Cancer in Australia 1996

Incidence and mortality data for 1996 and selected data for 1997 and 1998

CANCER SERIES

Cancer in Australia 1996

Incidence and mortality data for 1996 and selected data for 1997 and 1998

November 1999

Australian Institute of Health and Welfare
Australasian Association of Cancer Registries
Canberra

AIHW cat. no. CAN 7

© Australian Institute of Health and Welfare 1999

This work is copyright. Apart from any use as permitted under the *Copyright Act 1968*, no part may be reproduced without prior written permission from the Australian Institute of Health and Welfare. Requests and enquiries concerning reproduction and rights should be directed to the Head, Communication and Public Affairs, Australian Institute of Health and Welfare, GPO Box 570, Canberra ACT 2601.

This publication is part of the Australian Institute of Health and Welfare's Cancer Series. 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 http://www.aihw.gov.au.

ISSN 1039-3307 ISBN 1 74024 024 3

Suggested citation

Australian Institute of Health and Welfare (AIHW) and Australasian Association of Cancer Registries (AACR) 1999. Cancer in Australia 1996: Incidence and mortality data for 1996 and selected data for 1997 and 1998. AIHW cat. no. CAN 7. Canberra: AIHW (Cancer Series).

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:

Mr Robert van der Hoek Australian Institute of Health and Welfare GPO Box 570 Canberra ACT 2601

Phone: (02) 6244 1133

Published by Australian Institute of Health and Welfare

Printed by Ausdoc on Demand

Contents

List of tables	vi
List of figures	vii
Preface	ix
Contributors	x
Executive summary	xi
1 Introduction	1
What is cancer?	1
Cancer surveillance in Australia	2
The National Cancer Statistics Clearing House	2
Structure of this report	3
2 Cancer in Australia	5
General	5
Most common cancers	5
Age and sex differences	10
Alcohol- and smoking-related cancers	15
Cancer rates in the States and Territories 1992-1996	16
International comparisons	20
3 National trends in cancer incidence and mortality	28
Trends	28
4 Incidence and mortality tables	38
Guide to interpreting incidence and mortality tables	38
Summary tables 1996	41
Tables for selected cancers 1996	45
Appendixes	67
Appendix A: International Classification of Diseases – Ninth Revision codes and combinations	
Appendix B: Methods	69
Appendix C: Population data	
Appendix D: Cancer registration in Australia	76
Appendix E: Cancer registries contact list	
Glossary	
References	
Related nublications	83

List of tables

Table 1:	Most frequently occurring cancers in Australia, 1996	7
Table 2:	Cancer site and per cent of cancers attributable to alcohol and smoking	15
Table 3:	Most frequently occurring cancers in New Zealand	23
Table 4:	Incidence summary table, 1996	40
Table 5:	Mortality summary table, 1996	41
Table 6:	All cancers (except non-melanocytic skin cancers) (ICD 140-172, 174-208)	44
Table 7:	Cancer of the stomach (ICD 151)	45
Table 8:	Cancer of the colon and rectum (ICD 153-154)	46
Table 9:	Cancer of the pancreas (ICD 157)	47
Table 10:	Cancer of the trachea, bronchus and lung (ICD 162)	48
Table 11:	Cancer of the skin – melanoma (ICD 172)	49
Table 12:	Cancer of the breast (ICD 174-175)	50
Table 13:	Cancer of the cervix (ICD 180)	51
Table 14:	Cancer of the uterus (ICD 179+182)	52
Table 15:	Cancer of the ovary and other uterine adnexae (ICD 183)	53
Table 16:	Cancer of the prostate (ICD 185)	54
Table 17:	Cancer of the testis (ICD 186)	55
Table 18:	Cancer of the bladder (ICD 188)	56
Table 19:	Cancer of the kidney and other and unspecified urinary organs (ICD 189)	57
Table 20:	Cancer of the brain (ICD 191)	58
Table 21:	Cancers of unknown primary site (ICD 195-199)	59
Table 22:	Non-Hodgkin's lymphoma (ICD 200+202)	60
Table 23:	Leukaemias (ICD 204-208)	61
Table 24:	Alcohol-related cancers	62
Table 25:	Smoking-related cancers	63
_	hensive set of Excel tables for all cancer sites are available on the Institute's	

List of figures

Figure 1:	Most frequently occurring cancers, Australia, 1996
Figure 2:	Most frequently occurring cancers by age group, ranked by number of new cases (persons), Australia, 1996
Figure 3:	Age-specific incidence and mortality rates for melanoma and cancers of the lung, prostate and testis in males, Australia, 1996
Figure 4:	Age-specific incidence and mortality rates for melanoma and cancers of the lung, breast and cervix in females, Australia, 1996
Figure 5:	Age-specific incidence and mortality rates for colorectal cancer, cancers of the bladder and stomach, and non-Hodgkin's lymphoma in males, Australia, 1996
Figure 6:	Age-specific incidence and mortality rates for colorectal cancer, cancers of the uterus and stomach, and non-Hodgkin's lymphoma in females, Australia, 1996
Figure 7:	Age-standardised incidence rates (95% confidence intervals) for all cancers (excluding non-melanocytic skin cancers) and for melanoma by State and Territory, 1992–1996
Figure 8:	International comparison of age-standardised incidence and mortality rates for lung, stomach and colorectal cancer for males, Australia 1992 and 1996, and other selected countries, 1988–1992
Figure 9:	International comparison of age-standardised incidence and mortality rates for lung, stomach and colorectal cancer for females, Australia 1992 and 1996, and other selected countries, 1988–1992
Figure 10:	International comparison of age-standardised incidence and mortality rates for prostate, bladder and all cancers for males, Australia 1992 and 1996, and other selected countries, 1988–1992
Figure 11:	International comparison of age-standardised incidence and mortality rates for breast, cervix and all cancers for females, Australia 1992 and 1996, and other selected countries, 1988–1992
Figure 12:	Trends in age-standardised incidence and mortality rates for all cancers (excluding non-melanocytic skin cancers), Australia, 1983–199728
Figure 13:	Trends in age-standardised incidence and mortality rates for cancers of the prostate and breast, and colorectal cancer, Australia, 1983–199731
Figure 14:	Trends in age-standardised incidence and mortality rates for cancer of the lung, smoking-related cancers and melanoma, Australia, 1983–199732
Figure 15:	Trends in age-standardised incidence and mortality rates for non-Hodgkin's lymphoma, and cancers of the bladder and stomach, Australia, $1983-1997$ 33
Figure 16:	Trends in age-standardised incidence and mortality rates for leukaemias and cancers of the brain and pancreas, Australia, 1983–199734
Figure 17:	Trends in age-standardised incidence and mortality rates for cancers of the cervix, uterus and ovary, Australia, 1983–199735
Figure 18:	Trends in age-standardised incidence and mortality rates for cancer of the kidney and testis, and cancers of unknown primary site, Australia, 1983–1997

Preface

The Australian Institute of Health and Welfare (AIHW) and the Australasian Association of Cancer Registries (AACR) are pleased to present *Cancer in Australia 1996*, an important publication generated from the National Cancer Statistics Clearing House (NCSCH). This report contains the most recent available national cancer incidence and mortality data and is the most up-to-date national report that has ever been produced. This report, for the first time, includes data from another of the AACR members, New Zealand, and also reintroduces some international comparisons.

The cancer registries and the Institute have continued their efforts in improving national reporting timeliness. We acknowledge the efforts of all the cancer registries in compiling and providing timely data to the NCSCH so that this important public health data set could be published. We intend to continue improvement in this area and, in addition, undertake a work program that encourages further standardisation of cancer registry information and increased analysis of the national data collection (e.g. survival analysis).

Cancer registration is a legal requirement in all States and Territories. The data are collected to monitor cancer trends, assist national efforts to understand the causes of cancer, and assist prevention efforts and treatment decisions. Data confidentiality and the uses to which cancer registry data can be put are controlled by State and Territory registries (under State and Territory law) and within the AIHW under the *Australian Institute of Health and Welfare Act 1987*. The cancer registries together with the Institute and community organisations (e.g. cancer charity organisations) intend to promote further public awareness of their data collections and findings.

Richard Madden Professor Bruce Armstrong
Director Chair

Australian Institute of Health and Welfare Australasian Association of Cancer Registries

Contributors

This AIHW National Cancer Statistics Clearing House report would not have been possible without the cooperation and effort of those who direct the operation, promotion and development of the State and Territory cancer registries. These people, identified below, have all worked together, through the Australasian Association of Cancer Registries, to produce the national cancer incidence statistics in this publication.

Incidence information provided by State and Territory cancer registries is sourced predominantly from hospitals, pathologists and departments of radiation oncology, with supplementary information provided by medical practitioners in private practice. The major contributors of information on cancer deaths are the State and Territory Registrars of Births, Deaths and Marriages, and the Australian Bureau of Statistics.

Funding and support of cancer registries in Australia is undertaken by State and Territory governments and various charity bodies. The AIHW acknowledges the support of the State and Territory governments, the New South Wales Cancer Council, the Anti-Cancer Council of Victoria, the Queensland Cancer Fund, the Cancer Foundation of Western Australia, the Northern Territory Anti-Cancer Foundation and the Australian Cancer Society. Finally, the contributions of the staff and volunteers who work with the State and Territory cancer registries are acknowledged.

Australian Institute of Health and Welfare

Dr Paul Jelfs

Mr Robert van der Hoek Ms Edith Christensen Ms Kathy Southgate Ms Amanda Nobbs

New South Wales

Professor Bruce Armstrong Mrs Marylon Coates Mrs Noreen Panos Mrs Maria Arcorace

Victoria

Professor Graham Giles Ms Kathryn Whitfield Mrs Vicky Thursfield Ms Sue Douglas

Western Australia

Dr Tim Threlfall
Dr Judy Thompson
Ms Kaye Garrod
Ms Charmaine Brewster
Ms Kathy Johnston
Ms Colleen Kontor

Queensland

Dr Ian Ring Mrs Judy Symmons Ms Sandra Martyn

South Australia

Assoc. Professor David Roder Ms Lesley Milliken Dr Wayne Clapton

Tasmania

Professor Terence Dwyer Mrs Dace Shugg Ms Rosie Ashbolt

Australian Capital Territory

Dr Bruce Shadbolt Ms Barbara Stuart-Harris

Northern Territory

Dr John Condon Mr Edouard D'Espaignet Ms Karen Dempsey Ms Maxene Woods

New Zealand

Ms Freddie Walker-Murray Mr Paul Easton

Executive summary

This report presents national cancer incidence and mortality statistics and is part of the cancer series yearly publications. The State and Territory cancer registries provide the incidence data. The Australian Bureau of Statistics, which gets its information from the State and Territory Registrars of Births, Deaths and Marriages, provide mortality information.

Each year, approximately 345,000 new cancer cases are diagnosed in Australia. A large proportion of these, approximately 270,000, are non-melanocytic skin cancers. Incidence data for this cancer are not collected on a routine basis by cancer registries, and are not reported in this publication.

Excluding non-melanocytic skin cancers, there were 77,666 new cancer cases and 34,089 deaths due to cancer in Australia in 1996. At the incidence rates prevailing in 1996, it would be expected that 1 in 3 men and 1 in 4 women would be directly affected by cancer in the first 75 years of life. Further, nearly 261,300 potential years of life would be lost to the community each year as a result of people dying of cancer before the age of 75. Cancer currently accounts for 28% of male deaths and 25% of female deaths.

In males, prostate cancer (10,055 new cases diagnosed in 1966) is the most common registrable cancer, followed by colorectal cancer (6,067), lung cancer (5,228) and melanoma (4,313). These four cancers account for 60% of all registrable cancers in males.

In females, breast cancer (9,621) is the most common registrable cancer, followed by colorectal cancer (4,931), melanoma (3,448) and lung cancer (2,393). These four cancers account for 58% of all registrable cancers in females.

The most common cancers causing death are lung (4,743), prostate (2,644) and colorectal (2,474) cancers in males, and breast (2,619), colorectal (2,132) and lung (2,021) cancers in females.

The risk of cancer increases with age. The age-standardised incidence rate in 1996 for all cancers (excluding non-melanocytic skin cancers) was 16.1 per 100,000 for people aged less than 15 years and 2,149.6 per 100,000 for people aged 65 years and over.

Between 1990 and 1996, age-standardised incidence rates for all cancers (except non-melanocytic skin cancers) rose for both males and females by an average of 2.1% and 1.4% per year respectively but death rates declined by an average of 0.4% per year for both males and females. A significant proportion of the rises in incidence rates can be attributed to the recent upturn in prostate (1990–1994) and breast cancer incidence. Much of the rise in the incidence rates of prostate and breast cancer can be attributed to detection of these prevalent cancers after the introduction of prostate-specific antigen testing and breast screening programs.

While breast cancer incidence rates have continued to increase in 1996 and 1997, incidence rates for prostate and cervical cancers and male lung cancer have continued their decline.

Cigarette smoking is estimated to have directly caused 10,148 new cases of cancer and 6,986 deaths in 1996. Between 1990 and 1996, the male incidence rate for smoking-related cancers fell by an average of 1.2% per year, while the rate for females rose by 0.6% per year. Over the same period, mortality rates fell by 1.2% per annum for males and rose by 0.8% per annum for females.

A comparison with some countries with similar economic development to Australia shows that Australia's male and female incidence rates are fairly average but that our mortality rates compare favourably to the selected countries. Australia's melanoma rates are amongst the highest in the world while our colorectal rates are also relatively high. Stomach and lung cancer rates in Australia are lower than in most other countries. In a direct comparison with

New Zealand, there appears to be substantial differences in female mortality rates for several cancers, with cancers of the breast and lung showing the largest differences. Cancer incidence rates in New Zealand males are slightly higher than those of Australian males for most types of cancer.