Disease expenditure database 2008-09



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Identifying and definitional attributes

Metadata item type: Data Quality Statement

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Data quality

Data quality statement summary:

Summary of key issues

- The Disease expenditure database contains estimates of expenditure by disease category, age group and sex for each of the following areas of expenditure: admitted patient hospital services, out-of-hospital medical services, prescription pharmaceuticals, optometrical and dental services, community mental health services and public health cancer screening.
- Estimates are derived from combining information from the <u>National Hospital Morbidity Database (NHMD)</u>, the <u>National Public Hospitals Establishments Database (NPHED)</u>, the <u>Health expenditure database</u>, the National Hospital Cost Data Collection (NHCDC) and the Bettering the Evaluation and Care of Health (BEACH) survey.
- The Disease expenditure database contains a conservative estimate of total expenditure and equates to around 70% of total recurrent health expenditure.

Description

The Disease expenditure database contains estimates of expenditure by disease category, age group and sex for admitted patient hospital services, out-of-hospital medical services, prescription pharmaceuticals, optometrical and dental services, community mental health services and public health cancer screening. Definitions for admitted patient hospital services, out of-hospital medical services and prescription pharmaceuticals are as follows:

Admitted patient hospital costs refer to the cost of services for admitted patients in both public and private acute hospitals and psychiatric hospitals, as well as expenditure on medical services provided to private admitted patients in hospitals.

Out-of-hospital medical expenses refers to the cost for services provided by, or on behalf of, registered medical practitioners that are funded by the Medicare Benefits Schedule (MBS), DVA, compulsory motor vehicle third-party insurance, workers compensation insurance, private health insurance funds, Australian Government premium rebates allocated to medical services, Medicare co-payments and other out-of-pocket payments. Also includes non-MBS medical services, such as the provision of vaccines for overseas travel, as well as some expenditure by the Australian Government under funding arrangements that are alternatives to the fees for service. Excludes medical services provided to public admitted patients in public hospitals and medical services provided to public patients at outpatient clinics in public hospitals. Also excluded are the costs for medical services provided to private admitted patients in hospitals which are counted as part of admitted patient costs.

Prescription pharmaceuticals refers to the cost of pharmaceuticals that are listed in the schedule of the pharmaceuticals under the Pharmaceutical Benefits Scheme (PBS) and the Repatriation Pharmaceutical Benefits Scheme (RPBS) for which pharmaceutical benefits have been paid or are payable. Also included are the costs for under co-payment prescriptions and private prescriptions. Under co-payment prescriptions are those 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, while private prescriptions are those pharmaceuticals dispensed through private prescriptions that do not fulfil the criteria for payment or benefit under the PBS or RPBS.

Estimates are derived from combining information from the <u>National Hospital</u> <u>Morbidity Database (NHMD)</u>; the <u>National Public Hospitals Establishments</u>

<u>Database (NPHED)</u>; the National Hospital Cost Data Collection (NHCDC) and the Health expenditure database.

Proportions derived from the Bettering the Evaluation and Care of Health (BEACH) survey relating to the period 2007 to 2009 are also used in compiling the estimates for out-of-hospital medical services and prescription pharmaceuticals. The BEACH data was collected by the Family Medicine Research Centre of the University of Sydney in collaboration with the Australian Institute of Health and Welfare.

It is not possible to allocate all expenditure on health goods and services by disease. Expenditure that was not able to be allocated by disease includes: capital expenditure; nonladmitted patient hospital services; overlthelcounter drugs; other health practitioner services (except optometry); community health services expenditure (except community mental health); expenditure on public health programs (except cancer screening programs); health administration; health aids and appliances, and patient transport (ambulance).

Institutional environment:

The Australian Institute of Health and Welfare (AIHW) is a major national agency set up by the <u>Australian Government under the Australian Institute of Health and Welfare Act 1987</u> to provide reliable, regular and relevant information and statistics on Australia's health and welfare. It is an independent statutory authority established in 1987, governed by a <u>management Board</u>, and accountable to the Australian Parliament through the Health and Ageing portfolio.

The AIHW aims to improve the health and wellbeing of Australians through better health and welfare information and statistics. It collects and reports information on a wide range of topics and issues, ranging from health and welfare expenditure, hospitals, disease and injury, and mental health, to ageing, homelessness, disability and child protection.

The Institute also plays a role in developing and maintaining national metadata standards. This work contributes to improving the quality and consistency of national health and welfare statistics. The Institute works closely with governments and non-government organisations to achieve greater adherence to these standards in administrative data collections to promote national consistency and comparability of data and reporting.

One of the main functions of the AIHW is to work with the states and territories to improve the quality of administrative data and, where possible, to compile national datasets based on data from each jurisdiction, to analyse these datasets and disseminate information and statistics.

The <u>Australian Institute of Health and Welfare Act 1987</u>, in conjunction with compliance to the <u>Privacy Act 1988</u>, (Cth) ensures that the data collections managed by the AlHW are kept securely and under the strictest conditions with respect to privacy and confidentiality.

For further information see the AIHW website http://www.aihw.gov.au/.

The BEACH survey data 2007-08 and 2008-09 were collected by the Family Medicine Research Centre of the University of Sydney in collaboration with the Australian Institute of Health and Welfare. Data for the Disease expenditure database were derived from data from the NHMD, NPHED and Health expenditure database as well as survey based data.

The reference period for this data set is 2008 109. The Disease expenditure database can only be updated once the NHMD, NPHED, NHCDC and Health expenditure databases have all been updated for the relevant financial year, which is currently a minimum of 15 months after the end of the financial year.

The AIHW first published 2008–09 data from the Disease expenditure database in *Australia's Health 2012* in June 2012.

Timeliness:

Accessibility:

The AIHW provides a variety of products that draw upon the Disease expenditure database 2008–09. Published products currently available on the AIHW website include:

- Australia's Health 2012
- Dementia in Australia
- Incontinence in Australia: prevalence, experience and cost

Users can request data not available online or in reports via the Expenditure and Economics Unit on (02) 6244 1119 or via email to expenditure@aihw.gov.au. Requests that take longer than half an hour to compile are charged for on a cost-recovery basis.

Interpretability:

Supporting information on the quality and use of the Disease expenditure database are published in <u>Health system expenditure on disease and injury in Australia.</u> 2004–05 (technical notes), available in hard copy or on the AlHW website.

Most important to note is that the Disease expenditure database estimates:

- are a conservative estimate based on around 70% of total recurrent health expenditure
- are only one measure of the size of the disease burden on the community (that is, the 'size of the problem')
- are not the same as loss of health due to disease
- should not be regarded as how much would be saved if a specific disease or all diseases were prevented, and

are not an estimate of the total economic impact of diseases in the Australian community. This is because the estimates do not include costs that are not accrued by the health system, such as travel costs of patients, costs associated with the social and economic burden on carers and family, and owing to lost quality and quantity of life.

Relevance:

Disease expenditure estimates provide a broad picture of the use of health system resources classified by disease group, as well as a reference source for planners and researchers interested in costs and use patterns for particular disease groups.

The Disease expenditure database contains a conservative estimate based on around 70% of total recurrent health expenditure.

It is not possible to allocate all expenditure on health goods and services by disease. Expenditure that was not able to be allocated by disease includes: capital expenditure; nonladmitted patient hospital services; overlthelcounter drugs; other health practitioner services (except optometry); community health services expenditure (except community mental health); expenditure on public health programs (except cancer screening programs); health administration; health aids and appliances, and patient transport (ambulance).

Readers need to bear in mind that cost of lillness data only provide estimates of the impact of a disease on health system expenditures. The estimates of the cost of treating and/or preventing a disease cannot be used to indicate the loss of health due to that disease.

Care should be taken not to interpret expenditure associated with disease treatment as simply an estimate of the savings that would result from prevention of disease. Conversion of the opportunity cost—or the benefits forgone—of resources being devoted to disease treatment into expenditure savings involves a number of additional considerations (see, for example, AIHW: Mathers et al. 1998a).

Accuracy:

Apart from hospital admitted patient services data, the method for estimating disease expenditure is generally a 'top—down' approach where total expenditure across the health system is estimated and then allocated to the relevant conditions. Although this method yields consistency, good coverage, and totals that add up to known expenditures, it is not as sensitive or accurate for any specific disease as a detailed 'bottom—up' analysis of actual costs incurred by patients with that disease. In most cases, a bottom up analysis is not possible due to a lack of available data.

Both out-of-hospital medical services and prescription pharmaceuticals expenditure estimates draw upon proportions derived from BEACH surveys relating to the period 2007 to 2009. In each BEACH survey, the vocationally registered GPs and all general practice registrars who claimed a minimum of 375 general practice A1 Medicare items in the most recently available 3-months make up the population from which a sample is drawn (Britt et al. 2009). GPs are randomly selected from this population and approached for participation in the survey (Britt et al. 2009). Each BEACH survey includes a sample of 1,000 recognised practicing GPs across the country (about a 6% of all recognised practicing GPs) completing details for 100 consecutive GP encounters (Britt et al. 2009). Each BEACH survey contains details of about 100,000 encounters between GPs and patients (about a 0.1% sample of all general practice encounters)(Britt et al. 2009). For further information regarding data collection methods in BEACH surveys, refer to the General practice activity in Australia 2008-09 report (Britt et al. 2009). In light of these sampling methods used, time series comparisons of expenditure estimates for out-of-hospital medical services and prescription pharmaceuticals needs to be treated with caution. Refer to the data quality statements for the NHMD, NPHED and the Health expenditure database for further information on the accuracy of the data within these databases.

Coherence:

To ensure consistency between the disease expenditure database and associated burden of disease projects, the disease groups used in the 2008–09 disease expenditure estimates were based on the 176 diseases that were published in the Australian burden of disease studies (AlHW: Mathers et al. 1999 and Begg et al. 2007). Extra categories were added to provide a more comprehensive list of diseases and the two categories of 'Symptoms, signs and illledefined conditions' and 'Other contact with health services' were included to cover some health service expenditures which cannot be allocated by disease.

The methodologies used to estimate expenditures for admitted patient hospital services have remained unchanged between 2004-05 and 2008-09. Hence, time series comparisons for admitted patient hospital services are possible.

While the methodologies used to estimate expenditures for outloflhospital medical services and prescription pharmaceuticals have also remained unchanged between 2004-05 and 2008-09, the use of the BEACH survey-based data in the methodologies has meant that time series comparisons for these areas of expenditure should be made with caution.

Comparisons over time for optometrical and dental services, community mental health services and public health cancer screening can be made with more confidence.

Data products

Implementation start date: 06/02/2013

Source and reference attributes

Reference documents: AlHW: Mathers, C et al. 1998a. Disease costing methodology used in the Disease

Costs and Impact Study 1993–94. Cat. No. HWE 7. Canberra: AlHW.

AlHW: Mathers, C.et al. 1999. The burden of disease and injury in Australia. Cat. no. PHW 17. Canberra: AlHW.

Begg S, Vos T, Barker B, Stevenson C, Stanley L, Lopez AD, 2007. The burden of disease and injury in Australia 2003. AlHW Cat. no. PHE 82. Canberra: AlHW.

Britt H, Miller GC, Charles J, Henderson J, Bayram C, Pan Y et al. 2009. General practice activity in Australia 2008-09. General practice series no.25. Cat. no/ GEP 25. Canberra: AlHW.

Relational attributes

Related metadata references:

Has been superseded by <u>Disease expenditure database 2012–13</u>
<u>AlHW Data Quality Statements</u>, Standard 31/10/2017