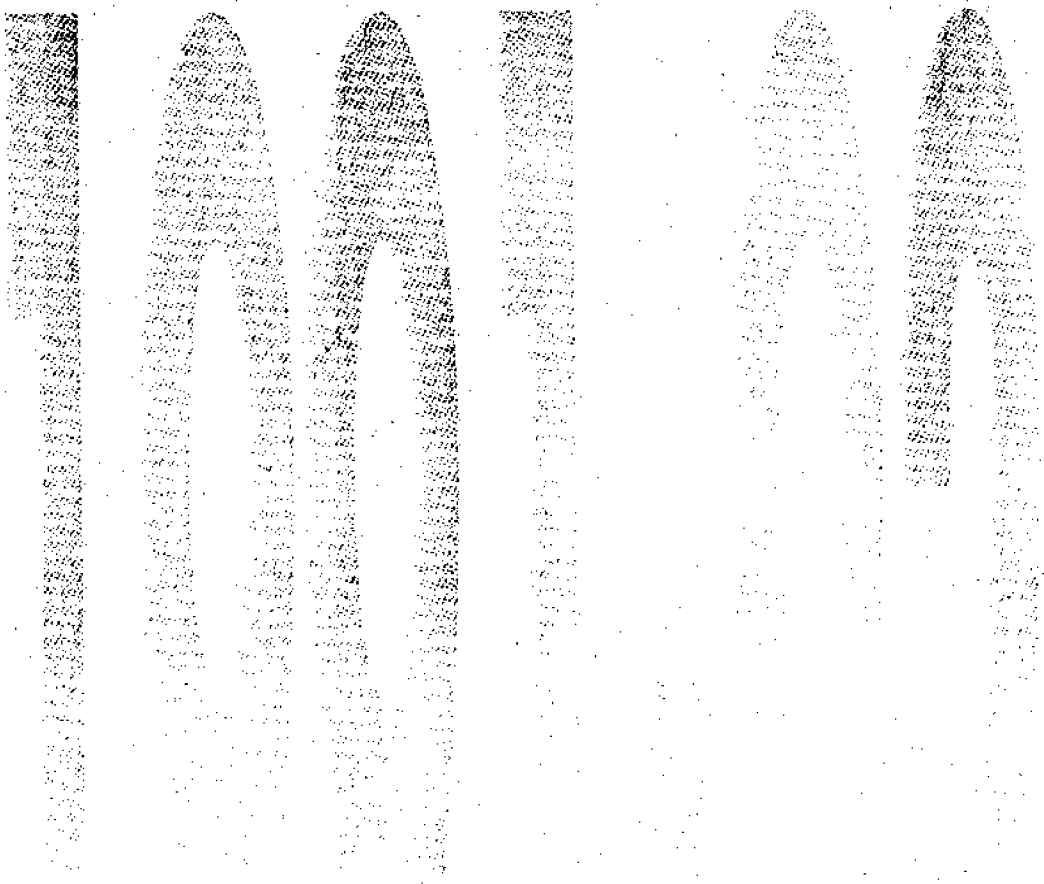
Hospitals, Australia



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HOSPITALS, AUSTRALIA 1991–92

A compilation of public and private hospital data in Australia

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INQUIRIES

- *For further information about private hospital statistics and the availability of related unpublished private hospital statistics* contact Keith Carter at the ABS on Brisbane (07) 222 6374.
- *For further information about public hospital statistics and the availability of related unpublished public hospital statistics* contact Mark Cooper-Stanbury at the AIHW on Canberra (06) 243 5030.
- *for information about other ABS statistics and services* please refer to the back page of this publication.

PREFACE

Introduction

This publication combines results from the *Hospital Utilisation and Costs Study 1991–92* (HUCS) produced by the Australian Institute of Health and Welfare (AIHW), and the first Private Health Establishments collection conducted by the Australian Bureau of Statistics (ABS) and published as *Private Hospitals, Australia, 1991–92*[1]. These two collections together provide the first comprehensive set of national statistics relating to hospitals.

This report highlights aspects of the Australian hospital system with a focus on comparison between the public and private hospital sectors.

Much of the detailed information on scope, definitions and data collection methodology has been excluded from this report, and readers should refer to the original publications.

Hospitals, Australia, 1991–92, has been produced jointly by the AIHW and ABS. Both acknowledge the contribution made by the Commonwealth and State health authorities, hospital industry associations, and hospitals to the collection and compilation of these statistics.

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1 Cooper-Stanbury M, Solon R, Cook M. *Hospital Utilisation And Costs Study 1991–92, Volume 1*, Canberra: AIHW, 1994;
Australian Bureau of Statistics. *Private Hospitals, Australia, 1991–92*. Catalogue No. 4390.0. Canberra: ABS, 1993.

1 INTRODUCTION

COMPARING PUBLIC AND PRIVATE HOSPITAL DATA

Although a considerable degree of uniformity has been achieved in the collection of statistics relating to public, private and Department of Veterans' Affairs hospitals, there are still areas where significant problems in data comparability and quality remain. These are often the result of basic differences in the financial, administrative and organisational arrangements of the State and Territory health authorities, the private hospitals and the Department of Veterans' Affairs. Particular issues in the comparison of public and private hospital costs are discussed in the box on page 4.

Despite these limitations, the information presented here is considered to be sufficiently accurate and consistent for the analyses of broad trends and differentials. Estimates were only made after consultation with the providers of the relevant data.

SCOPE OF REPORT

Public hospitals

The public hospital data includes all acute public hospitals, hospitals operated by the Department of Veterans' Affairs, and public psychiatric hospitals. Institutions run by non-health authorities are excluded, for example the Western Australian Drug and Alcohol Authority institutions and hospitals run by the defence forces and correctional services. Also the study excludes Western Australian nursing posts and some small hospitals in offshore Territories.

In the following sections where public acute hospitals are shown these include hospitals operated by the Department of Veterans' Affairs. In some sections, public psychiatric hospitals are excluded. These qualifications are made clear in the appropriate sections.

Private hospitals

Included are all private acute and psychiatric hospitals licensed by State and Territory health authorities and free-standing day hospital facilities approved by the Commonwealth Department of Human Services and Health (HSH, then the Commonwealth Department of Health, Housing and Community Services) which operated for all or any part of the 1991–92 financial year.

DEFINITIONS

The data items and definitions used in *Hospital Utilisation and Costs Study 1991–92* (HUCS) and *Private Hospitals, Australia, 1991–92* are based on the National Minimum Data Set for institutional health care (later to become the National Health Data Dictionary-institutional health care) published by the Institute[1]. A glossary of terms can be found on page 23 of this report.

METHODS OF DATA COLLECTION

Public hospitals

State and Territory health authorities were requested to supply data for each hospital in their jurisdiction. Similarly the Department of Veterans' Affairs was requested to supply data for the hospitals under their control.

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1 Australian Institute of Health. *National Minimum Data Set for institutional health care — report to the Australian Health Ministers Advisory Council.* Canberra: AIH, 1989; Australian Institute of Health and Welfare. *National Health Data Dictionary — institutional health care version 2.0.* Canberra: AIHW, 1993.

Although precise definitions of data items to be collected were provided, not all health authorities were able to provide data that conformed to them. Inconsistencies are largely inherent in compiling data from systems designed to meet the specific needs of different authorities.

Checking routines carried out by the AIHW identified anomalies in the data supplied. The most common problem related to variations between the reported totals and the sums of the individual categories. Small differences could usually be attributed to rounding. Where significant discrepancies were identified the data were corrected in consultation with the appropriate health authority.

Private hospitals

In 1992 the ABS introduced a new national statistical collection to obtain information directly from all private hospitals in Australia. The 1991–92 collection obtained details about the facilities, activities, staffing and finances via a structured questionnaire. The data requested differed slightly between hospitals and free-standing day hospital facilities.

Establishments that provided incomplete data were contacted to obtain the missing details. Hospital staff were asked to provide estimates in cases where records for the data item were not kept. If reasonable estimates could not be provided by the establishment then the data item was either left blank or imputed by ABS staff. Imputation was based on results of data provided by all responding hospitals.

Other data

Population estimates, including the estimation of metropolitan and non-metropolitan populations, were provided by the ABS (unpublished). Data relating to private patient medical costs were obtained from HSH. Estimates of private patient proportions and same-day proportions were made using data supplied by health authorities to HSH under the terms of the Medicare agreements.

SYMBOLS AND OTHER USAGE

n.p.	not available for publication
. .	not applicable
—	nil or rounded to zero (including null cells).

Where figures have been rounded, discrepancies may occur between totals and the sums of the component items.

2 BED SUPPLY, ACTIVITY AND EXPENDITURE IN ACUTE HOSPITALS

INTRODUCTION

This chapter presents a national profile of bed supply, activity and expenditure in public and private acute hospitals. Private free-standing day hospital facilities are included with private acute hospitals.

DISCUSSION

Adjusting hospital expenditure

Box 1 outlines some of the issues in comparing public and private hospital expenditure. The results shown in this section adjust for non-inpatient activity, private medical costs and depreciation and interest payments. To enable comparisons to be made for the costs of providing hospital services in the public and private sectors, Table 1 shows the effects of each adjustment on the average recurrent expenditure per separation and per occupied bed day. Adjustments were not made for casemix, age/sex profiles, teaching/research activities nor pharmacy costs. The method used to adjust for non-inpatient activity is the same as that used in the HUCS series[1]: the cost of providing one day of care for an inpatient is equated with the cost of providing 5.753 non-inpatient services. Consequently a number of *extra* bed days arise from the conversion of non-inpatient services to bed days. These are included in the calculation of average recurrent expenditure per bed day. Similarly, the number of extra bed days are converted to separations (by dividing by the average length of stay) and these are included in the calculation of average recurrent expenditure per separation.

An adjustment needs to be made for the different methods of paying for medical services in the public and private sectors. In the private sector, and to some extent in the public sector, the cost of medical services is not within the control of the hospital, nor necessarily related to the other costs of hospital services. If *hospital costs* are regarded as primarily hotel and nursing services, then the expenditure on salaried and sessional medical officers, technical and clerical support, accommodation and associated costs should be subtracted from public hospital expenditure. Though direct expenditure on medical services is known[2], the other costs are not. Alternatively, *hospital costs* can be regarded as the complete costs of providing hospital services including the provision of medical and other professional care. A full adjustment of this type was not possible.

The approach used in this report was to add in the estimated costs of medical services to private patients in both public and private hospitals. The Department of Human Services and Health provided estimates of expenditure on medical services billed to private patients in hospital. This was allocated to public and private hospitals according to the ratio of private patient bed days. The result of this adjustment is an estimate of the full cost of providing hospital services, rather than just hospital expenditure.

Depreciation and interest payments were subtracted from the total recurrent expenditure figure for private hospitals; these amounts are not reported for public hospitals.

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1 The full methodology is discussed in *Hospital Utilisation And Costs Study 1991–92, Volume 1*, p73–74.

2 For public acute hospitals in 1991–92 an estimated $1.26 billion, or 14.5 per cent of recurrent expenditure in these hospitals, was for salaried and sessional medical officers (that is public patient medical services). In addition, charges for medical services provided to private patients in public and private hospitals totalled $1.09 billion.

The cost per separation for each adjustment was obtained by multiplying the cost per bed day by the average length of stay.

BOX 1 — Comparing public and private hospital expenditure

Comparison of public and private hospital expenditure is difficult for a number of reasons:

- Public and private hospitals have different roles and serve different client groups.
- There are differences in the complexity – and often severity – of cases in public and private hospitals. An analysis of New South Wales and South Australian casemix data showed that the average cost per case – due to the complexity of cases – could be up to 20 per cent greater in the public sector than in the private sector[3].
- The costs of medical services provided free of charge to public patients in public hospitals are included in the recurrent expenditure of public hospitals. Private patients in public and private hospitals are charged for medical services. These charges are reimbursed up to 100 per cent of the Medicare schedule fee for the service through a combination of Medicare and private health fund rebates, and are not included in the recurrent expenditure figures. Similarly for pharmacy costs, patients in private hospitals are generally charged for pharmaceuticals and the costs of providing these are not included in expenditure figures, whereas for public hospitals the costs of providing pharmaceuticals are included in recurrent expenditure.
- There are different accounting rules in the public and private sectors, the main difference being that private hospitals count depreciation in their operating costs but public hospitals do not. Also, interest payments on borrowings are a significant component of a private hospital's cost structure but not so for individual public hospitals.
- The costs of providing non-inpatient services may be up to 30 per cent of public hospital expenditure but only a minor component of private hospital expenditure.
- Some hospitals have other costs not associated with direct patient care, notably teaching and research costs. For teaching hospitals (mainly public) this could be in excess of 15 per cent of their total operating expenditure[4], while for most private and small public hospitals it is small or zero. Based on New South Wales experience, the cost of teaching and research activities across all public acute hospitals is estimated to be around 6 per cent of total operating expenditure.
- Public hospitals must meet the majority of the demand for emergency services. This may incur additional costs in terms of idle resources when demand for emergency services is below expectation, and overtime and on-call costs when demand exceeds expectation.

It is usual to express the costs of inpatient care in terms of cost per separation or cost per bed day. Given the above differences, it is clear that direct comparison of these expressions for public and private hospitals is not valid: better comparisons can be achieved by adjusting for the factors listed. Adjustments, where possible, have been made to the cost per separation and cost per bed day figures contained in this publication.

3 See Appendix.

4 See Appendix.

Measuring activity in free-standing day hospital facilities

The traditional units for measuring hospital activity (and often used as indicators of hospital performance) are separations and occupied bed days. These units are problematic for free-standing day hospital facilities in that patients do not necessarily occupy beds (rather may be accommodated in chairs or trolleys) and each bed/chair may be occupied more than once in a day. On the other hand, free-standing day hospital facilities do not usually operate every day of the week. Therefore derived statistics such as occupancy rate for free-standing day hospital facilities are not directly comparable to those for other hospitals.

Also, by convention, an episode that starts and ends on the same day is attributed a length of stay of one day, which is the same as an episode involving a single overnight stay.

STATISTICAL RESULTS

Bed supply

There were 1,079 acute hospitals and free-standing day hospital facilities with 76,976 available beds in Australia in 1991–92. Almost 75 per cent of the beds were in public hospitals.

Activity

Total throughput in acute hospitals in 1991–92 was 4.27 million separations, or 20.8 million bed days. The public sector accounted for 71 per cent of the separations and 78 per cent of the bed days.

The average length of stay (ALOS) across all acute and same day hospitals was 4.9 days. The public sector was higher than this at 5.3 days, while the average length of stay in the private sector (3.8 days) was more than one day less than the overall average. The length of stay difference is partly influenced by inclusion of the free-standing day hospital facilities with private acute hospitals: the average length of stay in private acute hospitals alone was 4.1 days. If all same day services are excluded then the overall ALOS is 6.6 days, with 7.0 days in public hospitals and 5.4 days in private hospitals.

Average occupancy was higher in the public sector (77.2%) than the private sector (64.1%), with the overall average occupancy at 73.8 per cent. If free-standing day hospital facilities are excluded the average occupancy is slightly higher overall and in private hospitals (73.9% and 64.2% respectively).

There were almost 31.5 million non-inpatient (outpatient) services provided in the period, the bulk of which (97.5%) occurred in public hospitals. This becomes significant when adjusting costs for non-inpatient activity (see below).

Expenditure

Total recurrent expenditure in acute hospitals in 1991–92 was just over $11 billion, or 2.8 per cent of gross domestic product.

If no adjustments are made to improve comparability between the sectors, the cost per separation in the public sector is more than twice that in the private sector ($3,044 per separation versus $1,532 respectively, with an overall average of $2,603).

After adjusting for non-inpatient activity, private medical costs and depreciation/interest payments, the average recurrent expenditure per separation was $2,272, or $460 per occupied bed day. The daily rate was slightly lower in the public sector at $453 per day, and slightly higher for private hospitals at $475. This pattern is reversed for cost per separation because of the effect of longer length of stay in public hospitals: the average cost per separation was $2,417, while for the private sector the cost was well below the overall average at $1,783.

TABLE 1. PUBLIC AND PRIVATE ACUTE HOSPITALS AND FREE-STANDING DAY HOSPITAL FACILITIES: KEY STATISTICS, AUSTRALIA, 1991–92

	Public	*Private(a)*	*Total*
BED SUPPLY			
Number of facilities	713	366	1,079
Number of beds/chairs	57,053	19,923	76,976
ACTIVITY			
Total separations	3,024,870	1,244,590	4,269,460
Total occupied bed days (OBDs)	16,121,711	4,670,725	20,792,436
Average length of stay (days)	5.3	3.8	4.9
Average length of stay (days) excluding free-standing day hospital facilities	5.3	4.1	5.0
Average length of stay (days) excluding all same-day separations	7.0	5.4	6.6
Average occupancy rate (%)	77.2	64.1	73.8
Average occupancy rate (%) excluding free-standing day hospital facilities	77.2	64.2	73.9
Total non-inpatient services	30,676,201	802,618	31,478,819
RECURRENT EXPENDITURE			
Total recurrent expenditure ($'000)	9,206,660	1,906,849	11,113,509
Average recurrent expenditure per separation ($)			
Unadjusted	3,044	1,532	2,603
Adjustments for			
Non-inpatient activity	-756	-44	-509
Private patient medical costs(b)	130	431	218
Depreciation/interest payments	. .	-136	-40
Adjusted(b)	**2,417**	**1,783**	**2,272**
Average recurrent expenditure per occupied bed day ($)			
Unadjusted	571	408	534
Adjustments for			
Non-inpatient activity	-142	-12	-111
Private patient medical costs(b)	24	115	45
Depreciation/interest payments	. .	-36	-8
Adjusted(b)	**453**	**475**	**460**

(a) Includes free-standing day hospital facilities. (b) By including expenditure on medical services to private patients in adjusted total expenditure per separation and per occupied bed day, the overall figures represent the estimated total cost of providing hospital services, not just the nursing and hotel components of hospital services.

3 PSYCHIATRIC SERVICES

INTRODUCTION

This chapter presents data on the national use of psychiatric hospitals, that is public hospitals designated as psychiatric by the State and Territory health authorities, and specialist private psychiatric hospitals. Private hospitals are not licensed by health authorities for specific functions, so specialist private psychiatric hospitals are essentially self-nominated. For the Private Health Establishments collection (therefore also for this report) a private hospital was designated as psychiatric if the majority of patients were classified as psychiatric.

Apart from psychiatric hospitals, many services for the mentally ill are provided in psychiatric units in acute hospitals, and in community-based settings. These services are not included in this chapter.

The National Mental Health Policy[1] provides for *mainstreaming* services for the mentally ill. This is likely to result in a continuing decline in the number of public psychiatric hospitals as the services they provide are integrated into units and programs in public acute hospitals.

STATISTICAL RESULTS

Bed supply

There were a total of 70 specialist psychiatric hospitals in Australia in 1991–92, with 8,644 beds. In addition to these specialist hospitals a number of acute hospitals provide psychiatric services which are excluded from these results.

Activity

There were a total of 65,288 separations from specialist psychiatric hospitals in 1991–92, 44.8 per cent of which were from public hospitals. Of the 2.7 million occupied bed days, 87.1 per cent were in public psychiatric hospitals. These proportions highlight the length of stay difference between the sectors: the average length of stay in public psychiatric hospitals was 79.6 days, compared to 9.6 days in private hospitals (overall average of 40.9 days). This difference reflects the complementary roles of public and private psychiatric hospitals. Patients in public psychiatric hospitals often require long term institutional care, whereas the private sector caters more for those requiring short term intensive psychiatric treatment.

The occupancy rate in public psychiatric hospitals (87.6%) is greater than the combined average of 84.5 per cent, with the occupancy in private psychiatric hospitals being considerably lower at 68.2 per cent.

Expenditure

In 1991–92 recurrent expenditure on specialist psychiatric hospitals was approximately $626 million, 87.1 per cent of which was in the public sector.

Data were not available to make cost adjustments as in the previous chapter. The average recurrent expenditure per occupied bed day (unadjusted) was almost identical in the public and private sector ($234 and $235 respectively). The large difference in cost per separation ($18,631 for public and $2,243 for private) is directly related to the length of stay difference.

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1 Australian Health Ministers. *National Mental Health Policy*. Canberra: AGPS, 1992.

TABLE 2. PUBLIC AND PRIVATE PSYCHIATRIC HOSPITALS: KEY STATISTICS, AUSTRALIA, 1991–92

	Public	*Private*	*Total*
BED SUPPLY			
Number of facilities	45	25	70
Number of beds/chairs	7,266	1,378	8,644
ACTIVITY			
Total separations	29,271	36,017	65,288
Total occupied bed days (OBDs)	2,329,178	343,998	2,673,176
Average length of stay (days)	79.6	9.6	40.9
Average occupancy rate (%)	87.6	68.2	84.5
Total non-inpatient services	n.p.	15,448	. .
EXPENDITURE			
Total recurrent expenditure ($'000)(a)	545,360	80,783	626,143
Average expenditure per separation ($)	18,631	2,243	9,590
Average expenditure per OBD ($)	234	235	234

(a) Total recurrent expenditure less depreciation costs; interest payments have not been excluded in this table.

4 SAME-DAY SERVICES

INTRODUCTION

This chapter presents data on the use of same-day services in acute hospitals and free-standing day hospital facilities.

DISCUSSION

Growth of same-day services

In December 1989 the [then] Department of Community Services and Health introduced arrangements to encourage the movement of hospital services from overnight settings to same day or ambulatory settings. One financial incentive was that for certain services provided on a same-day basis the minimum health fund rebate (the basic table rebate) was equivalent to that for a medical or minor surgery patient staying overnight. This meant that same day hospitals could be established with minimal overheads and be assured of reasonable income. This situation was attractive to the private sector so free-standing day hospital facilities proliferated.

In the public sector, there were incentives included in the 1988–93 Medicare agreements for hospitals to increase the proportion of same-day patients treated.

In 1989–90 an estimated 24.6 per cent of separations from acute hospitals were same-day cases, and this had risen to 31.0 per cent in 1991–92 (see below), an average annual increase of 12.3 per cent.

Targets for providing services on a same day basis

It has been suggested that up to 60 per cent of all hospital separations could be on a same day basis. This is almost twice the current level.

Some hospital services cannot be done on a same day basis, while for others it would be inappropriate not to do so. Indeed, one aspect of the arrangements referred to above was a prescribed set of services that are appropriately provided on a same day basis. The focus of setting targets for same day services will likely be on appropriate targets for specific services. In reaching these targets the overall level of same day servicing will no doubt increase.

STATISTICAL RESULTS

Bed supply

There were 72 private free-standing day hospital facilities in Australia in 1991–92, with 556 beds/chairs. There was also significant capacity in acute hospitals for providing same day services, though no data on capacity are available.

Activity

There were approximately 1.3 million same day separations from acute hospitals and same day facilities in 1991–92. Of these, 123,396 separations (8.9%) were from free-standing day hospital facilities.

Same day separations accounted for an estimated 31.0 per cent of all separations from acute hospitals and free-standing day hospital facilities. This proportion was slightly lower in the public sector (28.4%) but considerably higher in the private sector (37.1%). However if the separations from free-standing day hospital facilities are excluded from the private sector figures, the proportion in that sector reduces to 30.3 per cent.

Usage

Same day services were principally for minor surgery (60.7% of total same day separations) and this was consistent across the sectors. The next greatest usage overall was endoscopy (18.2%) comprising 11.6 per cent of the public sector usage profile and 29.8 per cent in the private sector. Renal dialysis was another high utilisation area (13.3% overall) accounting for 19.1 per cent of public hospital same day separations and 2.9 per cent in the private sector.

TABLE 3. PUBLIC AND PRIVATE ACUTE HOSPITALS AND FREE-STANDING DAY HOSPITAL FACILITIES: SAME DAY SERVICES, AUSTRALIA, 1991–92

	Public	*Private*	*Total*
BED SUPPLY IN FREE-STANDING DAY HOSPITAL FACILITIES			
Number of designated facilities	—	72	. .
Number of designated beds/chairs	—	556	. .
SEPARATIONS(a)			
Estimated same day separations	831,277	469,716	1,300,993
Same day separations as a proportion of total separations (%)	28.4	37.1	31.0
PROPORTION OF SAME DAY SERVICES (%)			
Endoscopy	11.6	29.8	18.2
Dialysis	19.1	2.9	13.3
Psychiatric	3.2	3.5	3.3
Other surgery	62.5	57.6	60.7
Other	3.6	6.2	4.5

(a) Data in this and the following section are for all acute hospitals including free-standing day hospital facilities.

5 REGIONAL VARIATION

INTRODUCTION

This chapter presents data on the bed supply, activity and expenditure by metropolitan and non-metropolitan regions in Australia.

Metropolitan is defined as capital cities plus Newcastle, Wollongong, Geelong and Launceston, but excludes the Central Coast in New South Wales and the Gold Coast in Queensland.

DISCUSSION

Specialised [statewide] services

An issue in calculating rates for metropolitan versus non-metropolitan regions is the identification of an appropriate population for the denominator. Many establishments service a population that extends into neighbouring areas, and highly specialised centres – typically located in the capital city – often service the entire State [or national] population. The inclusion of these services in the calculation of metropolitan rates biases the result towards the characteristics of the specialised service (for example high cost, extended length of stay, lower throughput).

Another aspect of metropolitan hospitals that is less prominent in non-metropolitan hospitals is the teaching and research components of the hospital's service.

STATISTICAL RESULTS

Bed supply

Almost half (48.6%) of all beds in acute and psychiatric hospitals were in metropolitan public hospitals, with another one fifth (19.6%) in metropolitan private hospitals. Overall 68.2 per cent of total beds were located in metropolitan hospitals. However when put in context of the populations served, there was greater availability of beds in non-metropolitan regions with 5.1 beds per 1,000 population compared with 4.8 beds in metropolitan regions. As noted above, most statewide services are located in public metropolitan hospitals so the effective bed supply in metropolitan areas is lower than these numbers suggest.

In the public sector, the balance favoured non-metropolitan areas with 4.3 beds per 1,000 population compared with 3.4 beds in metropolitan hospitals. Conversely, the private sector supply was mostly in the metropolitan regions with 1.4 beds per 1,000 population compared with 0.8 beds in non-metropolitan hospitals.

Activity

Overall there were slightly more separations and occupied bed days per 1,000 population for metropolitan hospitals than non-metropolitan in 1991–92. This pattern varied a little in detail: in the public sector the separation and bed day rates were higher for non-metropolitan hospitals. In the private sector, the rates indicate a significantly greater share of activity in metropolitan hospitals.

Occupancy of metropolitan hospitals was higher than non-metropolitan overall (77.3% and 70.0% respectively) with a marked difference in the public sector (82.6% and 70.7% respectively). This pattern was reversed in the private sector with occupancy in metropolitan hospitals at 64.0 per cent and non-metropolitan at 66.1 per cent.

Average length of stay was marginally shorter in metropolitan (5.5 days) than non-metropolitan hospitals (5.7 days). This was reversed for public hospitals (6.1 days and 5.9 days respectively) but not for private hospitals (4.2 days in metropolitan and 4.4 days in non-metropolitan).

Expenditure

In general the costs in metropolitan hospitals were greater than in non-metropolitan hospitals. Average recurrent expenditure per separation for metropolitan regions was $2,937 compared with $2,326 for non-metropolitan regions. This difference is likely to be due to greater casemix complexity and the concentration of high-technology and other specialised services in the larger metropolitan hospitals.

Data were not available to calculate fully adjusted costs as in chapter 2 such that inter-sectorial comparisons of cost are less valid. However within each sector analysis of regional variation in cost is possible. For the public sector, average recurrent expenditure per separation and per bed day was considerably higher in the metropolitan hospitals compared with non-metropolitan. This difference was less significant in the private sector, reflecting the greater role differentiation between regions in the public sector than in the private sector (see discussion above).

TABLE 4. PUBLIC AND PRIVATE ACUTE AND PSYCHIATRIC HOSPITALS: KEY STATISTICS, METROPOLITAN AND NON-METROPOLITAN, AUSTRALIA, 1991–92

	Public	*Private*	*Total*
BED SUPPLY			
Number of beds per 1,000 population			
Metropolitan	3.40	1.38	4.78
Non-metropolitan	4.30	0.76	5.06
Proportion of total beds (%)			
Metropolitan	48.6	19.6	68.2
Non-metropolitan	27.1	4.8	31.8
Average number of beds per hospital			
Metropolitan	208	70	133
Non-metropolitan	41	49	42
ACTIVITY			
Separations per 1,000 population			
Metropolitan	169	77	246
Non-metropolitan	187	41	229
Occupied bed days per 1,000 population			
Metropolitan	1,029	322	1,352
Non-metropolitan	1,114	183	1,296
Occupancy rate (%)			
Metropolitan	82.6	64.0	77.3
Non-metropolitan	70.7	66.1	70.0
Average length of stay (days)			
Metropolitan	6.1	4.2	5.5
Non-metropolitan	5.9	4.4	5.7
EXPENDITURE			
Total recurrent expenditure ($'000)(a)			
Metropolitan	7,226,876	1,550,093	8,776,969
Non-metropolitan	2,525,144	319,040	2,844,184
Average expenditure per separation ($)			
Metropolitan	3,522	1,655	2,937
Non-metropolitan	2,520	1,447	2,326
Average expenditure per OBD ($)			
Metropolitan	578	396	535
Non-metropolitan	424	326	410

(a) Total recurrent expenditure less depreciation costs; interest payments have not been excluded in this table.

6 VARIATION BY HOSPITAL SIZE

Introduction

This chapter presents data on the bed supply, activity and expenditure by hospital size with a view to understanding cost differences in hospitals. The data are for public and private acute and psychiatric hospitals except all New South Wales public hospitals because not all data items were available at the hospital level in that State. Repatriation hospitals are included but free-standing day hospital facilities are excluded, as are all non-inpatient clinics (HUCS Type 4 hospitals). Activity data are only presented as average length of stay (ALOS) and occupancy rates because crude separation and bed day data are not particularly useful in cost analyses (readers are referred to the source publications for these data).

The hospital size groups are as specified in the Private Health Establishments collection instrument.

Adjustments were made for non-inpatient services and private medical costs as in chapter 2. In both sectors, private patient medical costs have been allocated based on the number of private patient occupied bed days. This results in the medical cost adjustment per bed day being identical across all size groups. The adjustment is included to obtain a more complete estimate of the cost of providing hospital services. Depreciation has been subtracted but interest payments are included as the amounts by size group were not available.

DISCUSSION

Hospital size and cost efficiency

Many factors influence an individual hospital's costs, efficiency and productivity. Some of these are beyond the control of the hospital, for example industrial classifications and awards, systems for medical remuneration and funding arrangements that require a focus on budget compliance rather than productivity. Other factors influencing efficiency and productivity that are not captured in the available data are case complexity and severity, staffing profile (for example visiting/salaried medical staff mix), organisational structure, and quality of outcomes.

There is an expectation that economies of scale would favour larger hospitals. The results presented here suggest that costs are lower in small to medium sized hospitals, though it is not clear how much this is a function of the factors listed above.

As noted in a report prepared for the National Health Strategy[1], without a funding system that relates costs to outputs, it is not possible to assess whether cost variations reflect legitimate role differences, service mix, or are the product of historical funding arrangements.

STATISTICAL RESULTS

Bed supply

Approximately 35 per cent of acute and psychiatric hospitals in Australia (excluding NSW public hospitals) had less than 25 available beds in 1991–92. These hospitals accounted for less than 7 per cent of total available beds. These values are inverted for large hospitals: just under 9 per cent of hospitals had more than 200 beds but these accounted for almost 45 per cent of the total available beds.

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1 Department of Health, Housing and Community Services 1991, *Hospital services in Australia: Access and financing, National Health Strategy issues paper no. 2*. Canberra: HSH.

A high proportion of public hospitals were in the smallest size group (44.2%), accounting for 7.5 per cent of total public hospital beds. The clear majority (57.9%) of public hospital beds were located in hospitals greater than 200 beds in size. In contrast, only 16.6 per cent of all private hospital beds were located in hospitals in this size group, with the bulk of hospitals and beds distributed across the medium size groups.

Activity

There was no simple relationship between hospital size and average length of stay (ALOS). Medium-sized hospitals (51–100 beds) had the shortest ALOS (4.6 days) and small hospitals had the longest (7.1 days). In the public sector there was a more obvious trend of decreased length of stay with increased hospital size. The private sector pattern matched the combined pattern: the longest length of stay was in small hospitals (8.5 days) and the shortest in medium hospitals (3.8 days).

There was an overall trend of increased occupancy with increased hospital size, ranging from an average of 60.1 per cent in small hospitals to 80.3 per cent in large hospitals. The public sector followed this trend closely. For all but the smallest size group, occupancy in the public sector was higher than in the private sector.

Expenditure

After adjusting for non-inpatient activity, private medical costs and depreciation, the overall cost per day of care was highest in large hospitals at $518 and lowest in medium-small hospitals at $320. The high cost in large hospitals may be partly due to the cost of teaching and research that occurred mostly in hospitals in this size group. Except for slightly higher costs in small public hospitals, there was a trend in both sectors of increased cost per day with increased hospital size. Some of this variation could be attributed to increased case complexity and severity in larger hospitals. For each hospital size group, the cost per day in the public sector was less than in the private sector.

The variation in cost per separation by hospital size was not as systematic as cost per bed day. The cost per separation overall was highest in large hospitals at $2,907 and lowest in medium-small hospitals ($1,850). The cost per separation was lower in the public sector compared with the private sector only in the small and medium-small size groups.

The cost per separation for public hospitals ranged from $1,777 in medium-small hospitals to $2,861 in large hospitals. In the private sector the cost ranged from $1,784 in medium hospitals to $3,287 in small hospitals. The high cost per separation in small private hospitals was largely related to the high average length of stay (ALOS) in this group, more than twice the ALOS for all private hospitals.

TABLE 5. PUBLIC AND PRIVATE ACUTE AND PSYCHIATRIC HOSPITALS: KEY STATISTICS BY HOSPITAL SIZE, AUSTRALIA(a), 1991–92

	Hospital size (beds)					
Sector	*1–25*	*26–50*	*51—100*	*101–200*	*Over 200*	*Total*
	PROPORTION OF HOSPITALS (%)					
Public	44.2	21.9	13.1	9.0	11.8	100.0
Private	21.3	31.3	30.7	12.5	4.1	100.0
Total	**35.3**	**25.6**	**20.0**	**10.4**	**8.8**	**100.0**
	PROPORTION OF BEDS (%)					
Public	7.5	8.8	11.1	14.7	57.9	100.0
Private	5.1	18.3	34.2	25.8	16.6	100.0
Total	**6.7**	**11.8**	**18.6**	**18.3**	**44.5**	**100.0**
	AVERAGE LENGTH OF STAY (DAYS)					
Public	6.7	6.7	6.3	5.9	5.8	6.0
Private	8.5	4.8	3.8	4.0	4.3	4.2
Total	**7.1**	**5.7**	**4.6**	**4.9**	**5.6**	**5.3**
	OCCUPANCY RATE (%)					
Public	59.1	66.3	69.9	72.9	80.9	75.6
Private	63.4	57.6	59.1	69.0	76.1	64.4
Total	**60.1**	**62.0**	**63.4**	**71.1**	**80.3**	**72.0**
	AVERAGE RECURRENT EXPENDITURE PER SEPARATION ($)(b)					
Public						
Unadjusted	2,602	2,130	2,660	3,015	3,526	3,225
Adjustments for						
Non-inpatients	-541	-475	-548	-759	-770	-715
Private patient medical costs(c)(d)	122	122	115	108	105	109
Adjusted	**2,183**	**1,777**	**2,227**	**2,364**	**2,861**	**2,618**
Private						
Unadjusted	2,357	1,532	1,383	1,535	2,115	1,613
Adjustments for						
Non-inpatients	0	0	-16	-9	-145	-46
Private patient medical costs(c)(d)	930	530	417	440	475	464
Adjusted	**3,287**	**2,062**	**1,784**	**1,967**	**2,445**	**2,031**
Total						
Unadjusted	2,549	1,804	1,797	2,213	3,318	2,634
Adjustments for						
Non-inpatients	-436	-208	-151	-301	-661	-423
Private patient medical costs(c)(d)	318	255	207	220	250	239
Adjusted	**2,431**	**1,850**	**1,853**	**2,132**	**2,907**	**2,451**
	AVERAGE RECURRENT EXPENDITURE PER OCCUPIED BED DAY ($)(b)					
Public						
Unadjusted	388	318	420	507	608	539
Adjustments for						
Non-inpatients	-81	-71	-87	-128	-133	-120
Private patient medical costs(c)(d)	18	18	18	18	18	18
Adjusted	**326**	**265**	**352**	**398**	**494**	**438**
Private						
Unadjusted	278	317	364	383	488	382
Adjustments for						
Non-inpatients	0	0	-4	-2	-33	-11
Private patient medical costs(c)(d)	110	110	110	110	110	110
Adjusted	**388**	**427**	**470**	**490**	**564**	**481**
Total						
Unadjusted	360	318	389	452	595	494
Adjustments for						
Non-inpatients	-59	-42	-42	-72	-121	-86
Private patient medical costs(c)(d)	45	45	45	45	45	45
Adjusted	**346**	**320**	**392**	**425**	**518**	**453**

(a) Public hospital data exclude New South Wales. (b) Total recurrent expenditure less depreciation; interest payments have not been excluded in this table. (c) Private patient medical costs allocated to size groups based on number of private patient occupied bed days. This assumes that medical costs per day are similar across all size groups. (d) By including expenditure on medical services to private patients in adjusted total expenditure per separation and per occupied bed day, the overall figures represent the estimated total cost of providing hospital services, not just the nursing and hotel components of hospital services.

7 USE OF HOSPITALS: MORBIDITY PROFILES

INTRODUCTION

This chapter profiles the use of acute and psychiatric hospitals and free-standing day hospital facilities by summarising hospital morbidity data collected by each State and Territory health authority. The Institute collates these data into a National Hospital Morbidity Database. The database was used as the source for public hospital morbidity; data collected by ABS as part of the Private Health Establishment survey was the source for private hospital and free-standing day hospital facility morbidity data[1]. Morbidity data were classified using the International Classification of Diseases, 9th revision, Clinical Modification (ICD-9-CM).

DISCUSSION

Hospital morbidity as an indicator of roles and specialist services

The morbidity data presented here provides a broad overview of the types of patients being treated. At this level it is not possible to gain any real insights into the type of services available in each sector. As discussed in chapter 4, there is an expectation that highly specialised services will be concentrated in capital city public hospitals.

With the development of more sophisticated casemix descriptors, such as Australian National-Diagnosis Related Groups (AN-DRGs), better use can be made of casemix data with respect to specialist services. Under such a system particular hospital services are better defined and can be more meaningfully compared between hospitals, sectors and States.

STATISTICAL RESULTS

The morbidity groupings used are not made up of equal numbers of codes, nor are the populations at risk in each group of equal volume. The proportions shown in the table are useful for comparing hospitals, sectors or States. The Total column for Tables 6 and 8 contains estimates of the proportions for both sectors combined.

Diagnoses

In general, the public sector profile focussed more on disease categories not requiring surgical intervention (infectious diseases, endocrine disorders, conditions of the perinatal period) and trauma (injury and poisoning). Conversely, the private sector profile favoured categories requiring surgical intervention: diseases of the digestive, genitourinary and musculoskeletal systems.

Procedures

These profiles suggest that procedures requiring an extensive investment of capital and expertise (for example operations on the cardiovascular system and the respiratory system) were serviced by the public sector, whereas less complex procedures requiring less expensive equipment and elective procedures were provided in the private sector (operations on the eye, ear, nose, mouth, pharynx, musculoskeletal system and breast). Higher proportions of obstetrical procedures and miscellaneous diagnostic and therapeutic procedures were observed in the public sector.

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1 In some cases morbidity data collected by the health authority was returned to the hospital to assist in responding to the Private Health Establishment survey.

TABLE 6. PUBLIC AND PRIVATE ACUTE AND PSYCHIATRIC HOSPITALS AND FREE-STANDING DAY HOSPITAL FACILITIES: PROPORTION OF SEPARATIONS BY PRINCIPAL DIAGNOSIS CATEGORY, AUSTRALIA, 1991–92
(per cent)

Principal diagnosis category	*Public*	*Private(a)*	*Total*
Infectious diseases	1.9	0.6	1.5
Neoplasms	6.1	8.0	6.7
Endocrine disorders	1.3	0.7	1.1
Diseases of blood	1.1	0.5	0.9
Mental disorders	2.9	3.7	3.1
Diseases of nervous system	4.3	7.8	5.4
Diseases of circulatory system	9.1	6.3	8.3
Diseases of respiratory system	7.8	4.8	6.8
Diseases of digestive system	10.0	16.2	12.3
Diseases of genitourinary system	7.1	11.3	8.4
Complications of pregnancy	11.0	6.0	9.5
Diseases of skin	1.9	2.3	2.1
Diseases of musculoskeletal system	4.1	10.5	5.9
Congenital anomalies	0.9	0.8	0.9
Conditions of perinatal period	1.5	0.3	1.1
Symptoms, signs and ill-defined conditions	5.6	4.2	5.3
Injury and poisoning	9.6	4.4	8.1
Supplementary classifications	13.7	10.3	12.7
Total	**100.0**	**100.0**	**100.0**

(a) Includes free-standing day hospital facilities.

TABLE 7. PUBLIC AND PRIVATE ACUTE AND PSYCHIATRIC HOSPITALS AND FREE-STANDING DAY HOSPITAL FACILITIES: SHARE OF SEPARATIONS BY PRINCIPAL DIAGNOSIS, CATEGORY, AUSTRALIA, 1991–92
(per cent)

Principal diagnosis category	*Public*	*Private(a)*	*Total*
Infectious diseases	88.7	11.3	100.0
Neoplasms	63.8	36.2	100.0
Endocrine disorders	82.5	17.5	100.0
Diseases of blood	85.7	14.3	100.0
Mental disorders	66.1	33.9	100.0
Diseases of nervous system	56.1	43.9	100.0
Diseases of circulatory system	77.6	22.4	100.0
Diseases of respiratory system	80.1	19.9	100.0
Diseases of digestive system	57.4	42.6	100.0
Diseases of genitourinary system	60.0	40.0	100.0
Complications of pregnancy	81.9	18.1	100.0
Diseases of skin	65.2	34.8	100.0
Diseases of musculoskeletal system	49.1	50.9	100.0
Congenital anomalies	73.1	26.9	100.0
Conditions of perinatal period	92.8	7.2	100.0
Symptoms, signs and ill-defined conditions	75.7	24.3	100.0
Injury and poisoning	84.1	15.9	100.0
Supplementary classifications	76.0	24.0	100.0
Total	**70.5**	**29.5**	**100.0**

(a) Includes free-standing day hospital facilities.

TABLE 8. PUBLIC AND PRIVATE ACUTE AND PSYCHIATRIC HOSPITALS AND FREE-STANDING DAY HOSPITAL FACILITIES: PROPORTION OF SEPARATIONS BY PRINCIPAL PROCEDURE CATEGORY, AUSTRALIA, 1991–92
(per cent)

Principal procedure category	*Public*	*Private(a)*	*Total(b)*
Operations on nervous system	2.5	2.7	2.6
Operations on endocrine system	0.3	0.3	0.3
Operations on eye	3.0	6.2	4.1
Operations on ear	1.5	2.7	1.9
Operations on nose, mouth, pharynx	4.6	10.0	6.7
Operations on respiratory system	1.7	0.8	1.4
Operations on cardiovascular system	11.4	4.2	8.9
Operations on hemic and lymphatic system	0.7	0.3	0.6
Operations on digestive system	18.5	22.7	19.1
Operations on urinary system	3.4	4.4	3.8
Operations on male genital organs	2.9	3.5	3.2
Operations on female genital organs	10.5	11.0	10.7
Obstetrical procedures	9.9	4.4	8.1
Operations on musculoskeletal system	10.0	13.5	11.6
Operations on breast	1.1	2.0	1.5
Other operations on skin and subcutaneous tissue	5.2	5.1	5.1
Diagnostic radiology and related techniques	3.9	2.6	3.5
Other miscellaneous diagnostic and therapeutic procedures	8.8	3.5	7.0
Total	**100.0**	**100.0**	**100.0**

(a) Includes free-standing day hospital facilities (b) AIHW estimates.

TABLE 9. PUBLIC AND PRIVATE ACUTE AND PSYCHIATRIC HOSPITALS AND FREE-STANDING DAY HOSPITAL FACILITIES: SHARE OF SEPARATIONS BY PRINCIPAL PROCEDURE CATEGORY(a), AUSTRALIA, 1991–92
(per cent)

Principal procedure category	*Public*	*Private(b)*	*Total*
Operations on nervous system	60.5	39.5	100.0
Operations on endocrine system	63.6	36.4	100.0
Operations on eye	48.3	51.7	100.0
Operations on ear	50.2	49.8	100.0
Operations on nose, mouth, pharynx	44.4	55.6	100.0
Operations on respiratory system	79.6	20.4	100.0
Operations on cardiovascular system	82.4	17.6	100.0
Operations on hemic and lymphatic system	81.6	18.4	100.0
Operations on digestive system	62.3	37.7	100.0
Operations on urinary system	56.9	43.1	100.0
Operations on male genital organs	58.3	41.7	100.0
Operations on female genital organs	63.1	36.9	100.0
Obstetrical procedures	79.2	20.8	100.0
Operations on musculoskeletal system	55.9	44.1	100.0
Operations on breast	49.7	50.3	100.0
Other operations on skin and subcutaneous tissue	65.9	34.1	100.0
Diagnostic radiology and related techniques	72.2	27.8	100.0
Other miscellaneous diagnostic and therapeutic procedures	81.1	18.9	100.0
Total	**64.4**	**35.6**	**100.0**

(a) AIHW estimates. (b) Includes free-standing day hospital facilities.

8 STATE VARIATION IN BED SUPPLY, ACTIVITY AND EXPENDITURE

INTRODUCTION

This chapter presents data on the bed supply, activity and expenditure in acute and psychiatric hospitals by State. The Australian Capital Territory and the Northern Territory have been combined with New South Wales and South Australia respectively for confidentiality (due to small numbers of private hospitals). For convenience, reference will only be made to the *parent* States in this chapter.

STATISTICAL RESULTS

Bed supply

South Australia had the greatest supply of both public and private hospital beds in 1991–92, with 4.2 beds per 1,000 population in the public sector and 1.4 beds in the private sector. Queensland was the only other State to exceed the national average in both sectors (3.9 and 1.4 beds per 1,000 population in the public and private sectors respectively). The lowest public sector supply was in Victoria (3.5 beds per 1,000 population) and the lowest private sector supply was in New South Wales (1.0 beds per 1,000 population).

Activity

Consistent with bed supply, South Australia had the highest separation rate in both the public and private sectors (194 and 80 separations per 1,000 population respectively). In the public sector, Western Australia had the next highest separation rate (182 separations per 1,000 population) and the lowest was in Tasmania (154 separations). However Tasmania had the second highest separation rate from private hospitals (79 separations per 1,000 population) while the lowest occurred in New South Wales (54 separations).

A similar pattern was observed for occupied bed days, with South Australia clearly having the highest bed day rates in both sectors (1,130 bed days per 1,000 population in public hospitals and 352 in private). Western Australia had the lowest bed day rate in the public sector (965 bed days) and New South Wales had the lowest rate in the private sector (210 bed days per 1,000 population).

Overall average length of stay varied from 4.9 days in Western Australia to 5.9 days in Tasmania. Interestingly, Tasmania had the longest average length of stay in the public sector (7.1 days) but the shortest in the private sector (3.7 days). The shortest length of stay in public hospitals occurred in Western Australia (5.3 days), and the longest average in the private sector was in Victoria and Queensland (4.5 days).

Average occupancy for the sectors combined ranged from 70.7 per cent in Western Australia to 77.1 per cent in Victoria. Similar variation was seen in each sector: public hospital occupancy ranged from 73.4 per cent in South Australia to 81.2 per cent in New South Wales; private hospital occupancy ranged from 58.2 per cent in Western Australia to 68.6 per cent in South Australia.

Expenditure

Unadjusted costs

Data on non-inpatient activity and private medical costs were available for both sectors at the State level in New South Wales, Victoria and Queensland only, so bed day and separation costs adjusted for these factors are presented for these States only (see next section). This section highlights the results for unadjusted recurrent expenditure per separation and per occupied bed day.

In the public sector, average costs per separation ranged from $2,771 in Queensland to $3,696 in Tasmania. For private hospitals, Queensland was also the least expensive at $1,474 per separation and the highest cost was in Victoria ($1,974). These States were also at the extremes for costs per bed day in the private sector ($330 and $435 respectively). In the public sector, cost per bed day was least in Queensland ($464) and greatest in Western Australia ($596).

Adjusted costs

Adjustments were made for non-inpatient activity, private medical costs and depreciation/interest payments for New South Wales, Victoria and Queensland. Data were not available for the remaining States individually, but the data for these States are included in the national figures.

After adjustment, Queensland had the lowest cost per separation in the public and private sectors ($2,158 and $1,852 respectively). New South Wales and Victoria showed a much greater differential between public and private hospitals.

The cost per bed day after adjustment was lower in public hospitals for all three States. Again, Queensland had the lowest cost in both sectors. Victoria had the highest cost per bed day in the public sector ($454) while New South Wales had the highest private sector cost ($494 per day).

TABLE 10. PUBLIC AND PRIVATE ACUTE AND PSYCHIATRIC HOSPITALS: KEY STATISTICS, STATES AND TERRITORIES, 1991–92

Sector	NSW and ACT	Vic.	Qld	SA and NT	WA	Tas.	Australia
NUMBER OF FACILITIES							
Public	199	172	184	89	94	20	758
Private	92	111	49	38	21	8	319
Total	**291**	**283**	**233**	**127**	**115**	**28**	**1,077**
NUMBER OF BEDS PER 1,000 POPULATION							
Public	3.63	3.45	3.90	4.21	3.54	3.75	3.68
Private	0.97	1.35	1.35	1.40	1.07	1.17	1.19
Total	**4.59**	**4.80**	**5.25**	**5.61**	**4.61**	**4.92**	**4.86**
NUMBER OF SEPARATIONS PER 1,000 POPULATION							
Public	176	163	178	194	182	154	175
Private	54	73	75	80	59	79	66
Total	**230**	**236**	**253**	**275**	**242**	**232**	**241**
NUMBER OF OCCUPIED BED DAYS PER 1,000 POPULATION							
Public	1,077	1,022	1,060	1,130	965	1,092	1,055
Private	210	332	335	352	228	288	280
Total	**1,287**	**1,354**	**1,395**	**1,482**	**1,193**	**1,381**	**1,335**
AVERAGE LENGTH OF STAY (DAYS)							
Public	6.1	6.3	6.0	5.8	5.3	7.1	6.0
Private	3.9	4.5	4.5	4.4	3.8	3.7	4.2
Total	**5.6**	**5.7**	**5.5**	**5.4**	**4.9**	**5.9**	**5.5**
OCCUPANCY RATE (%)							
Public	81.2	81.0	74.2	73.4	74.5	79.6	78.4
Private	59.4	67.1	67.8	68.6	58.2	67.3	64.4
Total	**76.6**	**77.1**	**72.6**	**72.2**	**70.7**	**76.7**	**75.0**
AVERAGE RECURRENT EXPENDITURE PER SEPARATION ($)							
Public							
Unadjusted	3,157	3,482	2,771	3,299	3,151	3,696	3,193
Adjustments for							
Non-inpatients	-687	-776	-691	n.p.	n.p.	n.p.	-716
Private patient medical costs(a)	165	139	78	n.p.	n.p.	n.p.	128
Depreciation/interest payments	. .	. .	. .	n.p.	n.p.	n.p.	. .
Adjusted(a)	**2,636**	**2,846**	**2,158**	**n.p.**	**n.p.**	**n.p.**	**2,606**
Private							
Unadjusted	1,630	1,974	1,474	1,594	1,617	1,573	1,689
Adjustments for							
Non-inpatients	-25	-125	-4	n.p.	n.p.	n.p.	-47
Private patient medical costs(a)	442	481	515	n.p.	n.p.	n.p.	464
Depreciation/interest payments	-135	-164	-132	n.p.	n.p.	n.p.	-146
Adjusted(a)	**1,912**	**2,167**	**1,852**	**n.p.**	**n.p.**	**n.p.**	**1,960**
Total							
Unadjusted	2,797	3,016	2,386	2,800	2,774	2,978	2,780
Adjustments for							
Non-inpatients	-533	-570	-482	n.p.	n.p.	n.p.	-528
Private patient medical costs(a)	230	245	207	n.p.	n.p.	n.p.	221
Depreciation/interest payments	-32	-51	-39	n.p.	n.p.	n.p.	-40
Adjusted(a)	**2,463**	**2,640**	**2,072**	**n.p.**	**n.p.**	**n.p.**	**2,432**
AVERAGE RECURRENT EXPENDITURE PER OCCUPIED BED DAY ($)							
Public							
Unadjusted	515	556	464	567	596	520	529
Adjustments for							
Non-inpatients	-112	-124	-116	n.p.	n.p.	n.p.	-118
Private patient medical costs(a)	27	22	13	n.p.	n.p.	n.p.	21
Depreciation/interest payments	. .	. .	. .	n.p.	n.p.	n.p.	. .
Adjusted(a)	**430**	**454**	**362**	**n.p.**	**n.p.**	**n.p.**	**431**
Private							
Unadjusted	421	435	330	363	421	428	400
Adjustments for							
Non-inpatients	-6	-27	-1	n.p.	n.p.	n.p.	-11
Private patient medical costs(a)	114	106	115	n.p.	n.p.	n.p.	110
Depreciation/interest payments	-35	-36	-30	n.p.	n.p.	n.p.	-35
Adjusted(a)	**494**	**477**	**414**	**n.p.**	**n.p.**	**n.p.**	**464**
Total							
Unadjusted	499	526	432	519	562	501	502
Adjustments for							
Non-inpatients	-95	-99	-87	n.p.	n.p.	n.p.	-95
Private patient medical costs(a)	41	43	38	n.p.	n.p.	n.p.	40
Depreciation/interest payments	-6	-9	-7	n.p.	n.p.	n.p.	-7
Adjusted(a)	**440**	**461**	**375**	**n.p.**	**n.p.**	**n.p.**	**439**

(a) By including expenditure on medical services to private patients in adjusted total expenditure per separation and per occupied bed day, the overall figures represent the estimated total cost of providing hospital services, not just the nursing and hotel components of hospital services.

APPENDIX

COST AND CASE COMPLEXITY (footnote 3, page 4)

This finding is based on data published in *NSW AN-DRG data book-1992/93*, South Australian hospital morbidity data and [version 1] AN-DRG cost weights resulting from the National Costing Study conducted by KPMG Peat Marwick. National cost weights for each sector were used to calculate average case weights in both the public and private sectors. Regardless of the cost weight set used, the public sector had a higher average case weight than the private sector. In NSW, the ratio of public to private average weight using the private sector cost weights was 1.194 (that is average case weight 19.4 per cent higher in the public sector); using the national public sector weights resulted in the average public weight being 15.8 per cent higher. In South Australia the value was 3.2 per cent for both ratios. However, the private sector average weight in NSW was only 0.90 (compared with an expected national average of 1.00) resulting in a large public:private case weight ratio. Overall in all public hospitals there is probably around 8 per cent higher costs per separation due to the complexity of cases compared with private hospitals.

ESTIMATED TEACHING HOSPITAL COSTS (footnote 4, page 4)

This finding is based on data published in *NSW public hospital comparison data-1991–92*. Analysis of costs in NSW public acute hospitals (excluding rehabilitation and psychiatric hospitals, hospices and outpatient clinics) showed a difference of $520 per DRG-adjusted separation between teaching hospitals and the rest of the State. Aggregated across all separations from teaching hospitals this difference equates to 19.3 per cent of expenditure on acute inpatients in teaching hospitals, or 15.2 per cent of total gross operating payments for teaching hospitals. Some individual hospitals will have higher proportions than this. Note that the effects of different casemix in teaching hospitals have been removed in these results. The aggregated difference amounts to 8.7 per cent of acute inpatient expenditure, or 6.4 per cent of total gross operating payments in NSW acute hospitals. This last figure can be understood to be the overall burden of teaching and research activities borne by the public sector.

GLOSSARY OF TERMS

Acute hospital	A hospital that provides at least minimal medical surgical or obstetrical services for inpatient treatment and/or care, and provides round-the-clock comprehensive qualified nursing services as well as other necessary professional services. It must be licensed by the State health authority. Most of the patients have acute conditions or temporary ailments and the average stay per admission is relatively short.
Allied health services	Services provided by units and clinics for treatment and counselling of patients. They mainly comprise physiotherapy, speech therapy, family planning, dietary advice, optometry and occupational therapy.
Australian national diagnosis related group (AN-DRG)	A DRG system (see below) developed for use in Australia.
Available beds	Beds immediately available (occupied and unoccupied) for the care of inpatients as required. In the case of free-standing day hospital facilities, this includes chairs, trolleys, recliners and cots.
Average length of stay (ALOS)	The average of the lengths of stay in hospital for all inpatients. A reasonable estimate is obtained by dividing the aggregate number of occupied bed days by the number of separations that generated those bed days.
Capital expenditure	Comprises expenditure on land and buildings, computer facilities, major medical equipment, plant and other equipment and expenditure in relation to intangible assets, having regard to guidelines followed as to the differentiation between capital and recurrent costs.
Day program	A therapeutic program provided on a non-inpatient basis usually having a duration of 4 hours or less. Treatment as a day program patient may continue over a number of weeks.
Diagnosis related group (DRG)	A means of classifying hospital patients to provide a common basis for comparing factors such as cost effectiveness and quality of care across hospitals. Each DRG represents a class of patients with similar clinical conditions requiring similar hospital services.
Free-standing day hospital facility	A hospital facility that provides investigation and treatment for acute conditions on a day only basis and is approved by the Commonwealth for the purposes of basic table health insurance benefits.
Group session	A group session occurs when two or more patients receive services at the same time from the same hospital staff.
Inpatient (admitted patient)	A patient who is admitted to hospital to receive care. Babies born in hospital are excluded unless they are provided with medical care other than that which would normally be provided to a newborn or if they remain in hospital after the mother has been discharged. Although the first of the liveborn babies in a multiple birth is not counted as an inpatient, each of the other liveborn babies are. Persons accompanying a sick patient (e.g. nursing mothers and parents accompanying sick children) are also excluded.

Morbidity

Any departure, subjective or objective, from a state of physiological or psychological well-being. Collectively refers to a set of conditions or treatments associated with a group of patients (for a particular hospital, for example).

Non-inpatient occasion of service

Any service provided to a non-inpatient (outpatient) in a functional unit (e.g. radiology) of the hospital. Each diagnostic test or simultaneous set of related diagnostic tests is counted as one occasion of service.

Nursing home type patient (NHTP)

Person admitted as *nursing home type patient* or whose length of stay exceeds 35 days and who is not certified as an acute care patient. The care required is consistent with that normally provided in a nursing home.

Occupancy rate

Occupancy rate is calculated by dividing occupied bed days by the product of average number of available beds and the number of days in the year (366 in 1991-92) and expressing this as a percentage, i.e.

$$\text{occupancy rate (\%)} = \frac{\text{occupied bed days} \times 100}{\text{average available beds} \times 366}$$

Occupied bed days

Aggregate number of days of stay for all inpatients who were separated from hospital during the year. Periods of approved leave are subtracted from these calculations. Same day inpatients are each counted as having a stay of one day.

Other inpatient

An inpatient who is discharged after the day of admission (i.e. stays at least one night in hospital).

Private patient

Eligible person who, on admission, elects to be treated by the medical practitioner of their own choice and who is charged fees for accommodation and other services provided by the hospital and relevant medical practitioners, or elects to be accommodated in a single room in a public hospital.

Psychiatric hospital

A hospital devoted primarily to the treatment and care of inpatients with psychiatric, mental or behavioural disorders. Private hospitals formerly approved by the Commonwealth under the *Health Insurance Act 1973* (now licensed/approved by each State health authority), catering primarily for patients with psychiatric or behavioural disorders are included in this category.

Repatriation (DVA) hospital

Acute care hospital run by the Commonwealth Department of Veterans' Affairs originally set up to provide hospital treatment for eligible veterans and their dependents at Commonwealth expense.

Salaried medical officers (SMO)

Medical officers engaged by the hospital on a full-time or part-time salaried basis.

Same day inpatient

An inpatient who is admitted and separated on the same day (i.e. is in hospital for a period that does not include an overnight stay).

Separation

A separation occurs when an inpatient:

- is discharged;
- is transferred to another institution; absconds;
- dies whilst in care;
- changes status e.g. from acute to nursing home type; or
- leaves hospital for a period of 7 or more days.

Visiting medical officer (VMO)

Medical practitioner appointed by the hospital board to provide medical services for hospital (public) patients on an honorary, sessional, or fee-for-service basis.

For more information ...

The ABS publishes a wide range of statistics and other information on Australia's economic and social conditions. Details of what is available in various publications and other products can be found in the *ABS Catalogue of Publications and Products* available at all ABS Offices (see below for contact details).

Information Consultancy Service

Information tailored to special needs of clients can be obtained from the Information Consultancy Service available at ABS Offices (see Information Inquiries below for contact details).

National *Dial-a-Statistic* Line

0055 86 400

(Steadycom P/L: premium rate 25c/21.4 secs.)

This number gives 24-hour access, 365 days a year, for a range of statistics.

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A large range of data is available via on-line services, diskette, magnetic tape, tape cartridge and CD ROM. For more details about these electronic data services, contact any ABS Office (see below).

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