5 Health resources and use of services

The focus of this chapter is on:

- the resources or inputs (money, personnel, facilities) used in the delivery of health services; and
- use of these inputs to produce outputs (patients treated, health services delivered).

Resources provide the means by which health interventions are carried out, and these interventions produce outputs and outcomes which may contribute to health and wellbeing.

Clinical interventions can occur in a diverse range of settings such as large health establishments (hospitals), other health establishments (nursing homes, hospices, rehabilitation centres), community centres, small health clinics, ambulatory care services, the private rooms of health professionals, and the patient's home or workplace. Increasingly, telemedicine services and the Internet are being used to communicate information about health services. At the personal level, individuals may also choose to use information from reference material to self-manage minor medical conditions.

Public, occupational and environmental health interventions may be delivered in several ways: through information in the media; regulation; improved water, sewerage, and transport infrastructure; and infectious disease identification and containment programs.

5.1 Health services funding and expenditure

The health expenditure statistics examined here relate largely to expenditure on health services provided to people who are ill and services provided within the health sector aimed at health promotion and illness prevention. They do not include expenditures that have a 'health' outcome but which are undertaken outside the health sector, such as expenditure on building safer transport systems.

Box 5.1: Health services expenditure to GDP ratio

From November 1998, the Australian Bureau of Statistics (ABS) upgraded gross domestic product (GDP) measures in line with the recommendations of the revised international standard for the System of National Accounts 1993 (SNA93). This increased the estimate of GDP by an average of 3.0%. In 1997–98, the GDP was revised upwards by $16.9 billion, of which $15.9 billion was due to the SNA93 recommendations. These changes have resulted in a reduction of about 0.3% in the health services expenditure to GDP ratios for all years.

For further details see the 1998 ABS publication Upgraded Australian National Accounts, *ABS Cat. No. 5253.0.*

Health services expenditure is looked at in terms of total health expenditure, expenditures on the different components of the health care system, and the sources of funding for health services. Some factors contributing to changes in health services expenditure are examined and a comparison is made of health services expenditure by the State and Territory Governments. Australia's expenditure on health services is also compared with that of other Organisation for Economic Co-operation and Development (OECD) member countries.

Funding health services in Australia

In 1997–98, total health services expenditure, including expenditure by both the government and the non-government sectors, was $47,030 million. Health services expenditure as a proportion of gross domestic product (GDP) almost doubled over the last four decades of the twentieth century, from 4.3% in 1960–61 to 8.3% in 1997–98 (Table 5.1, page 234). The preliminary estimate for 1998–99 is $50,335 million. Most of this increase was in the 'pre-Medibank' period, from 1960–61 to 1974–75, and the first year of Medibank, and was largely due to reclassification of expenditure by States as they moved towards cost-sharing of hospitals with the Commonwealth. Since the introduction of Medibank in 1975, health expenditure as a proportion of GDP has increased from 6.3% to 8.3%.

More than two-thirds of the funding for health expenditure in 1997–98 was provided by governments (68.6%). Of this, the Commonwealth Government provided 45.2% and State and local governments 23.4%. The non-government sector provided the remaining 31.4% of the total funding (Table 5.2, page 235).

The way health services are funded, particularly by the Commonwealth and the non-government sector, was quite different in 1997–98 from what had prevailed in 1960–61. Despite similarities in the overall proportions of expenditure—the Commonwealth Government was responsible for 39.2% of total expenditure in 1960–61 and 45.2% in 1997–98—there were major differences in the way that funding was provided. In 1960–61, tax expenditures accounted for 30.0% of Commonwealth Government expenditure on health services. In 1997–98, tax expenditures made up only 1.6% of Commonwealth health services expenditure. Similarly, tax expenditures by the Commonwealth greatly reduced the net expenditure by non-government sources in 1960–61, but this was not the case in 1997–98.

Between 1960–61 and 1997–98, real expenditure by the Commonwealth Government grew at an average of 6.4% per year (Table 5.3, page 236). At the same time, State and local government real expenditure grew at an average of 4.7% per year, and the non-government sector at 4.0% per year. The rapid rate of growth in the Commonwealth's expenditure was largely due to the influence of Medibank in permanently changing the distribution of responsibility for the funding of hospital and medical services.

The relative share of responsibility for funding healthcare services in Australia over the last quarter of the twentieth century was very largely influenced by the introduction of Medibank and its modifications (1975 to 1984) and Medicare (from 1984).

With the introduction of Medibank in 1975, the Commonwealth took over responsibility for funding half the operating costs of the States' public hospitals and assumed most of the responsibility for funding medical services. This increased the Commonwealth's

Table 5.1: Total health expenditure and GDP (current prices), 1960–61 to 1997–98

Year	Total health expenditure ($ million)	GDP ($ million)	Total health expenditure as percentage of GDP
1960–61	692	15,946	4.3
1963–64	870	19,546	4.5
1966–67	1,139	24,941	4.6
1969–70	1,627	33,547	4.8
1974–75	4,233	67,138	6.3
1975–76	5,684	79,313	7.2
1976–77	6,557	91,276	7.2
1977–78	7,408	99,395	7.5
1978–79	8,166	112,815	7.2
1979–80	9,000	128,287	7.0
1980–81	10,130	145,665	7.0
1981–82	11,681	166,475	7.0
1982–83	13,026	179,649	7.3
1983–84	14,802	202,571	7.3
1984–85	16,371	224,857	7.3
1985–86	18,394	247,681	7.4
1986–87	20,881	271,672	7.7
1987–88	23,053	309,942	7.4
1988–89	25,795	350,753	7.4
1989–90	28,800	383,494	7.5
1990–91	31,270	396,236	7.9
1991–92	33,087	406,890	8.1
1992–93	34,993	427,772	8.2
1993–94	36,787	450,050	8.2
1994–95	38,967	474,646	8.2
1995–96	41,783	508,246	8.2
1996–97	44,482	533,709	8.3
1997–98	47,030	565,963	8.3

Sources: AIHW Health Expenditure Database; ABS *Australian National Accounts—National Income, Expenditure and Product, June quarter*, various years (Cat. No. 5206.0).

share of total expenditure from 40.6% in 1974–75 to 49.0% in the next year. At the same time, the State and local governments' share, which had risen rapidly in the period immediately preceding Medibank, fell from 33.6% to 25.2%. The non-government sources' share of expenditure was essentially unchanged. This was due mainly to a large reduction in Commonwealth health-related tax expenditures associated with the introduction of Medibank.

The various changes to Medibank between 1975–76 and 1981–82 brought about substantial changes in the relative shares of expenditure of the different funding sources. Between 1975–76 and 1977–78, the Commonwealth's share fell from 49.0% to 36.2%—this reduction impacted largely on the non-government sector as a source of funding, which increased from 25.8% to 38.3%. State and local governments' share of funding increased only marginally, from 25.2% to 25.5%.

Table 5.2: Government and non-government sector expenditure as a proportion of total health services expenditure, 1960–61 to 1997–98 (current prices) (per cent)

Year	Government sector			Non-government	
	Commonwealth[(a)]	State and local	Total	sector[(a)]	All sectors total
1960–61	39.2	23.3	62.5	37.5	100.0
1963–64	40.6	22.1	62.7	37.3	100.0
1966–67	41.7	22.5	64.3	35.7	100.0
1969–70	41.3	28.6	69.9	30.1	100.0
1974–75	40.6	33.6	74.3	25.7	100.0
1975–76	49.0	25.2	74.2	25.8	100.0
1976–77	42.2	25.1	67.3	32.7	100.0
1977–78	36.2	25.5	61.7	38.3	100.0
1978–79	35.6	26.7	62.3	37.7	100.0
1979–80	34.9	26.6	61.5	38.5	100.0
1980–81	35.6	27.1	62.7	37.3	100.0
1981–82	38.9	27.3	66.1	33.9	100.0
1982–83	37.7	27.1	64.8	35.2	100.0
1983–84	38.0	26.4	64.4	35.6	100.0
1984–85	45.8	25.8	71.6	28.4	100.0
1985–86	45.5	25.9	71.4	28.6	100.0
1986–87	44.1	26.3	70.4	29.6	100.0
1987–88	43.8	25.9	69.7	30.3	100.0
1988–89	42.5	25.7	68.2	31.8	100.0
1989–90	42.2	26.1	68.3	31.7	100.0
1990–91	42.2	25.5	67.7	32.3	100.0
1991–92	42.8	24.6	67.4	32.6	100.0
1992–93	43.7	23.4	67.1	32.9	100.0
1993–94	45.3	21.4	66.7	33.3	100.0
1994–95	45.0	21.7	66.7	33.3	100.0
1995–96	45.6	22.2	67.7	32.3	100.0
1996–97	44.6	22.4	66.9	33.1	100.0
1997–98	45.2	23.4	68.6	31.4	100.0

(a) Proportions for Commonwealth Government and non-government sector expenditure are calculated after adjusting for tax expenditure (see Box 5.3, page 237).

Sources: 1960–61, 1963–64 and 1966–67: Senate Select Committee on Medical and Hospital Costs 1970; 1974–75: WD Scott & Co. Pty Ltd 1978; 1975–76 to 1997–98: AIHW Health Expenditure Database.

The next significant event affecting the relativities between the different sectors was the introduction of Medicare in February 1984. Medicare raised the Commonwealth's share of expenditure from 38.0% in 1983–84 to 45.8% in 1984–85. This was almost completely offset by the fall in the share met by the non-government sector, which dropped from 35.6% to 28.4%. Once again there was only a marginal impact on the share of expenditure met by State and local governments, which fell slightly, from 26.4% to 25.8%.

Box 5.2: Constant price estimates

In previous editions of Australia's Health, *the Australian Institute of Health and Welfare included estimates of expenditure at 'constant (average 1989–90) prices'. These were, in the main, calculated using implicit price deflators (IPDs) that were, in turn, based on fixed-weighted indexes (1989–90 base). The ABS has now ceased calculating constant price expenditure estimates based on such fixed-weighted indexes and has moved to annually reweighted chain volume measures. In the tables that follow, wherever 'constant price' estimates are shown they are intended to reflect changes in volume expressed in terms of current prices in the reference year – 1997–98 in this publication. These estimates are calculated using IPDs that are derived from the new series of annually reweighted chain volume indexes produced by ABS.*

These new IPDs are considered to be superior to those used previously in that they lessen the effect of compositional change.

A full discussion of chain volume measures can be found in the 1997 ABS publication Chain Volume Measures in the Australian National Accounts, *ABS Cat. No. 5248.0.*

Table 5.3: Total health services expenditure, constant prices[(a)], and annual growth rates, by source of funds, 1960–61 to 1997–98

	Government sector				Non-government sector[(b)]		All sectors total	
	Commonwealth[(b)]		State and local					
Year	Amount ($m)	Rate of growth (%)	Amount ($m)	Rate of growth (%)	Amount ($m)	Rate of growth (%)	Amount ($m)	Rate of growth (%)
1960–61	2,024	. .	1,952	. .	3,337	. .	7,313	. .
1963–64	2,466	6.8	2,127	3.1	3,902	5.4	8,505	5.2
1966–67	2,928	5.9	2,459	4.8	4,623	5.8	10,010	5.6
1969–70	3,482	6.0	3,482	14.1	5,078	3.2	12,275	7.0
1974–75	5,445	9.4	6,015	10.1	7,247	7.4	18,707	8.6
1975–76	9,943	82.6	5,214	–13.3	6,266	–13.5	21,423	14.5
1983–84	10,017	0.1	6,683	3.3	9,890	6.0	26,681	2.8
1984–85	12,406	3.8	6,690	0.1	8,334	–6.5	27,429	2.8
1988–89	14,020	3.1	8,269	5.4	10,829	6.8	33,118	4.8
1992–93	16,608	4.3	8,867	1.8	12,829	4.3	38,304	3.7
1997–98	21,411	5.2	10,990	7.8	14,628	2.7	47,030	4.9
Average annual growth rates								
1960–61 to 1974–75		7.3		8.4		5.7		6.9
1975–76 to 1997–98		3.5		3.4		3.9		3.6
1984–95 to 1988–89		4.3		3.9		4.4		4.2
1960–61 to 1997–98		6.4		4.7		4.0		5.0

(a) See Box 5.2 for explanation of constant price estimating method.

(b) Commonwealth Government and non-government sector expenditure adjusted for tax expenditure (see Box 5.3).

Source: AIHW Health Expenditure Database.

Box 5.3: Health-related tax expenditures

Tax expenditures refer to financial benefits that individuals and businesses derive from taxation concessions of various kinds. These concessions are usually delivered by tax exemptions, tax deductions, tax rebates or reduced tax rates. Tax expenditures lower the tax burden by either reducing or delaying the collection of taxation revenue, and the benefits provided by them could equally be delivered in the form of direct expenditures. Tax expenditures are, therefore, regarded as an expenditure by the Commonwealth Government and are offset against the non-government sector's total funding of health services. Because health-related tax expenditures can relate to the whole range of areas of expenditure, it is not possible to adjust Commonwealth Government and non-government expenditure on individual areas for tax expenditures.

In the area of health services expenditure the main tax expenditures have been:

Before 1975–76 *Taxation deduction on medical expenses (including any part refunded by private health insurance funds): 1960–61, $80m; 1963–64, $100m; 1966–67, $139m; 1969–70, $206m; 1974–75, $452m.*

1975–76 to 1980–81 *Taxation rebate on medical expenses (not including any part refunded through private health insurance): 1975–76, $87m; 1976–77, $46m; 1977–78, $7m; 1978–79, $11m; 1979–80, $13m; 1980–81, $17m.*

1981–82 to 1982–83 *Taxation rebate on medical expenses (not including any part refunded through private health insurance) plus rebate on contributions to private health insurance: 1981–82, $477m; 1982–83, $591m.*

1983–84 to 1997–98 *Taxation rebates on medical expenses: 1983–84, $21m; 1984–85, $27m; 1985–86, $28m; 1986–87, $34m; 1987–88, $37m; 1988–89, $44m; 1989–90, $61m; 1990–91, $85m; 1991–92, $82m; 1992–93, $91m; 1993–94, $95m; 1994–95, $91m; 1995–96, $141m; 1996–97, $137m; 1997–98, $350m.*

Under Medicare, the Commonwealth and each of the States and Territories entered into health services financing agreements. This led to the Commonwealth's share of hospital funding increasing and the States' share decreasing. However, the States' share of all health funding decreased only marginally.

During the first set of Medicare agreements, 1984–85 to 1987–88, the Commonwealth's share of health funding fell consistently each year (from 45.8% to 43.8%) while the proportion met by State and local governments generally remained at just under 26.0%. The share of funding borne by non-government sources increased from 28.4% to 30.3% to make up for the fall in the Commonwealth's share of funding.

The introduction of Medicare also led to a major increase in Commonwealth funding for private medical services provided out of hospitals.

Health services expenditure 1960–61 to 1997–98

Between 1960–61 and 1997–98, real expenditure on health services more than doubled. Measured in 1997–98 prices, health services expenditure grew from $7,313 million in 1960–61 to $47,030 million in 1997–98 (Table 5.3). This represented a real average annual

increase of 5.0%. The population grew by 75.4%, at an average of 1.5% per year over the period. Consequently, real per person health services expenditure increased at an average rate of 3.6% per year (Table 5.5, page 241). This reflected the combined effects of change in the intensity of use of health service resources by individuals and the quality of the services provided.

Health services expenditure as a proportion of GDP increased from 4.3% in 1960–61 to 7.2% in 1975–76. Except for one year (1986–87) it fluctuated between 7.0% and 7.5% until 1989–90. In 1990–91 it increased to 7.9% and then to 8.1% in 1991–92. From 1992–93 to 1997–98 it remained reasonably steady at between 8.2% and 8.3% (Table 5.1, page 234).

The increases that occurred in the health services expenditure to GDP ratio in 1990–91 and 1991–92 were largely due to the recession in this period. Although growth in health services expenditure was not significantly higher during that time, real GDP declined between 1989–90 and 1990–91 and increased marginally (0.3%) between 1990–91 and 1991–92. As a consequence, the health services expenditure to GDP ratio increased over those two years.

Between 1984–85, the first year of the first Medicare agreement, and 1988–89, the first year of the second agreement, the Commonwealth's share of funding for institutional health care fell from 46.0% to 40.9% (Table 5.4). This was partly taken up by the States and Territories, whose share rose from 33.5% to 36.8% and partly by the non-government sector, whose share increased from 20.5% to 22.4%.

Table 5.4: Shares of total recurrent expenditure on institutional health services, current prices, 1960–61 to 1997–98 (per cent)

	Government			Non-government	
Year	Commonwealth	State and local	Total	sector	Total
1960–61	26.6	46.0	72.6	27.4	100.0
1963–64	28.0	43.4	71.4	28.6	100.0
1966–67	24.9	42.6	67.4	32.6	100.0
1969–70	26.3	45.5	71.8	28.2	100.0
1974–75	21.8	51.4	73.2	26.8	100.0
1975–76	42.3	36.3	78.7	21.3	100.0
1983–84	38.7	35.5	74.2	25.8	100.0
1984–85	46.0	33.5	79.5	20.5	100.0
1988–89	40.9	36.8	77.6	22.4	100.0
1992–93	41.9	33.4	75.3	24.7	100.0
1997–98	43.2	32.9	76.0	24.0	100.0

Sources: 1960–61, 1963–64 and 1966–67: Senate Select Committee on Medical and Hospital Costs 1970; 1974–75: WD Scott & Co. Pty Ltd 1978; 1969–70 and 1975–76 to 1997–98: AIHW Health Expenditure Database.

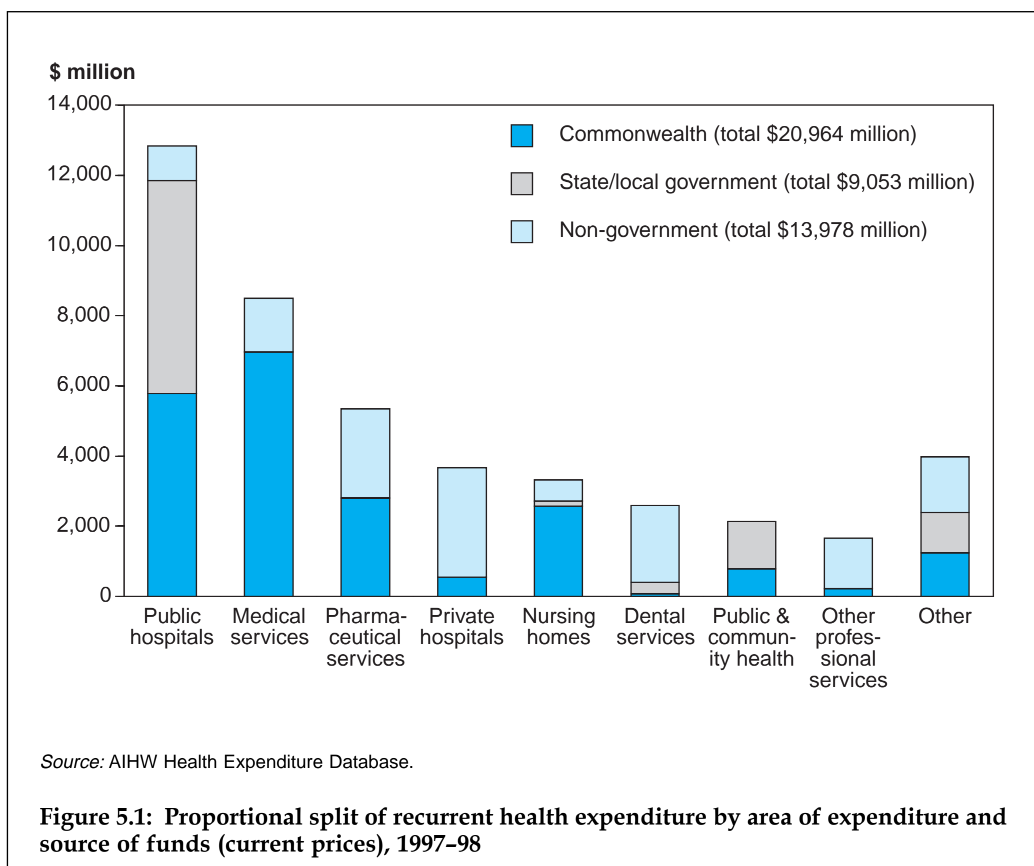
Expenditure during the period of the second Medicare agreement was influenced by the 1990–91 recession. State and local governments' expenditure on health services contracted, resulting in a fall in their share from 25.7% in 1988–89 to 23.4% in 1992–93 (Table 5.2, page 235). As a consequence, the shares of both the Commonwealth and non-government sources of funding increased during this period.

Over the period of the third Medicare agreement, the Commonwealth Government's share of funding again increased, from 43.7% in 1992–93 to 45.2% in 1997–98 (Table 5.2, page 235). The proportion met by State and local governments was the same in both years at 23.4%, while the non-government sector's share of funding fell from 32.9% to 31.4%.

Recurrent expenditure by area of health expenditure

Recurrent expenditure on health services in 1997–98 (the latest year for which detailed data are available) was $43,994 million. This represents 93.5% of the total expenditure on health services in that year ($47,030 million). Expenditure on hospitals was $16,900 million, made up of $12,852 million on public hospitals (recognised public hospitals and repatriation hospitals), $3,658 million on private hospitals, and $390 million on public psychiatric hospitals (Table S41, page 404).

In 1997–98, expenditure on nursing home care totalled $3,320 million (7.5% of recurrent health services expenditure), medical services $8,503 million (19.3%), pharmaceuticals $5,335 million (12.1%) and dental services $2,591 million (5.9%). A further $1,653 million (3.8%) was spent on other health professional services, such as physiotherapy, chiropractic and podiatry.



Source: AIHW Health Expenditure Database.

Figure 5.1: Proportional split of recurrent health expenditure by area of expenditure and source of funds (current prices), 1997–98

The significance of each of the major sources of funding for health services varies according to the type of service (Figure 5.1, page 239). The Commonwealth Government provides most of the funds for nursing homes and medical services. Public hospitals and community and public health services are funded jointly by the Commonwealth and State Governments, while funding for pharmaceuticals is shared between the Commonwealth and the non-government sector. Private hospitals are mostly funded from the non-government sector, with a small contribution by the Commonwealth Government in the form of payments made by the Department of Veterans' Affairs for eligible veterans and their dependants using private hospitals.

Between 1960–61 and 1975–76, the proportion of recurrent expenditure devoted to hospital services increased from 37.9% to 46.1% (Table S40, page 403). From 1975–76 the proportion steadily declined to 37.5% in 1995–96. By 1997–98, hospitals accounted for 38.4% of total recurrent health expenditure. Much of the decline since 1975–76 was concentrated in the public hospitals. Expenditure on recognised public hospitals fell from 34.8% of recurrent expenditure in 1975–76 to 29.2% in 1997–98. Expenditure on repatriation hospitals, which accounted for 1.8% in 1975–76, had all but ceased in 1997–98, following the disposal by the Department of Veterans' Affairs of most of its repatriation hospitals.

Although expenditure on private hospitals continued to grow for much of the period, its rate of growth was greater under Medicare than it had been under Medibank. No data are available to allow a comparison with the earlier years. Expenditure on private hospitals in 1975–76 represented 4.5% of recurrent expenditure and this had increased to 5.6% in 1984–85. By 1997–98 it accounted for 8.3% of recurrent health expenditure.

There were increases in the proportions of most types of services in the non-institutional area. Expenditure on medical services rose from 15.4% of recurrent expenditure in 1960–61 to 18.2% in 1975–76. By 1992–93, it was 19.6% of recurrent expenditure and remained at about that level until 1997–98. Expenditure on dental services in 1960–61 is not available. Between 1974–75 and 1992–93 it increased from 4.3% to 5.9% and remained at that general level until 1997–98. In 1975–76, other professional health services accounted for 1.8% of recurrent health expenditure. This had risen to 4.0% by 1988–89 and remained at between 3.4% and 3.9% thereafter.

Expenditure on pharmaceuticals decreased between 1960–61 and 1984–85, and since 1984–85 has grown each year. It was 12.1% of recurrent expenditure in 1997–98.

The changes in proportions of recurrent expenditure are due to the different growth rates for particular areas of expenditure over the period. Recognised public hospitals, repatriation hospitals and public psychiatric hospitals all experienced low or negative average growth between 1975–76 and 1997–98 (3.1%, –13.0% and –3.9%, respectively). Expenditure on private hospitals, medical services and pharmaceuticals, on the other hand, had relatively high rates of growth over the period (6.8%, 4.3% and 4.3%, respectively) (Table S42, page 405).

Health services expenditure per person

In 1997–98, the average rate of per person expenditure was $2,523 (Table 5.5). The average annual real rate of growth in per person health expenditure from 1960–61 to 1997–98 was 3.6%.

Table 5.5: Health services expenditure per person, current and constant prices[(a)], and annual growth rates, 1960–61 to 1997–98

	Amount ($)		Average annual growth (%)	
Year	**Current**	**Constant**	**Current**	**Constant**
1960–61	65	688	. .	. .
1963–64	77	754	5.8	3.1
1966–67	95	838	7.3	3.6
1969–70	129	970	10.5	5.0
1974–75	306	1,354	19.0	6.9
1975–76	407	1,534	32.9	13.3
1983–84	956	1,723	11.3	1.5
1984–85	1,044	1,749	9.2	1.5
1988–89	1,546	1,914	10.3	2.3
1992–93	1,990	2,102	6.5	2.4
1997–98	2,523	2,523	4.9	3.7
Average annual growth rates				
1960–61 to 1974–75				5.0
1975–76 to 1997–98				2.3
1984–95 to 1988–89				2.3
1960–61 to 1997–98				3.6

(a) See Box 5.2 (page 236) for explanation of constant price estimating method.

Source: AIHW Health Expenditure Database.

Aboriginal and Torres Strait Islander health services expenditure

The first comprehensive analysis of expenditure on health services for Aboriginal and Torres Strait Islander peoples was released in July 1998 (DHFS 1998), following a study conducted by the Australian Institute of Health and Welfare (AIHW) in conjunction with the National Centre for Epidemiology and Population Health. The main focus was on public sector expenditure in 1995–96, although preliminary estimates of total expenditure were also made. In the next phase, 1998–99 data will be analysed, with a report scheduled for release in November 2000.

Total recurrent health services expenditure for Aboriginal and Torres Strait Islander peoples for all services and from all sources of funds, government and private, in 1995–96 was estimated at $853 million (Table 5.6, page 242), or 2.2% of total Australian recurrent health expenditure. Total spending for and by Aboriginal and Torres Strait Islander peoples was $2,320 per person, about 8% higher than for non-Indigenous Australians.

Expenditure on health services for Aboriginal and Torres Strait Islander peoples in 1995–96 through government-subsidised programs was estimated at $822 million, mainly through State and local government programs.

On a per person basis, gross expenditure on Aboriginal and Torres Strait Islander peoples through government-subsidised programs was $2,235, 44% higher than the amount for non-Indigenous Australians. State and local government spending per head on Indigenous peoples was more than twice that for non-Indigenous Australians. On the other hand, total gross expenditure through Commonwealth-subsidised programs was significantly less per head for Indigenous peoples, mainly because the per person

Table 5.6: Gross expenditures[a] on health services for Indigenous and non-Indigenous people, by sector, 1995–96

Delivery	Total expenditure on Indigenous peoples ($m)	Per person expenditure on Indigenous peoples ($)	Per person expenditure on non-Indigenous people ($)	Indigenous: non-Indigenous[b]
Through State and local governments[c]	649	1,763	806	2.19:1
Through Commonwealth programs	173	472	748	0.63:1
Through Medicare and the PBS[d]	47	128	535	0.24:1
Through Aboriginal health organisations and other Commonwealth programs	126	344	213	1.62:1
Total through government-subsidised programs	*822*	*2,235*	*1,554*	*1.44:1*
Through private sector organisations	31	85	594	0.14:1
All sector total	**853**	**2,320**	**2,148**	**1.08:1**

(a) Gross expenditures include all private out-of-pocket payments and funding from non-government organisations. Services not covered are private hospitals, dentistry, optometry, private ancillary services (e.g. physiotherapy, chiropractic) and over-the-counter pharmaceuticals.

(b) Ratio of per person Indigenous expenditures to expenditures for non-Indigenous Australians.

(c) Includes Commonwealth Government transfers and expenditure funded by patient contributions.

(d) Pharmaceutical Benefits Scheme.

Source: DHFS 1998.

Medicare and Pharmaceutical Benefits Scheme (PBS) expenditures were one-quarter of expenditures through Medicare and PBS for non-Indigenous Australians. Government expenditure per person on health services for Aboriginal and Torres Strait Islander peoples appears to be similar to that for non-Indigenous Australians with similarly low incomes, but their need for services is greater due to the poorer health of Indigenous peoples.

For further information, see *Australia's Health 1998*, pages 38–40.

Health services expenditure by States and Territories

The largest single area of health services expenditure by State and Territory Governments is public hospitals. In 1997–98, State and Territory Governments spent $6,437 million or 58.6% of their total health expenditure in meeting the operating costs of public hospitals. In addition, a large proportion of the State and Territory Governments' $1,400 million capital expenditure and $538 million capital consumption related to public hospitals (Table S41, page 404).

There was a 7.0% increase in real terms in total health services expenditure per person by State and Territory Governments from $551 in 1996–97 to $590 in 1997–98. Tasmania and the Australian Capital Territory recorded declines in real expenditure of –19.7% and –8.3%, respectively, while New South Wales (1.2%), and the Northern Territory

Box 5.4: State and Territory expenditure data sources

Statistics of health services expenditure by State and Territory Governments are available from a variety of central agency sources, including the Australian Bureau of Statistics (ABS) public finance database, State and Territory health authorities' annual reports, State and Territory Budget papers, and the Commonwealth Grants Commission (CGC). In addition, the AIHW Health Expenditure Database substitutes data from its own Australian Hospital Statistics collection for expenditure on public acute hospitals and public psychiatric hospitals in Australia.

The different bodies involved in collecting State and Territory health expenditure data have adopted different practices for defining and measuring that expenditure and this has resulted in differences in statistics reported at the State level. There is also a lack of detail in the information collected. For example, the CGC database, one of the better databases on State health services expenditure for recent years, includes Commonwealth grants to States. Also, it reports only recurrent expenditure, excluding both capital expenditure and capital consumption (depreciation).

At the individual State level there are some marked annual differences between the ABS and CGC data. One way such differences occur is from the manner in which interstate payments are treated. The aim of the CGC is to give each State 'the capacity to provide the average standard of State-type public services, assuming it does so at an average level of operational efficiency and makes an average effort to raise revenue from its own sources' (CGC 1997:1). Its statistical collations are, therefore, geared to determining the level of expenditure required by States to provide for the needs of their populations. The needs of States' populations are assessed in terms of the expenditure involved in providing services to them, irrespective of whether or not those services are provided within the State concerned. The ABS, on the other hand, is responsible for recording expenditure incurred by each State and Territory within its own jurisdiction. For example, services provided in Victoria to a person who is a resident of New South Wales would be counted by the CGC as New South Wales expenditure and by the ABS as Victorian expenditure.

In addition, the CGC and the ABS treat revenues differently, with the CGC including only patient-related revenues.

State and Territory expenditure data used in this publication are derived from the AIHW Health Expenditure Database.

(0.8%) both had rates of growth that were below the national average. Western Australia had the highest rate of growth (18.6%), followed by Queensland (17.0%), Victoria (13.1%) and South Australia (12.3%) (Table 5.7, page 244).

In terms of the relative order of State and Territory Governments' real expenditure per person, Northern Territory was the by far the highest spender in both 1996–97 and 1997–98, with the Australian Capital Territory ranked second. The Victorian Government was consistently the lowest spending jurisdiction over the period, just below South Australia. Tasmania, which was the third highest spender in 1996–97, exchanged places with Queensland, which went from being the third lowest spender to the third highest in 1997–98.

Table 5.7: State and Territory government acute hospital and total health services expenditure per person, 1996–97 to 1997–98, constant prices[a] ($ per person)

State/Territory	1996–97	1997–98	Change 1996–97 to 1997–98 (%)
Acute hospital services			
NSW	350	390	11.6
Vic	294	310	5.6
Qld	265	269	1.4
WA	273	330	20.9
SA	206	256	24.3
Tas	201	150	–25.2
ACT	408	450	10.3
NT	301	296	–1.5
Australia	298	320	7.3
Total health services			
NSW	572	579	1.2
Vic	459	519	13.1
Qld	536	627	17.0
WA	554	658	18.6
SA	473	531	12.3
Tas	714	574	–19.7
ACT	742	681	–8.3
NT	1,219	1,229	0.8
Australia	551	590	7.0

(a) See Box 5.2 (page 236) for explanation of constant price estimating method.

Source: AIHW Health Expenditure Database.

Medicare levy

Almost all Commonwealth government funding for health services comes from general revenue sources. However, when Medicare was introduced in 1984 it replaced some existing Commonwealth government programs and expanded eligibility to others. Its introduction was also associated with the abolition of an existing tax rebate on contributions to basic health insurance. A levy of 1.0% of taxable earnings was introduced to help offset any additional costs to government of Medicare. In the first full year of operation of Medicare, 1984–85, the levy raised $1,223 million or 2.3% of total taxation revenue. The levy has been increased several times since 1984 and the basic rate is currently set at 1.5% of taxable income. Total revenue collected by the Commonwealth through the Medicare levy in 1998–99 was $4,100 million (Table 5.8).

Since October 1997, high-income earners who do not have private insurance cover for hospitals paid an additional surcharge of 1.0% of taxable income.

Table 5.8: Commonwealth government receipts from the Medicare levy and total taxation revenue, current prices, 1984–85 to 1998–99 ($ million)

Revenue type	1984–85	1991–92	1992–93	1993–94	1994–95	1995–96	1996–97	1997–98	1998–99
Medicare levy	1,223	2,385	2,415	2,870	3,030	3,350	3,664[(a)]	3,760	4,100
Total taxation revenue	53,208	87,970	89,435	94,024	105,687	116,386	125,815[(b)]	132,217	139,202
Medicare levy as a proportion of total taxation	2.3%	2.7%	2.7%	3.1%	2.9%	2.9%	2.9%	2.8%	2.9%

(a) Does not include an estimated $486 million in special surcharge levied for the purpose of buying back certain firearms from the public.

(b) Includes an estimated $486 million in special surcharge levied for the purpose of buying back certain firearms from the public.

Source: Commonwealth of Australia 1999.

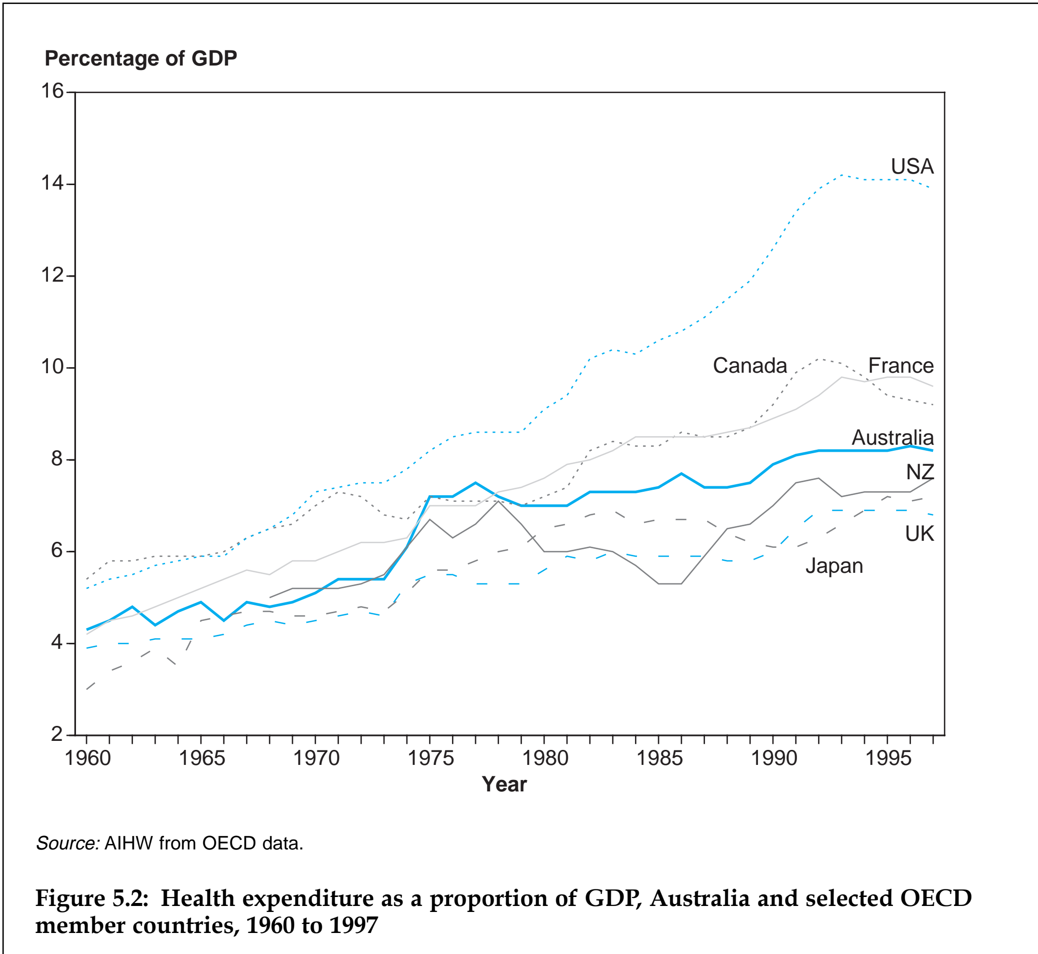
Health services expenditure internationally

This section compares Australia's health services expenditure with that of other members of the OECD. The countries included are Canada, France, Germany, Japan, New Zealand, the United Kingdom and the United States of America. The comparison, which looks at the period 1960 to 1997, provides an indication of the relative efforts being undertaken to meet the need for health services in countries with similar economic and social structures or with which Australia has important economic and social links. Differences between countries in terms of what is included as 'health services' complicate the comparison to some extent, and caution is therefore necessary when comparing the data presented here. Note that there is no definitive relationship between what a country spends on health services and the health status of its population.

Health services expenditures of different countries can be compared as a proportion of GDP. This measure gives an indication of the proportion of a nation's productive effort that is spent on funding its health services. However, fluctuations in the health-to-GDP ratio can be misleading because they may be as much indications of movements in GDP as of changes in health services expenditure. For this reason it is also important to look at what has happened in terms of per person expenditure on health.

In looking at both the health expenditure to GDP ratio and per person expenditure on health, it is useful to consider the weighted means for the group in order to see where Australia fits vis-a-vis the 'average of the group'. Because of the size of both its economy and population, the United States dominates the averages for the eight countries. For this reason, weighted means, including and excluding the United States, are used for comparisons.

Between 1960 and 1997, the United States generally spent the most on health services, measured as a proportion of GDP (Table S45, page 408, and Figure 5.2, page 246). Apart from the early 1960s when its health expenditure was second only to Canada, expenditure on health services by the United States was the highest in the group. It spent 5.4% of its GDP on health in 1961, increasing to 14.2% by 1993, but then dropped slightly to 13.9% in 1997. The United Kingdom, on the other hand, tended to have the lowest health-to-GDP ratio—4.0% in 1961 rising to 6.8% in 1997.



Source: AIHW from OECD data.

Figure 5.2: Health expenditure as a proportion of GDP, Australia and selected OECD member countries, 1960 to 1997

Australia was ranked fifth behind the United States, Canada, France and Germany for much of the period. Australia spent 4.3% of its GDP on health in 1961, which was below the average for the eight selected OECD nations and almost the same as France (4.5%). It was around the average when the influence of the United States was removed. Australia's health-to-GDP ratio was below the average for the whole group throughout the period 1961 to 1997.

Health spending for the group increased substantially. The average for the eight countries, weighted according to GDP, rose from 4.9% in 1961 to 11.0% in 1997. This was greatly influenced by the United States, which grew from 5.4% to 13.9%. Even without the influence of the United States, the weighted average still almost doubled from 4.3% to 8.4%.

Expenditure on health per person is another way of comparing health expenditure of countries. This method removes the complicating effect of GDP, which is inherent in comparisons that are based on health expenditure to GDP ratios. It is calculated allowing for different purchasing power per dollar in different countries.

The rankings of most countries, in terms of per person health expenditure, were similar to those based on expenditure as a share of GDP. The United States was again the highest spending country. Its per person health spending in 1997 was 72% higher than the next highest spending country, Japan, and more than double that of Australia (Table 5.9). In 1997, Australia had the fifth highest per person expenditure on health services.

Table 5.9: Total health services expenditure per person, Australia and other selected OECD member countries, current prices, 1960 to 1997[(a)] (A$)

Year[(a)]	Australia	Canada	France	Germany[(b)]	Japan	NZ	UK	USA
1960	66	109	50	80	12	65	48	132
1965	96	143	94	111	37	n.a.	67	188
1970	148	248	145	198	79	106	88	316
1975	407	394	343	362	192	220	174	460
1980	684	684	819	725	520	376	473	956
1985	1,157	1,605	1,144	1,776	1,074	515	675	2,571
1986	1,294	1,789	1,675	1,928	1,646	699	871	2,874
1987	1,406	1,901	1,933	1,946	1,896	926	1,017	2,949
1988	1,546	1,975	1,879	1,902	1,956	1,084	1,091	2,926
1989	1,700	2,214	1,891	1,900	1,858	1,063	1,087	3,202
1990	1,820	2,410	2,388	2,050	1,868	1,149	1,310	3,580
1991	1,902	2,633	2,448	2,049	2,138	1,172	1,446	3,886
1992	1,990	2,756	2,942	2,487	2,575	1,202	1,702	4,453
1993	2,071	2,830	3,128	2,702	3,324	1,337	1,634	5,115
1994	2,169	2,508	3,054	2,703	3,541	1,444	1,662	4,981
1995	2,296	2,468	3,483	2,939	3,965	1,624	1,772	5,096
1996	2,403	2,365	3,293	2,928	3,339	1,645	1,738	5,025
1997	2,502	2,471	3,085	3,191	3,209	1,771	2,000	5,527

(a) Australian data relate to the year ending 30 June; data for France and Germany relate to the calender year indicated; data for New Zealand before 1990 relate to the year commencing 1 April in the year indicated, and data for 1990 onwards refer to the year ending 30 June; data for Canada, Japan and the United Kingdom relate to the year commencing 1 April in the year indicated; United States data relate to the year ending 30 September.

(b) Data up to and including 1990 relate to West Germany only; data for 1991 onwards refer to the unified Germany.

Note: Expenditures converted to Australian dollar (A$) values using GDP purchasing power parities.

Sources: AIHW Health Expenditure Database; OECD unpublished data.

Factors contributing to the growth in health services expenditure are inflation (both general inflation and excess health inflation), and change in the level of services used, either from population growth or from more intensive per person use of services. The general rate of inflation is an indication of price pressures that apply throughout the economy, and the rate of excess health inflation indicates additional price rises specific to the health services sector. The ability of a nation's health financing system to control health prices is an important factor in controlling growth in total expenditure on health services.

Even in countries with fairly similar approaches to health services provision, rates of health inflation can vary markedly. At one end is New Zealand with a very high excess health inflation rate—averaging 3.6% between 1968 and 1996. At the other extreme is France, which had a negative excess health inflation rate of –0.5% (Table S46, page 408). Australia had an excess health inflation rate of 0.5%, the third lowest for the group.

In order to compare the level of expenditure without the complication of different rates of population growth, it is useful to examine real growth in per person health services expenditure. Australia and the United Kingdom (0.9%) had the second lowest average real growth in per person expenditure between 1960 and 1997. Japan experienced the highest growth of 5.3% per year, and New Zealand's per person health expenditure fell dramatically—a drop of 4.2% in real terms.

5.2 Cost of diseases

This section describes the way total direct healthcare expenditure is distributed among specific disease and injury groups, and by age groups and sex. The AIHW has analysed direct health system costs of disease and injury in Australia for 1993–94, using disease and injury groups defined according to the International Classification of Diseases, 9th Revision (see Box 5.7, page 274). The estimates were derived using a methodology that ensures that they add across disease, age and sex groups to the total Australian health system expenditure by health sector for 1993–94. They provide a description of the utilisation and costs of health services in Australia, as well as a reference source for planners and researchers interested in the costs and utilisation patterns for a particular disease group.

The disease cost estimates allocate over 90% of the total recurrent health expenditure in 1993–94, or just over $31 billion in total. The main components of health expenditure not yet included in the disease cost estimates are capital expenditure, community health services (apart from specialised mental health services) and public health programs (apart from four cancer public health programs). The estimates have been revised since their inclusion in *Australia's Health 1998*.

The six disease groups that account for the most health expenditure in Australia, in descending order, are:

- cardiovascular diseases $3.7 billion (11.8% of total health system costs)
- digestive system diseases $3.7 billion (11.8%)
- mental disorders $3.0 billion (9.6%)
- musculoskeletal problems $3.0 billion (9.6%)
- injury and poisoning $2.6 billion (8.3%)
- respiratory diseases $2.5 billion (8.0%).

Digestive system diseases are the second most expensive group in part because of the large expenditure on dental services ($1.8 billion).