

Australian Capital Territory

REGISTRATION AREA

The Australian Capital Territory (ACT) Cancer Registry covers the population of the ACT, which has an area of approximately 2400 km² and is surrounded on all sides by the state of New South Wales (NSW). Almost all ACT residents live in metropolitan Canberra. At the June 2006 census, the estimated population of the ACT was 334 000, of whom 18.7% were aged less than 15 years and 9.5% were aged 65 years or more. The ACT population accounts for 1.6% of Australia's total population.

CANCER CARE FACILITIES

The ACT Government Health Directorate oversees general health care in the region, in partnership with the service providers. The ACT has a comprehensive range of cancer prevention, early detection, treatment, community care, and palliative services available to the local community, in both the public and private sectors. Canberra Hospital is the principal cancer care provider in the ACT and surrounding NSW region, and offers expertise in surgery, medical and radiation oncology, and haematology services.

REGISTRY STRUCTURE AND METHODS

The ACT Cancer Registry collects data on all new cases of cancer and cancer-related deaths among ACT residents. The ACT Government Health Directorate funds the registry. All public and private pathology laboratories, hospitals, and nursing homes in the ACT are required by law to notify the registry of any cancer in patients or in human tissues. The notification of cancer became mandatory in the ACT in 1994, under provisions of the Public Health Act. Before that, notification had been voluntary since 1982. The Health Directorate contracts the Cancer Institute NSW to register ACT cancer cases and cancer-related deaths on its behalf.

INTERPRETING THE RESULTS

Until 1994, the voluntary nature of reporting led to underreporting of cancer cases. Due to the implementation of mandatory notification, the level of ascertainment is now likely to be high. Screening

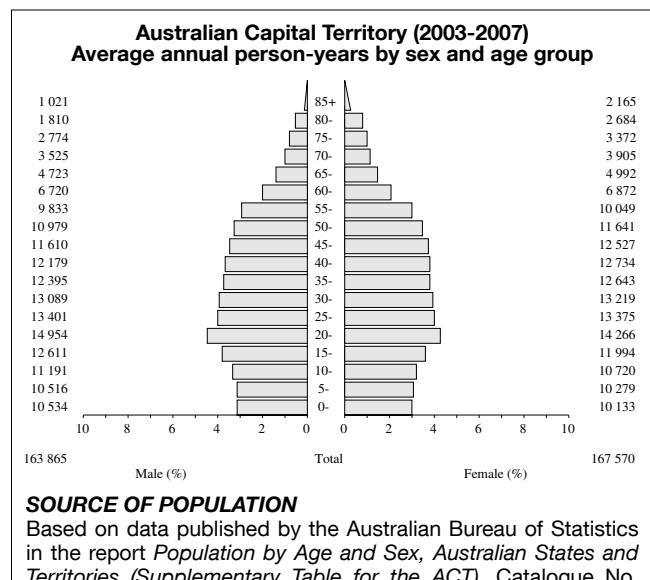
programmes exist for breast cancer (among women aged 50–69 years, with estimated 57% coverage), cervical cancer (among women aged 18–69 years, with 62% coverage), and colorectal cancer (among individuals aged 50–65 years).

USE OF THE DATA

The registry monitors cancer incidence trends within the ACT population. Due to the small number of cases registered each year, data are reported as 5-year averages on a biennial reporting cycle. Unit record data are available to approved medical researchers engaged in studies that are considered to be of benefit to the community by the ACT Health Human Research Ethics Committee.

CONTRIBUTORS

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NSW Central Cancer Registry



SOURCE OF POPULATION

Based on data published by the Australian Bureau of Statistics in the report *Population by Age and Sex, Australian States and Territories (Supplementary Table for the ACT)*, Catalogue No. 3201.8.

10 MAJOR CANCERS, ASR (WORLD) PER 100 000

Male		Female	
Prostate	108.4	Breast	92.7
Melanoma of skin	35.4	Melanoma of skin	27.0
Colon	25.9	Colon	21.4
Trachea, bronchus and lung	24.5	Trachea, bronchus and lung	16.7
Rectum	17.7	Corpus uteri	10.5
Non-Hodgkin lymphoma	14.7	Rectum	10.4
Kidney	11.4	Other and unspecified	8.9
Lymphoid leukaemia	8.6	Non-Hodgkin lymphoma	8.5
Other and unspecified	8.5	Ovary	8.4
Bladder	7.8	Thyroid	7.1
All sites	346.5	All sites	269.9

Australia, New South Wales

REGISTRATION AREA

The New South Wales (NSW) Central Cancer Registry, which covers the state of NSW, was created in 1972. At the 2011 census, the NSW population was 6.9 million; Sydney is the state's most populous city (4.4 million). The state's other residents live in coastal towns and rural/remote areas. NSW has the country's largest Aboriginal population (172 000), accounting for 31.5% of all Aboriginal Australian residents. There is also a large migrant population (27%), predominantly from the United Kingdom, New Zealand, and Europe, and increasingly from Asia. A total of 61% of Australian residents self-identify as Christian, 22% as atheist or undeclared, and less than 3% each as Eastern Orthodox, Buddhist, Muslim, and Hindu.

CANCER CARE FACILITIES

Local health districts provide local cancer services, including inpatient and outpatient hospital care and community health care, and specialist cancer care centres provide outpatient radiotherapy and chemotherapy services. Cancer services are also provided by private facilities.

REGISTRY STRUCTURE AND METHODS

The NSW Central Cancer Registry is managed and funded by the Cancer Institute NSW on behalf of the Ministry of Health. The registry records all cases of invasive cancer, excluding non-melanoma skin cancers. Notification of cancer is mandatory for all NSW facilities that diagnose or treat cancer (as per the Public Health Act 1991). Approximately 50% of all notifications are electronic, and pathology reports are paper-based. The collected information is protected by the Public Health Act and kept confidential. Death registrations are provided by the Australian Bureau of Statistics, and the registry routinely matches cancer cases against records of all deaths in Australia to update follow-up information. A consolidated population and clinical cancer registry database is currently being built.

INTERPRETING THE RESULTS

NSW has screening programmes for breast cancer (among women aged 50–69 years, with estimated

56% coverage) and cervical cancer (among women aged 20–69 years, with 60% coverage), which were both started in 1991.

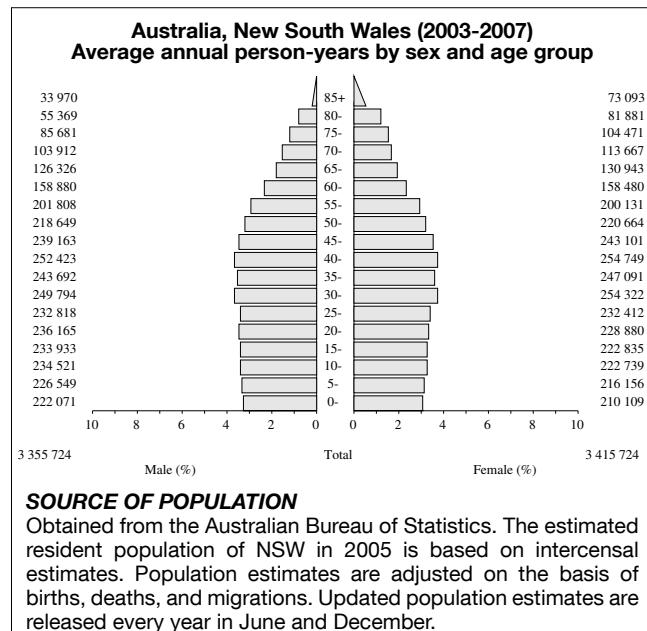
USE OF THE DATA

The registry contributes to prevention programmes, planning, cancer control, and evaluation of screening programmes in NSW by providing timely and accurate data. An annual statistical report and tabulated data are made available through a web-based reporting module, and several other reports are available from the Cancer Institute NSW's website (<http://www.cancerinstitute.org.au/>). The registry also contributes to national and international publications. Unit record information is provided subject to approval from the registry's Research Ethics Committee.

CONTRIBUTORS

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Deborah Baker
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Serina Faraji
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10 MAJOR CANCERS, ASR (WORLD) PER 100 000

Male		Female	
Prostate	111.1	Breast	82.5
Melanoma of skin	40.8	Melanoma of skin	28.4
Trachea, bronchus and lung	34.7	Colon	21.9
Colon	27.4	Trachea, bronchus and lung	19.2
Rectum	18.4	Thyroid	10.7
Non-Hodgkin lymphoma	14.5	Corpus uteri	10.4
Other and unspecified	11.0	Non-Hodgkin lymphoma	10.1
Kidney	10.2	Rectum	10.0
Bladder	9.1	Other and unspecified	8.6
Stomach	7.7	Ovary	7.8
All sites	375.9	All sites	273.1

Australia, Northern Territory

REGISTRATION AREA

The Northern Territory Cancer Registry (NTCR) is a population-based registry established in 1981 to cover the entire population of the Northern Territory (NT), a sparsely settled area of 1.4 million km² in central and northern Australia. At the June 2011 census, the estimated population of the NT was 231 000. Approximately 30% of residents are Indigenous Australians, many of whom live in small, remote communities.

CANCER CARE FACILITIES

There are six hospitals (including two referral hospitals) and a well-developed private health care system in the larger towns. There is also an extensive network of primary health care centres in the more remote communities. The NT has significantly strengthened its Cancer Service in the past few years, with the opening of the Alan Walker Cancer Care Centre (AWCCC) in 2010. The AWCCC provides the latest radiation and chemotherapy treatments available, reducing the need for lengthy interstate travel for the majority of cancer patients.

REGISTRY STRUCTURE AND METHODS

The registry is located within the Health Gains Planning Branch of the state's Department of Health. Notification of NT cancer cases is mandatory for all NT hospitals and pathology laboratories, as well as for the Registry of Births, Deaths and Marriages, as per the Cancer (Registration) Act 2009. General practitioners and other health professionals are not required to notify but must provide information upon request. Data processing, coding, and database maintenance are performed under contract by the South Australian Cancer Registry. Data analysis and publication are performed by the Health Gains Planning Branch staff. No clinical data are collected, although there are plans to establish a clinical prostate cancer registry.

INTERPRETING THE RESULTS

Cancer incidence and mortality statistics are published separately for Indigenous and non-Indigenous residents. Indigenous Territorians have a very different

pattern of cancer incidence and survival for specific cancer sites than do other Australians; incidence is much higher for some cancers and lower for others, and cancer survival is lower in general. Screening programmes exist for breast cancer (among women aged 50–69 years, with estimated 42% coverage) and cervical cancer (among women aged 20–69 years, with 56% coverage).

USE OF THE DATA

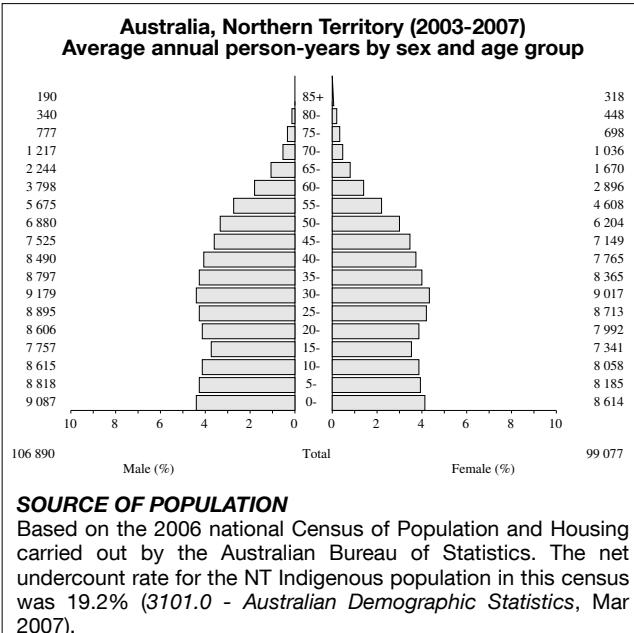
Due to the small number of cases registered each year, the registry produces statistical reports only every few years. In recent years, registry data provided invaluable information for determining the feasibility of establishing a radiation oncology service within the NT.

CONTRIBUTORS

Karen Dempsey

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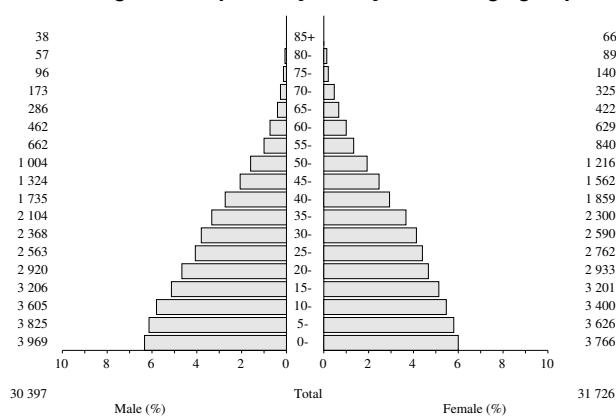
SOURCE OF POPULATION

Based on the 2006 national Census of Population and Housing carried out by the Australian Bureau of Statistics. The net undercount rate for the NT Indigenous population in this census was 19.2% (3101.0 - *Australian Demographic Statistics*, Mar 2007).

10 MAJOR CANCERS, ASR (WORLD) PER 100 000

Male		Female	
Prostate	74.7	Breast	60.3
Trachea, bronchus and lung	46.2	Trachea, bronchus and lung	22.9
Melanoma of skin	26.0	Melanoma of skin	18.8
Colon	24.8	Colon	17.1
Rectum	16.9	Corpus uteri	11.1
Other and unspecified	16.2	Other and unspecified	10.5
Bladder	16.0	Rectum	8.8
Non-Hodgkin lymphoma	12.4	Cervix uteri	8.3
Oesophagus	8.6	Non-Hodgkin lymphoma	7.1
Kidney	7.8	Thyroid	6.9
All sites	345.6	All sites	239.0

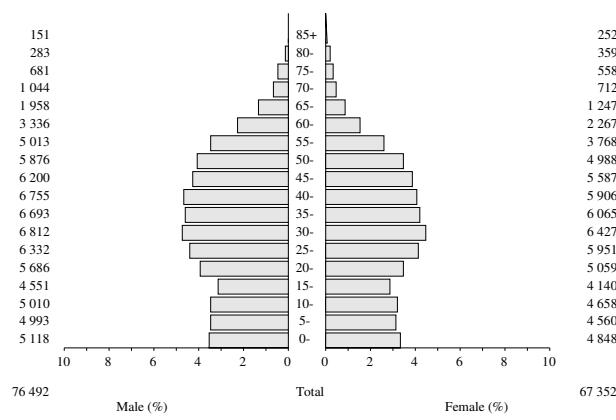
Australia, Northern Territory: Indigenous (2003-2007)
Average annual person-years by sex and age group



**AUSTRALIA, NORTHERN TERRITORY: INDIGENOUS
10 MAJOR CANCERS, ASR (WORLD) PER 100 000**

	Male	Female
Trachea, bronchus and lung	69.9	Breast
Prostate	36.2	Trachea, bronchus and lung
Other and unspecified	27.3	Other and unspecified
Rectum	17.7	Corpus uteri
Liver	13.7	Cervix uteri
Colon	13.3	Thyroid
Hypopharynx	12.1	Non-Hodgkin lymphoma
Bladder	11.3	Colon
Larynx	10.2	Myeloid leukaemia
Oesophagus	8.9	Gallbladder etc.
All sites	332.1	All sites

Australia, Northern Territory: Non-Indigenous (2003-2007)
Average annual person-years by sex and age group



**AUSTRALIA, NORTHERN TERRITORY: NON-INDIGENOUS
10 MAJOR CANCERS, ASR (WORLD) PER 100 000**

	Male	Female
Prostate	78.5	Breast
Trachea, bronchus and lung	42.6	Melanoma of skin
Melanoma of skin	28.6	Trachea, bronchus and lung
Colon	26.5	Colon
Rectum	16.7	Rectum
Bladder	16.4	Corpus uteri
Other and unspecified	14.0	Other and unspecified
Non-Hodgkin lymphoma	12.7	Non-Hodgkin lymphoma
Oesophagus	8.4	Cervix uteri
Kidney	8.4	Lymphoid leukaemia
All sites	344.2	All sites

Australia, Queensland

REGISTRATION AREA

The Queensland Cancer Registry (QCR) was established on 1 January 1982 and collects data relevant to the state of Queensland, which occupies the north-eastern portion of the Australian continent. Queensland is the second largest of the six Australian states and has a subtropical to tropical climate. The state has the second fastest growing population in the country. At the 2006 census, the Queensland population was 3.9 million, representing 19% of the overall Australian population. Torres Strait Islanders and other Aboriginal Australians represent approximately 3.3% of the state's overall population.

CANCER CARE FACILITIES

Specialist cancer treatment is provided primarily by the major Brisbane hospitals, both public and private, and large regional hospitals also provide specialized treatment. In addition, some oncology specialists visit patients at regional centres. Radium treatment is available at 12 private and public facilities throughout the state.

REGISTRY STRUCTURE AND METHODS

The registry is located at the Cancer Council Queensland and is funded by the Queensland Department of Health. It has a core staff of 14 permanent employees, supported by additional temporary employees. The registry operates under an Act of Parliament that requires mandatory notification of all cancer cases in Queensland by all hospitals (public, private, and psychiatric), nursing homes, and pathology laboratories. Death certificates are accessed when the cause of death is cancer, and also for patients dying of other causes. All releases of registry data strictly adhere to the governing legislation regarding privacy and confidentiality.

INTERPRETING THE RESULTS

Initiatives undertaken recently include the expansion of facilities providing notifications electronically and the introduction of a scanned record system, both of which have helped increase the quality of data provided. Screening programmes exist for breast

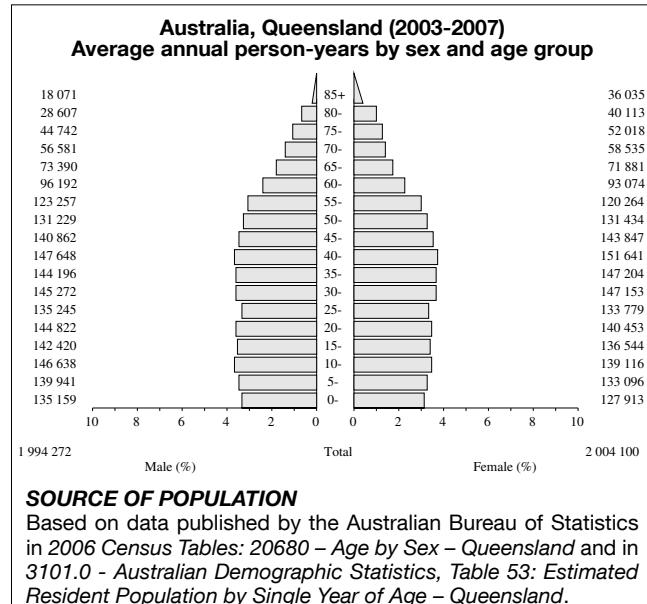
cancer (among women aged 50–69 years, with estimated 58% coverage), cervical cancer (among women aged 20–69 years, with 58% coverage), and – since 2006 – colorectal cancer (among individuals aged 50–65 years).

USE OF THE DATA

The registry's purpose is to collect data that describe the nature and extent of cancer in Queensland. The QCR does not perform research itself, but it does provide data to researchers undertaking approved epidemiological studies. Policy-makers also use registry data for planning and evaluating health services. QCR data are released annually in the publication *Cancer in Queensland – Incidence, Mortality, Survival and Prevalence*, and are submitted to national bodies for Australia-wide statistical publication and analysis.

CONTRIBUTORS

Joanne Aitken
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10 MAJOR CANCERS, ASR (WORLD) PER 100 000

Male		Female	
Prostate	106.5	Breast	84.3
Melanoma of skin	52.9	Melanoma of skin	38.6
Trachea, bronchus and lung	38.2	Colon	23.6
Colon	29.4	Trachea, bronchus and lung	19.8
Rectum	18.5	Corpus uteri	11.5
Bladder	14.1	Thyroid	11.0
Non-Hodgkin lymphoma	13.9	Rectum	10.1
Kidney	10.6	Non-Hodgkin lymphoma	10.0
Other and unspecified	9.3	Ovary	7.4
Stomach	7.2	Other and unspecified	7.3
All sites	397.4	All sites	291.3

South Australia

REGISTRATION AREA

The South Australian Cancer Registry (SACR) provides population-based statistics on cancer incidence, mortality, and case fatality (survival) for the residents of the state of South Australia (SA), which has a population of 1.6 million. Data from the registry, the second oldest in the country, are now available for the diagnostic period of 1977–2009. The registry's objectives are to document all new cases of invasive cancer diagnosed in SA and to track their progress.

CANCER CARE FACILITIES

Cancer diagnostic and treatment services in SA are covered for all citizens and permanent residents by Medicare Australia, the publicly funded national health insurance system. Supplemental private medical insurance is also available to those who wish to increase their care options. Care is provided by both public and private hospitals and clinics. General practitioners are privately employed; some charge patients an out-of-pocket fee, while others do not.

REGISTRY STRUCTURE AND METHODS

The SACR collects a minimum dataset for each cancer case, including elements such 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, and country of birth. When applicable, the registry also records date, place, and cause of death. The registry's primary sources of information include pathology laboratories, hospitals, radiotherapy departments, and the Registrar of Births, Deaths and Marriages. Notification by these sources is mandated by the SA cancer regulations.

INTERPRETING THE RESULTS

Although melanomas and in situ cancers of the bladder and female breast are included in data collection, they are excluded from the annual local report. A screening

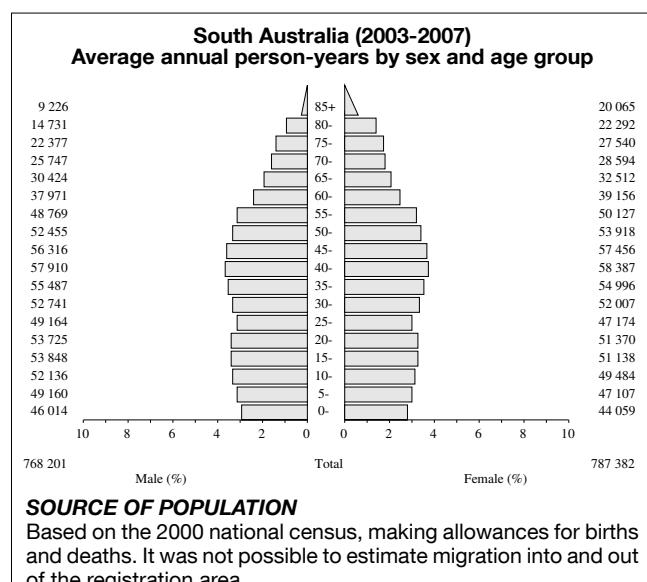
programme exists for breast cancer (among women aged 50–69 years).

USE OF THE DATA

Registry data are used in cancer control planning and in planning prevention, screening, treatment, rehabilitation, hospice, and palliative care programmes, as well as to monitor and evaluate the impact of these programmes. SACR data enable the surveillance of trends in cancer incidence, mortality, and survival by cancer site and by age, sex, geographical area of residence, and diagnostic period. Continuous monitoring permits prompt response to public concerns about clusters of cancers and regional increases in incidence.

CONTRIBUTOR

Ron Somers



SOURCE OF POPULATION

Based on the 2000 national census, making allowances for births and deaths. It was not possible to estimate migration into and out of the registration area.

10 MAJOR CANCERS, ASR (WORLD) PER 100 000

Male		Female	
Prostate	105.0	Breast	83.0
Trachea, bronchus and lung	34.5	Melanoma of skin	24.3
Melanoma of skin	31.2	Colon	22.3
Colon	29.2	Trachea, bronchus and lung	17.8
Bladder	21.8	Corpus uteri	12.5
Rectum	18.3	Non-Hodgkin lymphoma	11.9
Non-Hodgkin lymphoma	15.9	Rectum	10.1
Kidney	11.3	Other and unspecified	8.2
Other and unspecified	9.7	Ovary	6.7
Lymphoid leukaemia	8.2	Thyroid	6.6
All sites	379.9	All sites	270.1

Australia, Tasmania

REGISTRATION AREA

The Tasmanian Cancer Registry (TCR) covers the population of Tasmania, Australia's smallest state. The state consists of a group of islands with a total area of 68 114 km², which have a temperate climate. Of the total Tasmanian population, 72% of residents live in urban areas, 11% were born outside of Australia, 3% are of Indigenous origin, and 15% are aged 65 years or more.

CANCER CARE FACILITIES

Each of Tasmania's three main population regions has a public hospital system and several private hospitals. There are two radiation oncology units in the state.

REGISTRY STRUCTURE AND METHODS

The TCR was established in 1977. In July 1988, the responsibility for its operation and funding was transferred from the Department of Health and Human Services (DHHS) to the Menzies Research Institute Tasmania of the University of Tasmania, in Hobart. Cancer was proclaimed a reportable disease in Tasmania in December 1992, giving cancer registration a legislative basis. The TCR staff currently consists of a director, a manager, two full-time medical coders, one part-time medical coder, and an administrative assistant. Reports of cancer are received from all pathology service providers in the state, the two radiation oncology clinics, and private and public hospitals. Death certificates are reviewed for mention of cancer. When information received is insufficient for complete registration, active follow-up is undertaken by contacting the treating doctors, pathology laboratories, and hospital medical records departments as necessary.

INTERPRETING THE RESULTS

In the 1990s, an increase in the incidence of prostate cancer coincided with the increased use of prostate-specific antigen (PSA) testing. The incidence peaked in 1995 before declining. Before 2000, cancer cases were not accepted by the registry on the basis of a death certificate alone. Screening programmes exist for breast cancer (among women aged 50–69 years,

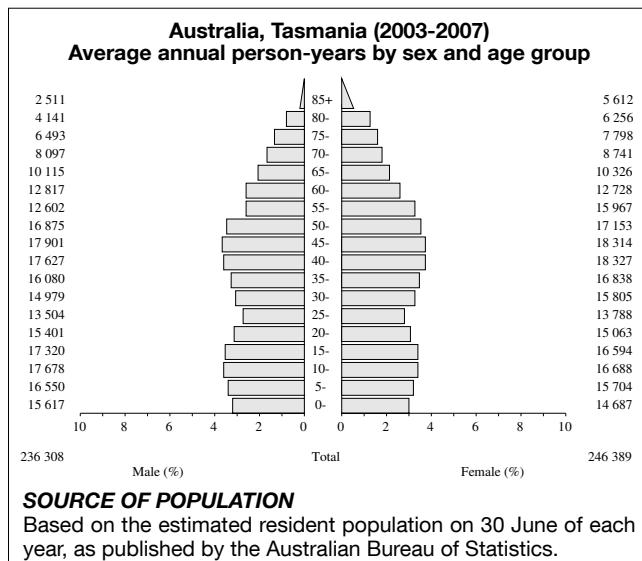
with estimated 70% coverage), cervical cancer (among women aged 18–69 years, with 63% coverage), and – since 2006 – colorectal cancer (among individuals aged 50–65 years).

USE OF THE DATA

The registry publishes an annual morbidity and mortality report, and contributes to national reporting. The DHHS receives detailed data annually, and regular data exchange occurs between the registry and specified cancer screening programmes. Researcher requests for summary data and unit record data (both anonymized and identified) are granted subject to the appropriate ethical approval.

CONTRIBUTORS

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SOURCE OF POPULATION

Based on the estimated resident population on 30 June of each year, as published by the Australian Bureau of Statistics.

NOTES ON THE DATA

†C67 (bladder cancer) includes neoplasms of uncertain or unknown behaviour together with invasive cancers.

10 MAJOR CANCERS, ASR (WORLD) PER 100 000

Male		Female	
Prostate	121.2	Breast	79.2
Trachea, bronchus and lung	39.6	Melanoma of skin	31.4
Melanoma of skin	36.3	Colon	23.3
Colon	26.5	Trachea, bronchus and lung	22.7
Bladder	22.7	Rectum	10.8
Rectum	20.6	Corpus uteri	9.5
Non-Hodgkin lymphoma	15.2	Non-Hodgkin lymphoma	9.4
Kidney	12.1	Other and unspecified	8.0
Lymphoid leukaemia	8.5	Kidney	6.7
Stomach	8.2	Ovary	6.3
All sites	406.7	All sites	275.6

Australia, Victoria

REGISTRATION AREA

The Victorian Cancer Registry (VCR) covers Victoria, the second most populous state in Australia. Three quarters of Victoria's residents live in the greater metropolitan area of Melbourne. At the 2006 census, 26% of residents were described as being born overseas; 30% of migrants were from Asia, 21% from southern Europe, and 18% from the United Kingdom.

CANCER CARE FACILITIES

Victoria's medical care system is a mix of the private and public sectors, but the bulk of cancer management is carried out within the private sector. There are four public and one private radiation oncology facilities in the state, some with multiple campuses.

REGISTRY STRUCTURE AND METHODS

The VCR operates within the legal framework of the Cancer Act, Health Records Act, and Public Records Act, which, respectively, cover mandatory reporting, release of information, and retention of records. The registry is located within the Cancer Council Victoria and has a staff of about 25 employees, including medical coders, an operations manager, electronic notifications and training officers, a director, an information manager, and administrative support staff members. About 80% of notifications are received electronically from 250 public and private hospitals and 50 pathology laboratories statewide, and more than 100 000 cancer notifications are processed in the preparation of each year's data. The VCR follows IACR recommendations for case definition and coding. Data quality is assured by matching pathology reports with hospital registrations for cases in which diagnosis was based on histological confirmation.

INTERPRETING THE RESULTS

Due to its low latitude and highly susceptible population, Victoria has a high incidence of skin cancers. Other cancer risk factors that are predominant in the state include smoking (which is declining) and obesity (which is becoming more prevalent). Prostate cancer incidence has risen dramatically since the early 1990s due to ad hoc screening by prostate-specific antigen

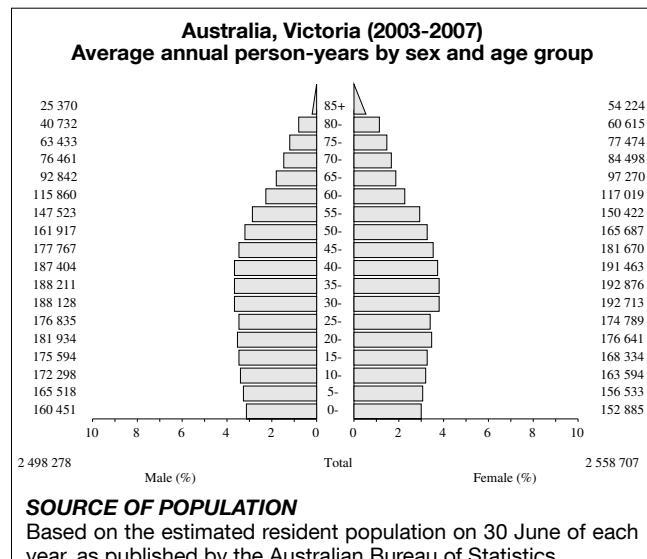
(PSA) testing. Screening programmes exist for breast cancer (among women aged 50–69 years) and cervical cancer (among women aged 18–69 years).

USE OF THE DATA

The registry produces regular statistical reports to monitor the cancer epidemic and compare trends, particularly for cancers targeted by prevention programmes (such as cancers of the skin, lung, breast, and cervix). Another important function of the registry is to facilitate epidemiological research, for example by helping researchers to perform follow-up of cancer events in cohort studies and to identify cases for case-control studies. Registry information is a key component of the Cancer Council's cancer control programmes.

CONTRIBUTORS

Helen Farrugia
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NOTES ON THE DATA

†C67 (bladder cancer) includes neoplasms of uncertain or unknown behaviour together with invasive cancers.

10 MAJOR CANCERS, ASR (WORLD) PER 100 000

Male		Female	
Prostate	104.9	Breast	81.1
Trachea, bronchus and lung	35.2	Melanoma of skin	24.6
Melanoma of skin	31.0	Colon	21.7
Colon	27.1	Trachea, bronchus and lung	18.6
Bladder	20.8	Corpus uteri	12.2
Rectum	19.4	Non-Hodgkin lymphoma	10.6
Non-Hodgkin lymphoma	15.7	Rectum	10.3
Kidney	10.4	Ovary	8.3
Other and unspecified	8.6	Other and unspecified	7.2
Stomach	8.1	Thyroid	7.1
All sites	371.3	All sites	269.7

Western Australia

REGISTRATION AREA

The population-based Western Australian Cancer Registry (WACR) began operating in 1981. It covers the state of Western Australia, which has a population of approximately 2 million. Approximately 3% of residents are Aboriginal Australians, whose average life expectancy is 15–20 years less than that of non-Aboriginal Australians.

CANCER CARE FACILITIES

Cancer therapy services are concentrated in the Perth Metropolitan Area, in the major (government-operated) teaching hospitals, and in several private clinics acting as referral centres for rural areas. The large geographical area of the state and the consequent difficulties in providing access to treatment and other support services in rural areas continue to demand significant expenditure within the health sector.

REGISTRY STRUCTURE AND METHODS

The registry is staffed by a small, dedicated team of seven long-serving employees with 150 years of combined experience in the area. Under state legislation, notification of cancer by pathologists is compulsory. Other notification sources include hospitals, radiation oncologists, and some clinicians. The registry works closely with a health and mortality data linkage unit and has coded mortality outcomes since 1990. For death-certificate-only (DCO) cases, unknown primary site cases, and uncorroborated hospital-coded cancer-related discharges, follow-up is undertaken with hospitals and clinicians as provided for in the legislation. Breast and cervical cytology registers are also useful sources of information. The legislation also provides for the exchange of data with other Australian registries, as well as the supply of information to treating clinicians as needed. The state's complete cancer notification regulations are available from <http://www.health.wa.gov.au/wacr/home/regulations.cfm>.

INTERPRETING THE RESULTS

The definition of neoplasms has been broadened to include *in situ* malignancies and some borderline and benign tumours. Primary basal cell carcinoma and squamous cell carcinoma skin cancers are not reportable but are included in mortality data. Screening programmes exist for breast cancer (among women aged 50–69 years, with estimated 59% coverage) and cervical cancer (among women aged 20–69 years, with 58% coverage).

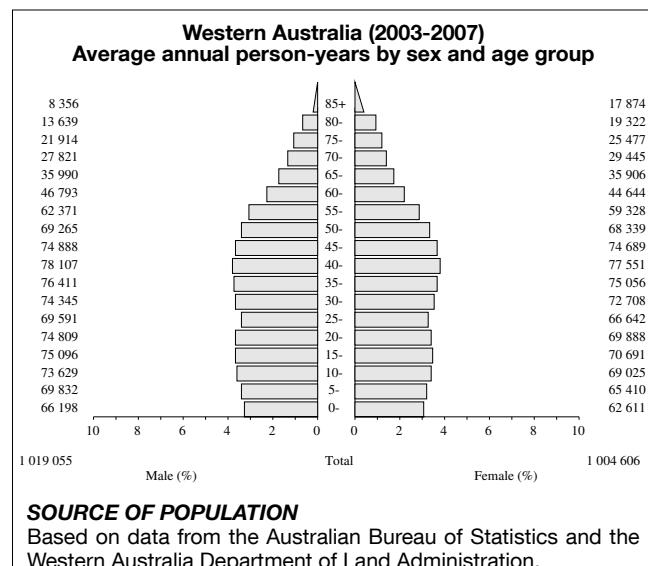
USE OF THE DATA

The registry produces annual reports of incidence data, which are available from http://www.health.wa.gov.au/wacr/statistics/stats_full.cfm.

CONTRIBUTORS

Timothy J. Threlfall

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10 MAJOR CANCERS, ASR (WORLD) PER 100 000

Male		Female	
Prostate	105.9	Breast	81.7
Melanoma of skin	43.6	Melanoma of skin	29.7
Trachea, bronchus and lung	35.7	Colon	20.1
Colon	24.6	Trachea, bronchus and lung	19.7
Rectum	16.8	Non-Hodgkin lymphoma	10.6
Non-Hodgkin lymphoma	13.0	Corpus uteri	9.5
Kidney	9.7	Thyroid	9.2
Bladder	9.0	Rectum	9.0
Other and unspecified	7.7	Ovary	8.3
Pancreas	7.1	Other and unspecified	6.3
All sites	367.9	All sites	268.7

New Zealand

REGISTRATION AREA

The New Zealand Cancer Registry (NZCR) covers the country of New Zealand, which is situated in the South Pacific Ocean, 1600 km south-east of Australia. Its total land area is 270 534 km². At the 2006 census, approximately 86% of New Zealand's residents lived in urban areas. Of the total population, 67.6% of New Zealanders self-identified as European and 14.6% as Maori. The other main ethnic groups were Asians (9.2%) and Pacific Islanders (6.9%).

CANCER CARE FACILITIES

Cancer care in New Zealand is predominantly state-funded, supplemented by private hospitals and private practitioners. There are six major cancer treatment facilities, located in the main population centres.

REGISTRY STRUCTURE AND METHODS

The NZCR is located within the New Zealand Ministry of Health in Wellington and has been in operation since 1948. The registry is staffed by seven clinical coders and two support staff members. Since 1994, laboratories have been the primary source of cancer notifications to NZCR. Laboratories are required by law to report any new diagnosis of cancer in New Zealand, excluding basal and squamous cell skin cancers. Additional data sources include medical certificates of causes of death, coroners' findings, and public and private hospital discharge data received electronically. All cancer registrations are coded by registry staff members. Quality control procedures include computerized validation checks at data input and rigorous edit checks of prepublication incidence data.

INTERPRETING THE RESULTS

The NZCR adopted ICD-O-3 for the coding of cancers diagnosed from January 2003 onwards. This resulted in changes to the coding of some cancers, particularly haematological malignancies, which may have affected incidence reporting for some cancer sites. As of January 2005, superficial transitional cell carcinoma of

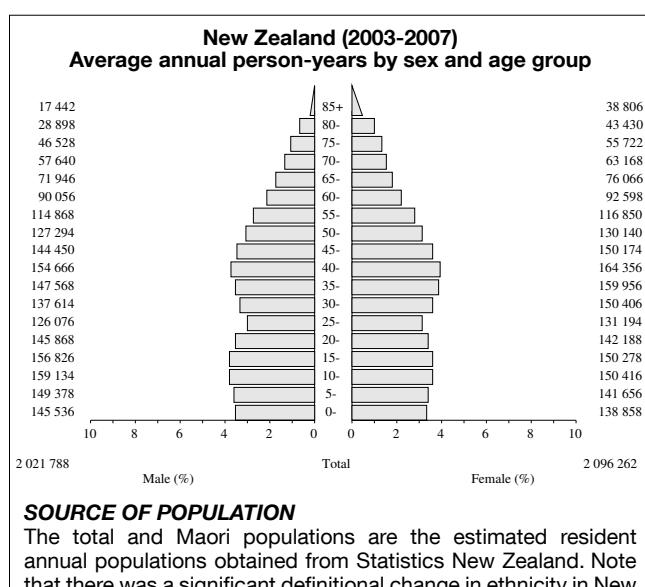
the bladder is no longer coded as an invasive cancer, resulting in a decrease in the number of bladder cancer registrations. Screening programmes exist for breast cancer (among women aged 45–69 years) and cervical cancer (among women aged 20–69 years).

USE OF THE DATA

The NZCR provides data for public health research, policy formulation, monitoring of screening programmes, and cancer incidence and survival studies. The Ministry of Health also uses the registry data to produce an annual cancer publication containing information about cancer incidence and trends.

CONTRIBUTOR

Susan Hanna

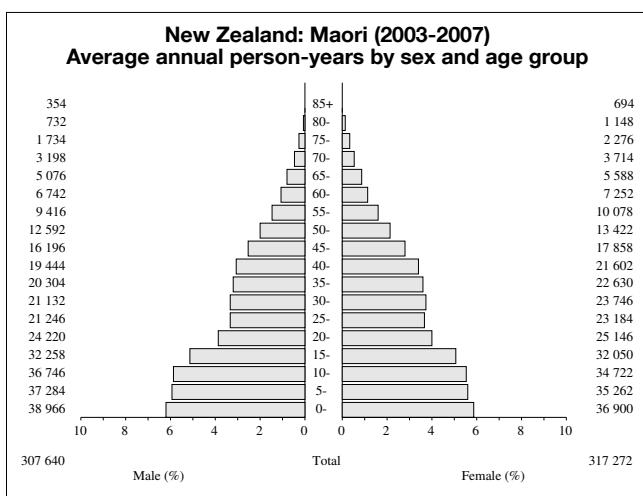


SOURCE OF POPULATION

The total and Maori populations are the estimated resident annual populations obtained from Statistics New Zealand. Note that there was a significant definitional change in ethnicity in New Zealand mortality data in 1995. The Pacific Islander population is based on projected population data supplied by Statistics New Zealand. The Other (non-Maori, non-Pacific-Islander) population was calculated by subtracting the Maori and Pacific Islander populations from the total population.

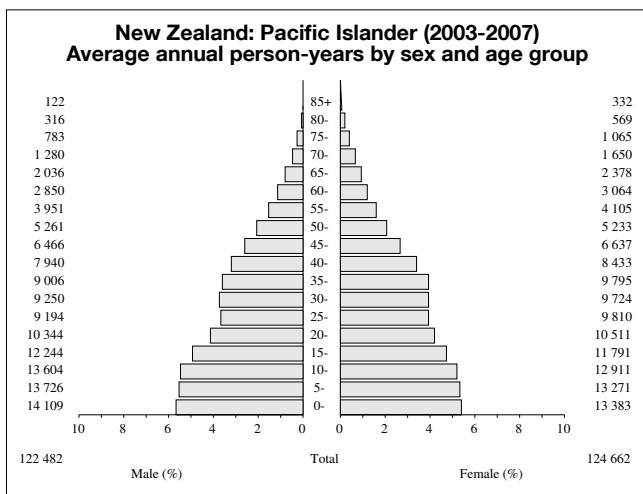
10 MAJOR CANCERS, ASR (WORLD) PER 100 000

Male		Female	
Prostate	92.7	Breast	83.8
Melanoma of skin	37.1	Melanoma of skin	31.8
Trachea, bronchus and lung	33.3	Colon	25.7
Colon	27.6	Trachea, bronchus and lung	23.5
Rectum	18.2	Corpus uteri	11.8
Non-Hodgkin lymphoma	13.1	Rectum	10.4
Bladder	9.9	Non-Hodgkin lymphoma	9.2
Kidney	9.2	Ovary	8.6
Other and unspecified	8.2	Other and unspecified	6.9
Lymphoid leukaemia	7.8	Cervix uteri	6.0
All sites	344.2	All sites	283.7



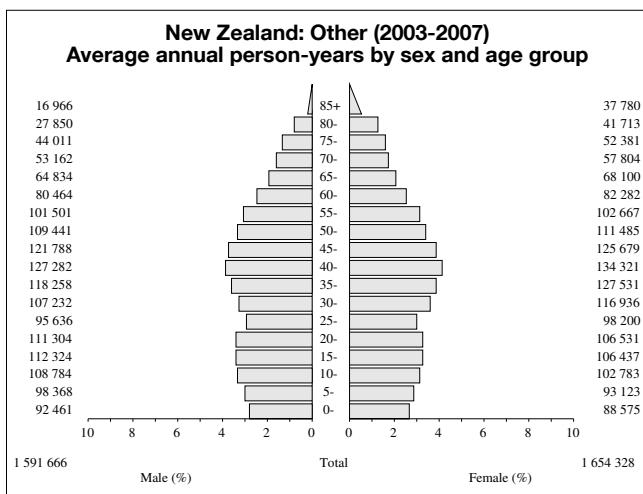
NEW ZEALAND: MAORI
10 MAJOR CANCERS, ASR (WORLD) PER 100 000

	Male	Female	
Prostate	81.2	Breast	107.4
Trachea, bronchus and lung	78.8	Trachea, bronchus and lung	79.0
Stomach	19.0	Corpus uteri	19.0
Colon	17.6	Colon	16.6
Rectum	16.6	Stomach	12.9
Liver	15.3	Cervix uteri	11.3
Other and unspecified	14.1	Other and unspecified	10.4
Non-Hodgkin lymphoma	11.6	Pancreas	9.9
Kidney	11.1	Ovary	9.8
Testis	10.6	Thyroid	8.7
All sites	376.1	All sites	376.6



NEW ZEALAND: PACIFIC ISLANDER
10 MAJOR CANCERS, ASR (WORLD) PER 100 000

	Male	Female	
Prostate	95.1	Breast	88.0
Trachea, bronchus and lung	65.8	Corpus uteri	36.3
Liver	20.8	Trachea, bronchus and lung	25.0
Stomach	17.2	Ovary	11.6
Colon	13.7	Thyroid	11.0
Other and unspecified	13.1	Stomach	10.8
Myeloproliferative disorders	12.3	Non-Hodgkin lymphoma	10.6
Non-Hodgkin lymphoma	11.3	Cervix uteri	10.2
Rectum	10.6	Other and unspecified	9.5
Pancreas	9.1	Colon	9.5
All sites	363.5	All sites	300.6



NEW ZEALAND: OTHER
10 MAJOR CANCERS, ASR (WORLD) PER 100 000

	Male	Female	
Prostate	94.2	Breast	81.2
Melanoma of skin	41.6	Melanoma of skin	36.4
Trachea, bronchus and lung	28.7	Colon	26.8
Colon	28.5	Trachea, bronchus and lung	18.7
Rectum	18.5	Rectum	10.6
Non-Hodgkin lymphoma	13.4	Corpus uteri	10.1
Bladder	10.2	Non-Hodgkin lymphoma	9.3
Kidney	8.9	Ovary	8.3
Lymphoid leukaemia	7.9	Other and unspecified	6.5
Other and unspecified	7.7	Lymphoid leukaemia	5.4
All sites	341.4	All sites	275.2

USA, Hawaii

REGISTRATION AREA

The Hawaii Tumor Registry (HTR) is an active surveillance monitoring system for the entire United States state of Hawaii, which consists of eight major and 124 minor islands, spanning 1367 miles from tip to tip. At the 2005 census, Hawaii's population was approximately 128 000, with the majority of residents living on the island of Oahu.

REGISTRY STRUCTURE AND METHODS

The HTR was established in 1960 and became a founding member of the United States National Cancer Institute's SEER Program in 1973. As the central statewide collection point for cancer data, the HTR receives data from collaborating hospitals maintaining their own hospital-based tumour registries. HTR employees also gather data from oncology clinics, pathology laboratories, private physicians, radiation oncology facilities, and other facilities. The HTR collects the required SEER demographic and diagnostic information for all malignancies diagnosed in the state. Patients are followed up annually throughout their lifetimes. To ensure accuracy, strict quality control and quality assurance procedures have been established.

INTERPRETING THE RESULTS

The HTR data collected for the diagnosis years of 1973 onward are complete. There are some differences in incidence rates between males and females, and among several ethnic groups. Hawaii is unique in that its population is racially diverse, with no one ethnicity in the majority. Screening programmes exist for breast, cervical, colorectal, and prostate cancers.

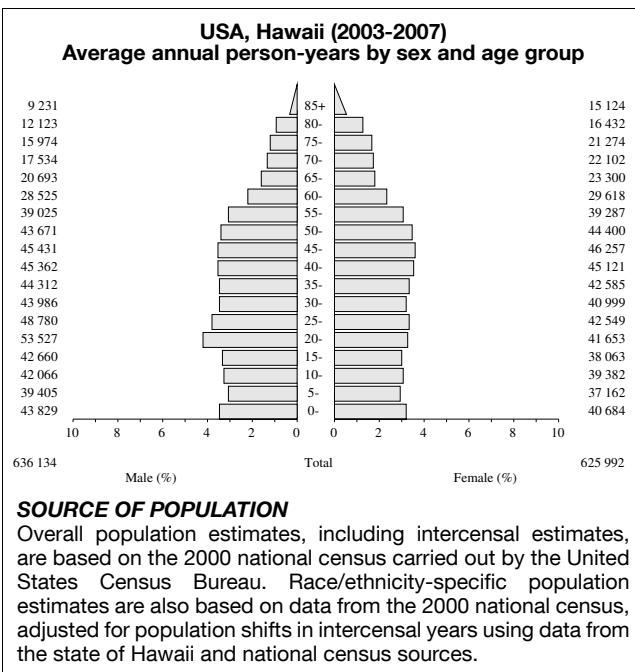
USE OF THE DATA

The HTR maintains a database of information on all cases of cancer diagnosed in the state of Hawaii, which is a major source of cancer data and information locally, nationally, and internationally. The registry provides complete cancer reporting for the entire state

and serves as a resource for nearly all epidemiological cancer research and cancer control activities in Hawaii. Hawaiian statistics on a wide variety of malignancies are available to the research community worldwide. The most recent version of the statistical publication *Hawaii Cancer Facts & Figures* is available for download from <http://www.uhcancercenter.org/research/research-highlightsreports>. The publication provides an overview of cancer; a discussion of the impact of sex, age, and racial/ethnic disparities on cancer; and an analysis of the six major cancer sites.

CONTRIBUTORS

Brenda Y. Hernandez
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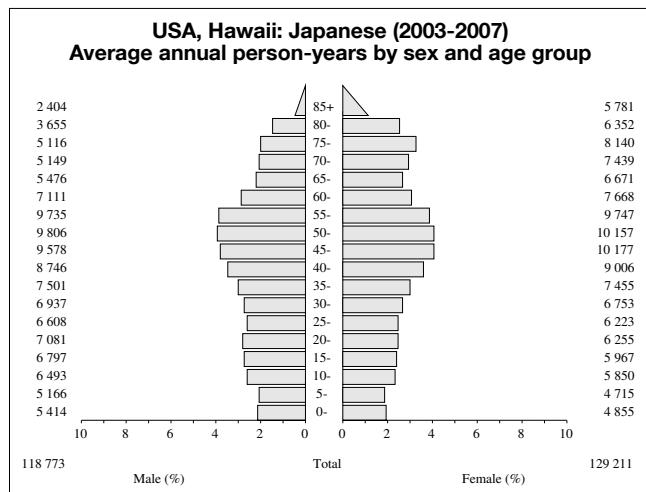


SOURCE OF POPULATION

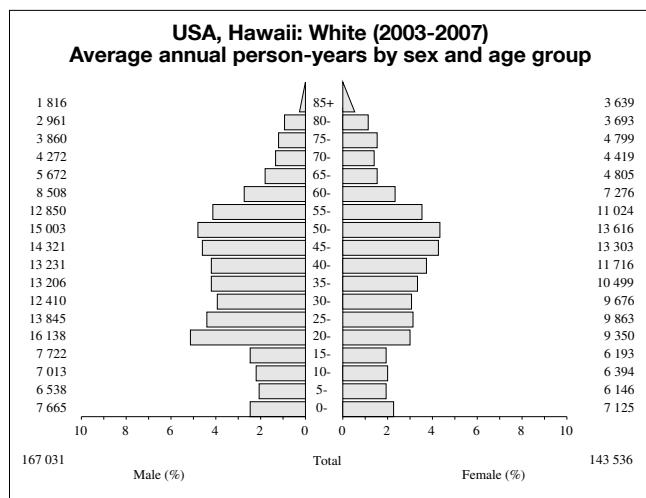
Overall population estimates, including intercensal estimates, are based on the 2000 national census carried out by the United States Census Bureau. Race/ethnicity-specific population estimates are also based on data from the 2000 national census, adjusted for population shifts in intercensal years using data from the state of Hawaii and national census sources.

10 MAJOR CANCERS, ASR (WORLD) PER 100 000

Male		Female	
Prostate	83.7	Breast	88.4
Trachea, bronchus and lung	43.8	Trachea, bronchus and lung	26.2
Colon	23.5	Corpus uteri	21.1
Melanoma of skin	17.5	Colon	17.8
Rectum	15.8	Thyroid	15.4
Bladder	14.9	Melanoma of skin	10.9
Non-Hodgkin lymphoma	12.6	Non-Hodgkin lymphoma	8.4
Kidney	11.3	Ovary	7.9
Liver	10.6	Rectum	7.6
Stomach	8.9	Pancreas	6.5
All sites	326.1	All sites	274.1



NOTES ON THE DATA: *No official mortality data.



NOTES ON THE DATA: *No official mortality data.

USA, HAWAII: JAPANESE
10 MAJOR CANCERS, ASR (WORLD) PER 100 000

	Male	Female	
Prostate	86.1	Breast	86.5
Trachea, bronchus and lung	36.6	Colon	21.7
Colon	29.0	Corpus uteri	19.8
Rectum	20.6	Trachea, bronchus and lung	15.9
Bladder	15.1	Thyroid	9.2
Stomach	15.1	Rectum	8.1
Pancreas	10.6	Ovary	7.5
Non-Hodgkin lymphoma	9.4	Non-Hodgkin lymphoma	7.3
Kidney	9.4	Pancreas	6.1
Liver	7.9	Stomach	5.3
All sites	299.1	All sites	232.8

USA, HAWAII: WHITE
10 MAJOR CANCERS, ASR (WORLD) PER 100 000

	Male	Female	
Prostate	101.2	Breast	98.1
Melanoma of skin	55.3	Melanoma of skin	36.9
Trachea, bronchus and lung	45.1	Trachea, bronchus and lung	34.7
Colon	24.4	Corpus uteri	18.3
Bladder	24.3	Colon	18.3
Non-Hodgkin lymphoma	16.4	Thyroid	11.8
Kidney	13.1	Non-Hodgkin lymphoma	9.4
Rectum	13.0	Ovary	8.6
Liver	8.6	Bladder	6.7
Testis	8.2	Rectum	6.3
All sites	411.8	All sites	318.7

