# Australian hospital statistics 2001–02

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 wellbeing of Australians by informing community discussion and decision making through national leadership in developing and providing health and welfare statistics and information.

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# Australian hospital statistics 2001–02

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# Foreword

The Institute is pleased to be able to present this report on Australia's hospitals in 2001–02. It is the ninth annual hospital statistics report and is produced from data in the Institute's National Hospital Morbidity Database, the National Public Hospital Establishments Database and the National Elective Surgery Waiting Times Data Collection. These are compiled each year with the assistance of the state and territory health authorities, which have also provided data on waiting times for emergency department care.

An exciting new section has been added called *Hospitals at a glance*. This replaces the *Highlights* section from previous editions and provides information on the number, activity and performance of Australian hospitals, with time series information from 1993–94 to 2001–02 illustrating the changing nature Australia's hospitals over the past eight years.

The chapter on performance indicators has been revised and includes expanded and refined performance indicator information. The Institute is continuing to work towards making these indicators available in pre-published form for use in other reports that present similar information.

To reflect the continually growing volume of same day hospitalisations, a number of tables have been added that summarise separation statistics for the thirty most common procedures and diagnoses for overnight and same day patients separately. These tables illustrate the difference in the type of activity between these two groups of separations.

An electronic version of this report can be found on the Institute's Internet site. It includes related statistical information that is not included in the hard copy form of this publication. Also available on the Internet site are interactive cubes of data from the National Hospital Morbidity Database that allow users to specify their own tables relating to the principal diagnoses and Australian Refined Diagnosis Related Groups for admitted patients. This resource is continually being expanded and will encompass other admitted patient data in the near future.

This report 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 to collate the data and produce the report within 12 months of the end of the year to which it relates.

The Institute will continue to work with the data providers and the Australian Hospital Statistics Advisory Committee to maintain timeliness, and to improve the quality and usefulness of this report. Comments from readers are always welcome.

Richard Madden
Director

June 2003

# Contents

# Acknowledgments

This report would not have been possible without the valued cooperation and efforts of the data providers, the health authorities of the states and territories and individual public and private hospitals (see Appendix 4). 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 to this project. Members of the Committee are:

- Ching Choi (AIHW) (Chair)
- John Agland (New South Wales Health Department)
- Paul Basso (South Australian Department of Human Services)
- Jo Bothroyd (Department of Health and Ageing's National Hospital Cost Data Collection)
- Ron Casey (Australian Bureau of Statistics)
- Mike Clarke (ACT Department of Health and Community Care)
- Paul Collins (Private Health Insurance Administration Council)
- Sue Cornes (Queensland Health)
- Stephen Duckett (Invited expert)
- Indra Gajanayake (ACT Department of Health and Community Care)
- Shannon Hewlett (National Centre for Classification in Health)
- Chris Kelman (Department of Health and Ageing)
- Amanda Lanagan (NT Department of Health and Community Services)
- Lynette Lee (Clinical Casemix Committee of Australia)
- Paul Mackey (Australian Private Hospitals Association Limited)
- Ric Marshall (Victorian Department of Human Services)
- Tony Sansom (Tasmanian Department of Health and Human Services)
- Tony Satti (Western Australian Department of Health)
- Nick Shiraev (New South Wales Health Department)
- Bill Weir (Department of Veterans' Affairs)

Within the Institute, the report was prepared by Katrina Burgess, Angela Frino, Narelle Grayson, Stephen Halpin, Jenny Hargreaves, Jenny Kok, Ruth Penm, Alannah Smith and Ian Titulaer. Geoff Davis and Mike McGrath assisted in database management and Amanda Nobbs coordinated the printing and publication process.

# List of abbreviations

| | |
|---|---|
| ABS | Australian Bureau of Statistics |
| ACHS | Australian Council on Healthcare Standards |
| ACT | Australian Capital Territory |
| AGPS | Australian Government Publishing Service |
| AHS | Australian hospital statistics |
| AHSAC | Australian Hospital Statistics Advisory Committee |
| AIHW | Australian Institute of Health and Welfare |
| ALOS | Average length of stay |
| AQC | Australian Quality Council |
| AR-DRG | Australian Refined Diagnosis Related Group |
| ASCCSS | Australian Standard Classification of Countries for Social Statistics |
| ASGC | Australian Standard Geographical Classification |
| Ave. | Average |
| Behav. | Behavioural |
| Cat. | Catastrophic |
| CC | Complication and/or comorbidity |
| CCCA | Clinical Casemix Committee of Australia |
| CDE | Common duct exploration |
| COPD | Chronic Obstructive Pulmonary Disease |
| Dis. | Diseases |
| DoHA | Commonwealth Department of Health and Ageing |
| DHAC | Commonwealth Department of Health and Aged Care |
| DRG | Diagnosis Related Group |
| DVA | Department of Veterans' Affairs |
| ECMO | Extracorporeal membrane oxygenation |
| ECT | Electroconvulsive therapy |
| ENT | Ear, nose and throat |
| Exp. | Exposure to |
| FTE | Full-time equivalent |
| HASAC | Health and Allied Services Advisory Council |
| HIV | Human imunodeficiency virus |
| ICD-10-AM | International Statistical Classification of Diseases and Related Health Problems, 10th Revision, Australian Modification |
| ICD-9-CM | International Classification of Diseases, 9th Revision, Clinical Modification |
| IFRAC | Admitted patient fraction |
| ISO | International Standards Organisation |
| mal. | Malignant |
| MDC | Major Diagnostic Category |
| MPS | Multi-purpose service |
| n.a. | Not applicable |
| NCCH | National Centre for Classification in Health |
| NHCDC | National Hospital Cost Data Collection |
| NHDC | National Health Data Committee |
| NHDD | National Health Data Dictionary |
| NHMBWG | National Health Ministers' Benchmarking Working Group |
| NHPC | National Health Performance Committee |
| n.p. | Not published |
| NSSRG | Non-specialist service related group |
| NSW | New South Wales |
| NT | Northern Territory |
| O.R. | Operating room |
| OECD | Organisation for Economic Co-operation and Development |
| Op. | Operation |
| Procs | Procedures |
| QIC | Quality Improvement Council |
| Qld | Queensland |
| RA | Remoteness Area |
| Re. | Related to |
| RMOs | Resident medical officers |
| RRMA | Rural, Remote and Metropolitan Area |
| RSI | Relative stay index |
| SA | South Australia |
| SACC | Standard Australian Classification of Countries |
| SCRCSSP | Steering Committee for the Review of Commonwealth/State Service Provision |
| SD | Statistical Division |
| Sev. | Severe |
| SLA | Statistical Local Area |
| SRG | Service related group |
| SRR | Standardised separation rate ratio |
| SSRG | Specialist service related group |
| Tas | Tasmania |
| Vic | Victoria |
| VMO | Visiting medical officer |
| W | With |
| W/O | Without |
| WA | Western Australia |
| . . | Not available |

# Hospitals at a glance

*Australian Hospital Statistics 2001–02* is the ninth of the Australian Institute of Health and Welfare's annual summary reports describing the characteristics and activity of Australian hospitals.

*Activity of Australian hospitals increased over the last year, with hospital **separations** and **patient days** increasing by 4.2% and 3.4% respectively between 2000–01 and 2001–02…*

- In 2001–02 there were 6,394,498 separations and these were associated with 23,223,762 patient days. This is compared with 6,138,398 separations and 22,468,953 patient days in 2000–01.
- Between 2000–01 and 2001–02 separations in public acute hospitals increased by 2.6% and in private hospitals they increased by 9.5% (in the four jurisdictions for which there was no change in coverage for private hospitals) over this period.
- Over the same period, the number of patient days in public acute hospitals increased by 0.6%, while for private hospitals they increased by 3.3%.

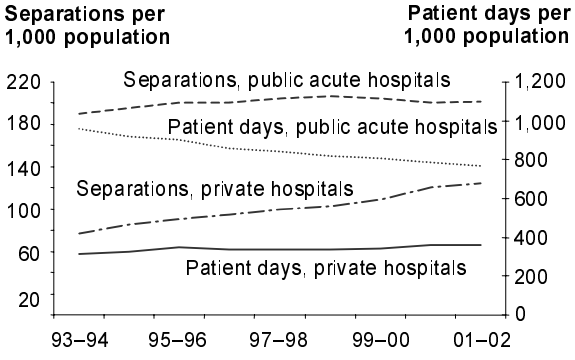


**Figure 1: Separations and patient days per 1,000 population, public acute and private hospitals, Australia, 1993–94 to 2001–02**

*Overall, **separations** and **patient days** have increased over time…*

- Between 1993–94 and 2001–02, hospital separations increased by 38.7%: 19.9% in public acute hospitals and 84.7% in private hospitals. Over the same period, the number of patient days in public acute hospitals decreased by 5.1% while for private hospitals they increased markedly (36.0%).
- For public psychiatric hospitals, the number of separations decreased by 2.1% per year on average between 1996–97 and 2001–02 and the number of patient days decreased by 2.7%.
- Between 1993–94 and 2001–02, the age-standardised separation rate per 1,000 population increased by 6.0% in public acute hospitals (190.3 to 201.8 separations per 1,000 population) compared with an increase of 60.8% in private hospitals (77.6 to 124.8 separations per 1,000 population).
- Patient days per 1,000 population decreased by 19.7% for public acute hospitals and increased 14.3% for private hospitals between 1993–94 and 2001–02.
- For public psychiatric hospitals separations per 1,000 population fell by 15.5% between 1996–97 and 2001–02 and there was a 16.8% fall in patient days per 1,000 population.
- In 1996–97, 68.2% of separations and 72.2% of patient days in acute care hospitals were in public acute hospitals. In 2001–02, these percentages had fallen to 61.9% and 68.4%, respectively, showing a shift from the

use of public acute to private acute hospitals during this period.

*The **average length of stay** in hospitals is declining…*

- The average length of stay in hospitals decreased to 3.6 days in 2001–02, from 3.7 days in 2000–01, following the overall pattern of decline shown in previous years (a decline of 21.7% between 1993–94 and 2001–02, from 4.6 days to 3.6 days).

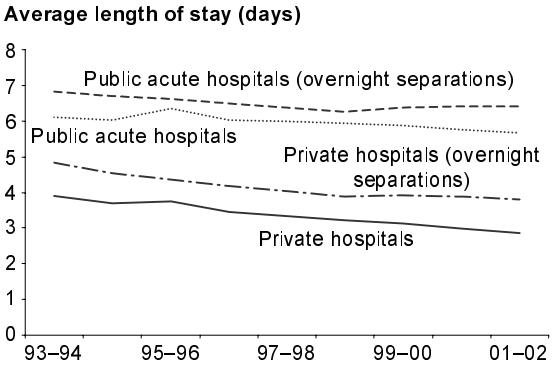


**Figure 2: Average length of stay, Australia, 1993–94 to 2001–02**

- Private hospital stays averaged 2.9 days compared with 3.9 days in public acute hospitals. For patients staying at least one night, average lengths of stay were 6.5 days in public acute hospitals and 5.7 days in private hospitals.
- The proportion of same day separations increased by 42.1%, from 36.8% in 1993–94 to 52.3% in 2001–02. The number of same day separations increased by 96.9% (1,644,475 separations), 67.3% in public hospitals and 155.7% in private hospitals.

***Females** accounted for more separations than **males**…*

- In 2001–02 there were 3,420,234 separations for females compared to 2,974,106 separations for males, 53.5% and 46.5% of separations respectively.
- Overall in 2001–02, there were 347.5 separations per 1,000 population for females, compared to 307.0 separations per 1,000 population for males.
- There were more separations per 1,000 population for females than for males in the 15 to 54 year age groups (which include child-bearing ages for women). Separation rates for males were higher than those for females for children and persons aged over 55 years.

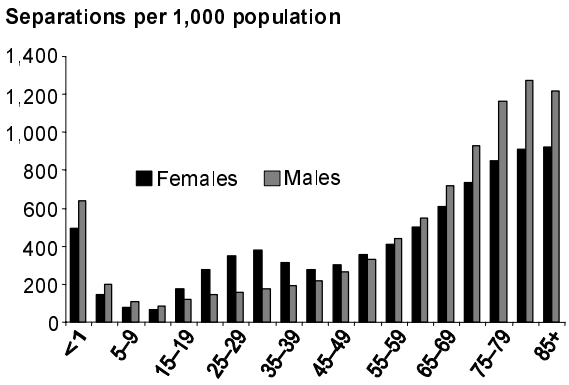


**Figure 3: Separations per 1,000 population by age group and sex, 2001–02**

*Persons identified as **Indigenous** had higher separation rates than non-Indigenous persons…*

- The separation rate for persons identified as Indigenous was higher than the rate for non-Indigenous persons for most age groups, particularly for age groups 35–44 years and older.
- Excluding separations with a principal diagnosis of 'care involving dialysis', the separation rate for persons identified as Indigenous was still higher than the rate for non-Indigenous persons, but the difference for persons aged over 35 years was not as marked.

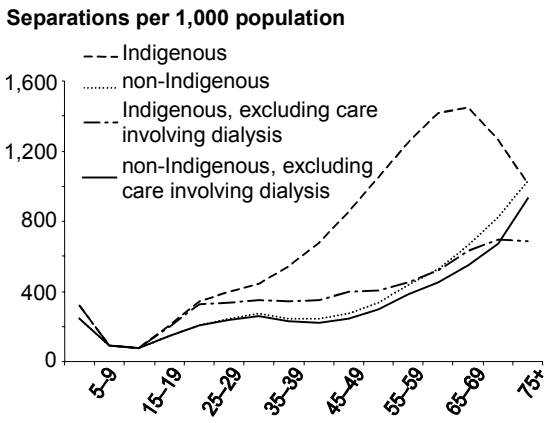


**Figure 4: Separations per 1,000 population by Indigenous status and age group, 2001–02**

*The pattern of separations per 1,000 population by **Remoteness Area** was different for public and private hospitals…*

- For public hospitals, separation rates were highest for patients living in very remote areas (231.7 separations per 1,000 population). The separation rate was lowest for patients living in major cities (106.2 separations per 1,000 population).
- For private hospitals, separations per 1,000 population ranged from 22.8 in very remote areas to 76.0 in major cities.

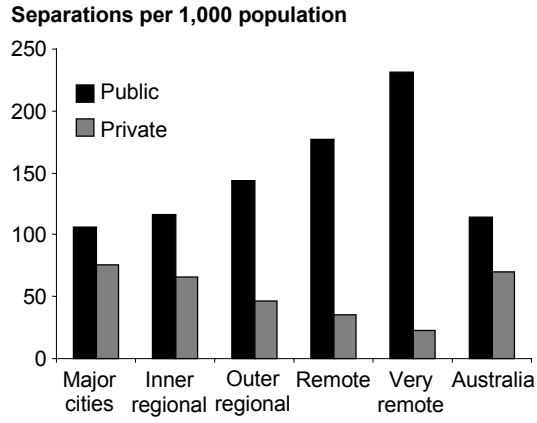


**Figure 5: Separations per 1,000 population by Remoteness Area of usual residence and hospital sector**

*A range of **conditions** (diseases or injuries and poisonings) are **treated** in hospitals…*

- Overall, over half of all separations in 2001–02 had a principal diagnosis in five of the ICD-10-AM chapters: Diseases of the digestive system; Neoplasms; Diseases of the circulatory system; Pregnancy, childbirth and the puerperium; and Contact with health services (including care involving dialysis, chemotherapy and care involving rehabilitation procedures).
- The National Health Priority Areas were represented in some high volume diagnoses. In 2001–02 there were 149,569 separations with a principal diagnosis of fracture, 95,774 separations with a principal diagnosis of asthma (40,918) and coronary obstructive pulmonary disease (54,856), 68,669 separations with a principal diagnosis of arthritis and 49,878 separations with a principal diagnosis of angina pectoris.

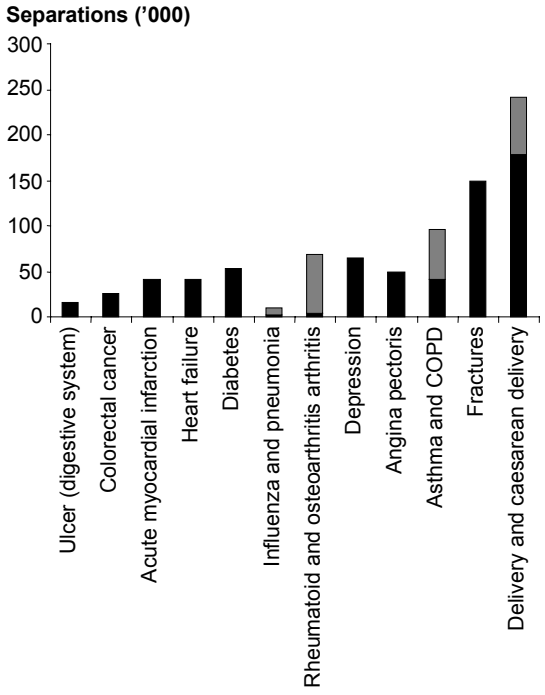


**Figure 6: Separations ('000) by selected principal diagnosis, 2001–02**

*The separation rate per 1,000 population where an **admission may have been avoided if timely non-hospital care was provided** has changed over time…*

- Potentially preventable hospitalisations are those where hospitalisation is thought to be avoidable if timely and adequate non-hospital care is provided. Separation rates for potentially preventable hospitalisations are potential indicators of the quality or effectiveness of non-hospital care.
- There were 600,759 separations for potentially preventable hospitalisations in 2001–02.
- Overall, the rate per 1,000 population for potentially preventable hospitalisations increased an average of 0.8% per year between 1993–94 and 2001–02.
- The number of separations per 1,000 population for potentially preventable hospitalisations for vaccine-preventable diseases decreased an average of 9.8% per year between 1993–94 and 2001–02. Fluctuations reflected varying numbers of separations for influenza each year.
- Potentially preventable hospitalisations decreased by an average of 2.1% for chronic conditions, excluding diabetes. The increase for diabetes between 1999–00 and 2000–01 (164.1%) reflects changes between the 1st and 2nd editions of ICD-10-AM, which affected the way diabetes was coded.
- Potentially preventable hospitalisations fluctuated around 12 separations per 1,000 population for acute conditions between 1993–94 and 2001–02.

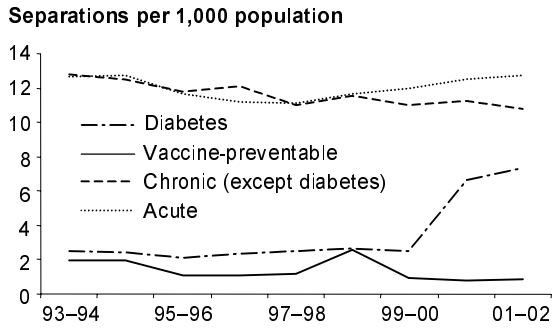


**Figure 7: Potentially preventable hospitalisations, 1993–94 to 2001–02**

*A **procedure** was reported for 79% of separations in Australian hospitals in 2001-02…*

- Fifty-seven per cent of separations reported with a procedure were in public hospitals, although public hospitals accounted for 62% of separations overall. This reflects the higher proportion of separations in the private sector that were reported with a procedure compared to the public sector, 90% and 72% respectively.
- In 2001–02 there were 25,965 separations for hip replacement, 140,449 separations for lens insertion and 16,120 separations for coronary artery bypass graft.

*Some **procedures** that are being **increasingly undertaken in the private sector** include the high volume procedures of chemotherapy and haemodialysis…*

- Between 1993–94 and 2001–02 the number of separations for chemotherapy increased five-fold in the private sector; they decreased by 2% in public hospitals. Hence, the proportion of separations for chemotherapy that were in private hospitals increased from 15% to 51% over this period.
- For haemodialysis, 8% of separations were in private hospitals in 1993–94, but by 2001–02 this had risen to 14%.

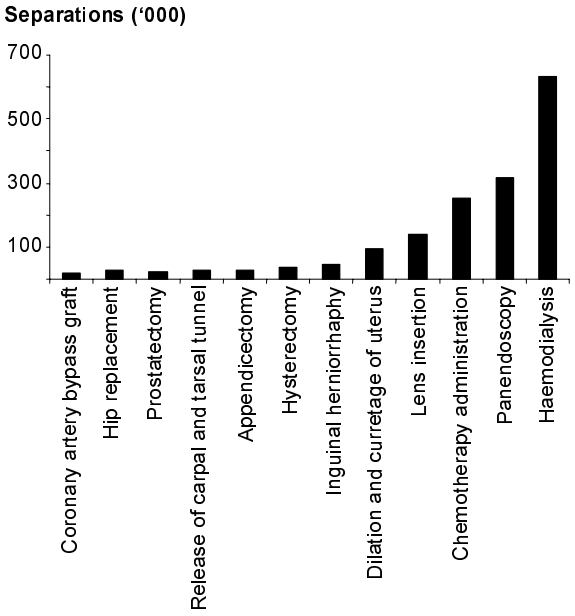


**Figure 8: Number of separations for selected procedures, 2001–02**

*The **median waiting time for elective surgery** in public hospitals was unchanged at 27 days for the years 1999–00, 2000–01 and 2001–02…*

- Ninety per cent of patients were admitted within 203 days in 2001–02, compared with 202 days in 2000–01 and 175 days in 1999–00.
- The proportion of patients admitted after waiting more than 12 months was 4.5% in 2001–02 compared with 4.4% in 2000–01 and 3.1% in 1999–00.
- Ophthalmology and orthopaedic surgery were the surgical specialties with the longest median waiting times (57 and 45 days respectively) in 2001–02. All other surgical specialties except ear, nose and throat surgery had a median waiting time of less than 30 days; cardio-thoracic surgery had the shortest median waiting time (12 days).

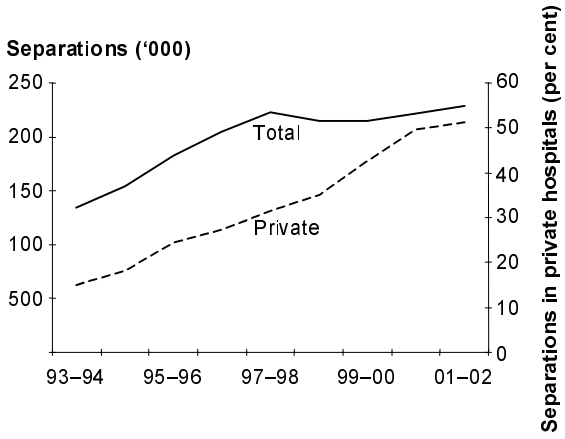


**Figure 9: Separations ('000) for chemotherapy and the proportion of separations in private hospitals, 2001–02**

*There were 1,306 **hospitals** in Australia in 2001-02…*

- In the public sector in 2001–02 there were 724 public acute hospitals and 22 public psychiatric hospitals.
- In the private sector in 2001–02 there were 246 private free-standing day hospital facilities and 314 other private hospitals.

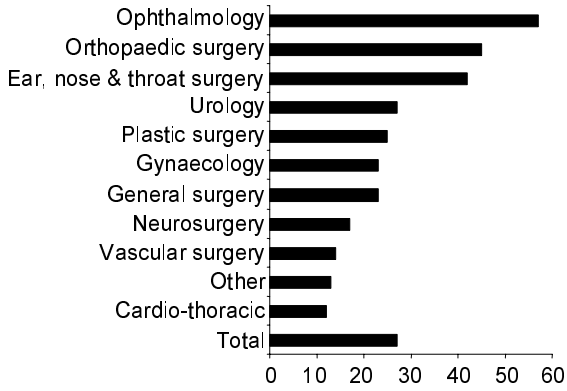


**Figure 10: Median waiting time (days) by specialty of surgeon, 2001–02**

*Overall the number of **hospitals** in Australia has increased over time…*

- There was a marked increase in the number of private free-standing day hospital facilities, from 111 in 1993–94 to 246 in 2001–02 (an average of 10.5%

increase per year, although this increase was from a small base).

- The number of public psychiatric hospitals declined by 41% over this period (an average of 6.3% decline per year).

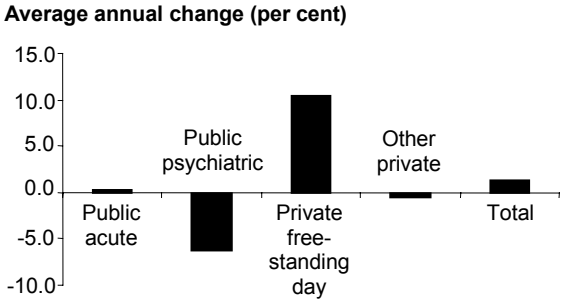


**Figure 11: Average annual change in the number of hospitals, Australia, 1993–94 to 2001–02**

*The number of **available beds** is a better indicator of the availability of hospital services than the number of hospitals. There were 78,868 available beds in Australia in 2001–02…*

- In the public sector in 2001–02 there were 49,004 available beds in public acute hospitals and 2,457 in public psychiatric hospitals.
- In the private sector there were an estimated 1,851 available beds in private free-standing day hospital facilities in 2001–02 and 25,556 in other private hospitals.

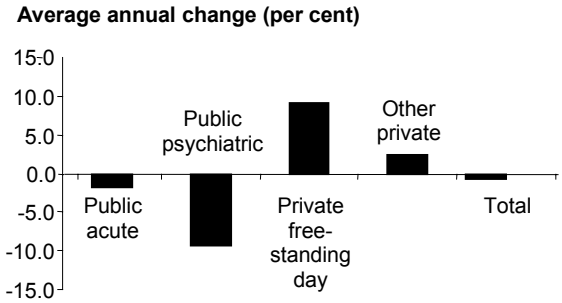


**Figure 12: Average annual change in the number of available beds, Australia, 1993–94 to 2001–02**

*Overall the number of **available beds** in Australia has decreased over time…*

- There was a 5.7% reduction in available beds between 1993–94 and 2001–02, an average of 0.7% decline per year.
- Although the number of public acute hospitals increased, the number of available beds decreased an average of 1.7% per year. Conversely, although the number of other private hospitals fell, the number of available beds increased an average of 2.3% per year.
- The number of available beds/chairs in private free-standing day hospital facilities increased an average of 9.2% per year, from 917 to 1,851.
- The number of available beds in public psychiatric hospitals fell 54%, from 5,360 to 2,457, an average of 9.3% per year.

***Staff** numbers in public acute and public psychiatric hospitals have remained fairly constant over time…*

- Overall, the number of full time equivalent staff increased an average of 0.8% per year between 1993–94 and 2001–02. The number of salaried medical officers increased an average of 4.5% per year over this period and the number of nurses increased an average of 0.8%.

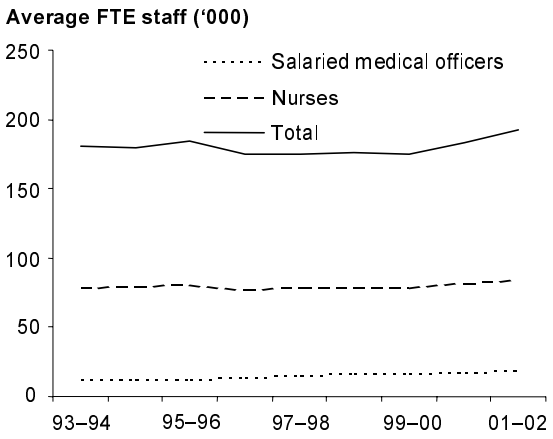


**Figure 13: Average full time equivalent staff, public acute and psychiatric hospitals, 1993–94 to 2001–02**

***Recurrent expenditure** on public acute and psychiatric hospitals was $16,848 million in 2001–02…*

- The largest share was for salary payments, which accounted for 63% ($10,523 million) of recurrent expenditure within the public hospital system.
- Medical and surgical supplies, administrative expenses and drug supplies were the major non-salary expenses for public hospitals nationally.

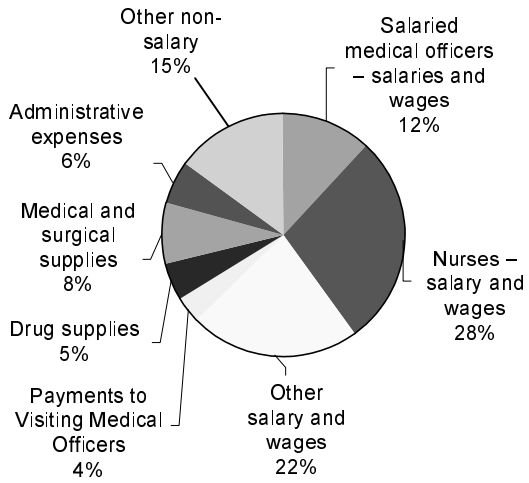


**Figure 14: Recurrent expenditure, public acute and psychiatric hospitals, 2001–02**

*The average **recurrent cost** of providing care for an admitted patient in public hospitals in 2001–02 was $3,017…*

- This comprised $1,598 for non-medical labour costs, $571 for medical labour costs and $847 for other recurrent costs.
- The difference in cost per casemix-adjusted separation (unadjusted for inflation) between the highest and lowest cost jurisdictions decreased by 37.2% between 1996–97 and 2001–02, from a difference of 59.8% in 1996–97 to a difference of 37.5% in 2001–02.

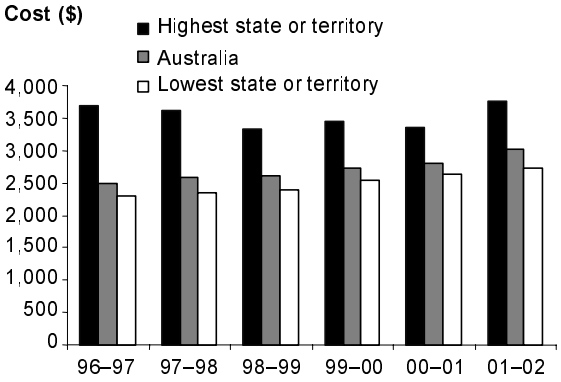


**Figure 15: Cost per casemix-adjusted separation, 1996–97 to 2001–02**

Information to assist in the interpretation of these data can be found in Chapter 1, Appendix 3 and other sections of this report.