

Australian hospital services: An overview

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Abstract

Hospital services in Australia are provided by public hospitals (about 75% of hospitals, two-thirds of separations) and private hospitals (the balance). Australians use about one bed day per person per year, with an admission rate of about 300 admissions per thousand population per annum. Provision rates for public hospitals have declined significantly (by 40%) over the last 20 years but separation rates have increased. Average length of stay for overnight patients has been stable but, because the proportion of same day patients has increased dramatically, overall length of stay has declined from around seven days in the mid 1980s to around four days in the late 1990s. Overall, the Commonwealth and state governments each meet about half the costs of public hospital care, private health insurance meets about two-thirds of the costs of private hospitals.

Introduction

Hospitals in Australia vary greatly in size from tiny services providing care in remote populations to large complex teaching hospitals, the modern cathedrals of medicine. The range of services provided by hospitals also varies significantly, partly related to size but also due to specialisation e.g. women's hospitals, vs general hospitals.

Australia has a mixed system of public and private hospitals, for-profit and not-for-profit. The roles and financing arrangements for public and private hospital are quite distinct. Public hospitals are required under the Australian Health Care Agreement to provide inpatient care without charge to all Australians and other eligible persons. Governance arrangements for public hospitals vary between the States. Public hospitals are generally governed by Boards of Directors appointed by the State Minister for Health, with Boards responsible for more than one public hospital. In some states and in the territories, public hospitals are managed directly by the state health authority. There are a small number of public hospitals that come under the auspices of denominational groups, generally Catholic religious orders. The governance arrangements for the Catholic hospitals vary depending on the Order. Private hospitals may be part of the large, publicly listed chains owned, and operated by independent entrepreneurs, or by not-for-profit organisations, including religious orders.

The funding streams for the different classes of hospitals also differ significantly. Public hospitals are essentially directly funded by State governments, although just under half the costs of public hospital care are met indirectly by the Commonwealth government under the Australian Health Care Agreement. A small number of patients in public hospitals are private patients, with the charges for accommodation met by the patient, health insurance funds, the Department of Veterans' Affairs or other third party payers such as workers compensation arrangements. Medical care for private patients (in both public and private hospitals) attract rebates from the Commonwealth government under Medicare. In 1999/2000, private patients in public hospitals accounted for 12 per cent of separations, having decreased from 16.5 per cent of separations in 1995/96. The cost of care for patients in private hospitals are met from the same sources as private patients in public hospitals.

Increasingly hospitals are complementing their inpatient role by providing acute care in domiciliary settings, either as a service for patients after discharge from the hospital or as an alternative to an inpatient admission. Unfortunately, data on these new forms of provisions are less readily available than information on traditional roles. The most contemporary and authoritative source of information on hospital provision is the Australian Institute of Health and Welfare annual publication, *Australian Hospital Statistics 1999-00* (AIHW 2001), this is supplemented by the Australian Bureau of Statistics publication, *Private Hospitals 1999-2000* (Catalogue No. 4390.0)

In 1999-2000 Australia had 1,050 hospitals providing 76,612 beds, of which 70 per cent were in public hospitals; public hospitals account for a similar proportion of separations and beddays (see Table 1). There were a further 207 free standing day procedure centres. The 183 for-profit hospitals (60 per cent of all private hospitals), account for 55 per cent of available private hospital beds, 56 per cent of separations and 55 per cent of bed days. Private hospitals are on average larger than public hospitals (78 vs 71 beds), but overall, private sector facilities are smaller than public when day procedure facilities are taken into account (private sector average is 50 beds).

Table 1: Australia: Provision and utilisation of hospitals, 1999-2000

	NSW	Vic.	Qld	WA	SA	Tas.	ACT	NT	TOTAL
Provision									
<i>Public hospitals</i>									
Number of hospitals	216	143	187	90	80	24	3	5	748
Beds	17,754	12,162	10,320	5,299	5,045	1 152	675	540	52,947
Beds/1000 population	2.8	2.6	3.0	2.9	3.4	2.4	2.2	2.9	2.8
Beds/hospital	82.2	85.0	55.2	58.9	63.1	48.0	225.0	108.0	70.8
<i>Private hospitals¹</i>									
Number of hospitals	86	86	56	28	32	10	3	1	302
Beds ²	6,557	6,179	5,253	2,807	2,127	744			23,665
Beds/1000 population ²	1.0	1.3	1.5	1.5	1.3	1.6			1.2
Beds/hospital ²	76.2	71.8	93.8	100.3	66.5	74.4			78.4
<i>Total hospitals</i>									
Number of hospitals	302	229	243	118	112	34	6	6	1 050
Beds	24,311	18,341	15,571	8,106	7,172	1,896			76,612
Beds/1000 population	3.8	3.9	4.5	4.4	4.7	4.0			4.0
Beds/hospital	80.5	80.1	64.1	68.7	64.0	55.8			73.0
<i>Private free standing day procedure centres</i>									
Facilities	83	50	33	13	18	4	6		207
Beds and/or chairs	632	330	331	⁻³	102	⁻³	40	-	1 581
Separations	129,769	83,748	88,307	⁻³	19,806	⁻³	8,503	-	349,043
Utilisation									
<i>Public hospitals</i>									
Separations/1000 population ⁴	185.5	203.1	198.9	193.9	226.8	155.5	211.1	360.3	197.4
Same day separations as % of total	40.7	49.9	46.1	46.5	46.9	45.3	51.9	51.3	45.6
Beddays/1000 population ⁴	823.7	743.1	836.8	721.4	865.8	677.9	760.0	1291.9	799.6
<i>Private hospitals and day procedure centres</i>									
Separations/1000 population ⁴	88.0	102.4	123.6	114.5	94.8	102.6	79.1	-	101.4
Same day separations as % of total	59.4	56.9	57.8	50.9	48.8	45.9	42.3	-	56.2
Beddays/1000 population ⁴	246.1	312.2	402.9	353.7	296.4	331.4	299.7	-	307.7
<i>Total</i>									
Separations/1000 population ⁴	273.5	305.5	322.5	308.5	321.6	258.1	290.2	360.3	298.0
Same day separations as % of total	46.8	52.3	50.7	48.2	47.5	45.5	49.3	51.3	49.2
Beddays/1000 population ⁴	1069.8	1055.3	1239.7	1075.1	1162.2	1009.3	1059.7	1291.9	1046.0

Source: AIHW 2001, *ABS: Private Hospitals 1999-2000* (Cat. No. 4390.0)

- 1 Not including day procedure centres
- 2 NSW figure includes ACT; SA includes NT
- 3 Data not provided by ABS for reasons of confidentiality. Provision and activity included in totals.
- 4 Age-standardised to Australian population as at 30 June 1991

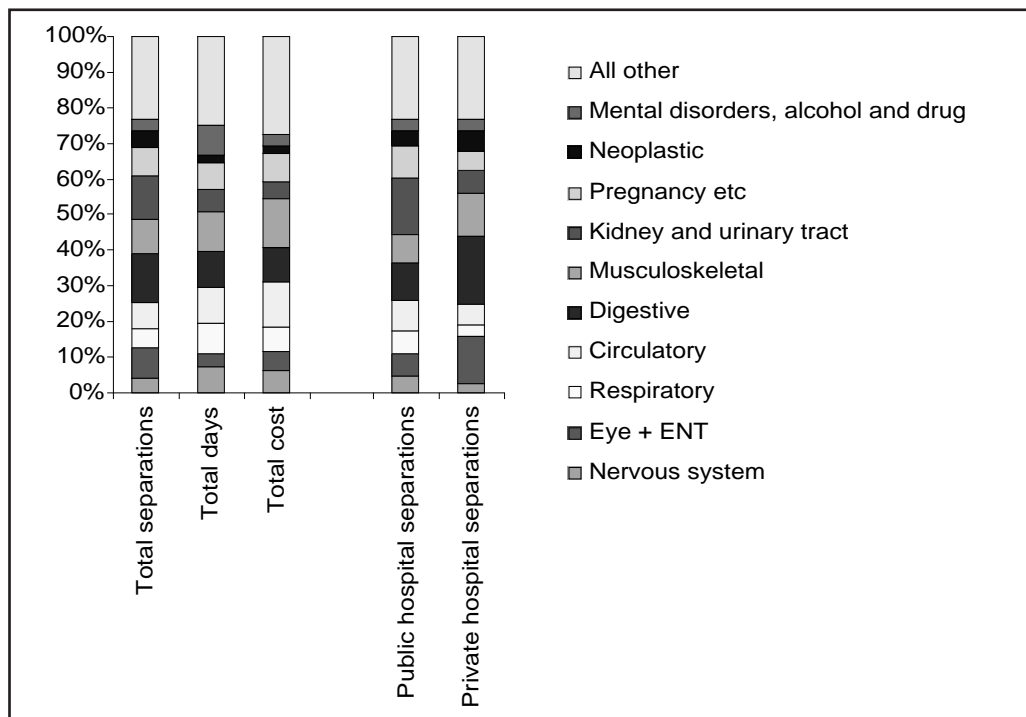
In 1999/2000 Australia had 4.0 acute beds per thousand population. There are substantial differences between the states in hospital provision, in terms of the relative role of the private sector (34 per cent of all beds in Victoria being in private hospitals compared with 27 per cent in New South Wales) and overall level of provision. South Australia had a bed:population ratio of 4.7 beds per thousand population, 25 per cent higher than the New South Wales provision of 3.8. The different level of provision is also associated with different levels of utilisation: South Australia had a separation rate of 321.6 per thousand population, being 17 per cent above New South Wales levels.

The proportion of beds in larger private hospitals which are able to deal with more complex procedures is higher than it was a decade ago, and the average complexity of cases treated in private hospitals is now almost identical to that of public hospitals. In 1999/00, the average 'DRG cost weight' (a measure of complexity derived from the mix of patients classified according to their Diagnosis Related Group, and the DRG average cost) was 0.98 in private hospitals compared to 0.99 public.

All patients discharged from all hospitals in Australia have detailed information recorded and coded on a computerised discharge abstract. In addition to demographic information, the discharge abstract includes information on the diagnosis which occasioned the admission of a patient to hospital, procedures performed, admission and discharge dates, discharge destination, etc. Diagnosis and procedure information is now coded according to the International Classification of Diseases 10th revision, Australian modification (ICD-10-AM). A common way of summarising clinical information about patients treated in public hospitals is by using Diagnosis Related Groups (DRGs). The contemporary Australian DRG system (AR-DRG version 4.1) assigns all diagnoses to a Major Diagnostic Category, (MDC which is essentially a specific body system). The MDCs are further subdivided using a "grouping algorithm" into separate DRGs based on clinically meaningful groupings of patients with similar diagnoses and/or procedures who are expected to consume a similar amount of resources.

Figure 1 shows the Major Diagnostic Categories (body systems) for which patients were admitted to hospitals in 1999-2000, together with proportions of beddays and costs. Over one in eight admissions were for diseases and disorders of the digestive system, the principal reason for admission being for an endoscopy, a procedure normally done on a same-day basis. This Major Diagnostic Category (MDC) thus accounts for a much lower proportion of beddays.

Figure 1: Australia: Hospital separations, patient days and costs by major diagnostic category, 1999-2000



The major reason for the kidney and urinary tract MDC admissions is renal dialysis, almost always involving a day-only admission. On the other hand, admissions for the MDCs relating to the nervous system, circulatory system and mental health disorders have longer lengths of stay and so these MDCs account for a larger proportion of beddays than separations.

The distribution of costs, in part, follows beddays, but is naturally affected by other factors (such as use of operating theatres and intensive care units). The circulatory system MDC, for example, represents a higher proportion of total costs than it does of either separations or beddays.

Figure 1 also shows the difference in the proportion of separations for public and private hospitals. Significant differences can be seen here, for example, in the larger proportion of digestive system admissions, again probably reflecting the prevalence of day-only endoscopies in the private sector.

Trends in inpatient provision

Figure 2 shows that since 1982 there has been a substantial decline (over 40 per cent) in the number of public hospital beds per capita, with the number of private acute beds declining only 5 per cent over that period. The decline in public provision has been a result of specific government policies to reduce acute bed provision, particularly in rural areas. A number of different policy initiatives have led to bed reductions including:

- reducing recorded bed availability to reflect more accurately staffed and funded beds;
- changing a hospital's role to a mixed acute-residential care service ('multi-purpose centres or services') with a significant reduction in recorded acute beds;
- closures of smaller facilities, although hospital closures have been contentious in both metropolitan and rural areas.

Despite the reduction in beds per capita, there has been a 40 per cent increase in separations per capita since the early 1980s (20 per cent in public hospitals, 105 per cent in private hospitals).

Figure 2: Trends in beds and separations, public and private hospitals, 1982/83 to 1999-2000

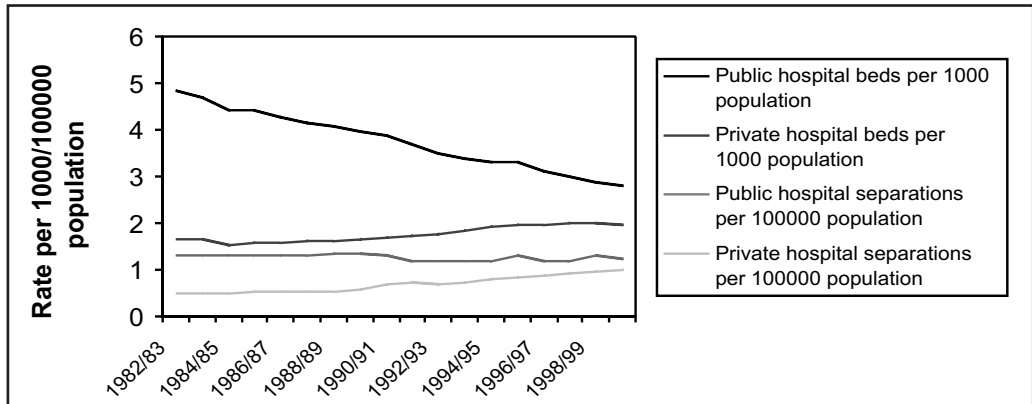
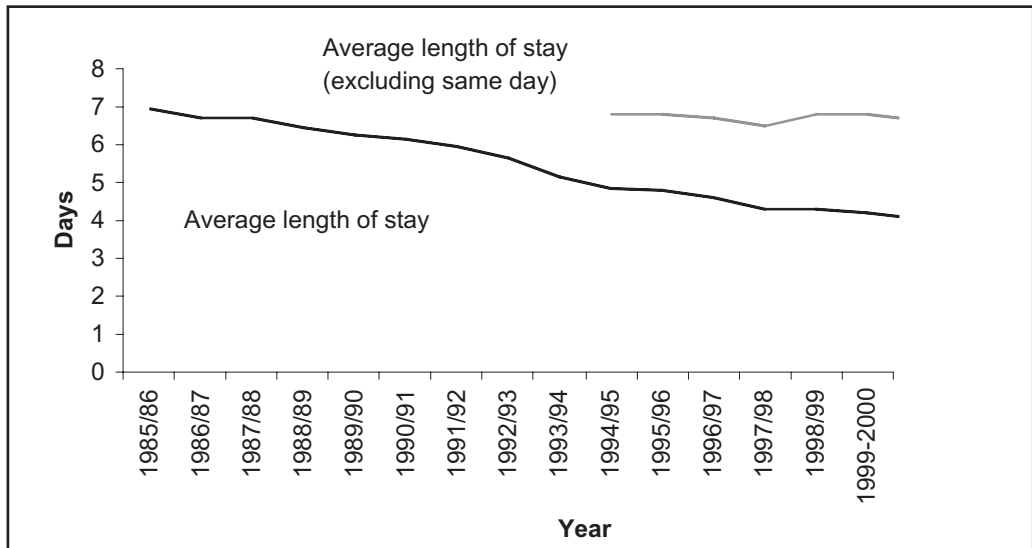


Figure 2 shows a doubling of the separation rate from private hospitals, from 0.5 per thousand population in 1982/83 to 1.01 in 1999/2000. The 1990s also saw a restructuring of the private hospital industry, with the emergence and increasing importance of for-profit hospital groups in the industry, and a corresponding reduction in the number of free-standing 'independent' for-profit hospitals (Productivity Commission 1999). The for-profit groups ('chains') are often listed companies (or, in the case of Mayne Health, a significant component of a listed company, Mayne Nickless).

There has been a substantial decline in length of stay (almost 40 per cent) from 6.9 days in 1982/83 to 3.8 days in 1999/2000 (see Figure 3, raw data are shown in Appendix table).

Figure 3: Trend in average length of stay, public and private acute hospitals, 1985/86 to 1999/2000

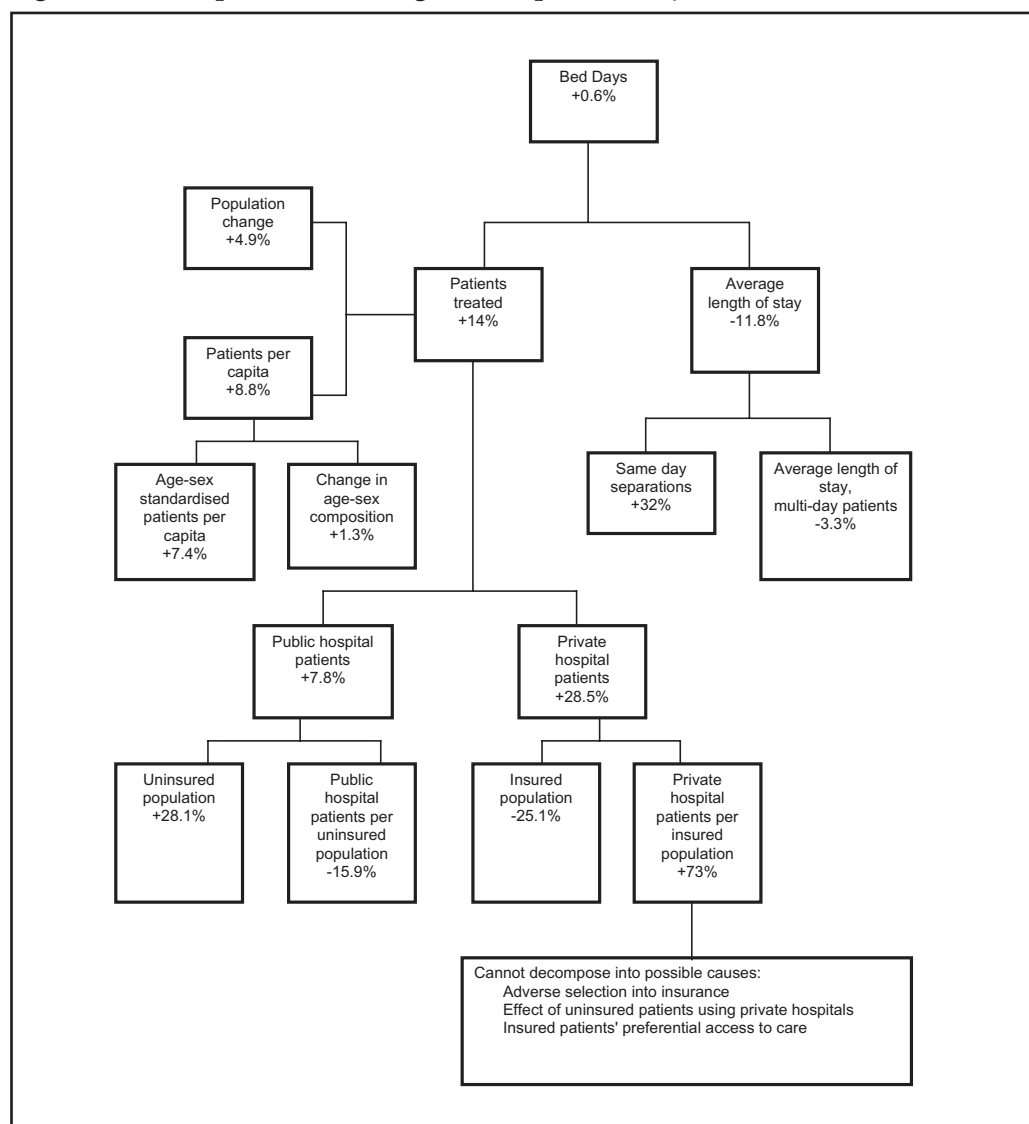


However, as Figure 3 shows, average length of stay for overnight patients has only declined marginally. The overall reduction in average length of stay has occurred principally because of the significant increase in the proportion of day-only patients. These trends have been facilitated by improvements in medical technology (for example, shorter-action anaesthetic agents and flexible endoscopy). For those patients who stay overnight, the decline in length of stay has been marginal (6.8 days in 1991/92 to 6.6 days in 1999/2000).

Between 1995/96 and 1999/2000, total hospital beddays have been remarkably stable, increasing by 0.6 per cent (see Figure 4 which decomposes this change in beddays into the factors which effect the change).

However, as earlier figures also revealed, the change in beddays has been accompanied by significant increases in patients treated (14 per cent) offset by reductions in length of stay (almost 12 per cent). Patients treated have increased faster than population growth (per capita separations increasing by almost 9 per cent over the period). Patients per capita also increased standardising for the aging of the population (7.4 per cent).

Figure 4: Decomposition of changes in hospital activity, 1995-96 to 1999-2000



The change in private hospital patients is particularly dramatic, especially when the decline in the privately insured population is taken into account. (It should be noted that Figure 4 is based on data for 1999/2000, the latest year for which utilisation data have been published. Health insurance data are available for 2001 and show a significant increase in health insurance coverage following the introduction of Life-Time Community Rating. A decomposition based on changes to 2000/2001 would thus significantly affect the final nodes in Figure 4.)

Figure 5: Percentage change in total separations, largest Major Diagnostic Categories, Australia, 1997-98 to 1999-2000

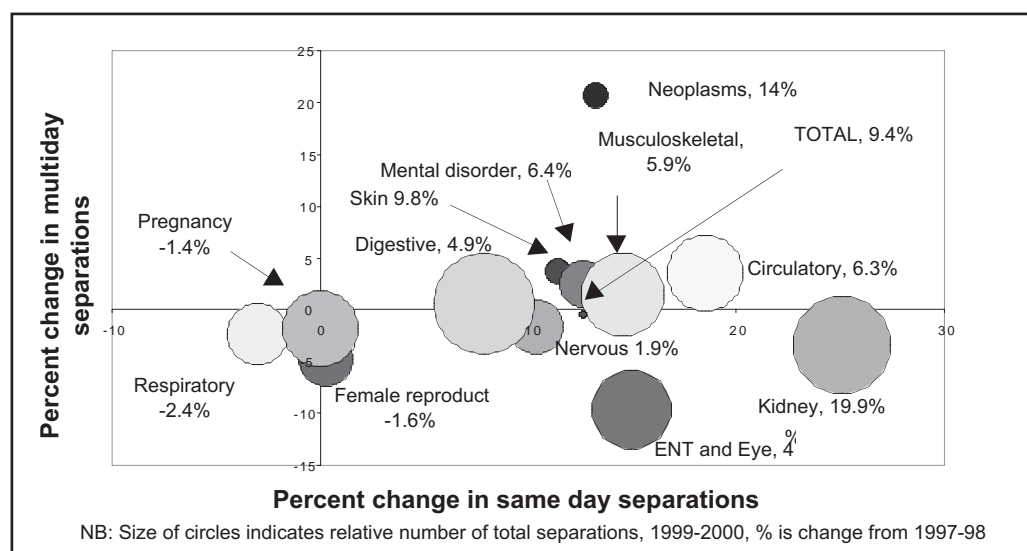


Figure 5 shows data on the change in separations for the largest Major Diagnostic Categories over the period 1997/98 to 1999/2000. The axes for the graph show the percentage change in same-day and multi-day separations. The size of the circles shows the relative number of total separations in the Major Diagnostic Category in 1999/2000 with the percentage in the label showing the change in total separations over the two-year period.

Overall, total separations increased 9.4 per cent over the two-year period, almost 5 per cent per annum. Almost all of this increase was in same-day separations (which increased 12.6 per cent) with the number of multi-day separations suffering a very marginal decline (-0.5 per cent). There are significant differences in patterns of provision between the various MDCs. In three MDCs there was a decline in the absolute number of separations and either decline in multi-day stays and in same-day separations. However, for most of the larger MDCs the number of same-day separations increased significantly, 25 per cent in the case of MDC 11 diseases and disorders of the kidney and urinary tract. Overall, separations in this MDC increased almost 20 per cent with the dramatic increase in same-day separations being offset in part by a decrease of about 3 per cent in multi-day separations. MDCs 2 and 3 (ear, nose and throat and eye) showed a reduction in multi-day stays (10 per cent) with an increase of 15 per cent in same-day separations leading to an overall increase of 4 per cent in total separations. MDC 17 (neoplastic disorders) showed an increase in both same-day and multi-day separations, the latter possibly being the result of more aggressive treatment for cancer. Of the four MDCs with the largest increases in total separations (kidney, circulatory, neoplasms and musculoskeletal) all except neoplastic disorders are conditions commonly associated with ageing processes.

Costs of inpatient care

Figure 6: Total cost per casemix adjusted separation by state, 1997/98 to 1999/2000

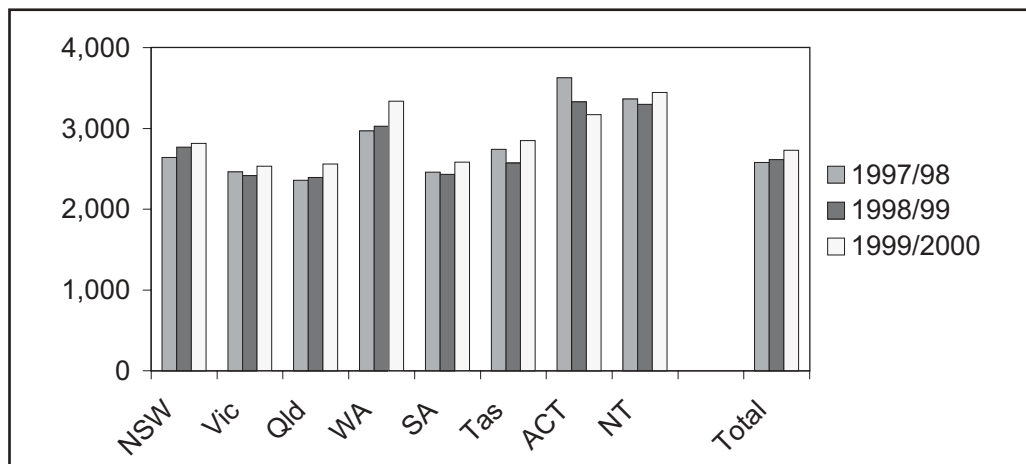


Figure 6 shows relative costs per patient treated for 1997/98 to 1999/2000 for each of the states and territories. The different casemix in the different States has been taken into account by using DRGs to measure differences in severity (thus for example, different proportions of more complex cases have been taken into account in the graph).

In 1999/2000 the average cost per inpatient treated was \$A2,728. This is an increase of 6 per cent over the cost in 1997/98. There are significant differences between the States in the cost of inpatient care with the Northern Territory and Western Australia cost per patient treated being more than 20 per cent above the Australian average, with costs in the Australian Capital Territory being 16 per cent above the Australian average. Costs in Victoria, South Australia and Queensland are 5 to 7 per cent below the national average.

Costs in most States have increased over the period in line with national trends although importantly, costs in the Australian Capital Territory have declined by 12.6 per cent over this period. This compares to a 12.5 per cent increase in costs in Western Australia. There is no apparent explanation for these different trends.

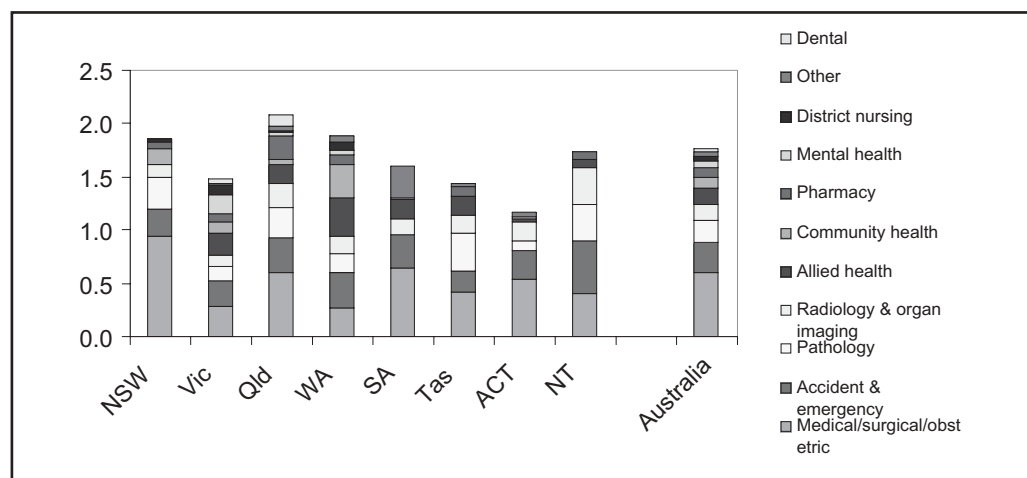
Non-inpatient services

Non-inpatient care is an important component of hospital provision accounting for about 25 per cent of all hospital expenditure. In recent years, many hospitals have broadened their range of activities such as domiciliary services, health education and the like. This is especially the case in New South Wales where Area Health Services, covering both hospital and community health services, have been established.

Specialist medical clinics run as part of hospital 'outpatient' services complement those provided by specialists in their private rooms. However, private specialist services usually require a substantial co-payment or patient financial contribution (moiety). The Australian Health Care Agreement precludes states from charging fees for hospital outpatient services. Continued provision of outpatient services is thus important for equity reasons: consumers using outpatient services are generally elderly people of lower socioeconomic status with chronic conditions (Jackson et al. 1997). Attendance at an outpatient department represents one of the most common reasons for contact with public hospitals. In 1999/2000 there were 1,768 outpatient occasions of service per thousand population, representing almost six outpatient occasions of service for every inpatient admission.

Figure 7 shows the composition and rates of outpatient occasions of service in each state, with rates ranging from 2.08 per capita in Queensland to 1.7 in the Australian Capital Territory.

Figure 7: Australia: Non-admitted patients per capita, by state or territory and type of service, 1999-2000



Definitions and counting rules for outpatient care are not as standardised as for inpatient care and so this handicaps interstate comparisons (for example, 'community health' in New South Wales appears to replace 'dental' and 'allied health' in other states). However, there appear to be differences in rates of provision for some well-defined categories. The rate of provision for medical/surgical/obstetric clinics, for example, varies from 0.29 per capita in Victoria to 0.95 in New South Wales. The range for emergency occasions of service is much smaller, with larger states (New South Wales, Victoria, Queensland, South Australia and Western Australia) recording between 0.24 and 0.35 occasions of service per capita. The homogeneity of the emergency rates probably reflects underlying clinical factors; the heterogeneity of the other rates probably reflects differences in delivery or recording systems between the states.

Sources of funding

The respective sources of funding for hospitals can be described with reference to the two principal ways that users access the hospital system. Policy on access to public hospitals in each state is governed by the Australian Health Care Agreement (AHCA), a Commonwealth-state agreement renegotiated in each state every five years (the current AHCA expires on 30 June 2003). Under the AHCA all eligible Australian residents are able to access a range of hospital services as "public" patients in public hospitals on the basis of clinical need. These services are free to the user at the point of service delivery. Patients may also elect to be admitted as "private" patients under their doctor of choice in either public or private hospitals. In this case, a fee is charged by the hospital for accommodation (including nursing care, meals etc), and by the medical practitioner(s) for the delivery of professional services.

Public patient services are funded by state governments directly and the Commonwealth government indirectly through the AHCA. Under the AHCA, co payments by public patients are not allowed for inpatient and most types of outpatient care. Co-payments are allowed and are usually charged for dental outpatient care and for pharmacy dispensing charges, the latter paralleling charges in private pharmacies.

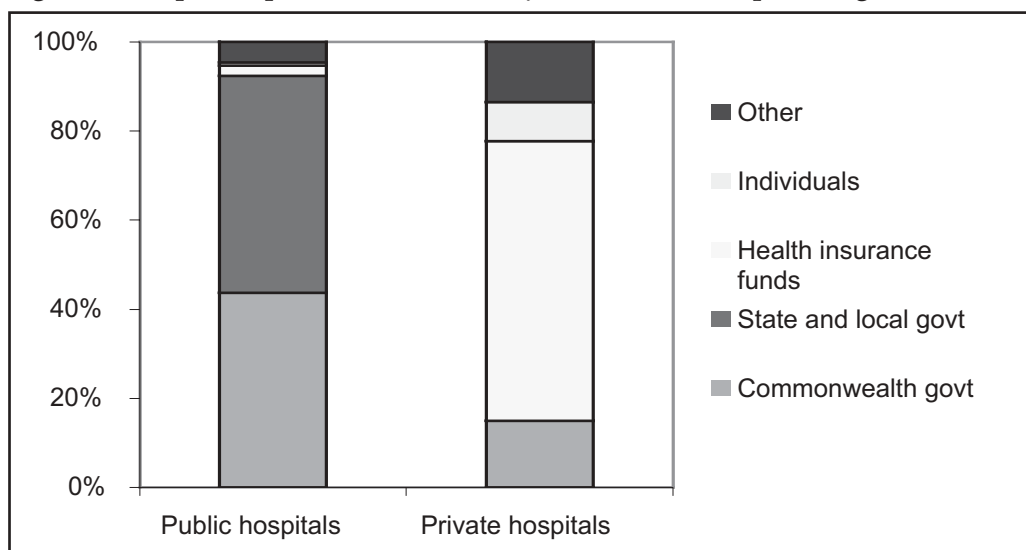
Private patient funding is less straightforward. Fees raised for accommodation for private patients in public or private hospitals are covered by private health insurance (although it should be noted that about one quarter of separations from private facilities are by people without health insurance cover). Insurance will also cover at least 25 per cent of the Medical Benefits Schedule (MBS) fee for medical services. The Commonwealth government subsidises private patients in the hospital system in the following ways:

1. Reimbursement of 75 per cent of the MBS fee for medical services.
2. Provision of subsidised pharmaceuticals through the Pharmaceutical Benefits Scheme (PBS) for patients in private hospitals.
3. A 30 per cent subsidy of the cost of health insurance.

Accommodation charges for private patients in public hospitals are not set at full cost recovery. Canil (2001) has shown that the private patient charges meet about half the costs of private patient care in Victorian hospitals.

Total recurrent expenditure in 1997-98 in Australia was \$16.9b, 78 per cent on public hospitals and 22 per cent on private hospitals. The source of funding for the two sectors is substantially different. As Figure 8 shows, public hospitals are, as expected, essentially funded by government with Commonwealth and states meeting almost equal shares (44 per cent Commonwealth vs 49 per cent State). The relative Commonwealth and state shares have changed over time (see below) a matter of considerable political contention.

Figure 8: Hospital expenditure, 1997-98 by source of funds (percentage)



Private hospitals, on the other hand, have more diverse sources of funds but with health insurance funds being the single most important source of funds (63 per cent). Commonwealth support for private hospitals is primarily indirect, via the Private Health Insurance Rebate. Further Commonwealth support for private hospitals, not recorded in Figure 8, comes via Commonwealth Medicare rebates and Pharmaceutical Benefits Scheme expenditure for private hospital patients. Out-of-pocket contributions account for 9 per cent of private hospital funding, in part arising from gaps between health insurance payments and private hospital billings, but also from payments by non-insured patients. In 1999-2000 25 per cent of separations from private facilities were by uninsured persons (private hospitals 22 per cent, free standing day hospitals 39 per cent. See ABS, 2001).

In 1998/99 the Commonwealth paid \$900 million for Medicare (medical) benefits for in-hospital services. This accounted for 13.4 per cent of all Medicare benefits paid. Only 6.4 per cent of Medicare services were provided in hospital indicating the average cost of the in-hospital services is substantially higher than out-of-hospital services. \$136 million in fees were raised for in-hospital services indicating that in-hospital fees are on average 63 per cent above the scheduled fee. In contrast, out-of-hospital charges were on average 11 per cent above the schedule fee. Over-billing was particularly high in the Australian Capital Territory and the Northern Territory where fees charged were 185 per cent of schedule fee payments and 192 per cent respectively.

In general, patients are hospitalised in their State of residence, the notable exceptions being the Australian Capital Territory where there was a significant inflow of patients, primarily from New South Wales: there were 7 per cent more Medicare services provided in Australian Capital Territory hospitals than were provided to Australian Capital Territory residents. Victoria, Queensland and South Australia also had marginal inflows of patients, with New South Wales and Western Australia having marginal outflows. Tasmanian hospitals provided 4 per cent fewer services than were provided to Tasmanian residents and Northern Territory hospitals provided 25 per cent fewer services than to Northern Territory residents.

Medicare and The Australian Health Care Agreement

Commonwealth support for public hospitals is paid to states under the Australian Health Care Agreement, which governs the funding arrangements for the period 1998-2003. The Agreement is essentially common across all states and territories with minor variations negotiated bilaterally between the Commonwealth and each state/territory e.g. about different phasing of some elements of funding. Despite these marginal differences between the state versions of the Agreement, the Agreement for any one period is referred in this paper in the singular.

Historically, hospitals developed as a State responsibility and the Commonwealth's hospital Medicare policies are thus implemented via the states. The Commonwealth government has entered into agreements with each State which provide the Commonwealth funds to be provided to the states for hospital services. In return for this funding the states agree to abide by a number of conditions including:

- to provide a network of hospital services, and
- to allow all eligible persons to be able to access inpatient services in these hospitals as 'public patients' free of any cost.

The Agreement provides that states are responsible for the full marginal cost of any increase in hospital budgets beyond the indexation provided by the Commonwealth during the term of the Agreement. Conversely, states accrue the full benefit of any reduction in hospital budgets over this period. Commonwealth Medicare funding is formula-driven during the course of an Agreement with the formula being unrelated to actual hospital budgets, adjusting only for exogenous factors such as population growth, aging and cost-indexation, the latter according to a parsimonious estimate of costs. This places strong incentives on states to achieve efficiency improvements, or reduce hospital budgets through other strategies.

The current Australian Health Care Agreement builds on its predecessor Agreements. The first Medicare hospital Agreement (1984-88) was designed to compensate states for specific additional costs incurred as a result of the introduction of Medicare and, because of this focus, were known as Medicare Compensation Agreements. Compensation was provided for revenue losses associated with reduction in inpatient revenue (both price and volume) and for other revenue forgone (for example, lower numbers of private patients reduce the revenue stream for public pathology services). Compensation for cost increases was based on the number of 'shift beddays' which was based on the proportionate charge in the public-private bedday ratio, assuming no increase in volume (Duckett 1988 describes both the 1984-88 and 1988-93 Agreements). Funding under the 1984-88 Agreement supplemented the ongoing Commonwealth funding known as the 'Identified Health Grant'.

The two subsequent Medicare Agreements (1988-93 and 1993-98) and the first Australian Health Care Agreement (1998-2003) have attempted to address perverse incentives in Australia's health care system and to achieve specific Commonwealth policy objectives (see Table 2).

The first Medicare Agreement focused on facilitating the implementation of Medicare; the 1988-93 Agreement reflected a move to a more institutionalised status for Medicare, incorporating a series of components relating to system reform rather than determining appropriate compensation. In particular, the Agreements incorporated incentives for states to increase either the proportion or the number of patients treated as public patients to attempt to ensure that states maintained their level of provision and responded to the emerging political problem of waiting lists.

Table 2: Australia: Key elements of Commonwealth-State hospital funding agreements

Agreement	Political Objective	Key Principles	Average funding shares
1984-88 (‘Medicare Compensation Agreement’)	<ul style="list-style-type: none"> • Introduction of Medicare 	<ul style="list-style-type: none"> • Compensation for cost increases and revenue losses • Transparency • Accountability • Dynamic 	Commonwealth: 42.7% State: 46.5% Private: 10.8%
1988-93 (‘Medicare Agreement’)	<ul style="list-style-type: none"> • Consolidating Medicare • Growth & reform of public provision 	<ul style="list-style-type: none"> • Incentives for system reform • Penalties for lower public:private bed/day shares and excess private medical service use 	Commonwealth: 43.2% State: 47.2% Private: 9.6%
1993-98 (‘Medicare Agreement’)	<ul style="list-style-type: none"> • Entrenching Medicare • Expansion of public provision 	<ul style="list-style-type: none"> • Reward for relatively higher levels of public provision & for increasing public provision relative to other states. • Post 1996, accountability for negotiated outcomes 	Commonwealth: 46.1% State: 45.4% Private: 8.5%
1998-2003 (‘Australian Health Care Agreement’)	<ul style="list-style-type: none"> • Continuing with Medicare • Increased Commonwealth funding with increased accountability for states 	<ul style="list-style-type: none"> • Increased accountability on states for activity level changes • Increased clarity of Commonwealth responsibility if health insurance levels change 	1998/99 Commonwealth: 45.0% State: 47.4% Private: 7.7%

The 1988-93 Agreement replaced the Identified Health Grant and the Compensation Grant with a single grant, thus increasing the amount of money formally paid via the Agreement. This change was mainly symbolic as the bulk of the Agreement funding (the Base Grant) was, like the Identified Health Grant, subject to Grants Commission equalisation.

The 1993-98 Agreement was negotiated in the run up to the 1993 election; indeed each of the state versions of the Agreement was signed on the day the writs for the election were issued (see Butler 1993 and Pearse 1994 for detailed discussion). From the Commonwealth government’s perspective, the Agreement was meant to ensure Medicare’s continuance, even if Labor lost the election: the Agreement was enshrined in legislation and major changes to the Agreement had to be approved by the Senate.

Over the course of the 1988-93 Agreement it had become clear that although states had acceded to the key obligations of Medicare, both politically and in the form of the signed Medicare Agreement, states and/or their hospitals had attempted to circumvent their obligations through cost shifting and other stratagems. The most common cost shifting strategy was to close outpatient services and establish Medicare-billing private clinics providing almost identical services in their stead, thus reducing state expenditure and increasing costs to the Commonwealth. The 1993-98 Medicare Agreement was therefore revised mid term to incorporate more directly objectives related to levels of throughput and performance in other key policy areas, such as waiting lists and emergency department waiting times.

An important dynamic element of the 1993-98 Agreement was a requirement to ‘review’ Commonwealth funding if health insurance declined by more than 2 per cent. Health insurance fell sufficiently to trigger this provision and two reviews took place. However, the states were dissatisfied with the outcome of the reviews as the Commonwealth did not provide any additional funding in the face of state arguments that there was increased demand on State hospital systems because of the decline in insurance.

The 1998-2003 Australian Health Care Agreement builds on the frameworks of the earlier Medicare Agreements. Its main funding elements are:

- a base Health Care Grant which includes identified amounts for mental health, palliative care and quality improvement;

- an “adjustments module” which provides for various State specific adjustments, including transitional adjustments associated with differences in the Commonwealth Grants Commission treatment of the Australian Health Care Agreement compared to the 1993 Medicare Agreement;
- access to a National Health Development Fund for projects and programs which improve patient outcomes, efficiency or effectiveness or reduce demand for services or improve integration between public hospital services and the broader health and community care services.”

Like previous Agreements, the 1998-2003 Agreement provides for funding increases for change in the size or age-gender composition of the population. However, unlike the predecessor Agreements it has several important dynamic elements:

- an explicit funding adjustment if health insurance declines (or increases) beyond a threshold;
- recognition of the costs of ‘demand growth’ or utilisation drift of 2.1 per cent per annum;
- cost indexation, essentially 75 per cent based on the national safety net wage adjustment and 25 per cent based on CPI;
- commitment to rationalise funding of hospital pharmaceutical services.

In contrast to the ‘review’ commitment of the 1993-98 Agreement, Section 50 of the 1998-2003 Australian Health Care Agreement makes an explicit provision to vary funding to the states if private health insurance coverage rates increase. This provision is based on an assumed relationship between the proportion of Australians with health insurance and public hospital utilisation.

Under the Agreement, a nationally consistent increase of one percentage point in the weighted privately insured population above a threshold would result in a reduction in funding of approximately \$82m. However, to ensure that state and territories were not worse off as a result of the increase in private health insurance participation rates following the introduction of Life-Time Community Rating, the Commonwealth undertook to modify these arrangements. Any reduction in Commonwealth grants is limited to the amount that public hospital revenue from privately insured patients exceeds that in 1997-98. The cost to the Commonwealth of these revised arrangements was quantified in the 2001/2002 Federal Budget at approximately \$990M p.a. for the remaining years of the current Agreement.

The Australian Health Care Agreement also includes provision for external review in the event of disagreement between the Commonwealth and the states. This provision was exercised in 1999 when the Commonwealth decided not to adhere to a provision relating to development of a new cost index for use in the Agreement which more accurately reflected actual cost movements. The independent reviewer proposed a modified cost index but this proposal was rejected by the Commonwealth.

Commonwealth Grants Commission

Although the Australian Health Care Agreement includes a specific formula for how funds will be divided between states, the Commonwealth Grants Commission process effectively overrides this formula.

The Commonwealth Grants Commission process is designed to redress the problem of ‘horizontal imbalance’ through what is known as a ‘horizontal equalisation process’. Horizontal imbalance derives from the fact that each State faces different circumstances in delivering services which in turn means that the states have different cost structures to deliver the same set of services. In addition, their revenue-raising powers to supplement the Commonwealth funding varies (for example, different ability to impose resource taxes). Together, states thus face the need to impose different levels of tax to meet the same level of service provision, and may not have the ability to do so.

The Grants Commission (1999) defines the process of horizontal equalisation in the following terms:

State governments should receive funding from the Commonwealth such that, if each made the same effort to raise revenue from its own sources and operates at the same level of efficiency, each would have the capacity to provide services at the same standard (p.4).

The process of equalisation involves assessment of states’ revenue-raising capacity and the different costs of providing services. The factors which affect differences in revenue capacity or the expenditure required to meet an equivalent standard are termed ‘disabilities’.

Equalisation takes into account all of a State's budget and all of its revenue. The equalisation process is effected by changing the way revenue from the Goods and Services Tax (GST) is distributed to the States. The Grants Commission assessment of relativities involves pooling Commonwealth-specific purpose payments to the States with GST revenue and, following application of the needs and disability factors discussed below making recommendations about how the GST revenue is to be distributed to achieve horizontal equalisation.

The Grants Commission assessment of needs for health expenditure includes a "hospitals" category. The hospital category accounts for 12.7 per cent of total states' standard budgeted expenditure in 1999/2000 and so it is a significant factor in determining interstate relativities. The most significant component of the category is for acute inpatient services, accounting for 89.76 per cent of the category.

In common with many other categories of expenditure, the Commonwealth recognises that a state's socio-demographic composition of the population will influence hospital costs. The *socio-demographic component* incorporates factors relating to the age and gender distribution, Aboriginality, proportion of population in rural and remote areas, the income distribution of a State's population (because people on low incomes tend to have a high demand for public hospital services), and English fluency (because it costs more to provide services to people with low English fluency). The different proportion of people in each of these categories will affect the expenditure requirements of a State and thus, according to the Grants Commission methodology, the states deserve more for these purposes.

The hospital costs assessment includes three types of cost disabilities which affect States' expenditures on hospitals:

1. cost differences relating to the location of hospitals away from capital cities;
2. cost differences relating to the small size of hospitals; and
3. cost differences relating to training, research and case complexity mainly associated with tertiary hospitals in major urban areas.

Essentially, the Grants Commission bases its hospital component on the differences in costs inherent in different types of hospitals: capital city, other metropolitan, large rural, small rural, other rural, remote centre, and other centre. Across Australia, average costs per weighted separation are about 8 per cent higher in capital city hospitals than 'other rural'. Costs in remote centres are 15 per cent above 'other rural'. Applying these 'cost disabilities' to where patients are treated yields a 'hospital costs' factor. The Commission also looks at differences in input costs (e.g. wages and salaries).

The three disability factors i.e. Sociodemographic, Hospital Costs and Input Costs are used to derive an Overall Component Factor. The relativities for the main hospital disabilities are shown in Table 3.

Table 3: Commonwealth Grants Commission relative disability factors, hospital costs (acute inpatients), 1999-2000

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT
Hospital cost factor	0.99689	0.99604	0.99633	1.01758	1.00094	0.98116	1.01211	1.11615
Input costs	1.01414	0.99648	0.98186	1.01002	0.98133	0.98253	1.01931	1.00677
Socio-demographic components	0.99439	0.98180	1.00227	0.98344	1.07121	1.09218	0.76775	1.35780
<i>Overall component factor scaled around 1.000</i>	<i>1.00530</i>	<i>0.97440</i>	<i>0.98048</i>	<i>1.01105</i>	<i>1.05213</i>	<i>1.05458</i>	<i>0.78820</i>	<i>1.48392</i>

Table 3 shows that based on its overall component factor Victoria needs to spend about 2.5 per cent less (1-0.9744) for it to meet its population needs for acute inpatient services relative to an Australian standard. Because of socio-demographic composition, input costs, etc., Northern Territory needs to spend 48 per cent more than the Australian average to meet needs at a national standard. The Grants Commission does not consider whether the Northern Territory actually does spend this money, just that to meet a common standard, it would face a cost disability of that size.

Table 4 shows the overall disabilities for the hospital category.

Table 4: Commonwealth Grants Commission hospital category disabilities, 1999-2000

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT
Hospital category factor	0.99701	0.96634	0.98522	1.01830	1.05765	1.08389	0.79442	1.69421
Redistribution effect	0.4	-82.7	-47.9	16.7	54.3	21.9	-36.7	74.0

As can be seen, overall New South Wales has a hospital cost disability of less than one per cent, Victoria has a three per cent disability and so on. When these relative disabilities are applied to the GST funds pool, \$167.3m is redistributed away from Victoria, Queensland and the Australian Capital Territory (\$82.7m, \$47.9m and \$36.7m respectively) to the other states and the Northern Territory relative to distributing GST revenue on an equal per capita basis, not taking hospital equalisation principles into account.

Hospital equalisation principles are used to predict the amount of per capita spending required in each state and territory on hospitals relative to that needed to ensure equal access. This is the application to hospitals of the CGC's horizontal equalisation process, described above. Table 5 shows actual per capita spending in each state or territory on hospitals relative to required expenditure assessed by the CGC.

Table 5: Commonwealth Grants Commission assessment of State 1999/2000 per capita hospital expenditure

	NSW \$	Vic \$	Qld \$	WA \$	SA \$	Tas \$	ACT \$	NT \$
Actual expenditure	617.26	648.98	506.60	573.81	653.32	614.60	422.36	738.64
Expenditure required to meet comparable standard- \$	599.37	580.93	592.28	612.16	635.82	651.59	477.58	1018.49
- difference from National standard of \$601.16	-1.79	-20.24	-8.88	11.00	34.65	50.43	-123.59	417.33

The differences from the national standard show that New South Wales, Victoria, Queensland and the Australian Capital Territory do not need to spend as much on hospitals to provide an equivalent national standard of hospital care and access. These differences mirror the redistribution effect in Table 4.

Table 5 also shows that several states spend significantly more than that required to meet the national standard (e.g. New South Wales and Victoria). These differences, which are not taken into account by the Grants Commission, are attributed to "policy" differences between the states. Higher spending than required to meet the standard may not necessarily yield greater levels of access, it may simply reflect lower efficiency of services in the state. The figures for the Northern Territory are particularly revealing. Although the Territory requires about 70 per cent more per head to provide a common level of access, it spends substantially less than this.

The effect of the Commonwealth Grants Commission overriding the allocations of the Australian Health Care Agreement means that the proportion of public hospital expenditure met by the Commonwealth varies between the states from under a half in New South Wales to over three-quarters in Tasmania. The case of the Northern Territory is particularly interesting. As a result of the Grants Commission's arrangements more than the total cost of actual hospital expenditure in the Northern Territory is funded from Commonwealth sources.

Conclusion

This paper has presented data of Australia-wide patterns in hospital provision, utilisation, and financing arrangements. The data has shown major changes occurring in hospital provision both over the last 20 years (e.g. in the number of public hospital beds per 1,000 population) as well as significant changes occurring over the last couple of years in treatment patterns in different Major Diagnostic Categories. The Australian hospital system is extremely dynamic with changes in a number of major parameters occurring over quite short periods. The hospital system in Australia also varies dramatically across states as shown in for example, different patterns of public and private hospital services in different states and different patterns of non-inpatient provision. These different state patterns are taken up in subsequent papers in this volume.

References

- Australian Bureau of Statistics (2001). *Private hospitals, Australia - 1999-2000*. Cat No. 4390.0, Canberra, ABS.
- Australian Institute of Health and Welfare (2001). *Australian hospital statistics 1999-00*. Cat no. HSE 14, AIHW, Canberra.
- Bigg, I., S. Azmi and C. Maskell-Knight (1998). 'The Commonwealth's proposal for the 1998-2003 Health Care Agreements' Australian Health Review 21(2): 8-18.
- Butler, J.R.G. (1993). *Commonwealth/State financial relations in health: An update*. Economics and Health: 1993 Proceedings of the Fifteenth Australian Conference of Health Economists, Canberra, Faculty of Business and Economics and National Centre for Health Program Evaluation.
- Canil, M. (2001). "Fair pricing for private patient services? Are private patients in Victorian public hospitals subsidised?" Unpublished Master of Public Health project report, School of Public Health, Melbourne, La Trobe University.
- Duckett, S.J. (1988). 'Hospital financing reform: The first steps' *The Australian Quarterly* 60(4): 435-47.
- Commonwealth Grants Commission (1999). *Report on general revenue grant relativities*. Volume 1, Main Report, Canberra, AGPS.
- Jackson, T., J. Watts, D. Muirhead and P. Sevil (1997). *Non-admitted patient services: A literature review and analysis*. Melbourne, Acute Health Services Division in conjunction with the Promotions Unit, Department of Human Services.
- Pearse, J. (1994). *The outcomes of the 1993 Medicare Agreements*. Proceedings of the Sixteenth Australian Conference of Health Economists: Economics and Health: 1994, Canberra, Australian Studies in Health Service Administration.
- Productivity Commission (1999). *Private hospitals in Australia*. Commission Research Paper, Canberra, Ausinfo.

Appendix Table: Trend in average length of stay (ALOS), acute hospitals

	1982/ 1983	1983/ 1984	1984/ 1985	1985/ 1986	1986/ 1987	1987/ 1988	1988/ 1989	1989/ 1990	1990/ 1991	1991/ 1992	1992/ 1993	1993/ 1994	1994/ 1995	1995/ 1996	1996/ 1997	1997/ 1998	1998/ 1999	1999/ 2000
ALOS	6.93	6.69	6.68	6.46	6.27	6.17	6.94	5.66	5.16	4.85	4.8	4.6	4.3	4.3	4.2	4.1	3.9	3.8
Average length of stay (excluding same day)										6.8	6.8	6.7	6.5	6.8	6.8	6.7	6.6	6.6