

1 Introduction

Cancer remains one of the leading causes of morbidity and mortality in South Australia and is the second highest cause of death after cardiovascular disease. One in three South Australians will be diagnosed with cancer at some time during their lives. During 2004, the burden was 8190 new cancer cases and 3249 cancer deaths.

This publication aims to give a broad picture of cancer incidence, mortality, prevalence and survival in South Australia. Chapters 2 and 3 of this report are special interest chapters. Chapter 2 gives details of the geographical distribution of cancer prevalence in South Australia – the first time we have covered this topic. Chapter 3 gives a very comprehensive coverage of cancer survival by a range of cancer sites. This topic has not been covered in the Cancer Report since 1999. Chapters 4 and 5 are regular chapters in the report. Chapter 4 covers the most common cancers in terms of incidence, mortality, age and sex differences and distribution by age. Chapter 5 examines time trends in cancer incidence and mortality for each major cancer site, and with projections to 2007. Chapter 6 covers a series of twelve feature cancer sites in detail, and Chapter 7 which is new this year, gives a complete coverage of the epidemiology of melanoma of the skin in South Australia.

1.1 Cancer Surveillance in South Australia

The South Australian Cancer Registry (SACR) provides population-based statistics about cancer incidence, mortality, and case fatality (survival) for the residents of South Australia. The data from the registry, the second oldest in the country, are now available for the diagnostic period 1977 to 2004.

The SACR data collection

The SACR began operation in 1977. It documents all new cases of invasive cancer diagnosed in South Australia (SA) and tracks the progress of these cases. While in situ cancers of the bladder, female breast and melanomas are included in the collection, they are excluded from all analyses in this report, with the exception of Chapter 7 on melanoma.

Primary sources of information include pathology laboratories, hospitals, radiotherapy departments, the Registrar of Births, Deaths and Marriages (BDM) and other supplementary sources such as clinicians. These notifications are mandated by the SA Cancer Regulations. The information is refined through contact with the primary health-care sector and with other cancer registries, resulting in near 100% ascertainment.

The SACR collects a minimum data set for each cancer case, including such elements as place of residence, sex, date of birth, date of diagnosis, cancer site and morphology, means of diagnosis, whether there were multiple primary sites of cancer, race, country of birth, and date, place and cause of death, where applicable. These data elements can be reported on in various combinations to meet special research requirements.

Using SACR information

The Registry uses its data to give direction to cancer-control planning and programs in the areas of prevention, screening, treatment and rehabilitation, as well as hospice and palliative care, and to monitor and evaluate the impact of these programs.

The SACR enables surveillance of trends in cancer incidence, mortality and survival within SA by cancer type and by age, sex, geographic area of residence and diagnostic period. It also allows comparison nationally and internationally using agreed standards, by providing SA cancer data to the National Cancer Statistics Clearing House, and to the International Agency for Research on Cancer.

Continuous monitoring permits a prompt response to public concerns about clusters of cancers or regional elevations, shows emerging cancer problems that require preventive interventions, assists in the evaluation of screening programs and identifies issues for population groups.

For example, assessments of SACR data by Indigenous status are important for setting priorities, planning and evaluating cancer control program in Aboriginal communities. Occupational assessments enable an informed response to concerns about work-related exposures and indicate where interventions should be directed. The high incidence of cancers of the lip, melanoma and, by inference, non-melanocytic skin cancers among rural workers, fishers and truck drivers, underscores the need to promote sun protection among these groups.

Researchers frequently make use of Registry data, given appropriate Ethics Committee approval. The information is used to underpin examinations of cancer risk in particular populations, for example, occupational groups (veterans, particular industry workers), geographic regions, or population groups (such as indigenous, migrant). The provision of cancer data to researchers for the investigation of aetiological factors and factors which affect the natural history of disease enable studies of outcomes of preventive, treatment and rehabilitative procedures, and of the effectiveness of palliative and hospice services.

The SACR also supports large public health interventions such as those of SA Cervix Screening and BreastScreen SA. Mortality and case-survival data are important for assessing outcomes of screening and treatment programs at a population level, and for assessing the impact of new program initiatives and treatments. They indicate whether the cancer control effort in South Australia is having an impact comparable to control programs elsewhere.

South Australia has a network of metropolitan hospital-based Cancer Registries which collect more detailed information including stage, grade, initial course of treatment, and a range of prognostic factors, for specific tumour sites. These registries allow clinicians to add information on stage of progression of disease at diagnosis, other prognostic indicators, initial round of treatment, and initial response to care. These registries are used by clinicians to monitor changing patterns of care and effects of these changes on survival rates and other case outcomes. They can be used to support clinical epidemiological studies where more detailed information is required.

The aim of this work is to reduce, as far as is practicable, the burden of cancer on the South Australian population – directed by the information from the SACR.