



# Introduction

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*Intro*  
AUSTRALIAN INSTITUTE OF HEALTH AND WELFARE

## Background

Significant progress has been made in recent years in improving the cardiovascular health of Australians. Death rates have fallen dramatically, levels of some risk factors have improved and there have been major advances in treatment.

Nevertheless, cardiovascular disease<sup>1</sup> continues to impose the largest burden on Australians in terms of illness, disability and death, and the associated direct health care costs exceed those of any other disease. Current methods of treating heart disease are often 'invasive' and use a high level of health resources, and the heavy burden of disability due to stroke is of continuing concern. These issues are expected to become more acute over the coming decades due to the growing number of elderly Australians, among whom cardiovascular disease is most common.

Certain groups have higher mortality from cardiovascular disease, especially Aboriginal and Torres Strait Islander peoples and people who are at a socioeconomic disadvantage. Those who live in rural and remote areas of Australia have special needs, and cardiovascular mortality varies among the States and Territories.

A large part of the death, disability and illness caused by cardiovascular disease is preventable. Many Australians remain at higher risk of the disease through tobacco smoking, being physically inactive, eating a diet high in saturated fats and being overweight. Levels of blood pressure and blood cholesterol among many Australians are also higher than recommended. Any one of these factors increases the risk of cardiovascular disease on its own, and if two or more occur in an individual the risk increases even further.

Risk factors themselves are strongly influenced by wider circumstances. The importance of factors such as people's economic resources, education, living and working conditions, social support, and access to health care and social services is now recognised.

## National action to combat the disease

Because of the widespread nature of cardiovascular disease and its potential for prevention, Australian Health Ministers include cardiovascular health as one of six current National Health Priority Areas. The first report on cardiovascular health, released in 1999, included the following key recommendations for further improving the cardiovascular health of Australians:

- establishing a secure long-term national focus on heart, stroke and vascular disease from which policies and activities can emanate;
- coordinating primary prevention programs across Australia;
- establishing a national mechanism for the production of better practice guidelines;
- broadening the focus of cardiovascular health programs to give a specific emphasis to stroke;
- tackling the underlying causes of inequalities in health among population groups with worse cardiovascular health than the general population, particularly Australia's Indigenous population; and
- continuing and expanding the activities of the National Centre for Monitoring Cardiovascular Disease to allow for future strategic planning.

Given the size of the burden cardiovascular disease imposes on Australians, the report noted the considerable potential to improve the health of all Australians through positive changes in cardiovascular health.

## Purpose and structure of this report

The National Centre for Monitoring Cardiovascular Disease at the Australian Institute of Health and Welfare produced the report in collaboration with the National Heart Foundation of Australia. The Commonwealth Department of Health and Aged Care, the National Stroke Foundation of Australia and the International Diabetes Institute also provided valuable support and made significant contributions. The report aims to provide the community, health professionals and policy makers with a concise summary of the latest available data and trends in heart, stroke and vascular diseases in Australia. As such, there are many medical details it does not cover. It is not designed to be a source of personal medical advice.

The report includes sections on cardiovascular disease and its major components, and on each major risk factor. There are also sections on health care costs, drug treatment, procedures, rehabilitation and international comparisons. Where available, data on population groups at greater risk of cardiovascular disease are given. Each section concludes with a list of publications for further reading.

Methods and data sources and statistical tables are included at the back of the report.

### New in the 2001 edition

In the 2001 edition of this report there are sections on rehabilitation, and diabetes, a disease that is closely related to cardiovascular disease. Diabetes is discussed as a disease in its own right and as a risk factor for cardiovascular disease.

Also included for the first time is a section that compares the cardiovascular health of Australia's Aboriginal and Torres Strait Islander peoples with that of the non-Indigenous population.

To coincide with the physical activity focus of Heart Week in May 2001, this edition of the series includes a special focus on physical activity. Three leading experts in the field of physical activity wrote the section for the 2001 edition. First, Professor Adrian Bauman (University of New South Wales) writes on the evidence showing that physical activity is clearly a major modifiable risk factor for cardiovascular disease. Second, Dr Tim Armstrong (Australian Institute of Health and Welfare) comments on the current patterns of physical activity participation among Australians, and finally Mr Trevor Shilton (on behalf of the National Physical Activity Program Committee, National Heart Foundation of Australia) outlines an approach to the promotion of physical activity.

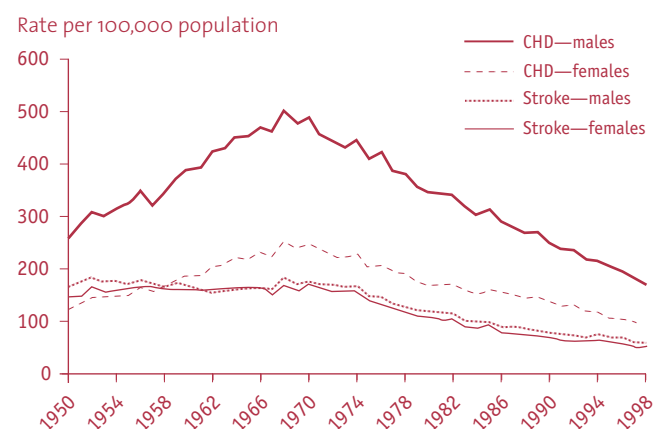
### Historical perspective

Before looking at the sections which contain the latest information it is useful to look at the history of cardiovascular disease in Australia.

Death rates associated with the 20th century epidemic of coronary heart disease peaked in 1968 and have since fallen by over 60% among both males and females. Death rates from stroke were fairly steady during the 1950s and 1960s and have fallen by about 68% since 1968. These falls are dramatic, especially when compared with declines of around 20% in deaths from non-cardiovascular diseases.

Despite these declines, however, mortality rates remain higher than those in many other developed countries, indicating the potential for further declines in death rates from cardiovascular disease in Australia.

### DEATH RATES FROM CORONARY HEART DISEASE AND STROKE, 1950–98



#### Notes

1. CHD = coronary heart disease.
2. Age-standardised to the 1991 Australian population.

Source: AIHW National Mortality Database.

### Reasons for the decline

There is evidence that the fall in death rates for coronary heart disease was initially due to people being less likely to have heart attacks than in previous years; however, more recently, improved survival after a heart attack has played an important part as well.

For stroke, a decline in attack rates is likely to have been the main reason for the fall in national death rates.

### Changes in risk factors and medical care

The declines in heart attack and stroke rates suggest that levels of risk factors in the population may have improved, perhaps resulting from changes in lifestyle. Consistent with this, levels of blood pressure, tobacco smoking and saturated fat in the diet have declined. However, the proportion of Australians doing sufficient physical activity to provide a health benefit has fallen, and the proportion of Australians who are overweight and obese has risen sharply. Blood cholesterol levels have remained relatively constant since the 1980s.

# Australian Facts

Improved survival rates after heart attack suggest that emergency interventions are becoming more and more effective, along with better long-term treatment in such patients (especially from beta-blocker drugs). Drugs such as ACE inhibitors, thrombolytics, aspirin and other antiplatelet agents have increased in usage and are known to reduce the risk of death if given during or soon after a heart attack.

The increased use of drugs to lower blood pressure and a dramatic increase in the use of cholesterol-lowering drugs will have reduced the risk of heart attacks. The steady rise in coronary artery bypass surgery and the similar rise in coronary angioplasty from the 1980s would also be expected to have reduced death rates.

For stroke, it is likely that the increased use of drugs for lowering blood pressure, antiplatelet agents (such as aspirin) and anticoagulant therapy (warfarin) have contributed to the decline in death rates. Stroke units, with a focus on rehabilitation, are known to improve survival and reduce dependency after stroke, and will have contributed to the decline in recent years.

In summary, the evidence suggests that the declines in death rates for coronary heart disease and stroke have been influenced by changes in some risk factors and in clinical intervention such as lifestyle advice and counselling, drug use, emergency care, medical and surgical treatment, rehabilitation and follow-up care.

Where data are available, these factors are considered in more detail in the sections that form the main body of this report.

## Current situation

The latest national information on deaths and risk factor prevalence is shown below. These diseases and risk factors are defined in the sections that follow.

### NUMBER OF DEATHS IN AUSTRALIA, ALL AGES, 1998

Disease	Males	Females
Coronary heart disease	15,024	12,801
Stroke	4,812	7,170
Other cardiovascular diseases	2,061	2,358
Peripheral vascular disease	1,171	916
Heart failure	988	1,567
High blood pressure	410	730
Rheumatic fever and rheumatic heart disease	87	171
<i>All cardiovascular disease</i>	<i>24,746</i>	<i>26,051</i>
<b>All causes of death</b>	<b>67,073</b>	<b>60,129</b>

Source: AIHW National Mortality Database.

### NUMBER OF AUSTRALIANS WITH A RISK FACTOR, 1998 TO 1999–00

Risk factor	Men	Women
Tobacco smoking <sup>(a)</sup>	2,084,815	1,707,414
Insufficient physical activity for health <sup>(b)</sup>	2,696,216	3,071,187
Overweight <sup>(c)</sup>	4,121,918	3,329,329
High blood cholesterol <sup>(c)</sup>	3,093,623	3,233,119
High blood pressure <sup>(c)</sup>	1,882,965	1,763,508
Diabetes <sup>(c)</sup>	476,499	433,962

(a) Data are from 1998 and include those aged 18 and over.

(b) Data are from 1999 and include those aged 18–75.

(c) Data are from 1999–00 and include those aged 25 and over.

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

## Further information

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## Detailed data

Refer to the **Statistical tables** section.

## Further reading

Australian Institute of Health and Welfare 2000. Australia's health 2000: the seventh biennial health report of the Australian Institute of Health and Welfare. AIHW Cat. No. AUS 19. Canberra: AIHW.

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