

The WHO MONICA Study, Australia, 1984–93

A summary of the Newcastle and Perth MONICA Projects

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The WHO MONICA Study, Australia, 1984–93

**A summary of the Newcastle and Perth
MONICA Projects**

**Patrick McElduff
Annette Dobson
Konrad Jamrozik
Michael Hobbs**

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Australian Institute of Health and Welfare

Board Chair
Professor Janice Reid

Director
Dr Richard Madden

Any enquiries about or comments on this publication should be directed to:

Dr Stan Bennett
Australian Institute of Health and Welfare
GPO Box 570
Canberra ACT 2601

Phone: (02) 6244 1141
Fax: (02) 62441044
E-mail: stan.bennett@aihw.gov.au

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Preface

The MONICA Project was a multinational study to MONItor trends and determinants of Cardiovascular disease. Organised by the World Health Organization, the project aimed to measure trends in cardiovascular disease mortality and coronary heart disease morbidity and to assess the extent to which these trends were related to changes in known risk factors, daily living habits, health care or major socioeconomic features. Forty well-defined populations from 25 countries were involved in the study from the mid-1980s to the mid-1990s. Most of the MONICA centres were established in Europe but Australia participated in the project with two centres, one in Newcastle, New South Wales, and the other in Perth, Western Australia.

This report provides a detailed statistical analysis of the information collected by both the MONICA centres in Australia. Information relating to non-fatal acute myocardial infarctions and coronary deaths was collected for people aged between 25 and 64 years in Perth and for people aged between 25 and 69 years in Newcastle. Rates of coronary events and trends in the rates of coronary events from 1985 to 1993 are presented for each centre and for men and women separately. Information relating to medical treatment was also recorded; this information included drug treatments before, during and after the acute episode and information on utilisation of coronary care units.

Population levels of the major risk factors of cardiovascular disease were also measured. During the study period, three surveys of risk factors were conducted by each centre in the same population. Data from the surveys of risk factors are presented in this document as age-standardised levels of risk factors during each survey period and as trends in levels of risk factors from 1983 to 1994.

The work of the MONICA centres during the 1980s and 1990s in Australia highlighted the need for a national monitoring system for cardiovascular disease. In January 1996, following extensive consultation with representatives of government and non-government agencies, public health researchers and epidemiologists, the National Centre for Monitoring Cardiovascular Disease commenced operation at the Institute (Bennett et al. 1995). Funded by the Federal Health Department, it has the responsibility for monitoring nationally the impact of cardiovascular disease, its treatment and risk factors.

It was appropriate therefore for the Institute to publish these data from the Australian MONICA centres, following the advice of the Advisory Committee to its National Centre for Monitoring Cardiovascular Disease. This report makes the data more generally available and will support the Institute's publications elsewhere of information from the WHO MONICA study. Staff of the National Centre assisted the authors in the preparation of the report, which forms part of the Institute's Cardiovascular Disease Series. As well as contributing to international research efforts, these data represent an important national resource.

Richard Madden
Director
Australian Institute of Health and Welfare

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The report was refereed by Dr Glenn Close (NSW Health) and Dr Paul Magnus (AIHW).

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MONICA centre staff

Newcastle

Principal investigators

Annette Dobson Steve Leeder Richard Heller

Research staff (alphabetical order)

Hillary Alexander	Richard Fraccaro	Craig Kentish	Barbara Raymond
D.J. Balding	Robyn Gannon	Scott Kinlay	M.A. Russell
C.P. Beal	Bob Gibberd	Deberah Lloyd	Steve Ryan
R.M. Clarke	Colleen Griffiths	Denise Marks	W. Shearer
Kate D'Este	Julie Hanson	Patrick McElduff	Paula Steele
Pym Donegan	Anne Harvey	Denise Mowbray	Anne Young
Janet Fisher	Patrick Kelly	Veronica Pettifer	

Perth

Principal investigators

Michael Hobbs Peter Thompson Konrad Jamrozik Bruce Armstrong

Research staff (alphabetical order)

Pip Alder	Alison Cullen	Craig Martin	Darren Starmer
Eve Allen	Heather Downsborough	Richard Parsons	Rosalind Stott
Nancy Armstrong	Jan Eccles	Carol Pearce	Joan Thompson
Jasmin Ashdown	Sue Forbes	Birgit Roberts	Raywin Tuohy
Jenny Bassett	Gillian Grant	Lyn Schofield	Yvonne Vandongen
Margaret Beaven	Caroline Guy	Jane Simpson	Marion Ward
Charles Blumer	Richard Hockey	Jan Sleith	Jan Watt
Robyn Broadhurst	Max Le	Carole Spencer	Raylene Williamson

List of abbreviations

ACE	angiotensin-converting enzyme
AMI	acute myocardial infarction
BMI	body mass index
CABG	coronary artery bypass grafting
CHD	coronary heart disease
CI	confidence interval
EKG	electrocardiograph
HDL	high-density lipoprotein
ICD-9	International Classification of Diseases, Ninth Revision
Lp(a)	Lipoprotein(a)
MONICA	World Health Organization's Project to MONItor the trends and determinants of CArdiovascular disease
PTCA	percutaneous transluminal coronary angioplasty
WHO	World Health Organization

Summary

This report provides results from Australia's two MONICA centres in Newcastle and Perth.

Death rates from coronary heart disease began to fall in Australia in the late 1960s. The Australian MONICA data is consistent with data from the Australian Bureau of Statistics showing that the fall continued during the late 1980s and early 1990s. The reduction occurred for both men and women and for all age groups up to 69 years. During the same period there was also a reduction in non-fatal definite acute myocardial infarctions.

Case fatality declined significantly in Newcastle but not in Perth. New drug therapies, such as thrombolytic therapy and angiotensin-converting enzyme inhibitors, were introduced during the period. These therapies were quickly accepted and their use increased rapidly. The use of aspirin also increased rapidly and by 1993 aspirin was used by over 80% of patients who were treated in hospital.

The risk factor profile of the population showed some improvements between 1983 and 1994. In both centres there was a substantial reduction in the prevalence of smoking. There was a reduction in systolic blood pressure and serum cholesterol and an increase in high-density lipoprotein cholesterol. Unfortunately, there was a large increase in the prevalence of obesity and an increase in the prevalence of diabetes.

The use of aspirin in the general population increased substantially from 1983 to 1994. In 1994, approximately 28% of men aged 65–69 years in Newcastle were taking aspirin on a daily basis. There was also an increase in the use of angiotensin-converting enzyme inhibitors and calcium channel blockers in the general population and a reduction in the use of diuretics and other antihypertensive medications.