

Algeria, Sétif

REGISTRATION AREA

Sétif is a province in the Arab-Islamic North African country of Algeria. The Sétif Population-based Cancer Registry (SPCR) covers the population of 20 *dairates*, which comprise a total of 60 communes, spread over an area of 6549.64 km². At the most recent national census (2008), the population was 1.5 million, constituting 4.7% of the overall Algerian population and making Sétif the country's second-most populated area, after Algiers. The area's population is relatively young (with 63% of residents aged less than 30 years and only 6.4% aged 60 years or more), and 52% of residents live in urban areas.

CANCER CARE FACILITIES

General health care in the region is predominantly provided by the University Hospital Centre (CHU), 10 other hospitals, 60 health centres, and 213 primary care centres. These are supplemented by private practitioners and hospitals, for a total of 2359 beds. Cancer patients are currently referred to the Anti-Cancer Centre (CAC) of Constantine and the Pierre and Marie Curie Centre (CPMC) of Algiers, but a new cancer centre is currently being implemented in Sétif.

REGISTRY STRUCTURE AND METHODS

The SPCR, founded in 1989, is located in the department of epidemiology of Sétif University Hospital, and is staffed full-time by six physicians. The registry uses active case finding from 16 data sources consisting of public and private hospitals, laboratories, insurance offices, other cancer registries, and death registration offices. SPCR staff members also regularly visit hospitals outside the registration area to collect information about resident cases treated outside the covered area. For each patient, data from multiple sources are cross-checked before registration.

INTERPRETING THE RESULTS

Algeria has national screening programmes in place for cervical and breast cancers, and a tobacco control programme is in preparation. Death registration is incomplete.

10 MAJOR CANCERS, ASR (WORLD) PER 100 000

Male		Female	
Trachea, bronchus and lung	19.9	Breast	29.8
Bladder	8.6	Cervix uteri	9.0
Larynx	6.3	Gallbladder etc.	7.4
Nasopharynx	5.7	Thyroid	6.1
Stomach	5.7	Colon	5.2
Prostate	5.4	Other and unspecified	3.7
Non-melanoma skin cancer	5.2	Rectum	3.5
Colon	4.9	Stomach	3.4
Non-Hodgkin lymphoma	4.3	Non-Hodgkin lymphoma	2.7
Other and unspecified	3.7	Trachea, bronchus and lung	2.6
All sites	99.6	All sites	98.1

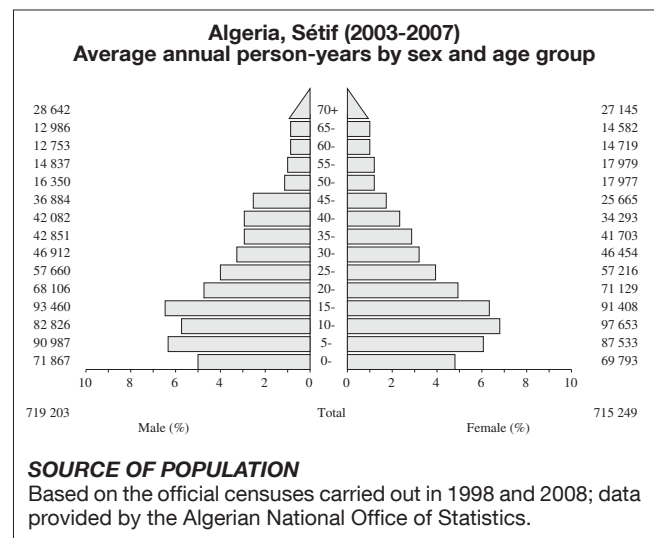
USE OF THE DATA

The registry has released a report on cancer incidence trends from 1986 to 2008. It has also participated in many international publications, such as *Cancer Incidence in Five Continents* (Volumes VI, VII, and IX), *Cancer in Africa: Epidemiology and Prevention*, and *International Incidence of Childhood Cancer* (Volume II). The registry was involved in the CONCORD study on survival estimates for colorectal, breast, and prostate cancers between 1990 and 1994, and is currently participating in the CONCORD-2 study.

CONTRIBUTORS

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NOTES ON THE DATA

*No official mortality data. No DCO registrations. High MV%.

*Algeria, Sétif (2003-2007)

SITE	Male					Female					ICD-10
	No. cases	Freq. (%)	Crude rate (per 100,000)	ASR world	Cum. rates 0-64 0-74 (%)	No. cases	Freq. (%)	Crude rate (per 100,000)	ASR world	Cum. rates 0-64 0-74 (%)	
Lip	13	0.5	0.4	0.6	0.05	6	0.2	0.2	0.2	0.01	C00
Tongue	6	0.2	0.2	0.2	0.01	1	0.0	0.0	0.0	0.00	C01-02
Mouth	6	0.2	0.2	0.2	0.02	5	0.2	0.1	0.2	0.01	C03-06
Salivary glands	7	0.3	0.2	0.2	0.02	2	0.1	0.1	0.1	0.01	C07-08
Tonsil	5	0.2	0.1	0.2	0.01	2	0.1	0.1	0.1	0.00	C09
Other oropharynx	14	0.6	0.4	0.6	0.04	4	0.2	0.1	0.1	0.01	C10
Nasopharynx	154	6.4	4.3	5.7	0.45	63	2.6	1.8	2.2	0.17	C11
Hypopharynx	5	0.2	0.1	0.2	0.02	6	0.2	0.2	0.2	0.01	C12-13
Pharynx unspecified	1	0.0	0.0	0.0	0.00	1	0.0	0.0	0.0	0.01	C14
Oesophagus	12	0.5	0.3	0.4	0.02	6	0.2	0.2	0.2	0.02	C15
Stomach	141	5.9	3.9	5.7	0.36	84	3.4	2.3	3.4	0.24	C16
Small intestine	12	0.5	0.3	0.5	0.04	3	0.1	0.1	0.1	0.01	C17
Colon	125	5.2	3.5	4.9	0.33	136	5.5	3.8	5.2	0.36	C18
Rectum	84	3.5	2.3	3.2	0.24	91	3.7	2.5	3.5	0.29	C19-20
Anus	8	0.3	0.2	0.3	0.03	1	0.0	0.0	0.1	0.01	C21
Liver	48	2.0	1.3	1.9	0.10	40	1.6	1.1	1.6	0.12	C22
Gallbladder etc.	64	2.7	1.8	2.7	0.16	180	7.3	5.0	7.4	0.55	C23-24
Pancreas	21	0.9	0.6	0.8	0.05	21	0.9	0.6	0.9	0.07	C25
Nose, sinuses etc.	15	0.6	0.4	0.5	0.04	10	0.4	0.3	0.4	0.03	C30-31
Larynx	147	6.1	4.1	6.3	0.37	21	0.9	0.6	0.8	0.07	C32
Trachea, bronchus and lung	466	19.4	13.0	19.9	1.47	69	2.8	1.9	2.6	0.14	C33-34
Other thoracic organs	42	1.7	1.2	1.6	0.09	25	1.0	0.7	0.9	0.08	C37-38
Bone	51	2.1	1.4	1.6	0.10	33	1.3	0.9	1.0	0.08	C40-41
Melanoma of skin	5	0.2	0.1	0.2	0.01	5	0.2	0.1	0.2	0.01	C43
Other skin	139		3.9	5.2	0.33	67		1.9	2.5	0.16	C44
Mesothelioma	2	0.1	0.1	0.1	0.00	0	0.0	0.0	0.0	0.00	C45
Kaposi sarcoma	0	0.0	0.0	0.0	0.00	0	0.0	0.0	0.0	0.00	C46
Connective and soft tissue	26	1.1	0.7	0.8	0.05	18	0.7	0.5	0.6	0.04	C47+C49
Breast	19	0.8	0.5	0.9	0.08	733	29.7	20.5	29.8	2.53	C50
Vulva						5	0.2	0.1	0.2	0.00	C51
Vagina						3	0.1	0.1	0.1	0.01	C52
Cervix uteri						207	8.4	5.8	9.0	0.78	C53
Corpus uteri						2	0.1	0.1	0.1	0.01	C54
Uterus unspecified						22	0.9	0.6	0.9	0.08	C55
Ovary						34	1.4	1.0	1.2	0.09	C56
Other female genital organs						0	0.0	0.0	0.0	0.00	C57
Placenta						1	0.0	0.0	0.0	0.00	C58
Penis	0	0.0	0.0	0.0	0.00						C60
Prostate	139	5.8	3.9	5.4	0.24						C61
Testis	7	0.3	0.2	0.3	0.02						C62
Other male genital organs	0	0.0	0.0	0.0	0.00						C63
Kidney	25	1.0	0.7	1.0	0.07	18	0.7	0.5	0.6	0.03	C64
Renal pelvis	0	0.0	0.0	0.0	0.00	0	0.0	0.0	0.0	0.00	C65
Ureter	0	0.0	0.0	0.0	0.00	0	0.0	0.0	0.0	0.00	C66
Bladder	203	8.4	5.6	8.6	0.53	58	2.4	1.6	2.5	0.20	C67
Other urinary organs	0	0.0	0.0	0.0	0.00	0	0.0	0.0	0.0	0.00	C68
Eye	2	0.1	0.1	0.1	0.00	2	0.1	0.1	0.1	0.00	C69
Brain, nervous system	66	2.7	1.8	2.6	0.23	49	2.0	1.4	1.5	0.09	C70-72
Thyroid	28	1.2	0.8	1.1	0.09	156	6.3	4.4	6.1	0.48	C73
Adrenal gland	2	0.1	0.1	0.1	0.00	3	0.1	0.1	0.1	0.01	C74
Other endocrine	3	0.1	0.1	0.1	0.01	0	0.0	0.0	0.0	0.00	C75
Hodgkin lymphoma	97	4.0	2.7	3.2	0.24	63	2.6	1.8	1.7	0.11	C81
Non-Hodgkin lymphoma	122	5.1	3.4	4.3	0.28	78	3.2	2.2	2.7	0.19	C82-85,C96
Immunoproliferative diseases	0	0.0	0.0	0.0	0.00	0	0.0	0.0	0.0	0.00	C88
Multiple myeloma	4	0.2	0.1	0.2	0.02	7	0.3	0.2	0.3	0.02	C90
Lymphoid leukaemia	73	3.0	2.0	2.5	0.16	57	2.3	1.6	1.9	0.13	C91
Myeloid leukaemia	31	1.3	0.9	1.1	0.07	31	1.3	0.9	1.0	0.07	C92-94
Leukaemia unspecified	3	0.1	0.1	0.1	0.00	2	0.1	0.1	0.1	0.01	C95
Myeloproliferative disorders	0	0.0	0.0	0.0	0.00	0	0.0	0.0	0.0	0.00	MPD
Myelodysplastic syndromes	0	0.0	0.0	0.0	0.00	0	0.0	0.0	0.0	0.00	MDS
Other and unspecified	99	4.1	2.8	3.7	0.26	100	4.1	2.8	3.7	0.24	O&U
All sites	2542		70.7	99.6	6.69	2531		70.8	98.1	7.59	C00-96
All sites except C44	2403	100.0	66.8	94.4	6.36	2464	100.0	68.9	95.5	7.42	C00-96 exc. C44

*See note following population pyramid

Egypt, Gharbiah

REGISTRATION AREA

The Gharbiah Population-based Cancer Registry (GPCR) covers the population of the eight districts within the Gharbiah Governorate (Tanta, Elmahalla Elkobra, Kafr Elzayat, Zefta, Kotour, Elsanta, Basyoun, and Samannoud), in the Nile Delta region of Egypt. At the most recent census (2006), the population was 4 million, accounting for 5.5% of the overall population of Egypt. About 30% of residents live in urban areas.

CANCER CARE FACILITIES

Patients suspected to have cancer are referred by primary and secondary care facilities to hospitals within Gharbiah (Tanta Cancer Center [TCC], Gharbiah Cancer Society, Tanta University Hospitals, insurance hospitals, and private hospitals) or outside Gharbiah (Mansoura Urology Center; Mansoura Gastroenterology Center; Clinical Oncology Department and Oncology Center, Mansoura University; National Liver Institute, Menoufeya University [40 km from Gharbiah]; National Cancer Institute, Cairo; and Children's Cancer Hospital Egypt [100 km from Gharbiah]).

REGISTRY STRUCTURE AND METHODS

The registry is located within TCC, and is sponsored by the Middle East Cancer Consortium, the United States National Cancer Institute in Bethesda, USA, and the Egyptian Ministry of Health and Population. The registry is staffed by a principal investigator, an executive director, two coinvestigators, a data manager, six part-time registrars, and five full-time secretaries. The GPCR uses active case finding from 63 data sources. Data quality is regularly assessed by senior registry staff members, CanReg4 software checks, and external auditing by staff members from Emory University, the SEER Program, and IARC. Registry data are protected with secure passwords, and access is granted to authorized personnel only.

INTERPRETING THE RESULTS

The physical area covered by the registry remains the same despite the increased population. The full range of diagnostic and treatment facilities available

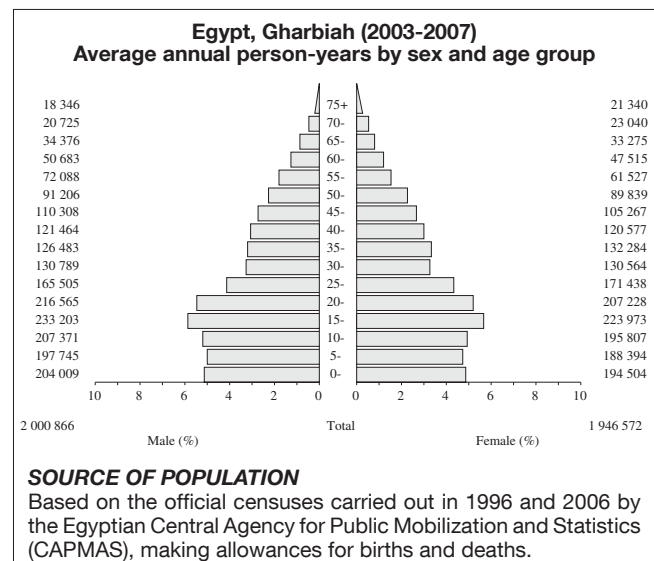
means that relatively few cases are missed, except among undiagnosed elderly patients in rural areas. TCC has established early detection programmes for breast, liver, and cervical cancers. Liver cancer is the most common cancer in the area, likely due to the high prevalence of hepatitis C virus infection. Bladder cancer is the second-most common cancer, with smoking likely to be the main risk factor.

USE OF THE DATA

The registry prepares an annual report on cancer incidence, highlighting trends and changes. Specific studies on epidemiology and survival of registered cancer cases have also been carried out.

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10 MAJOR CANCERS, ASR (WORLD) PER 100 000

Male		Female	
Liver	24.8	Breast	45.4
Bladder	19.0	Non-Hodgkin lymphoma	10.8
Non-Hodgkin lymphoma	13.5	Liver	6.2
Trachea, bronchus and lung	11.9	Ovary	5.3
Prostate	7.6	Bladder	5.0
Other and unspecified	6.1	Other and unspecified	4.1
Pancreas	4.5	Trachea, bronchus and lung	3.7
Non-melanoma skin cancer	4.4	Corpus uteri	3.6
Brain, nervous system	4.3	Colon	3.4
Colon	3.6	Brain, nervous system	3.2
All sites	137.1	All sites	125.1

Egypt, Gharbiah (2003-2007)

SITE	Male						Female						
	No. cases	Freq. (%)	Crude rate (per 100,000)	ASR world	Cum. rates 0-64 (%)	Cum. rates 0-74 (%)	§No. cases	Freq. (%)	Crude rate (per 100,000)	ASR world	Cum. rates 0-64 (%)	Cum. rates 0-74 (%)	ICD-10
Lip	43	0.4	0.4	0.6	0.03	0.07	16	0.2	0.2	0.3	0.01	0.02	C00
Tongue	43	0.4	0.4	0.6	0.04	0.08	42	0.4	0.4	0.6	0.04	0.07	C01-02
Mouth	82	0.8	0.8	1.1	0.08	0.13	44	0.5	0.5	0.6	0.04	0.07	C03-06
Salivary glands	28	0.3	0.3	0.4	0.03	0.05	28	0.3	0.3	0.3	0.03	0.04	C07-08
Tonsil	7	0.1	0.1	0.1	0.01	0.01	0	0.0	0.0	0.0	0.00	0.00	C09
Other oropharynx	7	0.1	0.1	0.1	0.00	0.01	2	0.0	0.0	0.0	0.00	0.00	C10
Nasopharynx	63	0.7	0.6	0.8	0.05	0.08	26	0.3	0.3	0.3	0.02	0.03	C11
Hypopharynx	46	0.5	0.5	0.6	0.03	0.08	43	0.5	0.4	0.6	0.04	0.06	C12-13
Pharynx unspecified	7	0.1	0.1	0.1	0.01	0.01	6	0.1	0.1	0.1	0.01	0.01	C14
Oesophagus	110	1.1	1.1	1.7	0.08	0.20	57	0.6	0.6	0.9	0.04	0.10	C15
Stomach	216	2.2	2.2	2.9	0.19	0.32	158	1.7	1.6	2.1	0.16	0.24	C16
Small intestine	42	0.4	0.4	0.6	0.04	0.06	30	0.3	0.3	0.4	0.03	0.05	C17
Colon	290	3.0	2.9	3.6	0.26	0.39	262	2.8	2.7	3.4	0.24	0.38	C18
Rectum	168	1.7	1.7	2.1	0.15	0.22	149	1.6	1.5	1.9	0.15	0.21	C19-20
Anus	36	0.4	0.4	0.5	0.03	0.05	40	0.4	0.4	0.5	0.03	0.05	C21
Liver	1806	18.7	18.1	24.8	1.80	3.09	433	4.6	4.4	6.2	0.41	0.76	C22
Gallbladder etc.	73	0.8	0.7	1.1	0.07	0.13	67	0.7	0.7	1.0	0.08	0.11	C23-24
Pancreas	311	3.2	3.1	4.5	0.26	0.54	148	1.6	1.5	2.1	0.15	0.26	C25
Nose, sinuses etc.	21	0.2	0.2	0.3	0.02	0.03	21	0.2	0.2	0.3	0.02	0.03	C30-31
Larynx	184	1.9	1.8	2.8	0.14	0.34	16	0.2	0.2	0.2	0.01	0.04	C32
Trachea, bronchus and lung	795	8.2	7.9	11.9	0.62	1.53	257	2.7	2.6	3.7	0.22	0.47	C33-34
Other thoracic organs	19	0.2	0.2	0.3	0.01	0.02	18	0.2	0.2	0.2	0.02	0.02	C37-38
Bone	109	1.1	1.1	1.1	0.07	0.09	82	0.9	0.8	0.8	0.05	0.07	C40-41
Melanoma of skin	19	0.2	0.2	0.3	0.01	0.03	23	0.2	0.2	0.3	0.01	0.04	C43
Other skin	296		3.0	4.4	0.22	0.55	204		2.1	2.9	0.19	0.35	C44
Mesothelioma	25	0.3	0.2	0.4	0.02	0.04	15	0.2	0.2	0.2	0.01	0.02	C45
Kaposi sarcoma	12	0.1	0.1	0.2	0.01	0.03	3	0.0	0.0	0.0	0.00	0.01	C46
Connective and soft tissue	205	2.1	2.0	2.4	0.16	0.23	170	1.8	1.7	2.0	0.13	0.18	C47+C49
Breast	58	0.6	0.6	0.8	0.06	0.09	3675	38.8	37.8	45.4	3.71	4.95	C50
Vulva							49	0.5	0.5	0.8	0.03	0.11	C51
Vagina							15	0.2	0.2	0.2	0.02	0.03	C52
Cervix uteri							121	1.3	1.2	1.6	0.12	0.18	C53
Corpus uteri							256	2.7	2.6	3.6	0.27	0.48	C54
Uterus unspecified							31	0.3	0.3	0.5	0.02	0.06	C55
Ovary							424	4.5	4.4	5.3	0.40	0.59	C56
Other female genital organs							11	0.1	0.1	0.1	0.01	0.01	C57
Placenta							6	0.1	0.1	0.1	0.00	0.00	C58
Penis	3	0.0	0.0	0.1	0.00	0.01							C60
Prostate	425	4.4	4.2	7.6	0.18	0.91							C61
Testis	41	0.4	0.4	0.4	0.03	0.04							C62
Other male genital organs	17	0.2	0.2	0.3	0.01	0.04							C63
Kidney	180	1.9	1.8	2.3	0.15	0.26	118	1.2	1.2	1.5	0.11	0.16	C64
Renal pelvis	38	0.4	0.4	0.6	0.03	0.08	5	0.1	0.1	0.1	0.01	0.01	C65
Ureter	12	0.1	0.1	0.2	0.01	0.03	0	0.0	0.0	0.0	0.00	0.00	C66
Bladder	1231	12.7	12.3	19.0	0.92	2.37	323	3.4	3.3	5.0	0.28	0.67	C67
Other urinary organs	6	0.1	0.1	0.1	0.01	0.01	2	0.0	0.0	0.0	0.00	0.00	C68
Eye	28	0.3	0.3	0.4	0.02	0.03	12	0.1	0.1	0.2	0.01	0.01	C69
Brain, nervous system	371	3.8	3.7	4.3	0.29	0.43	275	2.9	2.8	3.2	0.21	0.30	C70-72
Thyroid	118	1.2	1.2	1.5	0.09	0.19	264	2.8	2.7	3.2	0.20	0.33	C73
Adrenal gland	51	0.5	0.5	0.6	0.04	0.05	25	0.3	0.3	0.3	0.02	0.02	C74
Other endocrine	8	0.1	0.1	0.1	0.00	0.01	4	0.0	0.0	0.0	0.00	0.00	C75
Hodgkin lymphoma	226	2.3	2.3	2.3	0.15	0.17	116	1.2	1.2	1.2	0.09	0.11	C81
Non-Hodgkin lymphoma	1066	11.0	10.7	13.5	0.89	1.51	808	8.5	8.3	10.8	0.68	1.19	C82-85,C96
Immunoproliferative diseases	3	0.0	0.0	0.0	0.00	0.00	3	0.0	0.0	0.0	0.00	0.00	C88
Multiple myeloma	95	1.0	0.9	1.3	0.10	0.16	54	0.6	0.6	0.7	0.06	0.09	C90
Lymphoid leukaemia	224	2.3	2.2	2.6	0.15	0.24	169	1.8	1.7	2.1	0.11	0.23	C91
Myeloid leukaemia	174	1.8	1.7	1.9	0.13	0.19	188	2.0	1.9	2.2	0.15	0.20	C92-94
Leukaemia unspecified	63	0.7	0.6	0.8	0.04	0.08	38	0.4	0.4	0.5	0.03	0.04	C95
Myeloproliferative disorders	8	0.1	0.1	0.1	0.01	0.01	7	0.1	0.1	0.1	0.01	0.01	MPD
Myelodysplastic syndromes	18	0.2	0.2	0.2	0.01	0.03	23	0.2	0.2	0.3	0.02	0.03	MDS
Other and unspecified	430	4.5	4.3	6.1	0.36	0.72	288	3.0	3.0	4.1	0.24	0.51	O&U
All sites	9957		99.5	137.1	8.11	16.06	9670		99.4	125.1	8.95	14.02	C00-96
All sites except C44	9661	100.0	96.6	132.6	7.89	15.51	9466	100.0	97.3	122.1	8.76	13.67	C00-96 exc. C44

§Includes 2 cases of unknown age

Libya, Benghazi

REGISTRATION AREA

The Benghazi Cancer Registry (BCR) was established in 2002 and covers eight districts in the eastern part of Libya (Tobruk, Derna, Bayda, Al Marj, Benghazi, Ajdabiya, Al Wahat, and Al Kufra). At the most recent census (2006), the population of the area was 1.6 million (28% of the total population of Libya).

CANCER CARE FACILITIES

Cancer care services in the region are predominantly provided by the adult oncology and haematology units of Aljumhuriya Hospital, the radiotherapy unit of the Benghazi Radio Diagnostic and Therapeutic Center, and the paediatric oncology and haematology unit of the Children's Hospital, which are all based in Benghazi. All cancer patients from the region are referred to these units.

REGISTRY STRUCTURE AND METHODS

The registry is located within the Medical School of Benghazi University and is staffed by a director, a scientific board, five coinvestigators and field supervisors, a data entry manager, and four part-time registrars. The BCR uses active case finding from various data sources, including cancer service units, general and regional hospitals, university hospitals, private hospitals and clinics, specialized hospitals and centres outside the region, and pathology and haematology laboratories. Death certificates are actively investigated. The staff of the Modena Cancer Registry (MCR) in Italy contributed to the training of the BCR registrars in coding techniques and in the use of software developed by the MCR.

INTERPRETING THE RESULTS

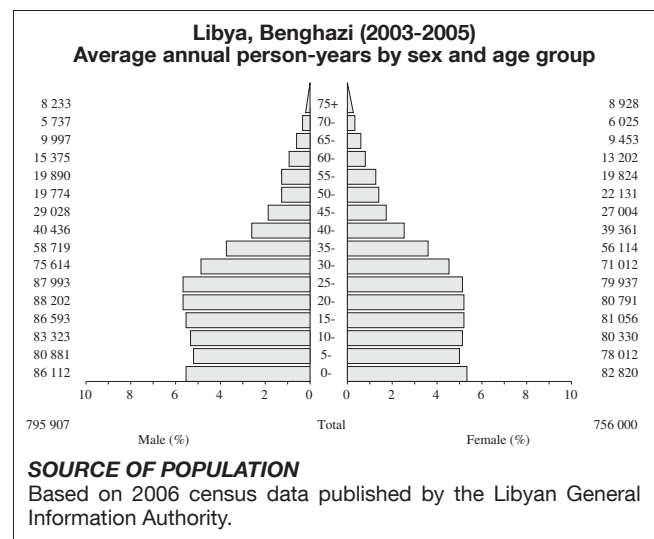
The BCR has made data on cancer incidence in eastern Libya available for the first time, and confirmed that the incidence is much lower than in more industrialized countries. Moreover, the observed patterns indicate that the incidences of many cancers, including those of the lung, breast, colon, rectum, and bladder, are in fact quite different from previous estimates based on data from neighbouring countries.

USE OF THE DATA

The registry prepares an annual report on cancer incidence, highlighting trends and changes. The data are made available to the Department of Health to help guide planning of cancer services. Some BCR data will also be used in future research projects.

CONTRIBUTORS

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NOTES ON THE DATA

*Mortality data incomplete.

10 MAJOR CANCERS, ASR (WORLD) PER 100 000

Male		Female	
Trachea, bronchus and lung	27.8	Breast	22.9
Bladder	14.9	Colon	9.0
Prostate	14.7	Uterus unspecified	8.3
Colon	8.8	Other and unspecified	4.9
Non-Hodgkin lymphoma	5.8	Ovary	4.7
Larynx	5.5	Cervix uteri	4.5
Pancreas	5.4	Non-Hodgkin lymphoma	4.3
Brain, nervous system	5.2	Thyroid	3.8
Rectum	5.0	Liver	3.7
Liver	4.9	Rectum	3.3
All sites	138.5	All sites	110.0

*Libya, Benghazi (2003-2005)

SITE	Male					Female					ICD-10		
	No. cases	Freq. (%)	Crude rate (per 100,000)	ASR world	Cum. rates 0-64 0-74 (%)	No. cases	Freq. (%)	Crude rate (per 100,000)	ASR world	Cum. rates 0-64 0-74 (%)			
Lip	2	0.1	0.1	0.2	0.01	0.01	1	0.1	0.0	0.1	0.00	0.03	C00
Tongue	5	0.3	0.2	0.4	0.03	0.06	3	0.2	0.1	0.2	0.01	0.01	C01-02
Mouth	8	0.5	0.3	0.7	0.03	0.09	9	0.6	0.4	0.8	0.08	0.10	C03-06
Salivary glands	3	0.2	0.1	0.2	0.02	0.02	5	0.3	0.2	0.3	0.03	0.03	C07-08
Tonsil	2	0.1	0.1	0.2	0.02	0.02	0	0.0	0.0	0.0	0.00	0.00	C09
Other oropharynx	0	0.0	0.0	0.0	0.00	0.00	1	0.1	0.0	0.1	0.01	0.01	C10
Nasopharynx	42	2.4	1.8	2.8	0.21	0.31	25	1.6	1.1	1.4	0.10	0.16	C11
Hypopharynx	2	0.1	0.1	0.2	0.00	0.00	1	0.1	0.0	0.0	0.00	0.00	C12-13
Pharynx unspecified	1	0.1	0.0	0.1	0.01	0.01	2	0.1	0.1	0.2	0.02	0.02	C14
Oesophagus	18	1.0	0.8	1.6	0.08	0.23	3	0.2	0.1	0.2	0.01	0.01	C15
Stomach	62	3.6	2.6	4.9	0.26	0.59	37	2.3	1.6	3.0	0.15	0.41	C16
Small intestine	3	0.2	0.1	0.3	0.01	0.04	4	0.3	0.2	0.3	0.02	0.02	C17
Colon	111	6.4	4.6	8.8	0.51	1.10	126	8.0	5.6	9.0	0.53	1.06	C18
Rectum	64	3.7	2.7	5.0	0.29	0.66	48	3.0	2.1	3.3	0.24	0.39	C19-20
Anus	5	0.3	0.2	0.3	0.02	0.02	3	0.2	0.1	0.2	0.02	0.02	C21
Liver	58	3.3	2.4	4.9	0.19	0.66	44	2.8	1.9	3.7	0.18	0.48	C22
Gallbladder etc.	17	1.0	0.7	1.3	0.10	0.13	42	2.7	1.9	3.2	0.19	0.30	C23-24
Pancreas	64	3.7	2.7	5.4	0.26	0.67	37	2.3	1.6	2.9	0.17	0.29	C25
Nose, sinuses etc.	5	0.3	0.2	0.4	0.02	0.06	1	0.1	0.0	0.1	0.01	0.01	C30-31
Larynx	66	3.8	2.8	5.5	0.33	0.63	8	0.5	0.4	0.7	0.05	0.09	C32
Trachea, bronchus and lung	326	18.7	13.7	27.8	1.34	3.67	37	2.3	1.6	3.1	0.18	0.40	C33-34
Other thoracic organs	1	0.1	0.0	0.0	0.00	0.00	3	0.2	0.1	0.2	0.01	0.03	C37-38
Bone	12	0.7	0.5	0.4	0.02	0.02	16	1.0	0.7	0.8	0.05	0.07	C40-41
Melanoma of skin	4	0.2	0.2	0.2	0.02	0.02	5	0.3	0.2	0.3	0.04	0.04	C43
Other skin	47	2.7	2.0	3.8	0.11	0.44	26	1.6	1.1	2.1	0.08	0.24	C44
Mesothelioma	3	0.2	0.1	0.3	0.01	0.03	0	0.0	0.0	0.0	0.00	0.00	C45
Kaposi sarcoma	6	0.3	0.3	0.5	0.02	0.07	1	0.1	0.0	0.1	0.01	0.01	C46
Connective and soft tissue	41	2.4	1.7	2.4	0.14	0.24	38	2.4	1.7	2.3	0.15	0.23	C47+C49
Breast	6	0.3	0.3	0.5	0.03	0.08	364	23.0	16.0	22.9	1.82	2.46	C50
Vulva							5	0.3	0.2	0.4	0.01	0.04	C51
Vagina							3	0.2	0.1	0.2	0.02	0.02	C52
Cervix uteri							62	3.9	2.7	4.5	0.36	0.48	C53
Corpus uteri							7	0.4	0.3	0.6	0.02	0.10	C54
Uterus unspecified							98	6.2	4.3	8.3	0.62	1.08	C55
Ovary							75	4.7	3.3	4.7	0.33	0.49	C56
Other female genital organs							0	0.0	0.0	0.0	0.00	0.00	C57
Placenta							0	0.0	0.0	0.0	0.00	0.00	C58
Penis	0	0.0	0.0	0.0	0.00	0.00							C60
Prostate	162	9.3	6.8	14.7	0.29	1.74							C61
Testis	10	0.6	0.4	0.6	0.05	0.05							C62
Other male genital organs	0	0.0	0.0	0.0	0.00	0.00							C63
Kidney	51	2.9	2.1	3.9	0.20	0.40	27	1.7	1.2	2.0	0.12	0.22	C64
Renal pelvis	2	0.1	0.1	0.1	0.01	0.01	0	0.0	0.0	0.0	0.00	0.00	C65
Ureter	0	0.0	0.0	0.0	0.00	0.00	1	0.1	0.0	0.1	0.00	0.00	C66
Bladder	174	10.0	7.3	14.9	0.64	1.72	26	1.6	1.1	2.3	0.10	0.36	C67
Other urinary organs	1	0.1	0.0	0.1	0.00	0.03	0	0.0	0.0	0.0	0.00	0.00	C68
Eye	4	0.2	0.2	0.2	0.01	0.01	6	0.4	0.3	0.3	0.01	0.04	C69
Brain, nervous system	87	5.0	3.6	5.2	0.38	0.62	50	3.2	2.2	3.0	0.16	0.32	C70-72
Thyroid	13	0.7	0.5	0.8	0.06	0.07	64	4.0	2.8	3.8	0.25	0.37	C73
Adrenal gland	3	0.2	0.1	0.1	0.01	0.01	4	0.3	0.2	0.2	0.01	0.02	C74
Other endocrine	0	0.0	0.0	0.0	0.00	0.00	2	0.1	0.1	0.1	0.01	0.01	C75
Hodgkin lymphoma	38	2.2	1.6	1.6	0.11	0.11	44	2.8	1.9	1.8	0.13	0.15	C81
Non-Hodgkin lymphoma	88	5.1	3.7	5.8	0.31	0.70	67	4.2	3.0	4.3	0.26	0.45	C82-85,C96
Immunoproliferative diseases	0	0.0	0.0	0.0	0.00	0.00	0	0.0	0.0	0.0	0.00	0.00	C88
Multiple myeloma	18	1.0	0.8	1.6	0.08	0.19	16	1.0	0.7	1.2	0.08	0.14	C90
Lymphoid leukaemia	27	1.6	1.1	1.4	0.06	0.08	24	1.5	1.1	1.2	0.05	0.10	C91
Myeloid leukaemia	43	2.5	1.8	2.7	0.15	0.30	48	3.0	2.1	2.9	0.19	0.31	C92-94
Leukaemia unspecified	10	0.6	0.4	0.7	0.06	0.09	15	0.9	0.7	0.7	0.06	0.06	C95
Myeloproliferative disorders	8	0.5	0.3	0.5	0.05	0.07	11	0.7	0.5	0.9	0.05	0.11	MPD
Myelodysplastic syndromes	3	0.2	0.1	0.1	0.01	0.01	0	0.0	0.0	0.0	0.00	0.00	MDS
Other and unspecified	60	3.5	2.5	4.7	0.23	0.53	65	4.1	2.9	4.9	0.22	0.54	O&U
All sites	1786		74.8	138.5	6.78	16.62	1610		71.0	110.0	7.21	12.32	C00-96
All sites except C44	1739	100.0	72.8	134.6	6.67	16.19	1584	100.0	69.8	107.9	7.13	12.08	C00-96 exc. C44

*See note following population pyramid

Malawi, Blantyre

REGISTRATION AREA

The Malawi Cancer Registry (MCR) was established in 1989 by the Malawian Ministry of Health. It was a hospital-based registry until 1993, when IARC started supporting the current population-based registry. This support lasted until 2007, when the MCR began to receive funding from the Ministry of Health, local research teams, and the local WHO office.

CANCER CARE FACILITIES

The Blantyre population is served by a 1000-bed national referral hospital (Queen Elizabeth Central Hospital [QECH]), which has modern diagnostic facilities, including magnetic resonance imaging, and dedicated oncology wards with adequate staffing at all levels. There are 14 other hospitals serving the Blantyre urban and rural catchment population, and three histopathology laboratories. Chemotherapy is available, but there are no radiotherapy facilities yet. The country's national cancer control plan is currently in the draft stage.

REGISTRY STRUCTURE AND METHODS

The MCR is physically located within the QECH complex, and is permanently staffed full-time by a cancer registrar and two data clerks, all of whom are employees of the Malawian Ministry of Health. The MCR's part-time staff members are the registry director and an assistant registrar (a histopathologist and a nurse, respectively). Active data collection methods and data management systems are used as per IARC guidelines. CanReg software is used for data management. The completeness of registration is currently undergoing formal validation through student projects at the University of Michigan, USA.

INTERPRETING THE RESULTS

The physical area covered has not changed since 1989, although there has been a population shift from rural to urban. Researchers often visit for short periods to study particular cancers, such as those of the oesophagus and breast, Burkitt lymphoma, and

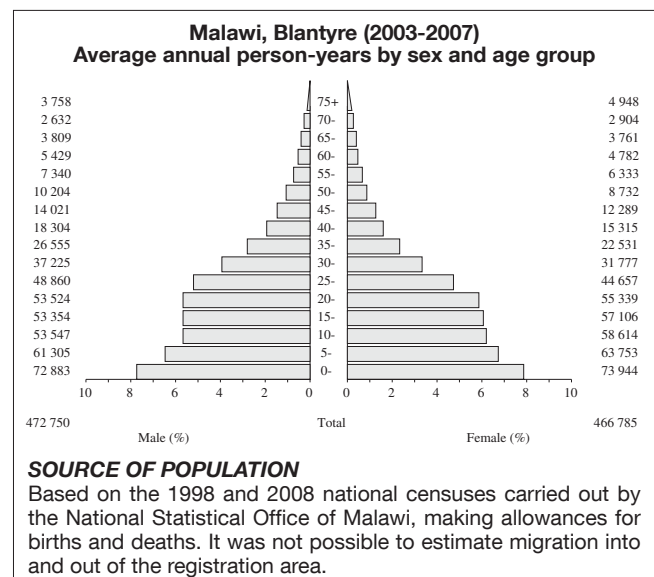
various leukaemias. These projects tend to cause spikes in the incidence trends for these cancers. There is a national screening programme for cervical cancer. The official prevalence rate for HIV infection has decreased from 14.5% in 2005 to 12%.

USE OF THE DATA

Incidence data and the extent of disease are reported and used for research projects, in training of medical and nursing students, and as a source of information for government policy-makers.

CONTRIBUTORS

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NOTES ON THE DATA

*No official mortality data. No DCO registrations.

10 MAJOR CANCERS, ASR (WORLD) PER 100 000

Male		Female	
Kaposi sarcoma	91.8	Cervix uteri	76.3
Oesophagus	37.6	Kaposi sarcoma	43.6
Prostate	15.7	Oesophagus	23.0
Bladder	13.3	Breast	14.3
Non-Hodgkin lymphoma	12.6	Other and unspecified	10.7
Other and unspecified	10.6	Eye	9.8
Eye	7.4	Non-Hodgkin lymphoma	9.4
Liver	7.0	Bladder	9.2
Non-melanoma skin cancer	6.8	Liver	4.4
Bone	3.4	Non-melanoma skin cancer	4.3
All sites	226.4	All sites	237.8

*Malawi, Blantyre (2003-2007)

SITE	Male						Female						ICD-10
	§No. cases	Freq. (%)	Crude rate (per 100,000)	ASR world	Cum. rates 0-64 (%)	Cum. rates 0-74 (%)	§No. cases	Freq. (%)	Crude rate (per 100,000)	ASR world	Cum. rates 0-64 (%)	Cum. rates 0-74 (%)	
Lip	4	0.1	0.2	0.2	0.02	0.02	3	0.1	0.1	0.2	0.02	0.02	C00
Tongue	3	0.1	0.1	0.3	0.02	0.06	5	0.2	0.2	0.4	0.04	0.04	C01-02
Mouth	14	0.4	0.6	1.3	0.10	0.17	14	0.4	0.6	1.3	0.08	0.20	C03-06
Salivary glands	10	0.3	0.4	0.8	0.08	0.08	8	0.2	0.3	0.8	0.06	0.12	C07-08
Tonsil	1	0.0	0.0	0.1	0.00	0.00	0	0.0	0.0	0.0	0.00	0.00	C09
Other oropharynx	0	0.0	0.0	0.0	0.00	0.00	0	0.0	0.0	0.0	0.00	0.00	C10
Nasopharynx	5	0.1	0.2	0.3	0.02	0.02	4	0.1	0.2	0.3	0.03	0.03	C11
Hypopharynx	0	0.0	0.0	0.0	0.00	0.00	0	0.0	0.0	0.0	0.00	0.00	C12-13
Pharynx unspecified	2	0.1	0.1	0.0	0.00	0.00	0	0.0	0.0	0.0	0.00	0.00	C14
Oesophagus	380	11.0	16.1	37.6	2.59	4.72	229	7.0	9.8	23.0	1.79	2.82	C15
Stomach	21	0.6	0.9	2.0	0.13	0.19	22	0.7	0.9	2.5	0.22	0.32	C16
Small intestine	0	0.0	0.0	0.0	0.00	0.00	1	0.0	0.0	0.0	0.00	0.00	C17
Colon	12	0.3	0.5	1.0	0.07	0.14	8	0.2	0.3	0.5	0.03	0.07	C18
Rectum	21	0.6	0.9	2.0	0.13	0.24	28	0.9	1.2	2.4	0.18	0.25	C19-20
Anus	3	0.1	0.1	0.2	0.02	0.02	4	0.1	0.2	0.5	0.05	0.05	C21
Liver	94	2.7	4.0	7.0	0.55	0.78	49	1.5	2.1	4.4	0.35	0.52	C22
Gallbladder etc.	0	0.0	0.0	0.0	0.00	0.00	2	0.1	0.1	0.2	0.02	0.02	C23-24
Pancreas	1	0.0	0.0	0.1	0.01	0.01	5	0.2	0.2	0.4	0.04	0.04	C25
Nose, sinuses etc.	7	0.2	0.3	0.9	0.11	0.11	5	0.2	0.2	0.5	0.05	0.05	C30-31
Larynx	5	0.1	0.2	0.6	0.01	0.08	2	0.1	0.1	0.3	0.04	0.04	C32
Trachea, bronchus and lung	11	0.3	0.5	1.2	0.09	0.12	2	0.1	0.1	0.2	0.00	0.00	C33-34
Other thoracic organs	0	0.0	0.0	0.0	0.00	0.00	1	0.0	0.0	0.0	0.00	0.00	C37-38
Bone	74	2.2	3.1	3.4	0.23	0.26	58	1.8	2.5	3.2	0.21	0.31	C40-41
Melanoma of skin	18	0.5	0.8	1.4	0.10	0.10	37	1.1	1.6	3.8	0.29	0.43	C43
Other skin	77		3.3	6.8	0.35	0.90	53		2.3	4.3	0.34	0.43	C44
Mesothelioma	0	0.0	0.0	0.0	0.00	0.00	0	0.0	0.0	0.0	0.00	0.00	C45
Kaposi sarcoma	1708	49.6	72.3	91.8	7.57	8.42	818	25.2	35.0	43.6	3.59	3.80	C46
Connective and soft tissue	49	1.4	2.1	2.4	0.14	0.21	37	1.1	1.6	2.3	0.19	0.22	C47+C49
Breast	9	0.3	0.4	1.0	0.11	0.11	165	5.1	7.1	14.3	1.13	1.59	C50
Vulva							16	0.5	0.7	1.0	0.09	0.09	C51
Vagina							16	0.5	0.7	1.4	0.11	0.16	C52
Cervix uteri							904	27.8	38.7	76.3	6.64	7.92	C53
Corpus uteri							15	0.5	0.6	1.4	0.12	0.15	C54
Uterus unspecified							23	0.7	1.0	2.1	0.17	0.27	C55
Ovary							73	2.2	3.1	4.3	0.32	0.41	C56
Other female genital organs							0	0.0	0.0	0.0	0.00	0.00	C57
Placenta							3	0.1	0.1	0.1	0.01	0.01	C58
Penis	33	1.0	1.4	2.6	0.14	0.25							C60
Prostate	122	3.5	5.2	15.7	0.76	2.01							C61
Testis	11	0.3	0.5	0.9	0.04	0.11							C62
Other male genital organs	1	0.0	0.0	0.0	0.00	0.00							C63
Kidney	43	1.2	1.8	1.5	0.08	0.08	29	0.9	1.2	1.2	0.07	0.07	C64
Renal pelvis	0	0.0	0.0	0.0	0.00	0.00	0	0.0	0.0	0.0	0.00	0.00	C65
Ureter	0	0.0	0.0	0.0	0.00	0.00	0	0.0	0.0	0.0	0.00	0.00	C66
Bladder	139	4.0	5.9	13.3	0.87	1.56	98	3.0	4.2	9.2	0.83	1.01	C67
Other urinary organs	0	0.0	0.0	0.0	0.00	0.00	1	0.0	0.0	0.1	0.00	0.00	C68
Eye	153	4.4	6.5	7.4	0.57	0.60	187	5.8	8.0	9.8	0.81	0.81	C69
Brain, nervous system	4	0.1	0.2	0.1	0.01	0.01	3	0.1	0.1	0.3	0.02	0.02	C70-72
Thyroid	5	0.1	0.2	0.5	0.05	0.05	18	0.6	0.8	2.0	0.16	0.26	C73
Adrenal gland	0	0.0	0.0	0.0	0.00	0.00	1	0.0	0.0	0.0	0.00	0.00	C74
Other endocrine	0	0.0	0.0	0.0	0.00	0.00	0	0.0	0.0	0.0	0.00	0.00	C75
Hodgkin lymphoma	15	0.4	0.6	0.7	0.04	0.07	8	0.2	0.3	0.5	0.05	0.05	C81
Non-Hodgkin lymphoma	312	9.1	13.2	12.6	0.76	0.86	215	6.6	9.2	9.4	0.67	0.70	C82-85,C96
Immunoproliferative diseases	0	0.0	0.0	0.0	0.00	0.00	0	0.0	0.0	0.0	0.00	0.00	C88
Multiple myeloma	2	0.1	0.1	0.2	0.02	0.02	3	0.1	0.1	0.1	0.01	0.01	C90
Lymphoid leukaemia	1	0.0	0.0	0.1	0.02	0.02	0	0.0	0.0	0.0	0.00	0.00	C91
Myeloid leukaemia	6	0.2	0.3	0.3	0.02	0.02	1	0.0	0.0	0.0	0.00	0.00	C92-94
Leukaemia unspecified	12	0.3	0.5	0.5	0.02	0.06	12	0.4	0.5	0.8	0.06	0.11	C95
Myeloproliferative disorders	0	0.0	0.0	0.0	0.00	0.00	0	0.0	0.0	0.0	0.00	0.00	MPD
Myelodysplastic syndromes	0	0.0	0.0	0.0	0.00	0.00	0	0.0	0.0	0.0	0.00	0.00	MDS
Other and unspecified	130	3.8	5.5	10.6	0.64	1.28	118	3.6	5.1	10.7	0.84	1.24	O&U
All sites	3518		148.8	226.4	16.30	23.28	3304		141.6	237.8	19.51	24.32	C00-96
All sites except C44	3441	100.0	145.6	219.5	15.95	22.37	3251	100.0	139.3	233.5	19.17	23.89	C00-96 exc. C44

§Includes 385 cases of unknown age

§Includes 433 cases of unknown age

*See note following population pyramid

South Africa, PROMEC

REGISTRATION AREA

The PROMEC Cancer Registry has been operating for more than 20 years in the rural Transkei region of the South African province of the Eastern Cape. In its present form, the registry covers the population of eight magisterial areas: Butterworth, Centane (Kentani), Idutywa, Nqamakwe, Willowvale, Bizana, Flagstaff, and Lusikisiki. The vast majority of residents are Black Africans who speak isiXhosa and support both Christian and traditional norms and values.

CANCER CARE FACILITIES

The area's health care delivery system is based on a network of government-run primary health care clinics and hospitals (with an emerging district management), and supplemented by private practitioners and hospitals. Basic laboratory services are available in most centres. Patients suspected to have cancer are referred by primary and secondary care facilities to specialized oncology and radiotherapy services. The government provides transportation to these hospitals for cancer patients.

REGISTRY STRUCTURE AND METHODS

The registry is funded mainly by the South African Medical Research Council (MRC) and receives additional funding from the Cancer Association of South Africa (CANSA). The registry employs eight staff members: a full-time senior scientist (who heads the registry), a full-time data manager, and six part-time oncology nurses (who collect data). An advisory committee provides expert advice to the registry. The PROMEC Cancer Registry collaborates with 19 hospitals and one state laboratory. Case finding is performed both passively and actively. All malignant cancer cases, including those of uncertain or unknown primary site, are registered.

INTERPRETING THE RESULTS

The registry has made special efforts to develop collaborative relationships with various health

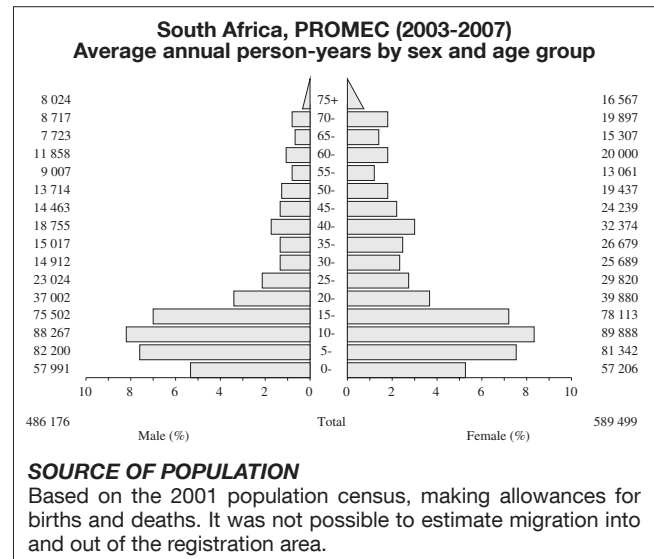
facilities within and outside the registration area. It is not currently possible to estimate the percentage of cancer cases that are missed by the registry.

USE OF THE DATA

The PROMEC Cancer Registry prepares annual reports on cancer incidence, including trends and changes. The registry is the main source of cancer information for policy-makers in the provincial and national health departments, as well as for researchers.

CONTRIBUTORS

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NOTES ON THE DATA

*No official mortality data. No DCO registrations.

10 MAJOR CANCERS, ASR (WORLD) PER 100 000

Male		Female	
Oesophagus	32.0	Cervix uteri	23.8
Prostate	6.2	Oesophagus	19.6
Trachea, bronchus and lung	4.8	Breast	7.3
Other and unspecified	3.6	Other and unspecified	1.5
Larynx	3.4	Kaposi sarcoma	1.4
Kaposi sarcoma	3.1	Liver	1.2
Liver	2.7	Ovary	1.0
Mouth	2.1	Corpus uteri	0.9
Tongue	2.1	Trachea, bronchus and lung	0.9
Eye	1.0	Non-Hodgkin lymphoma	0.6
All sites	73.6	All sites	67.4

*South Africa, PROMEC (2003-2007)

SITE	Male						Female						ICD-10
	No. cases	Freq. (%)	Crude rate (per 100,000)	ASR world	Cum. rates 0-64 (%)	0-74 (%)	§No. cases	Freq. (%)	Crude rate (per 100,000)	ASR world	Cum. rates 0-64 (%)	0-74 (%)	
Lip	2	0.2	0.1	0.1	0.01	0.02	0	0.0	0.0	0.0	0.00	0.00	C00
Tongue	31	2.8	1.3	2.1	0.16	0.21	12	0.7	0.4	0.4	0.02	0.05	C01-02
Mouth	32	2.9	1.3	2.1	0.14	0.28	8	0.5	0.3	0.3	0.02	0.03	C03-06
Salivary glands	1	0.1	0.0	0.0	0.00	0.00	2	0.1	0.1	0.1	0.00	0.00	C07-08
Tonsil	9	0.8	0.4	0.6	0.04	0.06	3	0.2	0.1	0.2	0.02	0.02	C09
Other oropharynx	0	0.0	0.0	0.0	0.00	0.00	0	0.0	0.0	0.0	0.00	0.00	C10
Nasopharynx	1	0.1	0.0	0.1	0.01	0.01	0	0.0	0.0	0.0	0.00	0.00	C11
Hypopharynx	2	0.2	0.1	0.2	0.02	0.02	0	0.0	0.0	0.0	0.00	0.00	C12-13
Pharynx unspecified	0	0.0	0.0	0.0	0.00	0.00	2	0.1	0.1	0.0	0.00	0.00	C14
Oesophagus	475	43.0	19.5	32.0	2.05	3.92	533	31.6	18.1	19.6	1.38	2.35	C15
Stomach	13	1.2	0.5	1.0	0.06	0.13	15	0.9	0.5	0.5	0.03	0.07	C16
Small intestine	0	0.0	0.0	0.0	0.00	0.00	0	0.0	0.0	0.0	0.00	0.00	C17
Colon	13	1.2	0.5	0.9	0.07	0.11	15	0.9	0.5	0.6	0.05	0.06	C18
Rectum	12	1.1	0.5	0.8	0.05	0.07	11	0.7	0.4	0.4	0.03	0.05	C19-20
Anus	9	0.8	0.4	0.7	0.08	0.08	3	0.2	0.1	0.1	0.02	0.02	C21
Liver	38	3.4	1.6	2.7	0.21	0.30	28	1.7	0.9	1.2	0.08	0.13	C22
Gallbladder etc.	1	0.1	0.0	0.0	0.00	0.00	3	0.2	0.1	0.1	0.01	0.01	C23-24
Pancreas	5	0.5	0.2	0.4	0.03	0.04	11	0.7	0.4	0.4	0.03	0.05	C25
Nose, sinuses etc.	3	0.3	0.1	0.2	0.01	0.01	4	0.2	0.1	0.2	0.02	0.02	C30-31
Larynx	49	4.4	2.0	3.4	0.20	0.44	9	0.5	0.3	0.4	0.02	0.04	C32
Trachea, bronchus and lung	68	6.2	2.8	4.8	0.35	0.56	20	1.2	0.7	0.9	0.07	0.10	C33-34
Other thoracic organs	1	0.1	0.0	0.1	0.01	0.01	0	0.0	0.0	0.0	0.00	0.00	C37-38
Bone	13	1.2	0.5	0.5	0.04	0.05	13	0.8	0.4	0.5	0.03	0.04	C40-41
Melanoma of skin	11	1.0	0.5	0.6	0.02	0.07	10	0.6	0.3	0.4	0.03	0.03	C43
Other skin	9	0.8	0.4	0.7	0.05	0.07	5	0.2	0.2	0.3	0.03	0.03	C44
Mesothelioma	0	0.0	0.0	0.0	0.00	0.00	0	0.0	0.0	0.0	0.00	0.00	C45
Kaposi sarcoma	42	3.8	1.7	3.1	0.25	0.25	31	1.8	1.1	1.4	0.10	0.10	C46
Connective and soft tissue	14	1.3	0.6	0.9	0.06	0.09	10	0.6	0.3	0.4	0.03	0.04	C47+C49
Breast	11	1.0	0.5	0.7	0.04	0.11	175	10.4	5.9	7.3	0.60	0.77	C50
Vulva							8	0.5	0.3	0.3	0.02	0.03	C51
Vagina							8	0.5	0.3	0.3	0.02	0.05	C52
Cervix uteri							576	34.1	19.5	23.8	1.88	2.65	C53
Corpus uteri							24	1.4	0.8	0.9	0.08	0.14	C54
Uterus unspecified							10	0.6	0.3	0.4	0.04	0.05	C55
Ovary							23	1.4	0.8	1.0	0.08	0.09	C56
Other female genital organs							1	0.1	0.0	0.0	0.01	0.01	C57
Placenta							7	0.4	0.2	0.3	0.02	0.02	C58
Penis	11	1.0	0.5	0.8	0.05	0.10							C60
Prostate	105	9.5	4.3	6.2	0.18	0.69							C61
Testis	2	0.2	0.1	0.2	0.02	0.02							C62
Other male genital organs	1	0.1	0.0	0.0	0.00	0.00							C63
Kidney	6	0.5	0.2	0.3	0.03	0.03	10	0.6	0.3	0.4	0.02	0.02	C64
Renal pelvis	0	0.0	0.0	0.0	0.00	0.00	0	0.0	0.0	0.0	0.00	0.00	C65
Ureter	0	0.0	0.0	0.0	0.00	0.00	1	0.1	0.0	0.0	0.00	0.01	C66
Bladder	12	1.1	0.5	0.7	0.02	0.08	5	0.3	0.2	0.2	0.02	0.03	C67
Other urinary organs	0	0.0	0.0	0.0	0.00	0.00	1	0.1	0.0	0.1	0.01	0.01	C68
Eye	18	1.6	0.7	1.0	0.08	0.09	10	0.6	0.3	0.5	0.05	0.05	C69
Brain, nervous system	9	0.8	0.4	0.3	0.02	0.02	5	0.3	0.2	0.2	0.02	0.02	C70-72
Thyroid	4	0.4	0.2	0.3	0.01	0.04	8	0.5	0.3	0.4	0.03	0.04	C73
Adrenal gland	0	0.0	0.0	0.0	0.00	0.00	0	0.0	0.0	0.0	0.00	0.00	C74
Other endocrine	1	0.1	0.0	0.0	0.00	0.00	1	0.1	0.0	0.0	0.01	0.01	C75
Hodgkin lymphoma	2	0.2	0.1	0.1	0.00	0.00	3	0.2	0.1	0.1	0.01	0.01	C81
Non-Hodgkin lymphoma	11	1.0	0.5	0.6	0.04	0.07	17	1.0	0.6	0.6	0.04	0.05	C82-85,C96
Immunoproliferative diseases	0	0.0	0.0	0.0	0.00	0.00	0	0.0	0.0	0.0	0.00	0.00	C88
Multiple myeloma	9	0.8	0.4	0.7	0.05	0.08	4	0.2	0.1	0.2	0.01	0.02	C90
Lymphoid leukaemia	1	0.1	0.0	0.0	0.00	0.00	2	0.1	0.1	0.1	0.00	0.01	C91
Myeloid leukaemia	0	0.0	0.0	0.0	0.00	0.00	2	0.1	0.1	0.1	0.00	0.01	C92-94
Leukaemia unspecified	2	0.2	0.1	0.1	0.00	0.02	6	0.4	0.2	0.2	0.02	0.02	C95
Myeloproliferative disorders	0	0.0	0.0	0.0	0.00	0.00	0	0.0	0.0	0.0	0.00	0.00	MPD
Myelodysplastic syndromes	0	0.0	0.0	0.0	0.00	0.00	0	0.0	0.0	0.0	0.00	0.00	MDS
Other and unspecified	54	4.9	2.2	3.6	0.25	0.40	39	2.3	1.3	1.5	0.13	0.15	O&U
All sites	1113		45.8	73.6	4.72	8.54	1694		57.5	67.4	5.12	7.46	C00-96
All sites except C44	1104	100.0	45.4	72.9	4.67	8.48	1689	100.0	57.3	67.1	5.09	7.43	C00-96 exc. C44

§Includes 1 case of unknown age

*See note following population pyramid

Tunisia, North

REGISTRATION AREA

The Cancer Registry of North Tunisia (RCNT) covers the northern area of the country (28 162 km²), which includes the country's capital city of Tunis and 11 *wilayas* (provinces). The covered area includes important urban regions such as the coastal cities of Tunis, Bizerte, and Nabeul, where commercial, industrial, and touristic activities are significant. Farming and fishing are the main occupations in the rural areas of the region, which are among the most fertile in the country. The region is mainly Arabic, and Islam is the professed religion of 99% of the population.

CANCER CARE FACILITIES

An important network of health substructures has been planned for the whole territory using health centres and programmes of primary care. In North Tunisia, 15 university hospitals and 11 non-university hospitals (one in each *wilaya*) provide support for cancer patients. About 40% of cancer patients diagnosed in North Tunisia are treated at the national cancer centre Institut Salah-Azaiz. Radiotherapy is available at one hospital and four private radiotherapy centres. More than 60% of the population of North Tunisia is enrolled in the country's public health insurance system (the Caisse Nationale d'Assurance Maladie).

REGISTRY STRUCTURE AND METHODS

The RCNT was officially founded in 1997, and is subsidized by the Tunisian Ministry of Public Health. The registry employs two physicians, three full-time clerks, and four or five part-time physicians. The RCNT collects data actively from 85 sources of public and private pathology and medical records. A large proportion of the staff's time is devoted to the search for duplicate registrations, which is performed at the time of data entry and on a regular basis using computer software. The RCNT ensures data security and confidentiality, and informs patients as required by Tunisian law.

INTERPRETING THE RESULTS

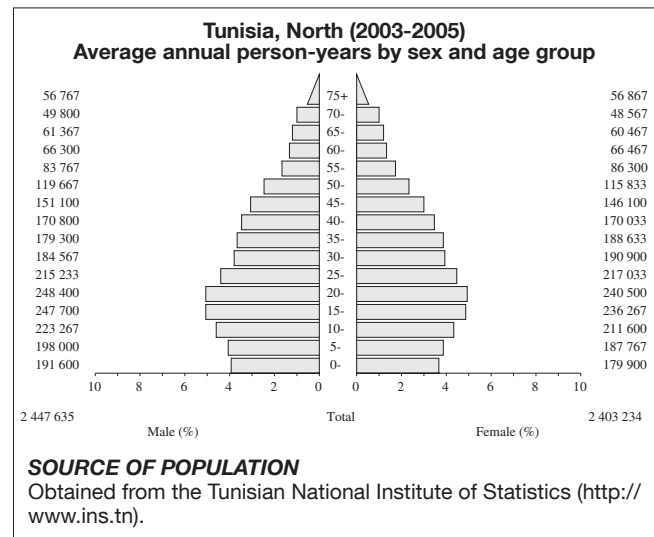
All types of invasive and in situ tumours are registered (including basal and squamous cell skin cancer). Benign tumours of the brain and superficial tumours of the urinary bladder were not registered during this reporting period.

USE OF THE DATA

The RCNT prepares periodic reports approximately every 3 years. More specific studies have also been carried out.

CONTRIBUTORS

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NOTES ON THE DATA

*No official mortality data. No DCO registrations. †C67 (bladder cancer) includes neoplasms of uncertain or unknown behaviour together with invasive cancers.

10 MAJOR CANCERS, ASR (WORLD) PER 100 000

Male		Female	
Trachea, bronchus and lung	30.6	Breast	30.9
Bladder	12.9	Non-melanoma skin cancer	5.7
Prostate	11.4	Colon	5.5
Non-melanoma skin cancer	7.4	Cervix uteri	4.6
Colon	6.3	Ovary	4.0
Larynx	6.0	Other and unspecified	4.0
Stomach	5.8	Non-Hodgkin lymphoma	3.8
Non-Hodgkin lymphoma	5.7	Rectum	3.7
Other and unspecified	5.5	Corpus uteri	3.4
Rectum	4.2	Thyroid	3.3
All sites	129.9	All sites	99.7

*Tunisia, North (2003-2005)

SITE	Male						Female						ICD-10
	§No. cases	Freq. (%)	Crude rate (per 100,000)	ASR world	Cum. rates 0-64 (%)	0-74 (%)	§No. cases	Freq. (%)	Crude rate (per 100,000)	ASR world	Cum. rates 0-64 (%)	0-74 (%)	
Lip	61	0.7	0.8	0.8	0.03	0.09	5	0.1	0.1	0.1	0.00	0.00	C00
Tongue	36	0.4	0.5	0.5	0.04	0.07	24	0.4	0.3	0.3	0.02	0.03	C01-02
Mouth	63	0.7	0.9	0.9	0.06	0.10	54	0.8	0.7	0.8	0.04	0.10	C03-06
Salivary glands	29	0.3	0.4	0.4	0.03	0.05	23	0.3	0.3	0.3	0.02	0.04	C07-08
Tonsil	8	0.1	0.1	0.1	0.01	0.01	4	0.1	0.1	0.1	0.01	0.01	C09
Other oropharynx	5	0.1	0.1	0.1	0.00	0.01	3	0.0	0.0	0.0	0.00	0.00	C10
Nasopharynx	256	3.0	3.5	3.5	0.25	0.37	107	1.6	1.5	1.5	0.11	0.15	C11
Hypopharynx	30	0.4	0.4	0.4	0.03	0.05	29	0.4	0.4	0.4	0.03	0.04	C12-13
Pharynx unspecified	8	0.1	0.1	0.1	0.01	0.02	2	0.0	0.0	0.0	0.00	0.00	C14
Oesophagus	36	0.4	0.5	0.5	0.03	0.07	24	0.4	0.3	0.3	0.02	0.04	C15
Stomach	407	4.8	5.5	5.8	0.35	0.71	227	3.4	3.1	3.2	0.20	0.36	C16
Small intestine	33	0.4	0.4	0.5	0.03	0.06	26	0.4	0.4	0.4	0.02	0.04	C17
Colon	433	5.1	5.9	6.3	0.41	0.78	387	5.8	5.4	5.5	0.35	0.63	C18
Rectum	289	3.4	3.9	4.2	0.27	0.50	264	3.9	3.7	3.7	0.25	0.41	C19-20
Anus	23	0.3	0.3	0.3	0.02	0.03	11	0.2	0.2	0.2	0.01	0.02	C21
Liver	117	1.4	1.6	1.7	0.09	0.23	72	1.1	1.0	1.1	0.05	0.12	C22
Gallbladder etc.	98	1.2	1.3	1.5	0.08	0.18	179	2.7	2.5	2.6	0.15	0.33	C23-24
Pancreas	169	2.0	2.3	2.4	0.14	0.31	87	1.3	1.2	1.2	0.06	0.15	C25
Nose, sinuses etc.	20	0.2	0.3	0.3	0.02	0.03	11	0.2	0.2	0.1	0.01	0.01	C30-31
Larynx	408	4.8	5.6	6.0	0.38	0.75	28	0.4	0.4	0.4	0.02	0.05	C32
Trachea, bronchus and lung	2053	24.3	28.0	30.6	1.93	4.01	182	2.7	2.5	2.6	0.17	0.31	C33-34
Other thoracic organs	26	0.3	0.4	0.4	0.03	0.04	16	0.2	0.2	0.2	0.01	0.02	C37-38
Bone	82	1.0	1.1	1.1	0.07	0.07	54	0.8	0.7	0.7	0.04	0.05	C40-41
Melanoma of skin	38	0.4	0.5	0.5	0.02	0.05	41	0.6	0.6	0.5	0.03	0.05	C43
Other skin	529		7.2	7.4	0.35	0.82	403		5.6	5.7	0.26	0.63	C44
Mesothelioma	14	0.2	0.2	0.2	0.02	0.03	4	0.1	0.1	0.1	0.01	0.01	C45
Kaposi sarcoma	55	0.6	0.7	0.7	0.02	0.09	25	0.4	0.3	0.4	0.01	0.05	C46
Connective and soft tissue	124	1.5	1.7	1.8	0.11	0.16	77	1.2	1.1	1.1	0.08	0.11	C47+C49
Breast	45	0.5	0.6	0.6	0.03	0.08	2260	33.8	31.3	30.9	2.43	3.27	C50
Vulva							41	0.6	0.6	0.6	0.04	0.07	C51
Vagina							20	0.3	0.3	0.3	0.01	0.03	C52
Cervix uteri							319	4.8	4.4	4.6	0.36	0.53	C53
Corpus uteri							229	3.4	3.2	3.4	0.25	0.43	C54
Uterus unspecified							32	0.5	0.4	0.5	0.04	0.06	C55
Ovary							277	4.1	3.8	4.0	0.31	0.44	C56
Other female genital organs							2	0.0	0.0	0.0	0.00	0.01	C57
Placenta							7	0.1	0.1	0.1	0.01	0.01	C58
Penis	8	0.1	0.1	0.1	0.01	0.02							C60
Prostate	808	9.5	11.0	11.4	0.34	1.32							C61
Testis	62	0.7	0.8	0.8	0.05	0.06							C62
Other male genital organs	0	0.0	0.0	0.0	0.00	0.00							C63
Kidney	153	1.8	2.1	2.3	0.15	0.27	99	1.5	1.4	1.5	0.08	0.16	C64
Renal pelvis	6	0.1	0.1	0.1	0.00	0.01	4	0.1	0.1	0.1	0.01	0.01	C65
Ureter	9	0.1	0.1	0.1	0.00	0.02	3	0.0	0.0	0.0	0.00	0.01	C66
†Bladder	883	10.4	12.0	12.9	0.58	1.67	105	1.6	1.5	1.5	0.06	0.17	C67
Other urinary organs	4	0.0	0.1	0.1	0.00	0.01	1	0.0	0.0	0.0	0.00	0.00	C68
Eye	29	0.3	0.4	0.5	0.02	0.03	10	0.1	0.1	0.2	0.01	0.01	C69
Brain, nervous system	184	2.2	2.5	2.7	0.21	0.25	134	2.0	1.9	1.9	0.13	0.18	C70-72
Thyroid	78	0.9	1.1	1.1	0.08	0.12	245	3.7	3.4	3.3	0.23	0.32	C73
Adrenal gland	10	0.1	0.1	0.2	0.01	0.01	6	0.1	0.1	0.1	0.01	0.01	C74
Other endocrine	2	0.0	0.0	0.0	0.00	0.00	2	0.0	0.0	0.0	0.00	0.00	C75
Hodgkin lymphoma	154	1.8	2.1	2.0	0.15	0.19	115	1.7	1.6	1.4	0.09	0.11	C81
Non-Hodgkin lymphoma	398	4.7	5.4	5.7	0.37	0.62	265	4.0	3.7	3.8	0.20	0.41	C82-85,C96
Immunoproliferative diseases	0	0.0	0.0	0.0	0.00	0.00	3	0.0	0.0	0.0	0.00	0.00	C88
Multiple myeloma	76	0.9	1.0	1.1	0.07	0.14	81	1.2	1.1	1.2	0.08	0.15	C90
Lymphoid leukaemia	111	1.3	1.5	1.6	0.08	0.14	81	1.2	1.1	1.3	0.08	0.10	C91
Myeloid leukaemia	138	1.6	1.9	1.9	0.14	0.19	101	1.5	1.4	1.4	0.10	0.14	C92-94
Leukaemia unspecified	6	0.1	0.1	0.1	0.00	0.00	8	0.1	0.1	0.1	0.00	0.01	C95
Myeloproliferative disorders	0	0.0	0.0	0.0	0.00	0.00	2	0.0	0.0	0.0	0.00	0.00	MPD
Myelodysplastic syndromes	0	0.0	0.0	0.0	0.00	0.00	0	0.0	0.0	0.0	0.00	0.00	MDS
Other and unspecified	380	4.5	5.2	5.5	0.35	0.64	276	4.1	3.8	4.0	0.24	0.43	O&U
All sites	8994		122.5	129.9	7.48	15.49	7097		98.4	99.7	6.76	10.84	C00-96
All sites except C44	8465	100.0	115.3	122.6	7.13	14.67	6694	100.0	92.8	94.0	6.50	10.21	C00-96 exc. C44

§Includes 104 cases of unknown age

§Includes 90 cases of unknown age

†*See note following population pyramid

Uganda, Kyadondo County

REGISTRATION AREA

The Kampala Cancer Registry covers the population of Kyadondo County, which includes the city of Kampala (the capital of Uganda) and a peri-urban area extending approximately 30 km to the north. The majority of residents are members of the Ganda ethnic group.

CANCER CARE FACILITIES

Kyadondo County is served by the 1500-bed Mulago National Referral Hospital, which is equipped with modern diagnostic facilities. An oncology unit (the Uganda Cancer Institute) provides chemotherapy for various types of cancers, and the hospital has a department of radiotherapy (one of only two in the country). The city of Kampala has three moderate-sized mission hospitals with about 200 beds each. There are two hospital histopathology departments and three private histopathology laboratories. Palliative and end-of-life care services are provided by the Uganda Hospice.

REGISTRY STRUCTURE AND METHODS

The registry is situated in the Department of Pathology at the Makerere University College of Health Sciences, and has recruited personnel to assist in coordinating data collection. Submission to the registry is voluntary and infrequent, as cancer is not a reportable disease in Uganda. Registration is therefore almost entirely active. Registration visits to hospitals, hospices, and histopathology laboratories are carried out at least once a month, during which the hospital records – including admission and discharge registers, clinical notes, and pathology reports – are consulted. For each cancer case, both demographic and cancer diagnostic data are recorded. Death certificates are incomplete and therefore not used as a source of information by the registry. The registry is computerized, and data management is carried out using CanReg software, which includes checks for consistency and validity and facilitates the search for potential duplicate registration.

INTERPRETING THE RESULTS

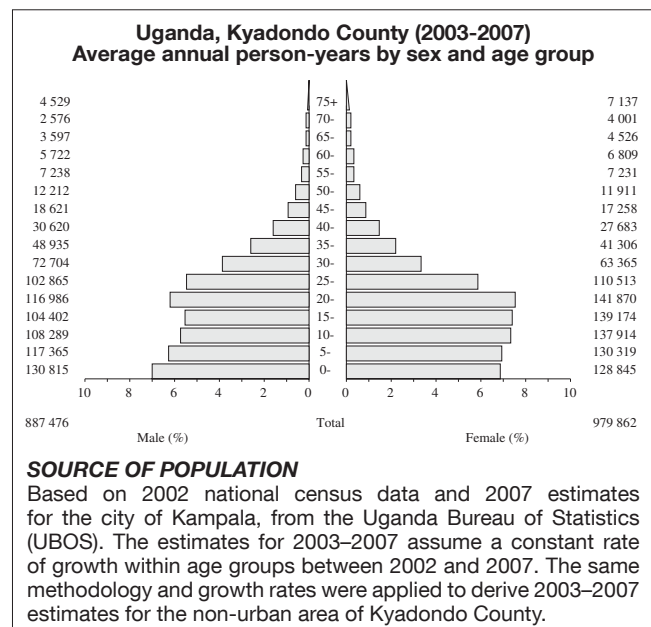
In 2001, the completeness of registration was determined to be about 90% for adult cancer cases.

USE OF THE DATA

The registry provides the longest time series of cancer incidence in Africa. This makes the data of special value for cancer surveillance and research, particularly for monitoring the epidemic of HIV/AIDS and as a baseline for analytical studies and intervention studies.

CONTRIBUTORS

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SOURCE OF POPULATION

Based on 2002 national census data and 2007 estimates for the city of Kampala, from the Uganda Bureau of Statistics (UBOS). The estimates for 2003–2007 assume a constant rate of growth within age groups between 2002 and 2007. The same methodology and growth rates were applied to derive 2003–2007 estimates for the non-urban area of Kyadondo County.

NOTES ON THE DATA

*No official mortality data. Limited DCO registrations.

10 MAJOR CANCERS, ASR (WORLD) PER 100 000

Male		Female	
Prostate	42.5	Cervix uteri	54.3
Kaposi sarcoma	29.5	Breast	32.9
Oesophagus	15.6	Kaposi sarcoma	20.2
Liver	11.4	Oesophagus	11.5
Non-Hodgkin lymphoma	9.6	Liver	8.7
Stomach	8.0	Other and unspecified	8.1
Other and unspecified	6.5	Non-Hodgkin lymphoma	7.2
Trachea, bronchus and lung	5.2	Ovary	6.9
Colon	4.1	Stomach	5.9
Rectum	3.8	Corpus uteri	5.6
All sites	180.8	All sites	214.9

*Uganda, Kyadondo County (2003-2007)

SITE	Male					Female					ICD-10		
	§No. cases	Freq. (%)	Crude rate (per 100,000)	ASR world	Cum. rates 0-64 (%)	0-74 (%)	§No. cases	Freq. (%)	Crude rate (per 100,000)	ASR world		Cum. rates 0-64 (%)	0-74 (%)
Lip	3	0.1	0.1	0.1	0.00	0.00	0	0.0	0.0	0.0	0.00	0.00	C00
Tongue	10	0.3	0.2	0.8	0.08	0.08	5	0.1	0.1	0.6	0.05	0.08	C01-02
Mouth	18	0.6	0.4	1.3	0.10	0.12	16	0.4	0.3	1.0	0.05	0.15	C03-06
Salivary glands	8	0.3	0.2	0.6	0.03	0.10	10	0.3	0.2	0.6	0.07	0.07	C07-08
Tonsil	6	0.2	0.1	0.5	0.04	0.08	2	0.1	0.0	0.1	0.00	0.00	C09
Other oropharynx	10	0.3	0.2	0.8	0.05	0.08	7	0.2	0.1	0.3	0.03	0.03	C10
Nasopharynx	42	1.4	0.9	2.2	0.17	0.25	27	0.7	0.6	1.6	0.16	0.16	C11
Hypopharynx	11	0.4	0.2	1.3	0.13	0.16	4	0.1	0.1	0.3	0.01	0.06	C12-13
Pharynx unspecified	2	0.1	0.0	0.1	0.01	0.01	1	0.0	0.0	0.1	0.01	0.01	C14
Oesophagus	157	5.4	3.5	15.6	0.99	1.98	125	3.2	2.6	11.5	0.63	1.58	C15
Stomach	84	2.9	1.9	8.0	0.38	1.10	78	2.0	1.6	5.9	0.38	0.77	C16
Small intestine	1	0.0	0.0	0.1	0.01	0.01	3	0.1	0.1	0.2	0.00	0.03	C17
Colon	50	1.7	1.1	4.1	0.27	0.49	55	1.4	1.1	4.8	0.32	0.58	C18
Rectum	47	1.6	1.1	3.8	0.22	0.51	61	1.6	1.2	4.6	0.33	0.50	C19-20
Anus	5	0.2	0.1	0.3	0.02	0.02	7	0.2	0.1	0.5	0.04	0.07	C21
Liver	177	6.1	4.0	11.4	0.68	1.36	131	3.4	2.7	8.7	0.54	1.07	C22
Gallbladder etc.	3	0.1	0.1	0.3	0.04	0.04	5	0.1	0.1	0.4	0.02	0.07	C23-24
Pancreas	30	1.0	0.7	2.7	0.11	0.39	25	0.6	0.5	2.1	0.11	0.29	C25
Nose, sinuses etc.	5	0.2	0.1	0.2	0.01	0.01	14	0.4	0.3	0.9	0.05	0.12	C30-31
Larynx	31	1.1	0.7	2.5	0.12	0.31	6	0.2	0.1	0.2	0.02	0.02	C32
Trachea, bronchus and lung	59	2.0	1.3	5.2	0.28	0.65	55	1.4	1.1	5.1	0.25	0.78	C33-34
Other thoracic organs	11	0.4	0.2	0.6	0.02	0.10	9	0.2	0.2	0.8	0.04	0.14	C37-38
Bone	48	1.6	1.1	1.9	0.11	0.26	43	1.1	0.9	1.7	0.13	0.18	C40-41
Melanoma of skin	13	0.4	0.3	1.1	0.05	0.15	29	0.7	0.6	2.0	0.12	0.29	C43
Other skin	58	1.3	1.3	3.5	0.26	0.40	41	0.8	0.8	2.7	0.18	0.30	C44
Mesothelioma	1	0.0	0.0	0.0	0.00	0.00	0	0.0	0.0	0.0	0.00	0.00	C45
Kaposi sarcoma	856	29.3	19.3	29.5	2.11	2.87	751	19.3	15.3	20.2	1.62	1.70	C46
Connective and soft tissue	65	2.2	1.5	2.4	0.18	0.21	60	1.5	1.2	2.8	0.20	0.31	C47+C49
Breast	24	0.8	0.5	2.0	0.11	0.21	498	12.8	10.2	32.9	2.52	3.88	C50
Vulva							12	0.3	0.2	0.6	0.03	0.10	C51
Vagina							9	0.2	0.2	0.6	0.05	0.07	C52
Cervix uteri							865	22.2	17.7	54.3	4.48	6.15	C53
Corpus uteri							63	1.6	1.3	5.6	0.42	0.75	C54
Uterus unspecified							23	0.6	0.5	1.7	0.08	0.22	C55
Ovary							126	3.2	2.6	6.9	0.53	0.77	C56
Other female genital organs							3	0.1	0.1	0.1	0.01	0.01	C57
Placenta							41	1.1	0.8	1.0	0.08	0.08	C58
Penis	30	1.0	0.7	2.2	0.09	0.21							C60
Prostate	357	12.2	8.0	42.5	1.13	5.36							C61
Testis	12	0.4	0.3	0.3	0.02	0.02							C62
Other male genital organs	3	0.1	0.1	0.2	0.02	0.02							C63
Kidney	40	1.4	0.9	1.1	0.07	0.07	41	1.1	0.8	1.7	0.10	0.19	C64
Renal pelvis	1	0.0	0.0	0.1	0.01	0.01	1	0.0	0.0	0.0	0.00	0.00	C65
Ureter	1	0.0	0.0	0.2	0.00	0.04	2	0.1	0.0	0.2	0.03	0.03	C66
Bladder	31	1.1	0.7	2.6	0.13	0.30	25	0.6	0.5	1.8	0.11	0.23	C67
Other urinary organs	2	0.1	0.0	0.3	0.03	0.03	2	0.1	0.0	0.1	0.01	0.01	C68
Eye	73	2.5	1.6	2.7	0.19	0.26	94	2.4	1.9	3.0	0.21	0.28	C69
Brain, nervous system	37	1.3	0.8	1.9	0.11	0.20	17	0.4	0.3	0.9	0.06	0.10	C70-72
Thyroid	19	0.6	0.4	1.7	0.09	0.25	55	1.4	1.1	3.2	0.26	0.35	C73
Adrenal gland	1	0.0	0.0	0.0	0.00	0.00	0	0.0	0.0	0.0	0.00	0.00	C74
Other endocrine	2	0.1	0.0	0.0	0.00	0.00	1	0.0	0.0	0.0	0.00	0.00	C75
Hodgkin lymphoma	44	1.5	1.0	1.6	0.10	0.17	43	1.1	0.9	1.9	0.15	0.22	C81
Non-Hodgkin lymphoma	294	10.1	6.6	9.6	0.62	0.88	238	6.1	4.9	7.2	0.41	0.77	C82-85,C96
Immunoproliferative diseases	0	0.0	0.0	0.0	0.00	0.00	1	0.0	0.0	0.0	0.00	0.00	C88
Multiple myeloma	26	0.9	0.6	2.1	0.14	0.28	22	0.6	0.4	2.1	0.14	0.27	C90
Lymphoid leukaemia	26	0.9	0.6	0.9	0.02	0.12	16	0.4	0.3	0.5	0.01	0.04	C91
Myeloid leukaemia	21	0.7	0.5	0.6	0.03	0.06	15	0.4	0.3	0.3	0.02	0.02	C92-94
Leukaemia unspecified	19	0.6	0.4	0.8	0.05	0.08	15	0.4	0.3	0.6	0.06	0.06	C95
Myeloproliferative disorders	0	0.0	0.0	0.0	0.00	0.00	0	0.0	0.0	0.0	0.00	0.00	MPD
Myelodysplastic syndromes	0	0.0	0.0	0.0	0.00	0.00	0	0.0	0.0	0.0	0.00	0.00	MDS
Other and unspecified	109	3.7	2.5	6.5	0.42	0.72	138	3.5	2.8	8.1	0.56	0.93	O&U
All sites	2983		67.2	180.8	9.88	21.03	3936		80.3	214.9	15.64	24.88	C00-96
All sites except C44	2925	100.0	65.9	177.3	9.62	20.63	3895	100.0	79.5	212.2	15.46	24.59	C00-96 exc. C44

§Includes 44 cases of unknown age

§Includes 85 cases of unknown age

*See note following population pyramid

Zimbabwe, Harare: African

REGISTRATION AREA

The Zimbabwe National Cancer Registry was established in Harare in 1985 as a result of an agreement between IARC and the Zimbabwean Ministry of Health. The registry became population-based in 1990 and covers the population of the city of Harare (1.4 million inhabitants).

CANCER CARE FACILITIES

There are two large central referral hospitals: Harare Central Hospital and Parirenyatwa Hospital.

REGISTRY STRUCTURE AND METHODS

The registry is strategically located at Parirenyatwa Hospital, a large government referral centre and the location of the University of Zimbabwe's College of Health Sciences. It is supported by the Zimbabwean Ministry of Health and Child Welfare, IARC, and other organizations. The activities of the registry are overseen by a constituted advisory committee, and the day-to-day administration is the responsibility of the registrar under the guidance of the medical director. The registry has four full-time staff members: a registrar, a secretary, and two data collection clerks. Case finding is mainly active, carried out through visits to health care delivery institutions involved in the management of cancer patients. Data sources include routine visits to the inpatient wards of the two government central referral hospitals, medical records of discharged and deceased cancer patients, visits to oncology outpatient clinics, histology reports from the public and private sectors, medical records from the radiotherapy department, and death certificates of patients who died of cancer in greater Harare. The information recorded for each case includes sex, date of birth or age, residence status, racial group, basis of diagnosis, tumour site, and histology. When possible, demographic data and residence status are verified through hospital inpatient interviews. Incoming notifications are thoroughly verified to ensure the recording of incident cases only. Data are coded according to the ICD-O system and stored electronically using CanReg software.

INTERPRETING THE RESULTS

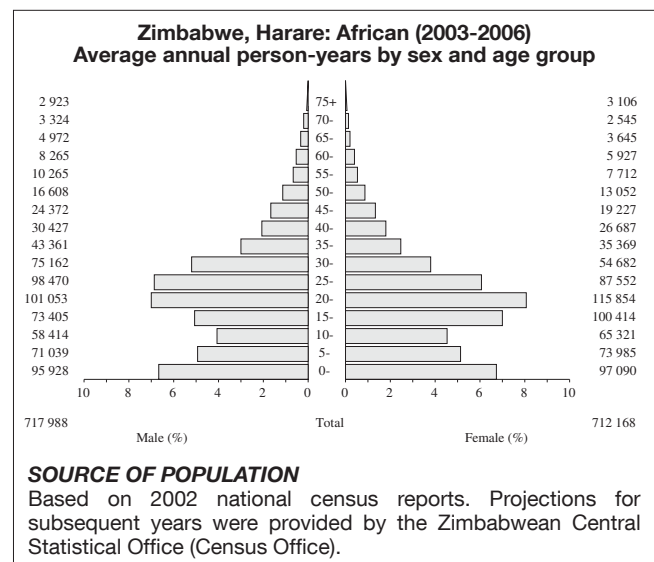
Residence status is defined as the patient's place of residence during the previous 6 months.

USE OF THE DATA

Data from the registry are extensively used by Zimbabwean and foreign researchers, lecturers, students, conference participants, and health educators, as well as by the Zimbabwean Ministry of Health and Child Welfare for management planning and cancer control programmes.

CONTRIBUTORS

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NOTES ON THE DATA

*No official mortality data.

10 MAJOR CANCERS, ASR (WORLD) PER 100 000

Male		Female	
Prostate	62.4	Cervix uteri	86.7
Kaposi sarcoma	37.3	Breast	33.9
Oesophagus	22.2	Kaposi sarcoma	23.5
Liver	16.7	Oesophagus	15.3
Stomach	11.7	Stomach	14.2
Trachea, bronchus and lung	10.1	Liver	13.9
Bladder	9.4	Ovary	10.9
Non-Hodgkin lymphoma	8.8	Non-Hodgkin lymphoma	10.0
Colon	8.0	Corpus uteri	10.0
Other and unspecified	6.7	Trachea, bronchus and lung	6.4
All sites	244.5	All sites	299.5

*Zimbabwe, Harare: African (2003-2006)

SITE	Male						Female						ICD-10
	§No. cases	Freq. (%)	Crude rate (per 100,000)	ASR world	Cum. rates 0-64 (%)	0-74 (%)	§No. cases	Freq. (%)	Crude rate (per 100,000)	ASR world	Cum. rates 0-64 (%)	0-74 (%)	
Lip	0	0.0	0.0	0.0	0.00	0.00	0	0.0	0.0	0.0	0.00	0.00	C00
Tongue	9	0.3	0.3	0.9	0.06	0.09	5	0.2	0.2	0.4	0.02	0.06	C01-02
Mouth	10	0.4	0.3	0.8	0.05	0.08	9	0.3	0.3	1.1	0.05	0.11	C03-06
Salivary glands	10	0.4	0.3	0.6	0.05	0.07	12	0.4	0.4	1.0	0.09	0.12	C07-08
Tonsil	3	0.1	0.1	0.2	0.02	0.02	0	0.0	0.0	0.0	0.00	0.00	C09
Other oropharynx	3	0.1	0.1	0.4	0.03	0.06	0	0.0	0.0	0.0	0.00	0.00	C10
Nasopharynx	12	0.4	0.4	0.7	0.04	0.09	6	0.2	0.2	0.4	0.03	0.03	C11
Hypopharynx	2	0.1	0.1	0.3	0.02	0.02	2	0.1	0.1	0.2	0.02	0.02	C12-13
Pharynx unspecified	3	0.1	0.1	0.4	0.00	0.05	2	0.1	0.1	0.2	0.00	0.00	C14
Oesophagus	182	6.5	6.3	22.2	0.68	2.64	103	3.3	3.6	15.3	0.69	2.04	C15
Stomach	106	3.8	3.7	11.7	0.42	1.47	96	3.1	3.4	14.2	0.60	1.83	C16
Small intestine	6	0.2	0.2	0.8	0.04	0.09	2	0.1	0.1	0.1	0.01	0.01	C17
Colon	76	2.7	2.6	8.0	0.34	0.97	48	1.5	1.7	5.8	0.29	0.85	C18
Rectum	55	2.0	1.9	5.0	0.24	0.58	43	1.4	1.5	5.3	0.22	0.63	C19-20
Anus	3	0.1	0.1	0.4	0.02	0.02	2	0.1	0.1	0.2	0.00	0.00	C21
Liver	199	7.1	6.9	16.7	0.74	1.80	101	3.2	3.5	13.9	0.48	1.89	C22
Gallbladder etc.	8	0.3	0.3	1.2	0.02	0.12	11	0.4	0.4	1.4	0.07	0.21	C23-24
Pancreas	36	1.3	1.3	4.3	0.16	0.42	41	1.3	1.4	6.1	0.27	0.67	C25
Nose, sinuses etc.	12	0.4	0.4	1.1	0.03	0.15	7	0.2	0.2	0.6	0.04	0.09	C30-31
Larynx	40	1.4	1.4	4.6	0.21	0.49	6	0.2	0.2	0.8	0.04	0.08	C32
Trachea, bronchus and lung	87	3.1	3.0	10.1	0.39	1.04	49	1.6	1.7	6.4	0.31	0.83	C33-34
Other thoracic organs	5	0.2	0.2	0.2	0.01	0.04	3	0.1	0.1	0.2	0.01	0.01	C37-38
Bone	51	1.8	1.8	2.4	0.15	0.20	30	1.0	1.1	1.5	0.10	0.13	C40-41
Melanoma of skin	14	0.5	0.5	1.5	0.05	0.25	21	0.7	0.7	3.3	0.13	0.32	C43
Other skin	52	1.8	1.8	4.2	0.14	0.58	47	1.6	1.6	4.5	0.32	0.63	C44
Mesothelioma	1	0.0	0.0	0.0	0.00	0.00	0	0.0	0.0	0.0	0.00	0.00	C45
Kaposi sarcoma	824	29.4	28.7	37.3	2.83	3.70	524	16.7	18.4	23.5	1.99	2.13	C46
Connective and soft tissue	37	1.3	1.3	2.4	0.14	0.28	25	0.8	0.9	1.7	0.12	0.21	C47+C49
Breast	13	0.5	0.5	1.5	0.05	0.07	364	11.6	12.8	33.9	2.66	3.65	C50
Vulva							14	0.4	0.5	1.1	0.07	0.14	C51
Vagina							4	0.1	0.1	0.2	0.02	0.02	C52
Cervix uteri							847	27.1	29.7	86.7	5.68	10.40	C53
Corpus uteri							69	2.2	2.4	10.0	0.52	1.27	C54
Uterus unspecified							17	0.5	0.6	1.8	0.13	0.13	C55
Ovary							110	3.5	3.9	10.9	0.63	1.39	C56
Other female genital organs							1	0.0	0.0	0.1	0.00	0.00	C57
Placenta							29	0.9	1.0	0.9	0.07	0.07	C58
Penis	14	0.5	0.5	1.1	0.07	0.14							C60
Prostate	420	15.0	14.6	62.4	1.09	6.91							C61
Testis	6	0.2	0.2	0.3	0.01	0.04							C62
Other male genital organs	0	0.0	0.0	0.0	0.00	0.00							C63
Kidney	31	1.1	1.1	1.6	0.08	0.10	21	0.7	0.7	1.0	0.09	0.09	C64
Renal pelvis	0	0.0	0.0	0.0	0.00	0.00	0	0.0	0.0	0.0	0.00	0.00	C65
Ureter	0	0.0	0.0	0.0	0.00	0.00	0	0.0	0.0	0.0	0.00	0.00	C66
Bladder	75	2.7	2.6	9.4	0.31	0.94	51	1.6	1.8	6.2	0.35	0.74	C67
Other urinary organs	0	0.0	0.0	0.0	0.00	0.00	0	0.0	0.0	0.0	0.00	0.00	C68
Eye	108	3.9	3.8	5.5	0.40	0.55	112	3.6	3.9	5.4	0.39	0.52	C69
Brain, nervous system	37	1.3	1.3	1.6	0.09	0.16	38	1.2	1.3	3.2	0.20	0.34	C70-72
Thyroid	8	0.3	0.3	0.9	0.07	0.09	38	1.2	1.3	4.7	0.31	0.53	C73
Adrenal gland	0	0.0	0.0	0.0	0.00	0.00	0	0.0	0.0	0.0	0.00	0.00	C74
Other endocrine	1	0.0	0.0	0.0	0.00	0.00	0	0.0	0.0	0.0	0.00	0.00	C75
Hodgkin lymphoma	13	0.5	0.5	0.7	0.07	0.07	10	0.3	0.4	0.5	0.02	0.07	C81
Non-Hodgkin lymphoma	158	5.6	5.5	8.8	0.62	0.89	139	4.4	4.9	10.0	0.81	1.00	C82-85,C96
Immunoproliferative diseases	0	0.0	0.0	0.0	0.00	0.00	0	0.0	0.0	0.0	0.00	0.00	C88
Multiple myeloma	21	0.7	0.7	1.8	0.11	0.18	26	0.8	0.9	4.0	0.20	0.64	C90
Lymphoid leukaemia	8	0.3	0.3	0.6	0.03	0.06	11	0.4	0.4	1.1	0.07	0.16	C91
Myeloid leukaemia	24	0.9	0.8	1.3	0.11	0.14	22	0.7	0.8	1.9	0.08	0.28	C92-94
Leukaemia unspecified	9	0.3	0.3	0.7	0.01	0.05	1	0.0	0.0	0.1	0.01	0.01	C95
Myeloproliferative disorders	0	0.0	0.0	0.0	0.00	0.00	0	0.0	0.0	0.0	0.00	0.00	MPD
Myelodysplastic syndromes	0	0.0	0.0	0.0	0.00	0.00	0	0.0	0.0	0.0	0.00	0.00	MDS
Other and unspecified	65	2.3	2.3	6.7	0.28	0.89	58	1.9	2.0	6.3	0.30	0.86	O&U
All sites	2857		99.5	244.5	10.27	26.75	3177		111.5	299.5	18.55	35.35	C00-96
All sites except C44	2805	100.0	97.7	240.3	10.12	26.17	3130	100.0	109.9	295.0	18.23	34.73	C00-96 exc. C44

§Includes 77 cases of unknown age

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*See note following population pyramid