

Australian hospital statistics 2000–01

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.

HEALTH SERVICES SERIES

Number 19

Australian hospital statistics 2000–01

Australian Institute of Health and Welfare
Canberra

AIHW cat. no. HSE 20

© Australian Institute of Health and Welfare 2002

This work is copyright. Apart from any use as permitted under the *Copyright Act 1968*, no part may be reproduced without prior written permission from the Australian Institute of Health and Welfare. Requests and enquiries concerning reproduction and rights should be directed to the Head, Media and Publishing Unit, Australian Institute of Health and Welfare, GPO Box 570, Canberra ACT 2601.

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 193 2

Suggested citation

Australian Institute of Health and Welfare (AIHW) 2002. Australian hospital statistics 2000–01. AIHW cat. no. HSE 20. Canberra: AIHW (Health Services Series no. 19).

Australian Institute of Health and Welfare

Board Chair
Dr Sandra Hacker

Director
Dr Richard Madden

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

Phone: (02) 6244 1240
Email: hospitaldata@aihw.gov.au

Published by Australian Institute of Health and Welfare
Printed by National Capital Printing

Foreword

The Institute is pleased to be able to present this report on Australia's hospitals in 2000–01. As for previous reports in this series, it is largely built from data in the Institute's National Hospital Morbidity Database and the National Public Hospital Establishments Database, compiled each year with the assistance of the State and Territory health authorities.

For the first time, data are also included from the Institute's National Elective Surgery Waiting Times Data Collection, and on waiting times for emergency department care, additionally provided by the States and Territories.

The inclusion of the waiting times data has contributed to a revised presentation of hospital performance indicator information in this report. The National Health Performance Committee's performance indicator framework has been used to present the waiting times data with performance indicator information as previously included, and new indicators that have been used by the National Health Performance Committee in their recent national performance indicator report. This has enabled the range of performance indicators to be presented together, in recognition that the performance of the hospital system should ideally be assessed using indicators covering the framework's multiple dimensions.

A summary overview of Australia's public and private hospitals is presented as Chapter 2, and illustrates some of the major changes in activity patterns over the last few years. Following chapters provide more detailed information on public hospitals including their resources, expenditure and revenue. Also described are the characteristics and hospital care of the six million people admitted to public and private hospitals in 2000–01, including their age, sex, diagnoses and the procedures they underwent.

Accompanying the report on the Institute's Internet site is a growing collection of related statistical information that is not included in the hard copy form of the 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 Diagnosis Related Groups for admitted patients. This resource is being expanded and will encompass other admitted patient data over coming months.

This report is the Institute's eighth annual hospital statistics report, it 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 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 2002

Contents

Foreword	v
Acknowledgments	viii
List of abbreviations	ix
Highlights	x
1 Introduction	1
2 Overview of Australian hospitals	7
3 Public hospital establishments	25
4 Hospital performance indicators	35
5 Waiting times for elective surgery	69
6 Administrative data for admitted patients	85
7 Demographic profile for admitted patients	111
8 Principal diagnoses for admitted patients	136
9 Procedures for admitted patients	164
10 External causes for admitted patients	195
11 Australian Refined Diagnosis Related Groups for admitted patients	207
Appendix 1: List of tables	236
Appendix 2: List of figures	247
Appendix 3: Technical notes	249
Appendix 4: Methods for the cost per casemix-adjusted separation and relative stay index analyses	256
Appendix 5: Hospitals contributing to this report and public hospital peer groups	267
Appendix 6: Population estimates	275
Appendix 7: Further information	279
Appendix 8: The National Hospital Cost Data Collection	281
Glossary	282
References	292
Index	295

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 6). 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)
- Paul Collins (Private Health Insurance Administration Council)
- Sue Cornes (Queensland Health)
- Stephen Duckett (Invited expert)
- Mark Gill (Victorian Department of Human Services)
- Chris Kelman (Department of Health and Ageing)
- Leon Kempen (Australian Healthcare Association)
- Michael Kort (Department of Health and Ageing)
- Lyn Lee (Clinical Casemix Committee of Australia)
- Paul Mackey (Australian Private Hospitals Association Limited)
- Ric Marshall (Victorian Department of Human Services)
- Murray Rye (Department of Veterans' Affairs)
- Tony Sansom (Tasmanian Department of Health and Human Services)
- Tony Satti (Western Australian Department of Health)
- Cherie Shepherd (Northern Territory Department of Health and Community Services)
- Nick Shiraev (New South Wales Health Department)
- Mohan Singh (Australian Capital Territory Department of Health and Community Care)
- Shannon Watts (National Centre for Classification in Health)

Jim Pearse (New South Wales Health Department) provided useful advice on the presentation of performance indicator information.

Within the Institute, the report was prepared by Katrina Burgess, Bree Cook, Narelle Grayson, Jenny Hargreaves, Jenny Kok, Maryellen Moore, 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
AHSAC	Australian Hospital Statistics Advisory Committee	AIHW	Australian Institute of Health and Welfare
ALOS	Average length of stay	AR-DRG	Australian Refined Diagnosis Related Group
ASCCSS	Australian Standard Classification of Countries for Social Statistics	ASGC	Australian Standard Geographical Classification
Ave.	Average	CC	Complications and comorbidities
CDE	Common bile duct exploration	CHASP	Community Health Accreditation and Standards Program
DHAC	Commonwealth Department of Health and Aged Care	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-AM	International Statistical Classification of Diseases and Related Health Problems, 10th Revision, Australian Modification	IFRAC	Admitted patient fraction
ISO	International Standards Organisation	mal.	Malignant
MDC	Major Diagnostic Category	MPS	Multi-purpose service
NHPC	National Health Performance Committee	n.a.	Not available
NCCH	National Centre for Classification in Health	NHCDC	National Hospital Cost Data Collection
NHMBWG	National Health Ministers' Benchmarking Working Group	n.p.	Not published
NSW	New South Wales	NT	Northern Territory
OECD	Organisation for Economic Co-operation and Development	Op.	Operation
Procs	Procedures	Qld	Queensland
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
SCRCSPP	Steering Committee for the Review of Commonwealth/State Service Provision	SLA	Statistical Local Area
Tas	Tasmania	Vic	Victoria
VMO	Visiting medical officer	W	With
WA	Western Australia	W/O	Without
..	Not applicable		

Highlights

Australian Hospital Statistics 2000–01 is the eighth of the Australian Institute of Health and Welfare's annual summary reports describing the characteristics and activity of Australia's hospitals.

Hospitals and beds

- There were 726 public acute hospitals and 23 public psychiatric hospitals in Australia in 2000–01. In 1999–00, there were 509 private hospitals, 207 free-standing day hospital facilities and 302 other private hospitals (Table 2.1).
- Public acute hospitals had 50,113 beds in 2000–01, about the same as in 1999–00 (50,188). Private hospitals had 25,246 beds in 1999–00, about the same as in 1998–99 (25,206).

Patient numbers and lengths of stay

- The number of admissions to hospitals in Australia continues to increase from year to year. There was a total of 6.14 million separations in 2000–01, an increase of 4.1% compared to 1999–00 (Table 2.3).
- Between 1999–00 and 2000–01, separations from public acute hospitals decreased by 0.1% to 3.85 million, and from private hospitals increased by 12.1% to 2.27 million. The private hospitals' share of overall patient separations was 37.0% in 2000–01.
- The number of separations per 1,000 population fell by 1.8% (to 194 per 1,000) for public hospitals, and rose by 9.9% (to 112 per 1,000) for private hospitals.
- Numbers of patient days in public acute hospitals decreased by 0.5% compared with 1999–00, to 15.01 million. Private hospital patient days increased by 5.9%, to 6.74 million and were 30.0% of all patient days.
- The number of patient days per 1,000 population fell by 5.2% (to 759 per 1,000) for public hospitals, and rose by 3.8% (to 320 per 1,000) for private hospitals.
- The average length of stay in hospitals decreased in 2000–01, to 3.7 days from 3.8 days in 1999–00, following the overall pattern of decline shown in previous years. Private hospital stays averaged 3.0 days compared with 3.9 days in public acute hospitals. For patients staying at least one night, average lengths of stay were 6.4 days in public acute hospitals and 5.7 days in private hospitals.
- The proportion of separations that were same day was 50.8% overall (compared with 49.2% in 1999–00 and 44.7% in 1996–97), 46.2% in public acute hospitals and 58.5% in private hospitals.

Public hospital staff and expenditure

- The 82,476 nurses made up 45.1% of total full time equivalent staff of public hospitals. Salaried medical officers comprised 9.5% of the staff, diagnostic and allied health professionals comprised 13.0%, and 15.2% were administrative and clerical staff (Table 3.4).

- Total recurrent expenditure of public hospitals in Australia in 2000–01, excluding depreciation, was \$15,545 million, or about \$806 per person. Salaries and wages totalled \$9,722 million, 62.5% of the total (Table 3.5).

Hospital performance indicators

- Nationally, the cost per casemix-adjusted separation in public hospitals was \$2,834. 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 (\$752) and medical labour (\$525) were large components of the cost (Table 4.1).
- Queensland reported the lowest cost per casemix-adjusted separation (\$2,675) and the Australian Capital Territory reported the highest (\$3,397).
- The cost per casemix-adjusted separation varied by the peer group of the hospital. *Large metropolitan* hospitals had a cost of \$2,667, for example, and *Remote acute* hospitals had a cost of \$3,168 (Table 4.2).
- Nationally, 76% of public hospitals were accredited in 2000–01, and 91% of all public hospital beds were in accredited public hospitals (Table 4.5). In the private sector, 72% of hospitals were accredited in 1999–00, and 92% of all private hospital beds were in accredited private hospitals.
- The median waiting time for elective surgery in public hospitals in 2000–01 was 27 days, and 90% of patients had been admitted for their surgery within 202 days (Table 5.1). Patients who waited over 365 days made up 4.4% of the total.
- Median waiting times ranged from 11 days for cardio-thoracic surgery to 52 days for ophthalmological surgery (Table 5.3), and from 16 days for coronary artery bypass graft to 114 days for total knee replacement (Table 5.6).

Public and private patients

- Public patients accounted for 3.45 million separations in 2000–01 (56.2% of the total), a decrease of 0.4% compared to 1999–00. Most were in public hospitals, but 2.9% were in private hospitals, compared with 2.3% in 1999–00 (Table 6.5).
- Private patients (other than Department of Veterans' Affairs and compensable patients) accounted for 2.19 million separations in 2000–01 (35.6% of the total), an increase of 9.6% compared to 1999–00. The proportion of these in public hospitals was 14.8%, compared with 14.9% in 1999–00.

Age, sex and Aboriginal and Torres Strait Islander status

- Australians aged over 65 years, comprising 12.3% of the total population, accounted for 33.1% of total hospital separations and 48.0% of patient days. The average length of stay for these patients was 5.3 days, compared with 3.7 days for all patients (Tables 7.1 and 7.4).
- Females accounted for 53.6% of separations in 2000–01 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.

- Aboriginal and Torres Strait Islander peoples had twice as many separations per 1,000 population of other persons, after allowing for age structure. This is likely to be an underestimate because the identification of Aboriginal and Torres Strait Islanders as patients is incomplete.

Principal diagnoses

- The highest numbers of separations in the public sector were for *Diseases of the digestive system*, followed by *Injury and poisoning and certain other consequences of external causes* and *Pregnancy, childbirth and the puerperium*. The highest numbers of patient days were reported for *Mental and behavioural disorders* and *Diseases of the circulatory system* (Figures 8.2 and 8.3).
- 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*. *Neoplasms*, *Diseases of the digestive system*, *Diseases of the musculoskeletal system and connective tissue* and *Diseases of the circulatory system* accounted for the highest numbers of patient days.

Procedures

- For 4.8 million separations (78.8% of the total), there was an operation or other procedure reported. In public hospitals, 72.6% of separations were reported with a procedure, as were 89.2% of private sector separations (Tables 9.1 and 9.2).
- In public hospitals, procedures on the urinary system (including haemodialysis) and the digestive system were the most common. In private hospitals, procedures on the digestive system were the most common, followed by procedures on the musculoskeletal system (Figure 9.2).

External causes of injury and poisoning

- External causes of injury and poisoning included falls. They were reported for 129,125 public sector separations and 33,322 private sector separations, and most commonly for patients in the 5 to 14 years age group and the over 65 years age group (Figure 10.1).

AR-DRGs

- In public hospitals, *Admit for renal dialysis* was the most common AR-DRG, with 13.0% of acute separations (487,350, Table 11.5), 20,700 more than in 1999–00 (Table 11.17). Other leading AR-DRGs included *Chemotherapy* with 3.0% (112,218 separations, 4,411 fewer than in 1999–00), *Vaginal delivery without complicating diagnosis* with 2.8% (104,857 separations, 6,254 fewer than in 1999–00) and *Other colonoscopy, same day*, with 1.6% (61,610 separations, 483 more than in 1999–00).
- The corresponding top AR-DRGs in the private sector were *Other colonoscopy, sameday* with 7.3% of separations (160,569, 24,668 more than in 1999–00), *Chemotherapy* with 5.1% (111,807 separations, 21,295 more than in 1999–00) *Other gastroscopy for non-major digestive disease, sameday* with 4.9% (108,063 separations, 12,965 more than in 1999–00), and *Admit for renal dialysis*, with 3.8% (84,553 separations, 22,099 more than in 1999–00) (Tables 11.6 and 11.17).