

5 Discussion and conclusions

This report has provided a systematic and consistent analysis of total health system costs of disease and injury in Australia in 1993–94, summarised at the broad disease-group level according to ICD-9 chapters. Circulatory diseases have the highest direct costs (\$3,719 million) and account for the largest number of deaths (53,240 or 44% of all deaths). Digestive system diseases are the second most expensive group in part because of the large expenditure on dental services, although they account for relatively few deaths compared with disease groups such as circulatory system, neoplasms (cancers) and injury. These three disease groups stand out from all other chapters of ICD-9 in terms of deaths and potential years of life lost to age 75 compared with health system treatment expenditures (Figure 2).

Musculoskeletal disorders and mental disorders, which include many long-term chronic conditions with relatively low fatality rates, rank third and fifth in the direct cost estimates.

The ICD-9 chapters for which institutional health costs represent the greatest proportion of total health system costs are those relating to problems with reproduction: perinatal problems, complications of pregnancy and congenital malformations. After these three groups comes cancer (neoplasms), where institutional health costs represent 79% of total health costs. At the other end of the spectrum are endocrine, metabolic, nutritional and immunity disorders, where institutional health costs represent only 33% of total health system costs for the chapter. Diabetes is the most important disease in this group.

Total health system costs for females are 34% higher than those for males: \$18.0 billion compared with \$13.4 billion. These costs are higher for females than males for all chapters of ICD-9 apart from perinatal conditions, injury and congenital anomalies. Apart from complications of pregnancy, the female to male cost ratio is highest for genitourinary problems, followed by blood disorders and endocrine, metabolic, nutritional and immunity disorders.

Total health system costs for males rise to a peak in the age group 65–74 years, whereas those for females peak in the 25–34 year age group, reflecting childbearing and health costs for the genitourinary system. They then decline to age group 55–64 years, rising again at older ages. Apart from the reproductive peak for females at 25–34 years, per capita health system costs rise with age for both sexes through to the oldest ages.

Improving the reliability of disease costing

The major limitations to the disease costing methodology used here relate to the lack of up-to-date information on treatment patterns for medical and allied health services, and to some extent for drugs. Utilisation data for these sectors relate to 1989–90 or 1990–91 and will not reflect changes in clinical practice or disease patterns between then and 1993–94. The collection of detailed morbidity and treatment patterns along the lines of the 1990–91 Survey of Morbidity and Treatment in General Practice has been identified as a high priority for national health information. AIHW is collaborating with The University of Sydney's Family Medicine Research Unit to establish an ongoing data collection in this area.

The current methodology estimates disease costs associated with medical specialist services from referrals and tests recorded in the survey of general practitioners and assumes that all specialist medical services for a particular type of specialist have the same average cost. It would clearly be preferable and more accurate to directly survey specialist practice patterns, perhaps as part of an ongoing survey of morbidity and treatment patterns in private medical practice.

Cost estimates for hospital inpatient services are based on full national casemix information for 1993-94 and national diagnosis-related group (DRG) cost weights. The major limitation is the accuracy of the estimated inpatient fractions for each State and Territory (the proportion of total hospital costs that are considered to relate to inpatient services).

Hospital non-inpatient costs were estimated in this report using self-report data from the 1989-90 National Health Survey and assumed that all non-inpatient services had the same average cost. Some data on cost and utilisation patterns for non-inpatients are becoming available in a number of States and Territories and these could be used to substantially improve the costing of non-inpatient service.

Community and public health programs in general are not yet included in the estimates of disease costs due to the difficulties in obtaining comprehensive casemix data for these health sectors. Analysis of national expenditure on public and community health programs at Commonwealth, State and local level is a very high priority for improving the reliability and usefulness of direct cost estimates for diseases.

AIHW is currently collaborating in the development of a minimum dataset for community health services through the National Health Data Committee and this may in future enable the collection of indicative casemix and costing data for community health services. Future analyses of health system costs for diseases should attempt to include the remaining sectors: medical aids and appliances and ambulance services. Previous attempts by AIHW to obtain casemix data for ambulance services did not yield usable information to apportion patient transport costs to disease.

Conclusion

The aim of this report has been to provide the best possible estimates of the health system resources directed at the prevention and treatment of diseases and injuries, and to assist in understanding the allocation of resources among the population, across different health sectors, and different diseases. Such information will assist in considering a variety of equity, access and utilisation issues in relation to the use of scarce health care resources. For example, the health system cost information presented here could be used to develop broad order estimates of the potential health care cost offsets to the cost of the prevention activities.

It should be emphasised that this report has not attempted to estimate the total economic impact of diseases in the Australian community and that, as well as the health system costs documented here, there are substantial costs relating to absenteeism, lost productivity, the burden on carers and family, and lost quality and quantity of life. As the pressure on health care funding continues to rise, there will be increasing interest in understanding the costs associated with specific diseases and in attempting to evaluate the overall cost-effectiveness of health system interventions. Future disease costing work should take into account opportunities identified above to improve the data and methodology used for disease costing in Australia.