

Cancer in Australia 1999

The Australian Institute of Health and Welfare is Australia's national health and welfare statistics and information agency. The Institute's mission is to improve the health and wellbeing of Australians by informing community discussion and decision making through national leadership in developing and providing health and welfare statistics and information.

The Australasian Association of Cancer Registries (AACR) is a collaborative body representing State and Territory cancer registries in Australia and New Zealand. Most are members of the International Association of Cancer Registries. The AACR was formed in November 1982 to provide a formal mechanism for promoting uniformity of collection, classification and collation of cancer data.

The purposes of the AACR are:

- to provide a continuing framework for the development of population-based cancer registration in Australia and New Zealand;
- to facilitate the exchange of scientific and technical information between cancer registries and to promote standardisation in the collection and classification of cancer data;
- to facilitate cancer research both nationally and internationally; and
- to facilitate the dissemination of cancer information.

The Australian Institute of Health and Welfare has joined with the AACR to produce national cancer statistics from the National Cancer Statistics Clearing House.

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Preface

The Australian Institute of Health and Welfare (AIHW) and the Australasian Association of Cancer Registries (AACR) are pleased to present *Cancer in Australia 1999*, the most recent report generated from the National Cancer Statistics Clearing House.

This report contains updates of the national cancer incidence and mortality data found in previous editions, and presents summary cancer statistics for several other national data sources held by the Australian Institute of Health and Welfare. These include screening, survival and multiple cause of death statistics; general practice patient encounter and hospital inpatient data showing broad patient treatment patterns for the first time; cancer workforce numbers; and trends in some of the major known risk factors. These statistics are supplemented by additional tables, a national cancer data cube and further reports on the AIHW web site at www.aihw.gov.au. There is a wealth of State and Territory cancer data and many cancer research reports found on the State and Territory cancer registry web sites listed in Appendix E. 'Related publications' lists many of the published reports available from State and Territory registries.

The AACR and the AIHW wish to acknowledge the efforts of all the cancer registries in compiling and providing data to the National Cancer Statistics Clearing House so that this report could be published. A considerable amount of work was undertaken by AIHW and AACR in implementing the changeover in reporting of cancer incidence data in this publication from International Classification of Diseases (ICD) version 9 to ICD version 10. While this caused some delay in the publication of this report, AIHW and AACR are hopeful that the transition work undertaken this time will assist in improving timeliness and the quality of the information for the next report.

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Contributors

This joint report between the Australian Institute of Health and Welfare and the Australasian Association of Cancer Registries 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 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. We thank them for their contribution.

Funding and support of cancer registries in Australia is undertaken by State and Territory Governments and various charity bodies. We recognise the support of the State and Territory Governments, the New South Wales Cancer Council, the 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.

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Executive summary

This report presents national cancer incidence and mortality statistics for 1999 and cancer-related risk factor, screening, survival and treatment data and associated workforce data. It is part of a series of publications concerning cancer patterns in Australia. The State and Territory cancer registries provide the incidence data for this report whereas the mortality data are provided by the State and Territory Registrars of Births, Deaths and Marriages and coded by the Australian Bureau of Statistics. Other data sources include:

- AIHW National Hospital Morbidity Database;
- AIHW General Practice Statistics and Classification Unit; and
- AIHW health workforce collections.

The main findings are as follows.

New cases of cancer and mortality

- Excluding non-melanocytic skin cancers, there were 82,185 new cancer cases and 34,695 deaths due to cancer in Australia in 1999. At the incidence rates prevailing in 1999, 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, an estimated 254,000 potential years of life would be lost to the community as a result of people dying of cancer in 1999 before the age of 75. Cancer currently accounts for 29% of male deaths and 25% of female deaths.

Cancers in males and females

- In males, prostate cancer (10,232 new cases diagnosed in 1999) is the most common registrable cancer, followed by colorectal cancer (6,188), lung cancer (5,275) and melanoma (4,627). These four cancers account for 59% of all registrable cancers in males.
- In females, breast cancer (10,592) is the most common registrable cancer, followed by colorectal cancer (5,449), melanoma (3,616) and lung cancer (2,551). These four cancers account for 59% of all registrable cancers in females.

Most common cancers causing death

- The most common cancers causing death are lung (4,645 deaths in 1999), prostate (2,512) and colorectal (2,483) cancers in males, and breast (2,512), lung (2,123) and colorectal (2,092) cancers in females.

Age distribution

- The risk of cancer increases with age, with over four times as many cancers diagnosed in those over the age of 60 as in those under 60.

Trends

- In 1990 there were 62,435 new cases of cancer diagnosed (excluding non-melanocytic skin cancers) – 33,915 for males (a rate of 452.1 per 100,000 population) and 28,520 for females (a rate of 315.0 per 100,000 population). This rose to 82,185 new cases in 1999 – 44,514 for males (a rate of 469.6 per 100,000 population) and 37,671 for females (a rate of 339.2 per 100,000 population).
- Between 1990 and 1999, age-standardised incidence rates for all cancers combined (except non-melanocytic skin cancers) rose for both males and females by an average of

0.3% and 0.8% per year, respectively, but death rates declined for both males and females by an average of 1.1% and 1.0% per year, respectively.

- A significant proportion of the rise in female incidence rates can be attributed to the continuing increase of breast cancer incidence which in turn can be attributed in part to detection of prevalent cancers by the breast screening programs. The recent fall in male incidence rates is strongly influenced by the decline in prostate and lung cancer rates. The introduction of prostate-specific antigen testing and its later fall in use has induced the rapid rise and subsequent fall in the rates of the incidence of prostate cancer in recent years.
- Cervical cancer incidence and mortality between 1990 and 1999 fell rapidly by an average of 5.4% and 5.5% per annum, respectively.

Cancer mortality – multiple causes of death

- In Australia in 1999 there were 35,053 deaths where the underlying cause was malignant cancer and 11,714 additional deaths where cancer was an associated cause reported on the death certificate.

Survival following cancer diagnosis

- The average 5-year relative survival proportion for all registrable cancers diagnosed in Australia in the period 1992–1997 was 56.8% for males and 63.4% for females.
- For registrable cancers diagnosed in males during the period 1992–1997, relative survival in capital cities, other metropolitan areas and large rural centres was close to 57.5%. This was significantly above the proportions in small rural centres (55.2%) and ‘other remote’ areas (51.9%). There were no statistically significant differences in relative survival for females between metropolitan, rural and remote areas.
- For males diagnosed during the period 1992–1997, relative survival was 51.9% for persons resident in the most disadvantaged areas of Australia, and 61.4% for residents of the most advantaged areas. For females, there was a lesser disparity, with a relative survival of 61.9% in the bottom quintile and 63.4% in the highest. This may be partly attributed to higher rates of breast cancer in women living in higher socioeconomic status areas.
- 5-year relative survival for all registrable cancers increased between 1982–1986 and 1992–1997 on average from 43.8% to 56.8% for males and from 55.3% to 63.4% for females.

Risk factors

- In Australia, smoking rates have been declining since the 1950s, when it was estimated that around 70% of males and 30% of females smoked.
- Cigarette smoking is estimated to have directly caused 10,619 new cases of cancer (12.9% of all new cases of cancer) and 7,554 deaths (21.8% of cancer deaths) in 1999. Between 1990 and 1999, the male incidence rate for smoking-related cancers fell by an average of 1.4% per year, while the rate for females rose by 0.8% per year. Over the same period, mortality rates fell by 1.7% for males and rose by 0.8% for females per annum.
- Hospital separations for each of the eight National Health Priority Area cancers included hypertension, current tobacco use and personal history of tobacco use in their top ten additional diagnoses.

- Alcohol consumption is known to be a contributing cause of cancers of the liver, laryngeal, oropharyngeal, oesophagus, and the female breast. Australia's drinking pattern has remained largely unchanged over the last decade.
- It is estimated that 2,602 new cases of cancer were directly attributable to alcohol consumption in 1999 at a rate of 13.7 cases per 100,000 population, as were 1,199 deaths at a rate of 6.3 per 100,000 population.

Screening

- The proportion of women in the target age group (ages 50 to 69) who were screened under the BreastScreen Australia program in a 2-year period rose from 51.4% in the period 1996–1997 to 55.9% in the period 1998–1999.
- The proportion of women in the target age group who were screened under the National Cervical Cancer Screening Program in a 2-year period rose from 62.3% in the period 1996–1997 to 64.8% in the period 1998–1999.

Hospital inpatients with cancer

- In the financial year 2000–01 there were 306,536 hospital separations where cancer was recorded as the principal diagnosis. This represents 5.0% of all separations in that year.
- Non-melanocytic skin cancer was the principal diagnosis associated with the greatest number of separations. This cancer had the largest proportion of same-day patients. Colorectal cancer was the principal diagnosis associated with the longest average length of stay for non-same-day patients.

Cancer workforce

- In 1998, there were 658 medical specialists working in the fields of medical and radiation oncology, clinical haematology, haematology and nuclear medicine. These are fields of practice with a high proportion of cancer patients. In addition, nearly all other doctors in clinical practice in Australia provide services to at least some cancer patients.
- In 1997 there were 2,412 registered nurses and 273 enrolled nurses working in oncology as their main field of nursing practice.
- In its 2001 report, the Australian Medical Workforce Advisory Committee (AMWAC) reported that there were 337 medical and haematological oncologists in 2000, and there was both a shortage of these oncologists and a maldistribution of the existing workforce. AMWAC also reported that there were 1,148 specialist radiologists in 2000, and that this workforce was also under supplied, together with the specialist radiation oncology workforce.

General practice and cancer patients

- During the period April 1998 to March 2002, general practitioners managed cases of cancer at a rate of 18.8 per 1,000 GP–patient encounters. Extrapolated to the total GP–patient encounters in any one year across the country, these data suggest there are about two million encounters in general practice in which a cancer is managed.
- The top ten types of cancer managed by GPs together accounted for around 78% of the GP–patient contacts with a cancer. The top three types – basal and squamous cell carcinoma and prostate cancer – accounted for around 51% of cancers managed. All skin cancers (both melanoma and non-melanocytic skin cancers) together accounted for around 46% of cancers managed at these encounters.

