diseases	15,229	852	5.6	8.2	121,434	65.1	8.0	8.4
J80–J99	Other respiratory diseases	5,388	631	11.7	2.9	39,902	21.4	7.4	8.3
K00–K14	Diseases of oral cavity, salivary glands and jaws	60,188	49,046	81.5	32.3	66,217	35.5	1.1	1.5
K20–K31	Diseases of oesophagus, stomach and duodenum	100,775	93,521	92.8	54.0	128,841	69.0	1.3	4.9

(continued)

Table 7.4 (continued): Separation, same day separation, patient day and average length of stay statistics by principal diagnosis in ICD-10-AM groupings, private hospitals, Australia, 1998–99

Principal diagnosis		Separations	Same day separations	Per cent same day separations	Separations per 10,000 population	Patient days	Patient days per 10,000 population	ALOS (days)	ALOS (days) excluding same day
K35–K38	Appendicitis	4,841	62	1.3	2.6	16,402	8.8	3.4	3.4
K40–K46	Hernias	35,470	11,270	31.8	19.0	75,225	40.3	2.1	2.6
K50–K52	Non-infective enteritis and colitis	13,159	9,397	71.4	7.1	32,082	17.2	2.4	6.0
K55–K67	Other diseases of intestines	75,698	57,711	76.2	40.6	158,690	85.0	2.1	5.6
K70–K87	Diseases of liver, gallbladder and pancreas	22,455	1,494	6.7	12.0	87,508	46.9	3.9	4.1
K90–K93	Other diseases of digestive system	10,913	8,044	73.7	5.8	24,239	13.0	2.2	5.6
L00–L99	Diseases of skin and subcutaneous tissue	30,148	17,239	57.2	16.2	112,921	60.5	3.7	7.4
M00–M99	Diseases of musculoskeletal and connective tissue	172,673	67,195	38.9	92.5	642,316	344.2	3.7	5.5
N00–N39	Diseases of the urinary system	38,778	16,801	43.3	20.8	118,676	63.6	3.1	4.6
N40–N51	Diseases of the male genital organs	18,435	7,256	39.4	9.9	50,697	27.2	2.8	3.9
N60–N64	Diseases of the breast	8,565	4,658	54.4	4.6	12,835	6.9	1.5	2.1
N70–N98	Diseases of the female pelvic organs and genital tract	73,811	52,019	70.5	39.6	144,115	77.2	2.0	4.2
N99	Other disorders of the genitourinary system	1,471	238	16.2	0.8	5,999	3.2	4.1	4.7
O00–O09	Pregnancy with abortive outcome	27,415	24,834	90.6	14.7	28,863	15.5	1.1	1.6
O10–O29	Complications relating to pregnancy	8,885	820	9.2	4.8	39,721	21.3	4.5	4.8
O30–O82	Complications relating to labour and delivery	59,507	2,609	4.4	31.9	320,128	171.6	5.4	5.6
O85–O99	Complications relating to the puerperium	6,318	2,212	35.0	3.4	22,114	11.9	3.5	4.8
P00–P96	Conditions originating in the perinatal period	9,130	531	5.8	4.9	67,685	36.3	7.4	7.8
Q00–Q99	Congenital abnormalities	9,364	4,855	51.8	5.0	19,497	10.4	2.1	3.2
R00–R99	Signs, symptoms and abnormal findings	81,645	45,162	55.3	43.8	191,568	102.7	2.3	4.0
S00–S19	Injuries to head and neck	6,381	2,646	41.5	3.4	18,522	9.9	2.9	4.3
S20–S39	Injuries to thorax, abdomen, back, spine and pelvis	4,592	202	4.4	2.5	46,590	25.0	10.1	10.6
S40–S99	Injuries to upper and lower limbs	39,575	10,296	26.0	21.2	172,605	92.5	4.4	5.5
T00–T19	Injuries to multi- or unspecified region; foreign body effects	2,075	858	41.3	1.1	7,160	3.8	3.5	5.2
T20–T35	Burns and frostbite	446	89	20.0	0.2	2,765	1.5	6.2	7.5
T36–T65	Poisoning and toxic effects	1,777	303	17.1	1.0	6,251	3.3	3.5	4.0
T66–T79	Other and unspecified effects of external causes	623	123	19.7	0.3	2,580	1.4	4.1	4.9
T80–T88	Complications of medical and surgical care	19,750	3,283	16.6	10.6	128,499	68.9	6.5	7.6
T89–T98	Other trauma complications; external cause sequelae	26	10	38.5	<0.1	93	<0.1	3.6	5.2
Z00–Z13	Encounter for examination and investigation	33,235	30,688	92.3	17.8	40,273	21.6	1.2	3.8
Z20–Z29	Encounter relating to communicable diseases	256	225	87.9	0.1	334	0.2	1.3	3.5
Z30–Z39	Encounter for services relating to reproduction	23,250	17,976	77.3	12.5	39,780	21.3	1.7	4.1
Z40–Z54	Encounter with health service for specific procedures	204,289	168,179	82.3	109.5	583,217	312.6	2.9	11.5
Z55–Z76	Encounter with health service in other circumstances	2,142	552	25.8	1.1	48,238	25.9	22.5	30.0
Z80–Z99	Encounter relating to personal and family history	14,098	13,932	98.8	7.6	14,238	7.6	1.0	1.8
	Not reported	9,993	5,034	50.4	5.4	35,332	18.9	3.5	6.1
Total		**1,875,358**	**1,028,308**	**54.8**	**1,005.0**	**6,044,813**	**3,239.5**	**3.2**	**5.9**

Note: Abbreviations: ALOS—average length of stay, mal.—malignant, dis.—diseases.

Table 7.5: Separations by principal diagnosis in ICD-10-AM groupings, public hospitals, States and Territories, 1998–99

Principal diagnosis		NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
A00–A09	Intestinal infectious diseases	11,888	4,782	5,463	3,229	3,705	534	405	930	30,936
A15–A19	Tuberculosis	299	222	100	51	60	14	14	31	791
A20–A49	Zoonotic and other bacterial diseases	3,939	2,735	2,079	857	735	247	93	289	10,974
A50–A64	Predominantly sexually transmitted diseases	497	326	140	88	46	11	9	70	1,187
A65–B19	Other spirochaetal, chlamydial, rickettsial and viral diseases	4,031	2,233	2,066	1,115	1,047	162	99	127	10,880
B20–B24	HIV disease	131	28	11	15	166	0	5	2	358
B25–B99	Other and unspecified infectious and parasitic diseases	7,678	3,204	3,857	1,788	1,668	475	221	222	19,113
C00–C14	Mal. neoplasm of lip, oral cavity and pharynx	1,511	951	963	288	379	88	41	58	4,279
C15–C26	Mal. neoplasm of digestive system	9,128	6,025	3,390	1,717	2,160	499	372	74	23,365
C30–C39	Mal. neoplasm of respiratory and intrathoracic organs	5,105	3,495	2,828	1,042	1,527	343	165	69	14,574
C40–C50	Mal. neoplasm of bone, connective tissue and breast	12,818	8,611	9,735	3,339	4,462	855	636	144	40,600
C51–C68	Mal. neoplasm of genitourinary organs	8,197	6,271	3,852	1,771	2,414	575	330	68	23,478
C69–C80	Other and unspecified mal. neoplasms	10,731	11,391	6,126	2,379	2,720	959	448	98	34,852
C81–C97	Mal. neoplasms of lymphoid and haematopoetic tissue	9,001	8,640	6,160	2,589	3,450	757	763	46	31,406
D00–D09	Neoplasms in situ	2,835	2,371	2,598	641	1,221	220	123	96	10,105
D10–D36	Benign neoplasms	14,686	10,341	7,589	4,544	3,950	815	686	275	42,886
D37–D48	Neoplasms of unknown or uncertain behaviour	4,095	2,668	1,331	622	563	153	227	24	9,683
D50–D89	Dis. of blood and blood-forming organs and immune mechanism	17,097	14,286	8,603	5,747	6,955	1,612	882	262	55,444
E00–E90	Diseases of thyroid and endocrine system	13,370	11,604	8,581	3,936	5,892	1,443	599	940	46,365
F00–F99	Mental and behavioural disorders	54,036	33,689	29,866	18,219	15,495	4,264	1,430	980	157,979
G00–G99	Diseases of the nervous system	24,563	23,135	14,421	7,215	8,575	1,442	892	507	80,750
H00–H59	Diseases of the eye and adnexa	21,616	17,297	8,795	7,048	6,467	501	480	533	62,737
H60–H99	Diseases of ear and mastoid process	10,282	8,806	7,338	3,511	3,687	333	557	346	34,860
I00–I09	Rheumatic heart disease	371	315	380	173	139	53	31	92	1,554
I10–I15	Hypertensive heart disease	2,429	1,149	1,052	547	506	66	38	44	5,831
I20–I25	Ischaemic heart disease	41,823	27,627	21,827	9,267	11,003	2,819	1,947	648	116,961
I26–I28	Pulmonary heart disease	2,979	1,115	911	426	445	102	96	52	6,126
I30–I52	Other heart disease	29,049	18,391	13,647	6,446	7,211	1,718	1,057	565	78,084
I60–I69	Cerebrovascular disease	12,136	8,437	4,766	2,491	2,857	657	391	191	31,926
I70–I99	Other diseases of the circulatory system	20,731	16,246	9,913	5,985	6,456	1,406	1,106	315	62,158
J00–J06	Acute upper respiratory infections	10,795	5,092	5,613	2,535	2,417	482	435	361	27,730
J10–J18	Influenza and pneumonia	20,785	12,171	9,258	4,091	4,718	982	785	1,722	54,512
J20–J22	Acute lower respiratory infections	9,804	4,829	2,506	1,803	1,735	235	284	604	21,800
J30–J39	Other diseases of upper respiratory tract	12,921	11,969	6,030	3,493	4,224	439	670	254	40,000
J40–J70	Chronic lower respiratory diseases	36,986	20,538	16,726	8,166	9,207	1,449	943	1,048	95,063
J80–J99	Other respiratory diseases	7,065	4,075	4,885	2,697	2,596	537	182	121	22,158
K00–K14	Diseases of oral cavity, salivary glands and jaws	8,522	8,752	7,389	3,578	3,752	1,117	576	543	34,229
K20–K31	Diseases of oesophagus, stomach and duodenum	30,989	20,383	15,111	9,976	8,610	1,846	1,327	919	89,161

(continued)

Table 7.5 (continued): Separations by principal diagnosis in ICD-10-AM groupings, public hospitals, States and Territories, 1998–99

Principal diagnosis		NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
K35–K38	Appendicitis	6,512	4,488	3,375	1,889	1,318	360	346	228	18,516
K40–K46	Hernias	13,840	9,798	7,399	3,313	3,505	636	491	259	39,241
K50–K52	Non-infective enteritis and colitis	7,748	5,593	3,815	1,936	1,996	357	310	133	21,888
K55–K67	Other diseases of intestines	25,640	16,396	13,144	7,273	6,878	1,377	896	475	72,079
K70–K87	Diseases of liver, gallbladder and pancreas	23,006	15,256	11,336	5,061	5,449	1,091	1,012	648	62,859
K90–K93	Other diseases of digestive system	6,391	5,044	3,658	1,990	1,753	458	330	149	19,773
L00–L99	Diseases of skin and subcutaneous tissue	22,461	14,645	15,459	6,913	9,186	1,658	719	1,411	72,452
M00–M99	Diseases of musculoskeletal and connective tissue	47,805	36,696	26,124	14,969	15,833	3,726	2,088	1,216	148,457
N00–N39	Diseases of the urinary system	31,216	20,014	15,267	8,067	7,390	1,425	819	876	85,074
N40–N51	Diseases of the male genital organs	8,793	6,190	3,839	2,583	1,982	590	289	240	24,506
N60–N64	Diseases of the breast	2,414	2,681	1,328	823	809	246	68	112	8,481
N70–N98	Diseases of the female pelvic organs and genital tract	30,459	27,365	18,712	9,042	9,632	1,621	1,311	1,040	99,182
N99	Other disorders of the genitourinary system	833	722	377	254	225	52	28	19	2,510
O00–O09	Pregnancy with abortive outcome	13,357	12,913	6,276	3,688	7,688	1,077	516	1,428	46,943
O10–O29	Complications relating to pregnancy	18,687	14,469	9,439	3,472	4,189	932	534	751	52,473
O30–O82	Complications relating to labour and delivery	71,879	50,119	39,641	18,381	16,123	4,481	3,577	3,280	207,481
O85–O99	Complications relating to the puerperium	6,976	6,102	3,964	2,128	2,633	423	310	604	23,140
P00–P96	Conditions originating in the perinatal period	13,184	10,616	6,628	2,381	3,681	737	726	865	38,818
Q00–Q99	Congenital abnormalities	8,621	6,647	4,549	2,130	1,935	444	364	159	24,849
R00–R99	Signs, symptoms and abnormal findings	77,732	56,460	40,922	18,286	19,373	3,779	2,414	1,945	220,911
S00–S19	Injuries to head and neck	19,245	12,178	14,755	6,399	4,799	975	500	969	59,820
S20–S39	Injuries to thorax, abdomen, back, spine and pelvis	9,734	5,723	4,334	2,248	1,779	408	267	416	24,909
S40–S99	Injuries to upper and lower limbs	50,048	30,605	31,329	12,419	10,258	2,260	2,026	2,161	141,106
T00–T19	Injuries to multi- or unspecified region; foreign body effects	2,611	1,555	3,464	1,270	1,065	201	90	72	10,328
T20–T35	Burns and frostbite	2,038	1,319	1,588	885	726	132	53	150	6,891
T36–T65	Poisoning and toxic effects	11,099	8,332	8,234	3,483	3,467	649	373	249	35,886
T66–T79	Other and unspecified effects of external causes	1,952	1,160	2,005	699	699	149	32	131	6,827
T80–T88	Complications of medical and surgical care	14,368	11,064	8,386	4,931	3,669	1,016	668	473	44,575
T89–T98	Other trauma complications; external cause sequelae	171	0	0	1	1	0	6	5	184
Z00–Z13	Encounter for examination and investigation	12,012	8,109	8,255	4,449	4,938	769	499	328	39,359
Z20–Z29	Encounter relating to communicable diseases	1,814	1,276	1,219	208	263	14	14	19	4,827
Z30–Z39	Encounter for services relating to reproduction	11,287	10,664	4,890	3,457	5,588	703	280	901	37,770
Z40–Z54	Encounter with health service for specific procedures	193,701	201,692	122,248	66,836	51,538	16,334	16,992	18,842	688,183
Z55–Z76	Encounter with health service in other circumstances	8,042	5,796	5,956	1,381	2,192	787	103	563	24,820
Z80–Z99	Encounter relating to personal and family history	2,801	1,935	892	898	83	147	202	82	7,040
	Not reported	0	2,328	0	1	0	293	0	16	2,638
Total		**1,273,396**	**970,150**	**708,713**	**357,569**	**355,863**	**80,517**	**58,598**	**54,885**	**3,859,691**

Notes: 1. ICD-9-CM data reported by Queensland, Western Australia, South Australia and Tasmania have been mapped to ICD-10-AM. Comparisons with data reported by the other jurisdictions in ICD-10-AM should be made cautiously, with reference to the classifications and maps, as appropriate.

2. Abbreviations: mal.—malignant, dis.—diseases.

Table 7.6: Separations by principal diagnosis in ICD-10-AM groupings, private hospitals, States and Territories, 1998–99

Principal diagnosis		NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
A00–A09	Intestinal infectious diseases	1,025	864	2,228	920	570	n.p.	n.p.	n.a.	5,830
A15–A19	Tuberculosis	20	12	16	9	3	n.p.	n.p.	n.a.	62
A20–A49	Zoonotic and other bacterial diseases	352	582	495	172	170	n.p.	n.p.	n.a.	1,862
A50–A64	Predominantly sexually transmitted diseases	264	90	35	39	17	n.p.	n.p.	n.a.	461
A65–B19	Other spirochaetal, chlamydial, rickettsial and viral diseases	669	539	630	353	230	n.p.	n.p.	n.a.	2,550
B20–B24	HIV disease	3	0	4	1	2	n.p.	n.p.	n.a.	11
B25–B99	Other and unspecified infectious and parasitic diseases	908	611	1,305	430	323	n.p.	n.p.	n.a.	3,742
C00–C14	Mal. neoplasm of lip, oral cavity and pharynx	271	298	303	107	100	n.p.	n.p.	n.a.	1,122
C15–C26	Mal. neoplasm of digestive system	3,894	4,436	3,205	1,239	1,151	n.p.	n.p.	n.a.	14,353
C30–C39	Mal. neoplasm of respiratory and intrathoracic organs	854	1,286	1,326	590	501	n.p.	n.p.	n.a.	4,695
C40–C50	Mal. neoplasm of bone, connective tissue and breast	13,876	9,478	11,533	2,721	4,561	n.p.	n.p.	n.a.	43,336
C51–C68	Mal. neoplasm of genitourinary organs	5,273	5,013	3,503	1,528	1,372	n.p.	n.p.	n.a.	17,567
C69–C80	Other and unspecified mal. neoplasms	2,826	4,128	3,671	1,339	1,307	n.p.	n.p.	n.a.	13,643
C81–C97	Mal. neoplasms of lymphoid and haematopoetic tissue	1,536	3,551	4,242	700	674	n.p.	n.p.	n.a.	11,010
D00–D09	Neoplasms in situ	2,220	1,315	1,437	400	915	n.p.	n.p.	n.a.	6,615
D10–D36	Benign neoplasms	16,634	9,890	9,527	4,272	3,415	n.p.	n.p.	n.a.	45,191
D37–D48	Neoplasms of unknown or uncertain behaviour	1,726	1,388	1,071	301	310	n.p.	n.p.	n.a.	4,947
D50–D89	Dis. of blood and blood-forming organs and immune mechanism	3,430	4,177	4,945	1,664	1,365	n.p.	n.p.	n.a.	16,087
E00–E90	Diseases of thyroid and endocrine system	3,197	3,679	3,144	1,310	1,266	n.p.	n.p.	n.a.	13,061
F00–F99	Mental and behavioural disorders	22,111	26,106	15,242	11,499	3,287	n.p.	n.p.	n.a.	81,111
G00–G99	Diseases of the nervous system	12,513	11,506	8,658	4,375	3,128	n.p.	n.p.	n.a.	41,603
H00–H59	Diseases of the eye and adnexa	36,811	19,245	23,679	8,820	5,528	n.p.	n.p.	n.a.	97,605
H60–H99	Diseases of ear and mastoid process	6,594	5,505	4,528	2,242	3,053	n.p.	n.p.	n.a.	22,823
I00–I09	Rheumatic heart disease	219	182	89	30	36	n.p.	n.p.	n.a.	568
I10–I15	Hypertensive heart disease	353	424	887	136	163	n.p.	n.p.	n.a.	2,138
I20–I25	Ischaemic heart disease	13,475	10,728	9,454	3,832	2,862	n.p.	n.p.	n.a.	41,185
I26–I28	Pulmonary heart disease	387	390	459	184	155	n.p.	n.p.	n.a.	1,643
I30–I52	Other heart disease	6,026	7,110	6,397	2,254	2,339	n.p.	n.p.	n.a.	24,945
I60–I69	Cerebrovascular disease	1,620	2,518	2,194	682	997	n.p.	n.p.	n.a.	8,348
I70–I99	Other diseases of the circulatory system	14,180	11,888	8,507	4,449	3,645	n.p.	n.p.	n.a.	44,047
J00–J06	Acute upper respiratory infections	704	504	1,004	406	214	n.p.	n.p.	n.a.	2,967
J10–J18	Influenza and pneumonia	2,236	3,238	2,916	888	1,005	n.p.	n.p.	n.a.	10,668
J20–J22	Acute lower respiratory infections	813	817	673	241	177	n.p.	n.p.	n.a.	2,797
J30–J39	Other diseases of upper respiratory tract	11,387	7,407	6,674	3,423	3,863	n.p.	n.p.	n.a.	33,996
J40–J70	Chronic lower respiratory diseases	2,745	3,577	4,539	2,181	1,632	n.p.	n.p.	n.a.	15,229
J80–J99	Other respiratory diseases	962	1,228	1,862	656	477	n.p.	n.p.	n.a.	5,388
K00–K14	Diseases of oral cavity, salivary glands and jaws	17,246	16,132	11,421	7,725	5,610	n.p.	n.p.	n.a.	60,188
K20–K31	Diseases of oesophagus, stomach and duodenum	33,765	27,868	22,922	7,571	6,510	n.p.	n.p.	n.a.	100,775
K35–K38	Appendicitis	1,133	1,043	1,256	796	408	n.p.	n.p.	n.a.	4,841

(continued)

Table 7.6 (continued): Separations by principal diagnosis in ICD-10-AM groupings, private hospitals, States and Territories, 1998–99

Principal diagnosis		NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
K40–K46	Hernias	11,804	9,979	7,210	2,920	2,319	n.p.	n.p.	n.a.	35,470
K50–K52	Non-infective enteritis and colitis	4,441	3,624	2,752	938	1,023	n.p.	n.p.	n.a.	13,159
K55–K67	Other diseases of intestines	23,140	20,876	18,929	5,644	5,254	n.p.	n.p.	n.a.	75,698
K70–K87	Diseases of liver, gallbladder and pancreas	6,794	5,241	5,047	2,421	1,934	n.p.	n.p.	n.a.	22,455
K90–K93	Other diseases of digestive system	2,778	3,098	2,772	999	925	n.p.	n.p.	n.a.	10,913
L00–L99	Diseases of skin and subcutaneous tissue	9,994	7,385	5,670	3,108	2,987	n.p.	n.p.	n.a.	30,148
M00–M99	Diseases of musculoskeletal and connective tissue	53,263	43,705	27,427	21,882	18,524	n.p.	n.p.	n.a.	172,673
N00–N39	Diseases of the urinary system	12,430	8,927	9,017	3,746	3,038	n.p.	n.p.	n.a.	38,778
N40–N51	Diseases of the male genital organs	6,215	4,813	3,408	2,003	1,079	n.p.	n.p.	n.a.	18,435
N60–N64	Diseases of the breast	2,480	2,783	1,403	847	729	n.p.	n.p.	n.a.	8,565
N70–N98	Diseases of the female pelvic organs and genital tract	22,741	19,130	15,953	7,525	5,053	n.p.	n.p.	n.a.	73,811
N99	Other disorders of the genitourinary system	458	364	258	165	121	n.p.	n.p.	n.a.	1,471
O00–O09	Pregnancy with abortive outcome	15,144	3,962	2,527	4,415	824	n.p.	n.p.	n.a.	27,415
O10–O29	Complications relating to pregnancy	2,711	1,996	1,634	1,455	474	n.p.	n.p.	n.a.	8,885
O30–O82	Complications relating to labour and delivery	17,086	15,272	12,327	7,636	4,154	n.p.	n.p.	n.a.	59,507
O85–O99	Complications relating to the puerperium	1,329	1,817	1,841	702	288	n.p.	n.p.	n.a.	6,318
P00–P96	Conditions originating in the perinatal period	2,676	2,619	1,367	1,120	471	n.p.	n.p.	n.a.	9,130
Q00–Q99	Congenital abnormalities	3,169	2,142	1,963	933	674	n.p.	n.p.	n.a.	9,364
R00–R99	Signs, symptoms and abnormal findings	20,406	23,524	20,148	8,639	5,996	n.p.	n.p.	n.a.	81,645
S00–S19	Injuries to head and neck	1,461	1,623	1,641	697	575	n.p.	n.p.	n.a.	6,381
S20–S39	Injuries to thorax, abdomen, back, spine and pelvis	1,116	1,178	1,128	488	502	n.p.	n.p.	n.a.	4,592
S40–S99	Injuries to upper and lower limbs	10,743	9,514	8,361	4,441	4,918	n.p.	n.p.	n.a.	39,575
T00–T19	Injuries to multi- or unspecified region; foreign body effects	339	343	768	258	223	n.p.	n.p.	n.a.	2,075
T20–T35	Burns and frostbite	93	121	102	57	59	n.p.	n.p.	n.a.	446
T36–T65	Poisoning and toxic effects	270	334	524	415	151	n.p.	n.p.	n.a.	1,777
T66–T79	Other and unspecified effects of external causes	108	153	165	87	77	n.p.	n.p.	n.a.	623
T80–T88	Complications of medical and surgical care	5,479	4,988	4,151	2,301	1,909	n.p.	n.p.	n.a.	19,750
T89–T98	Other trauma complications; external cause sequelae	22	0	0	0	2	n.p.	n.p.	n.a.	26
Z00–Z13	Encounter for examination and investigation	13,296	7,548	7,032	2,227	2,195	n.p.	n.p.	n.a.	33,235
Z20–Z29	Encounter relating to communicable diseases	72	65	92	21	4	n.p.	n.p.	n.a.	256
Z30–Z39	Encounter for services relating to reproduction	11,049	5,809	2,624	1,467	1,023	n.p.	n.p.	n.a.	23,250
Z40–Z54	Encounter with health service for specific procedures	52,127	60,430	53,733	15,685	19,290	n.p.	n.p.	n.a.	204,289
Z55–Z76	Encounter with health service in other circumstances	504	249	847	307	156	n.p.	n.p.	n.a.	2,142
Z80–Z99	Encounter relating to personal and family history	6,620	3,338	2,477	963	449	n.p.	n.p.	n.a.	14,098
	Not reported	1	9,964	0	0	0	n.p.	n.p.	n.a.	9,993
Total		**566,617**	**495,667**	**411,279**	**186,997**	**150,741**	**n.p.**	**n.p.**	**n.a.**	**1,875,358**

Notes: 1. ICD-9-CM data reported by Queensland, Western Australia, South Australia and Tasmania have been mapped to ICD-10-AM. Comparisons with data reported by the other jurisdictions in ICD-10-AM should be made cautiously, with reference to the classifications and maps, as appropriate.

2. Abbreviations: mal.—malignant, dis.—diseases.

n.a. not available.

n.p. not published.

Table 7.7: Patient days by principal diagnosis in ICD-10-AM groupings, public hospitals, States and Territories, 1998–99

Principal diagnosis		NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
A00–A09	Intestinal infectious diseases	25,043	10,859	11,251	8,184	8,433	1,275	888	5,144	71,077
A15–A19	Tuberculosis	4,190	2,991	1,153	739	1,004	65	168	600	10,910
A20–A49	Zoonotic and other bacterial diseases	35,396	24,247	18,348	8,861	5,939	2,252	931	3,296	99,270
A50–A64	Predominantly sexually transmitted diseases	960	702	506	248	137	57	18	354	2,982
A65–B19	Other spirochaetal, chlamydial, rickettsial and viral diseases	14,073	7,673	6,639	3,417	3,240	506	462	387	36,397
B20–B24	HIV disease	1,312	332	46	160	622	0	15	2	2,489
B25–B99	Other and unspecified infectious and parasitic diseases	21,419	9,453	9,970	5,258	4,376	1,162	721	927	53,286
C00–C14	Mal. neoplasm of lip, oral cavity and pharynx	12,031	7,762	6,682	2,122	3,652	574	387	291	33,501
C15–C26	Mal. neoplasm of digestive system	88,393	53,041	28,217	15,709	19,728	4,129	2,969	963	213,149
C30–C39	Mal. neoplasm of respiratory and intrathoracic organs	42,269	24,822	18,067	7,373	11,609	2,381	1,506	522	108,549
C40–C50	Mal. neoplasm of bone, connective tissue and breast	52,608	29,984	20,990	8,649	11,472	2,251	1,757	436	128,147
C51–C68	Mal. neoplasm of genitourinary organs	53,752	31,633	20,361	7,624	11,692	3,312	2,227	316	130,917
C69–C80	Other and unspecified mal. neoplasms	90,957	79,853	42,461	16,421	21,937	6,434	4,069	910	263,042
C81–C97	Mal. neoplasms of lymphoid and haematopoetic tissue	58,808	38,165	25,608	12,615	15,138	2,453	3,719	401	156,907
D00–D09	Neoplasms in situ	5,715	4,298	4,536	1,309	1,763	336	199	146	18,302
D10–D36	Benign neoplasms	40,900	25,306	17,642	10,688	9,360	2,147	1,734	621	108,398
D37–D48	Neoplasms of unknown or uncertain behaviour	11,915	6,370	3,679	2,218	1,641	390	509	80	26,802
D50–D89	Dis. of blood and blood-forming organs and immune mechanism	45,772	32,392	20,084	12,274	14,837	3,254	2,274	947	131,834
E00–E90	Diseases of thyroid and endocrine system	79,909	62,766	53,597	23,437	27,357	6,485	3,589	6,818	263,958
F00–F99	Mental and behavioural disorders	843,642	356,453	727,741	251,385	187,387	56,450	17,280	9,099	2,449,437
G00–G99	Diseases of the nervous system	144,808	103,111	81,948	31,521	28,327	5,617	4,509	2,399	402,240
H00–H59	Diseases of the eye and adnexa	34,042	21,493	14,053	10,115	8,526	787	734	980	90,730
H60–H99	Diseases of ear and mastoid process	17,814	13,285	10,222	5,702	5,991	544	902	596	55,056
I00–I09	Rheumatic heart disease	2,995	2,391	2,786	1,207	904	337	253	690	11,563
I10–I15	Hypertensive heart disease	10,476	4,621	4,236	2,120	2,113	313	213	202	24,294
I20–I25	Ischaemic heart disease	203,028	122,164	103,503	39,030	46,722	14,199	9,323	2,879	540,848
I26–I28	Pulmonary heart disease	23,216	9,319	6,596	2,966	2,921	910	737	417	47,082
I30–I52	Other heart disease	178,948	101,309	71,930	35,803	40,957	9,442	5,851	3,433	447,673
I60–I69	Cerebrovascular disease	136,264	87,573	50,233	35,419	30,609	7,652	5,587	2,475	355,812
I70–I99	Other diseases of the circulatory system	111,878	70,287	46,792	25,138	27,672	5,427	5,350	1,222	293,766
J00–J06	Acute upper respiratory infections	21,273	9,185	11,314	5,162	4,506	1,043	881	785	54,149
J10–J18	Influenza and pneumonia	134,668	79,812	57,415	22,262	31,744	6,714	4,954	9,506	347,075
J20–J22	Acute lower respiratory infections	38,139	18,746	8,765	6,445	5,409	992	1,022	2,667	82,185
J30–J39	Other diseases of upper respiratory tract	19,786	16,310	8,182	5,129	6,144	793	988	389	57,721
J40–J70	Chronic lower respiratory diseases	188,111	100,763	78,986	37,921	42,643	8,296	5,547	4,985	467,252
J80–J99	Other respiratory diseases	44,221	29,158	25,253	15,419	16,787	3,507	1,473	1,228	137,046
K00–K14	Diseases of oral cavity, salivary glands and jaws	12,385	11,093	9,409	4,630	4,731	1,400	781	880	45,309
K20–K31	Diseases of oesophagus, stomach and duodenum	66,137	38,061	28,649	17,704	16,603	3,609	2,534	1,681	174,978

(continued)

Table 7.7 (continued): Patient days by principal diagnosis in ICD-10-AM groupings, public hospitals, States and Territories, 1998–99

Principal diagnosis		NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
K35–K38	Appendicitis	22,197	14,830	9,865	5,871	4,487	1,291	1,278	849	60,668
K40–K46	Hernias	32,716	20,329	13,703	7,494	8,257	1,211	1,069	628	85,407
K50–K52	Non-infective enteritis and colitis	24,784	17,040	9,653	5,186	6,032	1,190	1,080	448	65,413
K55–K67	Other diseases of intestines	97,137	57,876	42,568	23,180	22,731	4,799	3,683	1,663	253,637
K70–K87	Diseases of liver, gallbladder and pancreas	106,228	64,161	45,086	22,074	22,092	5,769	4,478	3,568	273,456
K90–K93	Other diseases of digestive system	21,058	15,505	10,749	5,797	4,915	1,382	1,017	422	60,845
L00–L99	Diseases of skin and subcutaneous tissue	116,709	77,279	61,088	31,059	30,611	5,814	2,994	7,274	332,828
M00–M99	Diseases of musculoskeletal and connective tissue	227,038	149,294	103,275	63,640	55,784	14,193	10,684	5,498	629,406
N00–N39	Diseases of the urinary system	120,271	75,466	59,428	28,291	28,051	5,537	4,698	4,504	326,246
N40–N51	Diseases of the male genital organs	25,865	16,306	9,589	5,861	5,605	1,533	1,087	933	66,779
N60–N64	Diseases of the breast	3,763	3,619	1,921	1,258	1,311	332	86	219	12,509
N70–N98	Diseases of the female pelvic organs and genital tract	59,060	46,510	32,060	18,946	18,430	2,992	2,922	1,858	182,778
N99	Other disorders of genitourinary system	3,133	2,422	1,487	1,075	852	334	146	83	9,532
O00–O09	Pregnancy with abortive outcome	16,929	14,537	8,281	4,758	8,644	1,262	737	1,751	56,899
O10–O29	Complications relating to pregnancy	58,770	37,762	25,087	10,670	11,273	2,406	2,241	2,990	151,199
O30–O82	Complications relating to labour and delivery	256,471	175,880	123,439	70,489	57,640	15,001	13,004	13,418	725,342
O85–O99	Complications relating to the puerperium	19,066	16,692	11,969	6,879	6,327	1,411	988	1,923	65,255
P00–P96	Conditions originating in the perinatal period	117,317	91,726	65,740	28,742	32,860	8,762	9,051	9,134	363,332
Q00–Q99	Congenital abnormalities	36,713	23,236	19,178	6,626	7,371	1,578	1,189	890	96,781
R00–R99	Signs, symptoms and abnormal findings	211,755	157,306	97,322	47,034	48,333	10,729	6,214	6,430	585,123
S00–S19	Injuries to head and neck	54,431	32,564	36,977	17,086	13,092	3,389	2,126	4,007	163,672
S20–S39	Injuries to abdomen, thorax, back, spine and pelvis	62,361	35,281	28,459	14,722	11,834	3,326	2,435	2,423	160,841
S40–S99	Injuries to upper and lower limbs	208,062	127,836	101,116	54,640	42,516	11,402	9,429	12,186	567,187
T00–T19	Injuries to multi- or unspecified region; foreign body effects	4,841	3,185	6,272	3,101	2,747	723	169	182	21,220
T20–T35	Burns and frostbite	12,396	8,125	7,939	6,198	4,501	1,107	296	1,127	41,689
T36–T65	Poisoning and toxic effects	24,234	15,461	16,071	6,280	7,201	1,562	1,450	694	72,953
T66–T79	Other and unspecified effects of external causes	4,574	3,083	4,122	1,922	1,739	421	217	380	16,458
T80–T88	Complications of medical and surgical care	95,157	74,215	50,661	30,331	21,324	6,376	4,964	3,539	286,567
T89–T98	Other trauma complications; external cause sequelae	2,054	0	0	3	1	0	22	10	2,090
Z00–Z13	Encounter for examination and investigation	15,081	9,150	13,317	5,330	5,331	1,006	556	477	50,248
Z20–Z29	Encounter relating to communicable diseases	2,111	1,450	1,284	283	271	14	20	28	5,461
Z30–Z39	Encounter for services relating to reproduction	19,358	15,449	7,053	5,553	7,696	1,225	578	1,743	58,655
Z40–Z54	Encounter with health service for specific procedures	611,979	549,313	241,793	148,978	133,271	35,550	26,869	24,489	1,772,242
Z55–Z76	Encounter with health service in other circumstances	254,030	73,095	115,199	17,223	135,331	43,722	1,286	4,676	644,562
Z80–Z99	Encounter relating to personal and family history	4,703	1,959	910	903	90	158	213	90	9,026
	Not reported	0	34,995	0	1	0	18,161	0	632	53,789
Total		**5,869,605**	**3,710,720**	**3,040,511**	**1,409,868**	**1,453,184**	**383,163**	**216,337**	**190,840**	**16,274,228**

Notes: 1. ICD-9-CM data reported by Queensland, Western Australia, South Australia and Tasmania have been mapped to ICD-10-AM. Comparisons with data reported by the other jurisdictions in ICD-10-AM should be made cautiously, with reference to the classifications and maps, as appropriate.

2. Abbreviations: mal.—malignant, dis.—diseases.

Table 7.8: Patient days by principal diagnosis in ICD-10-AM groupings, private hospitals, States and Territories, 1998–99

Principal diagnosis		NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
A00–A09	Intestinal infectious diseases	2,691	2,724	5,157	2,224	1,637	n.p.	n.p.	n.a.	15,053
A15–A19	Tuberculosis	140	72	182	116	56	n.p.	n.p.	n.a.	578
A20–A49	Zoonotic and other bacterial diseases	2,969	5,644	4,877	1,362	1,385	n.p.	n.p.	n.a.	17,271
A50–A64	Predominantly sexually transmitted diseases	315	114	105	51	89	n.p.	n.p.	n.a.	701
A65–B19	Other spirochaetal, chlamydial, rickettsial and viral diseases	2,241	2,138	2,588	1,086	1,132	n.p.	n.p.	n.a.	9,699
B20–B24	HIV disease	86	0	9	12	56	n.p.	n.p.	n.a.	169
B25–B99	Other and unspecified infectious and parasitic diseases	2,311	2,673	4,385	1,303	1,286	n.p.	n.p.	n.a.	12,589
C00–C14	Mal. neoplasm of lip, oral cavity and pharynx	1,967	1,329	1,669	570	689	n.p.	n.p.	n.a.	6,376
C15–C26	Mal. neoplasm of digestive system	27,971	31,295	25,920	11,325	10,129	n.p.	n.p.	n.a.	110,279
C30–C39	Mal. neoplasm of respiratory and intrathoracic organs	8,032	8,785	11,981	4,706	3,864	n.p.	n.p.	n.a.	38,541
C40–C50	Mal. neoplasm of bone, connective tissue and breast	33,850	24,495	24,738	8,541	9,067	n.p.	n.p.	n.a.	104,114
C51–C68	Mal. neoplasm of genitourinary organs	23,893	22,173	18,253	7,520	6,892	n.p.	n.p.	n.a.	83,718
C69–C80	Other and unspecified malignant neoplasms	23,100	27,864	29,086	12,082	9,437	n.p.	n.p.	n.a.	104,979
C81–C97	Mal. neoplasms of lymphoid and haematopoetic tissue	7,474	11,988	14,077	3,104	3,155	n.p.	n.p.	n.a.	41,041
D00–D09	Neoplasms in situ	3,800	2,637	2,692	1,214	1,656	n.p.	n.p.	n.a.	12,648
D10–D36	Benign neoplasms	30,859	21,186	18,650	9,238	6,933	n.p.	n.p.	n.a.	90,898
D37–D48	Neoplasms of unknown or uncertain behaviour	4,097	3,599	3,601	1,096	914	n.p.	n.p.	n.a.	13,809
D50–D89	Dis. of blood and blood-forming organs and immune mechanism	7,735	10,486	10,985	3,980	3,874	n.p.	n.p.	n.a.	38,356
E00–E90	Diseases of thyroid and endocrine system	15,387	18,276	19,783	6,403	6,817	n.p.	n.p.	n.a.	69,319
F00–F99	Mental and behavioural disorders	151,310	139,882	135,694	49,805	49,348	n.p.	n.p.	n.a.	542,661
G00–G99	Diseases of the nervous system	31,221	36,092	37,274	11,108	9,216	n.p.	n.p.	n.a.	129,568
H00–H59	Diseases of the eye and adnexa	40,030	21,413	27,442	10,650	6,186	n.p.	n.p.	n.a.	110,017
H60–H99	Diseases of ear and mastoid process	8,465	7,016	6,026	3,027	3,946	n.p.	n.p.	n.a.	29,833
I00–I09	Rheumatic heart disease	1,663	1,343	747	278	360	n.p.	n.p.	n.a.	4,416
I10–I15	Hypertensive heart disease	2,404	2,319	5,402	869	956	n.p.	n.p.	n.a.	12,343
I20–I25	Ischaemic heart disease	55,815	52,205	55,141	14,200	15,014	n.p.	n.p.	n.a.	195,579
I26–I28	Pulmonary heart disease	3,342	3,499	6,686	1,481	1,265	n.p.	n.p.	n.a.	16,851
I30–I52	Other heart disease	35,534	45,310	45,311	11,649	13,725	n.p.	n.p.	n.a.	155,977
I60–I69	Cerebrovascular disease	16,553	24,093	25,576	6,555	9,462	n.p.	n.p.	n.a.	85,772
I70–I99	Other diseases of the circulatory system	40,496	42,139	36,512	16,705	13,409	n.p.	n.p.	n.a.	153,773
J00–J06	Acute upper respiratory infections	2,204	2,263	3,203	949	776	n.p.	n.p.	n.a.	9,883
J10–J18	Influenza and pneumonia	19,678	28,830	24,201	6,193	8,912	n.p.	n.p.	n.a.	91,092
J20–J22	Acute lower respiratory infections	5,843	6,386	3,854	970	1,047	n.p.	n.p.	n.a.	18,727
J30–J39	Other diseases of upper respiratory tract	14,017	10,355	7,881	4,515	5,521	n.p.	n.p.	n.a.	44,031
J40–J70	Chronic lower respiratory diseases	22,862	30,151	37,705	14,594	11,318	n.p.	n.p.	n.a.	121,434
J80–J99	Other respiratory diseases	6,532	9,640	14,210	4,541	3,423	n.p.	n.p.	n.a.	39,902
K00–K14	Diseases of oral cavity, salivary glands and jaws	18,440	17,525	12,345	9,279	6,368	n.p.	n.p.	n.a.	66,217
K20–K31	Diseases of oesophagus, stomach and duodenum	39,409	34,973	31,617	10,764	9,107	n.p.	n.p.	n.a.	128,841
K35–K38	Appendicitis	3,793	3,641	4,148	2,511	1,557	n.p.	n.p.	n.a.	16,402

(continued)

Table 7.8 (continued): Patient days by principal diagnosis in ICD-10-AM groupings, private hospitals, States and Territories, 1998–99

Principal diagnosis		NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
K40–K46	Hernias	25,353	19,305	14,042	7,357	6,567	n.p.	n.p.	n.a.	75,225
K50–K52	Non-infective enteritis and colitis	8,067	10,018	6,859	2,989	3,129	n.p.	n.p.	n.a.	32,082
K55–K67	Other diseases of intestines	40,066	42,398	43,456	14,331	13,378	n.p.	n.p.	n.a.	158,690
K70–K87	Diseases of liver, gallbladder and pancreas	24,158	21,670	20,453	9,227	8,070	n.p.	n.p.	n.a.	87,508
K90–K93	Other diseases of digestive system	5,205	7,089	6,647	2,262	2,140	n.p.	n.p.	n.a.	24,239
L00–L99	Diseases of skin and subcutaneous tissue	32,115	30,277	25,356	10,662	10,366	n.p.	n.p.	n.a.	112,921
M00–M99	Diseases of musculoskeletal and connective tissue	194,462	160,876	118,806	74,868	61,881	n.p.	n.p.	n.a.	642,316
N00–N39	Diseases of the urinary system	31,548	30,946	28,342	11,773	10,149	n.p.	n.p.	n.a.	118,676
N40–N51	Diseases of the male genital organs	16,241	12,586	9,914	5,127	3,685	n.p.	n.p.	n.a.	50,697
N60–N64	Diseases of the breast	3,756	3,865	1,900	1,457	1,379	n.p.	n.p.	n.a.	12,835
N70–N98	Diseases of the female pelvic organs and genital tract	41,849	36,500	29,193	16,293	12,664	n.p.	n.p.	n.a.	144,115
N99	Other disorders of the genitourinary system	1,669	1,466	1,105	697	592	n.p.	n.p.	n.a.	5,999
O00–O09	Pregnancy with abortive outcome	15,582	4,240	2,821	4,620	948	n.p.	n.p.	n.a.	28,863
O10–O29	Complications relating to pregnancy	12,815	9,271	6,855	6,276	2,009	n.p.	n.p.	n.a.	39,721
O30–O82	Complications relating to labour and delivery	89,068	86,049	66,040	41,427	22,476	n.p.	n.p.	n.a.	320,128
O85–O99	Complications relating to the puerperium	5,455	5,037	5,630	2,852	1,322	n.p.	n.p.	n.a.	22,114
P00–P96	Conditions originating in the perinatal period	20,172	16,959	13,087	9,315	2,981	n.p.	n.p.	n.a.	67,685
Q00–Q99	Congenital abnormalities	6,957	4,188	4,251	1,674	1,216	n.p.	n.p.	n.a.	19,497
R00–R99	Signs, symptoms and abnormal findings	43,957	54,777	50,453	19,631	15,076	n.p.	n.p.	n.a.	191,568
S00–S19	Injuries to head and neck	3,858	5,519	5,203	1,542	1,436	n.p.	n.p.	n.a.	18,522
S20–S39	Injuries to thorax, abdomen, back, spine and pelvis	11,852	12,132	12,454	4,043	4,243	n.p.	n.p.	n.a.	46,590
S40–S99	Injuries to upper and lower limbs	43,264	42,155	45,046	17,128	17,876	n.p.	n.p.	n.a.	172,605
T00–T19	Injuries to multi- or unspecified region; foreign body effects	991	1,183	2,812	889	875	n.p.	n.p.	n.a.	7,160
T20–T35	Burns and frostbite	727	833	516	355	230	n.p.	n.p.	n.a.	2,765
T36–T65	Poisoning and toxic effects	1,075	1,198	2,144	968	437	n.p.	n.p.	n.a.	6,251
T66–T79	Other and unspecified effects of external causes	450	724	580	372	336	n.p.	n.p.	n.a.	2,580
T80–T88	Complications of medical and surgical care	34,969	32,149	28,234	14,832	11,798	n.p.	n.p.	n.a.	128,499
T89–T98	Other trauma complications; external cause sequelae	42	0	0	0	7	n.p.	n.p.	n.a.	93
Z00–Z13	Encounter for examination and investigation	14,328	7,795	11,785	2,918	2,339	n.p.	n.p.	n.a.	40,273
Z20–Z29	Encounter relating to communicable diseases	110	86	100	21	5	n.p.	n.p.	n.a.	334
Z30–Z39	Encounter for services relating to reproduction	20,298	7,384	3,453	2,763	1,548	n.p.	n.p.	n.a.	39,780
Z40–Z54	Encounter with health service for specific procedures	190,441	200,172	94,097	38,294	50,075	n.p.	n.p.	n.a.	583,217
Z55–Z76	Encounter with health service in other circumstances	4,485	10,584	23,365	2,913	6,525	n.p.	n.p.	n.a.	48,238
Z80–Z99	Encounter relating to personal and family history	6,673	3,355	2,495	983	472	n.p.	n.p.	n.a.	14,238
	Not reported	1	35,210	0	0	0	n.p.	n.p.	n.a.	35,332
Total		**1,670,588**	**1,634,549**	**1,407,207**	**587,435**	**518,214**	**n.p.**	**n.p.**	**n.a.**	**6,044,813**

Notes: 1. ICD-9-CM data reported by Queensland, Western Australia, South Australia and Tasmania have been mapped to ICD-10-AM. Comparisons with data reported by the other jurisdictions in ICD-10-AM should be made cautiously, with reference to the classifications and maps, as appropriate.

2. Abbreviations: mal.—malignant, dis.—diseases.

n.a. not available.

n.p. not published.

Table 7.9: Separations for males by age group and principal diagnosis in ICD-10-AM groupings, all hospitals, Australia, 1998–99

Principal diagnosis		<1	1–4	5–14	15–24	25–34	35–44	45–54	55–64	65–74	75+	Total[(a)]
A00–A09	Intestinal infectious diseases	2,945	6,619	2,407	928	1,071	772	720	597	669	808	17,536
A15–A19	Tuberculosis	1	8	12	35	72	59	42	48	63	96	436
A20–A49	Zoonotic and other bacterial diseases	372	462	276	364	369	446	661	772	1,354	1,796	6,873
A50–A64	Predominantly sexually transmitted diseases	9	3	6	133	215	104	73	48	34	7	632
A65–B19	Other spirochaetal, chlamydial, rickettsial and viral diseases	247	652	802	767	1,228	1,390	777	479	352	395	7,089
B20–B24	HIV disease	0	0	1	5	163	89	57	11	7	1	334
B25–B99	Other and unspecified infectious and parasitic diseases	1,443	2,380	1,656	1,333	1,112	1,126	919	576	630	590	11,765
C00–C14	Mal. neoplasm of lip, oral cavity and pharynx	0	3	18	22	107	320	815	1,028	1,040	569	3,922
C15–C26	Mal. neoplasm of digestive system	44	51	57	24	182	709	2,513	4,836	7,648	5,956	22,020
C30–C39	Mal. neoplasm of respiratory and intrathoracic organs	0	25	14	19	58	330	1,246	3,073	5,203	3,387	13,355
C40–C50	Mal. neoplasm of bone, connective tissue and breast	28	64	290	365	691	2,108	4,576	6,701	10,367	13,672	38,863
C51–C68	Mal. neoplasm of genitourinary organs	9	99	104	183	442	627	1,575	4,315	8,806	10,389	26,549
C69–C80	Other and unspecified mal. neoplasms	87	491	431	390	694	1,370	2,860	4,687	6,525	5,179	22,714
C81–C97	Mal. neoplasms of lymphoid and haematopoetic tissue	23	710	1,330	1,154	1,140	1,988	3,723	4,494	5,557	4,006	24,125
D00–D09	Neoplasms in situ	0	0	5	11	41	150	370	724	1,192	1,263	3,756
D10–D36	Benign neoplasms	199	609	1,427	1,396	1,974	3,468	5,459	6,109	6,394	3,640	30,675
D37–D48	Neoplasms of unknown or uncertain behaviour.	30	30	74	118	223	345	722	1,280	2,300	2,927	8,049
D50–D89	Dis. of blood and blood-forming organs and immune mechanism	219	1,791	3,128	2,482	2,183	2,522	3,153	3,753	6,849	8,533	34,613
E00–E90	Diseases of thyroid and endocrine system	380	797	1,761	1,844	2,019	2,709	3,546	3,880	4,497	3,966	25,399
F00–F99	Mental and behavioural disorders	748	948	4,668	18,321	22,919	20,223	18,916	8,400	7,534	10,520	113,201
G00–G99	Diseases of the nervous system	3,116	2,495	2,849	2,812	5,407	8,517	10,422	9,413	9,503	9,257	63,791
H00–H59	Diseases of the eye and adnexa	447	1,561	1,402	1,011	1,663	2,602	4,735	7,901	19,033	28,545	68,900
H60–H99	Diseases of ear and mastoid process	1,240	11,146	8,897	1,092	1,189	1,808	1,876	1,628	1,607	1,022	31,505
I00–I09	Rheumatic heart disease	0	7	59	48	43	78	90	122	188	131	766
I10–I15	Hypertensive heart disease	4	26	32	64	166	327	509	592	636	582	2,938
I20–I25	Ischaemic heart disease	0	2	4	50	631	5,275	17,330	25,837	31,624	22,173	102,926
I26–I28	Pulmonary heart disease	22	8	9	42	148	306	503	618	835	805	3,296
I30–I52	Other heart disease	130	90	237	750	1,397	2,655	5,207	8,900	15,780	20,525	55,671
I60–I69	Cerebrovascular disease	33	20	69	115	293	588	1,561	3,094	6,564	8,659	20,996
I70–I99	Other diseases of the circulatory system	39	195	772	1,253	3,350	6,364	8,683	9,135	12,401	11,076	53,268
J00–J06	Acute upper respiratory infections	2,805	6,982	2,701	1,330	936	562	358	337	357	473	16,841
J10–J18	Influenza and pneumonia	1,338	4,001	2,173	1,174	1,783	2,159	2,425	3,276	6,082	10,469	34,880
J20–J22	Acute lower respiratory infections	7,715	1,785	265	125	182	248	321	464	872	1,527	13,504
J30–J39	Other diseases of upper respiratory tract	207	5,676	9,218	4,953	4,543	4,681	4,219	2,927	1,947	828	39,199
J40–J70	Chronic lower respiratory diseases	1,021	10,598	7,523	2,343	1,642	1,584	2,639	5,615	11,920	13,693	58,578
J80–J99	Other respiratory diseases	427	770	429	1,073	974	911	1,287	2,062	3,482	4,106	15,521
K00–K14	Diseases of oral cavity, salivary glands and jaws	55	4,533	6,506	12,670	6,726	3,561	2,744	2,009	1,500	886	41,190
K20–K31	Diseases of oesophagus, stomach and duodenum	1,334	643	992	3,650	9,388	14,446	18,596	17,131	17,173	11,836	95,189

(continued)

Table 7.9 (continued): Separations for males by age group and principal diagnosis in ICD-10-AM groupings, all hospitals, Australia, 1998–99

Principal diagnosis		<1	1–4	5–14	15–24	25–34	35–44	45–54	55–64	65–74	75+	Total[(a)]
K35–K38	Appendicitis	2	97	3,227	3,751	2,354	1,529	879	440	285	179	12,743
K40–K46	Hernias	1,860	1,946	1,492	2,073	3,925	6,603	9,943	9,858	9,513	6,407	53,620
K50–K52	Non-infective enteritis and colitis	106	199	314	1,832	2,722	2,398	2,150	1,828	1,692	1,509	14,750
K55–K67	Other diseases of intestines	619	897	1,534	1,559	4,260	7,598	12,044	12,853	14,431	11,668	67,463
K70–K87	Diseases of liver, gallbladder and pancreas	16	52	164	683	2,441	4,864	6,657	6,345	6,812	4,797	32,831
K90–K93	Other diseases of digestive system	117	197	288	610	1,335	2,058	2,455	2,266	2,577	2,651	14,554
L00–L99	Diseases of skin and subcutaneous tissue	785	2,147	3,947	7,351	6,939	6,806	6,617	5,725	6,802	6,497	53,616
M00–M99	Diseases of musculoskeletal and connective tissue	130	1,194	4,000	14,533	22,158	26,858	27,830	24,581	23,631	17,177	162,092
N00–N39	Diseases of the urinary system	1,219	1,196	1,197	1,811	4,425	8,182	10,929	10,975	11,833	11,324	63,091
N40–N51	Diseases of the male genital organs	670	2,951	4,091	2,077	2,161	2,361	3,537	6,943	10,190	7,960	42,941
N60–N64	Diseases of the breast	12	5	83	542	448	224	170	148	130	84	1,846
N70–N98	Diseases of the female pelvic organs and genital tract	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
N99	Other disorders of the genitourinary system	13	90	115	35	61	55	126	364	615	541	2,015
O00–O99	Pregnancy, childbirth and the puerperium	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
P00–P96	Conditions originating in the perinatal period	26,313	242	105	17	2	0	0	0	1	0	26,680
Q00–Q99	Congenital abnormalities	5,349	5,221	4,275	1,242	717	604	539	342	327	253	18,869
R00–R99	Signs, symptoms and abnormal findings	5,505	7,369	6,360	6,958	11,035	16,221	20,532	20,167	22,829	23,697	140,673
S00–S19	Injuries to head and neck	593	3,668	6,122	12,231	8,597	5,192	2,930	1,781	1,460	2,180	44,754
S20–S39	Injuries to thorax, abdomen, back, spine and pelvis	16	172	1,012	2,694	2,691	2,426	1,983	1,449	1,478	2,303	16,224
S40–S99	Injuries to upper and lower limbs	181	3,631	17,354	23,630	19,343	13,905	10,077	6,247	4,875	7,178	106,422
T00–T19	Multi- or unspecified body region; foreign body effects	150	766	994	944	1,048	910	762	548	531	539	7,192
T20–T35	Burns and frostbite	179	862	607	947	845	604	456	223	136	142	5,001
T36–T65	Poisoning and toxic effects	162	1,781	803	3,363	4,130	3,220	1,835	806	553	439	17,092
T66–T79	Other and unspecified effects of external causes	117	381	328	668	761	565	413	347	304	245	4,129
T80–T88	Complications of medical and surgical care	296	812	1,276	2,101	2,742	3,119	3,968	5,081	6,979	6,038	32,412
T89–T98	Other trauma complications; external cause sequelae	0	5	18	18	32	22	15	13	11	6	140
Z00–Z13	Encounter for examination and investigation	1,033	808	605	752	1,351	2,666	5,503	8,403	10,905	7,875	39,901
Z20–Z29	Encounter relating to communicable diseases	64	135	168	227	269	504	637	357	251	112	2,724
Z30–Z39	Encounter for services relating to reproduction	2,043	0	0	98	4,168	8,096	1,785	124	12	0	16,326
Z40–Z54	Encounter with health service for specific procedures	5,100	5,251	7,798	16,951	34,873	50,958	71,308	96,516	123,310	71,115	483,180
Z55–Z76	Encounter with health service in other circumstances	1,149	256	309	245	964	761	690	801	1,721	4,372	11,268
Z80–Z99	Encounter relating to personal and family history	26	33	30	97	569	1,971	2,839	1,788	1,111	321	8,785
	Not reported	142	117	197	406	555	587	690	978	1,173	1,317	6,163
Total		**80,684**	**108,761**	**131,417**	**174,895**	**225,285**	**279,394**	**346,527**	**385,169**	**485,003**	**423,219**	**2,640,362**

(a) Total includes separations for which age was not reported.

Note: Abbreviations: mal.—malignant, dis.—diseases.

Table 7.10: Separations for females by age group and principal diagnosis in ICD-10-AM groupings, all hospitals, Australia, 1998–99

Principal diagnosis		<1	1–4	5–14	15–24	25–34	35–44	45–54	55–64	65–74	75+
A00–A09	Intestinal infectious diseases	2,516	5,957	2,131	1,286	1,510	1,139	1,128	966	1,037	1,559
A15–A19	Tuberculosis	0	11	7	45	83	64	47	35	57	68
A20–A49	Zoonotic and other bacterial diseases	283	411	213	229	231	425	526	622	1,042	1,981
A50–A64	Predominantly sexually transmitted diseases	7	7	17	450	230	142	77	50	20	16
A65–B19	Other spirochaetal, chlamydial, rickettsial and viral diseases	207	648	822	955	910	822	506	338	420	713
B20–B24	HIV disease	0	1	1	7	13	11	2	0	0	0
B25–B99	Other and unspecified infectious and parasitic diseases	1,096	2,099	1,383	1,579	1,091	885	822	708	626	801
C00–C14	Mal. neoplasm of lip, oral cavity and pharynx	1	1	9	17	72	89	240	257	403	390
C15–C26	Mal. neoplasm of digestive system	17	51	1	24	168	657	1,447	2,959	4,560	5,814
C30–C39	Mal. neoplasm of respiratory and intrathoracic organs	2	13	7	27	33	233	688	1,300	2,039	1,572
C40–C50	Mal. neoplasm of bone, connective tissue and breast	15	86	315	446	1,286	4,853	8,698	8,193	9,148	12,033
C51–C68	Mal. neoplasm of genitourinary organs	4	110	84	103	465	1,043	1,934	2,849	3,721	4,183
C69–C80	Other and unspecified mal. neoplasms	121	308	387	238	890	2,717	5,119	5,331	5,813	4,857
C81–C97	Mal. neoplasms of lymphoid and haematopoetic tissue	30	583	989	608	1,106	1,409	2,683	3,078	3,769	4,036
D00–D09	Neoplasms in situ	1	0	4	1,315	3,265	2,196	1,758	1,470	1,464	1,491
D10–D36	Benign neoplasms	211	670	1,673	3,426	6,065	12,371	15,077	7,759	6,266	3,884
D37–D48	Neoplasms of unknown or uncertain behaviour	17	48	64	140	295	453	759	873	1,489	2,443
D50–D89	Dis. of blood and blood-forming organs and immune mechanism	144	909	2,013	2,253	2,881	3,675	4,989	4,072	6,195	9,785
E00–E90	Diseases of thyroid and endocrine system	347	802	1,983	3,025	3,710	4,492	4,786	4,332	4,538	6,012
F00–F99	Mental and behavioural disorders	561	591	2,273	19,542	24,533	25,593	21,345	10,000	8,853	12,595
G00–G99	Diseases of the nervous system	2,486	1,854	2,382	2,935	6,162	8,800	9,961	7,076	6,816	10,090
H00–H59	Diseases of the eye and adnexa	399	1,616	1,330	931	1,564	2,371	4,374	8,286	25,260	45,311
H60–H99	Diseases of ear and mastoid process	778	7,065	6,786	1,107	1,584	1,844	1,975	1,668	1,708	1,663
I00–I09	Rheumatic heart disease	2	8	91	49	69	111	195	305	304	222
I10–I15	Hypertensive heart disease	0	1	37	86	159	359	654	775	1,174	1,786
I20–I25	Ischaemic heart disease	2	3	3	17	184	1,415	4,886	9,334	17,156	22,219
I26–I28	Pulmonary heart disease	20	5	13	120	284	449	648	664	992	1,278
I30–I52	Other heart disease	111	65	165	458	835	1,516	2,776	4,673	10,764	25,995
I60–I69	Cerebrovascular disease	14	19	36	94	289	606	1,194	1,874	4,280	10,872
I70–I99	Other diseases of the circulatory system	25	117	566	1,161	4,291	8,139	9,546	8,299	9,242	11,551
J00–J06	Acute upper respiratory infections	1,834	4,161	1,819	1,813	1,383	719	524	407	414	782
J10–J18	Influenza and pneumonia	945	3,248	1,794	1,089	1,839	1,939	2,157	2,742	4,392	10,155
J20–J22	Acute lower respiratory infections	4,963	1,334	210	181	240	311	388	507	810	2,149
J30–J39	Other diseases of upper respiratory tract	121	3,692	9,574	6,964	4,167	3,390	2,981	2,007	1,253	648
J40–J70	Chronic lower respiratory diseases	481	5,772	5,042	3,665	3,082	3,108	4,469	5,957	9,119	11,019
J80–J99	Other respiratory diseases	308	573	330	497	647	818	1,123	1,532	2,328	3,869
K00–K14	Diseases of oral cavity, salivary glands and jaws	57	3,777	6,973	22,121	9,178	4,330	2,984	1,701	1,151	954
K20–K31	Diseases of oesophagus, stomach and duodenum	1,105	463	763	3,406	6,912	12,545	18,812	18,329	17,354	15,057

(continued)

Table 7.10 (continued): Separations for females by age group and principal diagnosis in ICD-10-AM groupings, all hospitals, Australia, 1998

Principal diagnosis		<1	1–4	5–14	15–24	25–34	35–44	45–54	55–64	65–74	75+
K35–K38	Appendicitis	2	68	2,367	3,403	2,030	1,312	700	365	207	160
K40–K46	Hernias	421	914	632	385	1,304	2,379	3,509	3,796	4,264	3,487
K50–K52	Non-infective enteritis and colitis	79	137	293	2,711	4,003	3,210	2,699	2,214	2,202	2,749
K55–K67	Other diseases of intestines	275	680	1,137	2,467	5,391	9,037	14,034	14,679	16,203	16,411
K70–K87	Diseases of liver, gallbladder and pancreas	22	35	204	3,428	8,125	8,689	9,700	8,509	7,316	6,455
K90–K93	Other diseases of digestive system	107	169	285	788	1,537	2,341	2,834	2,404	2,394	3,273
L00–L99	Diseases of skin and subcutaneous tissue	607	1,897	3,315	4,685	4,872	5,591	6,363	5,832	6,123	9,699
M00–M99	Diseases of musculoskeletal and connective tissue	109	801	3,398	9,132	13,298	20,185	27,387	25,874	28,936	29,917
N00–N39	Diseases of the urinary system	927	1,562	2,016	4,155	5,588	7,420	9,159	8,411	9,181	12,340
N40–N51	Diseases of the male genital organs	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
N60–N64	Diseases of the breast	14	12	50	1,103	2,853	4,059	3,928	1,888	1,008	285
N70–N98	Diseases of the female pelvic organs and genital tract	24	79	587	18,020	44,684	48,248	33,569	14,195	9,067	4,518
N99	Other disorders of the genitourinary system	2	4	13	29	138	261	421	419	438	241
O00–O09	Pregnancy with abortive outcome	0	0	149	22,750	34,772	16,300	378	4	0	0
O10–O29	Complications relating to pregnancy	0	0	44	16,725	34,969	9,534	80	2	0	0
O30–O82	Complications relating to labour and delivery	0	0	114	61,276	164,187	41,200	201	2	0	1
O85–O99	Complications relating to the puerperium	0	0	20	7,394	17,498	4,507	36	1	0	0
P00–P96	Conditions originating in the perinatal period	21,171	60	10	2	4	1	0	1	0	1
Q00–Q99	Congenital abnormalities	3,258	2,556	2,803	1,838	1,639	1,241	780	476	360	388
R00–R99	Signs, symptoms and abnormal findings	4,860	5,671	6,059	13,616	17,831	19,866	23,477	20,670	21,195	28,635
S00–S19	Injuries to head and neck	515	2,602	2,891	3,556	2,815	2,202	1,353	867	1,000	3,645
S20–S39	Injuries to thorax, abdomen, back, spine and pelvis	9	144	580	1,428	1,143	1,090	944	931	1,424	5,584
S40–S99	Injuries to upper and lower limbs	165	2,675	9,489	5,715	5,613	5,474	5,703	5,628	8,622	25,175
T00–T19	Injuries to multi- or unspecified region; foreign body effects	104	743	642	514	476	523	441	353	420	995
T20–T35	Burns and frostbite	134	666	250	252	253	238	167	106	111	159
T36–T65	Poisoning and toxic effects	117	1,547	841	5,024	4,519	4,063	2,341	830	554	735
T66–T79	Other and unspecified effects of external causes	98	212	202	462	534	408	376	306	292	431
T80–T88	Complications of medical and surgical care	155	408	1,064	1,885	3,077	4,433	4,763	4,367	5,451	6,310
T89–T98	Other trauma complications; external cause sequelae	0	1	10	7	7	9	15	8	4	9
Z00–Z13	Encounter for examination and investigation	942	632	427	1,224	2,291	3,318	5,377	6,311	7,025	5,143
Z20–Z29	Encounter relating to communicable diseases	64	73	89	224	343	379	473	376	272	66
Z30–Z39	Encounter for services relating to reproduction	1,946	0	14	4,587	22,143	15,150	802	42	6	1
Z40–Z54	Encounter with health service for specific procedures	505	2,435	4,415	9,274	24,982	42,530	69,449	85,989	103,157	66,534
Z55–Z76	Encounter with health service in other circumstances	1,034	253	237	978	3,274	1,459	531	627	1,290	6,011
Z80–Z99	Encounter relating to personal and family history	12	18	18	119	606	2,685	4,095	2,756	1,593	451
	Not reported	78	110	158	369	647	616	905	857	1,125	1,603
Total		**56,987**	**74,243**	**97,113**	**291,934**	**529,152**	**405,997**	**379,268**	**351,424**	**417,217**	**491,265**

(a) Total includes separations for which age was not reported.

Note: Abbreviations: mal.—malignant, dis.—diseases.

. . not applicable.

Table 7.11: Separations by number of diagnoses[a] reported and hospital sector, States and Territories, 1998–99

Hospital sector	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
					Number				
Public hospitals									
Separations[b]	1,273,396	970,150	708,713	357,569	355,863	80,517	58,598	54,885	3,859,691
One diagnosis code only	353,582	257,912	224,397	84,863	113,472	17,333	21,131	8,937	1,081,627
Two diagnosis codes only	330,982	264,208	168,983	118,824	97,320	27,387	14,053	27,522	1,049,279
Three diagnosis codes only	192,041	154,455	103,785	54,479	49,068	12,079	8,489	6,237	580,633
Four diagnosis codes only	125,481	98,971	67,194	31,341	29,978	7,607	4,744	4,292	369,608
Five or more diagnosis codes	271,310	192,276	144,354	68,061	66,025	15,818	10,181	7,882	775,907
Mean diagnosis codes per separation	3.2	3.0	3.1	3.1	2.9	3.2	2.9	2.8	3.1
Maximum number of diagnosis codes	19	11	31	30	21	40	25	22	. .
Private hospitals									
Separations[b]	566,617	495,667	411,279	186,997	150,741	47,167	16,890	n.a.	1,875,358
One diagnosis code only	205,872	172,134	129,936	68,149	48,564	18,461	4,396	n.a.	647,512
Two diagnosis codes only	160,608	135,315	117,447	57,791	46,892	13,262	4,479	n.a.	535,794
Three diagnosis codes only	85,278	79,536	71,516	27,263	24,054	7,103	3,008	n.a.	297,758
Four diagnosis codes only	47,504	41,921	38,960	13,607	12,881	3,795	1,896	n.a.	160,564
Five or more diagnosis codes	67,354	56,797	53,420	20,187	18,350	4,521	3,110	n.a.	223,739
Mean diagnosis codes per separation	2.5	2.4	2.6	2.4	2.6	2.3	3.0	. .	2.5
Maximum number of diagnosis codes	19	11	25	21	21	27	25	n.a.	. .
					Per cent				
Public hospitals									
One diagnosis code only	27.8	26.6	31.7	23.7	31.9	21.6	36.1	16.3	28.0
Two diagnosis codes only	26.0	27.3	23.8	33.2	27.3	34.1	24.0	50.2	27.2
Three diagnosis codes only	15.1	16.0	14.6	15.2	13.8	15.1	14.5	11.4	15.1
Four diagnosis codes only	9.9	10.2	9.5	8.8	8.4	9.5	8.1	7.8	9.6
Five or more diagnosis codes	21.3	19.9	20.4	19.0	18.6	19.7	17.4	14.4	20.1
Private hospitals									
One diagnosis code only	36.3	34.7	31.6	36.4	32.2	39.1	26.0	n.a.	34.7
Two diagnosis codes only	28.3	27.3	28.6	30.9	31.1	28.1	26.5	n.a.	28.7
Three diagnosis codes only	15.1	16.0	17.4	14.6	16.0	15.1	17.8	n.a.	16.0
Four diagnosis codes only	8.4	8.5	9.5	7.3	8.5	8.0	11.2	n.a.	8.6
Five or more diagnosis codes	11.9	11.5	13.0	10.8	12.2	9.6	18.4	n.a.	12.0

(a) Codes reporting external causes of injury and poisoning were not included.

(b) Includes separations for which no diagnosis codes were reported.

Note: The Institute requested up to 31 diagnosis codes to be reported.

. . not applicable.

n.a. not available.

Table 7.12: Separation, same day separation, patient day and average length of stay statistics for the 30 principal diagnoses in 3-character ICD-10-AM groupings with the highest number of separations, public hospitals, Australia, 1998–99

Principal diagnosis		Separations	Same day separations	Per cent same day separations	Separations per 10,000 population	Patient days	Patient days per 10,000 population	ALOS (days)	Rank by patient days
Z49	Care involving dialysis	427,562	425,970	99.6	22.7	429,188	227.7	1.0	4
Z51	Other medical care	133,275	131,769	98.9	7.1	141,943	75.3	1.1	16
I20	Angina pectoris	71,539	10,937	15.3	3.8	286,007	151.7	4.0	5
Z50	Care involving use of rehabilitation procedures	69,659	28,438	40.8	3.7	1,010,228	535.9	14.5	1
R10	Abdominal and pelvic pain	51,184	23,863	46.6	2.7	95,862	50.9	1.9	27
R07	Pain in throat and chest	44,739	14,757	33.0	2.4	87,794	46.6	2.0	31
J18	Pneumonia, organism unspecified	43,903	2,684	6.1	2.3	275,308	146.0	6.3	6
O70	Perineal laceration during delivery	39,109	1,011	2.6	2.1	126,731	67.2	3.2	19
J45	Asthma	36,279	5,781	15.9	1.9	88,850	47.1	2.4	30
K80	Cholelithiasis	36,076	4,298	11.9	1.9	116,966	62.0	3.2	21
J44	Other chronic obstructive pulmonary disease	34,634	2,179	6.3	1.8	257,055	136.4	7.4	8
I50	Heart failure	33,673	2,321	6.9	1.8	258,879	137.3	7.7	7
H26	Other cataract	32,605	26,444	81.1	1.7	35,877	19.0	1.1	97
I21	Acute myocardial infarction	28,350	2,792	9.8	1.5	182,131	96.6	6.4	13
K21	Gastro-oesophageal reflux disease	27,703	22,057	79.6	1.5	42,986	22.8	1.6	67
S52	Fracture of forearm	26,641	7,558	28.4	1.4	52,756	28.0	2.0	52
L03	Cellulitis	26,353	2,397	9.1	1.4	136,978	72.7	5.2	17
O80	Single spontaneous delivery	26,195	1,388	5.3	1.4	68,940	36.6	2.6	40
K29	Gastritis and duodenitis	25,615	19,695	76.9	1.4	40,018	21.2	1.6	81
C44	Other malignant neoplasms of skin	23,681	17,208	72.7	1.3	50,729	26.9	2.1	55
N39	Other disorders of urinary system	23,221	4,738	20.4	1.2	107,681	57.1	4.6	22
F20	Schizophrenia	22,084	3,086	14.0	1.2	869,920	461.5	39.4	2
K40	Inguinal hernia	21,671	5,268	24.3	1.1	39,935	21.2	1.8	82
F32	Depressive episode	20,507	6,288	30.7	1.1	180,737	95.9	8.8	14
T81	Complications of procedures, not elsewhere classified	20,395	3,024	14.8	1.1	117,137	62.1	5.7	20
I48	Atrial fibrillation and flutter	20,000	5,342	26.7	1.1	66,503	35.3	3.3	44
J35	Chronic diseases of tonsils and adenoids	19,882	1,850	9.3	1.1	24,222	12.8	1.2	137
Z09	Follow-up examination after treatment for conditions other than malignant neoplasms	19,647	18,364	93.5	1.0	21,038	11.2	1.1	161
Z30	Contraceptive management	19,211	17,686	92.1	1.0	19,782	10.5	1.0	172
O47	False labour	19,087	9,085	47.6	1.0	30,014	15.9	1.6	114
	Other	2,412,573	889,843	36.9	128.0	10,958,244	5,813.0	4.5	. .
	Not reported	2,638	598	22.7	0.1	53,789	28.5	20.4	. .
Total		**3,859,691**	**1,718,719**	**44.5**	**2,047.5**	**16,274,228**	**8,633.0**	**4.2**	. .

Note: A similar listing for all principal diagnoses in 3-character ICD-10-AM groupings is provided on the Internet at http://www.aihw.gov.au/publications/health/ahs98-9.html

. . not applicable.

Table 7.13: Separation, same day separation, patient day and average length of stay statistics for the 30 principal diagnoses in 3-character ICD-10-AM groupings with the highest number of separations, private hospitals, Australia, 1998–99

Principal diagnosis		Separations	Same day separations	Per cent same day separations	Separations per 10,000 population	Patient days	Patient days per 10,000 population	ALOS (days)	Rank by patient days
Z51	Other medical care	77,842	77,170	99.1	41.7	81,364	43.6	1.0	7
Z49	Care involving dialysis	53,044	52,998	99.9	28.4	53,145	28.5	1.0	16
H26	Other cataract	47,605	33,704	70.8	25.5	51,487	27.6	1.1	20
K21	Gastro-oesophageal reflux disease	32,361	30,114	93.1	17.3	39,758	21.3	1.2	33
Z50	Care involving use of rehabilitation procedures	31,092	14,890	47.9	16.7	331,606	177.7	10.7	1
C44	Other malignant neoplasms of skin	30,997	23,803	76.8	16.6	51,669	27.7	1.7	19
M23	Internal derangement of knee	30,406	20,119	66.2	16.3	37,574	20.1	1.2	36
R10	Abdominal and pelvic pain	27,584	20,211	73.3	14.8	44,524	23.9	1.6	27
K29	Gastritis and duodenitis	27,453	25,901	94.3	14.7	31,920	17.1	1.2	47
H25	Senile cataract	27,296	22,784	83.5	14.6	28,764	15.4	1.1	51
K57	Diverticular disease of intestine	23,969	19,549	81.6	12.8	45,258	24.3	1.9	23
I20	Angina pectoris	22,895	2,309	10.1	12.3	107,499	57.6	4.7	4
K00	Disorders of tooth development and eruption	20,312	16,540	81.4	10.9	21,162	11.3	1.0	69
M17	Gonarthrosis [arthrosis of knee]	20,032	6,115	30.5	10.7	122,812	65.8	6.1	2
K40	Inguinal hernia	19,219	1,959	10.2	10.3	40,468	21.7	2.1	30
O04	Medical abortion	18,534	18,256	98.5	9.9	18,669	10.0	1.0	78
Z09	Follow-up examination after treatment for conditions other than malignant neoplasms	18,161	16,793	92.5	9.7	23,766	12.7	1.3	62
K01	Embedded and impacted teeth	18,017	15,681	87.0	9.7	18,078	9.7	1.0	82
N97	Female infertility	17,866	17,235	96.5	9.6	18,089	9.7	1.0	81
D12	Benign neoplasm of colon, rectum, anus and anal canal	17,819	16,154	90.7	9.5	23,618	12.7	1.3	63
I84	Haemorrhoids	17,704	13,215	74.6	9.5	27,434	14.7	1.5	53
M54	Dorsalgia	17,130	8,546	49.9	9.2	59,883	32.1	3.5	12
F33	Recurrent depressive disorder	16,555	11,425	69.0	8.9	109,457	58.7	6.6	3
K63	Other diseases of intestine	16,283	15,200	93.3	8.7	20,248	10.9	1.2	73
K80	Cholelithiasis	15,395	563	3.7	8.3	52,798	28.3	3.4	17
G47	Sleep disorders	14,919	1,155	7.7	8.0	18,705	10.0	1.3	77
J35	Chronic diseases of tonsils and adenoids	14,819	1,623	11.0	7.9	17,149	9.2	1.2	83
F32	Depressive episode	13,583	8,881	65.4	7.3	86,652	46.4	6.4	5
I25	Chronic ischaemic heart disease	12,832	5,118	39.9	6.9	49,688	26.6	3.9	21
G56	Mononeuropathies of upper limb	12,192	9,175	75.3	6.5	14,155	7.6	1.2	105
	Other	1,131,449	496,088	43.8	606.4	4,362,082	2,337.7	3.9	. .
	Not reported	9,993	5,034	50.4	5.4	35,332	18.9	3.5	. .
Total		**1,875,358**	**1,028,308**	**54.8**	**1005.0**	**6,044,813**	**3,239.5**	**3.2**	. .

Note: A similar listing of all principal diagnoses in 3-character ICD-10-AM groupings is provided on the Internet at http://www.aihw.gov.au/publications/health/ahs98-9.html

. . not applicable.

Table 7.14: Separations for the 30 principal diagnoses in 3-character ICD-10-AM groupings with the highest number of separations, public hospitals, States and Territories, 1998–99

Principal diagnosis		NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Z49	Care involving dialysis	120,133	128,633	65,739	44,935	29,310	9,785	11,176	17,851	427,562
Z51	Other medical care	31,286	39,225	27,083	13,757	12,950	4,168	4,525	281	133,275
I20	Angina pectoris	25,245	17,766	13,713	5,983	5,218	1,893	1,280	441	71,539
Z50	Care involving use of rehabilitation procedures	24,155	19,383	19,357	2,843	2,661	731	330	199	69,659
R10	Abdominal and pelvic pain	17,748	13,422	9,898	4,379	3,783	895	628	431	51,184
R07	Pain in throat and chest	16,955	9,845	8,655	3,159	4,642	545	530	408	44,739
J18	Pneumonia, organism unspecified	17,148	9,965	7,184	3,149	3,748	765	617	1,327	43,903
O70	Perineal laceration during delivery	14,677	7,904	7,858	3,492	3,194	703	685	596	39,109
J45	Asthma	13,296	8,262	7,153	3,781	2,407	511	432	437	36,279
K80	Cholelithiasis	13,191	8,910	6,512	2,911	3,137	589	544	282	36,076
J44	Other chronic obstructive pulmonary disease	13,898	8,656	5,762	2,189	2,897	542	294	396	34,634
I50	Heart failure	12,546	8,547	5,268	2,831	3,288	632	297	264	33,673
H26	Other cataract	10,561	9,970	4,551	3,535	3,196	165	333	294	32,605
I21	Acute myocardial infarction	10,198	6,668	5,516	2,385	2,467	606	348	162	28,350
K21	Gastro-oesophageal reflux disease	8,845	5,744	4,475	3,445	3,743	689	554	208	27,703
S52	Fracture of forearm	10,049	5,579	5,462	2,339	1,985	370	439	418	26,641
L03	Cellulitis	8,077	5,107	6,799	2,993	2,113	567	244	453	26,353
O80	Single spontaneous delivery	10,333	4,918	5,888	1,907	1,775	356	590	428	26,195
K29	Gastritis and duodenitis	9,858	5,545	5,040	2,600	1,591	360	207	414	25,615
C44	Other malignant neoplasms of skin	6,879	4,306	6,679	2,014	2,994	434	298	77	23,681
N39	Other disorders of urinary system	8,390	5,424	4,324	2,352	1,896	408	200	227	23,221
F20	Schizophrenia	7,094	5,547	4,654	1,674	2,060	584	259	212	22,084
K40	Inguinal hernia	7,501	5,476	3,980	1,890	1,998	360	327	139	21,671
F32	Depressive episode	6,654	5,207	3,229	2,825	1,717	583	181	111	20,507
T81	Complications of procedures, not elsewhere classified	6,534	5,254	3,981	2,177	1,603	440	245	161	20,395
I48	Atrial fibrillation and flutter	7,866	4,518	3,205	1,806	1,558	556	382	109	20,000
J35	Chronic diseases of tonsils and adenoids	6,695	5,878	2,853	1,854	1,902	217	389	94	19,882
Z09	Follow-up examination after treatment for conditions other than malignant neoplasms	3,770	2,647	5,993	2,829	3,501	613	200	94	19,647
Z30	Contraceptive management	6,272	5,163	2,306	2,424	2,371	282	143	250	19,211
O47	False labour	5,894	4,698	4,312	1,566	1,420	466	242	489	19,087
	Other	811,648	589,655	441,284	221,544	238,738	50,409	31,679	27,616	2,412,573
	Not reported	0	2,328	0	1	0	293	0	16	2,638
Total		**1,273,396**	**970,150**	**708,713**	**357,569**	**355,863**	**80,517**	**58,598**	**54,885**	**3,859,691**

Note: ICD-9-CM data reported by Queensland, Western Australia, South Australia and Tasmania have been mapped to ICD-10-AM. Comparisons with data reported by the other jurisdictions in ICD-10-AM should be made cautiously, with reference to the classifications and maps, as appropriate.

Table 7.15: Separations for the 30 principal diagnoses in 3-character ICD-10-AM groupings with the highest number of separations, private hospitals, States and Territories, 1998–99

Principal diagnosis		NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Z51	Other medical care	14,749	24,150	22,949	8,199	6,574	n.p.	n.p.	n.a.	77,842
Z49	Care involving dialysis	11,955	17,794	11,347	3,030	8,918	n.p.	n.p.	n.a.	53,044
H26	Other cataract	20,966	10,347	7,635	3,914	2,860	n.p.	n.p.	n.a.	47,605
K21	Gastro-oesophageal reflux disease	9,934	7,010	8,719	2,980	2,866	n.p.	n.p.	n.a.	32,361
Z50	Care involving use of rehabilitation procedures	12,915	6,835	9,378	798	915	n.p.	n.p.	n.a.	31,092
C44	Other malignant neoplasms of skin	10,539	5,664	8,825	1,841	3,482	n.p.	n.p.	n.a.	30,997
M23	Internal derangement of knee	10,166	7,618	4,417	3,728	3,209	n.p.	n.p.	n.a.	30,406
R10	Abdominal and pelvic pain	7,212	8,585	7,077	2,488	1,453	n.p.	n.p.	n.a.	27,584
K29	Gastritis and duodenitis	10,749	7,393	5,862	1,890	1,231	n.p.	n.p.	n.a.	27,453
H25	Senile cataract	8,093	4,314	10,196	2,537	1,405	n.p.	n.p.	n.a.	27,296
K57	Diverticular disease of intestine	6,895	6,098	7,381	1,657	1,417	n.p.	n.p.	n.a.	23,969
I20	Angina pectoris	6,208	7,194	5,711	2,170	1,118	n.p.	n.p.	n.a.	22,895
K00	Disorders of tooth development and eruption	308	3,319	7,505	4,846	3,522	n.p.	n.p.	n.a.	20,312
M17	Gonarthrosis [arthrosis of knee]	7,247	4,233	3,410	2,140	2,242	n.p.	n.p.	n.a.	20,032
K40	Inguinal hernia	6,486	4,747	3,793	1,908	1,437	n.p.	n.p.	n.a.	19,219
O04	Medical abortion	12,264	1,788	754	3,355	245	n.p.	n.p.	n.a.	18,534
Z09	Follow-up examination after treatment for conditions other than malignant neoplasms	5,266	3,505	5,166	2,022	1,530	n.p.	n.p.	n.a.	18,161
K01	Embedded and impacted teeth	10,674	6,806	0	0	0	n.p.	n.p.	n.a.	18,017
N97	Female infertility	4,720	4,228	5,207	2,050	648	n.p.	n.p.	n.a.	17,866
D12	Benign neoplasm of colon, rectum, anus and anal canal	6,781	3,470	4,499	1,617	1,101	n.p.	n.p.	n.a.	17,819
I84	Haemorrhoids	7,108	4,034	3,047	1,923	1,126	n.p.	n.p.	n.a.	17,704
M54	Dorsalgia	4,103	4,201	2,701	2,779	1,802	n.p.	n.p.	n.a.	17,130
F33	Recurrent depressive disorder	4,974	7,134	1,782	1,439	714	n.p.	n.p.	n.a.	16,555
K63	Other diseases of intestine	5,436	3,433	4,571	1,511	1,059	n.p.	n.p.	n.a.	16,283
K80	Cholelithiasis	4,775	3,472	3,428	1,693	1,368	n.p.	n.p.	n.a.	15,395
G47	Sleep disorders	5,522	4,512	2,669	1,165	785	n.p.	n.p.	n.a.	14,919
J35	Chronic diseases of tonsils and adenoids	5,191	2,950	2,957	1,764	1,404	n.p.	n.p.	n.a.	14,819
F32	Depressive episode	2,033	4,163	3,695	2,822	451	n.p.	n.p.	n.a.	13,583
I25	Chronic ischaemic heart disease	6,027	2,059	2,308	1,000	1,229	n.p.	n.p.	n.a.	12,832
G56	Mononeuropathies of upper limb	3,500	3,276	2,501	1,338	1,112	n.p.	n.p.	n.a.	12,192
	Other	333,820	301,371	241,789	116,393	93,518	n.p.	n.p.	n.a.	1,131,449
	Not reported	1	9,964	0	0	0	n.p.	n.p.	n.a.	9,993
Total		**566,617**	**495,667**	**411,279**	**186,997**	**150,741**	**n.p.**	**n.p.**	**n.a.**	**1,875,358**

Note: ICD-9-CM data reported by Queensland, Western Australia, South Australia and Tasmania have been mapped to ICD-10-AM. Comparisons with data reported by the other jurisdictions in ICD-10-AM should be made cautiously, with reference to the classifications and maps, as appropriate.

n.a. not available.

n.p. not published.

Table 7.16: Average length of stay (days) for the 30 principal diagnoses in 3-character ICD-10-AM groupings with the highest number of separations, public hospitals, States and Territories, 1998–99

Principal diagnosis		NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Z49	Care involving dialysis	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Z51	Other medical care	1.1	1.1	1.0	1.0	1.0	1.0	1.0	1.5	1.1
I20	Angina pectoris	4.3	3.9	3.8	3.6	3.6	4.6	4.4	3.9	4.0
Z50	Care involving use of rehabilitation procedures	15.9	17.4	6.5	25.5	22.9	23.3	27.8	21.2	14.5
R10	Abdominal and pelvic pain	2.0	1.7	1.8	2.0	2.0	1.8	2.1	2.5	1.9
R07	Pain in throat and chest	2.1	1.7	2.0	1.9	2.0	2.3	1.8	3.4	2.0
J18	Pneumonia, organism unspecified	6.4	6.5	6.0	5.2	6.8	6.7	6.1	5.2	6.3
O70	Perineal laceration during delivery	3.2	3.3	3.1	3.3	3.3	3.6	2.8	4.0	3.2
J45	Asthma	2.5	2.3	2.3	2.3	2.8	2.6	2.6	2.7	2.4
K80	Cholelithiasis	3.5	3.2	2.8	3.3	2.9	3.2	3.4	4.2	3.2
J44	Other chronic obstructive pulmonary disease	7.7	7.0	7.2	7.6	7.2	8.8	8.8	6.6	7.4
I50	Heart failure	8.4	7.0	7.5	7.3	7.3	7.7	8.5	7.6	7.7
H26	Other cataract	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.2	1.1
I21	Acute myocardial infarction	6.4	6.1	7.2	5.9	6.2	6.7	7.4	6.1	6.4
K21	Gastro-oesophageal reflux disease	1.6	1.5	1.6	1.4	1.6	1.4	1.3	1.8	1.6
S52	Fracture of forearm	2.0	1.9	1.6	2.4	2.2	2.7	1.8	3.7	2.0
L03	Cellulitis	5.9	5.8	4.2	4.8	5.0	4.1	6.5	4.8	5.2
O80	Single spontaneous delivery	2.7	2.8	2.3	2.8	2.6	2.8	2.5	3.1	2.6
K29	Gastritis and duodenitis	1.7	1.4	1.6	1.5	1.6	1.6	1.8	1.8	1.6
C44	Other malignant neoplasms of skin	2.8	2.3	1.6	2.0	1.8	2.4	1.9	1.3	2.1
N39	Other disorders of urinary system	4.8	4.3	4.7	4.6	4.8	4.4	5.4	4.5	4.6
F20	Schizophrenia	50.3	18.6	58.6	37.3	21.9	40.2	17.0	11.0	39.4
K40	Inguinal hernia	2.1	1.8	1.5	1.8	2.0	1.6	1.6	1.7	1.8
F32	Depressive episode	8.5	9.0	9.5	7.2	11.4	5.2	13.9	9.0	8.8
T81	Complications of procedures, not elsewhere classified	5.8	6.3	5.3	5.2	5.3	6.2	6.1	6.3	5.7
I48	Atrial fibrillation and flutter	3.7	3.2	3.0	2.8	3.3	3.4	2.9	3.5	3.3
J35	Chronic diseases of tonsils and adenoids	1.3	1.2	1.1	1.2	1.3	1.2	1.2	1.2	1.2
Z09	Follow-up examination after treatment for conditions other than malignant neoplasms	1.1	1.0	1.1	1.0	1.0	1.2	1.0	1.1	1.1
Z30	Contraceptive management	1.0	1.0	1.1	1.0	1.0	1.0	1.1	1.1	1.0
O47	False labour	1.7	1.4	1.4	2.0	1.6	1.2	1.7	1.7	1.6
Total[(a)]		**4.6**	**3.8**	**4.3**	**3.9**	**4.1**	**4.8**	**3.7**	**3.5**	**4.2**

Note: ICD-9-CM data reported by Queensland, Western Australia, South Australia and Tasmania have been mapped to ICD-10-AM. Comparisons with data reported by the other jurisdictions in ICD-10-AM should be made cautiously, with reference to the classifications and maps, as appropriate.

(a) For all separations.

Table 7.17: Average length of stay (days) for the 30 principal diagnoses in 3-character ICD-10-AM groupings with the highest number of separations, private hospitals, States and Territories, 1998–99

Principal diagnosis		NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Z51	Other medical care	1.1	1.0	1.0	1.0	1.0	n.p.	n.p.	n.a.	1.0
Z49	Care involving dialysis	1.0	1.0	1.0	1.0	1.0	n.p.	n.p.	n.a.	1.0
H26	Other cataract	1.1	1.1	1.1	1.1	1.0	n.p.	n.p.	n.a.	1.1
K21	Gastro-oesophageal reflux disease	1.2	1.3	1.3	1.2	1.2	n.p.	n.p.	n.a.	1.2
Z50	Care involving use of rehabilitation procedures	9.3	19.2	4.4	23.3	17.3	n.p.	n.p.	n.a.	10.7
C44	Other malignant neoplasms of skin	1.6	1.7	1.6	2.3	1.4	n.p.	n.p.	n.a.	1.7
M23	Internal derangement of knee	1.2	1.2	1.2	1.3	1.3	n.p.	n.p.	n.a.	1.2
R10	Abdominal and pelvic pain	1.5	1.5	1.7	1.8	1.8	n.p.	n.p.	n.a.	1.6
K29	Gastritis and duodenitis	1.1	1.1	1.3	1.3	1.2	n.p.	n.p.	n.a.	1.2
H25	Senile cataract	1.0	1.0	1.1	1.2	1.0	n.p.	n.p.	n.a.	1.1
K57	Diverticular disease of intestine	1.7	1.8	1.9	2.5	2.2	n.p.	n.p.	n.a.	1.9
I20	Angina pectoris	5.1	4.7	4.8	3.8	4.0	n.p.	n.p.	n.a.	4.7
K00	Disorders of tooth development and eruption	1.0	1.0	1.0	1.2	1.0	n.p.	n.p.	n.a.	1.0
M17	Gonarthrosis [arthrosis of knee]	6.0	5.8	6.9	6.7	5.1	n.p.	n.p.	n.a.	6.1
K40	Inguinal hernia	2.2	2.1	1.8	2.1	2.6	n.p.	n.p.	n.a.	2.1
O04	Medical abortion	1.0	1.0	1.0	1.0	1.0	n.p.	n.p.	n.a.	1.0
Z09	Follow-up examination after treatment for conditions other than malignant neoplasms	1.1	1.0	1.9	1.2	1.1	n.p.	n.p.	n.a.	1.3
K01	Embedded and impacted teeth	1.0	1.0	. .	. .	. .	n.p.	n.p.	n.a.	1.0
N97	Female infertility	1.0	1.0	1.0	1.0	1.0	n.p.	n.p.	n.a.	1.0
D12	Benign neoplasm of colon, rectum, anus and anal canal	1.2	1.4	1.3	1.4	1.5	n.p.	n.p.	n.a.	1.3
I84	Haemorrhoids	1.4	1.5	1.6	1.9	1.8	n.p.	n.p.	n.a.	1.5
M54	Dorsalgia	3.7	4.1	4.3	2.2	2.9	n.p.	n.p.	n.a.	3.5
F33	Recurrent depressive disorder	6.6	4.9	8.8	6.3	20.4	n.p.	n.p.	n.a.	6.6
K63	Other diseases of intestine	1.1	1.3	1.3	1.3	1.3	n.p.	n.p.	n.a.	1.2
K80	Cholelithiasis	3.3	3.5	3.5	3.4	3.5	n.p.	n.p.	n.a.	3.4
G47	Sleep disorders	1.1	1.5	1.1	1.8	1.1	n.p.	n.p.	n.a.	1.3
J35	Chronic diseases of tonsils and adenoids	1.1	1.2	1.1	1.1	1.3	n.p.	n.p.	n.a.	1.2
F32	Depressive episode	8.9	4.9	7.3	4.0	15.4	n.p.	n.p.	n.a.	6.4
I25	Chronic ischaemic heart disease	2.6	4.1	7.2	1.8	5.4	n.p.	n.p.	n.a.	3.9
G56	Mononeuropathies of upper limb	1.2	1.1	1.2	1.2	1.1	n.p.	n.p.	n.a.	1.2
	Other	3.5	3.8	4.4	3.8	4.2	n.p.	n.p.	n.a.	3.9
Total[(a)]		**2.9**	**3.3**	**3.4**	**3.1**	**3.4**	**n.p.**	**n.p.**	**n.a.**	**3.2**

Note: ICD-9-CM data reported by Queensland, Western Australia, South Australia and Tasmania have been mapped to ICD-10-AM. Comparisons with data reported by the other jurisdictions in ICD-10-AM should be made cautiously, with reference to the classifications and maps, as appropriate.

(a) For all separations.

n.a. not available.

n.p. not published.

. . not applicable.

Table 7.18: Separations for males for the 30 principal diagnoses in 3-character ICD-10-AM groupings with the highest number of separations, by age group, all hospitals, Australia, 1998–99

Principal diagnosis		<1	1–4	5–14	15–24	25–34	35–44	45–54	55–64	65–74	75+	Total[(a)]
Z49	Care involving dialysis	13	87	704	7,044	23,270	35,703	45,557	55,520	74,513	36,406	278,817
Z51	Other medical care	209	1,458	2,400	2,440	3,219	6,614	15,545	28,006	31,116	12,874	103,881
I20	Angina pectoris	0	0	0	19	318	2,768	9,562	14,524	18,574	13,282	59,047
Z50	Care involving use of rehabilitation procedures	4	10	126	1,732	2,936	3,595	4,923	7,246	10,966	15,320	46,858
K40	Inguinal hernia	1,818	1,417	1,140	1,733	2,762	4,112	6,217	6,524	6,598	4,769	37,090
C44	Other malignant neoplasms of skin	4	5	11	70	395	1,489	3,654	5,503	9,002	12,485	32,619
H26	Other cataract	10	32	42	66	168	474	1,583	3,592	10,101	16,252	32,320
K21	Gastro-oesophageal reflux disease	1,214	296	376	1,222	3,637	5,636	6,868	5,434	4,287	2,253	31,223
M23	Internal derangement of knee	1	2	247	4,632	6,528	6,340	5,499	3,591	1,971	626	29,437
R07	Pain in throat and chest	4	13	117	521	1,826	4,802	7,078	6,204	5,307	3,424	29,296
J18	Pneumonia, organism unspecified	892	3,042	1,630	847	1,337	1,668	1,966	2,670	5,028	8,958	28,038
R10	Abdominal and pelvic pain	204	338	2,384	2,686	3,806	4,453	4,510	3,494	3,294	2,462	27,631
K29	Gastritis and duodenitis	43	160	290	1,074	2,548	3,685	4,568	4,491	4,596	3,009	24,464
J44	Other chronic obstructive pulmonary disease	7	75	166	41	41	270	995	3,553	8,723	10,300	24,171
I21	Acute myocardial infarction	0	0	0	23	231	1,546	3,958	5,155	5,857	5,251	22,021
I25	Chronic ischaemic heart disease	0	2	3	4	75	919	3,677	5,987	6,991	3,465	21,123
I50	Heart failure	29	6	11	46	97	314	882	2,368	5,998	11,305	21,056
N40	Hyperplasia of prostate	0	0	0	6	37	167	1,274	4,704	8,107	6,612	20,907
Z09	Follow-up examination after treatment for conditions other than malignant neoplasms	59	247	166	240	606	1,354	3,178	4,759	5,875	4,084	20,568
J45	Asthma	736	7,655	5,307	1,573	949	708	787	689	676	499	19,579
G47	Sleep disorders	2,576	1,009	466	229	1,052	2,692	4,292	3,342	2,039	737	18,434
N20	Calculus of kidney and ureter	5	33	27	373	1,509	3,336	4,604	3,993	2,736	1,023	17,639
L03	Cellulitis	188	817	1,176	1,801	2,388	2,427	2,472	2,001	2,066	2,222	17,558
I84	Haemorrhoids	1	11	28	345	1,847	3,970	4,876	3,175	2,074	893	17,220
K57	Diverticular disease of intestine	0	1	0	22	252	1,142	2,913	3,793	4,929	3,978	17,030
S52	Fracture of forearm	13	1,023	8,348	2,623	1,315	1,078	854	549	353	315	16,471
F20	Schizophrenia	0	0	39	4,410	5,369	3,607	1,854	719	341	100	16,441
M17	Gonarthrosis [arthrosis of knee]	0	0	6	168	667	1,629	2,653	3,516	4,733	3,013	16,385
J35	Chronic diseases of tonsils and adenoids	25	4,920	7,390	2,043	983	482	132	47	24	11	16,057
M54	Dorsalgia	2	18	83	442	2,141	3,727	3,407	2,298	1,932	1,810	15,860
	Other	72,485	85,967	98,537	136,014	152,421	168,100	185,499	186,744	235,023	234,164	1,554,958
	Not reported	142	117	197	406	555	587	690	978	1,173	1,317	6,163
Total		**80,684**	**108,761**	**131,417**	**174,895**	**225,285**	**279,394**	**346,527**	**385,169**	**485,003**	**423,219**	**2,640,362**

(a) Includes separations for which age was not reported.

Table 7.19: Separations for females for the 30 principal diagnoses in 3-character ICD-10-AM groupings with the highest number of separations, by age group, all hospitals, Australia, 1998–99

Principal diagnosis		<1	1–4	5–14	15–24	25–34	35–44	45–54	55–64	65–74	75+	Total[(a)]
Z49	Care involving dialysis	0	7	386	4,056	14,707	20,284	31,340	46,938	62,060	22,009	201,787
Z51	Other medical care	152	1,236	1,900	1,304	3,868	12,959	25,447	27,265	23,736	9,351	107,218
Z50	Care involving use of rehabilitation procedures	2	7	79	939	1,579	2,790	4,597	5,620	11,187	27,093	53,893
R10	Abdominal and pelvic pain	148	215	2,796	8,059	9,029	8,760	8,088	5,668	4,381	3,993	51,137
O70	Perineal laceration during delivery	0	0	22	10,943	32,032	7,521	28	0	0	0	50,547
H26	Other cataract	13	31	34	46	106	338	1,367	3,999	14,443	27,513	47,890
K80	Cholelithiasis	2	4	108	2,622	6,250	6,199	6,724	5,801	4,740	3,931	36,381
I20	Angina pectoris	0	0	1	5	111	925	3,343	6,031	10,933	14,037	35,386
O04	Medical abortion	0	0	113	14,938	13,860	6,082	161	2	0	0	35,159
O80	Single spontaneous delivery	0	0	6	8,944	18,620	3,593	12	0	0	0	31,175
K21	Gastro-oesophageal reflux disease	1,005	184	241	903	2,077	4,104	6,389	5,939	4,812	3,187	28,841
K29	Gastritis and duodenitis	47	159	322	1,255	2,425	3,975	5,607	5,547	5,177	4,090	28,604
R07	Pain in throat and chest	1	5	107	479	1,290	3,060	5,970	5,787	5,310	5,050	27,059
N39	Other disorders of urinary system	754	914	742	1,266	1,446	2,369	3,443	3,056	3,360	6,991	24,341
N97	Female infertility	1	0	0	918	12,797	10,146	334	7	0	0	24,205
J18	Pneumonia, organism unspecified	643	2,421	1,354	775	1,391	1,475	1,684	2,135	3,544	8,713	24,135
K57	Diverticular disease of intestine	2	2	2	10	107	896	3,288	5,188	6,946	6,647	23,088
C44	Other malignant neoplasms of skin	4	10	23	80	477	1,607	2,922	3,183	4,960	8,793	22,059
N92	Excessive, frequent and irregular menstruation	0	0	35	777	3,740	9,540	7,589	291	6	5	21,983
O47	False labour	0	0	22	7,429	11,842	2,504	8	0	0	0	21,805
H25	Senile cataract	1	0	1	7	17	94	448	1,591	6,831	12,299	21,289
I50	Heart failure	20	14	10	33	64	194	489	1,182	3,811	15,021	20,838
F32	Depressive episode	0	0	252	2,590	3,666	4,660	3,796	1,889	1,705	2,132	20,690
J45	Asthma	290	4,170	3,488	2,524	2,057	1,825	1,926	1,542	1,372	1,370	20,564
M54	Dorsalgia	2	15	93	565	1,833	3,750	4,539	2,887	2,852	3,604	20,140
J35	Chronic diseases of tonsils and adenoids	14	3,251	8,433	4,794	1,414	464	156	81	26	11	18,644
C50	Malignant neoplasm of breast	0	0	1	38	458	2,699	5,039	4,292	3,428	2,397	18,352
O99	Other maternal diseases classifiable elsewhere but complicating pregnancy, childbirth and the puerperium	0	0	11	5,083	10,530	2,602	20	1	0	0	18,247
O68	Labour and delivery complicated by fetal stress [distress]	0	0	9	3,988	10,999	2,752	14	0	0	0	17,762
J44	Other chronic obstructive pulmonary disease	3	57	130	66	89	259	1,112	2,906	5,723	6,948	17,293
	Other	53,805	61,431	76,234	206,129	359,624	276,955	242,483	201,739	224,749	294,477	1,997,629
	Not reported	78	110	158	369	647	616	905	857	1,125	1,603	6,468
Total		**56,987**	**74,243**	**97,113**	**291,934**	**529,152**	**405,997**	**379,268**	**351,424**	**417,217**	**491,265**	**3,094,609**

(a) Includes separations for which age was not reported.

Table 7.20: Separation, same day separations, patient day and average length of stay statistics by principal diagnosis in ICD-10-AM groupings, public psychiatric hospitals, Australia, 1998–99

Principal diagnosis		Separations	Same day separations	Per cent same day separations	Separations per 10,000 population	Patient days	Patient days per 10,000 population	ALOS (days)	ALOS (days) excluding same day
A00–B99	Infectious and parasitic diseases	1	0	0.0	<0.1	2	<0.1	2.0	2.0
C00–D48	Neoplasms	1	0	0.0	<0.1	50	<0.1	50.0	50.0
D50–D89	Dis. of blood and blood-forming organs and immune mechanism	0	0	0.0	<0.1	0	<0.1	. .	. .
E00–E90	Endocrine, nutritional and metabolic diseases	4	0	0.0	<0.1	276	0.1	69.0	69.0
F00–F03	Dementia	708	1	0.1	0.4	76,554	40.6	108.1	108.3
F04–F09	Other organic mental disorders	336	6	1.8	0.2	73,806	39.2	219.7	223.6
F10	Mental, behavioural disorders due to use of alcohol	1,406	106	7.5	0.7	91,801	48.7	65.3	70.5
F11–F19	Mental, behav. disorders due to other psychoactive substance use	2,417	487	20.1	1.3	15,642	8.3	6.5	7.9
F20	Schizophrenia	4,406	467	10.6	2.3	583,835	309.7	132.5	148.1
F21–F29	Other schizotypal, delusional disorders	1,805	160	8.9	1.0	62,709	33.3	34.7	38.0
F30	Manic episode	162	1	0.6	0.1	20,399	10.8	125.9	126.7
F31	Bipolar affective disorder	1,875	206	11.0	1.0	81,100	43.0	43.3	48.5
F32–F33	Depressive episode or disorder	1,919	276	14.4	1.0	49,846	26.4	26.0	30.2
F34–F39	Other mood (affective) disorders	207	9	4.3	0.1	3,707	2.0	17.9	18.7
F40–F48	Neurotic, stress-related and somatoform disorders	2,081	374	18.0	1.1	15,531	8.2	7.5	8.9
F50	Eating disorders	28	0	0.0	<0.1	890	0.5	31.8	31.8
F51–F59	Other behav. syndromes associated with physiological disturbances, physical factors	109	5	4.6	0.1	1,093	0.6	10.0	10.5
F60–F69	Disorders of adult personality and behaviour	1,249	87	7.0	0.7	16,280	8.6	13.0	13.9
F70–F79	Mental retardation	69	6	8.7	<0.1	42,957	22.8	622.6	681.8
F80–F89	Disorders of psychological development	51	4	7.8	<0.1	38,881	20.6	762.4	827.2
F90–F98	Disorders with onset usually occurring in childhood, adolescence	129	62	48.1	0.1	1,250	0.7	9.7	17.7
F99	Unspecified mental disorder	94	11	11.7	<0.1	761	0.4	8.1	9.0
G00–G99	Diseases of the nervous system	129	0	0.0	0.1	38,145	20.2	295.7	295.7
H00–H95	Diseases of eye, adnexa, ear and mastoid process	2	0	0.0	<0.1	41	<0.1	20.5	20.5
I00–I99	Diseases of circulatory system	5	0	0.0	<0.1	7,283	3.9	1,456.6	1,456.6
J00–L99	Diseases of respiratory/digestive system, skin & subcutaneous tissue	0	0	. .	. .	0	. .	. .	. .
M00–M99	Diseases of musculoskeletal and connective tissue	1	0	0.0	<0.1	55	<0.1	55.0	55.0
N00–N99	Diseases of genitourinary system	0	0	. .	. .	0	. .	. .	. .
O00–O99	Pregnancy, childbirth and the puerperium	1	0	0.0	<0.1	4	<0.1	4.0	4.0
P00–P96	Certain diseases originating in the perinatal period	0	0	. .	. .	0	. .	. .	. .
Q00–Q99	Congenital abnormalities	5	0	0.0	<0.1	5,790	3.1	1,158.0	1,158.0
R00–R99	Signs, symptoms and abnormal findings nec	11	2	18.2	<0.1	316	0.2	28.7	34.9
S00–T98	Injury, poisoning and other consequences of external causes	18	2	11.1	<0.1	134	0.1	7.4	8.3
Z03.2, Z81, Z86.5	Observation, personal, family history of mental and behav. disorder	0	0	. .	. .	0	. .	. .	. .
Z00–Z99[(a)]	Other reasons for contact with health services	428	19	4.4	0.2	29,843	15.8	69.7	72.9
	Not reported	619	3	0.5	0.3	26,421	14.0	42.7	42.9
Total		**20,276**	**2,294**	**11.3**	**10.8**	**1,285,402**	**681.9**	**63.4**	**71.4**

Note: Abbreviations: dis.—diseases, behav.—behavioural.

(a) Excluding Z03.2, Z81 and Z86.5.

. . not applicable.

8 Principal and additional procedures for admitted patients

Introduction

The *National Health Data Dictionary* Version 7.0 (NHDC 1998) defines a procedure as 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 only available in an acute setting. The principal procedure is defined as the most significant procedure that was performed for treatment of the principal diagnosis. However, the *Dictionary* also states that when no procedure was performed for treatment of the principal diagnosis, other procedures can be reported as the principal procedure. In order these are, a procedure performed for treatment of an additional diagnosis, a diagnostic/exploratory procedure related to the principal diagnosis, or a diagnostic/exploratory procedure related to an additional diagnosis. Procedures therefore encompass surgical procedures and also non-surgical investigative and therapeutic procedures such as X-rays and chemotherapy.

Procedures are not undertaken during all hospital admissions so only a proportion of the separation records includes principal (or additional) procedure data. For example, principal procedures were reported for only 59% of separations with a principal diagnosis within the *Certain infectious and parasitic diseases* chapter.

Principal and additional procedures for 1998–99 were classified, coded and reported to the National Hospital Morbidity Database by Queensland, Western Australia, South Australia and Tasmania using the *Australian Version of the International Classification of Diseases, 9th Revision, Clinical Modification* (ICD-9-CM) (National Coding Centre 1996), and by New South Wales, Victoria, the Australian Capital Territory and the Northern Territory using the *International Statistical Classification of Diseases and Related Health Problems, 10th Revision, Australian Modification* (ICD-10-AM) (National Centre for Classification in Health 1998). The data reported in ICD-9-CM were mapped by the Institute to ICD-10-AM so that national data could be presented in a single classification in this report. Further information about this mapping is presented in Appendix 4.

The procedure classification is divided into chapters by anatomical site and within each chapter by a 'superior' to 'inferior' (head to toe) approach. These groups are divided into more specific procedure groupings, beginning with the least invasive procedure through to the most invasive. The blocks, which are numbered sequentially, group the very specific procedure codes. The tables and figures in this chapter use the groups of blocks, blocks and abbreviated descriptions. Full descriptions of the categories are available in the ICD-10-AM publication.

Most of the information is presented using three methods of grouping records based on the ICD-10-AM procedure classification:

- ICD-10-AM procedure chapters—these 21 groups provide information aggregated at the ICD-10-AM chapter level (Figures 8.1 and 8.2);
- ICD-10-AM procedure block groupings—these 64 groups were chosen to provide more detailed information than ICD-10-AM chapters, but still cover the entire procedure classification at a manageable level (Tables 8.1 to 8.8). Tables 8.18 and 8.19 present counts of all procedures (principal and additional) using these groupings; and

- ICD-10-AM blocks—these 1,635 categories describe procedures at a quite specific level. Detailed information is presented for the 30 of these groups with the highest number of separations (Tables 8.10 to 8.17) and summary information is provided for all of the groups (for which separations were reported) on the Internet at http://www.aihw.gov.au/publications/health/ahs98-9.html (Tables S8.1 and S8.2).

In addition, Table 8.9 presents information on the number of procedures reported (principal and additional procedures).

Tables are presented with summary separation, patient day and average length of stay statistics for public and private hospitals, nationally and by State and Territory. National information on age group and sex distributions is also presented. The data on relative ranking of the various procedure groups (by numbers of separations or patient days) depend to some extent on the chosen groups of procedure codes.

Some data for private hospitals in Tasmania and the Australian Capital Territory have not been included in Tables 8.4, 8.6, 8.13, 8.15 and 8.19. The data were supplied but were not published for confidentiality reasons. Western Australia, Victoria and Tasmania were not able to supply data on procedures for their public psychiatric hospitals.

Overall, there were 4.4 million separations for which a principal procedure was reported, 77% of total separations. Sixteen million patient days were reported for separations with a principal procedure, 73% of the total.

ICD-10-AM chapters

Figures 8.1 and 8.2 provide a summary of the number of separations and patient days by principal procedure, by sector, reported for each of the ICD-10-AM procedure chapter groupings.

The highest number of separations in the public sector was for *Procedures on urinary system*, followed by *Procedures on digestive system*. In the private sector, *Procedures on digestive system* had the largest number of separations, followed *Procedures on musculoskeletal system.*

The highest number of patient days in the public sector was reported for *Allied health interventions*, followed by the *Procedures on digestive system*. In the private sector the highest number of patient days was reported for the *Procedures on digestive system* chapter, followed by the chapter on *Allied health interventions*.

For both sectors together, the two chapters with the most procedures were *Procedures on digestive system*, followed by *Procedures on urinary system.* The two chapters with the largest numbers of patient days were *Allied health interventions* and *Procedures on digestive system.*

Principal procedures were reported for varying proportions of separations in the ICD-10-AM principal diagnoses groups. High proportions of separations for the *Neoplasms* (93%, 370,044), *Diseases of the blood and blood-forming organs* (93%, 66,524), *Diseases of the digestive system* (88%, 599,807) and *Diseases of the genitourinary system* (86%, 311,125) chapters had principal procedures reported. In contrast, principal procedures were reported for smaller proportions of separations with principal diagnoses in the *Mental and behavioural disorders* (65%, 155,112) and *Certain infectious and parasitic diseases* (41%, 36,133) chapters.

Broad procedure groupings

Sector

Public hospitals accounted for 63% of the separations with reported principal procedures (2,774,793), although they accounted for 67% of the separations overall (Tables 8.1 and 8.2). Similarly, although 73% of overall patient days were in public hospitals, only 70% of patient days associated with principal procedures were in public hospitals (11,446,509). This reflected the higher proportion of separations in the private sector that were reported with a principal procedure (88%), compared with the public sector. In public hospitals, 72% of total separations involved a principal procedure (2,774,793), and these separations were associated with 70% of total patient days (11,461,449) (Table 8.1). In contrast, 88% of total separations in private hospitals involved a principal procedure (1,641,124), and these separations were associated with 80% of total patient days (4,865,012) (Table 8.2).

If procedures from Block 1780 onwards (that is, chemotherapeutic and radiation oncology, miscellaneous procedures, imaging services and allied health interventions) are not included, there was a total of 3,365,450 separations reported with a principal procedure. Of these, 1,953,978 separations were reported for same day stays and 1,411,472 were reported for overnight or longer stays. The private sector reported a higher proportion of separations for 'same day procedures' than the public sector. The public sector reported 1,131,876 (56%) and 874,614 (44%) same day separations and overnight or longer stay separations with a principal procedure, respectively, and the private sector reported 822,102 (60%) and 536,858 (40%) separations, respectively (Tables 8.1 and 8.2).

The group of principal procedures that accounted for a large number of separations in public hospitals was *Procedures on kidney* (Blocks 1040–1063). The principal procedure which was reported for most of these separations was *Haemodialysis* (procedure code 13100-00 [1059]); this was reported for 91% (402,748) of this group. Within the *Chemotherapeutic and radiation oncology procedures* group (Blocks 1780–1799), *Chemotherapy, intravenous administration < 1 hours duration* (procedure code 13915-00 [1781]) was the most commonly reported individual procedure (99,978, 69%).

In private hospitals the largest group of principal procedures was *Other procedures on abdomen, peritoneum and hernia* (Blocks 983–1011). The principal procedure which accounted for most of the separations in this group was *Panendoscopy with biopsy* (procedure code 30473-01 [1005]) (97,657), 58% of the group overall. *Procedures on large intestine* (Blocks 904–925) was the second most frequently reported group; *Fibreoptic colonoscopy to caecum* (procedure code 32090-00 [905]) was the most commonly reported individual procedure (84,876, 53%) within this group.

States and Territories

Tables 8.3 to 8.6 contain detail on the pattern of hospital use in the States and Territories by block number, in both the public and private sectors. These tables enable State by State comparisons of overall hospital use for the different procedure groupings, and the share of separations between the private and public sector. For example, the proportion of total separations for *Procedures on skull, brain and meninges* (Blocks 1–28) in public hospitals rather than private was higher in New South Wales (85%, 2,691) than in Queensland (71%, 1,141). The proportion of total patient days for *Other procedures on appendix* (Blocks 926–927) that were reported for private hospitals rather than public hospitals varied by State, from 30% (835) in Western Australia to 16% (1,173) in New South Wales.

Some of these differences among the States and Territories could reflect the fact that data from Queensland, Western Australia, South Australia and Tasmania were mapped from

ICD-9-CM to ICD-10-AM for this report. For example, only jurisdictions that reported in ICD-10-AM had separations recorded for the group *Procedures on neck, thorax and ribs* (Blocks 1373–1380). No ICD-9-CM codes mapped to these ICD-10-AM blocks because the blocks are specific for bones of the neck and thorax. The equivalent ICD-9-CM codes are not, and were mapped to less specific codes in the group *Other procedures for musculoskeletal system* (Blocks 1551–1579). There were relatively more separations for this latter group for ICD-9-CM States.

Age group and sex

In Tables 8.7 and 8.8, information on the number of separations by age group and principal procedure grouping is presented for males and females. These tables show a number of different patterns in the age distributions of separations for the various procedure groups. For example, patients admitted for *Procedures on middle and inner ear and mastoid* (Blocks 307–333) were mostly in the younger age groups, while the opposite was the case for *Procedures on coronary arteries and aorta* (Blocks 667–693. Other groups of procedures had a peak in the middle age groups, for example *Procedures on spinal cord and spinal canal structures* (Blocks 29–60) and *Procedures on nose and sinuses* (Blocks 370–389).

These tables also indicate the relative importance of the procedure groups as causes of hospitalisation for each sex and age group. For example, males in the 15 to 24 years age group commonly had *Procedures on skin and subcutaneous tissue* (Blocks 1600–1660) and *Dental and orthodontic procedures* (Blocks 450–490). For females, the age group with the highest number of separations with a principal procedure was the 25 to 34 years age group. Older females were more frequently reported for groups such as *Procedures on kidney* (Blocks 1040–1063) and *Allied health interventions* (Blocks 2050–2140).

Number of procedure codes

Table 8.9 presents information on the number of procedure codes (principal and additional) reported to the National Hospital Morbidity Database. These counts are of procedure codes as reported in either ICD-9-CM or ICD-10-AM and not as mapped from ICD-9-CM to ICD-10-AM. Thus the data reported for New South Wales, Victoria, the Australian Capital Territory and Northern Territory (ICD-10-AM jurisdictions) are not completely comparable with data reported by South Australia, Western Australia, Tasmania and Queensland (ICD-9-CM jurisdictions).

There were marked differences between the States and Territories in the maximum number of procedures reported (for example, in the public sector, 31 procedures for Queensland, Tasmania and the Northern Territory and 12 for South Australia and Victoria); however, with the exception of Northern Territory, the average number of procedure codes per separation varied little among the jurisdictions, for both the public and private sectors. The Institute requested a maximum of 31 codes so this may have restricted the number of codes reported by some states.

In the public sector 4.3% of records had five or more procedure codes, but in the private sector just over 3.6% of records fell into this category. This may have been due to more complicated cases being treated in public hospitals, or differences in coding practices between the sectors.

High volume procedures

Tables 8.10 to 8.17 present information on the most common principal procedures (at the block level of the ICD-10-AM classification).

Tables 8.10 and 8.11 contain summary separation, patient day and average length of stay statistics for the 30 blocks with the most separations in public and private hospitals. In the public sector, the most common principal procedure blocks were *Haemodialysis* (Block 1059) (426,773 separations) and *Generalised allied health interventions (*Block 2140) (153,312 separations).

For *Haemodialysis* (Block 1059) the average length of stay was 1.1 days and the proportion of separations that were same day separations was 99% (422,551). Separations for which *Generalised allied health interventions* (Block 2140) were reported as the principal procedure had an average length of stay of 12.1 days. The highest number of patient days was reported for separations with principal procedures within the *Generalised allied health interventions* (Block 2140) group (1,854,532), followed by separations with *Computerised tomography of brain* (Block 1952) (488,595) reported as the principal procedure.

In the private sector, the most frequent principal procedure was *Panendoscopy with excision* (Block 1008) (99,220 separations), with the second most frequent being *Fibreoptic colonoscopy* (Block 905) (88,990 separations). The principal procedure reported in association with the highest number of patient days (390,523), *Generalised allied health interventions* (Block 2140), also had the longest average length of stay (12.1 days).

There was some variation between the States and Territories in the relative number of separations for the most common procedure blocks (Tables 8.12 and 8.13), some of which could reflect the fact that data from Queensland, Western Australia, South Australia and Tasmania were mapped from ICD-9-CM to ICD-10-AM for this report. Sometimes, a number of ICD-9-CM codes were mapped to a non-specific code in ICD-10-AM (because of the different axis structures of the classifications; see Appendix 4). Thus, for example, in the public sector there were relatively higher numbers of separations reported by ICD-9-CM States (compared with ICD-10-AM jurisdictions) for Block 1625 *Excision of lesion of skin and subcutaneous tissue not elsewhere classified* and Block 1571 *Other repair procedures on bone of other musculoskeletal sites*. There were relatively more separations for ICD-10-AM jurisdictions for Block 2140 *Generalised allied health interventions* in the public sector and relatively more for ICD-9-CM States for Block 2064 *Physiotherapy diagnostic evaluation*. This was probably largely because an equivalent less specific category (for example for physiotherapy, not further specified) was not available in ICD-9-CM.

Age and sex

There was little difference between males and females in the proportion of separations with principal procedures, with both recording 77% (2,041,097 and 2,374,761, respectively) (Tables 8.16 and 8.17). For both males and females, the group of principal procedures with the most separations was *Haemodialysis* (Block 1059).

For males, the age group for which the highest number of separations with principal procedures was reported was the 65 to 74 years age group (405,158) (Table 8.16). However, there was a great variation in the age distribution for the different blocks, with males under the age of 5 years being the most commonly reported for *Myringotomy* (Block 309), for example. For females the age group with the largest number of separations with principal procedures was the 25 to 34 years age group (389,352) (Table 8.17). Older females were more frequently reported for principal procedure groups such as *Haemodialysis* (Block 1059), *Generalised allied health intervention* (Block 2140) and *Extracapsular crystalline lens extraction by phacoemulsification* (Block 197).

Additional data

The accompanying tables on the Internet at http://www.aihw.gov.au/publications/health/ ahs98-9.html provide national summary statistics for public and private hospitals for each principal procedure block (as presented for the top 30 procedure blocks in Tables 8.10 and 8.11). For confidentiality, the statistics for some blocks in the private sector have been suppressed. The information was suppressed if there were fewer than 50 private hospital separations reported for the block and there were fewer than three reporting units (hospitals, or States or Territories where the hospitals were not individually identified), or there were three reporting units and one contributed more than 85% of the total separations, or two contributed more than 90% of the separations for the block.

Total procedures

Tables 8.18 and 8.19 provide counts of all the procedures (principal and additional) reported for 1998–99, by State and Territory for the public and private sectors. The totals are the total number of procedures, rather than the total number of separations or separations for which a procedure was reported. Counts of all procedures for groups such as *Procedures on ovaries and fallopian tubes* (Blocks 1240–1258) (71,829), *Induction and augmentation of labour* (Blocks 1330–1335) (165,351) and *Procedures on skin and subcutaneous tissue* (Blocks 1600–1660) (344,636) are much higher than counts of principal procedures (Table 8.1), indicating that these procedures were commonly reported as additional procedures.

The most commonly reported procedure group in public hospitals and private hospitals combined was *Allied health interventions* (Blocks 2050–2140) (300,751). The second largest group for public and private hospitals combined (655,015) was *Miscellaneous non-operative procedures* (Blocks 1820–1899). A block which accounted for many of these was *Transfusion of blood and gamma globulin* (Block 1861), 22% of the group overall (145,535).

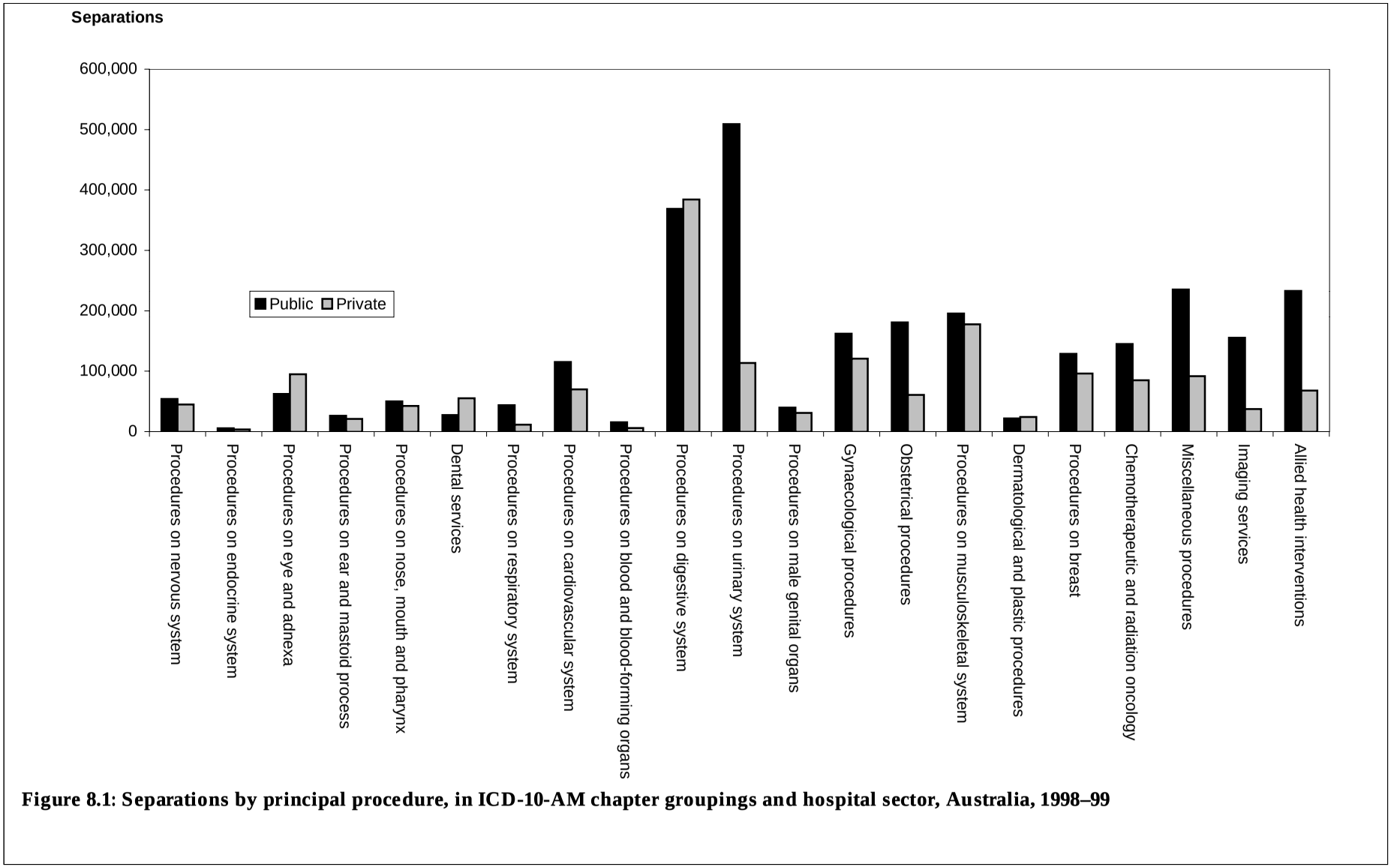

Figure 8.1: Separations by principal procedure, in ICD-10-AM chapter groupings and hospital sector, Australia, 1998–99

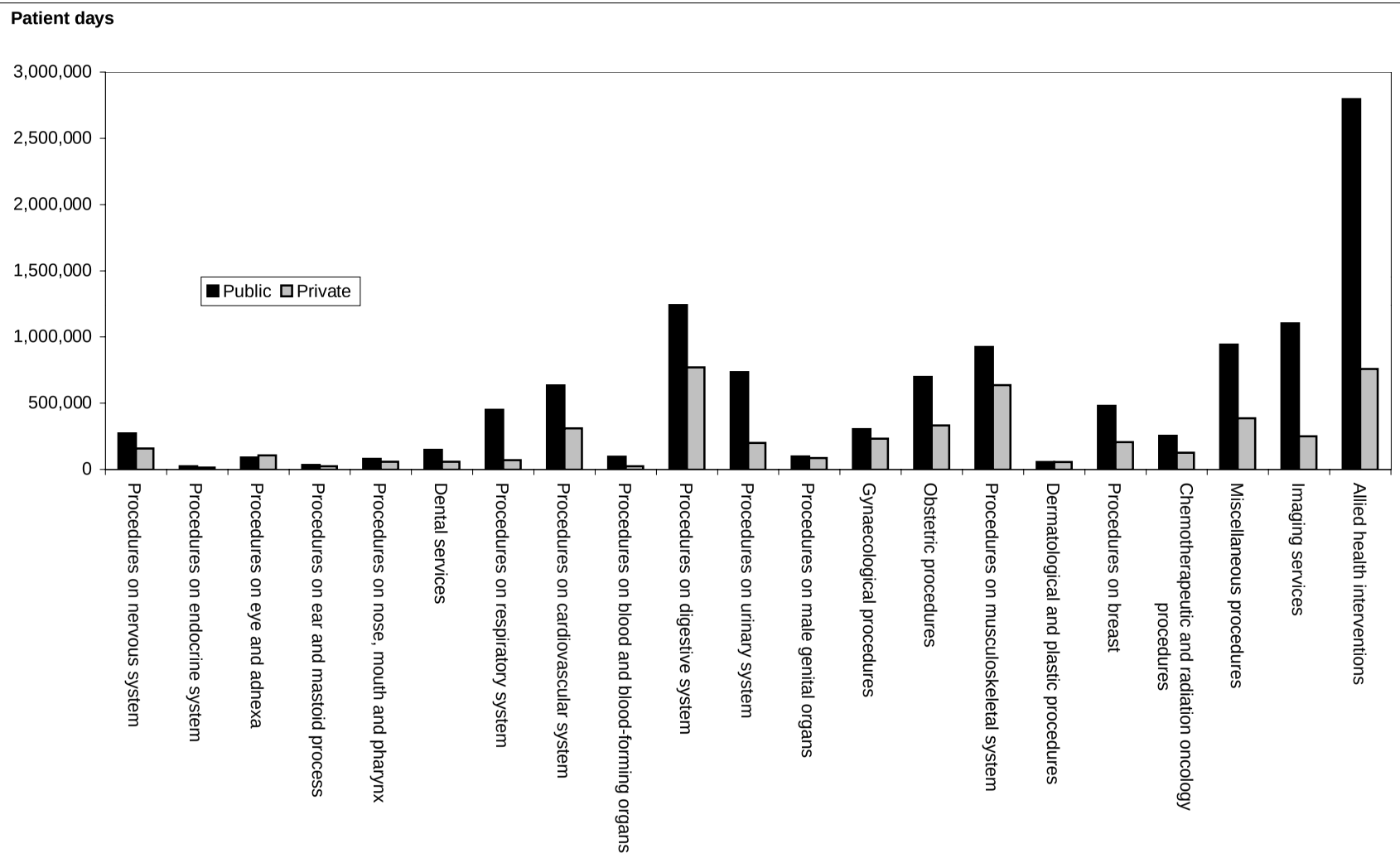

Figure 8.2: Patient days by principal procedure, in ICD-10-AM chapter groupings and hospital sector, Australia, 1998–99

Table 8.1: Separation, same day separation, patient day and average length of stay statistics by principal procedure in ICD-10-AM groupings, public hospitals, Australia, 1998–99

Principal procedure blocks		Separations	Same day separations	Per cent same day separations	Separations per 10,000 population	Patient days	Patient days per 10,000 population	ALOS (days)	ALOS (days) excluding same day
1–28	Procedures on skull, brain and meninges	7,569	124	1.6	4.0	102,821	54.5	13.6	13.8
29–60	Procedures on spinal cord and spinal canal structures	25,376	7,442	29.3	13.5	131,981	70.0	5.2	6.9
61–86	Procedures on nerves and ganglia	21,219	14,783	69.7	11.3	38,273	20.3	1.8	3.6
110–129	Procedures on thyroid, parathyroid and endocrine glands	5,611	158	2.8	3.0	24,101	12.8	4.3	4.4
160–192	Procedures on eyeball, cornea, sclera, iris and ciliary body	7,509	4,453	59.3	4.0	16,384	8.7	2.2	3.9
193–203	Procedures on lens	41,081	33,374	81.2	21.8	47,692	25.3	1.2	1.9
204–256	Procedures on retina, conjunctiva and other areas of eye	13,894	7,735	55.7	7.4	25,463	13.5	1.8	2.9
300–306	Procedures on external ear	3,241	2,181	67.3	1.7	5,126	2.7	1.6	2.8
307–333	Procedures on middle and inner ear and mastoid	23,010	17,474	75.9	12.2	29,099	15.4	1.3	2.1
370–389	Procedures on nose and sinuses	18,673	6,541	35.0	9.9	29,838	15.8	1.6	1.9
390–399	Procedures on tongue, salivary gland and ducts	3,669	1,686	46.0	1.9	9,611	5.1	2.6	4.0
400–408	Procedures on mouth, palate or uvula	3,638	1,794	49.3	1.9	7,927	4.2	2.2	3.3
409–422	Procedures on tonsils, adenoids and pharynx	24,077	3,132	13.0	12.8	33,551	17.8	1.4	1.5
450–490	Dental and orthodontic procedures	27,269	24,085	88.3	14.5	147,259	78.1	5.4	38.7
520–542	Procedures on larynx and trachea	6,217	2,775	44.6	3.3	61,340	32.5	9.9	17.0
543–558	Procedures on bronchus, lung and pleura	18,076	8,419	46.6	9.6	108,168	57.4	6.0	10.3
559–567	Procedures on chest wall, mediastinum and diaphragm	9,198	1,240	13.5	4.9	70,352	37.3	7.6	8.7
568–569	Airway management, continuous ventilatory support	10,149	709	7.0	5.4	210,430	111.6	20.7	22.2
600–638	Procedures on atrium, ventricle, septum and valves	3,947	67	1.7	2.1	44,830	23.8	11.4	11.5
639–666	Other procedures on heart, myocardium and pericardium	10,261	2,101	20.5	5.4	45,820	24.3	4.5	5.4
667–693	Procedures on coronary arteries and aorta	54,342	14,451	26.6	28.8	252,450	133.9	4.6	6.0
694–767	Procedures on arteries and veins	46,701	12,269	26.3	24.8	291,761	154.8	6.2	8.1
800–817	Procedures on blood and blood-forming organs	15,539	7,338	47.2	8.2	96,006	50.9	6.2	10.8
850–869	Procedures on oesophagus	8,499	4,913	57.8	4.5	29,096	15.4	3.4	6.7
870–890	Procedures on stomach	9,014	1,993	22.1	4.8	102,290	54.3	11.3	14.3
891–903	Procedures on small intestine	3,620	167	4.6	1.9	46,809	24.8	12.9	13.5
904–925	Procedures on large intestine	96,627	75,765	78.4	51.3	261,852	138.9	2.7	8.9
926–927	Procedures on appendix	18,448	102	0.6	9.8	63,011	33.4	3.4	3.4
928–950	Procedures on rectum and anus	23,871	8,965	37.6	12.7	86,925	46.1	3.6	5.2
951–982	Procedures on liver, gallbladder, biliary tract and pancreas	44,131	7,845	17.8	23.4	198,482	105.3	4.5	5.3
983–1011	Other procs. on abdomen, peritoneum, omentum and digestive system	164,563	104,210	63.3	87.3	452,589	240.1	2.8	5.8
1040–1063	Procedures on kidney	442,716	427,435	96.5	234.8	536,751	284.7	1.2	7.2
1064–1128	Procedures on bladder, ureter and urethra	66,371	38,542	58.1	35.2	197,025	104.5	3.0	5.7
1160–1170	Procedures on prostate and seminal vesicle	11,320	954	8.4	6.0	61,696	32.7	5.5	5.9

(continued)

Table 8.1 (continued): Separation, same day separation, patient day and average length of stay statistics by principal procedure in ICD-10-AM groupings, public hospitals, Australia, 1998–99

Principal procedure blocks		Separations	Same day separations	Per cent same day separations	Separations per 10,000 population	Patient days	Patient days per 10,000 population	ALOS (days)	ALOS (days) excluding same day
1171–1176	Procedures on scrotum and tunical vaginalis	1,494	430	28.8	0.8	2,909	1.5	1.9	2.3
1177–1189	Procedures on testis, vas deferens, epididymis, spermatic cord	14,621	10,727	73.4	7.8	18,233	9.7	1.2	1.9
1190–1203	Procedures on penis and other male genital organs	12,134	10,226	84.3	6.4	15,257	8.1	1.3	2.6
1230–1239	Procedures on female pelvic cavity	10,075	7,206	71.5	5.3	18,394	9.8	1.8	3.9
1240–1258	Procedures on ovaries and fallopian tubes	25,378	14,062	55.4	13.5	50,139	26.6	2.0	3.2
1259–1273	Procedures on uterus	85,492	56,071	65.6	45.4	170,943	90.7	2.0	3.9
1274–1278	Procedures on cervix	21,135	19,262	91.1	11.2	24,014	12.7	1.1	2.5
1279–1288	Procedures on vagina and pelvic floor	10,461	5,088	48.6	5.5	27,569	14.6	2.6	4.2
1289–1299	Procedures on other female genital organs	9,407	7,348	78.1	5.0	12,895	6.8	1.4	2.7
1330–1335	Induction and augmentation of labour	50,061	2,739	5.5	26.6	174,613	92.6	3.5	3.6
1336–1339	Spontaneous vertex, or forceps, vacuum or breech delivery	18,146	234	1.3	9.6	79,721	42.3	4.4	4.4
1340	Caesarean delivery	36,285	87	0.2	19.2	222,996	118.3	6.1	6.2
1341–1347	Other obstetric and postpartum procedures	76,258	12,903	16.9	40.5	220,570	117.0	2.9	3.3
1360–1372	Procedures on head, facial bones and joints	6,687	2,706	40.5	3.5	16,226	8.6	2.4	3.4
1373–1380	Procedures on neck, thorax and ribs	249	38	15.3	0.1	2,437	1.3	9.8	11.4
1381–1393	Procedures on spinal cord and vertebrae	1,741	64	3.7	0.9	24,262	12.9	13.9	14.4
1394–1407	Procedures on shoulder, scapula and clavicle	7,220	1,537	21.3	3.8	19,470	10.3	2.7	3.2
1408–1438	Procedures on humerus, elbow and forearm	18,829	3,661	19.4	10.0	44,048	23.4	2.3	2.7
1439–1475	Procedures on hand, wrist and phalanges	20,520	9,660	47.1	10.9	33,277	17.7	1.6	2.2
1476–1494	Procedures on hip, pelvis and femur	25,164	225	0.9	13.3	304,680	161.6	12.1	12.2
1495–1525	Procedures on knee, patella, tibia and fibula	40,489	18,995	46.9	21.5	187,022	99.2	4.6	7.8
1526–1550	Procedures on ankle, foot and toes	16,768	2,771	16.5	8.9	86,314	45.8	5.1	6.0
1551–1579	Other procedures for musculoskeletal system	57,838	20,909	36.2	30.7	206,435	109.5	3.6	5.0
1600–1660	Procedures on skin and subcutaneous tissue	120,793	65,944	54.6	64.1	456,501	242.2	3.8	7.1
1661–1718	Plastic, cosmetic and corrective procedures	8,018	2,930	36.5	4.3	23,046	12.2	2.9	4.0
1740–1759	Procedures on breast	21,781	10,831	49.7	11.6	56,562	30.0	2.6	4.2
1780–1799	Chemotherapeutic and radiation oncology procedures	144,887	123,728	85.4	76.9	254,503	135.0	1.8	6.2
1820–1899	Miscellaneous non-operative procedures	235,353	115,224	49.0	124.8	942,195	499.8	4.0	6.9
1940–2016	Imaging services	155,217	26,304	16.9	82.3	1,103,465	585.4	7.1	8.4
2050–2140	Allied health interventions	232,846	16,190	7.0	123.5	2,795,944	1,483.2	12.0	12.8
	No principal procedure or not reported	1,084,898	305,397	28.1	575.5	4,812,779	2,553.0	4.4	5.8
Total		**3,859,691**	**1,718,719**	**44.5**	**2,047.5**	**16,274,228**	**8,633.0**	**4.2**	**6.8**

Note: Abbreviation: ALOS—average length of stay.

Table 8.2: Separation, same day separation, patient day and average length of stay statistics by principal procedure in ICD-10-AM groupings, private hospitals, Australia, 1998–99

Principal procedure blocks		Separations	Same day separations	Per cent same day separations	Separations per 10,000 population	Patient days	Patient days per 10,000 population	ALOS (days)	ALOS (days) excluding same day
1–28	Procedures on skull, brain and meninges	1,900	36	1.9	1.0	21,577	11.6	11.4	11.6
29–60	Procedures on spinal cord and spinal canal structures	20,195	6,448	31.9	10.8	101,778	54.5	5.0	6.9
61–86	Procedures on nerves and ganglia	22,864	16,076	70.3	12.3	35,038	18.8	1.5	2.8
110–129	Procedures on thyroid, parathyroid and endocrine glands	3,670	51	1.4	2.0	13,793	7.4	3.8	3.8
160–192	Procedures on eyeball, cornea, sclera, iris and ciliary body	8,549	6,540	76.5	4.6	10,197	5.5	1.2	1.8
193–203	Procedures on lens	75,791	57,185	75.5	40.6	82,297	44.1	1.1	1.3
204–256	Procedures on retina, conjunctiva and other areas of eye	10,627	7,638	71.9	5.7	13,244	7.1	1.2	1.9
300–306	Procedures on external ear	1,481	865	58.4	0.8	2,235	1.2	1.5	2.2
307–333	Procedures on middle and inner ear and mastoid	19,765	15,935	80.6	10.6	22,427	12.0	1.1	1.7
370–389	Procedures on nose and sinuses	20,692	6,651	32.1	11.1	28,997	15.5	1.4	1.6
390–399	Procedures on tongue, salivary gland and ducts	2,342	1,014	43.3	1.3	4,877	2.6	2.1	2.9
400–408	Procedures on mouth, palate or uvula	2,762	1,591	57.6	1.5	3,981	2.1	1.4	2.0
409–422	Procedures on tonsils, adenoids and pharynx	16,775	2,343	14.0	9.0	20,437	11.0	1.2	1.3
450–490	Dental and orthodontic procedures	55,187	46,734	84.7	29.6	57,551	30.8	1.0	1.3
520–542	Procedures on larynx and trachea	2,896	2,043	70.5	1.6	8,391	4.5	2.9	7.4
543–558	Procedures on bronchus, lung and pleura	5,946	2,577	43.3	3.2	37,698	20.2	6.3	10.4
559–567	Procedures on chest wall, mediastinum and diaphragm	2,228	254	11.4	1.2	17,410	9.3	7.8	8.7
568–569	Airway management, continuous ventilatory support	507	38	7.5	0.3	6,392	3.4	12.6	13.5
600–638	Procedures on atrium, ventricle, septum and valves	2,042	137	6.7	1.1	22,497	12.1	11.0	11.7
639–666	Other procedures on heart, myocardium and pericardium	5,000	799	16.0	2.7	18,748	10.0	3.7	4.3
667–693	Procedures on coronary arteries and aorta	38,008	9,528	25.1	20.4	152,138	81.5	4.0	5.0
694–767	Procedures on arteries and veins	24,739	4,398	17.8	13.3	117,183	62.8	4.7	5.5
800–817	Procedures on blood and blood-forming organs	5,903	2,972	50.3	3.2	24,256	13.0	4.1	7.3
850–869	Procedures on oesophagus	5,466	4,351	79.6	2.9	11,957	6.4	2.2	6.8
870–890	Procedures on stomach	4,069	397	9.8	2.2	29,796	16.0	7.3	8.0
891–903	Procedures on small intestine	1,814	153	8.4	1.0	19,367	10.4	10.7	11.6
904–925	Procedures on large intestine	158,538	143,852	90.7	85.0	247,252	132.5	1.6	7.0
926–927	Procedures on appendix	5,115	21	0.4	2.7	17,119	9.2	3.3	3.4
928–950	Procedures on rectum and anus	18,786	7,989	42.5	10.1	67,765	36.3	3.6	5.5
951–982	Procedures on liver, gallbladder, biliary tract and pancreas	21,282	2,151	10.1	11.4	82,337	44.1	3.9	4.2
983–1011	Other procedures on abdomen, peritoneum and hernia	169,339	131,175	77.5	90.8	295,062	158.1	1.7	4.3
1040–1063	Procedures on kidney	55,799	53,124	95.2	29.9	73,925	39.6	1.3	7.8
1064–1128	Procedures on bladder, ureter and urethra	58,014	36,361	62.7	31.1	126,195	67.6	2.2	4.1
1160–1170	Procedures on prostate and seminal vesicle	14,018	2,208	15.8	7.5	63,799	34.2	4.6	5.2

(continued)

Table 8.2 (continued): Separation, same day separation, patient day and average length of stay statistics by principal procedure in ICD-10-AM groupings, private hospitals, Australia, 1998–99

Principal procedure blocks		Separations	Same day separations	Per cent same day separations	Separations per 10,000 population	Patient days	Patient days per 10,000 population	ALOS (days)	ALOS (days) excluding same day
1171–1176	Procedures on scrotum and tunical vaginalis	527	242	45.9	0.3	1,010	0.5	1.9	2.7
1177–1189	Procedures on testis, vas deferens, epididymis, spermatic cord	11,154	8,222	73.7	6.0	13,717	7.4	1.2	1.9
1190–1203	Procedures on penis and other male genital organs	5,405	4,185	77.4	2.9	7,908	4.2	1.5	3.1
1230–1239	Procedures on pelvic cavity	7,208	5,274	73.2	3.9	11,464	6.1	1.6	3.2
1240–1258	Procedures on ovaries and fallopian tubes	12,316	6,617	53.7	6.6	24,872	13.3	2.0	3.2
1259–1273	Procedures on uterus	62,813	45,226	72.0	33.7	134,001	71.8	2.1	5.0
1274–1278	Procedures on cervix	8,129	7,398	91.0	4.4	9,599	5.1	1.2	3.0
1279–1288	Procedures on vagina and pelvic floor	6,421	1,566	24.4	3.4	27,193	14.6	4.2	5.3
1289–1299	Procedures on other female genital organs	24,042	23,101	96.1	12.9	25,490	13.7	1.1	2.5
1330–1335	Induction and augmentation of labour	12,844	154	1.2	6.9	64,760	34.7	5.0	5.1
1336–1339	Spontaneous vertex, or forceps, vacuum or breech delivery	8,582	27	0.3	4.6	50,984	27.3	5.9	6.0
1340	Caesarean delivery	16,854	18	0.1	9.0	123,786	66.3	7.3	7.4
1341–1347	Other obstetric and postpartum procedures	22,414	3,843	17.1	12.0	93,304	50.0	4.2	4.8
1360–1372	Procedures on head, facial bones and joints	2,446	1,542	63.0	1.3	3,342	1.8	1.4	2.0
1373–1380	Procedures on neck, thorax and ribs	191	44	23.0	0.1	909	0.5	4.8	5.9
1381–1393	Procedures on spinal cord and vertebrae	2,264	133	5.9	1.2	21,813	11.7	9.6	10.2
1394–1407	Procedures on shoulder, scapula and clavicle	16,410	2,235	13.6	8.8	40,458	21.7	2.5	2.7
1408–1438	Procedures on humerus, elbow and forearm	4,472	1,253	28.0	2.4	10,329	5.5	2.3	2.8
1439–1475	Procedures on hand, wrist and phalanges	15,932	9,282	58.3	8.5	21,686	11.6	1.4	1.9
1476–1494	Procedures on hip, pelvis and femur	14,147	217	1.5	7.6	176,406	94.5	12.5	12.6
1495–1525	Procedures on knee, patella, tibia and fibula	67,115	34,450	51.3	36.0	214,109	114.7	3.2	5.5
1526–1550	Procedures on ankle, foot and toes	13,133	3,116	23.7	7.0	42,474	22.8	3.2	3.9
1551–1579	Other procedures for musculoskeletal system	41,326	17,261	41.8	22.1	104,364	55.9	2.5	3.6
1600–1660	Procedures on skin and subcutaneous tissue	76,416	54,695	71.6	41.0	172,421	92.4	2.3	5.4
1661–1718	Plastic, cosmetic and corrective procedures	19,881	8,303	41.8	10.7	34,078	18.3	1.7	2.2
1740–1759	Procedures on breast	24,409	10,063	41.2	13.1	56,397	30.2	2.3	3.2
1780–1799	Chemotherapeutic and radiation oncology procedures	84,968	76,072	89.5	45.5	125,256	67.1	1.5	5.5
1820–1899	Miscellaneous non-operative procedures	91,801	42,315	46.1	49.2	386,250	207.0	4.2	7.0
1940–2016	Imaging services	37,490	4,534	12.1	20.1	251,152	134.6	6.7	7.5
2050–2140	Allied health interventions	67,905	18,435	27.1	36.4	757,764	406.1	11.2	14.9
	No principal procedure or not reported	234,234	64,850	27.7	125.5	1,179,801	632.3	5.0	6.6
Total		**1,875,358**	**1,028,308**	**54.8**	**1005.0**	**6,044,813**	**3,239.5**	**3.2**	**5.9**

Note: Abbreviation: ALOS—average length of stay.

Table 8.3: Separations by principal procedure in ICD-10-AM groupings, public hospitals, States and Territories, 1998–99

Principal procedure blocks		NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
1–28	Procedures on skull, brain and meninges	2,691	2,119	1,141	737	525	148	165	43	7,569
29–60	Procedures on spinal cord and spinal canal structures	7,854	5,611	4,975	2,659	2,746	778	383	370	25,376
61–86	Procedures on nerves and ganglia	6,513	5,262	3,641	2,719	2,181	441	294	168	21,219
110–129	Procedures on thyroid, parathyroid and endocrine glands	2,248	1,403	968	371	376	140	72	33	5,611
160–192	Procedures on eyeball, cornea, sclera, iris and ciliary body	2,280	1,827	1,568	960	626	116	38	94	7,509
193–203	Procedures on lens	14,412	11,504	5,311	4,762	4,275	172	339	306	41,081
204–256	Procedures on retina, conjunctiva and other areas of eye	4,191	4,053	2,330	1,336	1,650	158	88	88	13,894
300–306	Procedures on external ear	705	469	1,391	298	261	51	31	35	3,241
307–333	Procedures on middle and inner ear and mastoid	6,220	6,663	4,258	2,379	2,629	218	411	232	23,010
370–389	Procedures on nose and sinuses	4,704	4,784	4,071	2,040	2,428	307	224	115	18,673
390–399	Procedures on tongue, salivary gland and ducts	1,332	917	646	322	293	72	58	29	3,669
400–408	Procedures on mouth, palate or uvula	1,038	935	805	346	331	94	50	39	3,638
409–422	Procedures on tonsils, adenoids and pharynx	7,399	6,975	4,301	2,097	2,489	267	424	125	24,077
450–490	Dental and orthodontic procedures	6,744	7,467	6,105	2,464	2,727	872	475	415	27,269
520–542	Procedures on larynx and trachea	1,838	1,481	1,435	503	762	98	62	38	6,217
543–558	Procedures on bronchus, lung and pleura	6,061	4,695	3,405	1,423	1,636	533	214	109	18,076
559–567	Procedures on chest wall, mediastinum and diaphragm	2,882	2,164	1,981	935	795	232	127	82	9,198
568–569	Airway management, continuous ventilatory support	3,024	2,343	2,120	818	1,250	190	200	204	10,149
600–638	Procedures on atrium, ventricle, septum and valves	1,283	1,051	921	266	243	114	69	0	3,947
639–666	Other procedures on heart, myocardium and pericardium	3,851	2,597	1,502	1,002	917	166	173	53	10,261
667–693	Procedures on coronary arteries and aorta	18,868	12,466	8,214	6,048	5,717	1,505	1,521	3	54,342
694–767	Procedures on arteries and veins	14,147	12,446	9,009	4,093	4,687	1,076	847	396	46,701
800–817	Procedures on blood and blood-forming organs	4,379	4,117	3,314	1,652	1,005	509	470	93	15,539
850–869	Procedures on oesophagus	2,637	2,202	1,348	842	935	263	222	50	8,499
870–890	Procedures on stomach	2,873	2,764	1,529	679	862	109	131	67	9,014
891–903	Procedures on small intestine	1,172	862	707	393	321	100	55	10	3,620
904–925	Procedures on large intestine	33,191	21,500	16,831	12,020	8,698	1,978	1,745	664	96,627
926–927	Procedures on appendix	6,353	4,752	3,193	1,906	1,265	371	379	229	18,448
928–950	Procedures on rectum and anus	8,713	5,973	3,810	2,173	2,347	395	308	152	23,871
951–982	Procedures on liver, gallbladder, biliary tract and pancreas	15,941	11,239	7,221	3,916	3,875	814	823	302	44,131
983–1011	Other procedures on abdomen, peritoneum and hernia	54,550	39,816	29,921	17,179	15,699	3,415	2,521	1,462	164,563
1040–1063	Procedures on kidney	125,307	132,056	68,726	46,273	30,538	10,058	11,468	18,290	442,716
1064–1128	Procedures on bladder, ureter and urethra	22,796	16,294	10,317	7,466	6,843	1,533	671	451	66,371
1160–1170	Procedures on prostate and seminal vesicle	3,864	3,600	1,539	851	995	271	163	37	11,320

(continued)

Table 8.3 (continued): Separations by principal procedure in ICD-10-AM groupings, public hospitals, States and Territories, 1998–99

Principal procedure blocks		NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
1171–1176	Procedures on scrotum and tunical vaginalis	644	417	155	98	75	20	42	43	1,494
1177–1189	Procedures on testis, vas deferens, epididymis, spermatic cord	4,778	3,948	1,931	1,686	1,845	225	101	107	14,621
1190–1203	Procedures on penis and other male genital organs	4,866	3,489	1,104	1,174	1,100	115	82	204	12,134
1230–1239	Procedures on pelvic cavity	4,577	4,177	344	276	191	51	263	196	10,075
1240–1258	Procedures on ovaries and fallopian tubes	7,497	7,024	4,023	3,377	2,304	451	342	360	25,378
1259–1273	Procedures on uterus	28,412	26,906	9,405	6,166	10,402	1,388	1,108	1,705	85,492
1274–1278	Procedures on cervix	4,526	5,668	5,937	1,247	2,845	383	236	293	21,135
1279–1288	Procedures on vagina and pelvic floor	2,833	2,143	2,395	849	2,002	126	78	35	10,461
1289–1299	Procedures on other female genital organs	3,326	2,610	1,167	928	1,123	121	64	68	9,407
1330–1335	Induction and augmentation of labour	17,867	14,127	9,338	3,520	2,550	1,094	991	574	50,061
1336–1339	Spontaneous vertex, or forceps, vacuum or breech delivery	7,475	4,084	2,266	2,013	1,448	388	333	139	18,146
1340	Caesarean delivery	11,984	8,678	6,868	3,537	3,243	772	601	602	36,285
1341–1347	Other obstetric and postpartum procedures	21,992	13,511	18,893	7,809	10,576	1,745	983	749	76,258
1360–1372	Procedures on head, facial bones and joints	2,071	1,648	1,297	582	543	198	178	170	6,687
1373–1380	Procedures on neck, thorax and ribs	131	102	0	0	0	0	15	1	249
1381–1393	Procedures on spinal cord and vertebrae	579	398	447	130	145	15	26	1	1,741
1394–1407	Procedures on shoulder, scapula and clavicle	2,349	1,719	1,520	641	715	97	130	49	7,220
1408–1438	Procedures on humerus, elbow and forearm	10,728	6,427	326	160	149	31	565	443	18,829
1439–1475	Procedures on hand, wrist and phalanges	7,916	5,993	2,945	1,379	1,329	286	399	273	20,520
1476–1494	Procedures on hip, pelvis and femur	9,311	6,603	3,564	2,274	2,141	520	604	147	25,164
1495–1525	Procedures on knee, patella, tibia and fibula	13,544	11,483	6,067	3,310	4,119	589	890	487	40,489
1526–1550	Procedures on ankle, foot and toes	6,610	5,138	2,063	1,093	1,046	222	369	227	16,768
1551–1579	Other procedures for musculoskeletal system	10,809	9,107	17,799	9,821	7,396	1,888	501	517	57,838
1600–1660	Procedures on skin and subcutaneous tissue	35,434	24,989	30,909	11,405	12,983	2,342	1,348	1,383	120,793
1661–1718	Plastic, cosmetic and corrective procedures	2,231	2,371	1,241	703	1,209	107	99	57	8,018
1740–1759	Procedures on breast	6,817	6,314	3,640	2,131	1,873	517	325	164	21,781
1780–1799	Chemotherapeutic and radiation oncology procedures	36,225	45,516	25,809	14,571	13,551	4,368	4,596	251	144,887
1820–1899	Miscellaneous non-operative procedures	64,068	52,101	49,357	27,730	28,557	8,802	3,380	1,358	235,353
1940–2016	Imaging services	58,761	38,516	25,970	13,233	11,781	3,384	2,299	1,273	155,217
2050–2140	Allied health interventions	99,157	65,500	32,724	10,739	15,011	3,506	3,717	2,492	232,846
	No principal procedure or not reported	383,817	245,036	220,655	91,059	100,684	19,202	8,712	15,733	1,084,898
Total		**1,273,396**	**970,150**	**708,713**	**357,569**	**355,863**	**80,517**	**58,598**	**54,885**	**3,859,691**

Note: ICD-9-CM data reported by Queensland, Western Australia, South Australia and Tasmania have been mapped to ICD-10-AM. Comparisons with data reported by the other jurisdictions in ICD-10-AM should be made cautiously, with reference to the classifications and maps, as appropriate.

Table 8.4: Separations by principal procedure in ICD-10-AM groupings, private hospitals, States and Territories, 1998–99

Principal procedure blocks		NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
1–28	Procedures on skull, brain and meninges	464	578	468	122	148	n.p.	n.p.	n.a.	1,900
29–60	Procedures on spinal cord and spinal canal structures	5,890	4,837	3,277	2,581	2,625	n.p.	n.p.	n.a.	20,195
61–86	Procedures on nerves and ganglia	6,324	5,876	3,980	3,825	1,748	n.p.	n.p.	n.a.	22,864
110–129	Procedures on thyroid, parathyroid and endocrine glands	1,292	797	747	377	290	n.p.	n.p.	n.a.	3,670
160–192	Procedures on eyeball, cornea, sclera, iris and ciliary body	2,898	1,384	2,728	925	303	n.p.	n.p.	n.a.	8,549
193–203	Procedures on lens	29,202	14,896	18,186	6,535	4,314	n.p.	n.p.	n.a.	75,791
204–256	Procedures on retina, conjunctiva and other areas of eye	3,334	2,462	2,534	1,075	691	n.p.	n.p.	n.a.	10,627
300–306	Procedures on external ear	397	521	268	178	73	n.p.	n.p.	n.a.	1,481
307–333	Procedures on middle and inner ear and mastoid	5,919	4,991	3,508	1,895	2,696	n.p.	n.p.	n.a.	19,765
370–389	Procedures on nose and sinuses	5,309	3,892	5,811	1,997	2,974	n.p.	n.p.	n.a.	20,692
390–399	Procedures on tongue, salivary gland and ducts	700	564	457	303	205	n.p.	n.p.	n.a.	2,342
400–408	Procedures on mouth, palate or uvula	987	630	428	256	324	n.p.	n.p.	n.a.	2,762
409–422	Procedures on tonsils, adenoids and pharynx	5,563	3,343	3,744	1,938	1,565	n.p.	n.p.	n.a.	16,775
450–490	Dental and orthodontic procedures	15,710	14,690	10,634	7,264	5,004	n.p.	n.p.	n.a.	55,187
520–542	Procedures on larynx and trachea	893	771	611	245	288	n.p.	n.p.	n.a.	2,896
543–558	Procedures on bronchus, lung and pleura	1,244	1,459	1,929	546	556	n.p.	n.p.	n.a.	5,946
559–567	Procedures on chest wall, mediastinum and diaphragm	396	601	590	321	235	n.p.	n.p.	n.a.	2,228
568–569	Airway management, continuous ventilatory support	103	155	148	30	57	n.p.	n.p.	n.a.	507
600–638	Procedures on atrium, ventricle, septum and valves	889	514	386	125	127	n.p.	n.p.	n.a.	2,042
639–666	Other procedures on heart, myocardium and pericardium	1,970	1,292	1,100	217	394	n.p.	n.p.	n.a.	5,000
667–693	Procedures on coronary arteries and aorta	13,472	10,241	7,991	2,999	2,655	n.p.	n.p.	n.a.	38,008
694–767	Procedures on arteries and veins	6,673	7,907	5,244	2,076	1,904	n.p.	n.p.	n.a.	24,739
800–817	Procedures on blood and blood-forming organs	1,163	1,377	2,195	496	353	n.p.	n.p.	n.a.	5,903
850–869	Procedures on oesophagus	1,517	1,547	1,272	307	568	n.p.	n.p.	n.a.	5,466
870–890	Procedures on stomach	829	1,382	964	316	419	n.p.	n.p.	n.a.	4,069
891–903	Procedures on small intestine	390	467	516	190	180	n.p.	n.p.	n.a.	1,814
904–925	Procedures on large intestine	54,575	41,852	36,693	12,092	9,818	n.p.	n.p.	n.a.	158,538
926–927	Procedures on appendix	1,173	1,146	1,298	835	427	n.p.	n.p.	n.a.	5,115
928–950	Procedures on rectum and anus	6,826	4,323	3,629	1,948	1,376	n.p.	n.p.	n.a.	18,786
951–982	Procedures on liver, gallbladder, biliary tract and pancreas	6,502	5,362	4,613	2,218	1,763	n.p.	n.p.	n.a.	21,282
983–1011	Other procedures on abdomen, peritoneum and hernia	53,328	47,272	39,247	13,565	11,333	n.p.	n.p.	n.a.	169,339
1040–1063	Procedures on kidney	12,669	18,516	12,005	3,286	9,121	n.p.	n.p.	n.a.	55,799
1064–1128	Procedures on bladder, ureter and urethra	21,804	13,045	11,341	5,300	3,954	n.p.	n.p.	n.a.	58,014
1160–1170	Procedures on prostate and seminal vesicle	4,031	4,447	2,507	1,212	912	n.p.	n.p.	n.a.	14,018

(continued)

Table 8.4 (continued): Separations by principal procedure in ICD-10-AM groupings, private hospitals, States and Territories, 1998–99

Principal procedure blocks		NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
1171–1176	Procedures on scrotum and tunical vaginalis	234	107	82	48	30	n.p.	n.p.	n.a.	527
1177–1189	Procedures on testis, vas deferens, epididymis, spermatic cord	3,939	2,777	1,863	1,221	834	n.p.	n.p.	n.a.	11,154
1190–1203	Procedures on penis and other male genital organs	2,083	1,193	879	607	332	n.p.	n.p.	n.a.	5,405
1230–1239	Procedures on pelvic cavity	3,778	2,215	592	209	138	n.p.	n.p.	n.a.	7,208
1240–1258	Procedures on ovaries and fallopian tubes	3,796	3,060	2,463	1,465	907	n.p.	n.p.	n.a.	12,316
1259–1273	Procedures on uterus	27,718	13,491	8,443	7,389	3,714	n.p.	n.p.	n.a.	62,813
1274–1278	Procedures on cervix	2,718	2,345	1,574	658	481	n.p.	n.p.	n.a.	8,129
1279–1288	Procedures on vagina and pelvic floor	2,204	1,571	1,229	604	550	n.p.	n.p.	n.a.	6,421
1289–1299	Procedures on other female genital organs	8,638	6,119	5,698	2,012	688	n.p.	n.p.	n.a.	24,042
1330–1335	Induction and augmentation of labour	4,312	3,336	2,408	1,721	274	n.p.	n.p.	n.a.	12,844
1336–1339	Spontaneous vertex, or forceps, vacuum or breech delivery	2,466	2,277	1,552	1,200	738	n.p.	n.p.	n.a.	8,582
1340	Caesarean delivery	4,463	4,107	4,073	2,256	1,281	n.p.	n.p.	n.a.	16,854
1341–1347	Other obstetric and postpartum procedures	5,248	5,377	5,341	3,048	2,427	n.p.	n.p.	n.a.	22,414
1360–1372	Procedures on head, facial bones and joints	850	694	456	161	157	n.p.	n.p.	n.a.	2,446
1373–1380	Procedures on neck, thorax and ribs	70	118	0	0	0	n.p.	n.p.	n.a.	191
1381–1393	Procedures on spinal cord and vertebrae	679	556	376	245	272	n.p.	n.p.	n.a.	2,264
1394–1407	Procedures on shoulder, scapula and clavicle	5,145	4,998	2,272	1,710	1,738	n.p.	n.p.	n.a.	16,410
1408–1438	Procedures on humerus, elbow and forearm	2,139	1,831	177	133	100	n.p.	n.p.	n.a.	4,472
1439–1475	Procedures on hand, wrist and phalanges	5,578	5,005	2,377	1,168	1,297	n.p.	n.p.	n.a.	15,932
1476–1494	Procedures on hip, pelvis and femur	3,841	4,156	2,654	1,352	1,434	n.p.	n.p.	n.a.	14,147
1495–1525	Procedures on knee, patella, tibia and fibula	24,185	16,584	9,525	6,914	7,157	n.p.	n.p.	n.a.	67,115
1526–1550	Procedures on ankle, foot and toes	4,914	3,895	1,358	1,273	1,161	n.p.	n.p.	n.a.	13,133
1551–1579	Other procedures for musculoskeletal system	8,807	6,366	9,892	8,060	5,740	n.p.	n.p.	n.a.	41,326
1600–1660	Procedures on skin and subcutaneous tissue	27,289	16,485	15,931	6,082	8,354	n.p.	n.p.	n.a.	76,416
1661–1718	Plastic, cosmetic and corrective procedures	6,499	5,545	3,521	1,984	1,741	n.p.	n.p.	n.a.	19,881
1740–1759	Procedures on breast	7,050	6,885	4,844	2,592	2,068	n.p.	n.p.	n.a.	24,409
1780–1799	Chemotherapeutic and radiation oncology procedures	16,250	28,579	22,905	8,686	7,246	n.p.	n.p.	n.a.	84,968
1820–1899	Miscellaneous non-operative procedures	26,063	22,894	28,232	7,244	4,994	n.p.	n.p.	n.a.	91,801
1940–2016	Imaging services	6,960	9,687	10,966	4,328	3,309	n.p.	n.p.	n.a.	37,490
2050–2140	Allied health interventions	26,893	16,715	15,825	3,813	3,392	n.p.	n.p.	n.a.	67,905
	No principal procedure or not reported	47,372	73,562	52,722	31,219	18,787	n.p.	n.p.	n.a.	234,234
Total		**566,617**	**495,667**	**411,279**	**186,997**	**150,741**	**n.p.**	**n.p.**	**n.a.**	**1,875,358**

Note: ICD-9-CM data reported by Queensland, Western Australia, South Australia and Tasmania have been mapped to ICD-10-AM. Comparisons with data reported by the other jurisdictions in ICD-10-AM should be made cautiously, with reference to the classifications and maps, as appropriate.

n.a. not available.

n.p. not published.

Table 8.5: Patient days by principal procedure in ICD-10-AM groupings, public hospitals, States and Territories, 1998–99

Principal procedure blocks		NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
1–28	Procedures on skull, brain and meninges	37,774	26,061	16,242	10,341	6,882	1,937	3,025	559	102,821
29–60	Procedures on spinal cord and spinal canal structures	42,872	27,421	29,419	12,445	11,436	3,236	2,714	2,438	131,981
61–86	Procedures on nerves and ganglia	12,198	8,286	6,793	5,340	3,848	971	524	313	38,273
110–129	Procedures on thyroid, parathyroid and endocrine glands	9,962	5,735	3,901	1,662	1,572	763	401	105	24,101
160–192	Procedures on eyeball, cornea, sclera, iris and ciliary body	6,484	2,793	2,832	2,181	1,515	317	81	181	16,384
193–203	Procedures on lens	16,964	12,985	6,163	5,559	4,841	181	361	638	47,692
204–256	Procedures on retina, conjunctiva and other areas of eye	8,514	6,564	4,516	2,610	2,635	290	154	180	25,463
300–306	Procedures on external ear	1,046	801	1,993	466	527	88	122	83	5,126
307–333	Procedures on middle and inner ear and mastoid	8,252	7,937	5,222	3,190	3,462	263	456	317	29,099
370–389	Procedures on nose and sinuses	8,299	7,590	6,036	3,271	3,653	542	308	139	29,838
390–399	Procedures on tongue, salivary gland and ducts	3,633	2,510	1,521	761	708	184	210	84	9,611
400–408	Procedures on mouth, palate or uvula	2,632	1,860	1,556	703	783	239	68	86	7,927
409–422	Procedures on tonsils, adenoids and pharynx	11,284	8,956	5,586	2,891	3,699	387	586	162	33,551
450–490	Dental and orthodontic procedures	8,989	9,236	120,889	2,863	3,139	958	521	664	147,259
520–542	Procedures on larynx and trachea	14,900	12,095	15,994	7,220	8,746	1,331	647	407	61,340
543–558	Procedures on bronchus, lung and pleura	37,318	28,376	17,915	9,533	9,252	2,358	2,411	1,005	108,168
559–567	Procedures on chest wall, mediastinum and diaphragm	22,662	15,992	14,694	6,643	6,677	2,026	1,045	613	70,352
568–569	Airway management, continuous ventilatory support	60,090	46,690	44,886	19,989	25,538	3,397	5,174	4,666	210,430
600–638	Procedures on atrium, ventricle, septum and valves	14,036	11,884	9,862	3,936	3,070	861	1,181	0	44,830
639–666	Other procedures on heart, myocardium and pericardium	18,595	10,523	6,575	4,110	3,737	1,041	726	513	45,820
667–693	Procedures on coronary arteries and aorta	98,499	60,622	33,441	23,579	22,404	7,446	6,450	9	252,450
694–767	Procedures on arteries and veins	103,668	69,108	55,015	23,609	24,347	5,511	6,485	4,018	291,761
800–817	Procedures on blood and blood-forming organs	35,102	20,953	17,143	9,802	7,882	2,098	2,391	635	96,006
850–869	Procedures on oesophagus	10,014	7,857	4,008	2,778	2,651	856	729	203	29,096
870–890	Procedures on stomach	36,517	28,022	14,188	10,240	8,841	1,503	1,658	1,321	102,290
891–903	Procedures on small intestine	16,186	10,799	7,857	5,208	4,387	1,350	784	238	46,809
904–925	Procedures on large intestine	94,236	59,406	43,677	27,904	24,480	5,461	4,832	1,856	261,852
926–927	Procedures on appendix	22,626	15,901	10,028	6,531	4,400	1,314	1,346	865	63,011
928–950	Procedures on rectum and anus	33,885	24,111	11,520	7,241	7,290	1,210	1,004	664	86,925
951–982	Procedures on liver, gallbladder, biliary tract and pancreas	80,836	48,591	28,671	16,590	15,301	3,404	3,518	1,571	198,482
983–1011	Other procedures on abdomen, peritoneum and hernia	171,940	99,948	76,519	41,980	42,448	8,625	6,918	4,211	452,589
1040–1063	Procedures on kidney	159,865	152,699	86,451	53,724	36,950	12,085	14,071	20,906	536,751
1064–1128	Procedures on bladder, ureter and urethra	65,780	39,852	37,743	24,601	19,384	4,741	2,668	2,256	197,025
1160–1170	Procedures on prostate and seminal vesicle	23,664	17,224	8,101	4,363	5,501	1,295	1,220	328	61,696

(continued)

Table 8.5 (continued): Patient days by principal procedure in ICD-10-AM groupings, public hospitals, States and Territories, 1998–99

Principal procedure blocks		NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
1171–1176	Procedures on scrotum and tunical vaginalis	1,259	682	347	253	140	34	73	121	2,909
1177–1189	Procedures on testis, vas deferens, epididymis, spermatic cord	5,998	4,791	2,500	2,086	2,175	347	148	188	18,233
1190–1203	Procedures on penis and other male genital organs	6,243	4,156	1,452	1,395	1,250	150	181	430	15,257
1230–1239	Procedures on pelvic cavity	8,687	6,339	1,063	742	511	233	540	279	18,394
1240–1258	Procedures on ovaries and fallopian tubes	15,780	12,472	8,598	6,340	4,456	923	904	666	50,139
1259–1273	Procedures on uterus	58,565	47,637	22,835	15,009	18,646	3,175	2,654	2,422	170,943
1274–1278	Procedures on cervix	5,388	6,445	6,544	1,594	2,990	440	292	321	24,014
1279–1288	Procedures on vagina and pelvic floor	8,658	5,901	4,939	3,295	3,991	392	306	87	27,569
1289–1299	Procedures on other female genital organs	4,830	3,252	1,710	1,316	1,401	183	94	109	12,895
1330–1335	Induction and augmentation of labour	64,852	49,971	28,865	12,644	8,650	3,415	3,567	2,649	174,613
1336–1339	Spontaneous vertex, or forceps, vacuum or breech delivery	31,749	18,356	9,551	9,669	6,353	1,628	1,581	834	79,721
1340	Caesarean delivery	76,235	52,928	37,534	22,460	20,837	4,453	4,034	4,515	222,996
1341–1347	Other obstetric and postpartum procedures	73,209	44,062	45,200	21,854	25,499	4,516	2,991	3,239	220,570
1360–1372	Procedures on head, facial bones and joints	5,370	3,050	2,941	1,687	1,701	607	339	531	16,226
1373–1380	Procedures on neck, thorax and ribs	1,020	1,368	0	0	0	0	48	1	2,437
1381–1393	Procedures on spinal cord and vertebrae	7,935	6,791	5,854	1,659	1,521	194	307	1	24,262
1394–1407	Procedures on shoulder, scapula and clavicle	7,074	4,653	3,204	1,974	1,758	309	382	116	19,470
1408–1438	Procedures on humerus, elbow and forearm	24,897	14,084	740	554	308	77	1,217	2,171	44,048
1439–1475	Procedures on hand, wrist and phalanges	12,953	8,827	4,610	2,540	2,120	590	681	956	33,277
1476–1494	Procedures on hip, pelvis and femur	113,117	76,183	46,397	28,201	23,698	6,707	7,268	3,109	304,680
1495–1525	Procedures on knee, patella, tibia and fibula	75,607	45,131	25,649	16,271	13,649	2,743	4,654	3,318	187,022
1526–1550	Procedures on ankle, foot and toes	34,094	24,097	10,515	7,491	4,720	1,214	2,128	2,055	86,314
1551–1579	Other procedures for musculoskeletal system	42,601	32,263	55,323	40,698	23,252	6,904	2,209	3,185	206,435
1600–1660	Procedures on skin and subcutaneous tissue	150,579	93,587	100,699	47,047	42,870	8,644	4,067	9,008	456,501
1661–1718	Plastic, cosmetic and corrective procedures	7,326	7,260	2,506	1,869	3,196	247	336	306	23,046
1740–1759	Procedures on breast	18,414	15,786	10,830	5,121	4,265	1,052	721	373	56,562
1780–1799	Chemotherapeutic and radiation oncology procedures	66,541	86,415	43,047	23,419	21,356	6,621	6,679	425	254,503
1820–1899	Miscellaneous non-operative procedures	287,147	214,752	203,286	89,694	100,707	25,782	13,914	6,913	942,195
1940–2016	Imaging services	443,452	223,305	197,267	95,522	89,638	24,419	19,153	10,709	1,103,465
2050–2140	Allied health interventions	1,181,277	843,469	363,259	119,504	191,933	38,539	33,673	24,290	2,795,944
	No principal procedure or not reported	1,729,426	843,319	1,036,289	464,096	497,607	160,356	26,407	55,279	4,812,779
Total		**5,869,605**	**3,710,720**	**3,040,511**	**1,409,868**	**1,453,184**	**383,163**	**216,337**	**190,840**	**16,274,228**

Note: ICD-9-CM data reported by Queensland, Western Australia, South Australia and Tasmania have been mapped to ICD-10-AM. Comparisons with data reported by the other jurisdictions in ICD-10-AM should be made cautiously, with reference to the classifications and maps, as appropriate.

Table 8.6: Patient days by principal procedure in ICD-10-AM groupings, private hospitals, States and Territories, 1998–99

Principal procedure blocks		NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
1–28	Procedures on skull, brain and meninges	5,337	6,369	5,861	1,311	1,553	n.p.	n.p.	n.a.	21,577
29–60	Procedures on spinal cord and spinal canal structures	30,330	25,777	19,791	11,534	9,126	n.p.	n.p.	n.a.	101,778
61–86	Procedures on nerves and ganglia	9,513	9,264	6,347	5,927	2,337	n.p.	n.p.	n.a.	35,038
110–129	Procedures on thyroid, parathyroid and endocrine glands	4,309	3,413	3,276	1,056	1,015	n.p.	n.p.	n.a.	13,793
160–192	Procedures on eyeball, cornea, sclera, iris and ciliary body	3,366	1,600	3,112	1,243	459	n.p.	n.p.	n.a.	10,197
193–203	Procedures on lens	31,200	15,899	20,073	7,481	4,503	n.p.	n.p.	n.a.	82,297
204–256	Procedures on retina, conjunctiva and other areas of eye	4,025	3,007	3,212	1,458	910	n.p.	n.p.	n.a.	13,244
300–306	Procedures on external ear	506	663	626	291	100	n.p.	n.p.	n.a.	2,235
307–333	Procedures on middle and inner ear and mastoid	6,798	5,493	3,912	2,204	3,189	n.p.	n.p.	n.a.	22,427
370–389	Procedures on nose and sinuses	7,027	5,797	7,560	3,329	4,251	n.p.	n.p.	n.a.	28,997
390–399	Procedures on tongue, salivary gland and ducts	1,332	1,172	1,091	645	423	n.p.	n.p.	n.a.	4,877
400–408	Procedures on mouth, palate or uvula	1,282	1,032	662	317	468	n.p.	n.p.	n.a.	3,981
409–422	Procedures on tonsils, adenoids and pharynx	6,681	4,355	4,230	2,267	2,095	n.p.	n.p.	n.a.	20,437
450–490	Dental and orthodontic procedures	16,075	14,962	10,967	8,476	5,152	n.p.	n.p.	n.a.	57,551
520–542	Procedures on larynx and trachea	1,475	2,324	2,487	734	1,246	n.p.	n.p.	n.a.	8,391
543–558	Procedures on bronchus, lung and pleura	7,324	9,322	13,891	3,553	2,482	n.p.	n.p.	n.a.	37,698
559–567	Procedures on chest wall, mediastinum and diaphragm	3,026	4,820	4,767	2,267	1,730	n.p.	n.p.	n.a.	17,410
568–569	Airway management, continuous ventilatory support	1,130	1,888	1,987	329	886	n.p.	n.p.	n.a.	6,392
600–638	Procedures on atrium, ventricle, septum and valves	7,716	6,527	5,129	1,248	1,872	n.p.	n.p.	n.a.	22,497
639–666	Other procedures on heart, myocardium and pericardium	5,654	5,796	4,658	763	1,753	n.p.	n.p.	n.a.	18,748
667–693	Procedures on coronary arteries and aorta	48,719	43,086	37,201	8,873	12,372	n.p.	n.p.	n.a.	152,138
694–767	Procedures on arteries and veins	27,175	36,286	30,260	10,340	9,363	n.p.	n.p.	n.a.	117,183
800–817	Procedures on blood and blood-forming organs	4,838	5,364	8,170	2,815	1,856	n.p.	n.p.	n.a.	24,256
850–869	Procedures on oesophagus	3,029	3,512	3,047	882	1,077	n.p.	n.p.	n.a.	11,957
870–890	Procedures on stomach	5,686	9,800	7,026	3,096	3,220	n.p.	n.p.	n.a.	29,796
891–903	Procedures on small intestine	3,801	5,541	5,443	2,059	1,890	n.p.	n.p.	n.a.	19,367
904–925	Procedures on large intestine	74,505	64,743	61,426	21,767	17,929	n.p.	n.p.	n.a.	247,252
926–927	Procedures on appendix	3,870	3,933	4,286	2,592	1,621	n.p.	n.p.	n.a.	17,119
928–950	Procedures on rectum and anus	20,175	17,671	13,880	7,568	6,036	n.p.	n.p.	n.a.	67,765
951–982	Procedures on liver, gallbladder, biliary tract and pancreas	22,835	20,857	19,346	8,547	7,569	n.p.	n.p.	n.a.	82,337
983–1011	Other procedures on abdomen, peritoneum and hernia	82,077	78,846	73,605	27,614	23,393	n.p.	n.p.	n.a.	295,062
1040–1063	Procedures on kidney	17,551	23,349	16,451	4,804	10,652	n.p.	n.p.	n.a.	73,925
1064–1128	Procedures on bladder, ureter and urethra	39,204	26,172	25,815	16,071	11,312	n.p.	n.p.	n.a.	126,195
1160–1170	Procedures on prostate and seminal vesicle	18,463	17,663	12,074	5,738	4,850	n.p.	n.p.	n.a.	63,799

(continued)

Table 8.6 (continued): Patient days by principal procedure in ICD-10-AM groupings, private hospitals, States and Territories, 1998–99

Principal procedure blocks		NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
1171–1176	Procedures on scrotum and tunical vaginalis	381	151	161	183	79	n.p.	n.p.	n.a.	1,010
1177–1189	Procedures on testis, vas deferens, epididymis, spermatic cor(	4,575	3,290	2,662	1,527	991	n.p.	n.p.	n.a.	13,717
1190–1203	Procedures on penis and other male genital organs	2,671	1,829	1,584	858	459	n.p.	n.p.	n.a.	7,908
1230–1239	Procedures on pelvic cavity	5,051	3,401	1,407	577	490	n.p.	n.p.	n.a.	11,464
1240–1258	Procedures on ovaries and fallopian tubes	7,385	6,218	5,027	2,949	1,979	n.p.	n.p.	n.a.	24,872
1259–1273	Procedures on uterus	47,338	31,113	22,013	16,051	10,919	n.p.	n.p.	n.a.	134,001
1274–1278	Procedures on cervix	3,060	2,806	1,938	857	521	n.p.	n.p.	n.a.	9,599
1279–1288	Procedures on vagina and pelvic floor	8,320	7,004	4,689	3,000	2,829	n.p.	n.p.	n.a.	27,193
1289–1299	Procedures on other female genital organs	8,876	6,530	6,022	2,181	859	n.p.	n.p.	n.a.	25,490
1330–1335	Induction and augmentation of labour	22,078	17,796	11,741	7,899	1,344	n.p.	n.p.	n.a.	64,760
1336–1339	Spontaneous vertex, or forceps, vacuum or breech delivery	14,046	13,518	9,279	7,795	4,119	n.p.	n.p.	n.a.	50,984
1340	Caesarean delivery	32,005	31,186	28,662	17,812	9,140	n.p.	n.p.	n.a.	123,786
1341–1347	Other obstetric and postpartum procedures	25,486	24,107	19,702	10,576	9,639	n.p.	n.p.	n.a.	93,304
1360–1372	Procedures on head, facial bones and joints	1,118	925	685	210	222	n.p.	n.p.	n.a.	3,342
1373–1380	Procedures on neck, thorax and ribs	438	452	0	0	0	n.p.	n.p.	n.a.	909
1381–1393	Procedures on spinal cord and vertebrae	6,024	5,939	4,143	2,179	2,285	n.p.	n.p.	n.a.	21,813
1394–1407	Procedures on shoulder, scapula and clavicle	12,679	11,511	6,535	3,920	4,422	n.p.	n.p.	n.a.	40,458
1408–1438	Procedures on humerus, elbow and forearm	4,873	4,291	432	263	199	n.p.	n.p.	n.a.	10,329
1439–1475	Procedures on hand, wrist and phalanges	7,282	6,662	3,128	1,880	1,926	n.p.	n.p.	n.a.	21,686
1476–1494	Procedures on hip, pelvis and femur	45,558	46,563	39,655	18,341	16,521	n.p.	n.p.	n.a.	176,406
1495–1525	Procedures on knee, patella, tibia and fibula	73,143	49,304	37,282	24,729	20,167	n.p.	n.p.	n.a.	214,109
1526–1550	Procedures on ankle, foot and toes	15,220	12,137	5,350	4,978	3,200	n.p.	n.p.	n.a.	42,474
1551–1579	Other procedures for musculoskeletal system	20,348	17,234	26,159	20,840	13,427	n.p.	n.p.	n.a.	104,364
1600–1660	Procedures on skin and subcutaneous tissue	51,376	39,483	40,293	18,405	17,043	n.p.	n.p.	n.a.	172,421
1661–1718	Plastic, cosmetic and corrective procedures	10,043	10,054	5,137	3,611	3,853	n.p.	n.p.	n.a.	34,078
1740–1759	Procedures on breast	16,949	15,639	9,835	6,346	5,492	n.p.	n.p.	n.a.	56,397
1780–1799	Chemotherapeutic and radiation oncology procedures	24,434	45,000	33,489	10,071	10,144	n.p.	n.p.	n.a.	125,256
1820–1899	Miscellaneous non-operative procedures	114,033	90,539	111,476	31,708	28,053	n.p.	n.p.	n.a.	386,250
1940–2016	Imaging services	46,306	60,178	80,388	27,500	19,092	n.p.	n.p.	n.a.	251,152
2050–2140	Allied health interventions	285,124	238,669	132,092	40,972	44,797	n.p.	n.p.	n.a.	757,764
	No principal procedure or not reported	228,334	344,717	314,572	120,018	125,313	n.p.	n.p.	n.a.	1,179,801
Total		**1,670,588**	**1,634,549**	**1,407,207**	**587,435**	**518,214**	**n.p.**	**n.p.**	**n.a.**	**6,044,813**

Note: Abbreviation: op.—operation.

n.a. not available.

Table 8.7: Separations for males by age group and principal procedure in ICD-10-AM groupings, all hospitals, Australia, 1998–99

Principal procedure blocks		<1	1–4	5–14	15–24	25–34	35–44	45–54	55–64	65–74	75+	Total[(a)]
1–28	Procedures on skull, brain and meninges	136	133	365	526	559	577	730	769	812	558	5,165
29–60	Procedures on spinal cord and spinal canal structures	1,020	883	800	1,109	2,726	3,898	3,682	2,840	2,922	2,185	22,065
61–86	Procedures on nerves and ganglia	6	53	189	1,353	2,521	3,635	3,752	2,931	2,705	2,498	19,643
110–129	Procedures on thyroid, parathyroid and endocrine glands	3	43	70	98	238	336	509	439	378	149	2,263
160–192	Procedures on eyeball, cornea, sclera, iris and ciliary body	173	429	282	491	904	1,224	1,212	1,156	1,485	1,618	8,974
193–203	Procedures on lens	36	46	85	108	237	655	2,220	5,100	14,866	23,823	47,176
204–256	Procedures on retina, conjunctiva and other areas of eye	347	1,513	1,115	746	797	827	1,243	1,514	2,375	2,569	13,046
300–306	Procedures on external ear	14	229	470	269	286	358	360	324	370	412	3,092
307–333	Procedures on middle and inner ear and mastoid	704	9,476	8,075	841	762	1,110	1,153	864	759	340	24,084
370–389	Procedures on nose and sinuses	32	473	1,462	2,412	3,015	3,766	3,886	2,959	2,527	1,879	22,411
390–399	Procedures on tongue, salivary gland and ducts	149	436	320	149	248	364	468	456	416	258	3,264
400–408	Procedures on mouth, palate or uvula	26	396	348	385	505	552	639	408	320	153	3,732
409–422	Procedures on tonsils, adenoids and pharynx	83	5,844	8,474	2,304	1,188	687	363	267	275	158	19,643
450–490	Dental and orthodontic procedures	20	4,536	6,180	11,879	5,959	2,754	1,745	960	709	424	35,166
520–542	Procedures on larynx and trachea	140	182	256	154	352	597	971	1,221	1,278	683	5,834
543–558	Procedures on bronchus, lung and pleura	193	228	178	455	635	884	1,637	2,938	4,554	2,981	14,683
559–567	Procedures on chest wall, mediastinum and diaphragm	46	25	75	702	624	603	731	1,026	1,522	1,527	6,881
568–569	Airway management, continuous ventilatory support	2,177	146	165	342	420	399	450	523	889	664	6,175
600–638	Procedures on atrium, ventricle, septum and valves	202	131	104	79	96	211	383	646	925	639	3,416
639–666	Other procedures on heart, myocardium and pericardium	24	42	147	248	304	487	1,029	1,428	2,194	2,991	8,894
667–693	Procedures on coronary arteries and aorta	182	155	156	108	481	3,727	12,204	17,910	20,009	8,779	63,711
694–767	Procedures on arteries and veins	506	718	819	1,182	1,679	3,019	4,644	6,552	9,877	7,068	36,065
800–817	Procedures on blood and blood-forming organs	59	392	589	774	806	1,181	1,694	1,930	2,123	1,652	11,200
850–869	Procedures on oesophagus	91	248	259	183	345	644	1,144	1,526	1,930	1,687	8,057
870–890	Procedures on stomach	443	246	259	252	422	693	806	849	1,159	1,445	6,574
891–903	Procedures on small intestine	98	30	64	150	185	234	377	482	689	468	2,777
904–925	Procedures on large intestine	183	171	422	2,129	6,504	14,132	24,293	26,254	27,528	17,297	118,913
926–927	Procedures on appendix	2	94	3,243	3,665	2,287	1,466	825	426	253	140	12,401
928–950	Procedures on rectum and anus	308	209	248	814	3,064	4,853	5,330	4,134	3,244	1,702	23,906
951–982	Procedures on liver, gallbladder, biliary tract and pancreas	39	39	119	440	1,447	3,232	4,352	4,397	5,215	3,671	22,951
983–1011	Other procedures on abdomen, peritoneum and hernia	2,254	3,265	3,195	6,772	14,721	23,530	32,376	31,434	32,175	22,677	172,399
1040–1063	Procedures on kidney	177	391	923	7,436	24,017	36,882	47,213	57,305	76,557	37,616	288,517
1064–1128	Procedures on bladder, ureter and urethra	643	957	916	1,188	2,862	5,723	9,898	13,722	21,019	21,526	78,454
1160–1170	Procedures on prostate and seminal vesicle	0	3	1	6	25	104	1,263	5,593	9,697	8,645	25,337

(continued)

Table 8.7 (continued): Separations for males by age group and principal procedure in ICD-10-AM groupings, all hospitals, Australia, 1998–99

Principal procedure blocks		<1	1–4	5–14	15–24	25–34	35–44	45–54	55–64	65–74	75+	Total[(a)]
1171–1176	Procedures on scrotum and tunical vaginalis	34	106	522	402	276	268	164	109	74	66	2,021
1177–1189	Procedures on testis, vas deferens, epididymis, spermatic cord	347	1,619	2,246	1,239	5,315	9,279	2,863	1,097	901	863	25,769
1190–1203	Procedures on penis and other male genital organs	5,072	4,609	3,790	893	812	552	516	525	465	304	17,538
1230–1347	Procedures on female genital organs; obstetrical procedures	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
1360–1372	Procedures on head, facial bones and joints	1	23	568	3,140	1,918	851	356	153	74	42	7,126
1373–1380	Procedures on neck, thorax and ribs	3	1	9	18	24	36	34	59	66	22	272
1381–1393	Procedures on spinal cord and vertebrae	2	5	63	192	287	469	417	283	184	113	2,015
1394–1407	Procedures on shoulder, scapula and clavicle	4	4	120	2,355	2,162	1,992	2,724	2,786	1,821	766	14,734
1408–1438	Procedures on humerus, elbow and forearm	10	798	5,514	1,802	1,163	1,069	850	541	350	257	12,354
1439–1475	Procedures on hand, wrist and phalanges	38	375	1,125	4,664	4,463	3,347	2,901	2,465	2,032	1,049	22,459
1476–1494	Procedures on hip, pelvis and femur	42	187	657	679	568	702	1,237	2,451	3,931	5,350	15,804
1495–1525	Procedures on knee, patella, tibia and fibula	13	104	1,321	9,169	11,299	11,057	10,180	8,150	7,694	4,405	63,392
1526–1550	Procedures on ankle, foot and toes	231	311	887	2,067	2,183	2,103	2,023	1,542	1,400	973	13,720
1551–1579	Other procedures for musculoskeletal system	237	1,428	7,733	10,717	9,770	8,347	7,246	5,366	4,119	2,830	57,793
1600–1660	Procedures on skin and subcutaneous tissue	5,184	4,011	7,644	12,542	11,815	11,632	12,697	12,457	15,699	17,852	111,534
1661–1718	Plastic, cosmetic and corrective procedures	378	221	812	1,386	1,188	1,175	1,334	1,160	1,280	1,357	10,291
1740–1759	Procedures on breast	5	7	85	511	444	232	194	177	175	117	1,947
1780–1799	Chemotherapeutic and radiation oncology procedures	168	1,555	2,738	2,519	3,584	6,863	16,675	29,796	34,116	14,527	112,541
1820–1899	Miscellaneous non-operative procedures	12,289	7,840	8,272	9,416	12,913	18,149	24,243	23,361	28,754	25,742	170,979
1940–2016	Imaging services	1,694	2,999	3,691	5,632	7,514	9,425	11,692	13,879	20,202	23,379	100,107
2050–2140	Allied health interventions	2,383	2,590	2,978	5,530	7,873	9,189	12,267	15,780	28,065	45,176	131,831
	No principal procedure or not reported	42,033	47,806	40,269	50,273	58,493	59,313	62,332	61,749	79,845	97,147	599,266
Total		**80,684**	**108,761**	**131,417**	**174,895**	**225,285**	**279,394**	**346,527**	**385,169**	**485,003**	**423,219**	**2,640,362**

(a) Total includes separations for which age was not reported.

. . not applicable

Table 8.8: Separations for females by age group and principal procedure in ICD-10-AM groupings, all hospitals, Australia, 1998–99

Principal procedure blocks		<1	1–4	5–14	15–24	25–34	35–44	45–54	55–64	65–74	75+	Total[(a)]
1–28	Procedures on skull, brain and meninges	120	106	270	274	389	533	735	676	706	495	4,304
29–60	Procedures on spinal cord and spinal canal structures	745	629	664	1,784	3,130	3,533	3,759	2,965	3,302	2,995	23,506
61–86	Procedures on nerves and ganglia	7	32	143	916	2,307	4,648	5,993	3,913	3,271	3,210	24,440
110–129	Procedures on thyroid, parathyroid and endocrine glands	6	46	88	365	914	1,373	1,638	1,134	993	461	7,018
160–192	Procedures on eyeball, cornea, sclera, iris and ciliary body	101	351	197	251	660	813	769	782	1,231	1,929	7,084
193–203	Procedures on lens	33	42	54	69	165	481	1,912	5,694	21,323	39,923	69,696
204–256	Procedures on retina, conjunctiva and other areas of eye	341	1,510	1,037	536	568	731	1,010	1,277	1,949	2,516	11,475
300–306	Procedures on external ear	10	198	381	145	181	206	165	120	115	109	1,630
307–333	Procedures on middle and inner ear and mastoid	476	5,926	6,110	745	924	1,115	1,196	964	779	456	18,691
370–389	Procedures on nose and sinuses	42	346	941	1,557	2,267	2,684	2,992	2,327	1,986	1,812	16,954
390–399	Procedures on tongue, salivary gland and ducts	61	190	210	134	266	371	448	402	370	295	2,747
400–408	Procedures on mouth, palate or uvula	25	273	295	216	240	355	413	382	276	193	2,668
409–422	Procedures on tonsils, adenoids and pharynx	47	3,849	9,293	5,090	1,565	611	257	198	163	136	21,209
450–490	Dental and orthodontic procedures	16	3,711	6,566	21,060	8,333	3,437	2,014	1,000	597	555	47,289
520–542	Procedures on larynx and trachea	130	159	156	137	255	446	585	540	536	335	3,279
543–558	Procedures on bronchus, lung and pleura	102	141	122	323	453	778	1,422	2,018	2,325	1,655	9,339
559–567	Procedures on chest wall, mediastinum and diaphragm	22	18	47	207	305	449	576	724	932	1,265	4,545
568–569	Airway management, continuous ventilatory support	1,549	98	82	189	231	294	393	438	620	585	4,479
600–638	Procedures on atrium, ventricle, septum and valves	155	141	107	64	81	138	250	387	673	577	2,573
639–666	Other procedures on heart, myocardium and pericardium	38	41	91	230	303	429	631	694	1,361	2,549	6,367
667–693	Procedures on coronary arteries and aorta	160	164	114	70	172	1,040	3,851	6,891	10,421	5,755	28,638
694–767	Procedures on arteries and veins	456	596	817	911	2,861	5,263	6,245	5,763	6,555	5,908	35,375
800–817	Procedures on blood and blood-forming organs	45	311	440	576	879	1,266	1,816	1,628	1,660	1,621	10,242
850–869	Procedures on oesophagus	63	161	89	109	190	429	782	902	1,279	1,904	5,908
870–890	Procedures on stomach	134	195	193	220	518	879	911	720	968	1,771	6,509
891–925	Procedures on small and large intestines	217	120	408	3,597	8,602	17,889	28,785	29,169	28,976	21,143	138,906
926–927	Procedures on appendix	2	66	2,528	3,694	2,174	1,338	701	333	179	147	11,162
928–950	Procedures on rectum and anus	105	161	152	821	2,691	3,563	3,733	2,836	2,450	2,239	18,751
951–982	Procedures on liver, gallbladder, biliary tract and pancreas	31	39	145	2,394	6,209	7,072	8,090	7,222	6,261	4,999	42,462
983–1011	Other procedures on abdomen, peritoneum and hernia	681	1,364	1,977	8,202	15,750	23,133	30,221	27,852	27,735	24,587	161,502
1040–1063	Procedures on kidney	74	102	685	4,441	15,511	21,408	32,607	48,455	63,767	22,946	209,996
1064–1128	Procedures on bladder, ureter and urethra	212	464	662	1,286	2,928	5,330	8,094	8,173	9,595	9,185	45,929
1160–1203	Procedures on male genital organs	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .

(continued)

Table 8.8 (continued): Separations for females by age group and principal procedure in ICD-10-AM groupings, all hospitals, Australia, 1998–99

Principal procedure blocks		<1	1–4	5–14	15–24	25–34	35–44	45–54	55–64	65–74	75+	Total[(a)]
1230–1239	Procedures on female pelvic cavity	4	3	69	3,358	6,861	4,598	1,492	433	303	162	17,283
1240–1258	Procedures on ovaries and fallopian tubes	7	6	197	3,447	15,652	13,645	3,114	837	514	273	37,692
1259–1273	Procedures on uterus	1	3	155	20,731	36,175	39,220	30,928	11,343	6,548	3,196	148,303
1274–1278	Procedures on cervix	0	3	9	6,273	10,194	6,479	3,799	1,597	665	244	29,263
1279–1288	Procedures on vagina and pelvic floor	11	44	143	1,618	2,491	2,459	3,081	2,877	2,699	1,459	16,882
1289–1299	Procedures on other female genital organs	20	108	164	1,933	14,386	13,704	1,546	621	505	458	33,447
1330–1335	Induction and augmentation of labour	0	0	30	15,851	38,205	8,769	49	0	0	0	62,904
1336–1339	Spontaneous vertex, or forceps, vacuum or breech delivery	0	0	7	5,026	17,613	4,062	18	0	0	0	26,728
1340	Caesarean delivery	1	0	12	7,606	33,458	11,983	77	1	0	0	53,138
1341–1347	Other obstetric and postpartum procedures	0	0	56	22,146	60,580	15,766	117	3	3	0	98,672
1360–1372	Procedures on head, facial bones and joints	2	18	263	552	425	307	192	96	75	77	2,007
1373–1380	Procedures on neck, thorax and ribs	0	6	5	15	32	19	31	20	29	11	168
1381–1393	Procedures on spinal cord and vertebrae	7	3	140	173	148	332	415	310	277	185	1,990
1394–1407	Procedures on shoulder, scapula and clavicle	1	8	64	458	597	1,011	1,818	1,851	1,836	1,252	8,896
1408–1438	Procedures on humerus, elbow and forearm	7	705	3,315	437	512	644	862	1,068	1,426	1,971	10,947
1439–1475	Procedures on hand, wrist and phalanges	30	302	625	1,416	1,842	1,964	2,452	2,252	1,935	1,175	13,993
1476–1494	Procedures on hip, pelvis and femur	125	179	342	214	235	390	1,054	2,186	5,052	13,730	23,507
1495–1525	Procedures on knee, patella, tibia and fibula	9	60	889	4,117	4,595	5,624	7,084	7,306	8,426	6,102	44,212
1526–1550	Procedures on ankle, foot and toes	128	215	662	1,115	1,211	1,845	2,899	3,084	2,721	2,301	16,181
1551–1579	Other procedures for musculoskeletal system	177	1,171	4,887	3,550	4,071	4,923	6,328	5,583	5,308	5,372	41,370
1600–1660	Procedures on skin and subcutaneous tissue	4,131	3,194	5,927	6,957	7,583	9,670	11,233	9,499	10,906	16,574	85,674
1661–1718	Plastic, cosmetic and corrective procedures	255	169	765	1,976	2,579	3,300	3,727	2,127	1,411	1,299	17,608
1740–1759	Procedures on breast	14	16	92	2,967	6,436	9,976	10,929	6,786	4,563	2,464	44,243
1780–1799	Chemotherapeutic and radiation oncology procedures	99	1,334	2,029	1,581	4,138	13,796	27,334	29,663	26,416	10,906	117,296
1820–1899	Miscellaneous non-operative procedures	9,364	5,273	6,707	10,686	16,520	18,964	22,136	18,294	20,992	27,232	156,168
1940–2016	Imaging services	1,321	2,462	2,494	4,676	7,240	8,122	9,798	10,197	16,108	30,178	92,597
2050–2140	Allied health interventions	1,963	1,929	2,734	8,366	13,551	11,435	12,402	14,873	27,874	73,792	168,919
	No principal procedure or not reported	33,104	35,482	29,267	94,076	139,799	80,953	61,358	51,938	67,271	126,595	719,843
Total		**56,987**	**74,243**	**97,113**	**291,934**	**529,151**	**405,995**	**379,267**	**351,424**	**417,217**	**491,264**	**3,094,604**

(a) Total includes separations for which age was not reported.

. . not applicable

Table 8.9: Separations by number of procedures reported and hospital sector, States and Territories, 1998–99

Hospital sector	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
					(Number)				
Public hospitals									
Separations[a]	1,273,396	970,150	708,713	357,569	355,863	80,517	58,598	54,885	3,859,691
No procedure reported	383,817	245,036	220,533	91,023	100,560	19,182	8,712	15,672	1,084,535
One procedure code only	543,224	470,141	293,031	164,385	157,739	39,389	32,232	31,408	1,731,549
Two procedure codes only	174,667	130,648	92,983	51,476	52,787	10,433	8,838	4,367	526,199
Three procedure codes only	79,234	57,122	41,020	24,335	22,114	4,227	3,789	1,746	233,587
Four procedure codes only	40,540	29,483	21,739	11,622	10,139	2,304	2,039	757	118,623
Five or more procedure codes	51,914	37,720	39,407	14,728	12,524	4,982	2,988	935	165,198
Mean procedure codes per separation[b]	1.8	1.8	2.0	1.8	1.8	1.9	1.9	1.4	1.8
Maximum number of procedure codes	19	12	31	31	12	31	25	31	. .
Private hospitals									
Separations[a]	566,617	495,667	411,279	186,997	150,741	47,167	16,890	n.a.	1,875,358
No procedure reported	47,372	73,562	52,682	31,166	18,769	8,355	2,199	n.a.	234,105
One procedure code only	329,869	264,501	201,862	86,908	70,700	21,129	7,893	n.a.	982,862
Two procedure codes only	112,947	93,041	94,527	39,483	31,789	11,559	3,626	n.a.	386,972
Three procedure codes only	43,111	32,939	32,192	16,928	12,760	3,455	1,794	n.a.	143,179
Four procedure codes only	16,695	14,586	14,454	6,694	6,404	1,670	861	n.a.	61,364
Five or more procedure codes	16,623	17,038	15,562	5,818	10,319	999	517	n.a.	66,876
Mean procedure codes per separation[b]	1.7	1.7	1.8	1.8	2.0	1.7	1.8	n.a.	1.7
Maximum number of procedure codes	19	12	27	11	10	14	15	n.a.	. .
					(Per cent)				
Public hospitals									
No procedure reported	30.1	25.3	31.1	25.5	28.3	23.8	14.9	28.6	28.1
One procedure code only	42.7	48.5	41.3	46.0	44.3	48.9	55.0	57.2	44.9
Two procedure codes only	13.7	13.5	13.1	14.4	14.8	13.0	15.1	8.0	13.6
Three procedure codes only	6.2	5.9	5.8	6.8	6.2	5.2	6.5	3.2	6.1
Four procedure codes only	3.2	3.0	3.1	3.3	2.8	2.9	3.5	1.4	3.1
Five or more procedure codes	4.1	3.9	5.6	4.1	3.5	6.2	5.1	1.7	4.3
Private hospitals									
No procedure reported	8.4	14.8	12.8	16.7	12.5	17.7	13.0	n.a.	12.5
One procedure code only	58.2	53.4	49.1	46.5	46.9	44.8	46.7	n.a.	52.4
Two procedure codes only	19.9	18.8	23.0	21.1	21.1	24.5	21.5	n.a.	20.6
Three procedure codes only	7.6	6.6	7.8	9.1	8.5	7.3	10.6	n.a.	7.6
Four procedure codes only	2.9	2.9	3.5	3.6	4.2	3.5	5.1	n.a.	3.3
Five or more procedure codes	2.9	3.4	3.8	3.1	6.8	2.1	3.1	n.a.	3.6

(a) Includes separations for which no procedure codes were reported.
(b) Means are for separations with one or more procedures.
. . not applicable.
n.a. not available.
Note: The Institute requested up to 31 procedure codes to be reported.

Table 8.10: Separation, same day separation, patient day and average length of stay statistics for the 30 principal procedure ICD-10-AM blocks with the highest number of separations, public hospitals, Australia, 1998–99

Principal procedure block		Separations	Same day separations	Per cent same day separations	Separations per 10,000 population	Patient days	Patient days per 10,000 population	ALOS (days)	Rank by patient days
1059	Haemodialysis	426,773	422,551	99.0	22.6	449,741	23.9	1.1	3
2140	Generalised allied health interventions	153,312	10,314	6.7	8.1	1,854,446	98.4	12.1	1
1781	Intravenous chemotherapy	131,336	116,621	88.8	7.0	186,731	9.9	1.4	7
1892	Injection or infusion of therapeutic or prophylactic substance	82,202	44,379	54.0	4.4	272,556	14.5	3.3	4
1008	Panendoscopy with excision	78,828	64,190	81.4	4.2	171,807	9.1	2.2	10
1952	Computerised tomography of brain	57,345	8,826	15.4	3.0	488,595	25.9	8.5	2
905	Fibreoptic colonoscopy	51,679	45,207	87.5	2.7	81,756	4.3	1.6	23
1861	Transfusion of blood and gamma globulin	51,606	27,152	52.6	2.7	177,007	9.4	3.4	9
1344	Postpartum suture	39,932	923	2.3	2.1	135,407	7.2	3.4	11
1340	Caesarean section	36,285	87	0.2	1.9	222,996	11.8	6.1	6
911	Fibreoptic colonoscopy with excision	35,493	29,732	83.8	1.9	65,497	3.5	1.8	30
1005	Panendoscopy	34,108	24,852	72.9	1.8	96,721	5.1	2.8	19
197	Extracapsular crystalline lens extraction by phacoemulsification	33,589	27,765	82.7	1.8	37,197	2.0	1.1	63
1267	Evacuation of uterus	29,545	23,679	80.1	1.6	31,932	1.7	1.1	75
1334	Medical or surgical induction of labour	28,478	1,528	5.4	1.5	108,028	5.7	3.8	17
1088	Examination procedures on bladder	26,543	22,452	84.6	1.4	43,374	2.3	1.6	51
965	Cholecystectomy	25,928	230	0.9	1.4	97,215	5.2	3.7	18
1625	Excision of lesion of skin and subcutaneous tissue nec	25,270	21,407	84.7	1.3	51,696	2.7	2.0	43
412	Tonsillectomy or adenoidectomy	21,660	2,347	10.8	1.1	26,372	1.4	1.2	83
2064	Physiotherapy diagnostic evaluation	20,836	1,244	6.0	1.1	226,263	12.0	10.9	5
990	Repair of inguinal hernia	20,640	5,260	25.5	1.1	38,963	2.1	1.9	60
1265	Curettage of uterus	19,646	17,499	89.1	1.0	22,151	1.2	1.1	93
668	Coronary angiography	19,245	6,982	36.3	1.0	66,410	3.5	3.5	29
1335	Medical or surgical augmentation of labour	18,764	641	3.4	1.0	58,351	3.1	3.1	35
1849	Other nonoperative procedures on respiratory system	18,539	1,797	9.7	1.0	127,835	6.8	6.9	12
926	Appendicectomy	18,423	100	0.5	1.0	62,866	3.3	3.4	31
1571	Other repair procedures on bone of other musculoskeletal sites	16,815	2,951	17.5	0.9	52,126	2.8	3.1	42
1635	Repair of wound of skin and subcutaneous tissue	16,597	9,008	54.3	0.9	42,028	2.2	2.5	55
458	Surgical removal of tooth	15,099	13,520	89.5	0.8	16,726	0.9	1.1	115
309	Myringotomy	14,996	13,700	91.4	0.8	16,315	0.9	1.1	120
	Other	1,205,281	446,378	37.0	63.9	6,132,341	325.3	5.1	. .
	No principal procedure or not reported	1,084,898	305,397	28.1	57.6	4,812,779	255.3	4.4	. .
	Total	**3,859,691**	**1,718,719**	**44.5**	**204.7**	**16,274,228**	**863.3**	**4.2**	. .

Notes: 1. A similar listing of all principal procedures in ICD-10-AM blocks is provided on the Internet at http://www.aihw.gov.au/publications/health/ahs98-9.html.
2. Abbreviation: nec—not elsewhere classified

. . not applicable.

Table 8.11: Separation, same day separation, patient day and average length of stay statistics for the 30 principal procedure ICD-10-AM blocks with the highest number of separations, private hospitals, Australia, 1998–99

Principal procedure block		Separations	Same day separations	Per cent same day separations	Separations per 10,000 population	Patient days	Patient days per 10,000 population	ALOS (days)	Rank by patient days
1008	Panendoscopy with excision	99,220	92,915	93.6	53.2	133,417	71.5	1.3	10
905	Fibreoptic colonoscopy	88,990	83,967	94.4	47.7	103,878	55.7	1.2	23
1781	Intravenous chemotherapy	73,561	67,202	91.4	39.4	91,943	49.3	1.2	7
911	Fibreoptic colonoscopy with excision	64,053	59,288	92.6	34.3	80,211	43.0	1.3	30
197	Extracapsular crystalline lens extraction by phacoemulsification	63,878	47,770	74.8	34.2	69,292	37.1	1.1	63
1059	Haemodialysis	53,003	52,721	99.5	28.4	54,924	29.4	1.0	3
458	Surgical removal of tooth	45,510	37,855	83.2	24.4	47,411	25.4	1.0	115
1005	Panendoscopy	35,227	31,901	90.6	18.9	55,693	29.8	1.6	19
2140	Generalised allied health interventions	32,388	5,642	17.4	17.4	390,521	209.3	12.1	1
1625	Excision of lesion of skin and subcutaneous tissue nec	26,343	21,471	81.5	14.1	41,657	22.3	1.6	43
1088	Examination procedures on bladder	23,911	20,421	85.4	12.8	32,853	17.6	1.4	51
1267	Evacuation of uterus	22,354	21,668	96.9	12.0	22,570	12.1	1.0	75
1297	Procedures for reproductive medicine	21,365	21,154	99.0	11.4	21,422	11.5	1.0	49
990	Repair of inguinal hernia	18,812	2,039	10.8	10.1	39,195	21.0	2.1	60
1340	Caesarean section	16,854	18	0.1	9.0	123,786	66.3	7.3	6
1892	Injection or infusion of therapeutic or prophylactic substance	16,738	9,349	55.9	9.0	55,771	29.9	3.3	4
412	Tonsillectomy or adenoidectomy	16,153	2,127	13.2	8.7	18,635	10.0	1.2	83
1826	Group psychotherapy	16,001	13,713	85.7	8.6	66,067	35.4	4.1	313
965	Cholecystectomy	15,788	59	0.4	8.5	55,701	29.9	3.5	18
309	Myringotomy	14,695	13,918	94.7	7.9	15,042	8.1	1.0	120
1861	Transfusion of blood and gamma globulin	14,579	5,979	41.0	7.8	56,895	30.5	3.9	9
668	Coronary angiography	14,371	5,251	36.5	7.7	28,182	15.1	2.0	29
1505	Other excision procedures on knee or leg	12,978	8,620	66.4	7.0	22,830	12.2	1.8	70
1265	Curettage of uterus	12,705	11,466	90.2	6.8	13,521	7.2	1.1	93
1344	Postpartum suture	11,867	39	0.3	6.4	59,782	32.0	5.0	11
1404	Other repair procedures on shoulder	11,532	761	6.6	6.2	30,659	16.4	2.7	148
76	Release of carpal and tarsal tunnel	11,223	8,739	77.9	6.0	12,930	6.9	1.2	154
1832	Sleep study	10,524	32	0.3	5.6	10,983	5.9	1.0	179
667	Cardiac catheterisation	10,203	3,388	33.2	5.5	23,184	12.4	2.3	58
1620	Excision of benign lesion of skin and subcutaneous tissue	10,165	9,155	90.1	5.4	11,862	6.4	1.2	103
	Other	756,133	304,830	40.3	405.2	3,074,195	1,647.5	4.1	. .
	No principal procedure or not reported	234,234	64,850	27.7	125.5	1,179,801	632.3	5.0	. .
Total		**1,875,358**	**1,028,308**	**54.8**	**1,005.0**	**6,044,813**	**3,239.5**	**3.2**	. .

Notes: 1. A similar listing of all principal procedures in ICD-10-AM blocks is provided on the Internet at http://www.aihw.gov.au/publications/health/ahs98-9.html.
2. Abbreviation: nec—not elsewhere classified

. . not applicable.

Table 8.12: Separations for the 30 principal procedure ICD-10-AM blocks with the highest number of separations, public hospitals, States and Territories, 1998–99

Principal procedure block		NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
1059	Haemodialysis	120,293	128,374	65,025	44,753	29,427	9,789	11,030	18,082	426,773
2140	Generalised allied health interventions	83,449	63,531	84	37	8	5	3,710	2,488	153,312
1781	Intravenous chemotherapy	31,542	38,916	24,785	14,088	13,198	4,245	4,324	238	131,336
1892	Injection or infusion of therapeutic or prophylactic substance	21,850	17,408	18,046	9,142	11,316	2,873	1,365	202	82,202
1008	Panendoscopy with excision	28,842	18,231	13,410	8,663	5,566	1,594	1,611	911	78,828
1952	Computerised tomography of brain	19,703	15,513	10,167	4,722	4,718	1,326	677	519	57,345
905	Fibreoptic colonoscopy	17,238	11,716	9,504	6,032	4,926	1,041	873	349	51,679
1861	Transfusion of blood and gamma globulin	17,968	15,106	6,854	3,719	5,592	1,397	650	320	51,606
1344	Postpartum suture	15,460	9,099	7,058	3,423	2,805	747	828	512	39,932
1340	Caesarean section	11,984	8,678	6,868	3,537	3,243	772	601	602	36,285
911	Fibreoptic colonoscopy with excision	12,731	7,538	5,686	5,099	2,714	734	727	264	35,493
1005	Panendoscopy	9,325	9,534	5,848	3,327	4,841	813	214	206	34,108
197	Extracapsular crystalline lens extraction by phacoemulsification	12,333	9,337	4,167	3,554	3,657	34	308	199	33,589
1267	Evacuation of uterus	10,363	10,758	86	908	5,343	456	374	1,257	29,545
1334	Medical or surgical induction of labour	9,791	8,654	4,714	2,443	1,543	573	464	296	28,478
1088	Examination procedures on bladder	8,540	6,277	4,271	3,139	3,248	740	206	122	26,543
965	Cholecystectomy	9,209	6,808	4,577	2,074	2,347	370	345	198	25,928
1625	Excision of lesion of skin and subcutaneous tissue nec	1,928	1,259	11,353	4,106	5,539	1,020	53	12	25,270
412	Tonsillectomy or adenoidectomy	6,848	6,416	3,581	1,916	2,163	234	392	110	21,660
2064	Physiotherapy diagnostic evaluation	3,308	586	9,675	2,177	3,466	1,623	1	0	20,836
990	Repair of inguinal hernia	6,949	5,151	3,830	1,953	1,968	343	313	133	20,640
1265	Curettage of uterus	5,974	6,561	3,094	2,002	1,188	292	291	244	19,646
668	Coronary angiography	11,206	6,607	128	5	37	165	1,097	0	19,245
1335	Medical or surgical augmentation of labour	7,036	4,745	4,053	998	818	440	427	247	18,764
1849	Other nonoperative procedures on respiratory system	5,854	3,760	5,019	2,030	1,286	208	235	147	18,539
926	Appendicectomy	6,344	4,743	3,188	1,904	1,265	371	379	229	18,423
1571	Other repair procedures on bone of other musculoskeletal sites	69	89	8,278	4,218	3,328	830	2	1	16,815
1635	Repair of wound of skin and subcutaneous tissue	3,251	2,972	7,507	1,752	793	168	72	82	16,597
458	Surgical removal of tooth	3,852	4,300	3,197	1,119	1,606	469	352	204	15,099
309	Myringotomy	4,098	5,008	1,805	1,673	1,855	168	282	107	14,996
	Other	382,241	287,439	232,200	121,997	125,375	27,475	17,683	10,871	1,205,281
	No principal procedure or not reported	383,817	245,036	220,655	91,059	100,684	19,202	8,712	15,733	1,084,898
Total		**1,273,396**	**970,150**	**708,713**	**357,569**	**355,863**	**80,517**	**58,598**	**54,885**	**3,859,691**

Note: ICD-9-CM data reported by Queensland, Western Australia, South Australia and Tasmania have been mapped to ICD-10-AM. Comparisons with data reported by the other jurisdictions in ICD-10-AM should be made cautiously, with reference to the classifications and maps, as appropriate.

Note: Abbreviation: nec—not elsewhere classified

Table 8.13: Separations for the 30 principal procedure ICD-10-AM blocks with the highest number of separations, private hospitals, States and Territories, 1998–99

Principal procedure block		NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
1008	Panendoscopy with excision	35,378	24,817	24,374	7,479	4,962	n.p.	n.p.	n.a.	99,220
905	Fibreoptic colonoscopy	30,616	24,850	20,304	5,358	5,875	n.p.	n.p.	n.a.	88,990
1781	Intravenous chemotherapy	14,638	19,504	22,432	8,655	7,106	n.p.	n.p.	n.a.	73,561
911	Fibreoptic colonoscopy with excision	22,619	15,496	14,991	6,162	3,475	n.p.	n.p.	n.a.	64,053
197	Extracapsular crystalline lens extraction by phacoemulsification	25,076	12,635	15,568	4,272	3,854	n.p.	n.p.	n.a.	63,878
1059	Haemodialysis	11,980	17,873	11,204	3,034	8,912	n.p.	n.p.	n.a.	53,003
458	Surgical removal of tooth	12,992	11,886	9,352	5,616	4,195	n.p.	n.p.	n.a.	45,510
1005	Panendoscopy	7,692	14,135	6,800	2,254	3,536	n.p.	n.p.	n.a.	35,227
2140	Generalised allied health interventions	19,043	12,157	706	4	5	n.p.	n.p.	n.a.	32,388
1625	Excision of lesion of skin and subcutaneous tissue nec	1,348	3,173	11,757	2,993	5,994	n.p.	n.p.	n.a.	26,343
1088	Examination procedures on bladder	9,221	5,889	4,974	1,855	1,073	n.p.	n.p.	n.a.	23,911
1267	Evacuation of uterus	14,686	3,063	764	3,363	234	n.p.	n.p.	n.a.	22,354
1297	Procedures for reproductive medicine	7,736	5,502	5,179	1,703	448	n.p.	n.p.	n.a.	21,365
990	Repair of inguinal hernia	6,171	4,629	3,790	1,921	1,454	n.p.	n.p.	n.a.	18,812
1340	Caesarean section	4,463	4,107	4,073	2,256	1,281	n.p.	n.p.	n.a.	16,854
1892	Injection or infusion of therapeutic or prophylactic substance	1,789	4,880	4,813	2,910	1,693	n.p.	n.p.	n.a.	16,738
412	Tonsillectomy or adenoidectomy	5,415	3,190	3,590	1,870	1,493	n.p.	n.p.	n.a.	16,153
1826	Group psychotherapy	9,889	812	5,254	25	21	n.p.	n.p.	n.a.	16,001
965	Cholecystectomy	5,226	3,643	3,348	1,632	1,260	n.p.	n.p.	n.a.	15,788
309	Myringotomy	4,350	3,957	2,381	1,332	2,080	n.p.	n.p.	n.a.	14,695
1861	Transfusion of blood and gamma globulin	2,832	4,528	4,716	1,044	1,033	n.p.	n.p.	n.a.	14,579
668	Coronary angiography	8,614	5,146	116	7	419	n.p.	n.p.	n.a.	14,371
1505	Other excision procedures on knee or leg	201	2,194	3,755	2,786	3,299	n.p.	n.p.	n.a.	12,978
1265	Curettage of uterus	3,529	3,751	2,102	1,476	1,202	n.p.	n.p.	n.a.	12,705
1344	Postpartum suture	3,678	3,278	2,286	1,108	1,014	n.p.	n.p.	n.a.	11,867
1404	Other repair procedures on shoulder	3,510	2,371	2,064	1,622	1,566	n.p.	n.p.	n.a.	11,532
76	Release of carpal and tarsal tunnel	3,226	3,061	2,287	1,224	1,001	n.p.	n.p.	n.a.	11,223
1832	Sleep study	4,877	2,710	1,990	293	408	n.p.	n.p.	n.a.	10,524
667	Cardiac catheterisation	128	883	5,110	2,259	1,313	n.p.	n.p.	n.a.	10,203
1620	Excision of benign lesion of skin and subcutaneous tissue	6,582	3,463	0	0	0	n.p.	n.p.	n.a.	10,165
	Other	231,740	194,522	158,477	79,265	61,748	n.p.	n.p.	n.a.	756,133
	No principal procedure or not reported	47,372	73,562	52,722	31,219	18,787	n.p.	n.p.	n.a.	234,234
Total		**566,617**	**495,667**	**411,279**	**186,997**	**150,741**	**n.p.**	**n.p.**	**n.a.**	**1,875,358**

Notes: 1. ICD-9-CM data reported by Queensland, Western Australia, South Australia and Tasmania have been mapped to ICD-10-AM. Comparisons with data reported by the other jurisdictions in ICD-10-AM should be made cautiously, with reference to the classifications and maps, as appropriate.

2. Abbreviation: nec—not elsewhere classified.

n.a. not available.

n.p. not published.

Table 8.14: Average length of stay (days) for the 30 principal procedure ICD-10-AM blocks with the highest number of separations, public hospitals, States and Territories, 1998–99

Principal procedure block		NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
1059	Haemodialysis	1.1	1.0	1.1	1.0	1.0	1.1	1.0	1.1	1.1
2140	Generalised allied health interventions	11.8	12.8	11.2	18.4	22.5	7.6	9.1	9.8	12.1
1781	Intravenous chemotherapy	1.5	1.5	1.3	1.3	1.4	1.2	1.2	1.5	1.4
1892	Injection or infusion of therapeutic or prophylactic substance	3.9	3.1	3.3	3.2	2.8	2.7	3.1	6.2	3.3
1008	Panendoscopy with excision	2.4	1.9	2.2	1.9	2.3	2.0	2.2	2.0	2.2
1952	Computerised tomography of brain	8.3	6.7	10.1	10.1	10.3	8.7	11.0	9.4	8.5
905	Fibreoptic colonoscopy	1.6	1.6	1.6	1.5	1.6	1.4	1.5	1.7	1.6
1861	Transfusion of blood and gamma globulin	3.5	3.5	3.5	3.2	2.8	3.4	3.4	4.2	3.4
1344	Postpartum suture	3.4	3.4	3.2	3.5	3.5	3.6	3.0	4.3	3.4
1340	Caesarean section	6.4	6.1	5.5	6.4	6.4	5.8	6.7	7.5	6.1
911	Fibreoptic colonoscopy with excision	1.9	1.8	1.7	1.7	2.0	1.9	2.2	2.1	1.8
1005	Panendoscopy	3.7	2.4	2.7	2.4	2.4	2.4	4.3	3.0	2.8
197	Extracapsular crystalline lens extraction by phacoemulsification	1.1	1.1	1.1	1.1	1.1	1.0	1.0	2.0	1.1
1267	Evacuation of uterus	1.1	1.0	1.8	1.1	1.0	1.1	1.2	1.1	1.1
1334	Medical or surgical induction of labour	4.0	3.7	3.5	3.8	3.8	3.4	4.0	4.7	3.8
1088	Examination procedures on bladder	1.7	1.4	1.7	1.6	1.8	1.6	1.5	2.5	1.6
965	Cholecystectomy	4.4	3.6	3.0	3.6	3.2	3.8	4.1	5.6	3.7
1625	Excision of lesion of skin and subcutaneous tissue not elsewhere classified	2.2	1.8	2.3	1.8	1.9	1.6	2.1	2.3	2.0
412	Tonsillectomy or adenoidectomy	1.3	1.2	1.1	1.3	1.3	1.1	1.2	1.1	1.2
2064	Physiotherapy diagnostic evaluation	13.1	25.4	9.1	10.7	10.8	11.8	20.0	0.0	10.9
990	Repair of inguinal hernia	2.2	1.7	1.6	1.9	1.9	2.1	1.5	2.3	1.9
1265	Curettage of uterus	1.1	1.1	1.2	1.1	1.3	1.1	1.1	1.3	1.1
668	Coronary angiography	3.7	3.3	4.6	1.2	3.5	3.4	2.3	0.0	3.5
1335	Medical or surgical augmentation of labour	3.1	3.3	2.7	3.1	3.0	3.0	3.2	4.4	3.1
1849	Other nonoperative procedures on respiratory system	6.0	8.1	6.1	7.1	7.2	11.7	13.7	15.8	6.9
926	Appendicectomy	3.6	3.3	3.1	3.4	3.5	3.5	3.6	3.8	3.4
1571	Other repair procedures on bone of other musculoskeletal sites	3.6	3.5	2.8	3.4	3.2	3.6	2.5	2.0	3.1
1635	Repair of wound of skin and subcutaneous tissue	4.4	2.4	1.6	3.1	2.5	4.3	2.3	2.8	2.5
458	Surgical removal of tooth	1.2	1.1	1.1	1.1	1.1	1.1	1.0	1.4	1.1
309	Myringotomy	1.1	1.1	1.1	1.1	1.1	1.1	1.0	1.0	1.1
Total[(a)]		**4.6**	**3.8**	**4.3**	**4.0**	**4.1**	**4.8**	**3.7**	**3.5**	**4.2**

(a) For all separations.

Note: ICD-9-CM data reported by Queensland, Western Australia, South Australia and Tasmania have been mapped to ICD-10-AM. Comparisons with data reported by the other jurisdictions in ICD-10-AM should be made cautiously, with reference to the classifications and maps, as appropriate.

Table 8.15: Average length of stay (days) for the 30 principal procedure ICD-10-AM blocks with the highest number of separations, private hospitals, States and Territories, 1998–99

Principal procedure block		NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
1008	Panendoscopy with excision	1.2	1.3	1.5	1.5	1.5	n.p.	n.p.	n.a.	1.3
905	Fibreoptic colonoscopy	1.1	1.2	1.2	1.2	1.2	n.p.	n.p.	n.a.	1.2
1781	Intravenous chemotherapy	1.2	1.4	1.2	1.1	1.2	n.p.	n.p.	n.a.	1.2
911	Fibreoptic colonoscopy with excision	1.1	1.3	1.3	1.4	1.4	n.p.	n.p.	n.a.	1.3
197	Extracapsular crystalline lens extraction by phacoemulsification	1.1	1.1	1.1	1.2	1.0	n.p.	n.p.	n.a.	1.1
1059	Haemodialysis	1.0	1.0	1.1	1.0	1.0	n.p.	n.p.	n.a.	1.0
458	Surgical removal of tooth	1.0	1.0	1.0	1.2	1.0	n.p.	n.p.	n.a.	1.0
1005	Panendoscopy	1.5	1.4	2.0	1.9	1.5	n.p.	n.p.	n.a.	1.6
2140	Generalised allied health interventions	10.2	14.9	11.9	46.0	1.4	n.p.	n.p.	n.a.	12.1
1625	Excision of lesion of skin and subcutaneous tissue not elsewhere classified	1.5	1.5	1.7	1.5	1.3	n.p.	n.p.	n.a.	1.6
1088	Examination procedures on bladder	1.2	1.3	1.6	1.7	1.5	n.p.	n.p.	n.a.	1.4
1267	Evacuation of uterus	1.0	1.0	1.0	1.0	1.0	n.p.	n.p.	n.a.	1.0
1297	Procedures for reproductive medicine	1.0	1.0	1.0	1.0	1.0	n.p.	n.p.	n.a.	1.0
990	Repair of inguinal hernia	2.2	2.1	1.8	2.1	2.6	n.p.	n.p.	n.a.	2.1
1340	Caesarean section	7.2	7.6	7.0	7.9	7.1	n.p.	n.p.	n.a.	7.3
1892	Injection or infusion of therapeutic or prophylactic substance	4.1	2.7	2.9	4.3	3.2	n.p.	n.p.	n.a.	3.3
412	Tonsillectomy or adenoidectomy	1.1	1.2	1.1	1.1	1.3	n.p.	n.p.	n.a.	1.2
1826	Group psychotherapy	4.2	2.1	4.1	19.8	21.3	n.p.	n.p.	n.a.	4.1
965	Cholecystectomy	3.2	3.8	3.7	3.5	3.7	n.p.	n.p.	n.a.	3.5
309	Myringotomy	1.0	1.0	1.0	1.0	1.1	n.p.	n.p.	n.a.	1.0
1861	Transfusion of blood and gamma globulin	4.3	4.2	3.2	4.4	4.2	n.p.	n.p.	n.a.	3.9
668	Coronary angiography	1.7	2.3	2.6	3.1	2.3	n.p.	n.p.	n.a.	2.0
1505	Other excision procedures on knee or leg	9.2	1.7	1.8	1.8	1.4	n.p.	n.p.	n.a.	1.8
1265	Curettage of uterus	1.1	1.0	1.1	1.1	1.1	n.p.	n.p.	n.a.	1.1
1344	Postpartum suture	5.0	5.2	5.1	4.8	5.1	n.p.	n.p.	n.a.	5.0
1404	Other repair procedures on shoulder	2.6	2.9	2.8	2.3	2.6	n.p.	n.p.	n.a.	2.7
76	Release of carpal and tarsal tunnel	1.1	1.1	1.2	1.3	1.1	n.p.	n.p.	n.a.	1.2
1832	Sleep study	1.0	1.1	1.1	1.0	1.0	n.p.	n.p.	n.a.	1.0
667	Cardiac catheterisation	2.1	2.5	2.4	1.9	2.4	n.p.	n.p.	n.a.	2.3
1620	Excision of benign lesion of skin and subcutaneous tissue	1.2	1.2	. .	. .	. .	n.p.	n.p.	n.a.	1.2
Total[(a)]		**2.9**	**3.3**	**3.4**	**3.2**	**3.4**	**n.p.**	**n.p.**	**n.a.**	**3.2**

Note: ICD-9-CM data reported by Queensland, Western Australia, South Australia and Tasmania have been mapped to ICD-10-AM. Comparisons with data reported by the other jurisdictions in ICD-10-AM should be made cautiously, with reference to the classifications and maps, as appropriate.

(a) For all separations.

n.a. not available.

n.p. not published.

. . not applicable.

Table 8.16: Separations for males for the 30 principal procedure ICD-10-AM blocks with the highest number of separations, by age group, all hospitals, Australia, 1998–99

Principal procedure block		<1	1–4	5–14	15–24	25–34	35–44	45–54	55–64	65–74	75+	Total[(a)]
1059	Haemodialysis	0	50	637	7,019	23,348	35,754	45,563	55,420	74,237	36,334	278,362
1781	Intravenous chemotherapy	167	1,430	2,503	2,394	3,275	6,086	14,747	26,496	30,066	12,048	99,212
1008	Panendoscopy with excision	260	525	1,141	3,198	7,898	12,515	16,598	15,564	15,880	10,617	84,196
2140	Generalised allied health interventions	1,343	1,613	1,808	3,165	4,373	5,243	6,876	9,256	17,491	28,722	79,890
905	Fibreoptic colonoscopy	3	29	102	833	3,490	8,208	13,550	12,997	13,152	8,316	60,680
911	Fibreoptic colonoscopy with excision	36	79	253	1,124	2,703	5,435	9,840	11,908	12,257	7,217	50,852
1892	Injection or infusion of therapeutic or prophylactic substance	3,728	3,339	3,912	2,867	3,201	4,723	6,018	6,124	7,376	5,595	46,883
197	Extracapsular crystalline lens extraction by phacoemulsification	1	7	11	60	145	451	1,782	4,145	12,374	20,012	38,988
990	Repair of inguinal hernia	1,682	1,993	1,336	1,656	2,649	3,953	5,930	6,206	6,211	4,295	35,911
1861	Transfusion of blood and gamma globulin	240	1,236	1,659	1,833	1,735	1,768	2,758	4,096	8,527	11,689	35,541
1952	Computerised tomography of brain	589	1,211	1,578	2,799	2,839	2,767	3,074	3,837	6,392	9,877	34,963
1088	Examination procedures on bladder	138	189	322	498	1,185	2,264	4,146	6,038	9,270	8,966	33,016
1005	Panendoscopy	43	70	129	1,271	2,916	4,518	5,746	5,680	6,435	5,545	32,353
1625	Excision of lesion of skin and subcutaneous tissue not elsewhere classified	106	433	1,005	1,033	1,532	2,551	3,810	4,380	6,004	6,851	27,705
458	Surgical removal of tooth	4	746	2,467	11,165	5,183	2,043	1,146	638	487	293	24,172
668	Coronary angiography	1	7	12	35	207	1,384	4,224	6,180	7,067	3,200	22,317
1165	Transurethral prostatectomy	0	0	0	0	5	38	642	3,503	7,418	7,468	19,074
412	Tonsillectomy or adenoidectomy	29	5,765	8,372	2,048	976	504	149	45	29	11	17,928
309	Myringotomy	681	8,861	6,103	228	156	226	271	245	247	138	17,156
667	Cardiac catheterisation	99	115	124	63	172	1,120	3,278	4,486	4,785	2,067	16,309
1849	Other nonoperative procedures on respiratory system	5,404	1,846	1,060	243	337	783	1,304	1,408	1,577	1,427	15,389
1196	Excision procedures on penis	4,846	3,935	3,411	693	576	386	282	299	303	232	14,963
1554	Other application insertion or removal procedures on other musculoskeletal sites	37	263	1,708	3,784	3,260	2,242	1,561	915	581	410	14,761
1571	Other repair procedures on bone of other musculoskeletal sites	7	583	4,188	3,267	2,136	1,441	1,066	631	391	242	13,952
1183	Vasectomy and epididymectomy	0	1	0	101	3,931	7,489	1,601	161	40	26	13,350
1858	Other cardiovascular tests or nonsurgical procedures	30	61	125	290	400	983	1,933	2,710	3,596	2,275	12,403
926	Appendicectomy	2	91	3,231	3,664	2,287	1,466	824	425	253	140	12,383
1832	Sleep study	178	214	249	229	934	2,264	3,493	2,598	1,621	596	12,376
1505	Other excision procedures on knee or leg	0	3	84	1,219	1,951	2,451	2,562	1,843	1,267	669	12,049
1635	Repair of wound of skin and subcutaneous tissue	45	900	1,479	2,636	2,423	1,630	1,047	651	509	685	12,005
	Other	18,952	25,360	42,139	65,207	80,569	97,396	118,374	124,535	149,315	130,109	851,958
	No principal procedure or not reported	42,033	47,806	40,269	50,273	58,493	59,312	62,332	61,749	79,845	97,147	599,265
Total		**80,684**	**108,761**	**131,417**	**174,895**	**225,285**	**279,394**	**346,527**	**385,169**	**485,003**	**423,219**	**2,640,362**

(a) Includes separations for which age was not reported.

Table 8.17: Separations for females for the 30 principal procedure ICD-10-AM blocks with the highest number of separations, by age group, all hospitals, Australia, 1998–99

Principal procedure block		<1	1–4	5–14	15–24	25–34	35–44	45–54	55–64	65–74	75+	Total[(a)]
1059	Haemodialysis	0	4	400	4,050	14,607	20,202	31,303	46,942	61,885	22,019	201,412
2140	Generalised allied health interventions	1,081	1,179	1,684	4,920	7,880	6,621	6,999	9,072	18,192	48,182	105,810
1781	Intravenous chemotherapy	98	1,164	1,920	1,463	3,618	12,527	24,665	27,217	23,810	9,185	105,667
1008	Panendoscopy with excision	163	368	1,015	4,250	7,772	13,363	18,961	17,576	16,742	13,642	93,852
905	Fibreoptic colonoscopy	6	21	70	1,568	4,603	11,129	18,456	16,979	16,004	11,151	79,987
197	Extracapsular crystalline lens extraction by phacoemulsification	0	2	11	41	98	380	1,548	4,720	17,986	33,693	58,479
1340	Caesarean section	1	0	12	7,606	33,458	11,983	77	1	0	0	53,138
1892	Injection or infusion of therapeutic or prophylactic substance	3,013	2,625	3,432	3,756	5,591	6,062	7,228	6,666	6,847	6,835	52,055
1267	Evacuation of uterus	0	0	124	17,615	22,849	10,989	306	9	1	2	51,898
1344	Postpartum suture	0	0	26	10,759	32,983	7,994	34	1	1	0	51,799
911	Fibreoptic colonoscopy with excision	29	53	203	1,762	3,469	5,931	9,155	10,357	10,520	7,215	48,694
1334	Medical or surgical induction of labour	0	0	18	8,329	23,411	5,655	38	0	0	0	37,451
1005	Panendoscopy	31	42	143	1,325	2,709	4,649	6,796	6,722	7,084	7,480	36,981
458	Surgical removal of tooth	2	555	3,077	20,235	7,462	2,477	1,249	622	381	376	36,436
1265	Curettage of uterus	0	0	16	1,912	5,777	8,394	9,680	3,824	1,928	820	32,351
1952	Computerised tomography of brain	486	841	885	1,568	1,998	2,112	2,411	2,652	5,104	13,719	31,777
1861	Transfusion of blood and gamma globulin	174	501	1,203	1,619	1,835	1,954	2,867	3,241	5,660	11,589	30,643
965	Cholecystectomy	2	4	83	1,963	5,082	5,469	6,151	5,073	3,979	2,331	30,137
1297	Procedures for reproductive medicine	0	0	0	387	12,422	12,010	374	6	0	0	25,201
1625	Excision of lesion of skin and subcutaneous tissue not elsewhere classified	99	456	1,231	1,238	1,901	2,963	3,684	3,171	3,858	5,307	23,908
1335	Medical or surgical augmentation of labour	0	0	9	6,634	12,968	2,579	6	0	0	0	22,196
1744	Local excision of breast	1	5	45	1,442	2,844	5,141	5,664	3,584	2,298	1,047	22,071
412	Tonsillectomy or adenoidectomy	17	3,781	9,184	4,793	1,408	459	143	66	26	8	19,885
1259	Examination procedures on uterus	1	1	7	754	2,998	4,975	6,153	2,559	1,214	566	19,228
1275	Destruction procedures on cervix	0	0	4	4,654	7,152	3,920	1,992	701	243	70	18,736
1268	Abdominal hysterectomy	0	1	3	38	1,342	6,234	6,879	1,713	993	557	17,760
1343	Other procedures associated with delivery	0	0	6	3,892	11,154	2,613	7	0	0	0	17,672
1345	Postpartum evacuation of uterus	0	0	7	3,748	9,912	3,792	60	1	0	0	17,520
1088	Examination procedures on bladder	40	169	291	601	1,045	1,854	2,745	3,152	3,970	3,571	17,438
2064	Physiotherapy diagnostic evaluation	130	183	269	473	964	705	996	1,288	2,662	7,447	15,117
	Other	18,509	26,806	42,468	74,463	138,040	139,906	141,282	121,571	138,558	157,857	999,462
	No principal procedure or not reported	33,104	35,482	29,267	94,076	139,799	80,953	61,358	51,938	67,271	126,595	719,843
Total		**56,987**	**74,243**	**97,113**	**291,934**	**529,151**	**405,995**	**379,267**	**351,424**	**417,217**	**491,264**	**3,094,604**

(a) Includes separations for which age was not reported.

Table 8.18: Principal and additional procedures in ICD-10-AM groupings, public hospitals, States and Territories, 1998–99

Procedure block number		NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
1–28	Procedures on skull, brain and meninges	4,379	3,193	1,823	1,326	824	263	312	84	12,204
29–60	Procedures on spinal cord and spinal canal structures	14,029	13,292	15,402	10,756	7,584	2,266	1,303	541	65,173
61–86	Procedures on nerves and ganglia	8,050	6,626	4,824	3,434	2,680	579	388	214	26,795
110–129	Procedures on thyroid, parathyroid and endocrine glands	2,577	1,572	1,097	531	449	158	95	37	6,516
160–192	Procedures on eyeball, cornea, sclera, iris and ciliary body	3,327	2,434	2,914	1,766	925	138	63	116	11,683
193–203	Procedures on lens	14,935	11,797	10,708	9,625	8,554	354	351	314	56,638
204–256	Procedures on retina, conjunctiva and other areas of eye	6,466	5,818	3,725	2,130	2,255	219	162	137	20,912
300–306	Procedures on external ear	1,026	772	2,007	481	492	96	62	51	4,987
307–333	Procedures on middle and inner ear and mastoid	8,707	8,281	6,676	3,254	3,744	270	578	283	31,793
370–389	Procedures on nose and sinuses	10,265	10,316	8,613	4,886	5,717	597	593	226	41,213
390–399	Procedures on tongue, salivary gland and ducts	1,639	1,097	894	403	371	90	74	35	4,603
400–408	Procedures on mouth, palate or uvula	1,464	1,488	1,218	587	599	150	76	64	5,646
409–422	Procedures on tonsils, adenoids and pharynx	8,600	7,854	5,061	2,373	2,850	298	478	155	27,669
450–490	Dental and orthodontic procedures	12,079	13,092	9,942	4,647	4,352	1,146	727	836	46,821
520–542	Procedures on larynx and trachea	3,669	2,978	2,629	957	1,301	202	148	89	11,973
543–558	Procedures on bronchus, lung and pleura	8,583	6,799	5,235	2,005	2,367	687	382	157	26,215
559–567	Procedures on chest wall, mediastinum and diaphragm	5,567	4,481	4,361	2,118	1,662	493	803	153	19,638
568–569	Airway management, continuous ventilatory support	11,397	9,859	6,304	2,602	3,906	789	869	619	36,345
600–638	Procedures on atrium, ventricle, septum and valves	13,353	8,845	6,761	4,916	2,820	508	1,339	0	38,542
639–666	Other procedures on heart, myocardium and pericardium	13,080	20,666	10,107	3,765	3,653	1,646	1,547	91	54,555
667–693	Procedures on coronary arteries and aorta	27,912	19,377	17,178	13,177	11,458	2,905	1,912	6	93,925
694–767	Procedures on arteries and veins	27,390	22,024	21,771	7,659	8,555	2,229	2,448	787	92,863
800–817	Procedures on blood and blood-forming organs	8,358	7,106	5,427	2,913	2,244	746	686	146	27,626
850–869	Procedures on oesophagus	4,346	2,980	3,088	1,675	1,745	725	314	75	14,948
870–890	Procedures on stomach	4,174	3,876	2,205	986	1,301	154	236	93	13,025
891–903	Procedures on small intestine	2,553	1,977	1,642	993	750	255	144	35	8,349
904–925	Procedures on large intestine	45,752	27,908	21,586	15,651	12,036	2,498	2,194	899	128,524
926–927	Procedures on appendix	7,015	5,323	3,843	2,135	1,457	415	440	248	20,876
928–950	Procedures on rectum and anus	13,489	8,032	5,132	3,214	3,086	528	408	222	34,111
951–982	Procedures on liver, gallbladder, biliary tract and pancreas	27,279	16,947	12,200	6,494	6,509	1,214	1,531	546	72,720
983–1011	Other procedures on abdomen, peritoneum and hernia	69,328	50,028	42,924	26,203	23,328	4,708	3,329	1,752	221,600
1040–1063	Procedures on kidney	128,861	134,812	70,345	47,715	31,369	10,266	11,754	18,545	453,667
1064–1128	Procedures on bladder, ureter and urethra	38,922	24,480	20,164	12,963	14,029	2,988	1,291	670	115,507
1160–1170	Procedures on prostate and seminal vesicle	4,492	4,030	1,728	942	1,162	291	239	40	12,924

(continued)

Table 8.18 (continued): Principal and additional procedures in ICD-10-AM groupings, public hospitals, States and Territories, 1998–99

Procedure block number		NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
1171–1176	Procedures on scrotum and tunical vaginalis	921	611	242	161	135	32	53	53	2,208
1177–1189	Procedures on testis, vas deferens, epididymis, spermatic cord	5,775	4,898	2,642	2,165	2,189	308	138	127	18,242
1190–1203	Procedures on penis and other male genital organs	5,333	3,839	1,298	1,348	1,234	139	116	227	13,534
1230–1239	Procedures on pelvic cavity	9,874	8,913	1,084	806	611	103	519	341	22,251
1240–1258	Procedures on ovaries and fallopian tubes	12,497	11,891	7,926	6,272	4,492	923	595	639	45,235
1259–1273	Procedures on uterus	48,753	47,490	19,399	12,175	15,694	2,104	2,158	2,179	149,952
1274–1278	Procedures on cervix	8,124	8,176	7,072	1,786	3,845	532	406	342	30,283
1279–1288	Procedures on vagina and pelvic floor	6,606	6,072	7,202	2,414	4,367	293	216	83	27,253
1289–1299	Procedures on other female genital organs	3,975	3,317	1,611	1,158	1,334	158	79	89	11,721
1330–1335	Induction and augmentation of labour	43,112	31,668	20,565	10,735	9,102	2,473	2,499	1,367	121,521
1336–1339	Spontaneous vertex, or forceps, vacuum or breech delivery	11,115	6,236	2,910	2,376	1,920	531	428	192	25,708
1340	Caesarean delivery	12,241	9,090	6,907	3,557	3,266	772	608	615	37,056
1341–1347	Other obstetric and postpartum procedures	39,088	28,242	35,259	13,420	21,646	3,402	1,687	1,073	143,817
1360–1372	Procedures on head, facial bones and joints	2,547	1,989	1,596	779	682	247	216	251	8,307
1373–1380	Procedures on neck, thorax and ribs	252	216	0	0	0	0	31	1	500
1381–1393	Procedures on spinal cord and vertebrae	898	757	624	184	241	32	67	1	2,804
1394–1407	Procedures on shoulder, scapula and clavicle	2,670	2,017	2,251	1,136	1,270	143	150	64	9,701
1408–1438	Procedures on humerus, elbow and forearm	13,244	7,910	551	276	239	48	753	568	23,589
1439–1475	Procedures on hand, wrist and phalanges	10,345	8,298	3,933	2,035	1,863	418	559	403	27,854
1476–1494	Procedures on hip, pelvis and femur	10,278	7,464	3,954	2,500	2,369	566	700	187	28,018
1495–1525	Procedures on knee, patella, tibia and fibula	15,905	13,627	10,611	6,145	8,225	991	1,102	648	57,254
1526–1550	Procedures on ankle, foot and toes	8,835	7,093	3,825	2,023	2,219	581	551	312	25,439
1551–1579	Other procedures for musculoskeletal system	17,014	15,383	25,914	14,842	10,886	2,653	1,092	891	88,675
1600–1660	Procedures on skin and subcutaneous tissue	60,212	45,029	48,217	20,260	21,080	4,068	2,664	2,485	204,015
1661–1718	Plastic, cosmetic and corrective procedures	3,590	4,131	2,085	1,148	2,570	165	196	94	13,979
1740–1759	Procedures on breast	7,927	7,446	4,294	2,671	2,152	587	379	181	25,637
1780–1799	Chemotherapeutic and radiation oncology procedures	40,757	50,592	28,237	15,535	14,585	4,741	4,868	263	159,578
1820–1899	Miscellaneous nonoperative procedures	131,524	98,132	109,104	56,888	47,865	15,092	8,017	2,816	469,438
1940–2016	Imaging services	131,872	81,424	56,759	29,804	24,130	7,417	5,685	2,479	339,570
2050–2140	Allied health interventions	414,685	288,705	221,764	64,936	61,837	28,439	18,507	7,815	1,106,688
Total		**1,643,032**	**1,280,816**	**977,370**	**484,817**	**448,182**	**118,829**	**92,315**	**55,052**	**5,100,413**

Note: ICD-9-CM data reported by Queensland, Western Australia, South Australia and Tasmania have been mapped to ICD-10-AM. Comparisons with data reported by the other jurisdictions in ICD-10-AM should be made cautiously, with reference to the classifications and maps, as appropriate.

n.a. not available.

n.p. not published.

Table 8.19: Principal and additional procedures in ICD-10-AM groupings, private hospitals, States and Territories, 1998–99

Procedure block number		NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
1-28	Procedures on skull, brain and meninges	867	909	709	157	197	n.p.	n.p.	n.a.	2,994
29-60	Procedures on spinal cord and spinal canal structures	9,560	11,207	10,756	8,331	5,654	n.p.	n.p.	n.a.	47,733
61-86	Procedures on nerves and ganglia	7,996	7,914	5,065	4,860	2,855	n.p.	n.p.	n.a.	30,143
110-129	Procedures on thyroid, parathyroid and endocrine glands	1,463	898	877	487	337	n.p.	n.p.	n.a.	4,248
160-192	Procedures on eyeball, cornea, sclera, iris and ciliary body	3,789	1,692	4,076	1,601	408	n.p.	n.p.	n.a.	11,946
193-203	Procedures on lens	30,206	19,102	36,462	13,203	8,293	n.p.	n.p.	n.a.	112,032
204-256	Procedures on retina, conjunctiva and other areas of eye	5,647	3,639	4,364	1,649	1,107	n.p.	n.p.	n.a.	17,182
300-306	Procedures on external ear	683	966	961	297	501	n.p.	n.p.	n.a.	3,520
307-333	Procedures on middle and inner ear and mastoid	7,601	7,433	5,166	2,591	3,412	n.p.	n.p.	n.a.	27,130
370-389	Procedures on nose and sinuses	15,903	10,352	14,443	5,085	8,276	n.p.	n.p.	n.a.	56,038
390-399	Procedures on tongue, salivary gland and ducts	877	665	581	362	276	n.p.	n.p.	n.a.	2,905
400-408	Procedures on mouth, palate or uvula	1,400	1,037	856	450	670	n.p.	n.p.	n.a.	4,607
409-422	Procedures on tonsils, adenoids and pharynx	6,566	3,953	4,525	2,186	1,855	n.p.	n.p.	n.a.	19,847
450-490	Dental and orthodontic procedures	24,601	21,938	12,822	10,332	6,539	n.p.	n.p.	n.a.	79,068
520-542	Procedures on larynx and trachea	1,219	1,196	1,124	422	537	n.p.	n.p.	n.a.	4,643
543-558	Procedures on bronchus, lung and pleura	1,995	2,185	2,863	697	796	n.p.	n.p.	n.a.	8,815
559-567	Procedures on chest wall, mediastinum and diaphragm	963	1,243	1,655	563	522	n.p.	n.p.	n.a.	5,125
568-569	Airway management, continuous ventilatory support	985	1,000	1,107	243	730	n.p.	n.p.	n.a.	4,147
600-638	Procedures on atrium, ventricle, septum and valves	11,322	8,458	7,412	2,469	2,296	n.p.	n.p.	n.a.	32,135
639-666	Other procedures on heart, myocardium and pericardium	7,873	9,487	6,136	1,040	1,955	n.p.	n.p.	n.a.	26,543
667-693	Procedures on coronary arteries and aorta	23,114	17,593	18,302	6,089	5,896	n.p.	n.p.	n.a.	72,241
694-767	Procedures on arteries and veins	10,860	13,387	9,198	3,115	3,252	n.p.	n.p.	n.a.	41,408
800-817	Procedures on haematopoetic, lymph systems and spleen	2,704	2,991	3,615	1,187	995	n.p.	n.p.	n.a.	12,164
850-869	Procedures on oesophagus	2,401	2,359	2,869	731	1,037	n.p.	n.p.	n.a.	9,909
870-890	Procedures on stomach	1,078	1,752	1,278	420	590	n.p.	n.p.	n.a.	5,309
891-903	Procedures on small intestines	1,254	1,063	1,212	467	499	n.p.	n.p.	n.a.	4,645
904-925	Procedures on large intestines	66,916	48,976	44,293	15,308	12,626	n.p.	n.p.	n.a.	192,516
926-927	Procedures on appendix	1,401	1,419	1,688	967	521	n.p.	n.p.	n.a.	6,274
928-950	Procedures on rectum and anus	12,237	6,003	5,512	2,747	1,927	n.p.	n.p.	n.a.	29,353
951-982	Procedures on liver, gallbladder, biliary tract and pancreas	11,447	8,371	8,529	3,833	3,109	n.p.	n.p.	n.a.	36,452
983-1011	Other procedures on abdomen, peritoneum and hernia	67,735	58,521	56,715	19,353	16,224	n.p.	n.p.	n.a.	224,800
1040-1063	Procedures on kidney	13,073	18,956	12,386	3,392	9,220	n.p.	n.p.	n.a.	57,269
1064-1128	Procedures on bladder, ureter and urethra	33,739	21,049	20,418	9,384	10,563	n.p.	n.p.	n.a.	100,309
1160-1170	Procedures on prostate and seminal vesicle	4,814	4,914	2,847	1,330	1,047	n.p.	n.p.	n.a.	16,109

(continued)

Table 8.19 (continued): Principal and additional procedures in ICD-10-AM groupings, private hospitals, States and Territories, 1998–99

Procedure block number		NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
1171-1176	Procedures on scrotum and tunical vaginalis	351	147	137	91	55	n.p.	n.p.	n.a.	829
1177-1189	Procedures on testis, vas deferens, epididymis, spermatic cor	4,708	3,489	2,392	1,511	1,117	n.p.	n.p.	n.a.	13,892
1190-1203	Procedures on penis and other male genital organs	2,395	1,361	1,025	712	389	n.p.	n.p.	n.a.	6,250
1230-1239	Procedures on pelvic cavity	7,046	4,370	1,388	491	495	n.p.	n.p.	n.a.	14,238
1240-1258	Procedures on ovaries and fallopian tubes	7,200	6,589	6,090	3,182	2,281	n.p.	n.p.	n.a.	26,594
1259-1273	Procedures on uterus	42,939	28,536	16,507	11,647	6,827	n.p.	n.p.	n.a.	110,709
1274-1278	Procedures on cervix	4,795	3,751	2,425	1,055	764	n.p.	n.p.	n.a.	13,422
1279-1288	Procedures on vagina and pelvic floor	5,623	4,292	3,388	1,767	1,255	n.p.	n.p.	n.a.	16,984
1289-1293	Procedures on other female genital organs	9,134	6,469	6,603	2,312	856	n.p.	n.p.	n.a.	26,343
1330-1335	Induction and augmentation of labour	13,922	11,884	7,230	5,949	2,933	n.p.	n.p.	n.a.	43,830
1336-1339	Spontaneous vertex, or forceps, vacuum or breech delivery	3,675	3,091	1,934	1,442	927	n.p.	n.p.	n.a.	11,515
1340	Caesarean delivery	4,575	4,249	4,099	2,285	1,282	n.p.	n.p.	n.a.	17,205
1341-1347	Other obstetric and postpartum procedures	10,759	10,255	10,381	5,805	4,575	n.p.	n.p.	n.a.	43,605
1360-1374	Procedures on head, facial bones and joints	1,057	831	541	172	179	n.p.	n.p.	n.a.	2,927
1375-1380	Procedures on neck, thorax and ribs	195	192	0	0	0	n.p.	n.p.	n.a.	391
1381-1393	Procedures on spinal cord and vertebrae	1,407	1,198	753	302	465	n.p.	n.p.	n.a.	4,297
1394-1407	Procedures on shoulder, scapula and clavicle	6,627	8,259	4,340	3,837	4,145	n.p.	n.p.	n.a.	27,972
1408-1438	Procedures on humerus, elbow and forearm	2,816	2,654	424	316	333	n.p.	n.p.	n.a.	6,701
1439-1475	Procedures on hand, wrist and phalanges	7,981	7,673	3,313	1,803	2,047	n.p.	n.p.	n.a.	23,559
1476-1494	Procedures on hip, pelvis and femur	4,377	4,768	2,877	1,437	1,579	n.p.	n.p.	n.a.	15,783
1495-1525	Procedures on knee, patella, tibia and fibula	28,585	26,306	19,879	15,458	17,622	n.p.	n.p.	n.a.	112,564
1526-1550	Procedures on ankle, foot and toes	7,308	6,503	2,135	2,388	2,374	n.p.	n.p.	n.a.	21,624
1551-1579	Other procedures for musculoskeletal system	18,179	12,760	15,936	12,991	12,421	n.p.	n.p.	n.a.	76,479
1600-1660	Procedures on skin and subcutaneous tissue	49,576	31,759	28,980	11,215	15,191	n.p.	n.p.	n.a.	140,621
1661-1718	Plastic, cosmetic and corrective procedures	10,980	10,315	6,356	3,825	3,150	n.p.	n.p.	n.a.	35,683
1740-1759	Procedures on breast	8,512	8,458	6,063	3,419	2,699	n.p.	n.p.	n.a.	30,308
1780-1799	Chemotherapy, brachytherapy and radiotherapy	16,858	29,856	23,780	8,909	7,454	n.p.	n.p.	n.a.	88,333
1820-1899	Miscellaneous non-operative procedures	41,168	39,817	71,423	17,953	10,016	n.p.	n.p.	n.a.	185,577
1940-2016	Imaging services	21,900	25,634	28,057	10,237	7,717	n.p.	n.p.	n.a.	98,324
2050-2140	Allied health interventions	125,970	90,614	56,767	19,461	39,319	n.p.	n.p.	n.a.	340,198
Total		**864,907**	**718,708**	**646,045**	**277,320**	**265,189**	**n.p.**	**n.p.**	**n.a.**	**2,866,316**

Note: ICD-9-CM data reported by Queensland, Western Australia, South Australia and Tasmania have been mapped to ICD-10-AM. Comparisons with data reported by the other jurisdictions in ICD-10-AM should be made cautiously, with reference to the classifications and maps, as appropriate.

n.a. not available.

n.p. not published.

9 External causes for admitted patients

Introduction

An external cause is defined in the *National Health Data Dictionary* Version 7 (NHDC 1998) as the event, circumstance or condition associated with the occurrence of injury, poisoning or violence. Whenever a patient has a principal or additional diagnosis of an injury or poisoning, an external cause should be recorded. A place of occurrence code is also usually recorded and, in ICD-10-AM, a code recording the activity of the injured person at the time of the event.

For 1998–99, external causes were classified, coded and reported to the National Hospital Morbidity Database by Queensland, Western Australia, South Australia and Tasmania using the Australian version of the *International Classification of Diseases, 9th Revision, Clinical Modification* (ICD-9-CM) (National Coding Centre 1996), and by New South Wales, Victoria, the Australian Capital Territory and the Northern Territory using the *International Statistical Classification of Diseases and Related Health Problems, 10th Revision, Australian Modification* (ICD-10-AM) (National Centre for Classification in Health 1998). The data reported in ICD-9-CM were mapped by the Institute to ICD-10-AM so that national data could be presented in a single classification in this report. Further information about this mapping is presented in Appendix 4.

The external cause classification (chapter XX of ICD-10-AM) is hierarchical, consisting of 229 3-character categories. The information in this chapter is presented by grouping the ICD-10-AM external cause codes into 16 groups to provide an overview of the reported external causes. The tables and figures in this chapter use the codes and abbreviated descriptions of the ICD-10-AM external cause classification. Full descriptions of the categories are available in the ICD-10-AM publication.

The tables in this chapter include separations for which an external cause was reported and for which the principal diagnosis was an injury or poisoning for which an external cause must be reported, according to the Australian Coding Standards (diagnosis codes S00–T98, Z04.1–Z04.5). External causes were also reported for other separations and are likely to have related to other principal diagnoses or to additional diagnoses of injury or poisoning; these are not reported here.

Tables are presented with summary national separation, patient day and average length of stay statistics for public and private hospitals. Also provided are summary separation and patient days data by State and Territory, national information on age group and sex distributions and summary information on the reported places of occurrence of the external cause, and on the reported activity of the patient while injured. The data on relative rankings of the various external cause groups (by numbers of separations or patient days) depend to some extent on the chosen groups of external cause codes.

Sector

There were 395,876 separations in 1998–99 with an external cause and an injury or poisoning principal diagnosis and these separations accounted for 1,670,836 patient days (Table 9.1). This represented 6.9% of all separations (210 separations per 10,000

population) and 8% of all patient days. The majority of separations (322,239, 81%) and patient days (1,291,392, 77%) were reported for the public sector. Overall, the average length of stay was longer in the private sector (5.2 days) than the public sector (4.0 days).

The most frequently reported external cause group in the public sector was *Falls* (W00–W19) and in the private sector was *Complications of medical and surgical care* (Y40–Y84), although *Falls* (W00–W19) accounted for more patient days. Second most frequently reported in the public sector was *Exposure to mechanical forces* (W20–W64), mainly accidents caused by cutting or piercing instruments or objects, striking against or struck accidentally by objects or persons, and other and unspecified environmental and accidental causes. For private hospitals, the second most frequently reported was *Falls* (W00–W19).

Transport accidents (V01–V99) accounted for a further 14% of external cause separations from public hospitals (44,936), but only 6% from private hospitals (4,382). *Intentional self-harm* (X60–X84) and *Assault* (X85–Y09) each accounted for 6% and 5% of external cause separations from public hospitals (20,115 and 17,998 respectively) but 1% or less of external cause separations from private hospitals (820 and 483 respectively).

Average length of stay was highest for *Sequelae and supplementary factors* (Y85–Y98) in the public sector (7.6 days) and for *Falls* (W00–W19) in the private sector (7.9 days).

States and Territories

A principal diagnosis of injury or poisoning plus an external cause were recorded for between 1.8 and 8.1% of separations for all States and Territories.

The distributions of separations amongst the external cause groups were generally similar across the States and Territories (Table 9.2), with *Falls* (W00–W19), *Complications of medical and surgical care* (Y40–Y84), *Exposure to mechanical forces* (W20–W64) and *Transport accidents* (V01–V99) being among the most common in nearly every State. The distributions of patient days amongst the external cause groups were also similar across the States and Territories (Table 9.3).

Age group and sex

For females, 5.4% of separations overall were reported with a principal diagnosis for injury and poisoning and an external cause (168,420) compared with 8.6% of separations for males had external causes recorded (227,456).

The numbers of separations with an external cause varied by age group and sex (Tables 9.4 and 9.5). The most common external cause group for females was *Falls* (W01–W19) (37% of the total for females, 61,727), followed by *Complications of medical and surgical care* (Y40–Y84) (20%, 33,081). For males, *Falls* (W00–W19) was also the most commonly reported group (22% of the total for males, 50,454), followed by *Exposure to mechanical forces* (W20–W64) (21%, 48,694). *Transport accidents* (V01–V99) accounted for 15% of male external cause separations (33,284) and 10% of female separations (16,034).

For females, the highest number of separations for external causes was for the 75 years and over age group, whereas for males highest numbers were reported for the 15 to 24 and 25 to 34 years age groups.

In the under 14 years age group, *Falls* and *Exposure to mechanical forces* were the most commonly reported external causes. These causes also dominated in most adult age groups. However, in the 15 to 24 years age group, *Transport accidents* were also a common external cause for both sexes, and *Intentional self-harm* was common for females; in the 35 to 64 years age group, *Complications of surgical and medical care* was common; and in the over 65

years age group, *Falls* were reported for large proportions of external cause separations, especially for females.

Place of occurrence

In ICD-10-AM the place of occurrence of the external cause is reported accompanying all external cause codes for accidental injury W00–Y34, except for *Neglect and abandonment* (Y06) and *Other maltreatment syndromes* (Y07). It does not accompany codes V01–V99 which are *Transport accidents* (V01–V99), nor codes Y35–Y98 which are *Legal intervention and operations of war* (Y35–Y36), *Complications of medical and surgical care* (Y40–Y84) and *Sequelae and supplementary factors* (Y85–Y98).

In ICD-9-CM, place of occurrence was reported for some of the categories for which it is not required in ICD-10-AM. In that case, the place of occurrence data reported in ICD-9-CM, for example for transport accidents, are included here. The place of occurrence categories differ between ICD-9-CM and ICD-10-AM, so mapping of the ICD-9-CM data was not exact.
ICD-9-CM place of occurrence categories which did not map exactly to an ICD-10-AM category were therefore mapped to the *Other specified places* category, as appropriate.

A place of occurrence (other than *Unspecified place*) was reported for 67% of separations with an external cause (264,418 Table 9.6), *Home* and *Other specified places* accounting for the majority. *Home* was the most commonly reported place of occurrence for most of the external cause groups. Some of the exceptions were *Transport accidents*, for which *Street and highway* was most frequently reported, and *Complications of medical and surgical care* for which *Other specified place* (that includes data mapped from the ICD-9-CM category encompassing hospitals) was the most common place of occurrence. *Home* was the most frequently reported place of occurrence for *Accidental poisoning* (79% of those for which a specified place of occurrence was reported, 7,305) and for *Intentional self-harm* (83%, 11,924).

Falls was the most common external cause group in the *Home* category, accounting for 47% of these separations (41,084), and in the *School and other public area* category (2,379, 64% of these separations).

Activity

The activity of the injured person at the time of occurrence of the external cause is reported as part of the ICD-10-AM classification, but was not included in ICD-9-CM. It is reported for external causes codes V01–Y34; that is *Accidents* (V01–X59), *Intentional self-harm* (X60–X84), *Assault* (X85–Y09) and *Events of undetermined intent* (Y10–Y34). As this is new in ICD-10-AM, the States that provided data in ICD-9-CM did not provide any information that could be mapped to ICD-10-AM activity codes. Therefore, in Table 9.7, the data from the four States that provided ICD-9-CM data are in the *Not stated* category.

The three categories that were most commonly reported for activity were *Other specified, Unspecified* and *Not stated,* accounting for 86% (34,1196) of separations for which an external cause was reported. Ignoring these categories, the most commonly reported activity while injured was *Sports activity*, accounting for 3.5% of all external cause separations, followed by *Leisure activity* (3.2%) and *Working for income* (3.1%).

Principal diagnosis

External causes are most commonly reported for separations with principal diagnoses from the *Injuries, poisoning and certain other consequences of external causes* (S00–T98) chapter. Table 9.8 presents data showing the external causes reported for the different types of injury or poisoning within this chapter.

Falls (W00–W19) were reported for the most *Injuries to head and neck* (S00–S19) (31%), and also *Injuries to thorax, abdomen, back, spine and pelvis* (S20–S39) (42%). *Transport accidents* V01–V99) were the second most common cause of injury in both these body areas (24% and 32%, respectively). *Injuries to upper and lower limbs* (S40–S99) were most commonly caused by *Falls* (W00–W19) (44%), followed by *Exposure to mechanical forces* (W20–W64) (25%). The most common injuries caused by *Assault* (X85–Y09) were *Injuries to head and neck* (S00–S19) (66%) and the most common injuries from *Intentional self-harm* (X60–X84) were *Poisoning and toxic effects* (T36–T65) (86%).

Table 9.1: Separation, same day separation, patient day and average length of stay statistics by external cause in ICD-10-AM groupings and hospital sector, Australia, 1998–99

External cause		Separations	Same day separations	Per cent same day separations	Separations per 10,000 population	Patient days	Patient days per 10,000 population	ALOS (days)	ALOS (days) excluding same day
					Public hospitals				
V01–V99	Transport accidents	44,936	12,209	27.2	23.8	200,330	106.3	4.5	5.7
W00–W19	Falls	92,482	22,806	24.7	49.1	472,295	250.5	5.1	6.5
W20–W64	Exposure to mechanical forces	55,328	21,308	38.5	29.3	110,319	58.5	2.0	2.6
W65–W74	Accidental drowning and submersion	568	127	22.4	0.3	1,642	0.9	2.9	3.4
W75–W84	Other accidental threats to breathing	726	261	36.0	0.4	1,408	0.7	1.9	2.5
W85–W99	Exp. electricity, radiation, extreme temperature/pressure	1,385	835	60.3	0.7	2,620	1.4	1.9	3.2
X00–X19	Exp. smoke, fire, flames, hot substances	5,496	1,431	26.0	2.9	30,476	16.2	5.5	7.1
X20–X39	Exp. venomous plants, animals, forces of nature	4,425	1,984	44.8	2.3	7,229	3.8	1.6	2.1
X40–X49	Accidental poisoning	13,367	5,337	39.9	7.1	23,772	12.6	1.8	2.3
X50–X59	Other external causes of accidental injury	16,866	7,168	42.5	8.9	45,172	24.0	2.7	3.9
X60–X84	Intentional self-harm	20,115	6,031	30.0	10.7	52,365	27.8	2.6	3.3
X85–Y09	Assault	17,998	7,249	40.3	9.5	40,789	21.6	2.3	3.1
Y10–Y34	Events of undetermined intent	1,557	597	38.3	0.8	3,351	1.8	2.2	2.9
Y35–Y36	Legal intervention and operations of war	47	16	34.0	<0.1	287	0.2	6.1	8.7
Y40–Y84	Complications of medical and surgical care	46,475	8,737	18.8	24.7	295,800	156.9	6.4	7.6
Y85–Y98	Sequelae and supplementary factors	468	118	25.2	0.2	3,537	1.9	7.6	9.8
Total		**322,239**	**96,214**	**29.9**	**170.9**	**1,291,392**	**685.0**	**4.0**	**5.3**
					Private hospitals				
V01–V99	Transport accidents	4,382	621	14.2	2.3	20,112	10.7	4.6	5.2
W00–W19	Falls	19,699	2,205	11.2	10.4	156,590	83.1	7.9	8.8
W20–W64	Exposure to mechanical forces	9,228	3,465	37.5	4.9	19,576	10.4	2.1	2.8
W65–W74	Accidental drowning and submersion	22	1	4.5	<0.1	49	<0.1	2.2	2.3
W75–W84	Other accidental threats to breathing	133	58	43.6	0.1	314	0.2	2.4	3.4
W85–W99	Exp. electricity, radiation, extreme temperature/pressure	175	83	47.4	0.1	414	0.2	2.4	3.6
X00–X19	Exp. smoke, fire, flames, hot substances	320	56	17.5	0.2	2,116	1.1	6.6	7.8
X20–X39	Exp. venomous plants, animals, forces of nature	217	45	20.7	0.1	594	0.3	2.7	3.2
X40–X49	Accidental poisoning	584	129	22.1	0.3	1,639	0.9	2.8	3.3
X50–X59	Other external causes of accidental injury	16,790	6,810	40.6	8.9	40,985	21.7	2.4	3.4
X60–X84	Intentional self-harm	820	139	17.0	0.4	2,836	1.5	3.5	4.0
X85–Y09	Assault	483	162	33.5	0.3	1,186	0.6	2.5	3.2
Y10–Y34	Events of undetermined intent	576	276	47.9	0.3	1,220	0.6	2.1	3.1
Y35–Y36	Legal intervention and operations of war	6	3	50.0	<0.1	11	<0.1	1.8	2.7
Y40–Y84	Complications of medical and surgical care	19,957	3,264	16.4	10.6	131,044	69.5	6.6	7.7
Y85–Y98	Sequelae and supplementary factors	245	88	35.9	0.1	758	0.4	3.1	4.3
Total		**73,637**	**17,405**	**23.6**	**39.5**	**379,444**	**203.3**	**5.2**	**6.4**

Note: Abbreviations: ALOS—average length of stay, exp.—exposure to.

Table 9.2: Separations by external cause in ICD-10-AM groupings and hospital sector, States and Territories, 1998–99

External cause		NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
		Public hospitals								
V01–V99	Transport accidents	14,867	9,852	10,384	4,659	3,785	881	329	179	44,936
W00–W19	Falls	37,493	21,204	17,873	7,992	7,081	549	289	1	92,482
W20–W64	Exposure to mechanical forces	17,617	11,523	15,992	5,136	4,001	744	314	1	55,328
W65–W74	Accidental drowning and submersion	199	56	210	70	24	7	2	0	568
W75–W84	Other accidental threats to breathing	186	131	222	75	110	2	0	0	726
W85–W99	Exp. electricity, radiation, extreme temperature/pressure	286	186	494	162	202	53	2	0	1,385
X00–X19	Exp. smoke, fire, flames, hot substances	1,796	1,101	1,198	672	596	88	36	9	5,496
X20–X39	Exp. venomous plants, animals, forces of nature	1,256	528	1,567	529	451	49	1	44	4,425
X40–X49	Accidental poisoning	3,956	2,760	3,863	1,152	1,331	214	28	63	13,367
X50–X59	Other external causes of accidental injury	5,675	4,168	3,870	1,558	1,322	144	43	86	16,866
X60–X84	Intentional self-harm	6,726	5,060	3,697	2,100	1,927	388	132	85	20,115
X85–Y09	Assault	5,638	2,958	4,913	2,609	1,339	269	54	218	17,998
Y10–Y34	Events of undetermined intent	434	777	138	131	28	7	19	23	1,557
Y35–Y36	Legal intervention and operations of war	11	12	9	11	4	0	0	0	47
Y40–Y84	Complications of medical and surgical care	14,893	11,551	9,119	5,276	3,914	1,085	359	278	46,475
Y85–Y98	Sequelae and supplementary factors	230	69	73	32	20	8	24	12	468
Total		**111,263**	**71,936**	**73,622**	**32,164**	**26,135**	**4,488**	**1,632**	**999**	**322,239**
		Private hospitals								
V01–V99	Transport accidents	906	1,145	999	716	348	262	6	n.a.	4,382
W00–W19	Falls	4,627	4,913	5,253	1,943	2,113	833	17	n.a.	19,699
W20–W64	Exposure to mechanical forces	2,040	2,288	2,091	1,310	1,120	371	8	n.a.	9,228
W65–W74	Accidental drowning and submersion	4	2	8	6	1	1	0	n.a.	22
W75–W84	Other accidental threats to breathing	7	29	61	13	14	9	0	n.a.	133
W85–W99	Exp. electricity, radiation, extreme temperature/pressure	13	92	38	19	7	6	0	n.a.	175
X00–X19	Exp. smoke, fire, flames, hot substances	60	96	61	44	51	7	1	n.a.	320
X20–X39	Exp. venomous plants, animals, forces of nature	30	39	41	50	41	16	0	n.a.	217
X40–X49	Accidental poisoning	101	115	205	79	51	32	1	n.a.	584
X50–X59	Other external causes of accidental injury	5,912	3,725	3,107	1,666	2,117	242	21	n.a.	16,790
X60–X84	Intentional self-harm	107	132	203	295	57	23	3	n.a.	820
X85–Y09	Assault	104	73	103	134	43	23	3	n.a.	483
Y10–Y34	Events of undetermined intent	96	433	27	13	3	1	3	n.a.	576
Y35–Y36	Legal intervention and operations of war	4	1	0	0	1	0	0	n.a.	6
Y40–Y84	Complications of medical and surgical care	5,521	5,107	4,409	2,361	1,794	697	68	n.a.	19,957
Y85–Y98	Sequelae and supplementary factors	99	64	36	9	25	7	5	n.a.	245
Total		**19,631**	**18,254**	**16,642**	**8,658**	**7,786**	**2,530**	**136**	**n.a.**	**73,637**

Notes: 1. ICD-9-CM data reported by Queensland, Western Australia, South Australia and Tasmania have been mapped to ICD-10-AM. Comparisons with data reported by the other jurisdictions in ICD-10-AM should be made cautiously, with reference to the classifications and maps, as appropriate.

2. Abbreviation: exp.—exposure to.

n.a. not available.

Table 9.3: Patient days by external cause in ICD-10-AM groupings and hospital sector, States and Territories, 1998–99

External cause		NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
		Public hospitals								
V01–V99	Transport accidents	67,853	41,033	45,981	20,666	16,581	4,731	2,757	728	200,330
W00–W19	Falls	190,647	115,575	78,981	46,297	36,385	2,263	2,144	3	472,295
W20–W64	Exposure to mechanical forces	37,084	23,330	27,934	11,093	8,218	1,879	778	3	110,319
W65–W74	Accidental drowning and submersion	477	104	775	208	65	11	2	0	1,642
W75–W84	Other accidental threats to breathing	455	306	353	110	181	3	0	0	1,408
W85–W99	Exp. electricity, radiation, extreme temperature/pressure	809	458	737	224	304	86	2	0	2,620
X00–X19	Exp. smoke, fire, flames, hot substances	9,639	6,812	5,188	4,534	3,288	739	249	27	30,476
X20–X39	Exp. venomous plants, animals, forces of nature	2,281	1,099	1,944	713	923	129	1	139	7,229
X40–X49	Accidental poisoning	7,448	4,665	6,619	1,989	2,312	534	61	144	23,772
X50–X59	Other external causes of accidental injury	16,299	11,381	8,324	4,422	3,726	433	130	457	45,172
X60–X84	Intentional self-harm	18,380	10,836	11,157	4,715	5,259	1,078	702	238	52,365
X85–Y09	Assault	13,763	5,909	9,640	6,197	3,531	723	240	786	40,789
Y10–Y34	Events of undetermined intent	1,020	1,514	242	345	98	38	65	29	3,351
Y35–Y36	Legal intervention and operations of war	25	33	46	170	13	0	0	0	287
Y40–Y84	Complications of medical and surgical care	99,381	76,484	52,446	32,186	22,754	6,530	4,505	1,514	295,800
Y85–Y98	Sequelae and supplementary factors	2,542	211	245	81	57	54	308	39	3,537
Total		**468,103**	**299,750**	**250,612**	**133,950**	**103,695**	**19,231**	**11,944**	**4,107**	**1,291,392**
		Private hospitals								
V01–V99	Transport accidents	4,704	6,015	4,499	2,719	1,185	962	28	n.a.	20,112
W00–W19	Falls	36,143	39,099	47,368	13,600	14,355	5,804	221	n.a.	156,590
W20–W64	Exposure to mechanical forces	4,577	4,958	4,502	2,539	2,108	876	16	n.a.	19,576
W65–W74	Accidental drowning and submersion	7	7	11	13	4	7	0	n.a.	49
W75–W84	Other accidental threats to breathing	39	60	135	30	40	10	0	n.a.	314
W85–W99	Exp. electricity, radiation, extreme temperature/pressure	38	228	105	27	9	7	0	n.a.	414
X00–X19	Exp. smoke, fire, flames, hot substances	499	685	316	325	214	17	60	n.a.	2,116
X20–X39	Exp. venomous plants, animals, forces of nature	75	139	70	73	201	36	0	n.a.	594
X40–X49	Accidental poisoning	412	321	506	136	129	119	16	n.a.	1,639
X50–X59	Other external causes of accidental injury	13,825	9,726	7,435	4,410	5,083	463	43	n.a.	40,985
X60–X84	Intentional self-harm	476	442	1,031	682	110	68	27	n.a.	2,836
X85–Y09	Assault	280	119	308	249	112	112	6	n.a.	1,186
Y10–Y34	Events of undetermined intent	341	743	72	48	9	1	6	n.a.	1,220
Y35–Y36	Legal intervention and operations of war	7	1	0	0	3	0	0	n.a.	11
Y40–Y84	Complications of medical and surgical care	35,461	33,179	30,107	15,130	11,332	4,954	881	n.a.	131,044
Y85–Y98	Sequelae and supplementary factors	344	171	153	20	40	18	12	n.a.	758
Total		**97,228**	**95,893**	**96,618**	**40,001**	**34,934**	**13,454**	**1,316**	**n.a.**	**379,444**

Notes: 1. ICD-9-CM data reported by Queensland, Western Australia, South Australia and Tasmania have been mapped to ICD-10-AM. Comparisons with data reported by the other jurisdictions in ICD-10-AM should be made cautiously, with reference to the classifications and maps, as appropriate.

2. Abbreviation: exp.—exposure to.

n.a. not available.

Table 9.4: Separations for males by external cause in ICD-10-AM groupings and age group, all hospitals, Australia, 1998–99

External cause		<1	1–4	5–14	15–24	25–34	35–44	45–54	55–64	65–74	75+	Total[(a)]
V01–V99	Transport accidents	37	692	5,525	9,954	6,590	4,264	2,644	1,545	1,113	920	33,284
W00–W19	Falls	461	3,733	10,870	6,256	4,507	4,085	3,866	3,382	4,204	9,090	50,454
W20–W64	Exposure to mechanical forces	222	2,960	5,919	11,135	10,164	7,232	5,229	3,096	1,816	921	48,694
W65–W74	Accidental drowning and submersion	26	164	44	57	40	34	19	15	12	5	416
W75–W84	Other accidental threats to breathing	64	94	49	22	35	31	54	45	66	45	505
W85–W99	Exp. electricity, radiation, extreme temperature/pressure	1	36	85	266	348	210	110	41	17	12	1,126
X00–X19	Exp. smoke, fire, flames, hot substances	182	772	482	688	544	428	299	159	103	119	3,776
X20–X39	Exp. venomous plants, animals, forces of nature	17	141	452	445	513	463	381	216	150	114	2,892
X40–X49	Accidental poisoning	145	1,662	298	1,416	1,483	1,032	516	242	203	176	7,173
X50–X59	Other external causes of accidental injury	80	543	1,967	5,520	4,558	3,352	2,455	1,331	876	871	21,553
X60–X84	Intentional self-harm	1	3	105	2,015	2,693	2,063	1,069	409	217	161	8,736
X85–Y09	Assault	96	96	358	4,801	4,271	2,494	1,065	400	132	84	13,798
Y10–Y34	Events of undetermined intent	7	26	59	339	324	211	115	60	25	19	1,185
Y35–Y36	Legal intervention and operations of war	0	0	1	16	15	7	3	3	1	0	46
Y40–Y84	Complications of medical and surgical care	323	873	1,325	2,188	2,828	3,172	4,067	5,210	7,130	6,233	33,349
Y85–Y98	Sequelae and supplementary factors	0	11	25	76	131	83	66	37	22	18	469
Total		**1,662**	**11,806**	**27,564**	**45,194**	**39,044**	**29,161**	**21,958**	**16,191**	**16,087**	**18,788**	**227,456**

(a) Includes separations for which age was not reported.

Note: Abbreviation: exp.—exposure to.

Table 9.5: Separations for females by external cause in ICD-10-AM groupings and age group, all hospitals, Australia, 1998–99

External cause		<1	1–4	5–14	15–24	25–34	35–44	45–54	55–64	65–74	75+	Total[(a)]
V01–V99	Transport accidents	43	485	2,533	3,798	2,437	1,850	1,480	1,079	1,030	1,299	16,034
W00–W19	Falls	416	2,879	6,534	1,762	1,968	2,502	3,445	4,320	8,194	29,707	61,727
W20–W64	Exposure to mechanical forces	154	2,146	2,802	2,310	1,974	1,987	1,569	981	761	1,178	15,862
W65–W74	Accidental drowning and submersion	18	72	30	12	13	10	8	3	4	4	174
W75–W84	Other accidental threats to breathing	48	73	28	9	11	17	35	29	23	81	354
W85–W99	Exp. electricity, radiation, extreme temperature/pressure	1	16	41	111	158	47	24	12	9	15	434
X00–X19	Exp. smoke, fire, flames, hot substances	126	602	231	204	192	200	120	93	101	171	2,040
X20–X39	Exp. venomous plants, animals, forces of nature	9	104	230	254	286	261	204	128	98	176	1,750
X40–X49	Accidental poisoning	113	1,482	287	1,460	1,179	972	557	239	193	296	6,778
X50–X59	Other external causes of accidental injury	67	388	1,111	1,571	1,517	1,527	1,331	1,084	1,202	2,305	12,103
X60–X84	Intentional self-harm	0	4	325	3,459	3,163	2,830	1,560	432	214	212	12,199
X85–Y09	Assault	102	89	128	1,207	1,512	996	367	125	64	93	4,683
Y10–Y34	Events of undetermined intent	4	21	41	240	230	203	88	40	28	55	950
Y35–Y36	Legal intervention and operations of war	0	0	1	2	2	1	0	1	0	0	7
Y40–Y84	Complications of medical and surgical care	169	429	1,111	1,981	3,175	4,531	4,890	4,497	5,627	6,671	33,081
Y85–Y98	Sequelae and supplementary factors	0	5	22	15	41	44	38	24	20	35	244
Total		**1,270**	**8,795**	**15,455**	**18,395**	**17,858**	**17,978**	**15,716**	**13,087**	**17,568**	**42,298**	**168,420**

(a) Includes separations for which age was not reported.

Note: Abbreviation: exp.—exposure to.

Table 9.6: Separations by external cause in ICD-10-AM groupings and place of occurrence, all hospitals, Australia, 1998–99

External cause		Home	Residential institution	School, other public area	Sports & athletics area	Street & highway	Trade & service area	Industrial & construc-tion area	Farm	Other specified places	Unspecified place	Total[(a)]
V01–V99	Transport accidents	668	13	20	978	10,099	17	61	656	1,618	5,074	49,318
W00–W19	Falls	41,084	5,570	2,379	9,204	3,618	2,562	1,211	646	10,900	31,641	112,181
W20–W64	Exposure to mechanical forces	14,075	244	620	5,863	471	1,205	4,568	1,515	7,200	26,735	64,556
W65–W74	Accidental drowning and submersion	213	1	2	72	0	3	0	5	236	42	590
W75–W84	Other accidental threats to breathing	413	27	9	2	1	4	3	4	54	330	859
W85–W99	Exp. electricity, radiation, extreme temperature/pressure	299	7	13	19	14	30	121	18	714	221	1,560
X00–X19	Exp. smoke, fire, flames, hot substances	2,751	23	17	31	63	72	125	77	371	1,512	5,816
X20–X39	Exp. venomous plants, animals, forces of nature	1,400	20	23	126	64	15	45	144	649	2,102	4,642
X40–X49	Accidental poisoning	7,305	138	74	70	157	203	149	155	650	4,648	13,951
X50–X59	Other external causes of accidental injury	2,926	276	181	3,935	185	268	509	130	1,911	22,611	33,656
X60–X84	Intentional self-harm	11,924	242	98	47	183	178	30	74	781	6,591	20,935
X85–Y09	Assault	2,832	200	171	233	1,260	1,193	67	42	1,590	9,196	18,481
Y10–Y34	Events of undetermined intent	728	43	23	29	28	35	10	1	72	1,140	2,133
Y35–Y36	Legal intervention and operations of war	4	0	0	0	4	0	0	0	5	7	53
Y40–Y84	Complications of medical and surgical care	977	80	67	11	23	6	29	21	4,899	19,499	66,432
Y85–Y98	Sequelae and supplementary factors	16	2	0	7	14	0	1	1	18	109	713
Total		**87,615**	**6,886**	**3,697**	**20,627**	**16,184**	**5,791**	**6,929**	**3,489**	**31,668**	**131,458**	**395,876**

(a) Includes separations for which place of occurrence was not reported.

Note: Abbreviation: exp.—exposure to.

Table 9.7: Separations by external cause in ICD-10-AM groupings and activity while injured[(a)], all hospitals, Australia, 1998–99

External cause		Sports activity	Leisure activity	Working for income	Other types of work	Resting, sleeping, eating, other vital activities	Other specified activities	Unspecified activity	Not stated	Total
V01–V99	Transport accidents	1,584	2,994	1,253	181	827	7,852	12,593	22,034	49,318
W00–W19	Falls	5,659	6,098	2,169	2,569	5,835	11,987	34,226	43,638	112,181
W20–W64	Exposure to mechanical forces	3,325	1,654	6,465	2,436	1,469	5,011	13,430	30,766	64,556
W65–W74	Accidental drowning and submersion	30	97	1	1	23	42	69	327	590
W75–W84	Other accidental threats to breathing	4	8	3	2	175	52	109	506	859
W85–W99	Exp. electricity, radiation, extreme temperature/pressure	48	37	184	39	11	68	192	981	1,560
X00–X19	Exp. smoke, fire, flames, hot substances	13	102	221	261	395	625	1,482	2,717	5,816
X20–X39	Exp. venomous plants, animals, forces of nature	51	158	116	119	89	264	1,101	2,744	4,642
X40–X49	Accidental poisoning	24	218	213	62	370	2,372	3,765	6,927	13,951
X50–X59	Other external causes of accidental injury	2,786	557	1,277	345	489	968	13,208	14,026	33,656
X60–X84	Intentional self-harm	88	45	8	17	78	7,658	4,351	8,690	20,935
X85–Y09	Assault	76	808	231	33	126	2,096	5,678	9,433	18,481
Y10–Y34	Events of undetermined intent	35	24	25	7	32	573	1,089	348	2,133
Y35–Y36	Legal intervention and operations of war	. .	. .	. .	. .	. .	. .	. .	53	53
Y40–Y84	Complications of medical and surgical care	. .	. .	. .	. .	. .	. .	. .	66,432	66,432
Y85–Y98	Sequelae and supplementary factors	. .	. .	. .	. .	. .	. .	. .	713	713
Total		**13,723**	**12,800**	**12,166**	**6,072**	**9,919**	**39,568**	**91,293**	**210,335**	**395,876**

(a) Separations reported in ICD-9-CM (which does not include activity codes) are included as 'not stated'.

Note: Abbreviation: exp.—exposure to.

. . not applicable.

Table 9.8: Separations by external cause and principal diagnosis in ICD-10-AM groupings, all hospitals, Australia, 1998–99

External cause		Injuries to head & neck (S00–S19)	Injuries to thorax, abdomen, back, spine & pelvis (S20–S39)	Injuries to upper & lower limbs (S40–S99)	Injuries to multi- or unspecified region; foreign body effects (T00–T19)	Burns & frostbite (T20–T35)	Poisoning & toxic effects (T36–T65)	Other & unspecified effects of external causes (T66–T79)	Complica-tions of medical & surgical care (T80–T88)	Other trauma complications; external cause sequelae (T89–T98)	Total
V01–V99	Transport accidents	15,319	9,316	22,797	1,473	167	20	186	22	18	49,318
W00–W19	Falls	20,266	12,060	77,797	1,684	20	18	159	168	9	112,181
W20–W64	Exposure to mechanical forces	11,270	2,469	43,136	6,555	423	85	475	59	84	64,556
W65–W74	Accidental drowning and submersion	39	12	26	3	0	2	508	0	0	590
W75–W84	Other accidental threats to breathing	11	5	5	797	1	1	37	2	0	859
W85–W99	Exp. electricity, radiation, extremes[a]	43	8	79	7	269	7	1,144	3	0	1,560
X00–X19	Exp. smoke, fire, flames, hot substances	19	8	53	7	5,374	288	59	7	1	5,816
X20–X39	Exp. venomous plants, animals[b]	21	9	181	28	27	3,658	709	8	1	4,642
X40–X49	Accidental poisoning	32	8	38	25	481	12,973	352	42	0	13,951
X50–X59	Other external causes of accidental injury	4,626	2,454	23,967	866	45	30	1,448	212	8	33,656
X60–X84	Intentional self-harm	310	354	1,656	120	138	18,084	257	11	5	20,935
X85–Y09	Assault	12,236	1,694	3,656	371	65	48	400	8	3	18,481
Y10–Y34	Events of undetermined intent	126	58	706	28	26	1,128	53	8	0	2,133
Y35–Y36	Legal intervention and operations of war	8	15	26	2	0	0	2	0	0	53
Y40–Y84	Complications of medical and surgical care	144	264	719	100	114	984	1,448	62,645	14	66,432
Y85–Y98	Sequelae and supplementary factors	83	56	251	24	2	17	67	153	60	713
Total		**64,553**	**28,790**	**175,093**	**12,090**	**7,152**	**37,343**	**7,304**	**63,348**	**203**	**395,876**

(a) Extreme temperature/pressure.

(b) Or forces of nature.

Note: Abbreviation: exp.—exposure to.

10 Australian Refined Diagnosis Related Groups for admitted patients

Introduction

Australian Refined Diagnosis Related Groups (AR-DRGs) is an Australian admitted patient classification system which provides 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 (Department of Health and Aged Care 1998). The classification categorises acute admitted patient episodes of care into groups with similar conditions and similar usage of hospital resources, using information in the hospital morbidity record such as the diagnoses, procedures and demographic characteristics of the patient.

This report uses AR-DRG version 4.0 for States and Territories for which diagnosis and procedure information was provided in ICD-9-CM, and AR-DRG version 4.1 for jurisdictions for which diagnosis and procedure information was provided in ICD-10-AM, for tables using AR-DRG based data in Chapters 2, 4, 5, and 10.

The AR-DRG classification is based on a description of body systems, a partition into medical, surgical and other groupings, and a hierarchy of procedures, medical problems and other factors that differentiate processes of care. The classification is partly hierarchical, with 23 Major Diagnostic Categories (MDCs) into which the 661 AR-DRGs can be grouped.

The MDCs are mostly defined by body system or disease type, and correspond with particular medical specialities (Department of Health and Aged Care 1998). In general, episodes are assigned to MDCs on the basis of the principal diagnosis. Some episodes involving procedures that are particularly resource intensive can also be assigned to the *Pre-MDC* category (AR-DRGs A01Z–A41Z), irrespective of the MDC assigned on the basis of principal diagnosis. Records for these episodes have been categorised separately in tables and figures based on MDCs in this chapter. Episodes with Error-DRGs (AR-DRGs 901Z–903Z, 961Z–963Z and 960Z, see Glossary) have been similarly categorised separately, even if they were assigned to an MDC.

Episodes are assigned to AR-DRGs within MDCs, primarily on the basis of the procedure codes (in the surgical partition) or the diagnosis codes (in the medical partition). For the assignment of AR-DRGs, the principal procedure is defined as the one with the highest resource intensity. This definition differs from the definition of principal procedure in the *National Health Data Dictionary* and used in Chapter 8. When more than one AR-DRG is associated with a cluster of closely-related procedures or diagnoses, other variables, such as the patient's age, complicating diagnoses/procedures and/or patient clinical complexity level, and the mode of separation, are used for AR-DRG assignment (Department of Health and Aged Care 1998).

The data were regrouped by the Institute, in consultation with the States and Territories, and the AR-DRGs that resulted from this regrouping are reported here.

The information in this chapter is presented using both levels of the AR-DRG classification:

- MDCs—these 23 groups are used to provide information aggregated at a high level (Figures 10.1 and 10.2, Tables 10.1 to 10.6);

- AR-DRGs—detailed information is presented for the 30 of the 661 AR-DRGs with the highest number of separations (Tables 10.7 to 10.14).

In addition, Table 10.15 presents summary statistics for the 30 AR-DRGs with the highest number of separations for public psychiatric hospitals.

All tables in this chapter include separations for which the type of episode of care was reported as *Acute*, *Newborn* (for separations with at least one qualified day) or was not reported. That is, separations for episode of care types *Rehabilitation*, *Palliative care*, *Non-acute care*, *Other care* and *Newborn* (for separations with unqualified days only) are excluded where they were able to be identified (see Table 5.11). Of the separations for which the type of episode of care was reported, 93.1% were reported as *Acute* (92.1%, 3,698,568 of 4,019,992 in the public sector and 95.2%, 1,771,556 of 1,861,633 in the private sector). For public psychiatric hospitals 84% of separations for which the type of episode of care was reported were *Acute*.

Tables are presented with summary separation, patient day and average length of stay statistics for public and private hospitals, nationally and by State and Territory. National information on age group and sex distributions is also presented.

The average length of stay figures were calculated using all separations for which lengths of stay were provided. That is, the data were not trimmed of separations with unusually long or short lengths of stay.

Some data for private hospitals in Tasmania and the Australian Capital Territory have not been included in Tables 10.4, 10.10 and 10.12. These data were supplied but are not published, for confidentiality reasons.

Cost weights and costs by volume

For each AR-DRG (version 4.0 and version 4.1 combined, see Appendix 4), cost weights were estimated for 1998–99 for the public and private sectors by the Department of Health and Aged Care, through the National Hospital Cost Data Collection (unpublished). The cost weights represent the costliness of an AR-DRG relative to all other AR-DRGs, such that the average cost weight for all separations is 1.00. The data collection also provided estimates of average costs for each separation for an AR-DRG with a cost weight of 1.00: $2,488 in the public sector and $1,870 in the private sector. Separate cost weights were estimated for the public and private sectors because of the differences in the range of costs recorded in public and private hospitals.

The *Cost by volume* figures in this chapter were derived for each AR-DRG by multiplying the estimated average cost for the AR-DRG by the number of separations for the AR-DRG. For MDCs, the cost estimates for all the AR-DRGs within the MDC were then summed to produce an estimated cost for the MDC.

The *Cost by volume* figures in this chapter are estimates only, intended for use as a guide to the approximate relative costs of hospital services during 1998–99. They should be used with caution in any comparisons of the States and Territories or the public and private sectors. They are not derived from, or comparable with, the expenditure and cost per casemix-adjusted separation information presented in Chapters 2 and 3.

Information based on the average cost weights of 1998–99 separations is included in Chapters 2, 4 and 5.

Appendix 10 includes further information on the National Hospital Cost Data Collection and its results for AR-DRG version 4.0/4.1 for 1998–99.

Major Diagnostic Categories

Figures 10.1 and 10.2 provide a summary of the numbers of separations and patient days reported for each of the MDCs by sector.

The MDC with the highest number of separations in the public sector was *Diseases and disorders of the kidney and urinary tract* (MDC 11), followed by *Diseases and disorders of the digestive system* (MDC 06). In the private sector, *Diseases and disorders of the digestive system* (MDC 06) had the largest number of separations, followed by *Diseases and disorders of the musculoskeletal system and connective tissue* (MDC 08). For the public sector the highest numbers of patient days were reported for the *Diseases and disorders of the circulatory system* (MDC 05) and *Mental diseases and disorders* (MDC 19) MDCs. The *Diseases and disorders of the musculoskeletal system and connective tissue* (MDC 08) and *Diseases and disorders of the digestive system* (MDC 06) MDCs accounted for the highest numbers of patient days in the private sector. For the public and private sectors combined, the two MDCs with the most separations were *Diseases and disorders of the digestive system* (MDC 06) and *Diseases and disorders of the kidney and urinary tract* (MDC 11). The largest numbers of patient days were reported for the *Diseases and disorders of the musculoskeletal system and connective tissue* (MDC 08) and *Diseases and disorders of the circulatory system* (MDC 05) MDCs.

The average lengths of stay varied by MDC and hospital sector (Tables 10.1 and 10.2). In the public sector, they ranged from 28.8 days for the *Pre-MDC* group to 1.5 days for *Diseases and disorders of the kidney and urinary tract* (MDC 11) and *Diseases and disorders of the eye* (MDC 02). In the private sector, the longest average length of stay was 26.9 days for the *Pre-MDC* group, and the shortest was 1.1 days, for *Diseases and disorders of the eye* (MDC 02).

Notable differences between hospital sectors were for *Pregnancy, childbirth and puerperium* (MDC 14), where the average length of stay was higher for private hospitals (4.0 days) than public hospitals (3.0 days), *Newborns and other neonates* (MDC 15), where the average length of stay was higher in public hospitals (8.2 days) than private hospitals (6.5 days), *Infectious and parasitic diseases,* (MDC 18), where the average length of stay was higher for private hospitals (6.1 days) than public hospitals (4.8 days), *Mental diseases and disorders* (MDC 19), where the average length of stay was higher for public hospitals (11.3 days) than private hospitals (5.7 days), and *Alcohol/drug use and alcohol/drug induced organic mental disorders* (MDC 20), where the average length of stay was higher for private hospitals (5.6 days) than public hospitals (4.7 days). A variety of factors could be responsible for such discrepancies, for example different patient populations (and numbers of separations for AR-DRGs within the MDCs), patterns of service provision, facilities available, treatment regimes and reporting practices.

The cost by volume data for MDCs in Tables 10.1 and 10.2 show that the costliest MDC in the public sector was estimated to be *Diseases and disorders of the circulatory system* (MDC 05). In the private sector it was *Diseases and disorders of the musculoskeletal system and connective tissue* (MDC 08).

States and Territories

Tables 10.3 to 10.6 contain detail on the number of separations and patient days by MDC in the States and Territories. These tables enable State by State comparisons of overall hospital use for the different MDCs, and the share of separations between the private and public sectors. For example, the proportion of total separations for *Diseases and disorders of the respiratory system* (MDC 04) in private hospitals (rather than public hospitals) was higher in Queensland (27%, 16,143) than in the other jurisdictions, for example, New South Wales (13%, 13,587). The proportion of total patient days for *Pregnancy, childbirth and the puerperium* (MDC 14) that was in private hospitals (rather than public hospitals) was 29%

overall (423,181), but varied between States and Territories, for example, 24% in South Australia (27,001), 27% in New South Wales (130,717) and 37% in Western Australia (55,307).

The distributions of separations and patient days by MDC within the States and Territories were broadly consistent with those at the national level. Notable exceptions in the public sector included *Neoplastic disorders* (MDC 17) in the Northern Territory (0.6% of separations, 341, compared with a national average of 4.4%, 165,764) and *Diseases and disorders of the kidney and urinary tract* (MDC 11) in the Australian Capital Territory (21.5%, 12,383, compared with 14.6%, 546,695). In the private sector, South Australia and Western Australia reported fewer separations for *Diseases and disorders of the digestive system* (MDC 06) (15.5% of separations, 22,855, and 15.3% of separations, 28,315 respectively, compared with 18.5%, 339,028, nationally).

Australian Refined Diagnosis Related Groups

Tables 10.7 to 10.14 present information on the most commonly reported AR-DRGs. Tables 10.7 and 10.8 contain summary separation, patient day and average length of stay statistics for the 30 AR-DRGs with the most separations in public and private hospitals.

In the public sector in 1998–99 *Admit for renal dialysis* (AR-DRG L61Z) was the most common AR-DRG, accounting for 11.3% (422,846) of total separations (Table 10.7). Other leading
AR-DRGs included *Chemotherapy* (AR-DRG R63Z) with 3.3% (122,355), and *Vaginal delivery without complicating diagnosis* (AR-DRG O60D) with 2.9% (110,375) of total public sector separations. The corresponding top three AR-DRGs in the private sector were *Other colonoscopy, sameday* (AR-DRG G44C) with 6.5% (119,459) of total separations, *Other gastroscopy for non-major digestive disease, sameday* (AR-DRG G45B) with 4.9% (89,032), and *Chemotherapy* (AR-DRG R63Z) with 4.1% (74,658) (Table 10.8).

Of the 10 AR-DRGs with the most separations for the public sector, four were not included in the top 30 for the private sector, namely *Bronchitis and asthma age <50 without complications and comorbidities* (AR-DRG E69C), *Other antenatal admission with moderate or no complicating disorder* (AR-DRG O65B), *chest pain* (AR-DRG F74Z) and *Oesophagitis, Gastroenteritis and miscellaneous digestive system disorders age >9 without catastrophic severe complication or comorbidity* (AR-DRG G67B). On the other hand, only one of the leading 10 AR-DRGs in the private sector, *Knee procedures* (AR-DRG I18Z) was missing from the top 30 for the public sector.

Among the 30 AR-DRGs with the most separations for the public sector, there were three which were among the top 10 in terms of the most patient days. Similarly, for the private sector, there were six AR-DRGs among the 30 AR-DRGs with the most separations that were also in the top 10 AR-DRGs in terms of patient days. Within the top 30, average lengths of stay ranged from 6.0 days for *Heart failure and shock without catastrophic complication or comorbidity* (AR-DRG F62B) in the public sector to 1 day for eleven different AR-DRGs in the private sector and six in the public sector.

The highest costs in public hospitals were estimated to be for *Vaginal delivery without complicating diagnosis* (AR-DRG O60D) followed by *Admit for renal dialysis* (AR-DRG L61Z). In the private sector, the costliest AR-DRGs in the top 30 were estimated to be *Major lens procedures* (AR-DRG C08Z) and *Other colonoscopy, sameday* (AR-DRG G44C).

States and Territories

There was some variation between the States and Territories in the relative number of separations for the most common AR-DRGs (Tables 10.9 and 10.10). For example, in the

public sector in the Northern Territory and the Australian Capital Territory, *Admit for renal dialysis* (AR-DRG L61Z) accounted for a markedly greater proportion of separations than the national average (32.7%, 17,786, and 19.0%, 10,937, respectively, compared with 11.3%, 422,846).

In the private sector, examples of differences include separations in the Australian Capital Territory, *Other gastroscopy for non-major digestive disease, sameday* (AR-DRG G45B) which accounted for a lower proportion of total separations than the national average (0.6%, 94, compared with 4.9%, 89,032), and *Other colonoscopy, sameday* (AR-DRG G44C) (0.9%, 157, compared with 6.5%, 119,459). In South Australia, *Myringotomy with tube insertion* (AR-DRG D13Z) accounted for 1.2% of separations (1,840), compared with the national average of 0.7% (12,374).

The average lengths of stay were mainly similar among the States and Territories (Tables 10.11 and 10.12). However, there was some variation. In the public sector, *Other factors influencing health status age <80 without complication or comorbidity* (AR-DRG Z64B) ranged from 5.3 in the Northern Territory to 1.4 in the Australian Capital Territory and *Heart failure and shock without catastrophic complication and comorbidity* (AR-DRG F62B) ranged from 5.2 days in the Northern Territory to 6.8 days Tasmania. In the private sector, variation in lengths of stay was evident for AR-DRGs such as *Skin, subcutaneous tissue and breast plastic operating room procedures* (AR-DRG J10Z) and *Hysterectomy for non-malignancy* (AR-DRG N04Z).

Age group and sex

Tables 10.13 and 10.14 summarise separations by age group and sex for the 30 leading AR-DRGs. Sixteen of the top 30 AR-DRGs were common to both sexes, while some others were more sex-specific (for example, *Vaginal delivery without complicating diagnosis* (AR-DRG O60D). *Admit for renal dialysis* (AR-DRG L61Z) was the most commonly reported AR-DRG for both sexes, with the most separations in the 65 to 74 years age group.

The age distributions varied by AR-DRG. For example, *Tonsillectomy or adenoidectomy* (AR-DRG D11Z) was most commonly reported for males and females in the 5 to 14 years age group. *Knee procedures* (AR-DRG I18Z) was most commonly reported for males in the 35 to 44 years age group and for females in the 45 to 54 years age group, and 54.9% of separations (52,974) for *Major lens procedure* (AR-DRG C08Z) were for persons over the age of 75 years.

Additional data

The accompanying tables on the Internet at http://www.aihw.gov.au/publications/health/ ahs98-9.html provide national and State and Territory summary statistics for public and private hospitals for each AR-DRG (version 4.0/4.1) and AN-DRG (version 3.1) (as presented for the top 30 AR-DRGs in Tables 10.7 and 10.8). Information provided in ICD-10-AM was mapped backwards to ICD-9-CM before being grouped to AN-DRG version 3.1. For confidentiality, data for some AR-DRGs in the private sector have been suppressed. The information was suppressed if there were fewer than 50 private hospital separations reported for the AR-DRG and fewer than three reporting units (hospitals, or States or Territories where the hospitals were not individually identified), or there were three reporting units and one contributed more than 85% of the total separations, or two contributed more than 90% of the separations for the AR-DRG.

Public psychiatric hospitals

Information on AR-DRGs for patients of public psychiatric hospitals was supplied by all States and Territories. Most of these 17,465 separations had AR-DRGs reported that were within the *Mental diseases and disorders* and *Alcohol/drug use and alcohol/drug induced organic mental disorders* MDCs (AR-DRGs beginning with U or V, respectively) (Table 10.15). *Schizophrenia disorders with mental health legal status* (AR-DRG U61A) accounted for the most separations and the most patient days. *Major affective disorders age <70 without catastrophic or severe complication or comorbidity* (AR-DRG U63B) ranked second for separations and *Dementia and other chronic disturbances of cerebral function* (AR-DRG B63Z) for patient days.

The average length of stay was long for most of these AR-DRGs and only 8.3% (1,441) of separations were same day separations, compared with 44.9% in public hospitals overall. The average length of stay for *Schizophrenia disorders with mental health legal status* (AR-DRG U61A) in public psychiatric hospitals was 85.6 days and the average length of stay for *Major affective disorders age <70 without catastrophic or sever comorbidity or complication* (AR-DRG 843) was 21.9 days.

Separations in public psychiatric hospitals include some with very long lengths of stay, up to several years. Hence the average lengths of stay should be interpreted taking into consideration the inclusion of some very long stay separations. The median lengths of stay were markedly shorter than the average lengths of stay for *Schizophrenia disorders* (AR-DRG U61A) (19 days) and *Major affective disorders* (AR-DRG U63B) (13 days) and for *Dementia and other chronic disturbances of cerebral function* (AR-DRG B63Z) (34 days, compared with the average length of stay of 100.3 days). (By definition, half the separations have a shorter length of stay and half have a longer length of stay than the median.)

Error DRGs

Error DRGs are the groups to which records containing clinically inconsistent or invalid information are assigned. Group 1 Error DRGs, 901Z, 902Z and 903Z, are assigned when all the operating room procedures are unrelated to the MDC of the patient's principal diagnosis. Group 2 Error DRGs, 961Z, 962Z and 963Z, are assigned when a principal diagnosis is coded which will not allow the patient to be assigned to a clinically coherent DRG. Group 3 Error DRG, 960Z, is assigned when the principal diagnosis is invalid, or when other necessary information is incorrect or missing (Department of Health and Aged Care 1998).

Table 10.16 provides information on Group 1 Error DRGs for the 10 principal procedures with the highest number of separations, by hospital sector and State and Territory. Table 10.17 provides information on Group 2 Error DRGs, for the 10 principal diagnoses with the highest number of separations, by hospital sector and State and Territory. A higher number of separations was assigned to Error DRGs for public hospitals (60.5%, 7,448 for Group 1 and 41.5%, 1,653 for Group 2) than for private hospitals (39.5%, 4,870 for Group 1 and 58.5%, 3,978, for Group 2). Variation in the assignment of separations to Error DRGs is evident between the States and Territories. This is partly attributable to some States and Territories providing data in ICD-9-CM and others in ICD-10-AM. For example, no separations were assigned to Group 1 Error DRGs for Queensland, Western Australia, South Australia and Tasmania, for the principal procedure *Arteriovenous anastomosis of upper limb* (ICD-10-AM code 34509-01) (Table 10.16). In this case, *Arteriovenous anastomosis of upper limb* is not included in the historical forward maps, which map ICD-9-CM codes to ICD-10-AM. The most likely ICD-9-CM code for this procedure (39.29, *Other vascular shunt bypass)* maps forward to ICD-10-AM code 32763-00, *Other arterial bypass using vein*.

There were more separations assigned to Group 1 Error DRGs for the four ICD-9-CM States than for the jurisdictions that submitted data in ICD-10-AM for the principal procedure *Repair of wound of eyelid* (ICD-10-AM code 30052-01). This is most likely because more specific codes exist for this procedure in ICD-9-CM. The ICD-9-CM codes 08.81 *(Linear repair of laceration of eyelid or eyebrow*) to 08.85 (*Other repair of laceration of eyelid, full-thickness*) all map forward to ICD-10-AM code 30052-01. Thus, for the ICD-9-CM States, separations assigned to Group 1 Error DRGs, with a procedure code between 08.81 and 08.85 would be included here.

Figure 10.3 shows Error DRGs as a percentage of all separations, by State and Territory. Group 3 Error DRGs accounted for the lowest proportion of separations assigned to Error DRGs, while Group 1 Error DRGs accounted for the highest proportion.

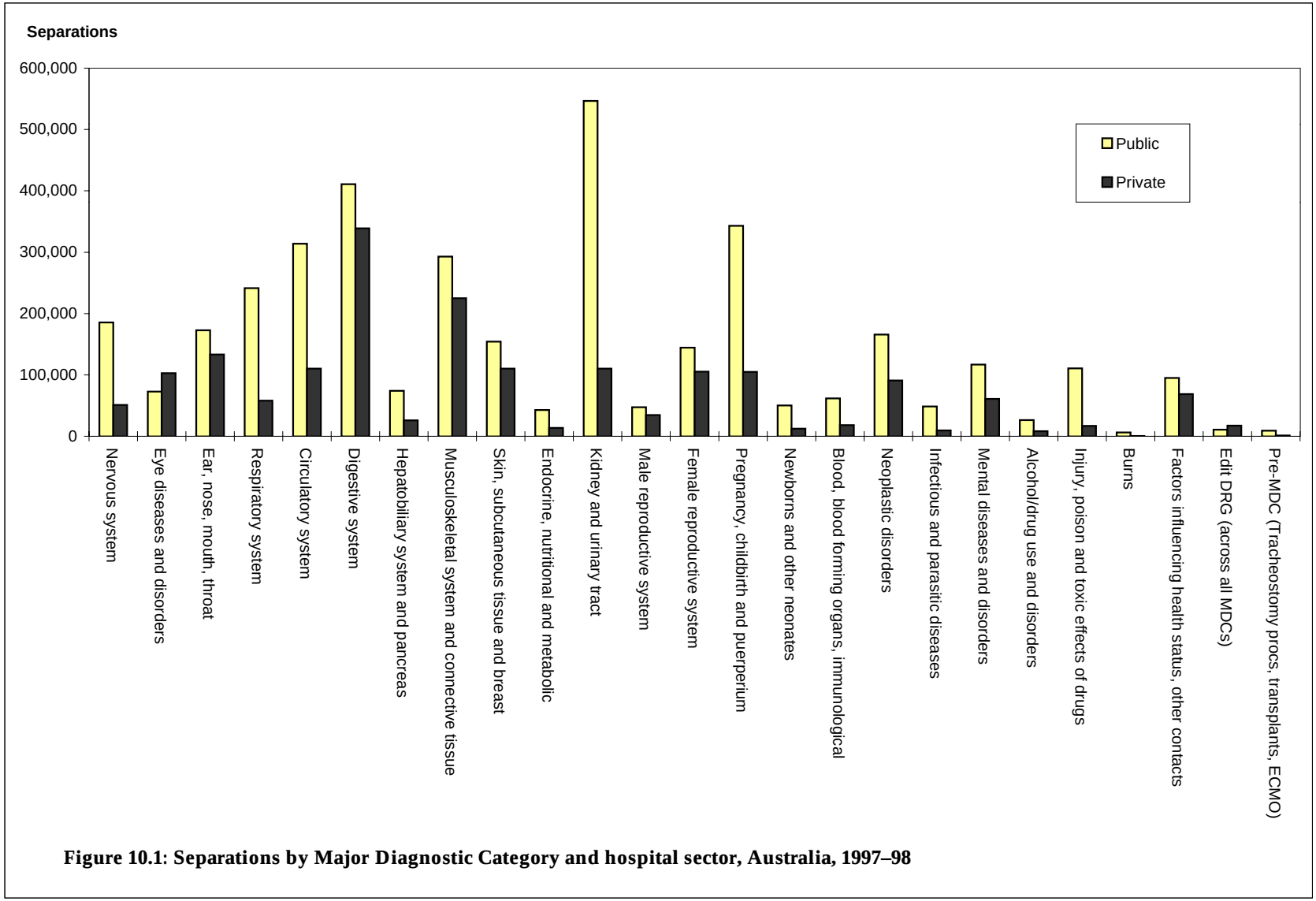

Figure 10.1: Separations by Major Diagnostic Category and hospital sector, Australia, 1997–98

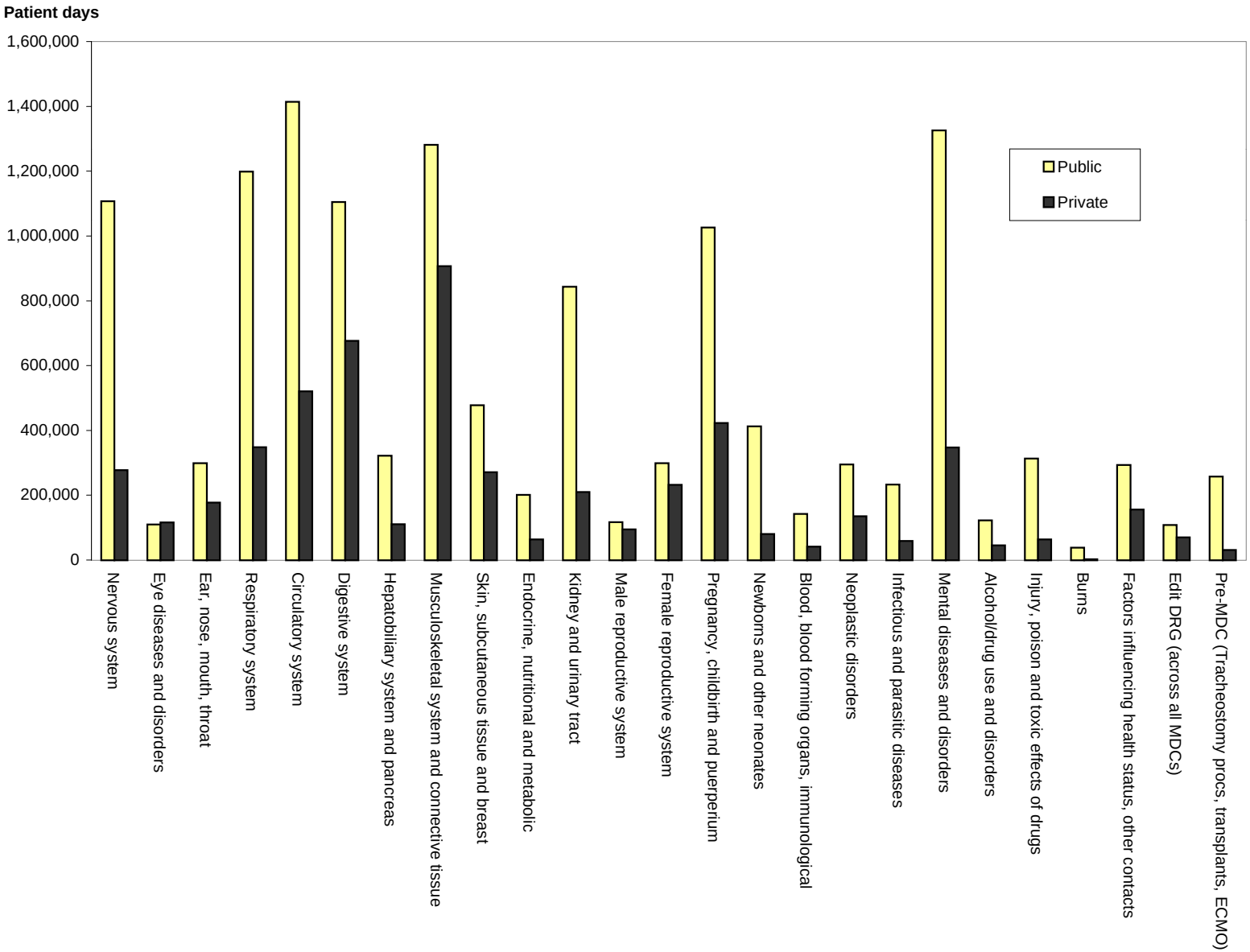

Figure 10.2: Patient days by Major Diagnostic Category and hospital sector, Australia, 1997–98

Table 10.1: Separation, same day separation, patient day, average length of stay and cost statistics by Major Diagnostic Category, public hospitals[(a)], Australia, 1998–99

Major Diagnostic Category		Separations	Same day separations	Per cent same day separations	Separations per 10,000 population	Patient days	Patient days per 10,000 population	ALOS (days)	(days) excluding same day	Cost by volume ($'000)
01	Diseases and disorders of the nervous system	185,572	53,919	29.1	98.4	1,107,149	587.3	6.0	8.0	640,560
02	Diseases and disorders of the eye	72,940	51,028	70.0	38.7	109,721	58.2	1.5	2.7	139,923
03	Diseases and disorders of the ear, nose, mouth and throat	172,796	76,840	44.5	91.7	298,792	158.5	1.7	2.3	266,741
04	Diseases and disorders of the respiratory system	241,363	31,506	13.1	128.0	1,198,323	635.7	5.0	5.6	726,049
05	Diseases and disorders of the circulatory system	313,583	62,962	20.1	166.3	1,414,273	750.2	4.5	5.4	1,212,997
06	Diseases and disorders of the digestive system	410,796	196,043	47.7	217.9	1,105,035	586.2	2.7	4.2	815,222
07	Diseases and disorders of the hepatobiliary system and pancreas	74,065	12,962	17.5	39.3	321,899	170.8	4.3	5.1	260,032
08	Diseases and disorders of the musculoskeletal system and connective tissue	292,678	98,906	33.8	155.3	1,281,275	679.7	4.4	6.1	1,045,549
09	Diseases and disorders of the skin, subcutaneous tissue and breast	154,089	78,283	50.8	81.7	478,029	253.6	3.1	5.3	321,691
10	Endocrine, nutritional and metabolic diseases and disorders	42,690	9,067	21.2	22.6	201,084	106.7	4.7	5.7	131,208
11	Diseases and disorders of the kidney and urinary tract	546,695	469,802	85.9	290.0	843,275	447.3	1.5	4.9	493,166
12	Diseases and disorders of the male reproductive system	47,342	25,393	53.6	25.1	116,445	61.8	2.5	4.1	94,990
13	Diseases and disorders of the female reproductive system	144,334	89,949	62.3	76.6	299,190	158.7	2.1	3.8	255,047
14	Pregnancy, childbirth and puerperium	342,792	79,197	23.1	181.8	1,026,386	544.5	3.0	3.6	738,103
15	Newborns and other neonates	50,290	4,863	9.7	26.7	412,248	218.7	8.2	9.0	285,191
16	Diseases and disorders of the blood and blood-forming organs, and immunological disorders	61,663	39,623	64.3	32.7	142,267	75.5	2.3	4.7	97,763
17	Neoplastic disorders (haematological and solid neoplasms)	165,764	146,373	88.3	87.9	294,748	156.4	1.8	7.7	216,146
18	Infectious and parasitic diseases	48,549	9,246	19.0	25.8	233,253	123.7	4.8	5.7	157,171
19	Mental diseases and disorders	116,947	31,282	26.7	62.0	1,325,481	703.1	11.3	15.1	421,048
20	Alcohol/drug use and alcohol/drug induced organic mental disorders	26,161	5,331	20.4	13.9	122,277	64.9	4.7	5.6	51,556
21	Injuries, poisoning and toxic effects of drugs	110,636	39,722	35.9	58.7	313,438	166.3	2.8	3.9	258,149
22	Burns	6,339	1,523	24.0	3.4	38,344	20.3	6.0	7.6	37,970
23	Factors influencing health status and other contacts with health services	95,058	64,939	68.3	50.4	293,462	155.7	3.1	7.6	151,402
ED	Error DRGs	10,665	3,155	29.6	5.7	107,836	57.2	10.1	13.9	64,677
PR	Pre-MDC (tracheostomies, transplants, ECMO)	8,933	209	2.3	4.7	257,332	136.5	28.8	29.5	408,981
Total		**3,742,740**	**1,682,123**	**44.9**	**1985.4**	**13,341,562**	**7,077.3**	**3.6**	**5.7**	**9,291,331**

(a) Separations for which the type of episode of care was reported as acute, or newborn with qualified patient days, or was not reported.

Note: Abbreviations: ALOS—Average length of stay, MDC—Major Diagnostic Category, DRG—Diagnosis Related Group, ECMO—extracorporeal membrane oxygenation.

Table 10.2: Separation, same day separation, patient day, average length of stay and cost statistics by Major Diagnostic Category, private hospitals[(a)], Australia, 1998–99

Major Diagnostic Category		Separations	Same day separations	Per cent same day separations	Separations per 10,000 population	Patient days	Patient days per 10,000 population	ALOS (days)	(days) excluding same day	Cost by volume ($'000)
01	Diseases and disorders of the nervous system	50,892	16,946	33.3	27.0	277,615	147.3	5.5	7.7	126,656
02	Diseases and disorders of the eye	102,986	77,216	75.0	54.6	116,376	61.7	1.1	1.5	149,495
03	Diseases and disorders of the ear, nose, mouth and throat	133,332	77,765	58.3	70.7	177,285	94.0	1.3	1.8	158,752
04	Diseases and disorders of the respiratory system	57,948	4,361	7.5	30.7	348,257	184.7	6.0	6.4	122,229
05	Diseases and disorders of the circulatory system	110,344	19,766	17.9	58.5	521,011	276.4	4.7	5.5	358,782
06	Diseases and disorders of the digestive system	339,028	248,204	73.2	179.8	676,090	358.6	2.0	4.7	382,246
07	Diseases and disorders of the hepatobiliary system and pancreas	26,099	2,326	8.9	13.8	110,313	58.5	4.2	4.5	69,243
08	Diseases and disorders of the musculoskeletal system and connective tissue	225,086	83,480	37.1	119.4	906,510	480.9	4.0	5.8	641,702
09	Diseases and disorders of the skin, subcutaneous tissue and breast	110,291	67,015	60.8	58.5	270,907	143.7	2.5	4.7	179,299
10	Endocrine, nutritional and metabolic diseases and disorders	13,713	2,655	19.4	7.3	63,701	33.8	4.6	5.5	35,153
11	Diseases and disorders of the kidney and urinary tract	110,029	80,944	73.6	58.4	209,542	111.2	1.9	4.4	104,732
12	Diseases and disorders of the male reproductive system	34,477	17,037	49.4	18.3	94,766	50.3	2.7	4.5	53,065
13	Diseases and disorders of the female reproductive system	105,137	69,583	66.2	55.8	232,253	123.2	2.2	4.6	157,075
14	Pregnancy, childbirth and puerperium	104,942	30,944	29.5	55.7	423,181	224.5	4.0	5.3	214,779
15	Newborns and other neonates	12,258	1,516	12.4	6.5	80,060	42.5	6.5	7.3	35,905
16	Diseases and disorders of the blood and blood-forming organs, and immunological disorders	17,982	10,743	59.7	9.5	41,151	21.8	2.3	4.2	19,393
17	Neoplastic disorders (haematological and solid neoplasms)	90,827	82,879	91.2	48.2	134,765	71.5	1.5	6.5	72,931
18	Infectious and parasitic diseases	9,631	1,112	11.5	5.1	58,489	31.0	6.1	6.7	20,662
19	Mental diseases and disorders	60,762	40,456	66.6	32.2	346,956	184.0	5.7	15.1	65,088
20	Alcohol/drug use and alcohol/drug induced organic mental disorders	8,068	3,787	46.9	4.3	44,928	23.8	5.6	9.6	9,454
21	Injuries, poisoning and toxic effects of drugs	16,972	4,585	27.0	9.0	63,614	33.7	3.7	4.8	31,940
22	Burns	368	67	18.2	0.2	2,312	1.2	6.3	7.5	923
23	Factors influencing health status and other contacts with health services	68,482	55,957	81.7	36.3	155,720	82.6	2.3	8.0	71,761
ED	Error DRGs	17,203	9,153	53.2	9.1	69,782	37.0	4.1	7.5	44,458
PR	Pre-MDC (tracheostomies, transplants, ECMO)	1,147	37	3.2	0.6	30,819	16.3	26.9	27.7	44,262
Total		**1,828,004**	**1,008,534**	**55.2**	**979.6**	**5,456,403**	**2,924.1**	**3.0**	**5.4**	**3,169,982**

(a) Separations for which the type of episode of care was reported as acute, or newborn with qualified patient days, or was not reported.

Note: Abbreviations: ALOS—Average length of stay, MDC—Major Diagnostic Category, DRG—Diagnosis Related Group, ECMO—extracorporeal membrane oxygenation.

Table 10.3: Separations by Major Diagnostic Category, public hospitals[(a)], States and Territories, 1998–99

Major Diagnostic Category		NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
01	Diseases and disorders of the nervous system	62,868	47,107	32,170	18,418	17,228	3,817	2,451	1,513	185,572
02	Diseases and disorders of the eye	24,616	19,420	11,220	8,015	7,797	634	578	660	72,940
03	Diseases and disorders of the ear, nose, mouth and throat	54,237	43,164	33,925	16,513	17,344	3,014	2,624	1,975	172,796
04	Diseases and disorders of the respiratory system	89,502	52,794	43,692	20,299	24,396	4,170	2,701	3,809	241,363
05	Diseases and disorders of the circulatory system	114,272	75,169	56,186	24,897	29,357	6,697	4,653	2,352	313,583
06	Diseases and disorders of the digestive system	145,193	95,279	73,311	41,400	38,110	7,837	5,761	3,905	410,796
07	Diseases and disorders of the hepatobiliary system and pancreas	27,047	18,353	13,107	6,129	6,284	1,312	1,104	729	74,065
08	Diseases and disorders of the musculoskeletal system and connective tissue	100,146	70,432	54,399	27,395	26,362	6,447	4,357	3,140	292,678
09	Diseases and disorders of the skin, subcutaneous tissue and breast	48,152	34,219	32,807	14,441	17,444	3,331	1,788	1,907	154,089
10	Endocrine, nutritional and metabolic diseases and disorders	13,097	11,244	8,279	3,518	4,199	1,228	531	594	42,690
11	Diseases and disorders of the kidney and urinary tract	162,284	157,294	86,811	56,526	40,345	12,000	12,383	19,052	546,695
12	Diseases and disorders of the male reproductive system	17,014	12,956	6,353	4,609	4,540	888	506	476	47,342
13	Diseases and disorders of the female reproductive system	44,393	40,028	26,256	13,298	14,593	2,450	1,776	1,540	144,334
14	Pregnancy, childbirth and puerperium	114,176	87,362	61,452	28,340	32,792	7,273	4,940	6,457	342,792
15	Newborns and other neonates	16,951	13,635	8,566	3,226	4,927	947	867	1,171	50,290
16	Diseases and disorders of the blood and blood-forming organs, and immunological disorders	18,658	15,993	9,739	6,403	7,730	1,879	913	348	61,663
17	Neoplastic disorders (haematological and solid neoplasms)	42,300	49,226	31,447	16,489	15,815	4,982	5,164	341	165,764
18	Infectious and parasitic diseases	18,069	10,764	9,621	4,254	3,700	984	493	664	48,549
19	Mental diseases and disorders	34,732	29,060	21,917	13,704	12,356	3,576	901	701	116,947
20	Alcohol/drug use and alcohol/drug induced organic mental disorders	10,994	4,022	5,754	2,992	1,701	331	137	230	26,161
21	Injuries, poisoning and toxic effects of drugs	34,389	23,394	29,015	10,723	8,883	1,840	1,014	1,378	110,636
22	Burns	1,937	1,207	1,457	786	652	126	47	127	6,339
23	Factors influencing health status and other contacts with health services	27,475	23,613	19,939	8,797	10,483	2,389	1,523	839	95,058
ED	Error DRGs	4,143	3,377	872	811	612	358	145	347	10,665
PR	Pre-MDC (tracheostomies, transplants, ECMO)	2,805	2,483	1,564	740	878	189	174	100	8,933
Total		**1,229,450**	**941,595**	**679,859**	**352,723**	**348,528**	**78,699**	**57,531**	**54,355**	**3,742,740**

(a) Separations for which the type of episode of care was reported as acute, or newborn with qualified patient days, or was not reported.

Note: Abbreviations: MDC—Major Diagnostic Category, DRG—Diagnosis Related Group, ECMO—extracorporeal membrane oxygenation.

Table 10.4: Separations by Major Diagnostic Category, private[(a)] hospitals, States and Territories, 1998–99

Major Diagnostic Category		NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
01	Diseases and disorders of the nervous system	11,815	13,659	12,749	5,812	4,746	n.p.	n.p.	n.a.	50,892
02	Diseases and disorders of the eye	38,516	20,302	25,265	9,243	5,958	n.p.	n.p.	n.a.	102,986
03	Diseases and disorders of the ear, nose, mouth and throat	39,576	33,473	26,362	15,142	13,943	n.p.	n.p.	n.a.	133,332
04	Diseases and disorders of the respiratory system	13,587	15,416	16,143	5,510	5,318	n.p.	n.p.	n.a.	57,948
05	Diseases and disorders of the circulatory system	30,209	31,083	25,920	10,123	9,612	n.p.	n.p.	n.a.	110,344
06	Diseases and disorders of the digestive system	106,869	92,219	79,847	28,315	22,855	n.p.	n.p.	n.a.	339,028
07	Diseases and disorders of the hepatobiliary system and pancreas	7,585	6,373	6,036	2,718	2,270	n.p.	n.p.	n.a.	26,099
08	Diseases and disorders of the musculoskeletal system and connective tissue	68,007	55,865	40,144	26,833	24,082	n.p.	n.p.	n.a.	225,086
09	Diseases and disorders of the skin, subcutaneous tissue and breast	35,307	26,531	24,427	9,553	10,884	n.p.	n.p.	n.a.	110,291
10	Endocrine, nutritional and metabolic diseases and disorders	3,559	3,801	3,026	1,451	1,381	n.p.	n.p.	n.a.	13,713
11	Diseases and disorders of the kidney and urinary tract	30,239	31,408	23,905	8,517	13,263	n.p.	n.p.	n.a.	110,029
12	Diseases and disorders of the male reproductive system	11,589	9,276	6,080	3,505	2,207	n.p.	n.p.	n.a.	34,477
13	Diseases and disorders of the female reproductive system	35,150	27,228	21,302	9,974	6,921	n.p.	n.p.	n.a.	105,137
14	Pregnancy, childbirth and puerperium	37,662	23,793	18,678	14,284	5,820	n.p.	n.p.	n.a.	104,942
15	Newborns and other neonates	3,618	3,159	1,841	1,409	586	n.p.	n.p.	n.a.	12,258
16	Diseases and disorders of the blood and blood forming organs, and immunological disorders	3,872	4,915	5,351	1,860	1,430	n.p.	n.p.	n.a.	17,982
17	Neoplastic disorders (haematological and solid neoplasms)	17,164	29,144	26,139	9,131	7,584	n.p.	n.p.	n.a.	90,827
18	Infectious and parasitic diseases	2,339	2,135	2,800	1,129	808	n.p.	n.p.	n.a.	9,631
19	Mental diseases and disorders	12,377	22,913	10,413	11,276	1,215	n.p.	n.p.	n.a.	60,762
20	Alcohol/drug use and alcohol/drug induced organic mental disorders	1,732	3,426	1,828	714	152	n.p.	n.p.	n.a.	8,068
21	Injuries, poisoning and toxic effects of drugs	3,589	4,198	4,074	2,477	1,878	n.p.	n.p.	n.a.	16,972
22	Burns	84	83	88	52	51	n.p.	n.p.	n.a.	368
23	Factors influencing health status and other contacts with health services	22,803	16,207	18,333	4,948	4,347	n.p.	n.p.	n.a.	68,482
ED	Error DRGs	3,510	11,626	1,055	402	380	n.p.	n.p.	n.a.	17,203
PR	Pre-MDC (tracheostomies, transplants, ECMO)	242	299	378	76	127	n.p.	n.p.	n.a.	1,147
Total		**541,000**	**488,532**	**402,184**	**184,454**	**147,818**	**n.p.**	**n.p.**	**n.a.**	**1,828,004**

(a) Separations for which the type of episode of care was reported as acute, or newborn with qualified patient days, or was not reported.

Note: Abbreviations: MDC—Major Diagnostic Category, DRG—Diagnosis Related Group, ECMO—extracorporeal membrane oxygenation.

n.a. not available.

n.p. not published.

Table 10.5: Patient days by Major Diagnostic Category, public hospitals[(a)], States and Territories, 1998–99

Major Diagnostic Category		NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
01	Diseases and disorders of the nervous system	366,994	269,636	183,707	144,781	97,413	22,870	13,421	8,327	1,107,149
02	Diseases and disorders of the eye	40,168	25,391	17,693	12,437	10,583	1,137	959	1,353	109,721
03	Diseases and disorders of the ear, nose, mouth and throat	102,280	68,392	55,141	28,477	30,430	5,650	4,503	3,919	298,792
04	Diseases and disorders of the respiratory system	465,486	261,043	202,068	97,022	113,892	23,593	15,157	20,062	1,198,323
05	Diseases and disorders of the circulatory system	549,434	317,750	244,994	107,976	128,664	31,595	22,363	11,497	1,414,273
06	Diseases and disorders of the digestive system	414,101	253,152	179,464	105,456	102,589	21,201	15,963	13,109	1,105,035
07	Diseases and disorders of the hepatobiliary system and pancreas	125,422	78,126	51,390	25,895	25,497	6,766	4,899	3,904	321,899
08	Diseases and disorders of the musculoskeletal system and connective tissue	477,297	292,866	211,261	126,475	105,750	28,685	21,963	16,978	1,281,275
09	Diseases and disorders of the skin, subcutaneous tissue and breast	173,538	108,593	84,750	43,595	45,969	9,016	4,833	7,735	478,029
10	Endocrine, nutritional and metabolic diseases and disorders	65,220	47,997	38,229	17,380	19,192	5,114	2,575	5,377	201,084
11	Diseases and disorders of the kidney and urinary tract	274,335	221,721	141,734	81,766	65,701	17,790	16,794	23,434	843,275
12	Diseases and disorders of the male reproductive system	44,469	29,637	16,144	9,519	10,967	2,594	1,881	1,234	116,445
13	Diseases and disorders of the female reproductive system	99,429	76,376	51,155	30,113	29,303	5,433	4,512	2,869	299,190
14	Pregnancy, childbirth and puerperium	360,534	253,187	171,987	94,772	87,284	20,784	16,982	20,856	1,026,386
15	Newborns and other neonates	129,372	108,443	75,037	32,337	37,588	10,026	9,617	9,828	412,248
16	Diseases and disorders of the blood and blood-forming organs, and immunological disorders	48,899	35,169	21,688	13,197	15,916	3,678	2,367	1,353	142,267
17	Neoplastic disorders (haematological and solid neoplasms)	92,600	79,757	51,825	26,230	28,442	7,148	7,798	948	294,748
18	Infectious and parasitic diseases	85,402	58,315	41,772	20,195	15,826	4,768	2,848	4,127	233,253
19	Mental diseases and disorders	509,425	274,548	209,022	171,406	111,882	31,965	10,932	6,301	1,325,481
20	Alcohol/drug use and alcohol/drug induced organic mental disorders	56,392	16,043	23,843	14,722	7,837	1,879	559	1,002	122,277
21	Injuries, poisoning and toxic effects of drugs	102,287	66,823	70,931	30,657	25,954	6,457	4,656	5,673	313,438
22	Burns	11,612	7,499	7,176	5,803	3,930	1,083	284	957	38,344
23	Factors influencing health status and other contacts with health services	89,085	75,043	51,947	19,556	34,552	12,750	5,821	4,708	293,462
ED	Error DRGs	34,454	30,931	7,320	8,894	6,455	15,869	1,579	2,334	107,836
PR	Pre-MDC (tracheostomies, transplants, ECMO)	83,769	67,411	46,115	20,472	25,819	4,597	6,061	3,088	257,332
Total		**4,802,004**	**3,123,849**	**2,256,393**	**1,289,133**	**1,187,435**	**302,448**	**199,327**	**180,973**	**13,341,562**

(a) Separations for which the type of episode of care was reported as acute, or newborn with qualified patient days, or was not reported.

Note: Abbreviations: MDC—Major Diagnostic Category, DRG—Diagnosis Related Group, ECMO—extracorporeal membrane oxygenation.

Table 10.6: Patient days by Major Diagnostic Category, private hospitals[(a)], States and Territories, 1998–99

Major Diagnostic Category	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
01 Diseases and disorders of the nervous system	63,338	79,660	72,303	23,337	26,867	9,674	2,436	n.a.	277,615
02 Diseases and disorders of the eye	42,313	22,852	28,477	11,333	6,823	3,499	1,079	n.a.	116,376
03 Diseases and disorders of the ear, nose, mouth and throat	50,376	44,761	35,834	20,224	19,301	4,555	2,234	n.a.	177,285
04 Diseases and disorders of the respiratory system	73,785	95,726	101,674	32,164	31,348	9,684	3,876	n.a.	348,257
05 Diseases and disorders of the circulatory system	133,721	150,159	136,466	42,951	44,790	11,143	1,781	n.a.	521,011
06 Diseases and disorders of the digestive system	186,158	182,427	165,828	64,847	54,699	17,655	4,476	n.a.	676,090
07 Diseases and disorders of the hepatobiliary system and pancreas	29,488	28,855	26,226	10,997	10,199	3,394	1,154	n.a.	110,313
08 Diseases and disorders of the musculoskeletal system and connective tissue	264,961	224,432	186,477	99,491	87,800	31,835	11,514	n.a.	906,510
09 Diseases and disorders of the skin, subcutaneous tissue and breast	81,114	69,866	59,782	25,108	25,000	7,952	2,085	n.a.	270,907
10 Endocrine, nutritional and metabolic diseases and disorders	14,692	17,500	16,039	6,047	6,729	2,280	414	n.a.	63,701
11 Diseases and disorders of the kidney and urinary tract	54,227	58,442	48,451	17,788	22,003	6,228	2,403	n.a.	209,542
12 Diseases and disorders of the male reproductive system	30,134	24,362	18,371	8,774	6,804	4,087	2,234	n.a.	94,766
13 Diseases and disorders of the female reproductive system	71,455	58,977	44,404	25,314	19,767	7,441	4,895	n.a.	232,253
14 Pregnancy, childbirth and puerperium	130,717	107,356	81,984	55,307	27,001	12,489	8,327	n.a.	423,181
15 Newborns and other neonates	23,234	18,449	14,815	11,094	3,390	2,137	6,941	n.a.	80,060
16 Diseases and disorders of the blood and blood-forming organs, and immunological disorders	8,367	11,433	11,797	4,345	3,919	994	296	n.a.	41,151
17 Neoplastic disorders (haematological and solid neoplasms)	26,871	41,729	39,477	12,387	11,026	1,910	1,365	n.a.	134,765
18 Infectious and parasitic diseases	12,871	15,027	16,870	6,166	4,898	2,151	506	n.a.	58,489
19 Mental diseases and disorders	78,750	107,385	88,223	43,025	15,478	9,114	4,981	n.a.	346,956
20 Alcohol/drug use and alcohol/drug induced organic mental disorders	11,688	17,080	9,686	4,183	944	1,208	139	n.a.	44,928
21 Injuries, poisoning and toxic effects of drugs	13,836	17,891	14,938	7,705	6,146	2,294	804	n.a.	63,614
22 Burns	705	512	473	311	211	39	61	n.a.	2,312
23 Factors influencing health status and other contacts with health services	48,457	33,326	35,148	9,400	20,972	6,720	1,697	n.a.	155,720
ED Error DRGs	10,227	44,021	9,208	2,774	2,239	849	464	n.a.	69,782
PR Pre-MDC (tracheostomies, transplants, ECMO)	5,445	8,111	10,060	1,802	4,534	749	118	n.a.	30,819
Total	**1,466,930**	**1,480,339**	**1,273,011**	**546,874**	**462,888**	**160,081**	**66,280**	**n.a.**	**5,456,403**

(a) Separations for which the type of episode of care was reported as acute, or newborn with qualified patient days, or was not reported.

Note: Abbreviations: MDC—Major Diagnostic Category, DRG—Diagnosis Related Group, ECMO—extracorporeal membrane oxygenation.

n.a. not available.

Table 10.7: Separation, same day separation, patient day, average length of stay and cost statistics for the 30 AR-DRGs version 4.0/4.1 with the highest number of separations, public hospitals[(a)], Australia, 1998–99

AR-DRG		Separations	Same day separations	Per cent same day separations	Separations per 10,000 population	Patient days	Patient days per 10,000 population	ALOS (days)	Cost by volume ($'000)	Rank by patient days
L61Z	Admit for Renal Dialysis	422,846	422,115	99.8	224.3	423,647	224.7	1.0	186,898	1
R63Z	Chemotherapy	122,355	122,005	99.7	64.9	122,970	65.2	1.0	74,147	12
O60D	Vaginal Delivery W/O Complicating Diagnosis	110,375	3,853	3.5	58.6	340,976	180.9	3.1	252,980	3
G45B	Other Gastroscopy for Non-Major Digestive Disease, Sameday	64,590	64,590	100.0	34.3	64,590	34.3	1.0	45,084	34
G44C	Other Colonoscopy, Sameday	60,027	60,027	100.0	31.8	60,027	31.8	1.0	47,962	39
O65B	diagnosis	40,164	17,402	43.3	21.3	69,697	37.0	1.7	42,855	32
G67B	Oesophagitis, gastroent, misc dig systm disders age>9 w/o cat/sev	39,869	12,150	30.5	21.1	86,633	46.0	2.2	47,045	22
E69C	Bronchitis and Asthma Age<50 W/O CC	39,276	6,350	16.2	20.8	77,159	40.9	2.0	50,980	29
F74Z	Chest Pain	37,565	12,106	32.2	19.9	71,699	38.0	1.9	50,562	31
O40Z	Abortion W D&C, Aspiration Curettage or Hysterotomy	37,438	28,247	75.5	19.9	40,242	21.3	1.1	33,807	70
J11Z	Other Skin, Subcutaneous Tissue and Breast Procedures	36,620	31,401	85.7	19.4	47,995	25.5	1.3	48,558	60
C08Z	Major Lens Procedures	33,142	27,522	83.0	17.6	35,557	18.9	1.1	65,091	83
Z64B	Other Factors Influencing Health Status Age<80	30,032	17,689	58.9	15.9	101,142	53.7	3.4	43,036	17
G66B	Abdominal Pain or Mesenteric Adenitis W/O CC	29,522	10,076	34.1	15.7	49,923	26.5	1.7	29,994	49
Z40Z	Follow Up After Completed Treatment W Endoscopy	29,343	28,213	96.1	15.6	30,083	16.0	1.0	24,325	104
Q61C	Red Blood Cell Disorders W/O Catastrophic or Severe CC	29,238	22,088	75.5	15.5	43,383	23.0	1.5	27,571	65
N09Z	Conisation, Vagina, Cervix and Vulva Procedures	27,872	24,081	86.4	14.8	32,882	17.4	1.2	26,952	94
X60C	Injuries Age < 65	27,268	15,022	55.1	14.5	40,157	21.3	1.5	27,077	71
J64B	Cellulitis (Age>59 W/O Catastrophic or Severe CC) or Age<60	26,972	3,227	12.0	14.3	106,352	56.4	3.9	59,177	16
F72B	Unstable Angina W/O Catastrophic or Severe CC	25,845	2,878	11.1	13.7	84,609	44.9	3.3	57,298	25
X62B	Poisoning/toxic effects of drug, other substances age<60 w/o CC	25,511	10,348	40.6	13.5	36,803	19.5	1.4	26,404	80
U60Z	Mental Health Treatment, Sameday, W/O ECT	25,448	25,448	100.0	13.5	25,448	13.5	1.0	12,851	139
E62C	Respiratry Infectn/Inflammations W/O CC	25,039	2,059	8.2	13.3	96,157	51.0	3.8	55,336	19
F62B	Heart Failure and Shock W/O Catastrophic CC	24,977	2,090	8.4	13.2	150,720	80.0	6.0	81,175	9
N08Z	Endoscopic Procedures for Female Reproductive System	24,825	21,464	86.5	13.2	27,382	14.5	1.1	32,273	126
D40Z	Dental Extraction and Restorations	24,553	22,428	91.3	13.0	26,126	13.9	1.1	33,466	132
D63B	Otitis Media and URI W/O CC	24,103	5,620	23.3	12.8	46,411	24.6	1.9	28,176	62
O65A	Other Antenatal Admission W Severe Complicating Diagnosis	23,341	10,180	43.6	12.4	55,008	29.2	2.4	29,106	42
D11Z	Tonsillectomy or Adenoidectomy	23,172	3,669	15.8	12.3	28,468	15.1	1.2	32,232	114
N10Z	Diagnostic Curettage or Diagnostic Hysteroscopy	23,043	21,189	92.0	12.2	24,706	13.1	1.1	20,416	145
	Other	2,228,369	626,586	28.1	1,182.1	10,894,610	5,779.3	4.9	7,718,911	. .
Total		**3,742,740**	**1,682,123**	**44.9**	**1,985.4**	**13,341,562**	**7,077.3**	**3.6**	**9,291,331**	. .

(a) Separations for which the type of episode of care was reported as acute, or newborn with qualified patient days, or was not reported.

Note: 1. Main abbreviations: ALOS—average length of stay, W—with, W/O—without, CC—complications and comorbidities.

2. Similar tables for all AR-DRGs are provided on the Internet at http://www.aihw.gov.au/publications/health/ahs98-9.html for Australia and each State and Territory.

. . not applicable.

Table 10.8: Separation, same day separation, patient day, average length of stay and cost statistics for the 30 AR-DRGs version 4.0/4.1 with the highest number of separations, private hospitals[(a)], Australia, 1998–99

AR-DRG		Separations	Same day separations	Per cent same day separations	Separations per 10,000 population	Patient days	Patient days per 10,000 population	ALOS (days)	Cost by volume ($'000)	Rank by patient days
G44C	Other Colonoscopy, Sameday	119,459	119,459	100.0	63.4	119,459	63.4	1.0	79,201	2
G45B	Other Gastroscopy for Non-Major Digestive Disease, Sameday	89,032	89,032	100.0	47.2	89,032	47.2	1.0	51,282	5
R63Z	Chemotherapy	74,658	74,378	99.6	39.6	74,995	39.8	1.0	47,035	7
C08Z	Major Lens Procedures	63,202	47,283	74.8	33.5	67,556	35.8	1.1	91,896	9
L61Z	Admit for Renal Dialysis	52,696	52,669	99.9	28.0	52,748	28.0	1.0	18,971	13
D40Z	Dental Extraction and Restorations	51,843	44,201	85.3	27.5	53,091	28.2	1.0	54,435	12
I18Z	Knee Procedures	50,490	31,736	62.9	26.8	65,824	34.9	1.3	70,232	11
U60Z	Mental Health Treatment, Sameday, W/O ECT	39,085	39,085	100.0	20.7	39,085	20.7	1.0	9,341	20
Z40Z	Follow Up After Completed Treatment W Endoscopy	38,222	36,704	96.0	20.3	38,923	20.6	1.0	24,806	21
O60D	Vaginal Delivery W/O Complicating Diagnosis	31,829	165	0.5	16.9	158,150	83.9	5.0	73,620	1
J11Z	Other Skin, Subcutaneous Tissue and Breast Procedures	31,085	27,147	87.3	16.5	37,582	19.9	1.2	33,447	26
N07Z	Other Uterine and Adnexa Procedures for Non-Malignancy	27,244	22,543	82.7	14.5	32,774	17.4	1.2	34,327	34
O40Z	Abortion W D&C, Aspiration Curettage or Hysterotomy	25,950	24,349	93.8	13.8	26,329	14.0	1.0	23,952	46
F42B	Circ disorders W/O AMI W invas card inves proc W/O complex dx/pr	19,544	8,021	41.0	10.4	30,179	16.0	1.5	34,397	38
G09Z	Inguinal and Femoral Hernia Procedures Age>0	18,300	1,694	9.3	9.7	38,194	20.3	2.1	30,195	24
D11Z	Tonsillectomy or Adenoidectomy	17,678	3,597	20.3	9.4	20,197	10.7	1.1	18,297	73
G42B	Other Gastroscopy for Major Digestive Disease, Sameday	16,788	16,788	100.0	8.9	16,788	8.9	1.0	10,157	87
J10Z	Skin, Subcutaneous Tissue and Breast Plastic O.R. Procedures	15,684	9,464	60.3	8.3	23,142	12.3	1.5	26,882	58
N10Z	Diagnostic Curettage or Diagnostic Hysteroscopy	15,671	14,638	93.4	8.3	16,171	8.6	1.0	11,785	93
I68C	Non-surg neck & back conditions w pain management proc/myelogra	15,531	10,123	65.2	8.2	30,551	16.2	2.0	17,814	37
L41Z	Cystourethroscopy W/O CC	15,513	12,641	81.5	8.2	18,090	9.6	1.2	14,318	79
G11B	Anal and Stomal Procedures W/O Catastrophic or Severe CC	14,916	7,727	51.8	7.9	27,207	14.4	1.8	17,675	44
I16Z	Other Shoulder Procedures	14,149	1,133	8.0	7.5	32,511	17.2	2.3	29,076	35
I26Z	Other Wrist and Hand Procedures	13,705	8,499	62.0	7.3	17,090	9.1	1.2	17,954	83
H04B	Cholecystectomy W/O Closed CDE W/O Catastrophic or Severe CC	13,594	55	0.4	7.2	37,362	19.8	2.7	34,094	27
N04Z	Hysterectomy for Non-Malignancy	13,137	31	0.2	7.0	74,845	39.7	5.7	40,738	8
J08B	Other Skin graft and/or Debridement Procs w/o cat/severe CC	12,906	9,243	71.6	6.8	19,234	10.2	1.5	18,094	76
D13Z	Myringotomy W Tube Insertion	12,374	12,158	98.3	6.6	12,457	6.6	1.0	9,194	117
N09Z	Conisation, Vagina, Cervix and Vulva Procedures	12,126	10,676	88.0	6.4	14,000	7.4	1.2	10,137	106
I23Z	Local excision & removal of internal fixation device excl hip, femur	11,852	7,107	60.0	6.3	16,425	8.7	1.4	15,099	89
	Other	879,741	266,191	30.3	466.7	4,156,412	2,204.9	4.7	2,201,529	. .
Total		**1,828,004**	**1,008,537**	**55.2**	**979.6**	**5,456,403**	**2,924.1**	**3.0**	**3,169,982**	**. .**

(a) Separations for which the type of episode of care was reported as acute, or newborn with qualified patient days, or was not reported.

Note: 1. Main abbreviations: ALOS—average length of stay, W—with, W/O—without, CC—complications and comorbidities.

2. Similar tables for all AN-DRGs for Australia and each State and Territory are provided on the Internet at http://www.aihw.gov.au/publications/health/ahs98–9.html

. . not applicable

Table 10.9: Separations for the 30 AR-DRGs version 4.0/4.1 with the highest number of separations[(a)], public hospitals, States and Territories 1998–99

AR-DRG	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
L61Z Admit for Renal Dialysis	119,087	127,435	64,282	44,427	29,156	9,736	10,937	17,786	422,846
R63Z Chemotherapy	29,466	36,096	23,490	13,292	11,553	4,024	4,175	259	122,355
O60D Vaginal Delivery W/O Complicating Diagnosis	41,384	27,411	19,851	8,879	7,337	1,990	2,027	1,496	110,375
G45B Other Gastroscopy for Non-Major Digestive Disease, Sameday	20,050	16,428	11,448	7,484	5,867	1,583	1,086	644	64,590
G44C Other Colonoscopy, Sameday	21,342	12,515	10,634	7,785	5,060	1,191	1,062	438	60,027
O65B Other Antenatal Admission W Moderate or No Complicating Diagnosis	11,072	10,480	8,783	3,219	4,360	934	332	984	40,164
G67B Oesophagitis, Gastroent and Misc Digestive Systm Disorders Age>9 W/O Cat/Sev CC	14,948	8,026	7,920	3,621	4,250	635	220	249	39,869
E69C Bronchitis and Asthma Age<50 W/O CC	15,248	7,535	7,168	3,939	4,128	436	427	395	39,276
F74Z Chest Pain	15,357	8,996	6,690	1,971	3,378	368	401	404	37,565
O40Z Abortion W D&C, Aspiration Curettage or Hysterotomy	10,358	10,652	4,113	2,773	7,033	900	359	1,250	37,438
J11Z Other Skin, Subcutaneous Tissue and Breast Procedures	10,618	7,729	9,138	3,361	4,297	756	501	220	36,620
C08Z Major Lens Procedures	11,981	9,143	4,210	3,562	3,703	68	283	192	33,142
Z64B Other Factors Influencing Health Status Age<80	7,686	7,409	6,514	2,719	3,905	895	496	408	30,032
G66B Abdominal Pain or Mesenteric Adenitis W/O CC	11,266	6,952	5,664	2,464	2,215	472	292	197	29,522
Z40Z Follow Up After Completed Treatment W Endoscopy	9,027	7,062	5,492	3,360	3,085	645	499	173	29,343
Q61C Red Blood Cell Disorders W/O Catastrophic or Severe CC	8,692	8,256	4,007	2,940	3,844	1,016	370	113	29,238
N09Z Conisation, Vagina, Cervix and Vulva Procedures	7,161	7,637	6,954	1,732	3,223	503	317	345	27,872
X60C Injuries Age < 65	7,983	4,303	10,305	2,273	1,462	289	103	550	27,268
J64B Cellulitis (Age>59 W/O Catastrophic or Severe CC) or Age<60	8,747	5,121	6,691	2,915	1,835	544	269	850	26,972
F72B Unstable Angina W/O Catastrophic or Severe CC	9,249	6,784	5,484	1,289	1,867	604	299	269	25,845
X62B Poisoning/Toxic Effects of Drugs & Other Substances Age<60 W/O CC	7,773	5,792	6,189	2,635	2,276	457	211	178	25,511
U60Z Mental Health Treatment, Sameday, W/O ECT	9,155	4,731	4,149	4,342	2,732	216	68	55	25,448
E62C Respiratry Infectn/Inflammations W/O CC	10,348	4,650	4,440	2,060	1,954	368	429	790	25,039
F62B Heart Failure and Shock W/O Catastrophic CC	9,485	6,414	3,840	2,004	2,348	456	220	210	24,977
N08Z Endoscopic Procedures for Female Reproductive System	7,619	6,418	4,039	3,065	2,454	504	337	389	24,825
D40Z Dental Extraction and Restorations	6,155	6,905	5,581	2,369	1,917	833	423	370	24,553
D63B Otitis Media and URI W/O CC	9,452	3,701	5,288	2,417	2,187	390	363	305	24,103
O65A Other Antenatal Admission W Severe Complicating Diagnosis	8,581	7,342	2,855	1,183	2,341	351	224	464	23,341
D11Z Tonsillectomy or Adenoidectomy	7,536	6,924	3,777	2,001	2,127	247	436	124	23,172
N10Z Diagnostic Curettage or Diagnostic Hysteroscopy	7,158	7,026	4,170	1,726	2,131	294	295	243	23,043
Other	755,466	545,722	406,693	204,916	214,503	46,994	30,070	24,005	2,228,369
Total	**1,229,450**	**941,595**	**679,859**	**352,723**	**348,528**	**78,699**	**57,531**	**54,355**	**3,742,740**

(a) Separations for which the type of episode of care was reported as acute, or newborn with qualified patient days, or was not reported.

Note: Main abbreviations: W—with, W/O—without, CC—complications and comorbidities.

Table 10.10: Separations for the 30 AR-DRGs version 4.0/4.1 with the highest number of separations[(a)] private hospitals, States and Territories, 1998–99

AR-DRG		NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
G44C	Other Colonoscopy, Sameday	40,398	32,200	27,994	9,100	7,391	2,219	157	n.a.	119,459
G45B	Other Gastroscopy for Non-Major Digestive Disease, Sameday	27,596	27,745	20,054	5,957	5,536	2,050	94	n.a.	89,032
R63Z	Chemotherapy	14,222	23,851	20,795	8,132	6,475	468	715	n.a.	74,658
C08Z	Major Lens Procedures	24,522	12,538	15,483	4,324	3,872	n.p.	n.p.	n.a.	63,202
L61Z	Admit for Renal Dialysis	11,908	17,758	11,084	3,030	8,916	0	0	n.a.	52,696
D40Z	Dental Extraction and Restorations	14,752	14,090	9,752	6,949	4,510	n.p.	n.p.	n.a.	51,843
I18Z	Knee Procedures	17,609	12,539	6,886	5,620	5,935	1,145	756	n.a.	50,490
U60Z	Mental Health Treatment, Sameday, W/O ECT	7,914	16,065	4,705	8,638	30	n.p.	n.p.	n.a.	39,085
Z40Z	Follow Up After Completed Treatment W Endoscopy	15,407	9,589	7,445	2,937	1,894	853	97	n.a.	38,222
O60D	Vaginal Delivery W/O Complicating Diagnosis	10,026	8,184	6,008	3,807	2,148	n.p.	n.p.	n.a.	31,829
J11Z	Other Skin, Subcutaneous Tissue and Breast Procedures	11,485	6,839	6,299	2,482	3,064	728	188	n.a.	31,085
N07Z	Other Uterine and Adnexa Procedures for Non-Malignancy	9,176	7,765	6,063	1,835	1,264	676	465	n.a.	27,244
O40Z	Abortion W D&C, Aspiration Curettage or Hysterotomy	14,656	3,670	2,210	4,205	749	340	120	n.a.	25,950
F42B	Circulatory Disorders W/O AMI W Invasive Cardiac Inves Proc W/O Complex D	7,384	4,458	4,110	1,843	1,429	n.p.	n.p.	n.a.	19,544
G09Z	Inguinal and Femoral Hernia Procedures Age>0	6,049	4,521	3,596	1,879	1,432	530	293	n.a.	18,300
D11Z	Tonsillectomy or Adenoidectomy	6,013	3,523	3,980	1,933	1,598	364	267	n.a.	17,678
G42B	Other Gastroscopy for Major Digestive Disease, Sameday	5,895	4,999	3,675	1,088	924	n.p.	n.p.	n.a.	16,788
J10Z	Skin, Subcutaneous Tissue and Breast Plastic O.R. Procedures	5,285	3,743	3,791	1,274	1,179	287	125	n.a.	15,684
N10Z	Diagnostic Curettage or Diagnostic Hysteroscopy	5,340	4,267	2,629	1,401	1,331	387	316	n.a.	15,671
I68C	Non-surgical Neck & Back Conditions W Pain Management Proc/Myelogram	3,390	3,317	1,898	3,756	2,037	n.p.	n.p.	n.a.	15,531
L41Z	Cystourethroscopy W/O CC	6,074	3,827	2,734	1,379	805	508	186	n.a.	15,513
G11B	Anal and Stomal Procedures W/O Catastrophic or Severe CC	5,846	3,192	2,867	1,515	993	377	126	n.a.	14,916
I16Z	Other Shoulder Procedures	4,582	3,381	2,223	1,705	1,799	229	230	n.a.	14,149
I26Z	Other Wrist and Hand Procedures	4,262	3,772	2,391	1,358	1,379	369	174	n.a.	13,705
H04B	Cholecystectomy W/O Closed CDE W/O Catastrophic or Severe CC	4,700	3,103	2,762	1,388	1,054	409	178	n.a.	13,594
N04Z	Hysterectomy for Non-Malignancy	3,992	2,937	2,664	1,524	1,259	432	329	n.a.	13,137
J08B	Other Skin Graft and/or Debridement Procedures W/O Catastrophic or Severe C	4,048	2,226	3,706	636	2,049	169	72	n.a.	12,906
D13Z	Myringotomy W Tube Insertion	3,518	3,499	1,786	1,232	1,840	333	166	n.a.	12,374
N09Z	Conisation, Vagina, Cervix and Vulva Procedures	4,313	3,273	2,206	916	883	362	173	n.a.	12,126
I23Z	Local Excision and Removal of Internal Fixation Device Excl Hip and Femur	3,902	2,931	1,944	1,450	924	494	207	n.a.	11,852
	Other	236,736	234,730	208,444	91,161	73,119	26,057	9,494	n.a.	879,741
Total		**541,000**	**488,532**	**402,184**	**184,454**	**147,818**	**47,166**	**16,850**	**n.a.**	**1,828,004**

(a) Separations for which the type of episode of care was reported as acute, or newborn with qualified patient days, or was not reported.

Note: Main abbreviations: W—with, W/O—without, CC—complications and comorbidities.

n.a. not available.

n.p. not published.

Table 10.11: Average length of stay (days) for the 30 AR-DRGs version 4.0/4.1 with the highest number of separations, public hospitals[(a)], States and Territories, 1998–99

AR-DRG		NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
L61Z	Admit for Renal Dialysis	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
R63Z	Chemotherapy	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
O60D	Vaginal Delivery W/O Complicating Diagnosis	3.1	3.2	2.8	3.2	3.1	3.1	2.9	3.7	3.1
G45B	Other Gastroscopy for Non-Major Digestive Disease, Sameday	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
G44C	Other Colonoscopy, Sameday	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
O65B	Other Antenatal Admission W Moderate or No Complicating Diagnosis	1.9	1.6	1.6	2.1	1.5	1.6	2.5	1.7	1.7
G67B	Oesophagitis, Gastroent and Misc Digestive Systm Disorders Age>9 W/O Cat/Sev CC	2.3	2.1	2.0	2.2	2.0	2.6	2.7	2.7	2.2
E69C	Bronchitis and Asthma Age<50 W/O CC	2.0	1.8	2.0	2.0	2.1	2.0	2.3	2.2	2.0
F74Z	Chest Pain	2.0	1.6	2.0	1.8	1.9	2.3	1.9	2.5	1.9
O40Z	Abortion W D&C, Aspiration Curettage or Hysterotomy	1.1	1.0	1.1	1.1	1.1	1.1	1.2	1.1	1.1
J11Z	Other Skin, Subcutaneous Tissue and Breast Procedures	1.4	1.3	1.2	1.3	1.2	1.3	1.3	2.1	1.3
C08Z	Major Lens Procedures	1.1	1.1	1.1	1.1	1.1	1.1	1.0	1.1	1.1
Z64B	Other Factors Influencing Health Status Age<80	4.2	3.4	2.9	1.6	3.3	5.0	1.4	5.3	3.4
G66B	Abdominal Pain or Mesenteric Adenitis W/O CC	1.7	1.5	1.7	1.8	1.9	1.8	1.9	2.1	1.7
Z40Z	Follow Up After Completed Treatment W Endoscopy	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Q61C	Red Blood Cell Disorders W/O Catastrophic or Severe CC	1.7	1.3	1.5	1.4	1.4	1.4	1.6	2.3	1.5
N09Z	Conisation, Vagina, Cervix and Vulva Procedures	1.2	1.2	1.1	1.2	1.1	1.1	1.1	1.2	1.2
X60C	Injuries Age < 65	1.6	1.4	1.3	1.8	1.5	1.7	2.5	2.3	1.5
J64B	Cellulitis (Age>59 W/O Catastrophic or Severe CC) or Age<60	4.5	4.3	3.2	3.6	3.5	3.0	5.0	4.1	3.9
F72B	Unstable Angina W/O Catastrophic or Severe CC	3.5	2.9	3.4	2.6	3.3	3.8	3.5	3.9	3.3
X62B	Poisoning/Toxic Effects of Drugs & Other Substances Age<60 W/O CC	1.5	1.3	1.4	1.3	1.5	1.7	1.9	1.6	1.4
U60Z	Mental Health Treatment, Sameday, W/O ECT	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
E62C	Respiratry Infectn/Inflammations W/O CC	4.0	3.7	3.6	3.5	3.8	4.1	3.8	4.4	3.8
F62B	Heart Failure and Shock W/O Catastrophic CC	6.7	5.4	5.6	5.6	5.9	6.8	6.3	5.2	6.0
N08Z	Endoscopic Procedures for Female Reproductive System	1.1	1.1	1.1	1.1	1.2	1.1	1.1	1.1	1.1
D40Z	Dental Extraction and Restorations	1.1	1.1	1.1	1.1	1.0	1.1	1.1	1.2	1.1
D63B	Otitis Media and URI W/O CC	2.0	1.9	1.7	2.0	1.8	2.2	2.4	2.2	1.9
O65A	Other Antenatal Admission W Severe Complicating Diagnosis	2.4	2.1	2.5	3.1	2.1	2.4	4.3	3.1	2.4
D11Z	Tonsillectomy or Adenoidectomy	1.3	1.2	1.2	1.3	1.3	1.2	1.2	1.1	1.2
N10Z	Diagnostic Curettage or Diagnostic Hysteroscopy	1.1	1.0	1.1	1.1	1.1	1.1	1.2	1.2	1.1
	Other	5.2	4.6	4.5	5.2	4.6	5.3	5.3	5.5	4.9
Total		**3.9**	**3.3**	**3.3**	**3.7**	**3.4**	**3.8**	**3.5**	**3.3**	**3.6**

(a) Separations for which the type of episode of care was reported as acute, or newborn with qualified patient days, or was not reported.

Note: Main abbreviations: W—with, W/O—without, CC—complications and comorbidities.

Table 10.12: Average length of stay (days) for the 30 AR-DRGs version 4.0/4.1 with the highest number of separations, private hospitals[(a)], States and Territories, 1998–99

AR-DRG		NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
G44C	Other Colonoscopy, Sameday	1.0	1.0	1.0	1.0	1.0	1.0	1.0	n.a.	1.0
G45B	Other Gastroscopy for Non-Major Digestive Disease, Sameday	1.0	1.0	1.0	1.0	1.0	1.0	1.0	n.a.	1.0
R63Z	Chemotherapy	1.0	1.0	1.0	1.0	1.0	1.0	1.0	n.a.	1.0
C08Z	Major Lens Procedures	1.1	1.0	1.1	1.2	1.0	n.p.	n.p.	n.a.	1.1
L61Z	Admit for Renal Dialysis	1.0	1.0	1.0	1.0	1.0	. .	. .	n.a.	1.0
D40Z	Dental Extraction and Restorations	1.0	1.0	1.0	1.1	1.0	n.p.	n.p.	n.a.	1.1
I18Z	Knee Procedures	1.2	1.3	1.3	1.4	1.4	1.3	1.2	n.a.	1.3
U60Z	Mental Health Treatment, Sameday, W/O ECT	1.0	1.0	1.0	1.0	1.0	n.p.	n.p.	n.a.	1.0
Z40Z	Follow Up After Completed Treatment W Endoscopy	1.0	1.0	1.0	1.0	1.0	1.0	1.1	n.a.	1.0
O60D	Vaginal Delivery W/O Complicating Diagnosis	4.9	5.1	5.0	4.8	5.0	n.p.	n.p.	n.a.	5.2
J11Z	Other Skin, Subcutaneous Tissue and Breast Procedures	1.2	1.2	1.3	1.3	1.1	1.2	1.1	n.a.	1.2
N07Z	Other Uterine and Adnexa Procedures for Non-Malignancy	1.2	1.2	1.2	1.4	1.4	1.2	1.1	n.a.	1.2
O40Z	Abortion W D&C, Aspiration Curettage or Hysterotomy	1.0	1.0	1.0	1.0	1.0	1.1	1.0	n.a.	1.0
F42B	Circulatory disorders W/O AMI W invasive cardiac inves proc W/O complex dx/pr	1.4	1.8	1.7	1.3	1.6	n.p.	n.p.	n.a.	1.6
G09Z	Inguinal and Femoral Hernia Procedures Age>0	2.2	2.1	1.8	2.1	2.6	1.9	1.9	n.a.	2.1
D11Z	Tonsillectomy or Adenoidectomy	1.1	1.2	1.1	1.1	1.2	1.2	1.1	n.a.	1.1
G42B	Other Gastroscopy for Major Digestive Disease, Sameday	1.0	1.0	1.0	1.0	1.0	n.p.	n.p.	n.a.	1.0
J10Z	Skin, Subcutaneous Tissue and Breast Plastic O.R. Procedures	1.4	1.6	1.3	1.7	1.6	2.2	1.9	n.a.	1.5
N10Z	Diagnostic Curettage or Diagnostic Hysteroscopy	1.0	1.0	1.1	1.0	1.0	1.1	1.0	n.a.	1.0
I68C	Non-surgical Neck & Back Conditions W Pain Management Proc/Myelogram	2.1	2.3	2.2	1.6	1.7	n.p.	n.p.	n.a.	2.1
L41Z	Cystourethroscopy W/O CC	1.1	1.1	1.2	1.2	1.3	1.4	1.5	n.a.	1.2
G11B	Anal and Stomal Procedures W/O Catastrophic or Severe CC	1.6	1.8	1.9	2.4	2.2	2.1	2.2	n.a.	1.8
I16Z	Other Shoulder Procedures	2.2	2.3	2.5	2.2	2.3	2.8	1.9	n.a.	2.3
I26Z	Other Wrist and Hand Procedures	1.2	1.2	1.2	1.4	1.4	1.3	1.4	n.a.	1.2
H04B	Cholecystectomy W/O Closed CDE W/O Catastrophic or Severe CC	2.7	3.0	2.5	2.7	2.9	2.6	3.1	n.a.	2.7
N04Z	Hysterectomy for Non-Malignancy	5.4	6.0	5.2	6.0	6.0	6.1	6.6	n.a.	5.7
J08B	Other Skin Graft and/or Debridement Procedures W/O Catastrophic or Severe CC	1.4	1.7	1.4	2.0	1.3	1.8	1.7	n.a.	1.5
D13Z	Myringotomy W Tube Insertion	1.0	1.0	1.0	1.0	1.0	1.0	1.0	n.a.	1.0
N09Z	Conisation, Vagina, Cervix and Vulva Procedures	1.1	1.1	1.2	1.2	1.2	1.2	1.1	n.a.	1.2
I23Z	Local Excision and Removal of Internal Fixation Device Excl Hip and Femur	1.4	1.4	1.3	1.4	1.3	1.4	1.4	n.a.	1.4
	Other	4.5	4.8	4.9	4.5	4.9	4.9	5.5	n.a.	4.7
Total		**2.7**	**3.0**	**3.2**	**3.0**	**3.1**	**4.0**	**4.4**	**n.a.**	**3.0**

(a) Separations for which the type of episode of care was reported as acute, or newborn with qualified patient days, or was not reported.

Note: Main abbreviations: W—with, W/O—without, CC—complications and comorbidities.

. . not applicable.

n.a. not available.

n.p. not published.

Table 10.13: Separations for males for the 30 AR-DRGs version 4.0/4.1 with the highest number of hospital separations, by age group, all hospitals[(a)], Australia, 1998–99

AR-DRG		<1	1–4	5–14	15–24	25–34	35–44	45–54	55–64	65–74	75+	Total[(b)]
L61Z	Admit for Renal Dialysis	4	70	629	6,947	23,172	35,438	45,153	55,011	73,596	36,004	276,024
R63Z	Chemotherapy	104	1,389	2,204	2,118	2,680	5,274	13,958	26,434	29,765	12,082	96,008
G44C	Other Colonoscopy, Sameday	16	57	247	1,763	5,386	11,012	18,139	18,626	18,109	9,525	82,880
G45B	Other Gastroscopy for Non-Major Digestive Disease, Sameday	185	489	956	3,174	7,747	11,730	14,399	12,790	12,265	7,175	70,910
I18Z	Knee Procedures	1	10	495	7,175	9,385	9,459	8,445	5,529	3,264	1,140	44,903
C08Z	Major Lens Procedures	3	8	22	58	148	450	1,777	4,122	12,210	19,780	38,578
Z40Z	Follow Up After Completed Treatment W Endoscopy	17	30	63	194	1,033	3,323	6,288	7,773	9,852	6,759	35,332
J11Z	Other Skin, Subcutaneous Tissue and Breast Procedures	168	770	1,759	1,811	2,637	3,980	5,011	5,133	6,226	6,398	33,893
G09Z	Inguinal and Femoral Hernia Procedures Age>0	0	1,272	1,078	1,657	2,642	3,910	5,777	6,020	6,122	4,278	32,756
D40Z	Dental Extraction and Restorations	7	4,441	5,738	11,182	5,456	2,340	1,398	727	531	327	32,147
U60Z	Mental Health Treatment, Sameday, W/O ECT	1,287	542	1,707	3,251	3,796	3,960	6,039	1,971	2,078	3,273	27,904
F42B	Circulatory Disorders W/O AMI W Invasive Cardiac Inves Proc W/O Complex DX/Pr	64	96	168	162	344	1,708	4,931	7,039	7,780	3,290	25,582
F74Z	Chest Pain	1	13	92	442	1,548	3,869	5,507	4,740	4,178	2,930	23,320
E69C	Bronchitis and Asthma Age<50 W/O CC	1099	10136	6925	1998	1201	843	475	0	0	0	22,677
G67B	Oesophagitis, Gastroent & Misc Digestive Systm Disorders Age>9 W/O Cat/Sev CC	0	0	1,376	2,526	3,131	2,635	2,733	2,494	2,752	3,191	20,838
X60C	Injuries Age < 65	66	1,174	2,422	4,911	4,644	3,237	2,057	1,316	0	0	19,827
D11Z	Tonsillectomy or Adenoidectomy	35	6,607	9,031	2,133	1,046	545	185	87	56	23	19,748
I26Z	Other Wrist and Hand Procedures	46	368	748	3,898	3,605	2,670	2,531	2,343	2,090	1,090	19,389
L41Z	Cystourethroscopy W/O CC	166	219	293	483	1,185	2,224	3,472	3,657	4,078	3,366	19,143
Q61C	Red Blood Cell Disorders W/O Catastrophic or Severe CC	103	487	961	1,245	1,150	1,380	1,932	2,504	4,332	5,038	19,132
G11B	Anal and Stomal Procedures W/O Catastrophic or Severe CC	202	94	149	582	2,544	4,164	4,670	3,123	1,959	836	18,323
J64B	Cellulitis (Age>59 W/O Catastrophic or Severe CC) or Age<60	262	1,116	1,501	2,475	3,022	2,804	2,681	1,784	1,302	1,087	18,034
Z64B	Other Factors Influencing Health Status Age<80	988	825	873	990	1,786	1,932	2,514	2,939	3,280	1,293	17,420
F72B	Unstable Angina W/O Catastrophic or Severe CC	0	0	0	8	130	1,003	2,975	4,032	4,964	4,186	17,298
F62B	Heart Failure and Shock W/O Catastrophic CC	22	5	10	35	71	234	655	1,746	4,632	8,550	15,960
I74C	Injury to Forearm, Wrist, Hand or Foot Age<75 W/O CC	15	1,030	8,228	2,819	1,458	953	698	402	240	0	15,843
G42B	Other Gastroscopy for Major Digestive Disease, Sameday	2	10	72	465	1,061	1,893	2,916	3,294	3,659	2,433	15,805
I23Z	Local Excision and Removal of Internal Fixation Device Excl Hip and Femur	29	222	1,628	3,971	3,466	2,454	1,821	1,074	595	304	15,564
E62C	Respiratry Infectn/Inflammations W/O CC	899	3,181	1,730	880	1,294	1,342	1,344	1,268	1,468	1,853	15,259
L64Z	Urinary Stones and Obstruction	10	27	44	451	1,757	3,467	3,817	2,953	1,800	719	15,045
	Other	74,831	73,962	78,230	101,890	122,646	143,780	164,823	183,649	244,860	250,277	1,438,955
Total		**80,632**	**108,650**	**129,379**	**171,694**	**221,171**	**274,013**	**339,121**	**374,580**	**468,043**	**397,207**	**2,564,497**

(a) Separations for which the type of episode of care was reported as acute, or newborn with qualified patient days, or was not reported.

(b) Includes separations for which age was not reported.

Note: Main abbreviations: W—with, W/O—without, CC—complications and comorbidities.

Table 10.14: Separations for females for the 30 AR-DRGs version 4.0/4.1 with the highest number of hospital separations, by age group, all hospitals[(a)], Australia, 1998–99

AR-DRG		<1	1–4	5–14	15–24	25–34	35–44	45–54	55–64	65–74	75+	Total[(b)]
L61Z	Admit for Renal Dialysis	0	2	352	4,010	14,436	20,018	31,018	46,526	61,349	21,805	199,516
O60D	Vaginal Delivery W/O Complicating Diagnosis	0	0	47	33,136	89,260	19,688	72	0	0	0	142,204
R63Z	Chemotherapy	49	1,049	1,784	1,109	3,302	11,950	24,025	26,158	22,911	8,650	100,987
G44C	Other Colonoscopy, Sameday	9	33	181	3,168	7,195	13,334	21,295	21,037	19,604	10,749	96,605
G45B	Other Gastroscopy for Non-Major Digestive Disease, Sameday	124	356	826	3,916	7,480	12,185	17,209	16,266	14,375	9,974	82,711
O40Z	Abortion W D&C, Aspiration Curettage or Hysterotomy	0	0	130	19,907	29,107	13,903	337	4	0	0	63,388
C08Z	Major Lens Procedures	3	9	16	39	99	374	1,536	4,691	17,805	33,194	57,766
N07Z	Other Uterine and Adnexa Procedures for Non-Malignancy	3	2	162	4,061	17,418	16,823	5,514	1,816	876	306	46,982
O65B	Other Antenatal Admission W Moderate or No Complicating Diagnosis	0	0	42	15,279	25,176	5,498	44	4	0	0	46,043
D40Z	Dental Extraction and Restorations	7	3,675	6,042	20,135	7,849	3,081	1,707	825	489	438	44,248
N09Z	Conisation, Vagina, Cervix and Vulva Procedures	20	112	214	7,618	11,904	8,603	6,205	2,839	1,599	884	39,998
N10Z	Diagnostic Curettage or Diagnostic Hysteroscopy	0	1	17	1,145	4,859	9,577	13,553	5,565	2,767	1,230	38,714
U60Z	Mental Health Treatment, Sameday, W/O ECT	1,165	224	535	6,352	6,340	8,029	7,758	3,197	2,174	854	36,628
N08Z	Endoscopic Procedures for Female Reproductive System	1	0	67	4,615	15,588	13,226	2,476	434	155	59	36,621
J11Z	Other Skin, Subcutaneous Tissue and Breast Procedures	169	866	2,255	2,727	3,480	4,763	5,497	4,401	4,455	5,199	33,812
O01D	Caesarean Delivery W/O Complicating Diagnosis	0	0	5	4,498	21,199	7,115	33	1	0	0	32,851
Z40Z	Follow Up After Completed Treatment W Endoscopy	7	25	48	518	1,525	4,330	7,120	7,047	7,107	4,505	32,232
N04Z	Hysterectomy for Non-Malignancy	0	0	3	57	2,434	10,675	10,976	2,980	2,245	1,187	30,557
G67B	Oesophagitis, gastroent & misc digestive systm disorders age>9 W/O Cat/Sev CC	0	0	1,249	3,803	4,178	3,333	3,806	3,454	3,986	5,667	29,476
I18Z	Knee Procedures	2	7	499	3,199	3,817	4,666	5,574	4,658	3,598	1,749	27,769
O60B	Vaginal Delivery W Severe Complicating Diagnosis	0	0	15	6,395	15,705	4,142	25	0	0	0	26,282
H04B	Cholecystectomy W/O Closed CDE W/O Catastrophic or Severe CC	2	3	74	1,753	4,560	4,977	5,530	4,395	3,158	1,466	25,918
O65A	Other Antenatal Admission W Severe Complicating Diagnosis	0	0	15	5,993	15,085	4,635	41	1	0	0	25,770
G66B	Abdominal Pain or Mesenteric Adenitis W/O CC	112	209	2,455	4,885	4,490	3,463	2,599	1,602	1,243	1,346	22,404
O61Z	Postpartum and Post Abortion W/O O.R. Procedure	0	0	9	4,323	13,937	4,058	36	0	0	0	22,363
Z64B	Other Factors Influencing Health Status Age<80	862	711	639	1,637	4,167	3,006	3,094	2,774	2,825	1,478	21,193
D11Z	Tonsillectomy or Adenoidectomy	22	4,183	9,735	4,899	1,444	508	166	89	39	17	21,102
Q61C	Red Blood Cell Disorders W/O Catastrophic or Severe CC	53	292	712	1,348	1,530	2,293	3,071	2,359	3,657	5,620	20,935
F74Z	Chest Pain	2	4	74	372	1,078	2,441	4,439	4,022	3,885	4,339	20,656
E69C	Bronchitis and Asthma Age<50 W/O CC	492	5,433	4,557	3,196	2,560	2,214	1,141	0	0	0	19,593
	Other	53,830	56,950	63,682	114,758	183,937	177,361	185,124	175,610	220,663	328,918	1,560,840
Total		**56,934**	**74,146**	**96,441**	**288,851**	**525,139**	**400,269**	**371,021**	**342,755**	**400,965**	**449,634**	**3,006,164**

(a) Separations for which the type of episode of care was reported as acute, or newborn with qualified patient days, or was not reported.

(b) Includes separations for which age was not reported.

Note: Main abbreviations: W—with, W/O—without, CC—complications and comorbidities.

Table 10.15: Separation, same day separation, patient day, average length of stay and cost statistics for the 30 AR-DRGs version 4.0/4.1 with the highest number of separations, public psychiatric hospitals[(a)], Australia, 1998–99

AR-DRG		Separations	Same day separations	Per cent same day separations	Separations per 10,000 population	Patient days	Patient days per 10,000 population	ALOS (days)	Cost by volume ($'000)	Rank by patient days
U61A	Schizophrenia Disorders W Mental Health Legal Status	2,813	0	0.0	1.5	240,899	127.8	85.6	7,924	1
U63B	Major affective disorders age<70 W/O catastrophic, sev CC	2,571	0	0.0	1.4	56,221	29.8	21.9	2,331	4
U67Z	Personality Disorders and Acute Reactions	2,568	0	0.0	1.4	21,411	11.4	8.3	83	6
U61B	Schizophrenia Disorders W/O Mental Health Legal Status	1,439	0	0.0	0.8	76,062	40.3	52.9	14,841	3
U60Z	Mental Health Treatment, Sameday, W/O ECT	972	972	100.0	0.5	972	0.5	1.0	16	25
V63Z	Opioid Use Disorder and Dependence	962	69	7.2	0.5	4,118	2.2	4.3	59	16
B63Z	Dementia, Other Chronic Disturbances of Cerebral Function	807	4	0.5	0.4	80,932	42.9	100.3	0	2
V60Z	Alcohol Intoxication and Withdrawal	633	74	11.7	0.3	15,191	8.1	24.0	59	8
960Z	Ungroupable	593	3	0.5	0.3	21,909	11.6	36.9	0	5
V62A	Alcohol Use Disorder and Dependence	578	0	0.0	0.3	5,039	2.7	8.7	1,256	13
U64Z	Other Affective and Somatoform Disorders	530	0	0.0	0.3	9,063	4.8	17.1	7,235	11
V61B	Drug Intoxication and Withdrawal WO CC	514	65	12.6	0.3	4,323	2.3	8.4	701	15
U62A	Paranoia, acute psych disdr w cat/sev cc/mental hlth legal status	493	0	0.0	0.3	10,085	5.3	20.5	9,079	10
V64Z	Other Drug Use Disorder and Dependence	476	31	6.5	0.3	3,927	2.1	8.3	2,018	17
U63A	Mjr affect disorders w cat/sev CC or (age>69 w/o cat/sev CC)	446	0	0.0	0.2	20,537	10.9	46.0	1,593	7
V61A	Drug Intoxication and Withdrawal W CC	255	139	54.5	0.1	1,227	0.7	4.8	2,246	24
U62B	Paranoia, acute psych disdr w/o cat/sev cc w/o mental hlth legal stat	173	0	0.0	0.1	2,791	1.5	16.1	2,065	20
B64Z	Delirium	158	2	1.3	0.1	6,935	3.7	43.9	3,480	12
U65Z	Anxiety Disorders	97	0	0.0	0.1	2,109	1.1	21.7	1,120	22
Z64B	Other Factors Influencing Health Status Age<80	58	6	10.3	<0.1	3,236	1.7	55.8	4	19
B81B	Other disorders of the nervous system w/o cat/sev cc	45	6	13.3	<0.1	4,765	2.5	105.9	10	14
U68Z	Childhood Mental Disorders	44	0	0.0	<0.1	15,144	8.0	344.2	13,967	9
U66Z	Eating and Obsessive-Compulsive Disorders	32	0	0.0	<0.1	418	0.2	13.1	586	29
U40Z	Mental Health Treatment, Sameday, W ECT	31	31	100.0	<0.1	31	<0.1	1.0	0	42
V62B	Alcohol Use Disorder and Dependence, Sameday	28	28	100.0	<0.1	28	<0.1	1.0	302	44
961Z	Unacceptable Principal Diagnosis	27	4	14.8	<0.1	652	0.3	24.1	825	27
Z60B	Rehabilitation W/O Catastrophic or Severe CC	22	0	0.0	<0.1	439	0.2	20.0	55	28
B67B	Degenerative nervous system disorders w/o c/sev cc	17	0	0.0	<0.1	765	0.4	45.0	16	26
O61Z	Postpartum and Post Abortion W/O O.R. Procedure	13	1	7.7	<0.1	84	<0.1	6.5	0	33
Z60A	Rehabilitation W Catastrophic or Severe CC	9	0	0.0	<0.1	205	0.1	22.8	0	32
	Other	61	6	9.8	<0.1	2,774	1.5	45.5	27,098	. .
Total		**17,465**	**1,441**	**8.3**	**9.3**	**612,292**	**324.8**	**35.1**	**98,969**	**. .**

(a) Separations for which the type of episode of care was reported as acute, or newborn with qualified patient days, or was not reported.

Note: Main abbreviations: W—with, W/O—without, CC—complications and comorbidities.

Table 10.16: Separations for Group 1 Error DRGs for the 10 principal procedures with the highest number of separations[(a)], by hospital sector States and Territories, 1998–99

Principal procedure	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
					Public hospitals				
34509-01 Arteriovenous anastomosis of upper limb	227	184	0	0	0	0	9	56	476
41892-00 Bronchoscopy with biopsy	83	62	9	7	7	2	3	1	174
35309-00 Percutaneous insertion of 1 stent into single visceral artery or vein	109	48	0	0	0	0	2	1	160
37203-00 Transurethral resection of prostate [TURP]	43	42	5	10	22	0	2	0	124
30052-01 Repair of wound of eyelid	6	13	44	37	16	2	0	0	118
35640-00 Dilation & curettage of uterus [D&C]	25	36	12	14	8	1	1	3	100
30473-01 Panendoscopy with biopsy	53	17	5	7	4	0	2	0	88
45519-00 Revision of burn scar or burn contracture	49	27	0	0	0	0	4	2	82
34512-01 Construction of arteriovenous fistula with prosthesis	50	11	0	0	0	0	8	1	70
36812-00 Cystoscopy	27	15	5	10	9	3	1	0	70
Other procedures	2,148	1,661	726	668	515	84	97	0	5,899
Total	**2,820**	**2,116**	**806**	**753**	**581**	**92**	**129**	**151**	**7,448**
					Private hospitals				
34509-01 Arteriovenous anastomosis of upper limb	53	60	0	0	0	0	0	n.a.	113
37203-00 Transurethral resection of prostate [TURP]	12	29	21	12	9	3	3	n.a.	89
36812-00 Cystoscopy	24	8	20	6	5	6	2	n.a.	71
31000-00 Microscopically controlled serial excision of tumour of skin	42	26	0	0	0	0	0	n.a.	68
41892-00 Bronchoscopy with biopsy	14	36	7	3	1	0	0	n.a.	61
35309-00 Percutaneous insertion of 1 stent into single visceral artery or vein	28	29	0	0	0	0	0	n.a.	57
35640-00 Dilation & curettage of uterus [D&C]	26	8	9	4	2	1	1	n.a.	51
30473-01 Panendoscopy with biopsy	11	17	13	2	1	1	0	n.a.	45
45021-00 Abrasive therapy to 1 aesthetic area of face	0	1	37	1	0	3	0	n.a.	42
90664-00 Excision of lesion of skin and subcutaneous tissue of eyelid, not elsewhere classified	2	4	13	10	6	3	0	n.a.	38
Other procedures	1,512	1,082	880	353	269	89	50	n.a.	4,235
Total	**1,724**	**1,300**	**1,000**	**391**	**293**	**106**	**56**	**n.a.**	**4,870**

(a) Separations for which the type of episode of care was reported as acute, or newborn with qualified patient days, or was not reported.

n.a. not available.

Table 10.17: Separations for Group 2 Error DRGs for the 10 principal diagnoses with the highest number of separations[(a)], by hospital sector States and Territories, 1998–99

Principal diagnosis		NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
						Public hospitals				
Z91.5	Personal history of self-harm	162	0	0	0	0	0	0	5	167
Z12.1	Special screening examination for neoplasm of intestinal tract	148	2	0	0	0	0	1	2	153
P07.3	Other preterm infants	99	5	5	1	3	0	4	3	120
Z87.12	Personal history of colonic polyps	97	0	0	0	2	1	0	5	105
Z34.8	Supervision of other normal pregnancy	53	0	0	0	0	0	0	41	94
Z85.0	Personal history of malignant neoplasm of digestive organs	68	0	0	0	0	0	0	0	68
Z34.9	Supervision of normal pregnancy, unspecified	45	0	0	0	0	0	1	10	56
Z64.0	Problems related to unwanted pregnancy	22	0	4	24	3	2	0	0	55
O80	Single spontaneous delivery	15	27	5	0	4	0	2	1	54
Z95.1	Presence of aortocoronary bypass graft	52	0	0	0	0	0	0	0	52
	Other diagnosis	557	11	45	28	16	8	8	56	729
Total		**1,318**	**45**	**59**	**53**	**28**	**11**	**16**	**123**	**1,653**
						Private hospitals				
Z12.1	Special screening examination for neoplasm of intestinal tract	655	306	0	0	0	0	0	n.a.	961
Z87.12	Personal history of colonic polyps	514	0	18	0	6	5	0	n.a.	543
Z85.0	Personal history of malignant neoplasm of digestive organs	126	0	2	0	56	12	0	n.a.	196
Z87.18	Personal history of other digestive system disease	58	0	5	0	0	1	0	n.a.	64
O09.1	Duration of pregnancy 5-13 completed weeks	58	0	0	0	0	0	0	n.a.	58
Z87.11	Personal history of peptic ulcer disease	45	0	3	0	1	0	0	n.a.	49
Z12.6	Special screening examination for neoplasm of bladder	5	36	0	0	0	0	0	n.a.	41
P11.2	Unspecified brain damage due to birth injury	31	0	0	0	0	0	0	n.a.	31
Z12.5	Special screening examination for neoplasm of prostate	27	0	0	0	0	0	0	n.a.	27
P07.3	Other preterm infants	20	1	5	0	0	0	0	n.a.	26
	Other diagnosis	224	39	22	11	11	18	4	n.a.	329
Total		**1,763**	**382**	**55**	**11**	**74**	**36**	**4**	**n.a.**	**2,325**

(a) Separations for which the type of episode of care was reported as acute, or newborn with qualified patient days, or was not reported.
n.a. not available.

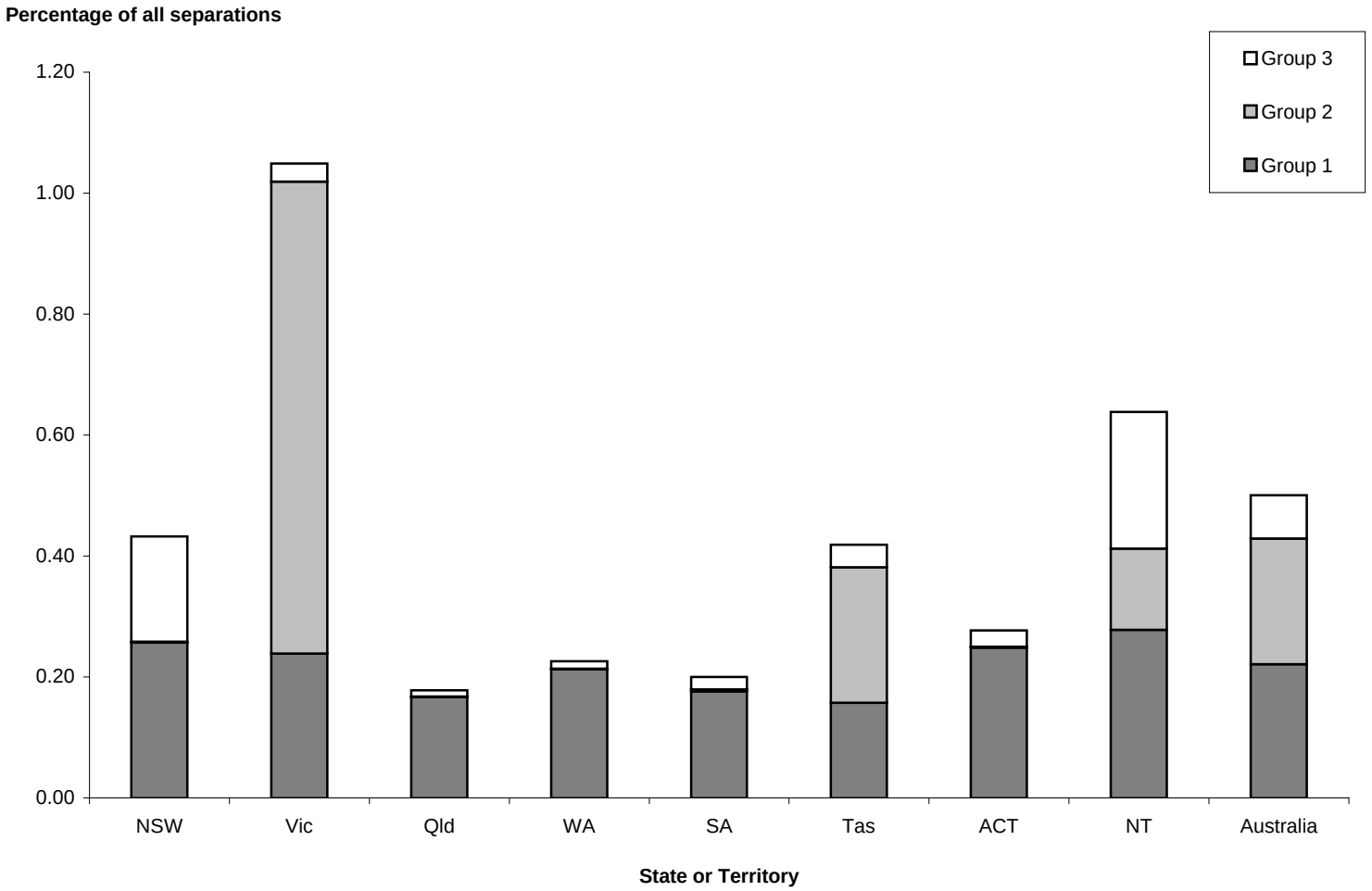

Figure 10.3: Error DRGs as a percentage of all separations, States and Territories, 1998–99

Appendix 1: List of tables

Appendix 2: List of figures

Appendix 3: Technical notes

Definitions

If not otherwise indicated, data elements were defined according to the 1998–99 definitions in the *National Health Data Dictionary* Version 7.0 (summarised in the Glossary).

Unless otherwise specified:

- public acute hospitals and public psychiatric hospitals are included in the public hospital (public sector) category, and 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.

Data presented by State or Territory refer to the State or Territory of the hospital, not to the State or Territory of the usual residence of the patient. The exceptions are Tables 5.7, 5.8, 5.9 and 5.10, in which the State or Territory of usual residence of the patient is reported against the State or Territory of hospitalisation. Data presented in Table 2.4 are presented by State or Territory of usual residence. The maps in Chapters 5 and 7 are also based on data on the State or Territory and Statistical Division of usual residence of the patient (see below).

Data presentation

Except as noted, where totals are provided in the tables, they include data only for those States and Territories for which data were available, as indicated in the tables. The exceptions are Table 2.3, Tables 4.3 and 4.4, and some tables for private hospitals in Chapters 7, 8 and 10. Although available, some data in these tables were not published, for confidentiality reasons. The abbreviation 'n.p.' has been used in these tables to denote this.

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

Population rates

Summary population rates presented in Chapters 2, 4, 5 and 6 are age-standardised, calculated using the direct standardisation method and 5-year age groups. The total Australian population for 30 June 1991 was used as the population for which expected rates were calculated. The Australian Bureau of Statistics' population estimates for 31 December 1998 (Appendix 8) were used for the observed rates. The exceptions were Tables 6.7 and 6.8, for which the population estimates for the Aboriginal and Torres Strait Islander population (and the remainder of the population) and for the population for selected countries of birth for 30 June 1998, respectively, were used for the observed rates (Appendix 8). Rates in
Table 2.5 were standardised by sex as well as by age.

Crude population rates in Chapters 7, 8 and 10 and age group-specific rates in Chapter 6 were calculated using Australian Bureau of Statistics' population estimates for 31 December 1998 (Appendix 8). For Figure 6.7, 30 June 1998 estimates for the Aboriginal and

Torres Strait Islander population and for the remainder of the population were used for age group-specific rates for the Aboriginal and Torres Strait Islander population and others.

Newborn episodes of care and the reporting of separations for patients aged less than 10 days

The *Newborn* type of episode of care was introduced in 1998–99 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. *Newborn* episodes with no qualified days are considered to be equivalent to the previous category *Unqualified neonate*. In this report, *Newborn* episodes with at least one qualified day have been included in all the tables reporting separations.

Only Queensland, New South Wales, South Australia and Victoria implemented the new definition for 1998–99 and therefore were the only jurisdictions to report *Newborn* separations that had a mixture of qualified and unqualified days (see Table 5.11). For the other four jurisdictions, separations reported as *Acute care* separations for patients aged less than 10 days are included in the National Hospital Morbidity Database and this report as *Newborn* episodes with qualified days only. Separations reported as *Unqualified neonates* are included as *Newborn* episodes with no qualified days.

Previously, New South Wales, Queensland and South Australia (public hospitals) had counted separate episodes of care within a hospital stay as individual separations. With the implementation of the *Newborn* definition, they began to count each hospitalisation of a patient admitted under the age of 10 days as one separation (as Victoria had been doing prior to 1 July 1998). This change is likely to have resulted in a slight reduction in the number of separations for these States in 1998–99 compared with 1997–98, and a slight increase in their average lengths of stay.

In 1998–99, the Australian Capital Territory and Western Australia counted separations for patients aged 10 days or less on admission as qualified (*Acute care*) if at least one day was qualified. Tasmania and the Northern Territory continued to report a new episode of care for patients aged less than 10 days at admission with each change in qualification status. The reporting method used in Tasmania and the Northern Territory may mean that there were more separations for patients under the age of 10 days for these jurisdictions, relative to others, and that they had a lower average length of stay.

Data on Statistical Division of usual residence

Data on the Statistical Division of usual residence of admitted patients are presented in maps in Chapter 5 (Figures 5.1 and 5.2) and Chapter 7 (Figures 7.3 to 7.8). The data used for these maps were derived from data supplied for each separation by the States and Territories for the National Hospital Morbidity Database 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 Statistical Local Area (SLA) of usual residence. SLAs are small units within the Australian Bureau of Statistics' Australian Standard Geographical Classification (ASGC), and can be aggregated to Statistical Divisions for reporting, as in the maps in this publication. The data on the State or Territory of usual residence are reported in Chapter 5 (Tables 5.7, 5.8, 5.9 and 5.10).

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, using the 1998 edition of the ASGC. If SLA information was unavailable for a patient then postcode was requested. The Institute then mapped the supplied data to the standard, as far as possible. SLAs were derived from postcodes based on the probabilities that persons for whom a postcode was reported were resident in each SLA. Similarly, 1998 SLA codes were derived from SLA codes from earlier editions of the ASGC on a probabilistic basis. The standardised data were then aggregated to Statistical Division data for reporting.

New South Wales, Victoria and the Australian Capital Territory were able to provide SLA codes for both patients usually resident in the jurisdiction and patients not usually resident in the jurisdiction. Queensland, the Northern Territory, Tasmania and South Australia provided SLA codes (or Local Government Area codes) for patients usually resident in the jurisdiction and postcodes for patients usually resident elsewhere. Western Australia provided SLA codes for patients in public psychiatric hospitals and postcodes for all their other patients.

The mapping process identified missing, invalid and superseded codes, but resulted in 98.8% of records being assigned SLA codes. To enable further analysis of the SLA information on area of usual residence, it was aggregated to Statistical Sub-Division and Statistical Division levels. Data for the two Statistical Divisions in the Australian Capital Territory were combined for mapping purposes because of the very small population of one of the Statistical Divisions.

Private hospitals in the National Hospital Morbidity Database

Chapter 1 and the Internet tables for Appendix 7 include details of the private hospitals included in the National Hospital Morbidity Database. Data were not provided for 1998–99 for 12 private free-standing day hospital facilities and one other private hospital in Victoria, three private free-standing day hospital facilities in South Australia, one private free-standing day hospital facility and four other private hospitals in Tasmania, six private free-standing day hospital facilities and one private hospital in the Australian Capital Territory, and the one private hospital in the Northern Territory. In addition, about 5.6% of private hospital separations data for Western Australia were not included (mainly for hospitals other than free-standing day hospital facilities); the Western Australian data were provided as at 31 December 1999, and some private hospitals had been unable to finalise their data by then due to system problems associated with the introduction of ICD-10-AM.

The Australian Bureau of Statistics (ABS) collates summary hospital morbidity data from private hospitals in its Private Hospital Establishments Collection. In 1998–99, the Private Health Establishments Collection reported 1,986,299 separations (ABS unpublished data), compared with 1,875,358 separations reported for the National Hospital Morbidity Database.

This discrepancy of 110,941 separations (5.6%) (40,980 for private free-standing day hospital facilities and 69,961 for other private hospitals) may be due to the use of differing definitions or different interpretations of definitions, or differences in the quality of the data provided for different purposes. It is also likely to reflect the omission of some private hospitals from the National Hospital Morbidity Database and also some separations for some private hospitals that were otherwise included in the database. The Private Health Establishments Collection included 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 Aged Care.

Fewer separations were reported to the National Hospital Morbidity Database for 1998–99 than to the Private Health Establishments Collection for all geographical areas for which data are available from the Private Health Establishments Collection (ABS, unpublished data) (Table A3.1).

Table A3.1: Private hospital separations reported to the National Hospital Morbidity Database and the Private Health Establishments Collection, States and Territories, 1998–99

	NSW–ACT	Vic	Qld	WA	SA–NT	Tas	Total
	AIHW National Hospital Morbidity Database						
All private hospitals	*583,507*	*495,667*	*411,279*	*186,997*	*150,741*	*47,167*	*1,875,358*
Free-standing day hospital facilities	123,835	47,063	70,831	9,994	8,310	1,106	261,139
Other private hospitals	459,672	448,604	340,448	177,003	142,431	46,061	1,614,219
	ABS Private Health Establishments Collection						
All private hospitals	*599,132*	*545,220*	*412,714*	*205,773*	*165,311*	*58,189*	*1,986,299*
Free-standing day hospital facilities	131,871	65,261	71,895	12,863	16,466	3,763	302,119
Other private hospitals	467,261	479,959	340,819	192,870	148,845	54,426	1,684,180
	Difference between the AIHW and ABS data collections— separations						
All private hospitals	*15,625*	*49,553*	*1,435*	*18,736*	*14,570*	*11,022*	*110,941*
Free-standing day hospital facilities	8,036	18,198	1,064	2,869	8,156	2,657	40,980
Other private hospitals	7,589	31,355	371	15,867	6,414	8,365	69,961
	Difference between the AIHW and ABS data collections—per cent						
All private hospitals	*2.6*	*9.1*	*0.3*	*9.1*	*8.8*	*18.9*	*5.6*
Free-standing day hospital facilities	6.1	27.9	1.5	22.3	49.5	70.6	13.6
Other private hospitals	1.6	6.5	0.1	8.2	4.3	15.4	4.2

These discrepancies seem to reflect major differences in coverage of the National Hospital Morbidity Database and the Private Health Establishments Collection. That is, they seem to reflect the omission from the National Hospital Morbidity Database of all six private free-standing day hospital facilities and one private hospital in the Australian Capital Territory (reflected in the Private Hospital Establishments Collection separation counts for New South Wales and the Australian Capital Territory combined), 12 private free-standing day hospital facilities and one other private hospital in Victoria, three private free-standing day hospital facilities in South Australia, the one private hospital in the Northern Territory (reflected in the Private Hospital Establishments Collection separation counts for South Australia and the Northern Territory combined), one private free-standing day hospital facility and four other private hospitals in Tasmania, and the data for some private hospital separations for some Western Australian hospitals.

However, because of possible differences in definitions used and data quality between the two data collections, it cannot be concluded that the discrepancies represent exact measures of the numbers of separations for the omitted hospitals.

Patient days

Patient days provide information on the length of stay of patients and are calculated as the difference between the separation date and admission date, less any leave days. Same day patients are allocated a length of stay of one day.

As the databases contain records for patients separating from hospital during the year, this definition means that not all patient days reported will have occurred in the reporting period (1 July 1998 to 30 June 1999) and, therefore, cannot be used to calculate accurate financial year-based activity estimates. It is expected, however, that in acute hospitals, patient days for patients who separated in 1998–99, but who were admitted in 1997–98, would be counterbalanced by the patient days for patients in hospital on 30 June 1999 who will separate in the following reporting period, and for whom data will be reported in the data collection for the 1999–2000 year. Because of the more variable lengths of stay in long-stay establishments (such as public psychiatric hospitals), the numbers of separations and patient days can be a less accurate measure of the activity of these establishments.

Discrepancies in reporting of separations and patient days between the databases

Both the National Hospital Morbidity Database and the National Public Hospital Establishments Database include data on separations and patient days for public hospitals. The data are collected at the patient level for the National Hospital Morbidity Database and at an aggregate level for individual hospitals for the National Public Hospital Establishments Database. There are some discrepancies in the number of separations and patient days reported to the two databases (see Table 4.2, and Tables 4.3 and 4.4).

Differences between the National Public Hospital Establishments Database and the National Hospital Morbidity Database are slight for 1998–99. They were mainly caused by differences in the timing of extractions of data for the two databases and slight differences in the definitions of boarders and the inclusions of *Newborn* episodes.

Appendix 4: The introduction of ICD-10-AM and version 4.0/4.1 AR-DRGs

Introduction of ICD-10-AM

Previous publications in the Australian Hospital Statistics series have presented information on diseases, procedures and external causes of injury and poisoning using the *Australian Version of the International Classification of Diseases, 9th Revision, Clinical Modification* (ICD-9-CM) (National Coding Centre 1996). This report uses the *International Statistical Classification of Diseases and Related Health Problems, 10th Revision, Australian Modification* (ICD-10-AM) (NCCH 1998).

The ICD-10-AM classification was developed in Australia by the National Centre for Classification in Health, with the disease and external cause classifications based on the World Health Organization's ICD-10, and the procedure classification based on the procedure lists of the Medicare Benefits Schedule. Assistance provided by Australian clinicians and coders in this development ensured that the classification was current and appropriate for Australian clinical practice. It has been used by New South Wales, Victoria, the Australian Capital Territory and the Northern Territory since July 1998, and by the other States from July 1999.

This staggered implementation of ICD-10-AM resulted in the provision of 1998–99 data to the Institute's National Hospital Morbidity Database in ICD-9-CM by four jurisdictions and in ICD-10-AM by the remaining four jurisdictions. For this report, the Institute therefore mapped the data reported in ICD-9-CM to ICD-10-AM (see below) so that national data could be presented in a single classification (except for Table 2.5).

Data for 1999–2000 will be provided by all States and Territories using ICD-10-AM. The second edition of the classification was endorsed by the National Health Information Management Group for implementation nation-wide on 1 July 2000.

The ICD-10-AM classification

ICD-10-AM consists of:

- A disease classification based on World Health Organization's publication of ICD-10,
- A new Australian classification of procedures based on the Medicare Benefits Schedule (MBS), sometimes referred to as MBS-Extended, or MBS-E; and
- Australian Coding Standards for the selection of disease and procedure codes.

Readers should refer to the published classification (NCCH 1998) and its Implementation Kit (NCCH 1997) (which is the source of some of the information in this appendix) for detailed information about ICD-10-AM and its relationship with its predecessor, ICD-9-CM. However, the sections below summarise the main characteristics of the new classification and major differences between it and ICD-9-CM, to guide readers in interpretation of the data presented in this report.

The disease classification

ICD-10-AM uses an alphanumeric coding scheme for diseases, comprising one alphabetic character generally followed by two, three or four numerals. The disease categories are grouped into 19 chapters (see Figures 7.1 and 7.2), and the supplementary classifications in ICD-9-CM (for external causes and morbidity and mortality and of factors influencing health status and contact with health services) also have chapter status in ICD-10-AM. The ICD-10-AM chapters generally have the same subject matter as in the chapters of ICD-9-CM. However, the order of the chapters was changed slightly and the ICD-9-CM chapter on 'Diseases of the nervous system and sense organs' was split into chapters on diseases of the nervous system, of the eye and adnexa and of the ear and mastoid processes. In addition, there has also been some relocation of diseases and conditions, as detailed in Table A4.1. Relevant post-procedural disorders have also been moved, from Chapter 17 'Complications of surgical and medical care' in ICD-9-CM, to the end of each body system chapter in ICD-10-AM.

Other changes between ICD-9-CM and ICD-10-AM include the use of the term 'sequelae' rather than 'late effects', and a change of the axis for classifying injuries from type of injury (e.g. fractures) in ICD-9-CM to body site (e.g. head) in ICD-10-AM. Fifth characters for obstetric codes have also been discontinued. They were used in ICD-9-CM to distinguish between antepartum and postpartum conditions or complications pre and post delivery.

The classifications for external causes of injury and poisoning, place of occurrence and activity while injured

The chapter classifying external causes of injury and poisoning (Chapter XX) is part of the disease classification in ICD-10-AM. However, this chapter is used to classify and code external causes, rather than diagnoses, in the National Hospital Morbidity Database and in this report, so it is not included with the remainder of the ICD-10-AM disease classification in Chapter 7 reporting diagnoses.

The ICD-10-AM external cause classification is largely similar to the ICD-9-CM external cause classification; however, the injured person's mode of transport, rather than the accident type, is used as the main axis for classification of land transport accidents. The classification of place of occurrence also differs from the ICD-9-CM place of occurrence classification. It can be recorded as the 4th character of an external cause code, in which case it is not used for all external causes (see Chapter 9).

The ICD-10-AM classification also includes a classification of the activity being undertaken by the injured person at the time they were injured. It can be recorded as the fifth character of an external cause code, in which case it is not reported for all external causes (see Chapter 9).

Table A4.1: Summary of diseases and disease groups that changed chapters between ICD-10-AM and ICD-9-CM

Location in ICD-10-AM		Location in ICD-9-CM	
Chapter	**Code and description**	**Chapter**	**Code and description**
I Certain infectious and parasitic diseases	A09 Diarrhoea and gastroenteritis of presumed infectious origin	16 Symptoms[(a)]	787.91 Diarrhoea, NOS
	A33 Tetanus neonatorum	15 Perinatal[(b)]	771.3 Tetanus neonatorum
	A34 Obstetrical tetanus	11 Obstetric[(c)]	670 Major puerperal infection
	A69.0 Cancrum oris	9 Diseases of the digestive system	528.1 Cancrum oris
	B34.9 Viraemia NOS	16 Symptoms[(a)]	790.8 Viraemia, unspecified
II Neoplasms	C88.0x Waldensrtom's macroglobulinaemia	3 Endocrine[(d)]	273.3 Macroglobulinaemia
	C88.1 Alpha heavy chain disease		273.2 Other paraproteinaemias
	C94.5x Acute myelofibrosis	4 Diseases of the blood and blood-forming organs	289.8 Myelofibrosis
	D13.1, D13.2 Benign neoplasm of other and ill-defined parts of digestive system, stomach/duodenum	9 Diseases of the digestive system	537.84 Hyperplastic polyp of stomach and duodenum
III Diseases of the blood and blood-forming organs, immune mechanism	D86.x Sarcoidosis	1 Infectious and parasitic diseases	135 Sarcoidosis
V Mental and behavioural disorders	F53.0 Post-natal depression NOS	11 Obstetric[(c)]	648.4x Postpartum depression
VI Diseases of the nervous system	G45.x Transient cerebral ischaemic attacks and related syndromes	7 Diseases of the circulatory system	435.x Transient cerebral ischaemia
	G47.x Sleep disorders	16 Symptoms[(a)]	780.5x Sleep disturbances
	G90.1 Familial dysautonomia (Riley-Day)	14 Congenital anomalies	742.8 Familial dysautonomia
	G93.3 Postviral fatigue syndrome	16 Symptoms[(a)]	780.7 Postviral syndrome
IX Diseases of the circulatory system	I88.x Nonspecific lymphadenitis	4 Diseases of the blood and blood-forming organs	289.3 Lymphadentits, unspecified, except mesenteric
X Diseases of the respiratory system	J02.0 Streptococcal pharyngitis	1 Infectious and parasitic diseases	034.0 Streptococcal sore throat
	J03.0 Streptococcal tonsillitis		034.0 Streptococcal sore throat
	J86.0 Pyothorax with fistula	9 Diseases of the digestive system	530.84 Tracheo-oesophageal fistula
XI Diseases of the digestive system	K12.2 Submandibular abscess	12 Diseases of the skin and subcutaneous tissue	682.0 Submandibular abscess
	K67.3 Tuberculous peritonitis	1 Infectious and parasitic diseases	014.0x Tuberculous peritonitis
	K90.8 Other intestinal malabsorption		040.2 Whipple's disease
	K92.1 Malaena	16 Symptoms[(a)]	792.1 Stool contents
XII Diseases of the skin and subcutaneous tissue	L94.6 Ainhum	1 Infectious and parasitic diseases	136.0 Ainhum

Table A4.1 (continued): Summary of diseases and disease groups that changed chapters between ICD-10-AM and ICD-9-CM

Location in ICD-10-AM		Location in ICD-9-CM	
Chapter	**Code and description**	**Chapter**	**Code and description**
XIII Diseases of the musculoskeletal system and connective tissue	M01.0x Meningococcal arthritis	1 Infectious and parasitic diseases	036.82 Meningococcal arthropathy
	M01.4x Rubella arthritis		056.71 Arthritis due to rubella
	M02.3x Reiter's disease		099.3 Reiter's disease
	M07.xx Psoriatic and enteropathic arthropathies	12 Diseases of the skin and subcutaneous tissue	696.0 Psoriatic arthropathy
	M10.xx Gout	3 Endocrine[(d)]	274.x Gout
	M30.x Polyarteritis nodosa and related conditions, M31.x other necrotising vasculopathies	7 Diseases of the circulatory system	446.x Polyarteritis nodosa and allied conditions
	M34.8 Other forms of systemic sclerosis	8 Diseases of the respiratory system	517.2 Lung involvement in systemic sclerosis
	M35.2 Behcet's disease	1 Infectious and parasitic diseases	136.1 Behcet's syndrome
	M35.9 Auto-immune disease (systemic) NOS	3 Endocrine[(d)]	279.4 Auto-immune disease, NEC
	M73.0x Gonococcal bursitis	1 Infectious and parasitic diseases	098.52 Gonococcal bursitis
	M73.1x Syphilitic bursitis		095.7 Syphilitic bursitis
XIV Diseases of the genitourinary system	N23 Unspecified renal colic	16 Symptoms[(a)]	788.0 Renal colic
	N34.1 Nonspecific urethritis	1 Infectious and parasitic diseases	099.4x Other nongonococcal urethritis
XV Pregnancy, childbirth and the puerperium	O41.9 Disorder of amniotic fluid and membranes, unspecified	16 Symptoms[(a)]	792.3 Non-specific abnormal findings in other body substances, amniotic fluid
XVII Congenital malformations, deformations and chromosomal abnormalities	Q85.0 Neurofibromatosis (non-malignant)	2 Neoplasms	237.70 Neurofibromatosis, unspecified
XVIII Symptoms, signs and abnormal findings, nec	R09.1 Pleurisy	8 Diseases of the respiratory system	511.0 Pleurisy, without mention of effusion or current tuberculosis
	R18 Ascites	9 Diseases of the digestive system	568.82 Peritoneal effusion (chronic)
	R23.8 Other and unspecified skin changes	12 Diseases of the skin and subcutaneous tissue	706.3 Seborrhoea
	R31 Unspecified haematuria	10 Diseases of the genitourinary system	599.7 Haematuria
	R44.1 Visual hallucinations	6 Diseases of the nervous system and sense organs	368.16 Visual halluciantion
	R58 Haemorrhage, NEC	7 Diseases of the circulatory system	459.0 Haemorrhage, unspecified

(a) 16 Symptoms signs and ill-defined conditions.
(b) 15 Certain conditions originating in the perinatal period.
(c) 11 Complications of pregnancy, childbirth and the puerperium.
(d) 3 Endocrine, nutritional, and metabolic diseases and immunity disorders.

Source: Essentials of ICD-10-AM— An information package for clinicians and other users of coded data. www.cchs.usyd.edu.au/ncch/clined/AppendixA.html, NCCH, 1999, extracted 18 February 2000.

The procedure classification

The chapters of the procedure classification follow the ICD-10 body system structure closely. Within each chapter, a number of axes are used to arrange the procedure codes. The principal axis is defined by anatomical site and is structured with a 'proximal to distal' or 'head to toe' approach. For example, gynaecological procedures are sequenced: ovary, fallopian tubes, uterus, cervix, vagina and vulva. Under the secondary axis, the procedures are listed under the anatomical site (principal axis) from the least invasive procedures through to the most invasive. Some of the general categories of the secondary axis are: examination, excision, reduction, repair, reoperation. The tertiary axis includes details of the specific site, the specific procedure, the technology and techniques used.

The actual procedure codes exist at the tertiary axis level. They have as their basis the MBS item numbers (5-digit), and have a 2-digit extension to identify individual procedural concepts within the MBS item number. The procedure codes (which are not in numerical order in the classification) are grouped into blocks (one to four digits), that are numbered sequentially and allow location of the codes and aggregation of the data. Codes are usually therefore referred to with their block number, for example 48224-00 [1435] (Bone graft to radius or ulna, in Block 1435, Bone graft to forearm).

As the ICD-10-AM procedure classification is not based on the ICD-9-CM procedure classification, it cannot be easily compared with it. The chapter structure (see Figures 8.1 and 8.2) is broadly similar; however, the ICD-9-CM chapter on operations on the nose, mouth and pharynx was split into chapters for procedures on the nose, mouth and pharynx, and for dental services in ICD-10-AM. In addition, there is a separate chapter for procedures on the breast, which were included with operations on skin and subcutaneous tissue in the ICD-9-CM chapter on operations on the integumentary system. Procedures grouped into the ICD-9-CM chapter on miscellaneous diagnostic and therapeutic procedures have been split into separate ICD-10-AM chapters for chemotherapeutic and radiation oncology, diagnostic imaging services, allied health interventions and miscellaneous procedures.

In addition, the different structure of ICD-10-AM (compared with ICD-9-CM) has meant that some procedures are categorised within a different body system in the new classification and so appear to have 'moved' chapters. For example, some procedures for excision of skin or skin lesions were classified with the area of the body under 'of the skin' in ICD-9-CM, but all these procedures are located together in the ICD-10-AM Chapter XVI (Dermatological and plastic procedures). These and other examples of 'movements' (other than the chapter changes mentioned above) are detailed in Table A4.2.

ICD-10-AM categories used in this report

In both Chapter 7 (Diagnoses) and Chapter 8 (Procedures), the data are presented using the chapters of ICD-10-AM and more detailed categories in the classification. Figures 7.1 and 7.2 present data on principal diagnoses by ICD-10-AM chapter and Figures 8.1 and 8.2 present principal procedure data using the ICD-10-AM procedure chapters.

The diagnosis information is also presented using 73 groupings to cover the entire disease classification at a manageable level (Tables 7.3 to 7.10). These categories are similar to those used to report ICD-9-CM data previously, but reflect the differences between the two classifications in chapter structure, and the major differences in structure within the chapters. Diagnosis information is also presented in 3-character ICD-10-AM groupings, describing the diseases quite specifically (Tables 7.12 to 7.19). There are 1,540 of these 3-character categories, compared with about 1,000 ICD-9-CM 3-digit categories used for the

Table A4.2: Examples of procedures and procedure groups that are included in an ICD-10-AM chapter based on one body system and in an ICD-9-CM procedure chapter based on another body system

Location in ICD-10-AM		Location in ICD-9-CM	
Chapter	**Block or code and description**	**Chapter**	**Code and description**
I Procedures on nervous system	Blocks [46] Decompression cervical spinal cord, [51] Discectomy for recurrent disc lesion, [52] Other discectomy, code 40336-00 [31] Injection of chemonucleolytic agent into disc	14 Operations on the musculoskeletal system	80.5x Excision or destructon of intervertebral disc
VIII Procedures on cardiovascular system	90205-01 [660] Heart and lung transplantation	6 Operations on the respiratory system	33.6 Combined heart-lung transplantation
XI Procedures on urinary system	13100-00 [1059] Haemodialysis	7 Operations on the cardiovascular system	39.95 Haemodialysis
	Block [1060] Peritoneal dialysis	9 Operations on the digestive system	54.98 Peritoneal dialysis
XII Procedures on male genital organs	13290-00 [1192] Collection of semen using a device, 13292-00 [1192] Collection of semen using a device under general anaesthetic	16 Miscellaneous, diagnostic and therapeutic procedures	99.96 Collection of sperm for artificial insemination
XV Procedures on musculoskeletal system	Block [1387] Closed reduction of fracture/dislocation of spine, [1388] Open reduction of fracture/dislocation of spine	1 Operations on the nervous system	03.53 Repair of vertebral fracture
	Block [1365] Reduction fracture of nasal bone	5 Operations on the nose, mouth and pharynx	21.7x Reduction of nasal fracture
XVI Dermatological and plastic procedures	Block [1718] Other procedures for craniostenosis	1 Operations on the nervous system	02.01 Opening of cranial suture
	31255-00 [1622] Excision of basal/squamous cell carcinoma of eyelid, 31300-00 [1623] Excision of residual or recurrent basal/squamous cell carcinoma of eyelid, 90664-00 [1625] Excision of lesion of skin and subcutaneous tissue of eyelid, nec	3 Operations on the eye	08.20 Removal of lesion of eyelid, nos, 08.22 Excision of other minor lesion of eyelid, 08.23 Excision of major lesion of eyelid, partial-thickness, 08.25 Destruction of lesion of eyelid
	45665-01 [1662] Full thickness wedge excision of eyelid		08.24 Excision of major lesion of eyelid, full-thickness
	Block [1677] Repair of blepharoptosis		08.31–08.36 Repair of blepharoptosis by by frontalis muscle technique with suture or with fascial sling, by resection or advancement of levator muscle or aponeurosis, by other levator techniques, by tarsal technique, by other techniques, 08.37 Reduction of overcorrection of ptosis
	Block [1684] Reconstruction of eyelid, 45656-02 [1669] Composite graft to eyelid, 45451-00 [1649] Full thickness skin graft of eyelid		08.6x Reconstruction of eyelid with flaps or grafts, 08.7x Other reconstruction of eyelid
	45617-00 [1662] Reduction of upper eyelid, 45620-00 [1662] Reduction of lower eyelid		08.86 Lower eyelid rhytidectomy, 08.87 Upper eyelid rhytidectomy
	Block [1678] Repair of ear	4 Operations on the ear	18.5 Surgical correction of prominent ear

Table A4.2 (continued): Examples of procedures and procedure groups that are included in an ICD-10-AM chapter based on one body system and in an ICD-9-CM procedure chapter based on another body system

Location in ICD-10-AM		Location in ICD-9-CM	
Chapter	**Block or code and description**	**Chapter**	**Code and description**
XVI Dermatological and plastic procedures (continued)	31255-02 [1622] Excision of basal/squamous cell carcinoma of ear, 31300-02 [1623] Excision of residual or recurrent basal/squamous cell carcinoma of ear, 90664-02 [1625] Excision of lesion of skin and subcutaneous tissue of ear, nec, 45665-02 [1663] Full thickness wedge excision of ear		18.29 Excision or destruction of other lesion of external ear, 18.3x Other excision of external ear
	31255-01 [1622] Excision of basal/squamous cell carcinoma of nose, 31300-01 [1623] Excision of residual or recurrent basal/squamous cell carcinoma of nose, 90664-01 [1625] Excision of lesion of skin and subcutaneous tissue of nose nec	5 Operations on the nose, mouth and pharynx	21.30 Excision or destruction of lesion of nose, nos, 21.32 Local excision or destruction of other lesion of nose
	Block [1679] Rhinoplasty, block [1680] Other repair of nose, 45650-00 [1687] Revision of rhinoplasty, 45051-00 [1682] Facial contour reconstruction with implant		21.82 Closure of nasal fistula, 21.84, Revision rhinoplasty, 21.85 Augmentation rhinoplasty, 21.86 Limited rhinoplasty, 21.87 Other rhinoplasty, 21.89 Other repair and plastic operations on nose
	Block [1664] Excision, lip, 31255-03 [1622] Excision of basal/squamous cell carcinoma of lip, 31300-03 [1623] Excision of residual or recurrent basal/squamous cell carcinoma of lip, 90664-03 [1625] Excision of lesion of skin and subcutaneous tissue of lip, nec		27.42 Wide excision of lesion of lip, 27.43 Other excision of lesion or tissue of lip
	45448-02 [1645] Small split skin graft of lip, 45451-02 [1649] Full thickness skin graft of lip		27.55 Full-thickness skin graft to lip and mouth, 27.56 Other skin graft to lip and mouth
	Blocks [1690 Procedures for cleft palate, [1691] Procedures for cleft lip and anterior palate		27.62 Correction of cleft palate, 27.63 Revision of cleft palate repair, 27.69 Other plastic repair of palate
	Block [1681] Repair of pharynx		29.4 Plastic operation on pharynx
	[1699] Resection of mandible, [1700] Resection of maxilla, [1701] Resection of other facial bone, [1702] Genioplasty, [1703] [1704] Osteotomy or ostectomy of zygoma, without/wiith internal fixation, [1705] [1706] Osteotomy or ostectomy of mandible or maxilla without/with internal fixation, [1707] [1708] Osteotomy or ostectomy of mandible or maxilla, without/with internal fixation, procedures in combination, [1709] Midfacial osteotomies, [1710] Frontal bone advancement, [1712] Other repair of skull or facial bone	14 Operations on the musculoskeletal system	76.3x Partial ostectomy of facial bone, 76.4x Excision and reconstruction of facial bones, 76.5 Tempromandibular arthroplasty, 76.6x Other facial bone repair and orthognathic surgery

Abbreviations: nec—not elsewhere classified, nos—not otherwise specified.

equivalent tables in previous reports. Information is not generally presented using the very specific 4- and 5-character ICD-10-AM disease categories in this report.

In addition to being presented in chapter groupings, the procedure information is presented using 64 groupings to cover the entire procedure classification (Tables 8.1 to 8.8, 8.18, 8.19). These groupings are largely similar to those used with ICD-9-CM previously but, as for the diagnosis categories, reflect the differences between the two classifications in chapter structure, and the major differences in structure within the chapters. The procedure data are also presented in ICD-10-AM procedure blocks, describing the procedures at a quite specific level (Tables 8.10 to 8.17). There were about 900 ICD-9-CM 3-digit categories used for the equivalent tables in previous reports, so the 1,635 procedure blocks provide comparatively more specificity. Information is not generally presented in this report using the very specific 7-digit ICD-10-AM procedure codes.

External causes are presented in this report using the external causes chapter of ICD-10-AM, divided into 16 groupings (Tables 9.1 to 9.8). A slightly more detailed categorisation is used for the National Health Priority Area tables in Chapter 7.

Mapping between ICD-9-CM and ICD-10-AM

'Mapping' refers to the process of finding an 'equivalent' code between two classifications to enable data users to interpret data partly classified in one classification and partly classified in another. Mapping is therefore important for use of the 1998–99 data in the National Hospital Morbidity Database and for time series analysis of morbidity data. Mapping is also important for grouping data into Australian National Diagnosis Related Groups (AN-DRGs) and AR-DRGs as each version is developed to use a particular set of disease and procedure codes. To suit these purposes, the National Centre for Classification in Health developed four types of maps between ICD-9-CM and ICD-10-AM:

- 'forward historical', to convert ICD-9-CM to ICD-10-AM, so that the ICD-9-CM coded data could be described in ICD-10-AM terms, for example when used with ICD-10-AM coded data (as in this report)
- 'backward historical', to convert ICD-10-AM to ICD-9-CM, so that the ICD-10-AM coded data could be described in ICD-9-CM terms, for example when used with ICD-9-CM coded data (for example in time series analyses with older data coded in ICD-9-CM)
- 'forward logical', to convert ICD-9-CM to ICD-10-AM, for AR-DRG grouping purposes
- 'backward logical', to convert ICD-10-AM to ICD-9-CM, for AR-DRG and AN-DRG grouping purposes

These maps are available on the NCCH Internet site at www.cchs.usyd.edu.au/ncch/

The majority of the code maps in each of these groups are one-to-one maps, meaning that a code in one classification has been mapped to one code only in the other classification. Others are one-to-many maps or many-to-one maps, where one code in one classification is equivalent to two, three or more codes in the other classification. Some are conditional maps, for example mapping a code that is not sex-specific in one classification (for example, a procedure on genital skin) to a female-specific code for data for a female patient, and to male-specific code for a male patient.

Forward historical mapping

The forward historical mapping translates the clinical meaning of codes from ICD-9-CM to ICD-10-AM, as far as is possible. They were initially developed by NCCH in 1997 as one-to-one maps (that is, a principal ICD-10-AM map), with listings of codes associated with the principal map. When the final version of the ICD-10-AM publication became available,

and following input from the South Australian Department of Human Services and the Institute (which had both been using the maps to forward map ICD-9-CM data in large databases), revisions were made in 2000 to incorporate a range of one-to-many, many-to-one and conditional maps. The revised maps (which are available from the Institute) have been used by the Institute to forward map the ICD-9-CM codes provided for the National Hospital Morbidity Database for 1998–99 by Queensland, South Australia, Western Australia and Tasmania. This mapping has enabled the national 1998–99 diagnosis, procedure and external cause data to be presented in ICD-10-AM in this report.

Backward historical mapping

The NCCH's backward historical maps translate the clinical meaning of ICD-10-AM codes to ICD-9-CM codes, as far as is possible, using one-to-one maps. The Institute has made a few revisions to these maps, creating sex-specific conditional maps as required, however, the maps do not incorporate other conditional maps nor one-to-many and many-to-one maps that would probably be required for optimal backward historical mapping.

These maps have been used by the Institute to map the 1998–99 ICD-10-AM codes provided by New South Wales, Victoria, the Australian Capital Territory and the Northern Territory to ICD-9-CM for the National Hospital Morbidity Database. These mapped data are not presented in this report but will be available in the database for data users.

Logical mapping

The logical maps are designed to ensure that the data group appropriately, so they do not always translate clinical meaning in the same way that the historical maps do. In most cases, logical and historical maps are the same, however, they can differ. For example, the forward historical ICD-9-CM code for *Salmonella* meningitis (003.21) is A02.2 (Localised *Salmonella* infection), a code in the *Certain infectious and parasitic diseases* chapter, reflecting the aetiology of the disease. The forward logical map for this code is, however, G01 (Meningitis in bacterial diseases classified elsewhere), a code in the *Diseases of the nervous system* chapter, reflecting the manifestation of the disease and ensuring that the data would group to a DRG within MDC 01 (Diseases and disorders of the nervous system).

Backward logical maps are used to map the coded ICD-10-AM data to ICD-9-CM for grouping in AN-DRGs and AR-DRGs. NCCH's initial backward maps were designed for AR-DRGs version 4.0, and these were revised, with input from the Victorian Department of Human Services, for grouping to AN-DRGs version 3.1. The revised logical backward maps (which have been endorsed by the National Health Information Management Group as a national standard) were used by the Institute to map the 1998–99 ICD-10-AM data provided to the National Hospital Morbidity Database by New South Wales, Victoria, the Australian Capital Territory and the Northern Territory to ICD-9-CM, for AN-DRG version 3.1 grouping. The AN-DRG data accompanying this report on the Internet for those jurisdictions are therefore based on these backward logical maps.

Forward logical maps were used to create version 4.1 of the AR-DRGs from version 4.0 AR-DRGs (see below).

Comparison of mapped and unmapped data

The suite of maps described above have allowed the Institute to collate data partly provided in ICD-9-CM and partly provided in ICD-10-AM into one data set and to present them as national data in this report. However, it is important to note that none of the mappings are perfect. When the codes of one classification are more precise or less precise than those of the other, meaning is lost. Data mapped from ICD-9-CM to ICD-10-AM is therefore not exactly equivalent to data originally classified and reported in ICD-10-AM.

Caution should therefore be exercised when interpreting national data (which are a mix of mapped and unmapped data) and when comparing data from jurisdictions that reported in ICD-10-AM (New South Wales, Victoria, the Australian Capital Territory and the Northern Territory) with data from the States that reported in ICD-9-CM (Queensland, Western Australia, South Australia and Tasmania). Reference should be made to the classifications and the maps for precise interpretation.

Introduction of version 4.0/4.1 AR-DRGs

Previous publications in the Australian Hospital Statistics series have presented information on Diagnosis Related Groups using AN-DRGs version 3.0 or version 3.1. This report instead uses AR-DRGs version 4.0/4.1.

AR-DRG version 4.0/4.1 was developed by the Department of Health and Aged Care to update the Australian DRG system in line with changes to medical, surgical and ICD coding practices (DHAC 1998). Version 4.0 was developed first, using ICD-9-CM codes. Once the logic and the DRG definitions had been changed, the diagnosis and procedure codes were logically forward mapped to ICD-10-AM codes, forming version 4.1. Versions 4.0 and 4.1 are therefore based on the same logic (with a few minor exceptions), despite requiring ICD-9-CM and ICD-10-AM codes, respectively, as input. For 1998–99, cost weights for version 4.0 and version 4.1 combined have been produced by the Department of Health and Aged Care (see Appendix 10).

In this report, data provided in ICD-9-CM codes have been grouped to AR-DRG version 4.0, and data provided in ICD-10-AM codes have been grouped to AR-DRG version 4.1. The version 4.0 and version 4.1 data are essentially equivalent, but it is possible that the logical mapping that underlies version 4.1 means that there are slight differences between the data in each version. Caution should therefore be exercised in interpreting the national AR-DRG data (which are a mix of version 4.0 data and version 4.1 data) and when comparing data from jurisdictions that reported in ICD-10-AM (New South Wales, Victoria, the Australian Capital Territory and the Northern Territory) with data from the States that reported in ICD-9-CM (Queensland, Western Australia, South Australia and Tasmania).

Features of AR-DRG version 4.0/4.1

The Major Diagnostic Category (MDC) structure (see Figures 10.1 and 10.2) of the classification is essentially the same as the MDC structure for AN-DRGs, and the AR-DRGs are similarly based on hierarchies of diagnoses and procedures distributed between surgical, medical and other partitions. However, the AR-DRG classification represents a major overhaul of the DRG classification, with these main features changed:

- The numbering system was changed to an alphanumeric one, showing the broad group to which the DRG belongs (usually the MDC), the adjacent DRG, and the existence and/or nature of splits based on resource consumption.
- The treatment of severity was changed markedly. In AN-DRG version 3.1 the single most severe complication or comorbidity was used as an indicator of the severity of a patient's illness. In AR-DRG version 4.0/4.1 an algorithm has been developed to take account of the cumulative effect of multiple significant complications and/or comorbidities in the patient record.
- MDCs 02 Diseases and disorders of the eye, 17 Neoplastic disorders and 22 Burns were extensively modified, as was multiple trauma.
- Some surgical hierarchies were reordered, especially in MDC 06 Diseases and disorders of the digestive system, MDC 08 Diseases and disorders of the musculoskeletal system

and connective tissue and MDC 09 Diseases and disorders of the skin, subcutaneous tissue and breast.

- Some DRGs were completely restructured. Included were those for tracheostomy, acute myocardial infarction, stroke, head injury, hip replacement, shoulder procedures, elbow procedures, skin disorders and aftercare.
- New DRGs were created, including those for percutaneous coronary angioplasty, microvascular tissue transfer, endoscopic procedures for oesophageal varices, same-day HIV admissions, and opioid use disorder and dependence. Other DRGs were merged.
- The majority of paediatric age splits were changed from 10 years to 3 years. The adjacent DRGs which are split by paediatric age were also changed.
- Parallel DRGs, or surgical DRGs with the same DRG definition and severity splits, have been created for prostatectomy in MDC 11 Diseases and disorders of the kidney and urinary tract and in MDC 12 Diseases and disorders of the male reproductive system.
- The data requirements for grouping were changed. Actual same day stay status is now required rather than intended length of stay, admission weight diagnosis codes are no longer recognised, the acceptable range for actual admission weight values was modified to between 400 and 9999 grams, and mental health legal status has been added for severity splits in MDC 19 Mental diseases and disorders.

Overall, there are 23 MDCs, (as for AN-DRGs version 3.1), but the number of DRGs has reduced from the 667 in AN-DRG version 3.1 to 661 in AR-DRG version 4.0/4.1.

Further information about the AR-DRG classification system is available in *Australian Refined Diagnosis Related Groups Version 4.1 Definitions Manual* (DHAC 1998).

Appendix 5: Cost per casemix-adjusted separation methodology

Summary

Table 2.1 presents a measure of the average cost of providing care for an admitted patient (whether an overnight-stay patient or a same day patient), adjusted for the relative complexity of the patient's clinical condition and of the hospital services provided. This is an important efficiency performance indicator.

The methodology used to calculate the cost per casemix-adjusted separation for the current report uses the method agreed by the National Health Ministers' Benchmarking Working Group (NHMBWG 1998).

The scope of hospitals included in this benchmarking efficiency indicator has been agreed between the States and Territories, and has progressively narrowed in the last few years by excluding atypical hospitals. The scope has been slightly reduced this year. In 1997–98 hospitals which undertook 3.5% of all public hospital separations were not included in the selected 'benchmarking' hospitals. This year, hospitals undertaking 4.2% of total separations were not included.

The current methodology includes all admitted patient separations and their associated costs. It is appropriate to include the 97% of separations which are acute in this calculation, as cost weights are available for each of the acute separations. However the 3% of separations which are not acute are also included, and as there are no cost weights for the non-acute separations, the overall cost per separation is biased. To improve this situation, every State would need to estimate the cost of acute admitted patient separations. New South Wales and Victoria have been able to do this for 1998–99 and this data was presented in Table 2.2.

The Institute hopes that all jurisdictions will soon be in a position to provide reasonably accurate data on the costs of treating acute admitted patients that are separated in a year. When all States and Territories are able to make this estimate, it will be possible to publish a cost per acute admitted separation in *Australian Hospital Statistics*. In addition, if the States are able to provided cost weights e.g. AN-SNAP weights for the admitted patient episodes which are not acute, then it will also be possible to publish an overall cost per separation as well as a cost per palliative separation, a cost per rehabilitative separation, a cost per maintenance episode etc.

In considering whether to change the methodology for this performance indicator, the time series aspects need to be considered. Any move to cost per acute admitted patient episode will mean that it will not be valid to make comparisons with the cost per total admitted patient episode that have been published up until now.

The pros and cons of changing the performance indicator from cost per total separation to cost per acute separation, the timing of such a change, and the appropriate methodology to be used will be considered by the National Health Performance Committee later this year.

Changes to the way unqualified newborns are counted has changed somewhat the numbers in this report as compared to 1997-98.

Finally, the Institute notes that the publication in the Steering Committee for the Review of Commonwealth / State Service Provision (SCRCSSP 2000) (Figure 4.9 and Table 4A.17) of cost per acute case mix weighted separation from the National Hospital Cost Data Collection (NHCDC) data is potentially misleading. The NHCDC is an excellent collection and each year more and more hospitals join it, but it is a voluntary collection and so it has limitations. In Western Australia in 1997-98, the NHCDC included hospitals which had 50% of the State's separations. In South Australia it was 60%. In Victoria it was 73%. Thus an indicator drawn from the NHCDC data is not a performance indicator for the jurisdiction as a whole. It is a performance indicator of an unrepresentative sample of hospitals in that jurisdiction. The NHCDC has a lower representation of non-metropolitan hospitals than the Hospital Establishments collection, which is a census of all public hospitals.

As more and more hospitals come into the NHCDC it will be increasingly possible to use NHCDC data to refine the data that is provided for the Hospital Establishments collection so as to improve the performance indicators that come from the Hospital Establishments collection. For example, the nursing cost per casemix-adjusted separation is currently calculated by applying the overall inpatient fraction to nursing costs. It would be better to use NHCDC data to work out a nursing cost inpatient fraction. The nursing cost per casemix-adjusted separation calculated in this way would be better for benchmarking purposes.

Introduction

Table 2.1 presents a measure of the average cost of providing care for an admitted patient (whether an overnight-stay patient or a same day patient), adjusted for the relative complexity of the patient's clinical condition and of the hospital services provided. The cost per casemix-adjusted separation does not, however, take account of the quality of care delivered within a hospital nor the health outcomes achieved.

The methodology used to calculate the cost per casemix-adjusted separation for the current report uses the method used to report this indicator in *Australian Hospital Statistics 1997–98* (AIHW 1999) and is a methodology agreed by the National Health Ministers' Benchmarking Working Group. The indicator is calculated as:

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

where IFRAC (admitted patient fraction) is the estimated proportion of total hospital costs related to admitted patients and average cost weight is a single number representing the relative costliness of cases for a particular provider (or a group of providers, for example teaching hospitals). Calculation of the average cost weight is described below.

Recurrent expenditure for this indicator is defined by the recurrent expenditure data elements in the *National Health Data Dictionary*.

Total separations excludes *Newborns* with no qualified days, and boarders, defined in the Glossary. A separation is counted when a patient completes an episode of hospital care, whereas an admission is counted when a patient commences an episode of care.

As there is inconsistency between States and Territories in the recording of depreciation, it has been excluded from this analysis. It is anticipated that as accrual accounting becomes universally adopted by health authorities, comparable data on depreciation will become available and it will be included in these analyses (see Tables 3.8 and 3.10 for available data on capital expenditure and depreciation).

The cost per casemix-adjusted separation can not be used as the sole measure of the efficiency of the different jurisdictions in providing hospital services, as some of the costs incurred are costs beyond the control of a jurisdiction. For example, the Northern Territory has high staffing and transport costs, and treats a greater proportion of Aboriginal and Torres Strait Islander patients than other jurisdictions. Because of factors such as these, cost disabilities associated with providing the same level and standard of hospital services available elsewhere in Australia are recognised by the Commonwealth Grants Commission (CGC). Cost disability refers to variables such as remoteness, high input costs and socioeconomic factors that increase the cost of providing services. Other jurisdictions may suffer cost disabilities for other reasons. Factors such as these should be taken into account when making comparisons.

Further work

It has been proposed that further work should be undertaken to refine the methodology to address some of its deficiencies. This report splits the hospitals further into peer groups to enable comparison at a more appropriate level (Appendix 11). Another area of development is the treatment of expenditure on non-acute and psychiatric patients. Both New South Wales and Victoria provided AIHW with estimates of their expenditure on acute non-psychiatric patients which enabled an estimate to be made of the average casemix-adjusted cost of acute non-psychiatric patients for these two States. The effect of restricting the analysis to only acute non-psychiatric patients was to reduce the cost per casemix-adjusted separation by 4.8% in New South Wales and 5.7% in Victoria (See Table 2.2).

These attempts at restricting the analysis also raise questions about the overall framework of the cost and performance analyses. There are a number of alternatives which could improve the analysis including:

- Calculating the casemix adjustments by estimating cost weights for patients other than Acute (using AN-SNAP cost weights for example)
- Estimating costs at other levels such as peer group (Appendix 11), program or diagnostic groupings. The New South Wales and Victorian estimates in Table 2.2 take out mental health programs, which would enable them to be analysed separately, but other programs are also of interest.
- Broadening the analysis to include non-admitted patient care and other hospital outputs such as teaching, research and preventive services. If relative cost weights for each of these outputs can be calculated, then eventually there can be an indicator of overall cost per adjusted output unit for all hospital outputs. Inconsistency in definitions between jurisdictions and questions about the quality of non-admitted patient and other data make this option unlikely in the short term.

Scope

For the purposes of improving the comparability of data across jurisdictions and increasing the accuracy of the analysis, the scope for Table 2.1 has been restricted to those hospitals which mainly provide acute care. The hospitals that were excluded in previous versions of *Australian Hospital Statistic*s include: multi-purpose services; hospices; rehabilitation hospitals; mothercraft hospitals; other sub-acute hospitals (e.g. geriatric care centres providing a mix of rehabilitation and nursing home type care); small non-acute hospitals

and psychiatric hospitals. A number of other hospitals were excluded due to various criteria including dental and other minor specialised hospitals. To make the exclusions consistent and to ensure that hospitals were consistently treated, all hospitals in the 'Unpeered and other' group (Appendix 11) have been excluded from this edition of *Australian Hospital Statistics*. The 'Unpeered and other' group contains: hospitals with less than 200 separations; acute metropolitan hospitals with less than 2,000 separations (mainly small specialised hospitals such as dental hospitals, pregnancy advisory centres & etc); and hospitals that have been subjected to major trauma (including being closed, major flood or fire).

The scope of public hospital establishments included in the calculation of the cost per casemix-adjusted separation figures for 1998–99 is different from the scope of the data reported in all other tables and the scope has also changed since the reports using 1997–98 data (AIHW 1999a, SCRCSSP 2000).

Financial data for most Victorian, and some South Australian hospitals were only available at the network level. For Victoria it was not possible to exclude thirteen hospitals (campuses) with a total of 19,500 separations that would otherwise have satisfied the criteria for exclusion. The effect on the Victorian estimate is likely to be in the order of 1%.

The Tasmanian data was problematic in that there was no estimate of admitted patient expenditure from Tasmania for a number of hospitals and it was not possible to estimate admitted patient expenditure for any but the three largest hospitals in Tasmania. This is not considered a significant problem as the three largest hospitals in Tasmania account for 92% of the total separations in that jurisdiction.

The networking made no difference to the exclusions for South Australia as all of the members of the networks were classified to the same categories as the networks themselves.

As the service reforms under the National Mental Health Strategy are put into place, fewer patients are being treated in specialised psychiatric hospitals, with a shift to treatment and rehabilitation being provided in the public acute hospital system and in the community, including specialised community residential facilities (Commonwealth of Australia 1998). However, these changes are occurring at a different rate between jurisdictions. Table 4.2 shows the crude separation rate for public psychiatric hospitals varied widely, from 0.3 per 1,000 population in Victoria, to 2.9 per 1,000 population in South Australia. This variation reflects differences in the extent to which public psychiatric hospital services have been mainstreamed into public acute hospitals or replaced by community care, and indicates that there are differences across jurisdictions in the number of psychiatric patients who are being included in the total separations used to calculate the cost figures in Table 2.1.

Determining costs for admitted patients

The efficiency indicator published in Table 2.1 covers the costs of all admitted patients. Ideally, costs for acute admitted patients only would be used in this indicator. At present the only cost weights available for all of Australia are the Australian Refined Diagnosis Related Groups cost weights which only apply to acute admitted patients. The current methodology includes non acute separations and their costs because it has been too difficult to separate these costs. The costs weights applied to these non acute separations have been the acute cost weights. It is known that this underestimates the costs of non acute separations.

There are two dimensions to this scope: *admitted* patients and *acute* admitted patients. On the first dimension, it is necessary to exclude costs not directly associated with admitted patient care, notably non-admitted patient costs. To determine the costs associated with admitted patients, an admitted patient fraction (IFRAC) is used. The IFRAC is an expression of the

ratio of admitted patient costs to total hospital costs. The IFRAC is generally estimated at a hospital level from the results of surveys.

$$\text{IFRAC} = \frac{\text{Inpatient cost}}{\text{Total cost}}$$

For hospitals where the IFRAC was not available or clearly inconsistent with the data, the admitted patient costs were estimated using the Health and Allied Services Advisory Council (HASAC) ratio (see Cooper-Stanbury, Solon & Cook 1994). The HASAC IFRAC is calculated using the following formula:

$$\text{IFRAC}_H = \frac{\text{Patient days}}{\text{Patient days} + \left(\frac{\text{NAPOOS}}{\text{Ratio}}\right)}$$

Where NAPOOS = Non-admitted patient occasions of service;

IFRAC_H = the IFRAC calculated; and

Ratio = the ratio of non-admitted patient cost to admitted patient cost per service.

The ratio used in this report equates the cost of 5.753 non-admitted patient services to the cost of one admitted patient bed day.

Unbundling teaching and research costs from the total costs are not directly covered by this equation. The component of costs that relate to teaching are not directly estimated by this HASAC calculation. In effect they would be allocated to admitted patients and non-admitted patients according to the proportion calculated by the HASAC IFRAC. For the most part, research costs are omitted from the scope of the collection as they are most frequently controlled by institutions legally (if not physically) separated from the hospital.

A brief analysis of hospitals where IFRACs were supplied shows that the ratio of non-admitted patient cost to admitted patient cost per service varies considerably between hospitals and jurisdictions. There are two explanations for this: either the casemix is different between the hospitals or the occasions of service are not being counted consistently. For example, a hospital that performed non-admitted patient pathology for a number of other hospitals may have a very different ratio of admitted patient costs to non-admitted patient costs compared with a hospital that performed many non-admitted patient magnetic resonance imaging scans.

The HASAC method is used in this report to estimate IFRACs for 3 very small excluded hospitals in Queensland, 1 small selected and 3 small excluded hospitals in Victoria, 5 small excluded hospitals in South Australia, 1 small selected and 6 excluded hospitals in New South Wales, 1 excluded hospital in the Australian Capital Territory, 1 small selected hospital and 2 small excluded hospitals in Western Australia. The remainder of inpatient fractions in Western Australia were estimated by using 1997–98 data with the exception of the 4 major teaching hospitals and 4 smaller hospitals which supplied provided inpatient fractions for 1998–99 year. These hospitals were responsible for over 60% of the separations in Western Australia. The HASAC IFRAC was usually only used on small rural hospitals and the impact on the statistics is thought to be minimal. It also seems apparent from inspection of the data that some hospitals may have used the HASAC method to estimate their IFRAC for reporting purposes.

Ideally, different IFRACs would be used for different cost categories. In the absence of comprehensive sets of IFRACs, a single hospital-wide IFRAC was applied to all cost categories.

Admitted patients other than acute patients

It was not possible to isolate the costs of acute admitted patients from all admitted patient costs (as defined by the *National Health Data Dictionary* data element *Type of episode of care*). Because costs are being estimated per separation and not per patient day most of the non-acute admitted patients (including rehabilitation and non-acute patients) will have higher costs per separation, as these patients typically have longer lengths of stay, even though their daily costs are lower. These patients make up less than 3% of total admitted patient episodes and account for approximately 15% of patient days. Many of these records have been excluded from the analysis by the restrictions in establishment scope.

There is also variation in the application of the episodes of care and type of episode of care between States and Territories. In States or Territories where there is a clear delineation in funding arrangements between acute and sub-acute services, the split between acute and other types of patients may be different from where this is done purely on a statistical basis.

Care needs to be taken when the comparison is done that allowance is made for uncertainty introduced by these episodes for which the cost weights are invalid. Table 2.1 and Table 2.2 show that there is significant variation in the number and length of stay for the separations other than acute between jurisdictions. Appendix 11 also shows average costs for the types of hospital that are excluded.

The rates at which the types of care other than acute are identified in each jurisdiction do not vary very significantly across the larger jurisdictions, but do vary amongst the smaller jurisdictions. In the current cost per casemix-adjusted separation model they are given the average weights for all other separations in the State. The average weights are within 5% of 1.00 for all States except for the Northern Territory (0.78).

The data in Table 2.2 and the New South Wales and Victorian calculations indicates that moving to cost per acute admitted patient episode instead of cost per total admitted patient episode is likely to change the dollar amounts by 5% or so, but that there is unlikely to be any significant change in the relative positions of the jurisdictions on this performance indicator.

Newborn data

The introduction of a new type of episode of care (NHDC 1998) to change the way of accounting for the newborn data is improving the level of knowledge about newborns. Traditionally unqualified neonates have been costed as a component of the mother's cost weight. The cost weight of the mother reflects the costs of the mother and the unqualified neonate. As a result, the inclusion of unqualified neonates in the count of casemix-adjusted separations would double count the costs of caring for unqualified neonates. From June 1998 separations for newborns were classified on a different basis. Qualified and unqualified patient days are counted separately for a single record (see Appendix 3).

To maintain consistency with the earlier work, the November meeting of the Australian Hospital Statistics Advisory Committee, discussed how to report newborn episodes in *Australian Hospital Statistics 1998–99*, given that they can now comprise qualified days only, a mix of unqualified and qualified days, or unqualified days only. It was agreed that the tables would include separations if there was at least one qualified day, and qualified days were to be used as the count of patient days. Separations that have qualified days are included (as they are equivalent to acute separations), and separations that are totally unqualified are excluded (as they are equivalent to the old 'unqualified neonates'). The cost

of qualified days is treated as expenditure under the newborn's record and the cost of unqualified days is treated as expenditure under the mother's record.

Future costing work may develop these analyses further and the outputs from the National Hospital Cost Data Collection need to be examined to further discussion about the merits of the various approaches that are now possible. For the purposes of calculating the cost per casemix-adjusted separation it does not matter if the costs of newborns with no qualified days are counted separately or combined with the mother as long as the treatment of these newborns is consistent.

Not all jurisdictions had implemented this definition in 1998–99. See Appendix 3 for more information on inconsistencies in the reporting of newborn data.

Adjusting for casemix

The average cost weight is used in this report to adjust for differences in the relative costliness of all acute admitted patients treated in a hospital compared with another hospital or group. The value 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 term 'cost per casemix-adjusted separation' derives from this use of the number of separations adjusted by relative costliness.

Casemix refers to the numbers and types of admitted patients a hospital treats. Hospitals collect data that allow admitted patient episodes to be classified using the Australian National Diagnosis Related Groups (AR-DRG) version 4 casemix classification system. This system groups episodes of similar clinical condition and resource use into 661 categories or AR-DRGs. The National Hospital Cost Data Collection has collected data to produce a cost weight for each AR-DRG (see Appendix 10). The set of cost weights is a relative value scale for all AR-DRGs, calculated so that the average cost weight across all episodes used to produce the set of weights is 1.00. Once a set of cost weights has been produced, it is possible to determine the average cost weight for a hospital or group of hospitals. The average cost weight is calculated as follows:

$$\text{Average cost weight} = \frac{\sum_{i=1}^{n} (\text{CW}_i \times \text{separations}_i)}{\text{Total no. of acute separations}}$$

where i represents each of the 661 AR-DRGs and CW_i is the cost weight for the ith AR-DRG (the different versions of the classification system released to date have different numbers of AR-DRGs).

The average cost weight for a hospital is useful because it represents in a single number the overall complexity of cases treated by a hospital. If the national cost weights are used in the calculation of an average cost weight, then the resultant weight is an indicator of the relative costliness of the hospital's casemix with respect to the national average. 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).

Hospital morbidity data provided to the National Hospital Morbidity Database were used to estimate average cost weights for the groups of hospitals reported in this analysis. Version 4.1 of the AR-DRG classification system was used to allocate patient episodes to AR-DRGs in the jurisdictions using ICD-10-AM: New South Wales, Victoria, the Australian Capital Territory and the Northern Territory. Version 4.0 of the AR-DRG classification system was used to allocate patient episodes to AR-DRGs in the jurisdictions using ICD-9-CM:

Queensland, Western Australia, South Australia and Tasmania. Cost weights were supplied by the Department of Health and Aged Care, from the 1998–99 National Hospital Cost Data Collection. There is some concern over the comparability of the different DRG versions but the effect at the State level, given all States average cost weights changed very little in value between 1997–98 and 1998–99 it is anticipated that effect will be negligible. There are possibly slight differences between the ICD-9-CM States and the ICD-10-AM jurisdictions because of this use of the different ICD classifications, as discussed in Appendix 4. The 1998–99 AR-DRG version 4.0/4.1 combined cost weights (DHAC, unpublished, see Appendix 10) were applied to all jurisdictions.

The complexity of cases treated as admitted patients can differ regionally. Some jurisdictions admit patients who might be treated as non-admitted patients in other jurisdictions. Age structures are less of a concern in comparing States and Territories, and the AR-DRG adjustment is deemed to compensate for the differences in costs due to the higher proportion of older patients in some jurisdictions (Gillett & O'Connor-Cox 1996; Duckett & Jackson 1998).

The validity of comparisons of average cost weights is limited by differences in the extent to which each jurisdiction's psychiatric services are integrated into its public hospital system as service delivery changes under the National Mental Health Strategy. For example, in Victoria, almost all public psychiatric hospitals are now 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 services because the relevant AR-DRGs are less homogeneous than for other acute services.

Estimating total medical costs

For the medical labour costs category, data are readily available only for public patients, as private patients are charged directly by their doctor for medical services. Private patients are those patients who are treated by a doctor of their choice (as opposed to a hospital-nominated doctor) or choose to be accommodated in a single room. Charges for such private medical services are not included in the recurrent expenditure figures. Although Medicare data on in-hospital services are available, they are not sufficiently detailed to allow the allocation of costs to the groups of hospitals reported. The cost of private patients is therefore estimated by assuming that a patient day of care by a medical practitioner costs the same, whether the patient is public or not. The private patient medical costs are then estimated by pro-rating the sum of salary/sessional and VMO payments according to the number of public patient days and the number of private patient days. This is equivalent to multiplying by one minus the public patient day proportion and dividing by the public patient day proportion. The underlying assumption ignores a number of factors including the propensity for junior medical staff to provide care to private patients and for doctors with private patients to charge at higher rates than they would charge the public system under a contract for public patients.

Payroll tax

Only Tasmanian hospitals are liable for a significant proportion of payroll tax. The Institute has worked with the Department of Human Services Tasmania to remove payroll tax costs from the cost per casemix-adjusted separation table. While New South Wales hospitals are payroll tax exempt, payroll tax is paid for central office and some other support service staff.

The amount is insignificant with respect to the New South Wales total. While Queensland hospitals pay payroll tax it is reimbursed and in theory should not be included in any accounts as reported to the National Public Hospital Establishments Database. In practice there is a very small amount reported due to administrative lags and other inconsistencies. No action has been taken to remove this small amount of payroll tax from Queensland or New South Wales data.

Table A5.1: Summary of episodes of care other than acute in public acute hospitals selected for Table 2.1Cost per casemix-adjusted separation[a] States and Territories, 1998–99

Variable	NSW	Vic	Qld	WA	SA	Tas[b]	ACT	NT[c]	Total
Total separations	1,213	944	674	342	332	74	59	55	3,692
Total Patient days	4,668	3,549	2,324	1,242	1,142	273	216	191	13,605
Psychiatric care separations [b]									
Separations ('000)	24	20	20	0	6	3	1	1	75
Proportion of all separations	2%	2%	3%	0%	2%	4%	1%	1%	2%
Patient days	221	273	189	0	55	16	8	8	770
Proportion of all Patient days	5%	8%	8%	0%	5%	6%	3%	4%	6%
Acute Separations [c]									
Separations	1,185	917	647	338	327	73	58	54	3,599
Proportion of all separations	98%	97%	96%	99%	98%	98%	98%	99%	97%
Patient days	4,251	3,020	2,094	1,132	1,067	238	199	181	12,183
Proportion of all Patient days	91%	85%	90%	91%	93%	87%	92%	95%	90%
Acute psychiatric care separations									
Separations ('000)	19	20	19	0	6	3	1	1	69
Proportion of all separations	2%	2%	3%	0%	2%	4%	1%	1%	2%
Patient days	167	273	166	0	55	16	8	6	690
Proportion of all Patient days	3.6%	7.7%	7.1%	0.0%	4.8%	6.0%	3.5%	3.3%	5.1%
Acute non-psychiatric care separations									
Separations ('000)	1,166	897	628	338	321	70	57	54	3,530
Proportion of all separations	96%	95%	93%	99%	97%	95%	97%	98%	96%
Patient days	4085	2747	1928	1132	1012	222	192	175	11493
Proportion of all Patient days	88%	77%	83%	91%	89%	81%	89%	92%	84%
Separations other than acute									
Rehabilitation Separations ('000)	18.5	18.7	20.9	3.1	1.4	0.6	0.2	0.2	63.5
Proportion of all separations	1.5%	2.0%	3.1%	0.9%	0.4%	0.9%	0.3%	0.4%	1.7%
Patient days	240	318	115	83	20	15	5	4	800
Proportion of all Patient days	5.2%	9.0%	5.0%	6.6%	1.7%	5.5%	2.4%	2.2%	5.9%
Palliative Care Separations ('000)	3.2	1.6	2.4	0.4	0.9	0.2	0.2	0.1	8.9
Proportion of all separations	0.3%	0.2%	0.4%	0.1%	0.3%	0.2%	0.4%	0.1%	0.2%
Patient days	32	21	23	4	11	1	4	0	97
Proportion of all Patient days	0.7%	0.6%	1.0%	0.4%	1.0%	0.5%	1.9%	0.1%	0.7%
Non-acute Separations ('000)	4.3	6.1	3.2	0.9	0.5	0.3	0.2	0.3	15.7
Proportion of all separations	0.4%	0.7%	0.5%	0.3%	0.1%	0.3%	0.4%	0.5%	0.4%
Patient days	138	190	89	23	33	17	3	5	498
Proportion of all Patient days	2.9%	5.4%	3.8%	1.9%	2.9%	6.1%	1.4%	2.9%	3.7%
Other separations	2.0	0.0	0.4	0.0	2.2	0.1	0.4	0.0	5.2
Proportion of all separations	0.2%	0.0%	0.1%	0.0%	0.7%	0.2%	0.7%	0.0%	0.1%
Patient days	6	0	3	0	11	1	5	0	27
Proportion of all Patient days	0.1%	0.0%	0.1%	0.0%	1.0%	0.5%	2.2%	0.1%	0.2%
Total separations other than acute									
Separations ('000)	**27.9**	**26.5**	**26.8**	**4.4**	**5.0**	**1.2**	**1.1**	**0.5**	**93.3**
Proportion of all separations	**2.3%**	**2.8%**	**4.0%**	**1.3%**	**1.5%**	**1.6%**	**1.8%**	**1.0%**	**2.5%**
Patient days	**416.5**	**528.8**	**230.2**	**110.1**	**75.3**	**34.1**	**17.0**	**9.9**	**1,421.9**
Proportion of all Patient days	**8.9%**	**14.9%**	**9.9%**	**8.9%**	**6.6%**	**12.5%**	**7.9%**	**5.2%**	**10.5%**

(a) From the National Hospital Morbidity Database, including same day separations and newborns with qualified days.
(b) Patients with total days of psychiatric care equal to the total length of stay.
(c) Includes acute and unspecified separations and newborn episodes of care with qualified days,

Appendix 6: Sentinel procedures

Background

The sentinel procedures table was originally defined as a performance indicator of the National Health Ministers' Benchmarking Working Group (NHMBWG) to provide comparative data between jurisdictions for a defined set of procedures. The rates are age–sex standardised and statistically compared. The procedures were chosen largely on the basis of the frequency with which they were undertaken and because they were often elective, or discretionary in nature.

Extra procedures proposed by South Australia were included in the table by the Australian Hospital Statistics Advisory Committee (AHSAC) on 15 April 1999.

At the meeting of the Australian Hospital Statistics Advisory Committee on 30 November 1999 the need to alter the sentinel procedures table to account for conversion to ICD-10-AM was raised. Appendix 4 provides further information on the introduction of ICD-10-AM and the differences between ICD-9-CM and ICD-10-AM. As ICD-9-CM data were to be mapped forward for this report, it was initially proposed that sentinel procedures would be defined using the same maps. It was noted that for some sentinel procedures, it might not be possible to measure the same concept in ICD-10-AM as was measured in ICD-9-CM.

An AHSAC subcommittee consisting of Dr Raina MacIntyre, Ms Sue Cornes, Mr Ric Marshall and Ms Jo Murray was formed to guide and assist the Institute in the review of the sentinel procedures table. This subcommittee's prime purpose was a review of the intention of several sentinel procedures and to decide on the procedure list to be included in *Australian Hospital Statistics 1998–99*.

This subcommittee discussed the definition of the term 'sentinel procedures' and the framework in which sentinel procedures are selected. Under the NHMBWG framework the variation in sentinel procedures is primarily regarded as a measure of the appropriateness of care. The subcommittee noted that the current list of procedures is an eclectic mix, reflecting a range of interests in this performance indicator.

The subcommittee decided general rules for this analysis:

- For greatest accuracy in identifying the records of interest it was decided that we should use the classification in use in each State in 1998–99 to identify the sentinel procedures, i.e. ICD-9-CM codes to identify the procedures of interest in ICD-9-CM States and the ICD-10-AM codes in the ICD-10-AM jurisdictions and Territories.
- To maintain comparability across time the ICD-9-CM codes for the States using ICD-9-CM would not be modified.
- The apparent intent of the sentinel procedure was to be reflected in the choice of ICD-10-AM codes. The national standard forward historical maps (see Appendix 4) would not necessarily be used unless appropriate.

Codes

The subcommittee also noted that major problems lay in the comparability of data on arthroscopy and endoscopy.

The mapping of the ICD-9-CM data to ICD-10-AM introduces a degree of uncertainty to the inter-jurisdictional comparisons that may not be accounted for in the statistical tests that are used in the table. Thus comparisons between the ICD-9-CM and ICD-10-AM

jurisdictions are more difficult to make than comparisons within either of those groups. The table is therefore separated into the two groups of jurisdictions representing the different versions of the classifications of procedures. Notes on comparability are outlined in the text and/or footnotes to the table.

There are some inconsistencies in the inclusions in the sentinel procedures as originally defined using ICD-9-CM. For example, in the selected sentinel procedures, the angioplasty codes excluded open angioplasty without stenting but included open angioplasty with stenting, because of anomalies in the code structure. These anomalies will be preserved in the ICD-10-AM procedures until a further review is undertaken.

Because of the different structures in ICD-9-CM and ICD-10-AM the sentinel procedures (as defined in ICD-9-CM) and the intent behind them could not always be directly translated into ICD-10-AM. The task also entails making a judgement on the comparability of data between the two coding systems. For example: it is difficult to be conclusive about the comparability of the endoscopy codes.

ICD-9-CM and ICD-10-AM codes for selected procedures

Appendicectomy

ICD-9-CM	ICD-10-AM
47.0	**Block [926]**

Original ICD-9-CM codes excluded incidental appendicectomy (ICD-9-CM code 47.1) but ICD-10-AM codes do not. There were 1,901 incidental appendicectomies performed in 1997–98 and 25,963 appendicectomies. To maintain comparability within the ICD-9-CM States it was decided that these are not to be included to allow cross-year comparison, but where the procedures were performed in a hospital in an ICD-9-CM State on a resident of an ICD-10-AM jurisdiction, then the incidental appendicectomies would be included.

Angioplasty

ICD-9-CM	ICD-10-AM
36.01, 36.02, 36.05, 36.06, 36.07	Blocks [669], [671], codes 35304-00, 35305-00,

ICD-9-CM code 36.09 is not included, probably because the number of these would have been negligible as it is a non-specific code.

Code 35304-01 *Open transluminal balloon angioplasty of 1 coronary artery* is excluded but code 35310-03 *Open insertion of 1 Transluminal stent into single coronary artery* is included. This inconsistency arises because there is no ICD-9-CM code to separate open from percutaneous dilation/stenting of coronary vessels.

There were 6 separations with the open angioplasty codes 35310-03 to 35310-05 in the ICD-10-AM jurisdictions so the actual impact of this inconsistency is minimal.

Caesarean section

ICD-9-CM	ICD-10-AM
74.0, 74.1, 74.2, 74.4, 74.99	**Block [1340]**

The inclusion of caesarean sections in the table is slightly misleading in that the population-based rate of caesarean sections is dependent on the fertility rate as well as the population. The number of in-hospital births has been included as a second point of reference.

The number of births was determined by counting the number of separations with an outcome of birth indicator code reported as an additional diagnoses. The outcome of birth indicator codes are V27.0 to V27.9 in ICD-9-CM and Z37.0 to Z37.9 in ICD-10-AM.

Cholecystectomy

ICD-9-CM	ICD-10-AM
51.2	Block [965]

The differences between the classifications do not appear to be problematic for cholecystectomies.

Coronary artery bypass graft

ICD-9-CM	ICD-10-AM
36.1	Blocks [672] – [679]

The differences between the classifications do not appear to be problematic for coronary artery bypass grafts.

Diagnostic gastrointestinal endoscopies

ICD-9-CM	ICD-10-AM
42.23, 42.24, 44.13, 44.14, 45.13, 45.14, 45.16, 45.23–45.25	Codes 30473-03, 41822-00, 30473-04, 30473-00, 30473-01, 32090-00, 32084-01, 41816-00 Blocks [894], [905], [1005]- [1008] (without code 30473-02)

The ICD-9-CM list of procedures is inconsistent. There is also inconsistency in the mapping of the endoscopy codes for the different types of endoscopies. For example, rigid endoscopies are not always included as well as flexible endoscopies and endoscopies via stoma are not always excluded. The original codes are restricted to diagnostic endoscopies of the gastro-intestinal tract only. Endoscopies that include taking of biopsies are included and Endoscopies that include destruction of tissue are not included. The group has been re-named Diagnostic Gastrointestinal Endoscopies rather than Endoscopies to reflect the contents more accurately.

To maintain comparability with the earlier data, rigid sigmoidoscopy will be excluded even though rigid oesophegoscopy is included. Code 41816-00 *Rigid oesophagoscopy* is included, as there is no distinction between flexible and rigid oesophagoscopy in ICD-9-CM codes 42.23 and 42.24.

The relevant ICD-10-AM codes are not all specific for the stomach and small intestine, with codes for panendoscopies (Blocks 1005–1008) having replaced the more specific ICD-9-CM rubrics.

ICD-10-AM code 32095-00 *Endoscopic examination of small intestine via artificial stoma* is not included as it is equivalent to ICD-9-CM code 54.12 *Endoscopy of small intestine via artificial stoma* which is excluded from the ICD-9-CM list.

ICD-10-AM Block 905 *Fibreoptic colonoscopy* includes colonoscopy via artificial stoma, whereas ICD-9-CM code 45.22 *Endoscopy of large intestine via artificial stoma* was excluded from the ICD-9-CM codes. There were no recorded instances of ICD-9-CM code 45.22 in either 1997–98 or 1998–99. This will mean that there should be no marked difference between the two classifications due to this difference between ICD-9-CM and ICD-10-AM.

ICD-9-CM and ICD-10-AM Coding Standard 0023 relating to Laparoscopic/ arthroscopic/ endoscopic surgery states that if a procedure is performed using one of the three approaches and there is no code provided that encompasses both the 'scopy' and the procedure (e.g. 51.23 laparoscopic cholecystectomy), then both procedures should be coded.

This causes inconsistencies as for example: in ICD-10-AM there is a code for endoscopic removal of foreign body 30478-00. In ICD-9-CM there is no such code and the endoscopy would have been coded separately from the removal of the foreign body. There are 5,629 additional separations in the ICD-10-AM coded jurisdictions with the following codes, which would have been coded with both the procedure and endoscopy separately in ICD-9-CM:

> 30476-00, 30476-01, 30490-00, 30476-02, 41819-00, 41831-00, 30476-03, 30475-00, 30568-00, 32094-00, 30478-00, 30478-01, 30478-04, 30478-10, 41825-00

The net effect of all these differences is that comparability between the ICD-9-CM coded and the ICD-10-AM coded jurisdictions is compromised. The ICD-9-CM States are estimated as having rates of the order of 2% higher than the ICD-10-AM jurisdictions. This is the estimated overall effect of the procedures being counted in the ICD-9-CM coded jurisdictions but not in the ICD-10-AM jurisdictions and vice versa.

There is also inconsistency between this group of codes used for sentinel procedures and the group called 'Endoscopy' used in Tables 4.3 and 4.4, as defined in the *National Health Data Dictionary* Version 7 (AIHW 1998). The NHDD list includes endoscopy of non-gastrointestinal sites, polpectomies and other minor endoscopic procedures. The re-naming of the group to 'Gastrointestinal diagnostic endoscopies' will help to avoid confusion.

Hip replacement

ICD-9-CM	ICD-10-AM
81.51, 81.52, 81.53	Block [1492], codes 47522-00, 49315-00, 49318-00, 49319-00

The differences between the classifications do not appear to be problematic for hip replacements.

Hysterectomy

ICD-9-CM	ICD-10-AM
68.3–68.8	**Blocks [1238], [1268] and [1269]**

The ICD-10-AM codes for hysterectomies also include other procedures such as salpingo-oophorectomy. Thus to count all hysterectomies, all the codes in blocks [1238], [1268] and [1269] were included.

As the other procedures are usually incidental to the hysterectomy, as evidenced by the naming convention 'Hysterectomy with …', we have included all of the codes. This is in

contrast to the endoscopy and arthroscopy codes where the joint codes were excluded (e.g. 30478-00 *Endoscopic removal of foreign body*).

Lens insertion

ICD-9-CM	ICD-10-AM
13.7	Codes 42701-01, 42702-00 to 42702-11, 42703-00, 42710-00, 42707-00, 42701-00

ICD-9-CM coded lens insertion and removal separately. In ICD-10-AM there are a number of joint codes, which are included in the analysis.

The ICD-9-CM codes include replacement of lenses so replacement lens codes 42707-00 and 42710-00 have been included.

The ICD-10-AM code 42731-00 *Capsulectomy of lens by posterior chamber sclerotomy with removal of vitreous* may include the insertion of a lens. However the insertion of a lens after the removal of vitreous does not seem logical. We have therefore not included it in the list of procedures for ICD-10-AM jurisdictions. There were only 75 of these procedures in the ICD-10-AM jurisdictions so the impact on the statistics is minimal.

Tonsillectomy ± adenoidectomy

ICD-9-CM	ICD-10-AM
28.2, 28.3	**Codes 41789-00, 41789-01**

ICD-10-AM codes specifically exclude:

- 41804-00 *Removal of lingual tonsil*. There is a separate ICD-9-CM code (28.5) so it is presumed these are not included in both ICD-9-CM and ICD-10-AM.
- 41787-01 *Uvulectomy with partial palatectomy and tonsillectomy*. There were 35 of these recorded in the ICD-10-AM coded jurisdictions in 1998–99.
- 41786-01 *Uvulopalatopharyngoplasty with tonsillectomy*. There were none of these recorded in the ICD-10-AM coded jurisdictions in 1998–99.

Given that uvulectomy and uvulopalatopharyngoplasty are significant procedures, tonsillectomy is considered incidental to these and they have been be excluded from the ICD-10-AM coded jurisdictions. Their rarity indicates that this should have little impact on the statistics.

Myringotomy (with insertion of tube)

ICD-9-CM	ICD-10-AM
20.01	Codes 41632-00, 41632-01

The ICD-9-CM code is specific for myringotomy with insertion of tube (grommet), as are the ICD-10-AM codes. The title of the sentinel procedure has been changed from 'Myringotomy' to 'Myringotomy with insertion of tube' to reflect this.

The two ICD-10-AM codes are for unilateral and bilateral myringotomy. This does not appear to be problematic for the comparability of the statistics.

Knee replacement

ICD-9-CM	ICD-10-AM
81.54, 81.55	Block [1518], [1519], [1523], 49527-00

The differences between the classifications do not appear to be problematic for knee replacements.

Prostatectomy

ICD-9-CM	ICD-10-AM
60.2–60.6, 60.20–60.69	Blocks [1165], [1167] codes 37200-06, 37207-00, 37207-01, 90407-00, 36839-01, 36839-03

Excision of lesion of prostate is included in the ICD-9-CM codes so for comparison the excision of lesion of prostate is included in the ICD-10-AM codes. This is not consistent with the other codes. Hysterectomy, for example, does not include excision of lesion of uterus.

Block [1166] *Other closed prostatectomy* includes two procedures not clearly related to the other prostatectomies: 37200-01 *Microwave thermotherapy of prostate* and 37200-02 *High intensity focused ultrasound [HIFUS] (transrectal) of prostate*. There were only 5 separations reporting microwave thermotherapy of the prostate and no separations reporting the HIFUS procedures in the ICD-10-AM coded jurisdictions. The omission of these codes is not considered problematic.

Arthroscopy and arthroscopic procedures

ICD-9-CM Arthroscopy	ICD-10-AM Arthroscopy
80.2, 80.20–80.29	50100-00, 49118-00, 49218-00, 49360-00, 49557-00, 49700-00, 53215-00, 48945-00
	ICD-10-AM Arthroscopic procedures
	53218-02, 53218-00, 53218-01, 48954-00, 48948-01, 90600-00, 48945-01, 48948-00, 48948-02, 48951-00, 48957-00, 48960-00, 49121-00, 49121-01, 49121-04, 49118-01, 49109-00, 49121-02, 49121-03, 49221-00, 49221-01, 49221-02, 49218-01, 49224-00, 49224-01, 49224-02, 49227-00, 49366-01, 49366-00, 49363-00, 49560-00, 49560-02, 49557-01, 49557-02, 49558-00, 49560-01, 49560-03, 49566-00, 49561-02, 49562-02, 49561-00, 49562-00, 49561-01, 49562-01, 49558-01, 49558-02, 49559-00, 49563-00, 49539-00, 49542-00, 49703-00, 49703-02, 49700-01, 49703-01, 49703-04, 49703-03, 50100-01, 50102-00

ICD-9-CM and ICD-10-AM Coding Standard 0023 relating to laproscopic/arthroscopic/endoscopic surgery states if a procedure is performed using one of the three approaches and there is no code provided that encompasses both the 'scopy' and the procedure (e.g. 51.23 *Laparoscopic cholecystectomy*) then both procedures should be coded.

The ICD-9-CM codes for arthroscopies are codes that separately identify the operative approach, and are usually used with another code for a treatment procedure. They are not commonly used on their own.

In ICD-10-AM, many arthroscopy codes are now combined codes that is, they describe the operative approach and the treatment procedure in one code. The arthroscopy codes listed are just for arthroscopies that are undertaken without another procedure. With another procedure, the codes listed under arthroscopic procedures have arthroscopy or arthroscopic in the title, i.e. an extra 58 procedure codes.

There were 45,051 separations in the ICD-10-AM jurisdictions with these additional procedure codes. This is nearly four times the number of selected arthroscopies (i.e. without the additional procedures). The ICD-10-AM and ICD-9-CM States are clearly not comparable unless the separate set of data including both the arthroscopy and arthroscopic procedure codes are also included. After inspection of the data, the Institute decided to include both the arthroscopy and the arthroscopic procedure codes (including arthroscopies) separately to allow readers to make their own judgements.

There is also an ICD-10-AM code 53215–00 *Arthroscopy of temporomandibular joint* that may have been coded to 80.29 *Arthroscopy of joint NEC* or to 76.19 *Other diagnostic procedures on facial bones and joints* or to both in ICD-9-CM. There were only 47 of these reported in the ICD-10-AM jurisdictions.

Appendix 7: Hospitals contributing to this report

Tables accompanying this report on the Internet at http://www.aihw.gov.au/publications/health/ahs98-9.html list the public hospitals that contributed to the National Public Hospital Establishments Database for 1998–99 and the public and private hospitals that contributed to the National Hospital Morbidity Database for 1998–99.

Table A7.1 lists the public hospitals included in one or both databases, with information on their average available bed numbers, their peer group (see Appendix 11) and the Statistical Local Area and RRMA category of their location. Those that were not included in the National Hospital Morbidity Database are annotated as such, as are hospitals not included in the cost per casemix-adjusted separation analysis presented in Chapter 2.

Table A7.2 lists the private hospitals that contributed to the National Hospital Morbidity Database, and whether each was a private free standing day hospital facility.

Appendix 8: Population estimates

Table A8.1: Estimated resident population by age group and sex, States and Territories, 31 December 1998

Sex	Age group	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia[(a)]
Females	0	42,470	29,403	22,685	11,996	8,969	2,852	2,062	1,674	122,124
	1–4	170,182	121,473	95,123	49,660	37,240	12,488	8,339	6,870	501,480
	5–14	430,597	312,057	245,659	131,468	97,532	33,960	21,509	15,837	1,288,972
	15–24	432,868	324,453	250,038	133,219	97,501	31,748	24,796	14,809	1,309,586
	25–34	486,403	368,101	265,256	141,255	106,541	32,583	25,336	18,032	1,443,786
	35–44	491,587	362,399	268,134	145,830	114,541	36,686	25,023	14,990	1,459,493
	45–54	414,422	491,587	229,150	120,372	101,532	31,425	22,413	10,488	1,238,088
	55–64	281,518	207,016	145,547	75,154	68,741	21,718	11,554	4,517	815,833
	65–74	239,760	175,851	114,802	57,224	61,315	18,274	7,598	1,964	676,807
	75 and over	218,041	159,671	102,743	50,410	59,101	17,062	6,123	1,107	614,271
	Total	*3,207,848*	*2,552,011*	*1,739,137*	*916,588*	*753,013*	*238,796*	*154,753*	*90,288*	*9,470,440*
Males	0	44,683	31,361	23,749	12,793	9,352	3,067	2,145	1,828	128,998
	1–4	179,066	128,437	100,221	52,817	39,183	13,313	8,656	7,280	529,076
	5–14	452,152	327,028	258,952	138,487	102,877	35,350	22,372	16,992	1,354,550
	15–24	451,394	338,011	260,807	140,711	102,524	32,862	27,087	16,473	1,370,081
	25–34	484,313	363,714	266,155	145,751	108,876	31,229	24,903	19,748	1,445,004
	35–44	493,236	356,875	266,083	147,020	113,382	35,586	23,828	16,536	1,452,836
	45–54	424,585	306,166	237,464	126,755	100,389	31,752	22,077	12,694	1,262,152
	55–64	284,945	206,574	152,726	78,471	67,564	21,774	11,849	6,162	830,173
	65–74	217,939	158,436	108,421	54,017	55,674	16,693	6,871	2,416	620,496
	75 and over	136,018	98,673	68,589	32,139	36,709	10,517	3,812	904	387,381
	Total	*3,168,331*	*2,315,275*	*1,743,167*	*928,961*	*736,530*	*232,143*	*153,600*	*101,033*	*9,380,747*
Persons	0	87,153	60,764	46,434	24,789	18,321	5,919	4,207	3,502	251,122
	1–4	349,248	249,910	195,344	102,477	76,423	25,801	16,995	14,150	1,030,556
	5–14	882,749	639,085	504,611	269,955	200,409	69,310	43,881	32,829	2,643,522
	15–24	884,262	662,464	510,845	273,930	200,025	64,610	51,883	31,282	2,679,667
	25–34	970,716	731,815	531,411	287,006	215,417	63,812	50,239	37,780	2,888,790
	35–44	984,823	719,274	534,217	292,850	227,923	72,272	48,851	31,526	2,912,329
	45–54	839,007	614,295	466,614	247,127	201,921	63,177	44,490	23,182	2,500,240
	55–64	566,463	413,590	298,273	153,625	136,305	43,492	23,403	10,679	1,646,006
	65–74	457,699	334,287	223,223	111,241	116,989	34,967	14,469	4,380	1,297,303
	75 and over	354,059	258,344	171,332	82,549	95,810	27,579	9,935	2,011	1,001,652
Total		**6,376,179**	**4,867,286**	**3,482,304**	**1,845,549**	**1,489,543**	**470,939**	**308,353**	**191,321**	**18,851,187**

(a) Includes Other Territories.

Source: Australian Bureau of Statistics unpublished data.

Table A8.2: Projected Aboriginal and Torres Strait Islander population by age group and sex, States and Territories, 30 June 1998

Sex	Age group	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia[(a)]
Females	0	1,641	325	1,584	759	306	216	45	684	5,561
	1–4	6,570	1,301	6,348	2,998	1,234	836	165	2,668	22,124
	5–14	14,398	2,813	13,916	7,478	2,892	1,964	403	6,206	50,087
	15–24	10,508	2,073	10,620	5,549	2,214	1,663	345	5,549	38,539
	25–34	9,554	2,028	9,379	5,054	2,100	1,191	321	4,726	34,370
	35–44	7,097	1,506	6,613	3,671	1,421	1,057	243	3,170	24,789
	45–54	4,339	838	4,006	2,000	796	571	100	1,944	14,606
	55–64	2,293	453	2,019	1,061	448	271	26	1,116	7,690
	65–74	1,126	285	1,094	611	224	125	15	527	4,010
	75 and over	525	150	526	298	114	73	3	256	1,948
	Total	*58,051*	*11,772*	*56,105*	*29,479*	*11,749*	*7,967*	*1,666*	*26,846*	*203,724*
Males	0	1,725	343	1,665	801	317	225	50	724	5,851
	1–4	6,704	1,372	6,485	3,176	1,227	869	202	2,921	22,962
	5–14	15,012	2,880	14,362	7,645	2,998	2,093	395	6,808	52,213
	15–24	10,787	2,162	10,730	5,606	2,091	1,592	325	5,552	38,873
	25–34	8,418	1,896	8,522	4,733	1,834	1,075	287	4,704	31,489
	35–44	6,336	1,403	5,940	3,363	1,347	961	224	2,889	22,478
	45–54	4,046	858	3,600	1,848	739	660	86	1,710	13,557
	55–64	2,136	204	1,685	956	404	261	21	930	6,823
	65–74	902	423	848	494	162	109	8	405	3,133
	75 and over	294	90	382	220	85	29	2	198	1,301
	Total	*56,360*	*11,631*	*54,219*	*28,842*	*11,204*	*7,874*	*1,600*	*26,841*	*198,680*
Persons	0	3,366	668	3,249	1,560	623	441	95	1,408	11,412
	1–4	13,274	2,673	12,833	6,174	2,461	1,705	367	5,589	45,086
	5–14	29,410	5,693	28,278	15,123	5,890	4,057	798	13,014	102,300
	15–24	21,295	4,235	21,350	11,155	4,305	3,255	670	11,101	77,412
	25–34	17,972	3,924	17,901	9,787	3,934	2,266	608	9,430	65,859
	35–44	13,433	2,909	12,553	7,034	2,768	2,018	467	6,059	47,267
	45–54	8,385	1,696	7,606	3,848	1,535	1,231	186	3,654	28,163
	55–64	4,429	657	3,704	2,017	852	532	47	2,046	14,513
	65–74	2,028	708	1,942	1,105	386	234	23	932	7,143
	75 and over	819	240	908	518	199	102	5	454	3,249
Total		**114,411**	**23,403**	**110,324**	**58,321**	**22,953**	**15,841**	**3,266**	**53,687**	**402,404**

(a) Includes Other Territories.

Source: ABS 1998 Experimental projections of the Aboriginal and Torres Strait Islander population, 30 June 1996 to 30 June 2006 Cat. No. 3231.0.

Table A8.3: Estimated resident population by country/region of birth, Australia 30 June 1998

Country/region of birth	Population	Country/region of birth	Population
Australia	14,364,044	Myanmar	11,474
New Zealand	342,705	Indonesia	56,798
Papua New Guinea	26,585	Cambodia	23,993
Fiji	38,889	Malaysia & Brunei	89,527
Oceania (other)	30,104	Philippines	114,304
Oceania (total)	*14,802,327*	Singapore	28,772
		Vietnam	173,549
United Kingdom & Ireland	1,224,670	Thailand	22,306
Greece	140,955	China	149,101
Italy	247,519	Hong Kong & Macau	55,256
Malta	55,976	Japan	22,081
Former Yugoslavia	203,488	Korea	38,345
Former USSR & Baltic States	55,344	India	95,259
Hungary	27,103	Sri Lanka	55,240
Poland	70,639	Asia (other)	52,112
Romania	13,482	*Asia (total)*	*988,117*
Austria	22,129		
France	18,500	Canada	29,654
Germany	122,690	United States of America	62,126
Netherlands	92,756	North America (other)	459
Europe & the former USSR (other)	122,155	*North America (total)*	*92,239*
Europe & the former USSR (total)	*2,417,406*		
		Argentina	11,617
Lebanon	77,155	Chile	26,110
Turkey	31,428	The Caribbean	3,700
Iran	18,551	Central & South America (other)	40,828
Egypt	37,396	*South America, Central America &*	
Middle East & North Africa (other)	54,363	*The Caribbean (total)*	*82,255*
Middle East & North Africa (total)	*218,893*		
		Mauritius	17,786
		South Africa	68,406
		Africa excluding North Africa (other)	42,930
		Africa excluding North Africa (total)	*129,122*
		Overseas (total)	*4,366,315*
		Total	**18,730,359**

Source: ABS 1998. Migration Australia 1996–97. Cat No. 3412.0.

Appendix 9: Further information

Australian Hospital Statistics 1998–99 is complemented by other recent national publications that have also released hospital statistics:

- Previous years' data in the National Hospital Morbidity Database and the National Public Hospital Establishments Database were summarised in *Australian Hospital Statistics 1997–98* (AIHW 1999a), *Australian Hospital Statistics 1996–97* (AIHW 1998), *Australian Hospital Statistics 1995–96* (AIHW 1997b) and *Australian Hospital Statistics 1993–95: An Overview* (AIHW 1997a).
- Information on patterns of health and illness, use of health services and health services costs and performance were published in *Australia's Health 2000* (AIHW 2000b).
- Establishment-level data on the resources and activities of private hospitals are compiled and published annually by the Australian Bureau of Statistics. Data for 1998–99 are presented in *Private Hospitals, Australia 1998–99* (ABS 2000).
- The *First National Report on Health Sector Performance Indicators*, *Second National Report on Health Sector Performance Indicators* and *Third National Report on Health Sector Performance Indicators* reported a range of indicators of hospital performance (National Health Ministers' Benchmarking Working Group 1996, 1998, 1999).
- Hospital performance indicator data have been released in the *Report on Government Services 1999* (Steering Committee for the Review of Commonwealth/State Service Provision 1999), and *Report on Government Services 2000* (Steering Committee for the review of Commonwealth/State Service Provision 2000).
- Statistics on the hospital-based pharmaceutical, nursing and medical workforces are respectively included in *Pharmacy Labour Force 1998*, *Nursing Labour Force 1998* and *Medical Labour Force 1998* (AIHW 2000c, 1999b, 2000a).
- Summary information on public hospital elective surgery waiting times in was published in *Waiting Times for Elective Surgery 1997–98* (AIHW 2000d).
- The Department of Health and Aged Care's Internet site includes tables of data from the Department's National Hospital Morbidity (Casemix) Database at http://www.health.gov.au. The scope of the Department's tables may differ from the scope of the tables presented in this report, so data in the Department's tables may not correspond exactly to data presented in this report.
- Further information on the derivation of AR-DRG and AN-DRG cost weights and average costs was published in *Report on the National Hospital Cost Data Collection 1997–98 (Round 2)* (Department of Health and Aged Care 1999).
- The National Public Hospital Establishments Database and the National Hospital Morbidity Database include data additional to those published in this report. These data can be made available to interested readers. Further information on data availability can be provided by the Institute.

Appendix 10: The National Hospital Cost Data Collection, 1998–99

The National Hospital Cost Data Collection (NHCDC) was established to produce annual updates of Diagnosis Related Groups (DRG) cost weights, as incorporated into tables in Chapters 2, 4, 5 and 10. It is undertaken by the Department of Health and Aged Care and is a voluntary collection of hospital cost and activity data covering the financial year prior to the collection period; in 1999–2000 the NHCDC collected data for the 1998–99 financial year. The NHCDC collects both public and private hospital data with the results being separately reported for the two sectors.

In the 1998–99 collection (Round 3), cost data was obtained for the following products: acute admitted patients, outpatients, rehabilitation, palliative care, non-acute admitted patients, outreach/community, staff education, research and other. However, in this report the cost data was analysed and reported at a jurisdiction and national level for acute admitted patients only (i.e. by DRG). In addition, data for emergency departments and outpatient clinics were captured by most jurisdictions for this collection. However, at the time of publishing this report, data for both emergency departments and outpatient clinics were not available.

The results used in this report and described here relate to the financial year 1998–99. They involved the collection of data grouped to Australian Refined Diagnosis Related Groups (AR-DRG) version 4.1. For this collection the cost weights are defined as 'Combined' due to the mix of jurisdictions in their coding (ICD-9-CM and ICD-10-AM) and their grouping (AR-DRGs version 4.0 and 4.1) of hospital cost and activity data. The average cost per separation for public hospitals increased from $2,412 in Round 2 (1997–98) to $2,488 in Round 3 (1998–99). The number of public hospitals included in the collection increased from 150 in Round 2 (1997-98) of the NHCDC to 173 in this collection, representing a 15% increase. Whilst the coverage of public hospitals was approximately 33% of total hospitals, the total number of separations was approximately 75% of the estimated total population of separations, because of the significant number of large teaching hospitals in the sample. A total of 52 private hospitals contributed to this collection. The average cost per separation for private hospitals decreased from $1,932 in Round 2 (1997–98) to $1,870 in Round 3 (1998–99) in part due to a change in hospital mix between the Rounds.

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 onto the Department. Further checks are conducted by the Department in processing the data to produce the final cost weights and associated tables.

The participating hospitals include both patient costing and cost modelling sites. Cost modelling generally refers to a process where estimates of costs are produced at the level of each DRG. The approach is 'top down' where costs from the hospitals' general ledgers are allocated down to acute admitted patients using a series of allocation statistics. Patient costing or clinical costing is a 'bottom up' approach where the costs of each service provided to an individual patient are measured or estimated so that the total cost of treating individual patients is obtained. The majority of participating hospitals are cost modelled sites.

As with the Department's previous studies of hospital costs in Australia, the NHCDC is a voluntary collection, and the data from all sites that chose to participate were used in compiling national public and private sector cost weights. In deriving the final results, the sample hospitals were stratified by factors which predispose towards cost differences such

as sector (public or private), State or Territory, location (major urban/non-major urban) and number of separations.

The following tables provide summary information from the 1998–99 NHCDC for the public and private sectors. Tables A10.1 to A10.9 provides a summary of results for the public sector, including some comparative data for Rounds 1 to 3. Information provided includes the estimated average cost per separation by jurisdiction, for each round (Table A10.1), the numbers and proportions of hospitals and separations included in the NHCDC (Tables A10.2 to A10.4), the average length of stay for sampled separations (Table A10.5), and the size of the standard errors associated with the cost weight estimates (Table A10.6). Table A10.7 provides information on the average component costs for separations in each Major Diagnostic Category, and Tables A10.8 and A10.9 present information on overall core and overhead costs. Similar information is presented for private hospitals in Tables A10.10 to A10.16.

Most component costs are split between direct costs and overhead costs and all figures have been population adjusted. Some tables show slight variations in the reported total average cost. This is due to rounding at the total level and not inconsistencies in the data. The numbers of hospitals and separations reported in the NHCDC do not correspond with those reported elsewhere in this report. This difference is due to the NHCDC excluding very small hospitals from the population count and using population adjustments to estimate separations.

Further information about the NHCDC is available in the report of the 1997–98 collection (Commonwealth Department of Health and Aged Care 1999). Cost weights and associated tables for the this round and the previous two rounds can be obtained from the Costing and Ambulatory Section, Acute and Co-ordinated Care Branch, Commonwealth Department of Health and Aged Care (Phone 02 6289 8272).

Table A10.1: NHCDC average cost per separation, public hospitals, States and Territories, 1996–97 to 1998–99

	Round 1 (1996–97, Version 3.1)	Round 2 (1997–98, Version 4.0)	Round 3 (1998–99, Version 4.1)
NSW	2,338	2,528	2,628
Vic	2,110	2,292	2,326
Qld	2,232	2,238	2,368
SA	2,144	2,380	2,357
WA	2,356	2,499	2,472
Tas	2,665	2,332	2,738
NT	2,629	2,781	2,860
ACT	3,334	3,184	3,370
Total	**2,275**	**2,412**	**2,488**
Teaching	2,486	2,608	2,736
Non teaching	2,138	2,257	2,293
Major urban	2,444	2,562	2,660
Non-major urban	2,028	2,126	2,141

Note: Uniformity in depreciation in these data is uncertain across jurisdictions. For example, depreciation data for Victoria is $ 6 per separation and for Western Australia is $ 55 per separation against a national average cost per separation of $ 74.

Table A10.2: NHCDC sample public hospital participation rate relative to population hospitals, Round 1 (1996–97), Round 2 (1997–98) and Round 3 (1998–99)

	Round 1 (1996–97)	Round 2 (1997–98)	Round 3 (1998–99)
Sample hospitals	126	150	173
% increase		19%	15%
Population hospitals	649	524	518
% sample to population	19%	29%	33%

Note: The change in population hospitals from Round 1 (1996–97) to Round 2 (1997–98) was due to a change in hospitals in scope from bed size of 15 to separations exceeding 200 to more accurately reflect throughput.

Table A10.3: NHCDC sample public hospital participation, States and Territories, Round 1 (1996–97), Round 2 (1997–98) and Round 3 (1998–99)

	Round 1 (1996–97)	Round 2 (1997–98)	Round 3 (1998–99)
NSW	41	50	77
Vic	25	30	25
Qld	27	31	34
SA	15	18	20
WA	7	12	7
Tas	6	3	3
NT	3	4	5
ACT	2	2	2
Total	**126**	**150**	**173**

Table A10.4: Separations for sample public hospitals and overall population hospitals, States and Territories, Round 1 (1996–97), Round 2 (1997–98) and Round 3 (1998–99)

	Round 1 (1996–97)			Round 2 (1997–98)			Round 3 (1998–99)		
	Sample	Population	Sample as % of population	Sample	Population	Sample as % of population	Sample	Population	Sample as % of population
NSW	590,418	1,462,098	40	697,924	1,192,425	59	954,698	1,215,192	79
Vic	536,849	952,432	56	626,994	859,176	73	520,168	824,088	63
Qld	407,686	680,400	60	414,566	649,268	64	559,927	671,178	83
SA	239,390	389,923	61	193,765	324,395	60	229,223	322,229	71
WA	73,687	350,471	21	173,522	342,828	51	227,037	371,160	61
Tas	71,365	75,411	95	76,559	81,923	93	74,346	79,342	94
NT	42,728	85,456	50	55,324	58,782	94	54,508	54,508	100
ACT	55,251	55,251	100	56,647	56,647	100	59,121	59,121	100
Total	**2,017,374**	**4,051,442**	**50**	**2,295,301**	**3,565,444**	**64**	**2,679,028**	**3,596,818**	**74**

Note: Separations for New South Wales and Victoria for Round 1 (1996–97) are inflated due to a change in neonate reporting in Round 2 (1997–98).

Table A10.5: Average length of stay (days) for public hospitals, States and Territories, Round 1 (1996–97), Round 2 (1997–98) and Round 3 (1998–99)

	Round 1 (1996–97)	Round 2 (1997–98)	Round 3 (1998–99)
NSW	3.72	3.43	3.54
Vic	3.51	3.52	3.20
Qld	3.66	3.47	3.25
SA	3.71	3.85	3.30
WA	3.65	3.42	3.20
Tas	4.62	3.62	3.62
NT	4.02	3.61	3.19
ACT	3.78	3.63	3.54
Total	**3.68**	**3.51**	**3.35**

Table A10.6: Number of DRGs by standard error range, public hospitals, AR-DRGs, version 4.1, 1998–99

Standard error	Number of DRGs	Separations	% of DRGs	% of total separations
0.010–0.039	334	3,087,701	50.5	85.8
0.040–0.099	197	397,303	29.8	11.0
0.100–0.149	60	60,396	9.1	1.7
0.150–0.199	22	21,031	3.3	0.6
0.200–0.399	32	25,404	4.8	0.7
0.400 +	16	4,915	2.4	0.1
Total	**661**	**3,596,750**	**100.0**	**100.0**

Table A10.7: Average component costs by Major Diagnostic Category, public hospitals, AR-DRGs version 4.1, 1998–99

Major Diagnostic Category		Separations		ALOS (days)	Average cost per separation ($)	Average DRG component cost ($)															
		Number	%			Hotel	Ward Med	Ward Nurs	Path	Imag	Allied	Pharm	Critic-al	OR	Emerg Dept	Supp-lies	Pros	Dep-rec	On-Costs	SPS	Other
0	Pre MDC	8,826	0.25	27.11	45,619	936	2,499	5,747	2,577	1,108	1,344	4,227	18,546	2,455	209	2,111	352	1,022	1,743	197	544
1	Nervous systems disorders	176,907	4.92	5.22	3,416	133	376	1,091	137	164	171	130	141	261	142	228	23	96	165	17	142
2	Eye disorders	69,302	1.93	1.44	1,905	55	326	213	19	11	12	70	4	679	19	178	129	56	74	14	45
3	Ear, nose and throat disorders	176,680	4.91	1.70	1,553	57	186	327	37	21	20	66	19	412	51	140	26	51	70	17	55
4	Respiratory disorders	229,940	6.39	5.00	3,028	132	347	1,005	167	103	73	174	152	91	137	211	8	89	165	19	155
5	Circulatory disorders	308,962	8.59	4.48	3,926	128	403	788	178	138	60	144	581	391	135	278	145	116	174	138	128
6	Digestive disorders	409,600	11.39	2.71	2,005	79	226	492	99	52	26	92	61	351	75	161	21	65	100	31	75
7	Hepatobiliary/pancreas disorders	74,288	2.07	4.32	3,537	122	376	859	204	194	50	172	116	592	88	309	30	108	159	34	125
8	Musculoskeletal /connective tissue disorders	292,478	8.13	4.35	3,592	131	331	876	80	128	149	118	30	716	85	297	241	102	163	19	127
9	Skin, tissue, breast disorders	143,788	4.00	3.10	2,108	90	241	551	85	40	53	113	10	412	57	169	14	67	105	10	88
10	Endocrine, nutritional and metabolic disorders	41,066	1.14	4.68	3,136	136	412	943	184	90	78	126	100	320	90	228	14	96	160	15	143
11	Kidney, urinary tract disorders	540,416	15.03	1.53	891	29	109	257	41	30	13	81	13	84	25	97	4	28	40	3	37
12	Male reproductive disorders	45,991	1.28	2.49	2,006	75	227	454	72	31	20	110	13	531	44	173	17	69	96	11	65
13	Female reproductive disorders	134,308	3.73	2.10	1,778	74	201	378	65	14	15	76	7	564	20	153	13	57	84	8	47
14	Pregnancy, childbirth and puerperium	321,089	8.93	3.02	2,166	114	238	933	60	10	20	53	18	165	23	202	4	68	125	1	132
15	Newborns and other neonates	54,597	1.52	8.01	5,176	123	388	1,195	232	72	61	125	2,029	74	29	247	5	149	264	3	181
16	Blood disorders	60,268	1.68	2.30	1,598	51	189	449	143	38	28	224	25	95	44	121	7	44	67	16	59
17	Neoplastic disorders	161,886	4.50	1.80	1,327	33	151	323	102	36	26	330	15	64	14	91	6	32	50	15	39
18	Infectious, parasitic diseases	47,431	1.32	4.80	3,299	117	383	1,004	245	106	78	295	168	132	133	227	7	89	162	13	139
19	Mental disorders	65,364	1.82	7.38	3,605	278	512	1,458	61	24	144	85	10	52	71	303	3	127	227	8	242
20	Alcohol/drug disorders	18,895	0.53	3.69	1,931	104	241	695	70	22	52	60	22	22	155	139	1	73	112	2	161
21	Injuries and poisoning	105,315	2.93	2.81	2,389	88	214	503	97	83	68	97	319	292	193	143	24	75	114	11	67
22	Burns	5,689	0.16	5.43	5,335	169	424	1,712	170	39	263	286	613	412	147	563	67	126	210	19	117
23	Health factors/contacts	91,669	2.55	3.72	1,908	102	211	539	44	29	207	60	10	202	21	163	19	67	128	25	82
24	Error DRGs	11,983	0.33	8.19	6,091	218	601	1,709	247	260	189	342	400	714	85	473	91	163	287	46	266
Total		**3,596,739**	**100.0**	**3.35**	**2,488**	**95**	**266**	**660**	**104**	**70**	**61**	**128**	**177**	**302**	**71**	**192**	**45**	**74**	**120**	**26**	**97**

Note: Abbreviations: MDC—Major Diagnostic Category, DRG—Diagnosis Related Group, ALOS—average length of stay, OR—operating room, Pros—prosthetics, Deprec—depreciation, SPS—specific procedure suites.

Table A10.8: Core and overhead costs by component, public hospitals, AR-DRGs version 4.1, 1998–99

Component	Core cost		Overhead cost		Total cost	
	$	%	$	%	$	%
Ward medical	215	12.04	51	7.24	266	10.69
Ward nursing	514	28.80	146	20.74	660	26.53
Pathology	86	4.82	18	2.56	104	4.18
Imaging	58	3.25	12	1.70	70	2.81
Allied health	47	2.63	14	1.99	61	2.45
Pharmacy	107	5.99	21	2.98	128	5.14
Critical care	140	7.84	37	5.26	177	7.11
Operating rooms	238	13.33	64	9.09	302	12.14
Emergency department	53	2.97	18	2.56	71	2.85
Supplies	110	6.16	82	11.65	192	7.72
Prostheses	41	2.30	4	0.57	45	1.81
Depreciation	32	1.79	42	5.97	74	2.97
Staff on-cost	59	3.31	61	8.66	120	4.82
Specific procedure suites	19	1.06	7	0.99	26	1.05
Hotel	32	1.79	63	8.95	95	3.82
Other	33	1.85	64	9.09	97	3.90
Total	**1,785**	**100.00**	**704**	**100.00**	**2,488**	**100.00**

Table A10.9: Percentage of total costs by component, public hospitals, AR-DRGs version 4.1, 1998–99

Component	Core cost %	Overhead cost %	Total cost %
Ward medical	8.64	2.05	10.69
Ward nursing	20.66	5.87	26.53
Pathology	3.46	0.72	4.18
Imaging	2.33	0.48	2.81
Allied health	1.89	0.56	2.45
Pharmacy	4.30	0.84	5.14
Critical care	5.63	1.49	7.11
Operating rooms	9.57	2.57	12.14
Emergency department	2.13	0.72	2.85
Supplies	4.42	3.30	7.72
Specific procedure suites	1.65	0.16	1.81
Prostheses	1.29	1.69	2.97
Depreciation	2.37	2.45	4.82
On-costs	0.76	0.28	1.05
Hotel	1.29	2.53	3.82
Other	1.33	2.57	3.90
Total			**100.00**

Table A10.10: NHCDC average cost per separation, private hospitals, 1996–97 to 1998–99

	Round 1 (1996–97, Version 3.1)	Round 2 (1997–98, Version 4.0)	Round 3 (1998–99, Version 4.1)
Average cost per separation	2,060	1,932	1,870
Average length of stay	3.60	3.57	3.32
Population separations	1,651,467	1,507,579	1,547,755

Table A10.11: NHCDC sample private hospital participation rate relative to population hospitals, Round 1 (1996–97), Round 2 (1997–98) and Round 3 (1998–99)

	Round 1 (1996–97)	Round 2 (1997–98)	Round 3 (1998–99)
Sample hospitals	22	46	52
% increase		109	13
Population hospitals	302	271	271
% sample to population	7	17	19

Note: The change in population hospitals from Round 1 (1996–97) to Round 2 (1997–98) was due to a change in hospitals in scope from bed size of 15 to separations exceeding 200 to more accurately reflect throughput.

Table A10.12: Separations for sample private hospitals and overall population hospitals, States and Territories, Round 1 (1996–97), Round 2 (1997–98) and Round 3 (1998–99)

	Round 1 (1996–97)			Round 2 (1997–98)			Round 3 (1998–99)		
	Sample	Population	Sample as % of population	Sample	Population	Sample as % of population	Sample	Population	Sample as % of population
Total	244,455	1,651,467	15	482,115	1,507,579	32	381,629	1,547,755	25

Table A10.13: Number of DRGs by standard error range, private hospitals, AR-DRGs, version 4.1, 1998–99

Standard error	Number of DRGs	Separations	% of DRGs	% of total separations
0.010–0.039	60	98,678	9.1	6.4
0.040–0.099	198	1,021,083	30.0	66.0
0.100–0.149	112	201,733	16.9	13.0
0.150–0.199	65	87,377	9.8	5.6
0.200–0.399	127	105,984	19.2	6.8
0.400 +	99	32,902	15.0	2.1
Total	**661**	**1,547,757**	**100.0**	**100.0**

Table A10.14: Average component costs by Major Diagnostic Category, private hospitals, AR-DRGs version 4.1, 1998–99

Major Diagnostic Category		Separations			Average cost per separation ($)	Average DRG component cost ($)															
		Number	%	ALOS (days)		Hotel	Ward Med	Ward Nurs	Path	Imag	Allied	Pharm	Critic-al	OR	Emerg Dept	Supp-lies	Pros	Dep-rec	On-Costs	SPS	Other
0	Pre MDC	1,265	0.08	26.48	40,621	2,433	195	5,240	0	79	147	787	21,194	2,234	31	1,747	307	3,096	2,123	917	93
1	Nervous systems disorders	54,946	3.55	5.67	2,552	217	37	971	0	10	37	33	221	421	14	223	36	149	150	21	12
2	Eye disorders	76,085	4.92	1.16	1,419	82	13	207	0	11	1	8	3	683	11	117	122	83	73	2	2
3	Ear, nose and throat disorders	116,385	7.52	1.33	1,222	100	15	288	0	5	3	13	24	481	14	106	30	60	65	12	7
4	Respiratory disorders	70,052	4.53	5.31	1,911	187	17	867	0	9	7	42	130	104	13	176	13	128	122	73	23
5	Circulatory disorders	110,667	7.15	4.43	3,025	160	48	767	0	64	8	39	543	425	16	211	86	229	164	254	10
6	Digestive disorders	245,363	15.85	2.28	1,273	109	13	373	0	9	3	18	66	376	11	96	34	73	69	18	6
7	Hepatobiliary/pancreas disorders	26,236	1.70	4.19	2,617	208	18	724	0	21	4	36	131	774	19	251	87	163	142	27	12
8	Musculoskeletal /connective tissue disorders	210,843	13.62	4.25	2,828	181	26	764	0	10	34	30	60	757	10	238	410	128	147	21	10
9	Skin, tissue, breast disorders	89,246	5.77	2.73	1,673	149	19	477	0	4	9	23	20	599	10	143	14	90	98	13	7
10	Endocrine, nutritional and metabolic disorders	14,063	0.91	4.91	2,648	210	29	852	0	11	11	40	175	645	11	233	93	163	146	16	12
11	Kidney, urinary tract disorders	103,753	6.70	1.84	938	71	12	262	0	6	2	14	35	230	8	122	16	49	53	53	5
12	Male reproductive disorders	28,641	1.85	2.64	1,504	121	19	449	0	7	3	18	37	488	5	120	29	94	90	16	8
13	Female reproductive disorders	70,207	4.54	2.62	1,617	147	15	423	0	10	2	20	17	539	25	163	30	117	88	11	9
14	Pregnancy, childbirth and puerperium	58,898	3.81	4.37	2,219	230	11	1,083	0	11	6	27	22	187	69	193	15	132	176	2	55
15	Newborns and other neonates	12,420	0.80	5.25	1,894	211	27	903	0	8	5	9	31	47	7	224	7	205	136	2	71
16	Blood disorders	14,400	0.93	2.47	1,072	89	9	420	0	11	5	31	48	178	11	105	13	78	61	8	5
17	Neoplastic disorders	53,079	3.43	1.82	896	64	4	281	0	26	6	58	31	168	13	87	30	75	38	8	5
18	Infectious, parasitic diseases	9,306	0.60	6.09	2,244	226	21	1,009	0	11	11	61	192	160	22	213	12	146	132	14	14
19	Mental disorders	16,718	1.08	5.29	1,492	94	10	915	0	5	17	15	11	69	5	104	4	45	136	2	60
20	Alcohol/drug disorders	9,715	0.63	3.53	1,070	25	4	699	0	0	1	8	6	36	2	112	0	51	72	37	16
21	Injuries and poisoning	17,191	1.11	3.75	1,874	159	17	678	0	10	12	26	118	383	24	172	28	110	107	20	10
22	Burns	274	0.02	5.74	2,174	195	9	1,147	0	3	60	47	36	200	18	205	2	72	173	5	3
23	Health factors/contacts	118,433	7.65	4.97	1,702	128	46	600	0	2	409	11	15	96	3	169	5	47	140	5	26
24	Error DRGs	19,570	1.26	3.78	2,966	298	14	916	0	6	67	70	190	551	70	271	149	134	142	81	7
Total		**1,547,755**	**100**	**3.32**	**1,870**	**142**	**21**	**568**	**0**	**13**	**42**	**25**	**108**	**422**	**15**	**161**	**88**	**106**	**108**	**38**	**13**

Note: Abbreviations: MDC—Major Diagnostic Category, DRG—Diagnosis Related Group, ALOS—average length of stay, OR—operating room, Pros—prosthetics, Deprec—depreciation, SPS—specific procedure suites.

Table A10.15: Core and overhead costs by component, private hospitals, AR-DRGs version 4.1, 1998–99

Component	Core cost		Overhead cost		Total cost	
	$	%	$	%	$	%
Ward medical	17	1.44	4	0.58	21	1.12
Ward nursing	404	34.24	164	23.77	568	30.37
Pathology	0	0.00	0	0.00	0	0.00
Imaging	10	0.85	3	0.43	13	0.70
Allied health	29	2.46	13	1.88	42	2.25
Pharmacy	22	1.86	3	0.43	25	1.34
Critical care	77	6.53	31	4.49	108	5.78
Operating rooms	296	25.08	127	18.41	423	22.62
Emergency department	11	0.93	4	0.58	15	0.80
Supplies	61	5.17	100	14.49	161	8.61
Prostheses	74	6.27	15	2.17	89	4.76
Depreciation	44	3.73	61	8.84	105	5.61
Staff on-cost	74	6.27	34	4.93	108	5.78
Specific procedure suites	28	2.37	10	1.45	38	2.03
Hotel	27	2.29	116	16.81	143	7.65
Other	8	0.68	5	0.72	13	0.70
Total	**1,180**	**100.00**	**690**	**100.00**	**1,870**	**100.00**

Table A10.16: Percentage of total costs by component, private hospitals, AR-DRGs version 4.1, 1998–99

Component	Core cost %	Overhead cost %	Total cost %
Ward medical	0.91	0.21	1.12
Ward nursing	21.60	8.77	30.37
Pathology	0.00	0.00	0.00
Imaging	0.53	0.16	0.70
Allied health	1.55	0.70	2.25
Pharmacy	1.18	0.16	1.34
Critical care	4.12	1.66	5.78
Operating rooms	15.83	6.79	22.62
Emergency department	0.59	0.21	0.80
Supplies	3.26	5.35	8.61
Specific procedure suites	3.96	0.80	4.76
Prostheses	2.35	3.26	5.61
Depreciation	3.96	1.82	5.78
On-costs	1.50	0.53	2.03
Hotel	1.44	6.20	7.65
Other	0.43	0.27	0.70
Total			**100.00**

Appendix 11:Public hospital peer groups

When making comparisons it is useful if the units being compared have been grouped into categories so that variation in the variable of interest is explained by the attributes defining the group (Hindle 1999). The peer groups in this publication are designed to explain variability in the average cost per casemix-adjusted separation and to group hospitals into broadly similar groups in terms of their range of admitted patient activities.

It is also helpful to understand why there are differences in cost between peer groups. Understanding why the average cost per casemix-adjusted separation is more in one group of hospitals than another aids interpretation of benchmarking information.

The Australian Institute of Health and Welfare worked with the National Health Ministers' Benchmarking Working Group (NHMBWG) to develop the initial national hospital peer group classification. This work was overseen by the NHMBWG and was undertaken in consultation with State and Territory health authorities. The Institute chaired a subcommittee consisting of representatives from New South Wales Health, the Queensland Health Department and the Victorian Healthcare Association to develop the classification further. A draft paper was prepared and circulated to the members of that subcommittee and comments were received from the members. Subsequently, the NHMBWG was replaced by the National Health Performance Committee. After consultation and discussion within the National Health Performance Committee the attached classification was developed. The NHPC in its meeting of 29 March 2000 approved the attached classification. The NHPC determined that although teaching status had superior statistical performance in explaining variation in the cost per casemix-adjusted separation, the difficulties inherent in the definition of teaching hospital, together with the associated policy issues, made classification by size a better option. However, it was decided that teaching hospitals would be reported on 'below the line' as a separate category.

Existing classifications

There are a number of existing classifications and approaches that are currently used to group hospitals. The following classifications were analysed for their applicability in the national context:

- national peer groups as defined by the NHMBWG;
- the National Hospital Cost Data Collection peer groups;
- New South Wales' Hospital Peer Groups (NSW Health 1999);
- Victorian peer groups used in the Victorian Hospital Comparative Data/Rainbow Hospital Indicators series (Victorian Hospitals' Association to 1996 and subsequently Department of Human Services Victoria 1999);
- a number of groupings used in a variety of South Australian studies;
- other approaches including geographic and cluster analysis approaches; and
- international descriptions of hospitals.

In addition, there are ad hoc groups of hospitals formed within and across jurisdictions for the purposes of benchmarking where certain policy or other criteria form the basis of the group. For example, small remote hospitals have been formed into collaborative groups in Queensland to facilitate benchmarking.

One method for generating peer groups adopts a cluster analysis approach that uses average distance metrics on hospitals' DRG profiles to generate peer groups, to select closest pairs and to analyse the performance of peer groups generated using other methods. New South Wales used this approach to analyse the performance of its peer groupings (Aisbet 1998). The use of the DRG profiles in this manner has shown that factors such as hospital size and teaching status do not always detect similar peers on the basis of the proportional DRG profile (Diers et al, 1998). A cluster-based approach such as this can be used on any set of dimensions, such as the DRG profile, the age profile or the ICD-9-CM chapter profile of the hospital to determine the distance measurement. There is no limitation on the number of classes that can be derived.

Internationally, teaching hospital status, hospital size (based on number of beds or separations) and membership of associations are frequently used in describing hospitals and as a consequence describing the class of peers to which the hospital belongs.

A note on hospital networks

Networking of hospitals by some jurisdictions has made it impossible to determine classification and performance indicator information at the campus level for some indicators using the information available to the Institute. The extent of this problem varies across jurisdictions as networks vary in size and scope. The jurisdiction most affected by this is Victoria. Some networks consist of a single large hospital with small satellite units, others consist of hospitals that are co-located within very close geographical proximity and other networks consist of large hospitals within a wider geographic region. Conversely there are some hospitals that are located within other hospitals. The level of data that is available on networks and campuses is also variable. For example, in the National Public Hospital Establishments Database held by the Institute, some networks have activity and bed data at the campus level and expenditure data at the network level. Other networks only have single records provided at the network level. In other databases such as the National Hospital Cost Data Collection, the level at which data are held may be at a different level of aggregation so hospitals which are separately identified in one collection may be held at a network level in the other and vice versa.

At this stage, networks have been grouped based on the available characteristics, and are treated as a single hospital. This is consistent with the approach taken for the *Third National Report on Health Sector Performance Indicators* (NHMBWG 1999).

Parameters considered

A number of parameters were considered as potential classification variables, including:

- size;
- resource intensity and acuity;
- demographic characteristics of major patient groups, e.g. Women's and children's, Aboriginal and Torres Strait Islander status;

- specialty, role and clinical expertise;
- geography, e.g. rurality and remoteness;
- teaching and research status; and
- proportions of acute, rehabilitation, palliative care and non-acute patients treated.

The correlation between the average cost per casemix-adjusted separation and the above variables was analysed using the SAS generalised linear modelling procedure to perform various analyses of variance. This analysis showed that although size was one of the more frequently used variables in hospital classification it was relatively poor at explaining variance in cost. Rural hospitals have slightly lower costs per casemix-adjusted separation than metropolitan hospitals, but remote hospitals have higher costs per casemix-adjusted separation. Teaching hospitals have higher costs per casemix-adjusted separation than non-teaching hospitals; women's and children's hospitals are also relatively higher in cost per casemix-adjusted separation.

Teaching status, as defined in the NHDD (NHDC 1999), identifies those hospitals for which teaching (associated with a university) is a major program activity of the establishment. It is primarily intended to relate to teaching hospitals affiliated with universities providing undergraduate medical education as advised by the relevant State or Territory health authority.

Use of teaching status or university hospital in the description and classification of hospitals is widespread throughout hospital-based literature. The classification of hospitals into teaching and non-teaching is probably a proxy measure of the expertise of the clinical staff and hence a proxy measure of the complexity of the cases referred to them, complexity that may not be fully accounted for by the DRG weighting process. The amount of research being undertaken can be understood in a similar manner. It is also possible that the level of innovation and research undertaken in teaching institutions is driving higher costs, leading to better outcomes and other improvements in care over the longer term.

Only if a hospital teaches medical students is it classified as a teaching hospital (NHDC 1999). Given that the salary payments to medical staff (including VMOs) account for less than a quarter of the public hospital system's total salary payments, this leads to teaching activity by other health professionals being less acknowledged as a possible classification variable.

There are some teaching hospitals that appear atypical of the group, including four hospitals with less than 10,000 acute casemix-adjusted separations per annum. The strict delineation between what is and what is not a teaching hospital remains problematic. A definition based on the number of RMOs or teaching staff may be more appropriate than the existing definition, especially as more rural hospitals become involved in programs such as the Rural Health Support Education and Training grants.

Teaching hospitals account for over half of the expenditure in the public hospital system. In the future it may be advantageous therefore to investigate splitting this group into two as in earlier editions of the Victorian rainbow book (VHA 1996). Unfortunately this also may lead to there being too few hospitals in some jurisdictions in the terminal classes to perform inter-state comparisons.

Defining the classification

The hospital peer classification is summarised below. These peer groups have been allocated names that are broadly descriptive of the types of hospitals included in each category.

National peer group classification

Peer group		Definition
A	Principal referral	A1 Metropolitan hospitals with >20,000 acute casemix-adjusted separations and rural hospitals with >16,000 acute casemix-adjusted separations per annum.
		A2 Specialised acute women's and children's hospitals with >10,000 acute casemix-adjusted separations per annum, possible further sub-groups for:
		A2.1 Obstetric and women's specialist
		A2.2 Women's and children's
		A2.3 Paediatric specialist
A9	Un-peered and other	Prison medical services, special circumstance hospitals, hospitals, metropolitan hospitals with <2,000 acute casemix-adjusted separations, hospitals with < 200 separations, etc.
B	Major	B1 Metropolitan acute hospitals treating more than 10,000 acute casemix-adjusted separations per annum.
		B2 Rural acute hospitals treating >8,000 acute casemix-adjusted separations per annum and remote hospitals with > 5,000 casemix-weighted separations.
C	Medium	C1 Medium group 1 acute hospitals, treating between 5,000 and 10,000 acute casemix-adjusted separations per annum.
		C2 Medium group 2 acute hospitals, treating between 2,000 and 5,000 acute casemix-adjusted separations per annum, plus acute hospitals treating < 2,000 casemix-adjusted separations per annum but with >2,000 separations per annum.
D	Small hospitals	D1 Small rural 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.
		D2 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. (Community non-acute).
		D3 Small remote hospitals (<5,000 acute casemix-weighted separations but not 'MPS' and not 'community non-acute'). Most are <2,000 separations.
E	Sub- and non-acute	For this category, a majority of patient days are generally accounted for by rehabilitative, palliative care and non-acute patients:
		E1 Residential aged care facilities—not in scope of collection
		E2 Multi-purpose services
		E3 Hospices
		E4 Rehabilitation
		E5 Mothercraft
E6		Other non-acute (e.g. geriatric treatment centres combining rehabilitation and palliative care with a few acute patients).
F		Psychiatric

There are a number of hospitals that are clearly able to be identified as specialty hospitals which are homogenous, numerous and undertake enough activity to justify the existence of a separate group. Groupings are generally proposed for:

- Sub- and non-acute, with sub-groups for:
  - Residential aged care facilities

    - multi-purpose services
    - hospices
    - rehabilitation hospitals
    - mothercraft hospitals
    - other sub-acute (eg geriatric care centres providing a mix of rehabilitation and nursing home type care)
- Psychiatric
- Large specialised acute women's and children's hospitals
- Un-peered and other.

There are a number of issues that may need further consideration in the grouping and sub-grouping of some of these hospital types. In particular:

- The average length of stay in public psychiatric hospitals ranged from 345.1 days in Queensland to 19.1 days in Victoria (Table 4.2). This indicates that, as a national category, psychiatric hospitals may be more appropriately treated as separate groups such as acute, long term, psychogeriatric and forensic hospitals, all of which belong to different higher level groupings.
- The multi-purpose service (MPS) category is based on a legal definition rather than an operational one. The hospitals in this category are classified as such because they are part of a multi-purpose service health program. As a result some of the hospitals are whole MPSs, some are only the hospital part of an MPS and some are hospitals that are part of networks that are MPSs. This leads to some inconsistencies across jurisdictions.
- The identification of specialist women's and children's hospitals was restricted to align with the definition of principal referral hospitals that they are most similar to in level of expertise. This was done using a size boundary of 10,000 separations. The remaining small women's and children's hospitals (with the exception of the Mothercraft hospitals) were classified according to size.
- The 'un-peered and other' group is not a uniform group as it is a catch-all group for hospitals that do not have any logical peers. This group mainly contains hospitals that are unusual in some respect, for example, prison medical services, dental hospitals, small women's hospitals and the hospitals with less than 200 separations (which do not have stable data in any year because of their small turnover). This group also contains hospitals in unusual circumstances; for example, hospitals affected by major fires, floods or earthquakes, and hospitals in their last year of operation.
- Small hospitals are divided into acute and non-acute by examining the proportion of patient days that relates to: patients other than acute; and outlier patient days. If the proportion of 'patient days other than acute and outlier patient days' is over 40% the hospitals is classified as a non-acute hospital. The trim points were determined on the basis of 1.5 inter-quartile ranges from the third quartile, with a global minimum trim point of 3 days and a global maximum of 60 days. This is to say that AR-DRGs with an inter-quartile range of 0 (usually due to a predominance of same day cases, e.g. dialysis) were assigned a trim point of 3 days, and where the trim point would have exceeded 60 days the trim point was set to 60 days. This is the method used in the Casemix Standards for New South Wales 1998–99 (New South Wales Health 1998) to determine outlier days.

After separating off the specialised hospitals, size and teaching status are the most consistently used parameters for determining boundaries in peer groupings of hospitals. Our analysis has shown that grouping hospitals by size is more in agreement with cluster

analysis of activity statistics rather than basing the top of the hierarchy on teaching status. This indicates that this grouping is better than teaching status at selecting a homogenous group in terms of the range of services provided by the hospital, ie the range of services provided. Teaching status on the other hand is better at explaining the cost per casemix-adjusted separation.

The 6 teaching hospitals that do not group to the *Very large metropolitan (>20,000 acute weighted separations) & rural (>16,000 acute weighted separations)* group include some hospitals that clearly do not appear to be similar in size, activity or structure to the remainder of the teaching hospitals. The 11 hospitals that are very large in size but are not teaching hospitals were split evenly between metropolitan and rural areas.

One important feature is that the 20,000 acute weighted separation barrier effectively divides a majority of teaching and non-teaching hospitals. Seventy-seven per cent of teaching hospitals are larger than 20,000 acute casemix-adjusted separations and vice versa. It is surprising then to note that the size classification performed so poorly in the analysis of variance for cost per casemix-adjusted separation when teaching status performed so well.

The NHPC in its meeting of 29 March 2000 determined that, although teaching status had superior statistical performance in explaining variation in the cost per casemix-adjusted separation, the difficulties inherent in the definition of teaching hospital, together with the policy issues, made classification by size a better option. In particular there was a degree of discussion about the reasons why teaching hospitals were apparently more expensive than non-teaching hospitals, though no definitive answer was given. (This reflects the general controversy over why teaching hospitals are more expensive.) As a compromise, due to statistical and policy considerations, it was decided that teaching hospitals would be reported on below the total line in addition to above the line in the peer groups.

In the preparation of *Australian Hospital Statistics 1997–98* (AIHW 1999a) it was accepted by all jurisdictions that the hospitals satisfying the New South Wales definition of 'community non-acute' hospitals should be excluded from the calculation of cost per casemix-adjusted separation. It is clear that the current methodology does not provide an accurate casemix-adjustment for the activity of these hospitals.

This peer group classification seems to perform reasonably well at explaining cost but there remains some room for improvement. Unavoidably, the largest hospitals in peer group C1 ('medium group 1 acute hospitals') are probably more similar to the smallest hospitals in peer groups B1 ('metropolitan acute hospitals') than they are to the smallest hospitals in peer group C ('medium acute hospitals'). Another question raised by these data is whether the 'un-peered and other' category needs to be further split and added to. Some of the groups can be identified clearly (eg metropolitan hospitals with <2,000 separations and all hospitals with <200 separations). There are other examples in the New South Wales' classification added to their 'other' group which seem to have been based on having unusual clinical profiles. These would have to be identified through a more rigorous process.

A number of hospitals may or may not be in the correct groupings due to their individual circumstances. For example, a 5,000 separation public hospital co-located with a 5,000 separation private hospital may be more similar to a stand-alone 10,000 separation public hospital than a stand-alone 5,000 separation public hospital.

There have been 3 manual assignments. In Victoria, the New Latrobe Regional hospital was scaled up the classification to the principal referral peer group as it operated for only 10 months. The old Latrobe Regional hospital was re-assigned to the 'unpeered and other' category as it operated for only a few months and its statistics would have been unduly affected by wind up items. In New South Wales, Springwood hospital was reassigned as a

small acute rural hospital even though it was a technically in a metropolitan area as it is on the very outer urban fringe and is more like a small rural hospital than a small metropolitan hospital.

There is some inconsistency in the use of the rurality and remoteness indicators within the classification. There is no rurality split at the top (A level) of the hierarchy. In the 'major' group (hospitals of >10,000 acute casemix-adjusted separations), hospitals are split by rurality, and then amongst small hospitals we have effectively taken the small metropolitan hospitals out and created a separate group for the remote small hospitals. There is no rurality split in the medium-sized group of hospitals (2,000–10,000 acute casemix-adjusted separations).

The boundary of 20,000 acute casemix-adjusted separations was chosen for consistency with the earlier national peer group classification. The New South Wales classification uses a 25,000 acute weighted separation limit. There are 10 hospitals between the 20,000 acute casemix-adjusted separations and 25,000 acute weighted separation limits. The limit for rural hospitals was set at 16,000 as comparison of the data against the results of the cluster analysis indicated that rural hospitals provided a wider range of services.

Table A11.1 shows the variation within and between the different peer groups. Table A11.2 reports the data at the individual State level.

Victorian data are not as comparable as other jurisdictions as for example the Victorian metropolitan networks are all classified as Principal referral and teaching hospitals. In reality the networks also contain a variety of smaller hospitals which are neither principal referral nor teaching as well as the principal referral and teaching hospitals. The Victorian psychiatric hospital is a forensic psychiatric hospital and is not strictly comparable with the major psychiatric hospitals.

The Western Australian psychiatric hospitals are a mix of one major psychiatric teaching hospital and four psychogeriatric centres. The Western Australian psychiatric teaching hospital was not counted with the rest of the Teaching hospital group in line with the scope of the cost per casemix-adjusted separation calculations.

Confidentialisation

Data have been confidentialised by suppressing detail data. Data for 4 South Australian hospitals, all 3 Australian Capital Territory hospitals, the Victorian psychiatric hospital and 1 Tasmanian record were suppressed by placing a 'n.p.' over the financial information. The data for the Specialised Women's & children's hospitals in Western Australia and South Australia was confidentialised by putting a 'n.p.' over the data financial information at the detail level and only reporting the 'Total principal referral and specialised women's & children's hospitals' lines.

In addition a few small hospitals with missing expenditure data were excluded (1 in Western Australia, 2 in New South Wales and all except the 3 major hospitals in Tasmania).

Table A11.1: Average costs[a] and selected parameters by hospital peer group, Australia,[b] 1998–99

	Number of Establishments	Average beds	Average separations	Average cost weight	Cost per separation	Cost per patient day	Average length of stay	Total expenditure ($'000)	Cost per casemix-adjusted separation ($)		
									Average	Q3	Q1
Principal referral. -Metropolitan (>20,000 separations) & rural (>16,000 separations)	49	515	45,210	1.06	2,749	722	3.8	8,073,877	2,661	2,925	2,338
Mothers' & children's >10,000 separations	10	249	23,715	1.02	2,740	898	3.1	904,759	2,774	2,981	2,451
Total principal referral	*59*	*470*	*41,567*	*1.06*	*2,748*	*736*	*3.7*	*8,978,635*	*2,671*	*2,957*	*2,388*
Large metropolitan, >10,000 separations	20	171	14,743	1.00	2,269	615	3.7	880,216	2,353	2,660	2,016
Large rural (>8,000 separations) & remote (>5,000 separations)	20	156	13,254	0.89	2,200	643	3.4	769,111	2,512	2,836	2,215
Total other large metro and rural	*40*	*163*	*13,998*	*0.95*	*2,236*	*627*	*3.6*	*1,649,327*	*2,424*	*2,756*	*2,069*
Medium 5,000–10,000 separations	31	95	7,611	0.90	2,263	650	3.5	710,081	2,584	2,864	2,302
Medium 2,000–5,000 separations	73	51	3,646	0.81	1,871	544	3.4	642,191	2,387	2,630	2,049
Total Medium	*104*	*64*	*4,828*	*0.85*	*2,055*	*594*	*3.5*	*1,352,272*	*2,487*	*2,769*	*2,076*
Small rural acute <2,000 separations	103	24	1,055	0.83	1,900	444	4.3	273,469	2,355	2,807	2,023
Remote acute <5,000 separations	57	24	1,204	0.79	2,218	655	3.4	220,724	2,858	3,648	1,914
Total Small rural and remote acute	*160*	*24*	*1,108*	*0.82*	*2,023*	*514*	*3.9*	*494,193*	*2,545*	*2,977*	*2,011*
Small non-acute <2,000 separations	99	25	614	n.a.	2,859	285	10.0	213,747	n.a.	n.a.	n.a.
Muti-purpose service	44	19	483	n.a.	3,017	470	6.4	87,235	n.a.	n.a.	n.a.
Hospice	3	62	1,297	n.a.	6,434	535	12.0	32,057	n.a.	n.a.	n.a.
Rehabilitation	4	69	594	n.a.	16,428	530	31.0	49,958	n.a.	n.a.	n.a.
Mothercraft	7	26	1,850	n.a.	871	262	3.3	12,480	n.a.	n.a.	n.a.
Other non-acute	17	54	785	n.a.	7,674	394	19.5	142,655	n.a.	n.a.	n.a.
Total non-acute (includes small non-acute)	*174*	*28*	*659*	*n.a.*	*3,627*	*355*	*10.2*	*538,132*	*n.a.*	*n.a.*	*n.a.*
Unpeered and other acute (includes hospitals <200 separations)	114	8	218	*n.a.*	2,717	407	6.7	196,771	*n.a.*	*n.a.*	*n.a.*
Psychiatric[c]	19	153	1,009	n.a.	20,120	313	64.3	440,492	n.a.	n.a.	n.a.
Total	**670**	**80**	**5,747**	**n.a.**	**2,662**	**634**	**4.2**	**13,649,821**	**n.a.**	**n.a.**	**n.a.**
Teaching hospitals (excluding psychiatric)	*51*	*483*	*42,835*	*1.07*	*2,831*	*752*	*3.8*	*8,273,567*	*2,715*	*540*	*3,646*

(a) Expenditure data excludes depreciation.

(b) Excludes a few small hospitals with missing expenditure data: 1 in Western Australia, 2 in NSW and all except the 3 major hospitals in Tasmania. Victorian data reported at network level. Metropolitan networks contain many smaller, specialised and non-acute hospitals.

(c) Psychiatric hospitals consist of a mix of short term acute, long term, psychogeriatric and forensic psychiatric hospitals (see Appendix 11).

n.a. Not available.

Table A11.2: Average costs and selected data by hospital peer group, Australia[a], 1998–99

	NSW	Vic[b]	QLD	WA	SA	Tas	ACT	NT	Total
Principal referral (>20,000 acute weighted separations) & rural (>16,000 acute weighted separations)									
Number of hospitals	17	11	11	3	3	2	1	1	49
Average beds per hospital	448	719	450	594	474	355	538	297	515
Separations per hospital	38,671	62,785	35,536	57,159	54,167	32,889	47,098	29,508	45,210
Average cost weight[(c)]	1.09	1.04	1.09	1.03	1.08	1.01	0.97	0.82	1.06
Cost per separation	2,999	2,490	2,729	n.p.	2,482	2,354	n.p.	n.p.	2,749
Cost per patient day	770	636	727	n.p.	735	649	n.p.	n.p.	722
Cost per casemix-adjusted separation	2,870	2,447	2,538	n.p.	2,349	2,427	n.p.	n.p.	2,661
Total expenditure ($'000)	2,661,631	2,435,658	1,254,925	n.p.	499,749	214,800	n.p.	n.p.	8,073,877
Women's & children's >10,000 separations									
Number of hospitals	3	1	4	1	1	0	0	0	10
Average beds per hospital	174	511	163	489	311	. .	. .	. .	249
Separations per hospital	18,299	58,084	13,429	36,865	33,588	. .	. .	. .	23,715
Average cost weight[(c)]	1.04	1.02	1.03	1.07	0.94	. .	. .	. .	1.02
Cost per separation	2,792	2,410	2,597	n.p.	n.p.	. .	. .	. .	2,740
Cost per patient day	898	892	851	n.p.	n.p.	. .	. .	. .	898
Cost per casemix-adjusted separation	2,850	2,451	2,579	n.p.	n.p.	. .	. .	. .	2,774
Total expenditure ($'000)	232,727	197,152	187,319	n.p.	n.p.	. .	. .	. .	904,759
Total Principal referral and specialist Women's & children's									
Number of hospitals	*20*	*12*	*15*	*4*	*4*	*2*	*1*	*1*	*59*
Average beds per hospital	*407*	*701*	*374*	*568*	*433*	*355*	*538*	*297*	*470*
Separations per hospital	*35,615*	*62,394*	*29,640*	*52,086*	*49,022*	*32,889*	*47,098*	*29,508*	*41,567*
Average cost weight[(c)]	*1.09*	*1.04*	*1.08*	*1.04*	*1.06*	*1.01*	*0.97*	*0.82*	*1.06*
Cost per separation	*2,983*	*2,484*	*2,713*	*3,198*	*2,521*	*2,354*	*n.p.*	*n.p.*	*2,748*
Cost per patient day	*778*	*650*	*740*	*859*	*765*	*649*	*n.p.*	*n.p.*	*736*
Cost per casemix-adjusted separation	*2,869*	*2,447*	*2,543*	*3,153*	*2,445*	*2,427*	*n.p.*	*n.p.*	*2,671*
Total expenditure ($'000)	*2,894,358*	*2,632,810*	*1,442,244*	*841,638*	*622,386*	*214,800*	*n.p.*	*n.p.*	*8,978,635*
Large metropolitan, >10,000 acute weighted separations									
Number of hospitals	13	0	3	0	3	0	1	0	20
Average beds per hospital	165	. .	171	. .	199	. .	162	. .	171
Separations per hospital	13,930	. .	16,213	. .	17,879	. .	11,500	. .	14,743
Average cost weight[(c)]	1.01	. .	0.95	. .	1.01	. .	1.09	. .	1.00
Cost per separation	2,305	. .	1,711	. .	2,415	. .	n.p.	. .	2,269
Cost per patient day	604	. .	577	. .	623	. .	n.p.	. .	615
Cost per casemix-adjusted separation	2,374	. .	1,822	. .	2,559	. .	n.p.	. .	2,353
Total expenditure ($'000)	551,357	. .	113,741	. .	167,230	. .	n.p.	. .	880,216
Large rural (>8,000 acute weighted separations) & remote (>5,000 acute weighted separations)									
Number of hospitals	7	5	4	2	0	1	0	1	20
Average beds per hospital	162	149	177	116	. .	136	. .	160	156
Separations per hospital	13,146	13,628	14,733	9,890	. .	8,313	. .	17,886	13,254
Average cost weight[(c)]	0.96	0.91	0.81	0.83	. .	1.13	. .	0.70	0.89
Cost per separation	2,548	2,073	1,665	1,931	. .	n.p.	. .	n.p.	2,200
Cost per patient day	692	594	543	644	. .	n.p.	. .	n.p.	643
Cost per casemix-adjusted separation	2,733	2,335	2,054	2,345	. .	n.p.	. .	n.p.	2,512
Total expenditure ($'000)	290,891	188,600	148,592	53,612	. .	n.p.	. .	n.p.	769,111
Total Large rural, remote and metropolitan									
Number of hospitals	*20*	*5*	*7*	*2*	*3*	*1*	*1*	*1*	*40*
Average beds per hospital	*164*	*149*	*175*	*116*	*199*	*136*	*162*	*160*	*163*
Separations per hospital	*13,655*	*13,628*	*15,367*	*9,890*	*17,879*	*8,313*	*11,500*	*17,886*	*13,998*
Average cost weight[(c)]	*0.99*	*0.91*	*0.87*	*0.83*	*1.01*	*1.13*	*1.09*	*0.70*	*0.95*
Cost per separation	*2,387*	*2,073*	*1,686*	*1,931*	*2,415*	n.p.	n.p.	n.p.	*2,236*
Cost per patient day	*633*	*594*	*558*	*644*	*623*	n.p.	n.p.	n.p.	*627*
Cost per casemix-adjusted separation	*2,492*	*2,335*	*1,943*	*2,345*	*2,559*	n.p.	n.p.	n.p.	*2,424*
Total expenditure ($'000)	*842,248*	*188,600*	*262,333*	*53,612*	*167,230*	n.p.	n.p.	n.p.	*1,649,327*

(continued)

Table A11.2 (continued): Average costs and selected data by hospital peer group, Australia[a], 1998–99

	NSW	Vic[b]	QLD	WA	SA	Tas	ACT	NT	Total
Medium 5,000 to 10,000 acute weighted separations									
Number of hospitals	11	5	4	7	4	0	0	0	31
Average beds per hospital	91	84	91	121	78	. .	. .	. .	95
Separations per hospital	7,253	7,493	6,610	8,944	7,405	. .	. .	. .	7,611
Average cost weight[(c)]	0.98	0.89	0.89	0.81	0.87	. .	. .	. .	0.90
Cost per separation	2,620	2,035	1,881	2,190	2,086	. .	. .	. .	2,263
Cost per patient day	719	638	602	581	664	. .	. .	. .	650
Cost per casemix-adjusted separation	2,775	2,334	2,140	2,734	2,448	. .	. .	. .	2,584
Total expenditure ($'000)	280,873	100,492	74,945	173,802	79,970	. .	. .	. .	710,081
Medium 2,000 to 5,000 acute weighted separations									
Number of hospitals	29	16	14	5	9	0	0	0	73
Average beds per hospital	54	51	48	42	52	. .	. .	. .	51
Separations per hospital	3,590	3,646	3,978	3,073	3,630	. .	. .	. .	3,646
Average cost weight[(c)]	0.8	0.8	0.7	0.8	0.9	. .	. .	. .	0.8
Cost per separation	2,273	1,731	1,226	2,099	1,834	. .	. .	. .	1,871
Cost per patient day	584	546	426	620	531	. .	. .	. .	544
Cost per casemix-adjusted separation	2,818	2,169	1,784	2,618	2,151	. .	. .	. .	2,387
Total expenditure ($'000)	305,308	129,712	95,573	41,580	70,018	. .	. .	. .	642,191
Total Medium									
Number of hospitals	*40*	*21*	*18*	*12*	*13*	0	0	0	*104*
Average beds per hospital	*64*	*59*	*58*	*88*	*60*	. .	. .	. .	*64*
Separations per hospital	*4,597*	*4,562*	*4,563*	*6,498*	*4,792*	. .	. .	. .	*4,828*
Average cost weight[(c)]	*0.90*	*0.85*	*0.76*	*0.81*	*0.87*	. .	. .	. .	*0.85*
Cost per separation	*2,424*	*1,850*	*1,437*	*2,172*	*1,954*	. .	. .	. .	*2,055*
Cost per patient day	*640*	*582*	*486*	*588*	*591*	. .	. .	. .	*594*
Cost per casemix-adjusted separation	*2,799*	*2,237*	*1,923*	*2,712*	*2,292*	. .	. .	. .	*2,487*
Total expenditure ($'000)	*586,180*	*230,204*	*170,518*	*215,382*	*149,987*	. .	. .	. .	*1,352,272*
Small rural acute <2,000 acute weighted separations less than 40% not acute or outlier beddays									
Number of hospitals	27	28	15	16	17	0	0	0	103
Average beds per hospital	29	20	19	20	28	. .	. .	. .	24
Separations per hospital	1,351	1,051	921	646	1,094	. .	. .	. .	1,055
Average cost weight[(c)]	0.84	0.84	0.81	0.80	0.86	. .	. .	. .	0.83
Cost per separation	2,047	1,795	1,700	2,152	1,787	. .	. .	. .	1,900
Cost per patient day	420	411	547	603	424	. .	. .	. .	444
Cost per casemix-adjusted separation	2,537	2,200	2,143	2,754	2,193	. .	. .	. .	2,355
Total expenditure ($'000)	100,118	66,760	32,498	35,654	38,438	. .	. .	. .	273,469
Remote acute <5,000 acute weighted separations									
Number of hospitals	5	0	26	19	4	0	0	3	57
Average beds per hospital	29	. .	23	25	19	. .	. .	37	24
Separations per hospital	1,407	. .	990	1,355	649	. .	. .	2,497	1,204
Average cost weight[(c)]	0.70	. .	0.77	0.81	0.79	. .	. .	0.85	0.79
Cost per separation	1,806	. .	1,720	2,696	2,111	. .	. .	2,712	2,218
Cost per patient day	399	. .	535	839	674	. .	. .	753	655
Cost per casemix-adjusted	2,610	. .	2,267	3,369	2,711	. .	. .	3,226	2,858
Total expenditure ($'000)	17,905	. .	72,455	93,936	7,875	. .	. .	28,553	220,724
Total small rural and remote acute									
Number of hospitals	*32*	*28*	*41*	*35*	*21*	0	0	*3*	*160*
Average beds per hospital	*29*	*20*	*21*	*23*	*26*	. .	. .	*37*	*24*
Separations per hospital	*1,360*	*1,051*	*965*	*1,031*	*1,009*	. .	. .	*2,497*	*1,108*
Average cost weight[(c)]	*0.81*	*0.84*	*0.79*	*0.80*	*0.85*	. .	. .	*0.85*	*0.82*
Cost per separation	*2,008*	*1,795*	*1,713*	*2,540*	*1,827*	. .	. .	*2,712*	*2,023*
Cost per patient day	*417*	*411*	*539*	*766*	*447*	. .	. .	*753*	*514*
Cost per casemix-adjusted separation	*2,546*	*2,200*	*2,223*	*3,198*	*2,249*	. .	. .	*3,226*	*2,545*
Total expenditure ($'000)	*118,023*	*66,760*	*104,953*	*129,590*	*46,314*	. .	. .	*28,553*	*494,193*

(continued)

Table A11.2 (continued): Average costs and selected data by hospital peer group, Australia[a], 1998–99

	NSW	Vic[b]	QLD	WA	SA	Tas	ACT	NT	Total
Small non-acute <2,000 acute weighted separations more than 40% not acute or outlier bed days									
Number of hospitals	39	5	33	4	18	0	0	0	99
Average beds per hospital	25	23	24	20	30	. .	. .	. .	25
Separations per hospital	555	686	693	403	626	. .	. .	. .	614
Cost per separation	3,550	2,220	2,354	4,306	2,547	. .	. .	. .	2,859
Cost per patient day	280	239	335	499	222	. .	. .	. .	285
Total expenditure ($'000)	91,435	10,851	66,851	9,233	35,378	. .	. .	. .	213,747
Multi-purpose service									
Number of hospitals	15	6	5	17	1	0	0	0	44
Average beds per hospital	21	16	16	17	54	. .	. .	. .	19
Separations per hospital	319	944	663	403	634	. .	. .	. .	483
Cost per separation	4,401	2,096	2,005	3,191	n.p.	. .	. .	. .	3,017
Cost per patient day	303	553	446	880	n.p.	. .	. .	. .	470
Total expenditure ($'000)	26,648	16,821	8,963	31,545	n.p.	. .	. .	. .	83,977
Hospice									
Number of hospitals	3	0	0	0	0	0	0	0	3
Average beds per hospital	62	. .	. .	. .	. .	. .	. .	. .	62
Separations per hospital	1,297	. .	. .	. .	. .	. .	. .	. .	1,297
Cost per separation	6,434	. .	. .	. .	. .	. .	. .	. .	6,434
Cost per patient day	535	. .	. .	. .	. .	. .	. .	. .	535
Total expenditure ($'000)	32,057	. .	. .	. .	. .	. .	. .	. .	32,057
Rehabilitation									
Number of hospitals	3	0	0	0	1	0	0	0	4
Average beds per hospital	46	. .	. .	. .	140	. .	. .	. .	69
Separations per hospital	468	. .	. .	. .	971	. .	. .	. .	594
Cost per separation	20,594	. .	. .	. .	n.p.	. .	. .	. .	16,428
Cost per patient day	733	. .	. .	. .	n.p.	. .	. .	. .	530
Total expenditure ($'000)	35,381	. .	. .	. .	n.p.	. .	. .	. .	49,958
Mothercraft									
Number of hospitals	2	3	0	0	1	0	1	0	7
Average beds per hospital	35	28	. .	. .	15	. .	10	. .	26
Separations per hospital	1,888	2,830	. .	. .	685	. .	793	. .	1,850
Cost per separation	1,052	619	. .	. .	n.p.	. .	n.p.	. .	871
Cost per patient day	222	227	. .	. .	n.p.	. .	n.p.	. .	262
Total expenditure ($'000)	4,410	6,021	. .	. .	n.p.	. .	n.p.	. .	12,480
Other non-acute									
Number of hospitals	15	2	0	0	0	0	0	0	17
Average beds per hospital	51	71	. .	. .	. .	. .	. .	. .	54
Separations per hospital	748	1,060	. .	. .	. .	. .	. .	. .	785
Cost per separation	7,494	8,629	. .	. .	. .	. .	. .	. .	7,674
Cost per patient day	392	403	. .	. .	. .	. .	. .	. .	394
Total expenditure ($'000)	121,582	21,073	. .	. .	. .	. .	. .	. .	142,655
Total non-acute									
Number of hospitals	77	16	38	21	21	0	1	0	174
Average beds per hospital	32	27	23	18	36	. .	10	. .	28
Separations per hospital	607	1,231	689	403	646	. .	793	. .	659
Cost per separation	5,134	2,184	2,310	3,403	3,102	. .	n.p.	. .	3,627
Cost per patient day	362	353	344	743	246	. .	n.p.	. .	355
Total expenditure ($'000)	311,512	54,766	75,814	40,778	53,789	. .	n.p.	. .	538,132
Unpeered and other acute[a] (includes hospitals with fewer than 200 separations)									
Number of hospitals	19	8	62	12	13	0	0	0	114
Average beds per hospital	13	11	3	15	14	. .	. .	. .	8
Separations per hospital	132	754	115	314	411	. .	. .	. .	218
Cost per separation	7,192	3,110	1,218	3,448	1,675	. .	. .	. .	2,717
Cost per patient day	288	794	314	819	248	. .	. .	. .	407
Total expenditure ($'000)	24,364	81,144	57,934	19,903	13,425	. .	. .	. .	196,771

(continued)

Table A11.2 (continued): Average costs and selected data by hospital peer group, Australia[a], 1998–99

	NSW	Vic[b]	QLD	WA	SA	Tas	ACT	NT	Total
Psychiatric[e]									
Number of hospitals	8	1	4	5	1	0	0	0	19
Average beds per hospital	138	73	207	85	465	. .	. .	. .	153
Separations per hospital	1,279	570	372	626	3,744	. .	. .	. .	1,009
Cost per separation	15,108	23,344	62,662	15,742	n.p.	. .	. .	. .	20,120
Cost per patient day	328	863	182	368	n.p.	. .	. .	. .	313
Total expenditure ($'000)	196,201	13,306	97,866	57,849	n.p.	. .	. .	. .	440,492
Total									
Number of hospitals	216	91	185	91	76	3	3	5	670
Average beds per hospital	87	127	58	59	67	282	237	113	80
Separations per hospital	5,890	10,642	3,831	3,929	4,682	24,697	19,533	10,977	5,747
Cost per separation	2,926	2,381	2,449	2,955	2,559	2,533	3,257	2,562	2,662
Cost per patient day	635	625	571	738	627	689	882	737	634
Total expenditure ($'000)	4,972,886	3,267,590	2,211,662	1,358,753	1,128,399	254,025	273,216	183,289	13,649,821
Teaching (Excluding psychiatric)									
Number of hospitals	*17*	*9*	*10*	*4*	*4*	*3*	*2*	*2*	*51*
Average beds per hospital	*425*	*845*	*382*	*568*	*433*	*282*	*350*	*229*	*461*
Separations per hospital	*36,795*	*76,223*	*28,854*	*52,086*	*49,022*	*24,697*	*29,299*	*23,697*	*40,757*
Average cost weight[c/]	*1.11*	*1.05*	*1.16*	*1.04*	*1.06*	*1.02*	*0.99*	*0.77*	*1.07*
Cost per separation	*3,088*	*2,509*	*3,031*	*3,198*	*2,521*	*2,533*	*3,232*	*2,539*	*2,831*
Cost per patient day	*796*	*661*	*779*	*859*	*765*	*689*	*875*	*734*	*752*
Cost per casemix-adjusted separation	*2,901*	*2,453*	*2,646*	*3,153*	*2,445*	*2,569*	*3,328*	*3,307*	*2,715*
Total expenditure ($'000)	*2,660,907*	*2,407,708*	*1,060,425*	*841,638*	*622,386*	*254,025*	*271,743*	*154,736*	*8,273,567*

(a) Expenditure data excludes depreciation

(b) Victorian data reported at network level. Metropolitan networks contain many smaller, specialised and non-acute hospitals.

(c) Excludes a few small hospitals with missing expenditure data: 1 in Western Australia, 2 in NSW and all except the 3 major hospitals in Tasmania

(d) Average cost weight from the National Hospital Morbidity Database, based on acute and unspecified separations and newborn episodes of care with qualified days, using the 1998–99 AR-DRG v 4.0/4.1 combined cost weights (DHAC, Unpublished). New South Wales, Victoria, the Australian Capital Territory and the Northern Territory report in ICD-10-AM grouped to AR-DRG v4.1. Queensland, Western Australia, South Australia and Tasmania report in ICD-9-CM grouped to AR-DRG v4.0. (see appendix 4.)

(e) Psychiatric hospitals consist of a mix of short term acute, long term, psychogeriatric and forensic psychiatric hospitals (see appendix 11).

n.p. Not published.

. . Not applicable

Appendix 12: Abbreviations

ABS	Australian Bureau of Statistics
ACHS	Australian Council on Healthcare Standards
AGPS	Australian Government Publishing Service
AHSAC	Australian Hospital Statistics Advisory Committee
AIHW	Australian Institute of Health and Welfare
ALOS	average length of stay
AN-DRG	Australian National Diagnosis Related Group
AN-SNAP	The Australian National Sub-Acute and Non-Acute Patient Classification
AR-DRG	Australian Revised Diagnosis Related Group
ASGC	Australian Standard Geographical Classification
CC	complications and comorbidities
CDE	common bile duct exploration
CGC	Commonwealth Grants Commission
DHSH	Department of Human Services and Health
dis.	diseases
DPIE	Department of Primary Industry and Energy
DRG	Diagnosis Related Group
DVA	Department of Veterans' Affairs
ECMO	extracorporeal membrane oxygenation
exp.	Exposure to
FTE	full time equivalent
HASAC	Health and Allied Services Advisory Council
ICD-9-CM	International Classification of Diseases, 9th revision, Clinical Modification
ICD-10-	International Statistical Classification of Diseases and Related Health Problems, 10th Revision, Australian Modification
IFRAC	admitted patient fraction
mal.	malignant
MBS-E	Extended medical benefits schedule
MDC	Major Diagnostic Category
MPS	Multi Purpose Service
n.a.	not available
nec	not elsewhere classified
NHCDC	National Hospital Cost Data Collection
NHMBWG	National Health Ministers' Benchmarking Working Group
NIOOS	non-inpatient occasions of service
n.p.	not published
OECD	Organisation for Economic Co-operation and Development
op.	operation
procs	procedures
re.	related to
RMOs	resident medical officers
SCRCSSP	Steering Committee for the Review of Commonwealth/State Service Provision
SLA	Statistical Local Area
VMO	visiting medical officer
W	with
W/O	without
. .	not applicable

Glossary

For further information on the terms used in this report, refer to the definitions in use in 1998–99 in the *National Health Data Dictionary* Version 7.0.

Aboriginal or Torres Strait Islander status	Aboriginal or Torres Strait Islander status of the person according to the following definition: An Aboriginal or Torres Strait Islander is a person of Aboriginal or Torres Strait Islander descent who identifies as an Aboriginal or Torres Strait Islander and is accepted as such by the community with which he or she lives.
Acute	Having a short and relatively severe course.
Acute care hospitals	Establishments which provide at least minimal medical, surgical or obstetric services for admitted patient treatment and/or care, and which provide round-the-clock comprehensive qualified nursing service as well as other necessary professional services. They must be licensed by the State or Territory health department, or controlled by government departments. Most of the patients have acute conditions or temporary ailments and the average stay per admission is relatively short. Public acute hospitals are funded by the State or Territory health authority.
Additional diagnoses	Diagnoses or conditions that affect a person's care in terms of requiring therapeutic treatment, clinical evaluation, diagnostic procedure, extended length of hospital stay or increased nursing care and/or monitoring. Additional diagnoses include comorbid conditions (co-existing conditions) and/or complications (conditions that arose during the episode of care).
Administrative and clerical staff	Staff engaged in administrative and clerical duties. Civil engineers and computing staff are included in this category. Medical staff and nursing staff, diagnostic and health professionals, and any domestic staff primarily or partly engaged in administrative and clerical duties are excluded.
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).
Admitted patient	A patient who undergoes a hospital's formal admission process.
Admitted patient cost proportion	The ratio of admitted patient costs to total hospital costs, also known as the inpatient fraction or IFRAC.
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.
Available beds	Beds immediately available for use by admitted patients as required.

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 one day.
Boarder	A person who is receiving food and/or accommodation but for whom the hospital does not accept responsibility for treatment and/or care. A boarder is not admitted to the hospital, although a hospital may register a boarder.
Compensable patients	Those patients entitled to, or who have been paid, compensation, damages, or other benefits in respect of the injury, illness or disease for which they have received care or treatment. More information is contained in the *National Health Data Dictionary* Version 7.0.
Cost weights	Cost weights represent 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. The cost weights used in this report are 1998–99 national cost weights for AR-DRGs v4.0/4.1.
Diagnostic and health professionals	Qualified staff (other than qualified medical and nursing staff) engaged in duties of a diagnostic, professional or technical nature (but also including diagnostic and health professionals whose duties are primarily or partly of an administrative nature). This category includes all allied health professionals and laboratory technicians but excludes civil engineers and computing staff.
Domestic and other staff	Staff engaged in the provision of food and cleaning services. They include domestic staff, such as food services managers, primarily engaged in administrative duties. This category also includes all staff not elsewhere included (primarily maintenance staff, tradespersons and gardening staff).
Domestic services expenditure	The costs 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.
Drug supplies expenditure	The cost of all drugs including the cost of containers.
Error DRGs	Seven AR-DRGs to which separations are grouped if their records contain clinically inconsistent or invalid information.
Eligible Department of Veterans' Affairs patient	An eligible person whose charges for the hospital admission are met by the Department of Veterans' Affairs. These data are as supplied by the States and Territories and the eligibility to receive hospital treatment as a Department of Veterans' Affairs patient may not necessarily have been confirmed by the Department.
Eligible other patient	An eligible person who does not meet the criteria to be an eligible public, private or Department of Veterans' Affairs patient. This category includes compensable patients, patients with Australian Defence Force personnel entitlements and common law cases.

Eligible person	Under the Australian Health Care Agreements (formerly the Medicare agreements), an eligible person means a person who resides in Australia and whose stay in Australia is not subject to any limitation as to time imposed by law. Except where they are covered by reciprocal health care agreements, foreign diplomats, their families and persons visiting Australia are excluded.
Eligible private patient	An eligible person who: • on admission to a public hospital or soon after, elects to be a private patient treated by a medical practitioner of his or her choice, or elects to occupy a bed in a single room. Such a private patient is responsible for meeting certain hospital charges as well as the professional charges raised by any treating medical or dental practitioner; or • chooses to be admitted to a private hospital. Such a private patient is responsible for meeting all hospital charges as well as the professional charges raised by any treating medical or dental practitioner.
Eligible public patient	An eligible person who, on admission to a public hospital or soon after, elects to be a public patient, or an eligible public patient whose treatment is contracted to a private hospital. A public patient is entitled to receive care and treatment without charge.
Enrolled nurses	Second-level nurses who are enrolled in all States and Territories except Victoria where they are registered by the State registration board to practise in this capacity. Includes general enrolled nurses and specialist enrolled nurses (e.g. mothercraft nurses in some States and Territories).
Episode of care	An episode of care is a phase of treatment for an admitted patient. It may correspond to a patient's entire hospital stay, or the hospital stay may be divided into separate episodes of care of different types. See *Separation*.
External cause	Environmental event, circumstance and/or condition as the cause of injury, poisoning and/or other adverse effect.
Food supplies expenditure	The cost of all food and beverages but not including kitchen expenses such as utensils, cleaning materials, cutlery and crockery.
Full time equivalent staff	Full time equivalent units are on-job hours worked and hours of paid leave (sick, recreation, long service, workers' compensation) by/for a staff member (or contract employee where applicable) divided by the number of hours normally worked by a full time staff member when on the job (or contract employee where applicable) under the relevant award or agreement.
HASAC	For hospitals where the IFRAC was not available or was clearly inconsistent with the data, the admitted patient costs are estimated by Health and Allied Services Advisory Council (HASAC) ratio (see Appendix 5).
IFRAC	The ratio of admitted patient costs to total hospital costs, also known as the admitted patient cost proportion.
Ineligible patient	A patient who is not eligible under the Australian Health Care Agreements (formerly the Medicare agreements).
Interest payments	Payments made by or on behalf of the establishment in respect of borrowings (e.g. interest on bank overdraft) provided the establishment is permitted to borrow.

Length of stay	The length of stay of a patient is calculated by subtracting the date the patient is admitted from the date of separation. All leave days, including the day the patient went on leave, are excluded. A same day patient is allocated a length of stay of one day.
Major Diagnostic Categories (MDCs)	A high level of groupings of patients used in the AR-DRG classification.
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.
Newborn episodes of care	A newborn episode of care is assigned for all patients who are admitted aged 9 days or less. Newborn episodes of care comprise qualified days (see below) only, separations with a mixture of qualified and unqualified days and separations with unqualified days only. Separations comprising only qualified days are considered to be the equivalent of episodes of acute care.
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.
Non-admitted patients	Patients who receive care from a recognised non-admitted patient service/clinic of a hospital.
Not published (n.p.)	Not available for separate publication but included in the totals where applicable.
Other personal care staff	This category includes attendants, assistants or home assistants, home companions, family aides, ward helpers, wards persons, orderlies, ward assistants and nursing assistants, engaged primarily in the provision of personal care to patients or residents, who are not formally qualified or undergoing training in nursing or allied health professions.
Other recurrent expenditure	Recurrent expenditure not included elsewhere in any of the recurrent expenditure categories.
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 would include revenue such as investment income from temporarily surplus funds and income from charities, bequests and accommodation provided to visitors.
Patient days	The number of full or partial days' stay for patients who were admitted for an episode of care and who underwent separation during the reporting period. A patient who is admitted and separated on the same day is allocated one patient day. Further information on patient days is included in Appendix 3.
Patient revenue	Revenue received by, and due to, an establishment in respect of individual patient liability for accommodation and other establishment charges.
Patient transport	The direct cost of transporting patients excluding salaries and wages of transport staff.
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.
Place of occurrence of external cause	The place where the external cause of injury, poisoning or violence occurred.

Pre-MDC	Eight AR-DRGs to which separations are grouped, regardless of their principal diagnoses, if they involved 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 the patient's episode of care in hospital.
Principal procedure	The most significant procedure that was performed for treatment of the principal diagnosis. If no procedure is performed for treatment of the principal diagnosis, other procedures can be reported as the principal procedure. In order, these are a procedure performed for treatment of an additional diagnosis, a diagnostic/exploratory procedure related to the principal diagnosis or a diagnostic/exploratory procedure related to an additional diagnosis.
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.
Psychiatric hospitals	Institutions which provide treatment and care for patients with psychiatric, mental or behavioural disorders.
Qualified days	Days within *Newborn* episodes of care are either qualified or unqualified. Days are qualified if the patient is the second or subsequent live-born infant of a multiple birth, whose mother is an admitted patient, is admitted to an intensive care facility in a hospital, or is admitted to, or remains in hospital without its mother.
Recoveries	All revenue received that is in the nature of a recovery of expenditure incurred. This would include: • income received from the use of hospital facilities by salaried medical officers exercising their rights of private practice and by private practitioners treating private patients in hospital; and • other recoveries such as those relating to inter-hospital services where the revenue relates to a range of different costs and cannot be clearly offset against any particular cost.
Recurrent expenditure	Expenditure which recurs continually or frequently (e.g. salaries). It may be contrasted with capital expenditure, such as the cost of hospital buildings and diagnostic equipment, for which expenditure is made infrequently.

Region – Rural, Remote and Metropolitan	• **Capital cities:** statistical division • **Other metropolitan centres**: urban centres with a population greater than or equal to 100,000 • **Large rural centres** (index of remoteness < 10.5): urban centres with a population between 25,000 and 99,000 • **Small rural centres** (index of remoteness < 10.5): urban centres with a population between 10,000 and 24,999 • **Other rural areas** (index of remoteness < 10.5): urban centres with a population less than 10,000 • **Remote centres** (index of remoteness > 10.5): urban centres with a population greater than 4,999 • **Other remote areas** (index of remoteness > 10.5): urban centres with a population less than 5,000. For more information see *Rural, Remote and Metropolitan Areas Classification, 1991 Census Edition* (DPIE & DHSH 1994).
Registered nurses	Nurses with at least a 3-year training certificate and nurses holding postgraduate qualifications. Registered nurses must be registered with a State or Territory registration board.
Repairs and maintenance expenditure	The costs incurred in maintaining, repairing, replacing and providing additional equipment, maintaining and renovating building and minor additional works.
Salaried medical officers	Medical officers engaged by the hospital on a full time or part time salaried basis.
Same day patients	Same day patients are admitted patients who are admitted and separate on the same date.
Separation	The term used to refer to the episode of care, 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 by being discharged, dying, transferring to another hospital or changing type of care.
Specialised service	A facility or unit dedicated to the treatment or care of patients with particular conditions or characteristics.
Statistical Division	A general purpose spatial unit, it is the largest and most stable unit within the Australian Standard Geographical Classification (ASGC). This classification has been developed by the Australian Bureau of Statistics and covers all of Australia without gaps or overlaps or crossing of State or Territory boundaries.
Student nurses	Nurses employed by the establishment currently studying in years 1 to 3 of a 3-year certificate course. This includes any person commencing or undertaking a 3-year course of training leading to registration as a nurse by the State or Territory registration board. This includes full time general student nurses and specialist student nurses, such as mental deficiency nurses, but excludes practising nurses enrolled in post-basic training courses.

Superannuation payments	Contributions paid or (for an emerging cost scheme) that should be paid (as determined by an actuary) on behalf of establishment employees either by the establishment or a central administration such as a State or Territory health authority, to a superannuation fund providing retirement and related benefits to establishment employees.
Trainee/pupil nurses	Nurses that are commencing or undertaking a 1-year course of training leading to registration as an enrolled nurse on the State or Territory registration board (includes all trainee nurses).
Type of admitted patient episode	A classification of admitted patient episodes into broad groups based on principal diagnosis, principal procedure or status as a nursing home type or rehabilitation patient.
Type of non-admitted patient occasion of service	A broad classification of services provided to non-admitted patients. See data element 231 in the *National Health Data Dictionary* Version 7.0 for further details.
Visiting medical officer	A medical practitioner appointed by the hospital board to provide medical services for hospital (public) patients on an honorary, sessionally paid, or fee-for-service basis.

References

Aisbet C 1998. Formal casemix comparison of hospitals. In: Tenth Casemix Conference in Australia, conference proceedings. Canberra: Commonwealth Department of Health and Family Services.

Australian Bureau of Statistics (ABS) 1999. Public Finance Database 1999. Cat. No. 5512.0 and 5501.0. Canberra: ABS.

Australian Bureau of Statistics (ABS) 2000. Private hospitals Australia 1998–99. Cat. No. 4390.0. Canberra: ABS.

Australian Council on Healthcare Standards (ACHS) 1999. Annual report 1998–99. Sydney: ACHS.

Australian Institute of Health and Welfare (AIHW) & Department of Health and Family Services (DHFS) 1997. First report on national health priority areas 1996. Canberra: AGPS.

Australian Institute of Health and Welfare (AIHW) 1997a. Australian hospital statistics, 1993–95: an overview. Health Services Series no. 9. Canberra: AIHW.

Australian Institute of Health and Welfare (AIHW) 1997b. Australian hospital statistics, 1995–96. Health Services Series no. 10. Canberra: AIHW.

Australian Institute of Health and Welfare (AIHW) 1998. Australian hospital statistics, 1996–97. Health Services Series no. 11. Canberra: AIHW.

Australian Institute of Health and Welfare (AIHW) 1999a. Australian hospital statistics, 1997–98. Health Services Series no. 12. Canberra: AIHW.

Australian Institute of Health and Welfare (AIHW) 1999b. Nursing labour force 1998. National Health Labour Force Series no. 15. Canberra: AIHW.

Australian Institute of Health and Welfare (AIHW) 2000a. Medical labour force 1998. National Health Labour Force Series no. 16. Canberra: AIHW.

Australian Institute of Health and Welfare (AIHW) 2000b. Australia's health services expenditure to 1998–99. Health Expenditure Bulletin No. 16. Health and Welfare Expenditure Series. Canberra: AIHW.

Australian Institute of Health and Welfare (AIHW) 2000c. Pharmacy labour force 1998. National Health Labour Force Series no. 17. Canberra: AIHW.

Australian Institute of Health and Welfare (AIHW) 2000d. Waiting times for elective surgery in Australia 1997–98. Health Services Series no. 14. Canberra: AIHW.

Australian Institute of Health and Welfare (AIHW) 2000e. Australia's health 2000: the seventh biennial health report of the Australian Institute of Health and Welfare. Canberra: AIHW.

Committee for the Review of Commonwealth/State Service Provision (SCRCSSP) 2000. Report on government services Volume 1. Melbourne: Industry Commission.

Commonwealth of Australia 1998. National mental health report 1997. Canberra: Department of Health and Family Services.

Day P, Sullivan EA, & Lancaster P 1999. Australia's mothers and babies 1997. (Perinatal Statistics Series No. 9. Sydney: AIHW National Perinatal Statistics Unit.

Department of Health and Aged Care (DHAC) 1999. Report on National hospital cost data collection 1997-98. Canberra: DHAC.

Department of Health and Aged Care 1998. Australian Refined Diagnosis Related Groups, version 4.1 Definitions Manual. Canberra: Department of Health and Aged Care.

Department of Primary Industries and Energy (DPIE) & Department of Human Services and Health (DHSH) 1994. Rural, remote and metropolitan areas classification, 1991 Census edition. Canberra: AGPS.

Diers D, Eason M, Aisbet C, Heard D, Bettigole M & Boyle S 1998. Casemix vs hospitals characteristics for comparative analysis. In: Tenth Casemix Conference in Australia, conference proceedings. Canberra: Commonwealth Department of Health and Family Services.

Duckett SJ & Jackson TJ 1998. Do the elderly cost more? Casemix funding for elderly patients in acute patient settings. Nursing Older People: Issues and Innovations. MacLennan and Petty.

Gillett S & O'Connor-Cox D 1996. Exceptional case policy and paying for long stay patients in acute hospitals. Eighth Casemix Conference in Australia, Conference Proceedings. Canberra: Commonwealth Department of Human Services and Health.

Hindle D 1999. Product costing in Australia hospitals. A background guide to national costing work. Canberra: DHAC.

National Centre for Classification in Health (NCCH) 1997. ICD-10-AM implementation kit. Sydney: university of Sydney.

National Centre for Classification in Health (NCCH) 1998. The International Statitsical Classification of Diseases and Related Health Problems, 10 revision , Australian modeification (IDC-10-AM). 1st edition. Sydney: University of Sydney.

National Coding Centre 1996. The Australian version of the International Classification of Diseases, 9th revision, clinical modification (ICD-9-CM) 2nd ed. Sydney: University of Sydney.

National Health Data Committee (NHDC) 1998. National health data dictionary version 7 Canberra: AIHW.

National Health Ministers' Benchmarking Working Group (NHMBWG) 1996. First national report on health sector performance indicators: public hospitals—the state of play. Canberra: AIHW.

National Health Ministers' Benchmarking Working Group (NHMBWG) 1998. Second national report on health sector performance indicators. Canberra: Department of Health and Family Services.

National Health Ministers' Benchmarking Working Group (NHMBWG) 1999. Third national report on health sector performance indicators. Canberra: Department of Health and Aged Care.

NSW Health 1998. Casemix standards for NSW. Sydney: NSW Health.

NSW Health 1999. NSW public hospitals comparison data book 1997–98. Sydney: NSW Health .

Organisation for Economic Co-operation and Development (OECD) 1999. OECD health data 99: a software for the comparative analysis of 29 Countries (CD-Rom). Paris: OECD.

Steering Committee for the Review of Commonwealth/State Service Provision (SCRCSSP) 1999. Report on government services Volume 1. Melbourne: Industry Commission.Steering

Strong K, Trickett P, Titulaer I, Bhatia K 1998. Health in rural and remote Australia. Canberra: AIHW.

Victorian Hospitals' Association (VHA) 1996. Hospital Comparative Data 1994–1995.

Index