

**Breast cancer in
Australian women
1982–1996**

The Australian Institute of Health and Welfare is an independent health and welfare statistics and information agency. The Institute's mission is to inform community discussion and decision making through national leadership in the development and provision of authoritative and timely information on the health and welfare of Australians.

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 (IACR). The AACR was formed in November 1982, with the backing of the IACR, 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 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;
- to facilitate the dissemination of cancer information.

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

The National Breast Cancer Centre (NBCC) works in partnership with women, health professionals, cancer organisations, researchers and governments to improve breast cancer outcomes for women. It was established to improve breast cancer control by

- analysing research and making it readily available to women and health professionals;
- developing, disseminating and encouraging the adoption of clinical guidelines to improve the diagnosis, treatment and support of women with breast cancer; providing accurate and accessible information to well women, women with breast cancer, primary care providers and breast cancer specialists; and developing a national monitoring system to provide information about all aspects of breast cancer.

Goals of the Centre

- ensuring that all women and health professionals have a balanced understanding of the incidence of and risk factors for breast cancer;
- ensuring that all women with breast cancer are diagnosed as early as possible;
- ensuring that all women diagnosed with breast cancer receive 'state of the art' treatment;
- ensuring that all women diagnosed with breast cancer and their families receive adequate psychosocial, physical and practical support;
- developing networks and infrastructure to increase breast cancer control;
- developing a national monitoring system for breast cancer outcomes.

CANCER SERIES

Breast cancer in Australian women 1982–1996

Australian Institute of Health and Welfare
Australasian Association of Cancer Registries
NHMRC National Breast Cancer Centre
Canberra

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Contents

Summary	vii
Incidence and mortality	vii
Acknowledgments	ix
Introduction.....	1
Guide to this report.....	2
Data sources and quality	2
Methods	3
Most common cancers in women in Australia	7
Deaths from common cancers in women in Australia	8
New cases of breast cancer and deaths from breast cancer.....	9
Risk of breast cancer by age	10
National incidence and mortality rates	11
National trends in incidence and mortality	12
National incidence rates by age	13
National incidence trends by age	14
National mortality rates by age	16
National mortality trends by age.....	17
State and Territory incidence and mortality trends	19
State and Territory incidence rates by age.....	22
State and Territory mortality rates by age	24
Urban and rural incidence rates	26
Urban and rural mortality rates.....	27
Appendix 1: Tables and figures	28
Tables list	28
Figures list.....	29
Appendix 2: Additional tables	31
Glossary and abbreviations.....	50
References	52

Summary

Incidence and mortality

Australia

Age-standardised rates referred to in this summary are age-standardised to the Australian 1991 Population Standard (see page 4).

In 1996

- With 9,556 new cases, breast cancer was the most common cancer diagnosed in women in Australia (apart from non-melanocytic skin cancers).
- With 2,619 deaths, breast cancer was the most common cause of cancer death in women in Australia.

Between 1982 and 1996

- The age-standardised incidence rate increased from 70 per 100,000 woman-years in 1982 to 101 new cases per 100,000 in 1995; it fell to 95 per 100,000 in 1996. The most significant rise occurred shortly after the introduction of mammographic screening.
- The most substantial increase in age-standardised incidence rates was recorded for women aged 50–69: a rise of 55%, from 175 per 100,000 in 1982 to 271 per 100,000 in 1996.
- There was little change in age-standardised incidence rates for women aged 15–39 years, while rates increased by 24% for women aged 40–49 years, and 27% for women aged 70 years and over.
- Age-standardised mortality rates remained stable, at around 25 to 27 deaths per 100,000 woman-years between 1982 and 1996.

Between 1992 and 1996

- On average, each year 9,166 women were diagnosed with breast cancer and 2,593 women died from it.
- Breast cancer was rare in women younger than 40 years, with an average of 640 new cases diagnosed each year (18 new cases per 100,000 woman-years).
- The age-standardised incidence rate was 146 per 100,000 woman-years for women aged 40–49 years, 265 per 100,000 for women aged 50–69 years, and 304 per 100,000 for women aged 70 years and older.
- Death from breast cancer was rare in women aged under 40 years, with 3 deaths per 100,000 woman-years (or an average of 113 deaths each year).
- The age-standardised mortality rate was 27 per 100,000 woman-years for women aged 40–49 years, 67 for women aged 50–69 years, and 127 per 100,000 for women aged 70 years and over.

States and Territories

In the periods 1982–1986, 1987–1991 and 1992–1996

- Age-standardised breast cancer incidence rates increased in each State and Territory.
- Age-standardised breast cancer mortality rates fell between 1987–1991 and 1992–1996 in New South Wales, Victoria, Western Australia, Tasmania, the Australian Capital Territory and the Northern Territory.

Urban and rural areas of usual residence

In the periods 1987–1991 and 1992–1996

- In 1987–1991, the age-standardised breast cancer incidence rate was 7.3% higher in urban areas of Australia than in rural areas. In 1992–1996 the incidence rate in urban areas was 5.4% higher than in rural areas.
- For the two 5-year time periods, incidence rates increased by 14% in urban areas and by 16% in rural areas. This increase occurred around the same time as the introduction of mammographic screening. There was, however, very little change in breast cancer mortality rates.

Acknowledgments

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Its production 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 and the Australian Institute of Health and Welfare staff responsible for the operation of the National Cancer Statistics Clearing House. These people, listed below, have all worked together to produce the national breast cancer incidence and mortality statistics in this report. In particular, we acknowledge Professor Bruce Armstrong, Professor Annette Dobson, Dr Joanne Aitken and Professor Graham Giles who reviewed the report.

Incidence information is received predominantly from hospitals, pathologists and departments of radiation oncology; supplementary information is provided by private medical practitioners. The main 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 all for their efforts.

Funding and support of cancer registries in Australia is provided by State and Territory governments and various charities. We acknowledge 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.

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Introduction

With the exception of non-melanocytic skin cancer, breast cancer is the most commonly diagnosed cancer in women in Australia. It is also the most common cause of death from cancer in women in Australia; in 1996 it resulted in approximately 31,000 woman-years of life lost before the age of 75 years.

The major risk factors for breast cancer are age (breast cancer rates typically increase with age from the third decade), family history of the disease, long duration of menstrual life, body size, late first birth, and low parity (Kricker & Jelfs 1996). Studies have shown that the risk of breast cancer is reduced by increased exercise (Friedenreich & Rohan 1995). There is no known means of preventing the disease, although early detection allows for intervention that may prevent deaths due to breast cancer. The principal means of detecting breast cancers early is mammography in an organised screening program.

Since the introduction of mammographic screening in Australia, both in the organised national program (BreastScreen Australia) and more widely in the community, the non-invasive form of breast cancer (in-situ breast cancer) has been increasingly diagnosed (State and Territory cancer registries, pers. comm., 1999). These cancers have not been uniformly notified to cancer registries and are not reported here.

This report updates *Breast Cancer in Australian Women 1921–1994* (Kricker & Jelfs 1996). The first report was based on cases of invasive breast cancer in women recorded by State and Territory cancer registries between 1982 and 1992 and on national statistics on deaths from breast cancer recorded between 1921 and 1994. It detailed the numbers of new cases of and deaths due to breast cancer, the changing patterns of incidence and mortality over time, variations between the States and Territories, and the risks to selected population groups. This current report updates the information on breast cancer incidence and mortality to 1996.

It is available on the Institute's web site (www.aihw.gov.au) and on the National Breast Cancer Centre's web site (www.nbcc.org.au).

Guide to this report

The information in this report is presented as graphs and tables with some descriptive text. Data on incidence and mortality and variations in these measures are presented side by side for ease of comparison. Tables A1 to A13 (Appendix 2) provide summaries of numbers of new cases and deaths and incidence and mortality rates.

Data sources and quality

Incidence

This report is based on the most recent data, published and unpublished from the National Cancer Statistics Clearing House. The Australasian Association of Cancer Registries, formed in November 1992, and the National Cancer Statistics Clearing House cooperate through the Australian Institute of Health and Welfare to compile, analyse and disseminate national statistics on cancer. While most cancer data are collected and coded in similar ways by State and Territory cancer registries, there are some differences in registration processes because the information comes from diverse sources, among them local hospitals, pathology laboratories, radiotherapy departments and private medical practitioners.

The definitive diagnostic test for cancer is histopathological examination of tissue. Cases may also be registered on the basis of cytology, clinical diagnosis and sometimes other evidence. Cancer registries report the percentage of cases with histopathological verification as a measure of data quality. For Australian registries, between 88% and 97% of breast cancers were reported to be histopathologically verified between 1988 and 1992 (Parkin et al. 1997).

For a small number of cases, registrations are based on death certificates only. The percentage of these cases is also used as an indicator of data quality in cancer registration. Breast cancer cases registered from a death certificate only accounted for 3% or less of breast cancer cases in Australian registries between 1988 and 1992 (Parkin et al. 1997).

Mortality

The primary sources of information about deaths from breast cancer are the State and Territory Registrars of Births, Deaths and Marriages. The Australian Bureau of Statistics is a secondary source and is responsible for coding cause of death. Variations have occurred over time in the collecting and coding of causes of death. The mortality data in this report (1982 to 1996) are analysed based on the year in which they occurred regardless of when they were registered. Further, the number of deaths in each State and Territory is based on the deceased's State or Territory of usual residence not where the death was registered.

New cases of and deaths from all cancers

The National Cancer Statistics Clearing House receives from individual State and Territory cancer registries data on cancers diagnosed in residents of Australia and compiles these data into a national database. This began with cases first diagnosed in 1982. National incidence data for breast cancer are available to 1996 because the cancer registries have been devoting more resources to breast cancer. National incidence data for all other cancers are available only to 1995. The most commonly diagnosed cancers and the leading causes of death from cancer in Australian women of all ages in 1995 are presented in pie charts and tables for comparison. The rankings are based on the absolute numbers of new cases and deaths, and the cancer sites are classified according to the ninth revision of the International Classification of Diseases (WHO 1977).

In this report the term 'cancer site' is used to represent cancers located in specific organs or tissues as well as cancers such as leukaemia and lymphoma.

Breast cancer incidence and mortality

The report presents data for women throughout Australia. The total numbers of new cases of and deaths from breast cancer are described for the period from 1982 to 1996. Age-standardised and age-specific incidence and mortality rates are also presented and attention is drawn to any important trends.

Mortality rates were estimated for deaths from breast cancer in women resident in each State and Territory from 1982 to 1996. These deaths were notified to the State and Territory Registrars of Births, Deaths and Marriages, and breast cancer was determined as the underlying cause by the Australian Bureau of Statistics. Women with breast cancer who died of other causes are not counted in these death statistics.

This report only provides information about breast cancer in women in Australia. Men do get breast cancer but the numbers of new cases and deaths are small: in 1995, there were 57 new cases of breast cancer diagnosed in men and 23 deaths from breast cancer in men.

Population data

Rates were calculated using estimated resident populations for Australia as a whole and the States and Territories, as published by the Australian Bureau of Statistics. Population estimates for urban and rural areas were derived from population data at the Statistical Local Area level.

Methods

Age-specific rates

Age-specific rates have been calculated for women in the Australian population in 5-year age groups (0-4, 5-9, ..., 80-84, 85+ years) by dividing the number of cases occurring in each age group by the number of women in that age group and expressing the result as a rate per 100,000 woman-years.

Age-standardised rates

Age-standardised rates are summary rates calculated to facilitate comparison between populations with different age structures. This report uses the direct standardisation method (Day 1992), which involves applying the age-specific rates in 5-year age groups for a particular year or period to a standard population to calculate a weighted average of age-specific rates. The age-standardised rates reflect the incidence and mortality that would have been expected if the populations of each area or period being compared had an identical age structure.

Standard populations

The age structure of the standard population can influence conclusions drawn from age-adjusted rates. The World Standard Population is frequently used for international comparisons; it was used to age-standardise rates in *Breast Cancer in Australian Women 1921–1994*.

In November 1995 the National Health Information Management Group, which manages the National Health Information Agreement*, agreed to accept the total estimated resident population of Australia at 30 June 1991 (hereafter referred to as the Australian 1991 Population Standard) as the population standard for comparing Australian rates over time. Accordingly the Australian Institute of Health and Welfare and the Australian Bureau of Statistics agreed to adopt the Australian 1991 Population Standard as the national standard until population estimates for 2001 become available.

To maintain consistency with *Breast Cancer in Australian Women 1921–1994*, other national and international reports and State and Territory cancer registry reports, most of the tables in this report include two rates that have been age-standardised separately to the World Standard Population and the Australian 1991 Population Standard (see Table A14 in Appendix 2). In these tables, rates age-standardised to the Australian 1991 Population Standard are labelled 'AS Rate (Aust 1991)', while those age-standardised to the World Standard Population are labelled 'AS Rate (World)'. Where age-standardised rates are referred to in the text or presented graphically, however, only rates age-standardised to the Australian 1991 Population Standard are provided.

Confidence intervals

A confidence interval gives an indication of how precisely the calculated rate estimates the true population value. Its calculation uses the standard error of the age-standardised rate. A 95% confidence interval indicates that the true population value is 95% likely to lie within the interval given. The 95% confidence intervals for age-standardised rates in this report were calculated using the Poisson method (Jensen et al. 1991).

* In May 1993 Commonwealth, State and Territory health authorities, the Australian Bureau of Statistics, and the Australian Institute of Health and Welfare signed an agreement to improve the quality of and cooperation in the development of national health information. This agreement, the National Health Information Agreement (NHIA), was developed under the auspices of the Australian Health Ministers' Advisory Council (AHMAC), which has continued to support the Agreement's development and operation.

Lifetime risk

'Lifetime', or cumulative risk, of a particular cancer is a way of expressing the percentage chance, or a '1 in N' proportion, that a woman born today will develop the particular cancer in an average lifetime of 74 years. It is calculated from the cumulative rate or the sum of the age-specific incidence rates from birth to 74 years, expressed as a percentage (Day 1992). Cumulative risks can also be calculated for narrower age bands.

The method makes two assumptions:

- that the prevailing patterns of cancer risk for each age group at the time of estimation apply throughout the woman's lifetime;
- that each woman survives to her 75th birthday.

Person-years of life lost

Person-years of life lost (PYLL) measures the number of years of life lost each year as a result of death from a specific cause (e.g. breast cancer). Age groups from 0-4 to 70-74 were used for the calculations in this report, because deaths before age 75 are generally regarded as premature. PYLL is calculated by aggregating the number of years between age at death and 75 for each person; thus a person dying at age 50 contributes 25 years to the PYLL measure. It should be noted that the choice of 74 years as the cut-off age is arbitrary. Further, PYLL can also be calculated by other methods such as using a life table approach. As this report only deals with breast cancer in women, PYLL may also be interpreted as woman-years of life lost.

Time periods

In certain instances data have been combined into three 5-year periods, 1982-1986, 1987-1991 and 1992-1996, to give adequate numbers for summary presentation and to examine changes over time.

Time trends

The annual percentage changes in incidence and mortality reported in the text were calculated as the geometric mean of the rates in the first and last period (Australian Institute of Health and Welfare 1994). A simple regression of the age-standardised rates was used to test whether any observed trend was statistically significant (Jensen et al. 1991).

Urban and rural classification

The Rural, Remote and Metropolitan Areas (RRMA) classification (Department of Primary Industries and Energy & Department of Human Services and Health 1994) was used to compile breast cancer incidence data by urban and rural areas of usual residence. The RRMA classification classifies Statistical Local Areas in each State and Territory into three groups – metropolitan areas, rural zones and remote zones – using information from the 1991 Census. Metropolitan areas are allocated according to total population. Rural and remote zones are allocated according to their index of remoteness, which is based on population density and distance from large population centres.

Electronic files converting postcodes and Statistical Local Areas to the RRMA classification were used to classify breast cancer cases diagnosed between 1987 and 1996 and breast cancer deaths occurring in the same period to either

- an urban area of usual residence (i.e. a RRMA metropolitan area); or
- a rural area of usual residence (i.e. a RRMA rural or remote zone).

It was possible to classify all breast cancer deaths to an urban, rural or remote area of usual residence, although about 1% of breast cancer cases could not be classified and these were excluded from the analysis.

Appendixes

Appendixes 1 and 2 present lists of tables and figures, tables of breast cancer incidence and mortality, and the Australian 1991 and World Standard populations.

Most common cancers in women in Australia

Figure 1 and Table 1 show the most common sites of cancer, excluding non-melanocytic skin cancers (NMSC), diagnosed in women in Australia in 1995.

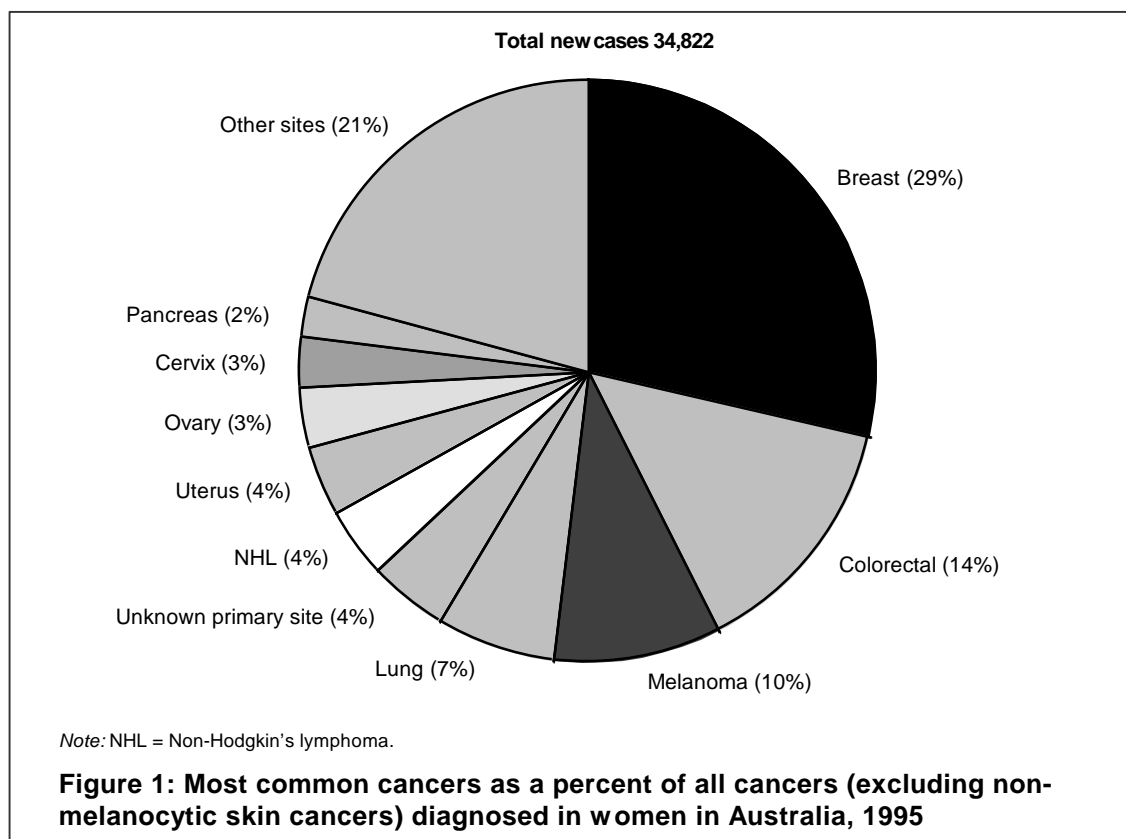


Table 1: Most common cancers diagnosed in women in Australia, 1995^(c)

Type of cancer	New cases				
	Number	Per cent of all new cancer cases	AS Rate ^(a) (Aust 1991)	AS Rate ^(a) (World)	Lifetime risk ^(b)
All cancers ^(c)	34,822	100.0	345.7	268.4	1 in 4
Breast	9,951	28.6	101.1	82.9	1 in 11
Colorectal	4,826	13.9	46.1	32.8	1 in 26
Melanoma	3,317	9.5	34.4	28.4	1 in 36
Lung	2,311	6.6	22.7	16.7	1 in 48
Unknown primary site	1,511	4.3	14.1	9.7	1 in 95
Non-Hodgkin's lymphoma	1,372	3.9	13.4	10.2	1 in 89
Uterus	1,356	3.9	13.6	10.7	1 in 76
Ovary	1,153	3.3	11.6	9.2	1 in 99
Cervix	947	2.7	9.9	8.1	1 in 122
Pancreas	789	2.3	7.2	4.7	1 in 192

(a) Age-standardised rates are expressed per 100,000 woman-years and are age-standardised to the Australian 1991 Population Standard (AS Rate (Aust 1991)) and the World Standard Population (AS Rate (World)). See 'Methods' pages 3 and 4.

(b) Calculated for ages 0–74 years.

(c) Excludes non-melanocytic skin cancers.

Deaths from common cancers in women in Australia

Figure 2 and Table 2 show the most common causes of death from cancer in women in Australia in 1995.

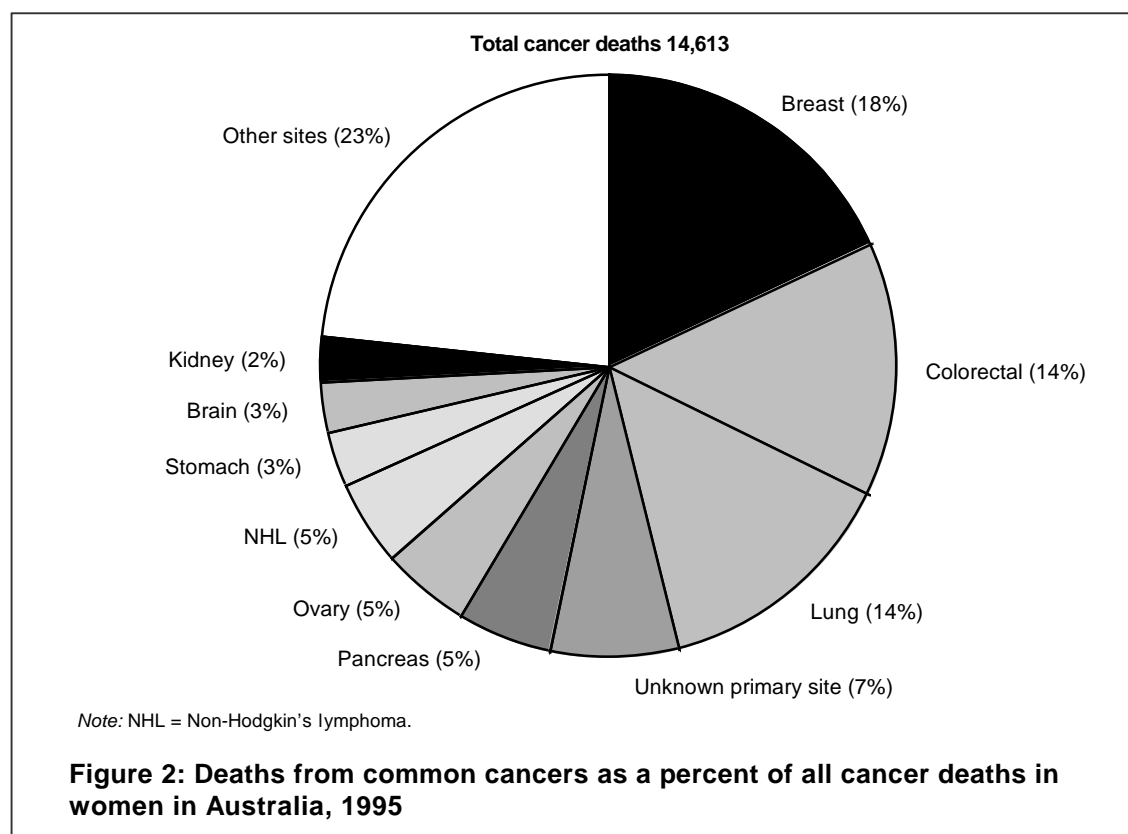


Table 2: Most common causes of death from cancer in women in Australia, 1995

Type of cancer	Deaths				
	Number	Per cent of all cancer deaths	AS Rate ^(a) (Aust 1991)	AS Rate ^(a) (World)	PYLL ^(b)
All cancers	14,613	100.0	138.1	97.8	118,508
Breast	2,634	18.0	25.6	19.6	31,273
Colorectal	2,090	14.3	19.3	13.1	13,020
Lung	1,998	13.7	19.3	13.7	13,968
Unknown primary site	1,084	7.4	9.8	6.5	5,518
Pancreas	757	5.2	6.9	4.5	7,638
Ovary	724	5.0	7.0	5.2	3,375
Non-Hodgkin's lymphoma	700	4.8	6.6	4.5	4,505
Stomach	458	3.1	4.2	2.7	5,135
Brain	399	2.7	4.1	3.3	3,565
Kidney	353	2.4	3.3	2.2	1,478

(a) Age-standardised rates are expressed per 100,000 woman-years and are age-standardised to the Australian 1991 Population Standard (AS Rate (Aust 1991)) and the World Standard Population (AS Rate (World)). See 'Methods' pages 3 and 4.

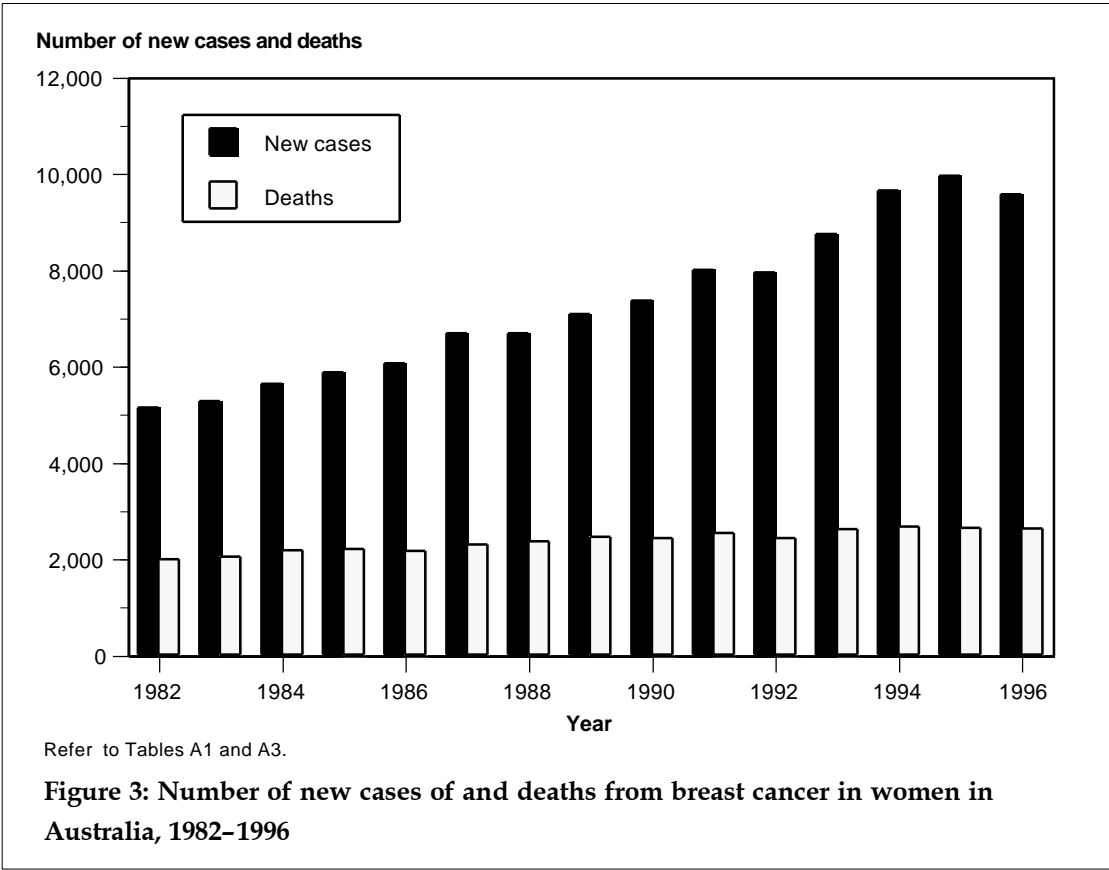
(b) PYLL refers to person-years of life lost and is calculated for ages 0–74 years.

New cases of breast cancer and deaths from breast cancer

Between 1982 and 1996 there were 109,584 new cases of breast cancer diagnosed in women in Australia (Figure 3). The average number of new cases per year in the last five years of the period (1992-1996) was greater (9,166 cases) than in 1982-1986 (5,593 cases). Numbers of new cases of breast cancer generally rose steadily until 1995, then fell in 1996.

In 1982-1996 approximately 28% of women with breast cancer were aged under 50 years, 44% were aged between 50 and 69 years, and 28% were aged 70 years and over (Table A2).

There were 35,569 deaths from breast cancer in women in Australia between 1982 and 1996. The number of deaths increased from 1,987 to 2,669 between 1982 and 1994. In 1995, however, there was a fall in the number of deaths (from 2,669 to 2,634); this was followed by a further fall in 1996 (2,623 deaths). On average, there were 2,111 deaths from breast cancer each year in 1982-1986, 2,410 deaths in 1987-1991, and 2,593 deaths in 1992-1996.



Risk of breast cancer by age

The risk of developing and dying from breast cancer increases with age (Table 3). Between 1992 and 1996 women aged less than 30 years had a 1 in 2,298 risk of developing breast cancer and those aged 30–39 years had a risk of 1 in 244. In contrast, women aged 70–79 years had a risk of 1 in 33. In the same period, the risk of death from breast cancer was 1 in 1,317 for women aged 30–39 years and 1 in 93 for women aged 70–79 years.

In nearly every age group the risk of developing breast cancer in 1992–1996 was greater than it was in either 1987–1991 or 1982–1986 (Table 3). In contrast, the risk of death in 1992–1996 was lower in each age group than it was in the earlier two periods.

Table 3: Risk^(a) of breast cancer incidence and risk of death from breast cancer women in Australia, by age, 1982–1986, 1987–1991 and 1992–1996

Age group	Incidence			Death		
	1982–1986	1987–1991	1992–1996	1982–1986	1987–1991	1992–1996
0–29	1 in 2,608	1 in 2,487	1 in 2,298	1 in 17,851	1 in 15,769	1 in 27,517
30–39	1 in 261	1 in 243	1 in 244	1 in 1,219	1 in 1,293	1 in 1,317
40–49	1 in 83	1 in 73	1 in 67	1 in 344	1 in 340	1 in 366
50–59	1 in 63	1 in 53	1 in 41	1 in 167	1 in 165	1 in 176
60–69	1 in 50	1 in 42	1 in 35	1 in 122	1 in 121	1 in 126
70–79	1 in 41	1 in 37	1 in 33	1 in 95	1 in 91	1 in 93
0–74	1 in 16	1 in 14	1 in 12	1 in 44	1 in 44	1 in 46

(a) In this table 'risk' is the probability of developing breast cancer or dying from breast cancer in the specified age interval. The probability of developing breast cancer has been calculated on the assumption of survival to the end of the age interval and does not take into account risk of death from other causes.

National incidence and mortality rates

In 1996 there were 9,556 new cases of breast cancer diagnosed in women in Australia, giving an age-standardised incidence rate of 94.9 per 100,000 woman-years (Australian 1991 Population Standard). The risk of developing breast cancer before age 75 was 1 in 12.

In 1996, there were 2,619 deaths from breast cancer, which equates to an age-standardised mortality rate of 24.9 per 100,000 woman-years (Australian 1991 Population Standard).

Table A5 (in Appendix 2) shows the age-standardised incidence and mortality rates for each year from 1982 to 1996 for Australia, together with the ratios of mortality to incidence. The mortality to incidence proportion in 1996 was 26.3%.

National trends in incidence and mortality

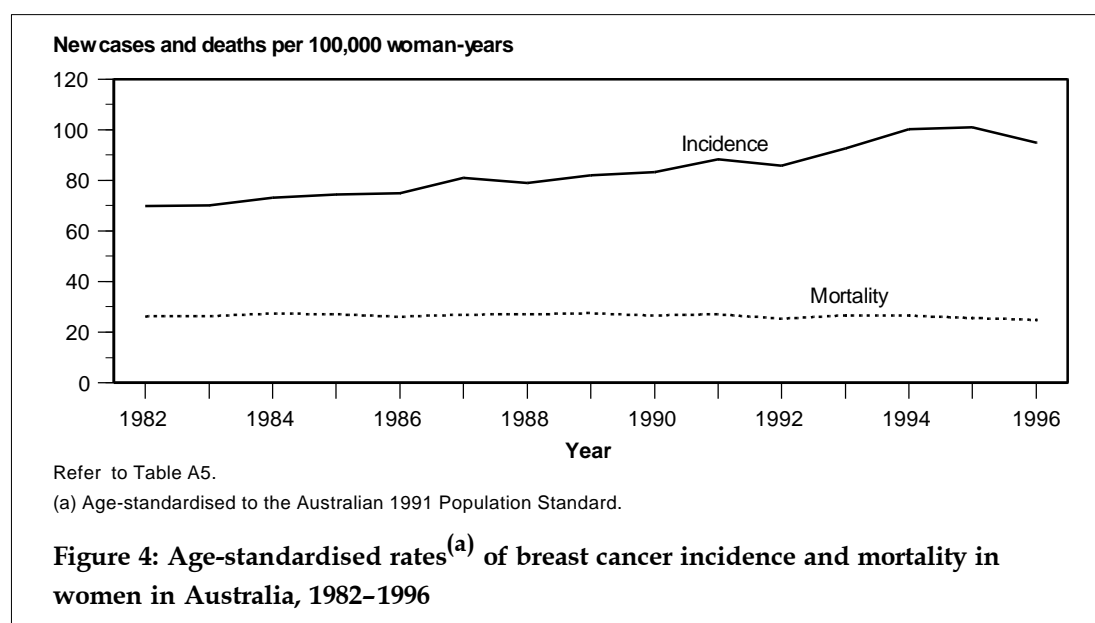
Age-standardised incidence rates increased substantially from 72.6 new cases per 100,000 woman-years in 1982–1986 to 95.0 new cases per 100,000 woman years in 1992–1996 (Table 4). Age-standardised mortality rates remained stable in the first two periods but there was a slight decrease (approximately 4%) in mortality in 1992–1996.

Table 4: Age-standardised incidence and mortality rates^(a) per 100,000 woman-years and 95% confidence intervals (CI) for breast cancer in women in Australia, 1982–1986, 1987–1991 and 1992–1996

Period	Incidence			
	AS Rate (Aust 1991)	95%CI	AS Rate (World)	95%CI
1982–1986	72.6	71.7–73.4	58.4	57.6–59.1
1987–1991	82.7	81.9–83.6	66.9	66.2–67.6
1992–1996	95.0	94.1–95.9	77.8	77.1–78.6
Period	Mortality			
	AS Rate (Aust 1991)	95%CI	AS Rate (World)	95%CI
1982–1986	26.6	26.1–27.1	20.6	20.1–21.0
1987–1991	27.0	26.6–27.5	20.8	20.5–21.2
1992–1996	25.8	25.4–26.3	19.7	19.4–20.1

(a) Age-standardised rates are expressed per 100,000 woman-years and are age-standardised to the Australian 1991 Population Standard (AS Rate (Aust 1991)) and the World Standard Population (AS Rate (World)). See 'Methods' pages 3 and 4.

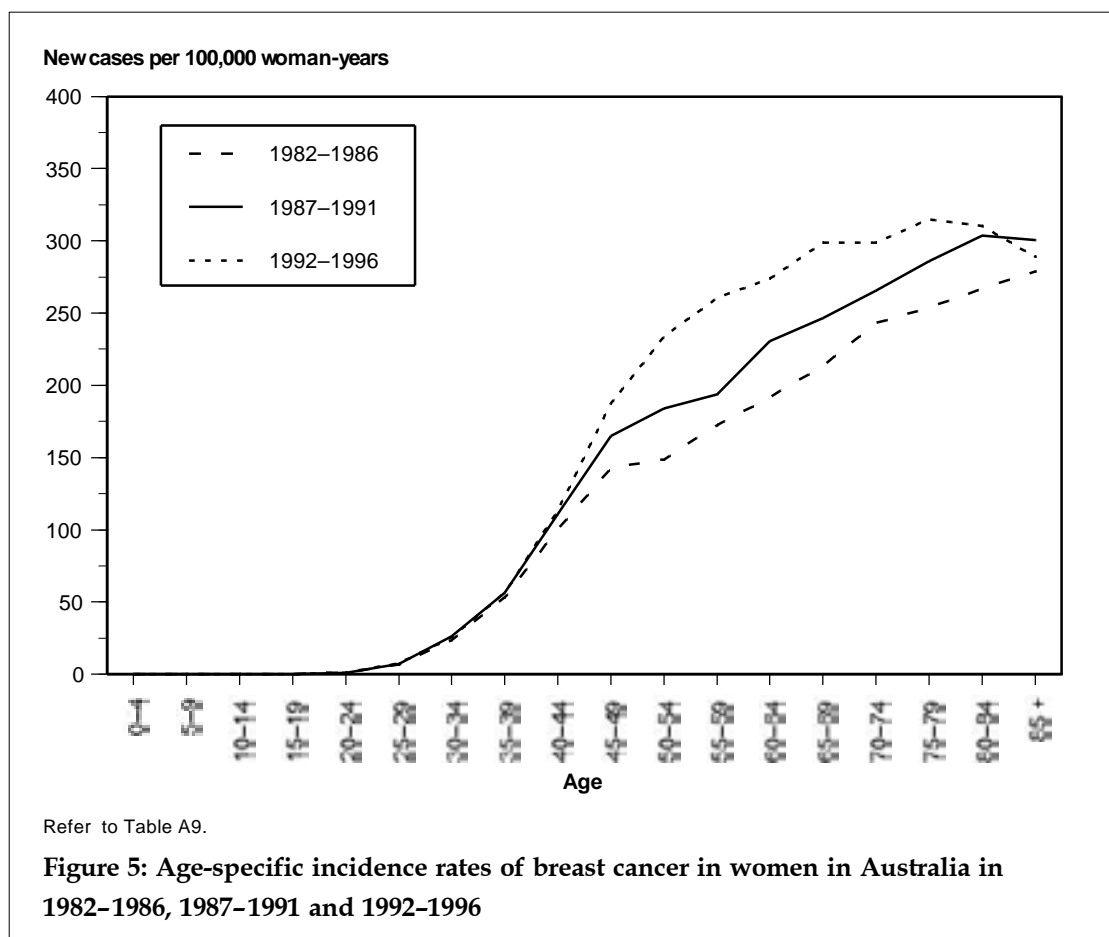
Despite the fall between 1995 and 1996, incidence rates increased by an average of 2.2% a year from 1982 to 1996. This trend is statistically significant and is probably the result of increased detection of breast cancer through the introduction of mammographic screening. Age-standardised mortality rates in women in Australia were stable from 1982 to 1994; there was a small decline (4%) in 1995 and a further small decline (3%) in 1996 (Figure 4).



National incidence rates by age

Age-specific incidence rates of breast cancer in 1992–1996 were low in women aged less than 30 years (0.0–7.4 per 100,000 woman-years) compared with those for older women (Figure 5). They increased rapidly from 25.6 per 100,000 woman-years in women aged 30–34 years to 187.5 per 100,000 woman-years in women aged 45–49 and then at a slower rate to 289.0 per 100,000 woman-years in woman aged 85 years and over.

Between 1982–1986 and 1992–1996, age-specific rates in women aged less than 45 years did not change (Figure 5). For women aged 45 years and over, rates were lower in 1982–1986 than in 1987–1991 but the increase with age was similar in both periods. In 1992–1996, however, the age-specific rate increased much more rapidly between ages 40 and 80 than in either of the earlier periods. It is probable that this divergence in rates is mainly the result of increased detection of breast cancer through the introduction of mammographic screening.



National incidence trends by age

Between 1982–1986 and 1992–1996 breast cancer incidence rates increased by 37% in women aged 50 years and over (Table 5). There was also a slight rise (7%) in the rate for women aged 15–39 years and a somewhat larger increase (23%) in the rate for women aged 40–49 years.

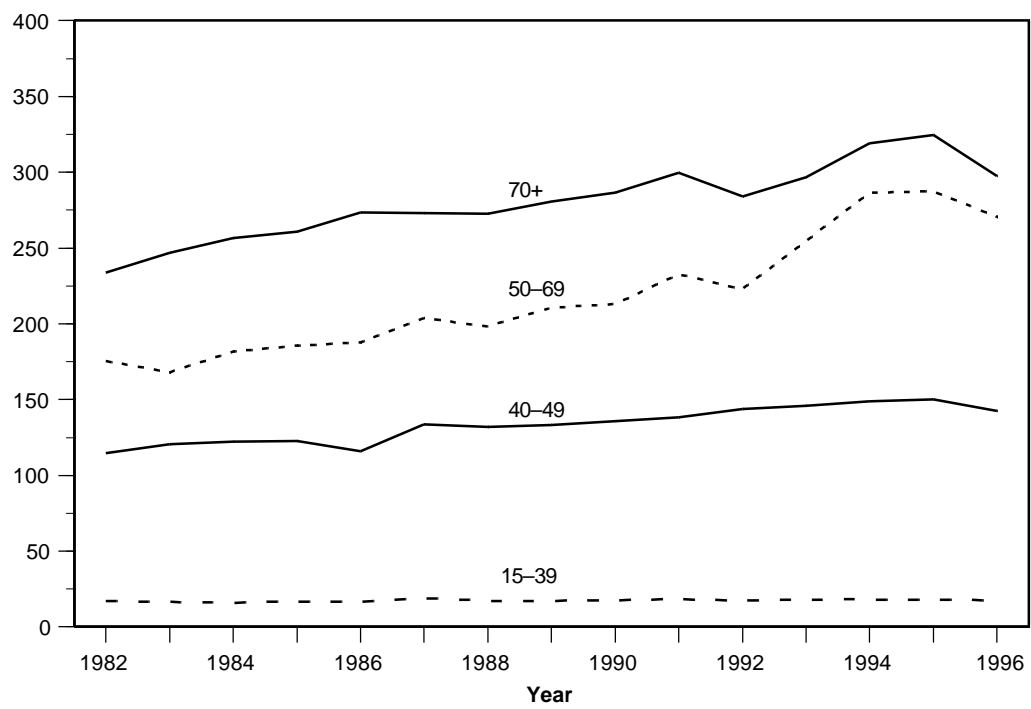
Table 5: Age-standardised incidence rates^(a) of breast cancer per 100,000 woman-years in Australia, by age, 1982–1986, 1987–1991 and 1992–1996 (95% confidence intervals)

Period	Age group (years)			
	15–39	40–49	50–69	70+
AS Rate (Aust 1991)				
1982–1986	16.6 (16.0–17.3)	119.2 (115.9–122.5)	179.7 (176.6–182.9)	254.9 (249.3–260.5)
1987–1991	17.9 (17.2–18.5)	134.8 (131.6–137.9)	211.9 (208.5–215.2)	282.7 (277.2–288.2)
1992–1996	17.8 (17.2–18.5)	146.3 (143.3–149.3)	264.8 (261.1–268.4)	304.4 (299.1–309.8)
AS Rate (World)				
1982–1986	14.1 (13.6–14.7)	121.6 (118.2–125.0)	177.6 (174.4–180.7)	253.7 (247.5–258.9)
1987–1991	15.1 (14.6–15.7)	137.9 (134.6–141.1)	209.7 (206.4–213.0)	279.8 (274.2–285.4)
1992–1996	15.2 (14.6–15.7)	150.5 (147.5–153.6)	262.6 (259.0–266.2)	302.9 (297.5–308.4)

(a) Age-standardised rates are expressed per 100,000 woman-years and are age-standardised to the Australian 1991 Population Standard (AS Rate (Aust 1991)) and the World Standard Population (AS Rate (World)). See 'Methods' pages 3 and 4.

Incidence rates in women aged 50 years and over increased steadily from 1982 to 1995 but were lower in 1996 than in 1994 or 1995 (Figure 6). Between 1992 and 1994 there was a particularly sharp increase (29%) in the rate for women aged 50–69 years. Table A11 (Appendix 2) shows incidence rates for these age groups for each year from 1982 to 1996.

New cases per 100,000 woman-years



Refer to Table A11.

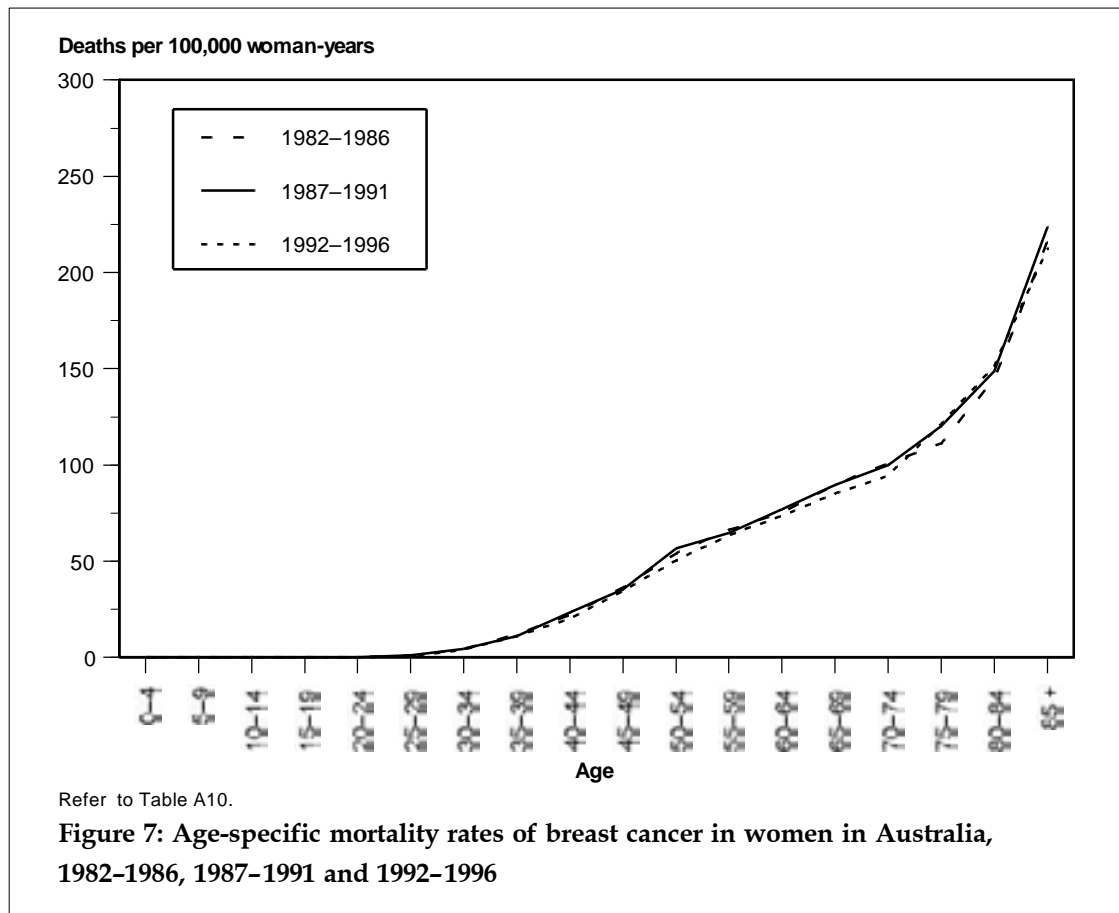
(a) Age-standardised to the Australian 1991 Population Standard.

Figure 6: Age-standardised incidence rates^(a) of breast cancer in women in Australia by age, 1982-1996

National mortality rates by age

Age-specific mortality rates of breast cancer were low among women aged less than 35 (Figure 7) but, they increased rapidly from that age. In 1992–1996 the age-specific death rate increased from 11.2 deaths per 100,000 woman-years at 35–39 years to 50.4 at 50–54 years, 85.2 at 65–69 years and 212.4 at 85 years and over (Figure 7).

In contrast with incidence, over the three 5-year periods, there was very little change in age-specific mortality rates (Figure 7).



National mortality trends by age

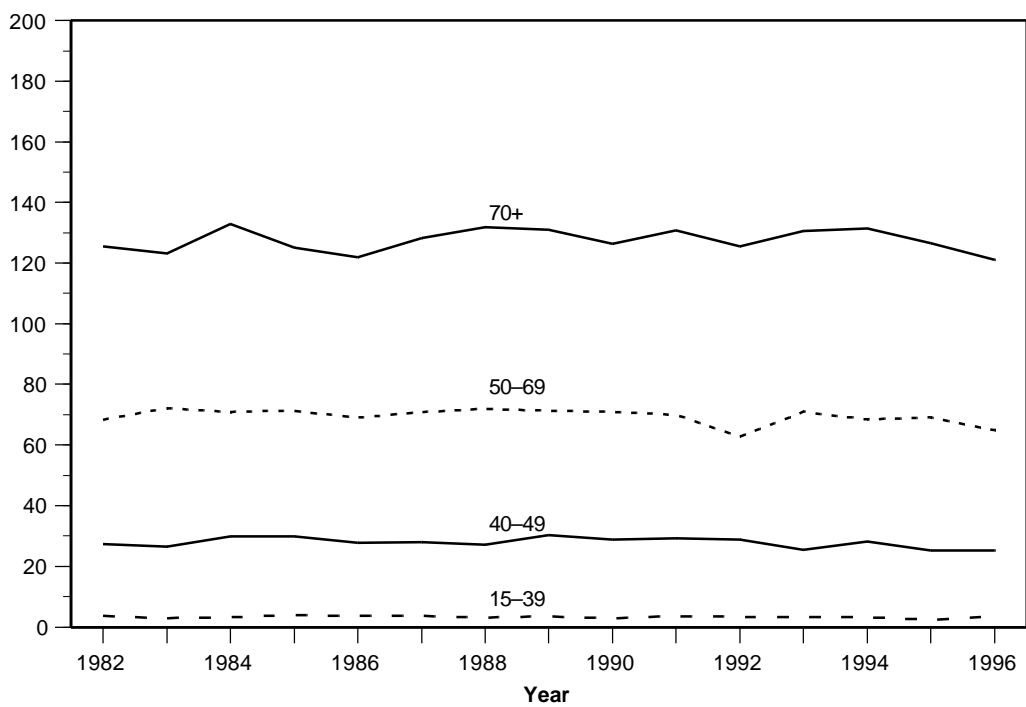
Mortality from breast cancer has remained relatively stable in all age groups, although rates in 1992–1996 were slightly lower than in 1982–1986 for all age groups except women aged 70 years and over (Table 6), however on a single year analysis mortality rates in this age group showed a downward trend between 1994 and 1996. Figure 8 and Table A12 show mortality rates by age group, for each year from 1982 to 1996.

Table 6: Age-standardised mortality rates^(a) of breast cancer per 100,000 woman-years in women in Australia, by age, 1982–1986, 1987–1991 and 1992–1996 (95% confidence intervals)

Period	Age group (years)			
	15–39	40–49	50–69	70+
AS Rate (Aust 1991)				
1982–1986	3.4 (3.1–3.7)	28.3 (26.7–29.9)	70.3 (68.3–72.3)	125.7 (121.8–129.6)
1987–1991	3.3 (3.0–3.6)	28.8 (27.3–30.2)	71.0 (69.1–72.9)	129.7 (126.0–133.3)
1992–1996	3.1 (2.9–3.4)	26.6 (25.3–27.8)	67.2 (65.4–69.0)	126.9 (123.5–130.3)
AS Rate (World)				
1982–1986	2.9 (2.7–3.2)	29.1 (27.4–30.7)	69.1 (67.2–71.1)	123.3 (119.4–127.2)
1987–1991	2.8 (2.5–3.0)	29.5 (28.0–31.0)	69.9 (68.0–71.8)	126.5 (122.8–130.2)
1992–1996	2.6 (2.4–2.8)	27.4 (26.1–28.7)	66.0 (64.2–67.8)	122.9 (119.6–126.3)

(a) Age-standardised rates are expressed per 100,000 woman-years and are age-standardised to the Australian 1991 Population Standard (AS Rate (Aust 1991)) and the World Standard Population (AS Rate (World)). See 'Methods' pages 3 and 4.

Deaths per 100,000 woman-years



Refer to Table A12.

(a) Age-standardised to the Australian 1991 Population Standard.

Figure 8: Age-standardised mortality rates^(a) of breast cancer in women in Australia by age, 1982-1996

State and Territory incidence and mortality trends

In 1996 the incidence of breast cancer was highest in Western Australia (97.1 per 100,000 woman-years) and lowest in the Northern Territory (69.8 per 100,000 woman-years) (Table 7). The Australian Capital Territory recorded the highest breast cancer death rate in 1996 (31.7 per 100,000 woman-years). Tables A6a–A7d (in Appendix 2) show age-standardised incidence and mortality rates, and their standard errors, from 1982 to 1996 for each State and Territory.

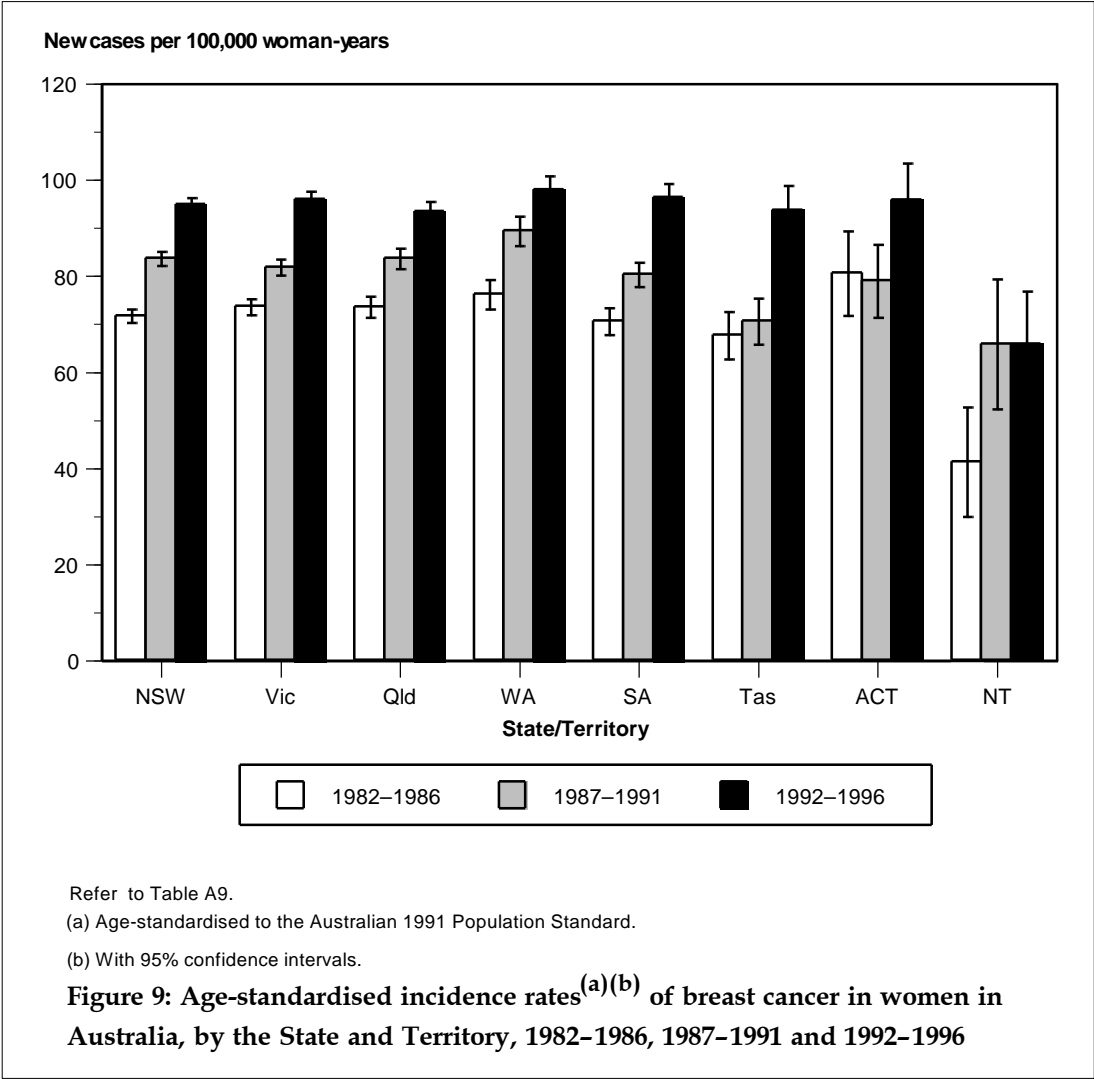
Table 7: Numbers of new cases and deaths, and age-standardised incidence and mortality rates^(a), in each State and Territory, 1996 (95% confidence intervals)

States and Territories	New cases			Deaths		
	Number	AS Rate (Aust 1991)	AS Rate (World)	Number	AS Rate (Aust 1991)	AS Rate (World)
New South Wales	3,352	96.1 (92.8–99.3)	79.0 (76.2–81.9)	885	24.1 (22.5–25.7)	18.3 (17.0–19.6)
Victoria	2,444	95.6 (91.8–99.4)	79.2 (75.9–82.4)	716	26.7 (24.7–28.7)	20.8 (19.1–22.4)
Queensland	1,661	94.1 (89.5–98.7)	76.7 (72.9–80.6)	426	23.6 (21.4–25.9)	18.2 (16.3–20.0)
Western Australia	875	97.1 (90.6–103.6)	78.8 (73.4–84.3)	216	23.3 (20.1–26.4)	17.7 (15.2–20.2)
South Australia	820	92.7 (86.2–99.1)	76.3 (70.8–81.9)	270	28.4 (25.0–31.9)	21.2 (18.4–24.0)
Tasmania	224	83.8 (72.7–94.9)	68.8 (59.4–78.3)	58	20.2 (14.9–25.5)	15.0 (10.8–19.2)
Australian Capital Territory	134	93.2 (76.9–109.5)	76.8 (63.4–90.2)	40	31.7 (21.7–41.8)	22.9 (15.4–30.4)
Northern Territory	46	69.8 (46.8–92.8)	60.2 (41.0–79.3)	9	23.0 (6.3–39.7)	17.9 (5.6–30.2)
Australia	9,556	94.9 (93.0–96.8)	78.0 (76.4–79.6)	2,619	24.9 (24.0–25.9)	19.1 (18.3–19.9)

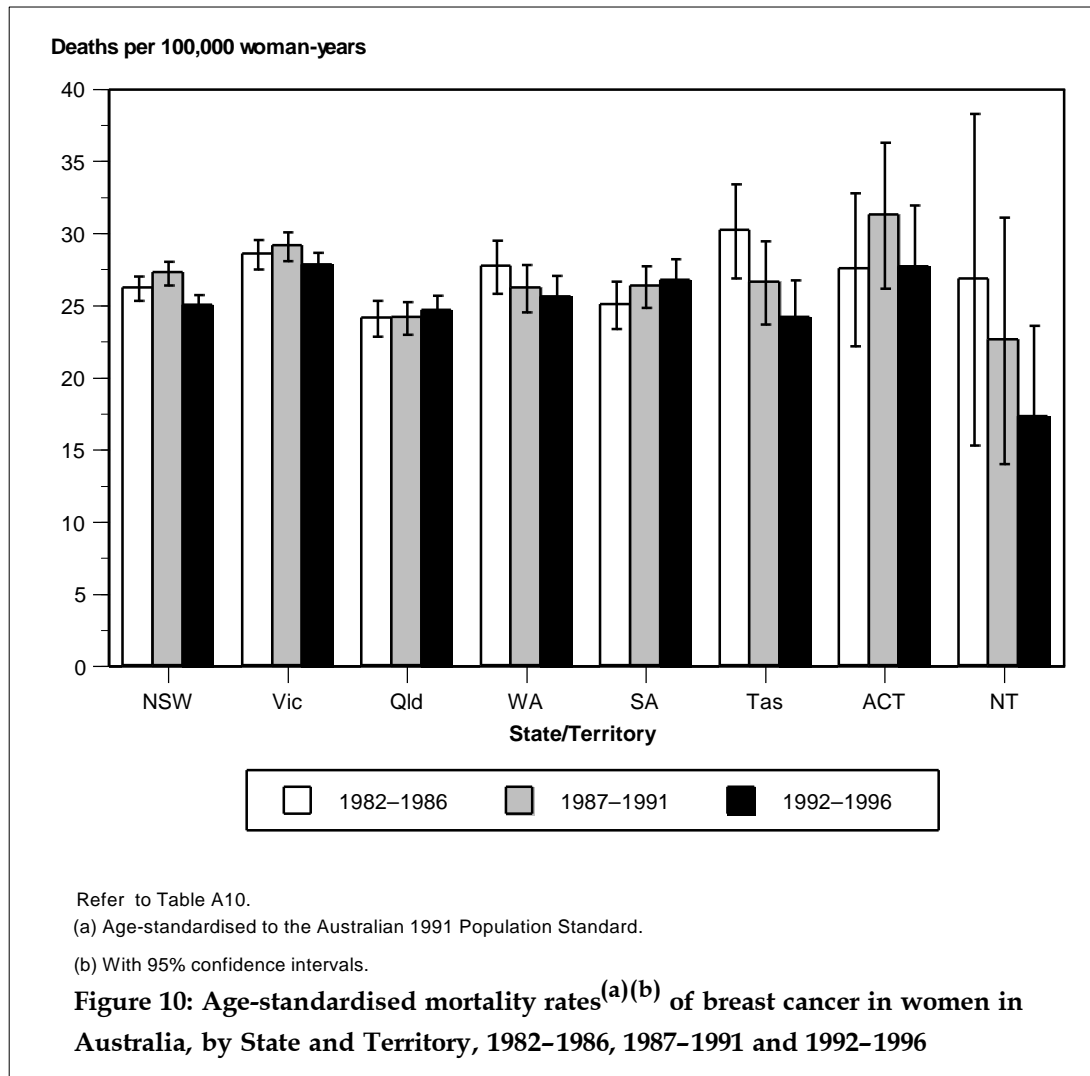
(a) Age-standardised rates are expressed per 100,000 woman-years and are age-standardised to the Australian 1991 Population Standard (AS Rate (Aust 1991)) and the World Standard Population (AS Rate (World)). See 'Methods' pages 3 and 4.

Age-standardised incidence rates of breast cancer have generally increased over time in each State and Territory (Figure 9). The largest increase has been in the Northern Territory, where rates rose sharply from 41.4 per 100,000 woman-years in 1982–1986 to 65.8 per 100,000 woman years in 1992–1996 (a relative increase of 59%). In the 1982–1986 period the rate in the Northern Territory may have been affected by low ascertainment of

breast cancer cases but since 1986 ascertainment has been high. Nevertheless, incidence and mortality rates in the Northern Territory are generally low compared with the other States and the Australian Capital Territory. The second largest increase was observed for Tasmania, where rates rose by 38% between 1982-1986 and 1992-1996 (from 67.7 to 93.5 per 100,000 woman-years). The relatively small populations in the Northern Territory and Tasmania mean that mammographic screening can have a large impact by detecting a small number of cases.

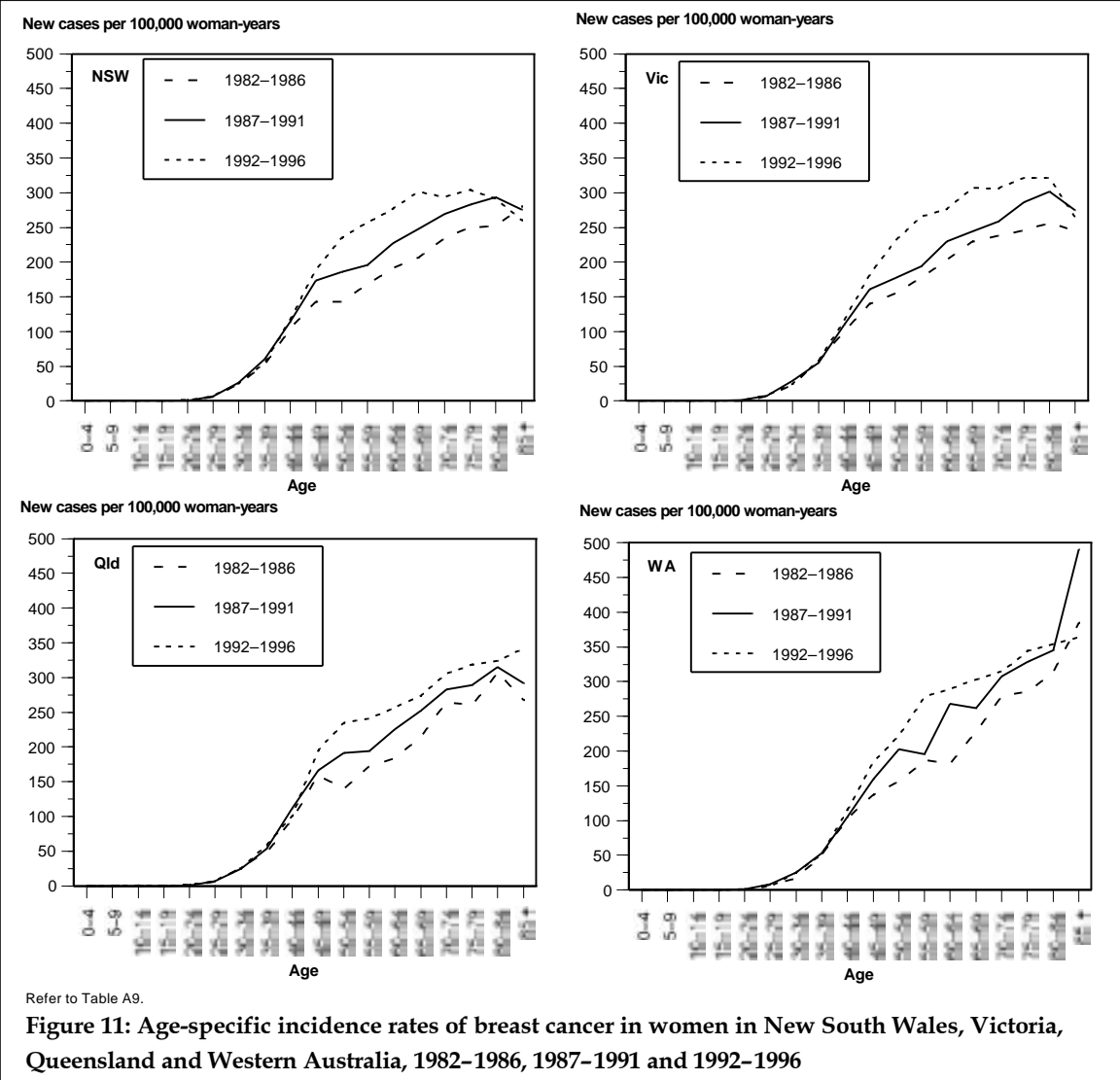


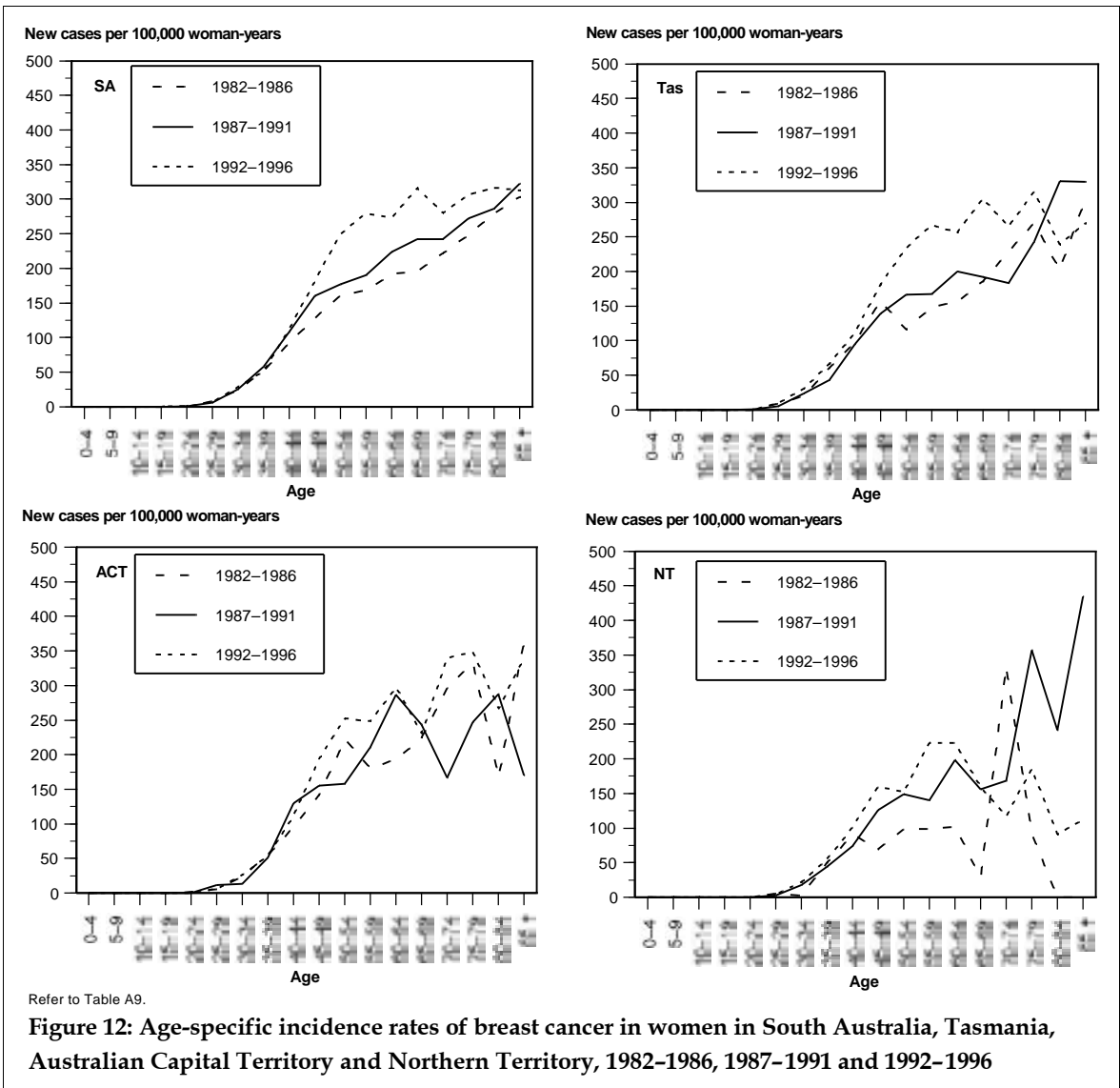
Mortality rates fell between 1987–1991 and 1992–1996 in New South Wales, Victoria, Western Australia, Tasmania, the Australian Capital Territory and the Northern Territory (Figure 10). Death rates in Tasmania, the Northern Territory and the Australian Capital Territory show greater changes than those in the other States, but this is in part due to the greater variability of rates based on small numbers.



State and Territory incidence rates by age

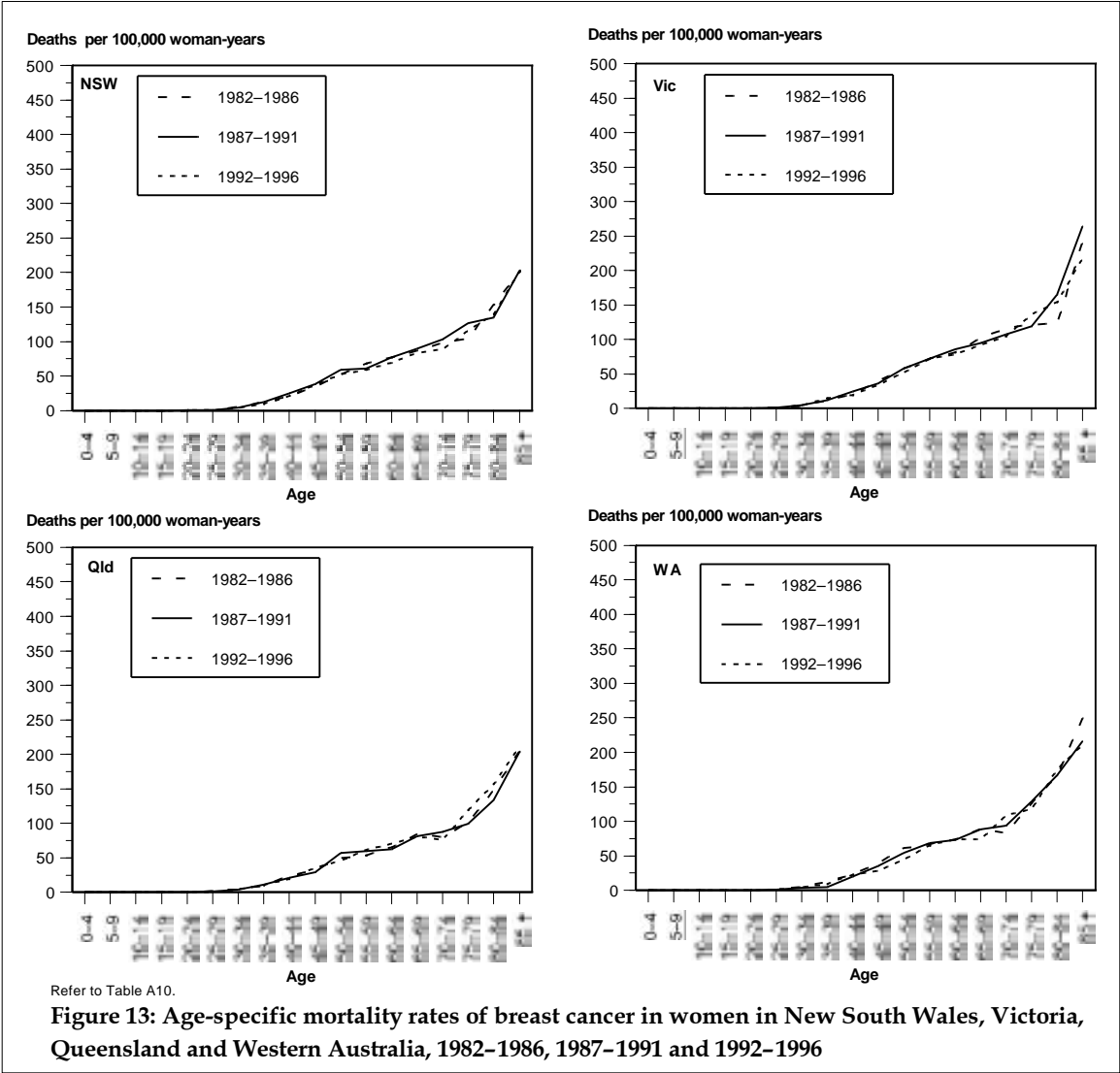
The patterns of breast cancer incidence by age in each State and Territory in 1982–1986, 1987–1991 and 1992–1996 were generally similar to those for Australia as a whole (Figures 11 and 12).

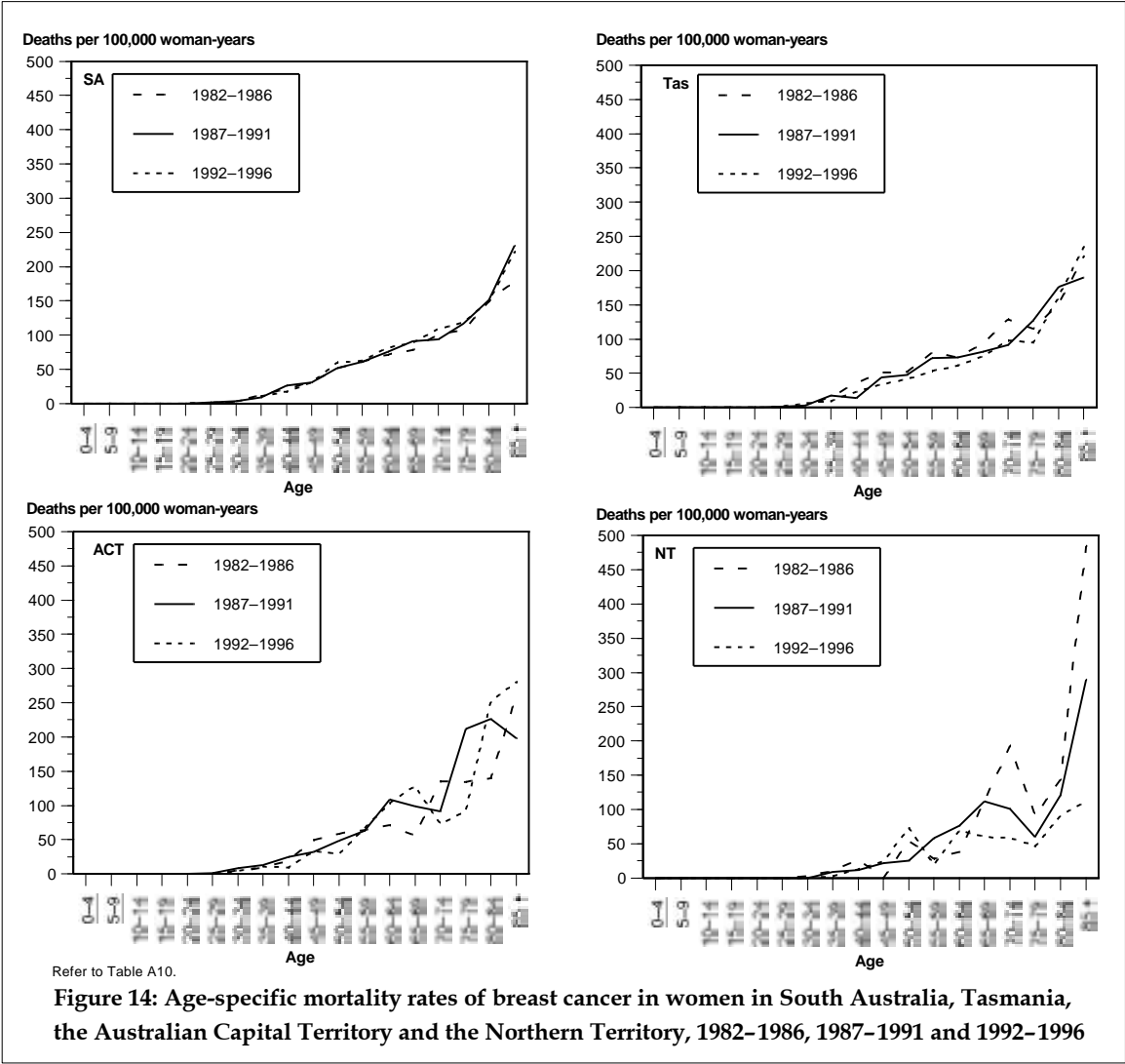




State and Territory mortality rates by age

Age-specific death rates from breast cancer have changed very little over time and show similar patterns in each State and Territory (Figures 13 and 14). Death rates in the Northern Territory and the Australian Capital Territory show more variability than those in the States but this is due to the relatively small numbers of deaths.





Urban and rural incidence rates

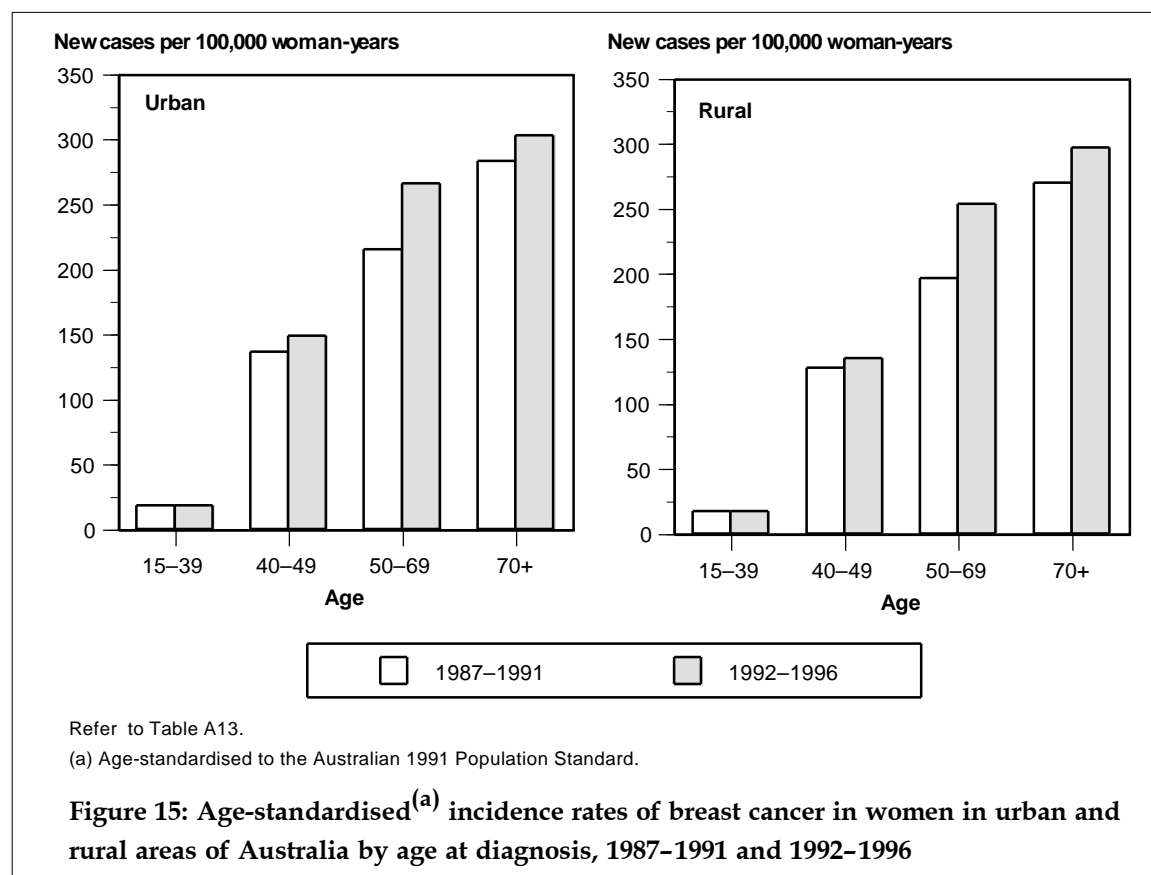
Overall, breast cancer incidence rates were higher in urban Australia than in rural areas during 1987–1991 and 1992–1996 (Table 8). During the two 5-year periods, incidence rates increased by 14% in urban areas and by 16% in rural areas.

As observed for Australia as a whole, incidence rates increased with age in both urban and rural areas (Figure 15). For each age group, rates were higher in urban areas than in rural areas and were higher in 1992–1996 than in 1987–1991.

Table 8: New cases of breast cancer and age-standardised incidence rates per 100,000 woman-years in urban and rural Australia, 1987–1991 and 1992–1996 (95% confidence intervals)

	New cases		Age-standardised incidence rates ^(a)			
	1987–1991	1992–1996	1987–1991 (Aust 1991)	1992–1996 (Aust 1991)	1987–1991 (World)	1992–1996 (World)
Urban	25,975	32,767	83.5 (82.5–84.5)	95.4 (94.3–96.4)	67.6 (66.7–68.5)	78.2 (77.3–79.1)
Rural	9,443	12,566	77.8 (76.2–79.4)	90.5 (88.9–92.1)	62.7 (61.4–64.1)	73.9 (72.5–75.2)

(a) Age-standardised rates are expressed per 100,000 woman-years and are age-standardised to the Australian 1991 Population Standard (Aust 1991) and the World Standard Population (World). See 'Methods' pages 3 and 4.



Urban and rural mortality rates

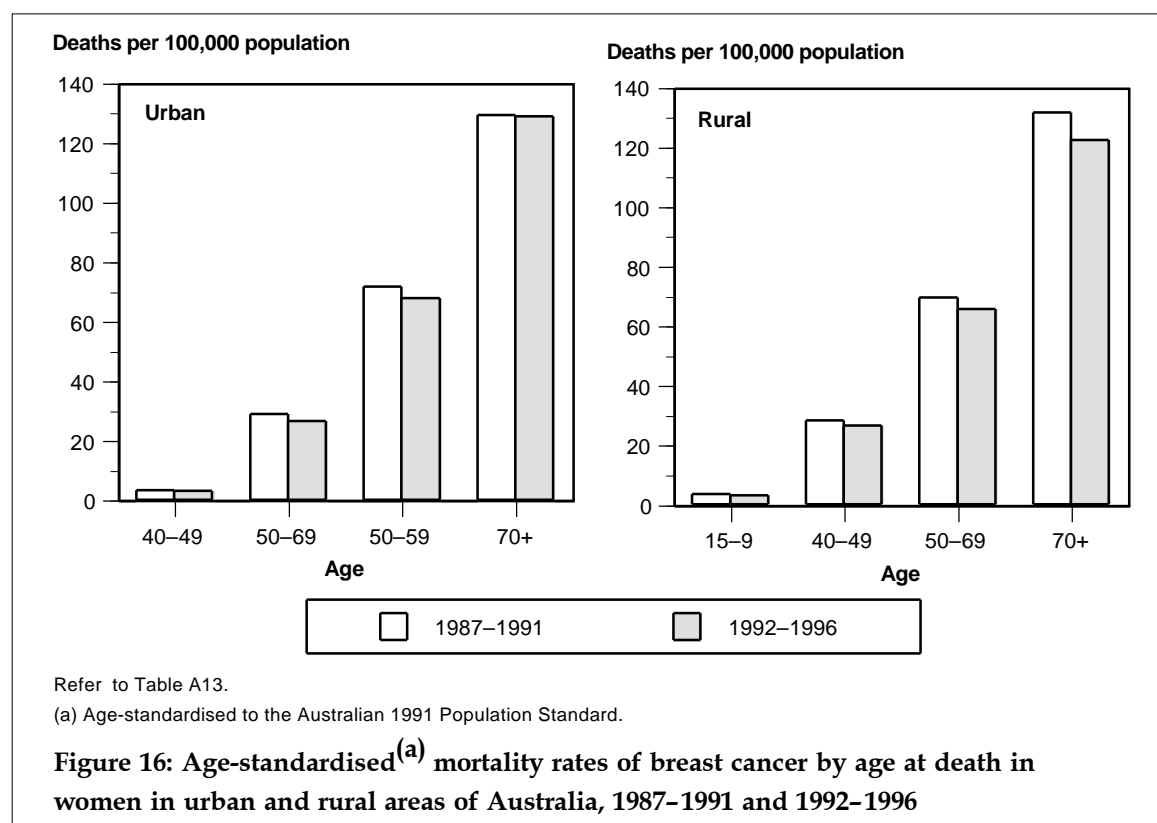
Breast cancer mortality rates in urban Australia were very similar to those in rural areas over both 5-year periods (Table 9). In contrast with incidence, death rates fell between 1987–1991 and 1992–1996, with rural areas experiencing a larger decline (7%) than urban areas (3%).

The pattern of breast cancer mortality by age in urban and rural areas was consistent with that for Australia (Figure 16). At each age, except for women aged 70 years and over in 1992–1996, mortality rates in urban areas were similar to those in rural areas.

Table 9: Number of deaths from breast cancer and age-standardised mortality rates^(a) per 100,000 woman-years in urban and rural Australia, 1987–1991 and 1992–1996 (95% confidence intervals)

	Deaths		Age-standardised mortality rates ^(a)			
	1987–1991	1992–1996	1987–1991 (Aust 1991)	1992–1996 (Aust 1991)	1987–1991 (World)	1992–1996 (World)
Urban	8,681	9,339	27.1 (26.5–27.6)	26.1 (25.5–26.6)	20.9 (20.4–21.3)	19.9 (19.5–20.4)
Rural	3,369	3,622	27.0 (26.1–27.9)	25.1 (24.3–26.0)	20.6 (19.9–21.4)	19.3 (18.6–19.9)

(a) Age-standardised rates are expressed per 100,000 woman-years and are age-standardised to the Australian 1991 Population Standard (Aust 1991) and the World Standard Population (World). See 'Methods' pages 3 and 4.



Appendix 1: Tables and figures

Tables list

Table 1:	Most common cancers diagnosed in women in Australia, 1995.....	7
Table 2:	Most common causes of death from cancer in women in Australia, 1995.....	8
Table 3:	Risk of breast cancer incidence and risk of death from breast cancer women in Australia, by age, 1982–1986, 1987–1991 and 1992–1996	10
Table 4:	Age-standardised incidence and mortality rates per 100,000 woman-years and 95% confidence intervals (CI) for breast cancer in women in Australia, 1982–1986, 1987–1991 and 1992–1996	12
Table 5:	Age-standardised incidence rates of breast cancer per 100,000 woman-years in Australia, by age, 1982–1986, 1987–1991 and 1992–1996 (95% confidence intervals).....	14
Table 6:	Age-standardised mortality rates of breast cancer per 100,000 woman-years in women in Australia, by age, 1982–1986, 1987–1991 and 1992–1996 (95% confidence intervals)	17
Table 7:	Numbers of new cases and deaths, and age-standardised incidence and mortality rates, in each State and Territory, 1996 (95% confidence intervals)	19
Table 8:	New cases of breast cancer and age-standardised incidence rates per 100,000 woman-years in urban and rural Australia, 1987–1991 and 1992–1996 (95% confidence intervals)	26
Table 9:	Number of deaths from breast cancer and age-standardised mortality rates per 100,000 woman-years in urban and rural Australia, 1987–1991 and 1992–1996 (95% confidence intervals).....	27
Table A1:	Numbers of new cases of breast cancer in States and Territories and Australia, 1982–1996	31
Table A2:	Numbers of new cases of breast cancer in Australia, by age, 1982–1996	31
Table A3:	Numbers of deaths from breast cancer in States and Territories and Australia, 1982–1996	32
Table A4:	Numbers of deaths from breast cancer in Australia, by age, 1982–1996	32
Table A5:	Age-standardised breast cancer incidence and mortality rates with mortality to incidence ratios, Australia, 1982–1996.....	33
Table A6a:	Incidence rates of breast cancer in the States and Territories and Australia, 1982–1996, age-standardised to the Australian 1991 Population Standard	34
Table A6b:	Standard errors of incidence rates of breast cancer in the States and Territories and Australia, 1982–1996, age-standardised to the Australian 1991 Population Standard	34
Table A6c:	Incidence rates of breast cancer in the States and Territories and Australia, 1982–1996, age-standardised to the World Standard Population	35
Table A6d:	Standard errors of incidence rates of breast cancer in the States and Territories and Australia, 1982–1996, age-standardised to the World Standard Population...	35

Table A7a: Mortality rates of breast cancer in the States and Territories and Australia, 1982–1996, age-standardised to the Australian 1991 Population Standard	36
Table A7b: Standard errors of mortality rates of breast cancer in the States and Territories and Australia, 1982–1996, age-standardised to the Australian 1991 Population Standard	36
Table A7c: Mortality rates of breast cancer in the States and Territories and Australia, 1982–1996, age-standardised to the World Standard Population	37
Table A7d: Standard errors of mortality rates of breast cancer in the States and Territories and Australia, 1982–1996, age-standardised to the World Standard Population ...	37
Table A8a: Incidence and mortality rates of breast cancer in the States and Territories and Australia, in four age groups and all ages, age-standardised to the Australian 1991 Population Standard.....	38
Table A8b: Incidence and mortality rates of breast cancer in the States and Territories and Australia, in four age groups and all ages, age-standardised to the World Standard Population	39
Table A9: Incidence rates of breast cancer in the States and Territories and Australia, 1982–1986, 1987–1991 and 1992–1996	40
Table A10: Mortality rates of breast cancer in the States and Territories and Australia, 1982–1986, 1987–1991 and 1992–1996	43
Table A11: Age-standardised incidence rates of breast cancer in Australian women, in four age groups, 1982–1996	46
Table A12: Age-standardised mortality rates of breast cancer in Australian women, in four age groups, 1982–1996	47
Table A13: Age-standardised incidence and mortality rates of breast cancer in urban and rural areas of Australia, in four age groups and all ages, 1987–1991 and 1992–1996.....	48
Table A14: Age distribution of the Australian Standard Population (1991) and the World Standard Population	49

Figures list

Figure 1: Most common cancers as a per cent of all cancers (excluding non-melanocytic skin cancers) diagnosed in women in Australia, 1995	7
Figure 2: Deaths from common cancers as a per cent of all cancer deaths in women in Australia, 1995	8
Figure 3: Number of new cases of and deaths from breast cancer in women in Australia, 1982–1996.....	9
Figure 4: Age-standardised rates of breast cancer incidence and mortality in women in Australia, 1982–1996.....	12
Figure 5: Age-specific incidence rates of breast cancer in women in Australia in 1982–1986, 1987–1991 and 1992–1996	13
Figure 6: Age-standardised incidence rates of breast cancer in women in Australia by age, 1982–1996	15
Figure 7: Age-specific mortality rates of breast cancer in women in Australia in 1982–1986, 1987–1991 and 1992–1996	16

Figure 8:	Age-standardised mortality rates of breast cancer in women in Australia by age, 1982–1996	18
Figure 9:	Age-standardised incidence rates of breast cancer in women in Australia, by State and Territory, 1982–1986, 1987–1991 and 1992–1996	20
Figure 10:	Age-standardised mortality rates of breast cancer in women in Australia, by State and Territory, 1982–1986, 1987–1991 and 1992–1996	21
Figure 11:	Age-specific incidence rates of breast cancer in women in New South Wales, Victoria, Queensland and Western Australia, 1982–1986, 1987–1991 and 1992–1996	22
Figure 12:	Age-specific incidence rates of breast cancer in women in South Australia, Tasmania, Australian Capital Territory and Northern Territory, 1982–1986, 1987–1991 and 1992–1996.....	23
Figure 13:	Age-specific mortality rates of breast cancer in women in New South Wales, Victoria, Queensland and Western Australia, 1982–1986, 1987–1991 and 1992–1996	24
Figure 14:	Age-specific mortality rates of breast cancer in women in South Australia, Tasmania, the Australian Capital Territory and the Northern Territory, 1982–1986, 1987–1991 and 1992–1996	25
Figure 15:	Age-standardised incidence rates of breast cancer in women in urban and rural areas of Australia by age at diagnosis, 1987–1991 and 1992–1996.....	26
Figure 16:	Age-standardised mortality rates of breast cancer by age at death in women in urban and rural areas of Australia, 1987–1991 and 1992–1996	27

Appendix 2: Additional tables

Table A1: Numbers of new cases of breast cancer in States and Territories and Australia, 1982–1996

Year	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
1982	1,796	1,444	809	410	474	132	67	11	5,143
1983	1,855	1,393	873	413	485	155	76	18	5,268
1984	2,032	1,554	872	454	489	135	84	12	5,632
1985	2,060	1,582	874	571	552	156	61	14	5,870
1986	2,185	1,597	960	546	528	149	67	18	6,050
1987	2,368	1,769	1,096	615	565	170	65	29	6,677
1988	2,469	1,749	1,018	640	559	141	81	22	6,679
1989	2,471	1,864	1,072	704	681	170	98	22	7,082
1990	2,570	1,886	1,270	672	667	171	103	22	7,361
1991	2,922	1,989	1,390	694	680	190	90	37	7,992
1992	2,709	2,054	1,326	751	766	203	100	34	7,943
1993	3,051	2,173	1,551	779	795	245	115	29	8,738
1994	3,331	2,607	1,571	843	820	287	140	43	9,642
1995	3,462	2,602	1,603	937	912	255	147	33	9,951
1996	3,352	2,444	1,661	875	820	224	134	46	9,556

Table A2: Numbers of new cases of breast cancer in Australia, by age, 1982–1996

Year	Age group				Total
	15–39	40–49	50–69	70+	
1982	490	910	2,391	1,351	5,142
1983	490	981	2,312	1,485	5,268
1984	481	1,029	2,516	1,606	5,632
1985	527	1,074	2,581	1,687	5,869
1986	529	1,049	2,639	1,833	6,050
1987	614	1,277	2,905	1,881	6,677
1988	568	1,323	2,869	1,919	6,679
1989	573	1,397	3,095	2,017	7,082
1990	598	1,487	3,161	2,115	7,361
1991	633	1,579	3,482	2,298	7,992
1992	610	1,711	3,369	2,253	7,943
1993	639	1,797	3,884	2,417	8,737
1994	652	1,897	4,430	2,663	9,642
1995	657	1,971	4,537	2,784	9,949
1996	648	1,920	4,356	2,632	9,556

Note: Age at diagnosis was missing for one woman in 1982, 1985, 1993 and for two women in 1995.

Table A3: Numbers of deaths from breast cancer in States and Territories and Australia, 1982–1996

Year	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
1982	709	601	272	161	149	73	18	4	1,987
1983	756	592	269	166	167	63	18	9	2,040
1984	789	586	316	181	190	77	21	6	2,166
1985	760	656	300	180	213	58	26	3	2,196
1986	743	610	314	187	211	63	29	8	2,165
1987	849	653	328	172	181	70	33	7	2,293
1988	842	652	333	211	232	70	16	5	2,361
1989	882	688	347	212	230	59	24	7	2,449
1990	856	698	352	199	204	73	35	5	2,422
1991	883	737	365	188	238	56	47	11	2,525
1992	851	672	382	217	216	61	22	7	2,428
1993	878	736	413	211	262	66	35	10	2,611
1994	902	775	430	232	230	70	27	3	2,669
1995	885	708	434	240	238	79	41	9	2,634
1996	885	716	426	216	270	58	40	9	2,619

Table A4: Numbers of deaths from breast cancer in Australia, by age, 1982–1996

Year	Age group				Total
	15–39	40–49	50–69	70+	
1982	101	217	933	736	1,987
1983	85	215	992	748	2,040
1984	96	253	978	839	2,166
1985	123	263	991	819	2,196
1986	115	251	970	829	2,165
1987	117	268	1,010	898	2,293
1988	100	272	1,043	946	2,361
1989	116	318	1,050	965	2,449
1990	95	316	1,056	955	2,422
1991	122	334	1,049	1,020	2,525
1992	118	344	949	1,017	2,428
1993	113	317	1,083	1,097	2,610
1994	115	358	1,059	1,137	2,669
1995	86	333	1,083	1,132	2,634
1996	130	338	1,036	1,115	2,619

Note: Age at death was missing for one woman in 1993.

Table A5: Age-standardised breast cancer incidence and mortality rates^(a) with mortality to incidence ratios, Australia, 1982–1996

Year	Incidence		Mortality		Mortality/incidence ratio (%)	
	AS Rate (Aust 1991)	AS Rate (World)	AS Rate (Aust 1991)	AS Rate (World)	Ratio (Aust 1991)	Ratio (World)
1982	69.9	56.4	26.2	20.2	37.5	35.8
1983	70.1	56.5	26.3	20.4	37.5	36.2
1984	73.1	58.9	27.4	21.1	37.4	35.8
1985	74.5	59.8	27.2	21.0	36.4	35.1
1986	74.8	60.0	26.1	20.1	34.9	33.5
1987	80.9	65.2	26.9	20.8	33.3	31.9
1988	79.1	63.7	27.0	20.7	34.2	32.5
1989	81.9	66.3	27.5	21.1	33.5	31.9
1990	83.2	67.4	26.6	20.5	31.9	30.4
1991	88.2	71.5	27.1	20.9	30.7	29.2
1992	85.7	69.7	25.3	19.4	29.6	27.9
1993	92.7	75.9	26.6	20.3	28.7	26.8
1994	100.3	82.2	26.6	20.4	26.5	24.8
1995	101.1	82.9	25.6	19.6	25.4	23.7
1996	94.9	78.0	24.9	19.1	26.3	24.4

(a) Age-standardised rates are expressed per 100,000 woman-years and are age-standardised to the Australian 1991 Population Standard (AS Rate (Aust 1991)) and the World Standard Population (AS Rate (World)). See 'Methods' pages 3 and 4.

Table A6a: Incidence rates of breast cancer in the States and Territories and Australia, 1982-1996, age-standardised to the Australian 1991 Population Standard

Year	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
1982	67.4	73.2	71.6	69.4	69.6	64.9	79.7	41.4	69.9
1983	68.8	68.9	75.8	67.6	68.8	75.3	90.8	46.3	70.1
1984	73.3	75.5	73.3	72.7	68.7	61.8	92.6	34.5	73.1
1985	73.0	75.5	71.4	88.2	74.6	71.3	68.4	43.0	74.5
1986	75.6	74.6	75.6	81.0	71.1	65.4	71.6	42.4	74.8
1987	80.7	81.3	84.1	87.9	74.2	74.2	62.2	66.7	80.9
1988	82.2	79.1	75.4	88.9	72.4	59.6	76.6	48.3	79.1
1989	80.7	82.3	76.6	94.5	86.9	71.1	88.9	61.3	81.9
1990	82.4	81.7	87.8	87.7	84.0	69.6	89.4	64.3	83.2
1991	91.7	84.4	92.8	87.7	83.6	77.1	75.9	88.6	88.2
1992	83.5	85.6	85.9	91.8	92.3	79.5	82.5	67.7	85.7
1993	92.5	89.3	97.2	93.3	95.3	96.8	90.1	62.3	92.7
1994	99.7	105.3	95.2	99.7	96.1	110.6	107.5	67.9	100.3
1995	101.5	103.2	94.1	107.1	104.7	96.8	105.0	61.5	101.1
1996	96.1	95.6	94.1	97.1	92.7	83.8	93.2	69.8	94.9

Table A6b: Standard errors of incidence rates of breast cancer in the States and Territories and Australia, 1982-1996, age-standardised to the Australian 1991 Population Standard

Year	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
1982	1.6	1.9	2.5	3.4	3.2	5.7	10.2	16.2	1.0
1983	1.6	1.9	2.6	3.3	3.2	6.1	10.9	12.1	1.0
1984	1.6	1.9	2.5	3.4	3.2	5.4	10.5	11.1	1.0
1985	1.6	1.9	2.4	3.7	3.2	5.8	9.2	14.0	1.0
1986	1.6	1.9	2.5	3.5	3.1	5.4	9.1	11.7	1.0
1987	1.7	1.9	2.5	3.6	3.2	5.7	8.0	13.8	1.0
1988	1.7	1.9	2.4	3.5	3.1	5.1	8.8	11.8	1.0
1989	1.6	1.9	2.3	3.6	3.4	5.5	9.3	16.2	1.0
1990	1.6	1.9	2.5	3.4	3.3	5.4	9.1	16.6	1.0
1991	1.7	1.9	2.5	3.3	3.2	5.6	8.2	17.8	1.0
1992	1.6	1.9	2.4	3.4	3.4	5.6	8.5	13.2	1.0
1993	1.7	1.9	2.5	3.4	3.4	6.2	8.6	13.4	1.0
1994	1.7	2.1	2.4	3.5	3.4	6.6	9.3	11.8	1.0
1995	1.7	2.0	2.4	3.5	3.5	6.1	8.9	12.9	1.0
1996	1.7	2.0	2.3	3.3	3.3	5.7	8.3	11.7	1.0

Table A6c: Incidence rates of breast cancer in the States and Territories and Australia, 1982-1996, age-standardised to the World Standard Population

Year	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
1982	54.2	60.0	56.6	56.6	55.6	51.9	66.1	30.9	56.4
1983	55.4	55.7	61.0	53.7	56.1	60.7	74.0	39.9	56.5
1984	59.2	60.8	58.9	57.6	55.7	48.7	77.1	30.4	58.9
1985	58.8	60.6	57.8	69.5	59.2	57.8	52.2	34.4	59.8
1986	60.9	60.2	60.0	63.8	57.1	52.2	56.9	35.7	60.0
1987	65.1	65.9	67.8	69.2	58.9	59.9	51.0	59.4	65.2
1988	66.5	64.0	61.1	69.9	58.1	47.1	62.8	41.3	63.7
1989	65.5	66.5	62.4	75.8	70.6	57.1	71.5	44.0	66.3
1990	66.8	65.9	71.1	71.1	68.9	54.9	75.5	45.2	67.4
1991	74.8	68.1	74.3	71.0	68.0	63.9	62.9	69.7	71.5
1992	68.1	69.1	69.9	74.9	75.8	63.1	65.9	58.8	69.7
1993	75.9	72.8	79.5	74.9	79.1	81.9	75.4	51.5	75.9
1994	82.2	85.8	77.8	81.3	78.8	90.3	87.2	59.6	82.2
1995	83.9	84.5	76.7	86.9	85.0	80.7	86.7	50.2	82.9
1996	79.0	79.2	76.7	78.8	76.3	68.8	76.8	60.2	78.0

Table A6d: Standard errors of incidence rates of breast cancer in the States and Territories and Australia, 1982-1996, age-standardised to the World Standard Population

Year	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
1982	1.3	1.6	2.1	2.9	2.7	4.8	8.3	10.5	0.8
1983	1.3	1.6	2.2	2.7	2.7	5.1	8.7	10.5	0.8
1984	1.4	1.6	2.1	2.8	2.6	4.4	8.6	9.4	0.8
1985	1.4	1.6	2.0	3.0	2.7	4.8	6.9	10.4	0.8
1986	1.4	1.6	2.0	2.8	2.6	4.5	7.1	9.5	0.8
1987	1.4	1.6	2.1	2.9	2.6	4.8	6.5	11.8	0.8
1988	1.4	1.6	2.0	2.9	2.6	4.2	7.2	9.8	0.8
1989	1.4	1.6	2.0	3.0	2.9	4.6	7.4	10.4	0.8
1990	1.4	1.6	2.1	2.9	2.8	4.5	7.7	10.6	0.8
1991	1.5	1.6	2.1	2.8	2.8	4.9	6.8	12.6	0.8
1992	1.4	1.6	2.0	2.8	2.9	4.7	6.8	11.2	0.8
1993	1.4	1.6	2.1	2.8	2.9	5.4	7.3	10.4	0.8
1994	1.5	1.8	2.0	2.9	2.9	5.6	7.6	9.9	0.9
1995	1.5	1.7	2.0	3.0	3.0	5.3	7.4	9.6	0.9
1996	1.4	1.7	2.0	2.8	2.8	4.8	6.8	9.8	0.8

Table A7a: Mortality rates of breast cancer in the States and Territories and Australia, 1982-1996, age-standardised to the Australian 1991 Population Standard

Year	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
1982	25.6	29.4	23.3	27.3	21.0	34.7	24.7	16.0	26.2
1983	26.8	28.0	22.9	27.3	22.6	28.7	21.6	64.4	26.3
1984	27.7	27.5	25.9	28.5	25.5	35.0	25.5	23.6	27.4
1985	26.2	30.1	23.9	27.6	28.4	25.9	30.5	5.6	27.2
1986	24.8	27.6	24.4	27.3	27.4	27.1	33.9	26.8	26.1
1987	27.9	28.6	24.6	24.5	22.8	30.2	35.2	23.3	26.9
1988	27.0	28.2	24.1	29.0	28.4	28.3	16.5	21.9	27.0
1989	27.8	29.3	24.2	28.3	28.0	24.2	23.4	24.6	27.5
1990	26.6	29.0	23.8	25.8	24.3	28.9	34.9	14.9	26.6
1991	26.9	30.2	24.0	23.5	27.7	21.8	44.7	28.8	27.1
1992	25.0	27.1	24.1	26.4	24.8	22.7	19.3	10.6	25.3
1993	25.6	28.6	25.4	24.9	29.7	24.4	30.3	21.9	26.6
1994	25.8	29.8	25.3	26.5	25.2	25.9	22.3	7.1	26.6
1995	24.6	26.8	24.9	26.7	25.5	27.6	33.4	22.1	25.6
1996	24.1	26.7	23.6	23.3	28.4	20.2	31.7	23.0	24.9

Table A7b: Standard errors of mortality rates of breast cancer in the States and Territories and Australia, 1982-1996, age-standardised to the Australian 1991 Population Standard

Year	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
1982	1.0	1.2	1.4	2.2	1.7	4.1	6.1	9.3	0.6
1983	1.0	1.2	1.4	2.1	1.8	3.7	5.4	24.6	0.6
1984	1.0	1.1	1.5	2.1	1.9	4.0	5.7	10.8	0.6
1985	1.0	1.2	1.4	2.1	2.0	3.4	6.2	3.4	0.6
1986	0.9	1.1	1.4	2.0	1.9	3.4	6.5	10.5	0.6
1987	1.0	1.1	1.4	1.9	1.7	3.6	6.4	9.8	0.6
1988	0.9	1.1	1.3	2.0	1.9	3.4	4.3	10.2	0.6
1989	0.9	1.1	1.3	1.9	1.9	3.2	4.9	11.7	0.6
1990	0.9	1.1	1.3	1.8	1.7	3.4	6.0	7.3	0.5
1991	0.9	1.1	1.3	1.7	1.8	2.9	6.7	10.1	0.5
1992	0.9	1.1	1.2	1.8	1.7	2.9	4.2	4.1	0.5
1993	0.9	1.1	1.3	1.7	1.9	3.0	5.2	8.1	0.5
1994	0.9	1.1	1.2	1.8	1.7	3.1	4.4	4.4	0.5
1995	0.8	1.0	1.2	1.7	1.7	3.2	5.3	8.7	0.5
1996	0.8	1.0	1.2	1.6	1.8	2.7	5.1	8.5	0.5

Table A7c: Mortality rates of breast cancer in the States and Territories and Australia, 1982-1996, age-standardised to the World Standard Population

Year	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
1982	19.7	23.1	17.7	20.9	16.1	25.7	20.0	12.4	20.2
1983	21.1	21.7	17.6	21.7	17.1	22.6	16.6	37.1	20.4
1984	21.2	21.4	19.5	21.7	19.9	28.1	20.4	19.5	21.1
1985	20.2	23.4	18.5	21.3	21.6	20.6	22.8	4.9	21.0
1986	19.0	21.2	19.0	20.6	21.3	20.5	25.1	21.9	20.1
1987	21.6	22.0	19.3	18.7	17.4	23.9	26.4	18.3	20.8
1988	20.7	21.8	18.5	22.0	22.1	20.6	12.5	16.6	20.7
1989	21.5	22.7	18.4	21.6	21.3	19.0	16.7	15.7	21.1
1990	20.5	22.3	18.5	20.1	18.4	21.8	25.2	12.0	20.5
1991	21.0	23.1	18.6	17.6	21.1	17.1	33.8	23.2	20.9
1992	19.1	20.9	18.3	20.1	19.4	16.7	16.1	10.6	19.4
1993	19.9	21.3	19.4	18.5	23.5	18.9	21.9	17.4	20.3
1994	20.2	22.4	19.3	20.0	19.1	19.6	17.4	6.5	20.4
1995	18.8	20.8	18.9	20.0	19.6	21.0	24.6	17.0	19.6
1996	18.3	20.8	18.2	17.7	21.2	15.0	22.9	17.9	19.1

Table A7d: Standard errors of mortality rates of breast cancer in the States and Territories and Australia, 1982-1996, age-standardised to the World Standard Population

Year	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
1982	0.8	1.0	1.1	1.7	1.4	3.2	4.7	7.2	0.5
1983	0.8	0.9	1.1	1.7	1.4	3.0	4.0	13.6	0.5
1984	0.8	0.9	1.2	1.7	1.5	3.4	4.5	8.6	0.5
1985	0.8	1.0	1.1	1.7	1.6	2.9	4.6	3.1	0.5
1986	0.7	0.9	1.1	1.6	1.6	2.7	4.7	8.0	0.5
1987	0.8	0.9	1.1	1.5	1.4	3.0	4.7	7.4	0.5
1988	0.8	0.9	1.1	1.6	1.6	2.6	3.2	7.4	0.5
1989	0.8	0.9	1.0	1.6	1.5	2.7	3.5	6.5	0.5
1990	0.7	0.9	1.0	1.5	1.4	2.8	4.4	5.8	0.4
1991	0.8	0.9	1.0	1.4	1.5	2.4	5.1	7.5	0.4
1992	0.7	0.9	1.0	1.4	1.4	2.3	3.5	4.1	0.4
1993	0.7	0.8	1.0	1.4	1.6	2.5	3.8	5.9	0.4
1994	0.7	0.9	1.0	1.4	1.4	2.5	3.4	4.1	0.4
1995	0.7	0.8	1.0	1.4	1.4	2.6	4.0	6.1	0.4
1996	0.7	0.8	0.9	1.3	1.4	2.1	3.8	6.3	0.4

Table A8a: Incidence and mortality rates of breast cancer in the States and Territories and Australia, in four age groups and all ages, age-standardised to the Australian 1991 Population Standard

Year	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
Incidence									
1982–1986									
15–39	16.7	17.4	16.2	14.9	16.9	17.7	17.2	11.2	16.6
40–49	121.5	118.0	124.0	118.1	108.2	124.2	116.7	81.1	119.2
50–69	175.7	189.4	175.4	186.2	178.5	149.5	208.7	81.2	179.7
70+	248.0	244.4	271.5	299.8	249.6	245.0	296.8	161.7	254.9
All ages	71.7	73.6	73.5	76.1	70.6	67.7	80.5	41.4	72.6
1987–1991									
15–39	18.6	18.5	17.0	17.2	17.8	14.6	14.9	12.6	17.9
40–49	140.5	132.6	135.6	129.3	131.4	114.4	141.0	81.1	134.8
50–69	212.4	209.4	214.4	230.4	206.6	180.6	222.0	160.7	211.9
70+	278.6	276.5	291.5	342.3	268.7	245.4	213.0	270.3	282.7
All ages	83.6	81.8	83.6	89.3	80.3	70.5	78.9	65.8	82.7
1992–1996									
15–39	17.6	18.2	18.5	16.4	17.5	21.1	17.2	15.9	17.8
40–49	150.1	145.6	142.9	146.1	143.2	142.6	148.8	127.3	146.3
50–69	265.9	267.7	250.6	270.7	277.7	263.6	257.8	188.5	264.8
70+	292.4	308.4	317.4	336.4	298.6	276.0	329.4	132.5	304.4
All ages	94.7	95.9	93.4	97.8	96.3	93.5	95.7	65.8	95.0
Mortality									
1982–1986									
15–39	3.7	3.4	3.2	3.7	3.4	3.5	2.7	2.6	3.4
40–49	26.8	29.2	27.4	30.3	26.2	42.6	33.0	14.8	28.3
50–69	69.9	77.1	62.3	71.9	64.8	73.5	62.5	57.0	70.3
70+	122.4	134.5	113.8	131.3	121.4	140.0	151.1	188.3	125.7
All ages	26.2	28.5	24.1	27.7	25.0	30.2	27.5	26.8	26.6
1987–1991									
15–39	3.5	3.7	3.2	1.9	2.8	4.3	4.5	1.7	3.3
40–49	31.1	29.8	24.7	26.9	28.2	27.4	28.1	14.8	28.8
50–69	70.7	76.7	64.5	69.8	69.0	67.5	78.0	65.3	71.0
70+	128.1	140.1	113.4	132.1	127.8	129.2	164.8	114.8	129.7
All ages	27.2	29.1	24.1	26.2	26.3	26.6	31.2	22.6	27.0
1992–1996									
15–39	2.7	3.9	3.0	2.9	3.0	3.4	3.1	0.5	3.1
40–49	28.3	26.2	26.7	25.2	23.6	27.9	20.3	17.7	26.6
50–69	65.2	72.6	63.5	63.4	72.4	56.6	79.2	56.1	67.2
70+	119.6	137.1	119.9	136.0	132.8	125.2	135.8	67.2	126.9
All ages	25.0	27.8	24.6	25.6	26.7	24.2	27.7	17.2	25.8

Table A8b: Incidence and mortality rates of breast cancer in the States and Territories and Australia, in four age groups and all ages, age-standardised to the World Standard Population

Year	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
Incidence									
1982–1986									
15–39	14.2	14.7	13.7	12.8	14.4	15.1	14.6	9.7	14.1
40–49	123.7	120.3	127.6	120.1	110.2	127.6	119.4	79.9	121.6
50–69	173.6	186.9	172.9	183.8	177.3	147.2	208.1	83.8	177.6
70+	246.5	243.0	269.4	298.1	245.5	244.6	302.8	191.1	253.2
All ages	57.7	59.5	58.9	60.5	56.7	54.2	65.1	34.2	58.4
1987–1991									
15–39	15.7	15.7	14.4	14.6	15.0	12.4	12.9	10.6	15.1
40–49	143.8	135.4	138.8	132.4	134.4	116.9	142.4	79.9	137.9
50–69	210.2	207.1	212.2	228.3	204.3	179.7	219.5	160.6	209.7
70+	276.7	272.9	289.5	340.0	265.1	234.9	202.3	257.9	279.8
All ages	67.8	66.1	67.5	71.4	65.0	56.7	65.1	51.9	66.9
1992–1996									
15–39	14.9	15.5	15.8	13.8	14.8	17.9	14.5	13.4	15.2
40–49	154.2	149.3	148.2	150.0	147.2	146.6	153.5	130.7	150.5
50–69	263.7	265.2	249.2	268.2	275.4	261.2	258.7	188.8	262.6
70+	291.9	306.6	315.9	333.0	295.4	274.8	333.0	130.4	302.9
All ages	77.9	78.4	76.2	79.3	79.0	77.0	78.5	56.1	77.8
Mortality									
1982–1986									
15–39	3.1	2.9	2.7	3.1	2.9	2.9	2.3	2.2	2.9
40–49	27.6	30.3	27.8	31.3	26.8	43.5	34.7	13.3	29.1
50–69	68.8	75.6	61.1	71.0	63.8	72.2	62.7	54.6	69.1
70+	119.5	134.5	109.6	125.3	118.9	139.9	151.5	197.4	123.3
All ages	20.2	22.2	18.5	21.3	19.2	23.4	21.1	19.0	20.6
1987–1991									
15–39	2.9	3.1	2.7	1.6	2.4	3.6	3.8	1.4	2.8
40–49	31.9	30.5	25.2	27.8	28.5	29.1	28.5	13.3	29.5
50–69	69.7	75.5	63.7	68.7	67.6	66.4	76.4	62.4	69.9
70+	125.6	137.1	110.8	126.9	124.1	123.2	151.8	116.7	126.5
All ages	21.1	22.4	18.6	20.0	20.1	20.4	23.1	17.2	20.8
1992–1996									
15–39	2.3	3.3	2.5	2.5	2.6	2.9	2.5	0.4	2.6
40–49	29.3	27.0	27.6	25.6	24.4	28.5	21.7	18.3	27.4
50–69	64.1	71.3	62.4	62.5	71.4	55.5	75.9	56.3	66.0
70+	115.9	133.3	113.9	132.4	130.6	122.5	126.0	66.3	122.9
All ages	19.2	21.2	18.8	19.3	20.5	18.3	20.7	14.0	19.7

Table A9: Incidence rates of breast cancer in the States and Territories and Australia, 1982–1986, 1987–1991 and 1992–1996

Age group	1982–1986								Australia
	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	
0–4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5–9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10–14	0.1	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.1
15–19	0.2	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.1
20–24	1.3	0.3	1.3	0.7	1.0	0.0	1.8	0.0	0.9
25–29	6.0	6.7	6.1	7.7	7.9	8.9	5.4	5.3	6.6
30–34	24.6	23.8	26.4	16.5	24.3	20.4	25.2	2.9	23.6
35–39	52.7	57.6	48.4	51.1	52.0	60.6	55.1	49.6	53.3
40–44	104.6	100.6	95.9	102.6	92.2	97.7	95.9	90.3	100.5
45–49	142.8	139.9	159.2	137.5	128.3	157.4	142.8	69.5	142.7
50–54	143.2	155.5	139.4	156.2	161.3	115.8	223.4	97.3	148.7
55–59	168.8	177.2	172.4	187.0	168.5	148.6	183.3	97.2	172.4
60–64	191.7	203.6	184.3	182.0	192.0	155.4	196.8	95.1	191.7
65–69	206.8	229.6	214.4	227.8	196.1	186.5	230.7	28.3	213.7
70–74	235.0	237.8	265.2	279.0	221.6	228.0	302.3	337.0	243.1
75–79	249.9	245.6	259.6	285.6	249.0	270.1	335.9	90.3	253.9
80–84	252.3	256.6	307.9	313.0	278.3	201.9	167.9	0.0	266.8
85+	280.1	245.0	267.5	384.9	301.5	302.8	373.4	0.0	278.8
All ages ASR (Aust 1991)^(a)	71.7	73.6	73.5	76.1	70.6	67.7	80.5	41.4	72.6
Std error	0.7	0.9	1.1	1.6	1.4	2.5	4.5	5.8	0.4
All ages ASR (World)^(a)	57.7	59.5	58.9	60.5	56.7	54.2	65.1	34.2	58.4
Std error	0.6	0.7	0.9	1.3	1.2	2.1	3.5	4.5	0.4

(continued)

Table A9 (continued): Incidence rates of breast cancer in the States and Territories and Australia, 1982–1986, 1987–1991 and 1992–1996

Age group	1987–1991								Australia
	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	
0–4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5–9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10–14	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15–19	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20–24	1.0	1.2	0.7	1.3	0.7	1.2	0.0	0.0	1.0
25–29	6.4	8.0	7.3	7.8	5.9	5.4	11.4	2.3	7.1
30–34	26.6	29.3	24.7	25.1	25.4	24.0	13.1	17.9	26.3
35–39	60.7	54.9	53.5	52.8	58.6	43.4	51.3	44.2	56.2
40–44	114.5	110.2	111.3	104.7	108.2	95.0	129.4	73.8	110.8
45–49	173.1	160.7	166.2	160.2	160.6	138.9	155.5	125.9	164.9
50–54	185.9	176.6	191.3	202.6	176.9	166.2	158.2	149.3	183.9
55–59	195.9	193.9	194.3	195.5	190.2	167.2	211.1	139.8	193.7
60–64	226.9	230.3	225.8	267.8	224.1	199.9	286.2	198.6	230.5
65–69	247.6	244.6	252.6	262.1	242.7	191.9	243.8	156.4	246.4
70–74	269.5	258.9	282.8	307.2	241.9	183.2	166.7	168.4	265.6
75–79	282.6	286.0	289.1	327.8	272.3	243.5	246.9	356.9	285.9
80–84	294.0	301.3	314.8	345.2	286.0	330.5	287.8	241.8	303.6
85+	276.1	274.7	291.5	490.3	322.6	329.1	170.1	434.2	300.5
All ages ASR (Aust 1991)^(a)	83.6	81.8	83.6	89.3	80.3	70.5	78.9	65.8	82.7
Std error	0.7	0.9	1.1	1.6	1.3	2.4	3.9	6.9	0.4
All ages ASR (World)^(a)	67.8	66.1	67.5	71.4	65.0	56.7	65.1	51.9	66.9
Std error	0.6	0.7	0.9	1.3	1.1	2.1	3.2	5.0	0.4

(continued)

Table A9 (continued): Incidence rates of breast cancer in the States and Territories and Australia, 1982–1986, 1987–1991 and 1992–1996

Age group	1992–1996								
	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
0–4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5–9	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10–14	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.1
15–19	0.0	0.0	0.3	0.0	0.4	0.0	0.0	0.0	0.1
20–24	1.3	0.7	1.7	1.2	0.7	0.0	0.0	0.0	1.1
25–29	7.3	8.7	7.3	5.2	7.0	9.5	6.3	4.6	7.4
30–34	25.3	24.8	25.6	25.3	28.7	30.7	26.3	21.8	25.6
35–39	55.4	58.2	59.2	51.3	51.9	66.8	54.8	54.7	56.3
40–44	118.3	116.3	101.2	115.7	112.3	111.6	112.5	101.3	113.6
45–49	190.1	182.4	195.3	184.4	182.1	181.6	194.5	160.0	187.5
50–54	235.3	231.0	234.7	222.0	249.5	233.9	252.6	151.9	233.7
55–59	257.1	265.7	241.1	278.5	279.8	266.8	248.2	223.0	260.5
60–64	277.2	276.3	257.1	289.6	273.0	256.5	297.1	222.8	273.8
65–69	301.6	306.7	273.9	303.0	316.0	305.5	231.4	159.5	298.8
70–74	293.7	306.3	306.0	314.5	280.3	264.8	340.1	117.4	298.6
75–79	304.2	321.4	318.6	344.1	306.4	315.4	348.1	185.4	314.9
80–84	291.5	321.1	323.9	353.9	316.9	239.0	266.9	91.2	310.2
85+	260.5	264.0	342.0	364.0	312.9	269.8	340.3	112.0	289.0
All ages ASR (Aust 1991)^(a)	94.7	95.9	93.4	97.8	96.3	93.5	95.7	65.8	95.0
Std error	0.8	0.9	1.1	1.5	1.5	2.7	3.9	5.6	0.4
All ages ASR (World)^(a)	77.9	78.4	76.2	79.3	79.0	77.0	78.5	56.1	77.8
Std error	0.6	0.8	0.9	1.3	1.3	2.3	3.2	4.5	0.4

(a) Age-standardised rates are expressed per 100,000 woman-years and are age-standardised to the Australian 1991 Population Standard (ASR (Aust 1991)) and the World Standard Population (ASR (World)). See 'Methods' pages 3 and 4.

Table A10: Mortality^(a) rates of breast cancer in the States and Territories and Australia, 1982–1986, 1987–1991 and 1992–1996

Age group	1982–1986								Australia
	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	
0–4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5–9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10–14	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15–19	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20–24	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1
25–29	0.6	1.2	2.0	1.3	1.1	0.0	0.0	0.0	1.1
30–34	5.4	3.6	4.5	4.8	3.4	2.4	5.0	2.9	4.4
35–39	12.5	12.3	9.5	12.6	12.8	15.5	8.9	10.6	12.0
40–44	20.7	20.7	23.9	23.0	21.6	35.8	19.7	26.5	21.9
45–49	34.5	40.0	31.8	39.6	31.9	51.2	49.8	0.0	36.2
50–54	52.2	58.0	49.8	61.2	51.3	51.9	59.0	54.1	54.1
55–59	67.8	72.0	53.3	66.9	60.9	80.2	64.2	27.8	66.2
60–64	76.8	81.3	65.6	73.8	71.5	73.7	71.1	38.1	75.3
65–69	87.0	102.1	84.0	88.8	78.5	93.2	55.7	113.1	89.8
70–74	98.2	116.4	80.4	82.9	102.1	129.1	135.5	192.6	100.8
75–79	104.5	122.0	100.8	126.5	107.2	115.2	134.4	90.3	111.2
80–84	153.3	122.9	148.6	166.8	149.6	151.4	139.9	144.1	144.6
85+	201.1	243.4	204.5	251.0	179.0	220.9	261.4	484.3	216.0
All ages ASR (Aust 1991)^(a)	26.2	28.5	24.1	27.7	25.0	30.2	27.5	26.8	26.6
Std error	0.4	0.5	0.6	0.9	0.8	1.7	2.7	5.9	0.3
All ages ASR (World)^(a)	20.2	22.2	18.5	21.3	19.2	23.4	21.1	19.0	20.6
Std error	0.3	0.4	0.5	0.8	0.7	1.4	2.0	3.8	0.2

(continued)

Table A10 (continued): Mortality rates^(a) of breast cancer in the States and Territories and Australia, 1982–1986, 1987–1991 and 1992–1996

Age group	1987–1991								Australia
	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	
0–4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5–9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10–14	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15–19	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20–24	0.2	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.2
25–29	0.9	1.3	1.0	0.9	1.7	1.1	1.6	0.0	1.1
30–34	4.0	5.2	4.0	4.2	3.5	3.3	8.2	0.0	4.3
35–39	12.5	11.8	11.2	4.4	9.2	17.6	12.8	8.8	11.2
40–44	24.9	24.4	21.4	20.1	26.3	14.1	24.5	11.1	23.4
45–49	38.9	36.7	29.0	35.5	30.6	44.1	32.6	21.9	35.5
50–54	58.9	58.3	57.2	53.9	51.8	47.2	48.1	24.9	56.7
55–59	60.6	72.5	59.5	68.6	61.5	72.5	62.9	58.2	64.7
60–64	77.3	85.7	62.7	72.8	75.9	73.2	108.5	76.4	76.9
65–69	89.5	94.6	81.2	87.9	91.2	81.4	98.7	111.7	89.4
70–74	103.6	107.4	87.6	93.9	94.3	91.6	91.7	101.0	99.9
75–79	126.6	118.9	99.4	128.8	116.7	126.6	211.7	59.5	120.1
80–84	134.7	164.9	133.8	166.3	151.5	175.9	226.2	120.9	148.8
85+	202.7	264.3	203.8	215.7	231.0	190.2	198.4	289.4	223.5
All ages ASR (Aust 1991)^(a)	27.2	29.1	24.1	26.2	26.3	26.6	31.2	22.6	27.0
Std error	0.4	0.5	0.6	0.8	0.7	1.5	2.6	4.4	0.2
All ages ASR (World)^(a)	21.1	22.4	18.6	20.0	20.1	20.4	23.1	17.2	20.8
Std error	0.3	0.4	0.5	0.7	0.6	1.2	1.9	3.1	0.2

(continued)

Table A10 (continued): Mortality rates^(a) of breast cancer in States and Territories and Australia, 1982–1986, 1987–1991 and 1992–1996

Age group	1992–1996								
	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
0–4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5–9	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10–14	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15–19	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20–24	0.1	0.1	0.0	0.0	0.4	0.0	0.0	0.0	0.1
25–29	0.4	0.4	0.7	1.2	1.1	1.2	0.0	0.0	0.6
30–34	3.9	4.5	4.1	4.0	3.1	6.3	4.6	0.0	4.1
35–39	9.3	15.1	10.7	9.5	10.9	9.7	11.0	2.7	11.1
40–44	21.2	19.7	19.5	22.6	17.7	23.3	9.5	12.7	20.1
45–49	37.3	34.4	35.7	28.5	31.1	33.7	33.9	24.0	34.7
50–54	52.3	52.5	45.4	44.5	59.8	41.2	29.2	72.9	50.5
55–59	59.3	71.8	61.6	65.1	62.7	53.4	66.7	19.4	63.4
60–64	69.3	78.8	70.5	73.8	81.8	61.1	103.8	69.6	73.6
65–69	83.5	92.0	80.9	74.0	88.7	74.8	128.6	59.8	85.2
70–74	88.5	104.9	76.0	109.1	109.0	98.1	72.9	58.7	94.3
75–79	115.9	136.6	119.3	117.6	119.1	95.2	91.6	46.4	121.2
80–84	139.5	154.3	157.1	175.5	149.0	162.2	252.8	91.2	151.6
85+	201.8	219.2	211.4	211.7	221.4	234.6	280.3	112.0	212.2
All ages ASR (Aust 1991)^(a)	25.0	27.8	24.6	25.5	26.7	24.2	27.7	17.2	25.8
Std error	0.4	0.5	0.5	0.8	0.8	1.3	2.2	3.3	0.2
All ages ASR (World)^(a)	19.2	21.2	18.8	19.3	20.5	18.3	20.7	14.0	19.7
Std error	0.3	0.4	0.4	0.6	0.6	1.1	1.7	2.4	0.2

(a) Age-standardised rates are expressed per 100,000 woman-years and are age-standardised to the Australian 1991 Population Standard (ASR (Aust 1991)) and the World Standard Population (ASR (World)). See 'Methods' pages 3 and 4.

Table A11: Age-standardised incidence rates of breast cancer in Australian women, in four age groups, 1982–1996

Year	AS Rates (Aust 1991)				AS Rates (World)			
	Age group				Age group			
	15–39	40–49	50–69	70+	15–39	40–49	50–69	70+
1982	17.2	114.8	175.4	233.6	14.7	117.2	173.0	230.8
1983	16.6	120.4	168.0	246.7	14.1	123.5	166.6	245.9
1984	15.9	122.3	181.7	256.6	13.5	123.9	179.7	256.7
1985	16.9	122.6	185.5	260.6	14.3	125.3	182.4	257.3
1986	16.5	115.7	187.9	273.6	14.0	118.1	187.9	272.0
1987	19.0	133.5	203.7	273.1	16.1	136.6	200.8	266.8
1988	17.3	132.0	198.4	272.8	14.7	134.1	196.1	270.3
1989	17.1	133.3	210.6	280.5	14.5	136.5	208.6	278.5
1990	17.6	135.9	213.1	286.4	14.8	139.5	211.2	285.1
1991	18.3	138.4	232.6	299.7	15.5	141.7	230.6	297.0
1992	17.4	143.9	222.8	283.9	14.7	148.4	220.6	279.2
1993	18.0	145.7	254.7	296.9	15.4	149.1	252.7	297.7
1994	18.2	149.0	286.4	318.9	15.4	153.2	283.1	319.1
1995	18.1	150.3	287.4	324.5	15.4	155.2	285.9	320.4
1996	17.6	142.5	270.7	297.4	14.9	146.7	268.8	297.4

(a) Age-standardised rates are expressed per 100,000 woman-years and are age-standardised to the Australian 1991 Population Standard (Aust 1991) and the World Standard Population (World). See 'Methods' pages 3 and 4.

Table A12: Age-standardised mortality rates of breast cancer in Australian women, in four age groups, 1982–1996

Year	AS Rates (Aust 1991)				AS Rates (World)			
	Age group				Age group			
	15–39	40–49	50–69	70+	15–39	40–49	50–69	70+
1982	3.6	27.3	68.3	125.5	3.0	28.0	67.6	123.1
1983	2.9	26.4	72.1	123.1	2.4	27.1	71.2	122.4
1984	3.2	29.9	70.9	133.0	2.7	30.8	69.7	130.1
1985	4.0	29.9	71.3	125.1	3.3	31.0	69.7	121.7
1986	3.6	27.7	69.0	122.0	3.0	28.3	67.4	119.4
1987	3.6	28.0	70.8	128.3	3.1	28.6	70.0	125.4
1988	3.0	27.2	71.9	131.7	2.6	28.0	70.7	128.1
1989	3.5	30.4	71.3	131.0	2.9	31.1	70.1	127.2
1990	2.8	28.9	70.9	126.5	2.4	29.6	69.5	123.2
1991	3.5	29.3	70.0	130.8	3.0	29.9	68.9	128.7
1992	3.4	28.9	62.7	125.5	2.8	29.9	61.8	122.9
1993	3.2	25.5	71.0	130.6	2.6	26.5	69.8	125.2
1994	3.2	28.1	68.5	131.5	2.7	28.9	67.5	127.6
1995	2.4	25.3	69.1	126.6	2.0	26.3	67.7	122.3
1996	3.5	25.3	64.9	121.0	3.0	25.8	63.7	117.3

(a) Age-standardised rates are expressed per 100,000 woman-years and are age-standardised to the Australian 1991 Population Standard (Aust 1991) and the World Standard Population (World). See 'Methods' pages 3 and 4.

Table A13: Age-standardised incidence and mortality rates^(a) of breast cancer in urban and rural areas of Australia, in four age groups and all ages, 1987–1991 and 1992–1996

Year	AS Rate (Aust 1991)			AS Rate (World)		
	Urban	Rural	Australia	Urban	Rural	Australia
Incidence						
1987–1991						
15–39	18.0	17.1	17.9	15.2	14.5	15.1
40–49	136.2	127.1	134.8	139.4	129.8	137.9
50–69	214.8	196.4	211.9	212.5	194.9	209.7
70+	282.9	269.7	282.7	280.7	265.2	279.8
All ages	83.5	77.8	82.7	67.6	62.7	66.9
1992–1996						
15–39	17.9	16.9	17.8	15.2	14.3	15.2
40–49	148.5	134.8	146.3	152.8	138.9	150.5
50–69	265.6	253.1	264.8	263.6	250.5	262.6
70+	302.7	296.8	304.4	301.0	295.6	302.9
All ages	95.4	90.5	95.0	78.2	73.9	77.8
Mortality						
1987–1991						
15–39	3.2	3.6	3.3	2.7	3.0	2.8
40–49	29.0	28.3	28.8	29.6	29.0	29.5
50–69	71.6	69.5	71.0	70.5	68.5	69.9
70+	129.1	131.5	129.7	126.4	127.2	126.5
All ages	27.1	27.0	27.0	20.9	20.6	20.8
1992–1996						
15–39	3.2	3.0	3.1	2.6	2.5	2.6
40–49	26.6	26.5	26.6	27.5	27.2	27.4
50–69	67.8	65.7	67.2	66.7	64.5	66.0
70+	128.8	122.2	126.9	124.6	118.7	122.9
All ages	26.1	25.1	25.8	19.9	19.3	19.7

(a) Age-standardised rates are expressed per 100,000 woman-years and are age-standardised to the Australian 1991 Population Standard (Aust 1991) and the World Standard Population (World). See 'Methods' pages 3 and 4.

Table A14: Age distribution of the Australian Standard Population (1991) and the World Standard Population

Age	Australian Standard Population (1991) ^(a)		World Standard Population ^(b)	
		% of total		% of total
0-4	1,271,703	7.4	12,000	12.0
5-9	1,272,208	7.4	10,000	10.0
10-14	1,241,619	7.2	9,000	9.0
15-19	1,364,074	7.9	9,000	9.0
20-24	1,396,764	8.1	8,000	8.0
25-29	1,399,663	8.1	8,000	8.0
30-34	1,425,735	8.2	6,000	6.0
35-39	1,328,387	7.7	6,000	6.0
40-44	1,294,271	7.5	6,000	6.0
45-49	1,029,145	6.0	6,000	6.0
50-54	846,934	4.9	5,000	5.0
55-59	725,950	4.2	4,000	4.0
60-64	736,868	4.3	4,000	4.0
65-69	671,390	3.9	3,000	3.0
70-74	510,755	3.0	2,000	2.0
75-79	384,495	2.2	1,000	1.0
80-84	229,828	1.3	500	0.5
85+	154,247	0.9	500	0.5
Total	17,284,036	100.0	100,000	100.0

(a) Australian Bureau of Statistics (1993).

(b) Smith (1992).

Glossary and abbreviations

AACR: Australasian Association of Cancer Registries

ACT: Australian Capital Territory – a landlocked Territory of Australia situated within the State of New South Wales on the eastern seaboard with a population of 304,805 (1995). Its capital city is Canberra, which is also Australia's capital city.

AIHW: Australian Institute of Health and Welfare

AS Rate: age-standardised rate

Cancer (malignant neoplasm): a term used to describe one of several diseases that result when the process of cell division, by which tissues normally grow and renew themselves, becomes uncontrolled and leads to the development of malignant cells. These malignant cells multiply in an uncoordinated way, independently of normal growth-control mechanisms, to form a tumour. This tumour may expand locally by invasion or systemically by metastasis via the lymphatic or vascular systems. If left untreated most malignant tumours eventually result in death.

Cancer death: a death for which the underlying cause is indicated as cancer. People with cancer who die of other causes are not counted in the death statistics in this publication.

CI: confidence interval

ICD-9: The ninth revision of the International Classification of Disease, a coding system used to identify the primary site of the malignancy.

Incidence: see **New cancer case**

Mortality: see **Cancer death**

NCSC: National Cancer Statistics Clearing House

New cancer case: a person who has a cancer diagnosed for the first time. A person may have more than one cancer and so may be counted twice in incidence statistics if it is decided that the two cancers are not of the same origin. This decision is based on a series of principles set out in more detail in a publication by Jensen et al. (1991).

NHL: Non-Hodgkin's lymphoma

NSW: New South Wales – a State on the eastern seaboard of Australia. It has the largest capital city in Australia, Sydney, and a population of 6,126,981 (1995).

NMSC: non-melanocytic skin cancers

NT: Northern Territory – a Territory in the north of Australia with a population of 177,552 (1995) and Darwin as its capital city.

Parity: number of children born.

PYLL: person-years of life lost

Qld: Queensland – a State in the north-east of Australia with a population of 3,265,109 (1995) and Brisbane as its capital city.

SA: South Australia – a State in the southern part of Australia with a population of 1,469,429 (1995) and Adelaide as its capital city.

Tas: Tasmania – an island State in the south-east of Australia with a population of 473,673 (1995) and Hobart as its capital city.

Vic: Victoria – a State in the south-east of Australia with a population of 4,517,387 (1995) and Melbourne as its capital city.

WA: Western Australia – the largest State in Australia, located in the west with a population of 1,733,787 (1995) and Perth as its capital city.

WHO: World Health Organization

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