

**Health system costs of
cardiovascular diseases
and diabetes in Australia
1993–94**

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Health system costs of cardiovascular diseases and diabetes in Australia 1993–94

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Australian Institute of Health and Welfare
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Contents

List of tables	vi
List of figures	ix
Preface	x
Acknowledgments	xi
Summary	xii
1 Introduction	1
2 Methodology	3
Data sources.....	3
Health sectors	3
Disease impact.....	4
Limitations	4
3 Costs of cardiovascular diseases in 1993–94	5
Comparison with other major disease groups.....	5
Costs of specific cardiovascular diseases	6
Costs and impact of cardiovascular diseases.....	9
Cardiovascular disease costs by age and sex.....	10
Estimated annual costs per case of hypertension and high blood cholesterol.....	12
Estimated costs per case of AMI and stroke	13
4 Costs of diabetes in 1993–94	14
Direct costs of diabetes mellitus.....	14
Direct costs of diabetes mellitus by age and sex.....	16
Health system costs attributable to diabetes.....	17
Annual health costs per treated diabetic	19
Lifetime health costs of diabetes	20
Glossary	22
References	26
Appendix A: Classification of cardiovascular diseases and diabetes.....	28
Appendix B: Summary of disease costing methodology.....	32
Appendix C: Detailed tables—cardiovascular diseases and diabetes, 1993–94.....	39

List of tables

Table 1:	Cardiovascular disease and risk factors: health system costs by health sector, 1993–94	7
Table 2:	Cardiovascular diseases: estimated health services utilisation by sector, 1993–94	8
Table 3:	Health care costs of all cardiovascular disease by sex and sector of expenditure, Australia, 1993–94.....	8
Table 4:	Cardiovascular diseases and diabetes: total health system costs, 1993–94, and total deaths and potential years of life lost to age 75, 1994	9
Table 5:	Hypertension and high blood cholesterol: estimated average annual health system costs per prevalent diagnosed case, 1993–94	12
Table 6:	Diabetes mellitus: estimated health system costs by health sector, 1993–94	14
Table 7:	Diabetes mellitus: estimated health services utilisation by sector, 1993–94	15
Table 8:	Diabetes mellitus: total health system costs for males and females by type and female/male ratio, 1993–94	16
Table 9:	Diabetes mellitus: total attributable health system costs for males and females by condition, 1993–94	17
Table 10:	Diabetes mellitus: estimated attributable health system costs by health sector, sex and age group, 1993–94	18
Table 11:	Recent estimates of attributable health system costs of diabetes mellitus in Australia.....	19
Table 12:	Estimated prevalence of diagnosed diabetes mellitus by sex and age group, Australia, 1993–94.....	19
Table 13:	Estimated average annual attributable health system costs per diagnosed case of diabetes mellitus, by sex and age group, 1993–94.....	20
Table 14:	Estimated lifetime attributable health system costs per diagnosed case of diabetes mellitus, by sex, 1993–94	21
Table A.1:	Classification of cardiovascular diseases and diabetes, 1993–94.....	29
Table A.2:	Proportion of GP visits for lipid metabolism disorders (T93) attributed to high blood cholesterol.....	30
Table A.3:	Proportion of GP visits for diabetes (T90) attributed to Type 1 diabetes	31

Table A.4: Per cent of prevalence of complications attributable to Type 2 diabetes by age and sex.....	31
Table B.1: Pathology tests for plasma cholesterol/triglycerides: estimated costs and numbers of tests attributable to high blood cholesterol, 1993–94	34
Table B.2: Summary of disease costing methodology, 1993–94	37
Table C.1: Estimated resident population of Australia, by age group and sex, 30 June 1994.....	39
Table C.2: Total health system costs of diseases of the circulatory system by health sector and disease type, 1993–94	40
Table C.3: Estimated health service utilisation for diseases of the circulatory system by health sector and disease type, 1993–94	41
Table C.4: Total health system costs of diabetes and high blood cholesterol by health sector, 1993–94	42
Table C.5: Estimated health service utilisation for diabetes and high blood cholesterol by health sector and disease type, 1993–94	42
Table C.6: Diseases of the circulatory system: total health system costs by health sector, sex and age, 1993–94.....	43
Table C.7: Diseases of the circulatory system: health service utilisation by health sector, sex and age, 1993–94.....	44
Table C.8: Hypertension: total health system costs by health sector, sex and age, 1993–94	45
Table C.9: Hypertension: health service utilisation by health sector, sex and age, 1993–94	46
Table C.10: Rheumatic heart disease: total health system costs by health sector, sex and age, 1993–94	47
Table C.11: Rheumatic heart disease: health service utilisation by health sector, sex and age, 1993–94	48
Table C.12: Ischaemic heart disease: total health system costs by health sector, sex and age, 1993–94	49
Table C.13: Ischaemic heart disease: health service utilisation by health sector, sex and age, 1993–94	50
Table C.14: Diseases of pulmonary circulation: total health system costs by health sector, sex and age, 1993–94.....	51
Table C.15: Diseases of pulmonary circulation: health service utilisation by health sector, sex and age, 1993–94.....	52

Table C.16: Other forms of heart disease: total health system costs by health sector, sex and age, 1993–94	53
Table C.17: Other forms of heart disease: health service utilisation by health sector, sex and age, 1993–94	54
Table C.18: Heart failure: total health system costs by health sector, sex and age, 1993–94 ..	55
Table C.19: Heart failure: health service utilisation by health sector, sex and age, 1993–94 ..	56
Table C.20: Cerebrovascular disease: total health system costs by health sector, sex and age, 1993–94	57
Table C.21: Cerebrovascular disease: health service utilisation by health sector, sex and age, 1993–94	58
Table C.22: Diseases of arteries, arterioles, capillaries: total health system costs by health sector, sex and age, 1993–94.....	59
Table C.23: Diseases of arteries, arterioles, capillaries: health service utilisation by health sector, sex and age, 1993–94.....	60
Table C.24: Diseases of veins, lymphatics, other: total health system costs by health sector, sex and age, 1993–94.....	61
Table C.25: Diseases of veins, lymphatics, other: health service utilisation by health sector, sex and age, 1993–94.....	62
Table C.26: High blood cholesterol: total health system costs by health sector, sex and age, 1993–94	63
Table C.27: High blood cholesterol: health service utilisation by health sector, sex and age, 1993–94	64
Table C.28: Diabetes mellitus: total health system costs by health sector, sex and age, 1993–94	65
Table C.29: Diabetes mellitus: health service utilisation by health sector, sex and age, 1993–94	66
Table C.30: Hypoglycemia and hyperinsulinism: total health system costs by health sector, sex and age, 1993–94.....	67
Table C.31: Hypoglycemia and hyperinsulinism: health service utilisation by health sector, sex and age, 1993–94.....	68

List of figures

Figure 1:	Health system costs by ICD-9 chapter, Australia, 1993–94	5
Figure 2:	Health system costs of specific cardiovascular diseases, ranked in descending order, Australia 1993–94.....	6
Figure 3:	Cardiovascular diseases and diabetes: health system costs for people aged 0–74 years compared with potential years of life lost to age 75 in 1994	9
Figure 4:	Cardiovascular disease: total health system costs and average annual costs per capita, by age group and sex, 1993–94.....	10
Figure 5:	Selected cardiovascular conditions: total health system costs by age group and sex, 1993–94.....	11
Figure 6:	Diabetes mellitus: total health system costs and health system costs per capita, by age group and sex, 1993–94.....	16
Figure 7:	Total health system costs attributable to diabetes mellitus, by sex and health sector, 1993–94.....	18

Preface

The Australian Institute of Health and Welfare (AIHW) is undertaking a Disease Costs and Impact Study (DCIS) to estimate the direct costs of health services in 1993–94 attributable to a range of diseases and injury in Australia. The methodology used to carry out these costings has been revised and extended so it now encompasses health sectors accounting for over 90% of recurrent health expenditure. The revised methodology has been used to carry out a comprehensive accounting of disease costs across all chapters of the ICD-9 Classification of Diseases for the year 1993–94. Disease costing reports published in 1998 by AIHW include:

- *Health System Costs of Diseases and Injury in Australia 1993–94*;
- *Disease Costing Methodology used in the Disease Costs and Impact Study 1993–94*.
- *Health System Costs of Cancer in Australia 1993–94* (in collaboration with the National Cancer Control Initiative); and

It is intended to publish two further reports for 1993–94 on the costs of musculoskeletal disorders and on the costs associated with mental health problems. Detailed estimates for other disease groups will not be published until the costs estimates are updated to a more recent year, using more up-to-date health service utilisation data now becoming available.

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We also gratefully acknowledge the assistance of the Family Medicine Research Unit of the University of Sydney, for providing a copy of all data contained in the Australian Morbidity and Treatment Survey and for helpful advice.

Summary

Cardiovascular disease is the leading cause of death among Australians, accounting for 53,989 deaths or 42 % of all deaths in 1996. Diabetes mellitus is also a serious and growing health problem among Australians, affecting almost 4% of the population. 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 a systematic analysis of total health system costs of cardiovascular diseases and diabetes in Australia in 1993–94.

Cardiovascular disease and its risk factors, including high blood cholesterol, cost the Australian community \$3.9 billion in direct health system costs in 1993–94. This represents 12% of total recurrent health expenditure, making it the single most expensive disease group in terms of health system costs. The six cardiovascular conditions that accounted for the most of this \$3.9 billion expenditure in 1993–94, in descending order, are:

- ischaemic heart disease \$894 million (23% of total cardiovascular disease costs)
- hypertension \$831 million (21%)
- cerebrovascular disease \$630 million (16%)
- heart failure \$411 million (10%)
- cardiac dysrhythmias \$224 million (6%)
- high blood cholesterol \$199 million (5%)

Health system costs for cardiovascular disease rise with age, reaching around \$1,700 per capita per year on average for men and women aged 75 years and over.

The estimated average annual health system cost of hypertension is around \$570 per diagnosed case, compared with around \$210 per case of high blood cholesterol. The average treatment cost for a heart attack (acute myocardial infarction) is estimated to be around \$5,060 for men and \$4,760 for women in the age range 25–69 years.

The lifetime health system costs of stroke, for Australians who have at least one stroke, is estimated to be around \$21,400 for men and \$31,200 for women, or \$25,800 on average for men and women combined.

The direct health system costs of diabetes mellitus are estimated to be \$372 million in 1993–94, of which Type 1 (insulin dependent) diabetes accounts for an estimated \$155 million and Type 2 (non-insulin dependent) diabetes for \$217 million. When complications of diabetes are taken into account, the total health system costs of diabetes are estimated to be around \$681 million in 1993–94. This corresponds to average annual expenditures of around \$1,730 and \$2,120 per diagnosed diabetic for males and females respectively.

The estimated lifetime costs of Type 1 diabetes are around \$190,000 compared with \$24,970 for Type 2. Estimated lifetime costs for females are 46% higher than those for males, reflecting higher annual treatment costs for females and higher life expectancies for females.