1 The National Public Health Expenditure Project

1.1 Introduction to the NPHEP

Interest in public health expenditure was raised as a result of the establishment of the National Public Health Partnership (NPHP) in 1996. The Australian Health Ministers Conference—on advice from the Australian Health Ministers Advisory Council—identified a need to adopt a consistent and coordinated national approach to health policy development, including public health policy development. It established the NPHP to fulfil this role.

One of the strategic directions of the NPHP was to develop and implement a National Public Health Information Development Plan. The Australian Institute of Health and Welfare (AIHW) has the role of lead agency for this particular direction. The National Public Health Information Working Group (NPHIWG) coordinates the work outlined in the Plan.

One of the goals of the Plan is to provide national estimates of public health expenditure. The aim is to identify core public health activities and associate a level of expenditure with categories of public health activity. The NPHIWG oversees the National Public Health Expenditure Project (NPHEP), which has the responsibility for achieving this result. The Technical Advisory Group (TAG) has the responsibility for the strategic development, implementation and review of the Project strategies to achieve the objectives of the NPHIWG. The TAG members represent jurisdictions in providing advice on the technical aspects of the public health definitions as well as on the future direction of the collection.

The NPHEP has a four-stage work program over 1998–2002 and aims to develop a comprehensive picture of expenditure on public health activities in Australia. The first stage of the NPHEP was to define public health categories and reach agreement on a collection process. The State of Play report which was compiled in this first stage discussed the available expenditure information on public health in Australia in 1997–98 and earlier years. The State of Play focused on Commonwealth Grants Commission data and is therefore not comparable to this 1998–99 National Public Health Expenditure Report.

The second stage of the project focused on producing this 1998–99 report, which summarises public health expenditure in Australia by Commonwealth and State and Territory Governments for the financial year 1998–99. The third stage of the project aims to expand the collection to include local government and large non-government organisations (NGOs) that engage in public health activities covered under one of the NPHEP categories. A report will be compiled from Stage 3 that summarises public health expenditure in Australia for the financial year 1999–00.

The final objective of the NPHEP is to have in place a routine, essentially automated system, integrated into existing information systems by 2001–02.

1.2 Description of present study

The study developed measures of public health investment by Australian governments in Australia through the development of a national routine collection of public health activity and expenditure information. It is intended that as the collection evolves further a more complete picture of public health expenditure will be developed, which will enable further insight across the three levels of government and also through NGOs conducting public health interventions.

The 1998–99 collection of expenditure information across eight public health expenditure categories marks the first collection of this type in Australia. The lessons learnt in this collection will be used to construct a suitable and robust methodology for the routine collection of similar public health information in future years. In addition, at a later stage, the NPHEP intends to promote the link between public health inputs and outputs, so that constructive cost-effective analyses may be undertaken on public health interventions.

Justification of the NPHEP

Public health action is initiated by, and occurs across, a wide range of jurisdictions. The result is either a reduction of risk, or an increase in benefit, which improves health status. Initiating or maintaining a public health action should preferably not happen without information to guide the process. Information on public health expenditure is useful for a number of reasons:

1. It allows for the monitoring of government expenditure and assists in making governments more accountable for their decisions.
2. It assists in the measurement of the cost-effectiveness of public health related programs. Information about the cost of inputs, outputs and future outcomes is needed to evaluate the effectiveness of public health related programs over time. The NPHEP provides an analysis of the costs of public health related programs. It is collected in such a way that it can be related to outputs and outcomes.
3. It creates benchmarks that can be used to improve and monitor performance.
4. It provides a more reliable basis for making comparisons between investment in public health and investments in the rest of the health sector.
5. It enables international comparisons of public health expenditure.

Defining public health expenditure offers an opportunity to explore and focus on costs of public health activities within an Australian setting. This information will be valuable in planning future public health policy and programs.

1.3 Objective of the NPHEP

The objective of the NPHEP is to collect data on public health expenditure on a national basis in a uniform manner. This information establishes a foundation of core public health expenditure information within government health departments from the Commonwealth, State and Territory Governments and NGOs. The information has been gathered according to definitions of core public health activities. The definitions set the parameters for the inclusion or exclusion of activities that best describe public health as the major activity.

The NPHEP is developing measures of public health investment in Australia through the development of a national routine collection of public health activity and expenditure

information. It aims to study public health expenditure in both the government and non-government sectors of the economy, across the three levels of government and non-government organisations conducting public health interventions.

Scope

The 1998–99 expenditure presented in this report was collected according to the eight core public health category definitions that are outlined later in this section. Expenditure information was collected from State, Territory and Commonwealth health departments and includes only expenditure that was funded by government.

The scope of the collection within jurisdictions varied—that is, some jurisdictions collected across all services, whilst other jurisdictions reported expenditure from selected health settings only; for example, community health services are not consistently included in the collection. Consistency in the scope of the collection was somewhat restricted by the absence of information systems to provide appropriate expenditure information across all services.

Included in the expenditure is government funded public health activity that is run through NGOs. It does not contain information on public health activities run through NGOs funded from areas outside of health departments.

The report does not contain information on detailed public health expenditure by local government or (except for one jurisdiction) expenditure on public health activities undertaken by non-health government departments.

1.4 Methodology

A collection manual was created using information gained through the consultative process described earlier. The collection manual defines the eight core public health categories for reporting of expenditure, giving examples of activities to be included and excluded in the reporting of core public health expenditure. In December 1999, a collection instrument was distributed to the participating jurisdictions along with the collection manual.

The data were collected in a variety of ways, which allowed for the particular administration structures within each of the jurisdictions. In some instances the data were collected in a centralised manner, such as mapping the public health activities of the respective health department against the core public health categories. In other instances the data were collected through distribution of the collection instrument with instructions to the public health providers. This variation in method of collection will lead to differences in the data, as the interpretation of definitions varies with each contributor.

The collection manual is a comprehensive document that lists and describes each of the public health expenditure categories. It outlines the expenditure information to be included in the report and provides instructions on completing the collection instrument. The public health expenditure definitions have been included in Appendix 1.

All States forwarded the public health expenditure information for 1998–99 to the AIHW for collation and verification. Further analysis identified the sources of funding for core public health. This information was obtained by deducting Commonwealth Government grants to State and Territory Governments from total public health expenditure.

History of events

The first stage of the NPHEP was the defining of public health categories and agreement on a collection process. A report was compiled in this first stage which discussed the state of play of expenditure on public health in 1997–98 and earlier years.

The second stage was the collection of expenditure and revenue information across eight distinct public health expenditure categories. This report presents the information gathered in the second stage of the NPHEP.

Substantial preparatory work has been conducted to identify a set of definitions for core public health activities. This has been conducted in consultation with Commonwealth, State and Territory health departments. The method used to establish these definitions was to initially collect descriptive data from all jurisdictions on public health activities and programs. This was the first stage of events towards a set of definitions being created.

A joint meeting was held at NSW Health on Friday 3 July 1998 to propose a work program for the NPHEP. The meeting was attended by representatives of all jurisdictions—including the Commonwealth—and provided an opportunity to resolve the concerns of jurisdictions. In-principle agreement was reached on the following proposals:

- Collecting descriptive information on public health activity in the government sector (the 'mud-map'). This would cover the collection and description of information from health and non-health agencies thereby providing a picture of public health activity across government agencies.
- Undertaking a pilot collection of public health activity expenditure data across a number of organisational units within health and non-health agencies. This exercise would aim to expose the difficulties and inconsistencies associated with the collection of public health expenditure data.
- Defining the type of public health activity for which expenditure data may be collected and streamlining the proposed classification schedule of public health activity to reflect activities relevant to health policy and public health policy.
- Organising a Public Health Expenditure Workshop to consider the information to be collected, promote work on definitions of public health, and establish the framework for routine collection of public health expenditure. It was held in Canberra during early December 1998.

Establishment of the Technical Advisory Group

Due to the scope of the project, each State allocated a coordinator for the NPHEP, thereby providing the project with consistent input from all jurisdictions. These coordinators, together with AIHW project staff, formed the Technical Advisory Group (TAG). The Commonwealth Department of Health and Aged Care provided partial funding for the contribution of the States and Territories to the NPHEP. The TAG has met regularly to establish the core definitions and to coordinate the collection, analysis and reporting of data for the project (refer to Appendix 4 for TAG membership list). Funding for the TAG has come from Commonwealth, State and Territory Governments.

Definition of public health

The NPHP defines 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 1998b)

Public health is characterised by planning and intervening for better health in populations rather than focusing on the health of the individual. These efforts are usually aimed at addressing factors that determine health, and the causes of illness rather than its consequences, with the aim of protecting or promoting health or preventing illness.

The NPHEP has examined a wide range of definitions of public health activities and has refined these to define public health expenditure categories. Information from the Organisation for Economic Cooperation and Development (OECD), the World Health Organization (WHO), the National Public Health Partnership Core Public Health Functions Project, State health authorities and academics has been considered. The public health definitions were devised and refined by all interested parties at a workshop in December 1998, and also by the TAG.

National Public Health Expenditure Project core categories

These categories were determined after the collection of descriptive information from health and non-health agencies. This information was then used by the jurisdictions to create a picture of public health activity across government agencies. Each jurisdiction then conducted a pilot collection of data on public health activity expenditure across a number of organisational units within health and non-health agencies. This exercise exposed difficulties and inconsistencies associated with the collection of public health expenditure data. The proposed classification schedule of public health activity was streamlined to reflect activities relevant to health policy and public health policy. Three major categories of activities/programs relevant to public health were identified:

1. *Core public health activities*
2. *Public health related activities*
3. *Other government activities with a public health impact*.

The 1998–99 collection focused on core public health activities, but where information on public health related expenditure was available, jurisdictions have included this information at the end of their chapter.

Investments in areas such as information systems, epidemiological analysis, public health legislation, policy and program development, public health communication and advice, public health workforce development and public health research and development all play a fundamental role in the business of public health and have been reported by all jurisdictions. However, the appropriate allocation of these expenditures to the core public health activity categories is still under development, and this leads to some differences between the States and Territories which are due to methodological issues, not to real differences in spending.

The eight major core public health expenditure categories decided for the 1998–99 report were:

1. Communicable disease control

All jurisdictions maintain surveillance, notification and control systems, which deal with prevention of communicable diseases and management of disease outbreaks. The national collaborative approach to communicable disease control is represented by the Communicable Diseases Network Australia New Zealand.

2. Selected health promotion activities

Health promotion interventions range from those delivered to specific target groups or populations to those administered at the local level or in a community health setting. These include programs on healthy settings, nutrition, physical activity, injury prevention, anti-smoking and safe alcohol consumption. Health foundations such as VicHealth also contribute large resources to health promotion. NGOs, such as the cancer foundations, are also major health promotion players in most jurisdictions. Government funding of NGOs has been included in the 1998–99 expenditure figures, but funding from NGOs' own sources has not.

The Stage 2 collection includes only government funded health promotion activities aimed at populations, not individual or 'opportunistic' health promotion activities. Stage 3 of the project aims to collect information on non-government funded public health activities that are undertaken by NGOs either partly government funded or reliant solely on fundraising activities.

Health promotion strategies that are integral to other public health categories, for example communicable diseases, are not included in this category. Public health activity that is undertaken in community health centres was included in the definitions under this category. The inclusions should relate to those programs that have a population-wide focus and are not defined by illness. Jurisdictions will vary in the expenditure reported in this category as not all jurisdictions have included expenditure by community based health centres, and those jurisdictions that have reported this expenditure have not necessarily included only those programs that have a population-wide focus.

3. Immunisation

All States and Territories undertake immunisation programs. The priorities in this area include childhood disease, pneumococcal and influenza immunisation. State and local government agencies generally deliver these programs, while the Commonwealth provides funds for vaccine purchase and maintenance of a national register, and performs an advisory role to the State and Territories. In addition, general practitioners have a major role in some jurisdictions.

4. Environmental health

Intervention in this area includes protection of the community from environmental dangers arising from air, land or water, vectors, radiation and other hazardous substances. Examples of these interventions are:

- radiation safety
- vector and rodent control
- chemical regulation
- water quality including water fluoridation and water environment

- contaminated land, waste and hazardous materials management
- public health disaster management.

While States and Territories take the lead in legislative and policy development, the responsibility is often shared with local government and other government departments in regulating, controlling activity, surveillance and compliance measures.

5. *Food standards and hygiene*

State health agencies and local government predominantly administer food standards and hygiene regulation. State health agencies generally have the legislative, educative and advocacy roles. Local governments in some jurisdictions administer monitoring and surveillance activities, and regulatory enforcement, while in other jurisdictions it is a joint health authority role. State and Commonwealth jurisdictions jointly set food standards and food hygiene standards through the Australian New Zealand Food Authority, which is funded by the Commonwealth.

6. *Breast cancer screening*

Breast cancer screening is supported by all jurisdictions. Funding and delivery of screening is nationally coordinated.

7. *Cervical screening*

Cervical screening is supported by State health agencies through recruitment activities such as education of general practitioners on cervical screening, and in some States much of the screening is undertaken by State agencies.

8. *All other core public health*

This category is designed to capture other core public health activities that have not been captured in the preceding seven core public health categories. Some of the inclusions within this category are pharmaceutical and therapeutic goods regulation, alcohol regulation, tobacco and illicit drug control, human remains regulation, air and noise pollution control and the control of dangerous animals and licensing of pets.

Refinement of categories for the 1999–00 Report

The TAG has refined the public health expenditure definitions for the 1999–00 collection of public health expenditure information to include two new categories, *Hazardous and harmful drug use* and *Research*.

The core public health categories that are being used for the 1999–00 National Public Health Expenditure Report are:

1. *Communicable disease control*
2. *Selected health promotion*
3. *Organised immunisation*
4. *Environmental health*
5. *Food standards and hygiene*
6. *Breast cancer screening*
7. *Cervical screening*
8. *Hazardous and harmful drug use*
9. *Research.*

There will also be a category called *Public health related activities*. This category will allow jurisdictions to include expenditure on those activities that are related to public health and which are important to the work done within each jurisdiction. The expenditure in this category will be reported separately and will not be included in the aggregate public health expenditure figures.

The *Hazardous and harmful drug use* category will include expenditure that relates to health promotional activities. These activities were included in the *Selected health promotion* category for the 1998–99 report by most jurisdictions because there was not a separate drug category.

The *All other core public health* category will not be included in the 1999–00 National Public Health Expenditure Report. Expenditure from this category will now be included under the *Hazardous and harmful drug use* category, the *Environmental health* category or the *Public health related activities* category.

Program-wide functions

In all jurisdictions there is substantial investment in generic-type public health activities, such as information systems, epidemiological analysis, public health legislation, policy and program development, public health communication and advice, public health workforce development and public health research and development. These investments play a fundamental role in the business of public health across all jurisdictions and are included in core public health expenditure.

Public health related interventions

There are also a number of public health related interventions carried out within jurisdictions. While they are not 'core' public health activities, they make an important contribution to the health and wellbeing of all Australians. These activities include sanitation and sewage treatment, maternal and child health (including family planning), domestic violence prevention and control, urban planning and transport safety. As with other interventions, these activities are administered across all levels of government in Australia.

2 Review of previous work

During the latter half of 1998 during Stage 1 of the NPHEP, an exercise was undertaken by Commonwealth, State and Territory departments of health, to describe the range of public health interventions delivered in their respective jurisdictions.

It was evident from this that public health effort in Australia is widespread. Public health interventions are undertaken by many sectors of the economy, and by a range of organisations. While many interventions are undertaken by divisions of public health at Commonwealth and State level, a large number are delivered by community health services, local governments, general practitioners and NGOs. Academic institutions also play an important role in public health research.

2.1 State of play of expenditure on public health by Australian governments: A survey of data available on public health expenditure in Australia for 1997–98 and for earlier years

The State of Play Report was the first document to be published for the NPHEP and was drafted with assistance from the Commonwealth, State and Territory health departments. It discussed the public health expenditure data that was available, its deficiencies and strategies to improve the quality of the data. The main source of the data contained in the report was the Commonwealth Grants Commission (CGC) Report on General Revenue Grant Relativities 1999, and unpublished data provided by the Commission. The CGC's public health data was the most comprehensive data available for 1997–98.

The 1997–98 report on public health expenditure is based on data from the CGC public health category 4395. CGC 4395 includes four Government Purpose Classification (GPC) categories: Public health services (GPC 2550), Pharmaceuticals, Aids and Appliances (GPC 2560), other Health Research (GPC 2579) and Health Administration not elsewhere classified (GPC 2590).

Although GPC 2550 is quite similar to the NPHEP core public health categories, not all of the information is compatible. The NPHEP 1998–99 numbers will therefore not totally reconcile with GPC 2550 numbers. The 1997–98 GPC 2550 definition appears below.

ABS Government Purpose Classification category of 'public health services' (2550)

The Australian Bureau of Statistics (ABS) Government Purpose Classification (GPC) defines 'public health services' for the purposes of Government Finance Statistics (GFS). Data is collected from governments by the ABS under the GFS framework and is published by the ABS at an aggregate level in various publications.

Agreed in 1997, the ABS definition of 'public health services' is: 'Outlays on public health services consisting of population health service programs and preventive health service programs'.

Population health service programs are defined as those programs which aim to protect, promote and/or restore the collective health of whole or specific populations (as distinct from activities directed to the care of individuals). This includes:

- health promotion campaigns
- occupational health and safety programs
- food standards regulation
- environmental health
- nutrition services
- communicable disease surveillance and control
- epidemiology.

Preventive health service programs are those programs that have the aim of preventing disease. These include:

- Immunisation programs
- Breast cancer and cervical screening
- Screening for childhood diseases.

2.2 Summary of the 1997–98 State of Play Report

Key findings

The level of investment in core public health activities that took place in Australia in 1997–98 was about 2% of total recurrent health expenditure. Total public health expenditure from the Commonwealth, States, Territories and local government in 1997–98 was $776m. State and Territory Governments funded $479m of public health expenditure, which was 62% of all government funding of public health in 1997–98. The Commonwealth Government funded $258m of public health services, which was 33% of total public health expenditure, and local government expenditure (as sourced from the ABS public finance database for 1997–98) was reported as $40m or 5% of public health expenditure.

Data deficiencies

Notwithstanding the key findings outlined above, the State of Play Report indicated that the accuracy and scope of current public health expenditure data was inadequate for the purpose of informing public health policy. It showed that more information was required on expenditure on the components of public health, in order to provide a more accurate understanding of public health. Obtaining this information, the report found, required clear definitions of core public health functions, and that public health expenditure be reported according to these definitions. Problems highlighted by the report included:

- inconsistencies in the way then current definitions were applied from State to State
- confusion over the classification of activities on the borderline of public and community health
- collection of reliable data from local governments
- collection of reliable data from non-health government departments
- an unknown overlap between public health research expenditure and other public health expenditure data
- exclusion of NGO funded and household sector expenditure
- comparability across time.

The NPHEP has addressed some of these deficiencies in this 1998–99 report, by collecting public health expenditure data in a more uniform manner according to an agreed set of definitions of public health functions.

2.3 Differentiating between the data in the 1997–98 State of Play Report and the 1998–99 Public Health Expenditure Report

The differences between the two reports are mostly the result of different methodologies for the collection of public health expenditure data and different definitions for inclusions and exclusions. The 1998–99 NPHEP collection process is quite different from the 1997–98 ABS GPC collection process. The 1998–99 NPHEP collects data through the project coordinators working in each of the health authorities according to a detailed collection manual, which carefully defines the inclusions and exclusions for each of the core public health categories. The ABS data are compiled mostly by Treasuries, who have only a macro understanding of the data they are compiling. The categorisation of the ABS data is also highly influenced in most jurisdictions by the administrative organisation of the expenditure information and not by the type of service or activity provided. These data are published by the ABS at a high level of aggregation, which results in significant amounts of expenditure incorrectly reported as public health, and other expenditure not reported as public health that should be. The data are then passed on to the CGC for some modifications before being published in its annual reports.

The ABS data is normally compiled by adding up program categories. For example, in the public health area the whole of the expenditure of the Population Health Program would be included. The 1998–99 report uses, where possible, a more detailed activity approach. Some jurisdictions have identified and reported on public health activity expenditure that is delivered by community health programs. Under the ABS collection process this expenditure would usually be recorded against the Community Health GPC category.

It should also be noted that the 1998–99 NPHEP report will not be comparable with the CGC public health category 4395 published in the annual CGC reports because 4395 includes GPC categories apart from the Public Health Services GPC category 2550. It also includes the following GPC categories: Pharmaceuticals, Aids and Appliances (GPC 2560), other Health Research (GPC 2579) and Health Administration not elsewhere classified (GPC 2590).