

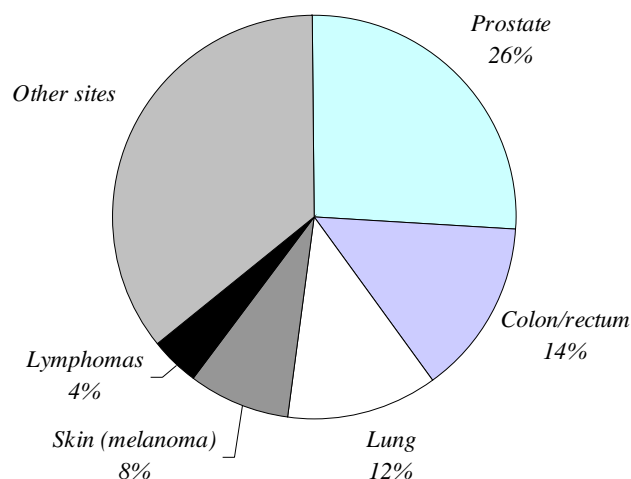
A B S T R A C T

Cancer incidence and mortality, 1998

A total of 3,869 cancer cases was diagnosed in males in 1998. This was one per cent lower than for 1997, largely because of decreases for prostate and lung cancers. The decrease for prostate cancer probably was due to a decrease in testing activity. In addition, the cancer-detection rate may have dropped due to an increased proportion of tested men receiving repeat as opposed to initial tests. Meanwhile, the reduction for lung cancer mostly would have resulted from reductions in tobacco smoking.

About 63% of cancers in males in 1998 comprised primary lesions of the prostate, large bowel (colon/rectum), lung and skin (melanoma), and lymphomas (Figure 1).

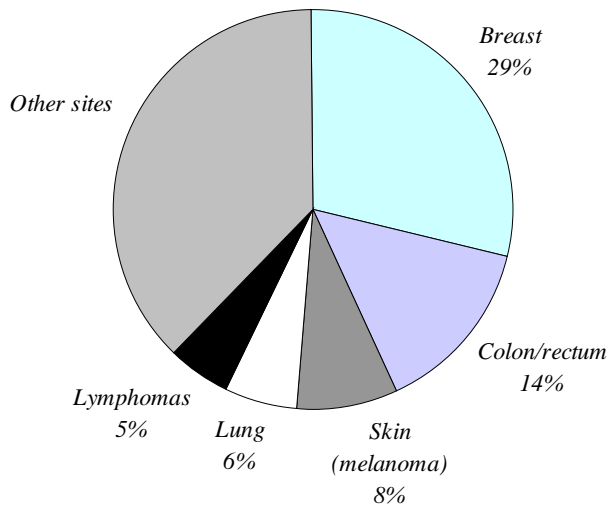
Figure 1: Cancer cases diagnosed in South Australian males in 1998 by site



A total of 3,333 cancer cases was diagnosed in females in 1998, which was four per cent higher than for 1997, mostly due to an increase for breast cancer and (less so) leukaemias. The increase for breast cancer is thought to reflect variations in detection rate due to rounds of mammographic screening activity. Meanwhile, an abrupt increase for leukaemias is unexplained, and may have occurred by chance.

About 62% of cancers in females in 1998 comprised primary lesions of the breast, large bowel (colon/rectum), skin (melanoma) and lung, and lymphomas (Figure 2).

Figure 2: Cancer cases diagnosed in South Australian females in 1998 by site



Approximately 59% of cancer deaths in males in 1998 were due to lesions with a primary site of lung, prostate, large bowel (colon/rectum), and stomach and leukaemias. Among females, 54% of cancer deaths were due to breast, large-bowel (colon/rectum), lung and pancreatic cancers, and lymphomas.

Only 15 deaths from cervical cancer were reported for 1998, such that the age-standardized death rate for this cancer had reduced progressively by 66% when compared with the 1977-80 baseline. This largely is attributed to screening for pre-invasive lesions, leading to their early treatment, plus gains in case survival from an increased proportion of cancers being found at a “curable” microinvasive stage.

Meanwhile, women in the target mammographic-screening age range of 50-69 years had a 16% lower breast-cancer mortality rate in 1997-98, when compared with the rate for 1985-96, whereas there was little difference in mortality rate between these time periods for women under 50 years of age or for those aged 70 years or more.

C H A P T E R 1

Cancer incidence and mortality, 1998

I N C I D E N C E

A. Males (Table 1)

A total of 3,869 cancers was diagnosed in males in 1998, 63% of them, cancers of the prostate (26%), large bowel (colon/rectum) (14%), lung (12%) and skin (melanoma) (8%), and lymphomas (4%). This was similar to the total for 1996, but approximately one per cent lower than for 1997, largely due to decreases for prostate and lung cancers.

While the age-standardized incidence (World Population) of diagnosed prostate cancer was still 85% higher in 1998 than for 1977-88, it was 16% lower than the peak rate for 1993-96.¹ Large changes in numbers of detected prostate cancers can follow changes in frequency of testing.² The lower incidence of diagnosed disease in 1997-98, when compared with 1993-96, probably reflects a decrease in testing activity. In addition, the cancer-detection rate may have dropped due to an increased proportion of tested men receiving repeat as opposed to initial tests.¹

The age-standardized incidence of lung cancer was 29% lower in 1998 than for the 1977-80 baseline, following progressive secular reductions.¹ This mostly is attributed to reductions in smoking prevalence.³

The age-standardized incidence of large-bowel (colon/rectum) cancer was similar in 1998 to the 1993-97 incidence.¹ This represents a plateau, following a 30% increase in incidence between 1977-80 and 1993-96, which was attributed mostly to dietary factors and an increased detection of early tumours.^{1,3} Three randomized trials have indicated that biennial population screening can reduce mortality rates from these cancers by 15-20%.⁴⁻⁶ The Australian Health Technology Advisory Committee of the National Health and Medical Research Council has recommended pilot and feasibility studies of population screening in Australia.⁷

The age-standardized incidence of cutaneous melanomas was 16% lower in 1998 than for 1997, but similar to the incidence for 1989-96.¹ Notably, the incidence was 114% higher in 1989-96 than for the 1977-80 baseline.¹ This is considered to reflect both a continuing real increase in incidence and an increased detection rate.^{3,8} It is reassuring to see the indication of a plateau in incidence during the 1990s, which may be due to effects of long-standing promotion of sun protection.

The age-standardized incidence of lymphomas was 11% lower in 1998 than for 1997, but similar to the 1993-96 incidence, which was 23% higher than for 1977-80.¹ Similar upward trends have been found in other countries.^{9,10} HIV infection is known to have contributed, but the effect would have been insufficient to explain overall increases.³ Further investigations are warranted to explore possible roles of other viral infections, hair dyes, immunosuppressive states, and exposures to herbicides, non-ionizing radiation, and other environmental agents.^{3,9,10}

Considerable attention has been directed at the increasing incidence of Kaposi's sarcoma among males in many countries, due to its association with AIDS.⁹ The mean number of these soft-tissue tumours per annum in South Australian males increased from 0.3 in 1977-84 to 2.3 in 1985-88, 5.0 in 1989-92, and 5.0 in 1993-97. A further three cases were diagnosed in males in 1998.

The age-standardized incidence of testicular cancer in 1998 was similar to the 1993-97 incidence.¹ It was 47% higher, however, than the corresponding incidence for 1977-92.¹ Similar increases have been reported for other western populations.^{3,9} While the causes are not known, there is speculation that sedentary behaviour, viral exposures, or foetal or later exposures to oestrogen-like compounds may have contributed.³

Lip cancer had a higher age-standardized incidence in 1998 than reported for earlier years.¹ It was 61% higher than for the 1977-80 baseline.¹ Sun exposure is an established risk factor and

probably accounted for real increases in incidence, although increased detection also may have had an effect.³ Tobacco and alcohol consumption, and possibly viral infections, are thought to increase risk,³ but the location of most lesions on the outer vermilion border of the lower lip points to a sun effect.

The age-standardized incidence of pancreatic cancer reduced by 14% in males between 1977-80 and 1993-96.¹ Further reductions followed in 1997 and 1998, such that the 1998 incidence was 30% lower than for the 1977-80 baseline. Tobacco smoking is an established risk factor,³ and the large reduction in smoking prevalence in males in past decades likely would have contributed to the incidence reduction.

Cancers of the pleura experienced an increase in age-standardized incidence of 131% between 1977-80 and 1989-92.¹ The 1998 incidence was similar, however, to that for 1989-92.¹ The evidence of a plateau in incidence since 1989-92 is a hopeful indication that the “epidemic” of asbestos-related mesotheliomas of the pleura may have peaked in South Australia.³

Liver cancer continues to have an elevated incidence when compared with the 1977-80 baseline.¹ In 1998, the age-standardized incidence was 44% higher than the baseline figure. Liver-cancer incidence is elevated in many migrant populations from Asia.^{1,3} The increased numbers of these migrants would explain - at least in part - the increased incidence in males. Hepatitis B and C infections, exposure to aflatoxins in food-stuffs, and possibly alcohol, also could have led to a raised incidence of this disease.³

B. Females (Table 2)

A total of 3,333 cancers was diagnosed in females in 1998, 62% of them comprising cancers of the breast (29%), large bowel (colon/rectum) (14%), skin (melanoma) (8%), and lung (6%), and lymphomas (5%). This was higher than the corresponding 3,209 cancers for 1997, largely due to an increase for breast cancer and (less so) leukaemias.¹

The age-standardized incidence of breast cancer was 11% higher in 1998 than for 1997, and 61% higher than the 1977-88 incidence which preceded the introduction of population screening by mammography.¹ A small increase in incidence has been reported for other populations and attributed to increased maternal age at first birth, lower parity, and perhaps earlier menarche, later menopause and other hormonal influences.^{3,9} Diet and obesity also are suspected to have played a part.³ Incidence and mortality trends for 1977-88 in South Australia also point to an increase, although the evidence is not compelling.¹ Nonetheless, the data may be interpreted as suggesting a small increase in incidence that preceded population-based mammographic screening, which then was followed by a large increase in numbers of screen-detected cases. Meanwhile, the proportion of tumours with a diameter of less than 15mm increased from 13% to about one third,¹ which suggests a greatly improved prognosis.

There was a 10% decrease in age-standardized incidence of large-bowel (colon/rectum) cancer between 1997 and 1998.¹ This followed a stable incidence rate during 1989-97, which had been preceded by a 12% increase since the 1977-80 baseline. This earlier increase was attributed mostly to dietary factors plus an increased detection of early tumours.¹

There also was a 16% reduction in age-standardized incidence of cutaneous melanomas between 1997 and 1998, which followed a 82% increase since the 1977-80 baseline.¹ Again, this is interpreted as reflecting an increased detection, together with a real increase in incidence.¹ Hopefully, the reduction in 1998 heralds an effect on underlying incidence of the longstanding promotion of sun protection.

The age-standardized incidence of lung cancer was lower in 1998 than the 1989-97 incidence, which had been stable following a 68% increase since the 1977-80 baseline.¹ This earlier increase was attributed to historic increases in smoking prevalence.³ The indication of a subsequent plateau suggests that the epidemic of lung cancer in women has peaked in South Australia.

While the age-standardized incidence of lymphomas was lower in 1998 than for 1997, it exceeded incidence rates for 1977-96, which also had shown a progressive increase.¹ Similar increases have occurred in males, and in males and females in other populations, which have prompted a range of aetiological investigations.^{3,9}

A particularly low age-standardized incidence of cervical cancer presented in 1998, which was 47% lower than for the 1977-80 baseline.¹ This is attributed mostly to the detection through screening of precursor lesions, leading to their early treatment.^{1,3}

Meanwhile, the age-standardized incidence of lip cancer increased further in females in 1998, such that it was approximately five times that for the 1977-80 baseline.¹ This is attributed to sun-exposure effects on incidence, together with an increased rate of detection.^{1,3}

The incidence of ovarian cancer was exceptionally low in 1998, and there is the suggestion of a progressive decline since 1989-92.¹ Further monitoring will be necessary to see whether this trend is sustained. Reductions in other populations have been detected and found to be consistent with a protective effect of use of the combined oral contraceptive pill.^{3,9}

By comparison, there was an elevated age-standardized incidence of thyroid cancer in 1998, and the indication of a progressive increase since 1989-92.¹ A “pool” of individuals with occult thyroid carcinomas (mostly papillary lesions) probably exists in most populations, such that increases in incidence of diagnosed disease can follow from increases in diagnostic intensity.⁹ Again, further monitoring will be necessary to see whether the recent increase in incidence is sustained in South Australia females.

M O R T A L I T Y

A. Males (Table 3)

A total of 1,687 cancer deaths was recorded for males in 1998, which was very similar to the 1,695 for 1997. Of the 1998 deaths, 59% were due to cancers of the lung (25%), prostate (13%), large bowel (colon/rectum) (13%), and stomach (5%), and leukaemias (5%).

A similar number of lung-cancer deaths was recorded in 1998 and 1997, although there was a 24% reduction in age-standardized mortality rate between 1977-80 and 1993-97.^{1,8} This was due to an underlying reduction in incidence that reflected historic reductions in smoking prevalence.^{1,8}

The number of prostate-cancer deaths was similar in 1998 and 1997.¹ The age-standardized mortality rate in 1997-98 also was similar to rates in the 1980s, following an elevation during 1989-96.¹ Overall, it can be concluded that mortality rates did not show a progressive trend upwards or downwards in 1977-98, although there were marked changes in case numbers associated with variations in testing activity.^{1,8}

Again, there was an equivalent number of deaths from large-bowel (colon/rectum) cancer in 1998 and 1997.¹ The 1997-98 age-adjusted rate was 15% lower than for 1993-96 and similar to earlier mortality figures for 1977-80.¹ The reduction for 1997-98 likely would reflect gains in case survival.^{1,11,12}

The age-standardized mortality rate for stomach cancer was 18% lower than for 1997, and 45% lower than for the 1977-80 baseline, following progressive secular reductions.¹ Consistent trends have been observed in other western countries and attributed to changes in diet and refrigeration.^{3,9} The possibility of a contribution from reductions in gastric infection with *Helicobacter pylori* also has been suggested.¹³

The age-standardized mortality rate for lymphomas was similar in 1998 and 1997, and equivalent to the mean annual rate for 1977-96.¹ Incidence generally increased during 1977-96, however, with increases in case survivals offsetting a commensurate increase in mortality rate.^{1,8}

The age-standardized mortality rate for pancreatic cancer was 19% lower in 1998 than for the 1977-80 baseline.¹ Reductions during 1977-98 were accompanied by corresponding incidence reductions, which are attributed, at least in part, to reductions in smoking prevalence in past decades.³

Meanwhile, there was a continued decline in deaths from testicular cancer, such that the age-standardized death rate for 1998 was 86% lower than the 1977-80 baseline figure.¹ This trend contrasts with increases in incidence and is explained by gains in case survival from advances in chemotherapy, including adjuvant chemotherapy for non-seminomatous lesions.^{1,4}

B. Females (Table 4)

A total of 1,373 cancer deaths was recorded for females in 1998, slightly more than the 1,358 for 1997.¹ Over half (54%) were due to cancers of the breast (18%), large bowel (colon/rectum) (15%), lung (11%), and pancreas (5%), and lymphomas (5%).

While there was a higher number of breast-cancer deaths in 1998 than for 1997, the age-standardized rate was still lower than for the 1985-96 period.¹ Collectively, the rate for 1997-98 was 11% lower than for 1985-96, and 4% lower than for 1977-84 when the underlying incidence is thought to have been comparatively low. Compared with the corresponding rate for 1985-96, the 1997-98 age-standardized mortality rate was: 3% higher for women aged under 50 years; 16% lower for 50-69 year olds, the principal target of mammographic screening; and 3% lower for older women. There is the potential for both screening and gains in adjuvant therapy to have contributed to the reduction in 50-69 year olds.

The age-standardized death rate from large-bowel (colon/rectum) cancer was 13% lower in 1998 than 1997, and 21% lower than for the 1977-80 baseline.¹ This is thought to be due to gains in case survival from increased early detection and advances in clinical management,^{11,12} and possibly a reduction in underlying incidence in 1998.

Since 1989-92, when the age-standardized lung-cancer mortality rate was 69% higher than for the 1977-80 baseline, the rate has reached a plateau.¹ Indeed, the 1998 rate was the lowest encountered since 1985-88. Mortality trends generally accorded with incidence trends, suggesting that the lung-cancer epidemic in women may have peaked in South Australia.¹

The number of lymphoma deaths was similar in 1998, 1997 and 1996. This followed stable age-standardized mortality rates in 1977-96, despite an increased incidence.^{1,8} The divergence in incidence and mortality trends is explained by increased case survivals that probably resulted from advances in chemotherapy.¹¹

Progressive reductions in age-standardized mortality rates from cervical cancer have taken place, such that the rate for 1993-96 was 54% lower than for 1977-80.^{1,8} In 1997 and 1998, further reductions took place, with the rate for 1998 being 66% lower than the 1977-80 baseline.¹ The reductions are interpreted as reflecting decreases in incidence due to screening for pre-invasive lesions, leading to their early treatment, plus gains in case survival from an increased proportion of cancers being found at a "curable" microinvasive stage.^{3,9}

Multiple myelomas and immunoproliferative neoplasms showed a progressive increase in age-standardized mortality rate during 1977-98, such that the 1998 rate was 33% higher than the 1977-80 baseline.¹ The reasons for this increase are not known.

R E F E R E N C E S

1. South Australian cancer registry. Epidemiology of cancer in South Australia. Incidence, mortality and survival, 1977 to 1997. Incidence and mortality, 1997. Adelaide: Openbook Publishers, 1998.
2. Chodak GW, Schoenberg HW. Progress and problems in screening for carcinoma of the prostate. *World J Surg* 1989; 13: 60-64.
3. Schottenfeld D, Fraumeni JF (eds). *Cancer epidemiology and prevention*. 2nd edition. New York: Oxford University Press, 1996.
4. Mandel JS, Bond JH, Church TR et al. Reducing mortality from colorectal cancer by screening for faecal occult blood. *N Engl J Med* 1993; 328: 1365-1371.
5. Kronborg O, Fenger C, Olson J et al. Randomised study of screening for colorectal cancer with faecal-occult-blood test. *Lancet* 1996; 348: 1467-1471.
6. Hardcastle JD, Chamberlain JO, Robinson MHE et al. Randomised controlled trial of faecal-occult-blood screening for colorectal cancer. *Lancet* 1996; 348: 1472-1477.

7. Australian Health Technology Advisory Committee, National Health and Medical Research Council. Colorectal cancer screening. Canberra: Australian Government Publishing Service, 1997.
8. South Australian cancer registry. Epidemiology of cancer in South Australia. Incidence, mortality and survival, 1977 to 1994. Incidence and mortality, 1994. Adelaide: Openbook Publishers, 1995.
9. Doll R, Fraumeni JF, Muir CS (eds). Trends in cancer incidence and mortality. New York: Cold Spring Harbor Laboratory Press, 1994.
10. Rabkins CS, Hilgartner MW, Hedberg KW et al. Incidence of lymphomas and other cancers in HIV-infected and HIV-uninfected patients with hemophilia. *Am Med J* 1992; 267: 1090-1094.
11. South Australian cancer registry. Epidemiology of cancer in South Australia. Incidence, mortality and survival, 1977 to 1995. Incidence and mortality, 1995. Adelaide: Openbook Publishers, 1996.
12. Hoffmann D, Moore J, Roder D. Trends in survival from colonic cancer; the impact of sub-specialization. *Aust NZ J Surg* 1997; 67: 842-845.
13. Forman D, Newell DG, Fullerton F et al. Association between infection with *Helicobacter pylori* and risk of gastric cancer: evidence from a prospective investigation. *Br Med J* 1991; 302: 1302-1305.
14. Tabar L, Fagerberg G, Duffy SW et al. Update of the Swedish two-county program of mammographic screening for breast cancer. *Radiol Clin North America*

TABLE 1: MALE CASES*Cancer cases diagnosed in South Australia in 1998**

<i>Sites</i>	<i>No</i>	<i>%</i>	<i>CR</i>	<i>ASR</i>	<i>Sites</i>	<i>No</i>	<i>%</i>	<i>CR</i>	<i>ASR</i>
Total	3,869	100.0	526.1	342.8	Oropharynx	20	0.5	2.7	2.0
Prostate	987	25.5	134.2	82.4	Gallbladder etc.	15	0.4	2.0	1.2
Lung	466	12.0	63.4	38.7	Eye	14	0.4	1.9	1.5
Colon	333	8.6	45.3	28.0	Tongue	14	0.4	1.9	1.3
Skin (melanoma)	302	7.8	41.1	28.9	Salivary gland	14	0.4	1.9	1.2
Rectum	211	5.5	28.7	19.0	Floor of mouth	11	0.3	1.5	1.2
Lymphomas	156	4.0	21.2	15.3	Mouth (nos)	10	0.3	1.4	1.1
Lip	150	3.9	20.4	14.3	Penis etc.	10	0.3	1.4	0.9
Leukaemias	134	3.5	18.2	12.9	Digestive (nos)	8	0.2	1.1	0.6
Bladder	120	3.1	16.3	9.9	Sinonasal	7	0.2	1.0	0.8
Kidney etc.	116	3.0	15.8	10.5	Hypopharynx	7	0.2	1.0	0.6
Stomach	115	3.0	15.6	9.9	Small intestine	7	0.2	1.0	0.5
Brain	68	1.8	9.2	7.6	Bone etc.	6	0.2	0.8	0.7
Pancreas	64	1.7	8.7	5.4	Anus	6	0.2	0.8	0.6
Mult. myeloma etc.	62	1.6	8.4	5.5	Breast	6	0.2	0.8	0.6
Oesophagus	61	1.6	8.3	5.5	Thymus, heart, mediastinum	4	0.1	0.5	0.5
Connective tiss. etc.	45	1.2	6.1	4.5	Cranial nerves etc.	4	0.1	0.5	0.5
Testis	44	1.1	6.0	5.3	Nasopharynx	4	0.1	0.5	0.4
Larynx	40	1.0	5.4	3.1	Endocrine (not thyroid)	3	0.1	0.4	0.5
Pleura	32	0.8	4.4	2.9	Gum	2	0.1	0.3	0.2
Liver	29	0.7	3.9	2.3	Unspecified	140	3.6	19.0	11.6
Thyroid	22	0.6	3.0	2.3					

* *CR = crude incidence rate per 100,000 males.**ASR = age-standardized incidence rate (World Population) per 100,000 males.*

TABLE 2: FEMALE CASES
*Cancer cases diagnosed in South Australia in 1998**

<i>Sites</i>	<i>No</i>	<i>%</i>	<i>CR</i>	<i>ASR</i>	<i>Sites</i>	<i>No</i>	<i>%</i>	<i>CR</i>	<i>ASR</i>
Total	3,333	100.0	443.3	272.4	Tongue	16	0.5	2.1	1.3
Breast	975	29.3	129.7	90.3	Vulva	16	0.5	2.1	0.9
Colon	302	9.1	40.2	20.0	Bone etc.	12	0.4	1.6	1.4
Skin (melanoma)	277	8.3	36.8	25.4	Eye	11	0.3	1.5	0.8
Lung	190	5.7	25.3	14.0	Mouth (nos)	9	0.3	1.2	0.6
Lymphomas	162	4.9	21.5	13.0	Liver	9	0.3	1.2	0.5
Rectum	157	4.7	20.9	10.7	Vagina	7	0.2	0.9	0.6
Uterine body	149	4.5	19.8	12.7	Salivary gland	7	0.2	0.9	0.4
Leukaemias	111	3.3	14.8	9.9	Oropharynx	6	0.2	0.8	0.4
Pancreas	84	2.5	11.2	5.8	Cranial nerves etc.	5	0.2	0.7	0.7
Ovary	81	2.4	10.8	6.9	Small intestine	5	0.2	0.7	0.5
Lip	75	2.3	10.0	5.1	Floor of mouth	5	0.2	0.7	0.4
Stomach	64	1.9	8.5	4.2	Pleura	4	0.1	0.5	0.3
Kidney etc.	60	1.8	8.0	4.3	Larynx	3	0.1	0.4	0.3
Thyroid	56	1.7	7.4	6.2	Gum	3	0.1	0.4	0.2
Cervix	51	1.5	6.8	5.0	Sinonasal	3	0.1	0.4	0.2
Bladder	48	1.4	6.4	3.1	Endocrine (not thyroid)	2	0.1	0.3	0.3
Brain	47	1.4	6.3	4.5	Anus	2	0.1	0.3	0.2
Mult. myeloma etc.	46	1.4	6.1	2.6	Placenta	2	0.1	0.3	0.2
Gallbladder etc.	42	1.3	5.6	2.8	Thymus, heart, mediastinum	1	0.0	0.1	0.1
Connective tiss. etc.	34	1.0	4.5	2.9	Hypopharynx	1	0.0	0.1	0.1
Oesophagus	30	0.9	4.0	1.9	Nasopharynx	1	0.0	0.1	0.1
Digestive (nos)	17	0.5	2.3	1.3	Unspecified	145	4.4	19.3	9.3

* *CR = crude incidence rate per 100,000 females.*

ASR = age-standardized incidence rate (World Population) per 100,000 females.

TABLE 3: MALE DEATHS*Deaths from cancer in South Australia in 1998**

<i>Sites</i>	<i>No</i>	<i>%</i>	<i>CR</i>	<i>ASR</i>	<i>Sites</i>	<i>No</i>	<i>%</i>	<i>CR</i>	<i>ASR</i>
Total	1,687	100.0	229.4	138.2	Oropharynx	9	0.5	1.2	0.9
Lung	417	24.7	56.7	34.1	Digestive (nos)	7	0.4	1.0	0.6
Prostate	215	12.7	29.2	15.2	Small intestine	7	0.4	1.0	0.5
Colon	109	6.5	14.8	9.3	Salivary gland	6	0.4	0.8	0.5
Rectum	103	6.1	14.0	8.5	Hypopharynx	6	0.4	0.8	0.5
Stomach	78	4.6	10.6	6.1	Sinonasal	5	0.3	0.7	0.5
Leukaemias	76	4.5	10.3	6.6	Eye	4	0.2	0.5	0.4
Lymphomas	69	4.1	9.4	5.9	Gum	3	0.2	0.4	0.3
Pancreas	69	4.1	9.4	5.8	Bone etc.	2	0.1	0.3	0.3
Bladder	47	2.8	6.4	3.6	Floor of mouth	2	0.1	0.3	0.2
Brain	46	2.7	6.3	4.6	Thymus, heart, mediastinum	2	0.1	0.3	0.2
Oesophagus	46	2.7	6.3	3.8	Thyroid	2	0.1	0.3	0.2
Kidney etc.	45	2.7	6.1	3.8	Cranial nerves etc.	2	0.1	0.3	0.1
Skin (melanoma)	39	2.3	5.3	3.5	Lip	1	0.1	0.1	0.1
Mult. myeloma etc.	36	2.1	4.9	2.8	Mouth/pharynx (nos)	1	0.1	0.1	0.1
Pleura	28	1.7	3.8	2.3	Anus	1	0.1	0.1	0.1
Liver	22	1.3	3.0	1.8	Breast	1	0.1	0.1	0.1
Gallbladder etc.	21	1.2	2.9	1.7	Testis	1	0.1	0.1	0.1
Connective tiss. etc.	19	1.1	2.6	1.9	Endocrine (not thyroid)	1	0.1	0.1	0.1
Larynx	14	0.8	1.9	1.0	Unspecified	116	6.9	15.8	9.4
Tongue	9	0.5	1.2	0.9					

* *CR = crude death rate per 100,000 males.**ASR = age-standardized death rate (World Population) per 100,000 males.*

TABLE 4: FEMALE DEATHS
*Deaths from cancer in South Australia in 1998**

<i>Sites</i>	<i>No</i>	<i>%</i>	<i>CR</i>	<i>ASR</i>	<i>Sites</i>	<i>No</i>	<i>%</i>	<i>CR</i>	<i>ASR</i>
Total	1,373	100.0	182.6	92.8	Vulva	9	0.7	1.2	0.3
Breast	246	17.9	32.7	19.2	Connective tiss. etc.	7	0.5	0.9	0.6
Lung	148	10.8	19.7	10.4	Tongue	5	0.4	0.7	0.4
Colon	128	9.3	17.0	7.5	Small intestine	5	0.4	0.7	0.4
Pancreas	73	5.3	9.7	4.4	Oropharynx	5	0.4	0.7	0.3
Rectum	72	5.2	9.6	4.7	Eye	4	0.3	0.5	0.4
Lymphomas	69	5.0	9.2	4.4	Salivary gland	4	0.3	0.5	0.3
Leukaemias	64	4.7	8.5	4.3	Mouth (nos)	4	0.3	0.5	0.3
Ovary	62	4.5	8.2	4.9	Floor of mouth	4	0.3	0.5	0.2
Stomach	43	3.1	5.7	2.6	Pleura	4	0.3	0.5	0.2
Brain	39	2.8	5.2	3.7	Vagina	4	0.3	0.5	0.1
Mult. myeloma etc.	38	2.8	5.1	2.0	Sinonasal	3	0.2	0.4	0.1
Kidney etc.	32	2.3	4.3	2.1	Thymus, heart, mediastinum	3	0.2	0.4	0.1
Oesophagus	30	2.2	4.0	1.8	Thyroid	3	0.2	0.4	0.1
Gallbladder etc.	26	1.9	3.5	1.5	Gum	1	0.1	0.1	0.1
Uterine body	25	1.8	3.3	1.5	Nasopharynx	1	0.1	0.1	0.1
Bladder	24	1.7	3.2	1.1	Larynx	1	0.1	0.1	0.1
Skin (melanoma)	22	1.6	2.9	1.9	Bone etc.	1	0.1	0.1	0.1
Cervix	15	1.1	2.0	1.2	Endocrine (not thyroid)	1	0.1	0.1	0.0
Liver	10	0.7	1.3	0.6	Unspecified	128	9.3	17.0	8.3
Digestive (nos)	10	0.7	1.3	0.5					

* *CR = crude death rate per 100,000 females.*

ASR = age-standardized death rate (World Population) per 100,000 females.

