National Health Priority Areas



Cancer Control





National Health Priority Areas Report

Cancer control

1997

Commonwealth Department of Health and Family Services
Australian Institute of Health and Welfare

AIHW Cat. No. PHE 4

© Commonwealth of Australia 1998

ISBN 0 642 36727 2

This work is copyright. Apart from any use as permitted under the Copyright Act 1968, no part may be reproduced without written permission from AusInfo. Requests and enquiries concerning reproduction and rights should be directed to the Manager, Legislative Services, AusInfo, GPO Box 84, Canberra ACT 2601.

Commonwealth Department of Health and Family Services and Australian Institute of Health and Welfare 1998. National Health Priority Areas Report on Cancer Control 1997. AIHW Cat. No. PHE 4. Canberra: DHFS and AIHW.

The complete list of the Department of Health and Family Services publications is available from the Publications Officer, Tel: (02) 6289 5811 or via the Department's web-site at: http://www.health.gov.au.

A complete list of the Institute's publications is available from the Publications Unit, Australian Institute of Health and Welfare, GPO Box 570, Canberra ACT 2601, or via the Institute's web-site at http://www.aihw.gov.au.

Contents

Ackno	wledgements	vii
Execu	tive summary	. ix
Introd	luction	1
1. Ove	rview	5
1.1	Profile of cancer	5
	Primary prevention	6
	Screening and early detection	
	Treatment of cancer	7
	Costs of cancer	7
	National Health Priority Area cancers	8
2. Nat	ional Health Priority Areas cancer sites — current status	11
2.1	Lung cancer	11
	Epidemiology	11
	Risk factors	13
	Prevention	13
	Screening and early detection	15
	Treatment	16
2.2	Skin cancer	18
	Epidemiology	18
	Risk factors	21
	Prevention	21
	Screening and early detection	22
	Treatment	23
2.3	Cancer of the cervix	25
	Epidemiology	25
	Risk factors	27
	Prevention	27
	Screening and early detection	
	Treatment	29
2.4	Breast cancer	31
	Epidemiology	31
	Risk factors	
	Prevention	34
	Screening and early detection	34
	Treatment	35
2.5	Colorectal cancer	37
	Epidemiology	37
	Risk factors	
	Prevention	39
	Screening and early detection	40
	Treatment	

2.6	Prostate cancer	43
	Epidemiology	43
	Risk factors	45
	Prevention and screening	45
	Treatment	47
2.7	Other cancers	49
3. Opp	ortunities for cancer control in Australia	51
3.1	A framework for change	51
3.2	Specific issues for priority cancers	52
	Lung cancer	52
	Skin cancer	53
	Cancer of the cervix	54
	Breast cancer	55
	Colorectal cancer	57
	Prostate cancer	57
3.3	Evidence-based practice in cancer control	58
	Role of general practitioners in prevention and early detection	58
	Clinical best practice	59
	Multidisciplinary care	60
	Palliation	60
	Psychosocial care	60
	Supportive care	61
	Development of a consumer network	62
3.4	Special populations	62
	Indigenous peoples	62
	Socio-economically disadvantaged people	63
	People from non-English-speaking backgrounds	63
	Rural and remote populations	64
3.5	Familial cancers	64
3.6	Research and data collection	66
	Types of research	66
	Transfer of research information	67
	Some suggested priorities for cancer research	67
	Participation in clinical trials	68
	Data collection	70
3.7	Setting priorities and future directions	70
Appen	dices	
1	Quality of evidence ratings	73
2	Data and statistical issues	
Acron	yms and abbreviations	
	ences	
KEIEIE	:1 1してう	ဝ၁

Tables and figures

Table 1.1	Priority cancer indicators	. 10
Table 2.1	Fast facts on lung cancer	. 12
Table 2.2	States and Territories — lung cancer	. 12
Table 2.3	Fast facts on non-melanocytic skin cancer	. 18
Table 2.4	Fast facts on melanoma	. 19
Table 2.5	States and Territories — melanoma	. 20
Table 2.6	Fast facts on cancer of the cervix	. 26
Table 2.7	States and Territories — cancer of the cervix	. 26
Table 2.8	Fast facts on breast cancer	. 32
Table 2.9	States and Territories — breast cancer	. 32
Table 2.10	Fast facts on colorectal cancer	. 38
Table 2.11	States and Territories — colorectal cancer	. 38
Table 2.12	Fast facts on prostate cancer	. 44
Table 2.13	States and Territories — prostate cancer	. 44
Table 3.1	NHMRC funding for research in NHPAs	66
Figure 1.1	Leading cancers (excluding non-melanocytic skin cancer), Australia, 1994	5
Figure 1.2	Leading cancers (excluding non-melanocytic skin cancer), males, Australia, 1994	9
Figure 1.3	Leading cancers (excluding non-melanocytic skin cancer), females, Australia, 1994	
Figure 2.1	Lung cancer — incidence and mortality trends	. 11
Figure 2.2	International comparisons — lung cancer	
Figure 2.3	Melanoma — incidence and mortality trends	. 19
Figure 2.4	International comparisons — melanoma	. 21
Figure 2.5	Cervical cancer — incidence and mortality trends (20–74 year old females)	. 25
Figure 2.6	International comparisons — cancer of the cervix (20–74 year old females)	. 27
Figure 2.7	Breast cancer — incidence and mortality trends (50–74 year old females)	. 31
Figure 2.8	International comparisons — breast cancer	. 33
Figure 2.9	Colorectal cancer — incidence and mortality trends	. 37
Figure 2.10	International comparisons — colorectal cancer	. 39
Figure 2.11	Prostate cancer — incidence and mortality trends	. 43
Figure 2.12	International comparisons — prostate cancer	. 45

Acknowledgements

National Health Priority Committee

Judith Whitworth (Chair) Commonwealth

Doris Zonta Australian Capital Territory

Bill Cowie New South Wales
John Condon Northern Territory

John O'Brien Queensland

David Filby South Australia

Mark Jacobs/Mercia Bresnehan Tasmania Geoff Lavender Victoria

Richard Madden Australian Institute of Health and Welfare

Jack Best National Health and Medical Research Council
George Rubin National Health and Medical Research Council

Liz Furler Public Health Division, Commonwealth

Bob Wells Office of National Health and Medical Research

Council, Commonwealth

National Health Priority Committee Secretariat

Angela Reddy (Secretary)

Helen Catchatoor

Julian Evans

Kim Walker

Consultant Authors

National Cancer Control Initiative

Rob Sanson-Fisher

Robert Burton

Scientific Editor

Elizabeth Hall & Associates

Contributors

Kuldeep Bhatia Australian Institute of Health and Welfare
Paul Jelfs Australian Institute of Health and Welfare
Anne-Marie Waters Australian Institute of Health and Welfare
Robert Van Der Hoek Australian Institute of Health and Welfare

The Lung Cancer Consultative Group (chaired by Brian McCaughan)

Contributors (cont.)

Melanie Wakefield

Bob Thomas

Sally Redman National Breast Cancer Centre

Villis Marshall Bill McCarthy Peter Grant

Heather Mitchell

Lester Peters

Claire Caesar National Centre for Disease Control, DHFS
Jan Wiebe National Centre for Disease Control, DHFS

Acknowledgements

Thanks are also due to the following for their assistance in preparing this report:

Paul Ireland National Cancer Control Initiative
Richard Lovell National Cancer Control Initiative
Elizabeth Campbell National Cancer Control Initiative

NCCI network

Australian Association of Cancer Registers

Judy Kirk (Familial) Peter Ellis (Trials)

David Currow (Palliation)

Michael Frommer (Research)

John Zalcberg (Multi-disciplinary)

John Wiggers (Special populations)

Tom Reeve (Guidelines)

Chris Del Mar (General Practice)

Stewart Dunn

Lyn Swinburne (Consumer)

Marijke van Ommeren Australian Institute of Health and Welfare
Lesley Paton National Centre for Disease Control, DHFS
Andrew Benson National Centre for Disease Control, DHFS

Executive summary

This report on cancer control is one of a series of biennial reports to Health Ministers on each of the five National Health Priority Areas (NHPA). It is part of a process that involves various levels of government and draws on expert advice from non-government sources, with the primary goal being to reduce the incidence of, mortality from, and impact of cancer on the Australian population.

Cancer has a major impact on the Australian community, in terms of morbidity, mortality and costs. On average, one in three men and one in four women are likely to develop cancer before the age of 75. The number of new cases of cancer has been steadily rising. Many of these new cases are due to population growth, the aging of the population and increased rates for the detection of some cancers. Mortality from cancer is decreasing, reflecting changes in patterns of exposure to risk factors, changes in treatment and early detection techniques and the use of medical services. The direct costs of cancer were estimated at \$1.361 billion in 1993–94.

The NHPA process has identified specific cancers which represent issues of major concern in all States and Territories, and where significant gains can be achieved through prevention and control. The status of these cancers in 1997 and major issues for the future is summarised as follows.

Lung cancer

Current status

Lung cancer is the most common cause of cancer deaths among Australian males and the second most common cancer in Australia with approximately 7,300 new cases diagnosed each year, most of which go on to be fatal. Lung cancer rates in males exceed those in females by approximately three to one. Incidence and mortality rates are decreasing in males while those of females are increasing.

Prevention is the key to reducing the burden of lung cancer; smoking is by far its largest preventable cause. Actions to reduce lung cancer rates have focused on promoting cessation and decreased uptake of smoking, and on legislative changes to restrict tobacco sales and consumption.

Knowledge of lung cancer is rapidly expanding, with new techniques for early detection and improved treatment being evaluated.

Major issues

There is a wide range of strategies for tobacco control already in place at Commonwealth, State and Territory, local health authority and community level. However, community groups and health bodies want to further restrict tobacco sales and consumption.

Executive summary

Skin cancer

Current status

Non-melanocytic skin cancer is the most common cancer in Australia and Australia has the highest incidence rate in the world with between 250,000 and 300,000 new cases diagnosed each year. Non-melanocytic skin cancers even though more numerous are generally less life threatening than melanoma. Melanoma and non-melanocytic skin cancers show the greatest geographical variation in prevalence of any cancer across Australia, with Queensland having the highest rates. The estimated treatment costs for skin cancers are higher than the costs for any other cancer in Australia.

Primary prevention programs in Australia have been very successful in raising awareness of the dangers of exposure to sunlight and are generally effective in decreasing exposure to sunlight.

Opportunistic detection by general practitioners and targeting of specific high-risk population groups remain useful methods for early detection and diagnosis of skin cancer.

Major issues

Future preventive efforts may need to concentrate more on structural changes within the community, to decrease time in the sun and to increase protective shade structures and other physical means of protection. If an impact is to be made on future incidence rates of skin cancer in Australia, the nature and amount of sun exposure in children and adolescents need to be reduced.

Cancer of the cervix

Current status

Cancer of the cervix is the eighth most common cancer among Australian women, with approximately 1,000 new cases diagnosed each year. Both its incidence and mortality rates have been falling for many years, due mainly to the widespread use of Pap smear screening tests and the subsequent treatment of precancerous abnormalities. This is one of the few cancers where precancerous lesions are detectable and treatable. Hence, mortality from this cancer could be largely prevented with current screening and treatment methods.

Major issues

The development and implementation of effective and culturally appropriate strategies for screening groups with a higher incidence of cancer of the cervix would assist in increasing overall participation in the national screening program. The participation of Indigenous and older women is crucial if health gains from this screening program are to be optimised.

Increased quality assurance measures for laboratories and further encouragement for women and general practitioners to adhere to two-yearly screening would improve both the quality and cost-effectiveness of the national program.

Breast cancer

Current status

Breast cancer remains the most common cause of female cancer deaths in Australia, with nearly 9,800 new cases diagnosed and 2,600 deaths in 1994. In the ten years to 1994, breast cancer incidence rose by an average of 3 per cent. This rise in incidence results partly from improved and easier detection of breast cancers by the BreastScreen Australia program, although some proportion of the increase may be attributable to a real increase in disease rates. However, based on changes in incidence between 1994 and 1996, breast cancer incidence is expected to fall slightly by 1999.

Breast cancer cannot be prevented, so the major scope for reducing the impact of its mortality and morbidity is early detection through the national mammographic screening program, prompt diagnosis, and effective treatment based on the latest evidence.

Major issues

Issues in breast cancer control, such as rates of participation in the national BreastScreen program and the need for models of coordinated care, could be addressed by the establishment of a more integrated approach to the screening, diagnosis and management of the disease.

Colorectal cancer

Current status

Colorectal cancer is the second most common cancer affecting both males and females in Australia, with about 10,000 new cases diagnosed each year and 4,600 deaths. Incidence and mortality have remained stable over the past decade.

Currently there is no national screening program for colorectal cancer, because of uncertainties about which test to use, which groups to test and the likely degree of public acceptance. There is *ad hoc* screening of high-risk groups, such as those with a family history of colorectal cancer.

Major issues

There is great potential for control of colorectal cancer, through early diagnosis which allows for comparatively simple surgery, low morbidity and minimal community cost. Advanced disease demands the use of complex and costly treatment. The Australian Health Technology Advisory Committee (AHTAC) has undertaken a review of the benefits, risks and costs of national screening for colorectal cancer, and has recommended commencing pilot programs using faecal occult blood testing (FOBT) for the average risk population aged 50 years or more.

Executive summary

Prostate cancer

Current status

With nearly 13,000 new cases diagnosed each year, prostate cancer is the most common cancer, excluding non-melanocytic skin cancer, in Australian men. The reported incidence rose rapidly since the introduction of better detection methods in 1990. However, since 1994 incidence rates have declined, although not quite to their original level.

There is no evidence of any reduction in mortality associated with early detection in asymptomatic men. The current National Health and Medical Research Council (NHMRC) recommendation is that men without symptoms should not be screened for prostate cancer.

The optimum treatment for prostate cancer is subject to debate. The current trend is to adopt a watchful waiting approach in men aged over 75 years and with low grade tumours. Treatments such as radiotherapy or radical prostatectomy are being offered to younger men. This approach is seen by some as being a reasonable compromise until evidence from randomised controlled trials becomes available.

Major issues

Screening for prostate cancer should be discouraged unless evidence of benefit emerges which supports the development of a national screening program.

Ongoing audit is necessary as few Australian studies have reported outcomes of any form of treatment and there are often insufficient staging data to allow any comparison with international studies. Clarification of the role of various treatments in prostate cancer is severely restricted by the lack of reliable evidence-based information. Most importantly, there is a need for the development, testing and evaluation of appropriate information for men and their general practitioners.

Opportunities for improving cancer control

A focus on cancer types is useful in determining progress in cancer control, but other common factors should also be considered. Issues such as the identification and control of risk factors, the transfer of existing or new knowledge that is available through research into strategies against cancer, the kinds of data systems that are available, whether aspects of cancer services or treatment are different among particular population groups, and the role and rights of consumers, are all important in building a full picture of cancer control in the nation.

A comprehensive, rational approach at the national level can be promoted by discussing opportunities for improving cancer control within a systematic framework. This would consider the cancer types, the stages along the continuum of care and other categories of health system activity that are relevant to cancer. Such a framework would provide a blueprint for collaborative action under the NHPA process, which also draws in non-government expertise.

Opportunities for improving cancer control include:

- promoting comprehensive consumer participation in all aspects of cancer control:
- ensuring that preventive and screening strategies are accessible and effective, with a particular focus on special populations;
- promoting research which addresses important gaps in our knowledge of cancer prevention, early detection and treatment;
- improving the linkages between research and decision-making processes in cancer prevention and treatment;
- ensuring that treatment, rehabilitation, supportive care and palliation are accessible and effective;
- considering financial and other incentives for the promotion of evidence-based practice;
- improving and maximising the use of data as an essential tool in decision making;
- · improving the integration of care across the health continuum; and
- encouraging the development of model centres of excellence in cancer care.

Cancer has a large impact on the Australian community. Some reduction of mortality and morbidity is possible, but there is still much work to be done to realise the full potential for cancer prevention control.

Introduction

Background

This report on cancer control is one of a series of biennial reports to Health Ministers on each of the five National Health Priority Areas (NHPA) — cardiovascular health, cancer control, injury prevention and control, mental health and diabetes mellitus.

While each report targets a discrete group of diseases or conditions and the recommended strategies for action are often specific in nature, the NHPA initiative recognises the role played by broader population health initiatives in realising improvements in the health status of Australians. Public health strategies and programs which target major risk factors such as smoking may benefit several priority areas, including cancer and cardiovascular health.

This report on cancer control is part of an encompassing NHPA process that involves various levels of government and draws on expert advice from non-government organisations, with the primary goal being to reduce the incidence of, mortality from, and impact of cancer on the Australian population.

The National Health Priority Areas initiative

Based on current international comparisons, the health of Australians is among the best in the world and should continue to improve with continued concerted efforts across the nation. The NHPA initiative emphasises collaborative action between Commonwealth and State and Territory Governments, the National Health and Medical Research Council (NHMRC), the Australian Institute of Health and Welfare (AIHW), non-government organisations, appropriate experts, clinicians and consumers. It recognises that specific strategies for reducing the burden of illness should be holistic, encompassing the continuum of care from prevention, through to treatment, and management and maintenance, all underpinned by evidence based on appropriate research.

By targeting specific areas which impose high social and financial costs on Australian society, collaborative action can achieve significant and cost-effective advances in improving the health status of Australians. The diseases and conditions targeted through the NHPA process were chosen because these are the areas where significant gains in the health of Australia's population can be achieved.

From National Health Goals and Targets to National Health Priority Areas

The World Health Organization (WHO) published the *Global Strategy for Health for All by the Year 2000* in 1981. In response to this charter, the *Health for All Australians* report was developed and represented Australia's 'first national attempt to compile goals and targets for improving health and reducing inequalities in health status among population groups' (Health Targets and Implementation Committee 1988). The 20 goals and 65 targets focused on population groups, major causes of sickness and death, and risk factors.

A revised set of targets was published in 1993 in the *Goals and Targets for Australia's Health in the Year 2000 and Beyond* report (Nutbeam et al 1993). Goals and targets were established in four main areas: reductions in mortality and morbidity, reductions in health risk factors, improvements in health literacy, and the creation of health-supportive environments. However, this framework was not implemented widely.

Introduction

The Better Health Outcomes for Australians report was released in 1994 and refined the National Health Goals and Targets program. The focus of goals and targets was shifted to four major areas for action — cardiovascular health, cancer control, injury prevention and control, and mental health. As a corollary to this, Australian Health Ministers also adopted a national health policy which committed the Commonwealth and State and Territory Governments to develop health goals and targets in the priority health areas and re-orient the process towards population health.

In 1995, it was recognised that there were a number of fundamental shortcomings of the National Health Goals and Targets process, principally, that there were too many indicators (over 140 across the four health priority areas), there was a lack of emphasis on treatment and ongoing management of the disease/condition, and there was no national reporting requirement. In implementing a goals and targets approach, emphasis was placed on health status measures and risk factor reduction. However, no nationally agreed strategies were developed to promote the change required to reach the targets set.

This led to the establishment of the current NHPA initiative. Health Ministers agreed at their July 1996 meeting that a national report on each priority area be prepared every two years, to give an overview of their impact on the health of Australians. These reports would include a statistical analysis of surveillance data and trends for a set of agreed national indicators. It was also agreed that diabetes mellitus become the fifth NHPA.

A consolidated report on progress in all the priority areas was presented to Health Ministers in August 1997, the *First Report on National Health Priority Areas 1996* (AIHW & DHFS 1997).

Development of the report

In developing this report, the National Health Priority Committee (NHPC) sought the assistance of both the National Cancer Control Initiative (NCCI), to provide expert advice on cancer control, and the Australian Institute of Health and Welfare (AIHW), to provide statistical analysis of cancer data.

The NCCI was established in February 1997 to develop a comprehensive national response to cancer, including the provision of independent, expert advice to the Commonwealth Health Minister on all issues relating to cancer control in Australia.

An important part of the NCCI's activities has been the development of a *Priority Issues Discussion Paper on Cancer*, produced in July 1997, which detailed current incidence, mortality and estimated costs associated with cancer in Australia. The paper also outlines the priority setting process which the NCCI undertook for the National Cancer Control Plan and Implementation Strategy, delivered to the Commonwealth in December 1997.

The NCCI sought input on various aspects of cancer control through its extensive network of experts working in the field. This input forms the NCCI's contribution to the NHPA report. In providing advice on cancer control to the NHPC, the NCCI reviewed current cancer research, current practice in prevention, treatment and management, and other activities in the field of cancer control. Through a wide consultation process, the NCCI has developed a holistic view of the imperatives in cancer control. This high level of cooperation reflects one of the great strengths of the health system in Australia.

Data development and statistical analysis, including determination of trends and differentials by the AIHW form the basis for reporting against the agreed set of cancer indicators.

Purpose and structure of the report

The *First Report on National Health Priority Areas 1996* provided baseline data and underlying trends in the five National Health Priority Areas. This report on cancer control builds on that report and outlines strategies for change across the continuum of care for cancer control. The data component of this report updates the indicators in the First Report and continues the monitoring of trends and differentials in cancer control.

This report focuses on specific cancers which represent issues of major concern in all States and Territories, and where significant gains can be achieved through prevention and disease management. These are:

- · lung cancer;
- skin cancer (melanoma and non-melanocytic skin cancer);
- cancer of the cervix;
- breast cancer:
- colorectal cancer; and
- · prostate cancer.

Chapter 1 includes an overview of cancer, including a profile of the disease, its known causes, the range of strategies used in cancer control and a comparison of the incidence and mortality rates of various cancers.

Chapter 2 focuses on the current status of each NHPA cancer, including its epidemiology, known risk factors, direct and indirect costs, and key activities in prevention, screening, early detection and treatment.

Chapter 3 considers major issues for consideration by Health Ministers, for each NHPA cancer specifically and for issues that apply to cancer control generally. There is also a discussion of planning, including incentives to achieve desired changes.

Throughout this report the gaps in information about each of the cancers are highlighted as are the barriers to interventions which might reduce their incidence, morbidity and/or their mortality.