

Kingdom of Saudi Arabia
Ministry of Health
Saudi Cancer Registry

**Cancer Incidence Report
Saudi Arabia
2005**

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Foreword

Cancer incidence is a continuous variable. Hence, since the establishment of the Saudi Cancer Registry (SCR) in 1992, we have attempted to publish the annual incidence report, initially every 2 years but more recently on a yearly basis. We present in this report the cancer incidence in Saudi Arabia for the year 2005.

The number of cancer cases and the incidence in cancer case diagnosed in 2005 have increased over the proceeding years. This might be secondary to true increase in cancer incidence, an increase in the population but also possibly to a better case finding from the part of the SCR. From the operational viewpoint, we have an increase in the number of cases reported by death certificate only (DCO), which represent 3.3% of all our method of reporting.

Many challenges continue to face the SCR. This include but is not restricted to quality of medical record data available from reporting hospitals, funding, manpower, availability of mortality data and availability of continuous medical education in cancer registration within Saudi Arabia.

The wealth of data published by the annual report of the SCR on a yearly basis cannot be over-emphasized. Epidemiologists and researchers are encouraged to analyze this data so that adequate preventive measures are put in place before it is too late.

Shouki Bazarbashi, MD
Chairman
Riyadh, June 2009

Acknowledgment

The Saudi Cancer Registry is funded by The Ministry of Health. The work of the Saudi Cancer Registry including the production of this report is the result of teamwork by our valuable cancer registrars, Main Office staff and members of the Board of Directors. Special warm thanks to our registrars who travel to every part of the kingdom to collect the cases that are included in this report.

Our gratitude to the support provided by the Ministry of Health represented by his Excellency the Minister of Health Dr. Abdullah Al Rabeeah, and the Deputy Minister of Health Dr. Mansour Al Hawasi. Many thanks to The Council for Health Services, represented by the Secretary General Dr. Othman Al Rabieah who spared no effort in helping us to overcome the many problems we faced, and supported the funding of the SCR. In addition, we continue to be in debt for the support of King Faisal Specialist Hospital and Research Center leadership represented by Dr. Qasim Al Qasabi and Dr. Adnan Ezzat.

Furthermore, we would like to record our appreciations to many pharmaceutical companies who have supported the SCR with unrestricted grants. In particular, we would like to thank Sanofi-Aventis, and Pfizer for their generous support.

Introduction

This is the ninth incidence report published by the Saudi Cancer Registry. Previous publications include the 1994 Summary Report, 1994-1996 Incidence Report, 1997-1998 Incidence Report, 1999-2000 Incidence Report, 2001 Incidence Report, 2002, 2003, and 2004 Incidence Reports.

The structure of this report can be outlined as follows:

Part I Materials and Methods

This part of the report contains information about the background of the Saudi Cancer Registry and methods used in collecting and analyzing the data. We present the basics of coding and classification of tumor topography, morphology and extent of disease at the time of diagnosis. Also we describe the software programs we have used to analyze the data.

Part II Overview of Cancer Incidence

Part II contains figures and tables that show overall cancer incidence in Saudi Arabia for the year 2005. We present these figures and tables mainly by sex and in certain areas we have it analyzed by different age groups. There are bar charts representing the age distribution of cancer incidence for the year 2005 among Saudis by sex and age groups. We present incidence and morphology tables for the most common types of cancers among adults and children. In addition, tables list the total number of cases, the Age-Standardized Incidence Rate (ASR) per 100,000 population, Crude Incidence Rate (CIR) and Cumulative rates by primary site and sex. Separate bar charts depict the most common types of cancer, by sex.

Part III Incidence of Selected-Sites

In this part the incidence of the most common cancers among Saudi males and females are outlined. A standardized layout presents data for all patients and for both sexes where applicable. For each selected site the number and the percentage of all newly diagnosed cases for the year 2005, the ASR for each sex and the specific cancer rank for both sexes is presented. In addition, ASR for the specified cancer among Saudis is compared with ASR among other populations from selected countries.

Part IV Cancer Incidence among Non-Saudis

This part presents the incidence of cancer cases among Non-Saudis including the most common types of cancer. The analysis of the Non-Saudis is performed separately due to the nature of the expatriate population in Saudi Arabia in which a large part of the population, particularly among males, falls in the 25-44 age group.

Part V Incidence Tables

Part V contains the following detailed tables for all newly diagnosed cancer types among Saudis and Non-Saudis for 2005:

- Distribution of cancer cases among Saudis by age group and sex
- Distribution of cancer cases among Non-Saudis by age group and sex
- Cancer Incidence (per 100,000 population) among Saudis by age group and sex
- Cancer Incidence (per 100,000 population) among Non-Saudis by age group and sex
- Age-standardized incidence rate and relative frequencies among Saudis by cancer site, sex.

Part VI Appendices

Appendix A: Regional listing of all health care facilities from which cancer cases have been reported. The objective is to receive feedback from facilities that have not been included in order to improve our case-finding and reporting processes.

Appendix B: Names of the members of the Board of Directors.

Appendix C: Data request form which may be copied, filled and submitted to the SCR Main Office.

Appendix D: Copy of the cancer registration abstract form which is completed by cancer registrars for each cancer case.

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PART I
MATERIALS AND METHODS

Background on Saudi Arabia

Saudi Arabia is a vast country extending over four-fifths of the Arabian Peninsula. It stretches from the Arabian Gulf in the east to the Red Sea in the west. It is approximately 2,149,700* square kilometers in area and is divided into 13 administrative regions (Figure I-1).



Figure I.1 Administrative Regions of Saudi Arabia

The estimated Saudi national population for year 2005 was 16,945,484**. Of these, 8,497,042 were males and 8,448,442 were females. The Non-Saudi population in 2005 was 6,440,012**; of these 4,470,552 were males and 1,969,460 females.

Figures I-2 and I-3 show the Saudi and Non-Saudi population pyramids by sex and age group respectively.

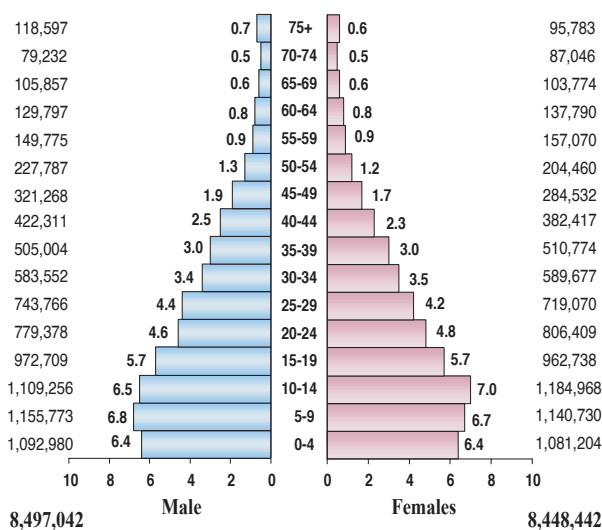


Figure I.2 Population Pyramid of Saudis (%) by Sex and Age Group, 2005

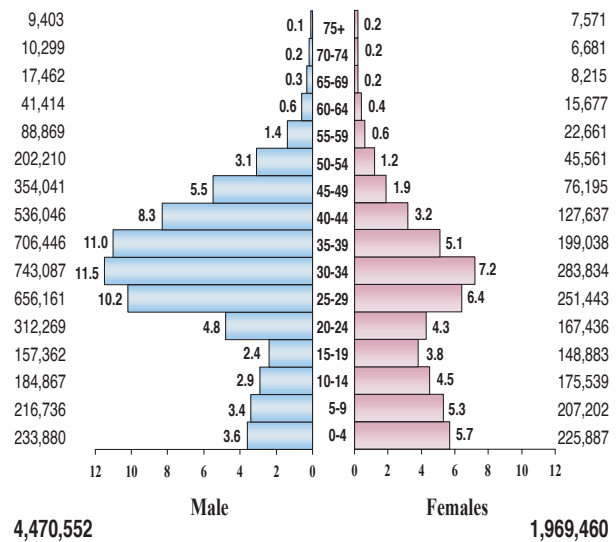


Figure I.3 Population Pyramid of non-Saudis (%) by Sex and Age Group, 2005

Saudi Cancer Registry

The Saudi Cancer Registry (SCR) of Saudi Arabia is a population-based registry established in 1992 under the jurisdiction of the Ministry of Health (MOH) by the order of His Excellency the Minister of Health. The SCR commenced reporting cancer cases from 01 January 1994.

Objectives:

The primary goal of the SCR is to define the population-based incidence of cancer in Saudi Arabia. Additional objectives include programs for early detection and cancer screening, as well as cancer research projects.

Organizational Structure:

A Board of Directors was appointed to include representatives from the MOH, King Faisal Specialist Hospital and Research Center (KFSH&RC), and the Medical Services Departments of the Ministry of Defense and Aviation, Ministry of Interior, the National Guard, King Saud University, King Faisal University, King Abdul-Aziz University and King Khalid University. The Board is charged with the responsibility of overseeing the SCR's establishment, defining demographic and cancer-related data to be collected, approving research requests, and reporting findings, as well as disseminating information collected while ensuring the confidentiality of all data reported to the SCR.

* Source: Demographic and Health Indicators for Countries of the East Mediterranean, WHO, Regional Office for the EM, 1999

** Source: Based on 2004 Census, Central Department for Statistics (CDS) data, Ministry of Planning with a 2.5% growth rate for Saudis, and 2.3% growth rate for non-Saudis (web site <http://www.planning.gov.sa>).

The SCR Main Office, including administrative and technical staff, is located in the premises of the KFSH&RC in Riyadh. Additionally, five regional branches and four hospital-based offices were set up to ensure comprehensive data collection from all over the Kingdom (Figure 1.4).

Regional Offices:

- 1 Central Region: King Khalid University Hospital in Riyadh, covering Riyadh, Qassim, and Hail Health Regions.
- 2 Eastern Region: King Fahad Hospital of the University, Al Khobar, covering Dammam, Al Ahsa, and Hafr Al-Batin Health Regions.
- 3 Western Region: King Abdulaziz Hospital and Cancer Center, Jeddah, covering Jeddah, Makkah, Taif and Qunfudah Health Regions.
- 4 Southern Region: Asir Central Hospital, Abha, covering Asir, Baha, Najran, Jazan and Bisha Health Regions.
- 5 Madinah/Northern Region: Madinah Maternity & Children’s Hospital, Madinah, covering Madinah, Tabuk, Jouf and Northern Health Regions.

Offices at the Medical Service Division or Oncology Department of the following establishment

- 1 Ministry of Defense and Aviation, Armed Forces Hospital, Riyadh
- 2 National Guard, King Fahad Hospital, Riyadh
- 3 Ministry of Interior, Security Forces Hospital, Riyadh.
- 4 King Faisal Specialist Hospital and Research Centre, Riyadh.
- 5 King Abdul Aziz University Hospital, Jeddah

Each of the SCR offices operates under the supervision of a member of the Board of Directors who is responsible for the daily management of that office. Staffing consists of tumor registrars and secretarial staff.

The SCR Main Office indirectly supervises the regional offices and is responsible for ensuring the accuracy and quality of data collected in all of the regions. Quality control processes include verification of site, morphology, and staging information as well as case linkage (tumor and patient), and consolidation of data. The Main Office also prepares periodic reports for dissemination of information to the medical community, government establishments, international organizations and the media.

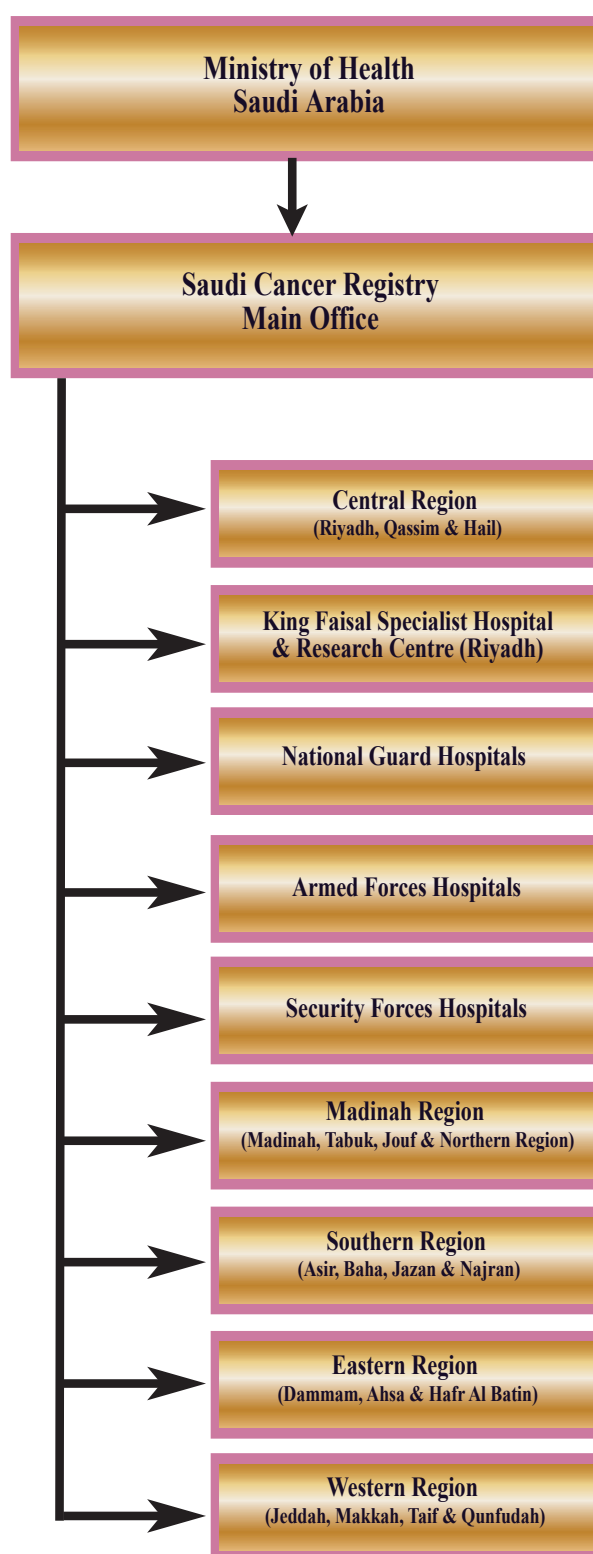


Figure 1.4 Organizational Chart of the Saudi Cancer Registry of Saudi Arabia

Format

The format of the current report is similar to the previous reports.

Data management

A ministerial decree has categorized cancer as a mandatory notifiable disease. This ensures the opportunity for comprehensive data collection. The SCR strives for full access to cancer data from all Ministry of Health, governmental and private hospitals, as well as clinics and laboratories throughout the Kingdom. Cancer data are abstracted from patients' medical records, based on clinical and/or histopathological diagnosis, by SCR-trained cancer registrars.

The data abstract (see appendix D) includes personal identification (name, ID Number, sex, age), demographic information (address, telephone number, nationality), and tumor details (diagnosis date, primary site, histology, behavior, grade, stage, basis of diagnosis). The primary site (topography) and histology (morphology) of the malignancies are identified and coded according to the *International Classification of Diseases for Oncology 3rd Edition (ICD-O-3)*, published by the World Health Organization (WHO), 2000.

Effective from year 2001, changes were made in coding of cancer types and behaviors as well as staging according to International guidelines. The new SEER Summary Stage 2000 guidelines should result in increased accuracy and consistency in the coding of stage. There are some differences in the timing rules for determining stage and some sites are coded differently using the new guidelines. However, the new criteria and guidelines should improve the usefulness of staging as a predictor of prognosis and survival as the changes reflect a new understanding of the natural history of cancer. The new guidelines, SEER Summary Stage Manual 2000, is available on the web at: <http://seer.cancer.gov/tools/ssm/>. Cases diagnosed on or after 01 January 2005 are classified according to the updated ICD-O-3. Improvements in the understanding of cancer pathology over the last decade are reflected in the changes to ICD-O-3. While there have not been any changes in the primary site codes, there are significant changes regarding histology (cell types). Leukemias and lymphomas, particularly are affected. Some cases that were previously considered benign are now

counted as malignant. Also small number of cancers that were previously coded as borderline tumors are now considered benign. Counts of ovarian cancers, lymphomas and leukemias as well as some hematopoietic diseases will change due to changes in either reportability or definition. However, as with the new staging guidelines, the ICD-O changes reflect advances in the understanding of the pathology and behavior of cancers.

It should be noted that ICD-O-3 codes are converted to ICD-10 for analysis purposes. Since the WHO has not yet converted the ICD-10 hematopoietic disease behavior changes, our software, CanReg 4.31, cannot include these cases for analysis and they have been excluded. Every effort is made to accurately code patient and tumor information, to ensure that all data can be reviewed, linked, and consolidated, as appropriate, so that each malignancy is counted only once for statistical analysis.

The computer software programs used for data entry and incidence tables output are *CanReg 4.31*, developed by the International Agency for Research on Cancer, (IARC) Lyon, France.

The second part of the report includes the overall cancer incidence in Saudi Arabia and the relevant epidemiological and clinicopathological details for the 14 most common cancers among Saudi nationals for the year 2005. For each cancer site, the number and the percentage of all newly diagnosed cases for the year 2005, the age-standardized incidence rate (ASR) per 100,000 population for each sex, and the specific cancer rank in comparison to all cancers for both sexes are presented.

Useful international statistics for the specified cancer include the ranking of the cancer worldwide. The source for this information is summarized on page 66.

The relevant data incorporate details for all patients presented over the year 2005. For each cancer there are five figures:

1. An arithmetic line graph represents the age-specific incidence rate (AIR) for all age groups at five-year intervals. The graph is plotted by sex, where applicable.
2. A table lists the percentages of the most common histology sub-types for each specific cancer.
3. A pie chart shows the distribution of the clinical stages of each cancer such as localized, regional, distant metastasis and unknown.
4. A bar chart shows regional distribution of ASR for particular cancer across the administrative regions by males and females.
5. A bar chart shows comparison of age-standardized incidence rate (ASR) for each cancer type in Saudi Arabia with ASR in selected countries.

In reviewing the data, its collection and analysis, two qualifying statements can be made:

- a. The number of patients presenting with malignant disease from Riyadh region exceeds the anticipated number per population. The reason for this is that Riyadh has many referral centers providing patients from outside the region with cancer-related care. Many of these patients fail to provide their permanent address, but instead, provide a temporary Riyadh address. This situation is partially resolved through tumor and patient linkage of cases from all regions based on identifiers such as national ID.
- b. As previously noted, the software used in analyzing this report, CanReg 4.31, does not include in situ cases in the incidence tables. These cases were added to the total cancer cases in the overview.

Notification

The data included in this report were abstracted up to June 2006. 2005 incident cases which are identified after this date (late reporting) will be noted in subsequent incidence reports. It is anticipated that the number of late-reported cases will decrease as case ascertainment processes are improved.

Definitions of Terms

Age-Specific Incidence Rate (AIR)

The number of cancer cases occurring during a specific period in a population of a specific age and sex group, divided by the number of midyear population of that age and sex group.

Age-Standardized Rate (ASR)

The Age-standardized rate is a summary measure of a rate that a population would have if it had a standard age structure. Standardization is necessary when comparing several populations that differ with respect to age structure. The most frequently used standard population is the World Standard Population (see below). The calculated incidence is known as the World Standardized Incidence Rate. The rate is expressed per 100,000 populations.

Age Class	Population
0-4	12,000
5-9	10,000
10-14	9,000
15-19	9,000
20-24	8,000
25-29	8,000
30-34	6,000
35-39	6,000
40-44	6,000
45-49	6,000
50-54	5,000
55-59	4,000
60-64	4,000
65-69	3,000
70-74	2,000
75+	2,000
Total	100,000

* Doll R. Payne P. Waterhouse J. Cancer incidence in Five Continents Vol. I. International Union Against Cancer. 1966

Crude Incidence Rate

The crude incidence rate for a cancer site is the total number of cases registered as a proportion of the total population. It denotes the approximate number of cases occurring in each 100,000 individuals. All rates are thus, expressed as per 100,000 population.

Cancer rates vary greatly with age and the crude rate is strongly influenced by the demographic structure of the population. Hence, if the population structure changes over time the crude rate over that period may be artificially altered. It is not appropriate to compare crude rates across geographical areas of cancer registries with different population age structures. Therefore, in order to assess time trends in registration data or compare incidence across geographical areas or between registries it is necessary to first standardize the rates with respect to age.

Cumulative Incidence rate

Cumulative incidence is the probability or risk of individuals developing the disease during a specified period. For cancer, it is expressed as the number of new born children (out of 100, or 1000) who would be expected to develop a particular cancer before the age of 65 (or 70, or 75) if they had the rates of cancers currently observed. Like the age standardized rate, it permits comparison between populations of different age structures. In this report the age ranges 0-64 and 0-74 years are used. The cumulative rate is the summation of the cancer age-specific rates; which are computed for five-year age intervals. The cumulative rate is five times the sum of the age-specific rates calculated over the five-year age groups.

ICD-10

The World Health Organization's International Classification of Diseases, tenth edition.

ICD-O-3

The World Health Organization's International Classification of Diseases for Oncology, 3rd Edition has been the standard coding system for neoplasms for over 25 years. The coding system includes a four character code for primary site, a four-digit numeric code for cell type, one-digit code for behavior and a one-digit code for tumor aggressiveness (grade).

Incidence Rate

An incidence rate is defined as the rate at which a new event occurs in a population. It is calculated as the number of new cases of disease arising in a population over a defined time period, divided by the population at risk of developing that disease.

Mean

The simple mathematical average of two or more numbers.

Median

The midpoint of the range numbers that are arranged in order of value.

Metastasis

Metastasis is the distant spread of cancer from its original site to other organs of the body, including lymph nodes, skeletal and or visceral organs.

Range

Is the difference between the maximum and minimum values in a set of observations.

Rank

This measure reflects the importance of a specific cancer site relative to other sites, in terms of the number of registrations. Ranking illustrates the most and least frequent cancer sites in a population according to their frequency.

Ratio

The relation between two quantities. The first quantity as numerator and the second as denominator

Relative Frequency

This statistic is defined as the number of specific cancer cases registered relative to the total number of all cancer. It is expressed as a percentage.

Summary Stage

Staging is the grouping of cancer cases into broad categories based on the extent of disease.

PART II
OVERVIEW OF CANCER INCIDENCE
2005

Reported Cancer Incidence Cases in Saudi Arabia, 2005

Between January 01 and December 31, 2005, the total number of cancer incident cases reported to the SCR was 10,513. Overall, cancer was slightly more among men than women. Cancers affected 5,308 (50.5%) males and 5,205 (49.5%) females, with a male to female ratio of 102:100. 7,761 cases were reported among Saudis, 2,453 among Non-Saudis. The total number of cases excluded from analysis included 287 cases of unknown nationalities. Other exclusions were 262 in situ cases. The current software program CanReg-4 version 4.31, does not include in situ cases in the statistical analysis. Also, 37 were ICD-O-3 coded cases that failed to convert to ICD-10 codes as described in the Data Management (see page 12). This puts the total number of exclusions from the analysis as 586 cases. Table 2-1 illustrates the distribution of the cases by sex.

Diagnosis of malignancy was confirmed histologically and/or cytologically in 93.9% of the cases. Clinically confirmed cases were 0.2%; radiologically confirmed cases were 1.4%; cases confirmed by Death Certificate Only were 3.3% and 1.2% of the cases were confirmed by other methods. The method of diagnosis was unknown for 1.1% of the cases.

As shown on table 2-1, 9,927 cases were analyzed, of which 7,563 (78%) were Saudis and 2,364 (22.%) were Non-Saudis. Among the Saudis, 3,729 (49.3%) were male and 3,834 (50.7 %) were female. The male to female ratio was 97:100. The crude incidence rate (CIR) of all cancers among the Saudi population was 44.6/100,000 (43.9/100,000 among males and 45.2/100,000 among females). The overall age-standardized incidence rate (ASR) for all Saudis with a world standard population reference was 74.3/100,000 (74.1/100,000 in males and 74.4/100,000 in females). For all sites, the agespecific incidence rate (AIR) increased with age for both males and females. After the age of 64 years, the increase was nearly two folds for males compared to females. The median age at diagnosis was 59 years for men and 49 years for women.

	Saudis			Non-Saudis			Unknown Nationality			All
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Total
Total	3834	3927	7761	1316	1137	2453	158	141	299	10513
Invasive	3747	3848	7595	1267	1102	2369	146	141	287	10251
In Situ	87	79	166	49	35	84	12	0	12	262
ICD 10 *	18	14	32	4	1	5	0	0	0	37
Analyzed **	3729	3834	7563	1263	1101	2364	146	141	287	9927

Table 2.1 Distribution of Cancer Cases in Saudi Arabia by Nationality and Sex 2005

* ICD-10 conversion failure

** Unknown nationalities, in situ cases and ICD-10 conversion failures are excluded from analysis

Cancer among Saudis 2005

As explained earlier the total number of cancer cases analyzed among Saudis during the year 2005 were 7,563. Following are figures presenting the percentage distributions of cancer incidence and most frequent types of cancers among Saudis by sex.

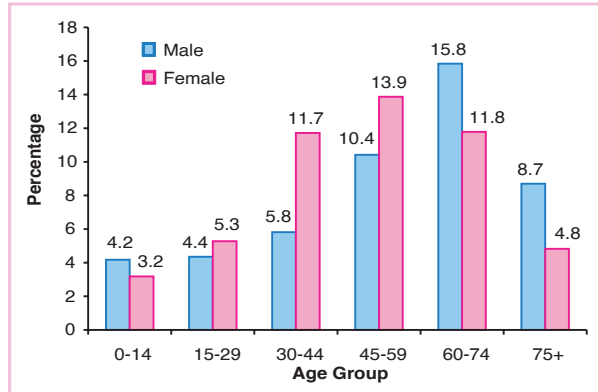


Figure 2.1 Percentage Distribution of Cancer Incidence among Saudis by Sex according to Age Group, 2005

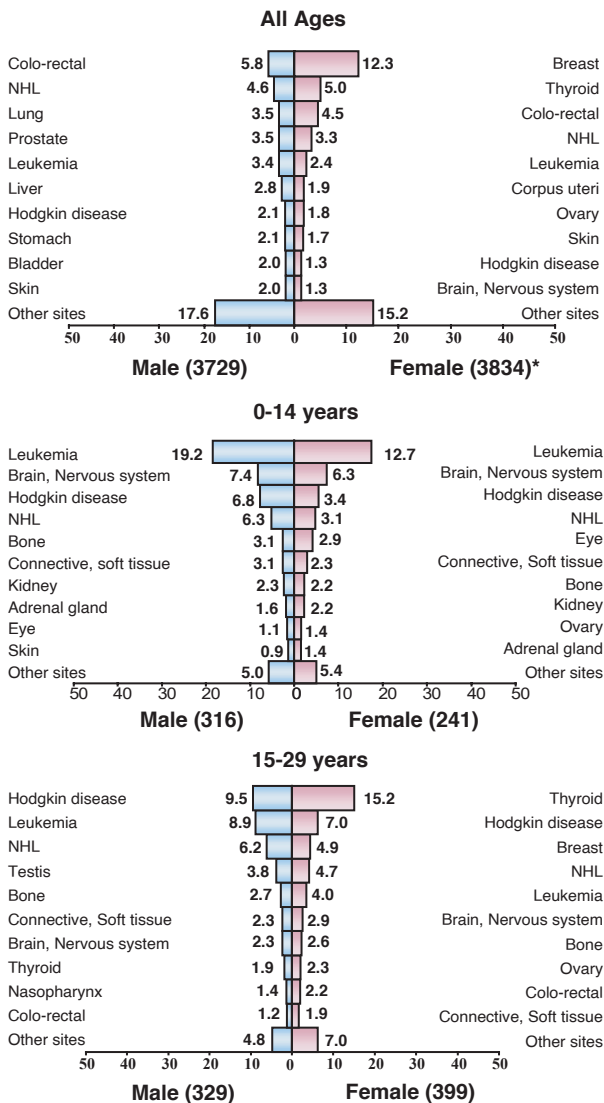


Figure 2.2 Percentage Distribution of Most Frequent Types of Cancer by Sex among Saudis, 2005

* 4 female cases of unknown age are included only in the total as they may not be added to any age group

Cancer	No.	%
Breast	948	12.5
Colo-rectal	778	10.3
Non-Hodgkin lymphoma	596	7.9
Thyroid	473	6.3
Leukemia	441	5.8
Lung	347	4.6
Liver	292	3.9
Skin	281	3.7
Prostate	261	3.5
Hodgkin disease	259	3.4

Table 2.2 Ten Most Common Cancers among Saudis, 2005 (All Ages)

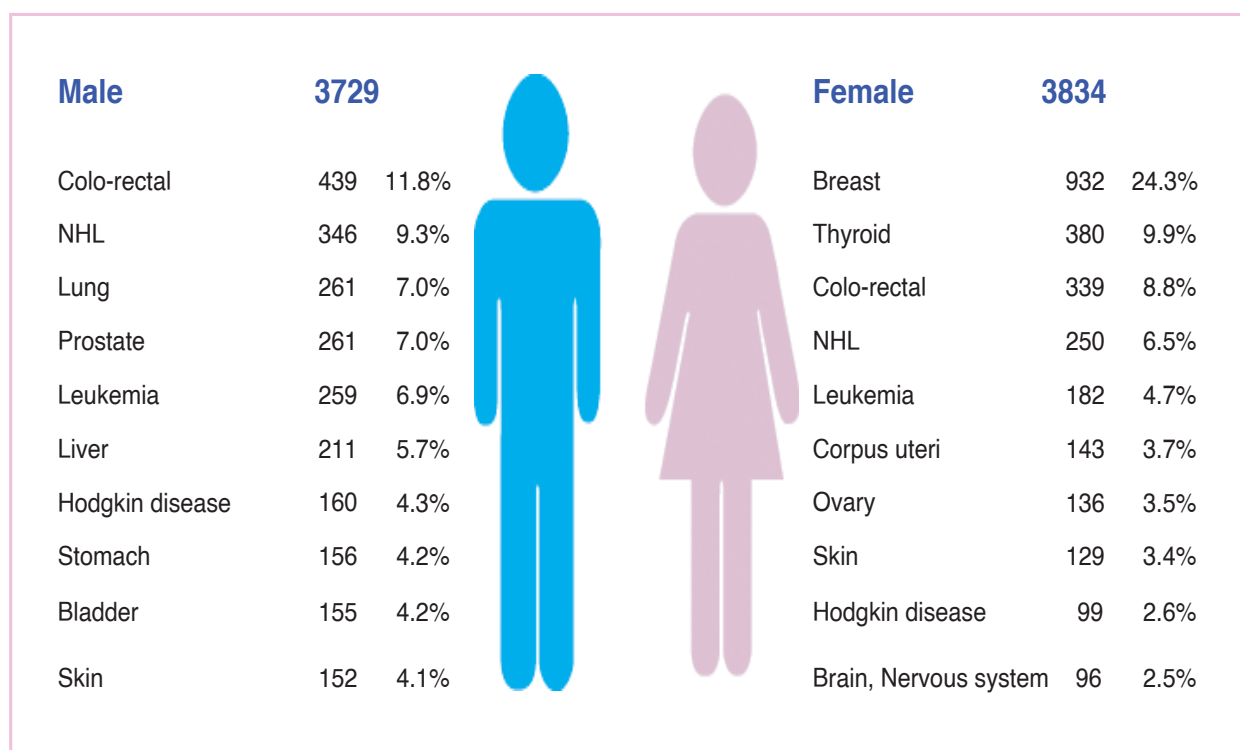


Figure 2.3 Ten Most Common Cancers among Saudis by Sex, 2005

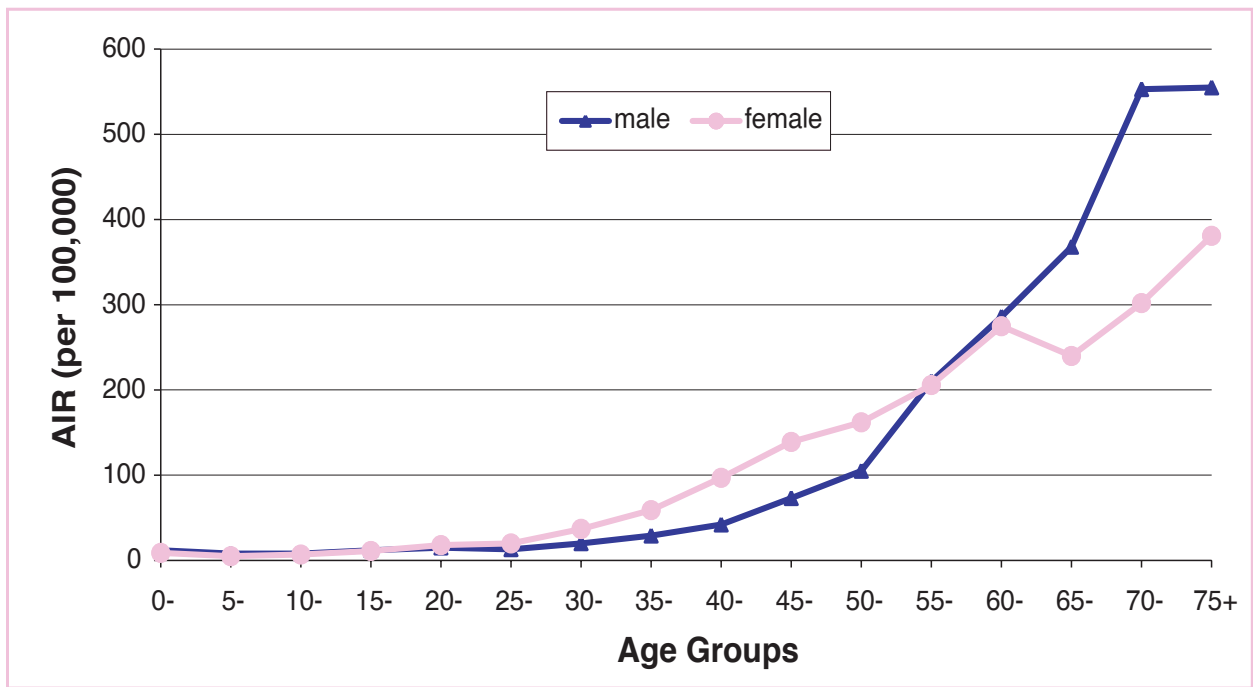


Figure 2.4 Age-Specific Incidence Rates (AIR) for All Cancers among Saudis, 2005

ICD-10	Site	Male								Female							
		No.	%	Crude		ASR		Cumulative Rate		No.	%	Crude		ASR		Cumulative Rate	
				Rate	World	0-64	0-74	Rate	World			0-64	0-74				
All	All sites Total	3729	100	43.9	74.1	41.22	86.19	3834	100	45.2	74.4	52.28	79.42				
Not C44	All sites but C44	3577	95.9	42.1	70.8	39.8	82.0	3705	96.5	43.7	71.6	50.745	76.50				
C00	Lip	6	0.2	0.1	0.1	0.06	0.15	6	0.2	0.1	0.1	0.07	0.07				
C01-C02	Tongue	40	1.1	0.5	0.9	0.63	1.14	21	0.5	0.2	0.5	0.37	0.51				
C03-C06	Mouth	32	0.9	0.4	0.7	0.41	0.83	44	1.1	0.5	1	0.60	1.01				
C07-C08	Salivary glands	15	0.4	0.2	0.2	0.12	0.18	13	0.3	0.2	0.2	0.16	0.16				
C09	Tonsil	3	0.1	0	0.1	0.06	0.06	1	0.0	0	0	0.02	0.02				
C10	Other Oropharynx	2	0.1	0	0	0.04	0.04	2	0.1	0	0.1	0.04	0.09				
C11	Nasopharynx	114	3.1	1.3	2.2	1.60	2.72	32	0.8	0.4	0.6	0.40	0.65				
C12-C13	Hypopharynx	11	0.3	0.1	0.2	0.13	0.24	17	0.4	0.2	0.4	0.34	0.50				
C14	Pharynx unspeci ed	4	0.1	0	0.1	0.08	0.14	0	0.0	0	0	0.00	0.00				
C15	Oesophagus	53	1.4	0.6	1.2	0.76	1.39	66	1.7	0.8	1.5	0.70	1.48				
C16	Stomach	156	4.2	1.8	3.5	1.49	4.33	68	1.8	0.8	1.6	0.97	2.03				
C17	Small intestine	22	0.6	0.3	0.5	0.21	0.54	12	0.3	0.1	0.3	0.13	0.29				
C18	Colon	250	6.7	2.9	5.5	3.53	6.62	197	5.1	2.3	4.2	3.18	4.34				
C19-C20	Rectum	189	5.1	2.2	4.2	2.53	5.50	142	3.7	1.7	3	2.13	3.36				
C21	Anus	17	0.5	0.2	0.4	0.22	0.48	9	0.2	0.1	0.2	0.15	0.21				
C22	Liver	211	5.7	2.5	4.9	2.61	5.88	81	2.1	1	1.8	1.06	2.14				
C23-C24	Gallbladder etc.	36	1.0	0.4	0.8	0.65	0.96	63	1.6	0.7	1.5	1.11	1.74				
C25	Pancreas	82	2.2	1	1.9	1.06	2.39	49	1.3	0.6	1.2	0.66	1.61				
C30-C31	Nose, sinuses etc.	13	0.3	0.2	0.2	0.13	0.20	10	0.3	0.1	0.2	0.14	0.31				
C32	Larynx	48	1.3	0.6	1.2	0.65	1.74	6	0.2	0.1	0.1	0.13	0.13				
C33-C34	Trachea,Bronchus,Lung	261	7.0	3.1	6.1	3.24	8.27	86	2.2	1	1.9	1.27	2.05				
C37-C38	Other Thoracic organs	17	0.5	0.2	0.3	0.19	0.30	12	0.3	0.1	0.2	0.19	0.25				
C40-C41	Bone	51	1.4	0.6	0.6	0.37	0.48	36	0.9	0.4	0.4	0.21	0.27				
C43	Melanoma of Skin	11	0.3	0.1	0.2	0.05	0.21	10	0.3	0.1	0.2	0.09	0.21				
C44	Other Skin	152	4.1	1.8	3.3	1.42	4.23	129	3.4	1.5	2.8	1.54	2.92				
C45	Mesothelioma	8	0.2	0.1	0.2	0.17	0.30	6	0.2	0.1	0.1	0.10	0.15				
C46	Kaposi sarcoma	26	0.7	0.3	0.5	0.28	0.55	7	0.2	0.1	0.2	0.15	0.20				
C47;C49	Connective,Soft tissue	70	1.9	0.8	1	0.61	0.83	49	1.3	0.6	0.7	0.46	0.57				
C50	Breast	16	0.4	0.2	0.3	0.25	0.32	932	24.3	11	18	14.53	18.96				
C51	Vulva							1	0.0	0	0	0.04	0.04				
C52	Vagina							7	0.2	0.1	0.2	0.18	0.18				
C53	Cervix Uteri							95	2.5	1.1	2	1.46	2.27				
C54	Corpus Uteri							143	3.7	1.7	3.4	2.62	4.22				
C55	Uterus unspeci ed							14	0.4	0.2	0.3	0.23	0.37				
C56	Ovary							136	3.5	1.6	2.8	1.91	3.18				
C57	Other Female Genital							6	0.2	0.1	0.1	0.12	0.12				
C58	Placenta							10	0.3	0.1	0.1	0.11	0.11				
C60	Penis	6	0.2	0.1	0.1	0.05	0.11										
C61	Prostate	261	7.0	3.1	6.2	1.89	6.47										
C62	Testis	45	1.2	0.5	0.5	0.48	0.48										
C63	Other male genital	1	0.0	0	0	0.05	0.10										
C64	Kidney	92	2.5	1.1	1.9	1.54	2.83	60	1.6	0.7	1.2	0.83	1.26				
C65	Renal Pelvis	3	0.1	0	0	0.12	0.24	4		0	0.1	0.06	0.06				
C66	Ureter	3	0.1	0	0.1	0.02	0.07	4	0.1	0	0.1	0.04	0.16				
C67	Bladder	155	4.2	1.8	3.3	1.81	4.50	35	0.9	0.4	0.8	0.36	0.83				
C68	Other Urinary organs	0	0.0	0	0	0.04	0.04	1		0	0	0.00	0.06				
C69	Eye	15	0.4	0.2	0.2	0.21	0.37	20	0.5	0.2	0.3	0.08	0.18				
C70-C72	Brain, Nervous system	124	3.3	1.5	2	1.42	2.37	96	2.5	1.1	1.3	0.99	1.21				
C73	Thyroid	93	2.5	1.1	1.6	1.00	1.82	380	9.9	4.5	6	4.61	5.68				
C74	Adrenal gland	10	0.3	0.1	0.1	0.03	0.03	9	0.2	0.1	0.1	0.04	0.04				
C75	Other Endocrine	6	0.2	0.1	0.1	0.02	0.02	5	0.1	0.1	0.1	0.02	0.07				
C81	Hodgkin disease	160	4.3	1.9	2	1.44	1.79	99	2.6	1.2	1.3	0.84	1.04				
C82-C85;C96	Non-Hodgkin lymphoma	346	9.3	4.1	6.4	3.57	6.39	250	6.5	3	5	3.11	5.74				
C88	Immunoproliferative dis.	0	0.0	0	0	0.04	0.04	0		0	0	0.00	0.00				
C90	Multiple Myeloma	55	1.5	0.6	1.2	0.48	1.06	24	0.6	0.3	0.5	0.36	0.52				
C91	Lymphoid leukemia	149	4.0	1.8	1.7	0.95	1.48	75	2.0	0.9	0.9	0.46	0.67				
C92-C94	Myeloid leukemia	96	2.6	1.1	1.4	0.75	1.45	92	2.4	1.1	1.4	1.02	1.56				
C95	Leukemia unspeci ed	14	0.4	0.2	0.2	0.09	0.09	15	0.4	0.2	0.2	0.15	0.15				
Other	Other & unspeci ed	179	4.8	2.1	3.8	1.79	3.55	147	3.8	1.7	3.2	1.87	3.61				

Table 2.3 Number, Percentage, ASR, CIR, and Cumulative Rates (per 1000) of New Cases by Primary Site and Sex among Saudis, 2005

Adult Cancers in Saudi Arabia, 2005 (>14 years)

Between January and December 2005, the total number of adult cancer incidence cases reported was 9,733. Overall cancer was slightly more in males than in females. Cancer affected 4,872 (50.1%) males and 4,861 (49.9%) females, with a ratio of

100.4:100. Of all cases, there were 7,199 Saudis, 2,323 of Non-Saudis and 211 of unknown nationalities. As shown on table 2.4, the total number of analysed cases were 9,236.

	Saudis			Non-Saudis			Unknown Nationality			All
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Total
Total	3518	3681	7199	1247	1076	2323	107	104	211	9733
Invasive	3431	3603	7034	1198	1041	2239	97	104	201	9474
In-Situ	87	78	165	49	35	84	10	0	0	259
ICD 10*	18	14	32	4	1	5	0	0	0	37
Analyzed**	3413	3589	7002	1194	1040	2234	97	104	201	9236

Table 2.4 Distribution of Reported Adult Cancer Cases in Saudi Arabia by Nationality and Sex 2005

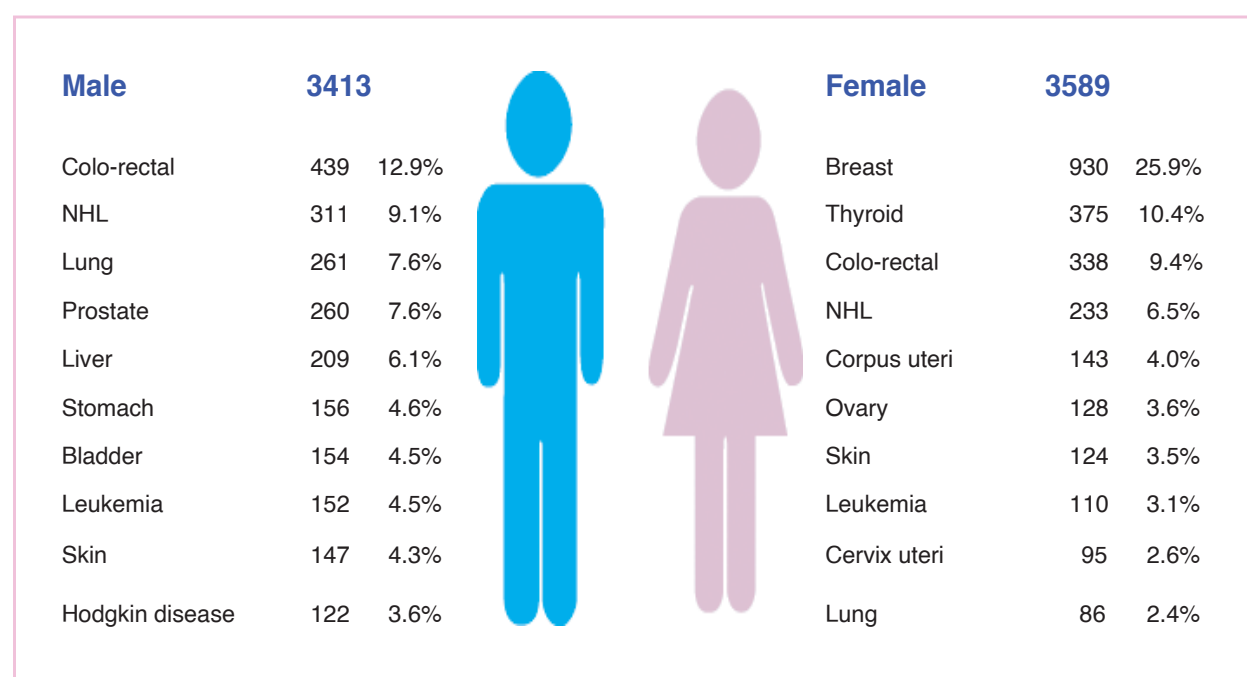


Figure 2.6 Ten Most Common Cancers among Saudi Adults, 2005

* ICD-10 conversion failure

** Unknown nationalities, in situ cases and ICD-10 conversion failures are excluded from analysis

Primary Site	Code	Morphology	Male	%	Female	%
Breast	85003	In ltratin g duct carcinoma, NOS	12	1.3	717	75.8
	80103	Carcinoma, NOS	2	0.2	37	3.9
	85203	Lobular carcinoma, NOS	0	0.0	39	4.1
	80003	Neoplasm, malignant	1	0.1	22	2.3
	85223	In ltratin g duct and lobular carcinoma	0	0.0	23	2.4
	85233	In ltratin g duct mixed with other types of carcinoma	0	0.0	17	1.8
	85103	Medullary carcinoma, NOS	0	0.0	14	1.5
		All Others	1	0.1	61	6.4
Colo-rectal	81403	Adenocarcinoma, NOS	337	43.4	254	32.7
	84803	Mucinous adenocarcinoma	32	4.1	29	3.7
	80003	Neoplasm, malignant	9	1.2	10	1.3
	80103	Carcinoma, NOS	8	1.0	8	1.0
	84903	Signet ring cell carcinoma	9	1.2	7	0.9
	82613	Adenocarcinoma in villous adenoma	6	0.8	9	1.2
	82633	Adenocarcinoma in tubulovillous adenoma	9	1.2	6	0.8
	82103	Adenocarcinoma in adenomatous polyp	9	1.2	2	0.3
		All Others	20	2.6	13	1.7
NHL	96803	Malignant lymphoma, large B-cell, diffuse, NOS	153	28.1	113	20.8
	95913	Malignant lymphoma, non-Hodgkin, NOS	20	3.7	23	4.2
	95903	Malignant lymphoma, NOS	21	3.9	16	2.9
	96703	Malignant lymphoma, small B lymphocytic, NOS	21	3.9	7	1.3
	96983	Follicular lymphoma, grade 3	6	1.1	10	1.8
	97003	Mycosis fungoides	8	1.5	7	1.3
	97143	Anaplastic large cell lymphoma, T cell and Null cell type	9	1.7	6	1.1
	96873	Burkitt lymphoma, NOS	8	1.5	6	1.1
	96903	Follicular lymphoma, NOS	8	1.5	5	0.9
	96993	Marginal zone B-cell lymphoma, NOS	8	1.5	5	0.9
	97023	Mature T-cell lymphoma, NOS	6	1.1	7	1.3
	96913	Follicular lymphoma, grade 2	6	1.1	6	1.1
	96953	Follicular lymphoma, grade 1	8	1.5	4	0.7
	96843	Malignant lymphoma, large B-cell, diffuse, immunoblastic, NOS	6	1.1	3	0.6
	96733	Mantle cell lymphoma	6	1.1	1	0.2
	96753	Malignant lymphoma, mixed small and large cell, diffuse	4	0.7	2	0.4
		All Others	13	2.4	12	2.2
Thyroid	82603	Papillary adenocarcinoma, NOS	59	12.7	221	47.6
	83403	Papillary carcinoma, follicular variant	10	2.2	61	13.1
	83413	Papillary microcarcinoma	0	0.0	22	4.7
	83303	Follicular adenocarcinoma, NOS	3	0.6	15	3.2
	83433	Papillary carcinoma, encapsulated	3	0.6	10	2.2
	80503	Papillary carcinoma, NOS	2	0.4	9	1.9
	83353	Follicular carcinoma, minimally invasive	1	0.2	10	2.2
	82903	Oxyphilic adenocarcinoma	3	0.6	6	1.3
	85103	Medullary carcinoma, NOS	4	0.9	3	0.6
		All Others	4	0.9	18	3.9
	Lung	81403	Adenocarcinoma, NOS	60	17.3	33
80463		Non-small cell carcinoma	39	11.2	11	3.2
80703		Squamous cell carcinoma, NOS	37	10.7	10	2.9
80413		Small cell carcinoma, NOS	29	8.4	1	0.3
80003		Neoplasm, malignant	19	5.5	5	1.4
80103		Carcinoma, NOS	19	5.5	2	0.6
80123		Large cell carcinoma, NOS	13	3.7	2	0.6
82503		Bronchiolo-alveolar adenocarcinoma, NOS	5	1.4	9	2.6
80713		Squamous cell carcinoma, keratinizing, NOS	11	3.2	2	0.6
80203		Carcinoma, undifferentiated, NOS	7	2.0	0	0.0
82603		Papillary adenocarcinoma, NOS	2	0.6	2	0.6
	All Others	20	5.8	9	2.6	
Liver	81703	Hepatocellular carcinoma, NOS	163	57.2	49	17.2
	80003	Neoplasm, malignant	25	8.8	7	2.5
	81603	Cholangiocarcinoma	8	2.8	9	3.2
	81403	Adenocarcinoma, NOS	3	1.1	3	1.1
	80103	Carcinoma, NOS	3	1.1	2	0.7
	81803	Combined hepatocellular carcinoma and cholangiocarcinoma	2	0.7	1	0.4
	All Others	5	1.8	5	1.8	
Skin	80903	Basal cell carcinoma, NOS	68	25.1	65	24.0
	80703	Squamous cell carcinoma, NOS	37	13.7	19	7.0
	88323	Dermato brosarcoma, NOS	12	4.4	8	3.0
	80713	Squamous cell carcinoma, keratinizing, NOS	8	3.0	7	2.6
	80973	Basal cell carcinoma, nodular	4	1.5	4	1.5
	80943	Basosquamous carcinoma	3	1.1	3	1.1
	84103	Sebaceous adenocarcinoma	3	1.1	2	0.7
	80003	Neoplasm, malignant	2	0.7	2	0.7
	80753	Squamous cell carcinoma, adenoid	2	0.7	2	0.7
	80913	Multifocal super cial basal cell carcinoma	1	0.4	2	0.7
	80983	Adenoid basal carcinoma	0	0.0	3	1.1
	All Others	7	2.6	7	2.6	

Table 2.5 Number and Proportion of Morphological Types for the Most Common Types of Cancer among Saudi Adults, 2005

Table 2.5 continued

Primary Site	Code	Morphology	Male	%	Female	%
Leukemia	98633	Chronic myeloid leukemia, NOS	32	12.2	24	9.2
	98353	Precursor cell lymphoblastic leukemia, NOS	24	9.2	5	1.9
	98613	Acute myeloid leukemia, NOS	11	4.2	15	5.7
	98363	Precursor B-cell lymphoblastic leukemia	18	6.9	4	1.5
	98663	Acute promyelocytic leukemia, t(15;17) (q22;q11-12)	6	2.3	12	4.6
	98233	B-cell chronic lymphocytic leukemia/small lymphocytic lymphoma	8	3.1	9	3.4
	98913	Acute monocytic leukemia	9	3.4	5	1.9
	98373	Precursor T-cell lymphoblastic leukemia	11	4.2	2	0.8
	98013	Acute leukemia, NOS	5	1.9	6	2.3
	98743	Acute myeloid leukemia with maturation	5	1.9	5	1.9
	98673	Acute myelomonocytic leukemia	1	0.4	6	2.3
	98003	Leukemia, NOS	2	0.8	4	1.5
	99403	Hairy cell leukemia	5	1.9	0	0.0
	98733	Acute myeloid leukemia without maturation	1	0.4	3	1.1
		All Others	14	5.3	10	3.8
	Prostate	81403	Adenocarcinoma, NOS	235	90.4	
80003		Neoplasm, malignant	17	6.5		
80103		Carcinoma, NOS	5	1.9		
84813		Mucin-producing adenocarcinoma	2	0.8		
80203		Carcinoma, undifferentiated, NOS	1	0.4		
Stomach	81403	Adenocarcinoma, NOS	80	35.7	23	10.3
	84903	Signet ring cell carcinoma	30	13.4	20	8.9
	81443	Adenocarcinoma, intestinal type	11	4.9	6	2.7
	80103	Carcinoma, NOS	4	1.8	3	1.3
	80703	Squamous cell carcinoma, NOS	4	1.8	3	1.3
	80003	Neoplasm, malignant	3	1.3	3	1.3
	80203	Carcinoma, undifferentiated, NOS	4	1.8	1	0.4
	84813	Mucin-producing adenocarcinoma	4	1.8	1	0.4
	81453	Carcinoma, diffuse type	2	0.9	2	0.9
	84803	Mucinous adenocarcinoma	3	1.3	1	0.4
	89363	Gastrointestinal stromal sarcoma	3	1.3	1	0.4
	82113	Tubular adenocarcinoma	3	1.3	0	0.0
	All Others	5	2.2	4	1.8	
Bladder	81303	Papillary transitional cell carcinoma	60	31.9	15	8.0
	81203	Transitional cell carcinoma, NOS	64	34.0	10	5.3
	80703	Squamous cell carcinoma, NOS	9	4.8	5	2.7
	80103	Carcinoma, NOS	5	2.7	1	0.5
	80003	Neoplasm, malignant	4	2.1	1	0.5
	81403	Adenocarcinoma, NOS	3	1.6	1	0.5
	80713	Squamous cell carcinoma, keratinizing, NOS	2	1.1	0	0.0
	84803	Mucinous adenocarcinoma	2	1.1	0	0.0
	All Others	5	2.7	1	0.5	
Corpus Uteri	83803	Endometrioid adenocarcinoma, NOS			78	54.5
	81403	Adenocarcinoma, NOS			20	14.0
	82603	Papillary adenocarcinoma, NOS			6	4.2
	80103	Carcinoma, NOS			5	3.5
	83103	Clear cell adenocarcinoma, NOS			5	3.5
	89803	Carcinosarcoma, NOS			5	3.5
	84603	Papillary serous cystadenocarcinoma			4	2.8
	88903	Leiomyosarcoma, NOS			4	2.8
	89303	Endometrial stromal sarcoma, NOS			4	2.8
	84613	Serous surface papillary carcinoma			2	1.4
	89503	Mullerian mixed tumor			2	1.4
	All Others			8	5.6	
Ovary	84603	Papillary serous cystadenocarcinoma			30	23.4
	81403	Adenocarcinoma, NOS			25	19.5
	80003	Neoplasm, malignant			11	8.6
	80103	Carcinoma, NOS			7	5.5
	84613	Serous surface papillary carcinoma			6	4.7
	84613	Serous cystadenocarcinoma, NOS			5	3.9
	84703	Mucinous cystadenocarcinoma, NOS			5	3.9
	83803	Endometrioid adenocarcinoma, NOS			4	3.1
	90603	Dysgerminoma			4	3.1
	82603	Papillary adenocarcinoma, NOS			3	2.3
	83103	Clear cell adenocarcinoma, NOS			3	2.3
	84403	Cystadenocarcinoma, NOS			3	2.3
	84803	Mucinous adenocarcinoma			3	2.3
	80033	Malignant tumor, giant cell type			2	1.6
	84903	Signet ring cell carcinoma			2	1.6
	86203	Granulosa cell tumor, malignant			2	1.6
	90713	Yolk sac tumor			2	1.6
90853	Mixed germ cell tumor			2	1.6	
	All Others			9	7.0	
Cervix Uteri	80703	Squamous cell carcinoma, NOS			26	27.4
	80723	Squamous cell carcinoma, large cell, nonkeratinizing, NOS			26	27.4
	81403	Adenocarcinoma, NOS			13	13.7
	80713	Squamous cell carcinoma, keratinizing, NOS			12	12.6
	80003	Neoplasm, malignant			4	4.2
	85603	Adenosquamous carcinoma			3	3.2
	80103	Carcinoma, NOS			2	2.1
	80763	Squamous cell carcinoma, microinvasive			2	2.1
	83103	Clear cell adenocarcinoma, NOS			2	2.1
	89333	Adenosarcoma			2	2.1
	80213	Carcinoma, anaplastic, NOS			1	1.1
	82603	Papillary adenocarcinoma, NOS			1	1.1
	89803	Carcinosarcoma, NOS			1	1.1

Childhood Cancers in Saudi Arabia, 2005 (≤ 14 years)

The total incident cases reported among children (0-14 years) between January and December 2005 were 697. This represents 6.6 % of the total number of cancers in Saudi Arabia. The reported incidents show that cancer was more common among boys than girls. 390 (56.0%) cases were reported among boys and 307 (44.0%) among girls, with a male to female ratio of 127:100. Of all the

cases reported there were 558 Saudis, 121 non-Saudis and 18 of "unknown nationality". Based on table 2-6, the total number of cases analyzed was 678 including 557 (82.2%) Saudis and 121 (17.8%) non-Saudis. Among Saudis, 316(56.7%) were male and 241 (43.3%) were female. The male to female ratio amongs Saudis was 131:100.

	Saudis			Non-Saudis			Unknown Nationality			All Total
	Male	Female	Total	Male	Female	Total	Male	Female	Total	
Total	316	242	558	62	59	121	12	6	18	697
Invasive	316	242	557	62	59	121	12	6	18	696
In-situ	0	1	1	0	0	0	0	0	0	1
ICD 10*	0	0	0	0	0	0	0	0	0	0
Analyzed**	316	241	557	62	59	121	12	6	18	678

Table 2.6 Distribution of Reported Childhood Cancer Cases in Saudi Arabia by Nationality and Sex, 2005

Childhood cancer is very important, not only because of the age of occurrence, but also because 39.9% of the Saudi population is under 15 years of age. In addition to this, recent years have shown a breakthrough for the cure of many childhood cancers. Childhood cancers accounted for 7.2% of all cancer among Saudis. The leading cancer

among Saudi children was leukemia, which accounted for 32.0 %, followed by Brain (CNS) 13.6 % then Hodgkin disease 10.2 % and NHL 9.3 %. Figure 2-7 shows the top ten sites by sex and frequency, and table 2-7 shows the number and proportion of the morphological types for the most common types of cancer.

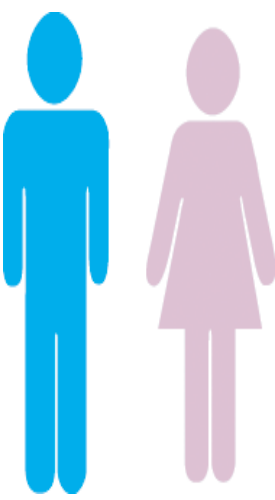
Boys			Girls		
	316			241	
Leukemia	107	33.9%		71	29.5%
Brain, Nervous System	41	13.0%		35	14.5%
Hodgkin disease	38	12.0%		19	7.9%
Non-Hodgkin disease	35	11.1%		17	7.1%
Bone	17	5.4%		16	6.6%
Connective, soft tissue	17	5.4%		13	5.4%
Kidney	13	4.1%		12	5.0%
Adrenal gland	9	2.8%		12	5.0%
Eye	6	1.9%		8	3.3%
Skin	5	1.6%		8	3.3%

Figure 2.7 Ten Most Common Cancers among Saudi Children by Sex, 2005

* ICD-10 conversion failure

** Unknown nationalities, in situ cases and ICD-10 conversion failures are excluded from analysis

Primary Site	Code	Morphology	Male	%	Female	%
Leukemia	98353	Precursor cell lymphoblastic leukemia, NOS	30	16.9	31	17.4
	98363	Precursor B-cell lymphoblastic leukemia	36	20.2	21	11.8
	98613	Acute myeloid leukemia, NOS	9	5.1	3	1.7
	98373	Precursor T-cell lymphoblastic leukemia	10	5.6	1	0.6
	98053	Acute biphenotypic leukemia	2	1.1	3	1.7
	98913	Acute monocytic leukemia	1	0.6	4	2.2
	99103	Acute megakaryoblastic leukemia	4	2.2	1	0.6
	98263	Burkitt cell leukemia	3	1.7	1	0.6
	98743	Acute myeloid leukemia with maturation	2	1.1	1	0.6
	98003	Leukemia, NOS	2	1.1	0	0.0
	98013	Acute leukemia, NOS	1	0.6	1	0.6
	98403	Acute myeloid leukemia, M6 type	2	1.1	0	0.0
	98673	Acute myelomonocytic leukemia	0	0.0	2	1.1
	99463	Juvenile myelomonocytic leukemia	2	1.1	0	0.0
		All others	3	1.7	2	1.1
Brain, CNS	94703	Medulloblastoma, NOS	16	21.1	10	13.2
	93913	Ependymoma, NOS	5	6.6	4	5.3
	93803	Glioma, malignant	4	5.3	3	3.9
	89633	Malignant rhabdoid tumor	4	5.3	0	0.0
	94003	Astrocytoma, NOS	2	2.6	2	2.6
	93903	Choroid plexus carcinoma	0	0.0	3	3.9
	94403	Glioblastoma, NOS	1	1.3	2	2.6
	94713	Desmoplastic nodular medulloblastoma	1	1.3	2	2.6
	94733	Primitive neuroectodermal tumor, NOS	2	2.6	1	1.3
	80003	Neoplasm, malignant	0	0.0	2	2.6
	95003	Neuroblastoma, NOS	0	0.0	2	2.6
	88143	Infantile brosarcoma	1	1.3	0	0.0
	90643	Germinoma	1	1.3	0	0.0
	90713	Yolk sac tumor	1	1.3	0	0.0
	90803	Teratoma, malignant, NOS	1	1.3	0	0.0
	93813	Gliomatosis cerebri	0	0.0	1	1.3
	94013	Astrocytoma, anaplastic	1	1.3	0	0.0
	94203	Fibrillary astrocytoma	0	0.0	1	1.3
	94243	Pleomorphic xanthoastrocytoma	1	1.3	0	0.0
	95033	Neuroepithelioma, NOS	0	0.0	1	1.3
95383	Papillary meningioma	0	0.0	1	1.3	
Hodgkin Disease	96633	Hodgkin lymphoma, nodular sclerosis, NOS	16	28.1	14	24.6
	96523	Hodgkin lymphoma, mixed cellularity, NOS	4	7.0	4	7.0
	96513	Hodgkin lymphoma, lymphocyte-rich	6	10.5	0	0.0
	96503	Hodgkin lymphoma, NOS	5	8.8	0	0.0
	96653	Hodgkin lymphoma, nodular sclerosis, grade 1	3	5.3	1	1.8
	96593	Hodgkin lymphoma, nodular lymphocyte predominance	3	5.3	0	0.0
	96643	Hodgkin lymphoma, nodular sclerosis, cellular phase	1	1.8	0	0.0
NHL	96873	Burkitt lymphoma, NOS	12	23.1	5	9.6
	96803	Malignant lymphoma, large B-cell, diffuse, NOS	8	15.4	3	5.8
	97293	Precursor T-cell lymphoblastic lymphoma	3	5.8	4	7.7
	95913	Malignant lymphoma, non-Hodgkin, NOS	4	7.7	0	0.0
	97003	Mycosis fungoides	3	5.8	1	1.9
	97283	Precursor B-cell lymphoblastic lymphoma	3	5.8	0	0.0
	97023	Mature T-cell lymphoma, NOS	0	0.0	2	3.8
	95903	Malignant lymphoma, NOS	0	0.0	1	1.9
	96843	Malignant lymphoma, large B-cell, diffuse, immunoblastic, NOS	0	0.0	1	1.9
	97083	Subcutaneous panniculitis-like T-cell lymphoma	1	1.9	0	0.0
	97183	Primary cutaneous CD30+ T-cell lymphoproliferative disorder	1	1.9	0	0.0

Table 2.7 Number and Proportion of Morphological Types for the Most Common Types of Cancer among Saudi Children, 2005

Continued Table 2.7.....

Primary Site	Code	Morphology	Male	%	Female	%
Connective Tissue	93643	Peripheral neuroectodermal tumor	2	6.7	4	13.3
	89003	Rhabdomyosarcoma, NOS	3	10.0	2	6.7
	89103	Embryonal rhabdomyosarcoma, NOS	2	6.7	2	6.7
	88033	Small cell sarcoma	1	3.3	1	3.3
	80003	Neoplasm, malignant	1	3.3	0	0.0
	88013	Spindle cell sarcoma	0	0.0	1	3.3
	88053	Undifferentiated sarcoma	0	0.0	1	3.3
	88063	Desmoplastic small round cell tumor	1	3.3	0	0.0
	88523	Myxoid liposarcoma	0	0.0	1	3.3
	89123	Spindle cell rhabdomyosarcoma	1	3.3	0	0.0
	90403	Synovial sarcoma, NOS	1	3.3	0	0.0
	90433	Synovial sarcoma, biphasic	0	0.0	1	3.3
	90803	Teratoma, malignant, NOS	1	3.3	0	0.0
	90853	Mixed germ cell tumor	1	3.3	0	0.0
	94733	Primitive neuroectodermal tumor, NOS	1	3.3	0	0.0
	95003	Neuroblastoma, NOS	1	3.3	0	0.0
	95403	Malignant peripheral nerve sheath tumor	1	3.3	0	0.0
Bone	92603	Ewing sarcoma	7	24.1	5	17.2
	91803	Osteosarcoma, NOS	5	17.2	4	13.8
	94733	Primitive neuroectodermal tumor, NOS	1	3.4	1	3.4
	88103	Fibrosarcoma, NOS	0	0.0	1	3.4
	89633	Malignant rhabdoid tumor	1	3.4	0	0.0
	90403	Synovial sarcoma, NOS	1	3.4	0	0.0
	91833	Telangiectatic osteosarcoma	1	3.4	0	0.0
	92313	Myxoid chondrosarcoma	0	0.0	1	3.4
92403	Mesenchymal chondrosarcoma	1	3.4	0	0.0	
Kidney	89603	Nephroblastoma, NOS	11	44.0	9	36.0
	83123	Renal cell carcinoma, NOS	0	0.0	3	12.0
	80003	Neoplasm, malignant	1	4.0	0	0.0
	95003	Neuroblastoma, NOS	1	4.0	0	0.0
Eye	95123	Retinoblastoma, undifferentiated	3	13.6	7	31.8
	95103	Retinoblastoma, NOS	1	4.5	5	22.7
	95113	Retinoblastoma, differentiated	1	4.5	2	9.1
	95023	Teratoid medulloepithelioma	0	0.0	2	9.1
	89103	Embryonal rhabdomyosarcoma, NOS	1	4.5	0	0.0
Skin	88323	Dermato brosarcoma, NOS	2	20.0	2	20.0
	80903	Basal cell carcinoma, NOS	1	10.0	2	20.0
	80763	Squamous cell carcinoma, microinvasive	0	0.0	1	10.0
	80833	Basaloid squamous cell carcinoma	1	10.0	0	0.0
	80973	Basal cell carcinoma, nodular	1	10.0	0	0.0
Adrenal Gland	95003	Neuroblastoma, NOS	9	52.9	7	41.2
	94903	Ganglioneuroblastoma	0	0.0	1	5.9
Ovary	90603	Dysgerminoma			4	50.0
	90853	Mixed germ cell tumor			2	25.0
	90643	Germinoma			1	12.5
	90803	Teratoma, malignant, NOS			1	12.5

International Comparison of Age-Standardized Incidence Rates

Worldwide, it is estimated that around 11 million people developed cancer in 2002. Of these, 53.7% were in developing countries and 46.5% were in developed countries. According to 2002 estimates, the most common cancer site in developed countries prostate was the leading cancer followed by lung, colo-rectal, and stomach.

While in the developing countries breast cancer was followed by stomach, liver, esophagus and colo-rectal cancers. Among women, breast cancer was the most common followed by colo-rectal, lung and corpus uteri cancers in developed countries. While in the developing countries breast cancer was followed by cancers of the cervix, stomach and lung.

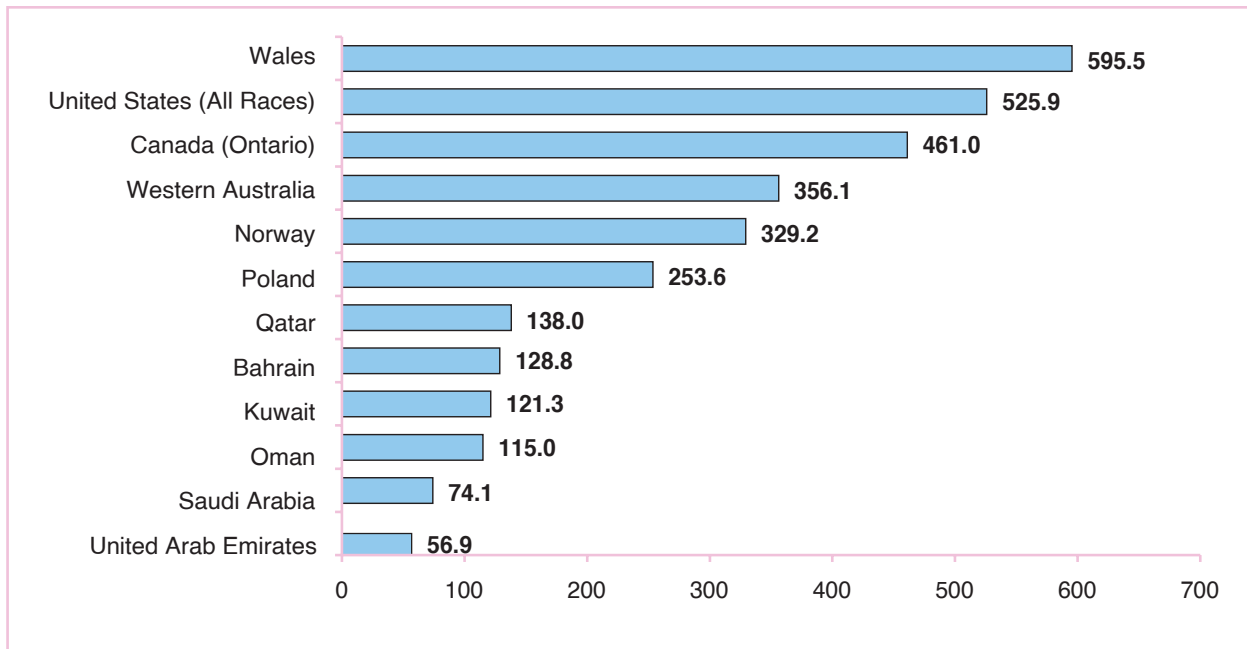


Figure 2.9.A Comparison of ASR* for Saudi Males with Selected Countries**

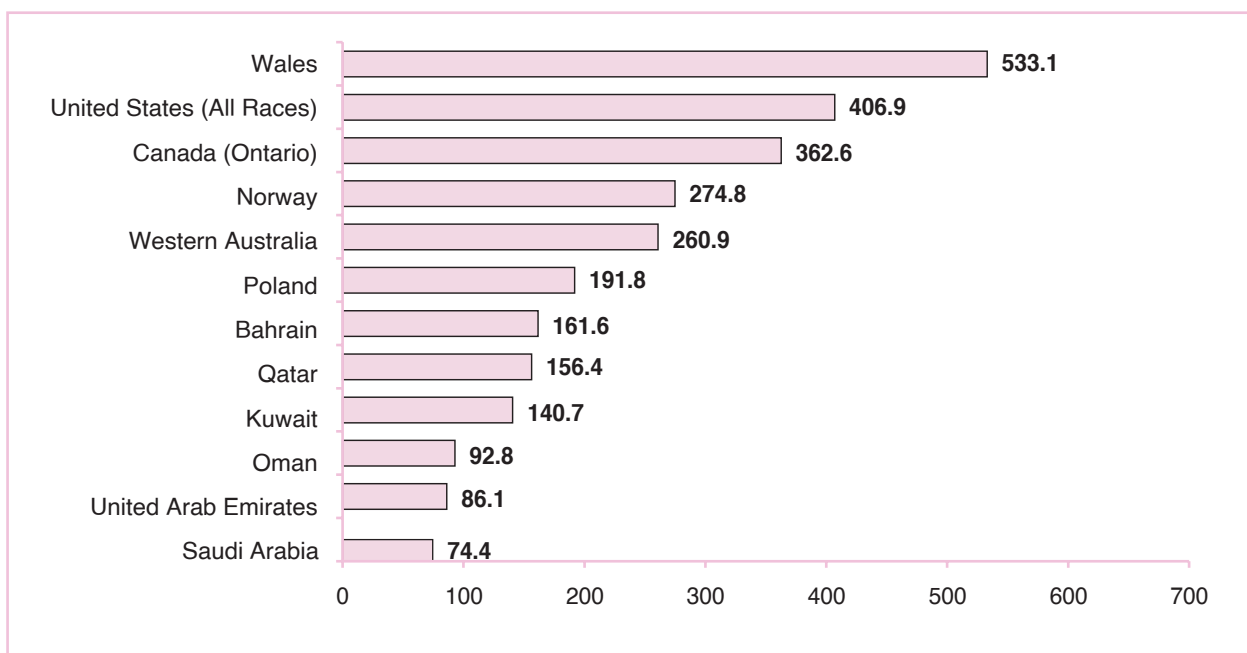


Figure 2.9.B Comparison of ASR* for Saudi Females with Selected Countries**

* ASR Per 100,000

** Source for this information is summarized on page 66

PART III
CANCER INCIDENCE FOR MOST COMMON SITES
2005

Cancer Incidence for Most Common Sites, 2005

In this section, the incidence of the most common cancers among Saudi males and females are outlined in accordance to their

relative frequencies. The relevant data incorporate details for all patients presented over the period of January through December 2005.

Cancer	Male	Female	All	%
Breast	16	932	948	12.5
Colo-rectal	439	339	778	10.3
Non-Hodgkin lymphoma	346	250	596	7.9
Thyroid	93	380	473	6.3
Leukemia	259	182	441	5.8
Lung	261	86	347	4.6
Liver	211	81	292	3.9
Skin	152	129	281	3.7
Prostate	261	-	261	3.5
Hodgkin disease	160	99	259	3.4
Stomach	156	68	224	3.0
Brain, Nervous system	124	96	220	2.9
Bladder	155	35	190	2.5
Corpus Uteri	-	143	143	1.9
Ovary	-	136	136	1.8
Others	1096	878	1974	26.1
Total	3729	3834	7563	100.0

Table 3.1 Most Common Cancers among Saudis, 2005

Female Breast (C 50)

There were 932 female breast cancer cases for year 2005. Breast cancer ranked first among females accounting for 24.3% of all newly diagnosed female cancers (3,834) in year

2005. The ASR was 18.0/100,000 for female population. The median age at diagnosis was 46 years (Range 21-100 years).

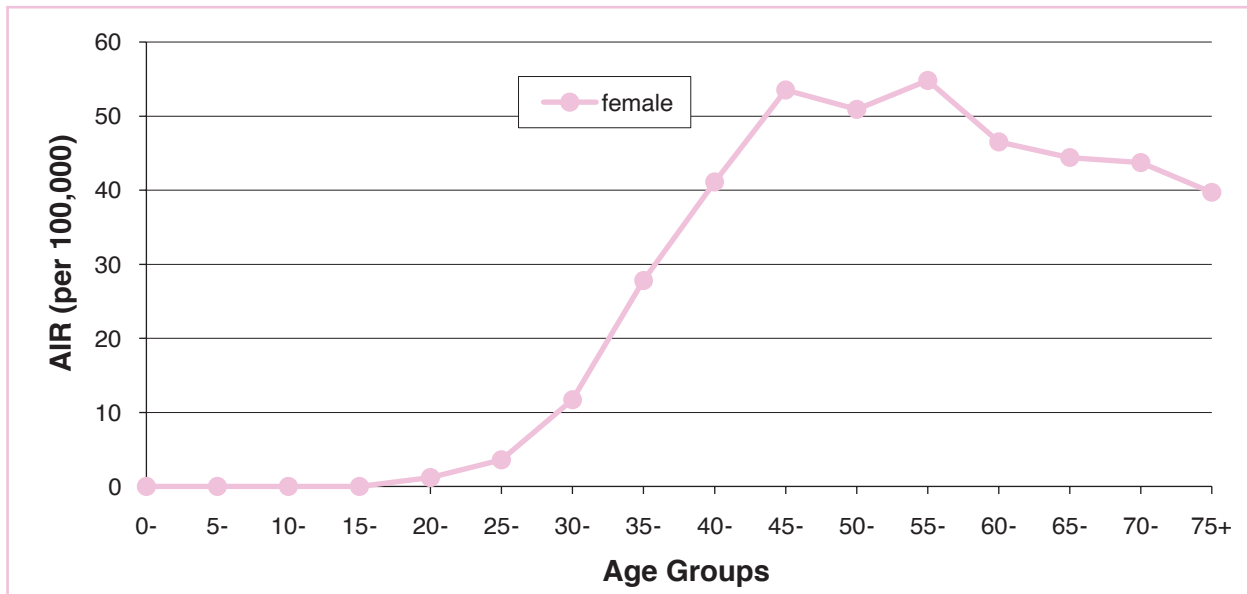


Figure 3.1.1 Age-Specific Incidence Rate (AIR) for Female Breast Cancer in Saudi Arabia, 2005

ICD-O-3 Code	Morphology	Total	%
8500	Infiltrating duct carcinoma, NOS	717	76.9%
8520	Lobular carcinoma, NOS	39	4.2%
8010	Carcinoma, NOS	37	4.0%
8522	Infiltrating duct and lobular carcinoma	23	2.5%
8000	Neoplasm, malignant	22	2.4%
8523	Infiltrating duct mixed with other types of carcinoma	18	1.9%
8510	Medullary carcinoma, NOS	14	1.5%
8480	Mucinous adenocarcinoma	9	1.0%
	Others	53	5.7%

Table 3.1.2 Morphological Distribution of Female Breast Cancer in Saudi Arabia, 2005

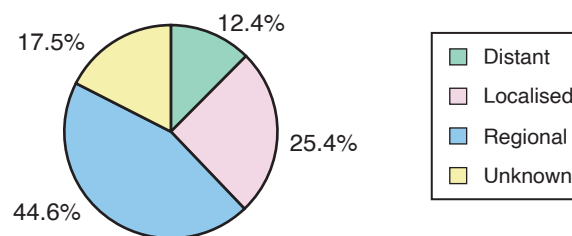


Figure 3.1.2 Stage Distribution of Female Breast Cancer, 2005

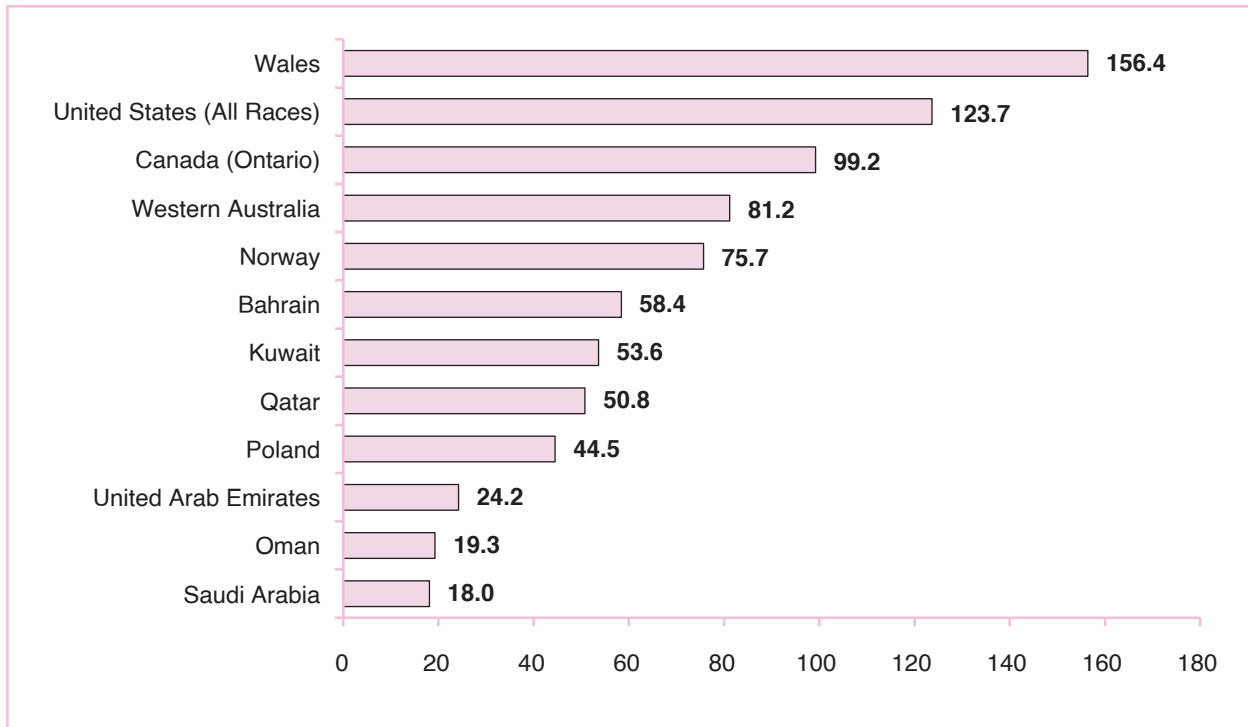


Figure 3. I. 4 Comparison of ASR* for Female Breast Cancer among Saudi Females with ASR in Selected Countries**

* ASR Per 100,000

** Source for this information is summarized on page 66

Colo-rectal (C18-C20)

There were 778 cases of colo-rectal cancer accounting for 10.3% of all newly diagnosed cases in year 2005. This cancer ranked first among male population and third among female population. It affected 439 (56.4%) males and 339 (43.6%) females with a male to female ratio of 129:100. The overall ASR was 8.5 /100,000. ASR for males was

9.7/100,000 and for females 7.2 /100,000.

The median age at diagnosis was 60 years among males (range 17-99 years) and 54 years among females (range 1-100 years).

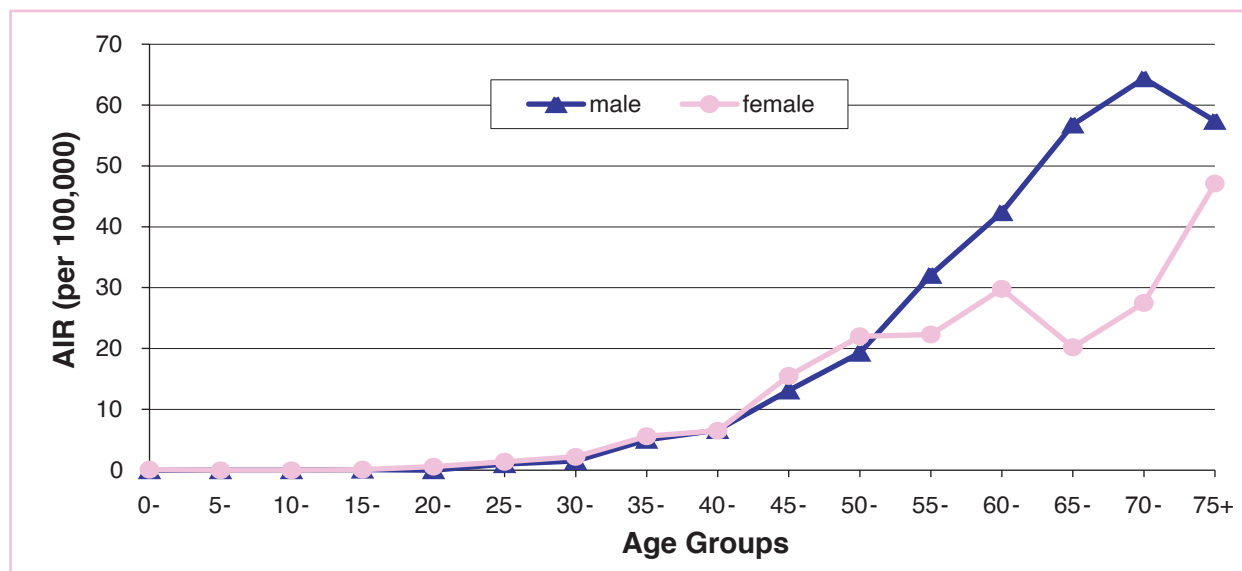


Figure 3.2.1 Age-Specific Incidence Rate (AIR) for Colo-rectal Cancer in Saudi Arabia, 2005

ICD-O-3 Code	Morphology	Male	%	Female	%
8140	Adenocarcinoma, NOS	337	43.3%	255	32.8%
8480	Mucinous adenocarcinoma	32	4.1%	29	3.7%
8000	Neoplasm, malignant	9	1.2%	10	1.3%
8010	Carcinoma, NOS	8	1.0%	8	1.0%
8490	Signet ring cell carcinoma	9	1.2%	7	0.9%
8261	Adenocarcinoma in villous adenoma	6	0.8%	9	1.2%
8263	Adenocarcinoma in tubulovillous adenoma	9	1.2%	6	0.8%
8210	Adenocarcinoma in adenomatous polyp	9	1.2%	2	0.3%
	Others	20	2.6%	13	1.7%

Table 3.2.1 Morphological Distribution of Colo-rectal Cancer in Saudi Arabia, 2005

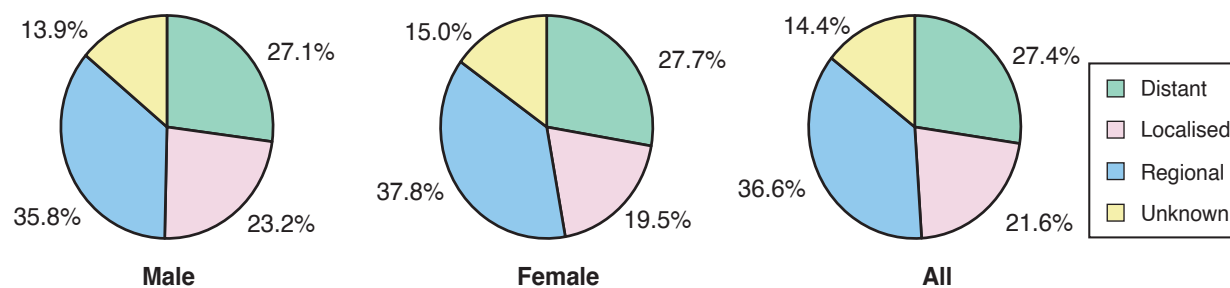


Figure 3.2.2 Stage Distribution of Colo-rectal Cancer, 2005

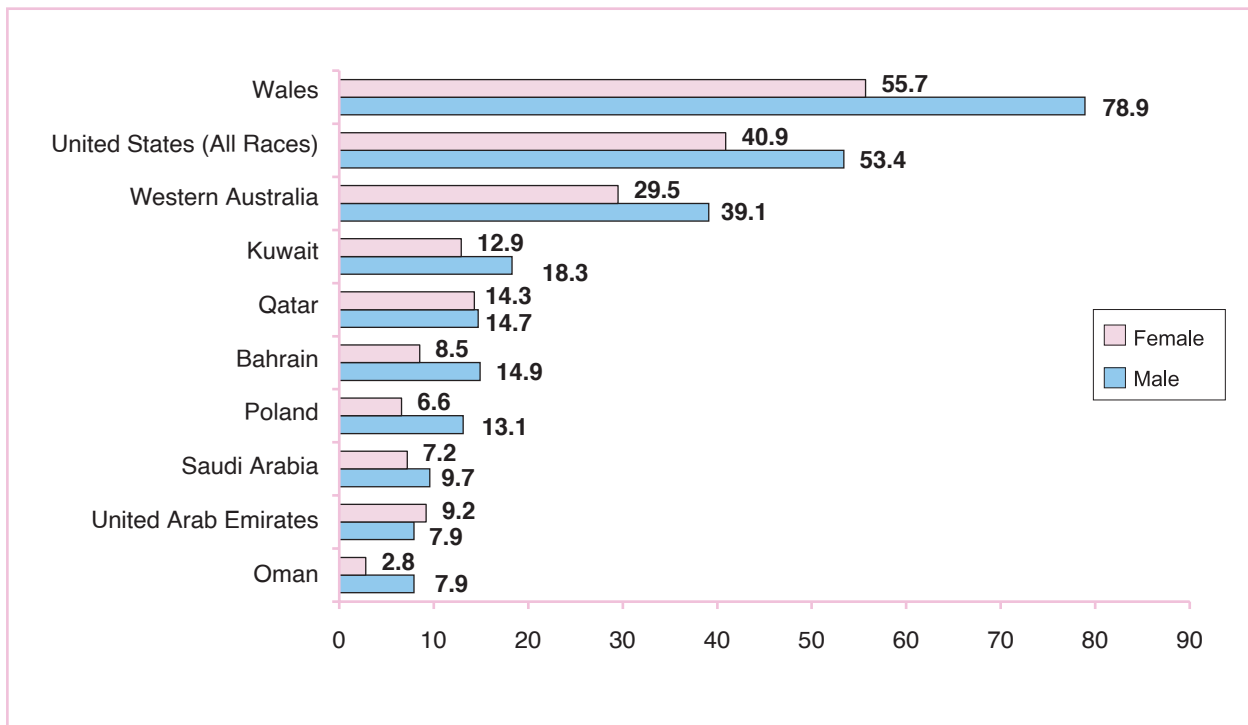


Figure 3.2.4 Comparison of ASR* for Colo-rectal Cancer among Saudis with ASR in Selected Countries**

* ASR Per 100,000

** Source for this information is summarized on page 66

Non-Hodgkin Lymphoma (C82-C85; C96)

There were 596 cases of Non-Hodgkin Lymphoma accounting for 7.9 % of all newly diagnosed cancers in year 2005. This cancer ranked second among male population and fourth among female population. It affected 346(58.1%) males and 250(41.9%) females with a male to female ratio of 139:100. The overall ASR was 5.7/100,000. ASR for

males was 6.4/100,000 and 5.0/100,000 for females. The median age at diagnosis was 46 years among males (range 2-103 years) and 53 years among females (range 1-94 years).

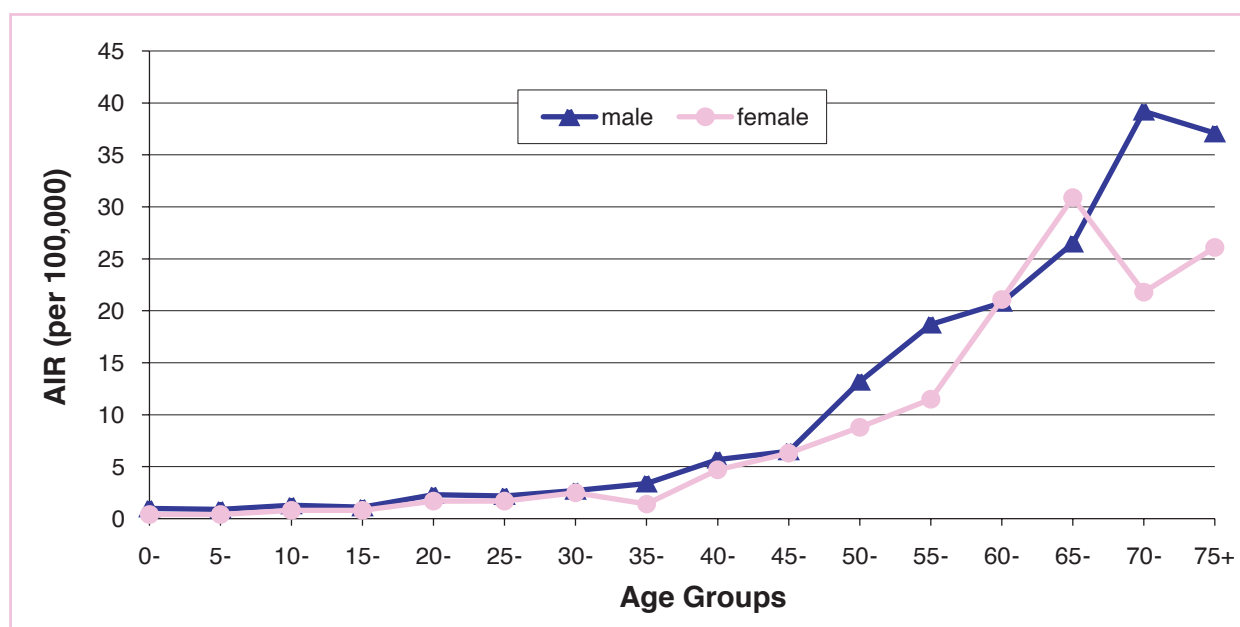


Figure 3.3.1 Age-Specific Incidence Rate (AIR) for NHL in Saudi Arabia, 2005

ICD-O-3 Code	Morphology	Male	%	Female	%
9680	Malignant lymphoma, large B-cell, diffuse, NOS	161	27.0%	116	19.5%
9591	Malignant lymphoma, non-Hodgkin, NOS	24	4.0%	23	3.9%
9590	Malignant lymphoma, NOS	21	3.5%	17	2.9%
9687	Burkitt lymphoma, NOS	20	3.4%	11	1.8%
9670	Malignant lymphoma, small B lymphocytic, NOS	21	3.5%	7	1.2%
9700	Mycosis fungoides	11	1.8%	8	1.3%
9698	Follicular lymphoma, grade 3	6	1.0%	10	1.7%
9702	Mature T-cell lymphoma, NOS	6	1.0%	9	1.5%
9714	Anaplastic large cell lymphoma, T cell and Null cell type	9	1.5%	6	1.0%
9690	Follicular lymphoma, NOS	8	1.3%	5	0.8%
9699	Marginal zone B-cell lymphoma, NOS	8	1.3%	5	0.8%
9691	Follicular lymphoma, grade 2	6	1.0%	6	1.0%
9695	Follicular lymphoma, grade 1	8	1.3%	4	0.7%
9729	Precursor T-cell lymphoblastic lymphoma	5	0.8%	6	1.0%
9684	Malignant lymphoma, large B-cell, diffuse, immunoblastic, NOS	6	1.0%	4	0.7%
9673	Mantle cell lymphoma	6	1.0%	1	0.2%
9675	Malignant lymphoma, mixed small and large cell, diffuse	4	0.7%	2	0.3%
	Others	16	2.7%	10	1.7%

Table 3.3.1 Morphological Distribution of NHL in Saudi Arabia, 2005

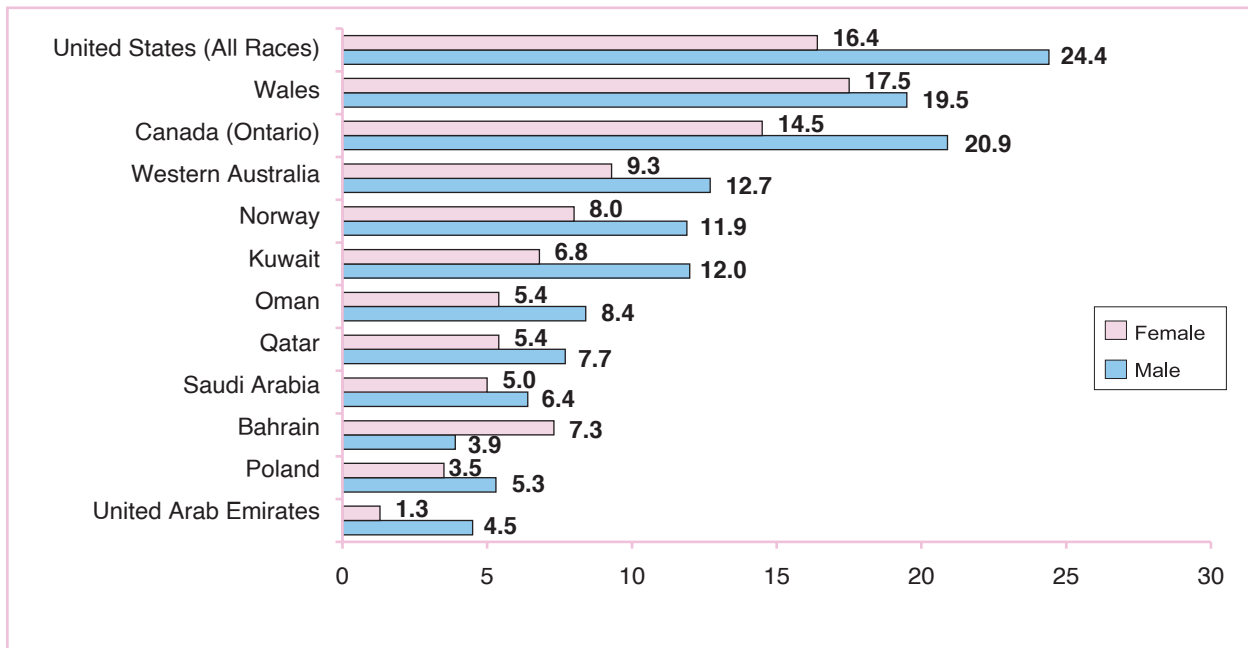
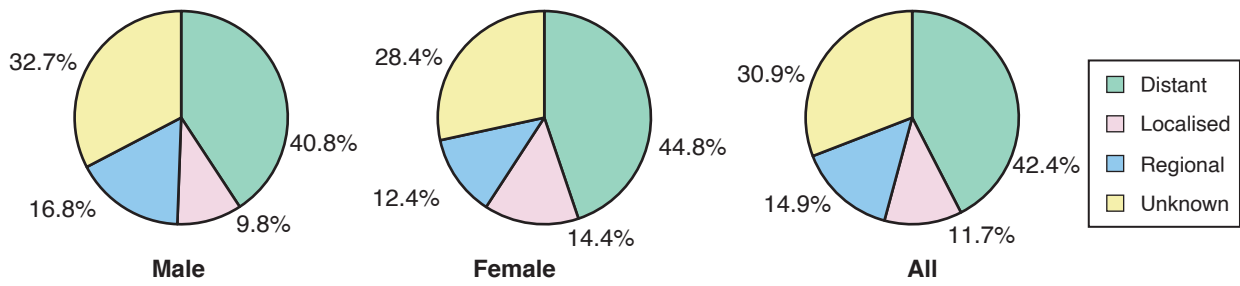


Figure 3.3.4 Comparison of ASR* for NHL Cancer among Saudis with ASR in Selected Countries**

* ASR Per 100,000

** Source for this information is summarized on page 66

Thyroid (C 73)

There were 473 cases of thyroid cancer for year 2005. This cancer ranked second among female population and thirteenth among male population. It affected 93(19.3%) males and 380 (80.3%) females with a male to female ratio of 25:100. The overall ASR was 3.8/100,000. ASR was

1.6/100,000 for males and 6.0 /100,000 for females. The median age at diagnosis was 44 years among males (range 4-86 years) and 37 years among females (range 8-99 years).

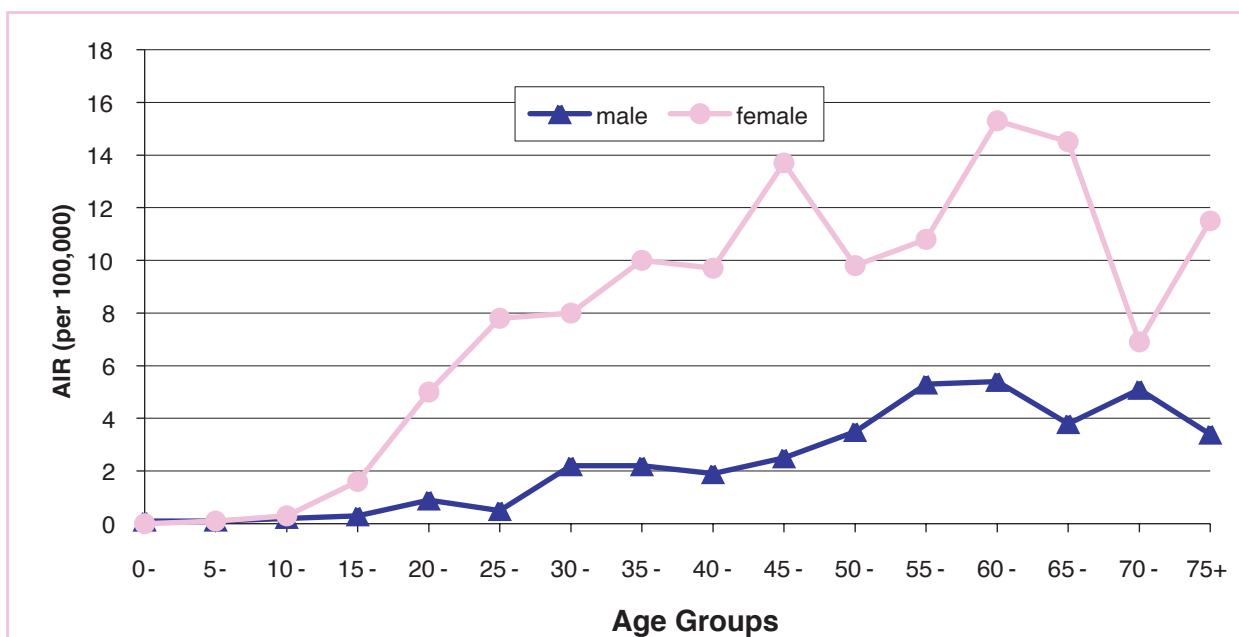


Figure 3.4.1 Age-Specific Incidence Rate (AIR) for Thyroid Cancer in Saudi Arabia, 2005

ICD-O-3 Code	Morphology	Male	%	Female	%
8260	Papillary adenocarcinoma, NOS	62	13.1%	224	47.4%
8340	Papillary carcinoma, follicular variant	11	2.3%	61	12.9%
8341	Papillary microcarcinoma	0	0.0%	22	4.7%
8330	Follicular adenocarcinoma, NOS	3	0.6%	16	3.4%
8343	Papillary carcinoma, encapsulated	3	0.6%	10	2.1%
8335	Follicular carcinoma, minimally invasive	1	0.2%	11	2.3%
8050	Papillary carcinoma, NOS	2	0.4%	9	1.9%
8290	Oxyphilic adenocarcinoma	3	0.6%	6	1.3%
8510	Medullary carcinoma, NOS	4	0.8%	3	0.6%
Others		4	0.8%	18	3.8%

Table 3.4.1 Morphological Distribution of Thyroid Cancer in Saudi Arabia, 2005

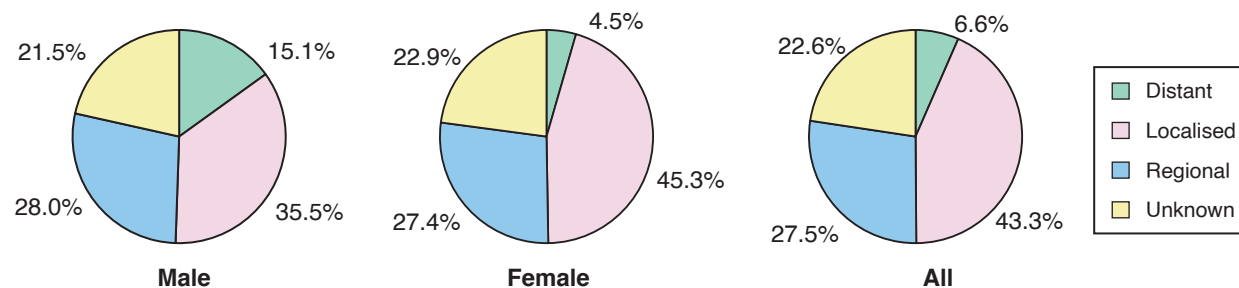


Figure 3.4.2 Stage Distribution of Thyroid Cancer, 2005

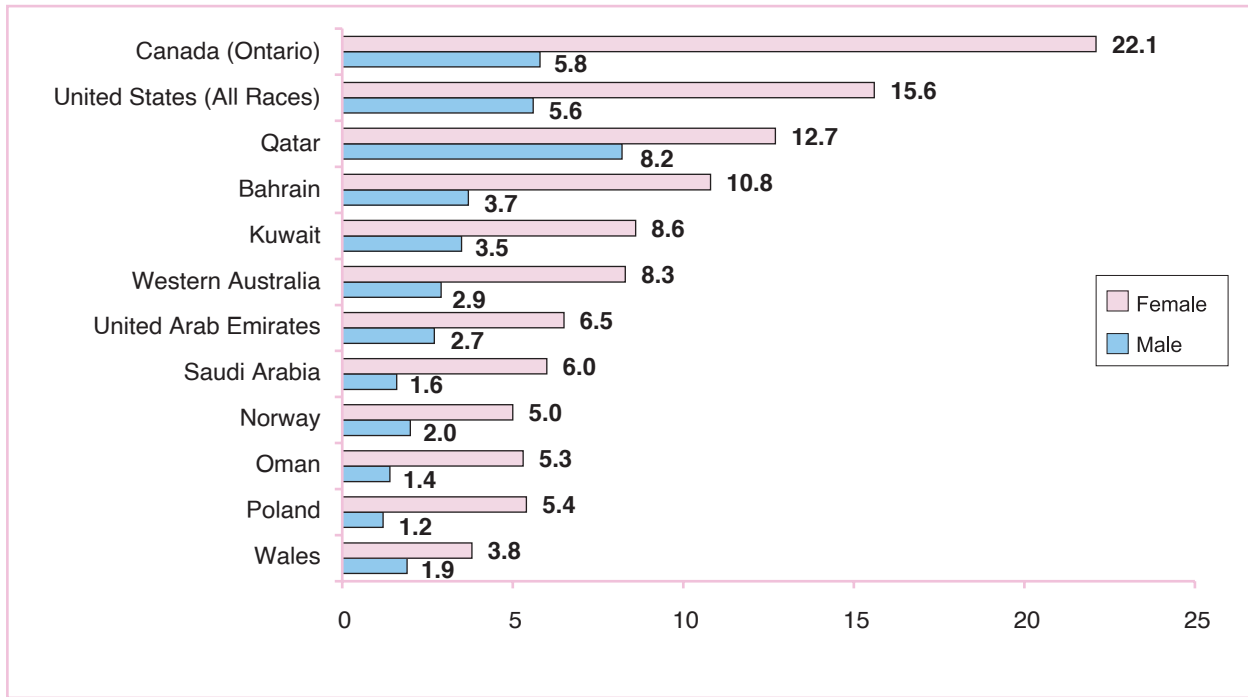


Figure 3.4.4 Comparison of ASR* for Thyroid Cancer among Saudis with ASR in Selected Countries**

* ASR Per 100,000

** Source for this information is summarized on page 66

Leukemia (C91-C95)

There were 441 cases of leukemia accounting for 5.8 % of all newly diagnosed cancers in year 2005. This cancer ranked fifth for males and females and affected 259(58.7%) males and 182(41.3%) females with a male to female ratio of 142:100. The overall ASR was 2.9/100,000. ASR for males was 3.3/100,000 and 2.5/100,000 for females.

The median age at diagnosis is 18 years among males (range 0-103 years) and 20 years among females (range 1-86 years).

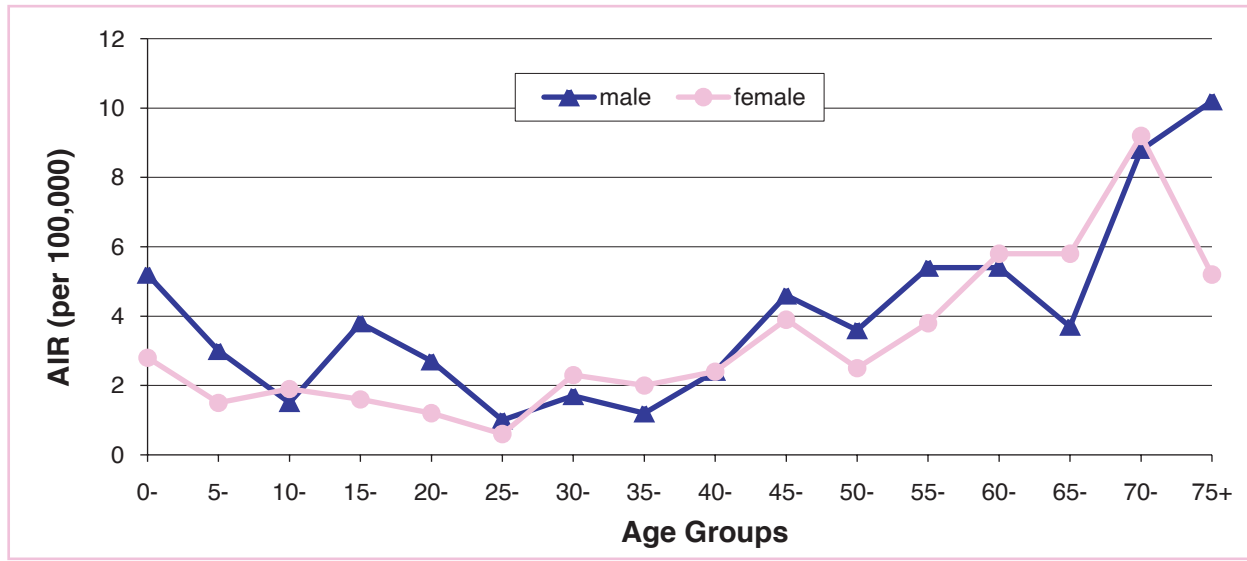


Figure 3.5.1 Age-Specific Incidence Rate (AIR) for Leukemia in Saudi Arabia, 2005

ICD-O-3 Code	Morphology	Male	%	Female	%
9835	Precursor cell lymphoblastic leukemia, NOS	54	12.2%	36	8.2%
9836	Precursor B-cell lymphoblastic leukemia	54	12.2%	25	5.7%
9863	Chronic myeloid leukemia, NOS	33	7.5%	24	5.4%
9861	Acute myeloid leukemia, NOS	20	4.5%	18	4.1%
9837	Precursor T-cell lymphoblastic leukemia	21	4.8%	3	0.7%
9866	Acute promyelocytic leukemia, t(15;17) (q22;q11-12)	6	1.4%	13	2.9%
9891	Acute monocytic leukemia	10	2.3%	9	2.0%
9823	B-cell chronic lymphocytic leukemia/small lymphocytic lymphoma	8	1.8%	9	2.0%
9874	Acute myeloid leukemia with maturation	7	1.6%	7	1.6%
9801	Acute leukemia, NOS	6	1.4%	7	1.6%
9867	Acute myelomonocytic leukemia	1	0.2%	8	1.8%
9800	Leukemia, NOS	4	0.9%	4	0.9%
9805	Acute biphenotypic leukemia	4	0.9%	4	0.9%
9910	Acute megakaryoblastic leukemia	5	1.1%	1	0.2%
9826	Burkitt cell leukemia	3	0.7%	2	0.5%
9940	Hairy cell leukemia	5	1.1%	0	0.0%
Others		18	4.1%	12	2.7%

Table 3.5.1 Morphological Distribution of Leukemia in Saudi Arabia, 2005

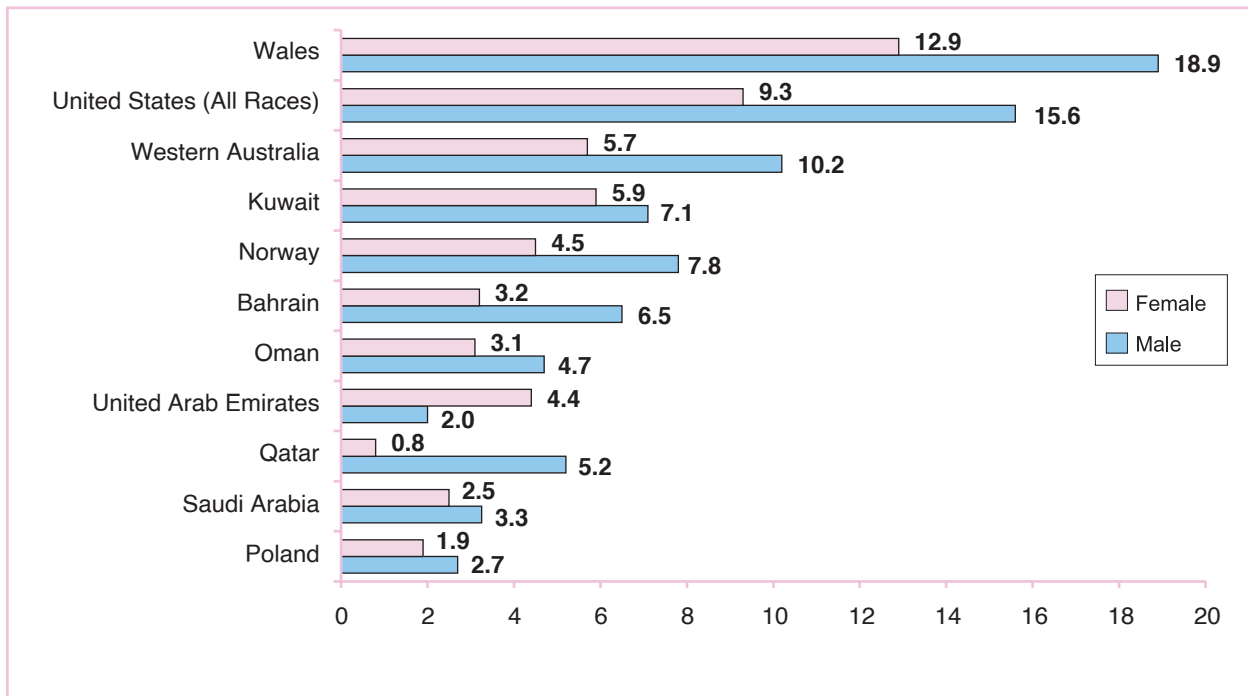


Figure 3.5.3 Comparison of ASR* for Leukemia among Saudis with ASR in Selected Countries**

* ASR Per 100,000

** Source for this information is summarized on page 66

Lung (C33-C34)

There were 347 cases of lung cancer accounting for 4.6% of all diagnosed cases in year 2005. Lung cancer ranked third among male population and twelfth among female population. It affected 261 (75.2 %) males and 86 (24.8%) females with a male to female ratio of 303:100. The overall ASR was 4.0/100,000. ASR was 6.1/100,000 for males and 1.9/100,000 for females.

The median age at diagnosis was 63 years among males (range 0-94 years) and 61 years among females (range 17-90 years).

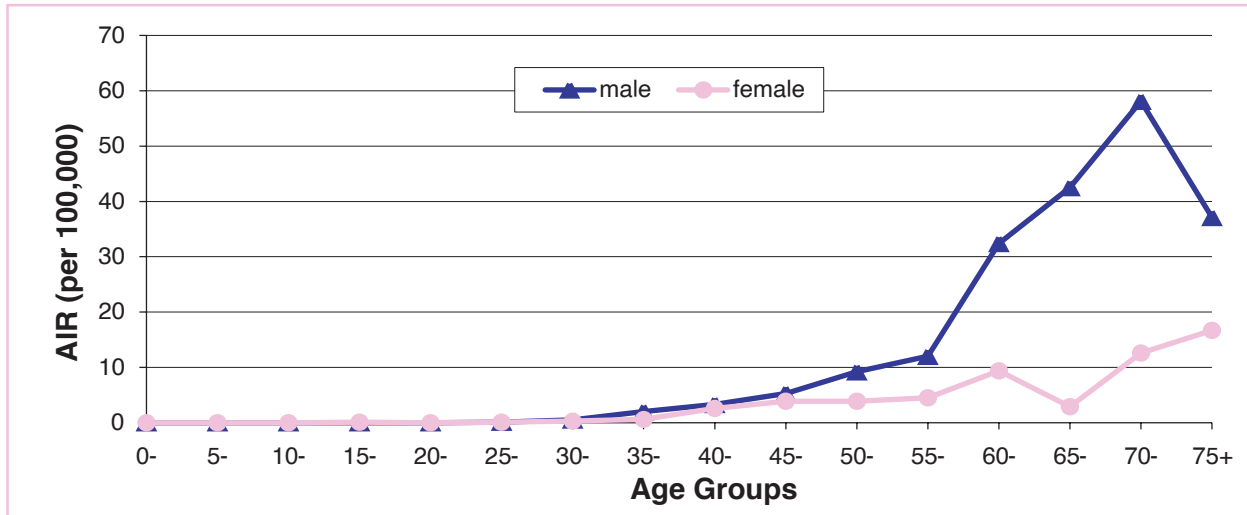


Figure 3.6.1 Age-Specific Incidence Rate (AIR) for Lung Cancer in Saudi Arabia, 2005

ICD-O-3 Code	Morphology	Male	%	Female	%
8140	Adenocarcinoma, NOS	60	17.3%	33	9.5%
8046	Non-small cell carcinoma	39	11.2%	11	3.2%
8070	Squamous cell carcinoma, NOS	37	10.7%	10	2.9%
8041	Small cell carcinoma, NOS	29	8.4%	1	0.3%
8000	Neoplasm, malignant	19	5.5%	5	1.4%
8010	Carcinoma, NOS	19	5.5%	2	0.6%
8012	Large cell carcinoma, NOS	13	3.7%	2	0.6%
8250	Bronchiolo-alveolar adenocarcinoma, NOS	5	1.4%	9	2.6%
8071	Squamous cell carcinoma, keratinizing, NOS	11	3.2%	2	0.6%
8020	Carcinoma, undifferentiated, NOS	7	2.0%	0	0.0%
8260	Papillary adenocarcinoma, NOS	2	0.6%	2	0.6%
Others		20	5.8%	9	2.6%

Table 3.6.1 Morphological Distribution of Lung Cancer in Saudi Arabia, 2005

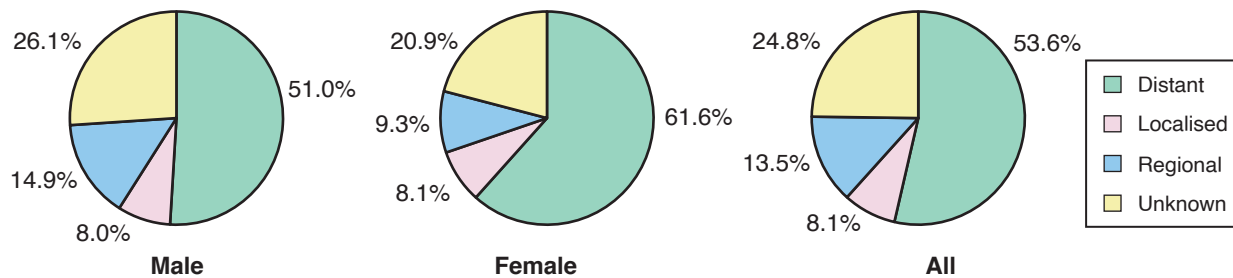


Figure 3.6.2 Stage Distribution of Lung Cancer, 2005

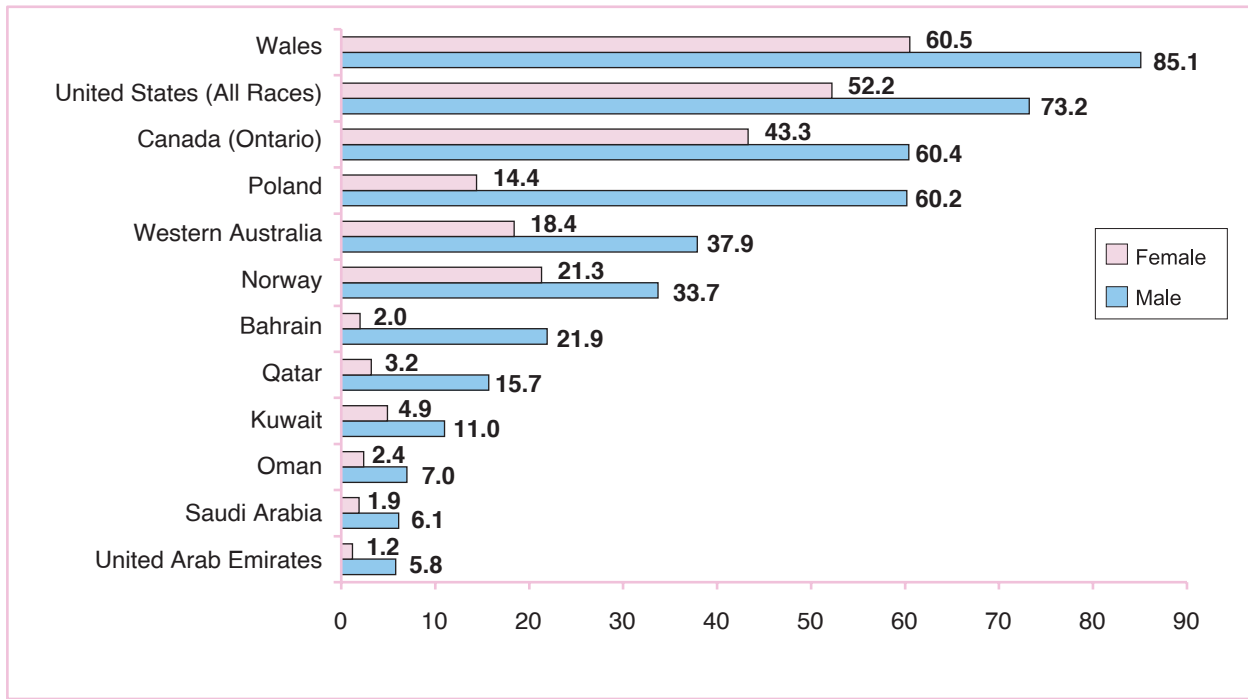


Figure 3.6.4 Comparison of ASR* for Lung Cancer among Saudis with ASR in Selected Countries**

* ASR Per 100,000

** Source for this information is summarized on page 66

Liver (C 22)

There were 292 cases of liver cancer accounting for 3.9% of all newly diagnosed cases in year 2005. This cancer ranked sixth in males, and thirteenth in females and affected 211 (72.3%) males and 81 (27.7%) females with a male to female ratio of 261:100. The overall ASR was 3.5/100,000. ASR was 4.9/100,000 for males and 1.8/100,000 for females.

The median age at diagnosis was 66 years in males (range 6-104 years) and 64 years in female (range 0-93 years)

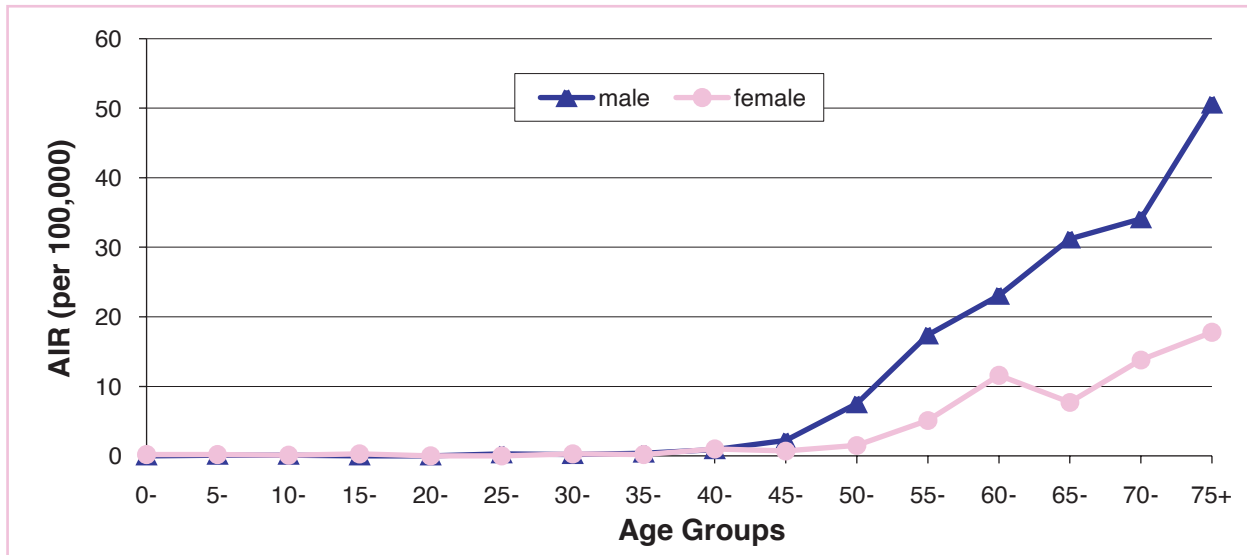


Figure 3.7.1 Age-Specific Incidence Rate (AIR) for Liver Cancer in Saudi Arabia, 2005

ICD-O-3 Code	Morphology	Male	%	Female	%
8170	Hepatocellular carcinoma, NOS	164	56.2%	51	17.5%
8000	Neoplasm, malignant	25	8.6%	7	2.4%
8160	Cholangiocarcinoma	8	2.7%	9	3.1%
8140	Adenocarcinoma, NOS	3	1.0%	3	1.0%
8010	Carcinoma, NOS	3	1.0%	2	0.7%
8180	Combined hepatocellular carcinoma and cholangiocarcinoma	2	0.7%	1	0.3%
	Others	6	2.1%	8	2.7%

Table 3.7.1 Morphological Distribution of Liver Cancer in Saudi Arabia, 2005

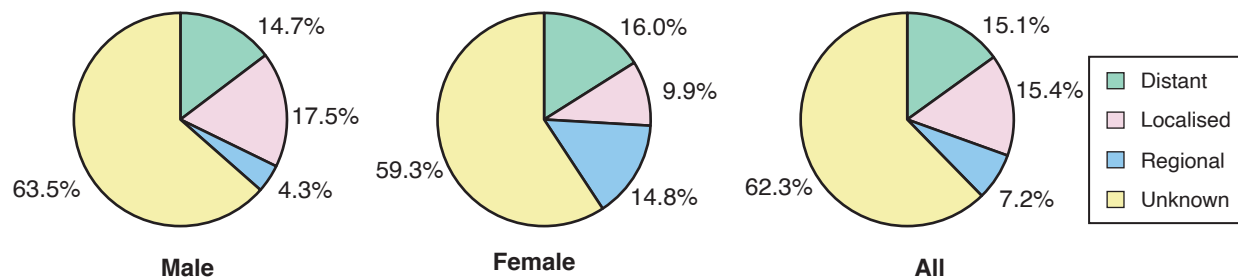


Figure 3.7.2 Stage Distribution of Liver Cancer, 2005

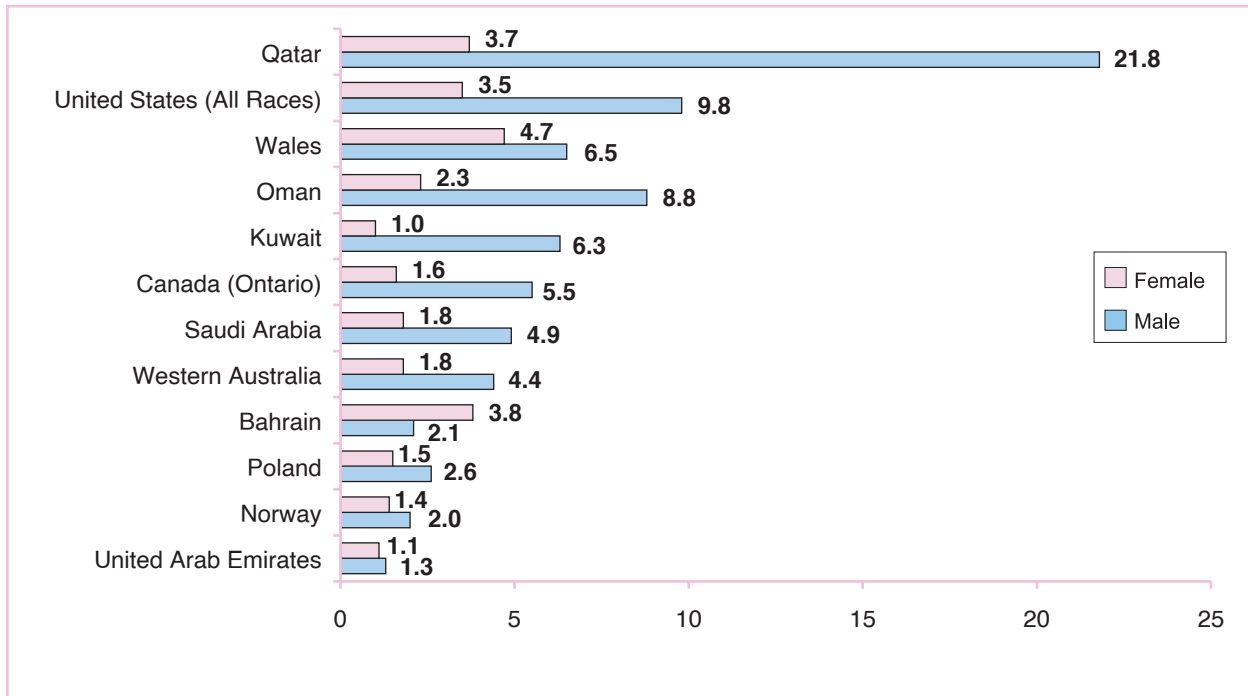


Figure 3.7.4 Comparison of ASR* for Liver Cancer among Saudis with ASR in Selected Countries**

* ASR Per 100,000

** Source for this information is summarized on page 66

Skin (Non-Melanoma) (C 44)

There were 281 cases of skin cancer accounting for 3.7% of all newly diagnosed cases in year 2005. This cancer ranked tenth for males and eighth for females. It affected 152(54.1%) males and 129(45.9%) females with a male to female ratio of 118:100. The overall ASR was 3.1/100,000. ASR was 3.3/100,000 for males and 2.8/100,000 for females.

The median age at diagnosis was 69 years among males (range 6-103 years) and 63 years among female (range 7-99 years).

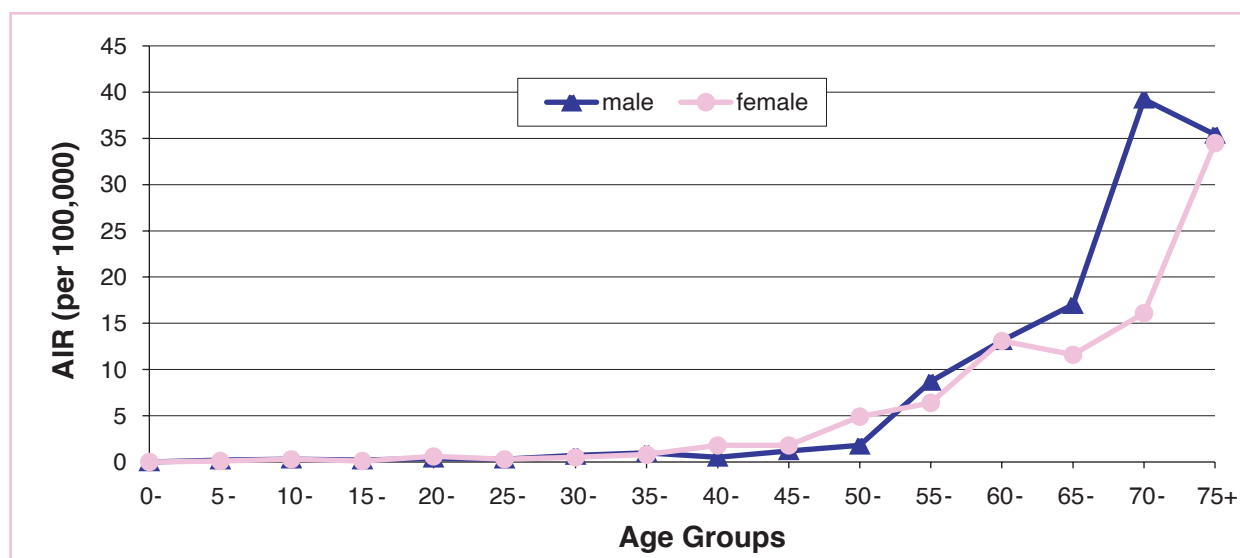


Figure 3.8.1 Age-Specific Incidence Rate (AIR) for Skin Cancer in Saudi Arabia, 2005

ICD-O-3 Code	Morphology	Male	%	Female	%
8090	Basal cell carcinoma, NOS	69	24.6%	67	23.8%
8070	Squamous cell carcinoma, NOS	37	13.2%	19	6.8%
8832	Dermato brosarcoma, NOS	14	5.0%	10	3.6%
8071	Squamous cell carcinoma, keratinizing, NOS	8	2.8%	7	2.5%
8097	Basal cell carcinoma, nodular	5	1.8%	4	1.4%
8094	Basosquamous carcinoma	3	1.1%	3	1.1%
8410	Sebaceous adenocarcinoma	3	1.1%	2	0.7%
8000	Neoplasm, malignant	2	0.7%	2	0.7%
8075	Squamous cell carcinoma, adenoid	2	0.7%	2	0.7%
8091	Multifocal superficial basal cell carcinoma	1	0.4%	2	0.7%
8098	Adenoid basal carcinoma	0	0.0%	3	1.1%
	Others	8	2.8%	8	2.8%

Table 3.8.1 Morphological Distribution of Skin Cancer in Saudi Arabia, 2005

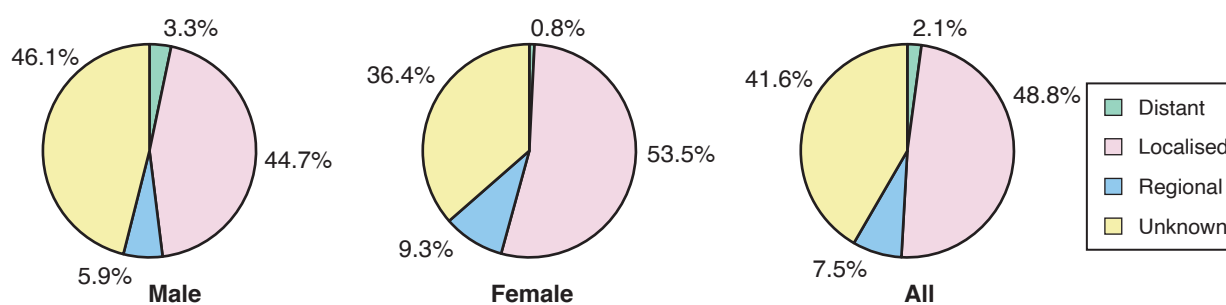


Figure 3.8.2 Stage Distribution of Skin Cancer in Saudi Arabia, 2005

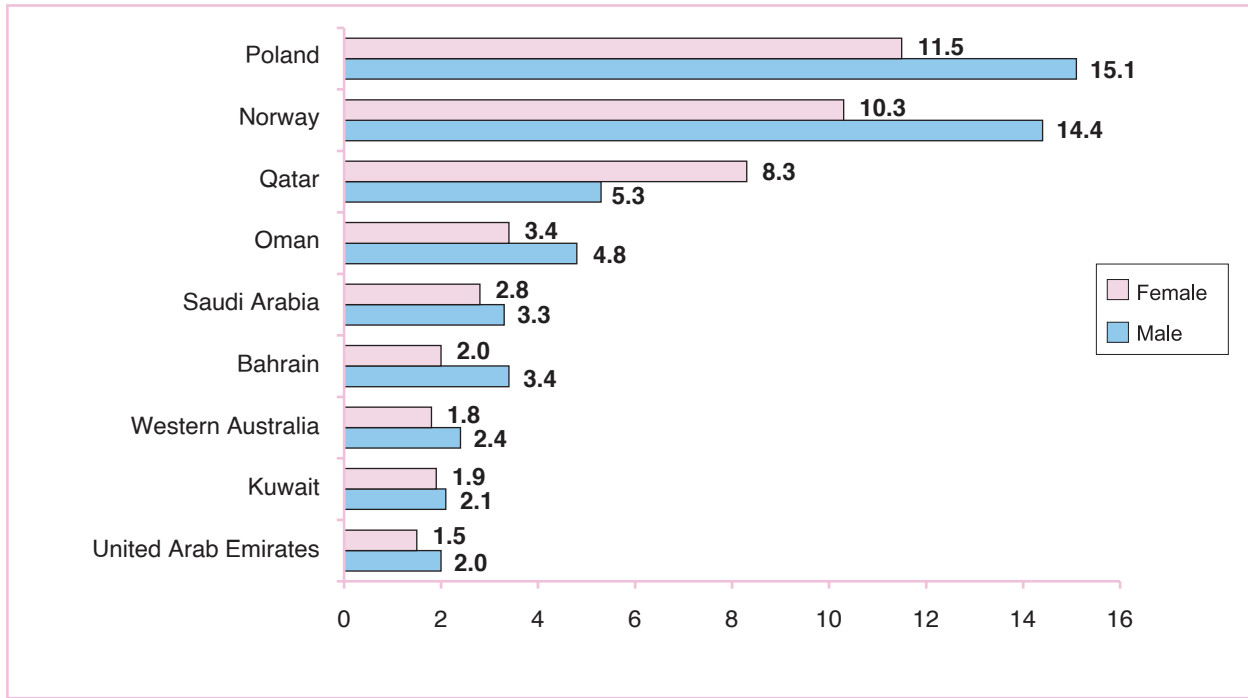


Figure 3.8.4 Comparison of ASR* for Skin Cancer among Saudis with ASR in Selected Countries**

* ASR Per 100,000

** Source for this information is summarized on page 66

Prostate (C 61)

There were 261 cases of prostate cancer accounting for 7.0% of all newly diagnosed cases among males in year 2005. The ASR was 6.2/100,000 among male population. This cancer ranked

fourth among males. The median age at diagnosis was 71 years (range 6 -103 years).

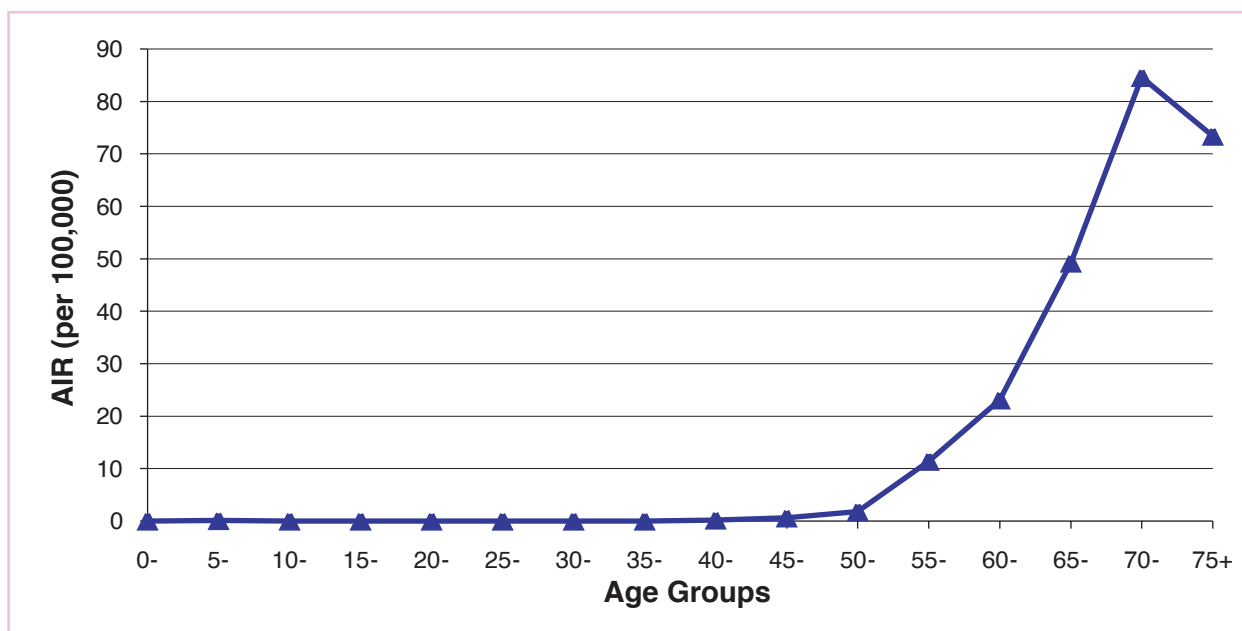


Figure 3.9.1 Age-Specific Incidence Rate (AIR) for Prostate Cancer in Saudi Arabia, 2005

ICD-O Code	Morphology	Total	%
8140	Adenocarcinoma, NOS	235	90.0%
8000	Neoplasm, malignant	17	6.5%
8010	Carcinoma, NOS	5	1.9%
8481	Mucin-producing adenocarcinoma	2	0.8%
8020	Carcinoma, undifferentiated, NOS	1	0.4%
8910	Embryonal rhabdomyosarcoma, NOS	1	0.4%

Table 3.9.1 Morphological Distribution of Prostate Cancer in Saudi Arabia, 2005

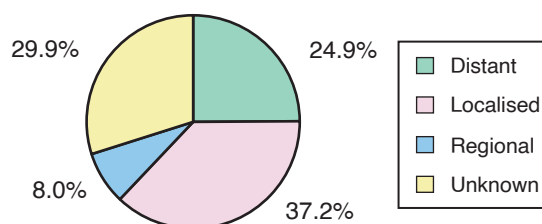


Figure 3.9.2 Stage Distribution of Prostate Cancer, 2005

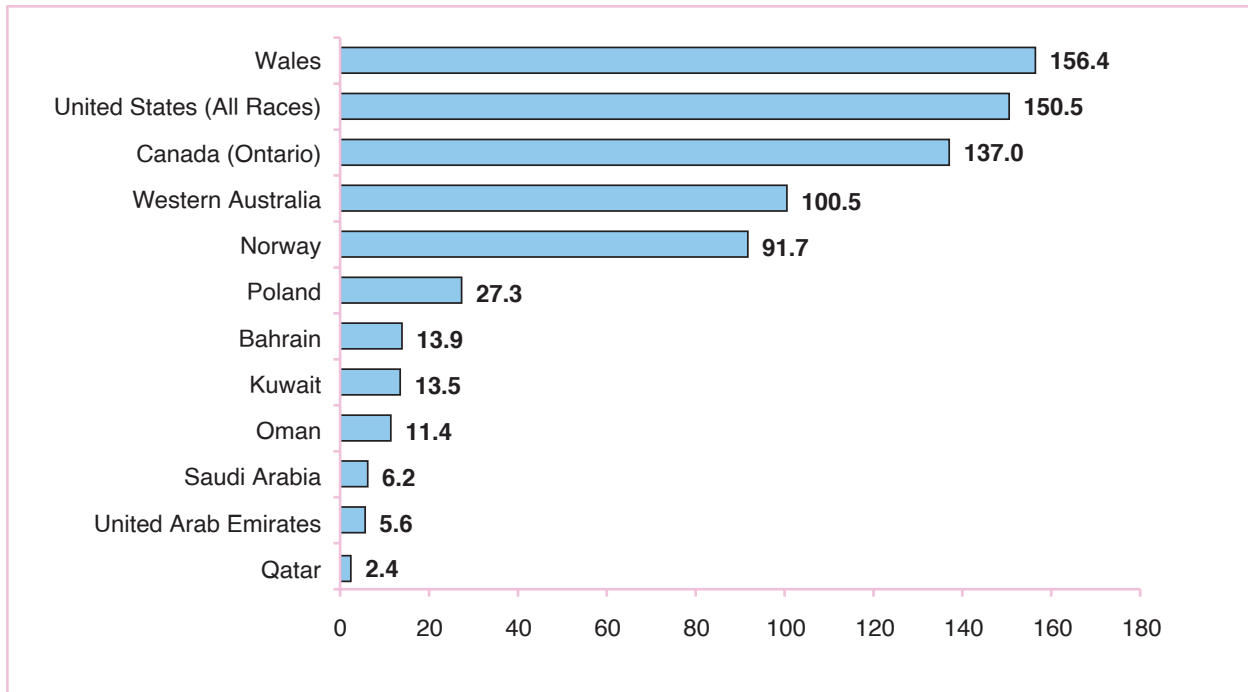


Figure 3.9.4 Comparison of ASR* for Prostate Cancer among Saudi Males with ASR in Selected Countries**

* ASR Per 100,000

** Source for this information is summarized on page 66

Hodgkin disease (C 81)

There were 259 cases of Hodgkin disease cancer accounting for 3.4% of all newly diagnosed cases in year 2005. This cancer ranked seventh among male and ninth in female population. It affected 160 (61.8%) males and 99 (38.2%) females with a male to female ratio of 162:100. The overall ASR

was 1.7/100,000. ASR was 2.0/100,000 for males and 1.3/100,000 for females. The median age at diagnosis was 22 years (range 0-81 years) in males and 20 years in females (range 2-92).

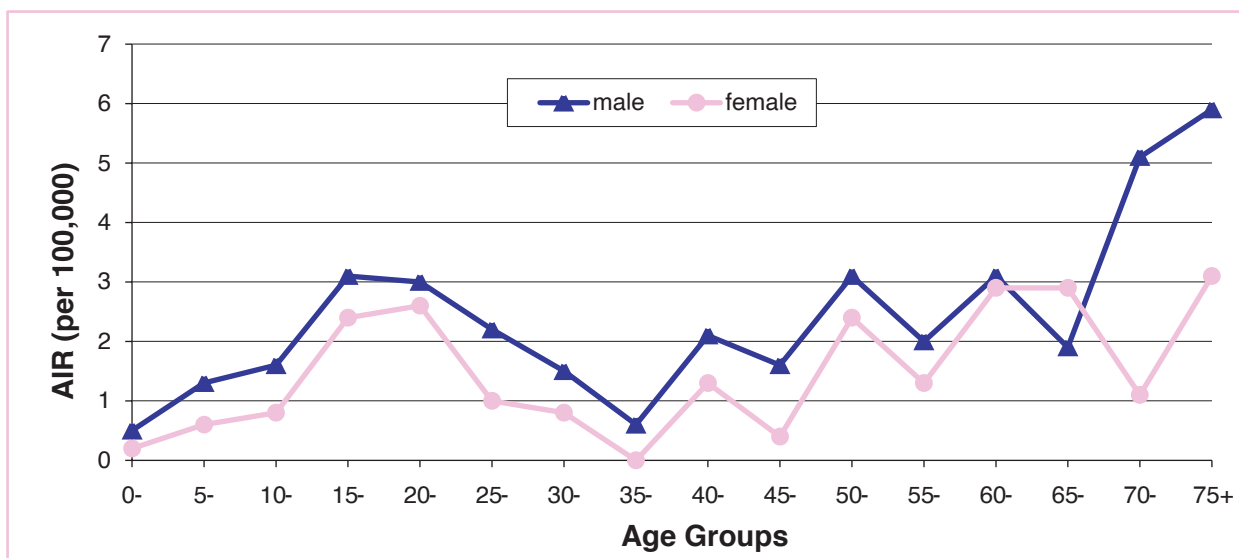


Figure 3.10.1 Age-Specific Incidence Rate (AIR) for Hodgkin disease in Saudi Arabia, 2005

ICD-O-3 Code	Morphology	Male	%	Female	%
96633	Hodgkin lymphoma, nodular sclerosis, NOS	67	25.9%	45	17.4%
96503	Hodgkin lymphoma, NOS	29	11.2%	10	3.9%
96523	Hodgkin lymphoma, mixed cellularity, NOS	17	6.6%	17	6.6%
96653	Hodgkin lymphoma, nodular sclerosis, grade 1	13	5.0%	7	2.7%
96513	Hodgkin lymphoma, lymphocyte-rich	12	4.6%	7	2.7%
96593	Hodgkin lymphoma, nodular lymphocyte predominance	13	5.0%	5	1.9%
96673	Hodgkin lymphoma, nodular sclerosis, grade 2	4	1.5%	6	2.3%
96533	Hodgkin lymphoma, lymphocyte depletion, NOS	4	1.5%	0	0.0%
	Others	1	0.4%	2	0.8%

Table 3.10.1 Morphological Distribution of Hodgkin disease in Saudi Arabia, 2005

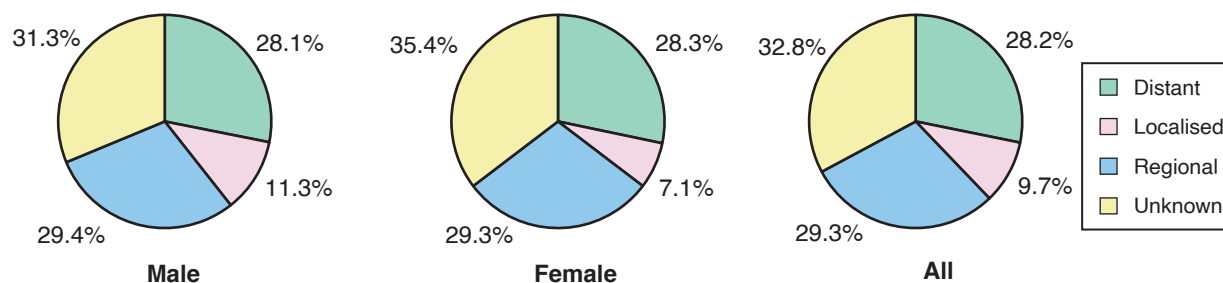


Figure 3.10.2 Stage Distribution of Hodgkin disease, 2005

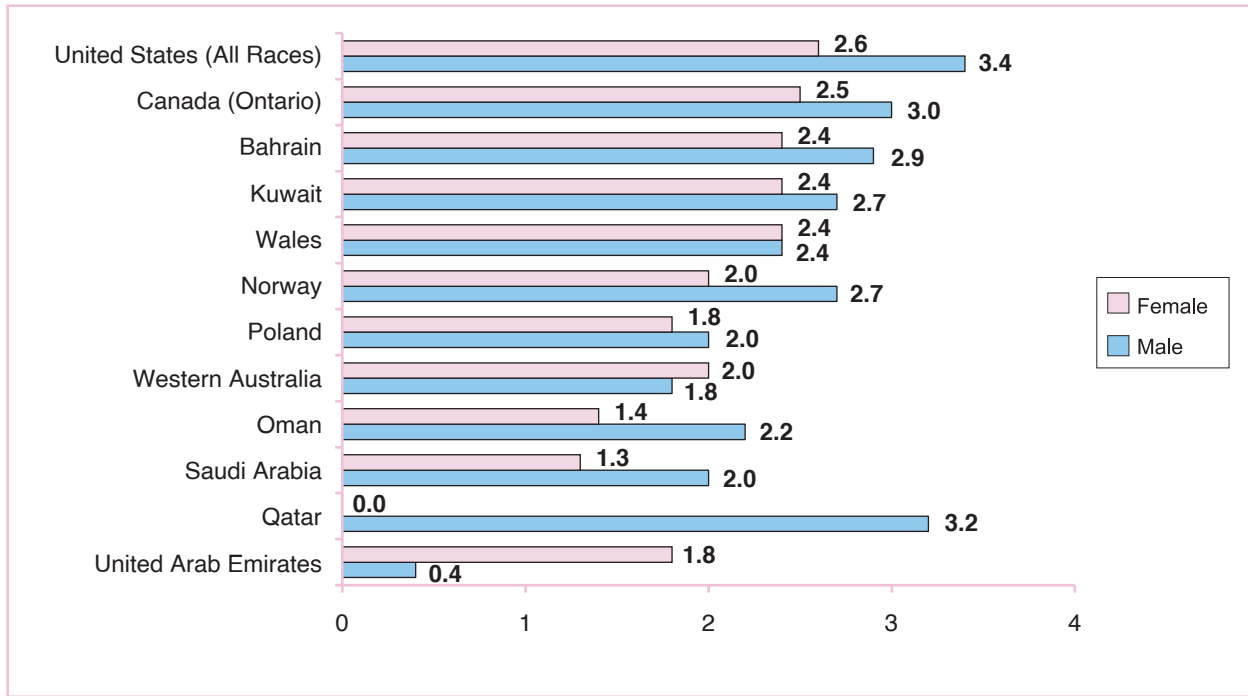


Figure 3.10.4 Comparison of ASR* for Hodgkin disease among Saudis with ASR in Selected Countries**

* ASR Per 100,000

** Source for this information is summarized on page 66

Stomach (C 16)

There were 224 cases of stomach cancer accounting for 3.0% of all newly diagnosed cases in year 2005. This cancer ranked eighth among male population and fourteenth among female population. It affected 156(69.6%) males and 68 (30.4%) females with a male to female ratio of 229:100. The overall ASR was 2.6/100,000. ASR was

3.5/100,000 for male and 1.6/100,000 for females. The median age at diagnosis was 70 years among males (range 21-103 years) and 64 years among female (range 30-100 years).

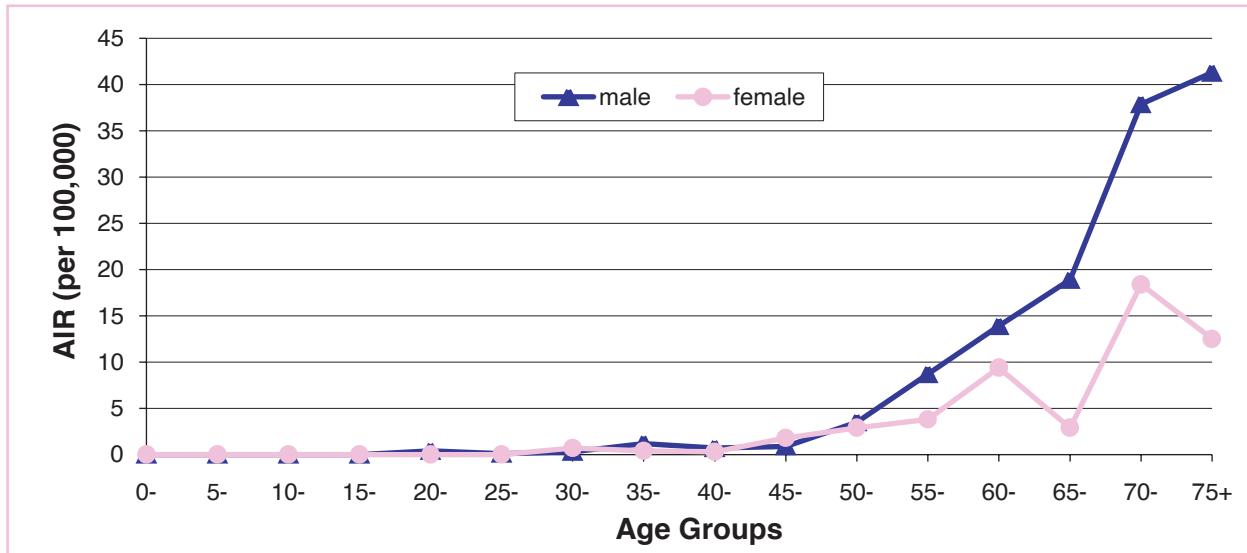


Figure 3.11.1 Age-Specific Incidence Rate (AIR) for Stomach Cancer in Saudi Arabia, 2005

ICD-O-3 Code	Morphology	Male	%	Female	%
8140	Adenocarcinoma, NOS	80	35.7%	23	10.3%
8490	Signet ring cell carcinoma	30	13.4%	20	8.9%
8144	Adenocarcinoma, intestinal type	11	4.9%	6	2.7%
8010	Carcinoma, NOS	4	1.8%	3	1.3%
8070	Squamous cell carcinoma, NOS	4	1.8%	3	1.3%
8000	Neoplasm, malignant	3	1.3%	3	1.3%
8020	Carcinoma, undifferentiated, NOS	4	1.8%	1	0.4%
8481	Mucin-producing adenocarcinoma	4	1.8%	1	0.4%
8145	Carcinoma, diffuse type	2	0.9%	2	0.9%
8480	Mucinous adenocarcinoma	3	1.3%	1	0.4%
8936	Gastrointestinal stromal sarcoma	3	1.3%	1	0.4%
8211	Tubular adenocarcinoma	3	1.3%	0	0.0%
	Others	5	2.2%	4	1.8%

Table 3.11.1 Morphological Distribution of Stomach Cancer in Saudi Arabia, 2005

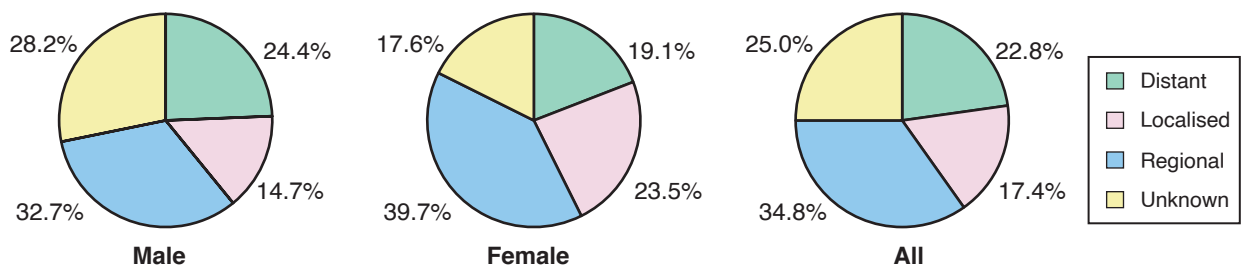


Figure 3.11.2 Stage Distribution of Stomach Cancer, 2005

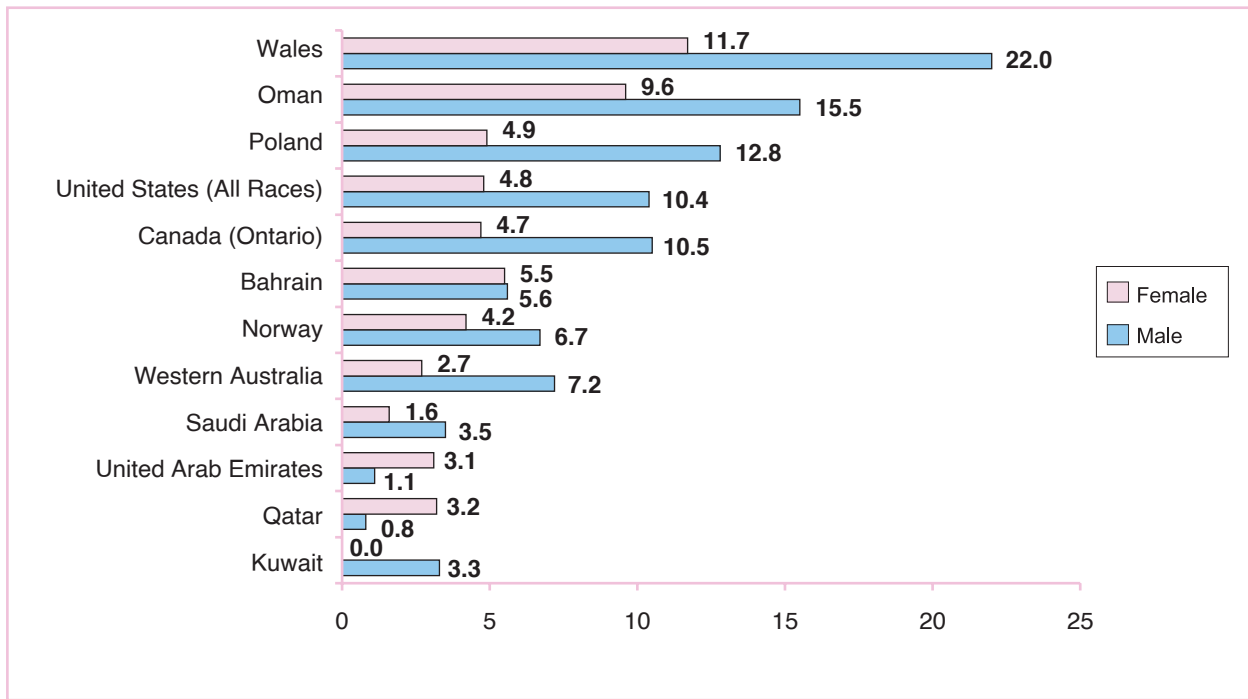


Figure 3.11.4 Comparison of ASR* for Stomach Cancer among Saudis with ASR in Selected Countries**

* ASR Per 100,000

** Source for this information is summarized on page 66

Brain, Nervous System (C70-C72)

There were 220 cases of brain, nervous system cancer accounting for 2.9% of all newly diagnosed cases in year 2005. This cancer ranked eleventh for males and tenth among females. It affected 124 (56.4%) males and 96(43.6%) females with a male to female ratio of 129:100. The overall ASR was

1.7/100,000. ASR was 2.0/100,000 for males and 1.3/100,000 for females. The median age at diagnosis was 35 years among males (range 0-88 years) and 22 years among female (range 0-79 years).

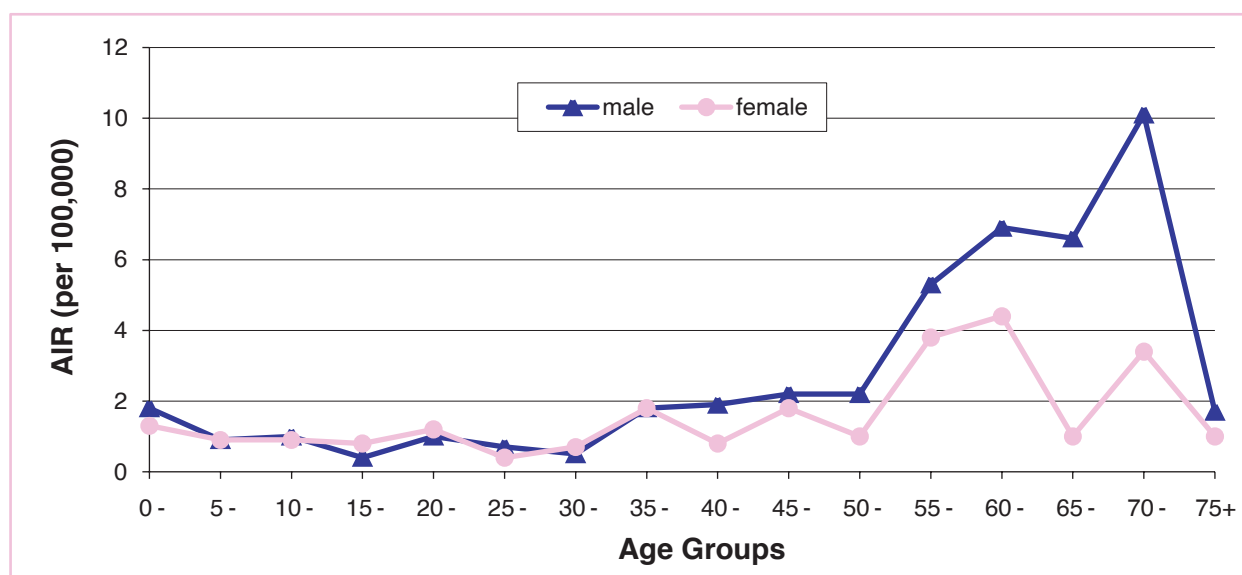


Figure 3.12.1 Age-Specific Incidence Rate (AIR) for Brain Cancer in Saudi Arabia, 2005

ICD-O Code	Morphology	Male	%	Female	%
9440	Glioblastoma, NOS	35	15.9%	24	10.9%
9470	Medulloblastoma, NOS	18	8.2%	11	5.0%
9400	Astrocytoma, NOS	11	5.0%	10	4.5%
9391	Ependymoma, NOS	8	3.6%	10	4.5%
9380	Glioma, malignant	6	2.7%	8	3.6%
9401	Astrocytoma, anaplastic	8	3.6%	2	0.9%
9450	Oligodendroglioma, NOS	5	2.3%	5	2.3%
8000	Neoplasm, malignant	5	2.3%	4	1.8%
9473	Primitive neuroectodermal tumor, NOS	3	1.4%	2	0.9%
8963	Malignant rhabdoid tumor	4	1.8%	0	0.0%
9382	Mixed glioma	3	1.4%	1	0.5%
9420	Fibrillary astrocytoma	2	0.9%	2	0.9%
9424	Pleomorphic xanthoastrocytoma	3	1.4%	1	0.5%
9471	Desmoplastic nodular medulloblastoma	1	0.5%	3	1.4%
9530	Meningioma, malignant	1	0.5%	3	1.4%
9390	Choroid plexus carcinoma	0	0.0%	3	1.4%
	Others	11	5.0%	7	3.2%

Table 3.12.1 Morphological Distribution of Brain Cancer in Saudi Arabia, 2005

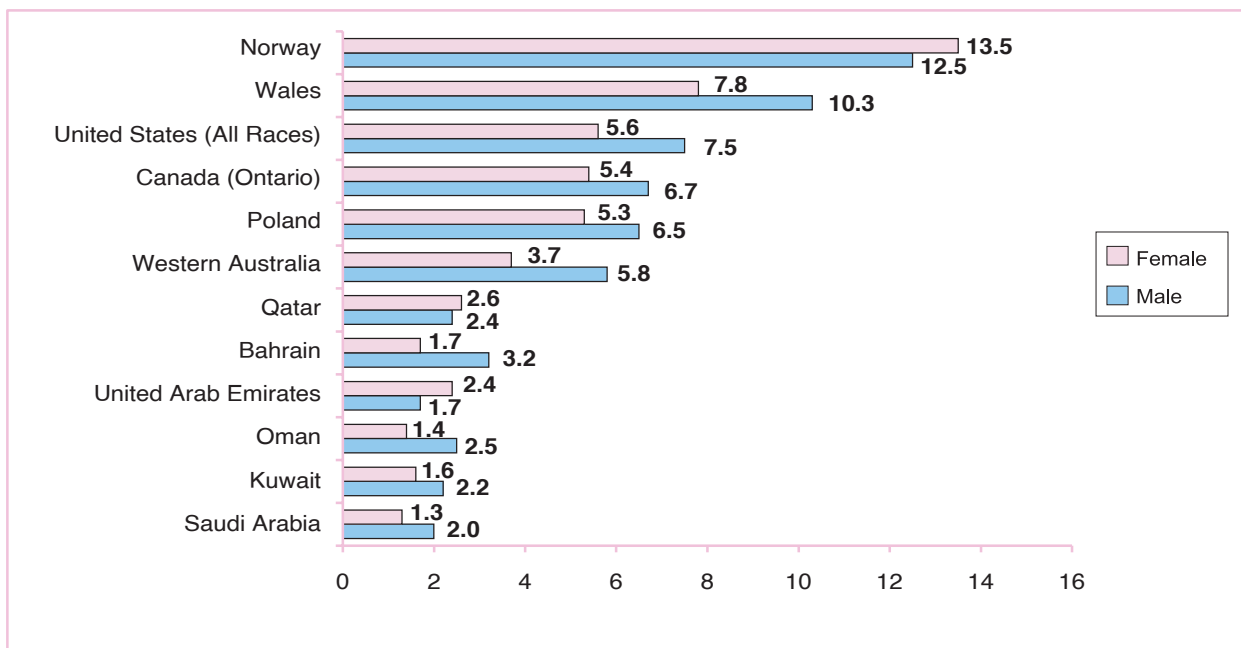
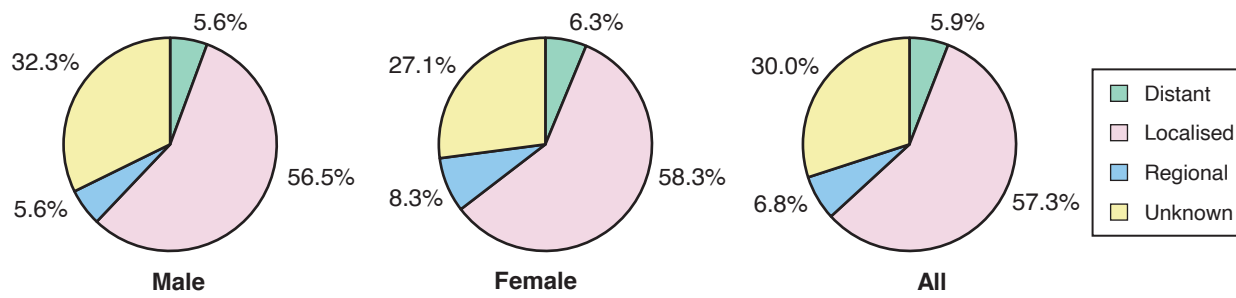


Figure 3.12.4 Comparison of ASR* for Brain Cancer among Saudi with ASR in Selected Countries**

* ASR Per 100,000

** Source for this information is summarized on page 66

Bladder (C 67)

There were 190 cases of bladder cancer accounting for 2.5% of all newly diagnosed cases in year 2005. This cancer ranked ninth among male population and twenty second among female population. It affected 155 (81.6%) males and 35 (18.4%) females with a male to female ratio of 443:100. The overall ASR

was 2.1/100,000. ASR was 3.3/100,000 for males and 0.8/100,000 for females. The median age at diagnosis was 65 among males (range 1-101 years) and 64 among females (range 12-91 years).

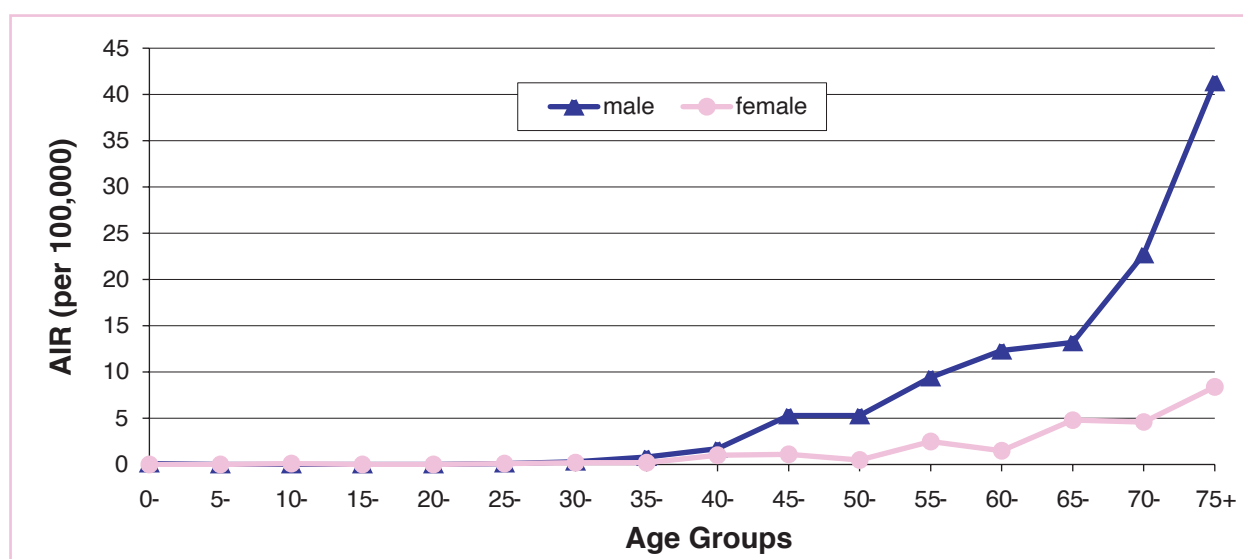


Figure 3.13.1 Age-Specific Incidence Rate (AIR) for Bladder Cancer in Saudi Arabia, 2005

ICD-O-3 Code	Morphology	Male	%	Female	%
8130	Papillary transitional cell carcinoma	60	31.6%	15	7.9%
8120	Transitional cell carcinoma, NOS	64	33.7%	10	5.3%
8070	Squamous cell carcinoma, NOS	9	4.7%	5	2.6%
8010	Carcinoma, NOS	5	2.6%	1	0.5%
8000	Neoplasm, malignant	4	2.1%	1	0.5%
8140	Adenocarcinoma, NOS	3	1.6%	1	0.5%
8050	Papillary carcinoma, NOS	1	0.5%	1	0.5%
8071	Squamous cell carcinoma, keratinizing, NOS	2	1.1%	0	0.0%
8480	Mucinous adenocarcinoma	2	1.1%	0	0.0%
	Others	5	2.6%	1	0.5%

Table 3.13.1 Morphological Distribution of Bladder Cancer in Saudi Arabia, 2005

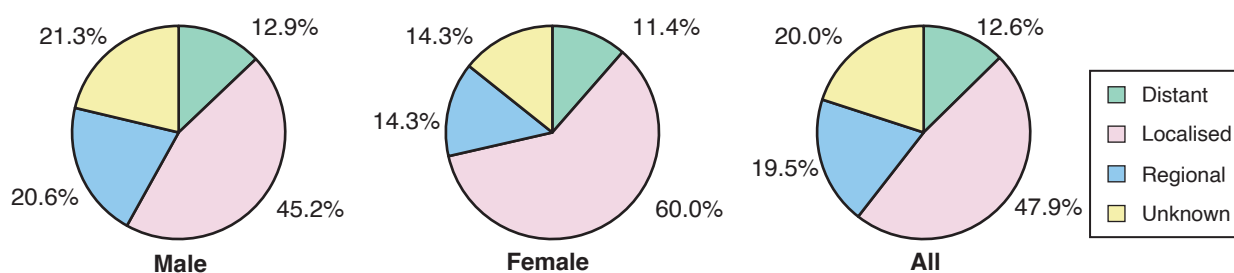


Figure 3.13.2 Stage Distribution of Bladder Cancer, 2005

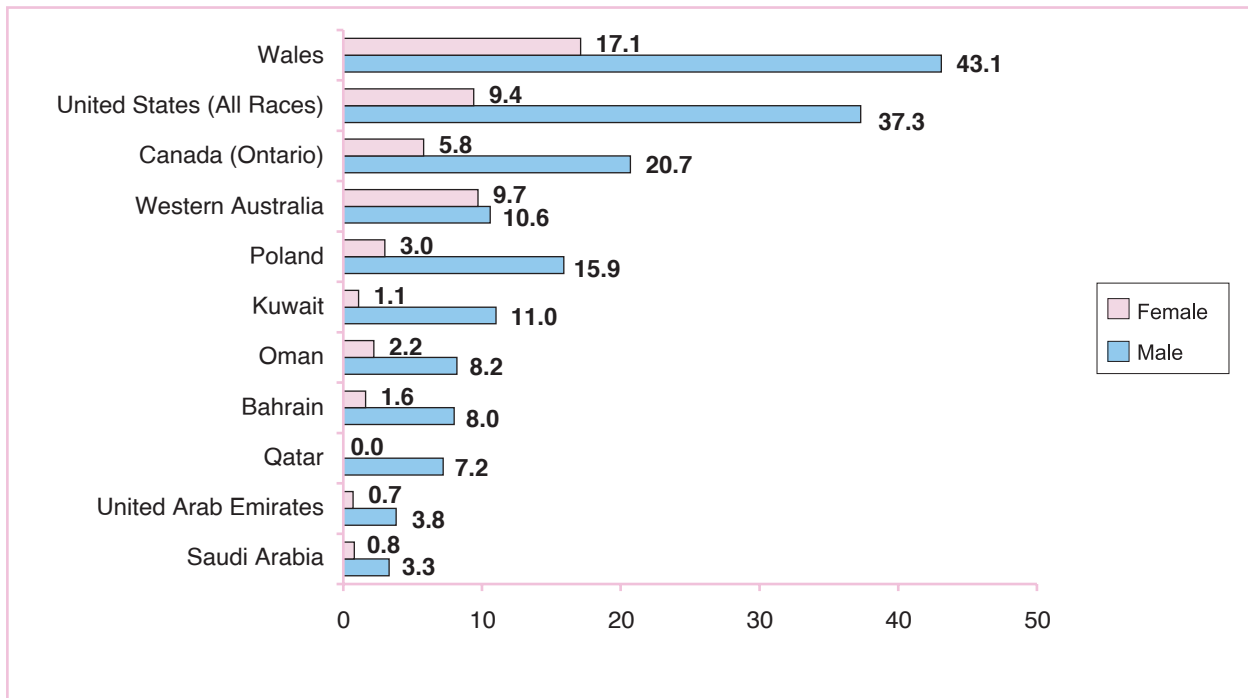


Figure 3.13.4 Comparison of ASR* for Bladder Cancer among Saudis with ASR in Selected Countries**

* ASR Per 100,000

** Source for this information is summarized on page 66

Corpus uteri (C 54)

There were 143 cases of corpus uterine cancer among females accounting for 3.7 % of all newly diagnosed cases for females (3,834) in year 2005. This cancer ranked sixth among female population. The ASR was 3.4/100,000 for female population.

The median age at diagnosis was 59 years (range 24-86 years).

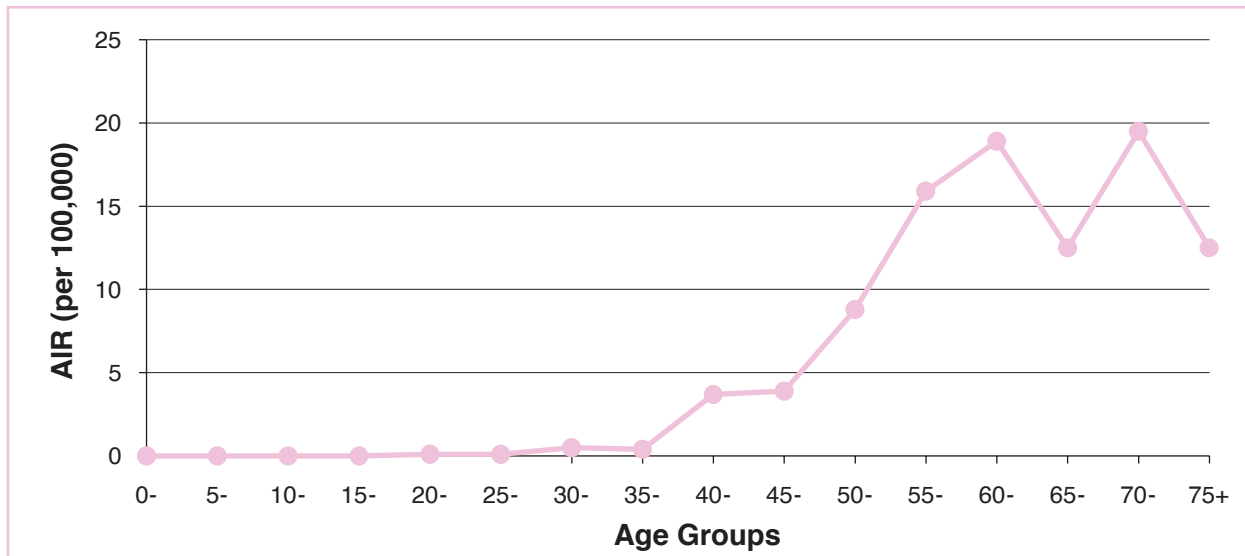


Figure 3.14.1 Age-Specific Incidence Rate (AIR) for Corpus uterine Cancer in Saudi Arabia, 2005

ICD-O-3 Code	Morphology	Total	%
8380	Endometrioid adenocarcinoma, NOS	78	49.1%
8140	Adenocarcinoma, NOS	20	12.6%
8260	Papillary adenocarcinoma, NOS	6	3.8%
8010	Carcinoma, NOS	5	3.1%
8310	Clear cell adenocarcinoma, NOS	5	3.1%
8980	Carcinosarcoma, NOS	5	3.1%
8460	Papillary serous cystadenocarcinoma	4	2.5%
8890	Leiomyosarcoma, NOS	4	2.5%
8930	Endometrial stromal sarcoma, NOS	4	2.5%
8461	Serous surface papillary carcinoma	2	1.3%
8950	Mullerian mixed tumor	2	1.3%
	Others	8	5.3%

Table 3.14.1 Morphological Distribution of Corpus uterine Cancer in Saudi Arabia, 2005

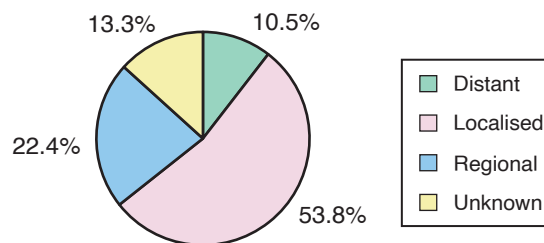


Figure 3.14.2 Stage Distribution of Corpus uterine Cancer, 2005

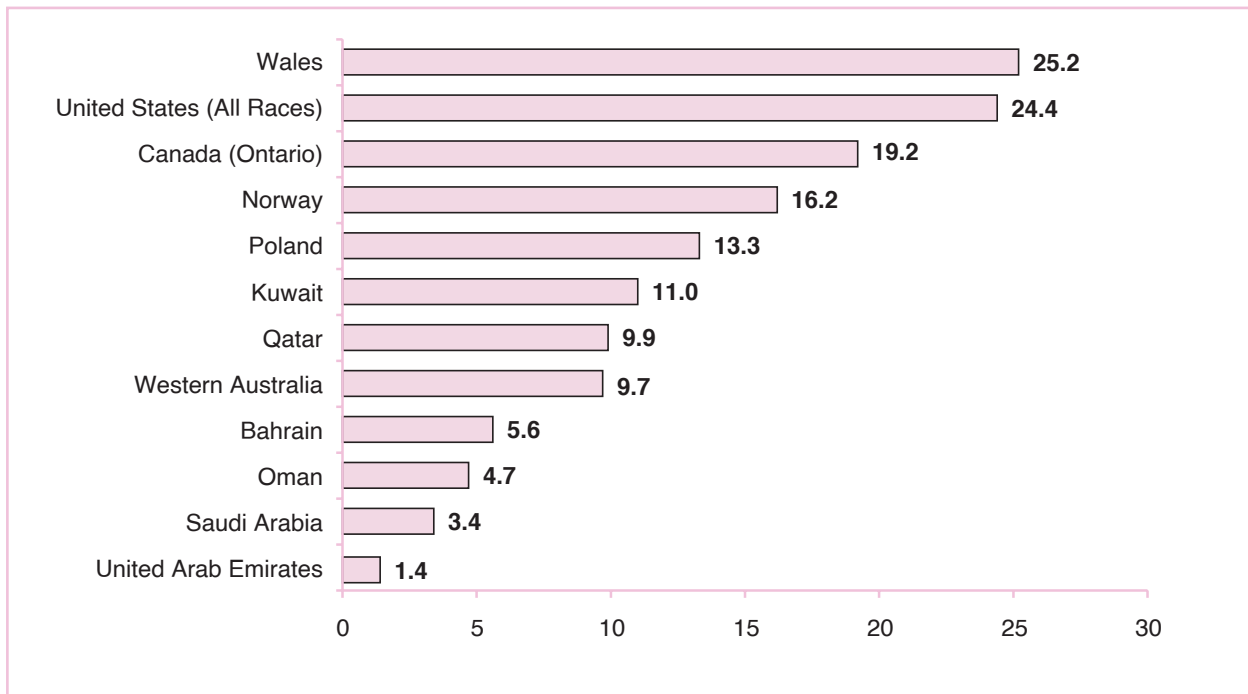


Figure 3.14.4 Comparison of ASR* for Corpus uterine Cancer among Saudi Females with ASR in Selected Countries*

* ASR Per 100,000

** Source for this information is summarized on page 66

Ovary Cancer (C 56)

There were 136 cases of ovarian cancer among females accounting for 3.5% of all newly diagnosed cases among females (3,834) in year 2005. This cancer ranked seventh among female population.

The ASR was 2.8/100,000 for females. The median age at diagnosis was 54 years (range 5-97 years).

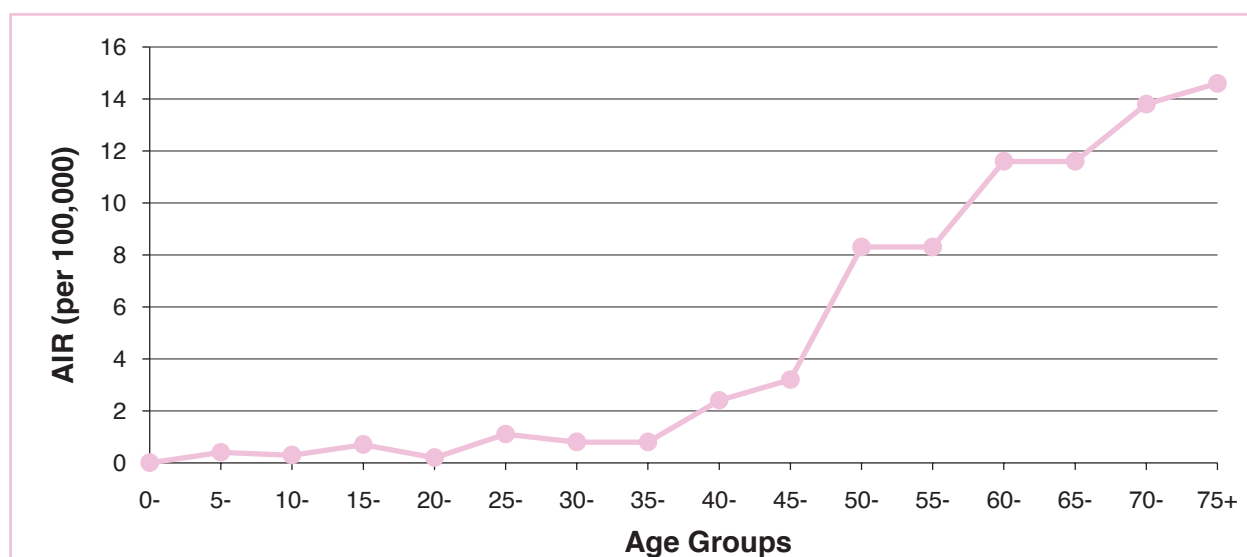


Figure 3.15.1 Age-Specific Incidence Rate (AIR) for Ovarian Cancer in Saudi Arabia, 2005

ICD-O-3 Code	Morphology	Total	%
8460	Papillary serous cystadenocarcinoma	30	22.1%
8140	Adenocarcinoma, NOS	25	18.4%
8000	Neoplasm, malignant	11	8.1%
9060	Dysgerminoma	8	5.9%
8010	Carcinoma, NOS	7	5.1%
8461	Serous surface papillary carcinoma	6	4.4%
8441	Serous cystadenocarcinoma, NOS	5	3.7%
8470	Mucinous cystadenocarcinoma,NOS	5	3.7%
8380	Endometrioid adenocarcinoma, NOS	4	2.9%
9085	Mixed germ cell tumor	4	2.9%
8260	Papillary adenocarcinoma, NOS	3	2.2%
8310	Clear cell adenocarcinoma, NOS	3	2.2%
8440	Cystadenocarcinoma, NOS	3	2.2%
8480	Mucinous adenocarcinoma	3	2.2%
8003	Malignant tumor, giant cell type	2	1.5%
8490	Signet ring cell carcinoma	2	1.5%
8620	Granulosa cell tumor, malignant	2	1.5%
9071	Yolk sac tumor	2	1.5%
	Others	11	8.1%

Table 3.15.1 Morphological Distribution of Ovarian Cancer in Saudi Arabia, 2005

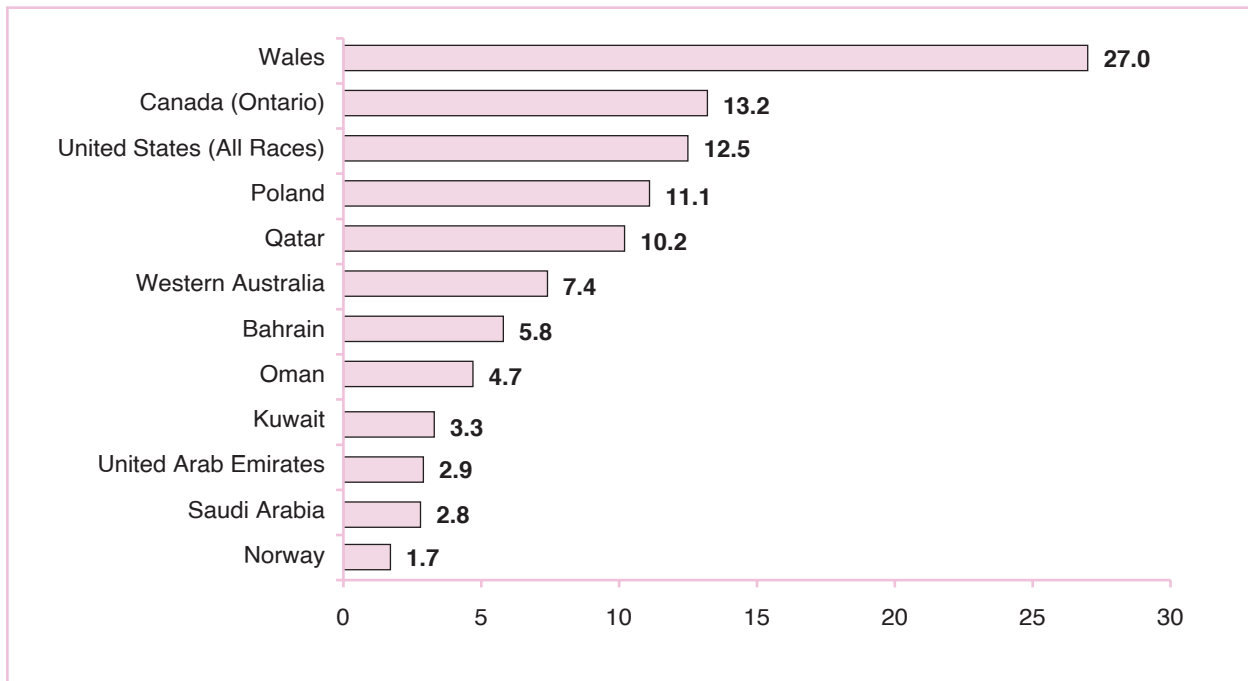
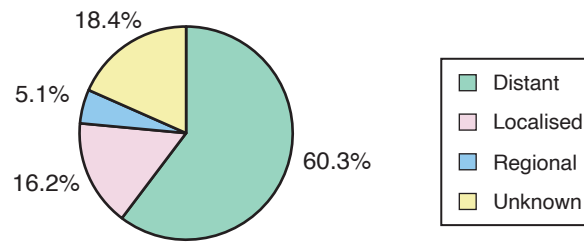


Figure 3.15.4 Comparison of ASR* for Ovarian Cancer among Saudi Females with ASR in Selected Countries**

* ASR Per 100,000

** Source for this information is summarized on page 66

** References

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PART IV
CANCER AMONG NON-SAUDIS
2005

Cancer Among Non- Saudi Population 2005

Between January and December 2005, a total of 2,453 cancer cases were reported among the Non-Saudi population. Eighty four in situ cases and 5 cases of ICD-10 were excluded from the analysis. As a result, the total number of cases analyzed were 2,364 out of this 1263(53.4%) were males and 1,101 (46.4%) were females. The male to female ratio was 115:100. Taking into consideration the population structure of non-Saudis and the fact that cancer is primarily a disease of the elderly, the pattern of

cancer had some significant differences. Those over 60 years represented 20 % and the 20 to 54 age-group represented 60 % of non-Saudi population. During 2005, approximately 5 % of all cancers occurred before the age of 15, 28.3 % occurred between the ages 15 to 40 years, 51.8% were between the ages 41-64, and 14.9 % occurred after the age of 64. The median age at diagnosis was 50 years in males (range 0-98 years) and 45 years in females (range 0-100 years).

Cancer	All	%
Breast	410	17.3%
Colo-rectal	207	8.8%
Non-Hodgkin lymphoma	174	7.4%
Leukemia	163	6.9%
Skin	112	4.7%
Lung	108	4.6%
Thyroid	91	3.8%
Stomach	80	3.4%
Liver	73	3.1%
Bladder	65	2.7%

Table 4.1 Ten Most common Cancers among non-Saudis, 2005

Nationality	Male	%	Female	%	Total	%
Yemen	276	11.3%	222	9.1%	498	20.3%
Sudan	151	6.2%	94	3.8%	245	10.0%
Egypt	108	4.4%	98	4.0%	206	8.4%
Pakistan	100	4.1%	70	2.9%	170	6.9%
Syrian Arab Republic	76	3.1%	46	1.9%	122	5.0%
Philippines	75	3.1%	111	4.5%	186	7.6%
India	72	2.9%	41	1.7%	113	4.6%
Bangladesh	65	2.6%	10	0.4%	75	3.1%
Gaza Strip (Palestine)	50	1.5%	31	1.3%	68	2.8%
United States of America	36	1.5%	12	0.5%	48	2.0%
Nigeria	34	1.4%	22	0.9%	56	2.3%
Jordan	28	1.1%	24	1.0%	52	2.1%
Eritrea	25	1.0%	32	1.3%	57	2.3%
GCCR Nationalities	24	1.0%	32	1.3%	56	2.3%
Somalia	20	0.8%	41	1.7%	61	2.5%
United Kingdom	20	0.8%	10	0.4%	30	1.2%
Myanmar (formerly Burma)	19	0.8%	10	0.4%	29	1.2%
Afghanistan	14	0.6%	13	0.5%	27	1.1%
Lebanon	14	0.6%	13	0.5%	27	1.1%
Ethiopia	13	0.5%	34	1.4%	47	1.9%
Chad	9	0.4%	24	1.0%	33	1.3%
Indonesia	8	0.3%	43	1.8%	51	2.1%
Sri Lanka	6	0.2%	22	0.9%	28	1.1%
Other Nationalities	86	3.5%	82	3.3%	168	6.8%
Total	1316	53.6%	1137	46.4%	2453	100.0%

Table 4.2 Distribution of Cancer Cases among Different Nationalities in Order of Relative Frequency

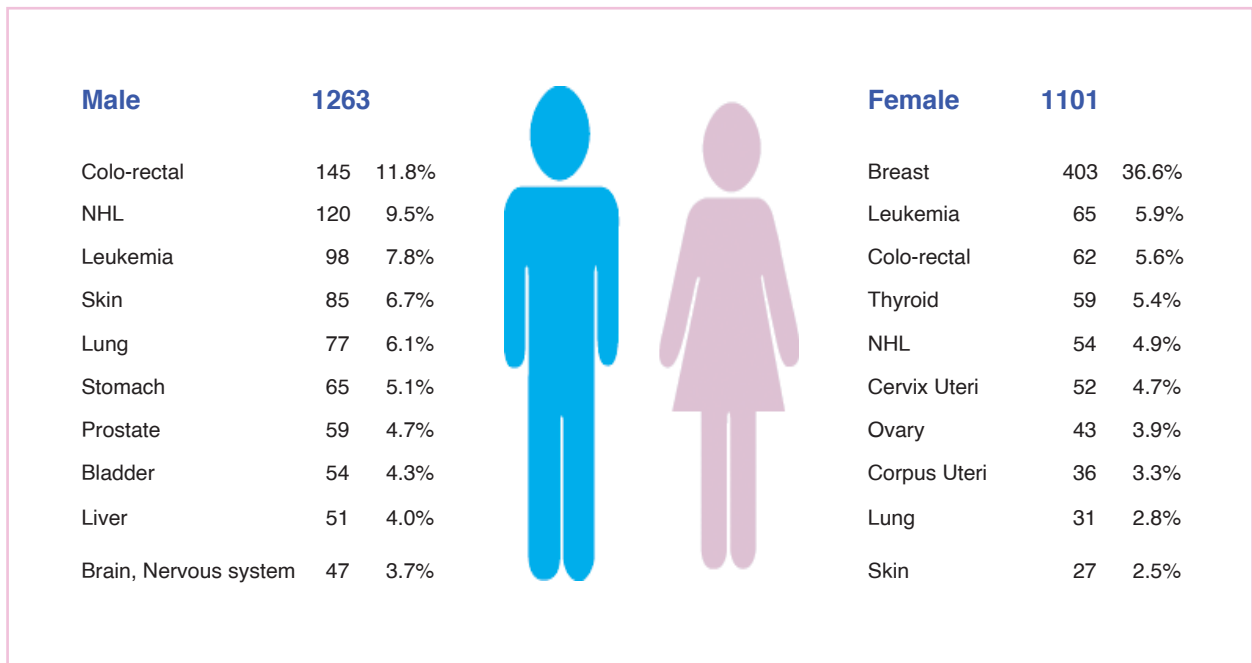


Figure 4.1 Ten Most Common Cancer among non-Saudis, 2005

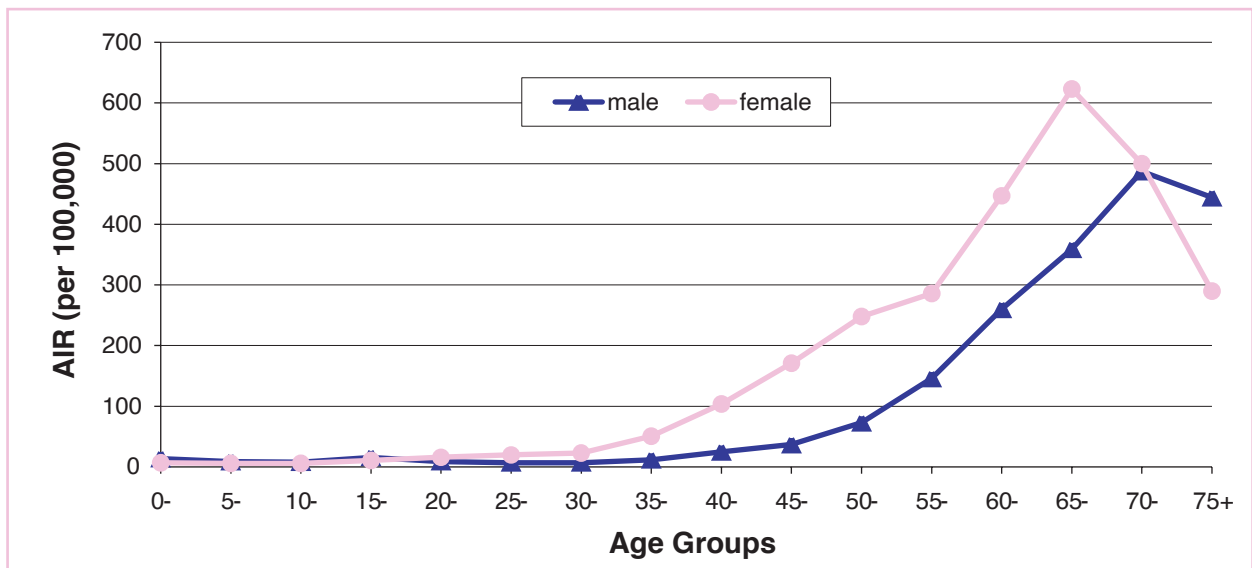


Figure 4.2 Age-Specific Incidence Rate (AIR) for All Cancers among non-Saudis in Saudi Arabia, 2005

PART V

TABLES

Table 5.1.1 Age Distribution of Cancer Cases among Saudi Males, 2005

ICD (10)	SITE	Tot.	UNK	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75+	%
C00	Lip	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0.2
C01-C02	Tongue	40	0	0	0	0	0	0	1	2	0	3	3	3	7	6	4	5	6	1.1
C03-C06	Mouth	32	0	0	1	0	0	0	2	0	3	0	1	4	4	3	5	3	6	0.9
C07-C08	Salivary Glands	15	0	1	1	1	2	2	1	1	0	1	1	0	1	0	0	1	3	0.4
C9	Tonsil	3	0	0	0	0	0	0	0	0	0	0	1	2	0	0	0	0	0	0.1
C10	Other oropharynx	2	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0.1
C11	Nasopharynx	114	0	0	3	2	5	3	5	14	10	17	12	9	10	9	11	4	3	3.1
C12-C13	Hypopharynx	11	0	0	0	0	0	0	0	0	0	0	1	3	0	1	1	1	4	0.3
C14	Pharynx unsp. spec.	4	0	0	0	0	0	0	0	0	0	0	1	1	0	1	0	1	0	0.1
C15	Oesophagus	53	0	0	0	0	0	0	0	1	1	1	2	4	8	9	4	7	16	1.4
C16	Stomach	156	0	0	0	0	0	3	1	2	6	3	3	8	13	18	20	30	49	4.2
C17	Small intestine	22	0	0	0	0	1	0	1	1	0	0	0	2	2	2	3	3	7	0.6
C18	Colon	250	0	0	0	1	0	7	2	13	20	23	20	26	37	28	28	28	45	6.7
C19-C20	Rectum	189	0	0	0	0	0	1	7	12	8	19	24	22	18	32	23	23	5	5.1
C21	Anus	17	0	0	0	0	0	0	0	0	2	0	1	2	3	1	0	4	4	0.5
C22	Liver	211	0	1	1	1	0	0	2	1	2	4	7	17	26	30	33	27	60	5.7
C23-C24	Gall bladder etc.	36	0	0	0	0	0	0	0	1	0	3	1	5	5	8	4	2	7	1.0
C25	Pancreas	82	0	1	0	0	0	0	1	2	4	8	2	15	8	12	12	17	2	2.2
C30-C31	Nose, sinuses, etc.	13	0	2	0	0	0	0	0	1	0	2	0	2	0	1	0	1	4	0.3
C32	Larynx	48	0	0	0	0	0	0	1	0	0	1	1	5	6	8	11	9	6	1.3
C33-C34	Trachea, Bronchus, Lung	261	0	0	0	0	0	0	1	3	10	14	17	21	18	42	45	46	44	7.0
C37-C38	Other Thoracic Organs	17	0	0	1	1	1	1	1	0	1	3	1	0	2	1	1	1	3	0.5
C40-C41	Bone	51	0	4	12	15	4	1	4	1	1	1	2	3	1	0	1	1	0	1.4
C43	Melanoma of Skin	11	0	1	0	0	0	1	0	0	0	0	0	0	0	1	2	1	5	0.3
C44	Other Skin	152	0	2	3	2	3	2	4	5	2	4	4	4	13	17	18	31	42	4.1
C45	Mesothelioma	8	0	0	0	0	0	0	0	0	0	0	2	0	3	1	0	2	0	0.2
C46	Kaposi sarcoma	26	0	0	0	0	0	0	0	2	1	3	3	1	0	4	3	2	7	0.7
C47; C49	Connective, Soft Tissue	70	0	6	7	4	3	9	5	5	7	4	2	1	3	3	2	2	7	1.9
C50	Breast	16	0	0	0	0	0	0	0	1	3	0	4	2	2	1	0	1	2	0.4
C60	Penis	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3	0.2
C61	Prostate	261	0	1	0	0	0	4	8	16	6	0	5	4	0	0	0	0	0	1.2
C62	Testis	45	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
C63	Other male genital	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
C64	Kidney	92	0	11	1	1	0	1	0	4	3	6	15	5	12	11	6	10	6	2.5
C65	Renal pelvis	3	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0.1
C66	Ureter	3	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	1	0.1
C67	Bladder	155	0	1	0	0	0	0	1	2	4	7	17	12	14	16	14	18	49	4.2
C68	Other urinary organs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-
C69	Eye	15	0	5	1	0	0	0	0	1	1	0	0	0	1	2	0	0	4	0.4
C70-C72	Brain, Nervous System	124	0	20	10	11	4	8	5	3	9	8	7	5	8	9	7	8	2	3.3
C73	Thyroid	93	0	1	2	3	7	4	13	11	8	8	8	8	8	7	4	4	4	2.5
C74	Adrenal gland	10	0	9	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0.3
C75	Other Endocrine	6	0	1	2	0	0	1	1	1	0	0	0	0	0	1	0	0	0	0.2
C81	Hodgkin Disease	160	0	5	15	18	30	23	16	9	3	9	5	7	3	4	2	4	7	4.3
C82-C85; C96	Non Hodgkin lymphoma	346	0	11	10	14	11	18	16	16	17	24	21	30	28	27	28	31	44	9.3
C88	Immunoproliferative dis.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-
C90	Multiple Myeloma	55	0	0	0	0	0	0	2	3	0	1	5	3	7	9	3	11	11	1.5
C91	Lymphoid leukemia	149	0	40	30	11	26	10	5	1	3	3	4	4	4	0	2	2	4	4.0
C92-C94	Myeloid leukemia	96	0	13	4	4	8	10	2	9	3	7	11	4	4	5	1	5	6	2.6
C95	Leukemia unsp. spec.	14	0	3	1	1	3	1	0	0	0	0	0	0	0	2	1	0	2	0.4
Other	Other & unsp. spec	179	0	5	0	0	0	0	2	4	6	12	10	8	13	16	29	22	52	4.8
All	All Sites	3729	0	133	93	90	114	115	100	116	145	179	234	239	315	371	389	438	658	100.0
All but C44	All sites but C44	3577	0	133	91	87	112	112	98	112	140	177	230	235	302	354	371	407	616	95.92

Table 5.1.2 Age Distribution of Cancer Cases among Saudi Females, 2005

ICD10	SITE	Tot	UNK	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75+	%
C00	Lip	6	0	0	0	0	0	0	0	0	0	0	1	2	0	0	0	0	3	0.2
C01-C02	Tongue	21	0	0	0	0	0	1	0	3	1	1	2	3	4	2	3	0	0	0.5
C03-C06	Mouth	44	0	0	0	0	0	1	0	4	0	4	7	6	3	4	6	2	7	1.1
C07-C08	Salivary Glands	13	0	0	0	0	0	0	1	1	1	2	1	3	0	0	0	0	0	0.3
C9	Tonsil	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
C10	Other oropharynx	2	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0.1
C11	Nasopharynx	32	0	0	0	2	0	1	3	5	4	4	4	2	2	2	4	1	2	0.8
C12-C13	Hypopharynx	17	0	0	0	1	0	0	0	0	0	0	3	2	7	0	1	2	1	0.4
C14	Pharynx unspec.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
C15	Oesophagus	66	0	0	0	0	0	0	0	1	3	1	4	2	4	11	9	6	25	1.7
C16	Stomach	68	0	0	0	0	0	0	0	4	2	1	5	6	6	13	3	16	12	1.8
C17	Small intestine	12	0	0	0	0	0	0	0	3	0	0	0	1	0	2	1	2	3	0.3
C18	Colon	197	0	1	0	0	0	5	5	8	13	18	27	29	16	27	11	11	26	5.1
C19-C20	Rectum	142	0	0	0	0	1	0	5	5	16	7	17	16	19	14	10	13	19	3.7
C21	Anus	9	0	0	0	0	0	0	0	2	0	1	1	1	0	2	0	1	1	0.2
C22	Liver	81	0	2	2	1	3	0	2	1	1	4	2	3	8	16	8	12	17	2.1
C23-C24	Gall bladder etc.	63	0	0	0	0	0	0	0	1	1	6	7	5	8	14	7	5	9	1.6
C25	Pancreas	49	0	0	0	0	0	0	0	0	1	3	2	5	5	8	3	14	8	1.3
C30-C31	Nose, sinuses, etc.	10	0	0	0	0	0	0	0	0	0	1	2	2	1	0	1	2	0	0.3
C32	Larynx	6	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0.2
C33-C34	Trachea, Bronchus, Lung	86	0	0	0	0	1	0	1	2	3	10	11	8	7	13	3	11	16	2.2
C37-C38	Other Thoracic Organs	12	0	2	0	0	0	1	0	1	1	0	1	1	0	3	0	1	1	0.3
C40-C41	Bone	36	0	1	5	6	10	5	4	0	0	0	1	0	1	0	0	1	2	0.9
C43	Melanoma of Skin	10	0	0	0	0	2	0	0	0	0	2	1	0	0	1	0	2	0	0.3
C44	Other Skin	129	0	0	1	4	1	5	2	3	4	7	5	10	10	18	12	14	33	3.4
C45	Mesothelioma	6	0	0	0	0	0	0	0	0	0	0	0	1	2	1	0	1	0	0.2
C46	Kaposi sarcoma	7	0	0	0	0	0	0	0	0	0	1	0	1	1	2	0	0	1	0.2
C47, C49	Connective, Soft Tissue	49	0	4	3	6	8	3	3	0	3	5	2	0	6	0	1	1	4	1.3
C50	Breast	932	2	0	0	0	0	10	26	68	142	157	151	104	86	64	46	38	38	24.3
C51	Vulva	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0.0
C52	Vagina	7	0	0	0	1	0	0	0	0	1	0	0	1	1	3	0	0	0	0.2
C53	Cervix Uteri	95	0	0	0	0	0	1	4	5	15	12	13	11	8	6	9	10	25	2.5
C54	Corpus Uteri	143	0	0	0	0	0	1	1	3	2	14	11	18	25	26	13	17	12	3.7
C55	Uterus Unspec.	14	0	0	0	0	0	0	0	1	1	1	2	1	1	3	3	0	2	0.4
C56	Ovary	136	0	0	4	4	7	2	8	5	4	9	9	17	13	16	12	12	14	3.5
C57	Other Female Genital	6	0	0	0	1	0	2	0	0	0	0	0	1	0	2	0	0	0	0.2
C58	Placenta	10	0	0	0	0	0	5	0	0	1	2	1	1	0	0	0	0	0	0.3
C64	Kidney	60	0	8	3	1	1	1	1	2	3	4	6	6	4	8	3	5	4	1.6
C65	Renal pelvis	4	0	0	0	0	0	1	0	0	0	0	0	1	0	1	0	0	1	0.1
C66	Ureter	4	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	2	0	0.1
C67	Bladder	35	0	0	0	1	0	0	1	1	1	4	3	1	4	2	5	4	8	0.9
C68	Other urinary organs	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0.0
C69	Eye	20	0	16	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0.5
C70-C72	Brain, Nervous System	96	0	14	10	11	8	10	3	4	9	3	5	2	6	6	1	3	1	2.5
C73	Thyroid	380	0	0	1	4	15	40	56	47	51	37	39	20	17	21	15	6	11	9.9
C74	Adrenal gland	9	0	7	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.2
C75	Other Endocrine	5	0	2	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0.1
C81	Hodgkin Disease	99	0	2	7	10	23	21	7	5	0	5	1	5	2	4	3	1	3	2.6
C82-C85; C96	Non Hodgkin lymphoma	250	0	4	4	9	8	14	12	15	7	18	18	18	18	29	32	19	25	6.5
C88	Immunoproliferative dis.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
C89	Multiple Myeloma	24	0	0	0	0	0	1	1	1	0	1	2	2	5	2	1	2	6	0.6
C81	Lymphoid leukemia	75	0	22	14	18	2	3	0	1	2	2	0	1	0	3	2	2	3	2.0
C92-C94	Myeloid leukemia	92	1	7	2	4	13	5	2	11	8	6	10	3	5	5	4	6	0	2.4
C95	Leukemia unspec.	15	0	2	1	1	1	0	2	2	1	1	1	1	1	1	0	0	2	0.4
Other	Other & unspiced	147	1	3	1	0	1	3	3	6	6	13	13	5	14	20	16	17	25	3.8
All	All Ages Total	3834	4	97	62	82	108	145	146	217	299	370	393	331	324	379	249	263	365	100
Not C44	All sites but C44	3705	4	97	61	78	107	140	144	214	295	363	388	321	314	361	237	249	332	97

Table 5.1.3 Cancer Incidence Cases among Saudi Males by Age Group (per 100,000), 2005

ICD10	SITE	Tot	UNK	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75+	Crude Rate	ASR World
C00	Lip	6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.7	0.0	1.9	0.0	1.7	0.1	0.1
C01-C02	Tongue	40	0.0	0.0	0.0	0.0	0.0	0.1	0.3	0.0	0.7	0.9	1.3	4.7	4.6	3.8	6.3	5.1	0.5	0.9	0.9
C03-C06	Mouth	32	0.0	0.0	0.0	0.0	0.0	0.3	0.6	0.6	0.6	0.3	1.8	2.7	2.3	4.7	3.8	5.1	0.4	0.7	0.7
C07-C08	Salivary Glands	15	0.0	0.0	0.1	0.1	0.3	0.3	0.2	0.0	0.2	0.3	0.0	0.7	0.0	0.0	0.0	1.3	2.5	0.2	0.2
C9	Tonsil	3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.1
C10	Other oropharynx	2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
C11	Nasopharynx	114	0.0	0.0	0.3	0.2	0.6	0.4	0.9	2.8	2.4	5.3	5.3	6.0	7.7	8.5	13.9	3.4	1.3	2.2	2.2
C12-C13	Hypopharynx	11	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.4	2.0	0.0	0.9	1.3	3.4	0.1	0.2
C14	Pharynx unspec.	4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.4	0.0	0.8	0.0	1.3	0.0	0.0	0.1
C15	Oesophagus	53	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.2	0.6	1.8	5.3	6.9	3.8	8.8	13.5	0.6	1.2	1.2
C16	Stomach	156	0.0	0.0	0.0	0.0	0.4	0.1	0.3	1.2	0.7	0.9	3.5	8.7	13.9	18.9	37.9	41.3	1.8	3.5	3.5
C17	Small intestine	22	0.0	0.0	0.0	0.0	0.1	0.0	0.2	0.2	0.0	0.0	0.9	1.3	1.5	2.8	3.8	5.9	0.3	0.5	0.5
C18	Colon	250	0.0	0.0	0.0	0.0	0.1	0.0	0.9	3.2	4.7	7.2	8.8	17.4	28.5	26.5	35.4	38.0	2.9	5.5	5.5
C19-C20	Rectum	189	0.0	0.0	0.0	0.0	0.0	0.1	1.2	2.4	1.9	5.9	10.5	14.7	13.9	30.3	29.0	19.4	2.2	4.2	4.2
C21	Anus	17	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.3	0.9	2.0	0.8	0.0	5.1	3.4	0.2	0.4	0.4
C22	Liver	211	0.0	0.0	0.1	0.1	0.0	0.3	0.2	0.4	0.9	2.2	7.5	17.4	23.1	31.2	34.1	50.6	2.5	4.9	4.9
C23-C24	Gall bladder etc.	36	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.7	0.3	2.2	3.3	6.2	3.8	2.5	5.9	0.4	0.8	0.8
C25	Pancreas	82	0.0	0.0	0.1	0.0	0.0	0.0	0.2	0.4	0.9	2.5	0.9	10.0	6.2	11.3	15.2	14.3	1.0	1.9	1.9
C30-C31	Nose, sinuses, etc.	13	0.0	0.0	0.2	0.0	0.0	0.0	0.2	0.0	0.5	0.0	0.9	0.0	0.8	0.0	1.3	3.4	0.2	0.2	0.2
C32	Larynx	48	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.2	0.3	2.2	4.0	6.2	10.4	11.4	5.1	0.6	1.2
C33-C34	Trachea, Bronchus, Lung	261	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.5	2.0	3.3	5.3	9.2	12.0	32.4	42.5	58.1	37.1	3.1	6.1
C37-C38	Other Thoracic Organs	17	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.2	0.2	0.6	1.3	0.7	0.0	0.9	1.3	2.5	0.0	0.3	0.3
C40-C41	Bone	51	0.0	0.1	0.3	1.1	1.5	0.5	0.1	0.7	0.2	0.2	0.6	1.3	0.7	0.0	0.9	1.3	0.0	0.6	0.6
C43	Melanoma of Skin	11	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	1.9	1.3	4.2	0.1	0.2
C44	Other Skin	152	0.0	0.0	0.2	0.3	0.2	0.4	0.3	0.7	1.0	0.5	1.2	1.8	8.7	13.1	17.0	39.2	35.4	1.8	3.3
C45	Mesothelioma	8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	2.0	0.8	0.0	2.5	0.0	0.1	0.2
C46	Kaposi sarcoma	26	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.2	0.7	0.9	0.4	0.0	3.1	2.8	2.5	5.9	0.3	0.5	0.5
C47; C49	Connective, Soft Tissue	70	0.0	0.5	0.6	0.4	0.3	1.2	0.7	0.9	1.4	0.9	0.6	0.4	2.0	2.3	1.9	2.5	5.9	0.8	1.0
C50	Breast	16	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.6	0.0	0.0	1.2	0.9	1.3	0.8	0.0	1.3	1.7	0.2	0.3
C60	Penis	6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	2.5	0.1	0.1
C61	Prostate	261	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.2	0.6	1.8	11.4	23.1	49.2	84.6	73.4	3.1	6.2	6.2
C62	Testis	45	0.0	0.1	0.0	0.0	0.4	1.0	2.2	1.0	0.0	1.2	1.2	0.0	0.0	0.0	0.0	0.8	0.5	0.5	0.5
C63	Other male genital	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0
C64	Kidney	92	0.0	1.0	0.1	0.1	0.0	0.1	0.0	0.7	0.6	1.4	4.7	2.2	8.0	8.5	5.7	12.6	5.1	1.1	1.9
C65	Renal pelvis	3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.3	0.0	0.0	0.0	0.0	0.8	0.0	0.0	0.0
C66	Ureter	3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	0.0	0.0	0.8	0.0	0.1
C67	Bladder	155	0.0	0.1	0.0	0.0	0.0	0.1	0.3	0.8	1.7	5.3	5.3	9.4	12.3	13.2	22.7	41.3	1.8	3.3	3.3
C68	Other urinary organs	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
C69	Eye	15	0.0	0.5	0.1	0.0	0.0	0.0	0.2	0.2	0.0	0.0	0.0	0.0	0.7	1.5	0.0	3.4	0.2	0.2	0.2
C70-C72	Brain, Nervous System	124	0.0	1.8	0.9	1.0	0.4	1.0	0.7	0.5	1.8	1.9	2.2	2.2	5.3	6.9	6.6	10.1	1.7	1.5	2.0
C73	Thyroid	93	0.0	0.1	0.1	0.2	0.3	0.9	0.5	2.2	2.2	1.9	2.5	3.5	5.3	5.4	3.8	5.1	3.4	1.1	1.6
C74	Adrenal gland	10	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.1	0.1
C75	Other Endocrine	6	0.0	0.0	0.1	0.2	0.0	0.0	0.1	0.2	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.0	0.0	0.1	0.1
C81	Hodgkin Disease	160	0.0	0.5	1.3	1.6	3.1	3.0	2.2	1.5	0.6	2.1	1.6	3.1	2.0	3.1	1.9	5.1	5.9	1.9	2.0
C82-C85; C96	Non Hodgkin Lymphoma	346	0.0	1.0	0.9	1.3	1.1	2.3	2.2	2.7	3.4	5.7	6.5	13.2	18.7	20.8	26.5	39.2	37.1	4.1	6.4
C88	Immunoproliferative dis.	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
C90	Multiple Myeloma	55	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.5	0.0	0.2	1.6	1.3	4.7	6.9	2.8	13.9	9.3	0.6	1.2
C91	Lymphoid leukemia	149	0.0	3.7	2.6	1.0	2.7	1.3	0.7	0.2	0.6	0.7	1.2	1.8	2.7	0.0	1.9	2.5	3.4	1.8	1.7
C92-C94	Myeloid leukemia	96	0.0	1.2	0.3	0.4	0.8	1.3	0.3	1.5	0.6	1.7	3.4	1.8	2.7	3.9	0.9	6.3	5.1	1.1	1.4
C95	leukemia unspec.	14	0.0	0.3	0.1	0.1	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	0.9	0.0	1.7	0.2	0.2
Other	Other & unspeci e d	179	0.0	0.5	0.0	0.0	0.0	0.0	0.3	0.7	1.2	2.8	3.1	3.5	8.7	12.3	27.4	27.8	43.9	2.1	3.8
All	All Ages Total	3729	0.0	12.3	8.2	8.4	11.6	14.7	13.5	19.9	29.0	42.0	72.5	105.2	210.6	286.0	367.5	553.6	555.1	439	74.1
Not C44	All sites but C44	3577	0.0	12.3	8.0	8.1	11.4	14.3	13.2	19.2	28.0	41.5	71.3	103.4	201.9	272.9	350.5	514.4	519.7	42.1	70.8

Table 5.1.4 Cancer Incidence Cases among Saudi Females by Age Group (per 100,000), 2005

ICD10	SITE	Tot	UNK	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75+	Crude Rate	ASR World
C00	Lip	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	0.1
C01-C02	Tongue	21	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.5	0.2	0.3	0.7	1.5	2.5	1.5	2.9	0.0	1.0	0.2	0.5
C03-C06	Mouth	44	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.7	0.0	1.0	2.5	2.9	1.9	2.9	5.8	2.3	7.3	0.5	1.0
C07-C08	Salivary Glands	13	0.0	0.0	0.3	0.0	0.0	0.0	0.1	0.2	0.2	0.5	0.4	1.5	0.0	0.0	0.0	0.0	1.0	0.2	0.2
C9	Tonsil	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
C10	Other oropharynx	2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	1.0	0.0	0.0	0.0	0.1
C11	Nasopharynx	32	0.0	0.0	0.0	0.0	0.2	0.0	0.1	0.5	1.0	1.0	1.4	1.0	4.3	1.5	3.9	1.1	2.1	0.4	0.6
C12-C13	Hypopharynx	17	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.0	4.5	1.0	2.3	1.0	0.2	0.4	0.4
C14	Pharynx unsp. e.	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
C15	Oesophagus	66	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.6	0.3	1.4	1.0	2.5	8.0	8.7	6.9	26.1	0.8	1.5
C16	Stomach	68	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.4	0.3	1.8	2.9	3.8	9.4	2.9	18.4	12.5	0.8	1.6
C17	Small intestine	12	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.5	0.0	1.5	1.0	2.3	3.1	0.1	0.3
C18	Colon	197	0.0	0.1	0.0	0.0	0.0	0.6	0.7	1.4	2.5	4.7	9.5	14.2	10.2	19.6	10.6	12.6	27.2	2.3	4.2
C19-C20	Rectum	142	0.0	0.0	0.0	0.0	0.1	0.0	0.7	0.8	3.1	1.8	6.0	7.8	12.1	10.2	9.6	14.9	19.9	1.7	3.0
C21	Anus	9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.3	0.4	0.5	0.0	1.5	0.0	1.1	1.0	0.1	0.2
C22	Liver	81	0.0	0.2	0.2	0.1	0.3	0.0	0.0	0.3	0.2	1.0	0.7	1.5	5.1	11.6	7.7	13.8	17.8	1.0	1.8
C23-C24	Gall bladder etc.	63	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	1.6	2.5	2.4	5.1	10.2	6.8	5.7	9.4	0.7	1.5
C25	Pancreas	49	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.8	0.7	2.4	3.2	5.8	2.9	16.1	8.4	0.6	1.2
C30-C31	Nose, sinuses, etc.	10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.3	0.7	1.0	0.6	0.0	1.0	2.3	0.0	0.1	0.2
C32	Larynx	6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	1.3	0.7	0.0	0.0	2.1	0.1	0.1
C33-C34	Trachea, Bronchus, Lung	86	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.3	0.6	2.6	3.9	3.9	4.5	9.4	2.9	12.6	16.7	1.0	1.9
C37-C38	Other Thoracic Organs	12	0.0	0.2	0.0	0.0	0.0	0.1	0.0	0.2	0.2	0.0	0.4	0.5	0.0	2.2	0.0	1.1	1.0	0.1	0.2
C40-C41	Bone	36	0.0	0.1	0.4	0.5	1.0	0.6	0.6	0.0	0.0	0.0	0.4	0.0	0.6	0.0	0.0	1.1	2.1	0.4	0.4
C43	Melanoma of Skin	10	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.5	0.4	0.0	0.0	0.7	0.0	2.3	2.1	0.1	0.2
C44	Other Skin	129	0.0	0.0	0.1	0.3	0.1	0.6	0.3	0.5	0.8	1.8	1.8	4.9	6.4	13.1	11.6	16.1	34.5	1.5	2.8
C45	Mesothelioma	6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	1.0	0.6	0.0	1.0	0.0	1.0	0.1	0.1
C46	Kaposi sarcoma	7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.5	0.6	1.5	0.0	1.1	1.0	0.1	0.2
C47; C49	Connective, Soft Tissue	49	0.0	0.4	0.3	0.5	0.8	0.4	0.4	0.0	0.6	1.3	0.7	0.0	3.8	0.0	1.0	1.1	4.2	0.6	0.7
C50	Breast	932	2.0	0.0	0.0	0.0	0.0	1.2	3.6	11.5	27.8	41.1	53.1	50.9	54.8	46.5	44.4	43.7	39.7	11.0	18.0
C51	Vulva	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.0
C52	Vagina	7	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.5	0.6	2.2	0.0	0.0	0.0	0.1	0.2
C53	Cervix Uteri	95	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.7	1.0	3.9	4.2	6.4	7.0	5.8	5.8	10.3	10.4	1.1	2.0
C54	Corpus Uteri	143	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.5	0.4	3.7	3.9	8.8	15.9	18.9	12.5	19.5	12.5	1.7	3.4
C55	Uterus Unspec.	14	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.3	0.7	0.5	0.6	2.2	2.9	0.0	2.1	0.2	0.3
C56	Ovary	136	0.0	0.0	0.4	0.3	0.7	0.2	1.1	0.8	0.8	2.4	3.2	8.3	8.3	11.6	11.6	13.8	14.6	1.6	2.8
C57	Other Female Genital	6	0.0	0.0	0.0	0.1	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.5	0.0	1.5	0.0	0.0	0.0	0.1	0.1
C58	Placenta	10	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.2	0.5	0.4	0.5	0.0	0.0	0.0	0.0	0.0	0.1	0.1
C64	Kidney	60	0.0	0.7	0.3	0.1	0.1	0.1	0.1	0.3	0.6	1.0	2.1	2.9	2.5	5.8	2.9	5.7	4.2	0.7	1.2
C65	Renal pelvis	4	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.7	0.0	0.0	1.0	0.0	0.1
C66	Ureter	4	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.0	2.3	0.0	0.0	0.1
C67	Bladder	35	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.2	0.2	1.0	1.1	0.5	2.5	1.5	4.8	4.6	8.4	0.4	0.8
C68	Other urinary organs	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0
C69	Eye	20	0.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.1	2.1	0.2	0.3
C70-C72	Brain, Nervous System	96	0.0	1.3	0.9	0.9	0.8	1.2	0.4	0.7	1.8	0.8	1.8	1.0	3.8	4.4	1.0	3.4	1.0	1.1	1.3
C73	Thyroid	380	0.0	0.0	0.1	0.3	1.6	5.0	7.8	8.0	10.0	9.7	13.7	9.8	10.8	15.3	14.5	6.9	11.5	4.5	6.0
C74	Adrenal gland	9	0.0	0.6	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.1	0.1
C75	Other Endocrine	5	0.0	0.2	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.1	0.1
C81	Hodgkin Disease	99	0.0	0.2	0.6	0.8	2.4	2.6	1.0	0.8	0.0	1.3	0.4	2.4	1.3	2.9	2.9	1.1	3.1	1.2	1.3
C82-C85; C96	Non Hodgkin lymphoma	250	0.0	0.4	0.4	0.8	0.8	1.7	1.7	2.5	1.4	4.7	6.3	8.8	11.5	21.1	30.9	21.8	26.1	3.0	5.0
C88	Immunoproliferative dis.	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
C90	Multiple Myeloma	24	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.0	0.3	0.7	1.0	3.2	1.5	1.0	2.3	6.3	0.3	0.5
C91	Lymphoid leukemia	75	0.0	2.0	1.2	1.5	0.2	0.4	0.0	0.2	0.4	0.5	0.0	0.5	0.0	2.2	1.9	2.3	3.1	0.9	0.9
C92-C94	Myeloid leukemia	92	1.0	0.6	0.2	0.3	1.4	0.6	0.3	1.9	1.6	1.6	3.5	1.5	3.2	3.6	3.9	6.9	0.0	1.4	1.4
C95	leukemia unsp. e.	15	0.0	0.2	0.1	0.1	0.0	0.2	0.3	0.2	0.0	0.3	0.4	0.5	0.6	0.0	0.0	0.0	2.1	0.2	0.2
Other	Other & unsp. e d	147	1.0	0.3	0.1	0.0	0.1	0.4	0.4	1.0	1.2	3.4	4.6	2.4	8.9	14.5	15.4	19.5	26.1	1.7	3.2
All	All Ages Total	3834	4.0	9.0	5.7	6.8	11.1	17.5	20.1	36.8	58.8	96.9	139.1	162.1	206.1	275.6	240.7	301.5	380.9	45.2	74.4
Not C44	All sites but C44	3705	4.0	9.0	5.6	6.5	11.0	16.9	19.8	36.3	58.0	95.1	137.3	157.2	199.7	262.5	229.1	285.4	346.4	43.7	71.6

Table 5.3.1 Age Distribution of Cancer Cases among non-Saudi Males, 2005

ICD (10)	SITE	Tot	UNK	0-4	5-9	10-	15-	20-	25-	30-	35-	40-	45-	50-	55-	60-	65-	70-	75+	%
C00	Lip	2	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0.2
C01-C02	Tongue	16	1	0	0	0	0	0	0	3	0	2	1	1	3	0	0	1	3	1.3
C03-C06	Mouth	14	0	0	0	0	0	0	0	1	1	3	2	3	2	0	2	0	0	1.1
C07-C08	Salivary Glands	6	0	0	0	0	0	0	0	0	0	0	2	0	1	2	1	0	0	0.5
C9	Tonsil	5	1	0	0	0	0	0	0	0	0	1	0	1	1	1	0	0	0	0.4
C10	Other oropharynx	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0.1
C11	Nasopharynx	33	0	0	0	0	2	1	1	4	5	4	4	5	6	0	0	1	0	2.6
C12-C13	Hypopharynx	2	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0.2
C14	Pharynx unsp.	3	0	0	0	0	1	0	0	0	0	0	0	0	1	1	0	0	0	0.2
C15	Oesophagus	19	0	0	0	0	0	0	0	1	1	2	2	2	1	3	2	2	4	1.5
C16	Stomach	65	0	0	0	0	0	0	0	2	6	6	8	8	11	7	10	3	4	5.1
C17	Small intestine	11	0	0	0	0	0	0	0	0	0	1	0	4	1	1	3	0	1	0.9
C18	Colon	96	1	0	0	0	1	0	4	9	9	7	10	11	12	15	8	5	4	7.6
C19-C20	Rectum	49	0	0	0	0	0	2	2	4	4	4	7	6	9	7	1	3	0	3.9
C21	Anus	4	0	0	0	0	0	1	1	1	0	0	0	0	0	1	0	0	0	0.3
C22	Liver	51	0	3	0	0	0	1	1	1	1	2	8	8	8	4	6	6	2	4.0
C23-C24	Gall bladder etc.	24	0	0	0	0	0	0	0	1	1	2	2	3	5	5	1	1	3	1.9
C25	Pancreas	15	0	0	0	0	0	0	0	1	0	2	2	1	1	3	3	0	2	1.2
C30-C31	Nose, sinuses, etc.	5	0	0	0	0	0	0	0	0	1	1	0	0	0	0	2	0	1	0.4
C32	Larynx	23	0	0	0	0	0	0	0	0	1	6	2	6	5	0	0	2	1	1.8
C33-C34	Trachea, Bronchus, Lung	77	0	0	0	0	0	1	0	0	5	10	13	8	14	6	8	5	7	6.1
C37-C38	Other Thoracic Organs	3	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0.2
C40-C41	Bone	16	0	0	1	4	1	2	0	1	0	2	2	1	0	2	0	0	0	1.3
C43	Melanoma of Skin	8	0	0	0	0	0	0	0	0	0	0	1	3	3	0	0	0	1	0.6
C44	Other Skin	85	0	0	0	0	0	0	0	6	4	9	15	13	17	8	7	3	3	6.7
C45	Mesothelioma	4	0	0	0	0	0	0	0	0	0	0	0	0	2	1	1	0	0	0.3
C46	Kaposi sarcoma	4	0	0	0	0	0	0	1	0	0	1	0	0	0	1	0	1	0	0.3
C47; C49	Connective, Soft Tissue	38	0	4	0	0	1	2	5	3	5	6	2	4	2	1	2	1	0	3.0
C50	Breast	7	0	0	0	0	0	1	1	1	1	1	0	1	2	1	0	0	0	0.6
C60	Penis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
C61	Prostate	59	1	0	0	0	0	0	0	0	0	2	1	8	11	7	6	11	12	4.7
C62	Testis	10	0	0	0	0	2	1	1	4	1	0	1	0	0	0	0	0	0	0.8
C63	Other male genital	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
C64	Kidney	28	0	1	1	1	2	0	1	0	4	3	4	0	4	4	1	2	0	2.2
C65	Renal pelvis	2	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0.2
C66	Ureter	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0.1
C67	Bladder	54	0	0	0	0	0	0	1	0	1	5	5	17	12	6	5	1	1	4.3
C68	Other urinary organs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
C69	Eye	4	1	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0.3
C70-C72	Brain, Nervous System	47	1	3	3	3	2	1	3	2	5	8	4	8	1	2	0	0	1	3.7
C73	Thyroid	32	0	0	0	0	0	1	5	1	5	3	9	3	2	1	2	0	0	2.5
C74	Adrenal gland	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1
C75	Other Endocrine	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
C81	Hodgkin Disease	34	0	1	2	1	2	4	3	4	2	1	3	5	4	1	1	0	0	2.7
C82-C85; C96	Non Hodgkin Lymphoma	120	1	4	4	2	3	6	6	10	12	14	9	20	11	6	5	4	3	9.5
C88	Immunoproliferative dis.	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0.2
C90	Multiple Myeloma	21	0	0	0	0	0	0	0	0	1	3	5	3	3	1	3	1	1	1.7
C91	Lymphoid leukemia	35	0	10	5	2	4	3	2	1	3	1	0	2	2	0	0	0	0	2.8
C92-C94	Myeloid leukemia	43	0	1	1	1	0	1	5	3	6	8	2	0	4	5	3	2	1	3.4
C95	leukemia unsp.	20	0	0	0	2	0	2	2	2	3	2	0	2	2	0	3	0	2	1.6
Other	Other & unsp. etc.	64	0	0	0	0	1	2	0	2	4	10	9	8	9	9	2	4	4	5.1
All	All Sites	1263	7	29	17	16	22	29	45	69	93	133	137	171	174	111	90	60	60	100
All but C44	All sites but C44	1178	7	29	17	16	22	29	45	63	89	124	122	158	157	103	83	57	57	93.27

Table 5.3.2 Age Distribution of Cancer Cases among non-Saudi Females, 2005

ICD10	SITE	Tot	UNK	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75+	%
C00	Lip	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
C01-C02	Tongue	6	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	2	0	0.5
C03-C06	Mouth	4	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1	0.4
C07-C08	Salivary Glands	4	1	0	0	0	0	0	0	1	1	0	0	0	0	1	0	0	0	0.4
C9	Tonsil	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
C10	Other oropharynx	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
C11	Nasopharynx	16	0	0	0	1	1	1	0	0	3	2	1	0	4	2	0	1	1	1.5
C12-C13	Hypopharynx	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
C14	Pharynx unspec.	3	0	0	0	0	0	0	1	0	0	1	0	0	0	1	0	0	0	0.3
C15	Oesophagus	16	0	0	0	0	0	0	0	0	2	0	3	3	1	1	2	1	3	1.5
C16	Stomach	15	0	0	0	0	0	0	0	0	2	2	2	3	2	1	1	2	0	1.4
C17	Small intestine	5	0	0	0	0	0	0	0	2	0	0	1	1	1	0	0	0	0	0.5
C18	Colon	32	0	0	0	0	0	0	1	2	3	1	6	2	4	3	3	3	4	2.9
C19-C20	Rectum	30	0	0	0	0	2	1	4	3	4	3	4	1	3	1	6	1	0	2.7
C21	Anus	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0.1
C22	Liver	22	0	0	1	1	0	0	1	2	0	2	2	2	1	3	4	2	1	2.0
C23-C24	Gall bladder etc.	9	0	0	0	0	0	0	0	1	1	0	0	2	0	3	0	1	1	0.8
C25	Pancreas	12	0	0	0	0	0	0	0	0	0	1	3	2	1	1	2	1	1	1.1
C30-C31	Nose, sinuses, etc.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
C32	Larynx	3	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0.3
C33-C34	Trachea, Bronchus, Lung	31	0	0	0	0	0	0	1	3	3	3	0	3	5	1	6	1	5	2.8
C37-C38	Other Thoracic Organs	2	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0.2
C40-C41	Bone	11	1	2	1	1	2	0	0	1	0	0	3	0	0	0	0	0	0	1.0
C43	Melanoma of Skin	3	0	0	0	0	0	0	0	1	0	1	0	1	0	1	0	0	0	0.3
C44	Other Skin	27	0	0	1	1	0	0	1	1	1	0	6	9	2	1	1	0	3	2.5
C45	Mesothelioma	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0.1
C46	Kaposi sarcoma	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
C47; C49	Connective, Soft Tissue	12	0	2	0	0	0	0	0	3	1	1	3	1	0	1	0	0	0	1.1
C50	Breast	403	0	0	0	0	4	12	48	67	75	75	75	38	26	20	15	10	13	36.6
C51	Vulva	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0.1
C52	Vagina	3	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0.3
C53	Cervix Uteri	52	0	0	0	0	0	1	4	15	4	15	4	7	4	5	1	4	3	4.7
C54	Corpus Uteri	36	0	0	0	0	0	0	4	3	3	3	6	6	5	2	2	3	1	3.3
C55	Uterus Unspec.	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0.1
C56	Ovary	43	0	0	0	0	3	2	3	3	3	11	7	2	6	2	1	0	0	3.9
C57	Other Female Genital	3	0	0	0	0	0	0	0	0	0	0	0	1	2	0	0	0	0	0.3
C58	Placenta	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
C64	Kidney	16	0	3	1	0	0	1	1	1	2	0	2	0	1	3	2	0	0	1.5
C65	Renal pelvis	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
C66	Ureter	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
C67	Bladder	11	0	0	0	0	0	0	0	1	0	1	4	1	2	0	2	0	0	1.0
C68	Other urinary organs	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
C69	Eye	5	0	2	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1	0.5
C70-C72	Brain, Nervous System	14	0	2	1	1	1	1	1	1	2	1	2	1	1	0	0	0	0	1.3
C73	Thyroid	59	0	0	0	2	4	6	11	10	7	7	7	6	1	2	1	0	0	5.4
C74	Adrenal gland	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2
C75	Other Endocrine	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0.1
C81	Hodgkin Disease	12	0	0	1	0	3	2	0	0	0	3	1	0	0	0	0	0	0	1.1
C82-C85; C96	Non-Hodgkin Lymphoma	54	0	1	2	0	5	4	3	3	5	1	6	5	7	3	6	1	2	4.9
C88	Immunoproliferative dis.	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
C90	Multiple Myeloma	5	0	0	0	0	0	0	0	1	0	1	0	0	0	1	1	1	0	0.5
C91	Lymphoid leukemia	34	0	16	9	1	1	1	1	0	1	1	1	0	1	1	0	0	0	3.1
C92-C94	Myleoid leukemia	27	0	2	2	0	1	4	4	3	2	2	1	3	1	2	0	0	0	2.5
C95	Leukemia unspec.	4	0	1	0	0	0	0	0	0	0	1	0	1	1	0	0	0	0	0.4
Other	Other & unspeci ed	50	0	0	0	0	0	0	3	2	7	7	6	5	8	4	2	5	1	4.5
All	All Ages Total	1101	2	33	19	7	22	24	44	106	139	139	164	103	90	66	61	41	41	100
Not C44	All sites but C44	1074	2	33	18	6	22	24	43	105	139	138	158	94	88	65	60	41	38	98

Table 5.3.3 Incidence Rates for Cancer Cases among non-Saudi Males by Age Group (per 100,000), 2005

ICD10	SITE	Tot	UNK	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75+	Crude Rate	ASR World
C00	Lip	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C01-C02	Tongue	16	1	0	0	0	0	0	0	0.4	0	0.4	0.3	0.5	3.4	0	5.7	29.1	10.6	0.4	1.3
C03-C06	Mouth	14	0	0	0	0	0	0	0	0.1	0.1	0.6	0.6	1.5	2.3	0	11.5	0	0	0.3	0.6
C07-C08	Salivary Glands	6	0	0	0	0	0	0	0	0	0	0	0.6	0	1.1	4.8	5.7	0	0	0.1	0.4
C9	Tonsil	5	1	0	0	0	0	0	0	0	0	0.2	0	0.5	1.1	2.4	0	0	0	0.1	0.2
C10	Other oropharynx	1	0	0	0	0	0	0	0	0	0	0	0.3	0	0	0	0	0	0	0	0
C11	Nasopharynx	33	0	0	0	1.3	0.3	0.2	0.5	0.7	0.7	0.7	1.1	2.5	6.8	0	0	9.7	0	0.7	0.9
C12-C13	Hypopharynx	2	0	0	0	0	0	0	0	0	0	0	0.3	0.5	0	0	0	0	0	0	0
C14	Pharynx unsp. spec.	3	0	0	0	0	0.6	0	0	0	0	0	0	0	1.1	2.4	0	0	0	0.1	0.2
C15	Oesophagus	19	0	0	0	0	0	0	0	0.1	0.1	0.4	0.6	0.5	1.1	7.2	11.5	19.4	42.6	0.4	2
C16	Stomach	65	0	0	0	0	0	0	0	0.3	0.8	1.1	2.3	4	12.4	16.9	57.3	29.1	42.6	1.5	4.8
C17	Small intestine	11	0	0	0	0	0	0	0	0	0	0	0.2	0	2	1.1	2.4	17.2	0	10.6	0.2
C18	Colon	96	1	0	0	0	0.6	0	0.6	1.2	1.3	1.3	2.8	5.4	13.5	36.2	45.8	48.6	42.6	2.1	6
C19-C20	Rectum	49	0	0	0	0	0	0.6	0.3	0.5	0.6	0.7	2	3	10.1	16.9	5.7	29.1	0	1.1	2.3
C21	Anus	4	0	0	0	0	0	0.3	0.2	0.1	0	0	0	0	0	2.4	0	0	0	0.1	0.1
C22	Liver	51	0	1.3	0	0	0	0.3	0.2	0.1	0.1	0.4	2.3	4	9	9.7	34.4	58.3	21.3	1.1	3.9
C23-C24	Gall bladder ect.	24	0	0	0	0	0	0	0	0	0.1	0.4	0.6	1.5	5.6	12.1	5.7	9.7	31.9	0.5	1.9
C25	Pancreas	15	0	0	0	0	0	0	0	0.1	0.1	0.4	0.6	0.5	1.1	7.2	17.2	0	21.3	0.3	1.4
C30-C31	Nose, sinuses, etc.	5	0	0	0	0	0	0	0	0	0	0.1	0.2	0	0	0	11.5	0	10.6	0.1	0.6
C32	Larynx	23	0	0	0	0	0	0	0	0	0.1	1.1	0.6	3	5.6	0	0	19.4	10.6	0.5	1.1
C33-C34	Trachea, Bronchus, Lung	77	0	0	0	0	0	0.3	0	0	0.7	1.9	3.7	4	15.8	14.5	45.8	48.6	74.5	1.7	5.6
C37-C38	Other Thoracic Organs	3	0	0	0	0	0	0	0	0	0	0	0.3	1	0	0	0	0	0	0.1	0.1
C40-C41	Bone	16	0	0	0.5	2.2	0.6	0.6	0	0.1	0	0.4	0.6	0.5	0	4.8	0	0	0	0.4	0.6
C43	Melanoma of Skin	8	0	0	0	0	0	0	0	0	0	0	0.3	1.5	3.4	0	0	0	10.6	0.2	0.4
C44	Other Skin	85	0	0	0	0	0	0	0	0.8	0.6	1.7	4.2	6.4	19.1	19.3	40.1	29.1	31.9	1.9	4.7
C45	Mesothelioma	4	0	0	0	0	0	0	0	0	0	0	0	0	2.3	2.4	5.7	0	0	0.1	0.4
C46	Kaposi sarcoma	4	0	0	0	0	0	0	0.2	0	0	0.2	0	0	0	2.4	0	9.7	0	0.1	0.3
C47; C49	Connective, Soft Tissue	38	0	1.7	0	0	0.6	0.6	0.8	0.4	0.7	1.1	0.6	2	2.3	2.4	11.5	9.7	0	0.9	1.4
C50	Breast	7	0	0	0	0	0	0	0	0.1	0.1	0.2	0	0.5	2.3	2.4	0	0	0	0.2	0.2
C60	Penis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C61	Prostate	59	1	0	0	0	0	0	0	0	0	0.4	0.3	4	12.4	16.9	34.4	106.9	127.7	1.3	7.3
C62	Testis	10	0	0	0	0	1.3	0.3	0.2	0.5	0.1	0	0.3	0	0	0	0	0	0	0.2	0.2
C63	Other male genital	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C64	Kidney	28	0	0.4	0.5	0.5	1.3	0	0.2	0	0.6	0.6	1.1	0	4.5	9.7	5.7	19.4	0	0.6	1.5
C65	Renal pelvis	2	0	0	0	0	0	0	0	0	0	0.2	0	0	0	0	5.7	0	0	0	0.2
C66	Ureter	1	0	0	0	0	0	0	0	0	0	0	0	0	1.1	0	0	0	0	0	0
C67	Bladder	54	0	0	0	0	0	0.2	0	0.2	0	0.1	0.9	1.4	8.4	13.5	14.5	28.7	9.7	10.6	1.2
C68	Other urinary organs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C69	Eye	4	1	0.4	0	0	0	0	0.2	0.1	0	0	0	0	0	0	0	0	0	0.1	0.1
C70-C72	Brain, Nervous System	47	1	1.3	1.4	1.6	1.3	0.3	0.5	0.3	0.7	1.5	1.1	4	1.1	4.8	0	0	10.6	1.1	1.5
C73	Thyroid	32	0	0	0	0	0	0.3	0.8	0.1	0.7	0.6	2.5	1.5	2.3	2.4	11.5	0	0	0.7	0.9
C74	Adrenal gland	1	0	0.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1
C75	Other Endocrine	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C81	Hodgkin Disease	34	0	0.4	0.9	0.5	1.3	1.3	0.5	0.5	0.3	0.2	0.8	2.5	4.5	2.4	5.7	0	0	0.8	1.1
C82-C85; C96	Non-Hodgkin Lymphoma	120	1	1.7	1.8	1.1	1.9	1.9	0.9	1.3	1.7	2.6	2.5	9.9	12.4	14.5	28.7	38.9	31.9	2.7	5.3
C88	Immunoproliferative dis.	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2.4	5.7	0	0	0	0.3
C90	Multiple Myeloma	21	0	0	0	0	0	0	0	0	0.1	0.6	1.4	1.5	3.4	2.4	17.2	9.7	10.6	0.5	1.4
C91	Lymphoid leukemia	35	0	4.3	2.3	1.1	2.5	1	0.3	0.1	0.4	0.2	0	1	2.3	0	0	0	0	0.8	1.4
C92-C94	Myeloid leukemia	43	0	0.4	0.5	0.5	0	0.3	0.8	0.4	0.8	1.5	0.3	2	5.6	7.2	11.5	9.7	10.6	1	1.8
C95	Leukemia unsp. spec.	20	0	0	0	1.1	0	0	0.3	0.3	0.4	0.4	0	1	2.3	0	17.2	0	21.3	0.4	1.3
Other	Other & unsp. spec	64	0	0	0	0	0.6	0.6	0	0.3	0.6	1.9	2.5	4	10.1	21.7	11.5	38.9	42.6	1.4	3.9
All	All Ages Total	1263	7.0	12.3	7.9	8.6	13.9	9.0	7.4	8.8	12.7	25.2	38.9	85.1	196.0	267.7	515.8	582.7	638.2	28.0	73.9
Not C44	All sites but C44	1178	7.0	12.3	7.9	8.6	13.9	9.0	7.4	8.0	12.1	23.5	34.7	78.7	176.9	248.4	475.7	553.6	606.3	26.1	69.2

Table 5.3.4 Incidence Rates for Cancer Cases among non-Saudi Females by Age Group (per 100,000), 2005

ICD10	SITE	Tot	UNK	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75+	Crude Rate	ASR World
C00	Lip	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C01-C02	Tongue	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24.4	30.0	0	0.3	1.7
C03-C06	Mouth	4	0	0	0	0	0	0	0	0	0.5	0.8	0	0	0	0	0	15.0	13.2	0.2	0.6
C07-C08	Salivary Glands	4	1	0	0	0	0	0	0	0.4	0.5	0	0	0	0	6.4	0	0	0.2	0.4	0
C9	Tonsil	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C10	Other oropharynx	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C11	Nasopharynx	16	0	0	0	0	0.7	0.6	0	0	1.5	1.6	1.3	0	17.7	12.8	0	15.0	13.2	0.8	2.2
C12-C13	Hypopharynx	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C14	Pharynx unsp. spec.	3	0	0	0	0	0	0	0.4	0	0	0	0	0	0	6.4	0	0	0.2	0.3	0
C15	Oesophagus	16	0	0	0	0	0	0	0	0	1.0	0	3.9	6.6	4.4	6.4	24.4	15.0	39.7	0.8	2.9
C16	Stomach	15	0	0	0	0	0	0	0	0	1.0	1.6	2.6	6.6	8.8	6.4	12.2	30.0	0	0.8	2.2
C17	Small intestine	5	0	0	0	0	0	0	0	0.7	0	0	1.3	2.2	4.4	0	0	0	0.3	0.4	0
C18	Colon	32	0	0	0	0	0	0	0.4	0.7	1.5	0.8	7.9	4.4	17.7	19.1	36.5	44.9	52.9	1.6	5.4
C19-C20	Rectum	30	0	0	0	0	1.3	0	0.4	1.4	1.5	3.1	5.3	2.2	13.2	6.4	73.1	15.0	0	1.5	4.2
C21	Anus	1	0	0	0	0	0	0	0	0	0.4	0	0	0	0	0	0	0	0	0	0
C22	Liver	22	0	0	0	0.5	0.6	0	0	0.4	0.7	0	2.6	4.4	4.4	19.1	48.7	30.0	13.2	1.1	3.9
C23-C24	Gall bladder ect.	9	0	0	0	0	0	0	0	0.4	0.5	0	0	4.4	0	19.1	0	15.0	13.2	0.5	1.6
C25	Pancreas	12	0	0	0	0	0	0	0	0	0	0.8	3.9	4.4	4.4	6.4	24.4	15.0	13.2	0.6	2.2
C30-C31	Nose, sinuses, etc.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C32	Larynx	3	0	0	0	0	0	0	0	0.4	0	0	0	0	0	0	0	0	0	0	0
C33-C34	Trachea, Bronchus, Lung	31	0	0	0	0	0	0	0.4	1.1	1.5	2.4	0	6.6	22.1	6.4	73.1	15.0	66.1	1.6	5.6
C37-C38	Other Thoracic Organs	2	0	0	0	0	0	0	0	0.4	0	0	0	0	0	0	0	0	0	0.1	0.1
C40-C41	Bone	11	1	0.9	0.5	0.6	1.3	0	0	0.4	0	0	0	0	0	0	0	0	0	0.6	0.6
C43	Melanoma of Skin	3	0	0	0	0	0	0	0	0	0.5	0	0	1.3	0	0	0	0	0	0.2	0.3
C44	Other Skin	27	0	0	0	0.5	0.6	0	0	0.4	0	0.8	7.9	19.8	8.8	6.4	12.2	0	39.7	1.4	3.4
C45	Mesothelioma	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
C46	Kaposi sarcoma	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C47; C49	Connective, Soft Tissue	12	0	0.9	0	0	0	0	0	1.1	0.5	0.8	3.9	2.2	0	6.4	0	0	0	0.6	0.8
C50	Breast	403	0	0	0	0	0	2.4	4.8	16.9	33.7	58.8	98.5	83.5	114.8	127.7	182.7	149.8	171.8	20.5	38.8
C51	Vulva	1	0	0	0	0	0.7	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.1
C52	Vagina	3	0	0	0	0	0	0.6	0	0	0	0	0	1.3	0	0	0	0	0	0.2	0.5
C53	Cervix Uteri	52	0	0	0	0	0	0	0.4	1.4	7.5	3.1	9.2	8.8	17.7	31.9	12.2	59.9	39.7	2.6	6.1
C54	Corpus Uteri	36	0	0	0	0	0	0	0.4	1.4	1.5	2.4	7.9	13.2	22.1	12.8	24.4	44.9	13.2	1.8	4.8
C55	Uterus Unspec.	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15.0	0	0.1	0.3
C56	Ovary	43	0	0	0	0	2.0	1.2	1.2	1.1	1.5	8.6	9.2	4.4	26.5	12.8	12.2	0	0	2.2	3.8
C57	Other Female Genital	3	0	0	0	0	0	0	0	0	0	0	0	1.3	4.4	0	0	0	0	0.2	0.3
C58	Placenta	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C64	Kidney	16	0	1.3	0.5	0	0	0	0	0.4	1.0	0	2.6	0	4.4	19.1	24.4	0	0	0.8	2.2
C65	Renal pelvis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C66	Ureter	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C67	Bladder	11	0	0	0	0	0	0	0	0.4	0	0.8	5.3	2.2	8.8	0	24.4	0	0	0.6	1.6
C68	Other urinary organs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C69	Eye	5	0	0.9	0	0	0	0	0	0.4	0	0	1.3	0	0	0	0	13.2	0	0.3	0.5
C70-C72	Brain, Nervous System	14	0	0.9	0.5	0.6	0.7	0.6	0.4	0.4	1.0	0.8	2.6	2.2	0	0	0	0	0	0.7	0.7
C73	Thyroid	59	0	0	0	1.1	1.3	2.4	2.4	3.9	5.0	5.5	9.2	13.2	4.4	12.8	12.2	0	0	3	3.7
C74	Adrenal gland	2	0	0.9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.1
C75	Other Endocrine	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C81	Hodgkin Disease	12	0	0	0	0.5	0	1.2	0.8	0	0	2.4	1.3	0	0	0	0	0	0	0.6	0.6
C82-C85; C96	Non-Hodgkin Lymphoma	54	0	0.4	1.0	0	3.4	2.4	1.2	1.1	2.5	0.8	7.9	11.0	30.9	19.1	73.1	15.0	26.4	2.7	7
C88	Immunoproliferative dis.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C90	Multiple Myeloma	5	0	0	0	0	0	0	0	0.4	0	0	0	0	0	6.4	12.2	15.0	0	0.3	1
C91	Lymphoid leukemia	34	0	7.1	4.3	0.6	0.7	0.6	0.4	0	0.5	0.8	1.3	0	4.4	6.4	0	0	0	1.7	2.1
C92-C94	Myeloid leukemia	27	0	0.9	1.0	0	0.7	2.4	1.6	1.1	1	1.6	1.3	6.6	4.4	12.8	0	0	0	1.4	1.9
C95	Leukemia unsp. spec.	4	0	0.4	0	0	0	0	0	0	0.5	0	0	1.3	2.2	0	0	0	0	0.2	0.3
Other	Other & unsp. spec.	50	0	0	0	0	0	0	1.2	0.7	3.5	5.5	7.9	11.0	35.3	25.5	24.4	74.9	13.2	2.5	6.6
All	All Ages Total	1101	2	14.6	9.3	4.1	14.8	14.4	17.6	38.1	69.7	109.4	215.2	226.5	397.2	421.4	743.4	614.4	541.9	56.5	122.3
Not C44	All sites but C44	1074	2	14.6	8.8	3.5	14.8	14.4	17.2	37.7	69.7	108.6	207.3	206.7	388.4	415.0	731.2	614.4	502.2	55.1	118.9

PART VI
APPENDICES

APPENDIX: A Reporting Health care Facilities

Asir Region

Abha General Hospital (Maternity)	Mahael General Hospital
Abha Private Hospital	Majaridah General Hospital
AFH Military South Hospital	Maternity Hospital (Wasat Al Khamis)
Ahad Rafidah General Hospital	Namas General Hospital
Ahli Hospital (Abha)	King Abdallah Bin Abdul Aziz Hospital (Bisha)
Asir Central Hospital (Abha)	Sabt Alaya Hospital
Asir Hospital NOS	Sarat Obeidah General Hospital
Dhahran Janoob Hospital	Saudi German Hospital (Abha)
Khamis Mushayt Civil Hospital	Tathleeth General Hospital
King Fahad Hosp, AFH (Khamis Mushayt)	Unknown Asir Hospital
King Fahad Hospital (Bisha)	
King Faisal Military Hospital	

Baha Region

King Fahd Hospital (Baha)	Baljurashi General Hospital
Unknown Baha Hospital	

Eastern Province

Abqaiq Health Center (ARAMCO)	King Fahad Specialist Hospital (DM)
Ahsa Hospital (Hofuf)	King Khalid General Hospital
Amal Hospital (DM)	King Khalid Military Complex
Anak General Hospital	Mana General Hospital (Khobar)
Arabian Oil Company (Khafji Joint Operations Hosp)	Mana General Hospital (DM)
ARAMCO Clinic	Mana General Hospital (Hofuf)
Armed Forces Hospital (Hafr Al batin)	Mana General Hospital (Jubail)
Astoon Hospital (Thomairy)	Maternity & Children's Hospital
Badr Rubaie Dispensary	Maternity & Children's Hospital (Hofuf)
Dammam Central Hospital	Mousa Hospital (Hofuf)
Dhahran Health Center (ARAMCO Hospital)	Mouwasat Dispensary(DM)
Dossary Hospital	Mouwasat Hospital (DM)
Dr Fakhry & Mouhawis Hospital	Noor Khan Hospital (Hafr Batin)
Eastern Province Hospital	Obeid Hospital (Hofuf)
Fanateer Hospital	Prince Saud Bin Jalawi Hospital
Faraby Dispensary	Qatif Central Hospital
General Security Hospital	Qatif General Hospital
Harbeesh Hospital (Hofuf)	Ras Tanura Center (ARAMCO Clinic)
Imam Abdul Rahman Bin Faisal NGH (DM)	Rowdha Dispensary
Jubail General Hospital	Saad Specialist Medical Center (Khobar)
Jufer Hospital (Hofuf)	Saddiq Hospital
Khafji General Hospital	Salama Hospital
King Abdul Aziz Airbase	Tadawy General Hospital
King Abdul Aziz Navy Base	Tapline Qaisuma Hospital
King Abdul Aziz Port Clinic	Unknown Eastern Province
King Abdul Aziz (NGH) Hofuf	Uyun Hospital (Ahsa)
King Fahad Hospital of the University (Khobar)	Yousif Hospital
King Fahad Hospital (Hofuf)	Zamil Hospital
King Fahad Military Medical Complex (AFH)	

Hail Region

Baqa Hospital	King Khaled General Hospital
Hail General Hospital	Maternity & Children's Hospital (Hail)
Hail Hospital NOS	Unknown Hail Hospital
Khaleej Female Clinic	

APPENDIX: A (continued...)

Jazan Region

Abu Arish General Hospital	King Fahd Central Hospital
Aridah Hospital	King Fahd Specialist Hospital
Fayfa General Hospital	Samtah General Hospital
Jazan General Hospital	Unknown Jazan Hospital
Jazan Hospital NOS	

Jouf Region

Dawamat Jandal Hospital	Qurayat Psychiatric Hospital
Jouf Hospital NOS	Skaka General Hospital
King Faisal Qurayyat Hospital	Tabarjal General Hospital
Prince Abd Rahman Sudairi Sakaka General Hospital	Unknown Jouf Hospital
Qurayat General Hospital	

Madinah Region

Alborg Lab	Mahd General Hospital
Aneis Al Khair Lab	Meeqat Hospital
Ansar Hospital	Mouwasat Hospital (Madinah)
Badr General Hospital (Yanboa)	Ohoud Hospital
Dar Hospital	Prince Abd Mohsen Ola General Hospital
Dr Hamed Al Ahmadi Hospital	Royal Commission Medical Center (Yanboa)
Ees General Hospital (Yanboa)	Salam Dispensary
Hanakyah General Hospital	Saudi German Hospital (MD)
Ijlal Hospital (Tariq Bin Laden Hosp)	Specialist Dental Center
Khaybar General Hospital	Tariq Bin Laden Hospital (Ijlal)
King Fahad Hospital	Unknown Madinah Hospital
King Fahad Hospital	Yanboa General Hospital
Madina Hospital, NOS	Zahra Private Hospital
Madina National Hospital	Zen Laboratory
Madinah Maternity & Children's Hospital	

Makkah Region

Abd Rahman Qari Center	Elaj Laboratory (JD)
Abuzinada Hospital	Eye Hospital (JD)
Adwani General Hospital (Taif)	Hada Military Hospital (AFH)
Ajiyad General Hospital (MK)	Hai Jamea Hospital
Alawi Tunki & Bros Hospital	Hamra Hospital
AlBorg Lab (JD)	Hayat Hospital (JD)
AlBorg Lab (MK)	Hera General Hospital (MK)
Amen Hospital (Taif)	Ibn Sina Hospital (MK)
Ansar Hospital (JD)	Jazerah Hospital (JD)
Bugshan General Hospital (JD)	Jdaani Hospital
Central Hospital	Jeddah General Hospital
Dr Abd Rahman Bakhsh Hospital (MK)	Khuramah Hospital
Dr Abd Rahman Bakhsh Hosp, Mina'a (JD) (Dar Shifa Hosp)	King Abdul Aziz Hospital & Onc CTR (JD)
Dr Abd Rahman Bakhsh Hosp, Sharafiah (JD)	King Abdul Aziz Hospital (Al Zaher) (MK)
Dr Erfan & Bagedo Hospital	King Abdul Aziz Specialist Hospital (Taif)
Dr Ghassan Pharaon Hospital	King Abdul Aziz University Hospital (JD)
Dr Khalid Idriss Hospital	King Fahad General Hospital
Dr Siddiqa Maternity Hospital	King Fahad, AFH (JD)
Dr Solaiman Fakeeh Hospital	King Fahd Air Base Hospital
King Faisal (Al Sheshah) Hospital (MK)	Rabegh General Hospital
King Faisal Hospital (Taif)	Rafie Hospital (MK)
King Faisal Specialist Hospital & Research Center (JD)	Ranyah Hospital

APPENDIX: A (continued...)

Makkah Region continued

Maghraby Eye Hospital (J)	Royal Commission Medical Center (Yanboa)
Makkah Hospital NOS	Salamah Hospital
Maternity & Children's	Saudi German Hospital (J)
Maternity & Children's Hospital (J)	Saudi Hospital
Maternity & Children's Hospital (Taif)	Saudi Medical Services (J)
Muhammad Saleh Bashrahil Hospital (MK)	Saudia Airlines Medical Services
Mustaqbal Hospital (Dhagastani)	Shaty Hospital
Nahda National Hospital (Taif)	Shefaa Medical Center
New Jeddah Clinic	Sheffaa Hospital
New Jeddah Hospital	Taif Chest Hospital
Noor Specialist Hospital (MK)	Taif Children's Hospital (Taif)
Nourah Oncology Center (King AbdulAziz Med. City) (NGHA)	Thagher Hospital
Pioneers Laboratory	Umm Qura Poly Clinic
Quen Hospital	United Doctors Hospital (Shaty Hosp)
Qunfudah General Hospital	Unknown Makkah Hospital

Najran Region

King Khaled Hospital (Najran)	Sharourah Armed Forces Hospital (AFH)
Najran Armed Forces Hospital	Sharourah General Hospital
Najran General Hospital	Unknown Najran Hospital
Najran Hospital NOS	

Northern Region

Arar Central Hospital	Turayf General Hospital
Rafha General Hospital	

Qassim Region

Bukairiya General Hospital	Midhnab General Hospital
Buraidah Central Hospital	Rass General Hospital
King Fahd Specialist Hospital (Buraidah)	Unknown Qassim Region
King Saud University Hospital (Onaizah)	
Maternity & Children's Hospital (Buraidah)	

Riyadh Region

Abdullah Medical Clinic	Dr Abdl Rahman Mishari Hospital
Adama Hospital	Dr Fahd Sheduokhy Polyclinic
Advance Cell Laboratory	Dr Moagel's Polyclinic
AFH Military (RKH Program)	Dr Mofarreh Polyclinic
Afif General Hospital	Dr Suliman Habib MedicalCTR
Aflaj General Hospital	Elixir International Polyclinic
AlBorg Lab (RY)	Eman General Hospital
Anda Medical Laboratory	Faleh International Hospital (Al Ali General Hosp)
Armed Forces Wadi Dawasir (AFH)	Finger Print Laboratory
Bustan Clinic	Green Crescent Hospital
Chest Diseases Hospital (King Saud)	Gulf Radiology Center
College of Dentistry KSU	Hammadi Hospital
Consulting Clinic	Hariq General Hospital
Consulting Radiologist & Diag. Center	Hotta Bani Tammim Hospital
Dallah Hospital	How Medical Clinic
Dawadmi General Hospital	Howtat Sudair Hospital
Delta Medical Laboratories	Huraymila General Hospital
Derma Hospital	Ibn Sna Lab(RY)
Jafel International Hospital	Quwayiyah General Hospital
Jazeera Laboratories	Rathawiah Medical Specialized Center
Jazeera Medical Clinic	Rawabi Qurtuba Clinic

APPENDIX: A (continued...)

Riyadh Region Continued....

King Abdul Aziz Medical City (NGH) (RY)	Riyadh Medical Complex
King Abdul Aziz University Hospital (RY)	Saati Medical Center Clinic
King Fahad Medical City	Saudi German Hospital
King Faisal Specialist Hospital & Research Centre	Security Forces Hospital
King Khaled Eye Specialist Hospital	Shaqra General Hospital
King Khaled General Hospital	Shifa Health Center
King Khaled International Airport Hospital	Shifa Jazeera Polyclinic
King Khaled University Hospital	Specialized Medical Center
Mamlaka Hospital (Kingdom)	Sports Medicine Hospital
Maternity & Children's Hospital (RY)	Sughayer Clinic
Mobarak Hospital	Sulail Hospital
Mouwasat Hospital (Ry)	Sulemaniya Children's Hospital
Muzhamiyah General Hospital	Ta'awoun 1 Polyclinic
Nakaha Hospital (Convalescent) (RY)	Taif Medical Center (RY)
Nukhba Medical Center (Elite)	Thadeq General Hospital (RY)
Obeid Hospital (RY)	Unknown Riyadh Hospital
Olaya Medical Center	Wadi Dawasser Hospital
Osrah International Hospital	Watan Clinic
Prince Salman Bin Abdul Aziz Hospital	Watani Hospital (Ry National)
Riyadh Care Hospital (Social Insurance)	Yamamah Hospital
Riyadh Hospital NOS	Zulfi General Hospital

Tabuk Region

Dhuba General Hospital	Prince Fahad Bin Sultan Hospital (Tabuk)
Haql General Hospital	Tabuk Civil
King Fahad Hospital (Tabuk)	Tabuk Hospital NOS
King Khalid General Hospital	Umlujj General Hospital (Hawra)
King Khalid Military Hospital	Unknown Tabuk Hospital
Maternity & Children's Hospital (Tabuk)	Wajh General Hospital
North West Armed Force Hospital	

International Hospitals in the Following Countries

Austria	Niger
Bahrain	Nigeria
Bangladesh	Pakistan
Egypt	Philippines
Ethiopia	Qatar
France	Sudan
Germany	Syrian Arab Republic
India	United Arab Emirates
Indonesia	United Kingdom
Jordan	United States of America
Kuwait	Unknown International Hospital
Lebanon	Yemen

APPENDIX: B SCR Board Member Contact Information

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Admin. Director: Haya Al Eid, BDS, DFE, CTR
Registrar: Mohamed Hayder, CTR
Epidemiologist: Haya Al Eid, BDS, DFE, CTR
Data Manager: Suad O. Arteh, MA

Armed Forces Hospitals
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Director: Rizquallah Assiri, MD

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Eastern Region
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Directors: Shouki Bazarbashi, MD
Ali Al-Zahrani, MD, PhD

APPENDIX: B Continued....

<p>Madinah & Northern Region King Fahad Hospital Madinah Al Monawarah Tel: 04-486-1500 x 3760 Fax: 04-836-0951</p>	<p>Director:</p>	<p>Ahmed Tarawa, MD</p>
<p>National Guard Hospitals King Abdulaziz Medical City (KKNHG) PO Box 9515, Jeddah 21423 Tel: 02-624-0000 x 4085/4086 Fax: 02-624-0000 x 7242</p>	<p>Director:</p>	<p>Abdulwahab Andejani, MD</p>
<p>Security Forces Hospital PO Box 3643, Riyadh 11481 Tel: 01-477-4480 x 1193 Fax: 01-476-4757, 01-477-4480 x 3184</p>	<p>Director:</p>	<p>Abdulaziz Saleh Aba Hussein, MD</p>
<p>Southern Region King Khalid University PO Box 641, Abha Tel: 07-224-0711 / 224-7800 x 118 Fax: 07-224-0964 / 224-7570</p>	<p>Director:</p>	<p>Abdul Rahman Al Shehri, MD</p>
<p>Western Region King Abdulaziz Hosp. & Oncology Center PO Box 31467, Jeddah 21497 Tel: 02-637-5555 x 2283/2200 Fax: 02-637-9811</p>	<p>Director:</p>	<p>Hasnah Al Ghamdi, MD</p>
<p>Ministry of Health Kingdom of Saudi Arabia PO Box 335157, Riyadh 11314 Tel: 01-475-0426 x 201/202 Fax: 01-472-0428</p>	<p>Representative:</p>	<p>Mohammad Y. Saeedi, MD</p>
<p>Nasser Al Hamdan,</p>	<p>Dep. Chairman</p>	<p>1992 - 2006</p>
<p>Edward De Vol, PhD</p>	<p>Director</p>	<p>January 2001 - April 2006</p>
<p>Hadir Meir, MD</p>	<p>Director</p>	<p>January 2001 - August 2005</p>
<p>Hassan Trabulsi, MD</p>	<p>Director</p>	<p>November 2001 - June 2007</p>
<p>Susan E. Young, CCHRA®, CTR</p>	<p>Administrative Director</p>	<p>March 2003 - May 2006</p>

APPENDIX C : DATA REQUEST FORM

Saudi Cancer Registry
Ministry of Health
Kingdom of Saudi Arabia



السجل السعودي للأورام
وزارة الصحة
المملكة العربية السعودية

Request for data from the Saudi Cancer Registry

All requests should be submitted to the attention of the Chairman of Directors, Saudi Cancer Registry,
MCB 64, P.O. Box 3354, Riyadh 11211, Saudi Arabia, Fax: +966 1 442 3924

Name : _____
Department : _____
Hospital : _____
Telephone : _____

Date Submitted : _____

Information Requested:

(Specify Patient Population, Time Period, Year/s, Anatomic Site/Histology, Staging information, Region, etc.)

Purpose of Request:

(Specify Presentation at conference/meeting/publication, clinical/epidemiological study, personal information, etc.)

Collaborators and Co-authors:

Requesters affirmation statement:

I hereby, the requester of the above data affirm that the data given to me by the SCR will be treated with utmost confidentiality in relation to patient's identity. I also affirm that the data given to me will not be presented or published by me or any of my collaborators as an original work but rather can be cited in my presentations and/or publication with acknowledgment of the SCR.

Requesters Signature

Date

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For Official use only :

Request : Approved

Denied

Chairman SCR Board of Directors Signature

Date



SUTENT^{capsules}
sunitinib malate **EXTENDING POSSIBILITIES WITH OVER
2 YEARS MEDIAN OVERALL SURVIVAL.**

SUTENT^{capsules}
sunitinib malate **has demonstrated significant
advantages vs IFN- α *, making it the reference standard for
1st-line treatment of metastatic Renal Cell Carcinoma.¹⁻³**

- > **Nearly 5 times higher ORR** compared with IFN- α (39% vs 8%,
P<.000001)^{2,3}**
- > **SUTENT**^{capsules} **more than doubled median PFS*** vs IFN- α (11
months vs 5 months, P<.000001)¹**
- > **SUTENT**^{capsules} **demonstrates median overall survival longer than
2 years (26.4 months vs 21.8 months with IFN- α)³**

Sutent (sunitinib malate) is a medication used in the treatment of cancer. Indications: treatment of gastrointestinal stromal tumor (GIST) after failed treatment with imatinib mesylate due to resistance or intolerance, and treatment of advanced metastatic renal-cell carcinoma (mRCC). Contraindications: patients hypersensitive to sunitinib malate or to any other component of the formula. Warnings: skin discoloration (yellow), possibly due to the color of the active substance, is a common adverse effect related to the treatment, and occurs in approximately 30% of patients. Tumoral hemorrhage related to the treatment occurred in approximately 2% of patients with GIST, and 20% of the patients receiving sunitinib for mRCC who had not received previous treatment had bleeding events. Serious, sometimes fatal gastrointestinal complications, including gastrointestinal perforation, rarely occurred in patients with intra-abdominal malignancies treated with sunitinib. A decrease in the absolute neutrophil count in Grades 3 and 4 was reported in 13.1% and 0.9% of patients, respectively. There were caecum in the left ventricular ejection fraction > 20% and below the lower limit of normal in approximately 2% of patients with GIST treated with SUTENT and in 4% of patients with renal-cell carcinoma. SUTENT has prolonged the QTc interval (Fridericia's correction) when their concentrations were double the therapeutic concentration. Such prolongation may lead to an increased risk of ventricular arrhythmias, including Torsade de Pointes. Pulmonary embolism related to the treatment was reported in 1.4% of the patients who received SUTENT. Treatment-related hypothyroidism was reported in 18% of patients with soft-tissue sarcoma and 24% of patients receiving sunitinib for the treatment of mRCC. Hypothyroidism arising from the treatment was observed in 4% of patients with GIST treated with sunitinib and 2% of patients who participated in the mRCC study. Patients are recommended to have thyroid function laboratory evaluation prior to treatment, and patients with hypothyroidism should be treated as per standard medical practice before the start of treatment with sunitinib. All patients should be observed closely for signs and symptoms of hypothyroidism during treatment with sunitinib. Patients with a goiter suggesting hypothyroidism should have laboratory monitoring of thyroid function performed and be treated as per standard medical practice. Increases in serum lipase and amylase were observed in patients receiving SUTENT in clinical trials with sunitinib. Increases were observed in individuals with radiologic evidence of cerebral metastasis (see complete product information). Attention: SUTENT contains sugar; therefore, it should be administered with caution to diabetic patients. Use During Pregnancy: No studies of sunitinib were conducted in pregnant women. SUTENT is a medication in pregnancy risk category D. Therefore, this medication should not be used by pregnant women without medical supervision. Use during lactation: women should not breastfeed while being treated with SUTENT. Effects on the Ability to Drive and Operate Machinery: No studies have been conducted to evaluate the ability to drive or operate machinery. Patients should be cautioned that they may experience dizziness during treatment with SUTENT. Drug Interactions: Medications that may increase SUTENT plasma concentrations (cyclosporin, tacrolimus, sirolimus, bosentan, erythromycin, clarithromycin, propofol, zidovudine). Medications that may decrease SUTENT plasma concentrations (rifampin, efavirenz, zalcitabine, phenytoin, carbamazepine, phenobarbital or St. John's Wort). Adverse Reactions: The most important serious adverse reactions related to the treatment of patients receiving SUTENT were: fatal neutropenia and thrombocytopenia. Very Common Reactions: anemia, altered taste, headache, hypertension, diarrhea, nausea, constipation, vomiting, dyspnea, abdominal pain, pain in extremities, fatigue, dizziness, blurred vision, dry mouth, dry skin, erythema, pain in extremities, taste, nosebleeds (see other reactions in the complete product information). The following adverse reactions were observed during the use of SUTENT in the post-commercialization period: serious cases of infection (with or without neutropenia), some with fatal outcome; rare cases of myopia and/or rhabdomyolysis; some with acute renal failure (most of these patients had pre-existing risk factors and/or were receiving concomitant medications known to be associated with these adverse reactions). Dose and Administration: the recommended dose of SUTENT is one 50 mg oral dose taken once daily, on a schedule of 4 weeks on treatment followed by 2 weeks off (schedule 4/2), for a complete cycle of 6 weeks (see complete product information). Overdose: No specific antidote exists for the treatment of overdose with SUTENT, and such treatment should consist of general supportive measures. If needed, administration of unabsorbed drug should be attempted by emesis or gastric lavage. Storage: Store at room temperature, 12.5 mg, 25 mg or 50 mg capsules, in packaging containing 1 bottle with 28 capsules. FOR ADULT USE. ORAL USE. SOLD BY MEDICAL PRESCRIPTION ONLY. If symptoms persist, see your doctor. For more information, see complete product information (sunit142). Scientific documentation and additional information is available to physicians upon request.

References:

1. Motzer RJ, Hutson TE, Tomczak P, et al. Sunitinib versus interferon alpha in metastatic renal-cell carcinoma. *N Engl J Med.* 2007;358(2):115-124.
2. Motzer RA, Figlin A, Hutson TE, et al. Sunitinib versus interferon-alpha (IFN- α) as first-line treatment of metastatic renal-cell carcinoma (mRCC): updated results and analysis of prognostic factors. *J Clin Oncol.* 2007;25(18S):241s Abstract #5024. Available at: http://www.esco.org/ASCO/Abstracts+%26+Virtual+Meeting+Virtual+Meeting?&viewfrom_search_results_view&selectedC&ntfs=47&SearchFilter=Speaker&fromView=vm_meeting_tracks_view&SearchTerm=motzer
3. Figlin RA, Hutson TE, Tomczak P, et al. Overall survival with sunitinib versus interferon (IFN)- α as first-line treatment of metastatic renal-cell carcinoma (mRCC). *J Clin Oncol.* 2008;26(15S):256a. Abstract #5024. Results presented at ASCO 2008.

RCC: Renal Cell Carcinoma
* IFN- α : Interferon α
** ORR: Overall Response Rate
*** PFS: Progression Free Survival



Working together for a healthier world™

Further information is available on request:
Pfizer, Middle East Region (MTR),
147, Lake Street, Dock, Umm
Riq, Box 2207, P.O. Code 12311, Cairo, Egypt

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