



# **KAMPALA CANCER REGISTRY REPORT**

**for the period 2007 - 2009**

Kampala, Uganda, August 2012

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# KAMPALA CANCER REGISTRY REPORT: 2007-2009

## The Kampala Cancer Registry

### Background, history

Reports of cancer in Uganda date back to end of 19th century, when the first missionary doctor established western medicine in Uganda by constructing Mengo Hospital in Kampala. Davies *et al.* (1964) reviewed the hospital records of Mengo Hospital from 1897 to 1956. Kampala Cancer Registry (KCR) was established in 1954, in the Department of Pathology of Makerere University Medical School. The aim was to obtain information on cancer occurrence in the population of Kyadondo County, in which the capital city of Kampala is situated. The registry functioned continuously both before and after independence (1962), until the military coup of General Idi Amin Dada in 1971. Thereafter, full population coverage was not possible, although a register was maintained within the Department of Pathology until 1980, when all registration ceased. With the return of political stability, the registry restarted in 1989 and has functioned continuously since. Initially, the registry used request/result forms of the department of pathology, redesigned specifically to permit registration of cancers. Thus, they contained demographic information on the patient, as well as the source of the specimen and the results of the examination. In addition to data collected in this way, tumour registrars have been employed to search for cancer cases admitted to, or treated in, the four main hospitals in Kampala (and, in recent years, the Uganda Hospice) and, for individuals resident in Kyadondo County, to extract somewhat more extensive information onto special notification forms.

Between 1954 and 1980, registration was manual, apart from the period 1964-1968, when the data were transferred to punched cards (Templeton, 1973), which are no longer available in Uganda. The details of all patients were entered into a large register. Since 1989 the registration process has been computerized, using the CanReg system of IARC. Results of the registry have been published in volumes 1, 7, 8 and 9 of "Cancer Incidence in Five Continents" (Doll et al, 1966; Parkin et al, 1997, 2002; Curado et al 2007)

KCR is situated in the Department of Pathology, School of Biomedical Sciences, Makerere University College of Health Sciences. It is managed by a part-time Director (pathologist), the Cancer Registrar and an Assistant Cancer Registrar.

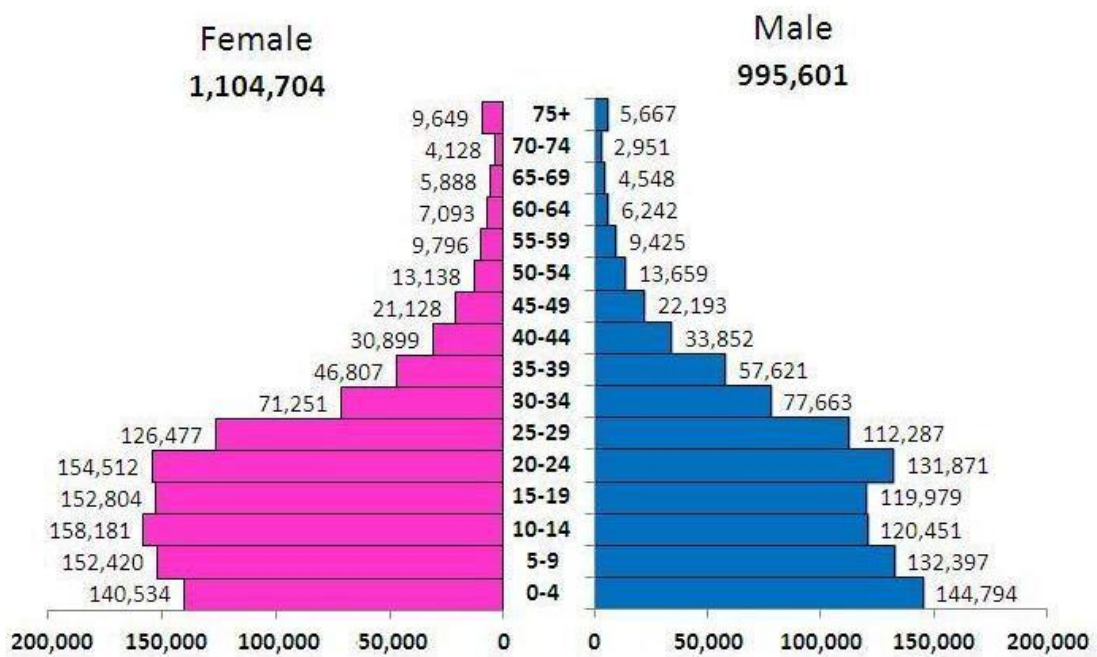
### Population covered

#### I. Geography

The cancer registry aims to cover the area of Kyadondo county, which comprises Kampala district and part of Wakiso district (Fig 1).







**Fig 2. Estimated average annual population of Kyadondo County for the period 2007-9**

## Methods

### Sources of data

The main sources of information on cancer cases are:-

- I. Hospitals
  - Mulago referral hospital & complex (including radiotherapy and haematology departments)
  - The Uganda Cancer Institute
  - Mengo hospital
  - Rubaga hospital
  - Nsambya hospital
  - Private clinics and Nursing homes
- II. Laboratories
  - Makerere Histopathology laboratory
  - Multi-system Histopathology laboratory
  - Metro Med Histopathology laboratory
  - Kampala Histopathology laboratory
  - Mengo Histopathology laboratory
  - Nsambya Histopathology laboratory
  - Govt. And Private Haematology laboratories
- III. Other sources
  - Makindye Hospice

### Methods of data collection

The registrars visit the hospitals on a scheduled time table, at a frequency depending on the anticipated number of cases to be registered. Designated staff in the hospital records departments assists in retrieving records of patients with a diagnosis of cancer. These are checked against registers of admissions and discharges. Data are abstracted from cases notes onto a registration form (Appendix 1).

The pathology laboratories actively assist the registration process, either by making the pathology logs and report forms available, or in sending copies of reports on cases diagnosed with cancer directly to the registry. Almost all of the required information is available, although place of residence is not recorded in a minority of cases, and must be traced via the referring hospital. Patients are not interviewed in person. Place of residence is taken to be that recorded on the medical record. In Kampala, there are no detailed addresses for individuals – residence is given simply as the district (neighbourhood) of the city (or village for the peri-urban parts of Kyadondo) where the individual resides.

## Death Certificates

There is no system for civil registration of deaths, by cause, in Uganda. However, death certificates are issued for all deaths occurring in hospital and copied into a death register in the hospital mortuary. This source of information is used by the registry. Status and date of last contact are updated for cases already registered. For other (unregistered) subjects, as attempt is made to locate their hospital record. If this fails, the case is registered as 'Death Certificate Only' (basis of diagnosis =0) with date of incidence = date of death.

## Variables

The variables collected on each patient are shown on the data collection form (See Appendix 1)

### Classification and coding

#### I. Site and histology

Tumour site (topography) and histology (morphology) are coded according to the International Classification of Diseases for Oncology, Third Edition (ICD-O 3) (Fritz et al, 2000). The pair of codes is converted automatically within the CANREG system to the appropriate code in the 10<sup>th</sup> revision of the International Classification of Diseases (ICD-10), which is used for tabulation of results.

#### II. Incidence date

Incidence date is defined according to original recommendations of IACR (Jensen et al, 1991) (see text box).

incidence date refers to, in decreasing order of priority:

(a) date of first consultation at, or admission to, a hospital, clinic or institution for the cancer in question;

(b) date of first diagnosis of the cancer by a physician or the date of the first pathology report—a population-based registry should seek this information only when necessary for recording the incidence date;

(c) date of death (year only), when the cancer is first ascertained from the death certificate and follow-back attempts have been unsuccessful; or

(d) date of death preceding an autopsy, when this is the time at which cancer is first found and was unsuspected clinically (without even a vague statement, such as 'tumour suspected', 'malignancy suspected').

#### III. Multiple primaries

The registry defines multiple primary cancers according to the rules of the IARC/IACR (2004) and they are recorded and tabulated accordingly. Briefly, these rules imply that only one primary cancer at a given site can occur in an individual, unless the second such cancer is completely different histological type. Laterality (tumours in the opposite side of paired organs) and time (tumours in the same organ, years later are not considered as new primary cancers).

#### IV. Basis of diagnosis

Basis of diagnosis is recorded according to the coding scheme of ICD-03 (Table 1)

<b>Table 1 IARC-IACR Basis of Diagnosis Codes</b>		
<b>Code</b>	<b>Description</b>	<b>Criteria</b>
0	Death Certificate Only	Information provided is from a death certificate.
<b>Non-microscopic</b>		
1	Clinical	Diagnosis made before death, but without any of the following (codes 2-7).
2	Clinical investigation	All diagnostic techniques, including x-ray, endoscopy, imaging, ultrasound, exploratory surgery (e.g., laparotomy), and autopsy, without a tissue diagnosis.
4	Specific tumor markers	Including biochemical and/or immunological markers that are specific for a tumor site.
<b>Microscopic</b>		
5	Cytology	Examination of cells from a primary or secondary site, including fluids aspirated by endoscopy or needle; also includes the microscopic examination of peripheral blood and bone marrow aspirates.
6	Histology of a metastasis	Histologic examination of tissue from a metastasis, including autopsy specimens.
7	Histology of a primary tumor	Histologic examination of tissue from primary tumor, however obtained, including all cutting techniques and bone marrow biopsies; also includes autopsy specimens of primary tumor.
9	Unknown	

When multiple notifications are received for the same cancer, the highest code (most valid basis) is used on the tumour record.

### **The database (CANREG version)**

The registry uses CANREG (version 4) for data entry, management and analysis (via EPI-INFO version 6).

### **Confidentiality**

The registry adheres to the guidelines of the IACR/IARC (2004) with respect to the preservation of confidentiality in connection with or during the process of collection, storage, use and transmission of identifiable data. Requests for the release of data should be made in writing to the registry; requests for data involving identification of individual subjects require special permission, involving appropriate safeguards for confidentiality.

### **Statistical methods**

Results are presented as numbers of cases registered in the three year period (2007-2009) and average annual incidence rates. The latter are calculated as:-

$$\frac{\text{Number of cases} \times 100,000}{\text{Average. annual population at risk} \times 3}$$

Either for the whole population of males and females (crude rates) or for 5 year age groups (age specific rates), per 100,000 population Age Standardisation is carried out by two methods.

I. Direct standardisation

Using age specific rates, applied to the 'World Population (Doll & Smith, 1982) to obtain the (World) Age Standardised Rate (ASR) per 100,000 population.

II. Cumulative rates (to age 64 and 74).

This is obtained by adding age specific rates for individual years of age up to age 64 or age 74. If these rates are expressed per 100,000, the result is divided by 1000, to obtain the cumulative rate (Cum. Rate) per 100 (%). It is approximately equal to the probability (percentage chance) of developing the given cancer by age 64 (before age 65), or by age 74, given the age specific incidence rates in the tables.

## Results

### Incidence

During the three year period (2007-2009) 4235 cases of cancers (ICD -10 codes – C00-C95) were registered, 1968 cases among men and 2267 cases among women.

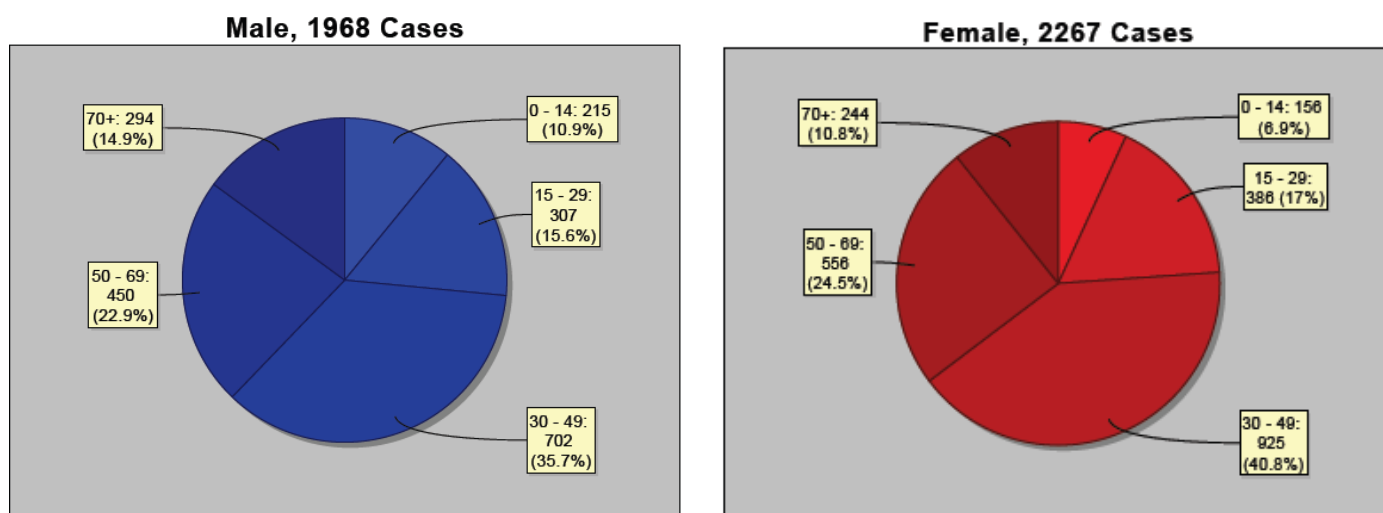
Cases of cancer in situ (behaviour =2), benign tumours (behaviour code =0), and those of uncertain behaviour code =1) are excluded.

Detailed tabulations, showing numbers of cases registered, and incidence rates pre 100,000, according to sex, cancer type and age group, are included as Appendix Tables I (numbers) and II (rates).

These results are summarised in Figures 3-6

#### I. Number of cases in period, by age group & sex

Fig 3. Shows the distribution of cases registered in the three year period, by broad age grouping and sex. Overall (both sexes) some 9% of cancer cases occurred in childhood (ages 0-14), and 11% in the elderly (ages 70 or more).



**Fig 3. Distribution of cases registered (2007-2009), by age group and sex.**

#### II. The most common cancers, by sex

Fig 4.: Shows the 10 most common cases in men and women, according to the number of cases recorded in the three year period.

In men (Fig 4a.), Kaposi sarcoma was the most commonly diagnosed malignancy with 606 cases in the 3 years followed by prostate cancer (236 cases).

In women (Fig 4b.), cancer of the cervix uteri is the most commonly diagnosed malignancy with 492 cases in three years followed by Kaposi sarcoma (429 cases).

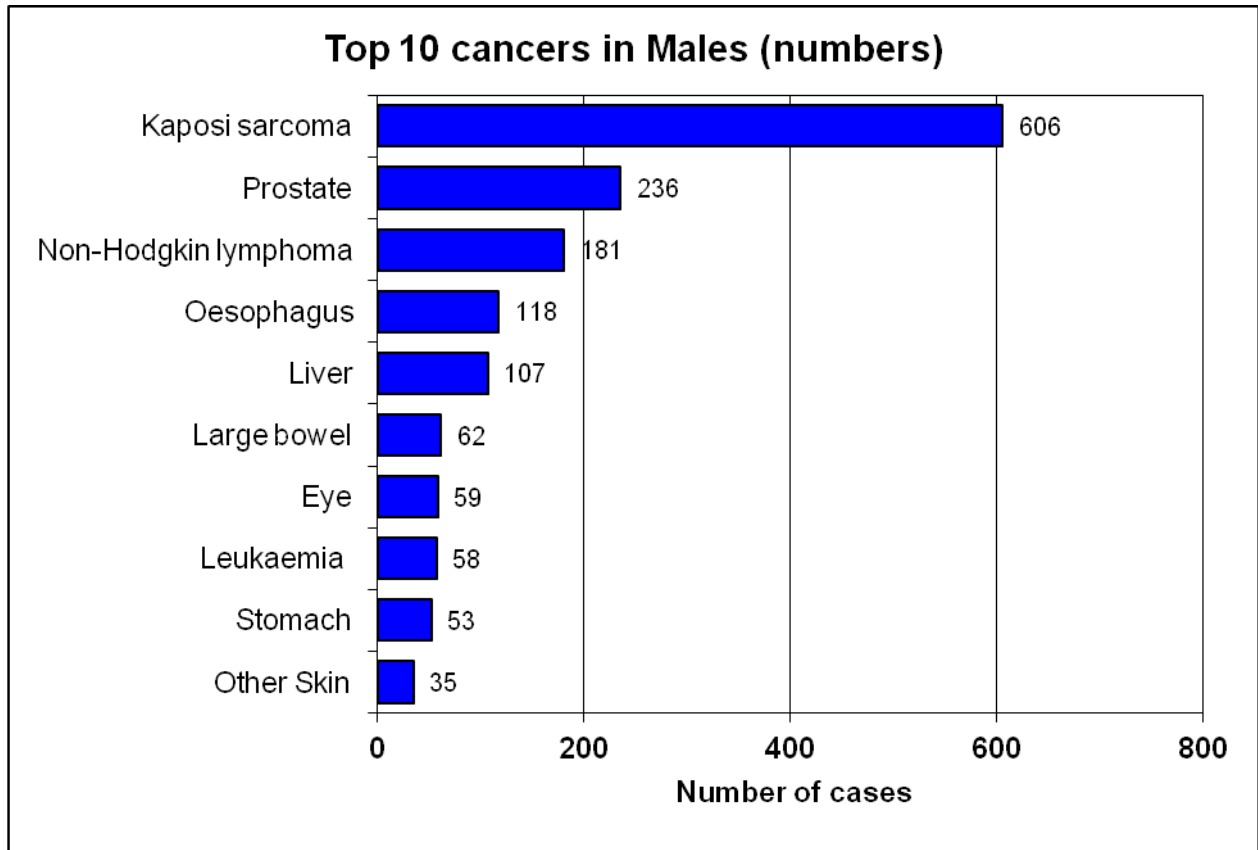


Fig 4a.

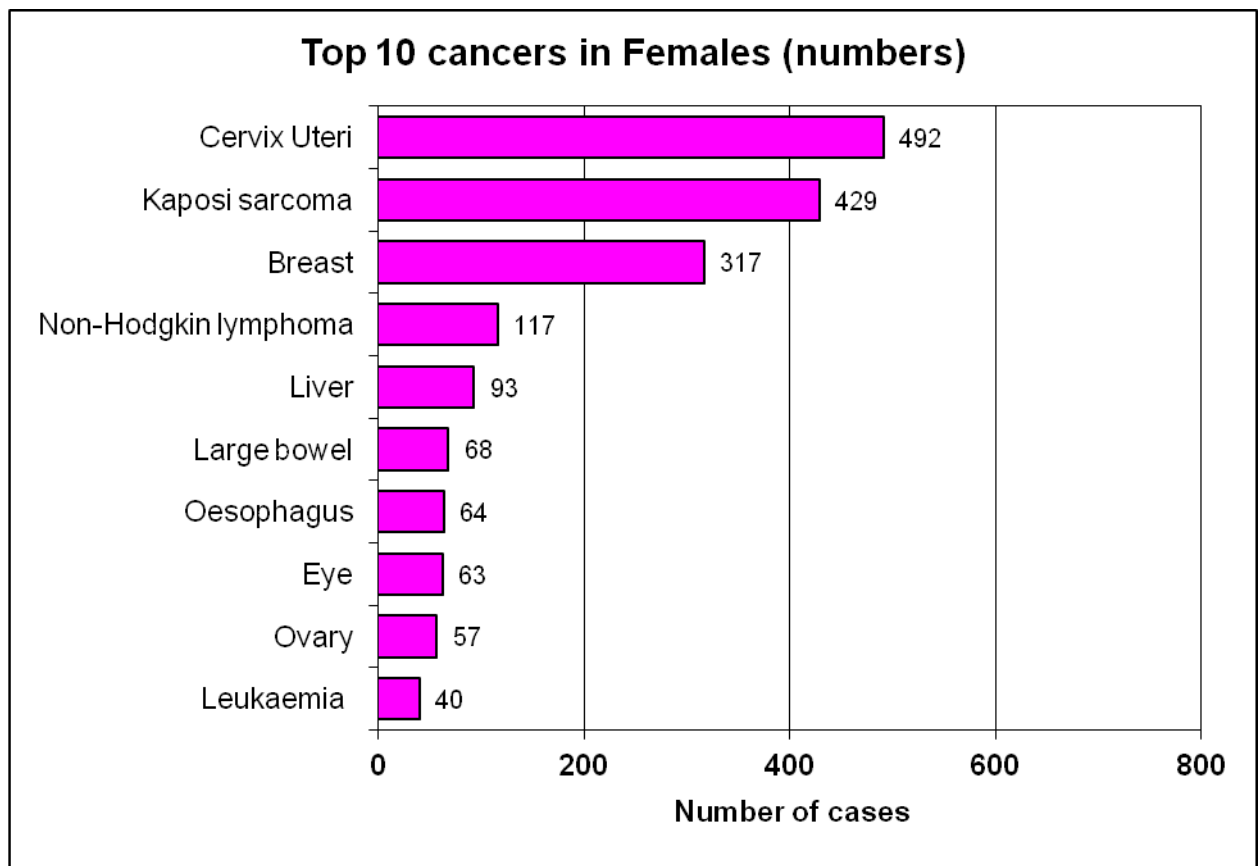


Fig 4b.



Fig 5a. 5b.: Shows the ranking of cases according to the cumulative incidence (0-74). In men the highest cumulative incidence is for prostate cancer (5.8%) followed by Kaposi sarcoma (3.0%) and cancer of the oesophagus (2.1%). In women, the sequence is: cancer of cervix (4.8%), breast (3.3%) and Kaposi sarcoma (1.4%).

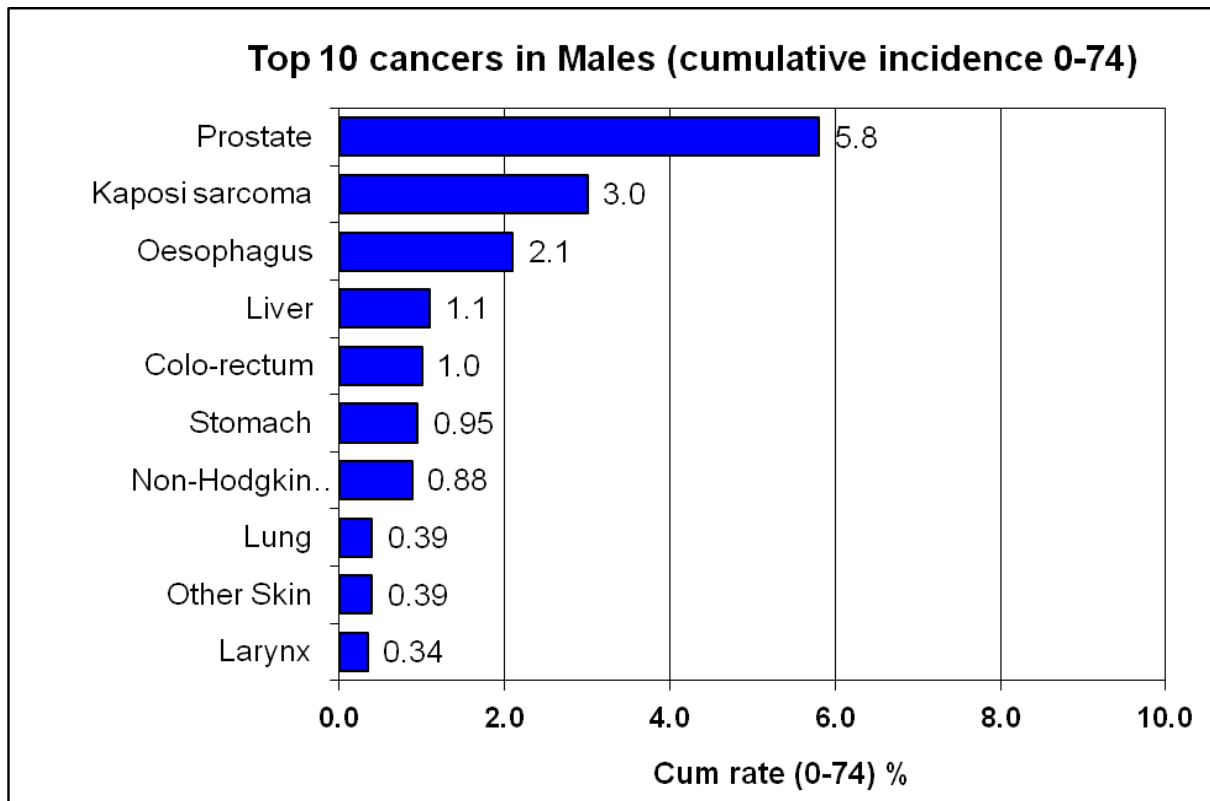


Fig 5a.

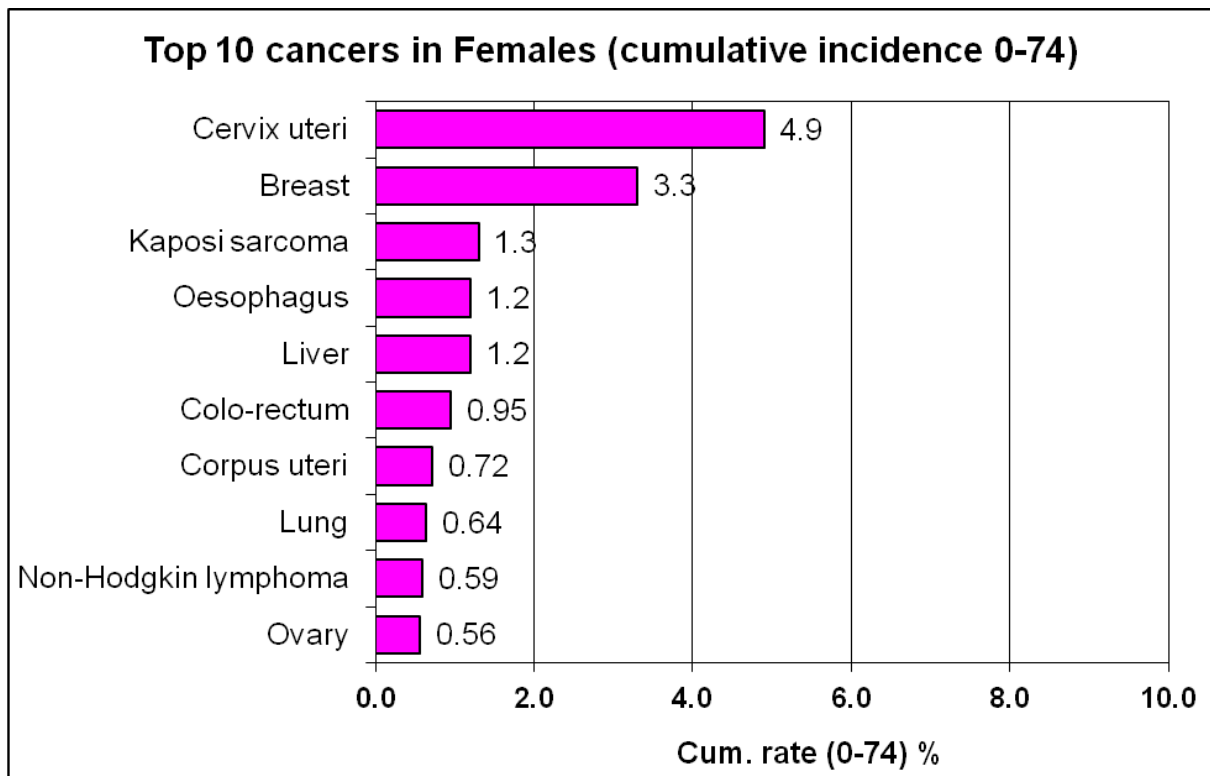
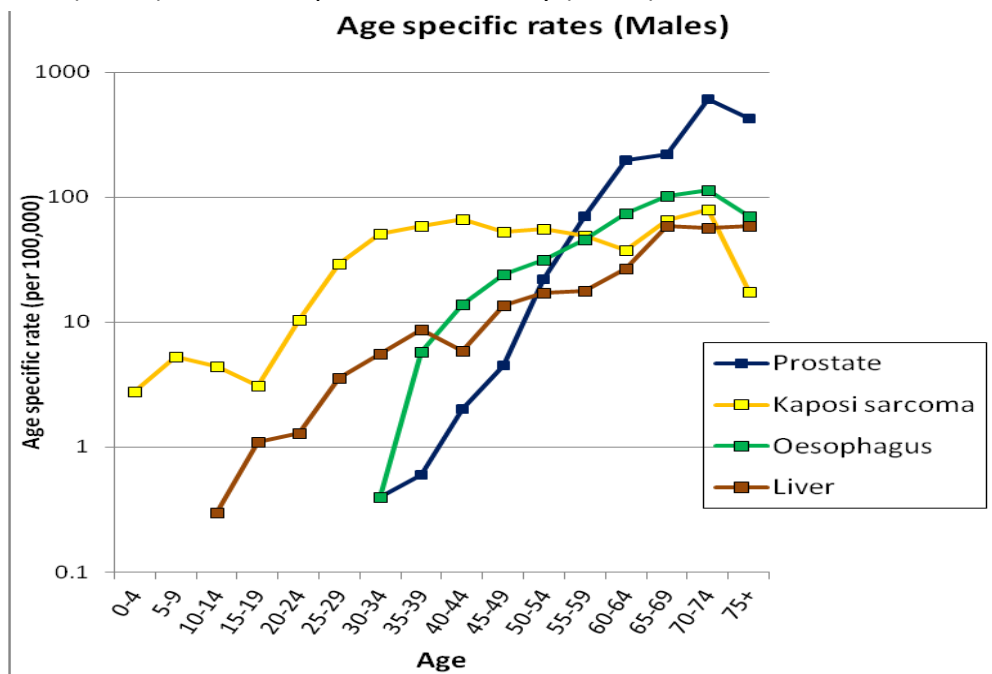


Fig 5b.

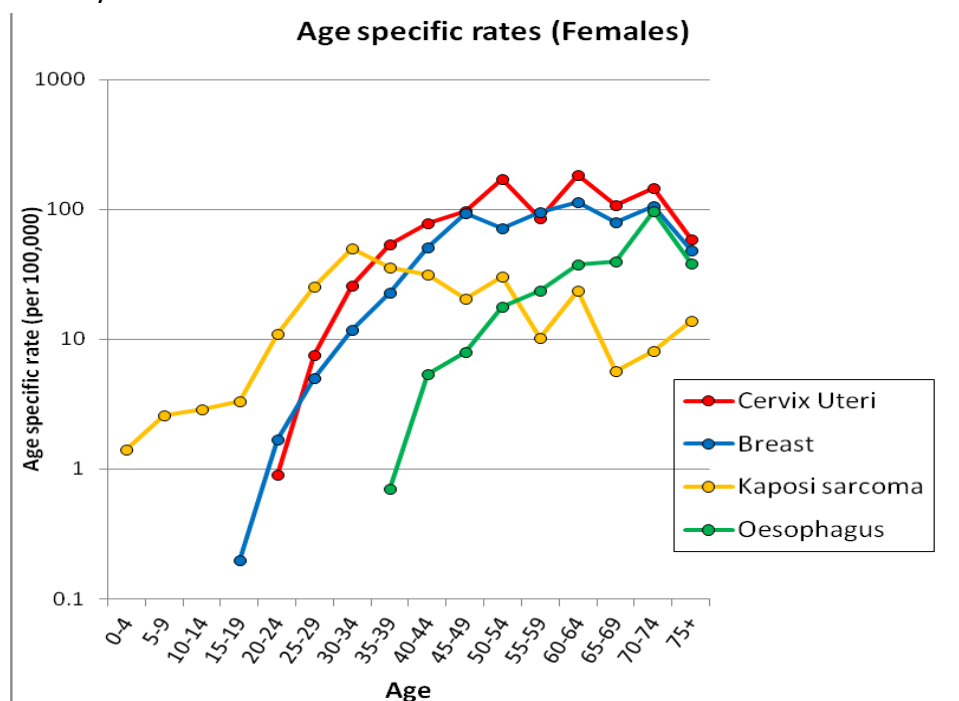
### III. Age specific incidence rates (most common sites) by sex

Fig 6a. shows age specific incidence rates for the four most common cancers of men. Cancer of the oesophagus, liver and prostate all show steadily increasing incidence by age, although the increase begins at relatively young ages for liver cancer, and at relatively old ages for prostate cancer. Kaposi sarcoma shows a different pattern: a small peak in childhood (age 5-9), then a second peak in young adults (40-44) and a final peak in the elderly (70-74)



**Fig 6a.**

Fig 6b. shows age specific incidence rates for the four most common cancers of women. Cancer of the oesophagus shows a steadily increasing incidence by age, while the incidence rates of cancers of the cervix and breast tend to be more or less constant after age 50. The peak incidence of Kaposi sarcoma in adults occurs at a younger age (30-34) than in males, and there is no peak amongst the elderly.



**Fig 6b.**

#### IV. Childhood cancers

Table 2 shows the childhood cancer cases (ages 0-14) registered in 2007-2009. The numbers of cases registered, and incidence rates (per million) by five year age group are shown, for the most important cancers of childhood, defined according to the International Classification of Childhood Cancer (Steliarova-Foucher et al, 2005). The ratio of the number of cases in boys and girls is shown (M/F) as well as the crude rate, and age standardised rate, for each type of cancer.

There were more cancers in boys (215) than girls (156) – a M/F ratio of 1.4. Lymphomas are the most common form of cancer (37.2% of cancers), because of the high frequency of Burkitt lymphoma (56% of lymphomas). There also is a high frequency of Kaposi sarcoma (21.8% of cancers). Leukaemias, normally the most common cancer in white populations of European origin were relatively less frequent (8.4%) and only 7 cases specified as acute lymphoblastic leukaemia were recorded.

<b>Table 2. Cancers of childhood (ages 0-14) in Kyadondo in 2007-2007</b>											
	NUMBER OF CASES					REL FREQ	RATES PER MILLION				
	0-4	5-9	10-14	All	M/F	(%)	0-4	5-9	10-14	Crude	ASR
<b>LEUKAEMIA</b>	<b>7</b>	<b>11</b>	<b>13</b>	<b>31</b>	<b>2.1</b>	<b>8.4%</b>	<b>8.2</b>	<b>12.9</b>	<b>15.6</b>	<b>12.2</b>	<b>11.8</b>
Acute lymphocytic leukaemia	1	2	4	7	6.0	1.9%	1.2	2.3	4.8	2.7	2.6
<b>LYMPHOMA</b>	<b>27</b>	<b>67</b>	<b>44</b>	<b>138</b>	<b>1.6</b>	<b>37.2%</b>	<b>31.5</b>	<b>78.4</b>	<b>52.6</b>	<b>54.2</b>	<b>52.8</b>
Hodgkin disease	3	6	5	14	3.7	3.8%	3.5	7.0	6.0	5.5	5.4
Burkitt lymphoma	16	43	18	77	1.1	20.8%	18.7	50.3	21.5	30.2	29.7
<b>CNS NEOPLASMS</b>	<b>2</b>	<b>7</b>	<b>4</b>	<b>13</b>	<b>0.6</b>	<b>3.5%</b>	<b>2.3</b>	<b>8.2</b>	<b>4.8</b>	<b>5.1</b>	<b>4.9</b>
NEUROBLASTOMA	3	1	0	4	1	1.1%	3.5	1.2	0.0	1.6	1.7
RETINOBLASTOMA	15	1	0	16	0.6	4.3%	17.5	1.2	0.0	6.3	7.2
<b>WILMS TUMOUR</b>	<b>23</b>	<b>3</b>	<b>1</b>	<b>27</b>	<b>0.8</b>	<b>7.3%</b>	<b>26.9</b>	<b>3.5</b>	<b>1.2</b>	<b>10.6</b>	<b>11.9</b>
<b>BONE TUMOURS</b>	<b>2</b>	<b>4</b>	<b>7</b>	<b>13</b>	<b>1.2</b>	<b>3.5%</b>	<b>2.3</b>	<b>4.7</b>	<b>8.4</b>	<b>5.1</b>	<b>4.8</b>
<b>SOFT TISSUE SARCOMAS</b>	<b>26</b>	<b>38</b>	<b>39</b>	<b>103</b>	<b>1.5</b>	<b>27.8%</b>	<b>30.4</b>	<b>44.5</b>	<b>46.7</b>	<b>40.5</b>	<b>39.6</b>
Kaposi sarcoma	18	33	30	81	1.5	21.8%	21.0	38.6	35.9	31.8	31.0
<b>GERM CELL TUMOURS</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0%</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
<b>OTHER</b>	<b>7</b>	<b>9</b>	<b>10</b>	<b>26</b>	<b>1.4</b>	<b>7.0%</b>	<b>8.2</b>	<b>10.5</b>	<b>12.0</b>	<b>10.2</b>	<b>10.0</b>
<b>ALL</b>	<b>112</b>	<b>141</b>	<b>118</b>	<b>371</b>	<b>1.4</b>	<b>100%</b>	<b>130.8</b>	<b>165.0</b>	<b>141.2</b>	<b>145.7</b>	<b>144.9</b>

## V. Geographic subdivision

Detailed place of residence is not recorded by the registry. Table 3 shows the percentage frequency of the major cancers in cases giving their place of residence as within Kampala city (urban) or in the part of Kyadondo county that forms part of Wakiso District (see Fig 1), which is more semi-urban in character.

There is almost no difference in the cancer profile between individuals from the two geographic areas

MALES				FEMALES			
Kampala city		Wakiso (part)		Kampala city		Wakiso (part)	
<u>Cancer</u>	<u>% of total</u>	<u>Cancer</u>	<u>% of total</u>	<u>Cancer</u>	<u>% of total</u>	<u>Cancer</u>	<u>% of total</u>
Kaposi sarcoma	30.2%	Kaposi sarcoma	33.6%	Cervix uteri	21.3%	Cervix uteri	23.7%
Prostate	11.7%	Prostate	13.3%	Kaposi sarcoma	18.8%	Kaposi sarcoma	19.3%
N-H. lymphoma	9.9%	N-H. lymphoma	5.8%	Breast	13.8%	Breast	14.9%
Oesophagus	6.1%	Oesophagus	5.5%	N-H. lymphoma	5.4%	N-H. lymphoma	3.9%
Liver	5.7%	Eye	4.8%	Liver	4.3%	Colo-rectum	3.3%
Colo-rectum	3.2%	Liver	4.2%	Oesophagus	3.0%	Liver	3.4%
Leukaemia	3.1%	Stomach	3.0%	Colo-rectum	3.0%	Eye	3.4%
Stomach	2.6%	Colo-rectum	3.0%	Ovary	2.7%	Kidney	2.3%
Eye	2.6%	Lung	2.4%	Eye	2.7%	Oesophagus	2.1%
Skin	1.6%	Skin	2.4%	Leukaemia	1.8%	Ovary	1.8%
n= 1638		n= 330		n= 1879		n= 388	

**Table 3. Percentage frequency of different cancers in persons resident in Kampala city and the peri-urban areas of Wakiso county**

## Survival

Results of survival are not included in the report

## Quality

### I. Quality control methods (descriptive)

The CANREG system carries out checks for internal validity (site vs. age, histology vs. site, etc) Registration is considered relatively complete, and the registry results have been accepted for publication in Volumes VII – IX of “Cancer Incidence in Five Continents”. Formal Evaluation of completeness has not been carried out since 1994-1996 (Parkin et al, 2001) at which time, by independent case ascertainment, completeness among adults was evaluated as 89.6%.

### II. Basis of Diagnosis (DCO/Clinical/MV) by site

Table 4 shows the percentage of cases at the major sites that were registered on the basis of information from a death certificate only (DCO) and with morphological verification (MV%) – that is, based on cytology or histology (of the primary tumour, or a metastasis).

<u>Cancer site</u>	ICD-10	Basis of diagnosis				
		No. Cases	(% total)	DCO	Clinical	M.V.
Oral cavity	C00-C06	45	1.1	2.2%	42.2%	55.6%
Nasopharynx	C11	50	1.2	0.0%	44.0%	56.0%
	C09-C10,C12-					
Other pharynx	C14	23	0.5	0.0%	43.5%	56.5%
Oesophagus	C15	182	4.3	8.8%	52.2%	39.0%
Stomach	C16	81	1.9	9.9%	42.0%	48.1%
Large bowel	C18-C21	130	3.1	3.8%	46.2%	50.0%
Liver	C22	200	4.7	4.0%	52.5%	43.5%
Pancreas	C25	36	0.9	8.3%	75.0%	16.7%
Larynx	C32	23	0.5	0.0%	56.5%	43.5%
Lung	C33-C34	59	1.4	3.4%	62.7%	33.9%
Bone	C40-C41	54	1.3	0.0%	42.6%	57.4%
Melanoma of Skin	C43	25	0.6	0.0%	28.0%	72.0%
Other Skin	C44	54	1.3	0.0%	37.0%	63.0%
Kaposi sarcoma	C46	1035	24.4	1.1%	25.2%	73.7%
Breast	C50	334	7.9	0.9%	53.3%	45.8%
Cervix Uteri	C53	492	11.6	2.6%	43.5%	53.9%
Corpus Uteri	C54	33	0.8	3.0%	27.3%	69.7%
Ovary	C56	57	1.3	5.3%	49.1%	45.6%
Prostate	C61	236	5.6	1.3%	33.9%	64.8%
Kidney	C64	55	1.3	0.0%	38.2%	61.8%
Bladder	C67	22	0.5	0.0%	50.0%	50.0%
Eye	C69	122	2.9	0.0%	15.6%	84.4%
Brain, Nervous system	C70-C72	36	0.9	8.3%	61.1%	30.6%
Thyroid	C73	35	0.8	2.9%	14.3%	82.9%
Hodgkin disease	C81	46	1.1	0.0%	15.2%	84.8%
Non-Hodgkin lymphoma	C82-C85;C96	298	7.0	1.3%	45.0%	53.7%
Myeloma	C90	22	0.5	0.0%	9.1%	90.9%
Leukaemia	C91-C95	98	2.3	6.1%	40.8%	53.1%
All sites Total	All	4235	100	2.2%	39.2%	58.6%

**Table 4.**

### III. PSU.

The percentage of cases registered for which the primary site was ill specified, or uncertain, was 4.0% in men and 3.8% in women (Appendix Table I)

### IV. Age unknown

There were 49 cases registered for which the age of the patient was unknown in men (2.5%) and 37 (1.6%) cases in women (Appendix Table I)

## Discussion

### Factors to consider in interpreting observations

For the period presented in this report, one should consider the effect on the calculated rates of the uncertainty concerning the population at risk. This was based on projections from the last census (2002) 5-7 years earlier. In particular, the population in the oldest age group (75+) appears to be relatively large (Fig 2) which may explain, in part, the decline in incidence rates between ages 70-74 and 75+ (Figs 6a and 6b)

Although cases were not interviewed to determine precise place (and duration) of residence (see methods), studies involving patient follow up at home have not suggested that a significant number of non-residents have been included in the registry database.

### Comparison of rates with same registry over time (earlier period(s))

Figs 7a and 7b show a comparison between the cumulative incidence rates for the 10 most common cancers of males (7a) and females (7b) in 2007-2009 (the present report) with those 13 years earlier (1993-1997), as published in Cancer Incidence in Five Continents, Volume VIII (Parkin et al, 2002) .

The percentage change in the incidence is shown for each cancer type.

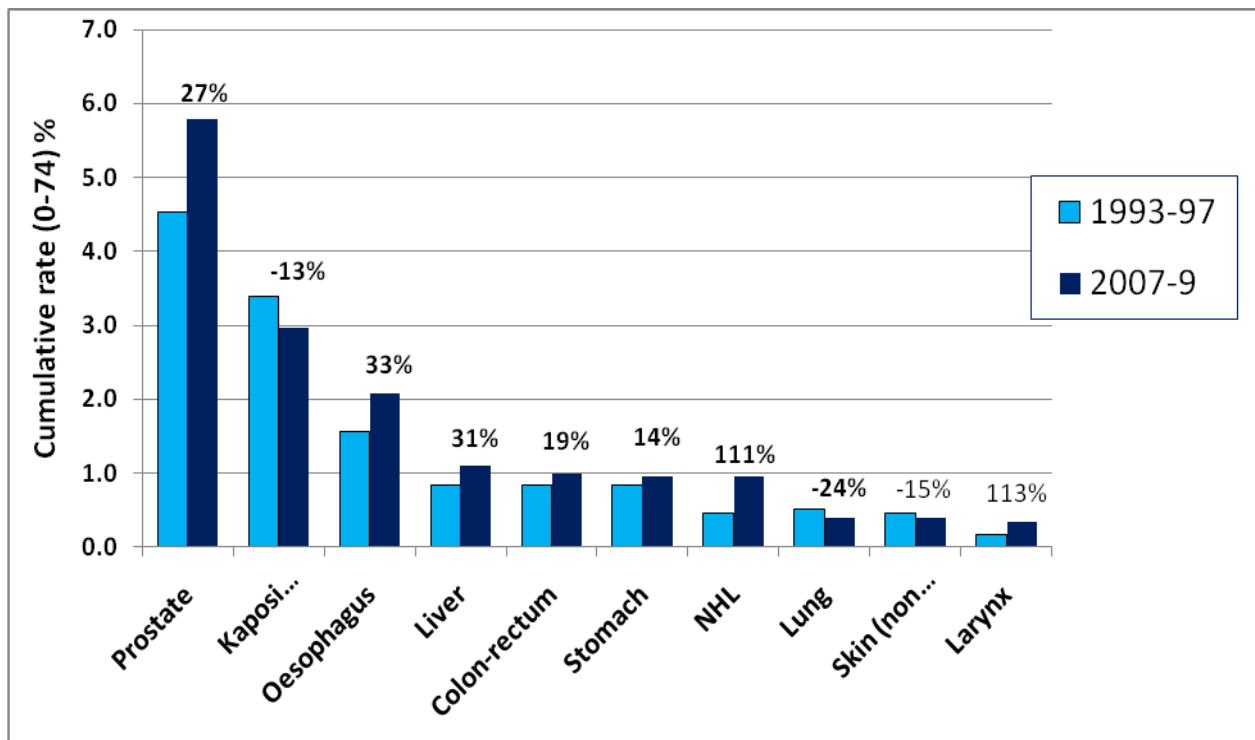


Fig 7a.

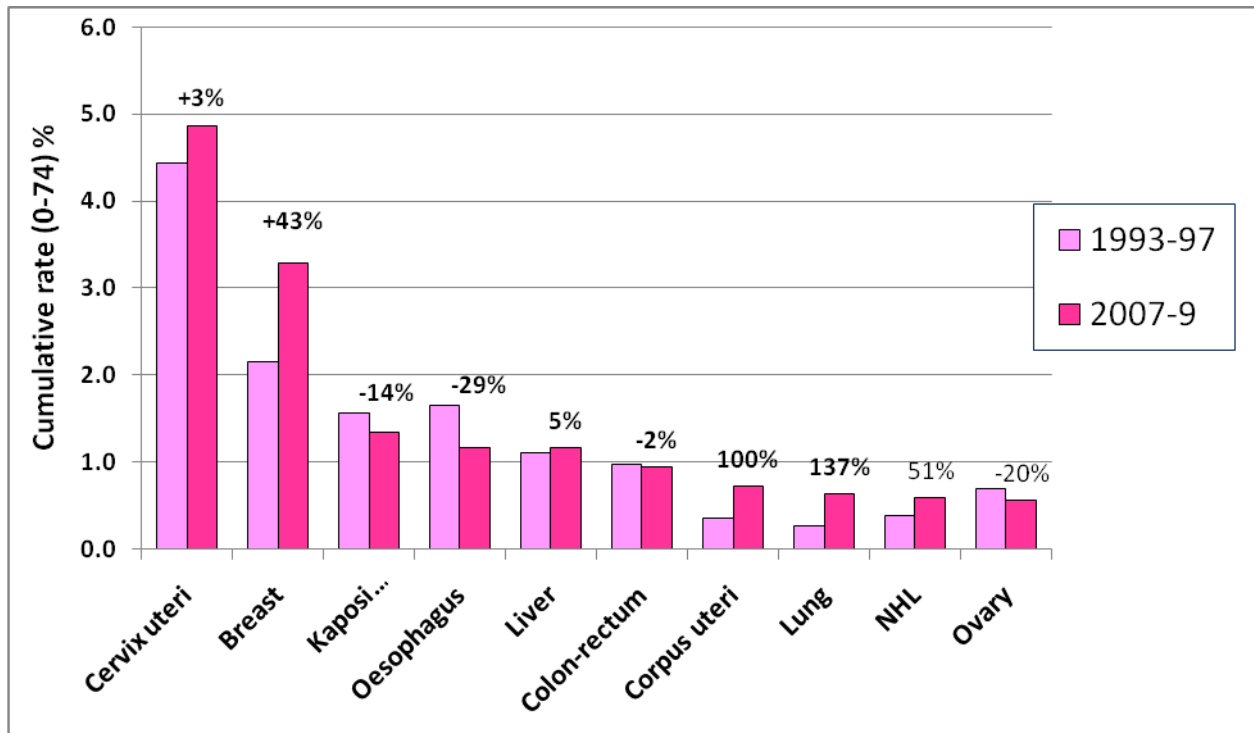


Fig 7b.

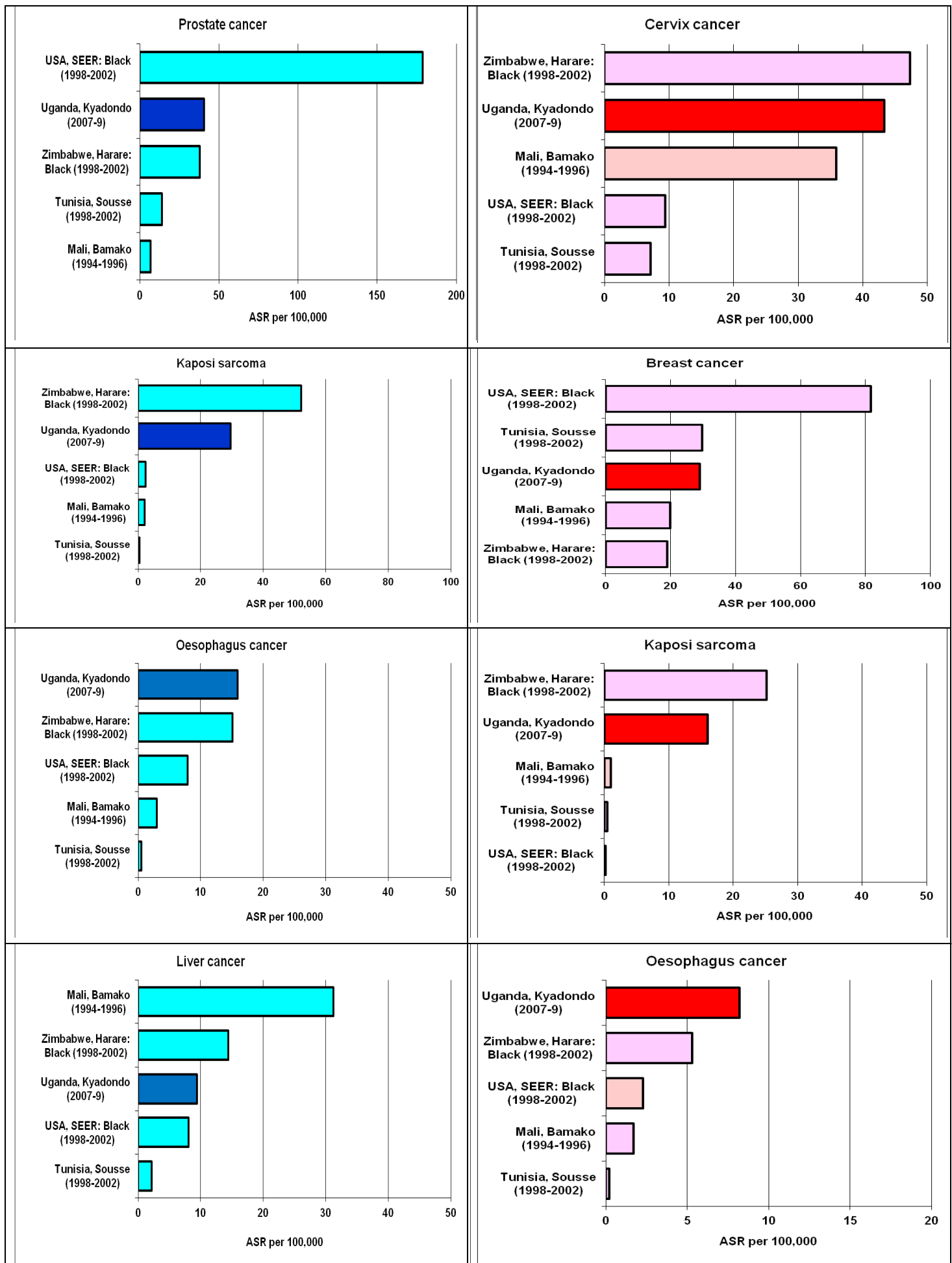
In men, there have been increases in incidence of several cancers, notably cancer of the prostate (27% higher in 2007-9 than in 1993-7). In women, cancer of the breast (43% higher in 2007-9 than in 1993-7) has increased while the incidence of cancer of the cervix has been relatively constant. Oesophagus cancer has increased among men (+33%) but declined in women (-29%). The incidence of Kaposi sarcoma has fallen in both sexes, white rates of non-Hodgkin lymphoma have increased.

#### Comparison of summary rates with other registries (in same region)

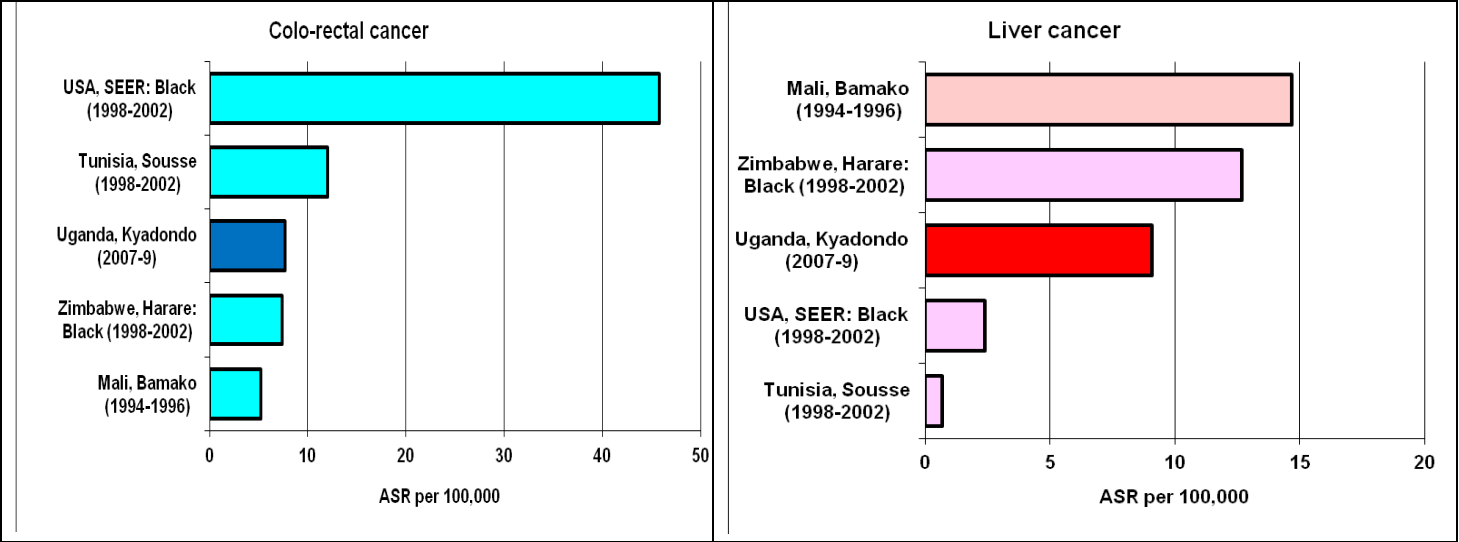
Figure 8 shows a comparison of the age standardised incidence rates in Kyadondo (2007-2009) with those observed in 1998-2002 in Harare (Zimbabwe), Sousse (Tunisia) and in the black population of the SEER Registry areas of the USA (Curado et al, 2007), and in Bamako (Mali) in 1994-1996 (Parkin et al, 2002).

Results for the five most common cancers of men in Kyadondo (left) and in women (right) are presented.

The relatively high incidence of oesophageal cancer, cervix cancer, and Kaposi sarcoma is of note.







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## APPENDIX 1 Registration Form

### CONFIDENTIAL

### CANCER REGISTRATION

In order to update the Kampala Cancer Registry, I would appreciate your completing the information concerning resident of Kyadondo county requested below:-

#### REGISTRY CODES

Date--/--/--

Family name \_\_\_\_\_

Other name \_\_\_\_\_

Maiden name (if married) \_\_\_\_\_

Other nick name or your child's name \_\_\_\_\_

Age \_\_\_\_\_

Sex (M/F) \_\_\_\_

Tribe \_\_\_\_\_

Occupation \_\_\_\_\_


#### Usual stay Address:-

Have you stayed in this place for more than a year **Yes/No** (tick) appropriate

Village \_\_\_\_\_ Zone \_\_\_\_\_

Sub-county \_\_\_\_\_

Are you a Tenant or Owner of a house: **Yes/No** (Tick) appropriate

If No, Name of Landlord \_\_\_\_\_

Date of incidence --/--/----

#### Diagnosis

Site of primary \_\_\_\_\_ **C**

--	--	--

Basis of diagnosis \_\_\_\_\_ 

--

If Breast state **Stage:** I \_\_\_\_\_ IIA \_\_\_\_\_ IIB \_\_\_\_\_ IIIA \_\_\_\_\_ IIIB \_\_\_\_\_ IV \_\_\_\_\_

If Cervix FIGO **Stage:** I \_\_\_\_\_ IIA \_\_\_\_\_ IIB \_\_\_\_\_ III \_\_\_\_\_ IV \_\_\_\_\_

Biopsy no. \_\_\_\_\_ Histology \_\_\_\_\_

Hospital \_\_\_\_\_ Unit \_\_\_\_\_

Hospital No. \_\_\_\_\_ 

--	--	--	--	--	--	--


Date of death or last seen \_\_\_\_\_

Status: Dead \_\_\_\_\_ or Alive \_\_\_\_\_

Referred elsewhere? \_\_\_\_\_

Prof. H. R. Wabinga

**Director, Kampala Cancer Registry**

# APPENDIX TABLES: Tables of incidence by site, sex and age group. Kyadondo 2007-2009

## Kampala Cancer Registry, Uganda (2007-2009)

Kyadondo

Cases by age group (Period) - Male

SITE	ALL AGES	AGE UNK	0-	5-	10-	15-	20-	25-	30-	35-	40-	45-	50-	55-	60-	65-	70-	75+	(%)	ICD (10th)
Lip	3	0	-	-	-	-	-	-	-	-	-	1	-	-	1	1	-	-	0.2	C00
Tongue	11	0	-	-	-	-	-	1	1	-	2	2	1	2	2	-	-	-	0.6	C01-02
Mouth	11	0	-	1	-	-	-	1	1	2	-	1	1	-	-	1	3	-	0.6	C03-06
Salivary glands	10	0	1	-	-	-	1	-	-	2	2	-	-	-	2	-	2	-	0.5	C07-08
Tonsil	4	0	-	-	-	-	-	-	-	-	-	1	1	1	-	-	1	-	0.2	C09
Other oropharynx	6	0	-	-	-	-	1	-	2	-	1	-	-	2	-	-	-	-	0.3	C10
Nasopharynx	33	4	-	-	-	3	4	4	3	2	-	2	6	1	1	3	-	-	1.7	C11
Hypopharynx	1	0	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	0.1	C12-13
Pharynx unspecified	2	0	-	-	-	-	-	-	1	-	-	-	1	-	-	-	-	-	0.1	C14
Oesophagus	118	1	-	-	-	-	-	-	1	10	14	16	13	13	14	14	10	12	6.1	C15
Stomach	53	0	-	-	-	-	-	1	3	7	4	6	9	2	7	5	6	3	2.7	C16
Small intestine	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	C17
Colon	25	1	-	-	-	-	-	-	-	2	2	2	3	1	2	3	4	5	1.3	C18
Rectum	35	2	-	-	-	1	-	4	3	3	3	4	1	6	3	3	1	1	1.8	C19-20
Anus	2	1	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	0.1	C21
Liver	107	2	-	-	1	4	5	12	13	15	6	9	7	5	5	8	5	10	5.5	C22
Gallbladder etc.	2	0	-	-	-	-	-	-	1	-	-	-	-	1	-	-	-	-	0.1	C23-24
Pancreas	15	2	-	-	-	-	-	-	2	1	1	-	1	3	-	2	2	1	0.8	C25
Nose, sinuses etc.	14	0	-	1	-	2	-	1	1	-	1	4	3	-	1	-	-	-	0.7	C30-31
Larynx	18	0	-	-	-	-	-	-	-	1	1	2	5	3	-	4	1	1	0.9	C32
Trachea, bronchus and lung	29	0	1	-	-	1	1	1	1	1	4	2	6	2	4	2	1	2	1.5	C33-34
Other thoracic organs	6	0	1	-	-	-	-	-	1	1	-	1	-	-	-	-	2	-	0.3	C37-38
Bone	31	1	1	1	5	6	4	2	2	4	-	1	-	2	1	-	1	-	1.6	C40-41
Melanoma of skin	8	0	-	-	-	1	-	-	1	-	-	-	1	-	2	2	1	-	0.4	C43
Other skin	35	2	1	1	-	1	2	4	6	2	3	1	2	1	4	3	1	1	1.8	C44
Mesothelioma	1	0	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	0.1	C45
Kaposi sarcoma	606	21	12	21	16	11	41	99	119	101	67	35	23	14	7	9	7	3	31.4	C46
Connective and soft tissue	25	0	4	3	5	1	-	2	2	1	-	3	1	-	2	-	1	-	1.3	C47, C49
Breast	17	0	-	-	-	-	-	2	1	1	1	2	3	1	1	-	2	3	0.9	C50
Penis	14	1	-	-	-	-	-	1	2	6	-	-	-	-	1	-	-	3	0.7	C60
Prostate	236	6	-	-	-	-	-	-	1	1	2	3	9	20	37	30	54	73	12.2	C61
Testis	4	0	-	-	-	-	1	1	1	-	-	1	-	-	-	-	-	-	0.2	C62
Other male genital organs	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	C63
Kidney	27	0	12	-	1	-	-	1	2	2	-	-	1	3	2	2	-	1	1.4	C64
Renal pelvis	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	C65
Ureter	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	C66
Bladder	12	0	-	-	-	-	3	1	-	1	-	1	1	-	1	1	-	3	0.6	C67
Other urinary organs	2	0	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	1	0.1	C68
Eye	59	2	7	1	-	4	1	5	5	9	12	6	4	1	-	2	-	-	3.1	C69
Brain, nervous system	18	0	2	2	2	1	-	1	1	-	1	-	1	4	2	1	1	-	0.9	C70-72
Thyroid	8	0	-	-	-	-	1	1	-	-	-	1	2	1	-	2	-	-	0.4	C73
Adrenal gland	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	C74
Other endocrine	1	0	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	0.1	C75
Hodgkin disease	30	0	2	5	4	2	1	4	3	3	2	-	-	-	-	-	1	-	1.6	C81
Non-Hodgkin lymphoma	181	0	14	35	23	8	8	10	12	18	21	9	7	6	2	4	2	2	9.4	C82-85, C96
Immunoproliferative diseases	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	C88
Multiple myeloma	11	0	-	1	1	-	-	-	-	1	-	1	-	1	1	2	2	1	0.6	C90
Lymphoid leukaemia	10	0	-	2	4	1	1	1	-	-	-	-	1	-	-	-	-	-	0.5	C91
Myeloid leukaemia	16	0	-	1	2	2	3	-	-	3	2	-	1	-	-	2	-	-	0.8	C92-94
Leukaemia unspecified	32	1	2	4	6	2	1	2	4	5	2	-	2	1	-	-	-	-	1.7	C95
Myeloproliferative disorders	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	MPD
Myelodysplastic syndromes	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	MDS
Other and unspecified	79	2	1	1	4	3	5	6	5	10	6	7	8	3	4	6	5	3	4.1	O&U
All sites	1968	49	61	80	74	54	85	168	202	213	161	126	126	101	111	112	116	129		ALL
All sites but C44	1933	47	60	79	74	53	83	164	196	211	158	125	124	100	107	109	115	128	100.0	ALLbC44

# Kampala Cancer Registry, Uganda (2007-2009)

Kyadondo

Cases by age group (Period) - Female

SITE	ALL AGES	AGE UNK	0-	5-	10-	15-	20-	25-	30-	35-	40-	45-	50-	55-	60-	65-	70-	75+	(%)	ICD (10th)
Lip	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	C00
Tongue	4	1	-	-	-	-	-	-	-	1	1	1	-	-	-	-	-	-	0.2	C01-02
Mouth	16	0	-	-	-	-	-	2	2	2	-	-	-	1	1	3	4	1	0.7	C03-06
Salivary glands	5	0	-	-	-	1	-	1	1	1	-	-	-	1	-	-	-	-	0.2	C07-08
Tonsil	3	0	-	-	-	1	-	-	2	-	-	-	-	-	-	-	-	-	0.1	C09
Other oropharynx	4	0	-	-	-	-	-	1	1	-	-	-	1	-	1	-	-	-	0.2	C10
Nasopharynx	17	0	-	-	1	2	-	4	1	1	-	1	1	3	2	-	-	1	0.8	C11
Hypopharynx	3	0	-	-	-	-	-	-	-	-	1	-	-	-	-	1	1	-	0.1	C12-13
Pharynx unspecified	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	C14
Oesophagus	64	1	-	-	-	-	-	-	-	1	5	5	7	7	8	7	12	11	2.8	C15
Stomach	28	0	-	1	-	-	-	1	1	1	2	2	1	1	4	4	3	7	1.2	C16
Small intestine	3	0	-	-	-	-	-	-	-	1	1	-	-	1	-	-	-	-	0.1	C17
Colon	25	0	-	-	-	-	-	2	2	-	1	2	5	2	3	3	3	2	1.1	C18
Rectum	39	1	-	-	-	-	-	4	2	1	2	4	3	7	4	3	3	5	1.7	C19-20
Anus	4	0	-	-	-	-	-	2	1	-	-	-	1	-	-	-	-	-	0.2	C21
Liver	93	1	-	-	1	2	3	9	8	5	8	11	8	4	12	8	7	6	4.1	C22
Gallbladder etc.	2	0	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	1	0.1	C23-24
Pancreas	21	0	-	-	-	-	-	1	-	1	5	3	-	2	1	1	2	5	0.9	C25
Nose, sinuses etc.	8	0	-	1	-	-	1	1	-	-	1	-	2	-	2	-	-	-	0.4	C30-31
Larynx	5	0	-	-	1	-	-	-	1	-	-	-	-	-	-	1	1	1	0.2	C32
Trachea, bronchus and lung	30	0	-	-	-	-	-	2	-	-	-	6	4	2	4	6	6	-	1.3	C33-34
Other thoracic organs	10	0	-	-	-	-	-	-	-	-	-	2	-	-	2	4	2	-	0.4	C37-38
Bone	23	1	1	3	2	5	2	2	1	1	1	1	1	2	-	-	-	-	1.0	C40-41
Melanoma of skin	17	0	-	-	-	1	1	1	1	2	-	2	2	-	2	2	2	1	0.8	C43
Other skin	19	3	-	-	-	-	-	1	1	5	1	2	1	-	1	1	2	1	0.8	C44
Mesothelioma	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	C45
Kaposi sarcoma	429	10	6	12	14	15	51	97	106	50	29	13	12	3	5	1	1	4	19.1	C46
Connective and soft tissue	28	0	1	-	4	5	2	3	3	2	1	1	1	1	3	-	1	-	1.2	C47,C49
Breast	317	5	-	-	-	1	8	19	25	32	47	59	28	28	24	14	13	14	14.1	C50
Vulva	11	0	1	-	-	1	-	3	1	1	1	1	1	-	-	-	-	1	0.5	C51
Vagina	8	0	-	-	-	-	2	-	1	-	-	3	-	1	-	-	-	-	0.4	C52
Cervix uteri	492	10	-	-	-	-	4	29	55	75	73	61	67	25	39	19	18	17	21.9	C53
Corpus uteri	33	0	-	-	-	-	-	1	1	1	1	2	5	1	8	5	7	1	1.5	C54
Uterus unspecified	13	0	-	-	-	-	2	-	1	1	1	2	3	1	1	-	-	1	0.6	C55
Ovary	57	2	-	-	-	3	4	2	2	8	10	3	3	7	4	3	2	4	2.5	C56
Other female genital organs	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	C57
Placenta	16	0	-	-	-	1	6	5	1	-	2	-	1	-	-	-	-	-	0.7	C58
Kidney	28	0	11	4	1	2	-	1	-	2	2	-	1	-	1	1	-	2	1.2	C64
Renal pelvis	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	C65
Ureter	1	0	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	0.0	C66
Bladder	10	0	-	-	-	-	1	-	-	-	-	-	2	1	-	1	1	4	0.4	C67
Other urinary organs	1	0	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	0.0	C68
Eye	63	0	11	2	-	4	3	6	10	14	3	6	2	1	1	-	-	-	2.8	C69
Brain, nervous system	18	0	3	5	2	1	3	-	1	-	1	-	-	-	2	-	-	-	0.8	C70-72
Thyroid	27	0	-	-	1	1	2	3	3	3	1	4	3	2	1	3	-	-	1.2	C73
Adrenal gland	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	C74
Other endocrine	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	C75
Hodgkin disease	16	2	1	1	1	-	3	2	3	-	-	2	-	-	-	-	1	-	0.7	C81
Non-Hodgkin lymphoma	117	0	10	25	15	6	5	5	10	13	4	5	9	-	3	-	5	2	5.2	C82-85,C96
Immunoproliferative diseases	1	0	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	0.0	C88
Multiple myeloma	11	0	-	-	-	-	-	-	1	-	3	-	-	1	2	1	1	2	0.5	C90
Lymphoid leukaemia	5	0	1	-	-	-	-	-	-	1	-	-	-	-	2	-	-	1	0.2	C91
Myeloid leukaemia	14	0	2	-	-	3	2	2	-	1	1	-	1	1	-	-	1	-	0.6	C92-94
Leukaemia unspecified	21	0	2	4	1	-	1	2	2	2	1	-	1	2	1	-	2	-	0.9	C95
Myeloproliferative disorders	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	MPD
Myelodysplastic syndromes	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	MDS
Other and unspecified	87	0	1	3	-	3	3	4	10	7	7	6	8	5	7	12	4	7	3.9	O&U
All sites	2267	37	51	61	44	59	109	218	261	236	218	210	185	114	152	105	105	102		ALL
All sites but C44	2248	34	51	61	44	59	109	217	260	231	217	208	184	114	151	104	103	101	100.0	ALL&C44

# Kampala Cancer Registry, Uganda (2007-2009)

Kyadondo

Incidence per 100,000 by age group (Period) - Male

SITE	ALL AGES	AGE UNK	0-	5-	10-	15-	20-	25-	30-	35-	40-	45-	50-	55-	60-	65-	70-	75+	CRUDE RATE	(%)	CUM 0-64	CUM 0-74	ASR (W)	ICD (10th)
Lip	3	0	-	-	-	-	-	-	-	1.5	-	5.3	7.3	-	-	-	-	-	0.1	0.2	0.03	0.07	0.5	C00
Tongue	11	0	-	-	-	-	-	0.3	0.4	-	2.0	3.0	2.4	7.1	10.7	-	-	-	0.4	0.6	0.13	0.13	1.2	C01-02
Mouth	11	0	-	0.3	-	-	0.3	0.3	0.9	-	-	1.5	2.4	-	-	7.3	33.9	-	0.4	0.6	0.03	0.23	1.2	C03-06
Salivary glands	10	0	0.2	-	-	-	0.3	-	1.2	2.0	-	-	-	-	10.7	-	22.6	-	0.3	0.5	0.07	0.18	1.1	C07-08
Tonsil	4	0	-	-	-	-	-	-	-	-	1.5	2.4	3.5	-	-	-	11.3	-	0.1	0.2	0.04	0.09	0.6	C09
Other oropharynx	6	0	-	-	-	-	0.3	-	0.9	-	1.0	-	-	7.1	-	-	-	-	0.2	0.3	0.05	0.05	0.4	C10
Nasopharynx	33	4	-	-	-	0.8	1.0	1.2	1.3	1.2	-	3.0	14.6	3.5	5.3	22.0	-	-	1.1	1.7	0.18	0.31	2.6	C11
Hypopharynx	1	0	-	-	-	-	-	-	-	-	-	-	-	-	5.3	-	-	-	0.0	0.1	0.03	0.03	0.2	C12-13
Pharynx unspecified	2	0	-	-	-	-	-	-	0.4	-	-	-	2.4	-	-	-	-	-	0.1	0.1	0.01	0.01	0.1	C14
Oesophagus	118	1	-	-	-	-	-	-	0.4	5.8	13.8	24.0	31.7	46.0	74.8	102.6	112.9	70.6	4.0	6.1	0.99	2.08	15.9	C15
Stomach	53	0	-	-	-	-	-	0.3	1.3	4.0	3.9	9.0	22.0	7.1	37.4	36.6	67.8	17.6	1.8	2.7	0.43	0.95	6.8	C16
Small intestine	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	0.0	0.00	0.00	0.0	C17
Colon	25	1	-	-	-	-	-	-	-	1.2	2.0	3.0	7.3	3.5	10.7	22.0	45.2	29.4	0.8	1.3	0.14	0.49	3.6	C18
Rectum	35	2	-	-	-	0.3	-	1.2	1.3	1.7	3.0	6.0	2.4	21.2	16.0	22.0	11.3	5.9	1.2	1.8	0.28	0.46	3.7	C19-20
Anus	2	1	-	-	-	-	-	-	-	-	-	-	-	-	5.3	-	-	-	0.1	0.1	0.05	0.05	0.4	C21
Liver	107	2	-	-	0.3	1.1	1.3	3.6	5.6	8.7	5.9	13.5	17.1	17.7	26.7	58.6	56.5	58.8	3.6	5.5	0.52	1.10	9.4	C22
Gallbladder etc.	2	0	-	-	-	-	-	-	0.4	-	-	-	-	3.5	-	-	-	-	0.1	0.1	0.02	0.02	0.2	C23-24
Pancreas	15	2	-	-	-	-	-	-	0.9	0.6	1.0	-	2.4	10.6	-	14.7	22.6	5.9	0.5	0.8	0.09	0.30	2.0	C25
Nose, sinuses etc.	14	0	-	0.3	-	0.6	-	0.3	0.4	-	1.0	6.0	7.3	-	5.3	-	-	-	0.5	0.7	0.11	0.11	1.1	C30-31
Larynx	18	0	-	-	-	-	-	-	-	0.6	1.0	3.0	12.2	10.6	-	29.3	11.3	5.9	0.6	0.9	0.14	0.34	2.5	C32
Trachea, bronchus and lung	29	0	0.2	-	-	0.3	0.3	0.3	0.4	0.6	3.9	3.0	14.6	7.1	21.4	14.7	11.3	11.8	1.0	1.5	0.26	0.39	3.3	C33-34
Other thoracic organs	6	0	0.2	-	-	-	-	-	0.4	0.6	-	1.5	-	-	-	-	22.6	-	0.2	0.3	0.01	0.13	0.6	C37-38
Bone	31	1	0.2	0.3	1.4	1.7	1.0	0.6	0.9	2.3	-	1.5	-	7.1	5.3	-	11.3	-	1.0	1.6	0.11	0.17	1.5	C40-41
Melanoma of skin	8	0	-	-	-	0.3	-	-	0.4	-	-	-	2.4	-	10.7	14.7	11.3	-	0.3	0.4	0.07	0.20	1.3	C43
Other skin	35	2	0.2	0.3	-	0.3	0.5	1.2	2.6	1.2	3.0	1.5	4.9	3.5	21.4	22.0	11.3	5.9	1.2	1.8	0.21	0.39	3.1	C44
Mesothelioma	1	0	-	-	-	-	-	0.3	-	-	-	-	-	-	-	-	-	-	0.0	0.1	0.00	0.00	0.0	C45
Kaposi sarcoma	606	21	2.8	5.3	4.4	3.1	10.4	29.4	51.1	58.4	66.0	52.6	56.1	49.5	37.4	66.0	79.1	17.6	20.3	31.3	2.21	2.96	29.6	C46
Connective and soft tissue	25	0	0.9	0.8	1.4	0.3	-	0.6	0.9	0.6	-	4.5	2.4	-	10.7	-	11.3	-	0.8	1.3	0.11	0.17	1.5	C47,C49
Breast	17	0	-	-	-	-	-	0.6	0.4	0.6	1.0	3.0	7.3	3.5	5.3	-	22.6	17.6	0.6	0.9	0.11	0.22	1.9	C50
Penis	14	1	-	-	-	-	-	0.3	0.9	3.5	-	-	-	5.3	-	-	-	17.6	0.5	0.7	0.05	0.05	0.9	C60
Prostate	236	6	-	-	-	-	-	-	0.4	0.6	2.0	4.5	22.0	70.7	197.6	219.9	609.9	429.4	7.9	12.2	1.53	5.78	40.7	C61
Testis	4	0	-	-	-	-	0.3	0.3	0.4	-	-	1.5	-	-	-	-	-	-	0.1	0.2	0.01	0.01	0.2	C62
Other male genital organs	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	0.0	0.00	0.00	0.0	C63
Kidney	27	0	2.8	-	0.3	-	-	0.3	0.9	1.2	-	-	2.4	10.6	10.7	14.7	-	5.9	0.9	1.4	0.15	0.22	2.0	C64
Renal pelvis	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	0.0	0.00	0.00	0.0	C65
Ureter	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	0.0	0.00	0.00	0.0	C66
Bladder	12	0	-	-	-	-	0.8	0.3	-	0.6	-	1.5	2.4	-	5.3	7.3	-	17.6	0.4	0.6	0.05	0.09	1.1	C67
Other urinary organs	2	0	-	-	-	-	-	-	-	-	-	-	2.4	-	-	-	-	5.9	0.1	0.1	0.01	0.01	0.2	C68
Eye	59	2	1.6	0.3	-	1.1	0.3	1.5	2.1	5.2	11.8	9.0	9.8	3.5	-	14.7	-	-	2.0	3.1	0.24	0.31	3.3	C69
Brain, nervous system	18	0	0.5	0.5	0.6	0.3	-	-	0.4	-	1.0	-	2.4	14.1	10.7	7.3	11.3	-	0.6	0.9	0.15	0.25	1.8	C70-72
Thyroid	8	0	-	-	-	-	0.3	0.3	-	-	-	1.5	4.9	3.5	-	14.7	-	-	0.3	0.4	0.05	0.13	1.0	C73
Adrenal gland	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	0.0	0.00	0.00	0.0	C74
Other endocrine	1	0	-	-	-	-	-	-	-	-	-	-	-	3.5	-	-	-	-	0.0	0.1	0.02	0.02	0.1	C75
Hodgkin disease	30	0	0.5	1.3	1.1	0.6	0.3	1.2	1.3	1.7	3.0	3.0	-	-	-	-	11.3	-	1.0	1.6	0.07	0.13	1.2	C81
Non-Hodgkin lymphoma	181	0	3.2	8.8	6.4	2.2	2.0	3.0	5.2	10.4	20.7	13.5	17.1	21.2	10.7	29.3	22.6	11.8	6.1	9.4	0.62	0.88	9.1	C82-85,C96
Immunoproliferative diseases	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	0.0	0.00	0.00	0.0	C88
Multiple myeloma	11	0	-	0.3	0.3	-	-	-	-	0.6	-	1.5	-	3.5	5.3	14.7	22.6	5.9	0.4	0.6	0.06	0.24	1.5	C90
Lymphoid leukaemia	10	0	-	0.5	1.1	0.3	0.3	0.3	-	-	-	-	2.4	-	-	-	-	-	0.3	0.5	0.02	0.02	0.3	C91
Myeloid leukaemia	16	0	-	0.3	0.6	0.6	0.8	-	-	1.7	2.0	-	2.4	-	-	14.7	-	-	0.5	0.8	0.04	0.11	1.0	C92-94
Leukaemia unspecified	32	1	0.5	1.0	1.7	0.6	0.3	0.6	1.7	2.9	2.0	-	4.9	3.5	-	-	-	-	1.1	1.7	0.10	0.10	1.2	C95
Myeloproliferative disorders	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	0.0	0.00	0.00	0.0	MPD
Myelodysplastic syndromes	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	0.0	0.00	0.00	0.0	MDS
Other and unspecified	80	2	0.2	0.3	1.1	0.8	1.3	1.8	2.1	5.8	5.9	10.5	22.0	10.6	21.4	44.0	56.5	17.6	2.7	4.1	0.43	0.94	7.3	O&U
All sites	1969	49	14.0	20.1	20.5	15.0	21.5	49.9	86.7	123.2	158.5	189.2	309.9	357.2	592.7	820.8	1310.1	758.8	65.9	100.0	20.97	169.8	ALL	
All sites but C44	1934	47	13.8	19.9	20.5	14.7	21.0	48.7	84.1	122.1	155.6	187.7	305.0	353.7	571.4	798.8	1298.8	752.9	64.8	100.0	9.83	20.58	166.7	ALLbC44



# Kampala Cancer Registry, Uganda (2007-2009)

Kyadondo

Incidence per 100,000 by age group (Period) - Female

SITE	ALL AGES	AGE UNK	0-	5-	10-	15-	20-	25-	30-	35-	40-	45-	50-	55-	60-	65-	70-	75+	CRUDE RATE	(%)	CUM 0-64	CUM 0-74	ASR (W)	ICD (10th)
Lip	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	0.0	0.00	0.00	0.0	C00
Tongue	4	1	-	-	-	-	-	-	-	0.7	1.1	1.6	-	-	-	-	-	-	0.1	0.2	0.02	0.02	0.3	C01-02
Mouth	16	0	-	-	-	-	-	0.5	0.9	1.4	-	-	-	3.4	4.7	17.0	32.3	3.5	0.5	0.7	0.05	0.30	1.7	C03-06
Salivary glands	5	0	-	-	-	0.2	-	0.3	0.5	0.7	-	-	-	3.4	-	-	-	-	0.2	0.2	0.03	0.03	0.2	C07-08
Tonsil	3	0	-	-	-	0.2	-	-	0.9	-	-	-	-	-	-	-	-	-	0.1	0.1	0.01	0.01	0.1	C09
Other oropharynx	4	0	-	-	-	-	-	0.3	0.5	-	-	-	2.5	-	4.7	-	-	-	0.1	0.2	0.04	0.04	0.4	C10
Nasopharynx	17	0	-	-	0.2	0.4	-	1.1	0.5	0.7	-	1.6	2.5	10.2	9.4	-	-	3.5	0.5	0.8	0.13	0.13	1.3	C11
Hypopharynx	3	0	-	-	-	-	-	-	-	-	1.1	-	-	-	-	5.7	8.1	-	0.1	0.1	0.01	0.07	0.4	C12-13
Pharynx unspecified	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	0.0	0.00	0.00	0.0	C14
Oesophagus	64	1	-	-	-	-	-	-	-	0.7	5.4	7.9	17.8	23.8	37.6	39.6	96.9	38.0	1.9	2.8	0.47	1.17	8.2	C15
Stomach	28	0	-	0.2	-	-	-	0.3	0.5	0.7	2.2	3.2	2.5	3.4	18.8	22.6	24.2	24.2	0.8	1.2	0.16	0.39	3.1	C16
Small intestine	3	0	-	-	-	-	-	-	-	0.7	1.1	-	-	3.4	-	-	-	-	0.1	0.1	0.03	0.03	0.2	C17
Colon	25	0	-	-	-	-	-	0.5	0.9	-	1.1	3.2	12.7	6.8	14.1	17.0	24.2	6.9	0.8	1.1	0.20	0.40	3.0	C18
Rectum	39	1	-	-	-	-	-	1.1	0.9	0.7	2.2	6.3	7.6	23.8	18.8	17.0	24.2	17.3	1.2	1.7	0.32	0.53	4.2	C19-20
Anus	4	0	-	-	-	-	-	0.5	0.5	-	-	-	2.5	-	-	-	-	-	0.1	0.2	0.02	0.02	0.2	C21
Liver	93	1	-	-	0.2	0.4	0.6	2.4	3.7	3.6	8.6	17.4	20.3	13.6	56.4	45.3	56.5	20.7	2.8	4.1	0.64	1.16	9.1	C22
Gallbladder etc.	2	0	-	-	-	-	-	-	-	-	1.1	-	-	-	-	-	-	3.5	0.1	0.1	0.01	0.01	0.1	C23-24
Pancreas	21	0	-	-	-	-	-	0.3	-	0.7	5.4	4.7	-	6.8	4.7	5.7	16.1	17.3	0.6	0.9	0.11	0.22	2.0	C25
Nose, sinuses etc.	8	0	-	0.2	-	-	0.2	0.3	-	-	1.1	-	5.1	-	9.4	-	-	-	0.2	0.4	0.08	0.08	0.8	C30-31
Larynx	5	0	-	-	0.2	-	-	-	0.5	-	-	-	-	-	-	5.7	8.1	3.5	0.2	0.2	0.00	0.07	0.4	C32
Trachea, bronchus and lung	30	0	-	-	-	-	-	0.5	-	-	-	9.5	10.1	6.8	18.8	34.0	48.4	-	0.9	1.3	0.23	0.64	4.1	C33-34
Other thoracic organs	10	0	-	-	-	-	-	-	-	-	3.2	-	-	-	9.4	22.6	16.1	-	0.3	0.4	0.06	0.26	1.6	C37-38
Bone	23	1	0.2	0.7	0.4	1.1	0.4	0.5	0.5	0.7	1.1	1.6	2.5	6.8	-	-	-	-	0.7	1.0	0.09	0.09	1.0	C40-41
Melanoma of skin	17	0	-	-	-	0.2	0.2	0.3	0.5	1.4	-	3.2	5.1	-	9.4	11.3	16.1	3.5	0.5	0.8	0.10	0.24	1.7	C43
Other skin	19	3	-	-	-	-	-	0.3	0.5	3.6	1.1	3.2	2.5	-	4.7	5.7	16.1	3.5	0.6	0.8	0.09	0.22	1.7	C44
Mesothelioma	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	0.0	0.00	0.00	0.0	C45
Kaposi sarcoma	429	10	1.4	2.6	3.0	3.3	11.0	25.6	49.6	35.6	31.3	20.5	30.4	10.2	23.5	5.7	8.1	13.8	12.9	19.1	1.27	1.34	16.0	C46
Connective and soft tissue	28	0	0.2	-	0.8	1.1	0.4	0.8	1.4	1.4	1.1	1.6	2.5	3.4	14.1	-	8.1	-	0.8	1.2	0.14	0.18	1.6	C47,C49
Breast	317	5	-	-	-	0.2	1.7	5.0	11.7	22.8	50.7	93.1	71.0	95.3	112.8	79.3	105.0	48.4	9.6	14.1	2.36	3.29	29.0	C50
Vulva	11	0	0.2	-	-	0.2	-	0.8	0.5	0.7	1.1	1.6	2.5	-	-	-	3.5	-	0.3	0.5	0.04	0.04	0.5	C51
Vagina	8	0	-	-	-	-	0.4	-	0.5	-	-	4.7	-	3.4	4.7	-	-	-	0.2	0.4	0.07	0.07	0.7	C52
Cervix uteri	492	10	-	-	-	-	0.9	7.6	25.7	53.4	78.8	96.2	170.0	85.1	183.3	107.6	145.3	58.7	14.8	21.9	3.58	4.87	43.4	C53
Corpus uteri	33	0	-	-	-	-	-	0.3	0.5	0.7	1.1	3.2	12.7	3.4	37.6	28.3	56.5	3.5	1.0	1.5	0.30	0.72	4.7	C54
Uterus unspecified	13	0	-	-	-	-	0.4	-	0.5	0.7	1.1	3.2	7.6	3.4	4.7	-	-	3.5	0.4	0.6	0.11	0.11	1.1	C55
Ovary	57	2	-	-	-	0.7	0.9	0.5	0.9	5.7	10.8	4.7	7.6	23.8	18.8	17.0	16.1	13.8	1.7	2.5	0.39	0.56	4.9	C56
Other female genital organs	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	0.0	0.00	0.00	0.0	C57
Placenta	16	0	-	-	-	0.2	1.3	1.3	0.5	-	2.2	-	2.5	-	-	-	-	-	0.5	0.7	0.04	0.04	0.5	C58
Kidney	28	0	2.6	0.9	0.2	0.4	-	0.3	-	1.4	2.2	-	2.5	-	4.7	5.7	-	6.9	0.8	1.2	0.08	0.10	1.3	C64
Renal pelvis	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	0.0	0.00	0.00	0.0	C65
Ureter	1	0	-	-	-	-	-	-	-	-	-	-	-	3.4	-	-	-	-	0.0	0.0	0.02	0.02	0.1	C66
Bladder	10	0	-	-	-	-	0.2	-	-	-	-	-	5.1	3.4	-	5.7	8.1	13.8	0.3	0.4	0.04	0.11	1.0	C67
Other urinary organs	1	0	-	-	-	-	-	-	-	-	-	-	-	-	-	5.7	-	-	0.0	0.0	0.00	0.03	0.2	C68
Eye	63	0	2.6	0.4	-	0.9	0.6	1.6	4.7	10.0	3.2	9.5	5.1	3.4	4.7	-	-	-	1.9	2.8	0.23	0.23	2.8	C69
Brain, nervous system	18	0	0.7	1.1	0.4	0.2	0.6	-	0.5	-	1.1	-	-	-	9.4	-	-	-	0.5	0.8	0.07	0.07	0.8	C70-72
Thyroid	27	0	-	-	0.2	0.2	0.4	0.8	1.4	2.1	1.1	6.3	7.6	6.8	4.7	17.0	-	-	0.8	1.2	0.16	0.24	2.1	C73
Adrenal gland	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	0.0	0.00	0.00	0.0	C74
Other endocrine	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	0.0	0.00	0.00	0.0	C75
Hodgkin disease	16	2	0.2	0.2	0.2	-	0.6	0.5	1.4	-	-	3.2	-	-	-	-	8.1	-	0.5	0.7	0.04	0.08	0.7	C81
Non-Hodgkin lymphoma	117	0	2.4	5.5	3.2	1.3	1.1	1.3	4.7	9.3	4.3	7.9	22.8	-	14.1	-	40.4	6.9	3.5	5.2	0.39	0.59	5.6	C82-85,C96
Immunoproliferative diseases	1	0	-	-	-	0.2	-	-	-	-	-	-	-	-	-	-	-	-	0.0	0.0	0.00	0.00	0.0	C88
Multiple myeloma	11	0	-	-	-	-	-	-	0.5	-	3.2	-	-	3.4	9.4	5.7	8.1	6.9	0.3	0.5	0.08	0.15	1.2	C90
Lymphoid leukaemia	5	0	0.2	-	-	-	-	-	-	0.7	-	-	-	-	9.4	-	-	3.5	0.2	0.2	0.05	0.05	0.5	C91
Myeloid leukaemia	14	0	0.5	-	-	0.7	0.4	0.5	-	0.7	1.1	-	2.5	3.4	-	-	8.1	-	0.4	0.6	0.05	0.09	0.7	C92-94
Leukaemia unspecified	21	0	0.5	0.9	0.2	-	0.2	0.5	0.9	1.4	1.1	-	2.5	6.8	4.7	-	16.1	-	0.6	0.9	0.10	0.18	1.3	C95
Myeloproliferative disorders	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	0.0	0.00	0.00	0.0	MPD
Myelodysplastic syndromes	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	0.0	0.00	0.00	0.0	MDS
Other and unspecified	90	0	0.2	0.7	-	0.7	0.6	1.1	5.1	5.0	7.6	9.5	22.8	20.4	32.9	67.9	32.3	24.2	2.7	4.0	0.53	1.03	8.4	O&U
All sites	2270	37	12.1	13.3	9.3	12.9	23.5	57.5	122.6	168.1	235.2	331.3	471.9	391.3	714.3	594.4	847.9	352.4	68.5	100.0	12.93	20.14	173.6	ALL
All sites but C44	2251	34	12.1	13.3	9.3	12.9	23.5	57.2	122.1	164.5	234.1	328.2	469.4	391.3	709.6	588.8	831.7	348.9	67.9	100.0	12.93	20.14	173.6	ALLbC44



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