



Appendixes

Methods and data sources

Statistical tables

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Methods and data sources

Rates

Australian

Age-standardised rates are used to remove the influence of age when comparing populations with different age structures. The 1991 Australian population is used as the standard population in all Australian comparisons, unless otherwise stated.

International

For international comparisons the 2000 WHO standard population is used in calculating the age-standardised death rates. It is important to note that the age-standardised death rates which appear in this report are not directly comparable to the rates published in the 1999 edition of this report as a different standard population was used.

Burden of disease

Information on the burden of disease due to heart, stroke and vascular diseases, and their risk factors are taken from the results of the Australian Burden of Disease and Injury Study. The burden of disease refers to the impact on a 'healthy' life of premature mortality, disability, impairment, illness and injury. The burden is described by a summary measure of population health, the disability-adjusted life year or DALY, that combines information on the impact of premature mortality and of disability and other non-fatal health outcomes due to cardiovascular disease and stroke, and their risk factors.

Classifications

Cause of death and hospital diagnosis

The classification of cause of death is based upon the International Classification of Diseases, Ninth Revision (ICD-9). Hospital diagnosis is classified using the International Statistical Classification of Diseases and Related Health Problems, Tenth Revision, Australian Modification (ICD-10-AM). The following codes are used in this report.

DISEASE CODES

Disease	ICD-9 code	ICD-10-AM code
Rheumatic fever and rheumatic heart disease	390–398	I00–I02 I05–I09
High blood pressure	401–405	—
Coronary heart disease	410–414	I20–I25
Heart failure	428	I50
Stroke	430–438	G45, G46 I60–I69
Peripheral vascular disease	441–444	I71–I74
Cardiovascular disease	390–459	G45, G46 I00–I99

PROCEDURE CODES

Procedure	ICD-9-CM code	ICD-10-AM code
Abdominal aortic aneurysm ^(a)	38.44	33112-00, 33115-00, 33118-00, 33121-00, 33151-00, 33154-00, 33157-00, 90213-02
Amputation for peripheral vascular disease ^(b)	84.15–84.17	n.c.
Carotid or jugular endarterectomy	38.12	n.c.
Computerised tomographic scan of the head	87.03	n.c.
Coronary angiography	88.55–88.57	38215-00, (38218-00 or 38218-02)
Coronary angioplasty	36.01, 36.02, or 36.05	35304-00, 35305-00
Coronary artery bypass grafts	36.1	38497, 38500, 38503, 90201
Coronary stenting	36.06 or 36.07	35310
Implantable cardiac defibrillators	37.94–37.98	38524-00, 38521-03

n.c. = not comparable.

(a) Primary diagnosis of peripheral vascular disease, ICD-9-CM codes 441.3, 441.4 and ICD-10-AM codes I71.3, I71.4.

(b) Primary diagnosis of peripheral vascular disease, ICD-9-CM codes 440.0, 440.2.

Aboriginal and Torres Strait Islander peoples

'Indigenous Australians' refers to people who identify themselves as being of Aboriginal and/or Torres Strait Islander origin. Data quality issues exist in the identification of Indigenous Australians across population surveys and administrative data collections. In the 1996 census, the number of people who identified themselves as Indigenous Australians was about a third higher than the number who did so in 1991, a difference much larger than can be explained by natural increase.

Deficiencies in health data for Indigenous Australians occur in both the National Mortality Database and the National Health Survey. For the years 1997 and 1998, mortality data for Western Australia, South Australia, the Northern Territory and the Australian Capital Territory only are considered to have more than 90% coverage of Indigenous Australian deaths. Data for the Australian Capital Territory are not included in this report due to the small number of deaths and the short period in which death data have been collected there. No data are available from the National Health Survey on Indigenous Australians living in remote areas, due to concerns about data quality.

Socioeconomic groups

The Australian Bureau of Statistics has constructed a number of socioeconomic indexes to classify areas on the basis of social and economic information collected in the Census of Population and Housing.

In this report the index of relative socioeconomic disadvantage is used. This is derived from social and economic characteristics of the local area such as low income, low educational attainment, high levels of public sector housing, high unemployment and jobs in relatively unskilled occupations.

Individual records were classified into quintiles of socioeconomic disadvantage according to the value of this index for the statistical local area of usual residence. Quintile 1 includes the least disadvantaged households and quintile 5 the most disadvantaged households. Statistical local areas were grouped into quintiles so that each quintile contained approximately 20% of the total Australian population.

It is important to note that the index of socioeconomic disadvantage relates to the average disadvantage of all people living in the statistical local area. These measures of socioeconomic inequality will thus generally understate the true inequality in health at the individual level in Australia.



Australian Facts

Urban, rural and remote areas

Urban, rural and remote areas are identified in this report using the rural, remote and metropolitan areas (RRMA) classification, developed in 1994 by the Department of Primary Industries and Energy and the then Department of Human Services and Health.

The RRMA classification assigns each statistical local area in Australia into one of seven categories—two metropolitan, three rural and two remote zones. These can be regrouped into three larger zones: urban (metropolitan), rural and remote. The classification is based primarily on population numbers and an index of remoteness.

This report examines data for the three larger areas (urban, rural and remote), as cell sizes are too small for accurate estimation in a more detailed classification.

Main data sources

1999-00 Australian Diabetes, Obesity and Lifestyle Study (AusDiab), conducted by the International Diabetes Institute and partially funded by the Commonwealth Department of Health and Aged Care, is the most comprehensive study to date on the prevalence and impact of diabetes. The survey collected information on self-reported and measured diabetes and cardiovascular risk factors, features of the metabolic syndrome, health knowledge, attitudes, and health services utilisation and practices. The study collected information from approximately 10,000 adults aged 25 years and over throughout Australia (excluding the Australian Capital Territory).

1999 National Physical Activity Survey, funded by the Commonwealth Department of Health and Aged Care and the Australian Institute of Health and Welfare, was conducted to assess current patterns of physical activity and the impact of the Active Australia campaign. The survey collected information from a national sample of 3,841 people in November and December 1999. Comparisons are made with the 1997 Active Australia baseline physical activity survey.

1998 Disability, Ageing and Carers Survey, conducted by the Australian Bureau of Statistics, collected national information on the disability levels of Australians, their current and future care needs and the role of carers. It can be used with previous national disability surveys to monitor trends over time. The survey collected information from a sample of about 42,100 people, over a three-month period from March to May 1998.

1998 National Drug Strategy Household Survey was conducted between June and September 1998, with 10,030 Australians aged 14 years and older participating. This was the sixth survey in a series that commenced in 1985, but was the first to be managed by the Australian Institute of Health and Welfare. Respondents were asked about their knowledge of drugs, their attitudes towards drugs, their drug consumption histories and related behaviours.

1997 Active Australia Baseline Survey was funded by the Australian Sports Commission, the Commonwealth Department of Health and Aged Care, NSW Health, Queensland Health, Victorian Department of Health and Community Services, ACT Department of Health and Community Services, and the Queensland Office of Sport and Recreation. The survey was conducted to give a baseline assessment of physical activity patterns and knowledge of the benefits of physical activity among adult Australians. The survey collected information from a national sample of 4,821 people in November and December 1997.

1995 National Health Survey, conducted by the Australian Bureau of Statistics, was designed to obtain national information on the health status of Australians, their use of health services and facilities, and health-related aspects of their lifestyle. It can be used with previous health surveys to monitor trends in health over time. The survey collected information from a sample of 57,600 people, over a 12-month period from January 1995 to January 1996.

1995 National Nutrition Survey, a joint project between the Australian Bureau of Statistics and the Commonwealth Department of Health and Aged Care, is the largest and most comprehensive Australian survey of food and nutrient intake, dietary habits and body measurements. The survey collected information from a subsample of respondents from the 1995 National Health Survey, approximately 13,800 people from urban and rural areas of Australia. The National Nutrition Survey was conducted over a 12-month period from January 1995 to January 1996.

1983 National Dietary Survey of Adults was conducted as a component of the second Risk Factor Prevalence Survey, by the Commonwealth Department of Health in collaboration with the National Heart Foundation. The survey was designed to obtain national information on dietary intake to determine the food composition and nutrient intake of Australians aged 25–64. The survey collected information from a sample of 5,950 people living in the six State capital cities of Australia.

BEACH (Bettering the Evaluation And Care of Health), an ongoing national survey looking at the clinical activities of general practitioners, was conducted by the General Practice Statistics and Classification Unit (an Australian Institute of Health and Welfare collaborating unit within the Family Medicine Research Centre, University of Sydney). BEACH began in April 1998 and involves a random sample of approximately 1,000 general practitioners per year.

Burden of Disease and Injury in Australia Study assessed the total ‘burden’ of disease/injury, by using a common metric developed by the Global Burden of Disease Study.

Drug Utilization Sub-Committee Database, held at the Commonwealth Department of Health and Aged Care, monitors the community (i.e. non-public hospital) use of prescription medicines in Australia. This database combines information on prescriptions subsidised by the Pharmaceutical Benefits Scheme (PBS) and the Repatriation Pharmaceutical Benefits Scheme with an estimate, from the Pharmacy Guild Survey, of those prescriptions that are not subsidised (i.e. private prescriptions and PBS prescriptions priced under the general patient copayment). The Pharmacy Guild Survey collects each month dispensing information from a random sample of about 250 pharmacies throughout Australia. Information on drugs prescribed in public hospitals and on highly specialised drugs available for outpatients through public hospital pharmacies under section 100 of the National Health Act are not included in this database.

National Cardiac Surgery Register, a joint project between the National Heart Foundation of Australia and the Australian Institute of Health and Welfare. This database contains information on the number of a range of heart surgery procedures and associated deaths. The data are supplied annually to the Australian Institute of Health and Welfare by cardiac surgery units around Australia.

National Coronary Angioplasty Register, a joint project between the National Heart Foundation of Australia and the Australian Institute of Health and Welfare. This database contains information on coronary angioplasty procedures, indications, associated complications, lesion location, success rates and adjunctive techniques such as stenting. The data are supplied annually to the Australian Institute of Health and Welfare by cardiac catheterisation units around Australia.

National Hospital Morbidity Database, held at the Australian Institute of Health and Welfare, contains demographic, diagnostic, procedural and duration of stay information on episodes of care for patients admitted to hospital. The data items are supplied to the Australian Institute of Health and Welfare by the State and Territory health authorities. The database provides information on the number of hospitalisations for a particular condition or procedure. It is not possible to count patients individually. In this report, disease data relate to the principal diagnosis of hospitalisations while procedures data relate to principal and additional procedures.

National Mortality Database, held at the Australian Institute of Health and Welfare, contains information on the cause of death supplied by the medical practitioner certifying the death or by a coroner. Registration of deaths is the responsibility of the State and Territory Registrars of Births, Deaths and Marriages. Registrars provide the information to the Australian Bureau of Statistics for coding of cause of death and compilation into aggregate statistics. On 1 January 1997 the Australian Bureau of Statistics introduced new automatic coding software, which identifies multiple causes of deaths within Australia. In this report, unless otherwise specified, death data relate only to the principal cause of death.

Risk Factor Prevalence Study, a series of surveys conducted by the National Heart Foundation in 1980, 1983 and 1989, was designed to obtain national information on biomedical and behavioural risk factors in Australia and to monitor trends over time. While the data are somewhat dated, it remains an important source of national data for biomedical risk factors. The study collected information from a sample of around 22,000 adults living in capital cities of Australia (Canberra and Darwin were not included in the 1980 and 1983 surveys), between May/June and December of the survey year.

TABLE 1: DEATH RATES FOR CARDIOVASCULAR DISEASES AND ALL CAUSES OF DEATH BY AGE, 1998

Disease	Sex	Age group								All ages ^(a)
		<25	25-34	35-44	45-54	55-64	65-74	75+		
Rate per 100,000 population										
Coronary heart disease	Male	**	4.1	19.0	62.5	203.7	634.7	2,193.5	171.2	
	Female	**	1.0*	4.3	13.9	60.7	262.4	1,703.0	93.2	
Stroke	Male	0.2	1.4	4.2	10.2	38.4	157.8	872.0	56.3	
	Female	0.4	1.1	4.2	8.6	23.0	114.2	996.1	50.8	
Heart failure	Male	**	**	**	0.6	2.7	18.5	222.0	12.0	
	Female	**	**	**	0.6	1.7	13.0	241.1	10.3	
Peripheral vascular disease	Male	**	**	0.7*	2.0	9.6	53.7	189.8	13.5	
	Female	**	**	0.3	0.7	5.2	19.9	120.0	6.8	
Rheumatic fever and	Male	**	0.3	**	0.6	1.2	3.2	9.8	0.9	
rheumatic heart disease	Female	**	0.3	0.6*	0.6*	1.7	6.0	15.9	1.4	
<i>All cardiovascular disease</i>	Male	1.8	9.1	29.4	88.7	287.1	964.7	3,879.1	284.6	
	Female	1.5	5.1	12.9	30.6	109.8	483.8	3,511.3	188.0	
All causes of death	Male	74.3	142.9	169.6	319.6	908.6	2,622.4	8,550.1	759.8	
	Female	41.6	47.4	91.9	210.4	516.0	1,418.6	6,697.3	470.1	

* Rates should be interpreted with caution as the relative standard errors are between 25% and 50%.

** Rates are not presented as relative standard errors are greater than 50%.

(a) Age-standardised to the 1991 Australian population.

Source: AIHW National Mortality Database.

TABLE 2: HOSPITALISATION RATES FOR CARDIOVASCULAR DISEASES BY AGE, 1998–99

Disease	Sex	Age group										All ages ^(a)
		<5	5–14	15–24	25–34	35–44	45–54	55–64	65–74	75+		
Rate per 100,000 population												
Coronary heart disease	Male	**	0.3	3.7	43.8	363.5	1,374.0	3,112.3	5,087.1	5,719.2	1,077.2	
	Female	0.8	**	1.3	12.7	97.1	395.0	1,144.6	2,532.5	3,614.5	489.1	
Stroke	Male	8.4	5.5	9.3	23.3	48.6	159.0	483.3	1,339.7	2,962.1	296.6	
	Female	5.3	2.9	8.0	22.5	50.9	121.7	297.8	808.6	2,385.3	207.9	
Heart failure	Male	5.3	0.8	3.4	6.7	21.6	69.9	285.3	965.0	2,916.2	235.5	
	Female	5.5	0.8	2.5	4.4	13.3	39.5	145.0	562.5	2,443.7	159.5	
Peripheral vascular disease	Male	**	0.4	4.1	6.5	11.9	35.8	159.2	573.9	917.6	100.6	
	Female	**	**	2.4	5.6	10.2	17.2	58.0	180.5	360.0	37.5	
Rheumatic fever and rheumatic heart disease	Male	1.1	4.4	3.5	3.0	5.4	7.1	14.7	30.2	33.8	8.2	
	Female	1.6	7.1	3.7	4.8	7.6	15.8	37.4	44.9	36.1	13.3	
All cardiovascular disease	Male	89.9	87.7	170.5	421.1	1,082.7	2,721.7	5,929.7	11,228.9	17,225.6	2,613.8	
	Female	65.9	70.8	152.6	426.9	873.2	1,633.4	3,247.2	6,658.7	12,642.9	1,694.3	

* Rates should be interpreted with caution as the relative standard errors are between 25% and 50%.

** Rates are not presented as relative standard errors are greater than 50%.

(a) Age-standardised to the 1991 Australian population.

Source: AIHW National Hospital Morbidity Database.

TABLE 3: CARDIOVASCULAR DISEASE RISK FACTORS BY AGE, 1998 TO 1999-00

Risk factor	Sex	Age group								
		18-24	25-34	35-44	45-54	55-64	65-74	75+	25+ ^(a)	
		Per cent								
Tobacco smoking ^(b)	Male	39.3	38.3	27.5	28.9	29.3	18.2	6.1	30.2 ^(c)	
	Female	36.5	33.9	28.7	19.1	14.2	9.4	6.3	24.0 ^(c)	
Diabetes ^(d)	Male	—	**	2.7	7.0	14.6	19.5	24.1	7.8	
	Female	—	**	2.3	5.5	9.4	15.5	22.4	6.2	
High blood cholesterol ^(e)	Male	—	31.0	54.2	60.7	61.8	54.1	49.2	49.9	
	Female	—	30.1	39.8	54.7	71.6	74.0	65.2	49.7	
High blood pressure ^(d)	Male	—	7.9	16.2	30.5	46.5	69.7	75.1	30.7	
	Female	—	4.1	7.9	22.8	42.3	66.7	77.2	25.6	
Overweight ^(e)	Male	—	60.2	65.5	72.5	74.0	73.7	64.3	67.3	
	Female	—	35.8	45.6	58.1	67.2	70.7	56.4	51.7	
Sedentary or insufficient physical activity ^(e)	Persons	18-29	30-44	45-59	60-75	18-75				
		31.3	46.5	50.0	46.0	43.3				

— Data unavailable.

** Rates are not presented as relative standard errors are greater than 50%.

(a) Age-standardised to the 1991 Australian population.

(b) Data from 1998.

(c) Data for ages 18 and over.

(d) Data from 1999-00.

(e) Data from 1999.

Sources: 1999-00 Australian Diabetes, Obesity and Lifestyle Study (AusDiab); 1999 National Physical Activity Survey; 1998 National Drug Strategy Household Survey.

TABLE 4: DEATH RATES FOR CARDIOVASCULAR DISEASES AND ALL CAUSES OF DEATH BY STATES AND TERRITORIES, 1996–98

Disease	Sex	NSW	Vic	Qld	WA	SA	Tas	ACT	NT
Rate per 100,000 population									
Coronary heart disease	Male	185.7	172.6	195.3	170.1	187.1	197.3	168.0	164.5
	Female	103.5	94.3	107.7	89.2	98.9	101.0	80.7	105.7
Stroke	Male	63.3	56.2	59.7	56.2	59.6	69.7	63.7	79.8
	Female	56.6	50.0	53.9	51.4	52.8	58.7	59.1	69.7
Heart failure	Male	13.8	14.9	9.3	10.9	14.0	17.1	18.0	22.2*
	Female	12.3	12.7	8.0	9.3	10.6	15.1	15.3	15.4*
Peripheral vascular disease	Male	15.2	12.1	14.3	13.6	15.3	18.8	16.1	18.4*
	Female	7.5	6.3	6.9	6.3	6.2	9.7	7.3	**
Rheumatic fever and rheumatic heart disease	Male	1.1	1.2	1.6	1.4	1.4	**	**	6.0*
	Female	1.6	1.6	1.6	2.2	1.9	2.3	1.2*	9.7*
<i>All cardiovascular disease</i>	<i>Male</i>	<i>314.1</i>	<i>291.1</i>	<i>308.4</i>	<i>282.0</i>	<i>311.0</i>	<i>343.4</i>	<i>292.2</i>	<i>330.5</i>
	<i>Female</i>	<i>207.8</i>	<i>191.4</i>	<i>201.8</i>	<i>179.7</i>	<i>196.1</i>	<i>220.2</i>	<i>187.5</i>	<i>254.4</i>
All causes of death	Male	795.6	773.0	792.7	773.7	785.1	855.6	709.6	1,057.5
	Female	490.2	484.6	485.2	471.3	480.2	535.1	483.9	764.5

* Rates should be interpreted with caution as the relative standard errors are between 25% and 50%.

** Rates are not presented as relative standard errors are greater than 50%.

Note: Age-standardised to the 1991 Australian population.

Source: AIHW National Mortality Database.

TABLE 5: ANNUAL RATES OF CHANGE IN CARDIOVASCULAR DISEASE DEATH RATES BY STATES AND TERRITORIES, 1987–98

Disease	Sex	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
Per cent										
Coronary heart disease	Male	-4.6	-4.1	-3.9	-4.3	-4.4	-4.2	-2.0	-2.7	-4.3
	Female	-4.2	-3.9	-3.8	-4.2	-4.3	-4.5	-4.1	-3.2	-4.1
Stroke	Male	-3.9	-3.2	-3.4	-3.0	-3.2	-2.2	-2.2	2.9	-3.4
	Female	-4.3	-3.5	-3.4	-2.3	-2.8	-3.4	—	2.3	-3.6
Heart failure	Male	-4.7	-3.7	-7.2	-3.0	-1.8	-3.3	2.2	—	-4.3
	Female	-4.7	-4.0	-6.3	-2.5	-2.6	-3.1	-4.1	—	-4.4
Peripheral vascular disease	Male	-2.6	-4.3	-3.0	-2.1	-2.2	-0.9	—	—	-2.9
	Female	-1.2	-1.5	—	-1.2	-2.7	1.6	—	—	-1.2
Rheumatic fever and rheumatic heart disease	Male	-7.8	-4.7	-2.2	—	-2.4	—	—	—	-5.2
	Female	-6.0	-4.8	-3.1	—	-4.5	—	—	—	-4.8
<i>All cardiovascular disease</i>	<i>Male</i>	<i>-4.1</i>	<i>-3.8</i>	<i>-3.8</i>	<i>-3.7</i>	<i>-3.9</i>	<i>-3.4</i>	<i>-2.4</i>	<i>-1.7</i>	<i>-3.9</i>
	<i>Female</i>	<i>-4.0</i>	<i>-3.7</i>	<i>-3.5</i>	<i>-3.3</i>	<i>-3.5</i>	<i>-3.9</i>	<i>-3.2</i>	<i>-1.8</i>	<i>-3.7</i>
All causes of death	Male	-2.5	-2.4	-2.2	-1.8	-2.0	-2.0	-2.2	-2.4	-2.3
	Female	-2.2	-2.0	-1.8	-1.3	-1.5	-2.0	-1.6	-1.1	-1.9

— Annual rates of change are not statistically significant.

Note: Annual rates of change are statistically significant at the 1% level.

Source: AIHW National Mortality Database.

TABLE 6: CARDIOVASCULAR DISEASE RISK FACTORS BY STATES AND TERRITORIES, 1995^(a)

Risk factor	Sex	NSW	Vic	Qld	WA	SA	Tas	ACT	NT
Per cent									
Diabetes type 2	Male	2.3	2.9	2.2	2.4	2.7	3.6	2.0	1.1
	Female	1.8	2.0	1.7	2.6	2.8	1.8	2.2	4.2
High blood pressure	Male	29.7	28.4	29.5	28.8	30.7	33.3	32.0	26.4
	Female	20.5	22.3	23.0	21.7	26.9	27.4	19.6	18.3
Overweight	Male	62.6	64.7	61.6	60.8	64.6	66.6	62.5*	52.0
	Female	46.9	49.7	44.4	47.2	49.7	54.2	51.5	46.5*
Physical inactivity	Male	34.8	34.9	34.5	30.6	35.0	33.9	23.3	42.9
	Female	37.7	32.8	34.9	29.2	35.0	36.1	28.1	35.5
Tobacco smoking ^(b)	Male	28.6	31.6	30.3	29.3	23.3	30.9	26.6	32.8
	Female	22.3	23.1	27.2	25.6	21.2	25.6	26.3	39.3

* Rates should be interpreted with caution as the relative standard errors are between 25% and 50%.

(a) Includes persons aged 18 years and over.

(b) Data from 1998 and includes persons 14+.

Note: Age-standardised to the 1991 Australian population.

Sources: 1998 National Drug Strategy Household survey; AIHW analysis of the 1995 National Health Survey (Australian Bureau of Statistics); ALHW analysis of the 1995 National Nutrition Survey (Australian Bureau of Statistics & Commonwealth Department of Health and Aged Care).

TABLE 7: DEATH RATES FOR CARDIOVASCULAR DISEASES AND ALL CAUSES OF DEATH BY URBAN, RURAL AND REMOTE AREAS,^(a) 1996–98

Disease	Sex	Rate per 100,000 population		
		Urban	Rural	Remote
Coronary heart disease	Male	178.1	193.4	195.2
	Female	98.5	103.3	102.6
Stroke	Male	59.5	62.0	54.6
	Female	53.7	54.1	51.3
Heart failure	Male	12.2	15.3	17.7
	Female	10.6	13.2	16.4
Peripheral vascular disease	Male	13.6	15.8	11.9
	Female	6.7	7.4	7.1
Rheumatic fever and rheumatic heart disease	Male	1.2	1.4	3.5
	Female	1.7	1.7	5.6
<i>All cardiovascular disease</i>	<i>Male</i>	<i>296.9</i>	<i>322.5</i>	<i>317.4</i>
	<i>Female</i>	<i>196.2</i>	<i>206.8</i>	<i>214.0</i>
All causes of death	Male	770.4	824.6	903.3
	Female	481.4	498.2	579.8

(a) Refers to 1994 Rural, Remote and Metropolitan (RRMA) classification.

Note: Age-standardised to the 1991 Australian population.

Source: AIHW National Mortality Database.

TABLE 8: ANNUAL RATES OF CHANGE IN CARDIOVASCULAR DISEASE DEATH RATES BY URBAN, RURAL AND REMOTE AREAS,^(a) 1987–98

Disease	Sex	Per cent		
		Urban	Rural	Remote
Coronary heart disease	Male	-4.5	-3.9	-3.7
	Female	-4.1	-4.1	-4.2
Stroke	Male	-3.5	-3.2	-4.0
	Female	-3.7	-3.4	-4.1
Heart failure	Male	-4.3	-4.4	-4.2
	Female	-4.5	-4.4	-4.7
Peripheral vascular disease	Male	-3.2	-2.3	-3.6
	Female	-1.4	-0.9	1.3
Rheumatic fever and rheumatic heart disease	Male	-6.0	-4.4	—
	Female	-5.3	-4.0	—
<i>All cardiovascular disease</i>	<i>Male</i>	<i>-4.0</i>	<i>-3.6</i>	<i>-3.7</i>
	<i>Female</i>	<i>-3.8</i>	<i>-3.7</i>	<i>-4.0</i>
All causes of death	Male	-2.4	-2.1	-2.7
	Female	-1.9	-2.0	-2.3

— Annual rates of change are not statistically significant.

(a) Refers to 1994 Rural, Remote and Metropolitan (RRMA) classification.

Note: Annual rates of change are statistically significant at 1% level.

Source: AIHW National Mortality Database.

TABLE 9: CARDIOVASCULAR DISEASE RISK FACTORS FOR URBAN, RURAL AND REMOTE AREAS,^(a) 1995

Risk factor	Sex	Per cent		
		Urban	Rural	Remote
Diabetes type 2 ^(b)	Male	1.9	2.0	1.5
	Female	1.6	1.4	1.4
High blood pressure	Male	29.5	29.5	29.8
	Female	22.1	22.3	22.5
Overweight	Male	62.5	64.6	65.4
	Female	47.1	46.0	53.2
Physical inactivity	Male	32.8	30.9	39.2
	Female	34.2	32.2	33.8
Tobacco smoking ^(c)	Male	28.5	33.3	33.1
	Female	23.0	28.5	38.0

(a) Refers to 1994 Rural, Remote and Metropolitan (RRMA) classification. Includes persons aged 18 years and over.

(b) Also includes data from people aged less than 18 years.

(c) Data from 1998 and includes persons aged 14+.

Note: Age-standardised to the 1991 Australian population.

Sources: 1998 National Drug Strategy Household Survey; AIHW analysis of the 1995 National Health Survey (Australian Bureau of Statistics); AIHW analysis of the 1995 National Nutrition Survey (Australian Bureau of Statistics & Commonwealth Department of Health and Aged Care).

TABLE 10: AGE-STANDARDISED DEATH RATES FOR CARDIOVASCULAR DISEASES BY QUINTILES OF SOCIOECONOMIC DISADVANTAGE, 1997

Disease	Sex	Quintiles (least to most disadvantaged)				
		1	2	3	4	5
Rate per 100,000 population						
Coronary heart disease	Male	153.4	172.8	191.7	191.6	198.6
	Female	87.0	94.4	103.8	108.3	111.2
Stroke	Male	52.5	57.7	61.8	58.1	63.8
	Female	52.0	52.0	52.8	53.2	53.9
Heart failure	Male	12.1	11.1	15.8	12.1	14.3
	Female	9.3	10.5	13.2	11.8	11.9
Peripheral vascular disease	Male	10.9	14.9	15.2	16.3	17.0
	Female	6.1	6.9	6.9	7.9	7.3
Rheumatic fever and rheumatic heart disease	Male	1.0	1.6	1.3	1.5	1.6
	Female	1.9	1.5	1.8	2.2	2.1
<i>All cardiovascular disease</i>	<i>Male</i>	<i>261.3</i>	<i>287.2</i>	<i>320.9</i>	<i>314.9</i>	<i>332.0</i>
	<i>Female</i>	<i>178.0</i>	<i>189.0</i>	<i>205.0</i>	<i>209.4</i>	<i>215.2</i>
All causes of death	Male	676.2	750.3	824.5	805.5	868.9
	Female	449.8	472.6	502.4	502.9	533.9

Note: Age-standardised to the 1991 Australian population.
Source: AIHW National Mortality Database.

TABLE 11: TOTAL HEALTH SYSTEM COSTS OF DISEASES OF THE CIRCULATORY SYSTEM BY HEALTH SECTOR AND DISEASE TYPE, 1993–94

ICD-9 chapter	Hospital inpatients					Drugs					Total costs ^(d)
	Public hospitals ^(a)	Private hospitals	Non-inpatients	Nursing homes	Medical services ^(b)	Prescription	Over-the-counter	Allied health	Research	Other ^(c)	
	\$ million										
Coronary heart disease	412.5	144.0	17.7	72.5	87.9	97.6	7.7	5.5	10.7	38.1	894.4
Heart attack	114.1	10.8	0.5	25.3	3.2	0.8	0.2	0.1	2.0	7.2	164.1
Other	298.5	133.2	17.3	47.3	84.8	96.8	7.5	5.4	8.7	31.0	730.3
Diseases of arteries, arterioles, capillaries	130.8	33.9	15.5	36.5	21.8	5.8	4.8	2.1	6.6	11.3	269.0
Atherosclerosis	30.4	5.8	6.8	8.1	1.7	0.3	1.4	0.1	2.7	2.5	59.6
Aortic aneurysm	36.0	6.3	3.8	2.9	5.0	1.1	0.9	0.2	1.4	2.5	60.2
Other peripheral vascular disease	64.4	21.8	4.9	25.5	15.1	4.4	2.6	1.8	2.5	6.3	149.3
Diseases of pulmonary circulation	18.6	2.9	0.7	5.3	2.6	1.7	0.3	0.2	1.0	1.4	34.6
Diseases of veins, lymphatics, other	87.4	57.7	11.7	32.1	45.9	17.4	5.9	2.2	2.6	11.7	274.7
Phlebitis & thrombophlebitis	3.4	0.9	2.9	1.7	9.6	3.7	2.0	0.7	0.3	1.1	26.2
Varicose veins of leg	30.2	27.4	1.2	3.9	6.8	1.5	0.4	0.6	0.7	3.2	76.0
Haemorrhoids	19.6	20.9	1.8	4.2	17.3	9.6	1.3	0.7	0.8	3.4	79.3
Other	34.2	8.5	5.9	22.3	12.2	2.7	2.3	0.3	0.9	4.0	93.2
High blood pressure ^(e)	18.7	4.3	31.8	6.7	216.6	409.6	66.5	20.1	21.8	34.9	831.0
Rheumatic heart disease	13.9	3.8	1.1	0.5	1.8	0.8	0.7	0.2	0.2	1.0	24.0
Stroke	235.2	34.2	13.7	265.4	31.5	10.3	2.7	4.8	5.9	27.0	630.5

(continued)

Heart, stroke and vascular diseases

TABLE 11 (CONTINUED): TOTAL HEALTH SYSTEM COSTS OF DISEASES OF THE CIRCULATORY SYSTEM BY HEALTH SECTOR AND DISEASE TYPE, 1993–94

ICD-9 chapter	Hospital inpatients					Drugs					Total costs ^(d)
	Public hospitals ^(a)	Private hospitals	Non-inpatients	Nursing homes	Medical services ^(b)	Prescription	Over-the-counter	Allied health	Research	Other ^(c)	
	\$ million										
<i>Other forms of heart disease</i>	255.5	55.7	41.5	167.1	92.9	55.4	25.7	4.7	11.0	31.5	740.9
Cardiac dysrhythmias	82.5	13.5	18.3	28.7	35.8	20.0	10.9	0.7	3.7	9.5	223.6
Heart failure	118.4	21.3	17.8	134.8	46.8	32.7	12.2	3.9	5.4	17.5	410.9
Non-rheumatic valvular disease	31.3	16.9	3.6	1.6	6.6	1.6	1.7	—	0.5	2.9	66.8
Cardiomyopathy and other heart diseases	23.3	4.1	1.7	2.0	3.6	1.0	0.9	0.1	1.4	1.6	39.6
<i>Prevention and screening</i>	0.0	0.0	8.5	—	1.4	0.1	0.8	—	0.2	0.5	11.6
<i>Unspecified treatment and aftercare</i>	3.4	1.0	1.1	0.6	1.1	0.7	0.1	—	0.1	0.4	8.6
Total	1,176.0	337.5	143.2	586.9	503.4	599.4	115.3	39.7	60.1	157.9	3,719.4

— Data not available.

(a) Public acute, public psychiatric and repatriation hospitals.

(b) Medical services for private patients in hospitals are included under Public hospitals and Private hospitals; medical services include services by general practitioners and specialists as well as pathology tests, screening and other diagnostic services.

(c) Includes other institutional, non-institutional and administration expenditure.

(d) Excludes expenditure for public health services, community health services, ambulances, medical aids and appliances.

(e) High blood pressure includes all persons with high blood pressure and those receiving treatment for high blood pressure.

Source: Mathers C & Penm R 1999, Health system costs of cardiovascular diseases and diabetes in Australia 1993–94, AIHW Cat. No. HWE 11, Canberra: AIHW.