

1 Introduction

Cardiovascular disease accounts for more deaths and for more health expenditure in Australia than any other disease or injury group. Cardiovascular disease is one of five priority areas in the new program of National Health Priority Areas agreed to at a meeting of Australian Health Ministers in July 1996. The term cardiovascular disease (or diseases of the circulatory system) refers to all diseases of the circulatory system, including heart disease, stroke and vascular diseases. Diabetes has also been included among the five National Health Priority Areas (the others are injury, mental health and cancer). Its inclusion is a recognition of the substantial burden of illness and the high public costs attributable to diabetes. It affects over 4% of the Australian population, at least 10% of older people, and up to 30% of some Aboriginal communities (Colagiuri et al. 1998). Diabetes significantly increases the risk of cardiovascular disease and some of the health system costs of cardiovascular disease can be attributed to diabetes.

This report provides estimates of the health system costs associated with specific cardiovascular diseases, selected cardiovascular disease risk factors and diabetes, by age and sex, in Australia in 1993–94. These results are derived from the Disease Costs and Impact Study of the Australian Institute of Health and Welfare, which has analysed health expenditures for disease and injury groups, by age and sex, in Australia in 1993–94. A previous report in this series has published estimates of expenditure for cardiovascular disease in total (as defined by the relevant chapter of the International Classification of Diseases Version 9, or ICD-9), by age, sex and health sector (Mathers et al. 1998a).

This report provides similar estimates for specific diseases, such as ischaemic heart disease, at sub-chapter level of ICD-9. These estimates are derived using a methodology that ensures that they add across disease, age and sex groups to the total Australian health expenditure by health sector for 1993–94 as published by the Australian Institute of Health and Welfare (1996a). Such estimates are not elsewhere available in a consistent format for disease groups, and provide a useful perspective on the utilisation and costs of health services in Australia, as well as a reference source for planners and researchers interested in the costs and utilisation patterns for a particular disease group. The report also includes health system costs associated with the detection and treatment of certain cardiovascular disease risk factors, namely high blood pressure (hypertension) and high blood cholesterol. Costs for the diagnosis and treatment of high blood cholesterol are included in this report, although these costs fall within the ‘endocrine, metabolic, nutritional and immunity disorders’ chapter of ICD-9.

Cost of illness analysis often attempts to measure the total economic cost to society of illness by including not only the direct health sector costs but also indirect costs, which usually focus on lost production due to sickness and premature death, but can include as well costs impacting outside the health care sector (such as police and court costs associated with drug abuse).

The inclusion of indirect costs in cost of illness studies remains an area of debate and controversy, as methodologies for measuring indirect costs are contentious and at an early stage of development. The Australian Institute of Health and Welfare has thus decided to focus on the analysis of direct health system costs in the Disease Costs and Impact Study and to use, where

appropriate, more direct measures of disease impact in health status terms, rather than estimates of indirect costs.

The direct cost estimates presented in this paper provide a useful perspective on the utilisation and costs of health services in Australia for specific diseases, but it is important that their interpretation and limitations are clearly understood. The most important points to note are:

- existing expenditure on a disease, no matter how large or small, does not, in itself, give an indication of the loss of health due to that disease, or the priority for intervention or need for additional health services expenditure. Resource allocation decisions require information not only on average costs and outcomes but also on the marginal costs and marginal outcomes associated with the specific interventions under consideration;
- care should be taken in interpreting direct costs associated with disease treatment as an estimate of the savings that would result from disease prevention. The conversion of the opportunity cost of resources being devoted to disease treatment, or benefits forgone, into expenditure savings involves a number of additional considerations (see Mathers et al. 1998b); and
- although the expenditure estimates reported here provide a broad picture of the health system resources usage classified by age, sex and disease group, they should be interpreted with caution for specific diseases. This is because the methodology is a comprehensive satellite national accounts approach, which while yielding consistency, good coverage and totals that add up to known expenditures, is not as sensitive or accurate for any specific disease as a detailed bottom-up analysis of specific health system costs incurred by patients with that disease.

The health system costs of disease presented in this report are an example of a satellite national account. Satellite accounts enable the linkage of non-monetary data sources and analysis to the system of national accounts maintained by the Australian Bureau of Statistics. Monetary expenditure on health services by itself tells us little about what is happening in the health system or about priorities for funding or interventions. But if these expenditures can be linked to output and outcome measures such as number of hospital admissions and changes in health status, then the expenditure information becomes more meaningful, especially if dissected by disease categories. The Australian Institute of Health and Welfare is currently undertaking a satellite accounts project which involves developing a conceptual framework, and documenting and refining the definitions and methodologies used in the health and welfare services expenditure area.

In conclusion, disease costing is not able to provide a comprehensive assessment of the impact of disease on society. Direct health system costs can, nevertheless, be useful indicators of the economic burden which individual diseases place on a society and can help identify and analyse how health resources are allocated among different diseases and population subgroups.