6 Technical notes

6.1 General

Health expenditure is reported domestically using the Australian National Health Accounts (NHA) framework. This framework, which has operated since the early 1960s, is based on a national health expenditure matrix showing areas of expenditure by sources of funding.

Since 1998, the AIHW, which has responsibility for developing estimates of national health expenditure, has collated and stored its health expenditure data in a way that enables it to simultaneously report national health expenditure according to the national framework and the OECD's System of Health Accounts (OECD 2000).

Health Expenditure Advisory Committee (HEAC)

In 2003, the AIHW established the HEAC, comprising data users and providers, to provide advice on health expenditure reporting in Australia. The committee, which meets twice a year, consists of representatives of Australian government agencies—DoHA, ABS, DVA, Commonwealth Grants Commission, Medicare Australia and the Private Health Insurance Advisory Council (PHIAC)—and each state and territory health department. The terms of reference for this committee are to provide advice to the AIHW on:

- data sources, analysis and presentation of its estimates of health expenditure in Australia
- integration of AIHW's health expenditure collections with all other Australian sub-national and national collections, and with international frameworks and collections of health expenditure statistics
- longer term directions related to the reporting of expenditure on health, both within Australia and to international bodies such as the OECD and WHO.

6.2 Definition of health expenditure

The term 'health expenditure' refers to expenditure on health goods and services and health-related investment. Health goods and services expenditure includes expenditure on health goods (medications, aids and appliances) and health services (clinical interventions); and other health services such as expenditure on public health, research and administration. These expenditures are collectively termed recurrent expenditure. Health-related investment is often referred to as capital formation or capital expenditure.

The AIHW's definition of health expenditure closely follows the definitions and concepts provided by the OECD's SHA (OECD 2000) framework. It excludes:

- expenditure that may have a 'health' outcome but that is incurred outside the health sector (such as expenditure on building safer transport systems, removing lead from petrol, and educating health practitioners)
- expenditure on personal activities not directly related to maintaining or improving personal health
- expenditure that does not have health as the main area of expected benefit
- expenditure on capital transfers by government to underwrite medical indemnity insurance or premiums paid by individuals for private health insurance cover. Such expenditure, while having a health-related purpose, is regarded as expenditure on insurance rather than expenditure on a health good or service. Such funds become health expenditure to the extent that they are drawn upon when they are used to purchase health goods and services.

Total health expenditure reported for Australia (both domestically and internationally) is slightly underestimated in that it excludes health expenditure by the Australian Defence Force, some school health expenditure and some expenditure incurred by corrective services institutions in the various states and territories. Difficulties in separating expenditures incurred by local governments on particular health functions from those of state and territory governments means that these funding sources are often combined. However, the ABS data indicate that the contribution of local governments is quite small.

Table 51: Areas of health expenditure used in this report

Term	Definition
Public (non-psychiatric) hospitals	Hospitals operated by, or on behalf of, state and territory governments that provide a range of general hospital services. Such hospitals are recognised under the AHCAs.
Public psychiatric hospitals	Hospitals operated by, or on behalf of, state and territory governments that provide treatment and care specifically to patients with psychiatric disorders.
Private hospitals	A privately owned and operated institution, catering for patients who are treated by a doctor of their own choice. Patients are charged fees for accommodation and other services provided by the hospital and relevant medical and paramedical practitioners. The term includes private free-standing day hospital facilities.
High-level residential care	Care provided to residents in residential care facilities who have been classified as having a need for and are receiving a high level of care (i.e. patients classified in Resident Classification Scale categories 1–4).
Residential care facilities	Establishments that provide long-term care involving regular basic nursing care to chronically ill, frail, disabled or convalescent persons or senile in-patients. They must be approved by DoHA and licensed by a state or territory government.
Ambulance services	Public or registered non-profit organisations which provide patient transport (or ambulance) services associated with out-patient or residential episodes to and from health care facilities. Excludes patient transport expenses that are included in the operating costs of public hospitals.
Medical services	Services listed in the Medical Benefits Schedule that are provided by registered medical practitioners. Most medical services in Australia are provided on a fee-for-service basis and attract benefits from the Australian Government under Medicare. Expenditure on medical services includes services provided to private admitted patients in hospitals as well as some expenditure that is not based on fee-for-service (i.e. alternative funding arrangements). Excludes expenditure on medical services provided to public patients in public hospitals and medical services provided to public patients at out-patient clinics in public hospitals.
Other health practitioners	Services provided by registered health practitioners (other than doctors and dentists). These include chiropractors, optometrists, physiotherapists, speech therapists, audiologists, dietitians, podiatrists, homeopaths, naturopaths, practitioners of Chinese medicine and other forms of traditional medicine, etc.
Benefit-paid pharmaceuticals	Pharmaceuticals in the PBS and the RPBS (see Glossary) for which the Australian Government paid a benefit.
Other medications	Pharmaceuticals for which no PBS or RPBS benefit was paid and other medications. Includes: • pharmaceuticals listed in the PBS or RPBS, the total costs of which are equal to, or less than, the statutory patient contribution for the class of patient concerned • medicines dispensed through private prescriptions that do not fulfil the criteria for payment under the PBS or RPBS • over-the-counter medicines such as pharmacy-only medicines, aspirin, cough and cold medicines, vitamins and minerals, some herbal and other complementary medicines, and a range of medical non-durables, such as bandages, band aids and condoms.

(continued)

Table 51 (continued): Areas of health expenditure used in this report

Term	Definition
Aids and appliances	Durable medical goods dispensed to out-patients that are used more than once, for therapeutic purposes, such as glasses, hearing aids, wheelchairs and orthopaedic appliances and prosthetics that are not implanted surgically but are external to the user of the appliance. Excludes prostheses fitted as part of admitted patient care in a hospital.
Community health	Non-residential health services offered by public or registered non-profit establishments to patients/clients, in an integrated and coordinated manner in a community setting, or the coordination of health services elsewhere in the community. Includes: • well baby clinics • health services provided to particular groups such as Aboriginal and Torres Strait Islander people, as well as family planning services, alcohol and drug rehabilitation, etc. • specialised mental health programs for patients with mental illness that are delivered in a community setting.
Public health	Services provided and/or funded by governments that are aimed at protecting and promoting the health of the whole population or specified population subgroups and/or preventing illness, injury and disability in the whole population or specified population subgroups. Public health services do not include treatment services.
Dental services	A range of services provided by registered dental practitioners. Includes maxiofacial surgery items listed in the Medical Benefits Schedule.
Health administration	Activities related to the formulation and administration of government and non-government policy in health and in the setting and enforcement of standards for medical and paramedical personnel and for hospitals, clinics, etc. Includes the regulation and licensing of providers of health services.
Health research	Research undertaken at tertiary institutions, in private non-profit organisations and in government facilities that has a health socioeconomic objective. Excludes commercially oriented research carried out or commissioned by private business, the costs of which are assumed to have been included in the prices charged for the goods and services (e.g. medications that have been developed and/or supported by research activities).
Capital expenditure	Expenditure on fixed assets (e.g. new buildings and equipment with a useful life extending over a number of years).
Capital consumption	Capital consumption is otherwise known as depreciation and represents the amount of fixed capital used up each year.
Non-specific tax expenditure	These are a form of tax expenditure known as the medical expenses tax offset. This becomes available to individuals to claim through the taxation system if they have out-of-pocket medical expenses over a specified limit in an income year. For the 2004–05 income year, the tax offset was 20 cents for each $1 by which a taxpayer’s net medical expenses exceeded $1,500 (the threshold).

6.3 Data and methods used to produce estimates

General

The total expenditure and revenue data used to generate the tables are, to the greatest extent possible, produced on an accrual basis; that is, expenditures reported for each area relate to expenses incurred in the year in which they are reported. This is not, however, achievable in all cases. For example, where the data on which the estimates are based are provided by a funding source, such as the private health insurance funds, they often relate to the date of processing claims. These do not necessarily coincide with the date on which the related service was provided. As a further consequence, the contribution of that funding source may be understated in one year and overstated in another.

Public hospital expenditure is partly funded by private practitioner facility fees. This revenue is in turn partly funded by the Medicare Benefits Schedule, (which is included under medical services reporting). Therefore there is a double count of the public hospital expenditure funded from private practitioner facility fees and medical services. Hence total health expenditure reported in this publication is an overestimate of actual total health expenditure.

The AIHW gathers information on which to base its estimates of health expenditure from a wide range of sources. The ABS, the Department of Health and Ageing, and state and territory health authorities provided most of the basic data used in this publication. Other major data sources are the DVA, the PHIAC, Comcare, and the major workers' compensation and compulsory third-party motor vehicle insurers in each state and territory.

State and territory expenditure tables

The state and territory tables are intended to give some indication of differences in the overall levels of expenditure on health in the states and territories; they do not necessarily reflect levels of activity by state and territory governments. For example, service providers located in the different states and territories pursue a variety of funding arrangements involving inputs from both government and non-government sources. As a result, one state or territory may have a mix of services and facilities that is quite different from that in another state. The estimates will enable a state or territory government to monitor the impact of policies on overall expenditure on health goods and services provided within its borders.

It should be noted that estimates of funding by state and local government in respect of a particular state/territory table relates to all funding by state/territory and local governments on services provided in the state or territory concerned. Some of the services concerned may actually be the subject of cross-border reimbursement arrangements between the states and territories concerned.

Where funding data are provided only on a national basis, as is the case for some Australian Government programs, the AIHW calculates allocations for those expenditures by state and territory.

State government contracting of private hospital services

At present the matrices for each state and territory before 2002–03 indicate that state and territory governments provided no funding for services provided by private hospitals. This is incorrect, because there are at least two situations in which they do provide funding for services provided by private hospitals, namely where:

(a) a state or territory government or an area health service has contracts with private hospitals to provide services to public patients

(b) a public hospital, which is essentially a state or territory government instrumentality, purchases services from a private hospital in respect of some of its public patients.

The AIHW has begun to collect the first of these data flows from 2002–03 and they are included in both the national and the state and territory matrices from that year.

The second of these flows would currently be included in total expenditure, but they would be counted as funding for services provided by public hospitals (so long as the related purchases are being included in the reported expenses of the purchasing hospitals in the establishments data).

Expenditure by the Australian Government

The bulk of the expenditures by the Australian Government can readily be allocated on a state and territory basis. These include:

- specific purpose payments (SPPs) to the states and territories for public hospitals
- other SPPs to the states and territories for health
- high-level residential care subsidies
- Medicare benefits payments
- pharmaceutical benefit payments.

Data on other health funding by the Australian Government are generally not available on a state and territory basis. In those cases, indicators are used to derive state and territory estimates. For example, non-Medicare payments to medical service providers aimed at enhancing or modifying medical practice are allocated according to the proportion of vocationally registered general practitioners in each state or territory. Expenditures on public health that are not part of SPPs to the states and territories have been allocated according to the allocation of public health SPPs.

Expenditure by state, territory and local governments

The ABS produces annual estimates of public finance, which form part of the NHA. These include expenses and revenues for all levels of government.

Until 1996–97, public finance data were reported on a cash basis. From 1997–98, reporting has been on an accrual basis for most jurisdictions. Where states or territories have not reported on an accrual basis, their cash accounts have been modified by the ABS to conform to accrual definitions. State and territory data included in the ABS's public finance database are provided by each of the state and territory treasuries. The Government Purpose Classification (GPC) developed by the ABS are used to allocate expenses and revenues by function.

There have always been difficulties associated with the way the government expenditures in the public finance database have been allocated to purpose (function). This is particularly the case at the lower levels of disaggregation.

Since the move to accrual-based accounting, the emphasis of the ABS and the Treasury departments has been on ensuring that transaction-type classifications of expenditure are correct (that is, ensuring that expenses and revenues are correctly classified in the state and territory accounts). To date, less attention has been given to the verification of expenditure according to function. As a consequence, the ABS's estimates of total expenditure only by state and local governments are used in this publication as a guide to the overall movements in state and local government recurrent funding for health from one year to the next.

The AIHW relies on data from state and territory health authorities for its estimates of state and local government expenditure and funding for:

- public hospitals
- high-level residential care
- ambulance services
- community health services
- public health services
- dental services
- administration.

The ABS provided research expenditure data from its Research and Experimental Development Survey series (ABS 2004, 2005a, 2006b).

In 1998–99 and 2001–02, as part of the process for collection of data for studies into expenditure on health goods and services for Aboriginal and Torres Strait Islander peoples, each of the states and territories provided detailed estimates of expenditure for programs for which they had primary responsibility. That information has been extensively checked and verified with the provider agencies. Because of the rigorous processes gone through in verifying the accuracy of the data, the AIHW has, wherever possible, incorporated them in the state/territory estimates of health expenditure for those years.

It should also be noted that the estimates of expenditure on public hospitals in this publication reflect the level of expenditure on goods and services provided in hospitals, including community health services that are operated by public hospitals. The estimates of community health services exclude expenditure on community health services that is already included in the gross operating expenditures of public hospitals. This complicates state-by-state comparisons as far as those services are concerned, because the proportion of community health services delivered by hospitals (and included in hospital operating costs) varies from state to state.

Expenditure by the non-government sector

Funding by the non-government sector is shown in the various state matrices in three broad 'source of funds' categories:

- health insurance funds
- individuals
- other non-government sources.

Funding by health insurance funds on health goods and services within a state or territory is assumed to be equal to the level of expenditure by health insurance funds that operate from that state or territory. In the case of New South Wales and the Australian Capital Territory, it is assumed that their combined total expenditure is equal to the total funding by health insurance funds registered in New South Wales. This is then split between New South Wales and the Australian Capital Territory according to the relative numbers of available private hospital beds in the two jurisdictions. In all years from 1997–98, funding by health insurance funds has been reduced by the extent of the Australian Government subsidy through the PHIIS and the 30% rebate on private health insurance contributions.

Estimates of expenditure by individuals on:

- patient transport (ambulance services)
- dental services
- other health practitioners
- aids and appliances

are based on ABS estimates of HFCE. Funding of these services by private health insurance funds are deducted from HFCE estimates to arrive at the estimates of individuals' out-of-pocket funding.

Change in methodology for deflators

There are eight types of deflators (see Appendix C for more information) used in this report (Table 52). Most deflators are very specific to the type of expenditure they are applied to. For example, all hospitals and high-level residential care use the Government Final Consumption Expenditure (GFCE) hospital/nursing home care deflator. A few expenditure areas such as public health and research use the GFCE total non-defence deflator.

In this report, the deflator used for private hospital expenditure is different to the one used in *Health expenditure Australia 2003–04* (AIHW 2005a). See Appendix C for further details.

Table 52: Area of health expenditure by type of deflator applied

Area of expenditure	Deflator applied
Public (non-psychiatric) hospitals	GFCE hospital/nursing home care
Public psychiatric hospitals	GFCE hospital/nursing home care
Private hospitals	GFCE hospital/nursing home care
High-level residential care	GFCE hospital/nursing home care
Ambulance and other	GFCE hospital/nursing home care
Medical services	Medicare medical services fees charged
Other health practitioners	HFCE doctors and other health practitioners
Benefit-paid pharmaceuticals	PBS pharmaceuticals
All other medications	HFCE medicines, aids and appliances
Aids and appliances	HFCE medicines, aids and appliances
Community health and other	GFCE total non-defence
Public health	GFCE total non-defence
Dental services	HFCE dental services
Administration	GFCE total non-defence
Research	GFCE total non-defence
Capital expenditure	Gross fixed capital formation
Capital consumption	Gross fixed capital formation
Non-specific tax expenditure	GFCE total non-defence

Blank cells in expenditure tables

The national and the state and territory tables in Appendixes A and B have some cells for which there is no expenditure recorded. The reasons for this are manifold, but the main ones are:

(i) there are assumed to be no funding flows because they do not exist in the institutional framework for health care funding

(ii) the total funding is so small that it rounds to less than $500,000

(iii) a flow of funds exists but it cannot be estimated from available data sources

(iv) some cells relate to 'catch-all' categories and the data and metadata are of such high quality as to enable all expenditure to be allocated to specified areas. This, in turn, means that there is no residual to be allocated to the 'catch-all' categories.

As to (i), for example, there are no funding flows by the state, territory and local government for medical services and benefit-paid pharmaceuticals because these are funded by the Australian Government, individuals and private health insurance funds through Medicare and the PBS.

An example of (iii) is state and local government funding for private hospitals. There are known to be funding flows in this area because state and territory governments are known to contract with private hospitals to provide some hospital services to public patients. Some data has been inserted in the matrices from 2002–03 onwards. The AIHW is negotiating with state and territory health departments to obtain data that would support estimates of their funding of private hospitals for earlier years.

As to (iv), in some years some small miscellaneous expenditures by the Australian Government have been allocated to the category 'Other non-institutional n.e.c.'. These could not, at that time, be allocated to the specific health expenditure areas in the matrix. In other years, better quality of description may have allowed those types of expenditures to be more precisely allocated. The expenditure category remains in order to show that data over long time series.

Population

The per person estimates of expenditure are calculated using estimates of annual mean resident population, which are based on quarterly estimated resident population data from the ABS (ABS 2006b).

6.4 International comparisons

The OECD averages in this publication are averages (means) of member countries for which data are available for all the years presented. The periods covered by the OECD data for a particular year may differ from one country to another (see Box 4 for examples).

Box 4: Periods equating to OECD year 2004

Country	Financial year
Australia	*1 July 2004 to 30 June 2005*
Canada	*1 April 2004 to 31 March 2005*
France	*1 January 2004 to 31 December 2004*
Germany	*1 January 2004 to 31 December 2004*
Japan	*1 April 2004 to 31 March 2005*
New Zealand	*1 July 2004 to 30 June 2005*
Sweden	*1 January 2004 to 31 December 2004*
United Kingdom	*1 April 2004 to 31 March 2005*
United States	*1 October 2003 to 30 September 2004*

6.5 Revisions of definitions and estimates

Definitions

High-level residential care

Facilities that were formerly classified as nursing homes are now incorporated into the class of facility known as 'residential care facilities'. Aged persons' hostels are also included in this class of facilities.

Residents in such facilities are classified according to the level of care that they need and receive, and there are eight such care-level categories. For the purpose of maintaining

consistency with previous reporting of nursing home expenditure, residents who are classified into the four highest categories are defined as receiving 'health care' and the associated expenditure is included in this publication as high-level residential care.

All residents whose care needs do not come within the four highest levels of care are regarded as receiving welfare services, and none of the expenditure related to that care is classified as health expenditure.

Public and community health

In previous health expenditure publications, public health expenditure was included with community health expenditure because of the difficulty in obtaining reliable data about these two categories of expenditure that were sourced from the public finance statistics of the ABS and from the states and territories themselves.

Separate and timely data on public health expenditure data, based on nine core public health expenditure activities, have now become available from the AIHW's Public Health Expenditure Project. This project, which forms an integral part of the development of public health information under the National Public Health Partnership, is funded by DoHA. It aims to develop reliable and timely estimates of public health investment in Australia, both in the public sector and in the non-government sector.

The data for 1999–00 to 2003–04 have been published in the AIHW's *National public health expenditure reports* (AIHW 2002, 2004, 2006b). Data for 2004–05 will be released later in 2006. The estimates of public health expenditure in this report are based on the data in the National Public Health Expenditure Project. Note that, at present, public health expenditure data are collected only for key health departments and agencies of the Australian Government and states and territories.

Other medications

Expenditure on other medications includes expenditure on over-the-counter medicines, complementary medicines, over-the-counter medical non-durables, as well as prescribed medications for which no benefits are paid under the PBS or RPBS, including PBS or RPBS items less than or equal to the co-payment.

The over-the-counter medicines and medical non-durable goods are all therapeutic goods of a type that are sold at pharmacies, supermarkets and convenience stores and are used to treat or cure a condition. These include pharmacy-only medicines. Examples of over-the-counter medicines are analgesics, antacids and cough medicines. Examples of over-the-counter medical non-durable goods include non-prescription therapeutic goods that tend to be single-use items, such as bandages, elastic stockings, incontinence articles, condoms and other mechanical contraceptive devices, from pharmacies, supermarkets and convenience stores. Goods that are for personal use such as tanning lotion are not considered to be therapeutic, whereas after-sun lotion to treat sunburn would be within scope of health expenditure.

The AIHW has obtained over-the-counter data for 2001–02 to 2004–05 from *Retail pharmacy* (Flanagan 2002a, 2004a, 2005a) and *Retail world* (Flanagan 2002b, 2003, 2004b, 2005b), having previously obtained it from *Pharmacy 2000* (Feros 1998 to 2001). This change in data source has enabled a more comprehensive breakdown of each category of products sold at pharmacies and supermarkets. For example, the estimates are now able to include the therapeutic proportion of the total sales of mouthwash sold at supermarkets. No data are yet available for health goods sold through retail outlets such as convenience stores but such expenditure constitutes a very small part of total over-the-counter sales of pharmaceuticals and medical non-durables.

Non-specific tax expenditure

These are a form of tax expenditure known as the medical expenses tax offset. This becomes available to individuals to claim through the taxation system if they have out-of-pocket medical expenses over a specified limit in an income year. For the 2004–05 income year, the tax offset was 20 cents for each $1 by which a taxpayer's net medical expenses exceeded $1,500 (the threshold).

Net medical expenses are the medical expenses that have been paid less any refunds that have been received, or could be received, from Medicare or a private health fund. The medical expenses tax offset covers a wide range of health expenditures, not just expenses associated with doctors as its name might suggest. It is named 'non-specific tax expenditure' in this publication to reflect the fact that it cannot be specifically allocated to the various areas of expenditure.

Revision of estimates

Some estimates of recurrent health expenditure have been revised since the publication of *Health expenditure Australia 2003–04* (AIHW 2005a). These revisions relate to all years after 1998–99 (Table 53).

The large downward revision of estimated expenditure for 1999–00 has meant that growth in expenditure between 1998–99 and 1999–00 in nominal and real terms is now lower than previously reported. Similarly, the large upward revisions of estimated expenditure for 2001–02 and 2002–03 has meant that growth in expenditure between 2000–01 and 2001–02 as well as between 2001–02 and 2002–03 are now higher than previously reported.

Table 53: Comparison of previously published estimates of total health expenditure, current prices, 1998–99 to 2002–03, with current estimates ($ million)

Year	Previous estimate	Revised estimate	Change
1998–99	51,440	51,419	–21
1999–00	55,255	54,916	–339
2000–01	61,635	61,618	–17
2001–02	66,769	67,132	363
2002–03	72,452	73,108	656

Source: AIHW health expenditure database.

Revision of 1998–99 estimates

Overall, the estimates of health expenditure for 1998–99 were revised down by $21 million. This was due to a revision of the capital formation and consumption estimates sourced from the ABS.

Revision of 1999–00 estimates

Overall, the estimates of health expenditure for 1999–00 were revised down by $339 million.

The major areas of revision were:

(i) capital formation (down $339 million)

(ii) university sourced health research (down $237 million)

(iii) other health research (up $243 million)

Revision of 2000–01 estimates

Overall, the estimates of health expenditure for 2000–01 were revised down by $17 million.

The major areas of revision were:

(i) university sourced research (down $332 million)

(ii) other health research (up $345 million)

(iii) other health practitioners (down $217 million)

(iv) private hospitals (up $99 million)

(v) capital formation (up $79 million)

Revision of 2001–02 estimates

Overall, the estimates of health expenditure for 2001–02 were revised up by $363 million.

The major areas of revision were:

(i) other health practitioners (down $517 million)

(ii) aids and appliances (down $223 million)

(iii) capital formation (up $1,017 million)

(iv) other health research (up $49 million)

Revision of 2002–03 estimates

Overall, the estimates of health expenditure for 2002–03 were revised up by $656 million.

The major areas of revision were:

(i) capital formation (up $1,438 million)

(ii) other health practitioners (down $843 million)

(iii) private hospitals (up $199 million)

(iv) aids and appliances (down $178 million)