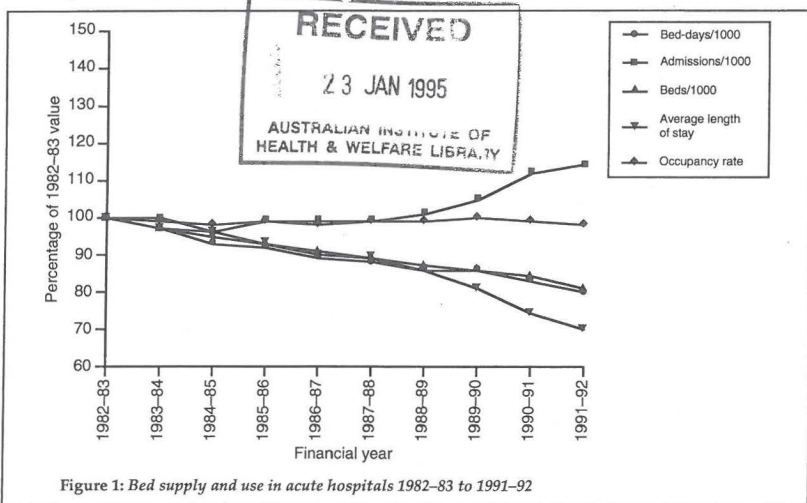


HealthExpenditure

HEALTH EXPENDITURE BULLETIN • NUMBER 9 • NOVEMBER 1994

Hospital utilisation and expenditure 1982-83 to 1991-92



Health Expenditure Bulletin no. 9 surveys use of and expenditure on acute public and private hospitals in Australia from 1982-83 to 1991-92.

The number of approved acute hospital beds per head of population and the length of stay per admission to hospital are falling. The falling length of stay from 1982-83 to 1991-92 is shown to outweigh the effect of increasing admissions, leading to lower bed-day use.

Length of stay went from 6.93 days in 1982-83 to 4.85 days in 1991-92. This is a fall of 30%—an average decrease of 3.9% a year.

Admissions to acute hospitals went from 3.29 million persons in 1982-83 to 4.26 million in 1991-92. This is a rise of 29.8%—an average increase of 2.9% per year.

Bed use fell from 22.78 million bed-days in 1982-83 to 20.68

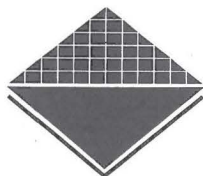
million bed-days in 1991-92 giving an overall fall of 9.2%—an average decrease of 1.1% per year.

Approved beds in acute care hospitals fell from 94,249 beds in 1982-83 to 87,013 in 1991-92.

Preliminary data for 1992-93 show these trends are continuing with an increase in admissions in that year of 5.2%, and a decrease in average length of stay of 5.1%

(Commonwealth of Australia 1993).

This bulletin gives data on both private and public hospitals. Care must be taken when comparing these two sectors particularly with respect to expenditure (see 'Technical notes', page 23). Figures 1 to 3 show there have been significantly different trends in use of public and private hospitals. This has been most evident in admissions; private hospital admissions have been increasing at a greater rate than public hospital admissions. As a result, the private hospital share of total admissions has increased from 23% of total admissions in 1982-83 to 25% of total acute hospital admissions in 1984-85 and 30% in 1991-92. Preliminary data from 1992-93 show that this increase in the private hospital share of admissions is continuing.



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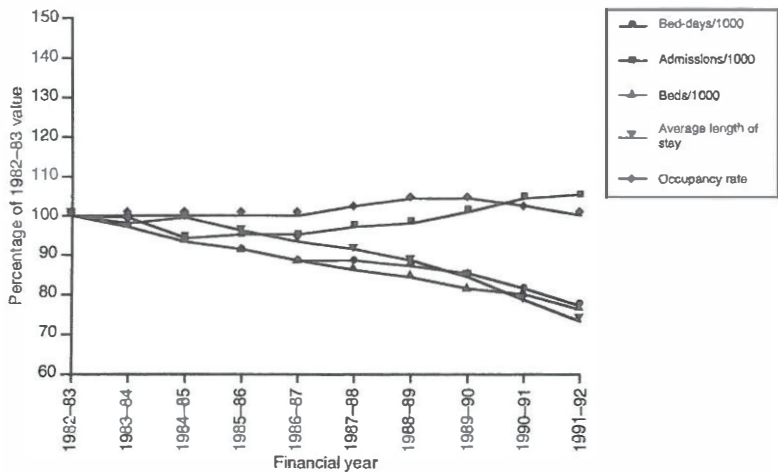


Figure 2: Bed supply and use in public hospitals 1982-83 to 1991-92

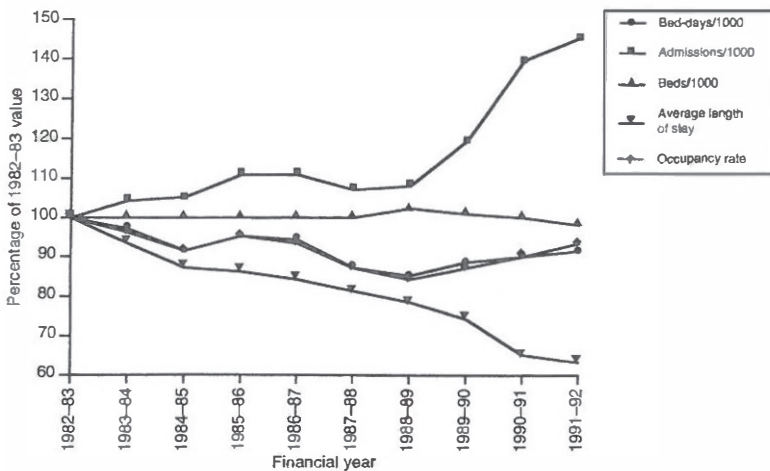


Figure 3: Bed supply and use in private hospitals 1982-83 to 1991-92

Beds in acute hospitals

The number of beds in acute care hospitals has declined throughout the period studied. From 1982-83 to 1991-92 the total number of approved acute care beds fell from 94,249 to 87,013 (Table 1). This represents an overall decline of 7.7% at an average annual rate of 0.9%. (The difference between 'approved' beds and 'available' beds is explained in the Technical notes. 'Approved' beds is used in this publication whereas in the

Health Expenditure

Institute's Hospital Utilisation and Costs Study publications 'available' beds is used.)

The decline in total acute hospital beds is due to a sharp decline in the number of recognised public hospital beds (by 9,826). In contrast, private hospital beds increased during this period (by 2,645 beds). Beds in recognised public hospitals declined by 13.7%, while private

hospital beds increased by 13.2% from 1982-83 to 1991-92.

Care must be taken when interpreting bed numbers because there have been differences over time and between States in what is counted as a bed (see Technical notes). Despite definitional problems, data for Australia as a whole over the period 1982-83 to 1991-92 provide a consistent picture of declining bed numbers for public hospitals, increasing bed numbers for private hospitals and declining bed numbers for acute care hospitals as a whole.

Table 1: Number of approved beds in acute hospitals 1982-83 to 1991-92

Year	(a) Recognised public hospitals	Repatiation hospitals	Total public hospitals	Private hospitals	Total acute hospitals
	(Number)				
1982-83	(b) 71,596	2,597	74,193	20,056	94,249
1983-84	(b) 70,021	2,621	72,642	20,366	93,008
1984-85	(b) 68,426	2,510	70,936	20,662	91,598
1985-86	(b) 67,828	2,450	70,278	20,887	91,165
1986-87	66,779	(c) 2,340	69,119	21,238	90,357
1987-88	65,976	2,351	68,327	21,542	89,869
1988-89	65,140	2,661	67,691	22,203	89,894
1989-90	(d) 64,325	2,548	66,873	22,511	89,364
1990-91	(d, e) 63,807	2,567	66,374	22,547	88,921
1991-92	(d, f) 61,770	2,542	64,312	22,701	87,013
	(Per cent)				
Average annual growth rate					
1982-83 to 1984-85	-2.20	-1.70	-2.20	1.50	-1.40
1984-85 to 1988-89	-1.20	0.40	-1.20	1.80	-0.50
1986-89 to 1991-92	-1.80	-0.10	-1.70	0.70	-1.10
1982-83 to 1991-92	-1.60	-0.20	-1.60	1.40	-0.90

(a) The estimated number of beds in a year is the average of the number of approved beds at 30 June of that year and the number at 30 June of the preceding year, except where otherwise indicated.

Some institutions funded under the hospital cost-sharing arrangements (e.g. nursing posts) were not recognised as hospitals between 1 September 1981 and 31 January 1984. This is one reason for the decline in estimated number of beds during that period.

(b) Commonwealth Department of Health annual reports included numbers of beds in repatriation hospitals in recognised public hospital figures from 1982-83 to 1985-86. Apparent discrepancies between above figures and annual report figures due to this inclusion will therefore occur.

(c) 1986-87 figures for repatriation hospitals in SA, WA and Tas are not available and are estimated by interpolation between 1985-86 (Hospital Utilisation and Costs Study) and 1987-88 (unpublished Department of Veterans' Affairs (DVA)) figures.

(d) The NSW Health Department advised that their category 2.3 program 'Support for area health services and public hospitals' data most closely approximate acute public hospital activity. However, there is a discontinuity in the NSW series because the category 2.3 program was revised by the NSW Health Department in 1989-90 and 1990-91 to remove some activities not viewed as acute hospital services. Activities by some institutions were reclassified from program 2.3 into aged and disabled,

psychiatric, dental, and drug dependence programs. Program 2.3 data have been used from 1989 onwards for NSW, despite the discontinuity because it is only for program 2.3 that bed, bed-day, admission and expenditure data are available. This reclassification reduced NSW acute public hospital expenditure by about \$200m in 1989-90.

For NSW, approved beds data have only been collected until 1988-89. From 1988-89 onwards approved beds are estimated using growth rates in average available beds.

- (e) In 1990-91, six public psychiatric hospitals—Larundel, Malvern, Mont Park, Parkville, Plenty and Travancore—were reclassified as recognised hospitals for the purposes of the Medicare agreement, so are included in this table from 1990-91. In total the six reclassified hospitals had 858 beds in 1989-90.
- (f) Approved bed numbers were not collected by the Department of Human Services and Health (HSH) after 30 June 1991. Only available bed-day data were collected. In order to maintain a consistent time series, 1991-92 approved beds are estimated using the growth rate in available beds.

Sources:

Recognised public and private hospitals:

- 1982-83 to 1985-86: *Commonwealth Department of Health Annual Report 1985-86*. AGPS, Canberra: Table 11: 113
- 1986-87: *Commonwealth Department of Health: Health statistical supplement 1986-87*. AGPS, Canberra: Table 10: 9
- 1987-88 and 1988-89: *Department of Community Services and Health Annual Report 1988-89*. AGPS, Canberra: Table 79: 46
- 1989-90: *Department of Health, Housing and Community Services (HHCS) Annual Report 1989-90*. AGPS, Canberra: Table 76:47
- 1990-91: *Department of Health, Housing and Community Services (HHCS) Annual Report 1991-92*. AGPS, Canberra: Table 91:71
- 1991-92: *Department of Health, Housing, Local Government and Community Services (DHHLGCS) Annual report 1992-93* Table 91

Repatriation hospitals:

Both general and auxiliary hospitals beds are included in repatriation hospital beds.

The number of beds in auxiliary hospitals as at December 1992 are:

QLD—Kenmore 65 beds

VIC—McCleod 94 beds

NSW—Lady Davidson 174 beds

Total 333 beds

- 1982-83 to 1984-85: unpublished data, Department of Veterans' Affairs, Canberra
- 1985-86: Department of Veterans' Affairs (quoted in Mathers C & Harvey R 1988) *Hospital utilisation and costs study (HUCS)* AGPS for the Australian Institute of Health, Canberra 2: pp.65
- 1986-87: auxiliary beds for NSW, Vic and Qld: unpublished data, Department of Veterans' Affairs
- 1986-87 to 1988-89 and 1990-91, 1991-92 from DVA annual reports
- 1989-90 DVA repatriation beds are from 1989-90 HUCS Table 3.2. Table 3.2 includes both general and auxiliary repatriation hospitals

In 1986-87, the 1986 and 1987 annual report data from HHCS cannot be averaged to calculate either recognised public or total public beds, due to the inclusion of repatriation beds in 1986 but not in 1987. To allow for this, an assumption that 1986-87 repatriation hospital beds are representative of 1986 and 1987 repatriation beds has been made.

Beds in acute hospitals per 1,000 population

The number of beds per 1,000 population for the acute care public hospitals declined by 23.9% over the 1982-83 to 1991-92 period (Table 2), but remained relatively constant for private hospitals.

Use of beds in acute care hospitals

The number of occupied bed-days in acute care hospitals fell from 22.78 million bed-days in 1982-83 to 20.68 million bed-days in 1991-92. This is a decrease of 9.2% over the nine-year period. The decline was not, however, uniform over that

period. Bed-days increased slightly in 1985-86, 1987-88 and in 1989-90, but fell in other years.

Bed-day trends differed for private and public hospitals. Public hospital bed-days fell in all years except 1987-88 showing an overall decline in the period of 12.8% or 2.3 million bed-days (the Technical notes on reclassification discuss some definitional factors which have affected bed-day trends).

Private hospital bed-days fluctuated somewhat. There was an overall decline of 7.3% in the period 1982-83 to 1988-89, followed by a substantial growth of 12.3% in the period 1988-89 to 1991-92. This

growth occurred at an average annual rate of 4.0% per year.

The recent increases in private hospital bed-days have been more than counteracted by a continuing decline in public hospital bed-days, resulting in an overall acute hospital bed-day decline of 1.2% per year from 1988-89 to 1991-92.

The different growth rates of bed-days in private and public hospitals led to the private hospital proportion of total bed-days moving from 21.2% in 1982-83 to 20.9% in 1988-89 and then increasing to 24.4% in 1991-92.

Table 2: Number of approved beds in acute hospitals per 1,000 population 1982-83 to 1991-92

Year	Recognised public hospitals	Repatriation hospitals	Total public hospitals	Private hospitals	Total acute hospitals
(Number)					
1982-83	4.68	0.17	4.85	1.31	6.16
1983-84	4.52	0.17	4.69	1.32	6.01
1984-85	4.36	0.16	4.52	1.32	5.84
1985-86	4.27	0.15	4.42	1.31	5.73
1986-87	4.14	0.15	4.28	1.32	5.60
1987-88	4.03	0.14	4.17	1.31	5.48
1988-89	3.91	0.15	4.06	1.33	5.39
1989-90	3.80	0.15	3.95	1.33	5.28
1990-91	3.72	0.15	3.87	1.31	5.18
1991-92	3.55	0.15	3.69	1.30	5.00
Average annual growth rate (Per cent)					
1982-83 to 1984-85	-3.5	-2.9	-3.4	0.2	-2.7
1984-85 to 1988-89	-2.7	-1.1	-2.7	0.3	-2.0
1988-89 to 1991-92	-3.2	-1.6	-3.1	-0.7	-2.5
1982-83 to 1991-92	-3.0	-1.7	-3.0	-0.1	-2.3

Sources:

Mean resident population for financial years:

1982-83 to 1985-86: ABS (March quarter 1989) *Australian demographic statistics*. Cat. no. 3101.0

1986-87 to 1991-92: ABS (September quarter 1992) *Australian demographic statistics*. Cat. no. 3101.0

Number of beds: see Table 1

Table 3: Occupied bed-days in acute hospitals 1982-83 to 1991-92

Year	Recognised public hospitals	Repatriation hospitals	Total public hospitals	(a)Private hospitals	Total acute hospitals
(Bed-days)					
1982-83	17,124,600	816,390	17,940,990	4,839,187	22,780,177
1983-84	16,755,400	836,122	17,591,522	4,740,782	22,332,304
1984-85	16,305,933	807,109	17,113,042	4,525,431	21,638,473
1985-86	16,221,803	772,989	16,994,792	4,766,204	21,760,996
1986-87	16,007,110	718,706	16,725,816	4,778,000	21,503,816
1987-88	16,248,322	730,752	16,979,074	4,531,000	21,510,074
1988-89	16,144,000	804,441	16,948,441	4,488,000	21,436,441
1989-90	16,085,904	794,496	16,880,400	4,725,727	21,606,127
1990-91	15,556,577	812,135	16,368,712	4,901,944	21,270,656
1991-92	14,820,825	816,839	15,637,664	5,042,230	20,679,894
Average annual growth rate (Per cent)					
1982-83 to 1984-85	-2.4	-0.6	-2.3	-3.3	-2.5
1984-85 to 1988-89	-0.2	-0.1	-0.2	-0.2	-0.2
1988-89 to 1991-92	-2.8	0.5	-2.6	4.0	-1.2
1982-83 to 1991-92	-1.6	0.0	-1.5	0.5	-1.1

(a) See Appendix A for details of the estimation.

Sources:

Recognised public hospitals:

1982-83 to 1983-84: Commonwealth Department of Health unpublished data

1984-85 to 1988-89: State and Territory health authorities unpublished data

1989-90 to 1991-92: Medicare agreement data for all States except NSW

1989-90 to 1991-92: NSW from NSW annual reports program 2.3

Repatriation hospitals:

Repatriation Commission annual reports

1989-90: Hospital Utilisation and Costs Study (HUCS) data

Private hospitals:

1982-83 to 1983-84 eligible patients: Commonwealth Department of Health

1984-85 eligible and non-eligible patients: Commonwealth Department of Health, unpublished data

1985-86: HUCS (1988) Table 5.1: 87

1986-87 to 1988-89: Department of Community Services and Health (May 10, 1988)

Private Hospital Survey No. 1 (February, 1989)

Private Hospital Survey No. 3 (1 January - 30 June 1988); and (February 1990)

Private Hospital Survey No. 5 (1 January - 30 June 1989)

Private Hospital Survey No. 7 (1 January 1990 - 30 June 1990)

Private Hospital Survey No. 9 (1 January 1991 - 30 June 1991)

1989-90 to 1991-92: Medicare agreement data

Acute hospital bed-days per 1,000 population

Public hospitals have shown a continual decline in bed-days per 1,000 population over the 1982-83 to 1991-92 period. The decline amounted to 23.4%—an average annual decline of 2.9%. The private hospital ratio of bed-days per 1,000 population has fluctuated from year to year, with an overall decline in

the period of 8.5%—an average annual decline of 1.0%.

It is not surprising that public and private bed-day trends have differed, given the different factors operating on the two sectors. The public hospitals faced continuing budget restraints through the whole period, while forces affecting private hospitals varied. The private hospitals had to deal with the decline in membership of private health insurance funds with

the introduction of a national insurance scheme (Medicare) in February 1984, and the removal of the private hospital bed-day subsidy in October 1986. At the same time there was a private hospital building boom. The increase in private hospital capacity by over 2,000 beds in the six years to 1989-90 led to declining occupancy rates in 1986-87 to 1988-89 (see Table 5). This trend was reversed in 1989-90 to 1991-92.

Table 4: Occupied bed-days in acute hospitals per 1,000 population 1982-83 to 1991-92

Year	Recognised public hospitals	Repatriation hospitals	Total public hospitals	Private hospitals	Total acute hospitals
(Bed-days)					
1982-83	1,120	53	1,173	316	1,490
1983-84	1,082	54	1,136	306	1,442
1984-85	1,040	51	1,091	289	1,380
1985-86	1,020	49	1,069	300	1,369
1986-87	992	45	1,037	296	1,333
1987-88	992	45	1,036	276	1,313
1988-89	968	48	1,017	269	1,286
1989-90	951	47	997	279	1,277
1990-91	906	47	953	285	1,239
1991-92	851	47	898	289	1,187
Average annual growth rate (Per cent)					
1982-83 to 1984-85	-3.6	-1.8	-3.6	-4.5	-3.8
1984-85 to 1988-89	-1.8	-1.6	-1.8	-1.7	-1.7
1988-89 to 1991-92	-4.2	-0.9	-4.1	2.5	-2.6
1982-83 to 1991-92	-3.0	-1.4	-2.9	-1.0	-2.5

Sources:

Occupied bed-days (OBDs): see Table 3

Population: see Table 2

Occupancy rates

Occupancy rates describe the use of hospital beds relative to the capacity in hospitals. Capacity in this bulletin has been measured by the number of approved beds (see 'Technical notes', page 23) to permit continuity with measures used in this bulletin series. In the Hospital Utilisation and Costs Study (HUCS) conducted by the Australian Institute of Health and Welfare for the Australian Health Ministers' Advisory Committee, capacity for recognised public hospitals is measured by the number of available beds. The number of available beds is lower than the number of approved beds. Thus, the numbers of beds shown in this bulletin are higher than those in HUCS, resulting in lower occupancy rates in this bulletin than those in HUCS.

In Table 5 the occupancy rate is calculated as the ratio of bed-days

each year to the number of possible bed-days in a year (calculated from the number of available beds in Table 1) x 100.

Occupancy rates fell for acute hospitals as a whole from 66.2% in 1982-83 to 65.2% in 1986-87. By 1989-90 occupancy levels returned to their 1982-83 level of 66.2%. Then they fell slightly to 64.9% by 1991-92.

The trends in occupancy rates have not been uniform across public and private hospitals. Private hospital occupancy rates fell from 66.1% in 1982-83 to 55.4% by 1988-89 and then up to 60.7% in 1991-92. In comparison, recognised public hospital occupancy rates increased from 65.5% in 1982-83 to 68.5% in 1989-90, and then decreased to 65.6% in 1991-92.

The diverging trends in occupancy rates occurred due to changes in bed levels in the public and private hospital sectors, not due to changes in bed-day use.

The addition of 2,147 private hospital beds in the period 1982-83 to 1988-89 (Table 1) led to declining occupancy rates in this sector. If private hospitals had closed beds at the same rate as public hospitals then the private hospital occupancy rate would have increased from 66.1% in 1982-83 to 67.2% by 1988-89.

In the 1988-89 to 1991-92 period, private hospital occupancy rates increased from 55.4% to 60.7%. Private hospital occupancy rates rose due to increased number of bed-days, not due to reductions in bed numbers.

Over the same period recognised public hospital occupancy rates decreased due to a bed-day decline of 1.3 million bed-days (8.2%) which was faster than the closure of beds (5.2%). Recognised public hospital occupancy rates decreased from 67.9% in 1988-89 to 65.6% in 1991-92.

Table 5: Occupancy rates in acute hospitals 1982-83 to 1991-92

Year	Recognised public hospitals	Repatriation hospitals	Total public hospitals	Private hospitals	Total acute hospitals
	(Per cent)				
1982-83	65.5	86.1	66.3	66.1	66.2
1983-84	65.4	87.2	66.2	63.6	65.6
1984-85	65.3	88.1	66.1	60.0	64.7
1985-86	65.5	86.4	66.3	62.5	65.4
1986-87	65.7	84.1	66.3	61.6	65.2
1987-88	67.3	84.9	67.9	57.5	65.4
1988-89	67.9	66.4	68.6	55.4	65.3
1989-90	68.5	85.4	69.2	57.5	66.2
1990-91	66.8	86.7	67.6	59.6	65.5
1991-92	65.6	87.8	66.4	60.7	64.9
Average annual growth rate	(Per cent)				
1982-83 to 1984-85	-0.2	1.1	-0.1	-4.7	-1.1
1984-85 to 1988-89	1.0	-0.5	0.9	-2.0	0.2
1988-89 to 1991-92	-1.2	0.5	-1.1	3.1	-0.2
1982-83 to 1991-92	0.0	0.2	0.0	-0.9	-0.2

Note: The occupancy rate is calculated from Tables 1 and 3 using the formula: (Occupancy rate = OBDs x 100 / (No. beds x 365)) (366 is used for leap years in 1983-84, 1987-88 and 1991-92).

Sources: Number of beds from Table 1, occupied bed-days from Table 3

Admissions to acute hospitals

An admission to a hospital is defined in the *National health data dictionary* (AIHW, 1993b) as a commencement by an inpatient of an episode of care in that hospital. The number of separations from hospitals measures the number of inpatients who leave a hospital within any given year, either after ending treatment or death. The number of separations is on average equal to the number of admissions within any given year. The data within Table 6 are a mixture of separations and admissions data (annual data on hospital separations are not available for all States and Territories since 1987-88; see the footnotes to Table 6). For convenience 'admission' is used to describe both admissions and separations.

Admissions to acute hospitals increased from 3.29 million persons in 1982-83 to 4.26 million persons in 1991-92. This is a 29.8% increase in the total number of admissions over the period—an average annual increase of 2.9%. The growth was particularly pronounced after 1987-88, admissions increasing by 22.2% (annual rate of 5.1%). This recent growth in admissions has been due to an increase in same-day admissions. From 1989-90 to 1991-92 same-day admissions grew by 53%, while other (non-same-day) admissions actually declined by 2%, combining to produce a 12% increase in admissions.

Admissions in recognised public hospitals have increased in all years except 1984-85, cumulatively resulting in a 17.3% increase in admissions by 1991-92. (The 1984-85 admissions figure can be seen as exceptional, affected by the New South Wales doctors dispute. New South Wales admissions fell by 100,000 in 1984-85 compared to 1983-84.)

A 30% growth from 1989-90 to 1991-92 in public hospital same-day admissions accounted for all of the 7% growth in admissions, admissions of greater than one day remaining constant over that period.

The most dramatic growth in admissions has occurred in private hospitals, where admissions have increased 67% at an annual rate of 5.9%. The rate is particularly high for the 1988-89 to 1991-92 period where private hospital admissions increased 41.5% at an average annual rate of 12.3%. The last two years of this period showed a 27% growth in private hospital admissions, which decomposes into a growth in same-day private hospital admissions of 110%, and a decline in other (non-same-day) admissions of 6%.

The growth in private hospital admissions has been reflected in the private hospital proportion of total acute hospital admissions which increased from 23.1% in 1982-83 to 24.8% in 1988-89 and 29.7% in 1991-92.

Acute hospital admission rates

The number of admissions per 1,000 population fluctuated around 215 over the period 1982-83 to 1988-89 but increased sharply to 245 admissions per 1,000 population in 1991-92, mainly due to the increase in private hospital admissions.

In 1989-90 Australia had the highest admission rate for acute hospitals among member countries of the Organisation for Economic Co-operation and Development (OECD) (all industrialised countries). For 1989-90 the Australian rate was 225 per 1,000 population. Seventeen OECD countries reported rates of admission for 1989 for acute care hospitals. The median rate of

admission was 165 admissions per 1,000 population.

This high rate is partly due to the Australian practice of counting most same-day procedures as admissions. All OECD countries, bar Australia and Iceland, do not count a same-day procedure as an admission (OECD 1993b, p.146). If same-day admissions are excluded Australia had in 1989-90 a rate of 170 admissions per 1,000 population which is sixth among the 16 OECD countries providing admissions data for this year (OECD 1993a, Table 5.2.8). Iceland also provided data for this year, but as it also counts day-only procedures as hospital admissions it is excluded from this comparison.

After adjusting for the same-day factor, Australia still has a high rate of acute hospital admissions, especially considering that the five OECD countries (France, Germany, Denmark, Austria and Luxembourg) with higher admission rates than Australia have populations with higher proportions of older people (the rate of admission of adults to hospitals increases with increasing age).

Along with high admission rates, Australian acute hospitals have a low average length of stay. At 5.66 days Australia had the lowest length of stay in the OECD in 1989 (OECD 1993a, Table 5.2.10), so although our admission rate was the highest in the OECD, the Australian occupied bed-days per head of population was at the median level (OECD 1993a, Table 5.2.6).

If same-day admissions are excluded from the Australian figure the average length of stay in 1989 becomes 7.2 days which is the fourth lowest in the OECD (out of the 17 countries reporting), and occupied bed-days per head of population is 1.13 which is slightly below the median for the OECD.

Table 6: Admissions to acute hospitals, 1982-83 to 1991-92

Year	Recognised public hospitals	Repatriation hospitals	Total public hospitals	Private hospitals	Total acute hospitals
			(Number)		
1982-83	2,462,964	65,564	2,528,528	757,521	3,286,049
1983-84	2,473,688	68,101	2,541,789	794,924	3,336,713
1984-85	2,362,695	66,238	2,428,933	812,312	3,241,245
1985-86	2,430,379	64,552	2,494,931	872,195	3,367,126
1988-87	2,478,285	62,090	2,540,375	888,104	3,428,479
1987-88	2,543,976	73,927	2,617,903	871,120	3,489,023
1988-89	2,632,231	81,802	2,714,033	895,561	3,609,594
1989-90	2,729,598	87,100	2,816,698	998,600	3,815,298
1990-91	2,832,480	103,194	2,935,674	1,186,192	4,121,868
1991-92	2,887,893	109,448	2,997,341	1,267,477	4,264,818
			(Per cent)		
Average annual growth rate					
1982-83 to 1984-85	-2.1	0.5	-2.0	3.6	-0.7
1984-85 to 1988-89	2.7	5.4	2.8	2.5	2.7
1988-89 to 1991-92	3.1	10.2	3.4	12.3	5.7
1982-83 to 1991-92	1.8	5.9	1.9	5.9	2.9

Note: From 1988-89 admissions are used. For previous years it was separations data.

Sources:

Recognised public hospitals:

State health authorities annual reports

Commonwealth and State health authorities unpublished data

HUCS (1988)

Medicare agreement data 1989-90 to 1991-92 for all States except NSW

NSW 1989-90 to 1991-92 from NSW annual report for program 2.3

Repatriation hospitals:

1982-83 to 1985-86: Repatriation Commission annual reports

1986-87 to 1988-89: Repatriation and Department of Veterans' Affairs annual reports

1989-90: HUCS 1989-90

1990-91 to 1991-92: Repatriation and Department of Veterans' Affairs annual reports

Private hospitals:

1982-83 to 1983-84: estimated from Department of Health unpublished data (See Appendix B)

1984-85 to 1985-86: Department of Health unpublished data

1988-87 to 1988-89: estimated using the formula: (Separations = OBDs/ALOS)

1989-90: HUCS 1989-90

1990-91, 1991-92: Medicare agreement data

Table 7: Acute hospital admissions per 1,000 population, 1982-83 to 1991-92

Year	Recognised public hospitals	Repatriation hospitals	Total public hospitals	Private hospitals	Total acute hospitals
(Number)					
1982-83	161.1	4.3	165.4	49.5	214.9
1983-84	159.7	4.4	164.1	51.3	215.5
1984-85	150.7	4.2	154.9	51.8	206.7
1985-86	152.8	4.1	156.9	54.9	211.8
1986-87	153.6	3.8	157.4	55.0	212.5
1987-88	155.2	4.5	159.8	53.2	212.9
1988-89	157.9	4.9	162.8	53.7	216.5
1989-90	161.3	5.1	166.4	59.0	225.4
1990-91	165.0	6.0	171.0	69.1	240.0
1991-92	165.8	6.3	172.1	72.8	244.9
Average annual growth rate (Per cent)					
1982-83 to 1984-85	-3.3	-0.7	-3.2	2.3	-1.9
1984-85 to 1988-89	1.2	3.8	1.3	0.9	1.2
1988-89 to 1991-92	1.6	8.6	1.9	10.6	4.2
1982-83 to 1991-92	0.3	4.3	0.4	4.4	1.5

Sources:

Admissions: see Table 6

Population: see Table 2

Average length of stay in acute hospitals

The average length of stay (ALOS) is defined as the average number of bed-days per admission. Table 8 reveals a clear picture of declining average lengths of stay in all types of acute care hospitals.

In 1982-83 average length of stay was 6.93 days. It decreased to 4.85 days in 1991-92, a fall of 2.1 days or 30% at an annual average rate of 3.9%. The rate of decline in ALOS was most noticeable in private hospitals where length of stay fell by 2.4 days or 38% over the period at an annual average rate of 5.1%. Recognised public hospitals also experienced a significant decline in length of stay of 1.8 days or 26%

over the period, at an annual average rate of 3.3%.

For private hospitals, the large decline in the ALOS (Table 8)—in spite of a large increasing number of admissions (Table 6)—resulted in only a small increase in bed-day numbers (Table 3). For public hospitals the decline in ALOS combined with a slow increase in admissions led to a decline in bed-days.

Changes in length of stay can be attributed to many factors. Previous falls in length of stay have been attributed to reduction in number of nursing home type patients in acute hospitals, better anaesthetics and antibiotics, pressures to treat more quickly so more patients can be accommodated, and changes in medical opinion. The current declines in length of stay are partly

attributable to changes and applications of less invasive techniques in surgery. The continued development and application of these techniques and similar technologies is likely to result in continued falls in the length of stay (Hirsch & Hailey 1992).

In recent years it has been the increase in same-day procedures that has led to the accelerating decrease in length of stay. The increase in same-day procedures comes from two sources. First, from admissions where the stay used to be two or three days but the procedure is now done on a same-day basis; and second, from an increase in the number of same-day procedures that were same-day a few years ago, e.g. endoscopies.

Table 8: Average length of stay^(a) in acute hospitals 1982-83 to 1991-92 (days)

Year	Recognised public hospitals	Repatriation hospitals	Total public hospitals	Private hospitals	Total acute hospitals
	(Number of days)				
1982-83	6.95	12.45	7.10	6.39	6.93
1983-84	6.77	12.28	6.92	5.96	6.69
1984-85	6.90	12.18	7.05	5.57	6.68
1985-86	6.67	11.97	6.81	5.46	6.46
1986-87 ^(b)	6.46	11.58	6.58	5.38	6.27
1987-88 ^(c)	6.39	9.88	6.49	5.20	6.17
1988-89 ^(d)	6.13	9.83	6.24	5.01	5.94
1989-90	5.89	9.12	5.99	4.73	5.66
1990-91	5.49	7.87	5.58	4.13	5.16
1991-92	5.13	7.46	5.22	3.98	4.85
Average annual growth rate	(Per cent)				
1982-83 to 1984-85	-0.4	-1.1	-0.4	-6.6	-1.9
1984-85 to 1988-89	-2.9	-5.2	-3.0	-2.6	-2.9
1988-89 to 1991-92	-5.8	-8.8	-5.8	-7.4	-6.5
1982-83 to 1991-92	-3.3	-5.5	-3.4	-5.1	-3.9

(a) Average length of stay for all hospital categories (except for private hospitals for the period 1986-87 to 1988-89) is calculated from the formula:

$$\text{ALOS} = \text{OBDs/Admissions.}$$

(b) 1986-87 private hospital ALOS is a figure estimated from log linear regression.

(c) 1987-88 private hospital ALOS is a weighted average of June 1987, December 1987 and June 1988 ALOS from Private Hospital Survey No. 1, No. 2 and No. 3, with December 1988 given a weight of 2 and June figures given a weight of 1.

(d) 1988-89 private hospital ALOS is a weighted average of June 1988, December 1988 and June 1989 ALOS from Private Hospital Survey No. 3, No. 4 and No. 5, with December 1988 given a weight of 2 and June figures given a weight of 1.

Sources: Bed-days from Table 3, admissions from Table 6

Expenditure in acute hospitals

In comparing data on expenditure of recognised public and private hospitals in Tables 9, 10 and 11, care needs to be taken because of significant differences in the coverage of the data and accounting conventions. Also, health expenditure for public hospitals in the years 1989-90 to 1991-92 has been reduced because of changes in the activities included in the New

South Wales public hospital program (see Technical notes on expenditure and footnotes to tables).

Total expenditure by acute care hospitals (Table 9) increased from \$5,235 million in 1982-83 to \$11,254 million in 1991-92—an increase of 115.0%.

Table 10 shows that after accounting for inflation, the increase between 1982-83 and 1991-92 was 27.5% or 2.7% per year.

Real expenditure for recognised public hospitals increased by 19.4%

from 1982-83 to 1991-92 at the rate of 2% per annum. In constant price terms private hospital revenue (which over time approximates expenditure) increased from \$1,110 million to \$1,860 million (in 1989-90 dollars) over the 1982-83 to 1991-92 period—a 67.6% increase at an average annual rate of 5.9% (Table 10). Real expenditure for acute hospitals as a whole increased by 27.5% in the period at the rate of 2.7% per annum.

Table 9: Total recurrent expenditure in acute hospitals, 1982-83 to 1991-92 (\$m)

Year	Recognised public hospitals	Repatriation hospitals	Total public hospitals	Private hospitals	Total acute hospitals
			(\$m)		
1982-83	4,320	199	4,519	716	5,235
1983-84	4,651	227	4,878	803	5,681
1984-85	5,054	243	5,297	869	6,166
1985-86	5,518	266	5,784	969	6,753
1986-87	6,302	291	6,593	1,127	7,720
1987-88	6,908	341	7,249	1,216	8,465
1988-89	7,683	417	8,100	1,335	9,435
1989-90	8,276	460	8,736	1,540	10,276
1990-91	8,606	516	9,122	1,821	10,943
1991-92	8,700	529	9,230	2,024	11,254
Average annual growth rate			(Per cent)		
1982-83 to 1984-85	8.20	10.60	8.30	10.20	8.50
1984-85 to 1988-89	11.00	14.50	11.20	11.30	11.20
1988-89 to 1991-92	4.20	8.30	4.40	14.90	6.10
1982-83 to 1991-92	8.10	11.50	8.30	12.20	8.90

Sources:

Recognised public hospital expenditure:

1982-83 to 1989-90 from Australian Institute of Health and Welfare health expenditure database

1990-91 to 1991-92 from State health authorities.

Expenditure for NSW recognised public hospitals for 1989-90 to 1991-92 is expenditure on program 2.3 'Support for area health services and public hospitals' (see note (d) Table 1). Expenditure on recognised public hospitals recorded in the Australian Institute of Health and Welfare *Health Expenditure Bulletin* no. 10 (in press) for 1990-91 and 1991-92 is higher than expenditure recorded here because *Health Expenditure Bulletin* no. 10 includes an estimate of expenditure shifted out of program 2.3 to other health programs. Expenditure on program 2.3 is recorded in this bulletin as it is only for program 2.3 that data on beds, bed-days, admissions and expenditure are available. The expenditure recorded here is the same as expenditure recorded in the *Hospital utilisation and costs study 1991-92*.

Private hospital expenditure:

1982-83 to 1991-92: Institute's health expenditure database. Expenditure approximated by estimating revenue.

Repatriation hospital expenditure:

Department of Veterans' Affairs

Population growth averaged 1.5% from 1982-83 to 1991-92, which means that the real annual increase in per person expenditure for acute hospitals averaged 1.3%.

Acute care hospital recurrent expenditure as a proportion of total health expenditure fell significantly from 41.7% in 1982-83 to 36.6% in

1991-92 (Table 11). This reduction was due to recognised public hospital expenditure losing 6.1 percentage points of its 1982-83 share of recurrent health expenditure. The private hospital share of expenditure increased by 0.9 percentage points from 5.7% of

recurrent expenditure in 1982-83 to 6.6% in 1991-92.

Real GDP per person growth averaged 2.0% over the same period. As a proportion of real GDP, acute hospital expenditure decreased from 2.95% in 1982-83 to 2.79% in 1991-92 (Table 10).

Table 10: Total recurrent expenditure in acute hospitals (constant 1989-90 prices), 1982-83 to 1991-92

Year	Recognised public hospitals	Repatriation hospitals	Total public hospitals	Private hospitals	Total acute hospitals	Expenditure as a % GDP
	(\$m)					(Percent)
1982-83	6,695	308	7,003	1,110	8,112	2.95
1983-84	6,788	331	7,120	1,172	8,292	2.84
1984-85	6,944	334	7,278	1,194	8,472	2.76
1985-86	7,166	346	7,512	1,258	8,770	2.75
1986-87	7,459	344	7,804	1,334	9,138	2.80
1987-88	7,755	383	6,138	1,365	9,503	2.77
1988-89	8,113	441	8,554	1,410	9,963	2.77
1989-90	8,276	460	8,736	1,540	10,276	2.78
1990-91	8,133	487	8,620	1,720	10,341	2.81
1991-92	7,995	486	8,481	1,860	10,341	2.79
Average annual growth rate	(Per cent)					
1982-83 to 1984-85	1.90	4.10	2.00	3.70	2.20	-3.20
1984-85 to 1988-89	4.00	7.20	4.10	4.20	4.10	0.10
1988-89 to 1991-92	-0.50	3.40	-0.30	9.70	1.30	0.20
1982-83 to 1991-92	2.00	5.20	2.20	5.90	2.70	-0.60

Sources:

Acute hospital expenditure from Table 9

Total recurrent health expenditure from AIHW *Health Expenditure Bulletin* no. 10 (In press)

Deflator series from the ABS—hospital and clinical deflator series (see AIHW *Health Expenditure Bulletin* no. 10 (In press))

Table 11: Total recurrent expenditure in acute hospitals (constant 1989-90 prices), as a percentage of total recurrent health expenditure (constant 1989-90 prices), 1982-83 to 1991-92

Year	Recognised public hospitals	Repatriation hospitals	Total public hospitals	Private hospitals	Total acute hospitals	Recurrent health expenditure
	(Per cent)					(\$m)
1982-83	34.40	1.60	36.00	5.70	41.70	19,439
1983-84	32.90	1.60	34.60	5.70	40.20	20,603
1984-85	32.60	1.60	34.20	5.60	39.80	21,271
1985-86	32.00	1.50	33.50	5.60	39.20	22,396
1986-87	31.80	1.50	33.20	5.70	38.90	23,490
1987-88	31.90	1.60	33.40	5.60	39.10	24,335
1988-89	31.50	1.70	33.20	5.50	38.60	25,796
1989-90	30.80	1.70	32.50	5.70	38.30	26,849
1990-91	29.70	1.80	31.40	6.30	37.70	27,425
1991-92	28.30	1.70	30.00	6.60	36.60	28,263

Sources:

Expenditure from Table 10

Total recurrent health expenditure from AIHW *Health Expenditure Bulletin no. 10* (in press)

Deflator series from the ABS—hospital and clinical deflator series (see AIHW *Health Expenditure Bulletin no. 10* (in press))

Public/private ratio of occupied bed-days by State and Territory

Tables 12 to 20 describe the proportions of public patients in recognised public and private hospitals for each of the years 1987-88 to 1991-92 and for each of the States and Territories.

Under the 1988-93 Medicare Agreement any State or Territory with public bed-days as a proportion of total recognised public and private bed-days below 53% was penalised. Victoria was penalised \$15.3 million in 1988-89 for falling below the 53% level. (The 1993-98 agreement also has penalties and rewards relating to public bed-day provision. It uses a different formula to the 1988-93 agreement.)

The non-public category in Tables 12 to 20 includes private nursing home type patients, veterans who are treated free of charge, workers' compensation and third party insurance patients, ineligible patients and other private patients.

The public patient category includes public nursing home type patients as well as other public patients. The figures do not include repatriation hospitals.

Table 12: Occupied bed-day ratios for recognised public and private hospitals, New South Wales, 1987-88 to 1991-92

	(a)1987-88	(a)1988-89	1989-90	1990-91	1991-92
Occupied bed-days ('000)					
Recognised public hospitals					
Public patients	3,874	3,806	3,988	n.a.	3,142
Non-public patients	2,170	2,081	1,718	n.a.	1,590
Total	6,043	5,887	5,706	5,245	4,732
Private hospitals	1,303	1,262	1,305	1,321	1,359
Total	7,346	7,149	7,012	6,566	6,091
Occupied bed-day proportions, public hospitals (Per cent)					
Recognised public hospitals					
Public patients	64.1	64.7	69.9	n.a.	66.4
Non-public patients	35.9	35.3	30.1	n.a.	33.6
Total	100.0	100.0	100.0	100.0	100.0
Occupied bed-day proportions, acute hospitals (Per cent)					
Recognised public hospitals					
Public patients	52.7	53.2	56.9	n.a.	51.6
Non-public patients	29.5	29.1	24.5	n.a.	26.1
Total	82.3	82.3	81.4	79.9	77.7
Private hospitals	17.7	17.7	18.6	20.1	22.3
Total	100.0	100.0	100.0	100.0	100.0
Occupied bed-days per 1,000 population					
Recognised public hospitals					
Public patients	684	663	688	n.a.	529
Non-public patients	383	362	296	n.a.	268
Total	1,068	1,025	984	894	796
Private hospitals	230	220	225	225	229
Total	1,298	1,244	1,209	1,120	1,025

(a) Private hospital occupied bed-days for NSW and the ACT from 1987-88 to 1988-89 are disaggregated using the proportions from the 1985-86 *Hospital utilisation and costs study*, volume 2 (1988) Table 5.3: pp.89. The proportions for NSW and the ACT are 0.987 and 0.013 respectively.

Note: There is a discontinuity in the NSW bed series at June 1989 due to a change in the activities included in program 2.3 'Support for area health services and public hospitals'.

Sources:

1987-88 to 1988-89: public recognised hospitals bed-days from State health authority returns to the Commonwealth Department of Health, Housing, Local Government and Community services (HHLGCS) under the Medicare agreement.

1989-90 to 1991-92: NSW recognised public hospital bed-days from the NSW Health Department program 2.3 'Support for area health services and public hospitals', see Table 1 footnote (d).

Private hospital data for 1987-88 to 1988-89: see note (a)

Private hospital data for 1989-90 to 1991-92 provided by State health authorities to the Commonwealth Department of Human Services and Health (HSH) under the Medicare agreement.

Table 13: *Occupied bed-day ratios for recognised public and private hospitals, Victoria 1987-88 to 1991-92*

	1987-88	1988-89	1989-90	1990-91	1991-92
Occupied bed-days ('000)					
Recognised public hospitals					
Public patients	2,451	2,542	2,646	2,684	2,730
Non-public patients	1,303	1,243	1,169	1,140	1,027
Total	3,754	3,786	3,815	3,824	3,757
Private hospitals	1,305	1,288	1,336	1,466	1,510
Total	5,059	5,074	5,152	5,290	5,267
Occupied bed-day proportions, public hospitals (Per cent)					
Recognised public hospitals					
Public patients	65.3	67.1	69.4	70.2	72.7
Non-public patients	34.7	32.8	30.6	29.8	27.3
Total	100.0	100.0	100.0	100.0	100.0
Occupied bed-day proportions, acute hospitals (Per cent)					
Recognised public hospitals					
Public patients	48.4	50.1	51.4	50.7	51.8
Non-public patients	25.8	24.5	22.7	21.6	19.5
Total	74.2	74.6	74.1	72.3	71.3
Private hospitals	25.8	25.4	25.9	27.7	28.7
Total	100.0	100.0	100.0	100.0	100.0
Occupied bed-days per 1,000 population					
Recognised public hospitals					
Public patients	579	593	585	611	615
Non-public patients	308	290	286	259	231
Total	887	883	872	870	846
Private hospitals	308	300	297	333	340
Total	1,195	1,183	1,169	1,204	1,186

Note: In 1990-91 six public psychiatric hospitals—Larunde, Malvern, Mont Park, Parkville, Plenty and Travancore—were reclassified as recognised hospitals for the purposes of the Medicare agreement. In total the six reclassified hospitals had 858 beds in 1989-90.

Sources:

Public recognised hospitals from State health authority returns to the Commonwealth Department of Human Services and Health under the Medicare agreement.

Private hospital data for 1987-88 to 1988-89 from the Private Hospital Surveys.

Private hospital data for 1989-90 to 1991-92 from State health authority returns to HSH under the Medicare agreement.

Table 14: Occupied bed-day ratios for recognised public and private hospitals, Queensland, 1987-88 to 1991-92

	1987-88	1988-89	1989-90	1990-91	1991-92
Occupied bed-days ('000)					
Recognised public hospitals					
Public patients	2,098	2,121	2,215	2,236	2,226
Non-public patients	429	413	412	405	398
Total	2,527	2,534	2,627	2,641	2,623
Private hospitals	883	894	1,000	1,001	1,048
Total	3,410	3,428	3,627	3,642	3,671
Occupied bed-day proportions, public hospitals (Per cent)					
Recognised public hospitals					
Public patients	83.0	83.7	84.3	84.7	84.8
Non-public patients	17.0	16.3	15.7	15.3	15.2
Total	100.0	100.0	100.0	100.0	100.0
Occupied bed-day proportions, acute hospitals (Per cent)					
Recognised public hospitals					
Public patients	61.5	61.9	61.1	61.4	60.6
Non-public patients	12.6	12.0	11.4	11.1	10.8
Total	74.1	73.9	72.4	72.5	71.5
Private hospitals	25.9	26.1	27.6	27.5	28.5
Total	100.0	100.0	100.0	100.0	100.0
Occupied bed-days per 1,000 population					
Recognised public hospitals					
Public patients	775	762	740	762	742
Non-public patients	159	148	144	138	132
Total	934	910	884	900	874
Private hospitals	326	321	312	341	349
Total	1,260	1,232	1,196	1,242	1,223

Sources:

Public recognised hospitals from State health authority returns to the Commonwealth Department of Human Services and Health under the Medicare agreement.

Private hospital data for 1987-88 to 1988-89 from the Private Hospital Surveys.

Private hospital data for 1989-90 to 1991-92 from State health authority returns to HSH under the Medicare agreement.

Table 15: Occupied bed-day ratios for recognised public and private hospitals, Western Australia, 1987-88 to 1991-92

	1987-88	1988-89	1989-90	1990-91	1991-92
Occupied bed-days ('000)					
Recognised public hospitals					
Public patients	1,146	1,170	1,216	1,237	1,215
Non-public patients	346	335	303	271	253
Total	1,493	1,505	1,519	1,507	1,468
Private hospitals	400	391	382	372	377
Total	1,893	1,896	1,900	1,879	1,845
Occupied bed-day proportions, public hospitals (Per cent)					
Recognised public hospitals					
Public patients	76.8	77.7	80.1	82.0	82.7
Non-public patients	23.2	22.3	19.9	18.0	17.3
Total	100.0	100.0	100.0	100.0	100.0
Occupied bed-day proportions, acute hospitals (Per cent)					
Recognised public hospitals					
Public patients	60.5	61.7	64.0	65.8	65.9
Non-public patients	18.3	17.7	15.9	14.4	13.7
Total	78.9	79.4	79.9	80.2	79.6
Private hospitals	21.1	20.6	20.1	19.8	20.4
Total	100.0	100.0	100.0	100.0	100.0
Occupied bed-days per 1,000 population					
Recognised public hospitals					
Public patients	757	752	734	762	736
Non-public patients	229	215	210	167	153
Total	987	967	944	929	889
Private hospitals	264	251	245	229	228
Total	1,251	1,219	1,189	1,157	1,118

Sources:

Public recognised hospitals from State health authority returns to the Commonwealth Department of Human Services and Health under the Medicare agreement.

Private hospital data for 1987-88 to 1988-89 from the Private Hospital Surveys.

Private hospital data for 1989-90 to 1991-92 from State health authority returns to HSH under the Medicare agreement.

Table 16: Occupied bed-day ratios for recognised public and private hospitals, South Australia, 1987-88 to 1991-92

	1987-88	1988-89	1989-90	1990-91	1991-92
Occupied bed-days ('000)					
Recognised public hospitals					
Public patients	1,199	1,192	1,204	1,163	1,129
Non-public patients	325	320	297	294	280
Total	1,524	1,512	1,501	1,457	1,408
Private hospitals	497	511	522	552	564
Total	2,021	2,023	2,024	2,009	1,973
Occupied bed-day proportions, public hospitals (Per cent)					
Recognised public hospitals					
Public patients	78.7	78.8	80.2	79.8	80.1
Non-public patients	21.3	21.2	19.8	20.2	19.9
Total	100.0	100.0	100.0	100.0	100.0
Occupied bed-day proportions, acute hospitals (Per cent)					
Recognised public hospitals					
Public patients	59.3	58.9	59.5	57.9	57.2
Non-public patients	16.1	15.8	14.7	14.6	14.2
Total	75.4	74.7	74.2	72.5	71.4
Private hospitals	24.6	25.3	25.8	27.5	28.6
Total	100.0	100.0	100.0	100.0	100.0
Occupied bed-days per 1,000 population					
Recognised public hospitals					
Public patients	858	844	837	808	776
Non-public patients	232	227	225	204	192
Total	1,090	1,071	1,061	1,012	968
Private hospitals	355	362	359	384	388
Total	1,445	1,433	1,420	1,396	1,356

Sources:

Public recognised hospitals from State health authority returns to the Commonwealth Department of Human Services and Health under the Medicare agreement.

Private hospital data for 1987-88 to 1988-89 from the Private Hospital Surveys.

Private hospital data for 1989-90 to 1991-92 from State health authority returns to HSH under the Medicare agreement.

Table 17: Occupied bed-day ratios for recognised public and private hospitals, Tasmania, 1987-88 to 1991-92

	1987-88	1988-89	1989-90	1990-91	1991-92
Occupied bed-days ('000)					
Recognised public hospitals					
Public patients	404	401	391	369	339
Non-public patients	65	77	84	77	78
Total	469	478	475	446	417
Private hospitals	127	125	129	132	126
Total	596	603	604	578	543
Occupied bed-day proportions, public hospitals (Per cent)					
Recognised public hospitals					
Public patients	86.1	83.9	82.2	82.7	81.4
Non-public patients	13.9	16.1	17.8	17.3	18.6
Total	100.0	100.0	100.0	100.0	100.0
Occupied bed-day proportions, acute hospitals (Per cent)					
Recognised public hospitals					
Public patients	67.8	66.5	64.6	63.8	62.6
Non-public patients	10.9	12.8	14.0	13.3	14.3
Total	78.7	79.3	78.6	77.1	76.8
Private hospitals	21.3	20.7	21.4	22.9	23.2
Total	100.0	100.0	100.0	100.0	100.0
Occupied bed-days per 1,000 population					
Recognised public hospitals					
Public patients	898	885	874	792	724
Non-public patients	144	170	168	166	165
Total	1,042	1,055	1,042	958	889
Private hospitals	282	276	272	284	268
Total	1,324	1,331	1,314	1,242	1,157

Sources:

Public recognised hospitals from State health authority returns to the Commonwealth Department of Human Services and Health under the Medicare agreement.

Private hospital data for 1987-88 to 1988-89 from the Private Hospital Surveys.

Private hospital data for 1989-90 to 1991-92 from State health authority returns to HSH under the Medicare agreement.

Table 18: Occupied bed-day ratios for recognised public and private hospitals, Northern Territory, 1987-88 to 1991-92

	1987-88	1988-89	1989-90	1990-91	1991-92
Occupied bed-days ('000)					
Recognised public hospitals					
Public patients	170	174	170	174	163
Non-public patients	18	14	11	8	10
Total	188	188	182	182	173
Private hospitals	—	—	21	22	23
Total	188	188	202	204	196
Occupied bed-day proportions, public hospitals (Per cent)					
Recognised public hospitals					
Public patients	90.4	92.6	93.7	95.6	94.1
Non-public patients	9.6	7.4	6.3	4.4	5.9
Total	100.0	100.0	100.0	100.0	100.0
Occupied bed-day proportions, acute hospitals (Per cent)					
Recognised public hospitals					
Public patients	90.4	92.6	84.1	85.2	83.0
Non-public patients	9.6	7.4	5.7	3.9	5.2
Total	100.0	100.0	89.8	89.1	88.3
Private hospitals	0.0	0.0	10.2	10.9	11.7
Total	100.0	100.0	100.0	100.0	100.0
Occupied bed-days per 1,000 population					
Recognised public hospitals					
Public patients	1,088	1,083	1,049	1,052	968
Non-public patients	113	87	71	48	61
Total	1,181	1,171	1,119	1,100	1,029
Private hospitals	0	0	127	135	137
Total	1,181	1,171	1,246	1,235	1,166

Sources:

Public recognised hospitals from State health authority returns to the Commonwealth Department of Human Services and Health under the Medicare agreement.

Private hospital data for 1987-88 to 1988-89 from the Private Hospital Surveys.

Private hospital data for 1989-90 to 1991-92 from State health authority returns to HSH under the Medicare agreement.

Table 19: Occupied bed-day ratios for recognised public and private hospitals, Australian Capital Territory, 1987-88 to 1991-92

	(a)1987-88	(a)1988-89	1989-90	1990-91	1991-92
Occupied bed-days ('000)					
Recognised public hospitals					
Public patients	132	150	155	160	170
Non-public patients	118	106	105	94	72
Total	250	255	260	255	242
Private hospitals	17	17	31	36	36
Total	267	272	290	290	278
Occupied bed-day proportions, public hospitals (Per cent)					
Recognised public hospitals					
Public patients	52.8	58.8	59.6	63.0	70.1
Non-public patients	47.2	41.6	40.4	37.0	29.9
Total	100.0	100.0	100.0	100.0	100.0
Occupied bed-day proportions, acute hospitals (Per cent)					
Recognised public hospitals					
Public patients	49.4	55.1	53.4	55.3	61.1
Non-public patients	44.2	39.0	36.1	32.4	26.0
Total	93.6	93.8	89.5	87.7	87.0
Private hospitals	6.4	6.3	10.5	12.3	13.0
Total	100.0	100.0	100.0	100.0	100.0
Occupied bed-days per 1,000 population					
Recognised public hospitals					
Public patients	491	547	556	562	579
Non-public patients	439	387	376	330	246
Total	930	931	933	892	825
Private hospitals	63	62	110	125	123
Total	994	993	1,042	1,016	948

(a) Private hospital occupied bed-days for NSW and ACT from 1987-88 to 1988-89 are disaggregated using the proportions from the 1985-86 Hospital utilisation and costs study, volume 2 (1988) Table 5.3: pp.89. The proportions for NSW and the ACT are 0.987 and 0.013 respectively.

Sources:

Public recognised hospitals from State health authority returns to the Commonwealth Department of Human Services and Health under the Medicare agreement.

Private hospital data for 1987-88 to 1988-89 from the Private Hospital Surveys.

Private hospital data for 1989-90 to 1991-92 from State health authority returns to HSH under the Medicare agreement.

Table 20: Occupied bed-day ratios for recognised public and private hospitals, Australia, 1987-88 to 1991-92

	1987-88	1988-89	1989-90	1990-91	1991-92
Occupied bed-days ('000)					
Recognised public hospitals					
Public patients	11,474	11,555	11,985	n.a.	11,113
Non-public patients	4,775	4,589	4,101	n.a.	3,708
Total	16,248	16,144	16,086	15,557	14,821
Private hospitals	4,531	4,488	4,726	4,902	5,042
Total	20,780	20,632	20,812	20,459	19,863
Occupied bed-day proportions, public hospitals (Per cent)					
Recognised public hospitals					
Public patients	70.6	71.6	74.5	n.a.	75.0
Non-public patients	29.4	28.4	25.5	n.a.	25.0
Total	100.0	100.0	100.0	100.0	100.0
Occupied bed-day proportions, acute hospitals (Per cent)					
Recognised public hospitals					
Public patients	55.2	56.0	57.6	n.a.	55.9
Non-public patients	23.0	22.2	19.7	n.a.	18.7
Total	78.2	78.2	77.3	76.0	74.6
Private hospitals	21.8	21.8	22.7	24.0	25.4
Total	100.0	100.0	100.0	100.0	100.0
Occupied bed-days per 1,000 population					
Recognised public hospitals					
Public patients	700	693	708	n.a.	638
Non-public patients	291	275	242	n.a.	213
Total	992	968	951	906	851
Private hospitals	276	269	279	285	289
Total	1,268	1,238	1,230	1,191	1,140

Sources:

Public recognised hospitals from State health authority returns to the Commonwealth Department of Human Services and Health under the Medicare agreement.

Private hospital data for 1987-88 to 1988-89 from the Private Hospital Surveys.

Private hospital data for 1989-90 to 1991-92 from State health authority returns to HSH under the Medicare agreement.

Technical notes

Acute care hospital or acute hospital

In this bulletin the term includes all recognised public hospitals, repatriation hospitals (both general and auxiliary) and all private hospitals. Private psychiatric hospitals are included with the other private hospitals because data are not available to separate private psychiatric hospitals from other private hospitals for the whole period 1982–83 to 1991–92.

Recognised public hospitals

These hospitals are those listed in Schedule B of each State and Territory's 1988–1993 Medicare Agreement (Schedule A in the 1993–98 Medicare Agreements). For those recognised hospitals of a multipurpose nature, data should only be in respect to the acute care component of the institution.

Non-inpatient services

Hospitals provide services to patients who are admitted to hospitals (inpatients) and to those who attend outpatient clinics and use emergency and casualty services (non-inpatient services). This bulletin focuses on inpatient services because the data on non-inpatient services for the period 1982–83 to 1991–92 are incomplete and at points inconsistent. However, it must be remembered that the average proportion of public hospital resources used for non-inpatient services is between 20% and 35% of total costs. It is therefore, an important component of what a public hospital does. Private hospitals provide few non-inpatient services (about 850,00 in 1991–92 (ABS 1993), versus a total for public hospitals in 1991–92 of about 31 million (Australian Institute of Health and Welfare 1994, Table 4.11), so this difference between private and public

hospitals must be considered when comparing the two systems.

Beds

Beds have not been counted in a consistent way over time and between States.

For example there has been inconsistency in the counting of beds in day surgery units where a bed may be a chair, trolley, recliner or cot. It has also been a major area of contention over whether approved, available or staffed beds are counted.

The concept of approved beds goes back to before Medibank when the Commonwealth Government under the powers of the Health Insurance Act 1973 classified certain public hospitals as approved for the purpose of paying hospital benefits. The approval process included specifying how many beds the hospital could have for which a benefit would be paid. This concept continued through the 1980s though the Commonwealth no longer exercised its power to control bed numbers in public hospitals. However the Commonwealth continued to approve beds in the private hospital sector until 1 October 1986 when the private hospital bed-day subsidy was abolished.

From the mid-1980s, available beds has been the more frequently used measure. Beds are defined as available if they are located in a suitable place for care and can be staffed within a reasonable time. This definition is open to a degree of interpretation and varies from State to State (see *Hospital utilisation and costs study volume 2: survey of public hospital related data* pp. 56–58).

The Hospital Utilisation and Costs Study (HUCS) uses average available beds. This bulletin uses approved beds, as a longer and more inclusive time series is available. In recent years the approved bed-day data have not

been collected for some States, so the data on growth in available beds have been used to estimate the last couple of years of the approved beds series (see footnotes to Table 1). The number of available beds is lower than the number of approved beds (see Appendix C for a listing of some of the different data available in this area).

Reclassifications

The institutions and activities included in recognised public hospitals have been reclassified over time. Part of the decline in bed-days from 1989–90 on is due to New South Wales deleting program 2.3 'Support for area health services and public hospitals' activities which were not considered to be acute hospital services from 1989 onwards (see footnotes to Table 1). This decline was partly offset by an agreement between the Commonwealth and Victoria to reclassify some psychiatric hospitals as recognised public hospitals under the Medicare agreement. The New South Wales change involved the deletion of both bed-days and the corresponding beds. Because these patients would mainly have been long-stay patients, the deletion of these services would have decreased occupancy rates. In contrast, the inclusion of the psychiatric hospitals in Victoria would be expected to have increased occupancy rates. Overall the reclassifications are unlikely to have had significant effects on the Australian occupancy rate.

Expenditure

All public patients' costs are included in the hospital costs, with visiting medical officer costs and salaried hospital medical staff costs in particular included. For private patients, whether in public or private hospitals, medical service costs are billed directly to the patient and are not captured in the

hospital costs. For any comparison of public and private hospitals the cost of a bed-day should include the medical services costs of private patients.

In public hospitals there are public and non-public patients, while in private hospitals there are only private patients (although not all private patients are privately insured. Some private hospital patients are workers' compensation and third party patients and some pay their own costs). Because medical service costs for private patients are not included in hospital costs, hospital costs alone will underestimate the real cost per bed-day more in private hospitals than public.

The expenditure of private hospitals is estimated by calculating the revenue that private hospitals receive from patient bed-day fees, theatre and other fees and (in the period prior to October 1986) government subsidies. As this is an estimate of revenue, it will not necessarily correspond to the actual expenditure in any one year, but over time the differences between revenue and expenditure will average out. Thus, the trend in revenues gives a good indication of the trend in expenditures.

Private and public hospital comparisons

Any comparison of public and private hospitals based on the data in this bulletin should recognise the difference between these sectors. Public and private hospitals service different needs and different populations. Public hospitals tend to service a greater proportion of the older population and a greater proportion of the very young. Private hospitals service mainly those with private insurance, and the insured have different social characteristics to those without private insurance. The complexity

of services provided to patients varies between public and private hospitals with the super-specialty services, such as heart-lung transplants, provided mainly by the public teaching hospitals. Medium complexity services such as coronary by-pass are provided by both types of hospitals.

Analysis is also complicated by the way medical services are provided to private patients in both public and private hospitals. These medical services are not provided by the hospital but by the doctor who treats the private patient. Thus, the cost of these services is not recorded in the total costs of public or private hospitals.

Different accounting rules for the public and private sector also complicate comparisons. At present, public hospitals do not estimate depreciation; private hospitals do. The for-profit private hospitals produce a profit, the not-for-profit hospitals produce a surplus and public hospitals produce neither a profit nor a surplus (except in some States public hospitals can produce a surplus to be carried over into the next year).

Non-inpatient services are another major area of difference. They represent between 20% and 35% of the resource expenditure of public hospitals, but are a very minor part of the output of private hospitals.

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Appendix A: Estimation of occupied bed-days in private hospitals, 1982-83 to 1990-91

Year	Eligible (000's)	Non eligible (000's)	Total (000's)	Non-eligible as percentage of eligible
1982-83 ^(a)	4,549.6	^(b) 289.6	4,839.2	6.36
1983-84 ^(a)	4,457.1	^(b) 283.7	4,740.8	6.36
1984-85	4,272.9	252.5	4,525.4	5.91
1985-86	4,325.8	440.4	^(c) 4,766.2	10.18
1986-87 ^(d)	4,438.8	339.2	4,778.0	7.64
1987-88 ^(d)	4,293.1	237.9	4,531.0	5.54
1988-89 ^(d)	4,256.9	231.1	4,488.0	5.43
1989-90 ^(d)	4,484.8	240.9	4,725.7	5.37
1990-91 ^(d)	4,649.4	252.6	4,901.9	5.43

(a) The private hospital bed-day subsidy scheme was effective from 1 July 1975 to 30 September 1986. Those not eligible for the bed-day subsidy were inpatients who had a right to claim compensation or damages. Before February 1984, the subsidy was given to all at a flat rate. On 1 February 1984 the system was changed, and subsidies became payable at a rate dependent on the category of the private hospital concerned. To determine payment it was necessary to know the size of the hospital, total discharges (eligible plus non-eligible patients), bed-days relating to eligible patients, and the mix of patient bed-days by patient classification, i.e. medical, maternity, surgical, advanced surgical and nursing home type patients. Statistics for non-eligible patient bed-days were a by-product of this information. Before the change in the system, data were collected on eligible patients only. Total bed-days for 1984-85 and 1985-86 were available from the bad-day subsidy data. For 1982-83 and 1983-84 eligible bed-day data were available, so data for non-eligible bed-days are missing for these two years, requiring estimates to be made.

The 1982-83 and 1983-84 occupied bed-days (OBDs) for non-eligible patients were estimated by applying the arithmetic mean of the proportion of non-eligible to eligible patients for 1984-85, 1986-87 and 1987-88 to the available 1982-83 and 1983-84 data on eligible patients. The 1985-86 proportion was not used because, for part of that year, day admissions in private hospitals were classified as non-eligible. (All references to eligible and non-eligible refer to eligibility for the private hospital bed-day subsidy, not to eligibility for hospital treatment under the Medicare agreement.)

(b) These figures are estimated according to the methods described in (a).

(c) The substantial increase in the proportion of non-eligible to eligible patients from 1984-85 to 1985-86 occurred because for part of 1985-86 day admissions for private hospitals were no longer eligible for subsidy.

(d) The data are calculated from Table 5 of Private Hospital Survey Nos. 1 to 9. The numbers in the non-eligible column are the numbers of compensable patients, calculated from the Private Hospitals Surveys.

Notes:

From the data collected on 30 June 1987, the ratio of non-eligible patients to total OBDs in 1986-87 was calculated to be 7.1%.

For 1987-88, the ratio of non-eligible patients to total OBDs was 5.25%, which is the arithmetic mean of the data collected on 31 December 1987 (5.8%) and 30 June 1988 (4.7%).

For 1988-89, the ratio was 5.15%, which is the arithmetic mean of the data collected on 31 December 1988 (4.9%) and 30 June 1989 (5.4%).

For 1989-90 the ratio was 4.85%, which is the arithmetic mean of the data collected on 31 December 1989 (4.9%) and 30 June 1990 (4.8%).

For 1990-91 the ratio was 5.15%, which is the arithmetic mean of the data collected on 31 December 1990 (5.3%) and 30 June 1991 (5%).

Sources:

1982-83 to 1985-86 OBDs: Department of Community Services and Health unpublished data

1986-87 to 1990-91: Private Hospitals Survey Nos. 1 to 9, Department of Health Housing and Community Services

Appendix B: Separations in private hospitals by eligible and non-eligible, 1982-83 to 1987-88

Year	Eligible	Non-eligible	Total	Non-eligible as percentage of eligible ^(a)
1982-83	698,189	^(c) 59,490	^(c) 757,679	8.5
1983-84 ^(b)	753,418	—	^(c) 794,924	—
1984-85	737,609	74,703	812,312	10.1
1985-86	803,884	68,311	872,195	8.5
1986-87	^(c) 814,391	^(c) 73,713	888,104	9.1
1987-88	^(c) 818,852	^(c) 52,267	871,120	6.4
1988-89	843,619	51,943	895,561	6.2
1989-90	945,674	52,926	998,600	5.6
1990-91	1,133,406	54,651	1,188,057	4.8

(a) The proportions of non-eligible to eligible patients are found as follows.

1986-87 and 1987-88 data are from Table 4 of Private Hospital Surveys Nos. 1, 2 and 3. For 1986-87, the proportion of compensable to total separations was 8.3%. Hence, non-eligible as a proportion of eligible patients was 9.051% (8.3/91.7).

For 1987-88, an arithmetic mean of 31 December 1987 and 30 June 1988 surveys was calculated. The proportions of compensable to total separations were 6.5% and 5.5% from the two respective surveys. Hence, the proportion of non-eligible to eligible patients was 6.4% (6.5+5.5/93.5+94.5).

Similarly for 1988-89, 1989-90 and 1990-91 the arithmetic mean of 31st December and 30th June surveys was used to calculate the ratio of eligible to non-eligible patients:

for 1988-89 the ratio was $(5.5+6.1)/(94.5+93.9) = 6.16\%$

for 1989-90 the ratio was $(5.5+5.1)/(94.5+94.9) = 5.6\%$

for 1990-91 the ratio was $(4.5+4.7)/(95.5+95.3) = 4.82\%$.

The above proportions together with the 1984-85 proportion were then averaged, and this figure was applied to the 1982-83 eligible patient figure to obtain the number of non-eligible patients for that year.

(b) 1983-84 includes seven months without Medicare and five months with Medicare. Data on non-eligible patients were collected only in the Medicare period. A factor of 1.05509 was calculated in a similar way to the note (a) calculation and then applied to the 1983-84 figure to estimate total separations for that year.

(c) These figures are estimated. All others are either from bed-day subsidy scheme data or from the Private Hospital Survey.

Sources:

1982-83 to 1985-86: Department of Community Services and Health, unpublished data

1986-87 to 1987-88: Private Hospital Surveys Nos.1 to 7, Department of Community Services and Health

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