Health expenditure

Information Bulletin No 4

January 1990

Australian health expenditure to 1987–88

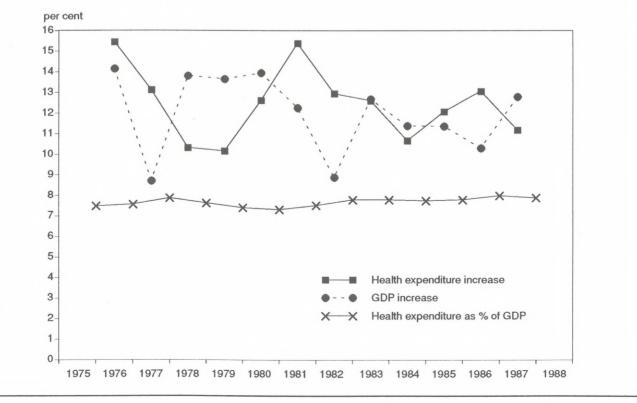
This bulletin is the fourth in a series and provides estimates of total Australian health expenditure and sources of funds to 1987–88 together with a preliminary estimate of 1988–89 expenditure (page 10). A detailed breakdown by area of expenditure for 1987–88 is not yet available but will be given in a forthcoming Information Bulletin. Highlights are:

- Health expenditure by Australian Governments and individuals in 1987–88 was \$23.4 billion or \$1,415 per person.
- It increased by 41 per cent since 1984–85, representing a

real annual average growth per person of 2.5 per cent.

- As a proportion of gross domestic product (GDP), health expenditure has been roughly stable for the past 13 years in the range of 7.4 to 8.0 per cent of GDP (Figure 1).
- Between 1985–86 and 1986–87 there was a relatively rapid growth in health expenditure — 13 per cent (3.5 per cent in real terms), mostly due to relatively large price and wage increases in the health sector.
- Private sector expenditure increased by an annual average rate of 15.1 per cent between 1984–85 and 1987–88, compared to a 10.9 per cent increase in government funded expenditure.
- Private health insurance funded expenditure increased by an annual average rate of 20.3 per cent in the same period.
- Government funding of health care fell from 72 per cent of total health expenditure in 1984–85 to 69 per cent in 1987–88.





General overview of the five years 1982-83 to 1987-88

From 1982–83 to 1987–88 health expenditure grew by 76 per cent and GDP by 74 per cent, so both health expenditure and the capacity to fund it through increased national income increased in step.

As a proportion of GDP, whether measured in current prices or adjusted for inflation, health expenditure stayed in the range 7.8 and 8.0 per cent of GDP (Table 3).

The stability in the five years 1982–83 to 1987–88 maintained the pattern of stability in Australian health expenditure in the past 12 years. In some years the growth of health expenditure was higher than GDP because of price pressures and other factors specific to the health sector, but in other years GDP growth was greater. Over the years the fluctuations cancelled out (Figure 1).

Health expenditure per person in 1987–88 was \$1,415. The average rate of growth per person in real terms from 1982–83 to 1987–88 was 3.0 per cent per year.

Table 1: Total health expenditure and rate of growth, 1982-83 to 1987-88

	Am	ount (\$m)	Rate of Growth (%)				
Year	Current prices	Constant 1984–85 prices(a)	Current prices	Constant 1984–85 prices			
1982-83	13,326	15,071					
1983-84	15,006	15,979	12.6	6.0			
1984-85	16,607	16,607	10.7	3.9			
1985-86	18,613	17,459	12.1	5.1			
1986-87	21,046	18,075	13.1	3.5			
1987-88	23,400	18,864	11.2	4.4			

Note: (a) Health expenditure 1982–83 to 1987–88 deflated to constant prices using specific health deflators (Table 15).

Table 2: Health expenditure per person and rate of growth, 1982-83to 1987-88 (current and constant 1984-85 prices)

	Per	person (\$)	Rate of growth (%)				
	Current prices	Constant 1984–85 prices	Current prices	Constant 1984–85 prices			
1982-83	871	986					
1983-84	969	1,032	11.2	4.7			
1984-85	1,059	1,059	9.3	2.6			
1985-86	1,171	1,098	10.5	3.7			
1986-87	1,294	1,111	10.6	1.2			
1987-88	1,415	1,141	9.4	2.7			

Source: 1982–83 to 1986–87 population figures from ABS Australian Demographic Statistics, Cat No 3101.0. 1987–88 population from ABS Estimated Resident Population by Age and Sex, Cat No 3201.0.

Table 3: Total health expenditure and GDP (current and 1984–85 constan	t prices), 1982-83 to 1987-88
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	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88
Current prices						
Total health expenditure (\$m)	13,326	15,006	16,607	18,613	21,046	23,400
Per cent change over previous year		(12.6)	(10.7)	(12.1)	(13.1)	(11.2)
GDP (\$m)	170,740	192,383	214,270	238,637	263,249	296,921
Per cent change		(12.7)	(11.4)	(11.4)	(10.3)	(12.8)
Health expenditure as percentage of GDP	7.8	7.8	7.8	7.8	8.0	7.9
Constant 1984–85 prices						
Total health expenditure (\$m)	15,071	15,979	16,607	17,459	18,075	18,864
Per cent change over previous year		(6.0)	(3.9)	(5.1)	(3.5)	(4.4)
GDP (\$m)	192,927	203,150	214,270	223,443	229,711	239,646
Per cent change		(5.3)	(5.5)	(4.3)	(2.8)	(4.3)
Health expenditure as percentage of GDP	7.8	7.9	7.8	7.8	7.9	7.9

Source: GDP figures from ABS Australian National Accounts - National Income and Expenditure June quarter 1989. Cat No 5206.0.

Health spending by Governments and the private sector

The period 1982–83 to 1987–88 provides an opportunity to observe changes since the introduction of Medicare in .February 1984.

The most obvious change in the five years to 1987–88 was the increase in government expenditure as a proportion of total health expenditure from 60.7 per cent to 69.3 per cent.

Table 4:	Percentage of	health	expenditure	by	source of fu	nds
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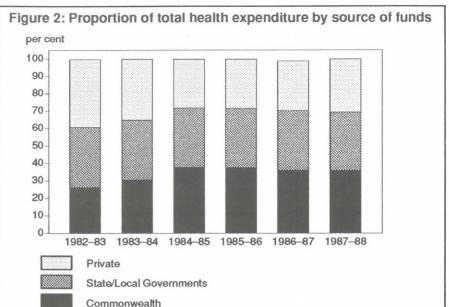
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Year	Commonwealth Government	State and Local Governments	Total Government	Private	Total	
1982-83	26.26	34.48	60.74	39.26	100	
1983-84	30.42	34.25	64.67	35.33	100	
1984-85	37.68	34.00	71.68	28.32	100	
1985-86	37.50	34.00	71.50	28.50	100	
1986-87	36.05	34.41	70.46	29.55	100	
1987-88	35.88	33.45	69.33	30.67	100	

There was a one-off increase in the Commonwealth Government proportion when Medicare was introduced (Table 4). This increase reflected the replacement of payments by individuals to health insurance funds by Medicare benefits. Many medical costs which were the responsibility of individuals became payable by the Commonwealth.

There has been a fall since the first full year of Medicare in the proportion of Government funded health expenditure, from 71.7 per cent in 1984–85 to 69.3 per cent in 1987–88.

Correspondingly, the private sector proportion rose from 28.3 per cent in 1984–85 to 30.7 per cent in 1987–88.

A large part of the private sector expenditure increase was funded by private health insurance funds. From 1984–85 to 1987–88 health insurance funded expenditure increased at an annual



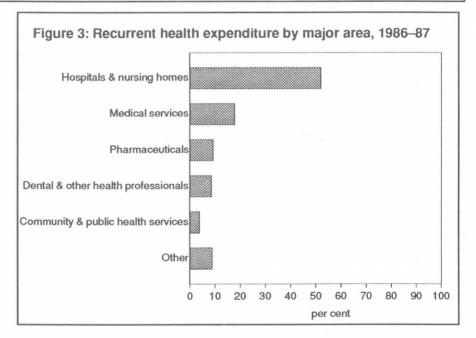
average rate of 20.4 per cent from \$1,459m to \$2,548m. There was a 17.5 per cent annual average increase in benefits for public hospital treatment of private patients, a 21.7 per cent increase in benefits for private hospital treatment and an 18.3 per cent increase in benefits for services by chiropractors, dentists and other health professionals, and for spectacles.

Where the dollar was spent in 1986-87

Details of area of expenditure in 1987–88 are not yet available. In 1986–87, for each \$100 of recurrent health expenditure in 1986–87, the largest amount, \$44, went on hospitals. Another \$8 was spent on nursing homes (Table 9).

Expenditure on non-institutional services was distributed in five main areas. Medical services received \$18, pharmaceuticals \$9, dental services \$5, and other health professionals such as physiotherapists and chiropractors \$3.

Community health services and identified expenditure on health promotion and illness prevention together accounted for another \$4.



Changes in distribution of health expenditure from 1982–83 to 1986–87

The proportion spent on hospitals fell from 45.9 per cent of total recurrent expenditure in 1982–83 to 43.6 per cent in 1986–87 (Tables 5–9). Although hospital expenditure went against this trend in 1986–87 with an increase in the proportion over the previous year from 43.4 to 43.6 per cent, this mostly represented an increase in nurses' wages and not a shift in the proportion of actual resources used in hospitals.

In the hospital sector, expenditure

by the recognised public and repatriation hospitals increased by an average annual rate of 9.9 per cent from 1982–83 to 1986–87 compared to a 12 per cent average annual increase in private hospital expenditure. Private hospital expenditure increased from 13.7 per cent of acute hospital expenditure to 14.6 per cent in 1986–87.

The areas where proportions increased significantly in the fouryear period were medical services (from 17.2 to 17.8 per cent), pharmaceuticals (from 8.4 to 9.1), other professional services (from 2.7 to 3.4) and community health, health promotion and illness prevention (from 3.4 to 3.7).

The increase in the share of pharmaceutical expenditure to 9.1 per cent of recurrent expenditure reversed a trend of the previous 15 years. From 1969–70 to 1982–83 the pharmaceutical share fell from 19.1 to 8.4 per cent.

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Table 5: Total health expenditure by area of expenditure and source of funds, 1982-83 (a)

		Public sector			Private	e sector			
	Commonwealth Government (\$m)	State and Local Governments (\$m)	Total Government (\$m)	Health insurance funds (\$m)	Individuals (\$m)	Other(e) (\$m)	Total private (\$m)	Total (\$m)	Percentage of recurrent expenditure
Total institutional	1,563	3,516	5,078	1,259	381	343	1,983	7,062	56.4
Total hospitals	720	3,359	4,079	1,249	92	328	1,670	5,749	45.9
Recognised public	387	2,920	3,307	733	-	281	1,013	4,320	34.5
Private	113	-	113	509	55	40	603	716	5.7
Repatriation	199	-	199	8	-	-	8	207	1.7
Public psychiatric	22	439	461	-	37	8	45	506	4.0
Total nursing homes	788	70	858	2	211	2	216	1,073	8.6
Government and other	566	70	635	2	145	2	149	784	6.3
Deficit financed	222	-	222	-	67	1	67	289	2.3
Other institutional services	55	87	142	7	78	13	98	240	1.9
Ambulance	32	87	119	7	78	13	98	217	1.7
Other institutional (nec)	23	-	23	-	-	-	-	23	0.2
Total non-institutional	1,651	346	1,998	1,142	1,447	171	2,759	4,757	38.0
Medical services	992	-	992	854	187	118	1,159	2,151	17.2
Dental services	16	52	67	175	312	11	498	565	4.5
Other professional services	25	-	25	54	233	27	314	339	2.7
Community health services	96	257	353	1	3	2	6	359	2.9
Pharmaceuticals total	483	_	483	13	555	5	573	1,056	8.4
Benefits paid items	483	-	483	-	177	-	177	659	5.3
All other items	-	-	_	13	379	5	397	397	3.2
Aids and appliances	38	1	39	44	157	6	207	246	2.0
Other non-institutional	1	37	38	2	-	-	2	40	0.3
Health promotion and illness prevention	2	65	68	-	-	-	-	68	0.5
Administration	118	95	212	265	-	-	265	477	3.8
Research	116	13	129	-	23	-	23	152	1.2
Total recurrent expenditure	3,449	4,036	7,485	2,666	1,851	514	5,031	12,516	100.0
Capital consumption	22	319	341				(b)	341	
Capital expenditure	28		269	(c)	(c)	(c)	200	469	
Total health expenditure	3,500		8,094	(d)	(d)	(d)	5,231	13,326	

Notes: (a) Details of revisions to these figures since *Information Bulletin No 3* are provided on pages 14–16 (b) Capital consumption (depreciation) for the private sector is included in current expenditure above (c) Capital expenditure for the private sector cannot be broken down by source of funds

(d) See (b) and (c)
(e) The 'other' column includes the health costs paid by workers compensation and motor vehicle third party insurance funds

Table 6: Total health expenditure by area of expenditure and source of funds, 1983-84 (a)

		Public sector			Private	e sector			
	Commonwealth Government (\$m)	State and Local Governments (\$m)	Total Government (\$m)	Health insurance funds (\$m)	Individuals (\$m)	Other(e) (\$m)	Total private (\$m)	Total (\$m)	Percentage of recurrent expenditure
Total institutional	1,865	3,916	5,781	1,216	424	339	1,978	7,759	55.3
Total hospitals	899	3,708	4,607	1,127	180	327	1,635	6,242	44.5
Recognised public	523	3,227	3,750	614	_	287	901	4.651	33.1
Private	123	_	123	505	142	32	680	803	5.7
Repatriation	227		227	7	-	-	7	234	1.7
Public psychiatric	25	481	507	-	38	8	47	554	3.9
Total nursing homes	905	107	1,012	-	243	3	246	1,257	9.0
Government and other	657	107	763	-	168	2	170	933	6.7
Deficit financed	248	-	248	-	75	1	76	324	2.3
Other institutional services	61	101	162	89	-	8	98	260	1.9
Ambulance	37	101	138	89	-	8	98	236	1.7
Other institutional (nec)	24	-	24	-	-	-	-	24	0.2
Total non-institutional	2,269	395	2,665	910	1,743	165	2,818	5,483	39.1
Medical services	1,508	-	1,508	614	209	114	936	2,444	17.4
Dental services	19	53	72	174	397	-	571	643	4.6
Other professional services	39	-	39	53	295	46	395	434	3.1
Community health services	113	291	404	-	-	_	-	404	2.9
Pharmaceuticals total	546	-	546	18	654	4	675	1,221	8.7
Benefits paid items	546	-	546	-	186	-	186	732	5.2
All other items		-	-	18	468	4	489	489	3.5
Aids and appliances	38	4	42	50	188	1	240	282	2.0
Other non-institutional	6	47	54	-	-	-	-	54	0.4
Health promotion and illness prevention	4	79	82	-	-	-	-	82	0.6
Administration	193	95	288	241	-	-	241	529	3.8
Research	135	17	152	-	30	_	30	182	1.3
Total recurrent expenditure	4,465	4,503	8,968	2,367	2,196	504	5,067	14,035	100.0
Capital consumption	26	332	358				(b)	358	
Capital expenditure	74	305	379	(c)	(c)	(c)	234	613	
Total health expenditure	4,565	5,140	9,704	(d)	(d)	(d)	5,301	15.006	

Notes: (a) Details of revisions to these figures since *Information Bulletin No 3* are provided on pages 14–16 (b) Capital consumption (depreciation) for the private sector is included in current expenditure above

(c) Capital expenditure for the private sector cannot be broken down by source of funds

(d) See (b) and (c)
(e) The 'other' column includes the health costs paid by workers compensation and motor vehicle third party insurance funds

Table 7: Total health expenditure by area of expenditure and source of funds, 1984-85 (a)

		Public sector			Private	e sector			
	Commonwealth Government (\$m)	State and Local Governments (\$m)	Total Government (\$m)	Health insurance funds (\$m)	Individuals (\$m)	Other(e) (\$m)	Total private (\$m)	Total (\$m)	Percentage of recurrent expenditure
Total institutional	2,553	4,197	6,750	866	509	290	1,666	8,416	54.5
Total hospitals	1,482	4,019	5,501	832	179	279	1,290	6,791	44.0
Recognised public	1,043	3,479	4,522	295	_	238	532	5,054	32.3
Private	166	-	166	533	136	33	703	869	5.0
Repatriation	248	6	254	4	-	-	4	258	1.3
Public psychiatric	25	534	559	-	43	8	51	611	4.0
Total nursing homes	1,005	64	1,069	-	270	3	273	1,343	8.7
Government and other	722	64	786	-	188	2	190	976	6.3
Deficit financed	283	-	283	-	83	1	83	367	2.4
Other institutional services	66	114	179	34	60	8	103	282	1.8
Ambulance	39	114	153	34	60	8	103	256	1.7
Other institutional (nec)	26	-	26	-	-	-	-	26	0.2
Total non–institutional	3,246	467	3,713	389	1,837	223	2,449	6,162	39.9
Medical services	2,354	-	2,354	-	249	130	378	2,733	17.3
Dental services	22	64	86	229	443	-	672	759	4.9
Other professional services	63	-	63	70	287	85	441	504	3.3
Community health services	129	351	480	1	3	3	7	487	3.2
Pharmaceuticals total	629	-	629	24	664	4	691	1,320	8.5
Benefits paid items	629	-	629	-	221	-	221	850	5.5
All other items	-	-	-	24	442	4	470	470	3.0
Aids and appliances	41	2	42	66	192	2	259	301	1.9
Other non-institutional	9	50	59	-	-	-	-	59	0.4
Health promotion and illness prevention	9	110	119	-	_	-	-	119	0.8
Administration	220	107	327	204		-	204	531	3.4
Research	157	22	179	-	39	-	39	219	1.4
Total recurrent expenditure	6,185	4,903	11,088	1,459	2,386	513	4,358	15,446	100.0
Capital consumption	30	350	380				(b)	380	
Capital expenditure	42	394	436	(c)	(c)	(c)	345	781	
Total health expenditure	6,257	5,647	11.904	(d)	(d)	(d)	4,703	16.607	

Notes: (a) Details of revisions to these figures since *Information Bulletin No 3* are provided on pages 14–16 (b) Capital consumption (depreciation) for the private sector is included in current expenditure above (c) Capital expenditure for the private sector cannot be broken down by source of funds

(d) See (b) and (c)
(e) The 'other' column includes the health costs paid by workers compensation and motor vehicle third party insurance funds

Table 8: Total health expenditure by area of expenditure and source of funds, 1985-86 (a)

		Public sector			Private	e sector			
	Commonwealth Government (\$m)	State and Local Governments (\$m)	Total Government (\$m)	Health insurance funds (\$m)	Individuals (\$m)	Other(e) (\$m)	Total private (\$m)	Total (\$m)	Percentage of recurrent expenditure
Total institutional	2,769	4,687	7,455	1,021	552	175	1,747	9,203	53.5
Total hospitals	1,606	4,524	6,129	981	186	161	1,328	7,457	43.4
Recognised public	1,136	3,966	5,102	344	-	126	469	5,571	32.4
Private	168	-	168	634	139	28	800	969	5.6
Repatriation	283	6	289	4	-	_	4	293	1.7
Public psychiatric	18	551	570	-	47	7	54	624	3.6
Total nursing homes	1,088	47	1,135	-	303	3	306	1,441	8.4
Government and other	781	47	828	-	209	2	211	1,039	6.0
Deficit financed	307	_	307	-	94	1	95	402	2.3
Other institutional services	75	116	191	40	63	11	114	305	1.8
Ambulance	45	116	161	40	63	11	114	275	1.6
Other institutional (nec)	31	_	31	-	-	-	-	31	0.2
Total non-institutional	3,668	534	4,203	517	2,108	205	2,830	7,033	40.9
Medical services	2.708	_	2,708	17	271	120	408	3.116	18.1
Dental services	25	70	94	294	525	2	821	915	5.3
Other professional services	69	_	69	90	352	76	518	587	3.4
Community health services	121	403	525	1	_	_	1	526	3.1
Pharmaceuticals total	693	_	693	31	755	5	791	1,484	8.6
Benefits paid items	693	_	693	_	243	_	243	936	5.4
All other items	1 2	-	_	. 31	512	5	548	548	3.2
Aids and appliances	43	2	45	84	205	2	291	337	2.0
Other non-institutional	9	59	69	_	-	_	-	69	0.4
Health promotion and illness prevention	30	135	165	-	-	-	-	165	1.0
Administration	258	68	327	233	-	_	233	560	3.3
Research	170	25	195	-	42	-	42	237	1.4
Total recurrent expenditure	6,896	5,449	1,2345	1,770	2,702	380	4,853	17,198	100.0
Capital consumption	35	381	416				(b)	416	
Capital expenditure	49	498	547	(c)	(c)	(c)	452	999	
Total health expenditure	6,980	6,328	13,308	(d)	(d)	(d)	5,305	18,613	

Notes: (a) Details of revisions to these figures since *Information Bulletin No 3* are provided on pages 14–16 (b) Capital consumption (depreciation) for the private sector is included in current expenditure above (c) Capital expenditure for the private sector cannot be broken down by source of funds (d) See (b) and (c)

(e) The 'other' column includes the health costs paid by workers compensation and motor vehicle third party insurance funds

Table 9: Total health expenditure by area of expenditure and source of funds, 1986-87 (a)

		Public sector			Private	e sector		0	
	Commonwealth Government (\$m)	State and Local Governments (\$m)	Total Government (\$m)	Health insurance funds (\$m)	Individuals (\$m)	Other(e) (\$m)	Total private (\$m)	Total (\$m)	Percentage of recurrent expenditure
Total institutional	2,874	5,474	8,348	1,288	631	217	2,136	10,485	53.8
Total hospitals	1,562	5,265	6,827	1,244	228	202	1,674	8,500	43.6
Recognised public	1,169	4,580	5,749	421	-	149	570	6,319	32.4
Private	91	-	91	816	176	46	1,037	1,127	5.8
Repatriation	282	6	288	7	-	-	7	295	1.5
Public psychiatric	20	679	699	-	52	8	60	759	3.9
Total nursing homes	1,215	80	1,296	-	338	4	341	1,637	8.4
Government and other	861	80	942	-	233	3	235	1,177	6.0
Deficit financed	354	-	354	-	105	1	106	460	2.4
Other institutional services	97	129	226	45	66	11	121	347	1.8
Ambulance	46	129	175	45	66	11	121	296	1.5
Other institutional (nec)	51	-	51	_	-	-	-	51	0.3
Total non–institutional	4,104	527	4,630	616	2,413	252	3,281	7,911	40.6
Medical services	2,960	-	2,960	38	334	128	500	3,460	17.8
Dental services	26	72	98	345	567	2	913	1,011	5.2
Other professional services	81	_	81	105	361	112	579	660	3.4
Community health services	154	377	530	1	-	-	1	532	2.7
Pharmaceuticals total	833	_	833	30	905	7	942	1,775	9.1
Benefits paid items	824	_	824	-	189	_	189	1,013	5.2
All other items	9	-	9	30	716	7	752	761	3.9
Aids and appliances	40	1	41	98	246	2	346	387	2.0
Other non-institutional	10	77	87	-	-	-	-	87	0.4
Health promotion and illness prevention	39	156	194	1	-	-	1	196	1.0
Administration	246	71	317	282	-	-	282	599	3.1
Research	215	29	243	-	44	-	44	287	1.5
Total recurrent expenditure	7,478	6,256	13,734	2,188	3,088	468	5,744	19,478	100.0
Capital consumption	41	413	454				(b)	454	
Capital expenditure	68	572	640	(c)	(c)	(c)	475	1,115	
Total health expenditure	7,587	7.241	14.828	(d)	(d)	(d)	6,219	21,046	

Notes: (a) Details of revisions to these figures since Information Bulletin No 3 are provided on pages 14-16

(b) Capital consumption (depreciation) for the private sector is included in current expenditure above
 (c) Capital expenditure for the private sector cannot be broken down by source of funds
 (d) See (b) and (c)

(e) The 'other' column includes the health costs paid by workers compensation and motor vehicle third party insurance funds

Table	10:	Annual	change	in	real	recurrent	health	expenditure
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	Annual change (per cent)							
Area of expenditure	1982-83	1983-84	1984-85	1985-86	Average 1982–83			
	to	to	to	to	to			
	1983-84	1984-85	1985-86	1986-87	1986-87			
Total institutional	3.5	2.1	3.3	3.8	3.2			
Total hospitals	2.3	2.4	3.8	3.9	3.1			
Recognised public	1.5	2.3	4.2	3.3	2.8			
Private	5.7	1.8	5.4	6.0	4.7			
Repatriation	6.9	3.5	7.6	-8.3	2.2			
Public psychiatric	3.1	3.8	-3.4	10.8	3.4			
Total nursing homes	10.4	0.5	1.4	3.5	3.9			
Government and other	12.2	-1.6	0.6	3.2	3.5			
Deficit financed	5.5	6.6	3.5	4.4	5.0			
Other institutional services	2.3	2.0	2.2	3.6	2.5			
Ambulance	2.5	2.1	1.3	-1.7	1.0			
Other institutional (nec)	0.3	1.5	10.2	51.8	14.2			
Fotal non-institutional	8.4	4.9	6.4	3.1	5.7			
Medical services	6.0	3.0	5.9	1.2	4.0			
Dental services	4.8	8.1	9.4	-0.6	5.4			
Other professional services	20.3	9.4	10.2	2.8	10.5			
Community health services	6.1	13.5	2.0	-6.6	3.5			
Pharmaceuticals total	11.4	3.2	6.2	11.1	7.9			
Benefits paid items	6.9	11.0	4.0	0.6	5.5			
All other items	18.9	-8.3	10.2	29.0	11.6			
Aids and appliances	10.2	2.1	5.6	6.7	6.1			
Other non-institutional	25.0	3.0	10.5	16.0	13.3			
Health promotion and illness prevention	14.8	35.5	31.2	9.4	22.2			
Administration	4.2	-5.2	-0.7	-0.7	-0.6			
Research	13.2	13.4	2.1	13.3	10.4			
Total recurrent expenditure	5.6	3.2	4.6	3.5	4.3			

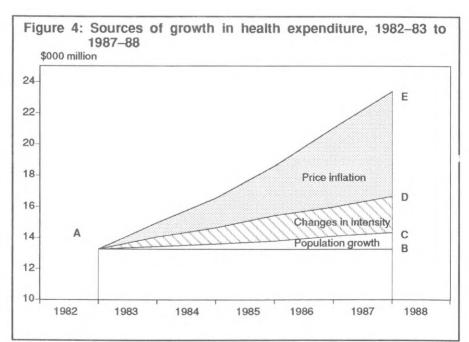
Sources of growth in health expenditure 1982-83 to 1987-88

Total health expenditure grew at an average of 12 per cent a year from 1982–83 to 1987–88 because of a combination of factors, including price inflation, population growth, and changes in intensity.

Changes in intensity encompasses such factors as changes in number of bed-days per person, casemix, number of medical and other health services per person and changes due to the ageing of the population. It is calculated as the residual remaining after the effects of population growth and inflation are taken out.

Figure 4 shows the decomposition of expenditure growth into the three components of price inflation, population growth and changes in intensity.

The change in total health expenditure is shown as line AE. Real or constant 1982–83 prices total health expenditure is plotted as line AD. The area ADE indicates the price effect. Population growth makes only a small contribution to the growth in total



health expenditure as shown by the area ABC. The effect of changes in intensity is shown as the area ACD.

Over time, the price inflation explains most of the increase in expenditure. From 1982–83 to 1987–88, health expenditure increased by 76 per cent, of which 62.6, 24.8 and 12.6 per cent were due to health price inflation, changes in intensity and population growth respectively. The interaction between these three factors has been distributed according to the weight of each factor.

Total health expenditure in 1988-89

The preliminary estimate for total health expenditure in 1988–89 is \$25.85 billion.

This is based on preliminary ABS figures, which in the past have been revised upwards as better data become available, particularly in the private sector component.

The estimate is made by applying the ABS estimated health expenditure growth rate for 1987–88 to 1988–89 of 10.5 per cent to the AIH estimate of health expenditure in 1987–88.

The AIH figures are higher than

the ABS figures (Table 11) partly because the AIH includes health research funded by universities as health expenditure whereas ABS counts it as an education expenditure, and partly because of methodological differences.

	Year						
	1982-83	1983–84	1984-85	1985-86	51986-87	1987-88	1988-89
ABS estimates of health expenditure (\$m)							
Commonwealth Government final consumption	710	887	989	977	1,071	1,283	1,385
State and Local Government final consumption	4,541	5,195	6,081	6,775	7,651	8,380	9,218
Private final consumption	7,199	7,925	8,462	9,405	10,680	12,049	13,443
Total final consumption expenditure	12,450	14,007	15,532	17,157	19,402	21,712	24,046
Commonwealth Government gross fixed capital	24	69	42	48	68	84	69
State and Local Government gross fixed capital	245	303	394	498	572	547	568
Total Government fixed capital expenditure	269	372	436	546	640	631	637
ABS estimates of total health expenditure (excluding private capital)	12,719	14,379	15,968	17,703	20,042	22,343	24,683
Change (%)		13.1	11.1	10.9	13.2	11.5	10.5
AIH estimates of health expenditure (\$m)	13,326	15,006	16,607	18,613	21,046	23,400	(a)25,850
Change (%)		12.6	10.7	12.1	13.1	11.2	10.5

Note: (a) The 1988–89 AIH estimate is obtained by applying the ABS 1987–88 to 1988–89 health expenditure growth rate of 10.47% to the AIH 1987–88 health expenditure estimate.

Source: ABS health expenditure data for 1982–83 from ABS Cat No 5206.0 March quarter 1987 ABS health expenditure data for 1983–84 from ABS Cat No 5206.0 March quarter 1988 special issue ABS health expenditure data for 1984–85 from ABS Cat No 5206.0 December quarter 1988 ABS health expenditure data for 1985–86 to 1988–89 from ABS Cat No 5206.0 June quarter 1989

Rebates on medical expenses

Since 1985–86 Australians have been entitled to claim a 29 per cent tax rebate for net medical expenses exceeding \$1,000.

Net medical expenses are medical expenses actually paid less any refunds received from Medicare, a health fund or any other insurer.

For the expenses to be classified as medical, they must have some connection to an illness or an operation. They include artificial limbs, contact lenses, wheelchairs, hearing aids, guide dog costs, manual care controls for a disabled driver, kidney dialysis, and nurses' fees.

In some cases, for example expenditure on massage or chiropractic treatment, the treatment must be at the direction of a legally qualified medical practitioner to qualify for a tax rebate.

The cost of the rebate in 1986–87 was \$40.3 million, and was

Table 12: Rebates on medical expenditure, 1985-86 and 1986-87

	198	1986-87		
State	Number of claims	Amount (\$'000)	Number of claims	Amount (\$`000)
Taxable				
NSW	18,955	7,473	21,589	10,772
Vic	21,411	8,184	25,297	11,790
Qld	8,442	2,698	9,453	3,704
WA	4,353	1,686	5,395	3,934
SA	3,766	2,030	4,517	2,596
Tas	661	247	750	336
NT	183	38	222	64
ACT	2,004	518	2,172	679
Nontaxable	4,801	4,565	6,254	6,465
Australia	64,576	27,439	75,649	40,340

Source: Taxation Statistics 1985-86 and 1986-87, Table 1.12, p110

spread across 75,649 people (Table 12). The average size of the rebate was \$533, indicating the average net medical expense for these people (or families) was \$2,825.

This tax concession is in effect a Commonwealth Government subsidy, so it should be included as Commonwealth-funded expenditure. For 1986–87 this would slightly increase the Commonwealth share of health expenditure from 36.05 to 36.24 per cent and reduce the private sector share accordingly.

Health research expenditure

There have been fluctuations in health research expenditure as a percent of health expenditure since 1975–76. Health research reached a high point of 0.67 per cent of health expenditure in 1976–77 and then declined until 1981–82. Since then there has been significant growth.

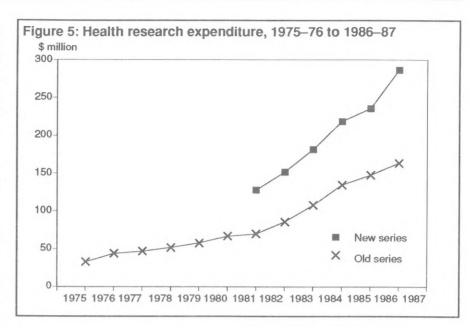
This growth is shown in the old series and the new series (which includes health research directly funded by tertiary institutions).

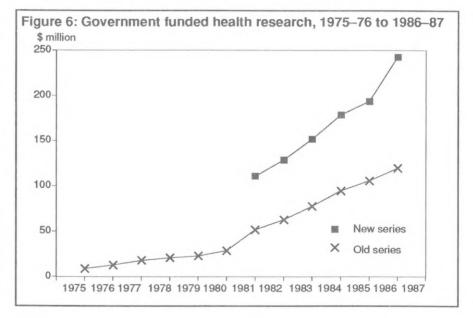
The annual average growth from 1981–82 to 1986–87 is 17.5 per cent in current terms or 9.6 per cent in real terms. This compares to recurrent health expenditure growth in current terms of 12.0 per cent and in real terms of 3.9 per cent.

The method for calculating health research expenditure has changed since 1981–82. Before 1981–82 information published on health research expenditure excluded research funded by universities and CAEs out of their own resources. Only university and CAE research funded by grants from external bodies such as the National Health and Medical Research Council (NHMRC) was included.

Since 1981–82 information from the ABS publication, *Research and Experimental Development All-sector Summary* (Catalogue No 8112.0), has been used to estimate total research expenditure. This series collects information about all research, including that funded using internal university and CAE moneys.

As a result health research expenditure information recorded in AIH publications for the years before 1981–82 (old series data) is not comparable to information for 1981–82 onwards (new series data). The figures for both the old series and the new series are





given in Tables 13 and 14. The difference between the two series is quite considerable. The new series figure in 1986–87 is 75 per cent more than the old series figure.

Although the new figures give a more complete picture of health

research expenditure in Australia they do not include all hospital resources used in health research. Some hospital research costs are funded by NHMRC grants or university funding, but some comes out of general hospital budgets.

Year	Old series (\$m)	% of total health expenditure	New series (\$m)	% of total health expenditure
1975-76	33	.58		
1976-77	44	.67		
1977-78	47	.63		
1978-79	52	.63		
1979-80	58	.64		••
1980-81	67	.66		
1981-82	70	.59	128	1.08
1982-83	86	.65	152	1.14
1983-84	108	.72	182	1.21
1984-85	135	.81	219	1.32
1985-86	148	.80	237	1.27
1986-87	164	.78	287	1.36

Table 14: Government health research expenditure

Year	Old series (\$m)	% of total government expenditure on health	New series (\$m)	% of total government expenditure on health
1975-76	9	.22		
1976-77	13	.29		
1977-78	18	.39		
1978-79	21	.41		
1979-80	23	.41		
1980-81	29	.45		
1981-82	52	.75	111	1.51
1982-83	63	.78	129	1.59
1983-84	78	.80	152	1.57
1984-85	95	.80	179	1.50
1985-86	106	.80	195	1.47
1986-87	120	.81	243	1.64

Health prices

Australian health prices increased by an annual average of 7.0 per cent from 1982–83 to 1987–88 compared to an annual average increase in the CPI of 7.2 per cent and an annual increase in average weekly earnings (AWE) of 6.9 per cent.

This was in marked contrast to the United States where the health CPI increased by an annual average of 6.7 per cent from 1983 to 1988 compared to a general CPI increase of 3.5 per cent. The small difference between the Australian health price index and AWE was entirely due to changes in prices between 1985–86 and1986–87. The health price index increased rapidly because of large health award wage increases in June and July 1986. From December 1985 to December 1986 the award rate for registered nurses increased by 7.7 per cent compared to 2.5 per cent for the labourforce as a whole. Overall in 1986–87, compared to 1985–86, the health price index increased by 9.3 per cent compared to the AWE increase of 7.8 per cent and the CPI increase of 9.4 per cent.

Despite the higher health price inflation in 1986–87, mediumterm changes in the Australian health price index were commensurate with increases in the CPI and AWE. Table 15: Health expenditure and economy wide deflators (base year 1984-85 = 100)

Financial year	Total health expenditure deflator	CPI ^(a)	GDP ^(b) IPD	AWE ^(c)	Hospital & clinical deflator	Other health & welfare deflator	Total health & welfare deflator	IPD1 ^(d)	IPD2 ^(e)	IPD3 ⁽⁾
1970-71	22.3	26.6	24.9	19.8	21.4	na	21.4	22.4	21.3	21.8
1971-72	24.4	28.4	26.5	22.2	23.7	na	23.8	24.6	22.7	23.4
1972-73	26.3	30.1	28.9	24.3	25.2	na	25.5	26.5	24.7	25.2
1973-74	30.4	34.0	33.2	27.9	28.9	na	29.6	30.6	28.4	28.8
1974-75	38.4	39.7	39.8	35.7	38.1	36.5	37.8	39.1	37.4	36.9
1975-76	44.6	44.9	45.9	40.3	44.2	41.8	44.9	45.4	43.4	42.8
1976-77	50.6	51.0	51.0	45.3	50.4	52.5	51.1	51.2	47.7	47.6
1977-78	55.0	55.9	54.9	50.0	54.7	56.3	55.3	55.5	51.7	51.4
1978-79	58.3	60.5	59.4	53.7	57.9	59.4	58.8	58.8	55.4	55.1
1979-80	64.3	66.6	65.8	59.0	64.0	65.3	63.9	64.2	62.3	61.5
1980-81	71.7	72.9	72.6	67.2	71.3	72.5	71.6	71.7	69.9	69.2
1981-82	79.9	80.5	80.1	76.0	79.8	82.2	79.8	80.1	78.7	78.2
1982-83	88.4	89.7	88.4	86.7	88.7	89.6	88.5	88.8	89.8	89.0
1983-84	93.9	95.9	94.6	92.9	94.1	94.7	94.1	94.3	95.6	94.3
1984-85	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1985-86	106.6	108.4	106.8	106.3	105.8	106.5	105.8	106.1	108.2	110.9
1986-87	116.4	118.5	114.6	114.6	116.2	112.7	115.5	115.2	115.6	120.2
1987-88	^(g) 124.0	127.2	124.0	120.9	122.1	119.6	121.5	121.4	121.7	129.2

Notes: (a) CPI from ABS Consumer Price Index Cat No 6401.0, various years.

(b) GDP implicit price deflator (IPD) for 1970–71 to 1973–74 and 1974–75 to 1988–89 from ABS Australian National Accounts Cat No 5206.0, December 1986 and June quarter 1989 respectively.

(c) AWE from ABS Average Weekly Earnings Cat No 6302.0, various years. Hospital and clinical, total health and welfare, other health and welfare deflators from ABS unpublished data.

(d) IPD1 is the implicit price deflator for government final consumption expenditure on health, social security and welfare (ABS, Australian National Accounts — National Income and Expenditure Cat No 5206.0 December 1986)

(e) IPD2 is the implicit price deflator for general government public gross fixed capital expenditure (ABS, Australian National Accounts — National Income and Expenditure Cat No 5206.0 December 1986)

(f) IPD3 is the implicit price deflator for private gross fixed capital expenditure on non-dwelling constructions (ABS, Australian National Accounts — National Income and Expenditure Cat No 5206.0 December 1986)

(g) Total health expenditure deflator for 1987-88 is based on 1986-87 expenditure weights.

Technical notes

Definitions, sources and notes

The AIH collects information for the estimates of health expenditure from a wide range of sources, with the ABS and the Commonwealth Department of Community Services and Health providing most of the raw data.

The 'medical services' category includes expenditure on medical services provided on a 'fee for service' basis, and includes medical services provided to private patients in hospitals. It does not include the cost of salaried medical practitioners or of Visiting Medical Officers at recognised (public) hospitals.

These figures do not include expenditures which are primarily of a welfare nature even if they have a health component. Also excluded are most costs associated with the training of health personnel in universities and colleges of advanced education. However in some cases, for example, hospital based nursing training, the cost of training cannot be separated from the operational costs of health services.

The 1987–88 figures for total health expenditure (Tables 1 to 4) are based on near final figures for 85 per cent of expenditure. These figures will be revised, but the revisions are not expected to be significant.

Further details of the sources and definitions of the health expenditure categories used in this bulletin are contained in Appendixes A and B of the AIH publication *Australian Health Expenditure 1970–71 to 1984–85*.

Revisions of definitions and estimates

Some of the figures included in this *Information Bulletin* have been revised since *Information Bulletin No 3* was published in November 1988. The major revisions are:

1 ABS revision of data

1.1 Gross domestic product (GDP)

The average increase in GDP figures for the financial years 1982–83 to 1986–87 in the March quarter 1988 as compared to the June quarter 1989 publication is 1 per cent, with the lowest change in 1982–83 of 0.5 per cent and the highest change in 1984–85 of 1.32 per cent. Revisions included the following areas:

Private final consumption expenditure (PFCE) — revised as a result of the incorporation of data from the 1986–87 Selected Service Industry Surveys. The estimates for operation of motor vehicles and other services have been revised up due to the inclusion of, for example, consumption of diesel fuel, private car park fees, overseas student fees and private tutoring fees.

Gross fixed capital expenditure — private non-dwelling construction revised as a result of a review of the coverage of the agriculture, forestry and fishing industries obtained from the 1986–87 and earlier Agricultural Finance Surveys.

Wages, salaries and supplements — revised due to the annual benchmark revision.

	Population		
	Current prices	Constant 1984–85 prices	
	(\$m)	(\$m)	(million)
1982-83	170,740	192,927	15.29
1983-84	192,383	203,150	15.49
1984-85	214,270	214,270	15.68
1985-86	238,637	223,443	15.90
1986-87	263,249	229,711	16.26
1987-88	296,921	239,646	16.53

Table 16: Gross domestic product (current and constant 1984-85 prices) and population, 1982-83 to 1987-88

Source: GDP figures from ABS Australian National Accounts — National Income and Expenditure June quarter 1989 Cat No 5206.0. 1982–83 to 1986–87 population figures from ABS Australian Demographic Statistics, Cat No 3101.0. 1987–88 population from Cat No 3201.0

1.2 Private final consumption expenditure.

ABS has revised the figures for 1985–86 on 'dental' and 'other professional services' in the light of more accurate recent information obtained from tax returns. For 'dental' it was revised from \$820m to \$843m, and for 'other professional services' from \$559m to \$587m.

1.3 State and Local Government expenditure on health

Victorian data has been recoded. Part of Government Purpose Classification (GPC) 0513 which is mental health institution expenditure was recoded under GPC 0622 which is expenditure on aged and handicapped welfare, reducing State and Local Government expenditure on health as a whole. For example, for 1985–86, the Victorian expenditure recoded as welfare was \$15.4m. This recoding reflects the categorisation of expenditure on the developmentally disabled as welfare rather than health expenditure.

2 ACT Community and Health Service

The ACT Community and Health Service has revised its total expenditure on health for 1985–86 from \$127.623m to \$130.545m in the light of more accurate information. There were also significant reallocations of ACT expenditure between AIH expenditure categories, eg recognised public hospital expenditure was revised up by \$20 million. Currently ACT expenditure is a component of Commonwealth expenditure but from 1989–90 will become a separate category.

3 Workers' Compensation and Third Party Insurance Organisations

The Government Insurance Office of the Northern Territory has provided more detailed data. The Tasmanian Government Insurance Office has only supplied the relevant information since 1984–85.

4 AIH revision of data

4.1 Commonwealth expenditure on Commonwealth Serum Laboratories

This expenditure was classified under 'research' from 1982–83 to 1985–86 because the larger proportion of the expenditure was research in nature. For 1986–87 the larger proportion was on plasma fractionation which is 'institutional' in nature. Thus, for this year, CSL expenditure is classified in 'other institutional'.

4.2 Commonwealth expenditure on Commonwealth Pathology Laboratories

Up to 1984–85 the salary component costs of the Commonwealth Pathology Laboratories (CPL) was separated from the general administration costs of the (then) Commonwealth Department of Health. After that it was not separated, so an estimation of CPL staffing costs was made using information on number of staff employed by CPL, and this estimated cost was included in 'Medical services' expenditure.

Responsibility for the Commonwealth Pathology Laboratories was transferred to State health authorities and Department of Veterans' Affairs in 1986–87. However, the laboratories are still funded by the Commonwealth under a Health Program Grant. This Health Program Grant is coded as a 'medical services' expenditure.

4.3 Commonwealth expenditure on pharmaceutical benefits — miscellaneous services

Previously every item in this category was classified under 'pharmaceuticals-benefits paid items'. Examples of the items included are dialysis fluids, vaccines and antivenoms, calcitonin, human pituitary hormones and payments to public hospitals. Payments to public hospitals are the expenditure on special formulas and medication dispensed for geriatric and psychiatric patients in 57 centres attached to public hospitals. These centres are not recognised under the Medicare agreement. It is not known exactly how much was spent on geriatric patients and how much on psychiatric patients, but a larger proportion of the payments goes toward the dispensing of medication for psychiatric patients. Thus, payments to public hospitals under pharmaceutical benefits-miscellaneous items is now classified under 'public psychiatric hospitals'.

4.4 Commonwealth expenditure on Medicare medical benefits

There are differences in the figures for Medicare medical benefits obtained from the Department of Community Services and Health *Explanatory Notes* and those from the Health Insurance Commission. The difference is due to the leads and lags in the time of the payout. Previously the Department of Community Services and Health figures for expenditure on Medicare medical benefits were used (with the exclusion of dental and optometrical service expenditure). The Health Insurance Commission Medicare medical benefits figures (again excluding dental and optometrical services) are now used. In 1986–87 the difference between the two figures was \$23.2m. These figures have been changed according to the above convention back to 1982–83.

4.5 ACT Community and Health Service expenditure on mental health services

This had been wrongly placed under 'public psychiatric hospitals'. In fact there are no public psychiatric hospitals in the ACT. The ACT mental health program is community based, so this expenditure is now classified under 'community health'.

4.6 State and Local Government expenditure on community health services

In previous AIH information bulletins a sizeable portion of the ABS category GPC 0521 (community health — clinic) was classified in 'recognised public hospitals' because in the past many community health centres were funded out of hospital budgets. This was done to maintain continuity in the community health expenditure series.

It is no longer possible to continue this adjustment, so there is now a break in the series from 1982–83 for expenditure on community health services. 1981–82 expenditure on community health services is listed in the Australian Institute of Health's (1988) *Australian health expenditure 1970–71 to 1984–85*, AGPS, Canberra, as \$260m. The figure for 1982–83 in that publication was \$297m but in this bulletin is \$359m. This revision does not mean that expenditure on community health services increased by 38 per cent from \$260m to \$359m in 1982–83.

4.7 Health insurance funds expenditure on reinsurance

The 1985–86 figures published in Information Bulletin No.3 wrongly included reinsurance payments in the 'individuals' column of the 'private hospital' row and in the 'State and Local Government' column of the 'recognised hospital' row. These payments are now correctly included in the 'health insurance fund' column. The correction of this error did not change the estimates of total public or private hospital expenditure.

4.8 Health insurance funds expenditure on optical services

Previously, this item was classified under 'other professional'. It is now classified under 'aids and appliances' as it is mostly expenditure on spectacles.

4.9 Health insurance funds expenditure on ambulance services

The levy collected by health insurance funds on behalf of the NSW Ambulance Board was previously included in the 'individuals' column. For data from 1983–84 on it has been included in the 'health insurance fund' column.

4.10 Total private expenditure on ambulance services

Previously, this estimate was made using figures on the private final consumption expenditure on ambulances including Government transfers. Examples of transfer payments for ambulance services are government grants to the Royal Flying Doctor Services and to non-profit organisations like the St John Ambulance Association in Western Australia. Because the transfers are funded by the Commonwealth Government and the figures are already counted under the expenditure by the Commonwealth Government, the total private expenditure on ambulances has been corrected to be net of transfer. The correction of this double-count has reduced the estimate of total ambulance expenditure. For example, the figure for expenditure on ambulance services published in Information Bulletin No. 3 for 1984–85 was \$271m. In this bulletin it is \$256m.

4.11 Health price deflators

More information on government final consumption expenditure deflators is now available. This enables an estimation of real health expenditure using more specific deflators for the different types of expenditure whereas before IPD1 was used for many types of expenditure. The newly available deflators are 'State and Local Government hospitals and clinical', 'other health and welfare', and 'total health and welfare'. The 'State and Local Government hospitals and clinical' IPD is used for hospitals and all other institutions. The 'other health and welfare' IPD is used for Commonwealth sourced community health services expenditure, other non-institutional, health promotion and illness prevention, administration, and research while the 'total health and welfare' IPD is used for State Government and private sourced expenditure for the aforementioned categories.

Abbreviations and symbols used in tables

- na not available
- nec not elsewhere classified
- nil or rounded down to zero
- .. not applicable
- Note: Figures in the tables in this bulletin may not add due to rounding.

Further copies of this bulletin can be obtained by writing to the Australian Institute of Health, GPO Box 570, CANBERRAACT 2601, or by telephoning John Goss on (062) 435028 or Maneerat Pinyopusarerk on (062) 435079.

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