HEALTH AND WELFARE EXPENDITURE SERIES
Number 34

Public health expenditure in Australia, 2006–07

September 2008

Australian Institute of Health and Welfare
Canberra
Cat. no. HWE 41

This publication is part of the Australian Institute of Health and Welfare's Health and Welfare Expenditure Series. A complete list of the Institute's publications is available from the Institute's website <www.aihw.gov.au>.

ISSN 1323-5850

ISBN 978 1 74024 804 4

Suggested citation

Australian Institute of Health and Welfare 2008. Public health expenditure in Australia, 2006–07. Health and welfare expenditure series no. 34. Cat. no. HWE 41.Canberra: AIHW.

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Published by the Australian Institute of Health and Welfare

Please note that as with all statistical reports there is the potential for minor revisions of data in this report over its life. Please refer to the online version at <www.aihw.gov.au>.

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Acknowledgments and authorship

The collection and analysis of the data and the writing of this publication was primarily done by Brett Rogers. John Goss, Gail Brien, Rebecca Bennetts, Richard Webb and Alannah Smith contributed to the analysis of data and production tasks.

Thanks are extended to the Australian, state and territory governments and members of the Technical Advisory Group (TAG) for the National Public Health Expenditure Project. Members of the TAG have worked with the project team in providing these annual public health estimates and the supporting information on public health programs in their jurisdictions. Members of the TAG and additional contributors to this report are listed below.

In addition, thanks are extended to the individual jurisdictions for compiling the public health expenditure estimates and to the Australian Government Department of Health and Ageing for funding the National Public Health Expenditure Project.

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Abbreviations and symbols

ABS	Australian Bureau of Statistics
AIHW	Australian Institute of Health and Welfare
CDC	Communicable disease control
DoHA	Department of Health and Ageing
EH	Environmental health
FSH	Food standards and hygiene
LGA	Local government authority
NPHP	National Public Health Partnership
OI	Organised immunisation
PHHDU	Prevention of hazardous and harmful drug use
PHOFA	Public Health Outcome Funding Agreement
PHR	Public health research
SHP	Selected health promotion
SP	Screening programs
SPP	Specific Purpose Payment
n.a.	not available
. .	not applicable
–	nil or rounded down to zero

Summary

Total expenditure on reported public health activities by Australian health departments in 2006–07 was $1,715 million or $82 per person. This was an increase of $248 million on what was spent in 2005–06 which, after adjusting for inflation, represented a real increase of 12.5%.

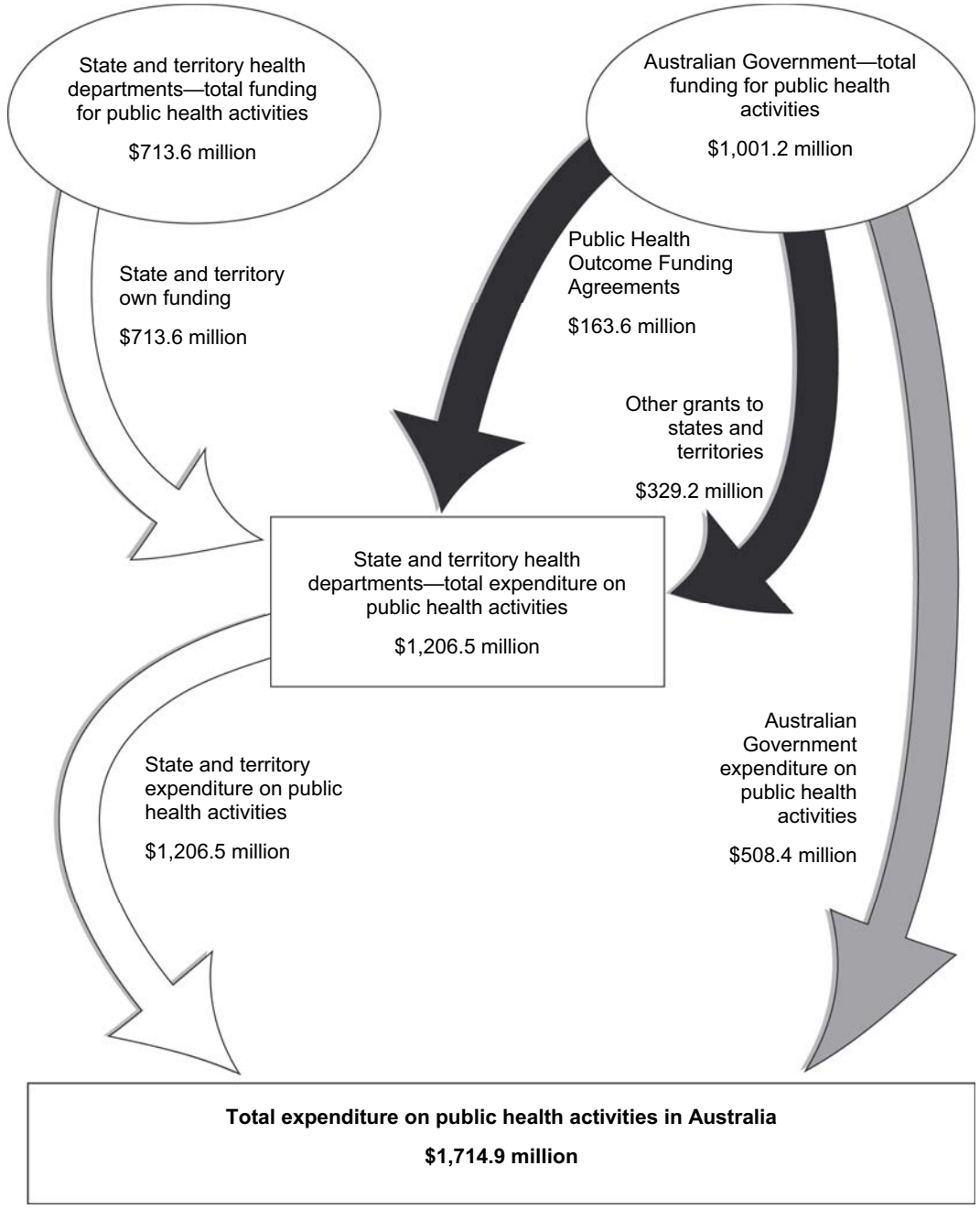
The increase in funding for public health activities between 2005–06 and 2006–07 was mainly attributable to expenditure on *Organised immunisation* programs, which was up $115 million, or 35.9%, compared with the previous financial year (AIHW 2008). The increase in expenditure was, among other things, the result of the introduction of the Human papillomavirus (HPV) vaccination program, which began in April 2007.

Real growth in expenditure on public health activities over the period 1999–00 to 2006–07 was estimated at 46.2%, or an average real increase of 5.6% per year.

The Australian Government provided $1,001 million, or 58.4%, of the funding for public health activities in 2006–07. Of this, $508 million was directly spent on its own programs and $493 million was provided to state and territory governments through grants to fund public health activities. State and territory health departments incurred the bulk of the expenditure on public health activities, estimated at $1,207 million, or 70.4% of the total expenditure. The $1,207 million comprised $714 million funded from their own resources, and $493 million provided to them from the Australian Government (Figure 1).

The public health activities recording the highest expenditure in 2006–07 were *Organised immunisation* ($436 million, or 25.4%, of the total), *Selected health promotion* programs which address health risk factors ($284 million, or 16.5%) and *Screening programs* ($262 million, or 15.3%).

In the 7 years from 1999–00 to 2005–06, the public health proportion of total recurrent health expenditure remained virtually constant at around 1.8% to 1.9% (AIHW 2008). Final estimates of total recurrent health expenditure for 2006–07 are not yet available. However, it is expected that the public health proportion of this expenditure in 2006–07 will remain at around 1.9%.



Source: Table 2.1.

Figure 1: Government funding for public health activities, Australia, 2006–07

1 Introduction

Background

This publication reports estimates of recurrent expenditure (simply referred to as 'expenditure' throughout the report) on public health activities in Australia that were funded by the Australian Government and state and territory health departments during 2006–07. *Public health expenditure in Australia, 2006–07* continues the Australian Institute of Health and Welfare's (AIHW) series of reports on national public health expenditure, which have been produced annually since 1999–00.

Detailed time series data are available in online data cubes at http://www.aihw.gov.au/expenditure/datacubes/index.cfm

The public health expenditure estimates reported here relate only to those incurred or funded by the key health departments and agencies in the various jurisdictions. They do not include funding of public health activities by non-health government departments (such as education, veterans' affairs, law enforcement, transport and environment), non-government organisations or households. With the exception of cervical screening and immunisation, expenditure on preventative services delivered in a clinical setting by GPs is also excluded. Although these sources make important contributions to public health in Australia, they are outside the scope of this particular study.

What is public health?

Government-funded public health activity is an important part of the Australian health care system. Public health activities can be viewed as a form of investment in the overall health status of the nation.

The definition of public health used in this report is the one used by the former National Public Health Partnership (NPHP) which describes public health as the organised response by society to protect and promote health, and to prevent illness, injury and disability. The starting point for identifying public health issues, problems and priorities, and for designing and implementing interventions, is the population as a whole, or population subgroups (NPHP, 1998).

Public health is distinguished from other roles of the health system by its focus on the health and wellbeing of populations rather than individuals. Public health programs are usually aimed at addressing the factors that determine health and the causes of illness, rather than their consequences, with the aim of protecting or promoting health, or preventing illness.

In this report, expenditure on public health activities is reported against the following eight core activity categories:

- *Communicable disease control (referred to as CDC in Table 4.1)*
- *Selected health promotion (SHP)*
- *Organised immunisation (OI)*
- *Environmental health (EH)*

- *Food standards and hygiene (FSH)*
- *Screening programs (SP)*
- *Prevention of hazardous and harmful drug use (PHHDU)*
- *Public health research (PHR).*

Definitions for each of the core categories are provided in the Appendix.

Public health funding and expenditure

This report looks at what is spent on public health activities from two perspectives—funding and expenditure. These concepts, while related, are quite distinct and must be borne in mind when discussing particular aspects of public health spending (see Box 1.1).

The Australian Government spends money directly on its own public health activities, as well as providing funding to state and territory governments through Specific Purpose Payments (SPPs). States and territories in turn spend the money on public health activities in their jurisdiction. Consequently, the estimates of funding by the Australian Government are higher than its expenditure estimates. On the other hand, the estimates of net funding by individual states and territories, which have been derived by deducting their estimated receipts of public health SPPs from their reported total expenditure, are lower than the expenditures directly incurred.

Box 1.1: Defining health funding and expenditure

Health funding

Health funding is reported in terms of who provides the funds that are used to pay for health expenditure. In the case of public health, although states and territories incur around 70% of the total expenditure through programs for which they are responsible, they provide less than half of all funding from their own resources.

The Australian Government, on the other hand, as well as funding all expenditures incurred through its own programs, provides Specific Purpose Payments to states and territories—most notably through the Public Health Outcome Funding Agreements and the Australian Immunisation Agreements—that fund public health activities in each state and territory.

Health expenditure

Health expenditure is reported in terms of who incurs the expenditure, rather than who ultimately provides the funding for that expenditure. In the case of many vaccination programs for example, the related expenditures are all incurred by the states and territories, even though a considerable proportion of those expenditures are funded by the Australian Government through funding agreements with each jurisdiction.

Indirect expenditure

As well as the amounts that each jurisdiction estimated were spent directly on public health activities, the estimates include allocations of corporate overheads and other 'on-costs' incurred in providing and supporting those activities. These include human resources management, legal and industrial relations activities, staff development and finance

expenses, development and maintenance of information systems, disease surveillance and epidemiology, and a range of other corporate activities.

Current prices and constant prices

The tables and figures in this report detail expenditure in terms of current and constant prices. The term 'current prices' refers to expenditure reported for a particular year, unadjusted for inflation. Constant price expenditure on the other hand, adjusts for the effects of inflation by using an annually re-weighted chain price index produced by the Australian Bureau of Statistics (ABS) (see *Deflators* in the Appendix). Because the reference year for the chain price index is 2005–06, the constant price estimates indicate what expenditure would have been had 2005–06 prices applied in all years.

2 Government funding of public health activities

Total funding of public health activities during 2006–07 was estimated, in current price terms, at $1,714.9 million. This was an increase of $248.2 million over the previous year (Table 2.1).

The Australian Government contributed an estimated $1,001.2 million (58.4%) of the total funding in 2006–07, compared with $796.7 million or 54.3% in 2005–06. This increase of $204.5 million was largely due to an increase in funding for *Organised immunisation* (up $112.1 million from $256.0 million in 2005–06 to $368.1 million in 2006–07) (calculated from the AIHW health expenditure database). Of the total funding by the Australian Government in 2006–07, $508.4 million was directly spent on its own public health programs (Table 2.1).

Funding by states and territories from their own sources was estimated at $713.6 million in 2006–07, compared with $670.0 million in the previous financial year. Of this, almost half was provided by New South Wales and Victoria (Table 2.2).

Table 2.1: Total government funding of expenditure on public health activities, current prices, by source of funds, 2005–06 and 2006–07

	2005–06		2006–07	
Source of funds	**Amount ($ million)**	**Share of total (%)**	**Amount ($ million)**	**Share of total (%)**
Funding by the Australian Government				
Direct expenditure	439.1	29.9	508.4	29.6
SPPs to states and territories	357.5	24.4	492.8	28.7
Australian Government funding	*796.7*	*54.3*	*1,001.2*	*58.4*
Funding by state and territory governments				
Gross expenditure	1,027.5	70.1	1,206.5	70.4
SPPs from the Australian Government	357.5	24.4	492.8	28.7
Net funding by the states and territories	*670.0*	*45.7*	*713.6*	*41.6*
Total funding/expenditure	**1,466.7**	**100.0**	**1,714.9**	**100.0**

Source: AIHW health expenditure database.

Table 2.2: Net funding for public health activities by states and territories, current prices, and shares of the total funding by states and territories, 2005–06 and 2006–07

	2005–06		2006–07	
State/territory	Amount ($ million)	Share of total (%)	Amount ($ million)	Share of total (%)
New South Wales	170.7	25.5	170.1	23.8
Victoria	155.3	23.2	177.8	24.9
Queensland	120.6	18.0	129.6	18.2
Western Australia	81.2	12.1	80.8	11.3
South Australia	55.9	8.3	64.1	9.0
Tasmania	17.6	2.6	19.8	2.8
Australian Capital Territory	20.3	3.0	20.3	2.8
Northern Territory	48.3	7.2	51.2	7.2
Total	**670.0**	**100.0**	**713.6**	**100.0**

Source: AIHW health expenditure database.

SPPs to state and territory governments

Total public health funding to state and territory governments through SPPs in 2006–07 was estimated at $492.8 million, compared with $357.5 million in 2005–06 (Table 2.1).

Of 2006–07 funding, $248.8 million (50.5%) was for the purchase of essential vaccines listed on the National Immunisation Program Schedule. A further $163.6 million (33.2%) was for the funding of health programs through the Public Health Outcome Funding Agreements (PHOFAs) (Table 2.3; Box 2.1).

Table 2.3: SPPs for public health, current prices, by state and territory, 2006–07 ($ million)

Category	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
PHOFA funding	51.8	39.6	31.8	14.7	12.5	5.8	3.5	4.0	**163.6**
Communicable disease control	3.9	0.6	4.9	1.3	1.0	0.5	0.4	0.7	**13.2**
Selected health promotion	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1	**0.1**
Food standards and hygiene	0.2	0.1	0.1	0.1	0.2	0.1	0.1	0.1	**0.8**
Organised immunisation	87.6	45.4	51.5	26.2	22.6	6.6	4.9	4.1	**248.8**
Prevention of hazardous and harmful drug use	21.5	15.6	11.7	6.7	4.6	2.7	1.7	1.8	**66.3**
Total payments	**164.9**	**101.2**	**100.0**	**49.0**	**40.8**	**15.7**	**10.4**	**10.8**	**492.8**

Source: AIHW health expenditure database.

Box 2.1: Public Health Outcome Funding Agreements (PHOFAs)

The PHOFAs are funding agreements between the Australian Government and each state and territory government. The PHOFAs discussed in this report cover the period 1 July 2004 to 30 June 2009. The agreements provide funding to achieve outcomes in the following broad areas of public health:

- *communicable diseases*
- *cancer screening*
- *health risk factors – in particular alcohol and tobacco use, women's health, and sexual and reproductive health.*

The Australian Government has committed a total of $812 million over the period 2004–05 to 2008–09 under the PHOFAs.

Funding through the agreements is broadbanded, giving states and territories the flexibility to manage local needs and priorities within the total pool of funds allocated to them (DoHA 2006). As a result however, it is not possible to disaggregate total PHOFA funding to individual core public health activities.

3 Government expenditure on public health activities

Of the total $1,714.9 million spent on public health activities in 2006–07, $1,206.5 million (70.4%) was incurred by the state and territory governments. The balance of $508.4 million (29.6%) related to programs and activities for which the Australian Government was directly responsible (Table 3.1).

Organised immunisation accounted for $436.0 million or 25.4% of estimated expenditure on all public health activities by all jurisdictions during 2006–07 and reflected the largest single area of public health expenditure. Other major activities, in terms of their share of total expenditure, were:

- *Selected health promotion*—$283.8 million (16.5% of total expenditure on public health activities)
- *Screening programs*—$261.9 million (15.3% of total expenditure on public health activities) (Table 3.1; Figure 3.1).

Table 3.1: Total government expenditure on public health activities, current prices, by activity, 2006–07 ($ million)

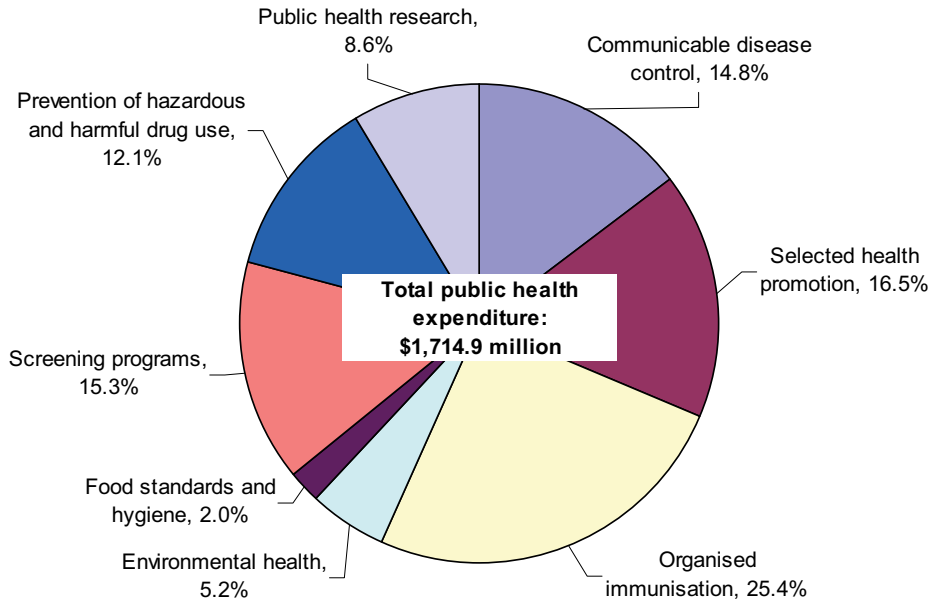
Activity	Australian Government	States and territories	Total
Communicable disease control	40.7	213.5	**254.2**
Selected health promotion	47.5	236.3	**283.8**
Organised immunisation	119.3	316.8	**436.0**
Environmental health	18.8	70.7	**89.5**
Food standards and hygiene	16.6	17.9	**34.5**
Screening programs	93.6	168.3	**261.9**
Prevention of hazardous and harmful drug use	46.8	160.5	**207.3**
Public health research	125.2	22.5	**147.7**
Total expenditure	**508.4**	**1,206.5**	**1,714.9**

Source: AIHW health expenditure database.

Table 3.2: Total expenditure on public health activities by state and territory governments, current prices, by activity, 2006–07 ($ million)

Activity	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Communicable disease control	70.0	39.9	34.4	25.1	18.7	5.0	6.4	13.9	**213.5**
Selected health promotion	47.2	87.5	38.3	25.0	15.7	5.6	6.3	10.5	**236.3**
Organised immunisation	110.0	58.9	61.3	29.4	26.8	8.4	6.1	16.0	**316.8**
Environmental health	15.5	9.0	17.1	10.3	6.2	3.8	3.1	5.7	**70.7**
Food standards and hygiene	5.2	2.6	2.1	2.2	2.2	0.3	2.5	0.8	**17.9**
Screening programs	52.6	43.9	35.5	10.5	12.6	5.2	2.9	5.2	**168.3**
Prevention of hazardous and harmful drug use	31.3	28.0	39.9	23.3	19.5	6.8	3.2	8.5	**160.5**
Public health research	3.1	9.1	0.9	3.9	3.3	0.3	0.2	1.6	**22.5**
Total expenditure	**334.9**	**279.0**	**229.6**	**129.8**	**104.9**	**35.5**	**30.7**	**62.0**	**1,206.5**

Source: AIHW health expenditure database.



Source: Table 3.1.

Figure 3.1: Proportion of total government expenditure on public health activities, by activity, 2006–07

Public health expenditure per person

As the Australian population grows, it could be anticipated that public health expenditure must also increase in order to maintain the average level of public health services provided to each person in the community. Examining public health expenditure on a per person basis removes the influence of change in population from the analysis and allows comparative assessments to be made across different-sized populations.

During 2006–07, estimated government public health expenditure per person was $82.22, which was $10.85 more per person than the previous year. Real growth in per person expenditure between 1999–00 and 2006–07 varied between –3.8% and 10.9%, averaged 4.2% per year, and was 10.9% between 2005–06 and 2006–07 (Table 3.3). Variation in growth rates reflects, among other things, the typical trend in expenditure on *Organised immunisation* in years following the introduction of new vaccines.

Table 3.3: Average public health expenditure per person[(a)], current and constant[(b)] prices, and annual growth rates, 1999–00 to 2006–07

	Amount ($)		Growth rate over previous year (%)	
Year	Current	Constant	Current	Constant
1999–00	48.03	59.22		
2000–01	52.56	62.85	9.4	6.1
2001–02	55.85	64.69	6.3	2.9
2002–03	60.75	68.01	8.8	5.1
2003–04	63.09	68.21	3.9	0.3
2004–05	71.09	74.21	12.7	8.8
2005–06	71.37	71.37	0.4	–3.8
2006–07	82.22	79.14	15.2	10.9
Average annual growth rate				
1999–00 to 2006–07			**8.0**	**4.2**

(a) Based on annual mean resident population for year ended 30 June.

(b) Constant price public health expenditure for 1999–00 to 2006–07 is expressed in terms of 2005–06 prices.

Source: AIHW health expenditure database.

Average public health expenditure per person in each state and territory

In order to estimate total government public health expenditure occurring within each state and territory, direct expenditure by the Australian Government has been apportioned across each state and territory (see *Method for allocating direct expenditure by the Australian Government to states and territories* in the Appendix). This means that the following estimates do not just relate to how much each state and territory government spent on public health services for its population—the estimates also include expenditure by the Australian Government that is estimated to have benefited residents of that state or territory.

In 2006–07, the highest average expenditure per person occurred in the Northern Territory and the Australian Capital Territory. Average expenditure on public health activities

occurring within these jurisdictions was estimated at $316.32 and $115.02 per person respectively, compared with the national average of $82.22 per person (Table 3.4). In the case of the Australian Capital Territory, while the expenditures are averaged across the Territory's population, some of the activities covered by those expenditures are used by the population in the surrounding regions of New South Wales.

At the other end of the scale, the lowest average expenditure per person occurred in New South Wales and Queensland ($71.78 and $79.77 per person, respectively) (Table 3.4).

While these results indicate that there are some economies of scale in providing public health services to larger populations, it is also true that average expenditure per person is influenced by other non-public health factors such as location, population demographics, and services undertaken by other agencies or local governments within a jurisdiction (see *Technical Notes* in Appendix).

This last point partly explains why expenditure in states such as Victoria, where local governments play a large role in the provision of public health services (Table A2), is lower than may be expected based purely on population share. For example, nearly half of all childhood vaccinations in Victoria are administered through local government councils, so these services are not funded by the Victorian Government (AIHW 2006). The opposite will be true in the Australian Capital Territory however—as there are no local governments and all functions typically carried out by councils in other jurisdictions are the responsibility of the Territory Government.

In the case of the Northern Territory, expenditure on public health activities is likely to be higher than the national average as a result of the relative isolation of the population, and the higher proportion of Indigenous people in the population who have a much poorer average health status. It is important to consider these qualifications (and those outlined in the Appendix) when comparing estimates across jurisdictions.

Table 3.4: Estimated total government expenditure[(a)(b)] per person[(c)] on public health activities in each state and territory, current prices, 2006–07 ($)

Activity	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Average
Communicable disease control	12.17	9.67	10.28	14.02	13.81	12.19	21.05	67.10	12.19
Selected health promotion	9.17	19.22	11.55	14.30	12.23	13.71	21.12	51.47	13.61
Organised immunisation	19.97	20.92	19.89	19.08	21.53	20.47	22.77	81.76	20.90
Environmental health	3.16	2.65	5.04	5.87	4.83	8.72	9.97	27.58	4.29
Food standards and hygiene	1.55	1.30	1.31	1.85	2.17	1.44	8.28	4.58	1.65
Screening programs	12.50	11.64	13.57	10.02	13.05	16.16	13.48	28.38	12.56
Prevention of hazardous and harmful drug use	6.81	7.66	11.90	13.43	14.63	16.11	11.63	42.03	9.94
Public health research	6.46	7.77	6.22	7.89	8.09	6.64	6.73	13.42	7.08
Total	**71.78**	**80.84**	**79.77**	**86.45**	**90.33**	**95.44**	**115.02**	**316.32**	**82.22**

(a) Includes expenditures incurred by state and territory governments that are wholly or partly funded by the Australian Government through SPPs to states and territories.

(b) Includes estimates of direct expenditure incurred by the Australian Government on its own public health programs which have been apportioned across states and territories (see Appendix).

(c) Based on the annual mean resident population for the jurisdiction concerned.

Note: Estimates and comparisons across states and territories need to be interpreted with care. For further information see *Jurisdictions' technical notes* in the Appendix.

Source: AIHW health expenditure database.

Public health expenditure as a proportion of total recurrent health expenditure

In the 7 years from 1999–00 to 2005–06, the public health share of total recurrent health expenditure has remained virtually constant at around 1.8% to 1.9% (AIHW 2008).

At the time of preparing this report, an estimate of total recurrent health expenditure (i.e. excluding capital expenditure) on health goods and services from all sources, has not yet been estimated or published. As a result, it is not possible to accurately calculate expenditure on public health activities as a proportion of total health expenditure in Australia.

If it is assumed that total recurrent health expenditure in 2006–07 grew in line with average annual growth over the previous 7 years, then public health expenditure will again represent 1.9% of the total. While this number cannot be calculated with certainty, it will remain at around that level for all realistic projections of total recurrent health expenditure. An update to this estimate will be published when total recurrent health expenditure estimates are made available in *Health expenditure Australia 2006–07* later this year.

4 Growth in expenditure on public health activities

Between 1999–00 and 2006–07, estimated expenditure in constant price terms grew at an average rate of 5.6% per year. All activities showed real increases in expenditure over the 8 years, with the highest average annual growth rates being recorded for expenditure on *Organised immunisation* (12.3%) and *Public health research* (8.2%) (Table 4.1).

Similarly, the activities recording the highest real growth between 2005–06 and 2006–07 were also *Organised immunisation* (30.8%) and *Public health research* (14.8%) (Table 4.1).

Table 4.1: Total government expenditure on public health activities, constant prices[(a)], by activity, 1999–00 to 2006–07 ($ million)

Year	CDC	SHP	OI	EH	FSH	SP	PHHDU	PHR	PHOFA admin[(b)]	Total
1999–00	186.9	206.8	186.0	71.1	30.8	219.9	145.3	82.0	0.3	**1,129.0**
2000–01	195.6	224.8	202.1	77.8	41.9	220.2	170.4	79.0	0.3	**1,212.1**
2001–02	215.2	254.5	205.1	83.7	38.1	217.7	160.2	89.6	0.3	**1,264.4**
2002–03	224.2	239.2	286.1	82.8	37.9	204.7	171.8	99.0	0.3	**1,346.0**
2003–04	220.5	233.0	289.8	86.3	38.3	213.6	181.5	102.0	0.3	**1,365.3**
2004–05	241.9	241.2	352.8	87.0	34.2	231.6	202.5	111.0	0.3	**1,502.5**
2005–06	247.6	250.9	320.8	85.2	34.3	227.6	176.2	123.8	0.3	**1,466.7**
2006–07	244.7	273.2	419.7	86.2	33.2	252.0	199.5	142.2	—	**1,650.6**
Growth rate (%)										
2005–06 to 2006–07	–1.2	8.9	30.8	1.2	–3.1	10.7	13.2	14.8	—	**12.5**
Average annual growth rate (%)										
1999–00 to 2006–07	3.9	4.1	12.3	2.8	1.1	2.0	4.6	8.2	—	**5.6**

(a) Constant price public health expenditure for 1999–00 to 2006–07 is expressed in terms of 2005–06 prices.

(b) In previous reports, direct expenditure incurred by the Australian Government in administering the PHOFAs was reported separately as it could not be specifically allocated to any of the core public health activity categories. For 2006–07 this expenditure has been treated as corporate overhead expenditure and apportioned across all categories.

Source: AIHW health expenditure database.

At a jurisdictional level, the highest average annual real growth in estimated expenditure over the period 1999–00 to 2006–07 was recorded by Queensland (8.7%) followed by the Australian Government (6.1%), Victoria (5.3%) and Western Australia (5.2%). Other jurisdictions had average real growth rates ranging from 0.6% in the Australian Capital Territory to 4.9% in Tasmania (Table 4.2).

The highest real growth between 2005–06 and 2006–07 was recorded by South Australia (21.5%), Queensland (20.3%) and Tasmania (17.7%) (Table 4.2). The majority of the growth recorded by South Australia and Queensland can be attributed to new immunisation programs, with expenditure on this activity increasing 112% and 86% respectively (calculated from the AIHW health expenditure database).

Table 4.2: Total government expenditure on public health activities, constant prices[(a)], by jurisdiction, 1999–00 to 2006–07 ($ million)

Year	Aust Govt	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
1999–00	323.1	233.8	187.7	122.7	87.7	72.8	24.5	28.3	48.3	**1,129.0**
2000–01	350.7	239.0	225.2	130.9	92.4	76.9	26.0	26.5	44.5	**1,212.1**
2001–02	362.7	254.2	229.2	142.8	99.1	78.7	27.5	26.3	44.0	**1,264.4**
2002–03	358.6	261.2	263.5	162.2	108.5	91.8	31.2	27.5	41.4	**1,346.0**
2003–04	374.3	281.9	245.5	164.0	109.5	85.6	29.2	27.5	47.8	**1,365.3**
2004–05	491.8	292.2	237.6	172.8	108.5	85.6	27.4	29.5	57.1	**1,502.5**
2005–06	439.1	289.1	242.7	183.5	116.8	83.2	29.0	28.0	55.1	**1,466.7**
2006–07	489.4	322.2	268.6	220.7	125.2	101.1	34.2	29.5	59.7	**1,650.6**
Growth rate (%)										
2005–06 to 2006–07	11.4	11.5	10.6	20.3	7.2	21.5	17.7	5.5	8.3	**12.5**
Average annual growth rate (%)										
1999–00 to 2006–07	6.1	4.7	5.3	8.7	5.2	4.8	4.9	0.6	3.1	**5.6**

(a) Constant price public health expenditure for 1999–00 to 2006–07 is expressed in terms of 2005–06 prices.

Source: AIHW health expenditure database.

Appendix: technical notes

Definition of public health activities

Table A1: Definition of core public health activities used to compile *Public health expenditure in Australia, 2006–07*

Public health activity category	Definition
Communicable disease control	This category includes all activities associated with the development and implementation of programs to prevent the spread of communicable diseases. Expenditure on *Communicable disease control* is recorded using three subcategories: • HIV/AIDS, hepatitis C and sexually transmitted infections • Needle and syringe programs • Other communicable disease control. The public health component of the HIV/AIDS, hepatitis C and sexually transmitted infections strategies includes all activities associated with the development and implementation of prevention and education programs to prevent the spread of HIV/AIDS, hepatitis C and sexually transmitted infections.
Selected health promotion	This category includes activities that are delivered on a population-wide basis that foster healthy lifestyle and a healthy social environment, and health promotion activities that address health risk factors such as sun exposure, poor nutrition and physical inactivity. The underlying criterion for the inclusion of health promotion programs within this category is that they are population health programs promoting health and wellbeing. The following health promotion programs delineate the boundaries for *Selected health promotion*: • healthy settings (such as municipal health planning) • encouraging healthy weight through nutrition and physical activity • personal hygiene • mental health awareness • sun exposure and protection • injury prevention (including suicide prevention and prevention of female genital mutilation) • organised population health screening of heart disease risk factors.
Organised immunisation	This category includes immunisation clinics, school immunisation programs, immunisation education, public awareness, immunisation databases and information systems. Expenditure on *Organised immunisation* is reported for each of the following three subcategories: • Organised childhood immunisation as defined under the Australian Government's National Immunisation Program (see www.immunise.health.gov.au/internet/immunise/publishing.nsf/content/nips) • Organised pneumococcal and influenza immunisation • All other organised immunisation programs (excluding ad hoc or opportunistic immunisation).

(continued)

Table A1 (continued): Definition of core public health activities used to compile *Public health expenditure in Australia, 2006–07*

Public health activity category	Definition
Environmental health	This category relates to health protection education (for example safe chemical storage and water pollutants), expert advice on specific issues, development of standards, risk management and public health aspects of environmental health protection. The costs of monitoring and regulating are to be included where costs are borne by a regulatory agency and principally have a public health focus (for example, radiation safety, and pharmaceutical regulation and safety).
Food standards and hygiene	This category includes all activities relating to the development, review and implementation of food standards, regulations and legislation, as well as the testing of food by regulatory agencies.
Screening programs	This category includes all related activities for three types of screening programs: • Breast cancer screening through organised programs such as BreastScreen Australia • Cervical screening through organised programs such as the state cervical screening programs • Organised bowel cancer screening programs. For each subcategory, the costs associated with counselling, treatment or referral services for diagnosed patients is excluded.
Prevention of hazardous and harmful drug use	This category includes activities targeted at the general population to reduce and prevent the overuse or abuse of alcohol, tobacco, illicit and other drugs of dependence. Expenditure is reported for each of the following subcategories: • Alcohol • Tobacco • Illicit and other drugs of dependence • Mixed.
Public health research	The definition of research and development (R and D) is as follows (ABS 2008): 'R and D' is defined according to the OECD standard as comprising creative work undertaken on a systematic basis in order to increase the stock of knowledge, including knowledge of man, culture and society, and the use of this stock of knowledge to devise new applications. An 'R and D' activity is characterised by originality. It has investigation as a primary objective, the outcome of which is new knowledge, with or without a specific application, or new or improved materials, product, devices, processes or services. 'R and D' ends when work is no longer primarily investigative. Thus the basic criterion for distinguishing 'R and D' from other public health activities is the presence of an appreciable element of novelty and resolution of scientific and/or technical uncertainty. Expenditure on general 'R and D' work relating to the running of ongoing public health programs is included under the other relevant public health activities.

Jurisdictions' technical notes

Care must be exercised when comparing estimates of expenditure on public health across jurisdictions because different jurisdictions often need to direct more effort and resources to particular activities to meet needs that are of primary concern to their populations. These are sometimes determined by factors outside their control, such as their geographic location in relation to known or perceived risks to public health.

In addition, the relevance and levels of expenditure on public health activities by individual states and territories are also influenced by 'non-public health' factors, such as:

- location and population demographics (that is, age–sex structure and geographic distribution)
- relative economies of scale in the delivery of particular activities
- the need to cater for some populations in other states and territories
- the roles assigned to other agencies, such as local government authorities (LGAs), within jurisdictions.

Furthermore, while every effort has been taken to minimise differences in the methods used to estimate expenditure, there remain some methodological differences that render comparisons across jurisdictions a little problematic. These include:

- some differences arising from the different data collection processes across jurisdictions
- differences in the treatment of some overheads in the health expenditure estimates.

These differences, however, would not seem capable of exerting any large degree of influence on the relative levels of expenditure by the different jurisdictions.

Role of LGAs within each jurisdiction

As stated elsewhere in this report, funding for public health activities provided by local governments is outside the scope of this project. However, the type and number of public health services funded by local governments within each jurisdiction will affect the need for similar services to be funded by higher levels of government.

For example, councils provide near half of all preschool childhood immunisations in Victoria—resulting in savings to the Victorian Government (AIHW 2006).

While local government involvement in public health activities varies greatly between states and territories (Table A2), it is possible to recognise some functions that are common to the majority of local governments in Australia. These include waste and sanitation management, food safety, water quality control, prevention of *Legionella* disease and vector-borne disease control (NPHP 2002).

Table A2: Level of local government involvement[(a)] in provision of public health activities, by jurisdiction[(b)]

	NSW	Vic	Qld	WA	SA	Tas	NT
Communicable disease control	1	1	2	1	1	2	1
Selected health promotion	2	1	1	1	2	2	1
Organised immunisation	2	3	3	2	3	2	2
Environmental health	3	3	3	3	3	3	3
Food standards and hygiene	3	3	2	2	2	3	2
Screening programs	1	1	1	1	1	1	1
Prevention of hazardous and harmful drug use	2	3	2	1	1	1	1
Public health research	1	1	1	1	1	1	1
Other activities related to public health	3	3	3	3	3	3	3

(a) The level of local government involvement is denoted by a number where '1' represents little or no involvement, '2' represents minor involvement, and '3' represents major involvement.

(b) The Australian Capital Territory is a self-governing territory without local government. Traditional local government services are provided by the Territory government.

Sources: NPHP 2002, LGSA 2005, Municipal Association of Victoria 2007, Queensland Government Department of Local Government, Planning, Sport and Recreation 2007, Western Australian Local Government Association 2007, Local Government Association of South Australia 2008, Local Government Association of Tasmania 2007, Local Government Association of the Northern Territory 2008.

Method for allocating direct expenditure by the Australian Government to states and territories

In order to estimate the overall levels of public health expenditure in each state and territory, it is necessary to allocate the Australian Government funding in supporting public health programs on a state and territory basis. The Australian Government funds expenditure on public health activities through:

- the provision of SPPs to states and territories
- its own direct expenditure in supporting public health programs.

The Australian Government's SPPs can readily be allocated on a state and territory basis. Because its direct expenditures are generally not available on this basis, other indicators need to be used to allocate these expenditures.

Except for the purchases of essential vaccines by the Australian Government on behalf of the state and territory governments, direct expenditure by the Australian Government has been apportioned across state and territories using population measures that directly relate to the recipients or the people that are direct beneficiaries of the expenditure. For example, direct expenditure on breast cancer screening has been split according to the relative share of specific target populations in each state and territory—in this case women aged 50–69 years. Alternatively, where the specific populations are not readily identifiable, then the total populations for each state and territory have been used (Table A3).

Table A3: Population groups used in apportioning direct expenditure by the Australia Government across state and territories

Public health activity categories	Population groups
Communicable disease control	
HIV/AIDS, hepatitis C and STIs	Total state/territory population numbers
Needle and syringe programs	Total state/territory population numbers
Other communicable disease control	Total state/territory population numbers
Selected health promotion	Total state/territory population numbers
Organised immunisation	
Organised childhood immunisation	
General practice immunisation incentives	Children aged 0–9 years by state/territory
Other	Children and adolescents aged 0–19 years by state/territory
Organised pneumococcal and influenza immunisation	Adult population aged 65 and over by state/territory
All other organised immunisation	Total state/territory population numbers
Environmental health	Total state/territory population numbers
Foods standards and hygiene	Total state/territory population numbers
Screening programs	
Breast cancer screening	Females aged 50–69 years by state/territory
Cervical screening	
Medicare benefit payments	Recipients by state of location
Other expenditure	Females aged 20–69 years by state/territory
Bowel cancer screening	Adult population aged 55–64 years by state/territory
Prevention of hazardous and harmful drug use	
Alcohol	Total state/territory population numbers
Tobacco	Total state/territory population numbers
Illicit and other drugs of dependence	Total state/territory population numbers
Mixed	Total state/territory population numbers
Public health research	Total state/territory population numbers

Deflators

The real value of money is diminished over time by rises in prices (inflation). In order to measure real changes in expenditure on public health activities, it is necessary to adjust the estimates of expenditure to remove the effects of inflation. In this report, this is achieved by expressing the estimates of expenditure for all periods in terms of the purchasing power of money in 2005–06. This is referred to throughout the report as 'expenditure in constant prices'. This has been achieved by deflating or inflating the current price expenditure estimates for all periods using chain price indexes derived by the ABS.

The chain price indexes are annually re-weighted Laspeyres chain price indexes and are calculated at such a detailed level that the ABS considers them equivalent to measures of pure price change. For this publication, chain price indexes for government expenditure on 'Hospital and nursing home services' (Table A4) have been used to revalue the expenditure estimates in 2005–06 prices and derive constant price estimates of public health expenditure.

Table A4: Government final consumption expenditure on 'Hospital and nursing home services' — chain price index referenced to 2005–06

State and local hospital and nursing home services	1999–00	2000–01	2001–02	2002–03	2003–04	2004–05	2005–06	2006–07
New South Wales	80.97	83.64	86.28	89.23	92.47	95.89	100.00	103.94
Victoria	80.38	82.99	85.69	88.71	92.20	95.87	100.00	103.89
Queensland	81.08	83.78	86.56	89.48	92.68	96.05	100.00	104.06
Western Australia	81.53	84.19	86.97	89.90	92.90	95.91	100.00	103.65
South Australia	81.11	83.77	86.27	89.13	92.32	95.75	100.00	103.75
Tasmania	81.14	83.97	86.29	89.37	92.43	95.71	100.00	103.85
Australian Capital Territory	80.80	83.52	86.17	89.55	92.99	96.22	100.00	103.89
Northern Territory	81.94	84.55	87.04	89.79	92.74	95.84	100.00	103.88
Australia	**81.11**	**83.64**	**86.33**	**89.32**	**92.50**	**95.80**	**100.00**	**103.89**

Note: These are annually re-weighted Laspeyres chain price indexes.

Source: Unpublished ABS data.

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