

5 Other sources of cancer data

Cancer mortality—multiple causes of death

The mortality data reported in the summary tables in this report relate to deaths where cancer was recorded as the underlying cause of death. However, a diagnosis of cancer can raise a person's risk of death from a number of associated causes and these deaths may not be coded as having cancer as their underlying cause. Since 1997, national deaths data in Australia have been coded by the Australian Bureau of Statistics for all causes of death recorded on the death certificate (both underlying and associated). The following table shows the number of deaths where cancer was the underlying cause as well as the number of deaths where cancer was an associated cause appearing on the death certificate for deaths registered in 2000.

Table 9: Number of persons dying with cancer (underlying cause and from another cause of death), Australia, 2000 (year of registration)

Cancer	Additional persons who died		Total
	Underlying cause	with this cancer	
Breast (C50)	2,530	538	3,068
Cervix (C53)	267	43	310
Colorectal cancer (C18–C21)	4,712	594	5,306
Lung (C33–C34)	6,878	470	7,348
Melanoma (C43)	980	109	1,089
Non-Hodgkin's lymphoma (C82–C85, C96)	1,593	286	1,879
Skin cancer other than melanoma (C44)	362	146	508
Prostate cancer (C61)	2,663	1,067	3,730
<i>All malignant cancers (C00–C97)</i>	<i>35,628</i>	<i>4,289</i>	<i>39,917</i>

Sources: ABS 2001b; AIHW Mortality Database.

In 2000, 39,917 deaths were registered where the person had cancer. Of these, cancer was the underlying cause in 35,628 deaths. There were 4,289 further registered deaths where the person had cancer but this was not the underlying cause. Of these deaths the most common underlying causes of death were ischaemic heart disease, stroke and chronic lower respiratory disease.

In 1999, the corresponding figures were 35,053 registered deaths where cancer was the underlying cause and 4,364 registered deaths where the person had cancer, but cancer was not the underlying cause.

Screening

Breast, cervical and bowel cancers are three of a small group of cancers where there is evidence that illness and death can be reduced through population-based screening and effective follow-up treatment. National screening programs for breast cancer (via mammography) and cervical cancer (via Pap smears) have been implemented in Australia with the aim of achieving this reduction. These programs are called BreastScreen Australia and the National Cervical Screening Program. Pilot tests for a population-based screening program for bowel cancer commenced in November 2002 and are being undertaken in 2003 and 2004.

National bowel screening pilot program

The Commonwealth government is conducting a pilot test of bowel cancer screening in 2003 and 2004. The primary aim of the pilot is to provide information about the feasibility, acceptability and cost effectiveness of bowel cancer screening amongst the Australian population in both rural and urban areas. The results of the pilot will inform decisions about whether, and how, to introduce a national bowel cancer screening program.

The pilot is being conducted at three sites – in Melbourne (part of the North East Valley Division of General Practice), Adelaide (part of the Adelaide Southern and Western Divisions of General Practice), and Mackay (part of the Mackay Division of General Practice). The population living in these areas includes a mixture of urban and rural residents and diverse socioeconomic and ethnic groups to reflect the broader Australian population.

The pilot commenced in Mackay in November 2002, with screening starting in the other two sites in early 2003. All people living in each site who were aged from 55 to 74 years as at 1 January 2003 either have been or will be sent an invitation to participate in the pilot and a screening test kit. These invitations will be sent over a period of 12 to 18 months. Invitees' responses to these invitations and the outcomes for those who complete the screening kits will be monitored to the point of definite diagnosis for those who are found to have bowel cancer.

BreastScreen Australia

The BreastScreen Australia program is jointly funded by the Commonwealth and state and territory governments. It consists of a network of dedicated screening and assessment services throughout metropolitan, rural and remote areas of all Australian states and territories. These services can be fixed or mobile and provide free biennial mammographic screening and follow-up of any suspicious lesions identified at screening to the point of diagnosis of breast cancer. The program is aimed specifically at women aged 50–69 years without symptoms, although women aged 40–49 years and 70 years and older may attend for screening. Women may attend without a doctor's referral.

Recruitment and reminder systems are used to promote screening and re-screening among women in the target group once every 2 years.

A comprehensive system of accreditation is used to ensure that all BreastScreen Australia services operate under a common set of standards. Each service is assessed on a regular basis by an independent team to ensure that the service provided complies with national standards.

The proportion of women in the target age group who were screened under the BreastScreen Australia program in a two-year period rose from 52.3% in the period 1996–1997 to 55.9% in the period 1999–2000 (Table 10).

Table 10: Number of women screened by BreastScreen Australia in each two-year period, 1996–2000

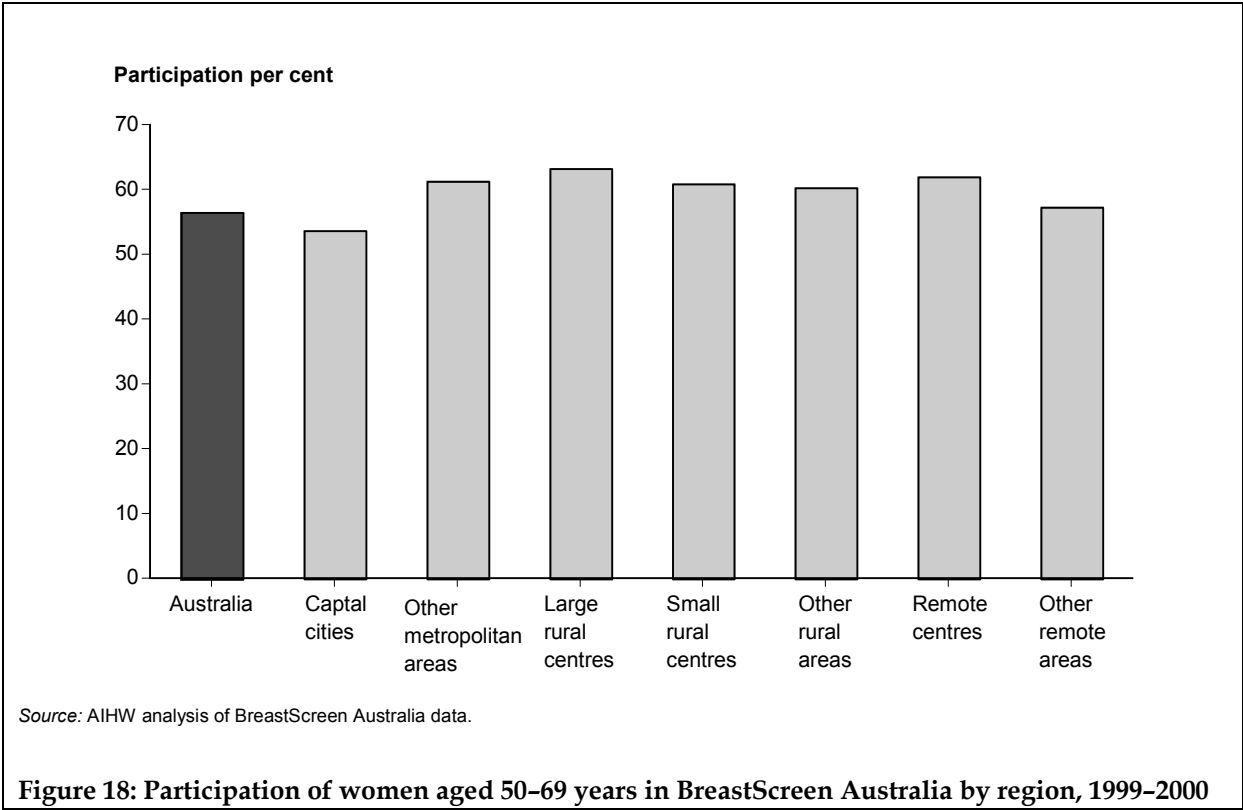
	1996–1997	1997–1998	1998–1999	1999–2000
BreastScreen Australia				
Ages 40 years and over	1,240,885	1,367,759	1,452,263	1,496,417
Target population (ages 50–69 years)	844,607	921,283	975,258	1,011,394
Participation rate for target population (%)	52.3	54.3	55.6	55.9

Note: Participation rates are age-standardised to the 2001 total Australian population.

Source: AIHW analysis of BreastScreen Australia data.

Regional participation rates in 1999–2000 for the target age group were lowest in capital cities and highest in large rural centres. Other metropolitan areas, large and small rural centres, other rural areas and remote centres all had significantly higher participation rates than the national rate (Figure 18). These higher rates reflect policies aimed at encouraging participation in country areas, for example, through the use of mobile mammography units.

There was no consistent pattern in participation rates by relative socioeconomic disadvantage, with no statistically significant difference in participation between the most and the least disadvantaged groups (Figure 19).



National Cervical Screening Program

Cervical screening to detect cervical abnormalities has been available to Australian women since the 1960s. Until the early 1990s this screening was largely unstructured, with no agreement on screening intervals and the targeting of women at most risk of cervical cancer. National policies relating to cervical screening were agreed in 1991 and from 1995 mass cervical screening of Australian women formally became known as the National Cervical Screening Program.

Cervical screening services in Australia are provided as part of the mainstream health services with general practitioners performing approximately 80% of Pap smears. Medicare funding accounts for approximately 61% of the costs of screening with the Commonwealth Government contributing 23% by way of special purpose payments to state and territory governments, and the remaining 16% from state and territory governments' own sources of revenue.

There are two tiers to the National Cervical Screening Program – the national level that deals primarily with policy issues, and the states and territories who coordinate and administer their respective screening programs.

There are cervical cytology registries in all states and territories whose functions are to:

- remind women to attend for screening;
- ensure the follow-up of women with abnormal Pap smears;
- provide cervical screening histories to laboratories and clinicians to aid reporting and management; and
- monitor the effects of initiatives to improve participation by women in screening.

Pap smear screening is currently recommended every two years for all women who have not had a hysterectomy and who have been sexually active at any time in their lives up to the age of 70 years. Pap smears may cease at the age of 70 years for women who have had two normal Pap smears within the last five years. However, if a woman 70 years or more requests a Pap smear they are eligible even if they have never been screened before. The National Cervical Screening Program has an agreed target age group of all women between the ages of 20 and 69 years who have not had a hysterectomy.

Cervical cancer incidence and mortality have declined in the target age groups by 56.9% and 57.7% respectively over the past decade (Table 11). Part of this decline may be a result of the success of the program in influencing women to participate in cervical screening so that minor abnormalities can be detected and treated before potentially progressing to cervical cancer.

Table 11: Number of women screened by the National Cervical Screening Program in each two-year period, 1997–2000

	1997–1998	1998–1999	1999–2000
National Cervical Screening Program			
Ages 20 years and over	2,721,650	2,777,324	3,314,787
Target population (ages 20–69 years)	2,653,504	2,716,364	3,244,329
Participation rate for target population (%)	64.5	65.5	63.3

Notes

1. Participation rates are age standardised to the 2001 Total Australian Population.
2. The Queensland Health Pap Smear registry only commenced in February 1999. Hence the data presented here for cervical screening exclude screening in Queensland prior to 1999.

Source: AIHW analysis of state and territory Cervical Cytology Registry data.

Uptake of Pap smear and mammography testing

Increasing participation among women in the target age groups is a goal of both the national BreastScreen and cervical screening programs. To achieve this goal there has to be increased participation by:

- women in the target age groups who have never had a Pap smear or a mammogram;
- women who have been screened in the past but who are not attending every two years as recommended by the national guidelines.

The National Health Survey conducted by the Australian Bureau of Statistics in 2001 included questions on frequency of both Pap smear and mammography testing among women. The survey included 9,754 women aged 18 years or more, including 8,081 in the cervical screening target age group of 20–69 years, and 2,441 in the BreastScreen Australia target age group of 50–69 years.

Pap smear testing

The national cervical screening program appears to have been very successful in encouraging women to have Pap smears. There was a very low proportion of women who reported never having had a Pap smear in the most important age groups for screening of 30–39 years (3.5%), 40–49 years (2.4%), 50–59 years (3.1%) and 60–69 years (9.6%) (Table 12). In the 18–29 year age group when commencement of screening is recommended for 20–29 year olds who have begun to have sexual intercourse, only 27.5% reported never having had a Pap smear. There is a note of caution in interpreting these statistics as between 7% and 12% of women in these age groups did not answer the National Health Survey question. It is not known what proportion of these had never had a Pap smear. These statistics are also not adjusted for the hysterectomy status of the women surveyed.

The state where women reported the highest proportion of women having regular Pap smears was Tasmania (59.7%), where there has been television advertising of the program in recent years in contrast to most other jurisdictions. New South Wales (50.8%) had the lowest proportion, possibly due to a relatively high migrant population with a lower propensity to receive screening (Table 13).

Highest participation in Pap smear screening (Tables 14, 15 and 16) was among women who:

- spoke English as the main language at home, or Tagalog (Filipino) or Spanish;

- were born in New Zealand, the United Kingdom, or Australia;
- were born overseas and arrived in Australia before 1991;
- were employed;
- had high socioeconomic status and high personal income;
- had private health insurance cover; and
- resided outside metropolitan areas but in inner regional Australia.

Lowest participation among women 18 years and over (Tables 16, 17 and 18) was among women who:

- spoke Mandarin, Cantonese, Vietnamese, Arabic, Italian, Greek or German as the main language at home;
- were born in South East Asian countries or Italy;
- were born overseas and arrived in Australia since 1991;
- were unemployed or not in the labour force;
- had low socioeconomic status and low personal income;
- were government health card holders;
- did not have private health insurance cover; and
- resided in major cities.

However, there needs to be further analysis as many older women outside the screening target age group would be government card holders with low personal incomes and low socioeconomic status.

Among women aged 70 years and over, 24.1% reported never having had a Pap smear (Tables 12 & 17). Incidence of cervical cancer for women in this age group is relatively high at 16.7 cases per 100,000 women, compared with 15.4 for women aged 60–69 years (the upper end of the target age group), and 9.5 for women in the screening target age group as a whole (20–69 years).

Table 12: Pap smear testing, women aged 18 years and over, Australia, 2001

Frequency of test	Age (years)						Total
	18–29	30–39	40–49	50–59	60–69	70+	
(number of females ('000s))							
Has regular tests							
At least annually	303.5	442.6	371.1	267.4	97.2	52.9	1,534.7
More than 1, up to 2 years	423.6	641.3	575.7	378.9	211.9	74.4	2,305.7
More than 2 years apart	6.7	26.0	11.9	20.8	7.4	7.5	80.2
Not stated	3.0	8.0	4.9	6.2	4.9	2.2	29.3
<i>Total</i>	<i>736.8</i>	<i>1,117.9</i>	<i>963.6</i>	<i>673.3</i>	<i>321.4</i>	<i>136.9</i>	<i>3,949.9</i>
Only had one Pap smear	183.4	31.4	27.6	17.6	24.7	45.9	330.6
Does not have regular Pap smears	93.1	169.2	263.5	291.7	236.6	331.0	1,385.3
Has never had a Pap smear	430.4	51.5	34.3	35.5	71.4	216.6	839.6
Not stated	120.6	108.9	128.3	114.3	91.8	169.1	732.9
<i>Total</i>	<i>1,564.3</i>	<i>1,478.9</i>	<i>1,417.2</i>	<i>1,132.4</i>	<i>745.9</i>	<i>899.5</i>	<i>7,238.3</i>
(per cent)							
Has regular tests							
At least annually	19.4	29.9	26.2	23.6	13.0	5.9	21.2
More than 1, up to 2 years	27.1	43.4	40.6	33.5	28.4	8.3	31.9
More than 2 years apart	0.4	1.8	0.8	1.8	1.0	0.8	1.1
Not stated	0.2	0.5	0.3	0.5	0.7	0.2	0.4
<i>Total</i>	<i>47.1</i>	<i>75.6</i>	<i>68.0</i>	<i>59.5</i>	<i>43.1</i>	<i>15.2</i>	<i>54.6</i>
Only had one Pap smear	11.7	2.1	1.9	1.6	3.3	5.1	4.6
Does not have regular Pap smears	6.0	11.4	18.6	25.8	31.7	36.8	19.1
Has never had a Pap smear	27.5	3.5	2.4	3.1	9.6	24.1	11.6
Not stated	7.7	7.4	9.1	10.1	12.3	18.8	10.1
<i>Total</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>

Note: Estimates of less than 20,000 have high standard errors and should be used with caution while estimates of less than 5,000 are considered too unreliable for general use.

Source: ABS (2002b).

Table 13: Pap smear testing, women aged 18 years and over, states, Australia, 2001

	States and territories							
	NSW	Vic	Qld	WA	SA	Tas	ACT	NT
	(per cent)							
Has regular Pap smears	50.6	55.0	57.7	58.3	55.3	58.4	59.8	65.0
Does not have regular Pap smears ^(a)	23.8	22.0	25.8	23.9	24.2	26.2	21.9	12.2
Never had a Pap smear	11.9	12.9	8.7	12.2	12.6	10.1	10.2	17.0
Not stated ^(b)	13.7	10.2	7.8	5.6	7.9	5.3	8.1	5.8
	(standard error)							
Has regular Pap smears	1.3	1.2	1.3	1.7	1.7	2.5	1.5	6.0
Does not have regular Pap smears ^(a)	1.0	1.2	1.0	1.3	1.5	1.8	1.6	3.4
Never had a Pap smear	0.9	0.8	0.7	1.1	1.3	1.2	1.5	4.8
Not stated ^(b)	1.1	1.0	0.7	0.9	0.9	1.0	1.2	3.0

(a) Includes only had one and does not have regular examinations/tests.

(b) Includes has had a pap smear but regularity not stated and whether had a pap smear not stated.

Source: 2001 National Health Survey.

Table 14: Women aged 18 years and over who have had a Pap smear, Australia, 2001

Population characteristic	Per cent	Population characteristic	Per cent
Country of birth		Highest educational qualification	
Australia	56.6	Associate diploma or above	65.6
Other Oceania	57.1	Other qualification	60.1
United Kingdom	57.7		
Other North West Europe	46.7	Location	
Southern & Eastern Europe	44.6	Major cities	53.1
North Africa & Middle East	42.2	Inner regional Australia	58.8
South-East Asia	43.5	Other	55.9
All other countries	44.7		
		Personal income	
Born overseas		1st quintile (lowest income)	32.0
Arrived before 1991	50.5	5th quintile (highest income)	77.3
Arrived 1991–2001	43.9		
		Index of socioeconomic disadvantage	
Main language spoken at home		1st quintile (most disadvantaged)	47.0
English only	56.9	5th quintile (least disadvantaged)	59.4
Language other than English	42.8		
		Private health insurance cover	
Labour force		With private cover	60.4
Employed	64.2	Without private cover	48.3
Unemployed	46.6		
Not in labour force	42.8	Government health card	
		With card	39.8
		Without card	64.2

Source: ABS 2002b.

Table 15: Women who have never had a Pap smear, main language spoken at home, 2001

Main language spoken at home	Age (years)		
	18–69	70 and over	18 and over
	(per cent)		
English only	7.9	22.2	9.7
Italian	12.9	45.0	19.4
Greek	21.9	41.6	23.1
Cantonese	np	np	32.7
Mandarin	np	np	41.3
Arabic	np	np	22.8
Vietnamese	np	np	26.8
German	np	np	18.9
Spanish	np	np	12.5
Tagalog (Filipino)	np	np	8.9
Other language	16.6	38.0	18.3
<i>Total</i>	<i>9.8</i>	<i>24.1</i>	<i>11.6</i>

np not available for publication.

Source: 2001 National Health Survey, ABS.

Table 16: Women who have never had a Pap smear, country of birth, 2001

Country of birth	Age (years)		
	18–69	70 and over	18 and over
	(per cent)		
Australia	9.1	22.0	10.7
New Zealand	np	np	5.4
England	2.9	22.8	5.9
Scotland	np	np	7.1
Italy	12.7	46.2	21.9
Greece	37.2	37.2	12.1
Viet Nam	np	np	25.3
Philippines	np	np	17.5
Other	16.3	31.8	17.7
<i>Total</i>	<i>9.8</i>	<i>24.1</i>	<i>11.6</i>

np not available for publication.

Source: 2001 National Health Survey, ABS.

Table 17: Women who have never had a Pap smear, states, 2001

State or territory	Age (years)		
	18–69	70 and over	18 and over
	(per cent)		
NSW	10.0	24.7	11.9
Vic	11.4	22.8	12.9
Qld	7.0	21.8	8.7
WA	9.9	30.7	12.2
SA	10.5	24.7	12.6
Tas	8.0	23.1	10.1
ACT	9.5	17.4	10.2
<i>Australia, including NT</i>	9.8	24.1	11.6

Note: Separate numbers not available for publication for the Northern Territory.

Source: 2001 National Health Survey, ABS.

Mammography

In the target age group of 50–69 years for the BreastScreen Australia Program, 11.8% of women reported in the 2001 National Health Survey that they had never had a mammogram. The true figure may be much higher as 9.7% of women aged 50–59 years and 11.0% of women aged 60–69 years did not answer the question in the survey (Tables 18–22).

Women least likely to have had a mammogram are those whose main language spoken at home is other than English and whose birthplace is South East Asian (Tables 20 and 21). However, 11.2% of women aged 50–69 years who were born in Australia had never had a mammogram.

Among women aged 50–69 years (the target age group for the BreastScreen Australia program) those less likely to have had a mammogram were as follows (Table 19):

- women from non-English-speaking countries, especially those who arrived more than 10 years earlier;
- less well educated women and those without private health insurance coverage;
- women not in the labour force; and
- residents of remote areas and outer regional Australia .

AIHW BreastScreen Australia Monitoring Reports have also identified relatively low participation among:

- Aboriginal and Torres Straight Islander women; and
- women living in capital cities.

Among women aged 70 years and over, 27.9% reported never having had a mammogram (Table 18). Incidence of breast cancer for women in this age group is 311.1 new cases per 100,000 women, compared with 296.4 for women in the target age group.

Table 18: Mammogram examinations, age group, Australia, 2001

Frequency of mammogram	Age (years)						Total
	18–29	30–39	40–49	50–59	60–69	70+	
(number of females ('000s))							
Has regular mammograms							
At least annually	9.9	28.8	144.4	227.2	118.0	72.1	600.5
More than 1, up to 2 years	2.4	18.4	195.3	510.3	363.7	214.7	1,304.8
More than 2 years apart	—	6.1	12.8	9.3	6.3	7.9	42.5
Not stated	—	—	4.6	13.6	6.7	9.3	34.3
<i>Total</i>	<i>12.4</i>	<i>53.3</i>	<i>357.2</i>	<i>760.5</i>	<i>494.7</i>	<i>304.0</i>	<i>1,982.1</i>
Only had one mammogram	32.5	133.8	229.9	67.7	31.2	50.5	545.6
Does not have regular mammograms	14.7	79.2	112.9	56.9	54.4	135.0	453.2
Has never had a mammogram	1,380.1	1,090.4	584.6	138.2	83.8	251.3	3,528.4
Not stated	124.5	122.3	132.6	109.3	81.7	158.8	729.1
<i>Total</i>	<i>1,564.3</i>	<i>1,478.9</i>	<i>1,417.2</i>	<i>1,132.4</i>	<i>745.9</i>	<i>899.5</i>	<i>7,238.3</i>
(per cent)							
Has regular mammograms							
At least annually	0.6	1.9	10.2	20.1	15.8	8.0	8.3
More than 1, up to 2 years	—	1.2	13.8	45.1	48.8	23.9	18.0
More than 2 years apart	—	—	0.9	0.8	0.8	0.9	0.6
Not stated	—	—	0.3	1.2	0.9	1.0	0.5
<i>Total</i>	<i>0.8</i>	<i>3.6</i>	<i>25.2</i>	<i>67.2</i>	<i>66.3</i>	<i>33.8</i>	<i>27.4</i>
Only had one mammogram	2.1	9.0	16.2	6.0	4.2	5.6	7.5
Does not have regular mammograms	0.9	5.4	8.0	5.0	7.3	15.0	6.3
Has never had a mammogram	88.2	73.7	41.3	12.2	11.2	27.9	48.7
Not stated	8.0	8.3	9.4	9.7	11.0	17.7	10.1
<i>Total</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>

Note: Estimates of less than 20,000 have high standard errors and should be used with caution while estimates of less than 5,000 are considered too unreliable for general use.

— nil or rounded to zero.

Source: ABS 2002b.

Table 19: Women aged 50–69 years: mammogram status and population characteristics, 2001

Population characteristics	Whether has had a mammogram		
	Yes	Never	Not stated
	(per cent and standard error)		
Country of birth			
Australia	81.5 (1.5)	11.2 (1.2)	7.3 (0.9)
Main English-speaking countries	85.2 (2.8)	8.2 (2.0)	6.6 (2.1)
Other	67.0 (1.9)	15.1 (1.6)	17.9 (1.9)
Born overseas			
Arrived before 1991	64.8 (9.1)	22.6 (8.0)	12.5 (4.9)
Arrived 1991–2001	73.0 (2.0)	12.3 (1.5)	14.7 (1.7)
Main language spoken at home			
English	81.8 (1.3)	10.7 (1.0)	7.5 (0.7)
Other	61.4 (2.5)	17.4 (2.3)	21.2 (2.7)
Highest educational qualification			
Associate diploma or above	84.6 (2.0)	9.5 (1.7)	6.0 (1.2)
Other qualification	76.9 (1.4)	12.4 (1.0)	10.7 (1.0)
Labour force			
Employed	83.3 (1.5)	10.1 (1.0)	6.6 (1.0)
Unemployed	75.0 (1.4)	12.8 (1.0)	12.2 (1.1)
Not in the labour force	68.2 (13.2)	25.0 (13.9)	6.8 (4.9)
Location			
Major cities of Australia	76.6 (1.4)	11.8 (0.9)	11.6 (1.2)
Inner regional Australia	85.2 (2.1)	10.0 (1.6)	4.8 (1.1)
Outer regional Australia/other areas	74.5 (3.0)	15.7 (2.5)	9.8 (2.0)
Household composition			
Couple only	82.7 (1.7)	9.2 (1.1)	8.2 (1.2)
Couple with children	75.6 (3.4)	11.5 (2.3)	12.9 (2.5)
Lone parent	78.5 (1.8)	12.2 (1.7)	9.3 (1.0)
Person living alone	71.5 (3.5)	14.9 (3.6)	13.6 (2.5)
All other households	67.2 (5.0)	22.8 (4.1)	10.0 (2.2)
Income unit			
1st quintile (lowest income)	75.7 (2.0)	12.5 (1.4)	11.8 (1.7)
5th quintile (highest income)	85.1 (3.0)	7.3 (1.7)	7.6 (2.6)
Index of socioeconomic disadvantage			
1st quintile (most disadvantaged)	78.3 (2.6)	12.2 (2.0)	9.6 (1.6)
5th quintile (least disadvantaged)	79.7 (2.2)	12.0 (1.8)	8.3 (1.5)
Private health insurance			
With private cover	82.2 (1.5)	9.1 (0.9)	8.7 (1.0)
Without private cover	73.3 (1.6)	15.5 (1.6)	11.3 (1.2)
Government health card			
With card	76.6 (1.3)	12.4 (1.0)	11.1 (1.1)
Without card	80.0 (1.8)	11.3 (1.2)	8.7 (1.0)

Source: ABS 2002b.

Table 20: Women who have never had a mammogram, main language spoken at home, 2001

Main language spoken at home	Age (years)			
	18–49	50–69	70 and over	18 and over
	(per cent)			
English only	69.3	10.7	27.5	48.7
Italian	67.2	9.4	26.9	35.5
Greek	72.1	np	np	46.4
Cantonese	52.0	np	np	47.0
Mandarin	75.1	np	np	70.6
Arabic	55.9	np	np	58.7
Vietnamese	64.2	np	np	60.5
German	66.6	23.1	45.1	43.7
Spanish	50.5	np	np	39.3
Tagalog (Filipino)	49.3	np	np	41.5
Other language	66.4	14.9	27.9	51.5
Total	68.5	11.8	27.9	48.7

np not available for publication.

Source: 2001 National Health Survey, ABS.

Table 21: Women who have never had a mammogram, country of birth, 2001

Country of birth	Age (years)			
	18–49	50–69	70 and over	18 and over
	Percent			
Australia	70.5	11.2	27.8	51.1
New Zealand	81.7	8.5	65.6	65.0
England	60.5	8.9	23.9	35.6
Scotland	48.9	4.5	32.9	26.9
Italy	60.6	11.1	25.7	27.6
Greece	55.8	np	np	26.2
Germany	65.6	19.7	47.9	38.5
Netherlands	69.0	np	np	23.2
Viet Nam	64.6	np	np	58.1
Philippines	54.1	np	np	46.4
Other	60.6	16.6	27.0	45.4
Total	68.5	11.8	27.9	48.7

np not available for publication.

Source: 2001 National Health Survey, ABS.

Table 22: Women who have never had a mammogram, states, 2001

State or territory	Age (years)			
	18–49	50–69	70 and over	18 and over
	(per cent)			
NSW	63.9	12.2	25.2	45.4
Vic	71.0	13.9	29.7	51.1
Qld	67.0	9.3	27.0	47.4
WA	71.8	9.4	28.4	51.3
SA	75.7	11.8	33.8	52.3
Tas	73.3	12.0	36.3	51.2
ACT	73.3	13.2	17.3	53.8
<i>Australia, including NT</i>	<i>68.5</i>	<i>11.8</i>	<i>27.9</i>	<i>48.7</i>

Note: Separate numbers not available for publication for the Northern Territory.

Source: 2001 National Health Survey, ABS.

Over-screening

Screening is recommended every two years in the target age groups for both Pap smear testing and the BreastScreen Australia program. More frequent screening is not justified unless there are clinical grounds to do so. It is costly financially, and costly psychologically in cases where false positives are found.

However, the National Health Survey results indicate that there appears to be a significant level of unjustified annual screening occurring:

- More than 20% of women in the 30–59 year age group reported having a Pap smear at least annually, as well as 19.4% of 18–29 year olds and 13.0% of 60–69 year olds (Table 12).
- 10.2% of women aged 40–49 years, 20.1% of those aged 50–59 years, 15.8% of those aged 60–69 years and 8.0% of those aged 70 years or more reported having mammograms at least annually (Table 18).

Trends in cancer-related hospital separations

The Australian Institute of Health and Welfare (AIHW) National Hospital Morbidity Database (NHMD) contains diagnosis and treatment information for separations of admitted patients from almost all public and private hospitals in Australia from 1993–94 to 2001–02. AIHW publishes detailed statistics on these in June each year. The most recent report is for 2001–02 (AIHW 2003b).

The NHMD contains a wealth of data and many variables. This section presents trend data for admitted patients with a principal diagnosis of cancer for the five-year period from 1997–98 to 2001–02 inclusive.

Principal diagnosis

The principal diagnosis is defined as the diagnosis established, after study, to be chiefly responsible for occasioning the admitted patient's episode of care in hospital.

Principal diagnoses for 1997–98 were classified, coded and reported to the NHMD using the second edition of the Australian Version of the International Classification of Diseases, 9th Revision, Clinical Modification (ICD-9-CM) (National Coding Centre 1996). Principal diagnoses for 1998–99 were coded by Queensland, Western Australia, South Australia and Tasmania using ICD-9-CM and by New South Wales, Victoria, the Australian Capital Territory and the Northern Territory using the first edition of the International Statistical Classification of Diseases and Related Health Problems, 10th Revision, Australian Modification (ICD-10-AM) (National Centre for Classification in Health 1998).

Principal diagnoses for 1999–00 were coded by all states and territories using the first edition of ICD-10-AM and for both 2000–01 and 2001–02 using the second edition of ICD-10-AM (NCCH 2000).

Table 23 gives the ICD-10-AM groupings for principal diagnoses of cancer (ICD-10-AM codes C00–C97 *malignant neoplasms*) and the equivalent ICD-9-CM codes. Both ICD-9-CM and ICD-10-AM include diagnoses codes covering other reasons for hospitalisation (such as Z51.1 *chemotherapy session*), and all codes primarily related to cancer are included in Tables 23–29.

In Tables 23–29, the term 'all cancer-related separations' is used to describe hospital separations with a principal diagnosis of cancer or with another reason for hospitalisation that is primarily related to cancer. These exclude other hospital patients with cancer whose principal diagnosis is related to another disease.

Effects of coding changes

Not all of the cancer-related groups in ICD-10-AM have a direct equivalent in ICD-9-CM. Some groupings used elsewhere in this publication have been collapsed to improve comparability between the coding schemes used for different years.

There was no diagnosis code in ICD-9-CM for *mesothelioma* (group C45 in ICD-10-AM) and such cancers would primarily have been coded in ICD-9-CM as cancers of *other thoracic organs* (groups 163 and 164), but may also have been coded as cancers of *connective and soft tissue* (groups 158 and 171). The lack of equivalent codes in ICD-9-CM means that there are no reported separations for *mesothelioma* in 1997–98 and the separations for 1998–99 are

understated as only four states and territories used ICD-10-AM in that year. Separations for *other thoracic organs* are overstated in both 1997–98 and 1998–99.

Some of the codes in ICD-10-AM group Z08 *follow-up examination after treatment for malignant neoplasms* have equivalents not specific to cancer in the ICD-9-CM group V67 *follow-up examination*. As a result, there are no reported separations in 1997–98 and separations for 1998–99 are understated, for both Z08.0 *follow-up examination after surgery for malignant neoplasm* and Z08.7–Z08.9 *follow-up examination after combined, other or unspecified treatment for malignant neoplasm*.

Main findings

In 1997–98, there were 264,372 hospital separations where cancer was recorded as the principal diagnosis (Table 23), which represents 4.8% of all separations in that year. In 2001–02, there were 316,853 separations with a principal diagnosis of cancer, 5.0% of all separations in that year. In the period 1997–98 to 2001–02, hospital separations with a principal diagnosis of cancer increased on average by 4.7% per annum.

Other cancer-related separations also increased, with the result that during the period 1999–00 to 2001–02 (when all coding has been in ICD-10-AM), the total for all cancer-related separations increased on average by 5.5% per annum. In 2001–02, there were a total of 622,246 cancer-related separations, which represents 9.7% of all hospital separations in that year.

For the eight National Health Priority Area cancers in the period 1997–98 to 2001–02, separations for skin cancers other than melanoma have increased on average by 7.4% per annum, for prostate cancer by 7.0%, for non-Hodgkin's lymphoma by 5.7%, for colorectal cancer by 5.5%, for breast cancer by 4.6%, for melanoma by 4.3% and for lung cancer by 0.8%. Separations for cancer of the cervix have decreased on average by 2.4% per annum in the same period.

Same-day patients and length of stay

In 2001–02 there were 442,571 cancer-related same-day separations (Table 24), representing 13.2% of all same-day separations in that year. In the same year, there were 1,937,692 patient days (Table 25) associated with all cancer-related separations. These represent 8.3% of all patient days for that year and 7.5% of all patient days excluding same-day separations.

Same-day separations have been increasing as a proportion of all separations with a principal diagnosis of cancer. In 1997–98, 36.9% of such separations were on a same-day basis (Table 24). By 2001–02, 44.4% of such separations were same-day.

As a result of the increase in same-day separations, average length of stay per separation declined for 5.7 days in 1997–98 to 5.1 days in 2001–02 (Table 26). Excluding same-day separations, average length of stay declined only slightly from 8.5 days in 1997–98 to 8.4 days in 2001–02.

Public patients and type of hospital

In 1997–98, 52.0% of hospital separations with a principal diagnosis of cancer were for public patients (Table 27). This proportion had declined to 47.6% by 2001–02.

In 1997–98, public hospitals accounted for 62.0% (Table 28) of hospital separations with a principal diagnosis of cancer and private hospitals for 38% (Table 29). By 2001–02, the public hospital share decreased to 55.3% and the private hospital share increased to 44.7%.

Not all public patient separations with a principal diagnosis of cancer are in public hospitals. In 1997-98, public hospitals accounted for 98.4% of these patients, but only 96.8% in 2001-02 (Table 28).

Table 23: Cancer-related hospital separations and average annual rate of change, Australia, 1997–98 to 2001–02

ICD-10-AM	ICD-9-CM	Principal diagnosis	Number					Average annual rate of change
			1997–98	1998–99	1999–00	2000–01	2001–02	%
C00–C97	140–208	All cancers (including C44)	264,372	278,290	294,369	306,536	316,853	4.7
C00	140	Lip	888	846	714	591	686	–8.6
C01–C02	141	Tongue	1,100	1,078	1,217	1,098	1,212	2.2
C03–C06	143–145	Mouth	967	1,053	1,074	992	957	–0.8
C07–C08	142	Parotid & other salivary glands	459	460	458	483	491	1.9
C09–C10	146	Tonsil & other oropharynx	677	697	705	803	761	3.8
C11	147	Nasopharynx	446	464	589	522	464	1.9
C12–C13	148	Hypopharynx	437	494	544	517	485	2.4
C14	149	Other lip, oral cavity & pharynx	258	305	266	282	234	–2.6
C15	150	Oesophagus	3,963	3,880	4,293	4,497	4,368	3.5
C16	151	Stomach	5,041	4,950	5,257	5,609	5,432	2.8
C17	152	Small intestine	379	431	441	634	593	13.9
C18	153	Colon	12,464	12,919	14,459	15,185	15,615	6.3
C19–C21	154	Rectum & anus	8,725	8,825	9,299	10,053	10,126	4.4
C18–C21	153–154	Colorectal (including anus)	21,189	21,744	23,758	25,238	25,741	5.5
C22	155	Liver & intrahepatic bile ducts	1,684	1,731	1,847	2,013	2,082	6.0
C23–C24	156	Gallbladder & other biliary tract	1,120	1,154	1,154	1,145	1,141	0.3
C25	157	Pancreas	3,350	3,562	3,627	3,966	3,981	4.6
C30–C31	160	Nasal cavity & accessory sinuses	409	381	386	387	371	–1.8
C32	161	Larynx	1,423	1,401	1,427	1,461	1,474	1.1
C33–C34	162	Trachea, bronchus & lung	16,890	16,639	16,783	17,086	17,335	0.8
C37–C38	163–164	Other thoracic organs ^(b)	1,322	837	424	467	411	–1.5
C40–C41	170	Bone and articular cartilage	1,281	1,292	1,438	1,389	1,539	4.5
C43	172	Skin—melanoma	6,943	6,639	6,721	7,698	7,924	4.3
C44	173	Skin—other than melanoma	53,225	54,679	59,443	65,618	69,143	7.4
C45	.	Mesothelioma ^(b)	.	762	1,437	1,495	1,618	6.2
C46	176	Kaposi's sarcoma	124	84	66	36	37	–31.5
C47–C49	158,171	Connective & soft tissue	1,937	2,007	2,119	2,054	2,377	4.5
C50	174–175	Breast	17,823	18,474	19,786	20,527	21,191	4.6
C53	180	Cervix uteri	1,994	2,020	2,087	1,920	1,803	–2.4
C54	182	Corpus uteri	2,596	2,389	2,385	2,499	2,525	–0.1
C55	179	Uterus unspecified	215	289	378	469	575	28.8
C56	183.0	Ovary	3,252	3,449	3,537	3,487	3,640	2.4
C57–C58,C51–C52	181,183.2–183.9,184	Placenta & other female genital	879	980	929	1,008	927	1.3
C61	185	Prostate	11,682	11,769	12,886	13,693	15,107	7.0
C62	186	Testis	1,080	1,033	1,109	1,173	1,106	1.8
C63, C60	187	Penis & other male genital	198	162	187	195	212	3.3
C64	189.0	Kidney, except renal pelvis	2,682	3,021	3,281	3,399	3,380	5.8
C65	189.1	Renal pelvis	374	407	410	376	414	1.2
C66	189.2	Ureter	272	279	317	320	379	8.6
C67	188	Bladder	14,578	15,130	16,169	16,377	16,559	3.4
C68	189.3–189.9	Other urinary organs	107	117	126	138	136	6.6
C69	190	Eye and adnexa	628	624	680	590	609	–1.1
C71	191	Brain	3,787	4,170	4,260	4,419	4,620	4.6
C72,C70	192	Meninges & other CNS	373	389	336	320	250	–9.1
C73	193	Thyroid gland	1,917	2,112	2,120	2,259	2,527	6.5
C74	194.0	Adrenal gland	250	363	508	382	215	–1.5
C75	194.1–194.9	Other endocrine glands	115	143	159	162	123	2.5
C81	201	Hodgkin's disease	1,406	1,619	1,384	1,372	1,580	0.7
C82–C85,C96	200,202(excl.202.4)	Non-Hodgkin's lymphoma	13,714	14,794	16,159	16,061	17,363	5.7
C81–C85,C96	200–202(excl.202.4)	All lymphomas	15,120	16,413	17,543	17,433	18,943	5.2
C88	203.8	Immunoproliferative neoplasms	60	640	579	665	648	28.5
C90	203.0–203.1	Multiple myeloma	7,720	10,556	12,127	12,667	12,955	12.1
C91,C95	202.4,204,208	Lymphoid & unspecified leukaemia	6,016	7,277	8,339	7,766	8,269	6.9
C92–C94	205–207	Myeloid & other specified leukaemia	6,251	7,532	8,448	9,003	9,583	10.6
C97,C76–C80,C26,C39	159,165,195–199	Unknown and multiple primary site	38,891	40,982	39,495	39,208	39,300	–0.2
Other cancer-related separations ^(a)								
Z80,Z85,Z92.3	V10,V15.3,V16	Personal and family history	16,111	18,752	23,023	28,083	25,823	14.1
Z03.1	V71.1	Observation for suspected cancer	1,353	1,047	1,161	552	500	–22.9
Z12	V76	Special screening examination	42	1,247	1,132	659	8,128	^(c)
Z40	V50.4–V50.9	Prophylactic surgery	202	220	263	232	309	9.8
Z51.0	V58.0	Radiotherapy session	519	513	555	734	799	13.6
Z51.1	V58.1	Chemotherapy session	193,857	108,406	205,676	219,913	232,804	10.5
Z54.1,Z08.1	V66.1,V67.1	Follow-up after radiotherapy	436	332	584	642	597	13.3
Z54.2,Z08.2	V66.2,V67.2	Follow-up after chemotherapy	1,235	931	1,151	1,121	1,293	2.7
Z08.0	.	Follow-up after surgery for cancer ^(b)	.	14,862	27,394	29,038	30,730	5.9
Z08.7–Z08.9	.	Follow-up after multiple treatment ^(b)	.	1,762	3,325	3,707	4,410	15.4
All cancer-related separations ^(b)			478,127	426,362	558,633	591,217	622,246	5.5

(a) Separations for specific procedures, usually related to another separation for a principal diagnosis of cancer, but excluding any procedures conducted as part of that other separation.

(b) Refer to page 62 for the effects of coding changes. Average annual rates of change for these categories have been calculated for the period 1999–00 to 2001–02 only.

(c) Average annual rate of change not calculated due to extreme volatility of the time series.

.. not applicable.

Table 24: Same-day cancer-related hospital separations, Australia, 1997–98 to 2001–02

ICD-10-AM ^(a)	Principal diagnosis	Same-day separations					Percentage of all hospital separations				
		1997–98	1998–99	1999–00	2000–01	2001–02	1997–98	1998–99	1999–00	2000–01	2001–02
C00–C97	All cancers (including C44)	97,536	110,284	120,881	130,074	140,808	36.9	39.6	41.1	42.4	44.4
C00	Lip	576	542	481	389	493	64.9	64.1	67.4	65.8	71.9
C01–C02	Tongue	162	212	334	234	267	14.7	19.7	27.4	21.3	22.0
C03–C06	Mouth	137	178	268	187	222	14.2	16.9	25.0	18.9	23.2
C07–C08	Parotid & other salivary glands	39	32	48	46	36	8.5	7.0	10.5	9.5	7.3
C09–C10	Tonsil & other oropharynx	119	137	175	198	169	17.6	19.7	24.8	24.7	22.2
C11	Nasopharynx	94	108	156	109	113	21.1	23.3	26.5	20.9	24.4
C12–C13	Hypopharynx	64	91	131	108	106	14.6	18.4	24.1	20.9	21.9
C14	Other lip, oral cavity & pharynx	43	55	60	64	51	16.7	18.0	22.6	22.7	21.8
C15	Oesophagus	1,242	1,315	1,419	1,500	1,525	31.3	33.9	33.1	33.4	34.9
C16	Stomach	1,442	1,369	1,570	1,674	1,612	28.6	27.7	29.9	29.8	29.7
C17	Small intestine	66	83	104	171	175	17.4	19.3	23.6	27.0	29.5
C18	Colon	3,271	3,314	3,790	4,123	4,371	26.2	25.7	26.2	27.2	28.0
C19–C21	Rectum & anus	2,498	2,642	2,998	3,237	3,445	28.6	29.9	32.2	32.2	34.0
C18–C21	Colorectal (including anus)	5,769	5,956	6,788	7,360	7,816	27.2	27.4	28.6	29.2	30.4
C22	Liver & intrahepatic bile ducts	319	305	364	364	425	18.9	17.6	19.7	18.1	20.4
C23–C24	Gallbladder & other biliary tract	134	144	141	149	176	12.0	12.5	12.2	13.0	15.4
C25	Pancreas	461	490	561	650	653	13.8	13.8	15.5	16.4	16.4
C30–C31	Nasal cavity & accessory sinuses	126	86	81	89	83	30.8	22.6	21.0	23.0	22.4
C32	Larynx	400	405	438	461	492	28.1	28.9	30.7	31.6	33.4
C33–C34	Trachea, bronchus & lung	3,124	3,150	3,288	3,475	3,760	18.5	18.9	19.6	20.3	21.7
C37–C38	Other thoracic organs ^(c)	213	137	58	77	68	16.1	16.4	13.7	16.5	16.5
C40–C41	Bone and articular cartilage	224	239	318	224	359	17.5	18.5	22.1	16.1	23.3
C43	Skin—melanoma	4,228	4,052	4,136	4,935	5,189	60.9	61.0	61.5	64.1	65.5
C44	Skin—other than melanoma	38,916	41,011	45,342	51,397	55,317	73.1	75.0	76.3	78.3	80.0
C45	Mesothelioma ^(c)	..	151	236	249	293	..	19.8	16.4	16.7	18.1
C46	Kaposi's sarcoma	41	39	41	21	22	33.1	46.4	62.1	58.3	59.5
C47–C49	Connective & soft tissue	404	462	531	593	692	20.9	23.0	25.1	28.9	29.1
C50	Breast	3,581	4,172	4,730	4,852	5,155	20.1	22.6	23.9	23.6	24.3
C53	Cervix uteri	425	502	587	516	500	21.3	24.9	28.1	26.9	27.7
C54	Corpus uteri	657	609	639	673	686	25.3	25.5	26.8	26.9	27.2
C55	Uterus unspecified	52	80	109	137	172	24.2	27.7	28.8	29.2	29.9
C56	Ovary	292	317	475	510	720	9.0	9.2	13.4	14.6	19.8
C57–C58,C51–C52	Placenta & other female genital	166	194	188	217	196	18.9	19.8	20.2	21.5	21.1
C61	Prostate	1,954	2,199	2,752	3,203	4,366	16.7	18.7	21.4	23.4	28.9
C62	Testis	153	130	134	172	200	14.2	12.6	12.1	14.7	18.1
C63, C60	Penis & other male genital	59	38	37	39	66	29.8	23.5	19.8	20.0	31.1
C64	Kidney, except renal pelvis	271	392	474	500	464	10.1	13.0	14.4	14.7	13.7
C65	Renal pelvis	41	53	59	55	70	11.0	13.0	14.4	14.6	16.9
C66	Ureter	43	50	71	57	91	15.8	17.9	22.4	17.8	24.0
C67	Bladder	6,403	7,020	7,858	7,859	8,203	43.9	46.4	48.6	48.0	49.5
C68	Other urinary organs	29	31	33	47	55	27.1	26.5	26.2	34.1	40.4
C69	Eye and adnexa	300	275	351	308	263	47.8	44.1	51.6	52.2	43.2
C71	Brain	499	579	640	610	670	13.2	13.9	15.0	13.8	14.5
C72,C70	Meninges & other CNS	128	150	109	118	62	34.3	38.6	32.4	36.9	24.8
C73	Thyroid gland	55	63	71	68	73	2.9	3.0	3.3	3.0	2.9
C74	Adrenal gland	59	141	246	192	77	23.6	38.8	48.4	50.3	35.8
C75	Other endocrine glands	16	18	64	44	47	13.9	12.6	40.3	27.2	38.2
C81	Hodgkin's disease	665	807	672	603	767	47.3	49.8	48.6	44.0	48.5
C82–C85,C96	Non-Hodgkin's lymphoma	4,732	5,724	6,507	6,507	7,559	34.5	38.7	40.3	40.5	43.5
C81–C85,C96	All lymphomas	5,397	6,531	7,179	7,110	8,326	35.7	39.8	40.9	40.8	44.0
C88	Immunoproliferative neoplasms	19	403	405	425	454	31.7	63.0	69.9	63.9	70.1
C90	Multiple myeloma	4,904	7,716	8,448	8,734	9,014	63.5	73.1	69.7	69.0	69.6
C91,C95	Lymphoid & unspecified leukaemia	3,096	3,571	4,270	4,192	4,648	51.5	49.1	51.2	54.0	56.2
C92–C94	Myeloid & other specified leukaemia	3,423	4,532	5,088	5,420	6,090	54.8	60.2	60.2	60.2	63.6
C97,C76–C80,C26,C39	Unknown and multiple primary site	7,171	9,769	8,795	9,292	10,026	18.4	23.8	22.3	23.7	25.5
Other cancer-related separations^(b)											
Z80,Z85,Z92.3	Personal and family history	15,890	18,489	22,759	27,797	25,590	98.6	98.6	98.9	99.0	99.1
Z03.1	Observation for suspected cancer	1,250	963	1,107	512	456	92.4	92.0	95.3	92.8	91.2
Z12	Special screening examination	41	1,235	1,125	655	8,012	97.6	99.0	99.4	99.4	98.6
Z40	Prophylactic surgery	63	23	77	24	31	31.2	10.5	29.3	10.3	10.0
Z51.0	Radiotherapy session	416	450	523	702	698	80.2	87.7	94.2	95.6	87.4
Z51.1	Chemotherapy session	193,247	107,934	205,127	219,479	232,534	99.7	99.6	99.7	99.8	99.9
Z54.1,Z08.1	Follow-up after radiotherapy	285	210	414	461	436	65.4	63.3	70.9	71.8	73.0
Z54.2,Z08.2	Follow-up after chemotherapy	941	571	750	706	862	76.2	61.3	65.2	63.0	66.7
Z08.0	Follow-up after surgery for cancer ^(c)	..	13,768	25,470	27,265	28,941	..	92.6	93.0	93.9	94.2
Z08.7–Z08.9	Follow-up after multiple treatment ^(c)	..	1,669	3,128	3,550	4,203	..	94.7	94.1	95.8	95.3
	<i>All cancer-related separations^(c)</i>	<i>309,669</i>	<i>255,596</i>	<i>381,361</i>	<i>411,225</i>	<i>442,571</i>	<i>64.8</i>	<i>59.9</i>	<i>68.3</i>	<i>69.6</i>	<i>71.1</i>

(a) Refer to table 23 for a list of equivalent ICD-9-CM codes.

(b) Separations for specific procedures, usually related to another separation for a principal diagnosis of cancer, but excluding any procedures conducted as part of that other separation.

(c) Refer to page 62 for the effects of coding changes.

.. not applicable.

Table 25: Patient days for cancer-related hospital separations, Australia, 1997-98 to 2001-02

ICD-10-AM ^(a)	Principal diagnosis	Patient days					Patient days excluding same-day separations				
		1997-98	1998-99	1999-00	2000-01	2001-02	1997-98	1998-99	1999-00	2000-01	2001-02
C00-C97	All cancers (including C44)	1,515,494	1,523,611	1,571,837	1,600,204	1,626,863	1,417,958	1,413,327	1,450,956	1,470,130	1,486,055
C00	Lip	1,740	1,598	1,333	1,141	1,297	1,164	1,056	852	752	804
C01-C02	Tongue	8,533	8,972	8,130	8,045	9,507	8,371	8,760	7,796	7,811	9,240
C03-C06	Mouth	9,176	9,631	9,424	9,174	7,777	9,039	9,453	9,156	8,987	7,555
C07-C08	Parotid & other salivary glands	3,313	3,268	3,098	2,853	3,388	3,274	3,236	3,050	2,807	3,352
C09-C10	Tonsil & other oropharynx	5,666	5,641	5,211	6,588	6,101	5,547	5,504	5,036	6,390	5,932
C11	Nasopharynx	2,388	2,624	3,126	2,878	2,826	2,294	2,516	2,970	2,769	2,713
C12-C13	Hypopharynx	5,289	5,107	5,519	6,158	5,233	5,225	5,016	5,388	6,050	5,127
C14	Other lip, oral cavity & pharynx	2,545	2,895	2,044	2,671	2,105	2,502	2,840	1,984	2,607	2,054
C15	Oesophagus	29,730	26,910	30,491	31,954	29,897	28,488	25,595	29,072	30,454	28,372
C16	Stomach	39,796	37,962	40,069	39,576	42,138	38,354	36,593	38,499	37,902	40,526
C17	Small intestine	3,863	4,687	4,114	5,787	5,680	3,797	4,604	4,010	5,616	5,505
C18	Colon	115,714	117,421	128,104	132,595	131,851	112,443	114,107	124,314	128,472	127,480
C19-C21	Rectum & anus	78,779	76,752	80,882	84,826	83,967	76,281	74,110	77,884	81,589	80,522
C18-C21	Colorectal (including anus)	194,493	194,173	208,986	217,421	215,818	188,724	188,217	202,198	210,061	208,002
C22	Liver & intrahepatic bile ducts	12,214	11,737	13,845	14,897	15,216	11,895	11,432	13,481	14,533	14,791
C23-C24	Gallbladder & other biliary tract	11,538	10,571	11,717	10,956	11,988	11,404	10,427	11,576	10,807	11,812
C25	Pancreas	32,599	35,240	34,187	36,328	37,074	32,138	34,750	33,626	35,678	36,421
C30-C31	Nasal cavity & accessory sinuses	2,715	3,061	2,888	2,578	2,488	2,589	2,975	2,807	2,489	2,405
C32	Larynx	11,729	11,366	12,710	12,206	12,555	11,329	10,961	12,272	11,745	12,063
C33-C34	Trachea, bronchus & lung	129,826	126,289	127,409	132,267	137,161	126,702	123,139	124,121	128,792	133,401
C37-C38	Other thoracic organs ^(c)	9,353	6,336	2,849	3,428	2,353	9,140	6,199	2,791	3,351	2,285
C40-C41	Bone and articular cartilage	7,786	7,268	8,315	8,106	8,762	7,562	7,029	7,997	7,882	8,403
C43	Skin—melanoma	18,871	16,746	16,944	20,607	18,817	14,643	12,694	12,808	15,672	13,628
C44	Skin—other than melanoma	101,496	102,440	106,587	111,436	112,403	62,580	61,429	61,245	60,039	57,086
C45	Mesothelioma ^(c)	..	5,022	9,349	10,297	11,943	..	4,871	9,113	10,048	11,650
C46	Kaposi's sarcoma	1,322	713	251	175	98	1,281	674	210	154	76
C47-C49	Connective & soft tissue	12,328	12,867	13,143	12,433	13,889	11,924	12,405	12,612	11,840	13,197
C50	Breast	89,161	87,247	87,200	86,100	85,801	85,580	83,075	82,470	81,248	80,646
C53	Cervix uteri	11,856	9,904	11,006	11,236	10,158	11,431	9,402	10,419	10,720	9,658
C54	Corpus uteri	15,323	13,421	14,184	13,920	14,127	14,666	12,812	13,545	13,247	13,441
C55	Uterus unspecified	1,543	1,499	1,949	2,347	2,875	1,491	1,419	1,840	2,210	2,703
C56	Ovary	20,725	22,586	23,272	23,248	25,124	20,433	22,269	22,797	22,738	24,404
C57-C58,C51-C52	Placenta & other female genital	6,716	7,331	6,950	7,474	6,208	6,550	7,137	6,762	7,257	6,012
C61	Prostate	79,816	74,909	81,019	80,418	84,458	77,862	72,710	78,267	77,215	80,092
C62	Testis	2,850	2,728	3,073	3,222	3,077	2,697	2,598	2,939	3,050	2,877
C63, C60	Penis & other male genital	941	973	1,074	1,169	1,193	882	935	1,037	1,130	1,127
C64	Kidney, except renal pelvis	23,853	27,507	27,310	26,958	28,079	23,582	27,115	26,836	26,458	27,615
C65	Renal pelvis	3,179	3,164	3,571	2,727	5,919	3,138	3,111	3,512	2,672	5,849
C66	Ureter	1,763	2,018	2,205	2,006	2,428	1,720	1,968	2,134	1,949	2,337
C67	Bladder	47,673	48,056	48,313	50,782	50,611	41,270	41,036	40,455	42,923	42,408
C68	Other urinary organs	725	539	640	606	726	696	508	607	559	671
C69	Eye and adnexa	1,802	1,641	2,298	1,557	1,892	1,502	1,366	1,947	1,249	1,629
C71	Brain	42,156	45,654	46,055	50,462	48,595	41,657	45,075	45,415	49,852	47,925
C72,C70	Meninges & other CNS	3,430	2,464	3,113	2,426	2,047	3,302	2,314	3,004	2,308	1,985
C73	Thyroid gland	7,502	7,589	7,858	7,607	8,495	7,447	7,526	7,787	7,539	8,422
C74	Adrenal gland	1,452	1,786	2,515	1,574	1,580	1,393	1,645	2,269	1,382	1,503
C75	Other endocrine glands	799	1,337	761	1,155	662	783	1,319	697	1,111	615
C81	Hodgkin's disease	4,590	5,896	4,685	5,129	5,866	3,925	5,089	4,013	4,526	5,099
C82-C85,C96	Non-Hodgkin's lymphoma	78,495	78,223	84,373	85,348	88,338	73,763	72,499	77,866	78,841	80,779
C81-C85,C96	All lymphomas	83,085	84,119	89,058	90,477	94,204	77,688	77,588	81,879	83,367	85,878
C88	Immunoproliferative neoplasms	416	1,861	1,350	1,894	1,785	397	1,458	945	1,469	1,331
C90	Multiple myeloma	31,109	35,000	40,164	42,059	42,852	26,205	27,284	31,716	33,325	33,838
C91,C95	Lymphoid & unspecified leukaemia	26,086	30,577	33,752	30,068	32,445	22,990	27,006	29,482	25,876	27,797
C92-C94	Myeloid & other specified leukaemia	45,181	46,454	51,691	54,765	57,594	41,758	41,922	46,603	49,345	51,504
C97,C76-C80,C26,C39	Unknown and multiple primary site	308,043	310,123	299,717	293,987	297,414	300,872	300,354	290,922	284,695	287,388
Other cancer-related separations^(b)											
Z80,Z85,Z92.3	Personal and family history	16,277	19,001	23,199	28,338	26,033	387	512	440	541	443
Z03.1	Observation for suspected cancer	1,576	1,148	1,511	654	548	326	185	404	142	92
Z12	Special screening examination	42	1,258	1,141	660	8,184	1	23	16	5	172
Z40	Prophylactic surgery	645	827	900	841	1,039	582	804	823	817	1,008
Z51.0	Radiotherapy session	837	853	934	1,692	1,368	421	403	411	990	670
Z51.1	Chemotherapy session	194,589	109,183	206,689	220,462	233,301	1,342	1,249	1,562	983	767
Z54.1,Z08.1	Follow-up after radiotherapy	1,384	1,253	1,461	1,829	1,895	1,099	1,043	1,047	1,368	1,459
Z54.2,Z08.2	Follow-up after chemotherapy	1,937	1,773	1,764	1,921	2,169	996	1,202	1,014	1,215	1,307
Z08.0	Follow-up after surgery for cancer ^(c)	..	15,788	28,812	30,073	31,768	..	2,020	3,342	2,808	2,827
Z08.7-Z08.9	Follow-up after multiple treatment ^(c)	..	1,835	3,472	3,896	4,524	..	166	344	346	321
<i>All cancer-related separations^(c)</i>		<i>1,732,781</i>	<i>1,676,530</i>	<i>1,841,720</i>	<i>1,890,570</i>	<i>1,937,692</i>	<i>1,423,112</i>	<i>1,420,934</i>	<i>1,460,359</i>	<i>1,479,345</i>	<i>1,495,121</i>

(a) Refer to table 23 for a list of equivalent ICD-9-CM codes.

(b) Separations for specific procedures, usually related to another separation for a principal diagnosis of cancer, but excluding any procedures conducted as part of that other separation.

(c) Refer to page 62 for the effects of coding changes.

.. not applicable.

Table 26: Average length of stay (ALOS) for cancer-related hospital separations, Australia, 1997–98 to 2001–02

ICD-10-AM ^(a)	Principal diagnosis	Average length of stay (days)					ALOS excluding same-day separations				
		1997–98	1998–99	1999–00	2000–01	2001–02	1997–98	1998–99	1999–00	2000–01	2001–02
C00–C97	All cancers (including C44)	5.7	5.5	5.3	5.2	5.1	8.5	8.4	8.4	8.3	8.4
C00	Lip	2.0	1.9	1.9	1.9	1.9	3.7	3.5	3.7	3.7	4.2
C01–C02	Tongue	7.8	8.3	6.7	7.3	7.8	8.9	10.1	8.8	9.0	9.8
C03–C06	Mouth	9.5	9.1	8.8	9.2	8.1	10.9	10.8	11.4	11.2	10.3
C07–C08	Parotid & other salivary glands	7.2	7.1	6.8	5.9	6.9	7.8	7.6	7.4	6.4	7.4
C09–C10	Tonsil & other oropharynx	8.4	8.1	7.4	8.2	8.0	9.9	9.8	9.5	10.6	10.0
C11	Nasopharynx	5.4	5.7	5.3	5.5	6.1	6.5	7.1	6.9	6.7	7.7
C12–C13	Hypopharynx	12.1	10.3	10.1	11.9	10.8	14.0	12.4	13.0	14.8	13.5
C14	Other lip, oral cavity & pharynx	9.9	9.5	7.7	9.5	9.0	11.6	11.4	9.6	12.0	11.2
C15	Oesophagus	7.5	6.9	7.1	7.1	6.8	10.5	10.0	10.1	10.2	10.0
C16	Stomach	7.9	7.7	7.6	7.1	7.8	10.7	10.2	10.4	9.6	10.6
C17	Small intestine	10.2	10.9	9.3	9.1	9.6	12.1	13.2	11.9	12.1	13.2
C18	Colon	9.3	9.1	8.9	8.7	8.4	12.2	11.9	11.7	11.6	11.3
C19–C21	Rectum & anus	9.0	8.7	8.7	8.4	8.3	12.3	12.0	12.4	12.0	12.1
C18–C21	Colorectal (including anus)	9.2	8.9	8.8	8.6	8.4	12.2	11.9	11.9	11.7	11.6
C22	Liver & intrahepatic bile ducts	7.3	6.8	7.5	7.4	7.3	8.7	8.0	9.1	8.8	8.9
C23–C24	Gallbladder & other biliary tract	10.3	9.2	10.2	9.6	10.5	11.6	10.3	11.4	10.9	12.2
C25	Pancreas	9.7	9.9	9.4	9.2	9.3	11.1	11.3	11.0	10.8	10.9
C30–C31	Nasal cavity & accessory sinuses	6.6	8.0	7.5	6.7	6.7	9.1	10.1	9.2	8.4	8.4
C32	Larynx	8.2	8.1	8.9	8.4	8.5	11.1	11.0	12.4	11.7	12.3
C33–C34	Trachea, bronchus & lung	7.7	7.6	7.6	7.7	7.9	9.2	9.1	9.2	9.5	9.8
C37–C38	Other thoracic organs	7.1	7.6	6.7	7.3	5.7	8.2	8.9	7.6	8.6	6.7
C40–C41	Bone and articular cartilage	6.1	5.6	5.8	5.8	5.7	7.2	6.7	7.1	6.8	7.1
C43	Skin—melanoma	2.7	2.5	2.5	2.7	2.4	5.4	4.9	5.0	5.7	5.0
C44	Skin—other than melanoma	1.9	1.9	1.8	1.7	1.6	4.4	4.5	4.3	4.2	4.1
C45	Mesothelioma ^(c)	..	6.6	6.5	6.9	7.4	..	8.0	7.6	8.1	8.8
C46	Kaposi's sarcoma	10.7	8.5	3.8	4.9	2.6	15.4	15.0	8.4	10.3	5.1
C47–C49	Connective & soft tissue	6.4	6.4	6.2	6.1	5.8	7.8	8.0	7.9	8.1	7.8
C50	Breast	5.0	4.7	4.4	4.2	4.0	6.0	5.8	5.5	5.2	5.0
C53	Cervix uteri	5.9	4.9	5.3	5.9	5.6	7.3	6.2	6.9	7.6	7.4
C54	Corpus uteri	5.9	5.6	5.9	5.6	5.6	7.6	7.2	7.8	7.3	7.3
C55	Uterus unspecified	7.2	5.2	5.2	5.0	5.0	9.1	6.8	6.8	6.7	6.7
C56	Ovary	6.4	6.5	6.6	6.7	6.9	6.9	7.1	7.4	7.6	8.4
C57–C58,C51–C52	Placenta & other female genital	7.6	7.5	7.5	7.4	6.7	9.2	9.1	9.1	9.2	8.2
C61	Prostate	6.8	6.4	6.3	5.9	5.6	8.0	7.6	7.7	7.4	7.5
C62	Testis	2.6	2.6	2.8	2.7	2.8	2.9	2.9	3.0	3.0	3.2
C63, C60	Penis & other male genital	4.8	6.0	5.7	6.0	5.6	6.3	7.5	6.9	7.2	7.7
C64	Kidney, except renal pelvis	8.9	9.1	8.3	7.9	8.3	9.8	10.3	9.6	9.1	9.5
C65	Renal pelvis	8.5	7.8	8.7	7.3	14.3	9.4	8.8	10.0	8.3	17.0
C66	Ureter	6.5	7.2	7.0	6.3	6.4	7.5	8.6	8.7	7.4	8.1
C67	Bladder	3.3	3.2	3.0	3.1	3.1	5.0	5.1	4.9	5.0	5.1
C68	Other urinary organs	6.8	4.6	5.1	4.4	5.3	8.9	5.9	6.5	6.1	8.3
C69	Eye and adnexa	2.9	2.6	3.4	2.6	3.1	4.6	3.9	5.9	4.4	4.7
C71	Brain	11.1	10.9	10.8	11.4	10.5	12.7	12.6	12.5	13.1	12.1
C72,C70	Meninges & other CNS	9.2	6.3	9.3	7.6	8.2	13.5	9.7	13.2	11.4	10.6
C73	Thyroid gland	3.9	3.6	3.7	3.4	3.4	4.0	3.7	3.8	3.4	3.4
C74	Adrenal gland	5.8	4.9	5.0	4.1	7.3	7.3	7.4	8.7	7.3	10.9
C75	Other endocrine glands	6.9	9.3	4.8	7.1	5.4	7.9	10.6	7.3	9.4	8.1
C81	Hodgkin's disease	3.3	3.6	3.4	3.7	3.7	5.3	6.3	5.6	5.9	6.3
C82–C85,C96	Non-Hodgkin's lymphoma	5.7	5.3	5.2	5.3	5.1	8.2	8.0	8.1	8.3	8.2
C81–C85,C96	All lymphomas	5.5	5.1	5.1	5.2	5.0	8.0	7.9	7.9	8.1	8.1
C88	Immunoproliferative neoplasms	6.9	2.9	2.3	2.8	2.8	9.7	6.2	5.4	6.1	6.9
C90	Multiple myeloma	4.0	3.3	3.3	3.3	3.3	9.3	9.6	8.6	8.5	8.6
C91,C95	Lymphoid & unspecified leukaemia	4.3	4.2	4.0	3.9	3.9	7.9	7.3	7.2	7.2	7.7
C92–C94	Myeloid & other specified leukaemia	7.2	6.2	6.1	6.1	6.0	14.8	14.0	13.9	13.8	14.7
C97,C76–C80,C26,C39	Unknown and multiple primary site	7.9	7.6	7.6	7.5	7.6	9.5	9.6	9.5	9.5	9.8
Other cancer-related separations^(b)											
Z80,Z85,Z92.3	Personal and family history	1.0	1.0	1.0	1.0	1.0	1.8	1.9	1.7	1.9	1.9
Z03.1	Observation for suspected cancer	1.2	1.1	1.3	1.2	1.1	3.2	2.2	7.5	3.6	2.1
Z12	Special screening examination	1.0	1.0	1.0	1.0	1.0	1.0	1.9	2.3	1.3	1.5
Z40	Prophylactic surgery	3.2	3.8	3.4	3.6	3.4	4.2	4.1	4.4	3.9	3.6
Z51.0	Radiotherapy session	1.6	1.7	1.7	2.3	1.7	4.1	6.4	12.8	30.9	6.6
Z51.1	Chemotherapy session	1.0	1.0	1.0	1.0	1.0	2.2	2.6	2.8	2.3	2.8
Z54.1,Z08.1	Follow-up after radiotherapy	3.2	3.8	2.5	2.8	3.2	7.3	8.5	6.2	7.6	9.1
Z54.2,Z08.2	Follow-up after chemotherapy	1.6	1.9	1.5	1.7	1.7	3.4	3.3	2.5	2.9	3.0
Z08.0	Follow-up after surgery for cancer ^(c)	..	1.1	1.1	1.0	1.0	..	1.8	1.7	1.6	1.6
Z08.7–Z08.9	Follow-up after multiple treatment ^(c)	..	1.0	1.0	1.1	1.0	..	1.8	1.7	2.2	1.6
<i>All cancer-related separations</i>		3.6	3.9	3.3	3.2	3.1	8.4	8.3	8.2	8.2	8.3

(a) Refer to table 23 for a list of equivalent ICD-9-CM codes.

(b) Separations for specific procedures, usually related to another separation for a principal diagnosis of cancer, but excluding any procedures conducted as part of that other separation.

(c) Refer to page 62 for the text on the effects of coding changes.

.. not applicable.

Table 27: Public patient cancer-related separations, all hospitals, Australia, 1997–98 to 2001–02

ICD-10-AM ^(a)	Principal diagnosis	Public patient separations ^(d)					Percentage of all hospital separations				
		1997–98	1998–99	1999–00	2000–01	2001–02	1997–98	1998–99	1999–00	2000–01	2001–02
C00–C97	All cancers (including C44)	137,468	147,226	152,910	148,885	150,928	52.0	52.9	51.9	48.6	47.6
C00	Lip	514	520	453	351	397	57.9	61.5	63.4	59.4	57.9
C01–C02	Tongue	749	763	842	722	780	68.1	70.8	69.2	65.8	64.4
C03–C06	Mouth	682	735	771	668	656	70.5	69.8	71.8	67.3	68.5
C07–C08	Parotid & other salivary glands	253	225	247	246	240	55.1	48.9	53.9	50.9	48.9
C09–C10	Tonsil & other oropharynx	518	550	524	603	541	76.5	78.9	74.3	75.1	71.1
C11	Nasopharynx	338	385	445	402	348	75.8	83.0	75.6	77.0	75.0
C12–C13	Hypopharynx	319	372	426	386	363	73.0	75.3	78.3	74.7	74.8
C14	Other lip, oral cavity & pharynx	181	217	191	176	159	70.2	71.1	71.8	62.4	67.9
C15	Oesophagus	2,100	2,105	2,350	2,375	2,399	53.0	54.3	54.7	52.8	54.9
C16	Stomach	2,869	2,806	2,919	3,010	2,933	56.9	56.7	55.5	53.7	54.0
C17	Small intestine	162	227	250	331	320	42.7	52.7	56.7	52.2	54.0
C18	Colon	5,911	6,292	6,852	6,771	7,052	47.4	48.7	47.4	44.6	45.2
C19–C21	Rectum & anus	4,372	4,533	4,729	4,875	4,772	50.1	51.4	50.9	48.5	47.1
C18–C21	Colorectal (including anus)	10,283	10,825	11,581	11,646	11,824	48.5	49.8	48.7	46.1	45.9
C22	Liver & intrahepatic bile ducts	1,078	1,191	1,222	1,297	1,391	64.0	68.8	66.2	64.4	66.8
C23–C24	Gallbladder & other biliary tract	662	642	675	639	622	59.1	55.6	58.5	55.8	54.5
C25	Pancreas	1,875	1,975	1,992	2,158	2,176	56.0	55.4	54.9	54.4	54.7
C30–C31	Nasal cavity & accessory sinuses	251	234	230	239	207	61.4	61.4	59.6	61.8	55.8
C32	Larynx	936	919	962	996	1,036	65.8	65.6	67.4	68.2	70.3
C33–C34	Trachea, bronchus & lung	10,902	10,922	10,978	10,910	10,998	64.5	65.6	65.4	63.9	63.4
C37–C38	Other thoracic organs ^(c)	785	530	294	331	258	59.4	63.3	69.3	70.9	62.8
C40–C41	Bone and articular cartilage	814	928	1,058	885	1,044	63.5	71.8	73.6	63.7	67.8
C43	Skin—melanoma	2,915	2,920	2,857	2,972	3,009	42.0	44.0	42.5	38.6	38.0
C44	Skin—other than melanoma	20,146	20,651	21,525	21,362	21,345	37.9	37.8	36.2	32.6	30.9
C45	Mesothelioma ^(c)	..	427	788	839	831	..	56.0	54.8	56.1	51.4
C46	Kaposi's sarcoma	109	65	46	28	29	87.9	77.4	69.7	77.8	78.4
C47–C49	Connective & soft tissue	1,039	1,005	1,190	1,043	1,227	53.6	50.1	56.2	50.8	51.6
C50	Breast	9,001	9,495	10,134	9,457	9,310	50.5	51.4	51.2	46.1	43.9
C53	Cervix uteri	1,528	1,508	1,605	1,291	1,236	76.6	74.7	76.9	67.2	68.6
C54	Corpus uteri	1,454	1,392	1,318	1,338	1,365	56.0	58.3	55.3	53.5	54.1
C55	Uterus unspecified	104	140	196	242	285	48.4	48.4	51.9	51.6	49.6
C56	Ovary	1,521	1,789	1,686	1,717	1,861	46.8	51.9	47.7	49.2	51.1
C57–C58,C51–C52	Placenta & other female genital	491	608	596	605	534	55.9	62.0	64.2	60.0	57.6
C61	Prostate	4,267	4,196	4,575	4,669	4,835	36.5	35.7	35.5	34.1	32.0
C62	Testis	782	691	733	675	642	72.4	66.9	66.1	57.5	58.0
C63, C60	Penis & other male genital	126	99	120	120	108	63.6	61.1	64.2	61.5	50.9
C64	Kidney, except renal pelvis	1,560	1,712	1,791	1,757	1,743	58.2	56.7	54.6	51.7	51.6
C65	Renal pelvis	212	232	226	191	219	56.7	57.0	55.1	50.8	52.9
C66	Ureter	142	126	147	162	185	52.2	45.2	46.4	50.6	48.8
C67	Bladder	7,200	7,679	8,334	8,015	8,021	49.4	50.8	51.5	48.9	48.4
C68	Other urinary organs	68	54	56	57	68	63.6	46.2	44.4	41.3	50.0
C69	Eye and adnexa	313	333	371	281	285	49.8	53.4	54.6	47.6	46.8
C71	Brain	2,400	2,644	2,818	2,708	2,756	63.4	63.4	66.2	61.3	59.7
C72,C70	Meninges & other CNS	270	233	228	216	167	72.4	59.9	67.9	67.5	66.8
C73	Thyroid gland	1,136	1,227	1,308	1,285	1,361	59.3	58.1	61.7	56.9	53.9
C74	Adrenal gland	193	296	363	298	140	77.2	81.5	71.5	78.0	65.1
C75	Other endocrine glands	81	103	105	103	88	70.4	72.0	66.0	63.6	71.5
C81	Hodgkin's disease	878	1,142	950	878	975	62.4	70.5	68.6	64.0	61.7
C82–C85,C96	Non-Hodgkin's lymphoma	7,631	8,330	8,778	8,314	8,992	55.6	56.3	54.3	51.8	51.8
C81–C85,C96	All lymphomas	8,509	9,472	9,728	9,192	9,967	56.3	57.7	55.5	52.7	52.6
C88	Immunoproliferative neoplasms	37	395	350	353	346	61.7	61.7	60.4	53.1	53.4
C90	Multiple myeloma	4,780	6,254	7,469	7,184	7,198	61.9	59.2	61.6	56.7	55.6
C91,C95	Lymphoid & unspecified leukaemia	3,942	4,840	5,626	4,893	5,356	65.5	66.5	67.5	63.0	64.8
C92–C94	Myeloid & other specified leukaemia	3,891	4,989	5,491	5,508	5,911	62.2	66.2	65.0	61.2	61.7
C97,C76–C80,C26,C39	Unknown and multiple primary site	22,980	24,580	22,720	21,953	21,808	59.1	60.0	57.5	56.0	55.5
Other cancer-related separations^(b)											
Z80,Z85,Z92.3	Personal and family history	4,534	5,825	6,558	7,030	4,595	28.1	31.1	28.5	25.0	17.8
Z03.1	Observation for suspected cancer	668	488	508	240	172	49.4	46.6	43.8	43.5	34.4
Z12	Special screening examination	5	152	197	148	2,835	11.9	12.2	17.4	22.5	34.9
Z40	Prophylactic surgery	76	102	102	92	121	37.6	46.4	38.8	39.7	39.2
Z51.0	Radiotherapy session	379	429	412	560	587	73.0	83.6	74.2	76.3	73.5
Z51.1	Chemotherapy session	111,380	58,731	103,762	101,833	105,673	57.5	54.2	50.4	46.3	45.4
Z54.1,Z08.1	Follow-up after radiotherapy	260	175	380	415	350	59.6	52.7	65.1	64.6	58.6
Z54.2,Z08.2	Follow-up after chemotherapy	746	433	508	506	548	60.4	46.5	44.1	45.1	42.4
Z08.0	Follow-up after surgery for cancer ^(c)	..	6,672	12,703	12,876	12,642	..	44.9	46.4	44.3	41.1
Z08.7–Z08.9	Follow-up after multiple treatment ^(c)	..	620	1,481	1,753	2,332	..	35.2	44.5	47.3	52.9
	All cancer-related separations^(c)	255,516	220,853	279,521	274,338	280,783	53.4	51.8	50.0	46.4	45.1

(a) Refer to table 23 for a list of equivalent ICD-9-CM codes.

(b) Separations for specific procedures, usually related to another separation for a principal diagnosis of cancer, but excluding any procedures conducted as part of that other separation.

(c) Refer to page 62 for the effects of coding changes.

(d) Separations with a patient election status of *Public*.

.. not applicable.

Table 28: Cancer-related separations from public hospitals as a percentage of all hospital separations and as a percentage of all public patient separations, Australia, 1997–98 to 2001–02

ICD-10-AM ^(a)	Principal diagnosis	Percentage of all hospital separations					Percentage of public patient separations ^(d)				
		1997–98	1998–99	1999–00	2000–01	2001–02	1997–98	1998–99	1999–00	2000–01	2001–02
C00–C97	All cancers (including C44)	62.0	62.0	60.1	56.2	55.3	98.4	98.2	97.7	97.1	96.8
C00	Lip	65.4	67.0	70.0	67.0	63.6	98.4	99.0	99.1	99.1	98.2
C01–C02	Tongue	80.0	79.9	77.4	74.0	73.0	98.5	98.6	98.5	98.3	97.9
C03–C06	Mouth	79.7	81.3	81.4	76.7	77.5	98.8	98.2	98.1	97.0	98.5
C07–C08	Parotid & other salivary glands	66.7	63.3	63.5	60.0	60.7	99.6	99.1	98.0	96.7	97.9
C09–C10	Tonsil & other oropharynx	88.2	87.7	81.6	83.8	81.1	99.8	99.8	98.1	98.3	98.2
C11	Nasopharynx	84.3	89.0	84.2	81.2	84.9	96.7	98.2	98.0	98.3	99.4
C12–C13	Hypopharynx	85.1	87.9	89.0	84.9	86.4	98.1	99.7	98.1	98.4	99.2
C14	Other lip, oral cavity & pharynx	86.0	79.3	77.8	70.2	79.1	98.3	94.9	96.9	95.5	97.5
C15	Oesophagus	64.6	65.9	64.9	63.4	65.6	97.9	98.8	96.8	97.1	96.7
C16	Stomach	68.7	67.2	63.6	60.5	61.5	98.2	98.1	97.4	96.1	96.3
C17	Small intestine	52.0	61.7	65.1	59.8	63.2	94.4	96.9	99.2	97.6	95.3
C18	Colon	55.6	56.0	54.4	51.6	52.0	97.4	97.5	97.2	96.4	95.7
C19–C21	Rectum & anus	58.0	58.3	56.7	53.9	53.6	98.1	97.8	97.4	95.8	96.2
C18–C21	Colorectal (including anus)	56.6	56.9	55.3	52.5	52.6	97.7	97.6	97.3	96.1	95.9
C22	Liver & intrahepatic bile ducts	78.3	81.7	78.0	78.1	80.5	98.4	98.3	98.8	97.3	97.3
C23–C24	Gallbladder & other biliary tract	76.3	70.2	70.2	70.7	65.9	98.6	99.1	96.4	97.3	97.4
C25	Pancreas	68.6	68.2	65.0	64.4	66.6	96.7	96.7	96.6	96.2	95.5
C30–C31	Nasal cavity & accessory sinuses	72.4	75.9	70.2	74.7	65.8	99.2	99.1	97.0	95.4	95.7
C32	Larynx	78.4	77.2	77.3	76.0	79.2	98.9	98.2	98.2	98.1	98.3
C33–C34	Trachea, bronchus & lung	76.5	75.7	75.3	73.0	72.6	97.9	97.5	97.1	96.7	95.8
C37–C38	Other thoracic organs	73.6	71.6	77.1	75.8	73.0	95.9	96.0	99.0	97.6	98.8
C40–C41	Bone and articular cartilage	81.7	84.6	86.4	81.4	82.3	98.9	99.0	99.7	99.1	99.3
C43	Skin—melanoma	51.0	51.9	50.1	45.6	45.3	98.4	98.3	97.0	96.6	97.0
C44	Skin—other than melanoma	43.9	43.3	40.8	36.6	34.8	98.6	97.5	97.3	96.9	96.3
C45	Mesothelioma ^(c)	..	73.1	68.0	68.1	64.7	..	98.1	97.1	95.5	95.7
C46	Kaposi's sarcoma	91.9	78.6	83.3	88.9	83.8	100.0	96.9	100.0	96.4	100.0
C47–C49	Connective & soft tissue	70.4	61.9	64.9	61.6	63.9	98.8	98.3	97.8	98.1	98.6
C50	Breast	56.8	56.9	55.7	50.2	48.4	98.2	98.5	97.9	97.0	96.8
C53	Cervix uteri	85.8	83.3	83.7	76.0	75.7	99.0	99.5	97.9	98.2	96.3
C54	Corpus uteri	64.8	66.7	63.2	60.9	62.7	98.6	98.8	98.6	98.1	98.2
C55	Uterus unspecified	58.6	54.0	57.4	57.6	58.1	99.0	97.1	97.4	97.9	97.5
C56	Ovary	59.3	60.3	55.8	56.4	59.4	98.3	99.0	98.5	97.2	96.5
C57–C58,C51–C52	Placenta & other female genital	70.3	72.3	72.0	69.1	65.7	99.2	98.5	98.0	97.2	97.6
C61	Prostate	47.7	46.2	44.8	42.7	39.8	98.0	97.0	96.3	95.5	95.4
C62	Testis	75.2	70.8	72.0	63.3	62.8	98.8	98.8	99.3	96.9	97.8
C63, C60	Penis & other male genital	71.2	71.0	68.4	69.7	60.8	97.6	100.0	98.3	98.3	98.1
C64	Kidney, except renal pelvis	68.5	67.7	66.2	62.6	62.4	98.3	97.1	97.3	96.7	96.8
C65	Renal pelvis	69.8	63.6	62.9	55.9	56.8	98.1	94.8	98.7	98.4	97.3
C66	Ureter	62.9	49.5	51.7	58.1	50.4	98.6	97.6	97.3	97.5	95.7
C67	Bladder	56.1	56.0	55.7	52.9	52.1	97.4	96.0	95.5	95.9	96.1
C68	Other urinary organs	72.9	54.7	52.4	57.2	51.5	100.0	96.3	98.2	100.0	94.1
C69	Eye and adnexa	78.3	82.2	83.4	77.1	74.4	99.4	99.7	98.9	97.5	98.6
C71	Brain	76.9	76.9	78.2	74.5	73.4	98.2	98.4	96.9	96.8	97.2
C72,C70	Meninges & other CNS	86.1	88.7	82.1	78.8	80.0	99.6	99.1	97.4	100.0	99.4
C73	Thyroid gland	76.5	75.3	77.1	71.3	67.1	99.6	99.3	99.3	99.3	98.8
C74	Adrenal gland	90.8	96.1	90.7	90.1	87.9	96.4	100.0	100.0	99.7	96.4
C75	Other endocrine glands	81.7	81.1	85.5	82.1	85.4	100.0	98.1	100.0	98.1	98.9
C81	Hodgkin's disease	71.6	78.0	77.8	73.9	71.3	99.1	99.3	99.3	98.7	99.0
C82–C85,C96	Non-Hodgkin's lymphoma	68.4	68.4	64.7	61.9	63.1	99.2	99.1	99.0	98.7	98.3
C81–C85,C96	All lymphomas	68.7	69.3	65.7	62.9	63.7	99.2	99.1	99.0	98.7	98.4
C88	Immunoproliferative neoplasms	78.3	76.3	77.0	73.8	68.8	97.3	100.0	99.1	99.4	98.3
C90	Multiple myeloma	75.1	72.5	72.9	67.6	66.9	99.5	99.7	99.5	99.2	98.6
C91,C95	Lymphoid & unspecified leukaemia	81.5	82.3	81.5	77.1	77.2	99.7	99.6	99.5	98.6	98.7
C92–C94	Myeloid & other specified leukaemia	76.6	78.3	76.8	72.3	73.8	99.5	99.7	99.2	98.8	98.5
C97,C76–C80,C26,C39	Unknown and multiple primary site	71.1	70.6	67.5	64.8	64.3	98.2	98.3	97.6	96.5	96.0
Other cancer-related separations^(b)											
Z80,Z85,Z92.3	Personal and family history	31.3	33.7	30.3	26.6	19.9	98.4	98.3	96.4	93.9	94.7
Z03.1	Observation for suspected cancer	56.2	55.7	48.8	48.2	40.4	99.1	99.2	98.8	95.8	95.9
Z12	Special screening examination	14.3	14.5	7.0	27.6	36.6	100.0	97.4	31.0	94.6	94.4
Z40	Prophylactic surgery	49.5	57.3	43.3	47.0	43.4	98.7	97.1	99.0	95.7	96.7
Z51.0	Radiotherapy session	96.9	94.3	96.4	91.3	97.9	100.0	100.0	100.0	98.9	100.0
Z51.1	Chemotherapy session	68.7	64.1	55.9	49.8	48.3	99.8	100.0	98.5	95.8	93.9
Z54.1,Z08.1	Follow-up after radiotherapy	70.6	61.1	71.7	70.9	68.7	100.0	94.9	98.7	97.6	99.1
Z54.2,Z08.2	Follow-up after chemotherapy	69.7	51.5	48.8	49.5	46.9	99.9	96.8	97.8	99.4	98.5
Z08.0	Follow-up after surgery for cancer ^(c)	..	50.9	49.7	47.7	44.0	..	96.2	96.2	96.5	96.2
Z08.7–Z08.9	Follow-up after multiple treatment ^(c)	..	40.6	50.0	54.3	58.3	..	99.0	97.6	98.8	97.1
<i>All cancer-related separations</i>											
		63.7	60.7	56.6	52.0	50.5	99.0	98.6	97.9	96.5	95.6

(a) Refer to table 23 for a list of equivalent ICD-9-CM codes.

(b) Separations for specific procedures, usually related to another separation for a principal diagnosis of cancer, but excluding any procedures conducted as part of that other separation.

(c) Refer to page 62 for the effects of coding changes.

(d) Separations with a patient election status of *Public*.

.. not applicable.

Table 29: Cancer-related separations from private hospitals as a percentage of all hospital separations and as a percentage of all public patient separations, Australia, 1997–98 to 2001–02

ICD-10-AM ^(a)	Principal diagnosis	Percentage of all hospital separations					Percentage of public patient separations ^(d)				
		1997–98	1998–99	1999–00	2000–01	2001–02	1997–98	1998–99	1999–00	2000–01	2001–02
C00–C97	All cancers (including C44)	38.0	38.0	39.9	43.8	44.7	1.6	1.8	2.3	2.9	3.2
C00	Lip	34.6	33.0	30.0	33.0	36.4	1.6	1.0	0.9	0.9	1.8
C01–C02	Tongue	20.0	20.1	22.6	26.0	27.0	1.5	1.4	1.5	1.7	2.1
C03–C06	Mouth	20.3	18.7	18.6	23.3	22.5	1.2	1.8	1.9	3.0	1.5
C07–C08	Parotid & other salivary glands	33.3	36.7	36.5	40.0	39.3	0.4	0.9	2.0	3.3	2.1
C09–C10	Tonsil & other oropharynx	11.8	12.3	18.4	16.2	18.9	0.2	0.2	1.9	1.7	1.8
C11	Nasopharynx	15.7	11.0	15.8	18.8	15.1	3.3	1.8	2.0	1.7	0.6
C12–C13	Hypopharynx	14.9	12.1	11.0	15.1	13.6	1.9	0.3	1.9	1.6	0.8
C14	Other lip, oral cavity & pharynx	14.0	20.7	22.2	29.8	20.9	1.7	5.1	3.1	4.5	2.5
C15	Oesophagus	35.4	34.1	35.1	36.6	34.4	2.1	1.2	3.2	2.9	3.3
C16	Stomach	31.3	32.8	36.4	39.5	38.5	1.8	1.9	2.6	3.9	3.7
C17	Small intestine	48.0	38.3	34.9	40.2	36.8	5.6	3.1	0.8	2.4	4.7
C18	Colon	44.4	44.0	45.6	48.4	48.0	2.6	2.5	2.8	3.6	4.3
C19–C21	Rectum & anus	42.0	41.7	43.3	46.1	46.4	1.9	2.2	2.6	4.2	3.8
C18–C21	Colorectal (including anus)	43.4	43.1	44.7	47.5	47.4	2.3	2.4	2.7	3.9	4.1
C22	Liver & intrahepatic bile ducts	21.7	18.3	22.0	21.9	19.5	1.6	1.7	1.2	2.7	2.7
C23–C24	Gallbladder & other biliary tract	23.8	29.8	29.8	29.3	34.1	1.4	0.9	3.6	2.7	2.6
C25	Pancreas	31.4	31.8	35.0	35.6	33.4	3.3	3.3	3.4	3.8	4.5
C30–C31	Nasal cavity & accessory sinuses	27.6	24.1	29.8	25.3	34.2	0.8	0.9	3.0	4.6	4.3
C32	Larynx	21.6	22.8	22.7	24.0	20.8	1.1	0.8	1.8	1.9	1.7
C33–C34	Trachea, bronchus & lung	23.5	24.3	24.7	27.0	27.4	2.1	2.5	2.9	3.3	4.2
C37–C38	Other thoracic organs	26.4	28.4	22.9	24.2	27.0	4.1	4.0	1.0	2.4	1.2
C40–C41	Bone and articular cartilage	18.3	15.4	13.6	18.6	17.7	1.1	1.0	0.3	0.9	0.7
C43	Skin—melanoma	49.0	48.1	49.9	54.4	54.7	1.6	1.7	3.0	3.4	3.0
C44	Skin—other than melanoma	56.1	56.7	59.2	63.4	65.2	1.4	2.5	2.7	3.1	3.7
C45	Mesothelioma ^(c)	..	26.9	32.0	31.9	35.3	..	1.9	2.9	4.5	4.3
C46	Kaposi's sarcoma	8.1	21.4	16.7	11.1	16.2	0.0	3.1	0.0	3.6	0.0
C47–C49	Connective & soft tissue	29.6	38.1	35.1	38.4	36.1	1.2	1.7	2.2	1.9	1.4
C50	Breast	43.2	43.1	44.3	49.8	51.6	1.8	1.5	2.1	3.0	3.2
C53	Cervix uteri	14.2	16.7	16.3	24.0	24.3	1.0	0.5	2.1	1.8	3.7
C54	Corpus uteri	35.2	33.3	36.8	39.1	37.3	1.4	1.2	1.4	1.9	1.8
C55	Uterus unspecified	41.4	46.0	42.6	42.4	41.9	1.0	2.9	2.6	2.1	2.5
C56	Ovary	40.7	39.7	44.2	43.6	40.6	1.7	1.0	1.5	2.8	3.5
C57–C58,C51–C52	Placenta & other female genital	29.7	27.7	28.0	30.9	34.3	0.8	1.5	2.0	2.8	2.4
C61	Prostate	52.3	53.8	55.2	57.3	60.2	2.0	3.0	3.7	4.5	4.6
C62	Testis	24.8	29.2	28.0	36.7	37.2	1.2	1.2	0.7	3.1	2.2
C63, C60	Penis & other male genital	28.8	29.0	31.6	30.3	39.2	2.4	0.0	1.7	1.7	1.9
C64	Kidney, except renal pelvis	31.5	32.3	33.8	37.4	37.6	1.7	2.9	2.7	3.3	3.2
C65	Renal pelvis	30.2	36.4	37.1	44.1	43.2	1.9	5.2	1.3	1.6	2.7
C66	Ureter	37.1	50.5	48.3	41.9	49.6	1.4	2.4	2.7	2.5	4.3
C67	Bladder	43.9	44.0	44.3	47.1	47.9	2.6	4.0	4.5	4.1	3.9
C68	Other urinary organs	27.1	45.3	47.6	42.8	48.5	0.0	3.7	1.8	0.0	5.9
C69	Eye and adnexa	21.7	17.8	16.6	22.9	25.6	0.6	0.3	1.1	2.5	1.4
C71	Brain	23.1	23.1	21.8	25.5	26.6	1.8	1.6	3.1	3.2	2.8
C72,C70	Meninges & other CNS	13.9	11.3	17.9	21.3	20.0	0.4	0.9	2.6	0.0	0.6
C73	Thyroid gland	23.5	24.7	22.9	28.7	32.9	0.4	0.7	0.7	0.7	1.2
C74	Adrenal gland	9.2	3.9	9.3	9.9	12.1	3.6	0.0	0.0	0.3	3.6
C75	Other endocrine glands	18.3	18.9	14.5	17.9	14.6	0.0	1.9	0.0	1.9	1.1
C81	Hodgkin's disease	28.4	22.0	22.2	26.1	28.7	0.9	0.7	0.7	1.3	1.0
C82–C85,C96	Non-Hodgkin's lymphoma	31.6	31.6	35.3	38.1	36.9	0.8	0.9	1.0	1.3	1.7
C81–C85,C96	All lymphomas	31.3	30.7	34.3	37.1	36.3	0.8	0.9	1.0	1.3	1.6
C88	Immunoproliferative neoplasms	21.7	23.8	23.0	26.2	31.2	2.7	0.0	0.9	0.6	1.7
C90	Multiple myeloma	24.9	27.5	27.1	32.4	33.1	0.5	0.3	0.5	0.8	1.4
C91,C95	Lymphoid & unspecified leukaemia	18.5	17.7	18.5	22.9	22.8	0.3	0.4	0.5	1.4	1.3
C92–C94	Myeloid & other specified leukaemia	23.4	21.7	23.2	27.7	26.2	0.5	0.3	0.8	1.2	1.5
C97,C76–C80,C26,C39	Unknown and multiple primary site	28.9	29.4	32.5	35.2	35.7	1.8	1.7	2.4	3.5	4.0
Other cancer-related separations^(b)											
Z80,Z85,Z92.3	Personal and family history	68.7	66.3	69.7	73.4	80.1	1.6	1.7	3.6	6.1	5.3
Z03.1	Observation for suspected cancer	43.8	44.3	51.2	51.8	59.6	0.9	0.8	1.2	4.2	4.1
Z12	Special screening examination	85.7	85.5	93.0	72.4	63.4	0.0	2.6	69.0	5.4	5.6
Z40	Prophylactic surgery	50.5	42.7	56.7	53.0	56.6	1.3	2.9	1.0	4.3	3.3
Z51.0	Radiotherapy session	3.1	5.7	3.6	8.7	2.1	0.0	0.0	0.0	1.1	0.0
Z51.1	Chemotherapy session	31.3	35.9	44.1	50.2	51.7	0.2	0.0	1.5	4.2	6.1
Z54.1,Z08.1	Follow-up after radiotherapy	29.4	38.9	28.3	29.1	31.3	0.0	5.1	1.3	2.4	0.9
Z54.2,Z08.2	Follow-up after chemotherapy	30.3	48.5	51.2	50.5	53.1	0.1	3.2	2.2	0.6	1.5
Z08.0	Follow-up after surgery for cancer ^(c)	..	49.1	50.3	52.3	56.0	..	3.8	3.8	3.5	3.8
Z08.7–Z08.9	Follow-up after multiple treatment ^(c)	..	59.4	50.0	45.7	41.7	..	1.0	2.4	1.2	2.9
All cancer-related separations		36.3	39.3	43.4	48.0	49.5	1.0	1.4	2.1	3.5	4.4

(a) Refer to table 23 for a list of equivalent ICD-9-CM codes.

(b) Separations for specific procedures, usually related to another separation for a principal diagnosis of cancer, but excluding any procedures conducted as part of that other separation.

(c) Refer to page 62 for the effects of coding changes.

(d) Separations with a patient election status of *Public*.

.. not applicable.

