

Epidemic of coronary heart disease and its treatment in Australia

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Epidemic of coronary heart disease and its treatment in Australia

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Preface

The epidemic of coronary heart disease remains one of Australia's greatest health problems. It is the leading cause of premature death and disability despite major falls in coronary heart disease death rates over the past 30 years. The prevention and control of coronary heart disease remains a significant challenge not only in Australia but also in other developed countries. Recognising the importance of this disease, the Organisation for Economic Co-operation and Development (OECD) compared treatments, costs and outcomes related to coronary heart disease across 16 OECD countries, including Australia. The Australian data used in this international study form the basis of this report.

There is continuing need to inform the public, researchers, health professionals and policy makers on the importance of the disease, the large scope for prevention, patterns in treatment and care, and economic aspects.

This report aims to help achieve this, as the first Australian Institute of Health and Welfare (AIHW) report focusing exclusively on the national epidemic of coronary heart disease. Although some of the information in the report has been published previously in AIHW reports, it also contains a wealth of new information. This includes new information examining recent trends and patterns in:

- multiple risk factors
- cardiac procedures for people who have suffered a heart attack
- outcomes such as in-hospital case-fatality and long-term survival for people who have had a coronary event
- economic aspects of treatment for coronary heart disease.

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Richard Madden
Director

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The report was refereed by Professor Andrew Tonkin (National Heart Foundation of Australia), Professor Annette Dobson (University of Queensland) and Associate Professor Michael Hobbs (University of Western Australia).

Summary

This report highlights the considerable progress that has been made in addressing the epidemic of coronary heart disease (CHD) in Australia among 40–90 year-olds.

Some major gains include:

- falling death rates for CHD: by over 30% between 1993–94 and 1999–00;
- falling onset of major coronary events: 20% decline in incidence rates between 1993–94 and 1999–00;
- better overall survival from major coronary events: 12–16% decline in case-fatality rates between 1993–94 and 1999–00;
- fewer hospital admissions for heart attack (a major component of CHD): 12% decline in acute myocardial infarction (AMI) admission rates between 1993–94 and 1999–00;
- better in-hospital survival for AMI: 17–19% decline in in-hospital case-fatality rates for AMI between 1993–94 and 1999–00;
- some lower risk factor levels: large declines in tobacco smoking and blood pressure levels since 1980.

Associated large trends:

- large increases in the prescription of lipid lowering drugs, ACE inhibitors and calcium channel blockers between 1990 and 1998;
- rapid increase in revascularisation procedures, percutaneous coronary intervention (PCI) and coronary artery bypass grafting (CABG), for the treatment of AMI during acute admissions between 1993–94 and 1999–00.

Some unwelcome statistics:

- rapid increase in prevalence of overweight and obesity and diabetes since 1980;
- increase in physical inactivity levels since 1997;
- no change in high blood cholesterol levels since 1980.

Current patterns (in 1999–00):

- four in ten adult Australians have two or more major modifiable risk factors for CHD;
- 48,313 major coronary events, or 132 per day;
- 50% of these coronary events are fatal; and one in eight AMI patients die in hospital (3,258 patients);
- 28,002 hospital admissions for AMI. Of these:
 - one in four have cardiac catheterisation;
 - at least one in eight have PCI;
 - one in twenty have CABG;

- in-hospital case-fatality rates for AMI patients undergoing PCI is 3.5% and CABG 5.4% during acute admissions. This contrasts with overall PCI mortality of 0.8% and overall CABG mortality of 2.1%.

Men and the elderly are most affected (in 1999–00):

- compared with women, men are:
 - more likely to have multiple risk factors, such as tobacco smoking, physical inactivity, overweight and diabetes;
 - twice as likely to have CHD and die from it;
 - twice as likely to be hospitalised for heart attack;
 - more likely to receive cardiac catheterisation and revascularisation procedures;
- on the other hand, women are more likely to die during acute hospital admissions for AMI and following CABG and cardiac catheterisation;
- compared with younger age groups (40–64 year-olds), the elderly (75–90 year-olds) have:
 - worse risk factor levels;
 - substantially higher death rates and incidence rates from CHD;
 - higher admission rates for AMI, but lower rates of revascularisation procedures and cardiac catheterisations;
 - poorer survival after a coronary event.