

EPIDEMIOL OGY OF CANCER IN SOUTH AUSTRALIA



INCIDENCE, MORTALITY AND SURVIVAL 1977 TO 1999
INCIDENCE AND MORTALITY 1999
ANALYSED BY TYPE AND GEOGRAPHICAL LOCATION
TWENTY-THREE YEARS OF DATA

SOUTH AUSTRALIAN CANCER REGISTRY
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M E T H O D S

I I N C I D E N C E

Cancer incidence is defined as the number of cases first notified for a given population during a specified period. The incidence data in Tables A1 and A2 of this report relate to cancer cases first diagnosed in 1999. Table A5 shows the number of new cases diagnosed during 1977-1999. These tables include only invasive cancers and generally exclude non-melanocytic skin cancers.

II M O R T A L I T Y

Cancer deaths occurring in hospitals are notified directly to the Registry. Information on deaths is also obtained from the Registrar of Births, Deaths and Marriages where these are attributed to cancer. The mortality data in Tables A3 and A4 refer to deaths occurring in 1999. Table A6 lists the number of deaths occurring in 1977-1999. These tables generally would exclude any deaths from non-melanocytic skin cancers.

NB: Incidence and mortality rates were calculated per 100,000 population per annum using the estimated South Australian population by age for 1999 (Table A8). The standardized rates for South Australia as a whole were based on the World Standard Population (Cancer Incidence in Five Continents, Volume IV, 1982 - IARC). Upper and lower 95% confidence limits are shown in the tables.

Cumulative rates have also been provided for different cancers. The cumulative rate (which is expressed as a percentage) is a good approximation of the cumulative risk, which is the risk an individual would have of developing the disease in question if that person were not to die beforehand from another cause. A cumulative rate of, say, five per cent for lung cancer in males would mean that one out of every 20 males would be expected to get lung cancer by age 75 years if he were not to die before that age from another disease. Based on 1999 cumulative cancer rates for the total population, approximately one in three persons would be expected to get a cancer by age 75 years.

Incidence ratios for the period 1977-1999 for different CURB Sub-regions, which correspond to the ABS Statistical Subdivisions, have been standardized using 1977-1999 average annual incidence rates for South Australia as a whole as the standard (Table A7).

III S U R V I V A L

Cancer registry files have been linked to South Australian death registrations, with supplementary information on interstate deaths coming from the National Death Index, the National Cancer Clearing House, and interstate registries. Life-table, proportional hazards regression and allied methods are used to show trends in case outcomes. It has been customary to use survival proportions as an index of survival, with higher proportions being interpreted favourably, although it is realized that upward trends in proportions would not always reflect reductions in deaths. Survival proportions can be affected by variations in lead time, length time, patient selection, disease classification, and sometimes overdiagnosis, and therefore need to be interpreted with care, but they are nonetheless an important index of case outcomes.

IV ICD-02 CODING KEY FOR TABLES A1 TO A7

Buccal cavity	C00 - C08, C44.0
Lip	C00, C44.0
Tongue	C01, C02
Major salivary glands	C07, C08
Gum	C03
Floor of mouth	C04
Other & unspec parts of mouth	C05, C06
Oropharynx	C09, C10
Nasopharynx	C11
Hypopharynx	C12, C13
Unspec sites - lip, oral cavity & pharynx	RM C00 - C14
Digestive organs	C15 - C26
Oesophagus	C15
Stomach	C16
Small intestine, incl. duodenum	C17
Large intestine, except rectum	C18
Hepatic flexure	C18.3
Transverse colon	C18.4
Descending colon	C18.6
Sigmoid colon	C18.7
Caecum	C18.0
Appendix	C18.1
Ascending colon	C18.2
Splenic flexure	C18.5
Other (colon)	C18.8
Colon unspecified	C18.9
Rectum, rectosigmoid junction & anal canal	C19 - C21
Rectosigmoid junction	C19
Rectum	C20.9
Anal canal	C21.1
Anorectal junction & other	C21.8
Liver & intrahepatic bile ducts	C22
Gallbladder & other biliary tract	C23, C24
Pancreas	C25
Unspecified sites - digestive organs	C26
Respiratory organs	C30 - C34, C38.4, C39
Nose, nasal cavities, middle ear & accessory sinuses	C30, C31
Larynx	C32
Trachea, bronchus & lung	C33, C34
Pleura	C38.4
Thymus, heart & mediastinum	C37, C38 (excl. C38.4)
Bone & articular cartilage	C40, C41
Connective & other soft tissue (including peritoneum/retroperitoneum) & peripheral & sympathetic N.S.	C47 - C49
Melanoma of skin	C44; M87203 - M87803
Lip (melanoma)	C44.0; M87203 - M87803
Eyelid, including canthus (melanoma)	C44.1; M87203 - M87803
Ear (melanoma)	C44.2; M87203 - M87803

Unspecified parts of face (melanoma)	C44.3; M87203 - M87803
Scalp & neck (melanoma)	C44.4; M87203 - M87803
Trunk (melanoma)	C44.5; M87203 - M87803
Upper limb (melanoma)	C44.6; M87203 - M87803
Lower limb (melanoma)	C44.7; M87203 - M87803
Other (melanoma)	C44.8; M87203 - M87803
Site unspecified (melanoma)	C44.9; M87203 - M87803
Anus (excluding melanoma)	C44.5
Female breast	C50 (female)
Male breast	C50 (male)
Cervix uteri	C53
Placenta	C58
Body of uterus	C54
Ovary & other uterine adnexa	C56, C57
Vagina	C52
Vulva	C51
Prostate	C61
Testis	C62
Penis & other male genital organs	C60, C63
Bladder	C67
Kidney, pelvis & other unspec urinary organs	C64 - C66, C68
Eye	C69
Brain	C71
Cranial nerves, spinal cord, meninges & unspec.	C70, C72
Thyroid gland	C73
Other endocrine glands & related structures	C74, C75
Unspecified site	C80
All lymphomas	M95903 - M97413 (selected codes - see sub-groups)
Diffuse non-Hodgkin's lymphomas	M95903, M95933, M96703, M96713, M96723, M96753, M96803, M96843, M96853, M96863, M96873
Hodgkin's disease	M96503, M96523, M96543, M96573, M96633
Nodular lymphomas	M96903, M96913, M96963, M96983
Other lymphomas	M95913, M96743, M97003, M97013
Tumours of histiocytic tissue	M97203, M97223, M97413
Multiple myeloma & immunoproliferative neoplasms	M97323, M97313, M97613, M98303
All leukaemias	M98003 - M99403 (selected codes - see sub-groups)
All lymphoid leukaemias	M98213, M98233
Acute lymphatic leukaemia	M98213
Chronic lymphatic leukaemia	M98233
All myeloid leukaemias	M98413, M98613, M98633, M98663, M98673, M98803, M98913, M99103
Acute myeloid leukaemia	M98413, M98613, M98663, M98673, M98803, M98913, M99103
Chronic myeloid leukaemia	M98633
Chronic monocytic leukaemia	M98933
Other specified leukaemias	M98683, M99303, M99403
Unspecified cell leukaemias	M98003
Total	C00 - C80

NB:

- Non-melanocytic skin cancers are not included, with the exception of lesions of the lip and anus.
- Soft-tissue tumours include all Merkel cell tumours and dermatofibrosarcomas protuberans. Soft-tissue tumours of the intra-thoracic, breast or abdominal organs are coded to the relevant organ.
- Bladder tumours diagnosed prior to 1982 would have included some “in-situ” carcinomas and papillary non-invasive tumours.
- Urinary-tract tumours are counted as one primary when they are multifocal transitional cell carcinomas.
- Secondary sites are not coded as such, but are assigned to the original primary sites.
- Only diffuse non-Hodgkin’s lymphomas are included as lymphosarcomas and reticulosarcomas.
- Pre-leukaemias are recorded only when there is leukaemic change.
- Certain changes have been made to incorporate acute monocytic leukaemias and other specified leukaemias in the acute myeloid FAB classification (see previous reports).
- “In-situ” cancers and neoplasms of uncertain behaviour are not included, except when otherwise stated in this report.
- Corresponding ICD-9 and SNOMED codes were used for data entry.