12 Summary and future direction

12.1 Summary of expenditure through States and Territories

Every effort has been taken in this collection to obtain consistency across jurisdictions in the way data are collected and processed in order to arrive at estimates of expenditure. Despite this, there are still problems associated with comparisons across jurisdictions. Some of these relate to the limitations imposed by the different jurisdictional administrative systems. These lead to variations in methods used to allocate expenditures to the core public health activity categories. Others relate to differences in the financial reporting systems used by the different jurisdictions.

Also, there are inherent differences between jurisdictions that militate against direct comparisons between their expenditures. These include:

- population demographics (that is, age–sex structure and geographic distribution)
- economies of scale, which are not as available for smaller jurisdictions
- the provision of cross-border services
- differences in the roles of local government.

Despite the difficulties associated with obtaining meaningful comparisons across States and Territories, some interesting patterns emerge, even within jurisdictions. There are many reasons why some jurisdictions spend, on average, more or less than others on particular core public health activities.

Both the levels of expenditure and size of populations of New South Wales, Victoria and Queensland strongly influence average expenditure in all areas of activity. Tasmania and the two Territories, on the other hand, have disadvantages that are not evident to the same extent in the other jurisdictions. For example, the Northern Territory has a very small population base, which means that it is unable to achieve the same economies of scale as the larger States. At the same time, its population is widely dispersed geographically, which increases the average cost of service delivery. Similarly, the Australian Capital Territory and Tasmania also have small population bases, although they do not suffer the same geographical disadvantage as the Northern Territory.

Data on expenditure on the core public health categories have been analysed using the device of a 'per person index' (Table 12.1). The index is based on the following formula:

$$A_{kj} = \frac{B_{kj}}{B_{kA}} \times 100$$

where:

A_{kj} = per person index for category k in State/Territory j

B_{kj} = per person expenditure for category k in State/Territory j

B_{kA} = per person expenditure for category k in all States and Territories

It should be noted that the entire State/Territory populations are used in deriving the per person index for each core category, rather than any specific target group, and that the national per person index for each category is set to 100.

These data must be interpreted cautiously. Firstly, for the reasons discussed above, the average costs of providing public health services are likely to vary quite considerably from one jurisdiction to the next.

Secondly, when examining expenditures it must also be borne in mind that the averages calculated are spread across the whole population, not just the 'at-risk' populations. Average expenditure on *Cervical screening* and *Breast cancer screening* is calculated using the total population, not just that part of the female population at whom those programs are targeted.

Thirdly, the ethnic diversity of the population may result in differences in the cost of delivery of public health services. In the Northern Territory, for example, the 28% of the population who identify as Aboriginal and/or Torres Strait Islander people experience a significantly higher burden of disease, on average, than other Australians. A higher proportion of those people (70%) live in remote communities. Also, the cost of communicating a message in culturally appropriate ways may be affected by the proportion of people within the jurisdiction who are Indigenous Australians and/or are from a non-English-speaking background.

Finally, some State and Territory health authorities have responsibilities in the areas of food regulation and environmental health regulation, which in other jurisdictions are covered almost entirely by LGAs; expenditure funded by LGAs, however, is not included in these data.

Bearing in mind these qualifications, the 'per person index' shows that the New South Wales expenditure on *Communicable disease control* and *Breast cancer screening* exceeded the national average (Table 12.1). At the same time, its expenditure on *Prevention of hazardous and harmful drug use* and *Environmental health* was well below the national average.

Victoria, which exceeded the national average in its spending on *Cervical screening*, also had levels of expenditure on *Prevention of hazardous and harmful drug use* and *Environmental health* that were below the national average.

Queensland had higher than average expenditure on *Prevention of hazardous and harmful drug use*.

Western Australia's per capita expenditure on *Environmental health* was more than double the national average and its expenditure on *Selected health promotion* was also higher than average. Western Australia also had a level of expenditure on *Cervical screening* that was below the national average.

South Australia, Tasmania and the two Territories all had expenditures that were above average for most activities. South Australia's expenditure was below the average in respect of *Selected health promotion*; Tasmania's was below the average for *Food standards and hygiene* and *Communicable disease control*.

Table 12.1: Expenditure on core public health activities, by States and Territories, current prices, 1999–00

Category		NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Communicable disease control	Total ($ million)	54.2	23.7	17.3	11.9	11.5	2.3	2.6	8.6	132.1
	Per person index[(a)]	121.6	72.0	70.7	92.9	108.5	71.9	124.0	608.3	100.0
Selected health promotion	Total ($ million)	28.7	27.9	25.0	20.9	8.6	4.0	4.9	9.9	129.9
	Per person index[(a)]	65.5	86.4	103.8	166.2	82.6	123.1	241.3	712.4	100.0
Organised immunisation	Total ($ million)	31.9	23.4	19.0	8.8	8.6	3.0	3.3	6.2	104.3
	Per person index[(a)]	90.7	90.1	98.3	87.0	103.4	118.2	199.0	559.5	100.0
Environmental health	Total ($ million)	7.3	2.9	8.3	10.9	5.5	2.5	1.5	3.6	42.7
	Per person index[(a)]	50.7	27.7	105.1	265.1	162.1	240.4	216.4	795.4	100.0
Food standards and hygiene	Total ($ million)	4.4	2.3	1.8	1.7	1.2	0.1	1.6	1.0	14.2
	Per person index[(a)]	92.4	65.4	69.3	126.9	104.9	19.9	724.0	664.4	100.0
Breast cancer screening	Total ($ million)	36.8	19.0	19.0	7.6	7.1	2.6	2.0	1.1	95.1
	Per person index[(a)]	114.7	80.3	107.5	82.2	92.8	109.0	134.4	106.3	100.0
Cervical screening	Total ($ million)	5.0	7.3	3.2	1.3	2.8	0.7	0.6	2.2	23.0
	Per person index[(a)]	64.1	128.2	74.2	59.7	151.1	122.1	151.8	880.6	100.0
Prevention of hazardous and harmful drug use	Total ($ million)	19.3	11.9	27.8	7.8	12.0	4.4	6.4	6.5	96.0
	Per person index[(a)]	59.4	49.7	156.0	84.0	156.2	184.6	421.7	633.0	100.0
Public health research	Total ($ million)	8.7	2.2	0.4	1.7	0.6	0.3	—	0.4	14.3
	Per person index[(a)]	179.4	61.6	16.4	123.2	51.1	78.3	11.4	276.4	100.0
Total for nine core categories	**Total ($ million)**	**196.4**	**120.6**	**122.0**	**72.6**	**57.9**	**19.9**	**22.9**	**39.6**	**651.7**
	Per person index[(a)]	**89.3**	**74.4**	**100.8**	**115.2**	**110.9**	**123.4**	**222.4**	**567.4**	**100.0**

(a) The per person index for each category is referenced to the national expenditure = 100.

Note: Due to data deficiencies and differences, these data should not be used for comparative purposes.

The three core public health activity categories with the largest expenditures in 1999–00 were *Communicable disease control*, *Selected health promotion* and *Organised immunisation* (Table 12.2).

Table 12.2: Expenditure by State and Territory health departments, by core category, as a percentage of total public health expenditure for each State and Territory, 1999–00

Category	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	All States	C'wlth
Communicable disease control	27.6	19.6	14.2	16.3	19.8	11.8	11.3	21.7	20.3	7.7
Selected health promotion	14.6	23.2	20.5	28.8	14.9	19.9	21.6	25.0	19.9	12.9
Organised immunisation	16.3	19.4	15.6	12.1	14.9	15.3	14.3	15.8	16.0	17.6
Environmental health	3.7	2.4	6.8	15.1	9.6	12.8	6.4	9.2	6.6	6.7
Food standards and hygiene	2.3	1.9	1.5	2.4	2.1	0.4	7.1	2.6	2.2	3.9
Breast cancer screening	18.8	15.8	15.6	10.4	12.2	12.9	8.8	2.7	14.6	0.8
Cervical screening	2.5	6.1	2.6	1.8	4.8	3.5	2.4	5.5	3.5	20.7
Prevention of hazardous and harmful drug use	9.8	9.8	22.8	10.7	20.7	22.0	27.9	16.4	14.7	9.8
Public health research	4.4	1.8	0.4	2.4	1.0	1.4	0.1	1.1	2.2	20.0
Total for nine core categories	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

12.2 Comparison with 1998–99 public health expenditure

A comparison of the growth in expenditure on individual public health activity categories is not possible because of the changes in categories between the 1998–99 and 1999–00 reports.

For example, reported expenditure on *Public health research* in 1998–99 was $17.4 million compared to $70.3 million reported for 1999–00 (Table 12.3). Most of this apparent increase was because only the Commonwealth separately identified research in the 1998–99 data, and this was done as part of a pilot study of a limited range of Commonwealth funded research activities. *Public health research* has been classified as a core public health category in this report and all jurisdictions have reported expenditure against the new category.

Another expenditure effected by the changes in categories was *Selected health promotion*. Expenditure on *Selected health promotion* decreased from $194.2 million in 1998–99 to $166.0 million in 1999–00. Much of this decrease is because education and promotion programs relating to drugs of dependence, which had been included in the *Selected health promotion* category in 1998–99 have been included in the new *Prevention of hazardous and harmful drug use* category in 1999–00.

Much of the fall in expenditure on *Organised immunisation*, on the other hand, was because the 1998–99 data included expenditure by the Commonwealth on the measles eradication campaign. This was a one-off program that involved the supply of vaccines to the States and

Territories as well as a national public awareness campaign. The campaign finished at the end of 1998–99. Expenditure on *Organised immunisation* fell from $184.5 million in 1998–99 to $153.3 million in 1999–00.

Reported expenditure on *Environmental health* decreased from $74.1 million in 1998–99 to $61.4 million in 1999–00—largely due to the non-inclusion by the Commonwealth of expenditure by TGA in 1999–00. In that year TGA had moved to a full cost recovery funded basis.

Table 12.3: National expenditure on core public health activities, constant (1999–00) prices, 1998–99 and 1999–00

	Core public health expenditure			
	1998–99		1999–00	
Category	($ million)	Proportion of total (%)	($ million)	Proportion of total (%)
Communicable disease control	149.3	16.5	153.5	16.5
Selected health promotion	194.2	21.4	166.0	17.8
Organised immunisation	184.5	20.3	153.3	16.5
Environmental health	74.1	8.2	61.4	6.6
Food standards and hygiene	24.0	2.6	25.1	2.7
Breast cancer screening	93.4	10.3	97.2	10.4
Cervical screening	82.8	9.1	80.9	8.7
Prevention of hazardous and harmful drug use	. .	. .	123.2	13.2
Public health research	[(a)]17.4	1.9	70.3	7.5
All other core public health	86.4	9.5	. .	. .
Administration of grants to States and Territories	0.9	0.1	0.3	—
Total core public health	**906.9**	100.0	**931.2**	100.0
General public health grants to States and Territories from Commonwealth[(b)]	196.3	. .	185.7	. .

(a) Only the Commonwealth reported expenditure against 'Research' in 1998–99.

(b) These grants to States and Territories themselves are included within the expenditure recorded in the above nine core categories but cannot be discretely identified for each of those categories.

12.3 Future direction

The NPHEP aims to develop comprehensive definitions that can be used consistently in the collection of expenditure across jurisdictions and by different levels of government and different sectors. The definitions that have been developed so far have related to core activities undertaken and/or funded by the health portfolios of the Commonwealth and the State and Territory Governments. While these definitions have enabled the collection and collation of estimates of expenditure by activity type for 1998–99 and 1999–00, they are insufficient to enable detailed analyses to be undertaken into the cost-effectiveness and/or cost-efficiency of public health interventions. The definitions will need to be further developed to enhance our ability to link inputs (such as expenditure) with interventions and outcomes.

In this and the previous report, estimates of expenditure on core public health activities have been limited to activities funded by the main health departments in the jurisdictions. This

will continue to be the case for the next report (covering the financial year 2000–01), for which data are already being collected and collated.

There are other players who contribute to the provision of public health services in Australia and their full contribution to expenditure and funding has yet to be assessed. For example, programs that have primarily a 'public health' purpose and are operated through non-health departments are excluded from the estimates of expenditure, in most jurisdictions. This is largely due to difficulties in obtaining and verifying data from those departments.

In this publication indicative estimates have been derived for funding public health activities by LGAs and some NGOs. These have been presented to indicate the potential levels of their contribution to public health activities. These estimates are not comprehensive in that they do not include all LGAs and NGOs. Consequently, no attempt has been made to include expenditure funded by the LGAs and NGOs in the estimates of expenditure on core public health activities. If the scope of the collection is to be expanded to include expenditure by those types of organisations, protocols will need to be developed to facilitate the consistent reporting of data across jurisdictions and across programs.

For the purpose of informing policy, maximum value will only be gained from these data when trends over time can be shown and when it is possible to link these expenditure inputs with outcomes. Initially, however, there needs to be a period of stability in the core activity definitions so that trends in expenditure levels over time can be assessed. Ideally, consideration will then be given to the coordinated development of expenditure and outcome measures.