

Kingdom of Saudi Arabia  
Ministry of Health  
Saudi Cancer Registry

**Cancer Incidence Report  
Saudi Arabia  
2006**

**Report prepared by:**  
Haya S. Al-Eid, BDS, DFE, CTR  
Marielen S. Manalo, Secretary

**Reviewed by:**  
Shouki Bazarbashi, MD  
Ali Al-Zahrani, MD, PhD

## Foreword

The Saudi Cancer registry (SCR) established in 1992 conducts nationwide cancer surveillance to guide cancer control programs planning. The registry began collecting information on all reportable cancers diagnosed as of January 01, 1994. The purpose of the SCR is to provide information to design, target, monitor, facilitate, and evaluate efforts; to determine the causes or sources of cancer among the Saudi population; and accordingly to reduce the burden of cancer. Data from SCR provide an overview of all reportable cancers diagnosed in reporting, provide a more complete picture of cancer among Saudis than can be obtained from Hospital based registers. This information is useful for cancer among Saudis than can be obtained Hospital based registers. This information is useful for cancer prevention programs, clinicians, policy makers, and for the public to understand the impact of cancer on the population. By combining information from SCR reports, and other Ministry of Health resources, there is an opportunity to answer a variety of epidemiological questions. This information will help cancer control programs identify at-risk population as well as support epidemiologic studies of risk factors and cancer etiology. Many such questions are covered in this report including the following:

- How many Saudis are diagnosed with cancer each year?
- Which cancers are the most common cancers?
- What are the trends in cancer incidence?
- Which groups of the population are disproportionately affected by cancer?
- What geographic areas in the country have higher cancer incidence?

SCR also collects information on stage at the time of diagnosis. This is an important indicator of the effectiveness of screening efforts, as well as a determinant of treatment options and a predictor of survival for many types of cancers.

Shouki Bazarbashi, MD  
Chairman

## Acknowledgment

The production of this report has been made possible by the active cooperation of staffs from hospitals, clinics, pathology laboratories, and others within the Kingdom of Saudi Arabia. The Registry is indebted to all those who have helped in identifying and collecting cases and whose support has been given over many years.

The statistics in this report have been derived from data collected from all sectors of patient care, both governmental and private. We hope the individuals and institutions will find the report useful.

We would also like to acknowledge the relentless support of his Excellency Dr. Hamad Al Manea, Minister of Health and Dr. Mansour Al Hawasi, Deputy Minister of Health for the ongoing operation of the Saudi Cancer Registry. We are in debt for the support given to us by the King Faisal Specialist Hospital and Research Centre administration represented by Dr. Qassim Al Qasabi, Chief Executive Director and Dr. Adnan Ezzat, Executive Director, Medical and Clinical Operation.

Special thanks to our registry staff who worked hard to make this publication possible, and to all previous staff involved in SCR operation for the report period.



# 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, 2004 and 2005 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 2006. 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 2006 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 2006, 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 2006:

- 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:** Copy of the cancer registration abstract form which is completed by cancer registrars for each cancer case

**Appendix D:** Arabic Summary of Cancer Statistics in Saudi Arabia for the year 2006

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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 2006 was 17,270,181\*\*. Of these, 8,663,597 were males and 8,606,584 were females. The Non-Saudi population in 2006 was 6,408,668\*\*, of these 4,427,243 were males and 1,981,425 females.

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

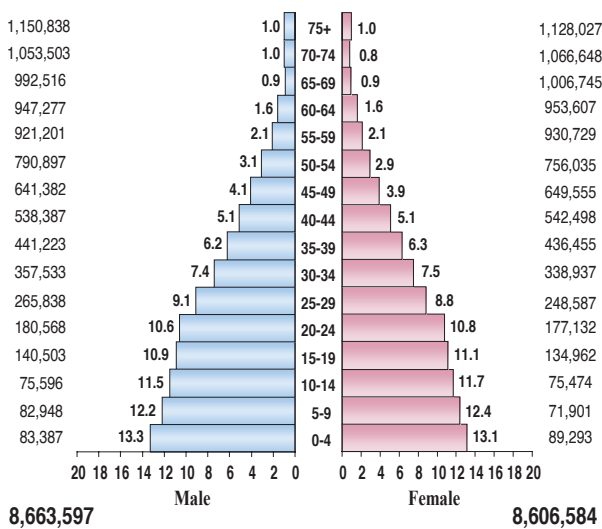


Figure I.2 Population Pyramid of Saudis (%) by Sex and Age Group, 2006

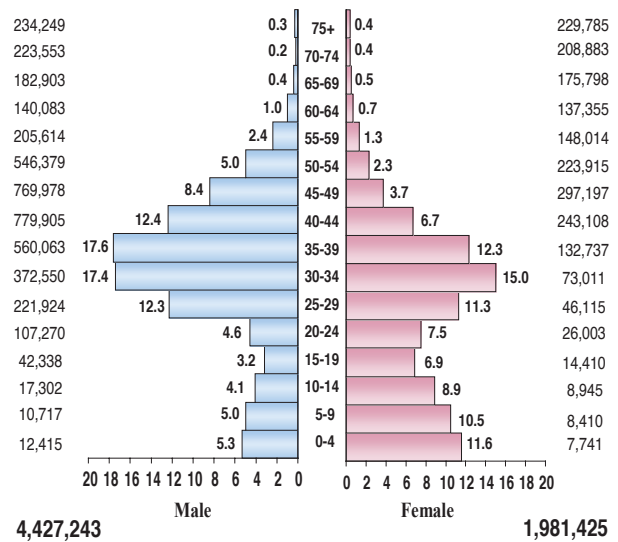


Figure I.3 Population Pyramid of non-Saudis (%) by Sex and Age Group, 2006

## 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: SCR Estimation based on 2007 demographic survey with a 2.13% growth rate for Saudis and 2.5% for non-Saudis

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:**

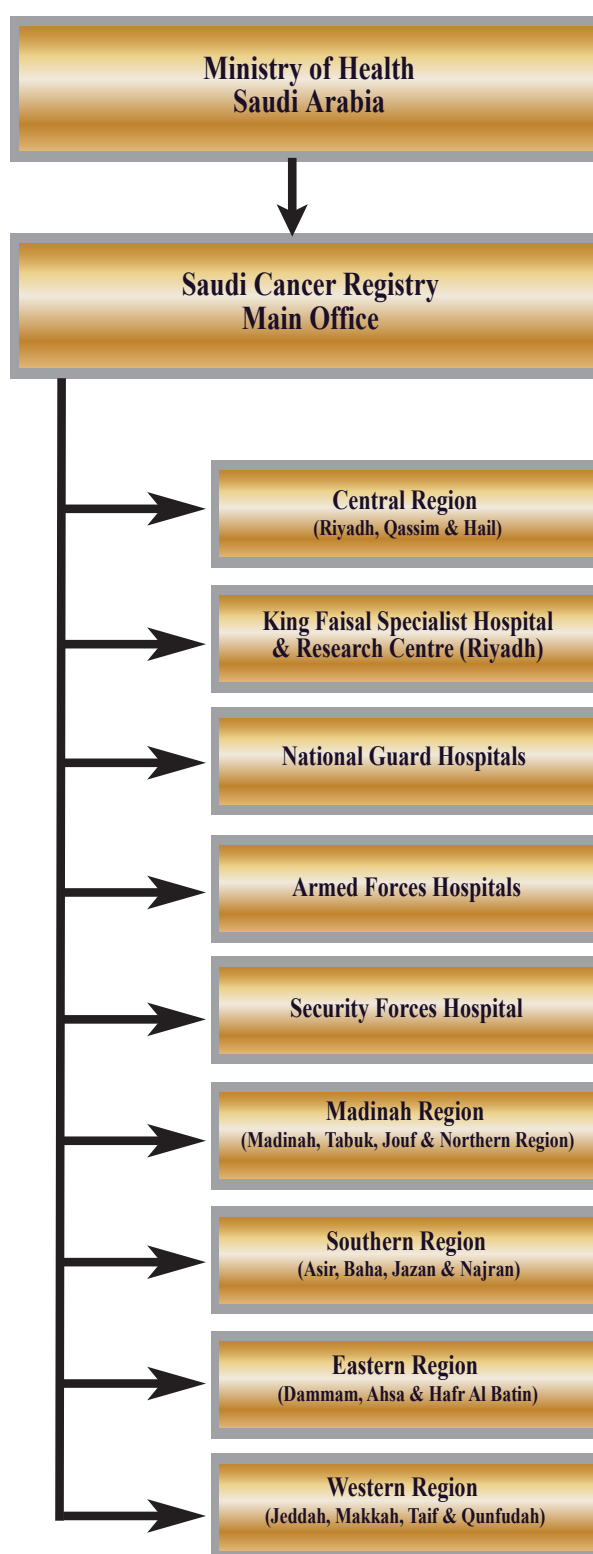
- 1 Central Region: King Fahad Medical City in Riyadh, covering Riyadh, Qassim, and Hail Health Regions.
- 2 Eastern Region: King Fahad Hospital of the University, Al Khobar, covering Dammam, Al Ahsa, and Hafr Al-Batin Health Regions.
- 3 Western Region: King Abdulaziz Hospital and Cancer Center, Jeddah, covering Jeddah, Makkah, Taif and Qunfudah Health Regions.
- 4 Southern Region: King Khalid University, Abha, covering Asir, Baha, Najran, Jazan and Bisha Health Regions.
- 5 Madinah/Northern Region: King Fahad 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, Abdulaziz Medical City, Princess Nourah Oncology Center, Jeddah
- 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 2006 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 4.33, 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 4.33*, 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 2006. For each cancer site, the number and the percentage of all newly diagnosed cases for the year 2006, 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 64.

The relevant data incorporate details for all patients presented over the year 2006. 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 4.33, 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. 2006 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 Statistical 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
<b>Total</b>	<b>100,000</b>

\* 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**  
**2006**

## Reported Cancer Incidence Cases in Saudi Arabia, 2006

Between January 01 and December 31, 2006, the total number of cancer incident cases reported to the SCR was 11,040. Overall and for the first time, cancer was slightly more among women than men. Cancers affected 5,476 (49.6%) males and 5,564 (50.4%) females, with a male to female ratio of 98:100. 8,253 cases were reported among Saudis, 2,395 among Non-Saudis. The total number of cases excluded from analysis included 392 cases of unknown nationalities. Other exclusions were 222 in situ cases. The current software program CanReg-4 version 4.33, does not include in situ cases in the statistical analysis. Also, 58 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 662 cases. Table 2.1 illustrates the distribution of the cases by sex.

Diagnosis of malignancy was confirmed histologically in 86% of the cases, and hematological & cytologically in 6.7 % of cases. Clinically confirmed cases were 0.2%; radiologically confirmed cases were 2.2 %; cases confirmed by Death Certificate Only were 3.2% and 1.8% of the cases were confirmed by other methods. The method of diagnosis was unknown for 1.6% of the cases.

As shown on table 2.1, 10,378 cases were analyzed, of which 8,054 (77.6%) were Saudis and 2,324 (22.4%) were Non-Saudis. Among the Saudis, 3,898 (48.4%) were male and 4,156 (51.6 %) were female. The male to female ratio was 94:100. The crude incidence rate (CIR) of all cancers among the Saudi population was 44.6/100,000 (45/100,000 among males and 48.3/100,000 among females). The overall age-standardized incidence rate (ASR) for all Saudis with a world standard population reference was 83.2/100,000 (83.6/100,000 in males and 82.7/100,000 in females). For all sites, the age-specific incidence rate (AIR) increased with age for both males and females. **After the age of 64 years, the increase was nearly one and one half folds for males compared to females.** The median age at diagnosis was 60 years for men and 50 years for women.

Behavior	Saudis			Non-Saudis			Unknown Nationality			All
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Total
<b>Total</b>	4003	4250	8253	1276	1119	2395	197	195	392	11040
<b>Invasive</b>	3923	4178	8101	1238	1093	2331	189	193	382	10814
<b>In-Situ</b>	77	72	149	37	26	63	8	2	10	222
<b>ICD 10 *</b>	25	22	47	4	3	7	3	1	4	58
<b>Analyzed **</b>	3898	4156	8054	1234	1090	2324	186	192	378	10378

Table 2.1 Distribution of Cancer Cases in Saudi Arabia by Nationality and Sex 2006

\* ICD-10 conversion failure

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

## Cancer among Saudis 2006

As explained earlier the total number of cancer cases analyzed among Saudis during the year 2006 were 8,054. Following are figures presenting the percentage distributions of cancer incidence and most frequent types of cancers among Saudis by sex.

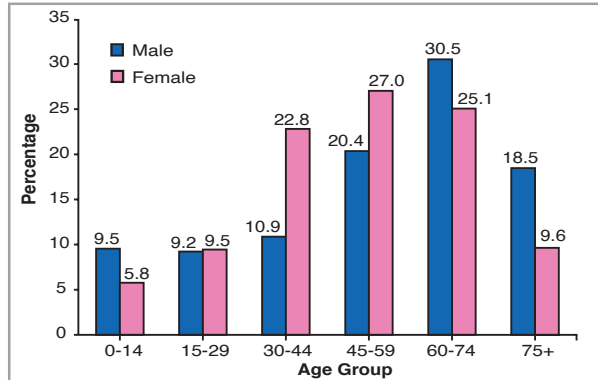


Figure 2.1 Percentage Distribution of Cancer Incidence among Saudis by Sex according to Age Group, 2006

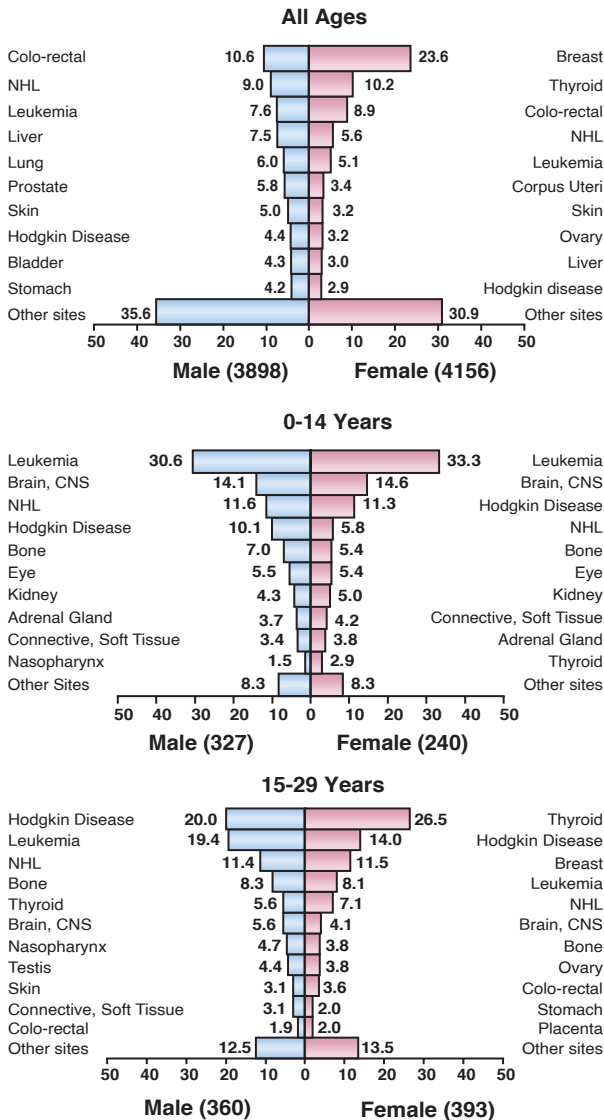


Figure 2.2 Percentage Distribution of Most Frequent Types of Cancer by Sex among Saudis, 2006

\* 4 male cases and 8 female of unknown age are included only in the total as they may not be added to any age group

Cancer	No.	%
Breast	999	12.4
Colo-rectal	784	9.7
NHL	585	7.3
Thyroid	541	6.7
Leukemia	508	6.3
Liver	416	5.2
Skin	327	4.1
Lung	312	3.9
Hodgkin Disease	293	3.6
Stomach	275	3.4

Table 2.2 Ten Most Common Cancers among Saudis, 2006 (All Ages)

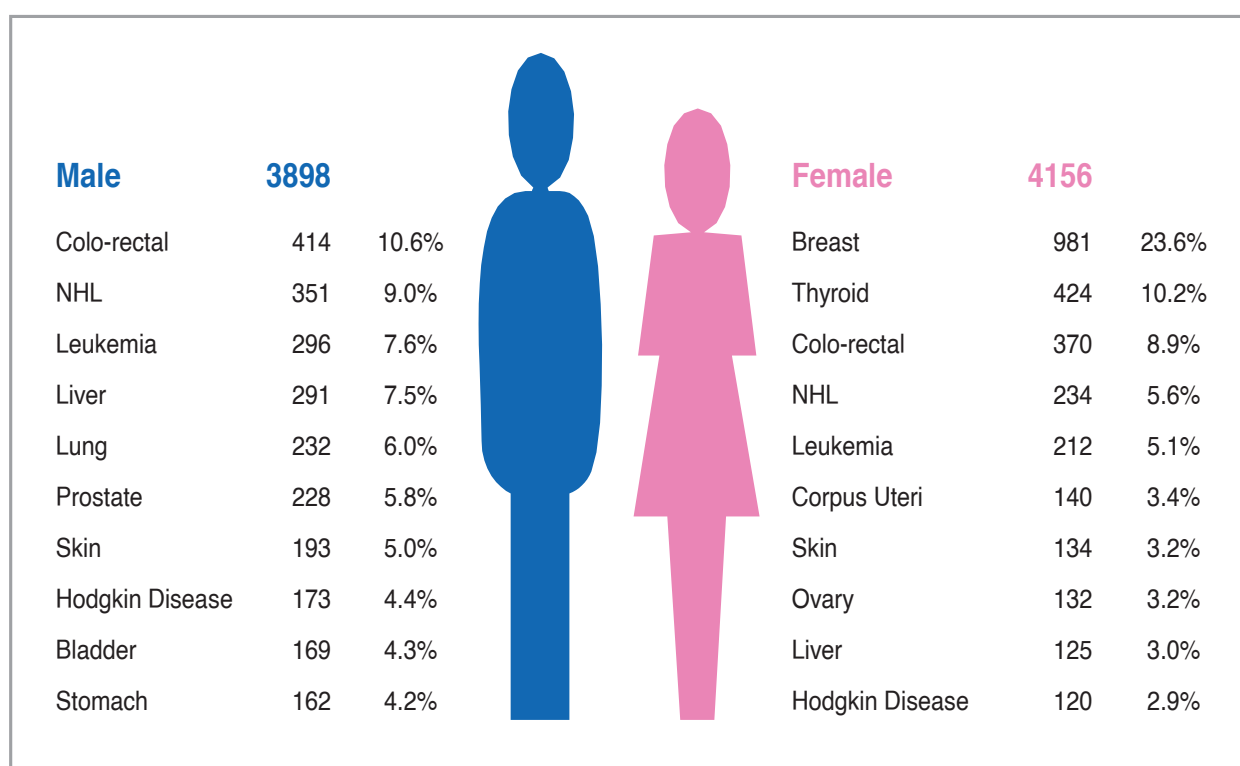


Figure 2.3 Ten Most Common Cancers among Saudis by Sex, 2006

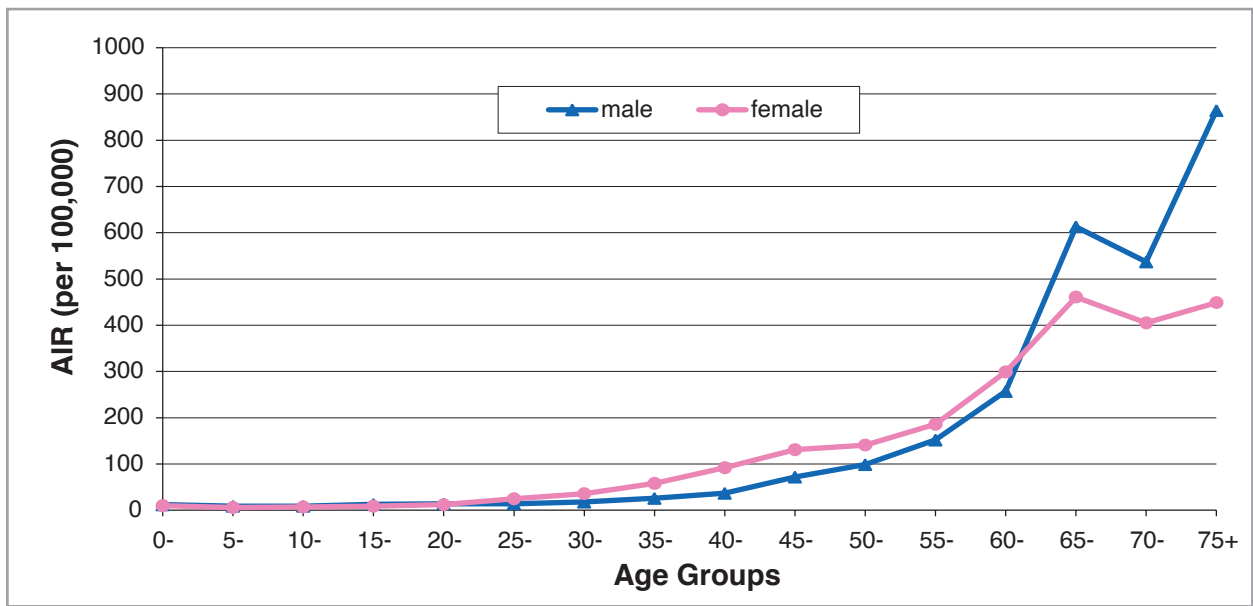


Figure 2.4 Age-Specific Incidence Rates (AIR) for All Cancers among Saudis, 2006

ICD-10	Site	No.	%	Male				Female					
				Crude	ASR	Cumulative Rate		Crude	ASR	Cumulative Rate			
				Rate	World	0-64	0-74	Rate	World	0-64	0-74		
All	All sites Total	3898	100.0%	45.0	83.6	36.6	94.1	4156	100.0%	48.3	82.7	50.6	93.9
Not C 44	All sites but C 44	3705	95.0%	42.8	79.0	35.0	89.4	4022	96.8%	46.8	79.8	49.5	91.0
C00	Lip	6	0.2%	0.1	0.1	0.0	0.1	4	0.1%	0	0.1	0.0	0.1
C01-C02	Tongue	37	0.9%	0.4	0.8	0.4	0.8	26	0.6%	0.3	0.6	0.4	0.8
C03-C06	Mouth	30	0.8%	0.3	0.8	0.2	0.9	34	0.8%	0.4	0.8	0.5	0.9
C07-C08	Salivary glands	14	0.4%	0.2	0.2	0.1	0.3	12	0.3%	0.1	0.2	0.1	0.2
C09	Tonsil	0	0.0%	0	0	0.0	0.0	2	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
C11	Nasopharynx	95	2.4%	1.1	1.7	1.0	1.8	43	1.0%	0.5	0.8	0.6	0.8
C12-C13	Hypopharynx	9	0.2%	0.1	0.2	0.1	0.2	11	0.3%	0.1	0.2	0.2	0.2
C14	Pharynx unspecified	3	0.1%	0	0.1	0.0	0.0	1	0.0%	0	0	0.0	0.1
C15	Oesophagus	55	1.4%	0.6	1.4	0.5	1.2	64	1.5%	0.7	1.6	0.6	2.1
C16	Stomach	162	4.2%	1.9	3.9	1.3	4.7	113	2.7%	1.3	2.7	1.1	3.5
C17	Small intestine	18	0.5%	0.2	0.4	0.2	0.5	14	0.3%	0.2	0.3	0.3	0.4
C18	Colon	232	6.0%	2.7	5.3	3.0	6.7	227	5.5%	2.6	5.3	3.4	6.7
C19-C20	Rectum	182	4.7%	2.1	4.4	2.3	5.2	143	3.4%	1.7	3.3	2.1	3.7
C21	Anus	8	0.2%	0.1	0.2	0.1	0.3	9	0.2%	0.1	0.2	0.2	0.3
C22	Liver	291	7.5%	3.4	7.5	2.6	8.9	125	3.0%	1.5	3.1	1.7	3.8
C23-C24	Gallbladder etc.	46	1.2%	0.5	1.2	0.4	1.4	70	1.7%	0.8	1.7	0.9	2.0
C25	Pancreas	93	2.4%	1.1	2.4	1.0	3.5	73	1.8%	0.8	1.8	0.8	2.5
C30-C31	Nose, sinuses etc.	10	0.3%	0.1	0.2	0.0	0.0	10	0.2%	0.1	0.2	0.0	0.2
C32	Larynx	62	1.6%	0.7	1.6	0.8	1.9	9	0.2%	0.1	0.2	0.1	0.2
C33-C34	Trachea, Bronchus, Lung	232	6.0%	2.7	6.1	2.3	8.1	80	1.9%	0.9	2	1.0	2.5
C37-C38	Other Thoracic organs	14	0.4%	0.2	0.2	0.1	0.2	10	0.2%	0.1	0.2	0.1	0.2
C40-C41	Bone	64	1.6%	0.7	0.7	0.4	0.6	36	0.9%	0.4	0.4	0.2	0.3
C43	Melanoma of Skin	11	0.3%	0.1	0.2	0.1	0.3	12	0.3%	0.1	0.3	0.2	0.3
C44	Other Skin	193	5.0%	2.2	4.6	1.7	4.8	134	3.2%	1.6	3	1.2	3.0
C45	Mesothelioma	8	0.2%	0.1	0.2	0.0	0.3	5	0.1%	0.1	0.1	0.0	0.3
C46	Kaposi sarcoma	22	0.6%	0.3	0.5	0.3	0.6	14	0.3%	0.2	0.3	0.3	0.4
C47;C49	Connective, Soft tissue	57	1.5%	0.7	0.9	0.5	0.9	37	0.9%	0.4	0.5	0.3	0.5
C50	Breast	18	0.5%	0.2	0.4	0.3	0.3	981	23.6%	11.4	18	14.0	19.5
C51	Vulva	-	-	-	-	-	-	4	0.1%	0	0.1	0.1	0.1
C52	Vagina	-	-	-	-	-	-	1	0.0%	0	0	0.0	0.0
C53	Cervix Uteri	-	-	-	-	-	-	74	1.8%	0.9	1.5	0.9	1.7
C54	Corpus Uteri	-	-	-	-	-	-	140	3.4%	1.6	3.6	2.2	4.5
C55	Uterus unspecified	-	-	-	-	-	-	22	0.5%	0.3	0.5	0.3	0.7
C56	Ovary	-	-	-	-	-	-	132	3.2%	1.5	2.8	1.8	3.3
C57	Other Female Genital	-	-	-	-	-	-	9	0.2%	0.1	0.2	0.1	0.3
C58	Placenta	-	-	-	-	-	-	19	0.5%	0.2	0.2	0.2	0.2
C60	Penis	1	0.0%	0	0	0.0	0.1	-	-	-	-	-	-
C61	Prostate	228	5.8%	2.6	6.1	1.5	6.6	-	-	-	-	-	-
C62	Testis	38	1.0%	0.4	0.5	0.3	0.4	-	-	-	-	-	-
C63	Other male genital	3	0.1%	0	0.1	0.0	0.2	-	-	-	-	-	-
C64	Kidney	111	2.8%	1.3	2.4	1.3	2.9	78	1.9%	0.9	1.5	0.9	1.7
C65	Renal Pelvis	5	0.1%	0.1	0.1	0.1	0.2	4	0.1%	0	0.1	0.1	0.1
C66	Ureter	1	0.0%	0	0	0.0	0.1	2	0.0%	0	0	0.0	0.0
C67	Bladder	169	4.3%	2	4.1	1.8	4.8	42	1.0%	0.5	1	0.4	1.2
C68	Other Urinary organs	0	0.0%	0	0	0.0	0.0	0	0.0%	0	0	0.0	0.0
C69	Eye	26	0.7%	0.3	0.3	0.2	0.3	19	0.5%	0.2	0.3	0.2	0.2
C70-C72	Brain, Nervous system	149	3.8%	1.7	2.5	1.4	2.7	103	2.5%	1.2	1.6	1.1	1.7
C73	Thyroid	117	3.0%	1.4	2.1	1.2	2.5	424	10.2%	4.9	6.5	4.7	6.5
C74	Adrenal gland	19	0.5%	0.2	0.2	0.1	0.2	10	0.2%	0.1	0.1	0.1	0.1
C75	Other Endocrine	5	0.1%	0.1	0.1	0.0	0.0	5	0.1%	0.1	0.1	0.0	0.2
C81	Hodgkin disease	173	4.4%	2	2.1	1.4	1.5	120	2.9%	1.4	1.6	0.8	1.6
C82-C85;C96	Non-Hodgkin lymphoma	351	9.0%	4.1	6.6	3.3	6.7	234	5.6%	2.7	4.8	2.8	5.6
C88	Immunoproliferative dis.	0	0.0%	0	0	0.0	0.0	0	0.0%	0	0	0.0	0.0
C90	Multiple Myeloma	48	1.2%	0.6	1.2	0.5	1.6	26	0.6%	0.3	0.6	0.3	0.8
C91	Lymphoid Leukemia	155	4.0%	1.8	2.3	1.0	2.0	90	2.2%	1	1.2	0.5	0.9
C92-C94	Myeloid Leukemia	115	3.0%	1.3	1.8	0.8	1.6	113	2.7%	1.3	2	1.2	2.2
C95	Leukemia unspecified	26	0.7%	0.3	0.4	0.1	0.4	9	0.2%	0.1	0.2	0.1	0.3
Other	Other & unspecified	186	4.8%	2.1	4.3	1.9	5.1	177	4.3%	2.1	4.1	1.9	4.9

Table 2.3 Number, Percentage,ASR,CIR, and Cumulative Rates (per 1000) of New Cases by Primary Site and Sex among Saudis, 2006

## Adult Cancers in Saudi Arabia, 2006 (>14 years)

Between January and December 2006, the total number of adult cancer incidence cases reported was 10,218. Overall cancer was slightly more in females than in males. Cancer affected 5,014 (49.1%) males and 5,204 (50.9%) females, with a

ratio of 96:100. Of all cases, there were 7,666 Saudis, 2,287 of Non-Saudis and 265 of unknown nationalities. As shown on table 2.4, the total number of analyzed cases were 9691.

Behavior	Saudis			Non-Saudis			Unknown Nationality			All
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Total
<b>Total</b>	3669	3997	7666	1216	1071	2287	129	136	265	10218
<b>Invasive</b>	3591	3926	7517	1178	1045	2223	123	136	259	9999
<b>In-Situ</b>	76	71	147	37	26	63	6	0	6	216
<b>ICD 10 *</b>	24	18	42	4	3	7	3	1	4	53
<b>Analyzed **</b>	3567	3908	7475	1175	1042	2216	120	135	255	9691

Table 2.4 Distribution of Reported Adult Cancer Cases in Saudi Arabia by Nationality and Sex 2006

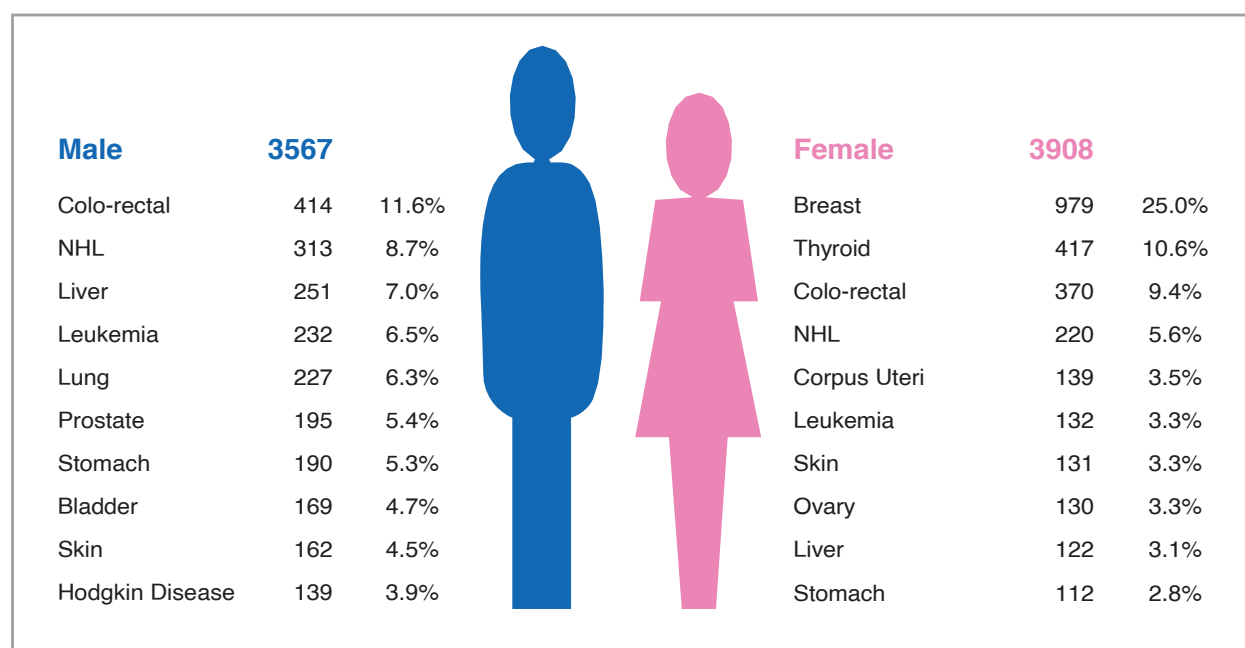


Figure 2.6 Ten Most Common Cancers among Saudi Adults, 2006

\* 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	Infiltrating duct carcinoma, NOS	14	82.4	739	75.5
	85203	Lobular carcinoma, NOS	0	0.0	62	6.3
	80103	Carcinoma, NOS	2	11.8	40	4.1
	80003	Neoplasm, malignant	0	0.0	22	2.2
	85223	Infiltrating duct and lobular carcinoma	0	0.0	15	1.5
	85103	Medullary carcinoma, NOS	0	0.0	13	1.3
	81403	Adenocarcinoma, NOS	1	5.9	11	1.1
	85233	Infiltrating duct mixed with other types of carcinoma	0	0.0	12	1.2
	85413	Paget disease and infiltrating duct carcinoma of breast	0	0.0	12	1.2
	90203	Phyllodes tumor, malignant	0	0.0	10	1.0
		All Others	0	0.0	43	4.4
Colo-rectal	81403	Adenocarcinoma, NOS	313	75.6	277	74.9
	84803	Mucinous adenocarcinoma	34	8.2	27	7.3
	80003	Neoplasm, malignant	11	2.7	22	5.9
	82613	Adenocarcinoma in villous adenoma	11	2.7	8	2.2
	81443	Adenocarcinoma, intestinal type	9	2.2	6	1.6
	84813	Mucin-producing adenocarcinoma	9	2.2	6	1.6
	82633	Adenocarcinoma in tubulovillous adenoma	6	1.4	7	1.9
	80103	Carcinoma, NOS	6	1.4	5	1.4
	84903	Signet ring cell carcinoma	1	0.2	7	1.9
		All Others	14	3.4	5	1.4
NHL	96803	Malignant lymphoma, large B-cell, diffuse, NOS	140	44.7	108	49.1
	95903	Malignant lymphoma, NOS	28	8.9	18	8.2
	95913	Malignant lymphoma, non-Hodgkin, NOS	19	6.1	16	7.3
	96993	Marginal zone B-cell lymphoma, NOS	22	7.0	12	5.5
	97023	Mature T-cell lymphoma, NOS	15	4.8	6	2.7
	96703	Malignant lymphoma, small B lymphocytic, NOS	10	3.2	10	4.5
	97003	Mycosis fungoides	6	1.9	11	5.0
	96873	Burkitt lymphoma, NOS	8	2.6	6	2.7
	97143	Anaplastic large cell lymphoma, T cell and Null cell type	10	3.2	4	1.8
	96903	Follicular lymphoma, NOS	11	3.5	2	0.9
	96983	Follicular lymphoma, grade 3	6	1.9	6	2.7
	96753	Malignant lymphoma, mixed small and large cell, diffuse	7	2.2	2	0.9
	96913	Follicular lymphoma, grade 2	6	1.9	3	1.4
	96953	Follicular lymphoma, grade 1	3	1.0	5	2.3
		All Others	22	7.0	11	5.0
Thyroid	82603	Papillary adenocarcinoma, NOS	70	60.9	228	54.7
	83403	Papillary carcinoma, follicular variant	12	10.4	67	16.1
	83413	Papillary microcarcinoma	6	5.2	34	8.2
	83433	Papillary carcinoma, encapsulated	2	1.7	14	3.4
	83353	Follicular carcinoma, minimally invasive	3	2.6	12	2.9
	83303	Follicular adenocarcinoma, NOS	5	4.3	9	2.2
	80003	Neoplasm, malignant	3	2.6	8	1.9
	85103	Medullary carcinoma, NOS	2	1.7	8	1.9
	80213	Carcinoma, anaplastic, NOS	3	2.6	6	1.4
	82903	Oxyphilic adenocarcinoma	3	2.6	6	1.4
	83443	Papillary carcinoma, columnar cell	1	0.9	7	1.7
		All Others	5	4.3	18	4.3
	Liver	81703	Hepatocellular carcinoma, NOS	218	76.0	78
80003		Neoplasm, malignant	35	12.2	17	13.9
81603		Cholangiocarcinoma	13	4.5	9	7.4
80103		Carcinoma, NOS	5	1.7	5	4.1
81403		Adenocarcinoma, NOS	4	1.4	4	3.3
	All Others	12	4.2		7.4	
Leukemia	98633	Chronic myeloid leukemia, NOS	29	14.9	29	22.0
	98613	Acute myeloid leukemia, NOS	29	14.9	26	19.7
	98233	B-cell chronic lymphocytic leukemia/small lymphocytic lymphoma	31	15.9	11	8.3
	98353	Precursor cell lymphoblastic leukemia, NOS	21	10.8	7	5.3
	98363	Precursor B-cell lymphoblastic leukemia	14	7.2	3	2.3
	98913	Acute monocytic leukemia	11	5.6	6	4.5
	98663	Acute promyelocytic leukemia, t(15;17) (q22;q11-12)	10	5.1	6	4.5
	98003	Leukemia, NOS	9	4.6	4	3.0
	98673	Acute myelomonocytic leukemia	3	1.5	8	6.1
	98743	Acute myeloid leukemia with maturation	6	3.1	4	3.0
	98013	Acute leukemia, NOS	7	3.6	2	1.5
	98373	Precursor T-cell lymphoblastic leukemia	7	3.6	1	0.8
	99403	Hairy cell leukemia	4	2.1	2	1.5
	99453	Chronic myelomonocytic leukemia, NOS	1	0.5	5	3.8
	98723	Acute myeloid leukemia, minimal differentiation	2	1.0	3	2.3
	98203	Lymphoid leukemia, NOS	4	2.1	0	0.0
98733	Acute myeloid leukemia without maturation	0	0.0	4	3.0	
	All Others	7	3.6	11	8.3	
Skin	80903	Basal cell carcinoma, NOS	90	47.4	53	40.5
	80703	Squamous cell carcinoma, NOS	42	22.1	33	25.2
	80713	Squamous cell carcinoma, keratinizing, NOS	17	8.9	8	6.1
	88323	Dermatofibrosarcoma, NOS	10	5.3	9	6.9
	80973	Basal cell carcinoma, nodular	5	2.6	7	5.3
	80943	Basosquamous carcinoma	6	3.2	5	3.8
	84103	Sebaceous adenocarcinoma	3	1.6	4	3.1
	80983	Adenoid basal carcinoma	3	1.6	3	2.3
	80913	Multifocal superficial basal cell carcinoma	1	0.5	3	2.3
	80923	Infiltrating basal cell carcinoma, NOS	4	2.1	0	0.0
	All Others	9	4.7	6	4.6	

Table 2.5 Number and Proportion of Morphological Types for the Most Common Types of Cancer among Saudi Adults, 2006

Table 2.5 continued .....

Primary Site	Code	Morphology	Male	%	Female	%
Lung	81403	Adenocarcinoma, NOS	51	0	32	40.0
	80703	Squamous cell carcinoma, NOS	46	0	5	6.3
	80003	Neoplasm, malignant	23	0	11	13.8
	80413	Small cell carcinoma, NOS	29	0	5	6.3
	80463	Non-small cell carcinoma	27	0	6	7.5
	80103	Carcinoma, NOS	10	0	4	5.0
	80123	Large cell carcinoma, NOS	8	0	3	3.8
	82503	Bronchiolo-alveolar adenocarcinoma, NOS	9	0	2	2.5
	80713	Squamous cell carcinoma, keratinizing, NOS	9	0	0	0.0
	82603	Papillary adenocarcinoma, NOS	1	0	3	3.8
	80133	Large cell neuroendocrine carcinoma	3	0	0	0.0
	80203	Carcinoma, undifferentiated, NOS	2	0	1	1.3
		Others	14	0	8	10.0
	Stomach	81403	Adenocarcinoma, NOS	74	45.7	45
84903		Signet ring cell carcinoma	37	22.8	34	30.4
81443		Adenocarcinoma, intestinal type	18	11.1	6	5.4
80103		Carcinoma, NOS	5	3.1	5	4.5
80003		Neoplasm, malignant	3	1.9	6	5.4
84803		Mucinous adenocarcinoma	4	2.5	3	2.7
80703		Squamous cell carcinoma, NOS	1	0.6	3	2.7
81453		Carcinoma, diffuse type	3	1.9	1	0.9
82603		Papillary adenocarcinoma, NOS	4	2.5	0	0.0
		All Others	13	8.0	9	8.0
Hodgkin Disease	96633	Hodgkin lymphoma, nodular sclerosis, NOS	51	36.7	39	41.9
	96523	Hodgkin lymphoma, mixed cellularity, NOS	27	19.4	18	19.4
	96503	Hodgkin lymphoma, NOS	22	15.8	14	15.1
	96513	Hodgkin lymphoma, lymphocyte-rich	9	6.5	5	5.4
	96593	Hodgkin lymphoma, nodular lymphocyte predominance	10	7.2	4	4.3
	96653	Hodgkin lymphoma, nodular sclerosis, grade 1	6	4.3	4	4.3
	96673	Hodgkin lymphoma, nodular sclerosis, grade 2	6	4.3	4	4.3
	96533	Hodgkin lymphoma, lymphocyte depletion, NOS	6	4.3	2	2.2
96643	Hodgkin lymphoma, nodular sclerosis, cellular phase	2	1.4	3	3.2	
Prostate	81403	Adenocarcinoma, NOS	199	87.7	-	-
	80003	Neoplasm, malignant	12	5.3	-	-
	80103	Carcinoma, NOS	7	3.1	-	-
	85503	Acinar cell carcinoma	3	1.3	-	-
		All Others	6	2.6	-	-
Bladder	81203	Transitional cell carcinoma, NOS	81	47.9	17	41.5
	81303	Papillary transitional cell carcinoma	64	37.9	11	26.8
	80703	Squamous cell carcinoma, NOS	5	3.0	7	17.1
	80713	Squamous cell carcinoma, keratinizing, NOS	5	3.0	1	2.4
	80003	Neoplasm, malignant	5	3.0	0	0.0
	81403	Adenocarcinoma, NOS	4	2.4	1	2.4
	80103	Carcinoma, NOS	1	0.6	1	2.4
		All Others	4	2.4	3	7.3
Corpus Uteri	83803	Endometrioid adenocarcinoma, NOS	-	-	70	50.4
	81403	Adenocarcinoma, NOS	-	-	25	18.0
	89503	Mullerian mixed tumor	-	-	8	5.8
	89303	Endometrial stromal sarcoma, NOS	-	-	5	3.6
	84603	Papillary serous cystadenocarcinoma	-	-	4	2.9
	85603	Adenosquamous carcinoma	-	-	4	2.9
	88903	Leiomyosarcoma, NOS	-	-	4	2.9
	89313	Endometrial stromal sarcoma, low grade	-	-	4	2.9
		All Others	-	-	15	10.8
Ovary	81403	Adenocarcinoma, NOS	-	-	25	19.2
	84603	Papillary serous cystadenocarcinoma	-	-	24	18.5
	84413	Serous cystadenocarcinoma, NOS	-	-	13	10.0
	80003	Neoplasm, malignant	-	-	11	8.5
	84703	Mucinous cystadenocarcinoma, NOS	-	-	10	7.7
	84613	Serous surface papillary carcinoma	-	-	9	6.9
	83803	Endometrioid adenocarcinoma, NOS	-	-	8	6.2
	80103	Carcinoma, NOS	-	-	4	3.1
	84803	Mucinous adenocarcinoma	-	-	4	3.1
	90603	Dysgerminoma	-	-	4	3.1
	89803	Carcinosarcoma, NOS	-	-	2	1.5
	90643	Germinoma	-	-	2	1.5
	90803	Teratoma, malignant, NOS	-	-	2	1.5
		All Others	-	-	12	9.2

## Childhood Cancers in Saudi Arabia, 2006 ( $\leq 14$ years)

The total incident cases reported among children (0-14 years) between January and December 2006 were 706. 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. 403 (57.1%) cases were reported among boys and 303 (42.9%) among girls, with a male to female ratio of 133:100. Of all the cases reported

there were 573 Saudis, 106 non-Saudis and 27 of "unknown nationality". Based on table 2-6, the total number of cases analyzed was 673 including 567 (82.2%) Saudis and 106 (16.6%) non-Saudis. Among Saudis, 327(57.8%) were male and 240 (42.3%) were female. The male to female ratio among Saudis was 137:100.

Behavior	Saudis			Non-Saudis			Unknown Nationality			All
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Total
Total	330	243	573	58	48	106	15	12	27	706
Invasive	328	243	571	58	48	106	15	12	27	704
In-situ	1	0	1	0	0	0	0	0	0	1
ICD 10 *	1	3	4	0	0	0	0	0	0	4
Analyzed **	327	240	567	58	48	106	15	12	2	673

Table 2.6 Distribution of Reported Childhood Cancer Cases in Saudi Arabia by Nationality and Sex, 2006

Childhood cancer is very important, not only because of the age of occurrence, but also because 41.7% 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 6.9% of all cancer among Saudis. The leading cancer

among Saudi children was leukemia, which accounted for 31.7 %, followed by Brain (CNS) 14.3 % then Hodgkin's disease 12.9 % and NHL 8.1 %. 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.

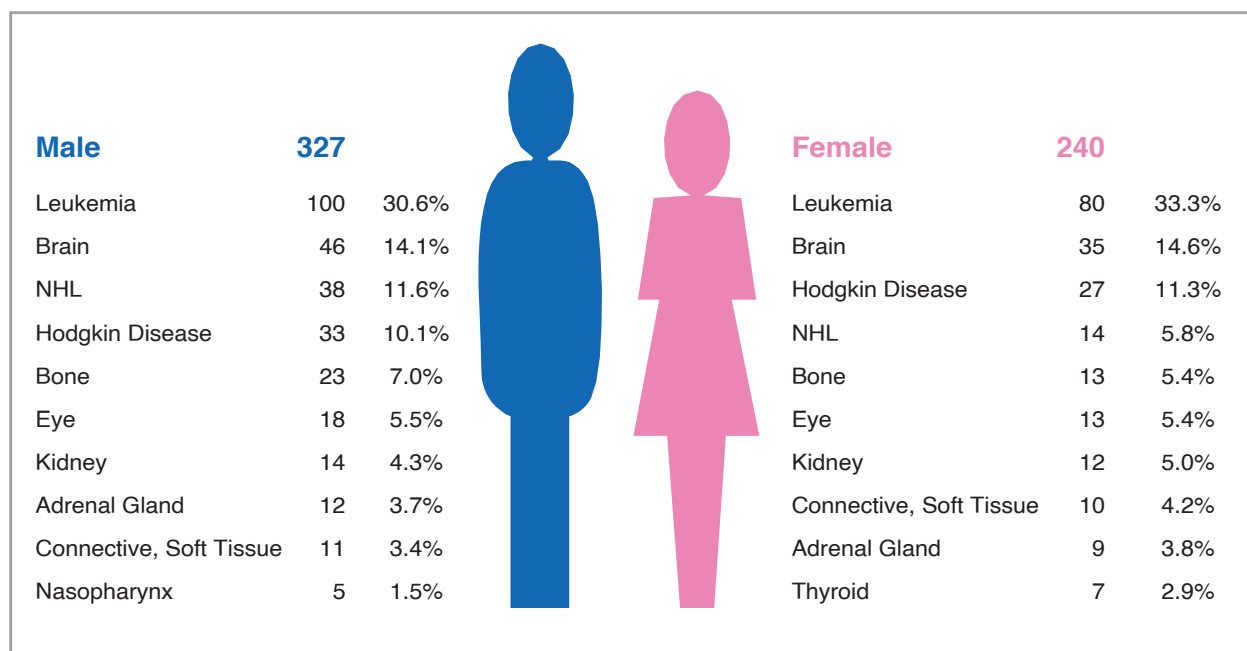


Figure 2.7 Ten Most Common Cancers among Saudi Children by Sex, 2006

\* ICD-10 conversion failure

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

Primary Site	Code	Morphology	Male	%	Female	%
<b>Leukemia</b>	98363	Precursor B-cell lymphoblastic leukemia	39	39.0	33	41.3
	98353	Precursor cell lymphoblastic leukemia, NOS	33	33.0	27	33.8
	98613	Acute myeloid leukemia, NOS	6	6.0	4	5.0
	98633	Chronic myeloid leukemia, NOS	2	2.0	4	5.0
	98013	Acute leukemia, NOS	3	3.0	2	2.5
	98743	Acute myeloid leukemia with maturation	2	2.0	3	3.8
	98913	Acute monocytic leukemia	3	3.0	1	1.3
	98263	Burkitt cell leukemia	1	1.0	2	2.5
	99103	Acute megakaryoblastic leukemia	2	2.0	1	1.3
		All Others	9	9.0	3	3.8
<b>Brain, CNS</b>	94703	Medulloblastoma, NOS	12	26.1	12	34.3
	93803	Glioma, malignant	7	15.2	2	5.7
	93913	Ependymoma, NOS	7	15.2	1	2.9
	95083	Atypical teratoid/rhabdoid tumor	3	6.5	2	5.7
	94003	Astrocytoma, NOS	0	0.0	4	11.4
	94403	Glioblastoma, NOS	2	4.3	2	5.7
	94713	Desmoplastic nodular medulloblastoma	1	2.2	2	5.7
	94733	Primitive neuroectodermal tumor, NOS	3	6.5	0	0.0
	80003	Neoplasm, malignant	2	4.3	0	0.0
	93903	Choroid plexus carcinoma	1	2.2	1	2.9
	95053	Ganglioglioma, anaplastic	1	2.2	1	2.9
		All Others	7	15.2	8	22.9
<b>Hodgkin Disease</b>	96633	Hodgkin lymphoma, nodular sclerosis, NOS	13	39.4	14	51.9
	96523	Hodgkin lymphoma, mixed cellularity, NOS	7	21.2	5	18.5
	96593	Hodgkin lymphoma, nodular lymphocyte predominance	5	15.2	2	7.4
	96503	Hodgkin lymphoma, NOS	0	0.0	4	14.8
	96513	Hodgkin lymphoma, lymphocyte-rich	3	9.1	1	3.7
	96533	Hodgkin lymphoma, lymphocyte depletion, NOS	3	9.1	0	0.0
	96653	Hodgkin lymphoma, nodular sclerosis, grade 1	1	3.0	1	3.7
	96673	Hodgkin lymphoma, nodular sclerosis, grade 2	1	3.0	0	0.0
<b>NHL</b>	96873	Burkitt lymphoma, NOS	20	52.6	6	42.9
	97293	Precursor T-cell lymphoblastic lymphoma	4	10.5	2	14.3
	95903	Malignant lymphoma, NOS	3	7.9	2	14.3
	97273	Precursor cell lymphoblastic lymphoma, NOS	2	5.3	2	14.3
	95913	Malignant lymphoma, non-Hodgkin, NOS	2	5.3	1	7.1
	96803	Malignant lymphoma, large B-cell, diffuse, NOS	3	7.9	0	0.0
	96703	Malignant lymphoma, small B lymphocytic, NOS	1	2.6	0	0.0
	96733	Mantle cell lymphoma	0	0.0	1	7.1
	96983	Follicular lymphoma, grade 3	1	2.6	0	0.0
	96993	Marginal zone B-cell lymphoma, NOS	1	2.6	0	0.0
	97003	Mycosis fungoides	1	2.6	0	0.0
<b>Bone</b>	91803	Osteosarcoma, NOS	10	43.5	5	38.5
	92603	Ewing sarcoma	7	30.4	5	38.5
	91813	Chondroblastic osteosarcoma	3	13.0	1	7.7
	88063	Desmoplastic small round cell tumor	0	0.0	1	7.7
	91823	Fibroblastic osteosarcoma	1	4.3	0	0.0
	91833	Telangiectatic osteosarcoma	0	0.0	1	7.7
	93703	Chordoma, NOS	1	4.3	0	0.0
	94733	Primitive neuroectodermal tumor, NOS	1	4.3	0	0.0

Table 2.7 Number and Proportion of Morphological Types for the Most Common Types of Cancer among Saudi Children, 2006

Table 2.7 continued .....

Primary Site	Code	Morphology	Male	%	Female	%
<b>Eye</b>	95103	Retinoblastoma, NOS	6	33.3	6	46.2
	95113	Retinoblastoma, differentiated	6	33.3	4	30.8
	95123	Retinoblastoma, undifferentiated	2	11.1	3	23.1
	89103	Embryonal rhabdomyosarcoma, NOS	2	11.1	0	0.0
	89003	Rhabdomyosarcoma, NOS	1	5.6	0	0.0
	95133	Retinoblastoma, diffuse	1	5.6	0	0.0
<b>Kidney</b>	89603	Nephroblastoma, NOS	10	71.4	10	83.3
	80003	Neoplasm, malignant	0	0.0	1	8.3
	83123	Renal cell carcinoma, NOS	1	7.1	0	0.0
	89633	Malignant rhabdoid tumor	1	7.1	0	0.0
	89643	Clear cell sarcoma of kidney	0	0.0	1	8.3
	90643	Germinoma	1	7.1	0	0.0
	95003	Neuroblastoma, NOS	1	7.1	0	0.0
	<b>Connective Tissue</b>	88003	Sarcoma, NOS	2	18.2	1
89103		Embryonal rhabdomyosarcoma, NOS	3	27.3	0	0.0
93643		Peripheral neuroectodermal tumor	2	18.2	1	10.0
89203		Alveolar rhabdomyosarcoma	1	9.1	1	10.0
94733		Primitive neuroectodermal tumor, NOS	0	0.0	2	20.0
88063		Desmoplastic small round cell tumor	0	0.0	1	10.0
88523		Myxoid liposarcoma	0	0.0	1	10.0
88913		Epithelioid leiomyosarcoma	0	0.0	1	10.0
89633		Malignant rhabdoid tumor	1	9.1	0	0.0
91503		Hemangiopericytoma, malignant	1	9.1	0	0.0
93703		Chordoma, NOS	0	0.0	1	10.0
94903		Ganglioneuroblastoma	1	9.1	0	0.0
95003		Neuroblastoma, NOS	0	0.0	1	10.0
<b>Adrenal Gland</b>	95003	Neuroblastoma, NOS	9	75.0	7	77.8
	83703	Adrenal cortical carcinoma	1	8.3	1	11.1
	94903	Ganglioneuroblastoma	2	16.7	0	0.0
	88063	Desmoplastic small round cell tumor	0	0.0	1	11.1
<b>Thyroid</b>	82603	Papillary adenocarcinoma, NOS	1	50.0	4	57.1
	83403	Papillary carcinoma, follicular variant	0	0.0	2	28.6
	83503	Nonencapsulated sclerosing carcinoma	0	0.0	1	14.3
	85103	Medullary carcinoma, NOS	1	50.0	0	0.0
<b>Nasopharynx</b>	80203	Carcinoma, undifferentiated, NOS	3	60.0	0	0.0
	80103	Carcinoma, NOS	1	20.0	0	0.0
	80723	Squamous cell carcinoma, large cell, nonkeratinizing, NOS	0	0.0	1	100.0
	89003	Rhabdomyosarcoma, NOS	1	20.0	0	0.0

## International Comparison of Age-Standardized Incidence Rates

Worldwide, it is estimated that 10,862,496 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 worldwide among men was lung cancer, followed by prostate then stomach then colo-rectal. However; in developed countries prostate was the leading cancer followed by lung, colo-rectal, and stomach, while in developing countries, lung cancer

was first followed by stomach, liver, esophagus and colo-rectal cancers. In women, the most common cancer site was breast followed by cervix uteri then colo-rectal then lung 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 the leading cancer followed by cancers of the cervix, stomach and lung.

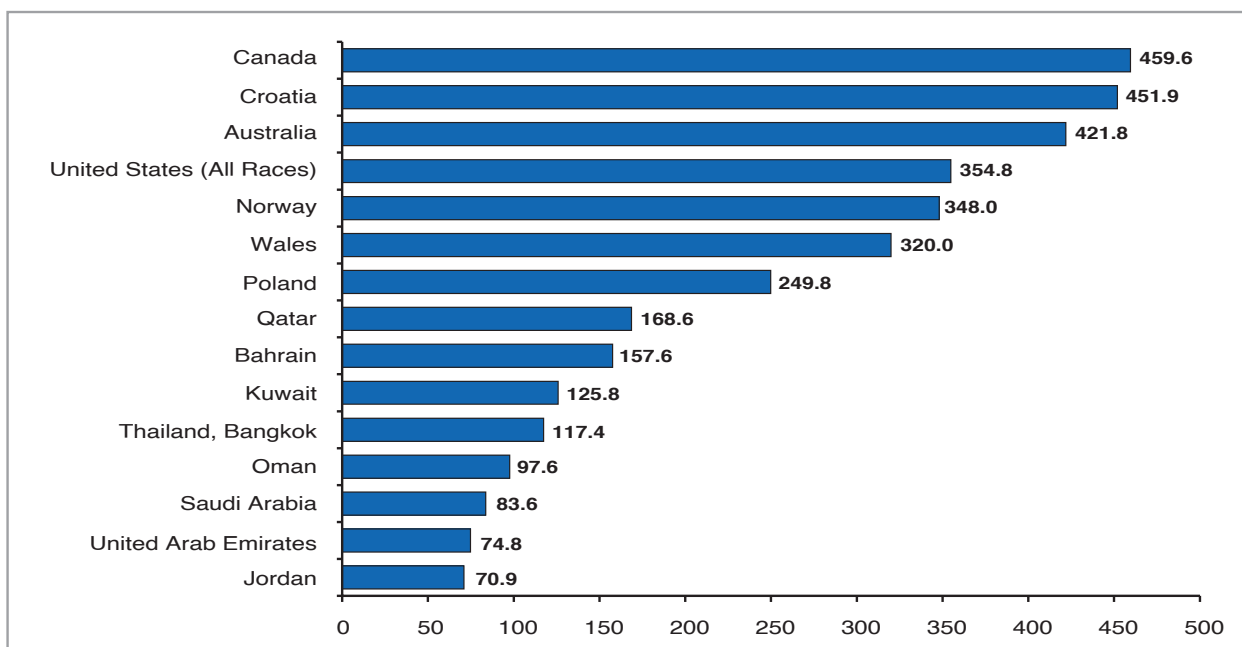


Figure 2.9.A Comparison of ASR\* for Saudi Males with Selected Countries\*\*

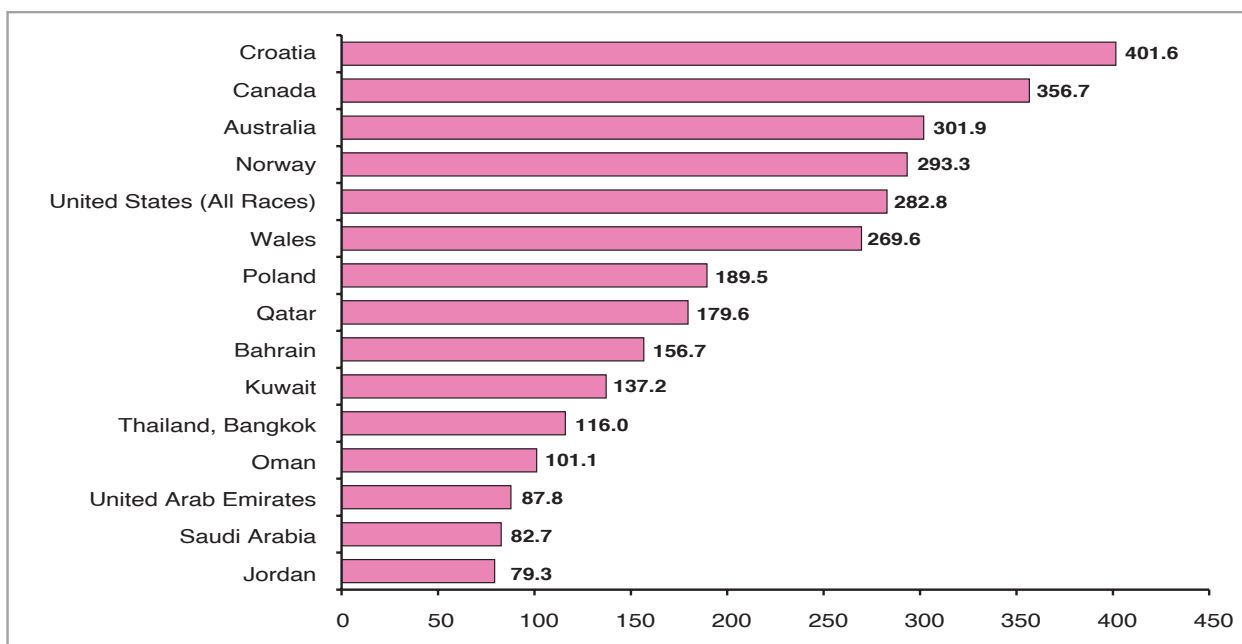


Figure 2.9.B Comparison of ASR\* for Saudi Females with Selected Countries\*\*

\* ASR Per 100,000

\*\* Source for this information is summarized on page 64

**PART III**  
**CANCER INCIDENCE FOR MOST COMMON SITES**  
**2006**



## Cancer Incidence for Most Common Sites, 2006

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 2006.

Cancer	Male	Female	All	%
Breast	18	981	999	12.4
Colo-rectal	414	370	784	9.7
NHL	351	234	585	7.3
Thyroid	117	424	541	6.7
Leukemia	296	212	508	6.3
Liver	291	125	416	5.2
Skin	193	134	327	4.1
Lung	232	80	312	3.9
Hodgkin Disease	173	120	293	3.6
Stomach	162	113	275	3.4
Prostate	228	-	228	2.8
Bladder	169	42	211	2.6
Corpus Uteri	-	140	140	1.7
Ovary	-	132	132	1.6
Others	1254	1049	2303	28.6
<b>Total</b>	<b>3898</b>	<b>4156</b>	<b>8054</b>	<b>100.0</b>

Table 3.1 Most Common Cancers among Saudis, 2006

## Female Breast (C 50)

There were 981 female breast cancer cases for year 2006. Breast cancer ranked first among females accounting for 23.6% of all newly diagnosed female cancers (4,156) in year

2006. The ASR was 18.4/100,000 for female population. The median age at diagnosis was 47 years (Range 91-107 years).

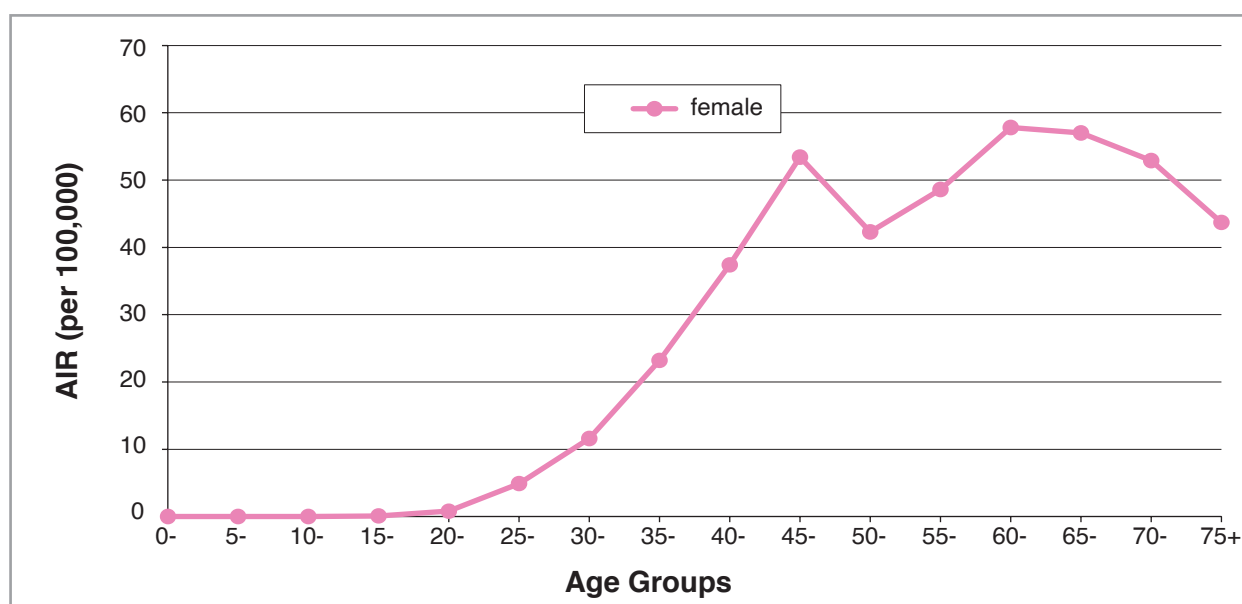


Figure 3.1.1 Age-Specific Incidence Rate (AIR) for Female Breast Cancer in Saudi Arabia, 2006

ICD-O-3 Code	Morphology	Total	%
8500	Infiltrating duct carcinoma, NOS	741	75.5
8520	Lobular carcinoma, NOS	62	6.3
8010	Carcinoma, NOS	40	4.1
8000	Neoplasm, malignant	22	2.2
8522	Infiltrating duct and lobular carcinoma	15	1.5
8510	Medullary carcinoma, NOS	13	1.3
8523	Infiltrating duct mixed with other types of carcinoma	12	1.2
8541	Paget disease and infiltrating duct carcinoma of breast	12	1.2
8140	Adenocarcinoma, NOS	11	1.1
9020	Phyllodes tumor, malignant	10	1.0
	Others	43	4.4

Table 3.1.1 Morphological Distribution of Female Breast Cancer in Saudi Arabia, 2006

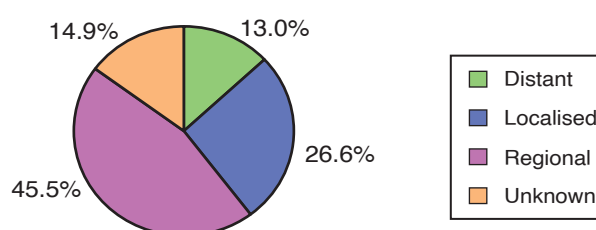
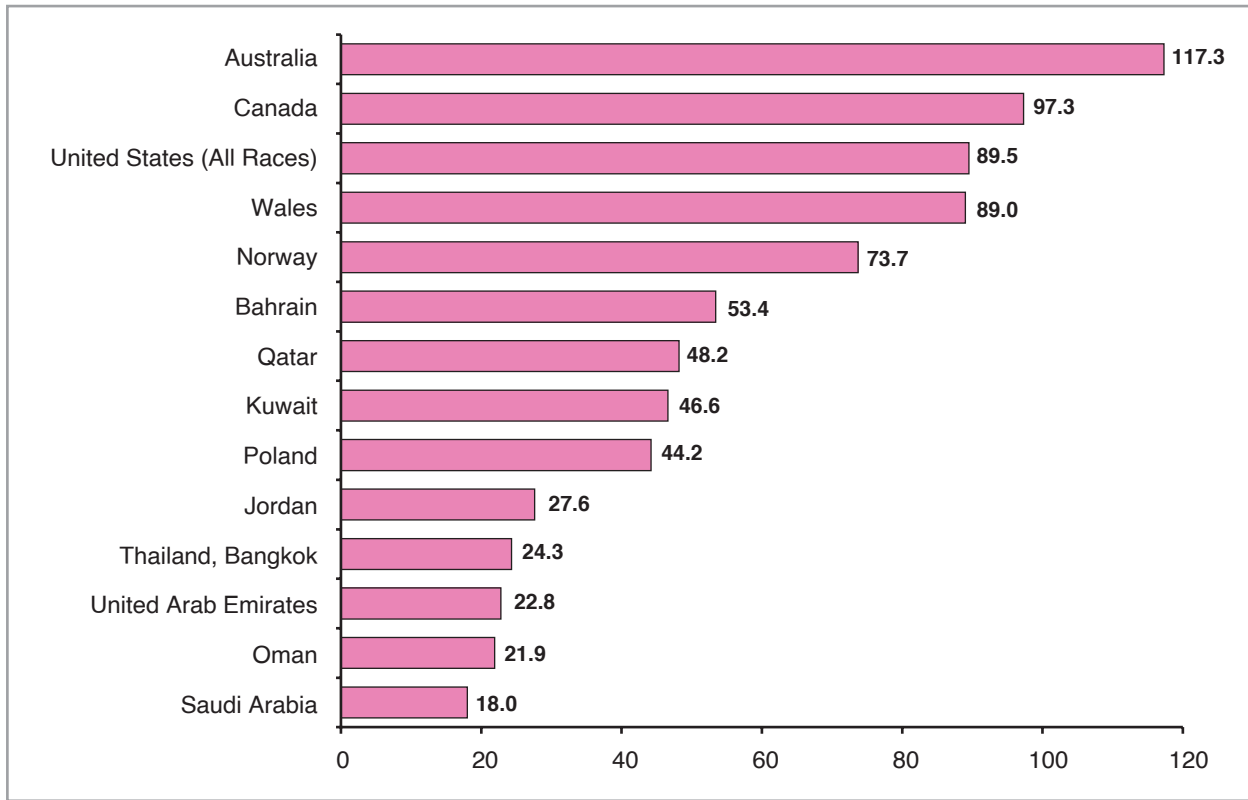


Figure 3.1.2 Stage Distribution of Female Breast Cancer, 2006



**Figure 3.1.4 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 64

## Colo-rectal (C18-C20)

There were 784 cases of colo-rectal cancer accounting for 9.7% of all newly diagnosed cases in year 2006. This cancer ranked first among male population and third among female population. It affected 414 (52.8%) males and 370 (47.2%) females with a male to female ratio of 112:100. The overall ASR was 8.6 /100,000. ASR for males

was 9.7/100,000 and for females 8.6/100,000. The median age at diagnosis was 61 years among males (range 17-110 years) and 57 years among females (range 20-109 years).

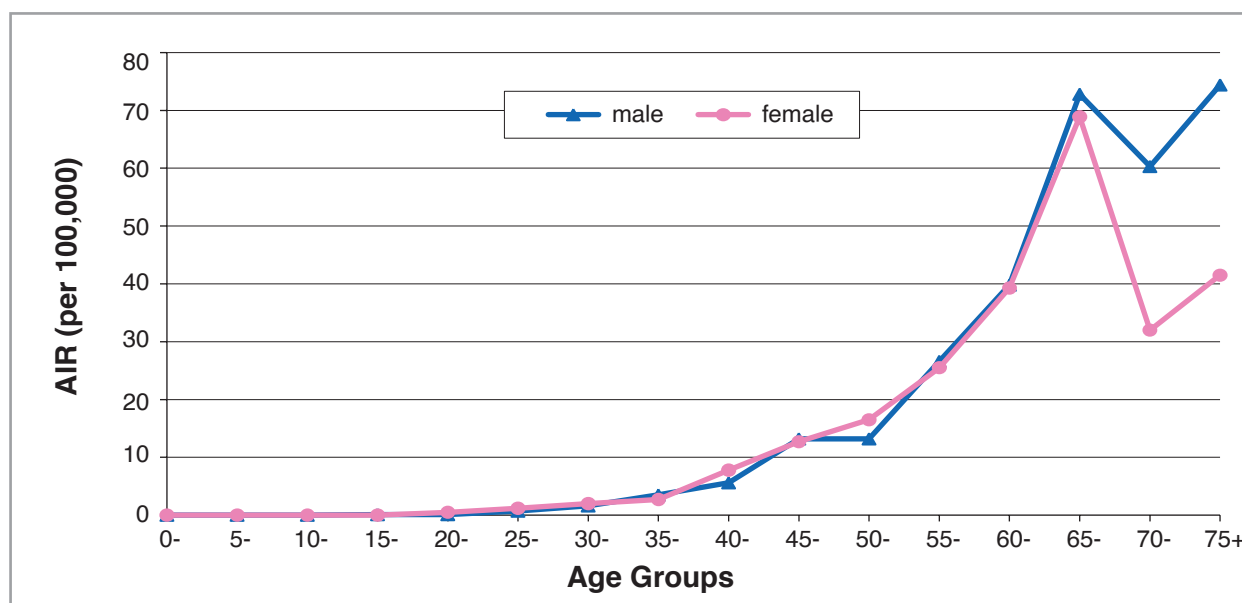


Figure 3.2.1 Age-Specific Incidence Rate (AIR) for Colo-rectal Cancer in Saudi Arabia, 2006

ICD-O-3 Code	Morphology	Male	%	Female	%
8140	Adenocarcinoma, NOS	313	75.6	277	74.9
8480	Mucinous adenocarcinoma	34	8.2	27	7.3
8000	Neoplasm, malignant	11	2.7	22	5.9
8261	Adenocarcinoma in villous adenoma	11	2.7	8	2.2
8144	Adenocarcinoma, intestinal type	9	2.2	6	1.6
8481	Mucin-producing adenocarcinoma	9	2.2	6	1.6
8263	Adenocarcinoma in tubulovillous adenoma	6	1.4	7	1.9
8010	Carcinoma, NOS	6	1.4	5	1.4
8490	Signet ring cell carcinoma	1	0.2	7	1.9
	Others	14	3.4	5	1.4

Table 3.2.1 Morphological Distribution of Colo-rectal Cancer in Saudi Arabia, 2006

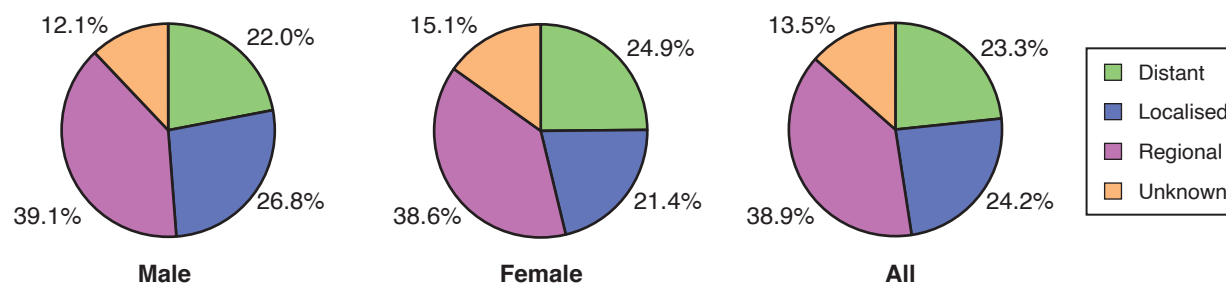


Figure 3.2.2 Stage Distribution of Colo-rectal Cancer, 2006

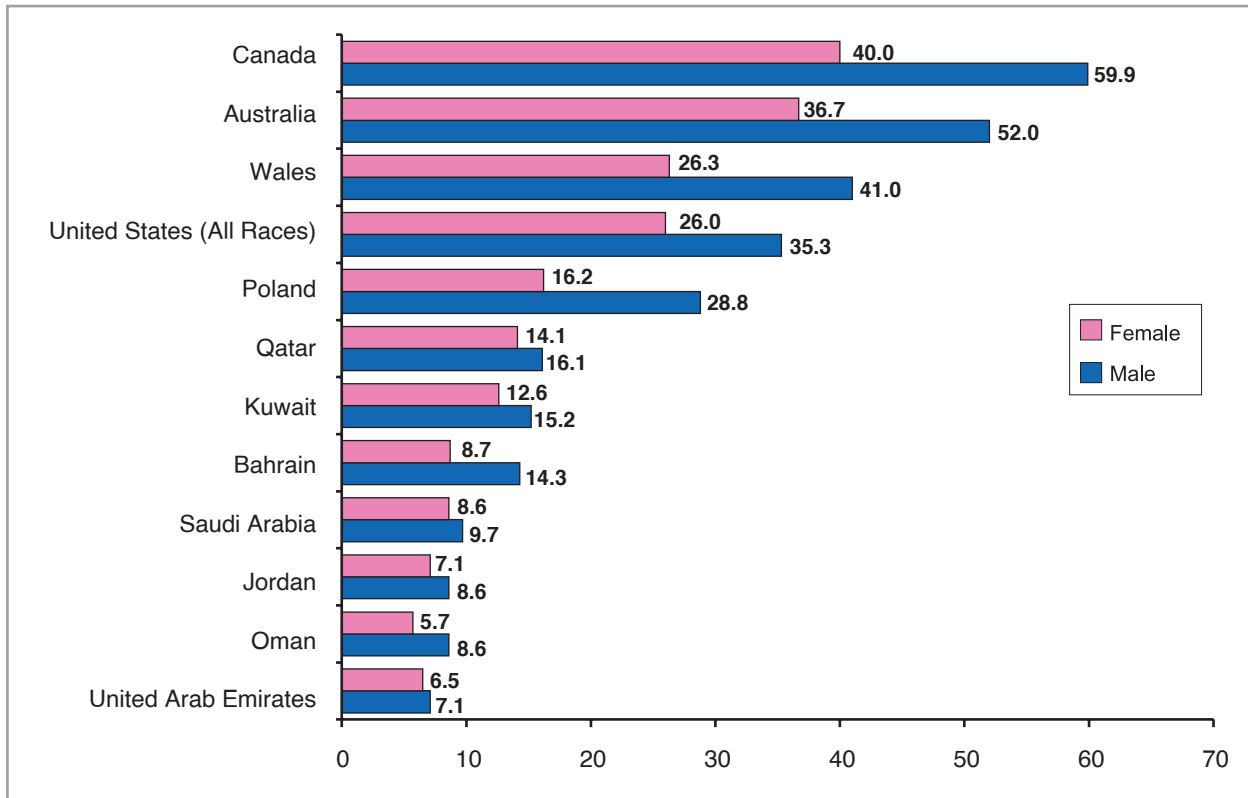


Figure 3.2.4 Comparison of ASR for Colo-rectal Cancer among Saudis with ASR in Selected Countries\*\*

\* ASR Per 100,000

\*\* Source for this information is summarized on page 64

## Non-Hodgkin Lymphoma (C82-C85; C96)

There were 585 cases of Non-Hodgkin Lymphoma accounting for 7.3 % of all newly diagnosed cancers in year 2006. This cancer ranked second among male population and fourth among female population. It affected 351 (60%) males and 234 (40%) females with a male to female ratio of 150:100. The overall ASR

was 5.7/100,000. ASR for males was 6.6/100,000 and 4.8/100,000 for females. The median age at diagnosis was 50 years among males (range 2-102 years) and 54 years among females (range 2-96 years).

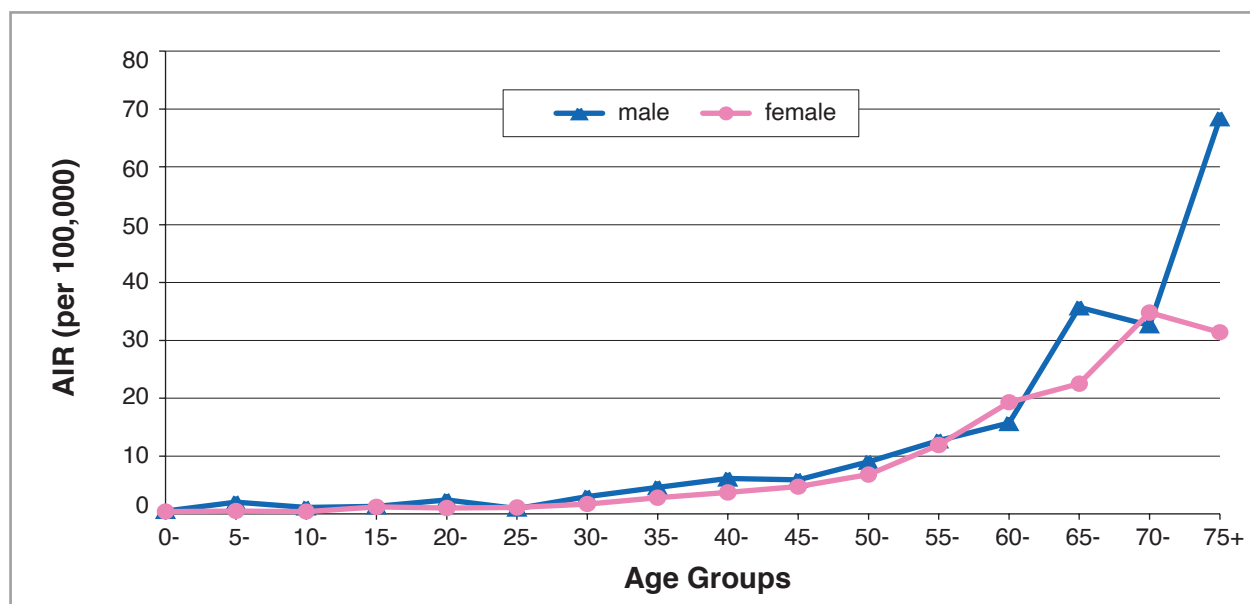


Figure 3.3.1 Age-Specific Incidence Rate (AIR) for NHL in Saudi Arabia, 2006

ICD-O-3 Code	Morphology	Male	%	Female	%
9680	Malignant lymphoma, large B-cell, diffuse, NOS	143	40.7	108	46.2
9590	Malignant lymphoma, NOS	31	8.8	20	8.5
9687	Burkitt lymphoma, NOS	28	8.0	12	5.1
9591	Malignant lymphoma, non-Hodgkin, NOS	21	6.0	17	7.3
9699	Marginal zone B-cell lymphoma, NOS	23	6.6	12	5.1
9670	Malignant lymphoma, small B lymphocytic, NOS	11	3.1	10	4.3
9702	Mature T-cell lymphoma, NOS	15	4.3	6	2.6
9700	Mycosis fungoides	7	2.0	11	4.7
9714	Anaplastic large cell lymphoma, T cell and Null cell type	10	2.8	4	1.7
9690	Follicular lymphoma, NOS	11	3.1	2	0.9
9698	Follicular lymphoma, grade 3	7	2.0	6	2.6
9675	Malignant lymphoma, mixed small and large cell, diffuse	7	2.0	2	0.9
9691	Follicular lymphoma, grade 2	6	1.7	3	1.3
9729	Precursor T-cell lymphoblastic lymphoma	7	2.0	2	0.9
9695	Follicular lymphoma, grade 1	3	0.9	5	2.1
	Others	21	6.0	14	6.0

Table 3.3.1 Morphological Distribution of NHL in Saudi Arabia, 2006

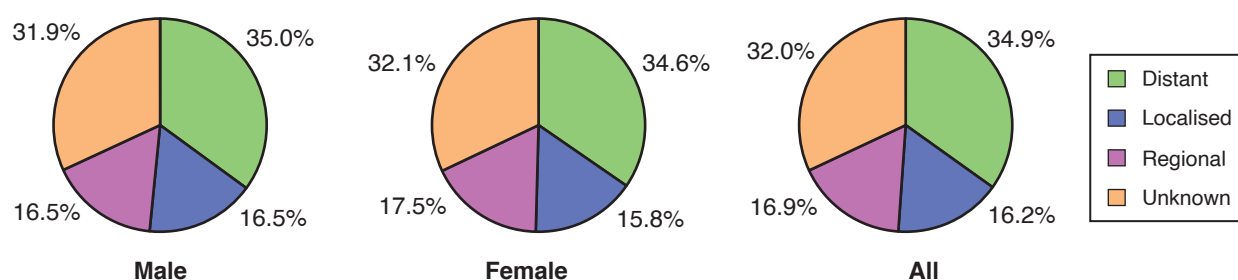


Figure 3.3.2 Stage Distribution of NHL Cancer, 2006

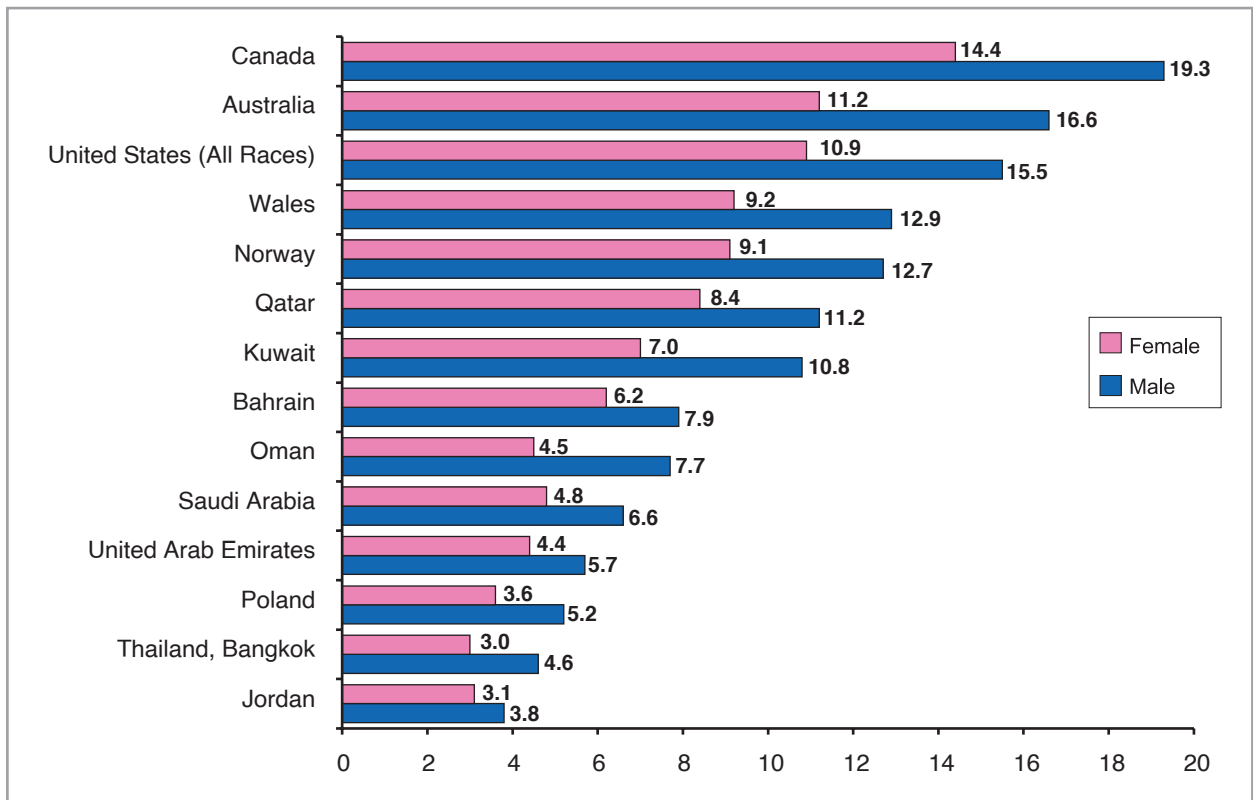


Figure 3.3.4 Comparison of ASR for NHL Cancer among Saudis with ASR in Selected Countries\*\*

\* ASR Per 100,000

\*\* Source for this information is summarized on page 64

## Thyroid (C 73)

There were 541 cases of thyroid cancer for year 2006. This cancer ranked second among female population and twelfth among male population. It affected 117(21.6%) males and 424 (78.4%) females with a male to female ratio of 28:100. The overall ASR was 4.3/100,000. ASR was

2.1/100,000 for males and 6.5/100,000 for females. The median age at diagnosis was 47 years among males (range 12-84 years) and 39 years among females (range 9-109 years).

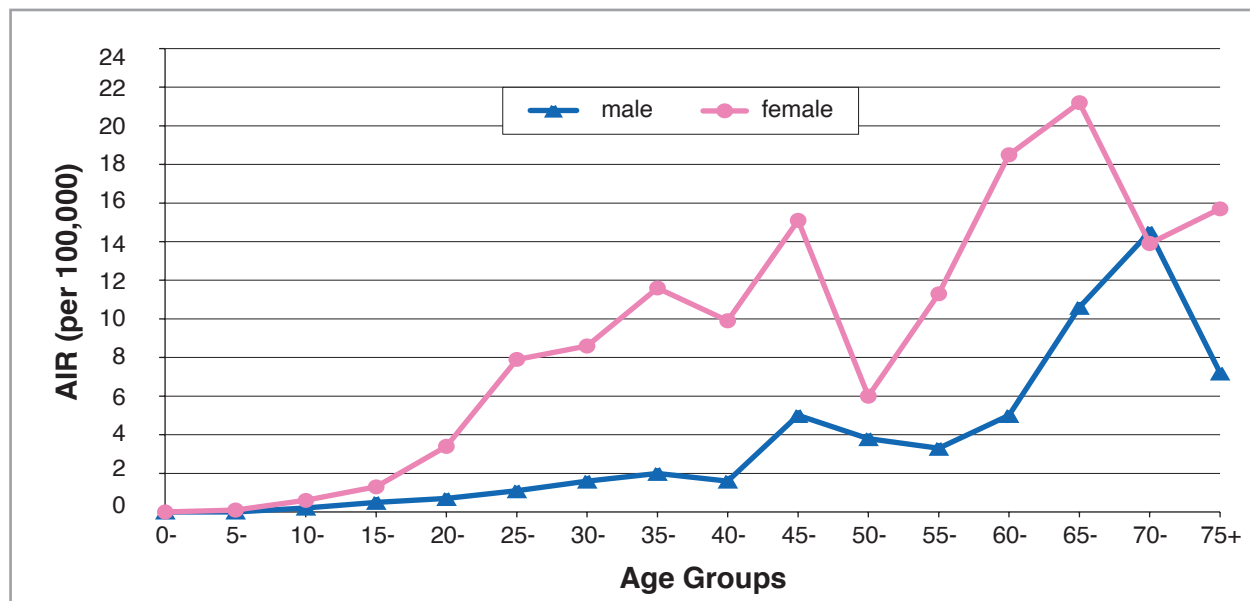


Figure 3.4.1 Age-Specific Incidence Rate (AIR) for Thyroid Cancer in Saudi Arabia, 2006

ICD-O-3 Code	Morphology	Male	%	Female	%
8260	Papillary adenocarcinoma, NOS	71	60.7	232	54.7
8340	Papillary carcinoma, follicular variant	12	10.3	69	16.3
8341	Papillary microcarcinoma	6	5.1	34	8.0
8343	Papillary carcinoma, encapsulated	2	1.7	14	3.3
8335	Follicular carcinoma, minimally invasive	3	2.6	12	2.8
8330	Follicular adenocarcinoma, NOS	5	4.3	9	2.1
8000	Neoplasm, malignant	3	2.6	8	1.9
8510	Medullary carcinoma, NOS	3	2.6	8	1.9
8021	Carcinoma, anaplastic, NOS	3	2.6	6	1.4
8290	Oxyphilic adenocarcinoma	3	2.6	6	1.4
8344	Papillary carcinoma, columnar cell	1	0.9	7	1.7
	Others	5	4.3	19	4.5

Table 3.4.1 Morphological Distribution of Thyroid Cancer in Saudi Arabia, 2006

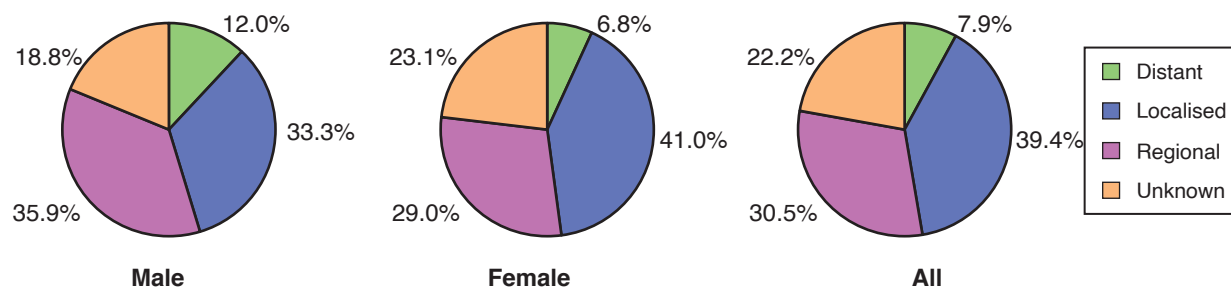


Figure 3.4.2 Stage Distribution of Thyroid Cancer, 2006

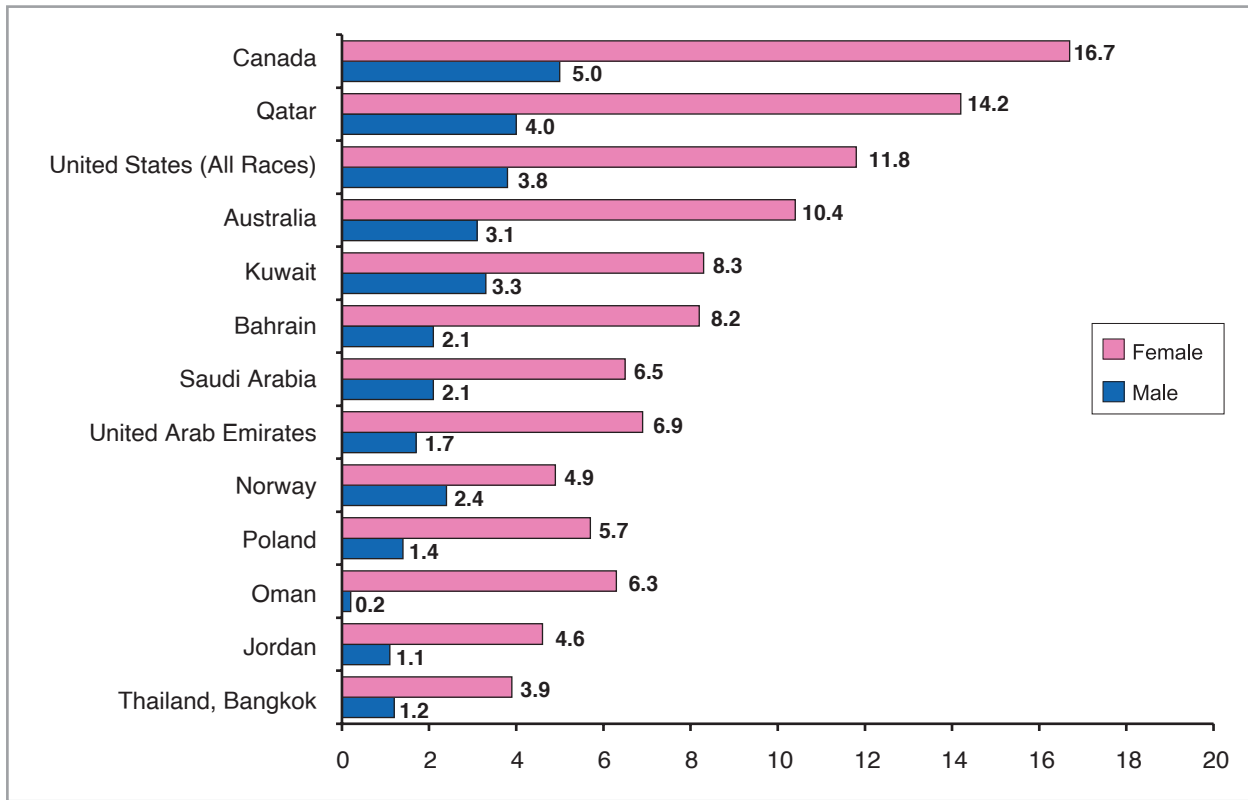


Figure 3.4.4 Comparison of ASR\* for Thyroid Cancer among Saudis with ASR in Selected Countries\*\*

\* ASR Per 100,000

\*\* Source for this information is summarized on page 64

## Leukemia (C91-C95)

There were 508 cases of leukemia accounting for 6.3 % of all newly diagnosed cancers in year 2006. This cancer ranked third for males and fifth for females and affected 296(58.3%) males and 212 (41.7%) females with a male to female ratio of 140:100. The overall ASR was 4/100,000. ASR for males was 4.5/100,000 and

3.4/1000,000 for females. The median age at diagnosis is 25 years among males (range 0-99 years) and 28 years among females (range 1-88 years).

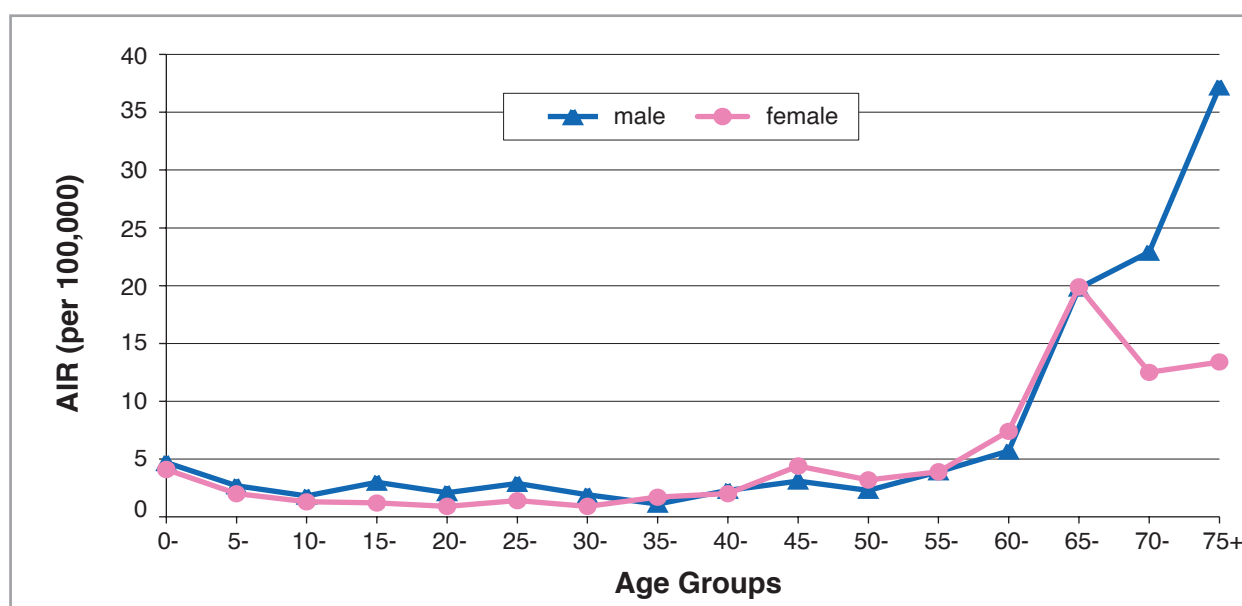


Figure 3.5.1 Age-Specific Incidence Rate (AIR) for Leukemia in Saudi Arabia, 2006

ICD-O-3 Code	Morphology	Male	%	Female	%
9836	Precursor B-cell lymphoblastic leukemia	53	17.9	36	17.0
9835	Precursor cell lymphoblastic leukemia, NOS	54	18.2	34	16.0
9861	Acute myeloid leukemia, NOS	35	11.8	30	14.2
9863	Chronic myeloid leukemia, NOS	31	10.5	33	15.6
9823	B-cell chronic lymphocytic leukemia/small lymphocytic lymphoma	31	10.5	11	5.2
9891	Acute monocytic leukemia	14	4.7	7	3.3
9866	Acute promyelocytic leukemia, t(15;17) (q22; q11-12)	11	3.7	7	3.3
9800	Leukemia, NOS	12	4.1	4	1.9
9874	Acute myeloid leukemia with maturation	8	2.7	7	3.3
9801	Acute leukemia, NOS	10	3.4	4	1.9
9867	Acute myelomonocytic leukemia	4	1.4	8	3.8
9837	Precursor T-cell lymphoblastic leukemia	7	2.4	3	1.4
9873	Acute myeloid leukemia without maturation	2	0.7	4	1.9
9940	Hairy cell leukemia	4	1.4	2	0.9
9945	Chronic myelomonocytic leukemia, NOS	1	0.3	5	2.4
9805	Acute biphenotypic leukemia	4	1.4	1	0.5
9826	Burkitt cell leukemia	2	0.7	3	1.4
9872	Acute myeloid leukemia, minimal differentiation	2	0.7	3	1.4
9910	Acute megakaryoblastic leukemia	3	1.0	2	0.9
	Others	8	2.7	8	3.8

Table 3.5.1 Morphological Distribution of Leukemia in Saudi Arabia, 2006

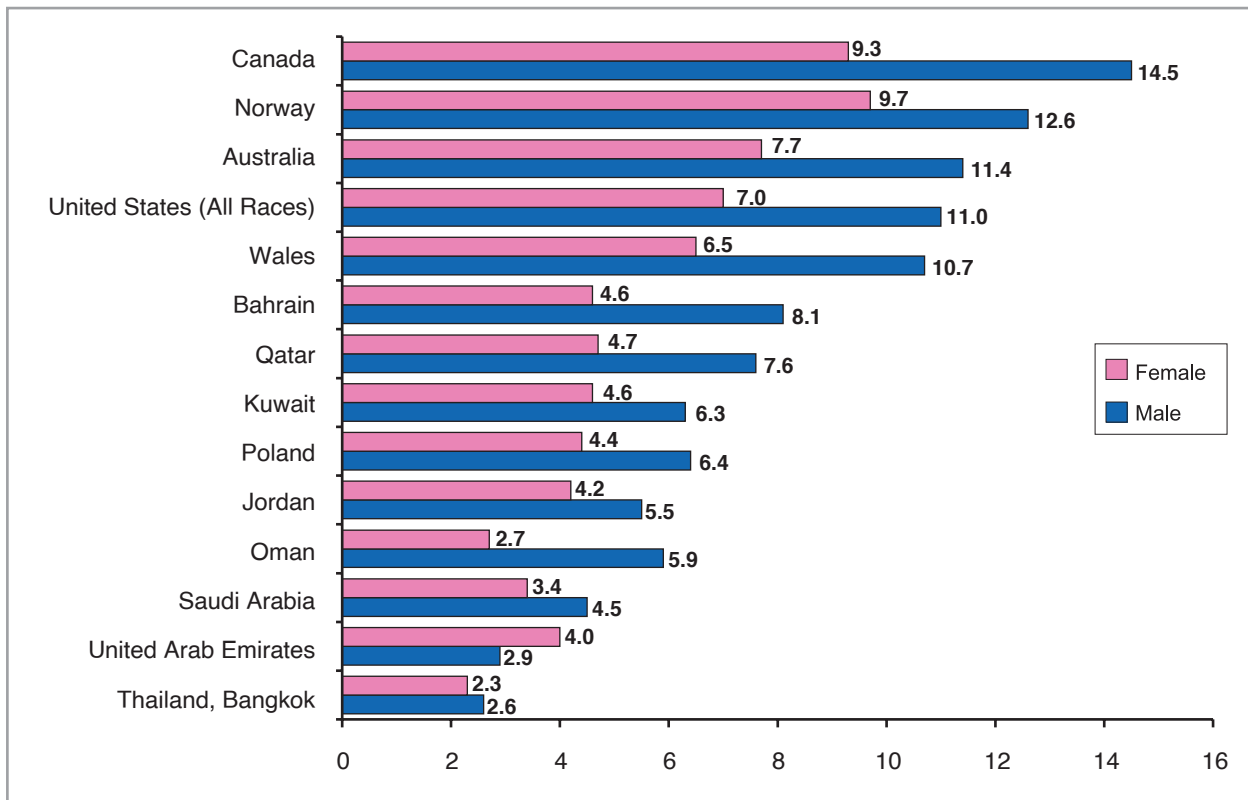


Figure 3.5.3 Comparison of ASR for Leukemia among Saudis with ASR in Selected Countries\*\*

\* ASR Per 100,000

\*\* Source for this information is summarized on page 64

## Liver (C 22)

There were 416 cases of liver cancer accounting for 5.2% of all newly diagnosed cases in year 2006. This cancer ranked fourth in males, and ninth in females and affected 291 (70%) males and 125 (30%) females with a male to female ratio of 233:100. The over all ASR was 5.3/100,000. ASR was 7.5/100,000 for males and 3.1/100,000 for

females. The median age at diagnosis was 67 years in males (range 0-105 years) and 64 years in female (range 0- 93 years).

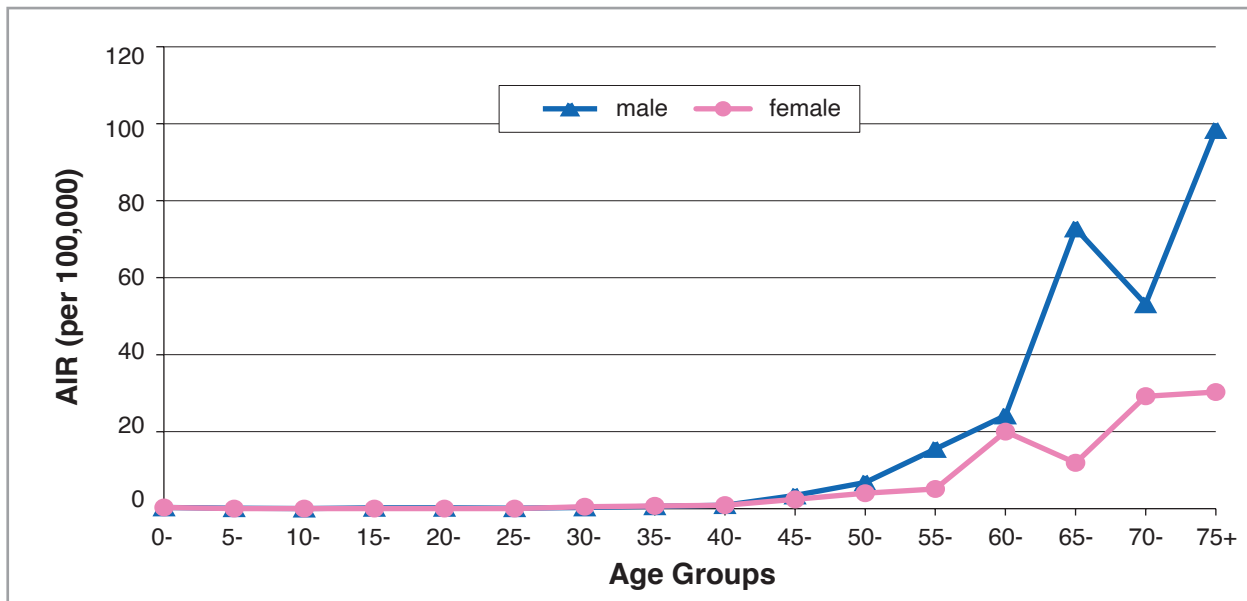


Figure 3.6.1 Age-Specific Incidence Rate (AIR) for Liver Cancer in Saudi Arabia, 2006

ICD-O-3 Code	Morphology	Male	%	Female	%
8170	Hepatocellular carcinoma, NOS	219	75.3	79	63.2
8000	Neoplasm, malignant	35	12.0	17	13.6
8160	Cholangiocarcinoma	13	4.5	9	7.2
8010	Carcinoma, NOS	5	1.7	5	4.0
8140	Adenocarcinoma, NOS	4	1.4	4	3.2
8970	Hepatoblastoma	2	0.7	2	1.6
	Others	13	4.5	9	7.2

Table 3.6.1 Morphological Distribution of Liver Cancer in Saudi Arabia, 2006

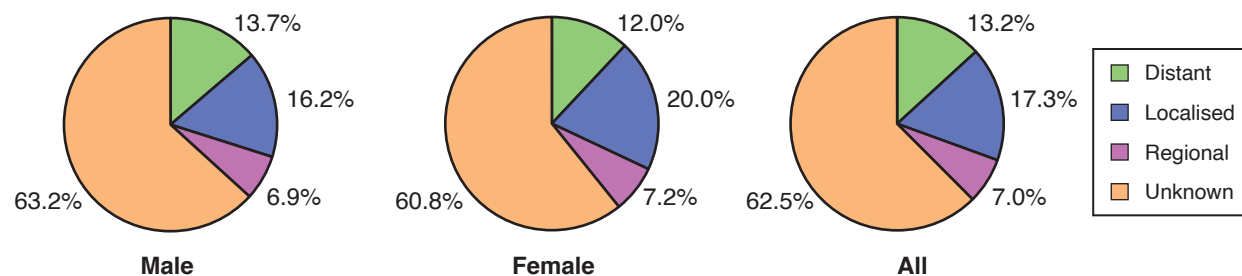


Figure 3.6.2 Stage Distribution of Liver Cancer, 2006

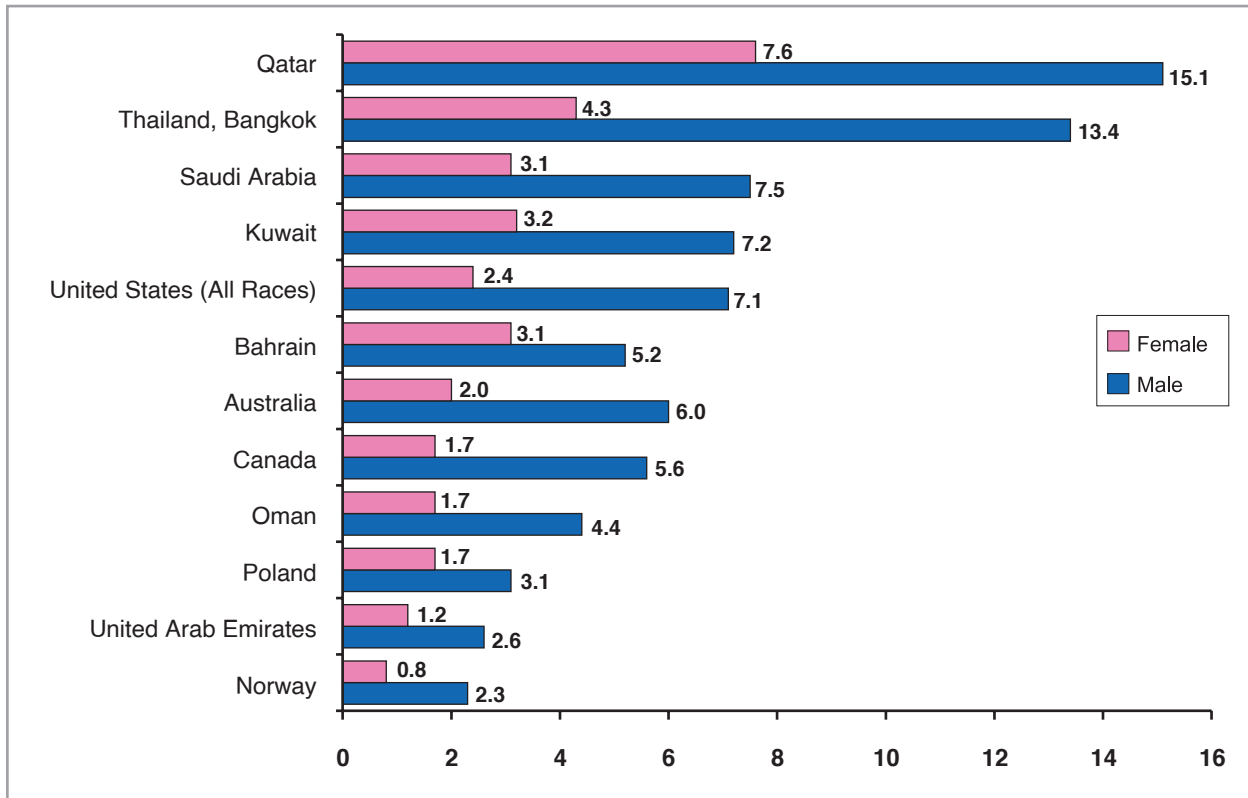


Figure 3.6.4 Comparison of ASR for Liver Cancer among Saudis with ASR in Selected Countries\*\*

\* ASR Per 100,000

\*\* Source for this information is summarized on page 64

## Skin (Non-Melanoma) (C 44)

There were 327 cases of skin cancer accounting for 4.1% of all newly diagnosed cases in year 2006. This cancer ranked seventh for males and females. It affected 193(59%) males and 134(41%) females with a male to female ratio of 144:100. The overall ASR was 3.8/100,000.

ASR was 4.6/100,000 for males and 3/100,000 for females. The median age at diagnosis was 68 years among males (range 12-101 years) and 62 years among female (range 14-109 years).

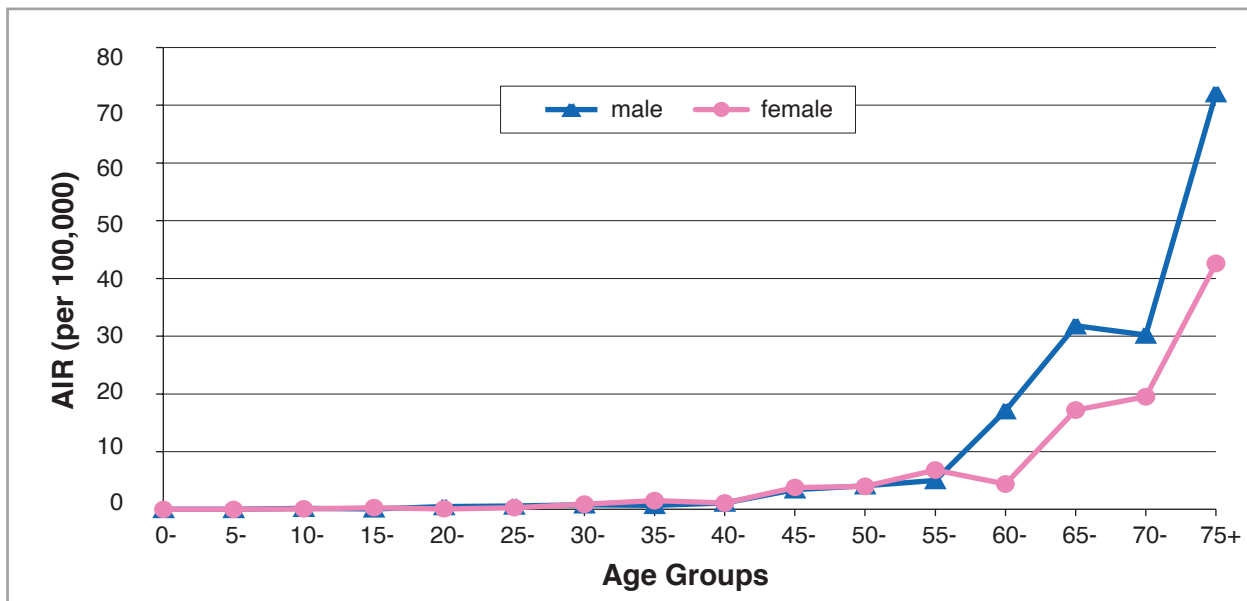


Figure 3.7.1 Age-Specific Incidence Rate (AIR) for Skin Cancer in Saudi Arabia, 2006

ICD-O-3 Code	Morphology	Male	%	Female	%
8090	Basal cell carcinoma, NOS	91	47.2	55	41.0
8070	Squamous cell carcinoma, NOS	43	22.3	33	24.6
8071	Squamous cell carcinoma, keratinizing, NOS	18	9.3	8	6.0
8832	Dermatofibrosarcoma, NOS	10	5.2	10	7.5
8097	Basal cell carcinoma, nodular	5	2.6	7	5.2
8094	Basosquamous carcinoma	6	3.1	5	3.7
8410	Sebaceous adenocarcinoma	3	1.6	4	3.0
8098	Adenoid basal carcinoma	3	1.6	3	2.2
8091	Multifocal superficial basal cell carcinoma	1	0.5	3	2.2
8092	Infiltrating basal cell carcinoma, NOS	4	2.1	0	0.0
	Others	9	4.7	6	4.5

Table 3.7.1 Morphological Distribution of Skin Cancer in Saudi Arabia, 2006

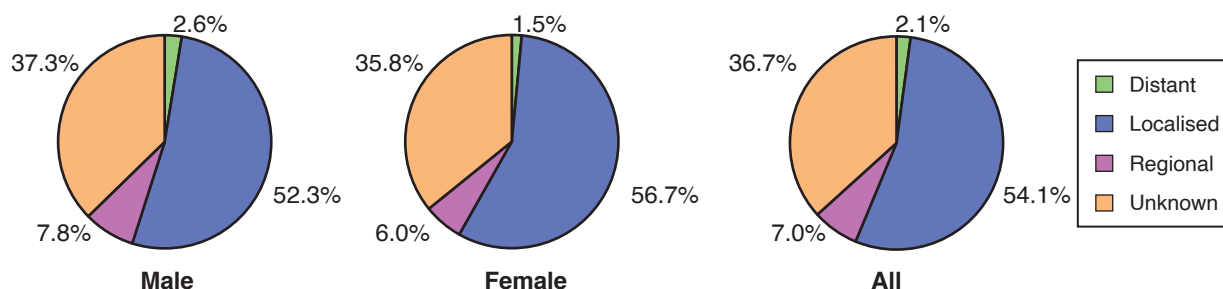


Figure 3.7.2 Stage Distribution of Skin Cancer in Saudi Arabia, 2006

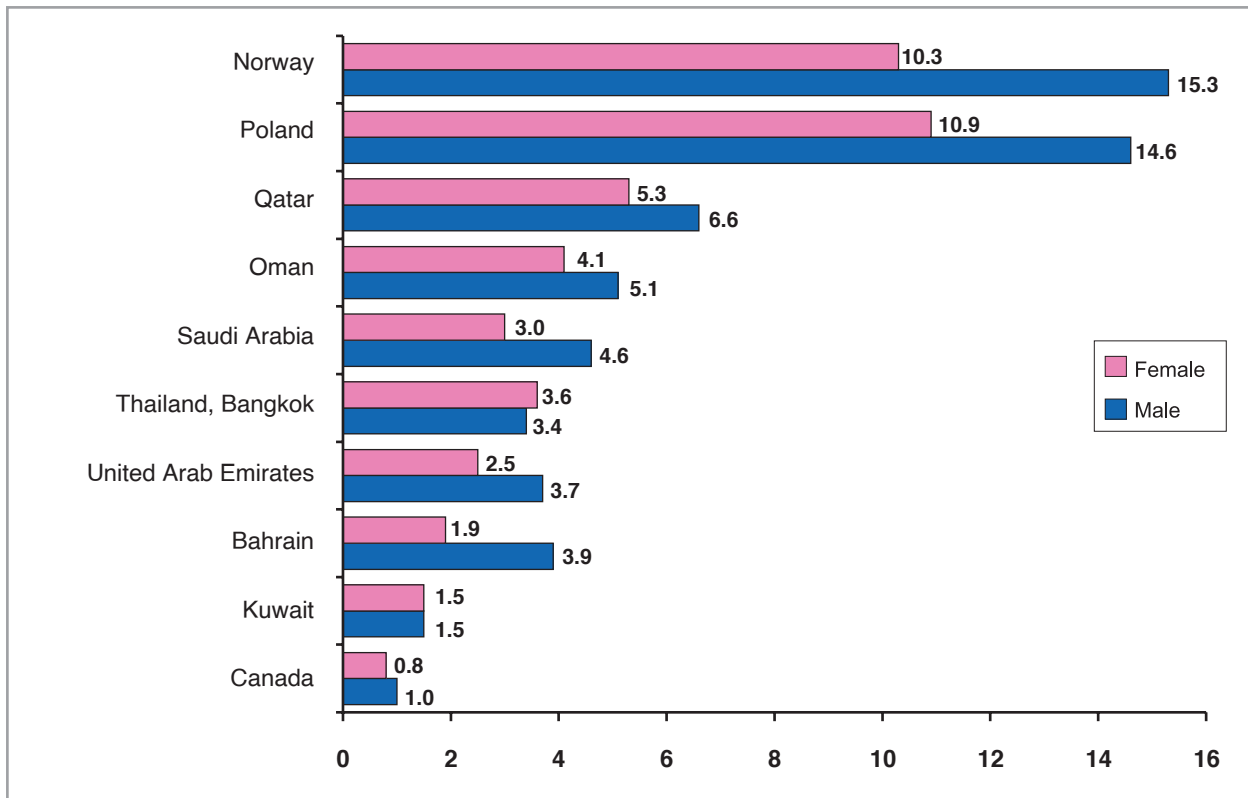


Figure 3.7.4 Comparison of ASR for Skin Cancer among Saudis with ASR in Selected Countries\*\*

\* ASR Per 100,000

\*\* Source for this information is summarized on page 64

## Lung (C33-C34)

There were 312 cases of lung cancer accounting for 3.9% of all diagnosed cases in year 2006. Lung cancer ranked fifth among male population and thirteenth among female population. It affected 232 (74.4 %) males and 80 (25.6%) females with a male to female ratio of 290:100. The overall ASR was 4.1/100,000. ASR was 6.1/100,000 for males and 2/100,000 for females.

The median age at diagnosis was 67 years among males (range 23-100 years) and 62 years among females (range 17-91 years).

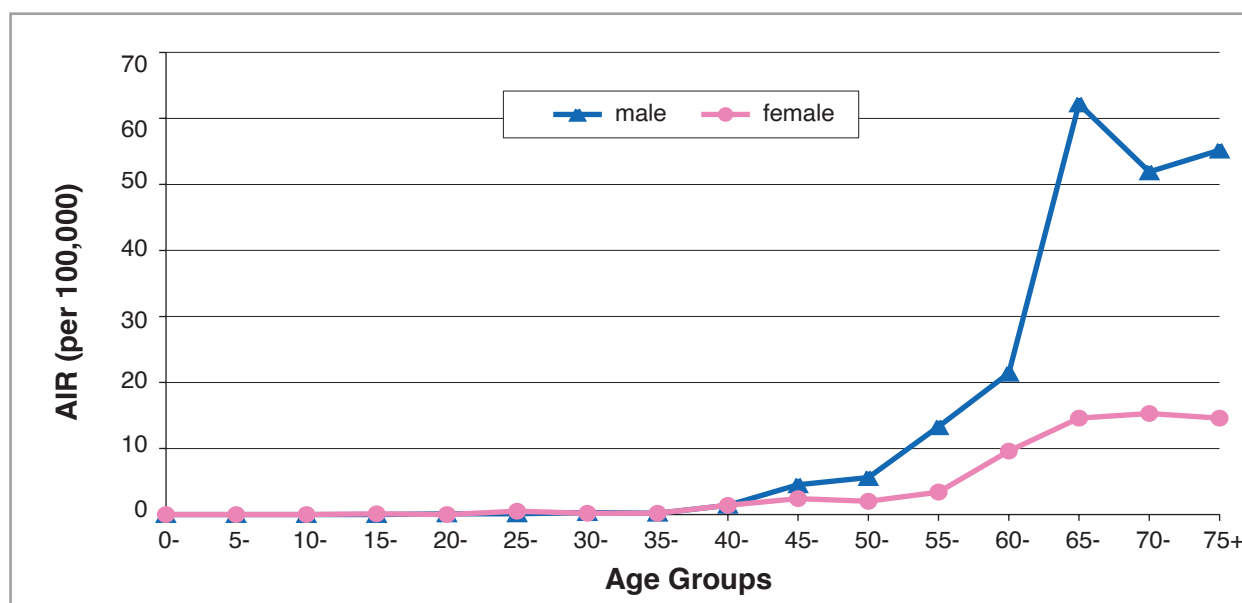


Figure 3.8.1 Age-Specific Incidence Rate (AIR) for Lung Cancer in Saudi Arabia, 2006

ICD-O-3 Code	Morphology	Male	%	Female	%
8140	Adenocarcinoma, NOS	51	22.0	32	40.0
8070	Squamous cell carcinoma, NOS	46	19.8	5	6.3
8000	Neoplasm, malignant	23	9.9	11	13.8
8041	Small cell carcinoma, NOS	29	12.5	5	6.3
8046	Non-small cell carcinoma	27	11.6	6	7.5
8010	Carcinoma, NOS	10	4.3	4	5.0
8012	Large cell carcinoma, NOS	8	3.4	3	3.8
8250	Bronchiolo-alveolar adenocarcinoma, NOS	9	3.9	2	2.5
8071	Squamouscell carcinoma, keratinizing, NOS	9	3.9	0	0.0
8260	Papillary adenocarcinoma, NOS	1	0.4	3	3.8
8013	Large cell neuroendocrine carcinoma	3	1.3	0	0.0
8020	Carcinoma, undifferentiated, NOS	2	0.9	1	1.3
	Others	14	6.0	8	10.0

Table 3.8.1 Morphological Distribution of Lung Cancer in Saudi Arabia, 2006

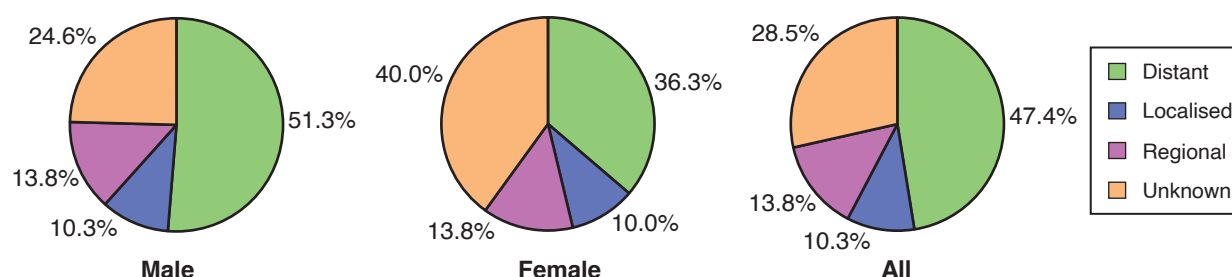


Figure 3.8.2 Stage Distribution of Lung Cancer, 2006

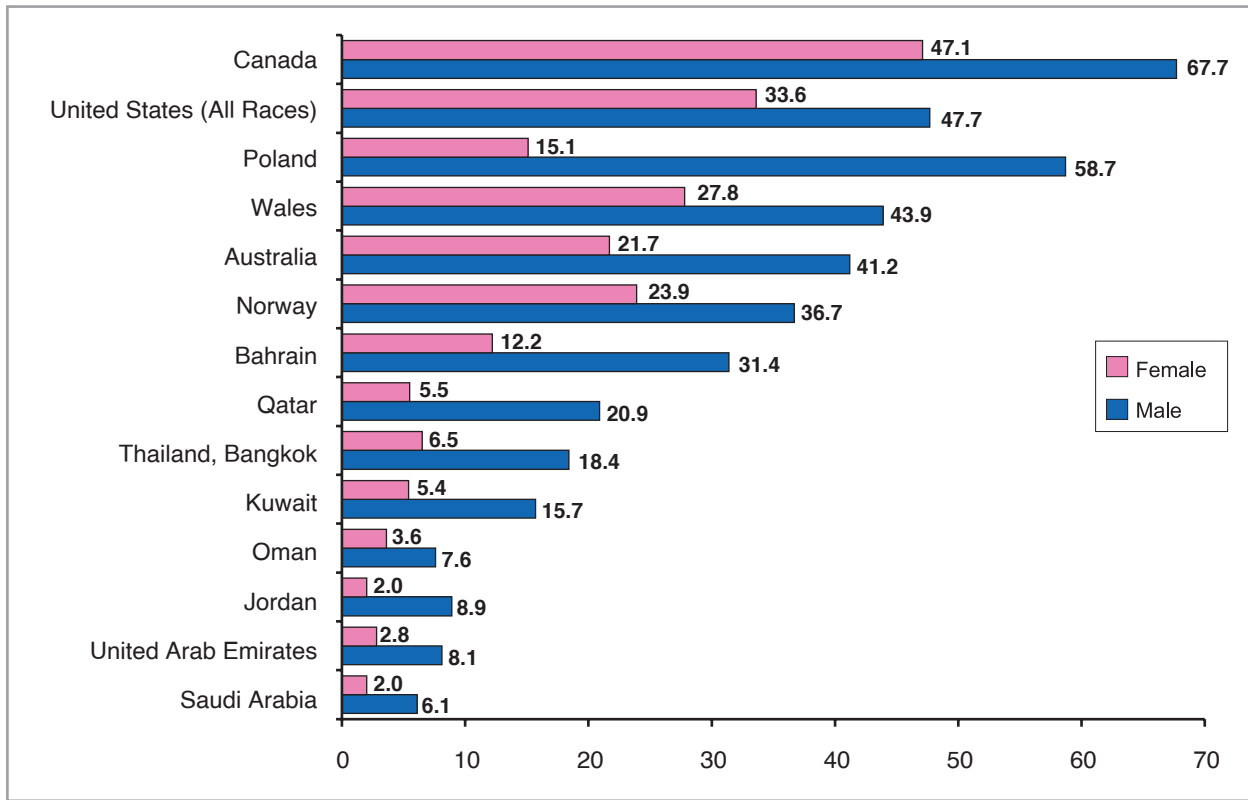


Figure 3.8.4 Comparison of ASR for Lung Cancer among Saudis with ASR in Selected Countries\*\*

\* ASR Per 100,000

\*\* Source for this information is summarized on page 64

## Hodgkin Disease (C 81)

There were 293 cases of Hodgkin disease cancer accounting for 3.6% of all newly diagnosed cases in year 2006. This cancer ranked eighteenth among male and tenth in female population. It affected 173 (59%) males and 120 (41%) females with a male to female ratio of 144:100. The overall ASR was 1.9/100,000. ASR was 2.1/100,000 for males

and 1.6/100,000 for females. The median age at diagnosis was 24 years (range 3-85 years) in males and 22 years in females (range 4-80).

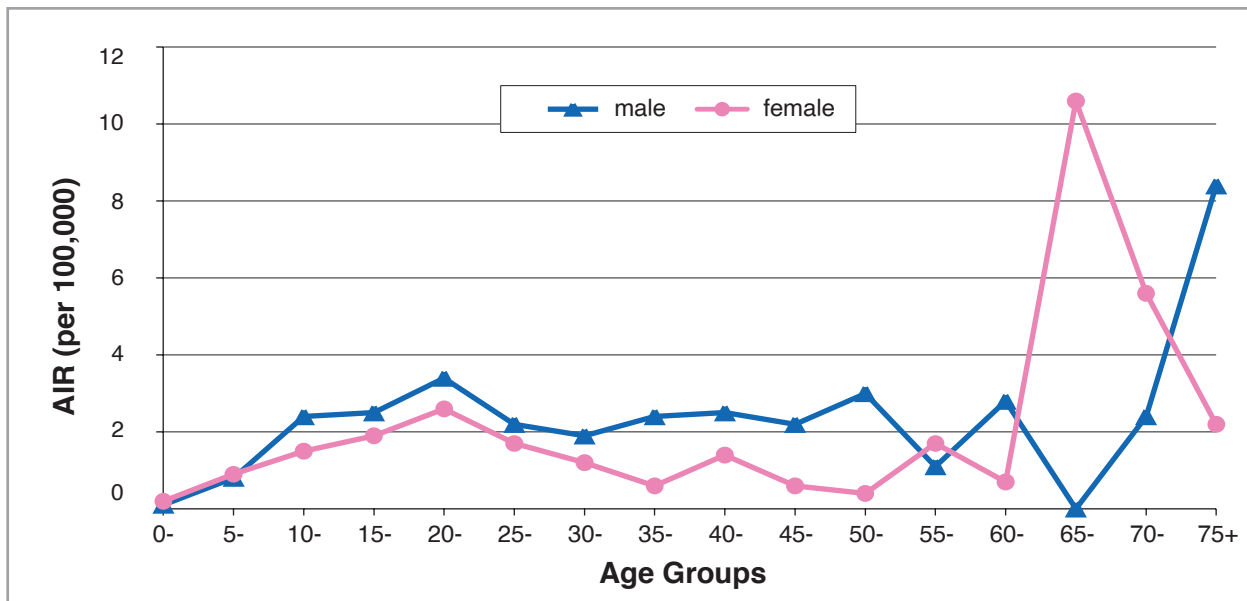


Figure 3.9.1 Age-Specific Incidence Rate (AIR) for Hodgkins disease in Saudi Arabia, 2006

ICD-O-3 Code	Morphology	Male	%	Female	%
9663	Hodgkin lymphoma, nodular sclerosis, NOS	65	37.6	53	44.2
9652	Hodgkin lymphoma, mixed cellularity, NOS	34	19.7	23	19.2
9650	Hodgkin lymphoma, NOS	22	12.7	18	15.0
9659	Hodgkin lymphoma, nodular lymphocyte predominance	15	8.7	6	5.0
9651	Hodgkin lymphoma, lymphocyte-rich	12	6.9	6	5.0
9665	Hodgkin lymphoma, nodular sclerosis, grade 1	7	4.0	5	4.2
9653	Hodgkin lymphoma, lymphocyte depletion, NOS	9	5.2	2	1.7
9667	Hodgkin lymphoma, nodular sclerosis, grade 2	7	4.0	4	3.3
9664	Hodgkin lymphoma, nodular sclerosis, cellular phase	2	1.2	3	2.5

Table 3.9.1 Morphological Distribution of Hodgkins disease in Saudi Arabia, 2006

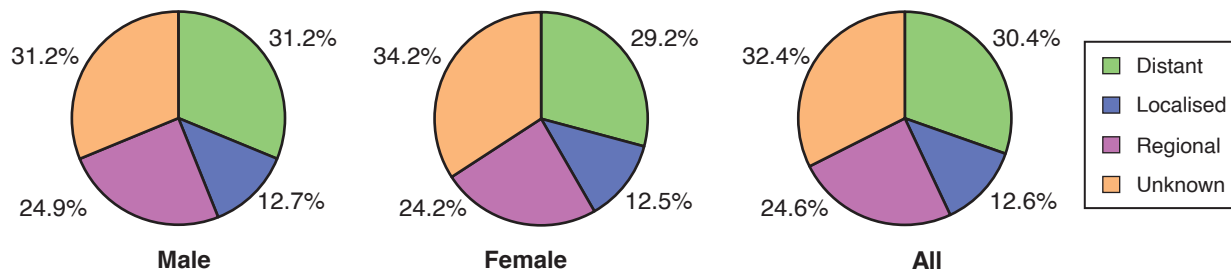


Figure 3.9.2 Stage Distribution of Hodgkins disease, 2006

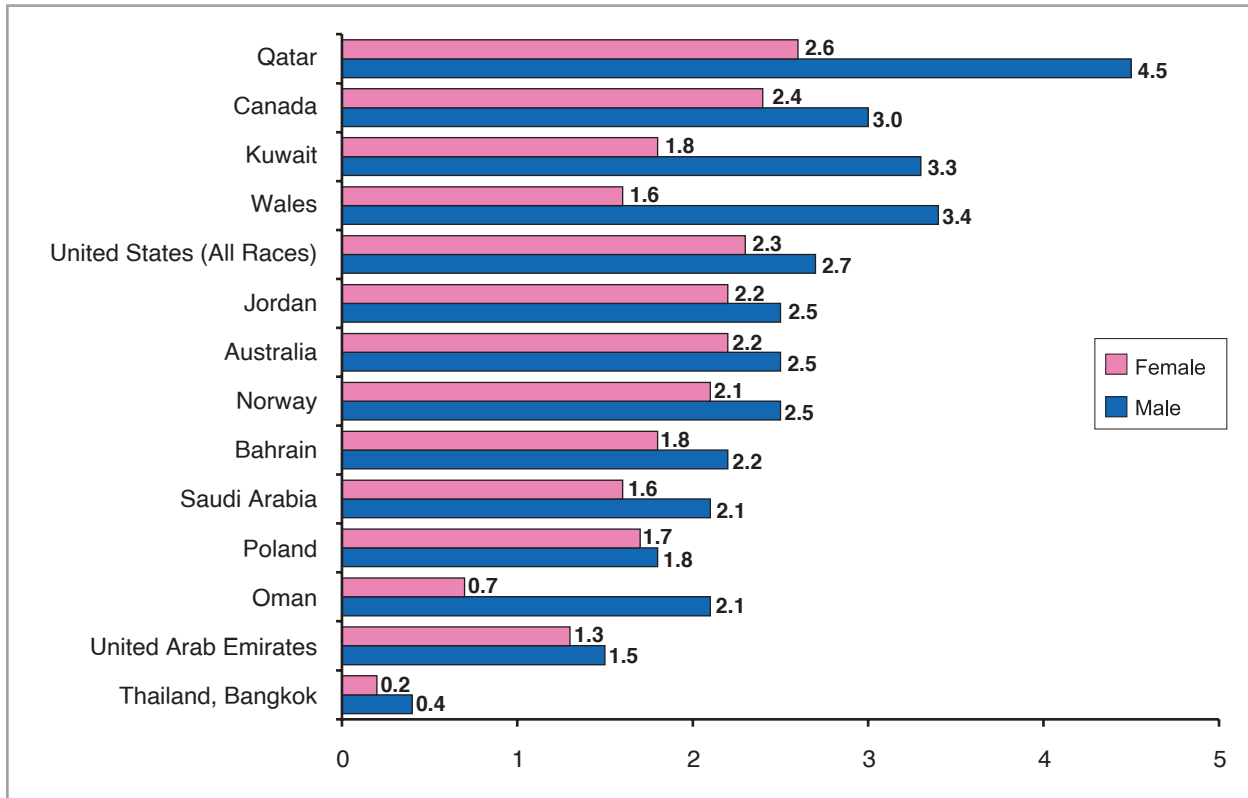


Figure 3.9.4 Comparison of ASR for Hodgkins disease among Saudis with ASR in Selected Countries\*\*

\* ASR Per 100,000

\*\* Source for this information is summarized on page 64

## Stomach (C 16)

There were 275 cases of stomach cancer accounting for 3.4% of all newly diagnosed cases in year 2006. This cancer ranked tenth among male population and eleventh among female population. It affected 162(58.9%) males and 113 (41.1%) females with a male to female ratio of 143:100. The over all ASR was 3.3/100,000. ASR was 3.9/100,000 for male

and 2.7/100,000 for females. The median age at diagnosis was 69 years among males (range 20-112 years) and 61 years among female (range 19-89 years).

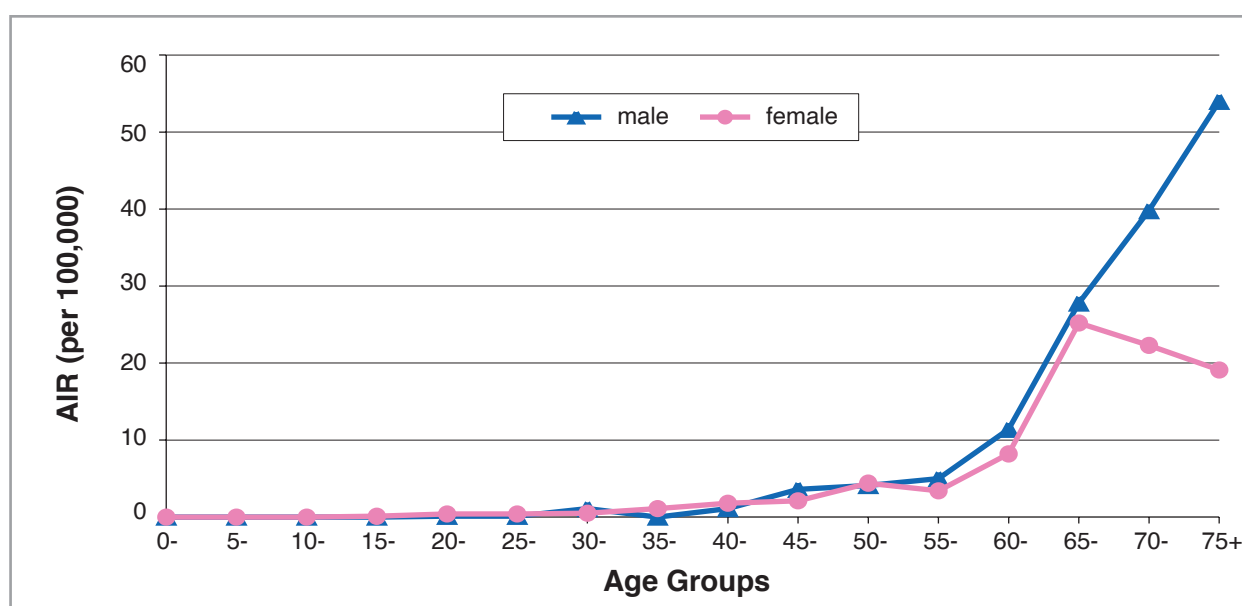


Figure 3.10.1 Age-Specific Incidence Rate (AIR) for Stomach Cancer in Saudi Arabia, 2006

ICD-O-3 Code	Morphology	Male	%	Female	%
8140	Adenocarcinoma, NOS	74	45.7	46	40.7
8490	Signet ring cell carcinoma	37	22.8	34	30.1
8144	Adenocarcinoma, intestinal type	18	11.1	6	5.3
8010	Carcinoma, NOS	5	3.1	5	4.4
8000	Neoplasm, malignant	3	1.9	6	5.3
8480	Mucinous adenocarcinoma	4	2.5	3	2.7
8070	Squamous cell carcinoma, NOS	1	0.6	3	2.7
8145	Carcinoma, diffuse type	3	1.9	1	0.9
8260	Papillary adenocarcinoma, NOS	4	2.5	0	0.0
	Others	13	8.0	9	8.0

Table 3.10.1 Morphological Distribution of Stomach Cancer in Saudi Arabia, 2006

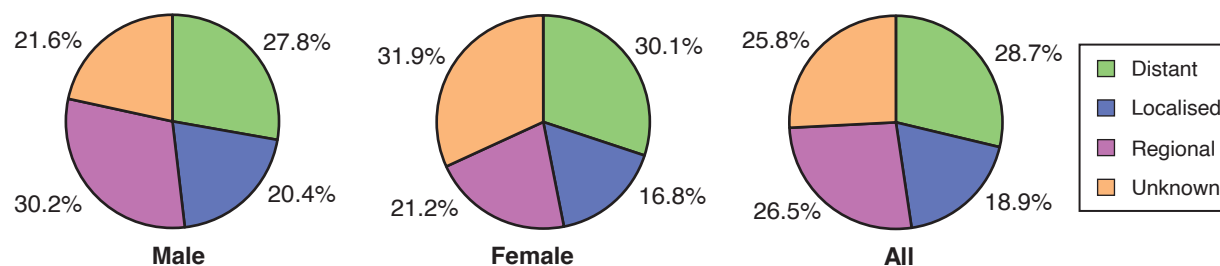


Figure 3.10.2 Stage Distribution of Stomach Cancer, 2006

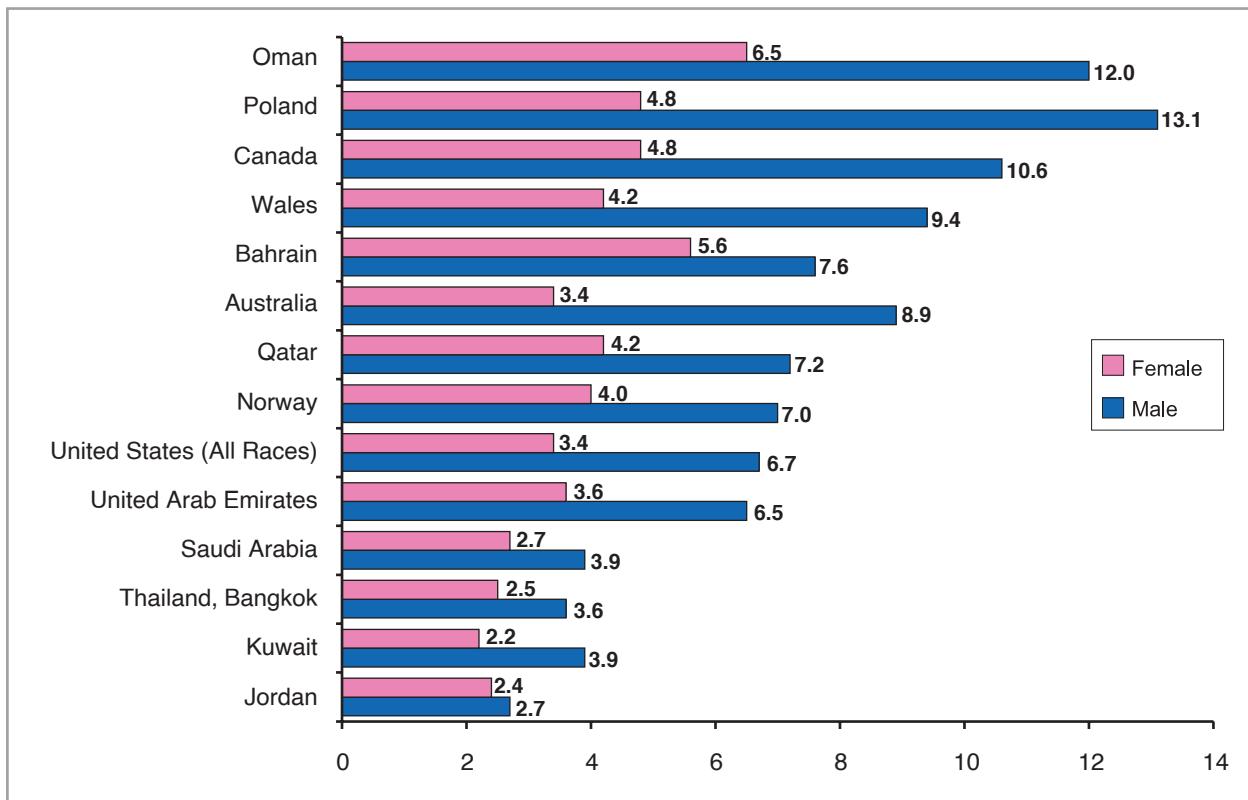


Figure 3.10.4 Comparison of ASR for Stomach Cancer among Saudis with ASR in Selected Countries\*\*

\* ASR Per 100,000

\*\* Source for this information is summarized on page 64

## Prostate (C 61)

There were 228 cases of prostate cancer accounting for 5.8% of all newly diagnosed cases among males in year 2006. The ASR was 6.1/100,000 among male population. This cancer

ranked sixth among males. The median age at diagnosis was 71 years (range 1-101 years).

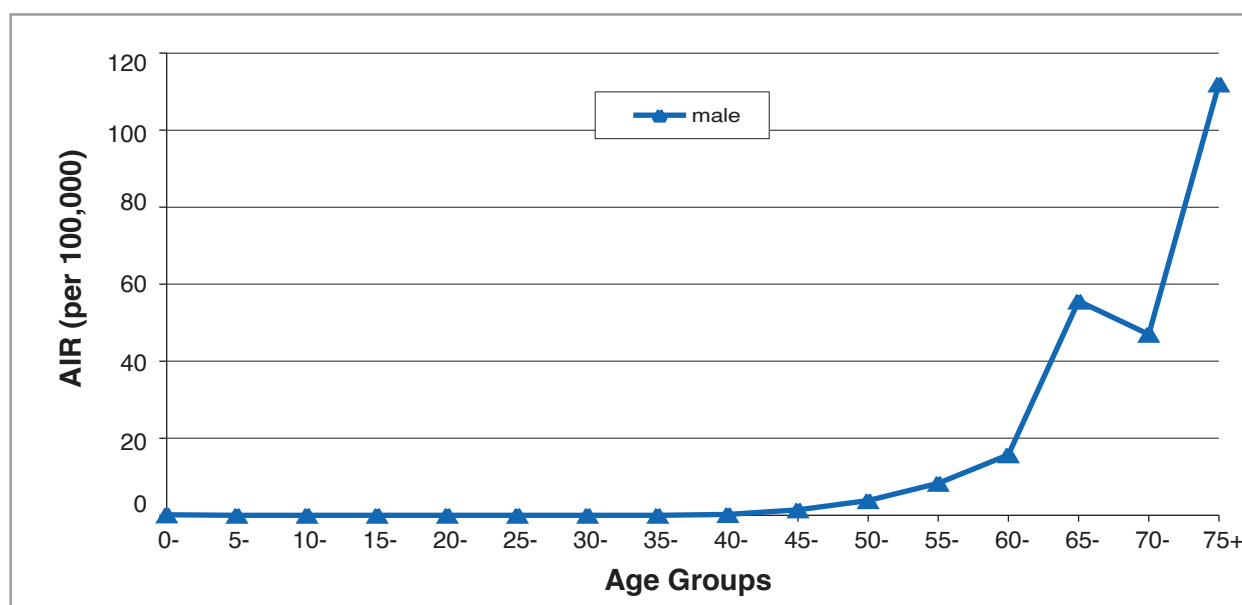


Figure 3.11.1 Age-Specific Incidence Rate (AIR) for Prostate Cancer in Saudi Arabia, 2006

ICD-O-3 Code	Morphology	Male	%
8140	Adenocarcinoma, NOS	199	87.3
8000	Neoplasm, malignant	12	5.3
8010	Carcinoma, NOS	7	3.1
8550	Acinar cell carcinoma	3	1.3
8021	Carcinoma, anaplastic, NOS	1	0.4
8130	Papillary transitional cell carcinoma	1	0.4
8246	Neuroendocrine carcinoma, NOS	1	0.4
8320	Granular cell carcinoma	1	0.4
8480	Mucinous adenocarcinoma	1	0.4
8490	Signet ring cell carcinoma	1	0.4
8910	Embryonal rhabdomyosarcoma, NOS	1	0.4

Table 3.11.1 Morphological Distribution of Prostate Cancer in Saudi Arabia, 2006

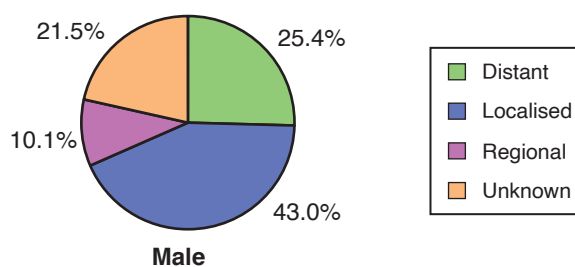
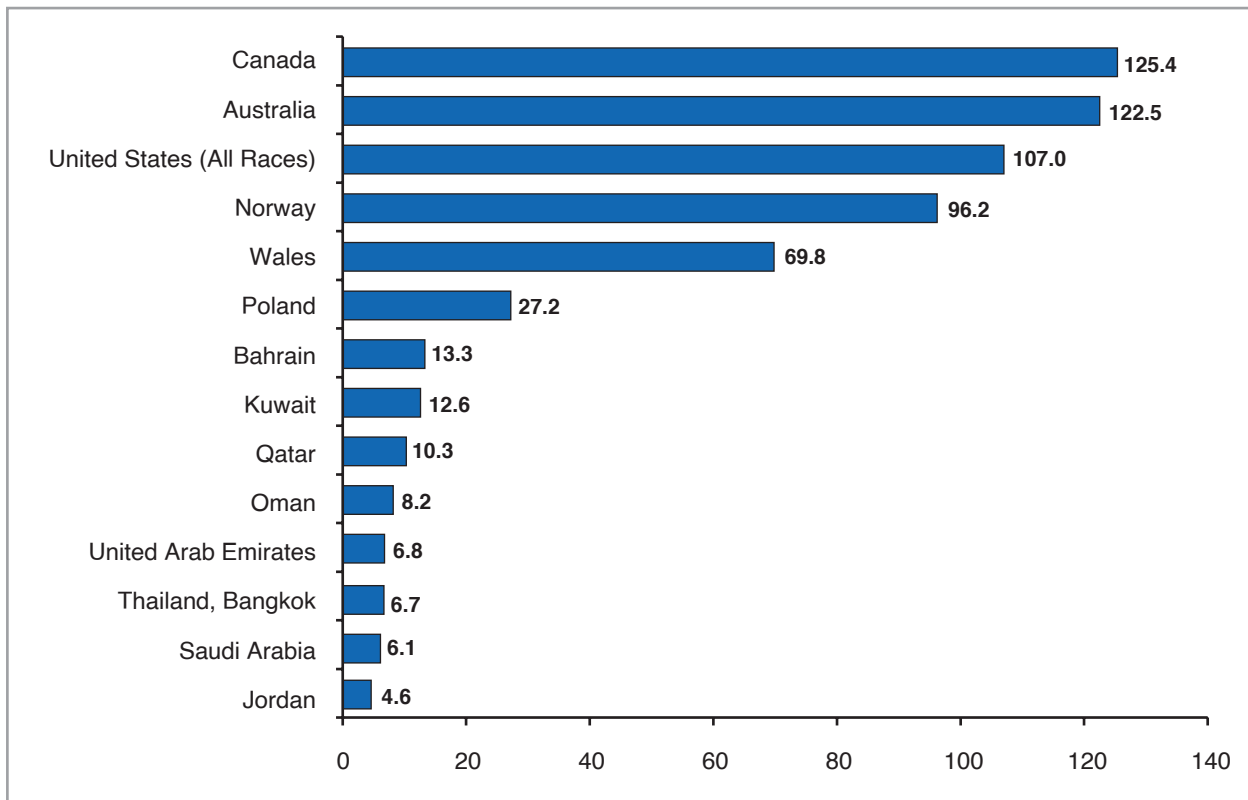


Figure 3.11.2 Stage Distribution of Prostate Cancer, 2006



**Figure 3.11.4 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 64

## Bladder (C 67)

There were 211 cases of bladder cancer accounting for 2.6% of all newly diagnosed cases in year 2006. This cancer ranked ninth among male population and twentieth among female population. It affected 169 (80.1%) males and 42 (19.9%) females with a male to female ratio of 403:100. The overall ASR

was 2.6/100,000. ASR was 4.1/100,000 for males and 1/100,000 for females. The median age at diagnosis was 64 among males (range 24-110 years) and 69 among females (range 30-100 years).

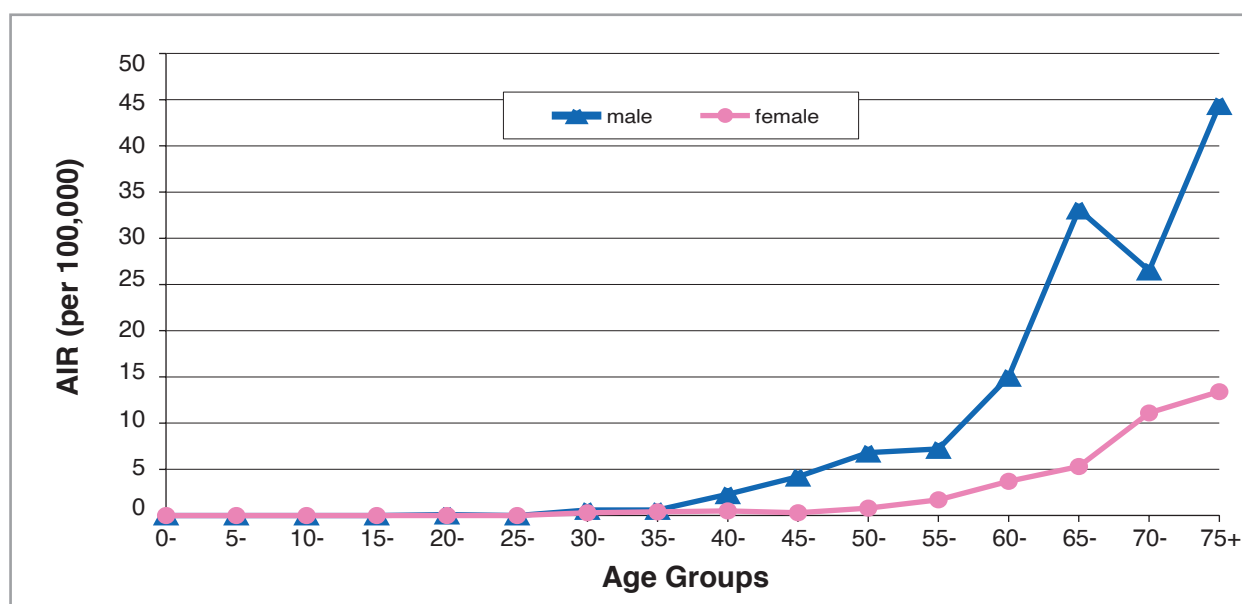


Figure 3.12.1 Age-Specific Incidence Rate (AIR) for Bladder Cancer in Saudi Arabia, 2006

ICD-O-3 Code	Morphology	Male	%	Female	%
8120	Transitional cell carcinoma, NOS	81	47.9	17	40.5
8130	Papillary transitional cell carcinoma	64	37.9	11	26.2
8070	Squamous cell carcinoma, NOS	5	3.0	7	16.7
8000	Neoplasm, malignant	5	3.0	1	2.4
8071	Squamous cell carcinoma, keratinizing, NOS	5	3.0	1	2.4
8140	Adenocarcinoma, NOS	4	2.4	1	2.4
	Others	5	3.0	4	9.5

Table 3.12.1 Morphological Distribution of Bladder Cancer in Saudi Arabia, 2006

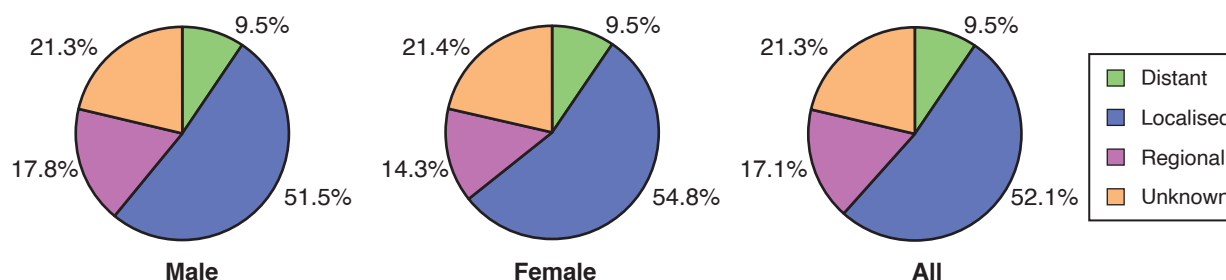
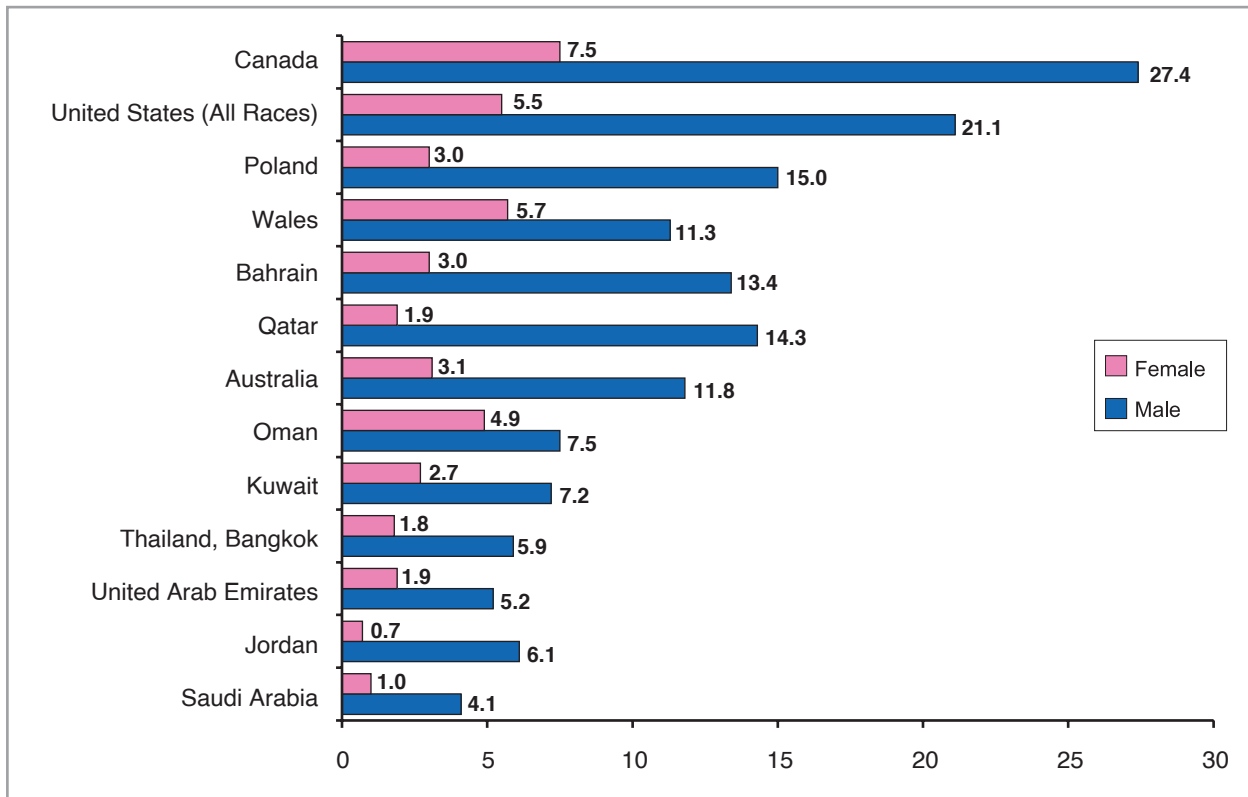


Figure 3.13.2 Stage Distribution of Bladder Cancer, 2006



**Figure 3.12.4 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 64

## Corpus uteri (C 54)

There were 140 cases of corpus uteri cancer among females accounting for 3.4 % of all newly diagnosed cases for females (4,156) in year 2006. This cancer ranked sixth among female population. The ASR was

3.6/100,000 for female population. The median age at diagnosis was 61 years (range 26-94 years).

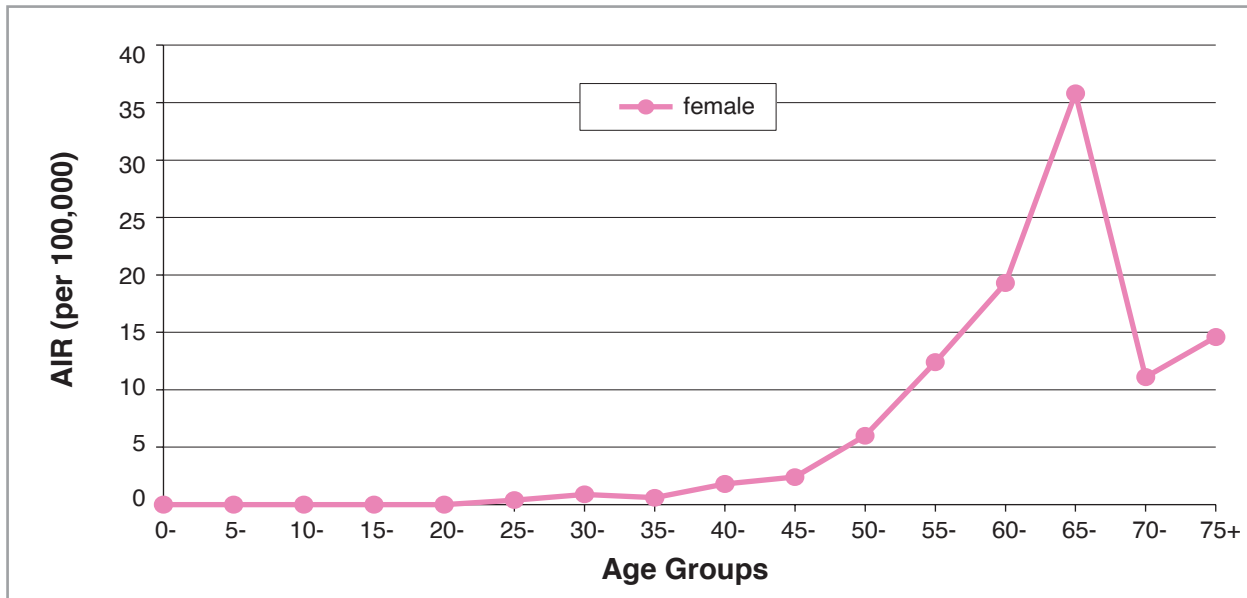


Figure 3.13.1 Age-Specific Incidence Rate (AIR) for Corpus uterine Cancer in Saudi Arabia, 2006

ICD-O-3 Code	Morphology	Female	%
8380	Endometrioid adenocarcinoma, NOS	71	50.7
8140	Adenocarcinoma, NOS	25	17.9
8950	Mullerian mixed tumor	8	5.7
8930	Endometrial stromal sarcoma, NOS	5	3.6
8460	Papillary serous cystadenocarcinoma	4	2.9
8560	Adenosquamous carcinoma	4	2.9
8890	Leiomyosarcoma, NOS	4	2.9
	Endometrial stromal sarcoma, low grade	4	2.9
	Others	15	10.7

Table 3.13.1 Morphological Distribution of Corpus uteri Cancer in Saudi Arabia, 2006

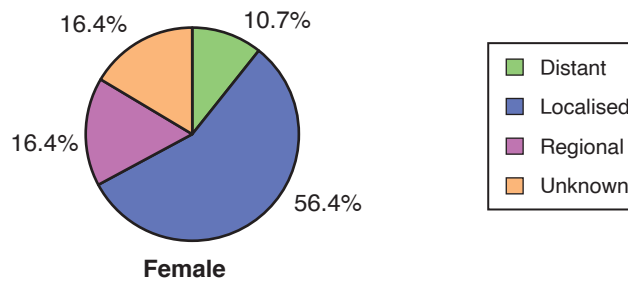
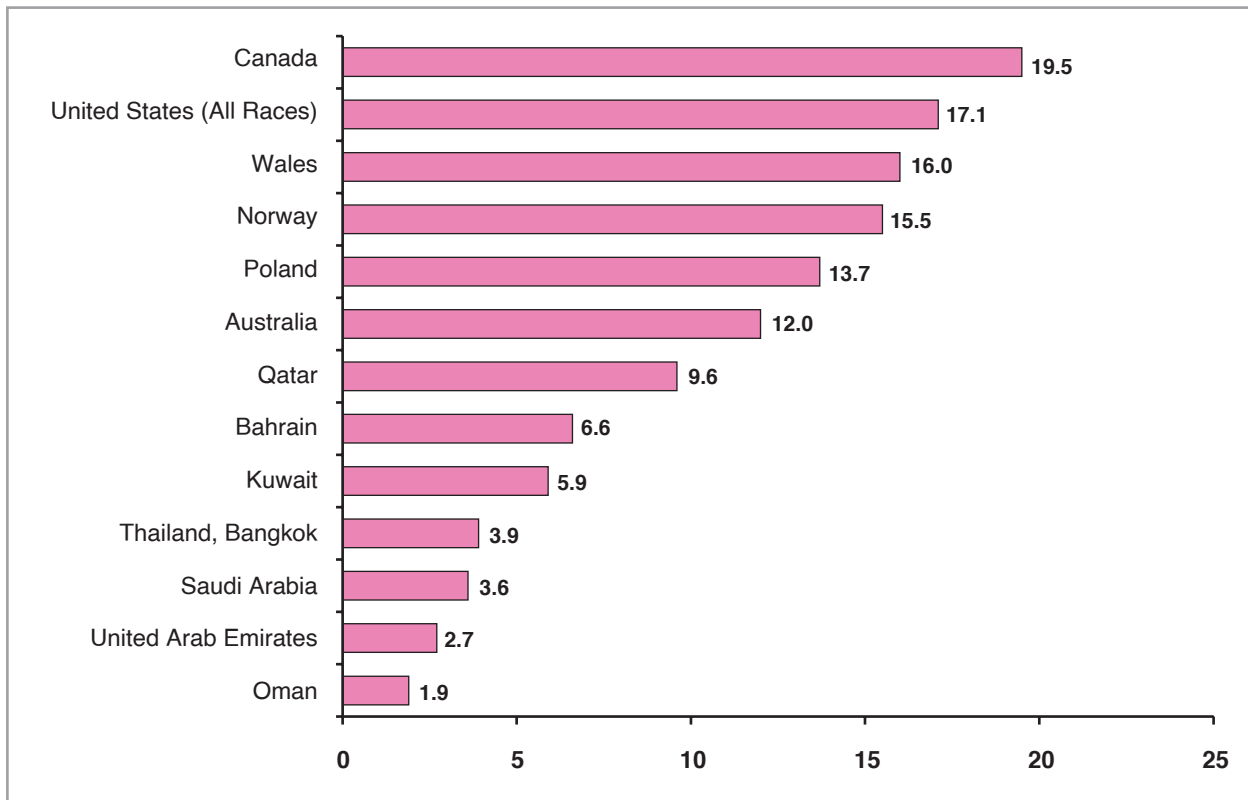


Figure 3.13.2 Stage Distribution of Corpus uteri Cancer, 2006



**Figure 3.13.4 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 64

## Ovarian Cancer (C 56)

There were 132 cases of ovarian cancer among females accounting for 3.2% of all newly diagnosed cases among females (4,156) in year 2006. This cancer ranked eighth among female population.

The ASR was 2.8/100,000 for females. The median age at diagnosis was 54 years (range 10-98 years).

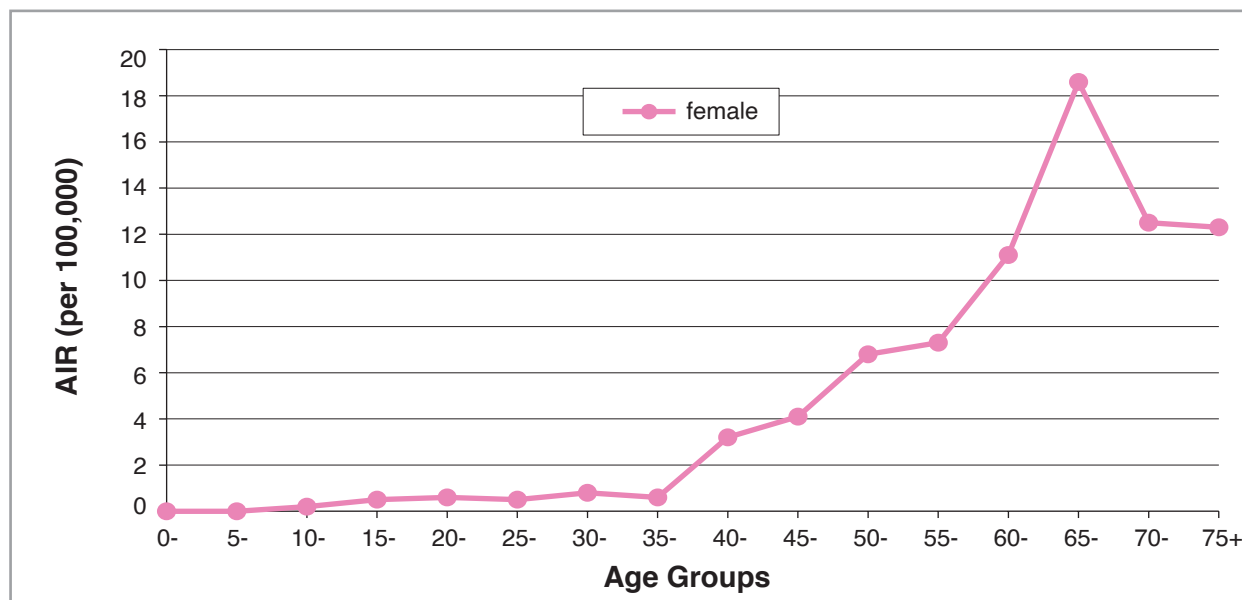


Figure 3.14.1 Age-Specific Incidence Rate (AIR) for Ovarian Cancer in Saudi Arabia, 2006

ICD-O-3 Code	Morphology	Female	%
8140	Adenocarcinoma, NOS	25	18.9
8460	Papillary serous cystadenocarcinoma	24	18.2
8441	Serous cystadenocarcinoma, NOS	13	9.8
8000	Neoplasm, malignant	11	8.3
8470	Mucinous cystadenocarcinoma, NOS	10	7.6
8461	Serous surface papillary carcinoma	9	6.8
8380	Endometrioid adenocarcinoma, NOS	8	6.1
8010	Carcinoma, NOS	4	3.0
8480	Mucinous adenocarcinoma	4	3.0
9060	Dysgerminoma	4	3.0
8980	Carcinosarcoma, NOS	2	1.5
9064	Germinoma	2	1.5
9080	Teratoma, malignant, NOS	2	1.5
9085	Mixed germ cell tumor	2	1.5
	Others	12	9.1

Table 3.14.1 Morphological Distribution of Ovarian Cancer in Saudi Arabia, 2006

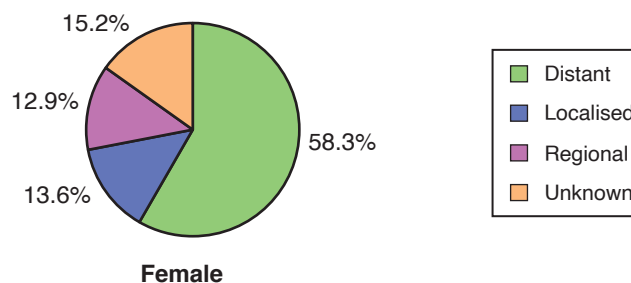
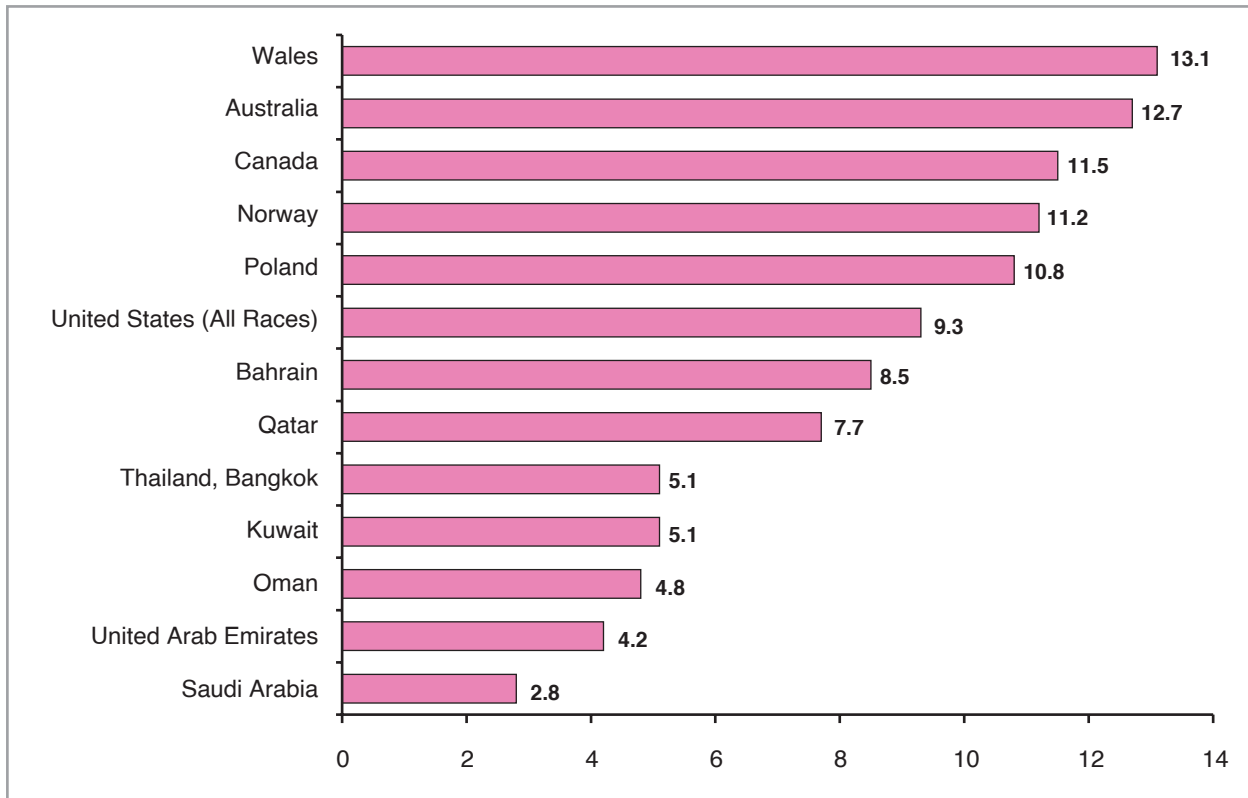


Figure 3.14.2 Stage Distribution of Ovarian Cancer, 2006



**Figure 3.14.4 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 64

**\*\* Sources:**

- 1 Cancer Incidence in Wales, 2002-2006 Available from:  
<http://www.wales.nhs.uk/sites3/page.cfm?orgid=242&pid=27758> and  
<http://www.wales.nhs.uk/sites3/page.cfm?orgid=242&pid=28752>
- 2 Cancer Incidence in Canada. 2005 and 2006, Second edition  
<http://www.statcan.gc.ca/pub/82-231-x/82-231-x2008002-eng.pdf>
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[http://seer.cancer.gov/csr/1975\\_2006/browse\\_csr.php?section=4&page=sect\\_04\\_table.10.html](http://seer.cancer.gov/csr/1975_2006/browse_csr.php?section=4&page=sect_04_table.10.html)
- 4 Cancer Incidence, Mortality, Survival and Prevalence in Norway. Cancer in Norway, 2007.
- 5 Cancer Incidence in Oman, 2006.
- 6 Cancer Incidence in Jordan, 2006.
- 7 Eight Year Cancer Incidence among Nationals of the GCC States 1998-2005.
- 8 Ovarian Cancer in Australia: An overview, 2006. Available from:  
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- 12 Croatian National Cancer Registry. Available from:  
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- 13 Bangkok Cancer Registry. Annual Incidence, Bangkok, 1998-2000. Available from:  
[http://www.nci.go.th/File\\_download/Cancer%20In%20Thailand%20IV/APP-G.PDF](http://www.nci.go.th/File_download/Cancer%20In%20Thailand%20IV/APP-G.PDF)
- 14 Cancer in Poland in 2006. Available from:  
<http://www.onkologia.org.pl/doc/Biuletyn2006.pdf>
- 15 Descriptive Epidemiology Group, IARC. GLOBOCAN 2002. Available from:  
<http://www-dep.iarc.fr/>

**PART IV**  
**CANCER AMONG NON-SAUDIS**  
**2006**



## Cancer Among Non-Saudi Population 2006

Between January and December 2006, a total of 2,395 cancer cases were reported among the Non-Saudi population. Sixty three in situ cases and seven cases of ICD-10 were excluded from the analysis. As a result, the total number of cases analyzed were 2,324 out of this 1234(53.1%) were males and 1,090 (46.9%) were females. The male to female ratio was 113:100. 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 2006, 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 51 years in males (range 0-100 years) and 45 years in females (range 0-90 years).

Cancer	No.	%
Breast	390	16.8
Colo-rectal	232	10.0
NHL	153	6.6
Skin	129	5.6
Lung	119	5.1
Leukemia	115	4.9
Thyroid	96	4.1
Prostate	86	3.7
Stomach	84	3.6
Bladder	72	3.1
Other sites	848	36.5

Table 4.1 Ten Most common Cancers among non-Saudis, 2006

Nationality	Male	%	Female	%	All	%
Yemen	231	18.7	177	16.2	408	17.6
Sudan	149	12.1	101	9.3	250	10.8
Egypt	131	10.6	115	10.6	246	10.6
Philippines	76	6.2	111	10.2	187	8.0
Pakistan	70	5.7	76	7.0	146	6.3
India	63	5.1	35	3.2	98	4.2
Syrian Arab Republic	53	4.3	39	3.6	92	4.0
Bangladesh	72	5.8	10	0.9	82	3.5
Jordan	44	3.6	25	2.3	69	3.0
Indonesia	7	0.6	52	4.8	59	2.5
Gaza Strip (Palestine)	30	2.4	27	2.5	57	2.5
United States of America	29	2.4	21	1.9	50	2.2
Eritrea	20	1.6	24	2.2	44	1.9
Lebanon	23	1.9	17	1.6	40	1.7
Afghanistan	16	1.3	23	2.1	39	1.7
Nigeria	25	2.0	14	1.3	39	1.7
Bahrain	13	1.1	21	1.9	34	1.5
Occupied Palestinian Territory	15	1.2	18	1.7	33	1.4
Somalia	11	0.9	22	2.0	33	1.4
Ethiopia	13	1.1	19	1.7	32	1.4
Chad	8	0.6	23	2.1	31	1.3
United Kingdom	22	1.8	7	0.6	29	1.2
Myanmar (formerly Burma)	16	1.3	8	0.7	24	1.0
GCCR Nationalities	9	0.7	19	1.7	28	1.2
Other Nationalities	88	7.1	86	7.9	174	7.5
Total	1234	100.0	1090	100.0	2324	100.0

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

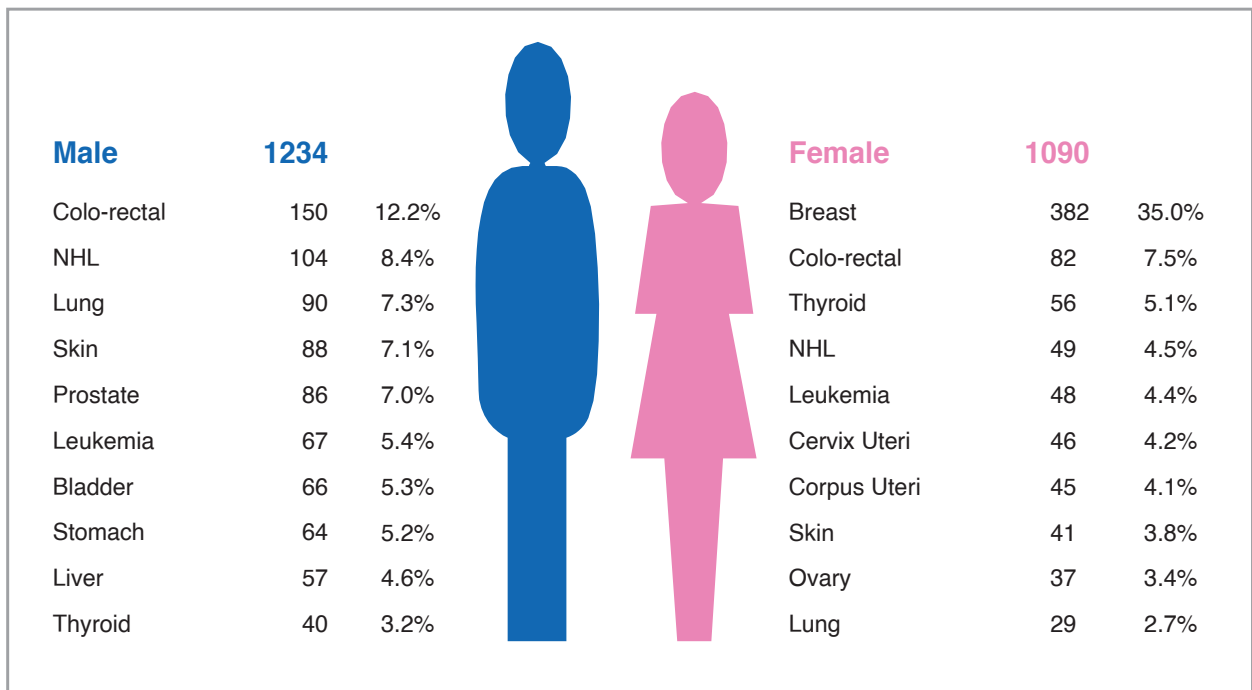


Figure 4.1 Ten Most Common Cancer among non-Saudis, 2006

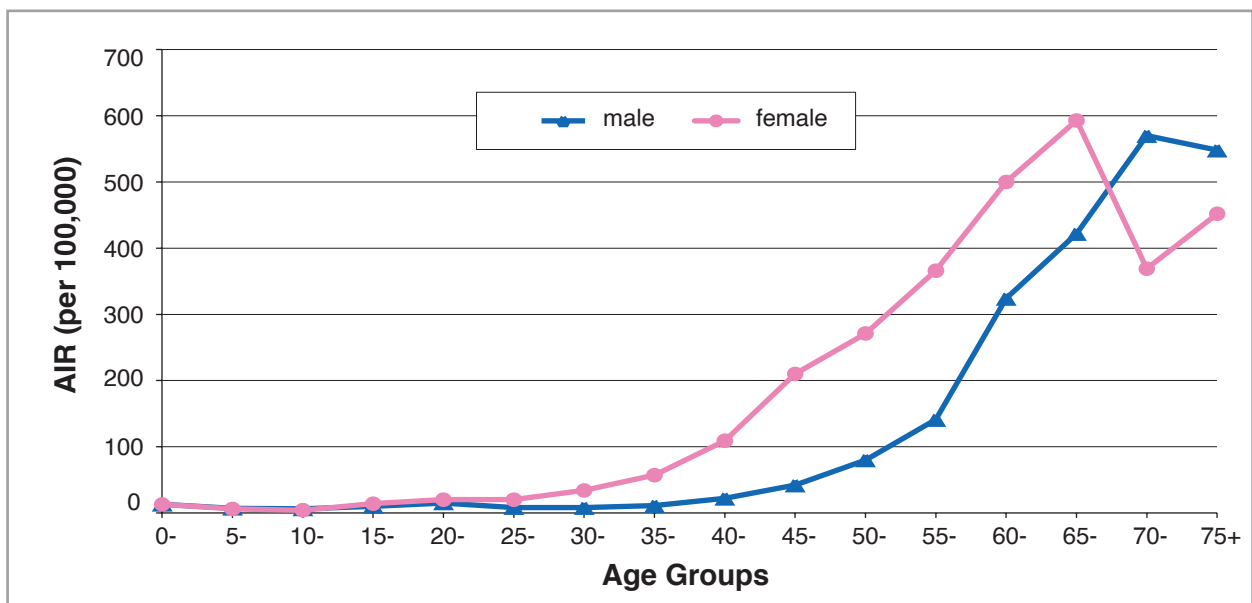


Figure 4.2 Age-Specific Incidence Rate (AIR) for All Cancers among non-Saudis in Saudi Arabia, 2006

# **PART V**

# **TABLES**

Table 5. I. I Age Distribution of Cancer Cases among Saudi Males, 2006

ICD (10th)	Site	All Ages	Age 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+	% of Total	
C00	Lip	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	4	0.2%	
C01-C02	Tongue	37	0	0	0	0	0	1	0	2	4	1	4	3	6	3	4	2	8	0.9%	
C03-C06	Mouth	30	0	0	0	0	0	1	1	0	2	0	3	0	0	3	7	5	8	0.8%	
C07-C08	Salivary glands	14	0	0	0	0	0	3	0	0	0	0	0	1	2	0	0	2	2	0.4%	
C09	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	95	0	1	1	3	7	2	8	3	11	10	8	12	5	5	6	7	6	2.4%	
C12-C13	Hypopharynx	9	0	0	0	0	0	0	0	0	0	0	0	4	0	1	1	0	3	0.2%	
C14	Pharynx unspecified	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.1%	
C15	Oesophagus	55	0	0	0	0	0	0	0	0	0	1	3	2	3	8	5	7	26	1.4%	
C16	Stomach	162	0	0	0	0	0	1	1	7	0	5	13	11	9	16	21	33	45	4.2%	
C17	Small intestine	18	0	0	0	0	1	0	1	0	1	2	0	2	0	4	3	1	3	0.5%	
C18	Colon	232	0	0	0	0	0	1	3	5	13	13	27	22	30	28	26	34	30	6.0%	
C19-C20	Rectum	182	0	0	0	0	0	1	0	2	5	6	12	20	13	18	28	29	16	32	4.7%
C21	Anus	8	0	0	0	0	0	0	0	0	0	0	0	1	1	1	3	0	1	0.2%	
C22	Liver	291	0	3	1	0	2	2	1	2	3	4	12	18	28	34	55	44	82	7.5%	
C23-C24	Gallbladder etc.	46	0	0	0	0	0	0	0	0	0	1	2	2	5	4	9	7	16	1.2%	
C25	Pancreas	93	0	0	0	0	0	0	2	1	2	5	4	10	8	13	21	18	9	2.4%	
C30-C31	Nose, sinuses etc.	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0.3%	
C32	Larynx	62	0	0	0	0	0	1	0	1	1	3	4	6	7	11	11	6	11	1.6%	
C33-C34	Trachea, Bronchus, Lung	232	0	0	0	0	0	1	1	2	1	6	16	15	24	30	47	43	46	6.0%	
C37-C38	Other Thoracic organs	14	0	1	1	1	2	1	1	2	1	1	2	1	1	2	2	0	1	0.4%	
C40-C41	Bone	64	0	1	7	15	18	10	2	2	1	1	1	1	0	2	0	2	1	1.6%	
C43	Melanoma of Skin	11	0	0	0	0	0	0	0	0	0	3	2	1	0	0	1	2	2	0.3%	
C44	Other Skin	193	1	0	0	2	1	5	5	5	4	5	12	11	9	24	24	25	60	5.0%	
C45	Mesothelioma	8	0	0	0	0	0	0	0	1	0	0	1	1	0	0	2	2	1	0.2%	
C46	Kaposi sarcoma	22	0	0	0	0	0	0	0	0	0	3	1	1	6	2	3	1	5	0.6%	
C47; C49	Connective, Soft tissue	57	0	7	2	2	6	3	2	4	4	2	2	3	2	5	2	4	7	1.5%	
C50	Breast	18	1	0	0	0	0	0	0	0	4	1	1	0	3	4	0	0	4	0.5%	
C60	Penis	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%	
C61	Prostate	228	0	1	0	0	0	0	0	0	0	1	5	10	15	22	42	39	93	5.8%	
C62	Testis	38	0	1	0	0	2	6	8	4	5	2	6	2	0	0	0	2	0	1.0%	
C63	Other male genital	3	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	0	0.1%	
C64	Kidney	111	0	9	5	0	0	2	1	4	4	4	14	15	7	12	17	8	9	2.8%	
C65	Renal Pelvis	5	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	2	0	0.1%	
C66	Ureter	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0.0%	
C67	Bladder	169	0	0	0	0	0	1	0	4	3	10	15	18	13	21	25	22	37	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	26	0	16	1	1	0	1	0	2	0	0	0	0	1	1	0	1	2	0.7%	
C70-C72	Brain, Nervous system	149	0	19	16	11	6	4	10	3	7	8	4	6	13	9	9	12	12	3.8%	
C73	Thyroid	117	0	0	0	2	5	6	9	10	11	7	18	10	6	7	8	12	6	3.0%	
C74	Adrenal gland	19	0	11	0	0	0	2	0	1	1	0	1	1	0	0	1	0	0	0.5%	
C75	Other Endocrine	5	0	0	0	3	1	0	0	0	0	0	1	0	0	0	0	0	0	0.1%	
C81	Hodgkin disease	173	1	1	8	24	24	31	17	12	13	11	8	8	2	4	0	2	7	4.4%	
C82-C85; C96	Non-Hodgkin lymphoma	351	0	6	21	11	12	22	7	19	25	27	21	24	23	22	27	27	57	9.0%	
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	48	0	0	0	0	0	1	0	1	0	2	0	5	4	3	6	8	10	1.2%	
C91	Lymphoid Leukemia	155	0	39	19	15	15	6	8	3	2	2	7	4	2	5	9	7	12	4.0%	
C92-C94	Myeloid Leukemia	115	0	11	6	3	9	11	15	8	4	8	4	2	5	3	5	8	13	3.0%	
C95	Leukemia unspecified	26	1	4	3	0	0	2	0	1	0	0	0	0	0	0	1	4	6	0.7%	
Other	Other & unspecified	186	0	7	1	0	7	2	2	4	8	3	7	19	16	21	25	25	39	4.8%	
All	All sites Total	3898	4	140	93	94	125	127	108	118	142	164	256	264	274	361	463	445	720	100.0%	
Not C44	All sites but C44	3705	3	140	93	92	124	122	103	113	138	159	244	253	265	337	439	420	660	95.0%	

Table 5.1.2 Age Distribution of Cancer Cases among Saudi Females, 2006

ICD (10th)	Site	All Ages	Age 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+	% of Total
C00	Lip	4	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2	0.1%
C01-C02	Tongue	26	0	0	0	0	0	0	0	1	1	1	1	2	3	6	2	4	3	0.6%
C03-C06	Mouth	34	0	0	0	0	0	0	0	2	2	4	2	3	3	6	2	4	6	0.8%
C07-C08	Salivary glands	12	0	0	0	0	0	2	0	1	0	0	0	0	1	1	0	1	3	0.3%
C09	Tonsil	2	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	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	43	0	0	1	4	1	1	1	6	3	2	6	7	1	6	0	2	3	1.0%
C12-C13	Hypopharynx	11	0	0	0	0	0	1	0	0	1	2	1	5	1	0	0	0	0	0.3%
C14	Pharynx unspecified	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0.0%
C15	Oesophagus	64	1	0	0	1	0	1	0	3	2	2	3	5	2	8	10	12	15	1.5%
C16	Stomach	113	1	0	0	1	4	3	3	6	8	7	11	11	6	11	19	16	17	2.7%
C17	Small intestine	14	0	0	0	0	0	1	1	1	0	0	0	2	4	2	2	0	1	0.3%
C18	Colon	227	0	0	0	0	0	5	7	11	10	19	23	23	24	38	31	19	17	5.5%
C19-C20	Rectum	143	0	0	0	0	0	0	2	2	5	15	20	18	21	15	21	4	20	3.4%
C21	Anus	9	0	0	0	0	0	0	0	0	0	0	0	1	4	0	1	1	0	0.2%
C22	Liver	125	0	3	0	0	0	0	0	3	4	4	8	10	9	27	9	21	27	3.0%
C23-C24	Gallbladder etc.	70	0	0	0	0	0	0	0	0	4	4	6	8	8	10	6	9	15	1.7%
C25	Pancreas	73	0	0	0	0	0	0	2	0	2	6	5	11	3	9	11	13	11	1.8%
C30-C31	Nose, sinuses etc.	10	0	0	0	0	1	1	0	0	1	1	1	0	0	0	2	0	4	0.2%
C32	Larynx	9	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	0	0	0.2%
C33-C34	Trachea, Bronchus, Lung	80	0	0	0	1	0	0	4	1	1	6	8	5	6	13	11	11	13	1.9%
C37-C38	Other Thoracic organs	10	0	2	0	0	0	0	0	1	1	0	0	1	1	0	2	0	2	0.2%
C40-C41	Bone	36	0	2	3	8	6	2	7	2	0	3	0	0	0	0	0	1	2	0.9%
C43	Melanoma of Skin	12	0	0	0	0	0	0	0	0	0	1	0	1	1	3	1	1	3	0.3%
C44	Other Skin	134	2	0	0	1	3	1	2	6	8	5	13	10	12	6	13	14	38	3.2%
C45	Mesothelioma	5	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	2	0	0.1%
C46	Kaposi sarcoma	14	0	1	0	0	0	0	0	1	0	1	1	2	1	4	1	1	1	0.3%
C47: C49	Connective, Soft tissue	37	0	2	1	7	2	3	1	1	5	4	2	4	2	0	2	0	1	0.9%
C50	Breast	981	2	0	0	0	1	7	37	75	126	163	182	105	86	78	43	38	39	23.6%
C51	Vulva	4	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	1	0.1%
C52	Vagina	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.0%
C53	Cervix Uteri	74	0	1	0	0	0	0	1	2	7	15	11	7	4	5	9	4	8	1.8%
C54	Corpus Uteri	140	1	0	0	0	0	0	3	6	8	8	8	15	22	26	27	8	13	3.4%
C55	Uterus unspecified.	22	0	0	0	0	0	0	0	2	0	2	0	2	4	2	1	5	5	0.5%
C56	Ovary	132	0	0	0	2	5	6	4	5	3	14	14	17	13	15	14	9	11	3.2%
C57	Other Female Genital	9	0	0	0	0	0	0	0	0	1	0	0	1	1	2	0	2	1	0.2%
C58	Placenta	19	0	0	0	0	0	0	6	1	3	3	3	0	0	0	0	0	1	0.5%
C64	Kidney	78	0	7	4	1	1	1	4	2	3	8	9	9	8	4	6	6	5	1.9%
C65	Renal Pelvis	4	0	0	0	0	0	0	0	0	0	1	1	0	1	0	0	0	1	0.1%
C66	Ureter	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.0%
C67	Bladder	42	1	0	0	0	0	0	0	2	2	2	1	2	3	5	4	8	12	1.0%
C68	Other Urinary organs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%
C69	Eye	19	0	13	0	0	0	0	0	0	0	0	0	0	0	2	1	0	2	0.5%
C70-C72	Brain, Nervous system	103	0	10	11	14	6	4	6	6	5	7	2	7	3	10	6	4	2	2.5%
C73	Thyroid	424	0	0	1	6	12	32	60	56	63	43	51	15	21	25	16	10	14	10.2%
C74	Adrenal gland	10	0	7	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2%
C75	Other Endocrine	5	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1%
C81	Hodgkin disease	120	0	2	10	15	18	24	13	8	3	6	2	1	3	1	3	4	2	2.9%
C82-C85: C96	Non-Hodgkin lymphoma	234	0	5	5	4	11	9	8	11	15	16	16	17	21	26	17	25	28	5.6%
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	26	0	0	0	0	0	0	1	1	1	1	2	3	5	1	4	4	3	0.6%
C91	Lymphoid Leukemia	90	0	39	19	6	3	2	1	2	0	1	2	1	2	0	5	1	6	2.2%
C92-C94	Myeloid Leukemia	113	0	6	2	6	8	6	10	4	8	8	13	6	5	10	8	7	6	2.7%
C95	Leukemia unspecified	9	0	1	0	1	1	1	0	0	1	1	0	0	0	0	2	1	0	0.2%
Other	Other & unspecified	177	0	6	1	3	0	0	2	4	11	14	13	11	13	22	24	19	33	4.3%
All	All sites Total	4156	8	108	59	73	90	113	190	231	316	401	446	350	330	403	348	291	401	100.0%
Not C44	All sites but C44	4022	6	108	59	72	87	112	188	225	308	396	433	340	318	397	335	277	363	96.8%

Table 5. I.3 Cancer Incidence Cases among Saudi Males by Age Group (per 100,000), 2006

ICD (10th)	Site	All Ages	Age 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	0.0	0.0	0.0	2.4	4.8	0.1	0.1
C01-C02	Tongue	37	0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.7	0.2	1.1	1.1	3.3	2.1	5.3	2.4	9.6	0.4	0.8
C03-C06	Mouth	30	0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.4	0.0	0.8	0.0	0.0	2.1	9.3	6.0	9.6	0.3	0.8
C07-C08	Salivary glands	14	0	0.0	0.1	0.0	0.0	0.3	0.0	0.0	0.0	0.7	0.0	0.4	1.1	0.0	0.0	2.4	2.4	0.2	0.2
C09	Tonsil	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	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	95	0	0.1	0.1	0.3	0.7	0.2	1.0	0.5	2.0	2.3	2.2	4.5	2.8	3.6	7.9	8.4	7.2	1.1	1.7
C12-C13	Hypopharynx	9	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	0.7	1.3	0.0	3.6	0.1	0.2
C14	Pharynx unspecified	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	0.0	0.0	0.0	3.6	0.0	0.1
C15	Oesophagus	55	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.8	0.8	1.7	5.7	6.6	8.4	31.2	0.6	1.4
C16	Stomach	162	0	0.0	0.0	0.0	0.0	0.1	0.1	1.1	0.0	1.1	3.6	4.1	5.0	11.4	27.8	39.8	54.0	1.9	3.9
C17	Small intestine	18	0	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.2	0.5	0.0	0.8	0.0	2.8	4.0	1.2	3.6	0.2	0.4
C18	Colon	232	0	0.0	0.0	0.0	0.0	0.1	0.4	0.8	2.4	2.9	7.6	8.3	16.6	19.9	34.4	41.0	36.0	2.7	5.3
C19-C20	Rectum	182	0	0.0	0.0	0.0	0.1	0.0	0.3	0.8	1.1	2.7	5.6	4.9	10.0	19.9	38.4	19.3	38.4	2.1	4.4
C21	Anus	8	0	0.0	0.0	0.0	0.0	0.2	0.1	0.3	0.6	0.9	3.4	6.8	15.5	24.2	72.8	53.1	98.4	3.4	7.5
C22	Liver	291	0	0.3	0.1	0.0	0.2	0.2	0.1	0.0	0.0	0.0	0.2	0.6	0.8	2.8	11.9	8.4	19.2	0.5	1.2
C23-C24	Gallbladder etc.	46	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
C25	Pancreas	93	0	0.0	0.0	0.0	0.0	0.0	0.3	0.2	0.4	1.1	1.1	3.8	4.4	9.3	27.8	21.7	10.8	1.1	2.4
C30-C31	Nose, sinuses etc.	10	0	0.2	0.0	0.0	0.1	0.0	0.0	0.2	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	6.0	0.1	0.2
C32	Larynx	62	0	0.0	0.0	0.0	0.0	0.1	0.0	0.2	0.2	0.7	1.1	2.3	3.9	7.8	14.6	7.2	13.2	0.7	1.6
C33-C34	Trachea, Bronchus, Lung	232	0	0.0	0.0	0.0	0.0	0.1	0.1	0.3	0.2	1.4	4.5	5.6	13.3	21.4	62.2	51.9	55.2	2.7	6.1
C37-C38	Other Thoracic organs	14	0	0.1	0.1	0.1	0.2	0.1	0.1	0.3	0.0	0.0	0.6	0.0	0.6	0.0	0.0	1.2	1.2	0.2	0.2
C40-C41	Bone	64	0	0.1	0.7	1.5	1.9	1.1	0.3	0.3	0.2	0.2	0.3	0.4	0.0	1.4	2.6	0.0	1.2	0.7	0.7
C43	Melanoma of Skin	11	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	2.4	0.1	0.2
C44	Other Skin	193	1	0.0	0.0	0.2	0.1	0.5	0.6	0.8	0.7	1.1	3.4	4.1	5.0	17.1	31.8	30.2	72.0	2.2	4.6
C45	Mesothelioma	8	0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.3	0.4	0.0	0.0	0.0	2.6	2.4	1.2	0.2
C46	Kaposi sarcoma	22	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.3	0.4	3.3	1.4	4.0	1.2	6.0	0.3
C47; C49	Connective, Soft tissue	57	0	0.6	0.2	0.2	0.6	0.3	0.3	0.6	0.7	0.5	0.6	1.1	1.1	3.6	2.6	4.8	8.4	0.7	0.9
C50	Breast	18	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.2	0.3	0.0	1.7	2.8	0.0	0.0	4.8	0.2	0.4
C60	Penis	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	1.3	0.0	0.0	0.0
C61	Prostate	228	0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	1.4	3.8	8.3	15.7	55.6	47.0	111.6	2.6	6.1
C62	Testis	38	0	0.1	0.0	0.0	0.2	0.7	1.0	0.6	0.9	0.5	1.7	0.8	0.0	0.0	0.0	2.4	0.0	0.4	0.5
C63	Other male genital	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	0.0	0.0	0.0	0.0	0.0	0.1
C64	Kidney	111	0	0.8	0.5	0.0	0.0	0.2	0.1	0.6	0.7	0.9	3.9	5.6	3.9	8.5	22.5	9.7	10.8	1.3	2.4
C65	Renal Pelvis	5	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	1.4	0.0	2.4	0.0	0.1	0.1
C66	Ureter	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	1.2	0.0	0.0	0.0
C67	Bladder	169	0	0.0	0.0	0.0	0.0	0.1	0.0	0.6	0.6	2.3	4.2	6.8	7.2	15.0	33.1	26.5	44.4	2.0	4.1
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	26	0	1.4	0.1	0.1	0.0	0.1	0.0	0.3	0.0	0.0	0.0	0.4	0.6	0.0	1.3	2.4	0.0	0.3	0.3
C70-C72	Brain, Nervous system	149	0	1.7	1.5	1.1	0.6	0.4	1.3	0.5	1.3	1.8	1.1	2.3	7.2	6.4	11.9	14.5	14.4	1.7	2.5
C73	Thyroid	117	0	0.0	0.0	0.2	0.5	0.7	1.1	1.6	2.0	1.6	5.0	3.8	3.3	5.0	10.6	14.5	7.2	1.4	2.1
C74	Adrenal gland	19	0	1.0	0.0	0.1	0.0	0.2	0.0	0.2	0.2	0.0	0.3	0.4	0.0	0.0	1.3	0.0	0.0	0.2	0.2
C75	Other Endocrine	5	0	0.0	0.0	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1
C81	Hodgkin disease	173	1	0.1	0.8	2.4	2.5	3.4	2.2	1.9	2.4	2.5	2.2	3.0	1.1	2.8	0.0	2.4	8.4	2.0	2.1
C82-C85; C96	Non-Hodgkin lymphoma	351	0	0.5	2.0	1.1	1.3	2.4	0.9	3.0	4.6	6.1	5.9	9.0	12.7	15.7	35.7	32.6	68.4	4.1	6.6
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
C90	Multiple Myeloma	48	0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.4	0.0	1.4	1.5	1.7	4.3	10.6	12.1	9.6	0.6	1.2
C91	Lymphoid Leukemia	155	0	3.4	1.8	1.5	1.6	0.7	1.0	0.5	0.4	0.5	2.0	1.5	1.1	3.6	11.9	8.4	14.4	1.8	2.3
C92-C94	Myeloid Leukemia	115	0	1.0	0.6	0.3	1.0	1.2	1.9	1.2	0.7	1.8	1.1	0.8	2.8	2.1	6.6	9.7	15.6	1.3	1.8
C95	Leukemia unspecified	26	1	0.3	0.3	0.0	0.4	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	4.8	7.2	0.3	0.4
Other	Other & unspecified	186	0	0.6	0.1	0.0	0.7	0.2	0.3	0.6	1.5	0.7	2.0	7.2	8.9	15.0	33.1	30.2	46.8	2.1	4.3
All	All sites Total	3898	4	12.0	9.0	9.0	13.0	14.0	14.0	18.0	26.0	37.0	72.0	99.0	152.0	257.0	613.0	537.0	864.0	45.0	83.6
Not C44	All sites but C44	3705	3	12.0	9.0	9.0	13.0	13.0	13.0	18.0	26.0	36.0	68.0	95.0	147.0	240.0	581.0	507.0	792.0	42.8	79.0

Table 5.1.4 Cancer Incidence Cases among Saudi Females by Age Group (per 100,000), 2006

ICD (10th)	Site	All Ages	Age 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	4	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	1.3	0.0	2.2	0.0	0.1
C01-C02	Tongue	26	0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.2	0.2	0.9	0.8	1.7	4.4	2.7	5.6	3.4	0.6
C03-C06	Mouth	34	0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.4	0.9	0.6	1.2	1.7	4.4	2.7	5.6	6.7	0.4	0.8
C07-C08	Salivary glands	12	0	0.0	0.0	0.0	0.0	0.2	0.0	0.2	0.0	0.5	0.3	0.0	0.6	0.7	0.0	1.4	3.4	0.1	0.2
C09	Tonsil	2	0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
C11	Nasopharynx	43	0	0.0	0.0	0.1	0.4	0.1	0.1	0.9	0.6	0.5	1.8	2.0	0.6	4.4	0.0	2.8	3.4	0.5	0.8
C12-C13	Hypopharynx	11	0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.2	0.5	0.3	2.0	0.6	0.0	0.0	0.0	0.0	0.1	0.2
C14	Pharynx unspecified.	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	1.3	0.0	0.0	0.0	0.0
C15	Oesophagus	64	1	0.0	0.0	0.0	0.0	0.1	0.0	0.5	0.4	0.5	0.9	2.0	1.1	5.9	13.3	16.7	16.8	0.7	1.6
C16	Stomach	113	1	0.0	0.0	0.0	0.1	0.4	0.4	0.5	1.1	1.8	2.1	4.4	3.4	8.2	25.2	22.3	19.1	1.3	2.7
C17	Small intestine	14	0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.0	0.0	0.3	0.8	2.3	1.5	2.7	0.0	1.1	0.2	0.3
C18	Colon	227	0	0.0	0.0	0.0	0.0	0.5	0.9	1.7	1.8	4.4	6.8	9.3	13.6	28.2	41.1	26.4	19.1	2.6	5.3
C19-C20	Rectum	143	0	0.0	0.0	0.0	0.0	0.3	0.3	0.3	0.9	3.4	5.9	7.2	11.9	11.1	27.8	5.6	22.4	1.7	3.3
C21	Anus	9	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.4	2.3	0.0	1.3	1.4	0.0	0.1	0.2
C22	Liver	125	0	0.3	0.0	0.0	0.0	0.0	0.0	0.5	0.7	0.9	2.4	4.0	5.1	20.0	11.9	29.2	30.3	1.5	3.1
C23-C24	Gallbladder etc.	70	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.9	1.8	3.2	4.5	7.4	8.0	12.5	16.8	0.8	1.7
C25	Pancreas	73	0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.4	1.4	1.5	4.4	1.7	6.7	14.6	18.1	12.3	0.8	1.8
C30-C31	Nose, sinuses etc.	10	0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.2	0.2	0.0	0.0	0.0	0.0	2.7	0.0	4.5	0.1	0.2
C32	Larynx	9	0	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.2	0.2	0.3	0.4	0.6	0.7	1.3	0.0	0.0	0.1	0.2
C33-C34	Trachea, Bronchus, Lung	80	0	0.0	0.0	0.0	0.1	0.0	0.5	0.2	0.2	1.4	2.4	2.0	3.4	9.6	14.6	15.3	14.6	0.9	2.0
C37-C38	Other Thoracic organs	10	0	0.2	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.0	0.0	0.4	0.6	0.0	2.7	0.0	2.2	0.1	0.2
C40-C41	Bone	36	0	0.2	0.3	0.8	0.6	0.2	0.9	0.3	0.0	0.7	0.0	0.0	0.0	0.0	0.0	1.4	2.2	0.4	0.4
C43	Melanoma of Skin	12	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.3	0.4	0.6	2.2	1.3	1.4	3.4	0.1	0.3	0.3
C44	Other Skin	134	2	0.0	0.0	0.1	0.3	0.1	0.3	0.9	1.5	1.1	3.8	4.0	6.8	4.4	17.2	19.5	42.6	1.6	3.0
C45	Mesothelioma	5	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.7	1.3	2.8	0.0	0.1	0.1
C46	Kaposi sarcoma	14	0	0.1	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.2	0.3	0.8	0.6	3.0	1.3	1.4	1.1	0.2	0.3
C47, C49	Connective, Soft tissue	37	0	0.2	0.1	0.7	0.2	0.3	0.1	0.2	0.9	0.9	0.6	1.6	1.1	0.0	2.7	0.0	1.1	0.4	0.6
C50	Breast	981	2	0.0	0.0	0.0	0.1	0.8	4.9	11.6	23.2	37.4	53.7	42.3	48.6	57.8	57.0	52.9	43.7	11.4	18.1
C51	Vulva	4	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.6	0.7	0.0	0.0	1.1	0.0	0.1
C52	Vagina	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	1.1	0.0	0.0
C53	Cervix Uteri	74	0	0.1	0.0	0.0	0.0	0.0	0.1	0.3	1.3	3.4	3.2	2.8	2.3	3.7	11.9	5.6	9.0	0.9	1.5
C54	Corpus Uteri	140	1	0.0	0.0	0.0	0.0	0.0	0.4	0.9	0.6	1.8	2.4	6.0	12.4	19.3	35.8	11.1	14.6	1.6	3.6
C55	Uterus unspecified.	22	0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.4	0.0	0.0	0.0	0.8	2.3	1.5	1.3	7.0	5.6	0.3
C56	Ovary	132	0	0.0	0.0	0.2	0.5	0.6	0.5	0.8	0.6	3.2	4.1	6.8	7.3	11.1	18.6	12.5	12.3	1.5	2.8
C57	Other Female Genital	9	0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.2	0.0	0.0	0.4	0.6	1.5	0.0	2.8	1.1	0.1	0.2
C58	Placenta	19	0	0.0	0.0	0.0	0.2	0.0	0.8	0.2	0.6	0.7	0.9	0.0	0.0	0.0	0.0	0.0	1.1	0.2	0.2
C64	Kidney	78	0	0.6	0.4	0.1	0.1	0.1	0.5	0.3	0.6	1.8	2.7	3.6	4.5	3.0	8.0	8.4	5.6	0.9	1.5
C65	Renal Pelvis	4	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.3	0.0	0.6	0.0	0.0	0.0	1.1	0.0	0.1
C66	Ureter	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	2.2	0.0	0.0
C67	Bladder	42	1	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.4	0.5	0.3	0.8	1.7	3.7	5.3	11.1	13.4	0.5	1.0
C68	Other Urinary organs	0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
C69	Eye	19	0	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	1.5	1.3	0.0	2.2	0.2	0.3
C70-C72	Brain, Nervous system	103	0	0.9	1.0	1.4	0.6	0.4	0.8	0.9	0.9	1.6	0.6	2.8	1.7	7.4	8.0	5.6	2.2	1.2	1.6
C73	Thyroid	425	0	0.0	0.1	0.6	1.3	3.4	7.9	8.6	11.6	9.9	15.1	6.0	11.9	18.5	21.2	13.9	15.7	4.9	6.5
C74	Adrenal gland	10	0	0.6	0.2	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	0.1	0.1
C75	Other Endocrine	5	0	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	0.0	0.0	0.1	0.1
C81	Hodgkin disease	120	0	0.2	0.9	1.5	1.9	2.6	1.7	1.2	0.6	1.4	0.6	0.4	1.7	0.7	10.6	5.6	2.2	1.4	1.6
C82-C85, C96	Non-Hodgkin lymphoma	234	0	0.4	0.5	0.4	1.2	1.0	1.1	1.7	2.8	3.7	4.7	6.8	11.9	19.3	22.5	34.8	31.4	2.7	4.8
C86	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
C88	Multiple Myeloma	26	0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.2	0.2	0.6	1.2	2.8	0.7	5.3	5.6	3.4	0.3	0.6
C91	Lymphoid Leukemia	90	0	3.5	1.8	0.6	0.3	0.2	0.1	0.3	0.0	0.2	0.6	0.4	1.1	0.0	6.6	1.4	6.7	1.0	1.2
C92-C94	Myeloid Leukemia	113	0	0.5	0.2	0.6	0.8	0.6	1.3	0.6	1.5	1.8	3.8	2.4	2.8	7.4	10.6	9.7	6.7	1.3	2.0
C95	Leukemia unspecified.	9	0	0.1	0.0	0.1	0.1	0.1	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	2.7	1.4	0.0	0.1	0.2
Other	Other & unspecified	177	0	0.5	0.1	0.1	0.3	0.0	0.3	0.6	2.0	3.2	3.8	4.4	7.3	16.3	31.8	26.4	37.0	2.1	4.1
All	All sites Total	4156	8	10.0	6.0	7.0	9.0	12.0	25.0	36.0	58.0	92.0	132.0	141.0	186.0	299.0	461.0	406.0	449.0	48.4	82.8
Not C44	All sites but C44	4022	6	10.0	6.0	7.0	9.0	12.0	25.0	35.0	57.0	91.0	128.0	137.0	180.0	294.0	444.0	387.0	407.0	46.8	79.9

Table 5.4.I Age Distribution of Cancer Cases among non-Saudi Males, 2006

ICD (10th)	Site	All Ages	Age 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+	% of Total
C00	Lip	4	0	0	0	0	0	0	0	0	0	0	0	0	3	1	0	0	0	0.3%
C01-C02	Tongue	5	0	0	0	0	0	0	0	0	1	2	2	2	0	0	0	0	0	0.4%
C03-C06	Mouth	7	0	0	0	0	0	0	0	0	0	2	2	2	1	0	0	0	0	0.6%
C07-C08	Salivary glands	5	0	0	0	0	0	0	2	0	0	2	0	0	0	1	0	0	0	0.4%
C09	Tonsil	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0.1%
C10	Other Oropharynx	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0.1%
C11	Nasopharynx	21	0	0	0	0	0	1	0	3	1	3	7	0	5	0	1	0	0	1.7%
C12-C13	Hypopharynx	5	0	0	0	0	0	0	0	0	1	0	1	0	1	2	0	0	0	0.4%
C14	Pharynx unspecified.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%
C15	Oesophagus	13	0	0	0	0	0	0	0	1	0	2	3	0	1	2	1	1	2	1.1%
C16	Stomach	64	0	0	0	0	0	1	0	1	3	8	9	12	8	10	4	3	5	5.2%
C17	Small intestine	7	0	0	0	0	0	0	0	0	1	2	0	2	0	0	1	0	1	0.6%
C18	Colon	87	0	0	0	0	0	2	1	4	10	11	11	15	11	10	3	4	5	7.1%
C19-C20	Rectum	63	0	0	0	0	0	0	2	6	5	8	8	10	6	9	5	3	1	5.1%
C21	Anus	8	0	0	0	0	0	0	0	0	1	0	0	4	2	1	0	0	0	0.6%
C22	Liver	57	0	1	0	0	0	1	0	1	0	5	9	10	6	8	8	5	3	4.6%
C23-C24	Gallbladder etc.	14	0	0	0	0	0	0	0	0	0	2	0	3	1	2	1	3	2	1.1%
C25	Pancreas	21	0	0	0	0	0	0	0	1	0	3	3	2	2	2	3	2	3	1.7%
C30-C31	Nose, sinuses etc.	3	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0.2%
C32	Larynx	23	0	0	0	0	0	0	1	1	0	2	5	1	5	2	4	1	1	1.9%
C33-C34	Trachea, Bronchus, Lung	90	0	0	1	0	0	0	0	3	2	8	10	15	11	16	12	7	5	7.3%
C37-C38	Other Thoracic organs	6	0	1	0	0	0	0	1	1	2	0	0	0	0	0	0	0	0	0.5%
C40-C41	Bone	13	0	0	3	3	0	3	1	0	0	2	1	0	0	0	0	0	0	1.1%
C43	Melanoma of Skin	7	0	0	0	0	0	0	0	1	1	1	0	2	0	0	1	0	1	0.6%
C44	Other Skin	88	0	1	0	0	0	1	3	4	7	6	14	17	11	10	5	5	4	7.1%
C45	Mesothelioma	7	0	0	0	0	0	0	0	0	1	0	0	3	1	0	2	0	0	0.6%
C46	Kaposi sarcoma	5	0	0	0	0	0	1	0	1	0	0	0	0	2	0	0	0	1	0.4%
C47; C49	Connective, Soft tissue	30	0	2	0	0	2	4	3	2	3	3	1	4	2	2	0	1	1	2.4%
C50	Breast	8	0	0	0	0	0	0	0	1	1	0	2	0	1	2	0	0	1	0.6%
C60	Penis	86	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%
C61	Prostate	86	1	0	0	0	0	0	0	0	0	1	3	14	23	17	9	7	11	7.0%
C62	Testis	18	0	1	0	0	2	2	2	2	3	1	1	2	0	2	0	0	0	1.5%
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	29	0	3	0	0	0	0	0	0	1	6	1	7	2	7	1	0	1	2.4%
C65	Renal Pelvis	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0.3%
C66	Ureter	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1%
C67	Bladder	66	1	0	0	0	0	0	1	2	3	7	12	6	9	8	7	5	5	5.3%
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	6	0	4	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0.5%
C70-C72	Brain, Nervous system	30	0	4	3	2	0	0	2	2	2	3	2	5	1	1	0	3	0	2.4%
C73	Thyroid	40	0	0	0	0	0	2	3	4	7	5	7	6	5	0	1	0	0	3.2%
C74	Adrenal gland	3	0	0	1	1	0	0	1	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	0	0	0	0	0	0	0	0	0.1%
C81	Hodgkin disease	28	0	0	2	0	2	5	4	1	2	5	3	1	3	0	0	0	0	2.3%
C82-C85; C96	Non-Hodgkin lymphoma	104	0	4	2	0	3	4	6	6	11	12	12	11	13	11	3	1	5	8.4%
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	18	0	0	0	0	0	0	0	0	1	1	1	4	4	3	1	0	0	1.5%
C91	Lymphoid Leukemia	29	0	8	5	1	2	4	1	0	0	2	2	0	1	1	0	2	0	2.4%
C92-C94	Myeloid Leukemia	29	0	3	0	2	0	0	4	3	3	2	6	3	1	1	0	0	1	2.4%
C95	Leukemia unspecified	9	0	0	0	0	0	0	0	1	1	0	1	0	2	0	0	0	0	0.7%
Other	Other & unspecified	70	0	1	0	0	0	0	4	6	8	3	9	13	7	3	2	7	7	5.7%
All	All sites Total	1234	2	31	16	11	14	31	44	59	82	121	156	177	151	137	73	61	68	100.0%
Not C44	All sites but C44	1146	2	31	15	11	14	30	41	55	75	115	142	160	140	127	68	56	64	92.9%

Table 5.4.2 Age Distribution of Cancer Cases among non-Saudi Females, 2006

ICD (10th)	Site	All Ages	Age 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+	% of Total
C00	Lip	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0.1%
C01-C02	Tongue	6	0	0	0	0	0	0	0	0	1	1	0	0	1	0	2	0	0	0.6%
C03-C06	Mouth	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1%
C07-C08	Salivary glands	10	0	0	0	0	0	0	2	0	2	4	1	0	0	0	0	0	0	0.9%
C09	Tonsil	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%
C10	Other Oropharynx	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0.1%
C11	Nasopharynx	7	0	0	0	1	1	1	0	2	0	1	1	0	0	0	1	0	0	0.6%
C12-C13	Hypopharynx	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0.1%
C14	Pharynx unspecified	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%
C15	Oesophagus	16	0	0	0	0	0	0	0	0	2	1	4	4	1	3	1	1	1	1.5%
C16	Stomach	20	0	0	0	1	1	1	0	2	2	1	2	5	1	0	2	2	1	1.8%
C17	Small intestine	1	0	0	0	0	0	0	0	1	4	3	7	6	4	6	4	5	0	0.1%
C18	Colon	48	0	0	0	0	0	0	1	4	3	7	6	4	6	3	4	5	4	4.4%
C19-C20	Rectum	34	0	0	0	0	0	2	4	1	8	3	2	4	4	4	1	1	0	3.1%
C21	Anus	4	0	0	0	0	0	1	0	0	0	0	1	0	2	0	0	0	0	0.4%
C22	Liver	14	0	0	0	0	0	0	0	1	1	0	1	1	4	2	0	2	2	1.3%
C23-C24	Gallbladder etc.	9	0	0	0	0	0	0	0	1	0	1	1	2	1	1	1	1	1	0.8%
C25	Pancreas	9	0	0	0	0	1	0	0	0	1	0	3	0	2	0	1	0	1	0.8%
C30-C31	Nose, sinuses etc.	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0.1%
C32	Larynx	4	0	0	0	0	0	0	0	0	1	0	1	0	1	0	1	0	0	0.4%
C33-C34	Trachea, Bronchus, Lung	29	0	0	0	0	0	0	1	5	1	6	2	1	3	5	3	3	0	2.7%
C37-C38	Other Thoracic organs	4	0	0	0	0	0	0	0	0	0	2	0	0	0	1	0	0	0	0.4%
C40-C41	Bone	7	0	1	2	2	0	1	0	0	1	0	0	0	0	0	0	0	0	0.6%
C43	Melanoma of Skin	2	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0.2%
C44	Other Skin	41	0	0	0	1	0	0	0	2	4	1	5	5	9	9	1	1	3	3.8%
C45	Mesothelioma	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%
C46	Kaposi sarcoma	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0.1%
C47; C49	Connective, Soft tissue	12	0	3	0	2	0	0	2	0	0	0	0	2	0	0	2	0	0	1.1%
C50	Breast	382	0	0	0	0	3	13	43	72	68	74	74	49	24	14	8	7	7	35.0%
C51	Vulva	2	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0.2%
C52	Vagina	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0.1%
C53	Cervix Uteri	46	0	0	0	0	0	0	1	6	6	6	11	5	5	3	1	1	1	4.2%
C54	Corpus Uteri	45	0	0	0	0	0	1	2	4	1	6	6	8	6	3	4	3	1	4.1%
C55	Uterus unspecified	10	0	0	0	0	0	0	0	0	0	2	1	3	2	0	1	0	1	0.9%
C56	Ovary	37	0	0	1	0	0	0	0	5	4	9	4	5	1	3	2	0	3	3.4%
C57	Other Female Genital	3	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	0	0.3%
C58	Placenta	2	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0.2%
C64	Kidney	23	0	3	2	0	0	0	1	0	3	3	2	2	2	4	1	0	0	2.1%
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	6	0	0	0	0	0	0	1	2	0	0	1	0	1	0	0	0	1	0.6%
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	4	0	3	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4%
C70-C72	Brain, Nervous system	11	0	2	2	0	0	0	2	0	0	1	0	1	1	1	1	1	0	1.0%
C73	Thyroid	56	0	0	0	2	8	8	8	5	8	8	9	4	0	2	1	1	0	5.1%
C74	Adrenal gland	3	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3%
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	16	0	1	1	2	3	2	2	1	2	1	0	1	1	0	1	0	0	1.5%
C82-C85; C96	Non-Hodgkin lymphoma	49	0	3	0	2	3	2	2	3	8	2	3	5	4	6	5	1	2	4.5%
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	8	0	0	0	0	0	0	2	0	0	1	1	0	1	1	2	0	0	0.7%
C91	Lymphoid Leukemia	19	0	9	2	1	2	0	2	1	0	0	0	0	1	0	1	0	0	1.7%
C92-C94	Myeloid Leukemia	19	0	1	1	3	1	3	1	2	1	4	2	0	1	0	1	0	0	1.7%
C95	Leukemia unspecified	10	0	3	1	1	0	1	0	1	0	1	0	1	0	1	1	0	0	0.9%
Other	Other & unspecified	55	0	0	0	1	1	1	3	6	4	4	8	9	7	5	1	1	5	5.0%
All	All sites Total	1090	0	29	12	7	18	29	45	102	138	145	153	125	95	72	53	31	35	100.0%
Not C44	All sites but C44	1049	0	29	12	7	18	29	45	100	134	144	148	120	86	63	52	30	32	96.2%

Table 5.4.3 Incidence Rates for Cancer Cases among non-Saudi Males by Age Group (per 100,000), 2006

ICD (10th)	Site	All Ages	Age 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	4	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.8	2.4	0.0	0.0	0.0	0.1	0.2
C01-C02	Tongue	5	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.4	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1
C03-C06	Mouth	7	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.5	0.9	0.9	0.0	0.0	0.0	0.0	0.2	0.1
C07-C08	Salivary glands	5	0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.4	0.0	0.0	0.0	2.4	0.0	0.0	0.0	0.1	0.1
C09	Tonsil	1	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
C10	Other Oropharynx	1	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.0	0.0	0.0	0.0	0.0
C11	Nasopharynx	21	0	0.0	0.0	0.0	0.0	0.5	0.0	0.4	0.1	0.5	1.3	0.9	4.7	0.0	5.8	0.0	0.0	0.5	0.6
C12-C13	Hypopharynx	5	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3	0.0	0.0	0.9	4.7	0.0	0.0	0.0	0.1	0.3
C14	Pharynx unspecified	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	13	0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.4	1.4	2.4	5.4	7.5	4.7	5.8	9.3	16.1	0.3	1.0
C16	Stomach	64	0	0.0	0.0	0.0	0.0	0.5	0.0	0.1	0.4	1.4	2.4	5.4	7.5	23.6	23.1	28.0	40.3	1.4	3.9
C17	Small intestine	7	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.4	0.0	0.9	0.0	0.0	5.8	0.0	8.1	0.2	0.4
C18	Colon	87	0	0.0	0.0	0.0	0.0	1.0	0.2	0.5	1.3	2.0	3.0	6.8	10.3	23.6	17.4	37.3	40.3	2.0	4.3
C19-C20	Rectum	63	0	0.0	0.0	0.0	0.0	0.0	0.4	0.8	0.6	1.4	2.1	4.5	5.6	21.3	28.9	28.0	8.1	1.4	3.2
C21	Anus	8	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	1.8	1.9	2.4	0.0	0.0	0.0	0.2	0.3
C22	Liver	57	0	0.4	0.0	0.0	0.0	0.5	0.0	0.1	0.9	2.4	2.4	4.5	5.6	18.9	46.3	46.7	24.2	1.3	4.3
C23-C24	Gallbladder etc.	14	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	1.4	0.9	4.7	5.8	28.0	16.1	0.3	1.4
C25	Pancreas	21	0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.5	0.8	0.9	1.9	4.7	17.4	18.7	24.2	0.5	1.8
C30-C31	Nose, sinuses etc.	3	0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.3	0.5	0.0	0.0	0.0	0.0	0.0	0.1	0.0
C32	Larynx	23	0	0.0	0.0	0.0	0.0	0.0	0.2	0.1	0.0	0.4	1.3	0.5	4.7	4.7	23.1	9.3	8.1	0.5	1.6
C33-C34	Trachea, Bronchus, Lung	90	0	0.0	0.4	0.0	0.0	0.0	0.0	0.4	0.3	1.4	2.7	6.8	10.3	37.8	69.4	65.4	40.3	2.0	6.8
C37-C38	Other Thoracic organs	6	0	0.0	0.4	0.0	0.0	0.0	0.2	0.1	0.3	0.0	0.0	0.0	0.9	0.0	0.0	0.0	0.0	0.1	0.1
C40-C41	Bone	13	0	0.0	0.0	1.6	2.1	1.5	0.2	0.0	0.0	0.4	0.3	0.0	0.9	0.0	0.0	0.0	0.0	0.3	0.5
C43	Melanoma of Skin	7	0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.0	0.9	0.0	0.0	5.8	0.0	8.1	0.2	0.4
C44	Other Skin	88	0	0.0	0.4	0.0	0.0	0.5	0.5	0.5	0.9	1.1	3.8	7.7	10.3	23.6	28.9	46.7	32.2	2.0	4.7
C45	Mesothelioma	7	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.8	0.5	0.0	4.7	0.0	0.0	0.0	0.2	0.3
C46	Kaposi sarcoma	5	0	0.0	0.0	0.0	0.0	0.5	0.0	0.1	0.0	0.0	0.0	0.0	1.9	0.0	0.0	0.0	8.1	0.1	0.3
C47, C49	Connective, Soft tissue	30	0	0.9	0.0	0.0	1.4	1.9	0.5	0.3	0.4	0.5	0.3	1.8	1.9	4.7	0.0	9.3	8.1	0.7	1.2
C50	Breast	8	0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.5	0.0	0.9	4.7	0.0	0.0	8.1	0.2	0.4
C60	Penis	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
C61	Prostate	86	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.8	6.3	21.5	40.2	52.1	65.4	88.7	1.9	7.6
C62	Testis	18	0	0.4	0.0	0.0	1.4	1.0	0.4	0.3	0.4	0.2	0.3	0.9	0.0	4.7	0.0	0.0	0.0	0.4	0.6
C63	Other male genital	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
C64	Kidney	29	0	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.1	1.1	0.3	3.2	1.9	16.5	5.8	0.0	8.1	0.7	1.5
C65	Renal Pelvis	4	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.5	0.0	0.0	0.0	9.3	8.1	0.1	0.4
C66	Ureter	1	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
C67	Bladder	66	1	0.0	0.0	0.0	0.0	0.0	0.2	0.3	0.4	1.3	3.2	2.7	8.4	18.9	40.5	46.7	40.3	1.5	4.6
C68	Other Urinary organs	0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
C69	Eye	6	0	1.7	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	2.4	0.0	0.0	0.0	0.1	0.3
C70-C72	Brain, Nervous system	30	0	1.7	1.3	1.1	0.0	0.0	0.4	0.3	0.3	0.5	0.5	2.3	0.9	2.4	0.0	28.0	0.0	0.7	1.4
C73	Thyroid	40	0	0.0	0.4	0.5	0.0	1.0	0.5	0.5	0.9	0.9	1.9	2.7	4.7	0.0	5.8	0.0	0.0	0.9	0.9
C74	Adrenal gland	3	0	0.0	0.4	0.5	0.0	0.0	0.2	0.0	0.0	0.0	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	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
C81	Hodgkin disease	28	0	0.0	0.9	0.0	1.4	2.4	0.7	0.1	0.3	0.9	0.8	0.5	2.8	0.0	0.0	0.0	0.0	0.6	0.7
C82-C85, C96	Non-Hodgkin lymphoma	104	0	1.7	0.9	0.0	2.1	1.9	1.1	0.8	1.4	2.1	3.2	5.0	12.1	26.0	17.4	9.3	40.3	2.4	4.5
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
C90	Multiple Myeloma	18	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	1.1	1.8	3.7	7.1	5.8	0.0	0.0	0.4	0.8
C91	Lymphoid Leukemia	29	0	3.4	2.2	0.5	1.4	1.9	0.2	0.0	0.0	0.4	0.5	0.0	0.9	2.4	0.0	18.7	0.0	0.7	1.5
C92-C94	Myeloid Leukemia	29	0	1.3	0.0	1.1	0.0	0.0	0.7	0.4	0.4	0.4	0.6	1.4	0.9	2.4	0.0	0.0	8.1	0.7	0.8
C95	Leukemia unspecified	9	0	0.0	0.0	0.5	0.0	0.0	0.2	0.1	0.1	0.1	0.3	0.9	0.9	0.0	0.0	0.0	8.1	0.2	0.3
Other	Other & unspecified	70	0	0.4	0.0	0.0	0.0	0.0	0.7	0.8	1.0	0.5	2.4	5.9	6.5	7.1	11.6	65.4	56.4	1.6	4.0
All	All sites Total	1234	2	13.0	7.0	6.0	10.0	15.0	8.0	8.0	11.0	22.0	42.0	80.0	141.0	324.0	422.0	570.0	548.0	27.9	68.2
NOT C44	All sites but C44	1146	2	13.0	7.0	6.0	10.0	15.0	8.0	7.0	10.0	21.0	38.0	72.0	131.0	300.0	393.0	523.0	516.0	25.9	63.5

Table 5.4.4 Incidence Rates for Cancer Cases among non-Saudi Females by Age Group (per 100,000), 2006

ICD (10th)	Site	All Ages	Age 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	1	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.8	0.0	0.0	0.0	0.0	0.1	0.2
C01-C02	Tongue	6	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.8	0.0	2.2	3.8	0.0	22.4	0.0	0.0	0.3	1.0
C03-C06	Mouth	1	0	0.0	0.0	0.6	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	0.1	0.1
C07-C08	Salivary glands	10	0	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.8	3.0	1.4	0.0	0.0	6.9	0.0	0.0	0.0	0.5	0.7
C09	Tonsil	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	1	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.8	0.0	0.0	0.0	0.0	0.1	0.2
C11	Nasopharynx	7	0	0.0	0.0	0.0	0.7	0.7	0.0	0.7	0.0	0.8	1.4	0.0	0.0	0.0	11.2	0.0	0.0	0.4	0.6
C12-C13	Hypopharynx	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	11.9	0.0	0.1	0.2
C14	Pharynx unspecified.	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	16	0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.4	0.0	5.5	8.7	3.8	20.8	11.2	11.9	12.9	0.8	2.6
C16	Stomach	20	0	0.0	0.0	0.0	0.7	0.7	0.0	0.7	0.8	0.8	2.7	10.8	3.8	0.0	22.4	23.8	12.9	1.0	2.5
C17	Small intestine	1	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2	0.0	0.0	0.0	0.0	0.0	0.1	0.1
C18	Colon	48	0	0.0	0.0	0.0	0.0	0.0	1.3	1.3	3.2	5.3	8.2	8.7	23.1	20.8	44.7	59.5	64.6	2.4	7.0
C19-C20	Rectum	34	0	0.0	0.0	0.0	0.0	1.4	1.8	0.3	2.3	2.3	2.7	8.7	15.4	27.8	11.2	11.9	0.0	1.7	3.5
C21	Anus	4	0	0.0	0.0	0.0	0.0	0.7	0.0	0.0	0.0	0.0	1.4	0.0	7.7	0.0	0.0	0.0	0.0	0.2	0.4
C22	Liver	14	0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.4	0.0	1.4	2.2	15.4	13.9	0.0	23.8	25.9	0.7	2.4
C23-C24	Gallbladder etc.	9	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	1.4	4.3	3.8	0.0	11.2	11.9	12.9	0.5	1.4
C25	Pancreas	9	0	0.0	0.0	0.0	0.7	0.0	0.0	0.0	0.4	0.0	4.1	0.0	7.7	0.0	11.2	0.0	12.9	0.5	1.2
C30-C31	Nose, sinuses etc.	1	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
C32	Larynx	4	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
C33-C34	Trachea, Bronchus, Lung	29	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	4.5	2.7	2.2	11.5	34.7	33.6	35.7	0.0	0.2	0.6
C37-C38	Other Thoracic organs	4	0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	1.5	0.0	0.0	0.0	6.9	0.0	0.0	0.0	1.5	4.2
C40-C41	Bone	7	0	0.0	0.5	1.1	1.5	0.7	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.4
C43	Melanoma of Skin	2	0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	6.9	0.0	0.0	0.0	0.1	0.3
C44	Other Skin	41	0	0.0	0.0	0.0	0.7	0.0	0.0	0.7	1.6	0.8	6.9	10.8	34.6	62.5	11.2	11.9	38.8	2.1	6.4
C45	Mesothelioma	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
C46	Kaposi sarcoma	1	0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
C47,C49	Connective, Soft tissue	12	0	1.3	0.0	0.0	1.5	0.0	0.0	0.7	0.0	0.8	0.0	4.3	0.0	0.0	22.4	0.0	0.0	0.6	1.3
C50	Breast	382	0	0.0	0.0	0.0	0.0	2.0	5.8	14.5	29.6	51.3	101.4	106.3	92.4	97.2	89.5	83.3	90.5	19.3	31.5
C51	Vulva	2	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.0	0.0	0.0	11.2	0.0	0.0	0.1	0.4
C52	Vagina	1	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2	0.0	0.0	0.0	0.0	0.0	0.1	0.1
C53	Cervix Uteri	46	0	0.0	0.0	0.0	0.0	0.0	0.4	2.0	2.5	4.5	15.1	10.8	19.2	20.8	11.2	11.9	12.9	2.3	4.5
C54	Corpus Uteri	45	0	0.0	0.0	0.0	0.7	0.9	0.9	1.3	0.4	4.5	8.2	17.4	23.1	20.8	44.7	35.7	12.9	2.3	5.9
C55	Uterus unspecified.	10	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	1.4	6.5	7.7	0.0	11.2	0.0	12.9	0.5	1.4
C56	Ovary	37	0	0.0	0.5	0.0	0.0	0.0	0.0	1.7	1.6	6.8	5.5	10.8	3.8	20.8	22.4	0.0	38.8	1.9	4.0
C57	Other Female Genital	3	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.0	3.8	0.0	11.2	0.0	0.0	0.2	0.6
C58	Placenta	2	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	2.2	0.0	0.0	0.0	0.0	0.0	0.1	0.2
C64	Kidney	23	0	1.3	1.0	0.0	0.0	0.0	0.4	0.0	1.2	2.3	2.7	4.3	7.7	27.8	11.2	0.0	0.0	1.2	2.6
C65	Renal Pelvis	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
C66	Ureter	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
C67	Bladder	6	0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.8	0.0	1.4	0.0	3.8	0.0	0.0	12.9	0.0	0.3	0.6
C68	Other Urinary organs	0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
C69	Eye	4	0	1.3	0.0	0.6	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
C70-C72	Brain, Nervous system	11	0	0.9	1.0	0.0	0.0	5.4	3.6	1.7	3.3	6.0	12.3	8.7	0.0	13.9	11.2	11.9	0.0	0.6	1.2
C73	Thyroid	56	0	0.0	0.0	0.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0	2.2	3.8	6.9	11.2	0.0	0.0	2.8	3.8
C74	Adrenal gland	3	0	0.9	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2
C75	Other Endocrine	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
C81	Hodgkin disease	16	0	0.0	0.5	0.6	1.5	2.0	0.9	0.3	0.8	0.8	0.0	2.2	3.8	0.0	11.2	0.0	0.0	0.8	1.2
C82-C85;C96	Non-Hodgkin lymphoma	49	0	1.3	0.0	0.0	1.5	2.0	0.9	1.0	3.3	1.5	4.1	10.8	15.4	41.7	55.9	11.9	25.9	2.5	6.4
C86	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
C88	Multiple Myeloma	8	0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.8	1.4	0.0	3.8	6.9	22.4	0.0	0.0	0.4	1.3
C91	Lymphoid Leukemia	19	0	3.9	1.0	0.6	1.5	0.0	0.9	0.3	0.0	0.0	0.0	0.0	3.8	0.0	11.2	0.0	0.0	1.0	1.3
C92-C94	Myeloid Leukemia	19	0	0.4	0.5	0.0	1.5	2.0	0.4	0.7	0.4	3.0	2.7	0.0	3.8	0.0	11.2	0.0	0.0	1.0	1.3
C95	Leukemia unspecified.	10	0	1.3	0.5	0.6	0.0	0.7	0.0	0.3	0.0	0.0	0.0	2.2	0.0	6.9	11.2	0.0	0.0	0.5	1.1
Other	Other & unspecified	55	0	0.0	0.0	0.0	0.7	0.7	1.3	2.0	1.6	3.0	11.0	19.5	26.9	34.7	11.2	11.9	64.6	2.8	6.6
All	All sites Total	1090	0	13.0	6.0	4.0	14.0	20.0	20.0	34.0	57.0	109.0	210.0	271.0	366.0	500.0	593.0	369.0	452.0	55.0	113.9
Not C44	All sites but C44	1049	0	13.0	6.0	4.0	13.0	20.0	20.0	34.0	55.0	109.0	203.0	260.0	331.0	437.0	582.0	357.0	414.0	53.0	107.4

**Table 5.5.I Number of New Cases by Primary Site and Years among Saudi Males, 1994-2006**

ICD-10	Site	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
C00	Lip	9	2	4	5	4	1	6	1	5	5	8	6	6
C01-C02	Tongue	32	15	22	24	13	26	29	14	24	29	35	40	37
C03-C06	Mouth	24	24	30	25	26	27	25	27	26	26	40	31	30
C07-C08	Salivary glands	4	10	6	11	7	12	8	16	14	13	15	17	14
C09	Tonsil	4	9	2	4	6	2	1	3	6	5	2	3	0
C10	Other Oropharynx	2	3	3	2	1	3	0	3	3	0	2	3	0
C11	Nasopharynx	78	61	87	100	109	99	89	122	85	89	104	118	95
C12-C13	Hypopharynx	11	9	18	7	7	6	5	8	6	8	7	12	9
C14	Pharynx unspecified	0	2	0	0	1	1	0	2	1	4	4	4	3
C15	Oesophagus	77	71	67	64	79	58	69	63	70	68	55	57	55
C16	Stomach	131	128	133	109	124	104	125	125	148	180	151	163	162
C17	Small intestine	11	8	11	10	15	13	16	13	17	14	22	24	18
C18	Colon	62	88	74	86	108	100	117	119	153	179	201	259	232
C19-C20	Rectum	83	66	67	66	66	89	84	108	123	143	176	191	182
C21	Anus	10	8	6	8	6	5	10	12	14	11	17	17	8
C22	Liver	301	298	279	269	329	296	289	274	287	285	276	282	291
C23-C24	Gallbladder etc.	24	31	25	22	28	25	27	39	42	39	27	36	46
C25	Pancreas	50	49	53	45	60	59	68	53	74	84	82	99	93
C30-C31	Nose, sinuses etc.	5	6	10	5	10	13	6	9	14	10	10	15	10
C32	Larynx	49	48	44	41	47	43	44	51	33	60	53	53	62
C33-C34	Trachea, Bronchus, Lung	189	186	190	164	223	206	196	190	194	203	254	280	232
C37-C38	Other Thoracic organs	7	11	13	13	8	17	7	6	5	12	13	22	14
C40-C41	Bone	48	50	34	46	51	56	52	67	50	46	67	55	64
C43	Melanoma of Skin	21	8	8	8	6	7	11	9	12	10	13	13	11
C44	Other Skin	104	121	113	111	100	121	114	157	149	166	142	154	193
C45	Mesothelioma	5	4	5	5	7	2	7	5	3	5	6	8	8
C46	Kaposi sarcoma	15	10	14	14	12	11	19	20	21	26	27	23	22
C47;C49	Connective, Soft tissue	85	68	50	60	50	70	55	47	63	69	60	77	57
C50	Breast	11	16	6	12	20	11	16	12	15	16	14	15	18
C60	Penis	3	4	1	8	0	1	1	1	3	1	3	6	1
C61	Prostate	150	148	155	125	163	147	185	170	199	193	245	269	228
C62	Testis	32	22	25	29	39	31	34	36	44	38	46	46	38
C63	Other male genital	1	2	0	3	1	2	3	3	3	4	3	2	3
C64	Kidney	70	82	57	65	72	79	75	85	90	85	125	103	111
C65	Renal Pelvis	5	5	0	0	10	2	6	2	1	7	8	3	5
C66	Ureter	1	3	1	0	3	0	4	1	0	6	3	3	1
C67	Bladder	165	155	129	128	156	152	159	143	160	180	174	164	169
C68	Other Urinary organs	1	1	1	0	1	1	0	0	1	1	1	0	0
C69	Eye	22	12	18	35	17	24	25	22	24	21	21	17	26
C70-C72	Brain, Nervous system	132	99	127	125	103	121	142	120	121	147	154	140	149
C73	Thyroid	73	63	60	73	85	85	75	74	93	89	95	93	117
C74	Adrenal gland	8	9	8	8	4	9	11	7	7	15	6	10	19
C75	Other Endocrine	2	3	5	1	2	2	1	4	1	5	3	6	5
C81	Hodgkin disease	105	107	108	99	137	119	129	137	120	144	182	167	173
C82-C85;C96	Non-Hodgkin lymphoma	275	216	233	226	285	270	269	245	273	328	355	361	351
C88	Immunoproliferative dis.	0	0	0	1	0	1	0	0	0	1	2	0	0
C90	Multiple Myeloma	60	41	30	36	47	37	46	36	28	39	45	60	48
C91	Lymphoid Leukemia	152	118	148	144	156	137	152	158	142	164	149	160	155
C92-C94	Myeloid Leukemia	95	91	83	107	94	110	93	127	112	89	112	105	115
C95	Leukemia unspecified	10	5	5	5	9	8	14	13	12	13	16	15	26
Other	Other & unspecified	149	122	100	133	147	141	126	136	152	145	151	183	186
<b>All</b>	<b>All sites Total</b>	<b>2963</b>	<b>2718</b>	<b>2668</b>	<b>2687</b>	<b>3054</b>	<b>2962</b>	<b>3045</b>	<b>3095</b>	<b>3243</b>	<b>3520</b>	<b>3782</b>	<b>3990</b>	<b>3898</b>
<b>Not C44</b>	<b>All sites but C44</b>	<b>2859</b>	<b>2597</b>	<b>2555</b>	<b>2576</b>	<b>2954</b>	<b>2841</b>	<b>2931</b>	<b>2938</b>	<b>3094</b>	<b>3354</b>	<b>3640</b>	<b>3836</b>	<b>3705</b>

**Table 5.5.2 Number of New Cases by Primary Site and Years among Saudi Females, 1994-2006**

ICD-10	Site	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
C00	Lip	3	3	4	2	1	6	4	3	7	5	8	6	4
C01-C02	Tongue	23	20	28	28	29	31	23	19	30	30	27	21	26
C03-C06	Mouth	23	40	37	22	33	40	26	27	29	29	23	43	34
C07-C08	Salivary glands	8	7	6	3	12	9	14	8	6	10	12	14	12
C09	Tonsil	0	3	3	3	1	1	3	1	5	4	1	1	2
C10	Other Oropharynx	0	1	0	0	1	0	0	0	2	0	2	2	0
C11	Nasopharynx	39	28	39	34	38	35	24	41	41	39	46	35	43
C12-C13	Hypopharynx	19	11	15	15	19	16	10	12	12	2	16	17	11
C14	Pharynx unspecified	2	3	1	1	1	1	2	0	3	1	3	0	1
C15	Oesophagus	75	54	69	54	47	49	55	37	58	53	52	69	64
C16	Stomach	67	74	64	59	67	71	62	73	77	76	78	75	113
C17	Small intestine	9	11	9	10	16	8	10	15	8	10	13	13	14
C18	Colon	64	80	86	75	74	107	108	143	135	146	183	200	227
C19-C20	Rectum	44	51	52	59	57	86	74	88	106	109	119	146	143
C21	Anus	6	4	2	3	5	2	4	2	5	9	6	9	9
C22	Liver	110	89	100	87	125	93	121	101	117	128	119	113	125
C23-C24	Gallbladder etc.	52	38	25	32	51	60	47	54	41	59	55	67	70
C25	Pancreas	28	30	24	25	50	42	35	35	54	40	36	53	73
C30-C31	Nose, sinuses etc.	6	9	5	4	8	8	6	6	8	2	6	10	10
C32	Larynx	10	2	7	10	9	10	10	3	7	4	8	6	9
C33-C34	Trachea, Bronchus, Lung	52	55	49	53	51	49	54	56	52	64	72	89	80
C37-C38	Other Thoracic organs	7	6	6	6	5	5	8	5	3	10	10	12	10
C40-C41	Bone	26	38	38	25	45	36	39	43	35	39	41	40	36
C43	Melanoma of Skin	11	8	7	2	8	8	6	8	7	8	12	9	12
C44	Other Skin	79	55	87	59	82	77	81	103	96	123	132	133	134
C45	Mesothelioma	1	0	1	1	0	4	1	1	3	7	5	7	5
C46	Kaposi sarcoma	0	3	0	8	7	8	4	5	3	6	5	9	14
C47; C49	Connective, Soft tissue	42	57	42	46	61	50	49	43	39	53	75	51	37
C50	Breast	434	435	469	487	534	521	611	564	671	714	831	964	981
C51	Vulva	8	6	7	3	3	3	8	7	6	6	11	1	4
C52	Vagina	5	6	2	6	2	3	1	5	5	1	5	7	1
C53	Cervix Uteri	79	74	84	77	98	78	84	87	87	92	95	98	74
C54	Corpus Uteri	59	47	39	50	61	58	92	81	89	113	122	152	140
C55	Uterus unspecified	4	2	11	10	17	13	6	15	14	14	12	15	22
C56	Ovary	96	98	97	114	111	100	103	109	110	128	117	140	132
C57	Other Female Genital	1	1	0	2	2	4	3	5	4	5	10	6	9
C58	Placenta	16	10	11	7	9	12	9	14	15	6	8	14	19
C64	Kidney	61	37	50	57	53	64	49	69	68	67	85	63	78
C65	Renal Pelvis	0	1	0	2	3	3	2	1	1	2	1	4	4
C66	Ureter	0	1	1	0	1	1	0	1	1	1	2	4	2
C67	Bladder	29	40	23	31	41	37	40	52	41	45	44	37	42
C68	Other Urinary organs	0	0	0	0	0	1	1	0	0	0	1	1	0
C69	Eye	15	16	18	14	11	26	25	18	20	16	19	21	19
C70-C72	Brain, Nervous system	78	75	76	93	88	78	89	84	85	93	110	106	103
C73	Thyroid	206	221	201	217	271	281	265	258	277	367	348	398	424
C74	Adrenal gland	10	6	10	11	9	10	13	8	8	13	17	10	10
C75	Other Endocrine	2	1	2	1	2	3	1	0	0	1	2	5	5
C81	Hodgkin disease	59	70	59	62	74	76	90	77	76	112	109	105	120
C82-C85; C96	Non-Hodgkin lymphoma	145	149	141	148	190	179	188	201	203	238	246	262	234
C88	Immunoproliferative dis.	0	0	0	1	0	1	1	1	0	1	0	0	0
C90	Multiple Myeloma	20	33	20	13	24	27	26	18	19	16	26	26	26
C91	Lymphoid Leukemia	77	89	80	80	75	95	112	85	102	92	83	83	90
C92-C94	Myeloid Leukemia	79	80	74	90	83	92	93	103	104	96	122	101	113
C95	Leukemia unspecified	6	6	0	5	7	11	9	4	5	11	11	15	9
Other	Other & unspecified	105	96	94	96	143	129	126	116	120	165	183	151	177
<b>All</b>	<b>All sites Total</b>	<b>2400</b>	<b>2380</b>	<b>2375</b>	<b>2403</b>	<b>2815</b>	<b>2818</b>	<b>2927</b>	<b>2916</b>	<b>3120</b>	<b>3481</b>	<b>3785</b>	<b>4039</b>	<b>4156</b>
<b>Not C44</b>	<b>All sites but C44</b>	<b>2321</b>	<b>2325</b>	<b>2288</b>	<b>2344</b>	<b>2733</b>	<b>2741</b>	<b>2846</b>	<b>2813</b>	<b>3024</b>	<b>3358</b>	<b>3653</b>	<b>3906</b>	<b>4022</b>

**Table 5.5.3 Age Adjusted Incidence Rate by Primary Site and Years among Saudi Males, 1994-2006**

ICD-10	Site	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
C00	Lip	0.2	0.1	0.1	0.2	0.1	0.0	0.1	0.0	0.1	0.1	0.2	0.1	0.1
C01-C02	Tongue	0.9	0.5	0.6	0.6	0.3	0.6	0.8	0.3	0.6	0.6	0.9	0.9	0.8
C03-C06	Mouth	0.7	0.7	0.9	0.6	0.7	0.6	0.5	0.7	0.6	0.6	0.8	0.7	0.8
C07-C08	Salivary glands	0.1	0.3	0.2	0.3	0.1	0.2	0.2	0.3	0.3	0.2	0.3	0.3	0.2
C09	Tonsil	0.1	0.2	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.0
C10	Other Oropharynx	0.1	0.1	0.1	0.1	0.0	0.1	0.0	0.1	0.1	0.0	0.0	0.1	0.0
C11	Nasopharynx	2.1	1.6	2.3	2.5	2.6	2.3	2.0	2.5	1.9	1.7	2.1	2.3	1.7
C12-C13	Hypopharynx	0.3	0.2	0.4	0.2	0.2	0.1	0.1	0.2	0.1	0.2	0.2	0.3	0.2
C14	Pharynx unspecified	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1
C15	Oesophagus	2.2	1.9	1.7	1.6	1.9	1.3	1.6	1.6	1.6	1.6	1.2	1.3	1.4
C16	Stomach	3.7	3.6	3.5	2.7	3.0	2.4	3.0	2.9	3.2	4.2	3.5	3.6	3.9
C17	Small intestine	0.3	0.2	0.3	0.3	0.4	0.3	0.4	0.3	0.3	0.3	0.5	0.5	0.4
C18	Colon	1.8	2.4	2.0	2.1	2.7	2.5	2.9	2.8	3.5	4.1	4.4	5.8	5.3
C19-C20	Rectum	2.4	1.9	1.6	1.7	1.7	2.4	2.1	2.5	2.7	3.3	4.1	4.3	4.4
C21	Anus	0.3	0.2	0.2	0.2	0.2	0.1	0.3	0.3	0.3	0.3	0.4	0.4	0.2
C22	Liver	8.8	8.6	7.5	7.1	8.4	7.5	7.2	7.3	6.9	7.1	6.6	6.6	7.5
C23-C24	Gallbladder etc.	0.7	0.9	0.7	0.6	0.7	0.6	0.7	1.0	1.0	1.0	0.7	0.8	1.2
C25	Pancreas	1.4	1.3	1.5	1.2	1.5	1.4	1.6	1.3	1.7	2.0	2.0	2.3	2.4
C30-C31	Nose, sinuses etc.	0.1	0.2	0.3	0.1	0.2	0.3	0.1	0.3	0.3	0.2	0.2	0.3	0.2
C32	Larynx	1.5	1.4	1.2	1.1	1.2	1.1	1.1	1.4	0.8	1.4	1.3	1.3	1.6
C33-C34	Trachea, Bronchus, Lung	5.6	5.4	5.1	4.4	5.8	5.2	5.0	4.9	5.0	5.2	5.9	6.5	6.1
C37-C38	Other Thoracic organs	0.2	0.2	0.3	0.2	0.2	0.3	0.1	0.1	0.1	0.3	0.3	0.4	0.2
C40-C41	Bone	0.7	0.7	0.5	0.7	0.7	0.7	0.7	0.8	0.6	0.6	0.7	0.6	0.7
C43	Melanoma of Skin	0.6	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.3	0.2	0.3	0.3	0.2
C44	Other Skin	2.7	3.1	2.8	2.9	2.4	2.7	2.5	3.6	3.2	3.7	3.1	3.3	4.6
C45	Mesothelioma	0.1	0.1	0.2	0.1	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.2	0.2
C46	Kaposi sarcoma	0.5	0.3	0.3	0.3	0.3	0.2	0.4	0.5	0.5	0.6	0.6	0.5	0.5
C47;C49	Connective, Soft tissue	1.8	1.4	1.0	1.2	0.8	1.2	1.0	0.8	1.0	1.2	0.9	1.1	0.9
C50	Breast	0.3	0.5	0.1	0.3	0.5	0.2	0.4	0.3	0.4	0.4	0.3	0.3	0.4
C60	Penis	0.1	0.1	0.0	0.2	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.1	0.0
C61	Prostate	4.0	3.9	3.8	3.0	4.0	3.5	4.1	4.3	4.4	4.6	5.8	6.3	6.1
C62	Testis	0.7	0.4	0.5	0.5	0.7	0.6	0.6	0.5	0.7	0.5	0.6	0.5	0.5
C63	Other male genital	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.0	0.1
C64	Kidney	1.8	2.0	1.4	1.6	1.7	1.6	1.7	1.8	1.8	1.8	2.6	2.1	2.4
C65	Renal Pelvis	0.1	0.1	0.0	0.0	0.3	0.1	0.1	0.0	0.0	0.2	0.2	0.0	0.1
C66	Ureter	0.0	0.1	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.2	0.1	0.1	0.0
C67	Bladder	4.6	4.3	3.5	3.3	3.9	3.7	4.0	3.5	3.4	4.2	4.1	3.5	4.1
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
C69	Eye	0.5	0.2	0.3	0.5	0.2	0.4	0.3	0.5	0.4	0.3	0.4	0.3	0.3
C70-C72	Brain, Nervous system	2.9	1.8	2.4	2.2	1.7	2.2	2.4	2.1	2.0	2.4	2.4	2.2	2.5
C73	Thyroid	1.9	1.5	1.5	1.8	1.9	1.7	1.5	1.6	1.9	1.8	1.7	1.6	2.1
C74	Adrenal gland	0.1	0.1	0.2	0.1	0.0	0.1	0.2	0.1	0.1	0.2	0.1	0.1	0.2
C75	Other Endocrine	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.1
C81	Hodgkin disease	2.1	1.9	1.8	1.5	2.2	1.8	1.8	1.9	1.7	1.9	2.3	2.1	2.1
C82-C85; C96	Non-Hodgkin lymphoma	6.7	5.1	5.5	5.0	6.2	6.1	5.5	4.9	5.3	6.4	6.3	6.7	6.6
C88	Immunoproliferative dis.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
C90	Multiple Myeloma	1.8	1.1	0.8	1.0	1.3	1.0	1.1	0.9	0.6	0.9	1.1	1.3	1.2
C91	Lymphoid Leukemia	2.2	1.8	2.1	2.1	2.4	1.9	2.1	2.4	1.9	2.2	2.1	1.9	2.3
C92-C94	Myeloid Leukemia	1.9	1.7	1.7	2.0	2.0	1.8	1.7	2.0	1.9	1.5	1.7	1.6	1.8
C95	Leukemia unspecified	0.2	0.1	0.1	0.1	0.2	0.1	0.3	0.2	0.2	0.3	0.2	0.2	0.4
Other	Other & unspecified	4.0	3.1	2.6	3.4	3.5	3.4	2.8	3.4	3.4	3.4	3.3	3.9	4.3
<b>All</b>	<b>All sites Total</b>	<b>76.3</b>	<b>67.5</b>	<b>63.8</b>	<b>61.7</b>	<b>69.5</b>	<b>65.1</b>	<b>65.6</b>	<b>67.6</b>	<b>67.1</b>	<b>74.2</b>	<b>76.8</b>	<b>79.8</b>	<b>83.6</b>
<b>Not C44</b>	<b>All sites but C44</b>	<b>73.6</b>	<b>64.4</b>	<b>60.9</b>	<b>58.8</b>	<b>67.1</b>	<b>62.5</b>	<b>63.1</b>	<b>64.0</b>	<b>63.9</b>	<b>70.4</b>	<b>73.6</b>	<b>76.5</b>	<b>79.0</b>

**Table 5.5.4 Age Adjusted Incidence Rate by Primary Site and Years among Saudi Females, 1994-2006**

ICD-10	Site	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
C00	Lip	0.1	0.1	0.1	0.0	0.0	0.2	0.1	0.1	0.2	0.1	0.2	0.1	0.1
C01-C02	Tongue	0.8	0.7	0.9	0.8	0.9	0.9	0.6	0.5	0.8	0.7	0.6	0.5	0.6
C03-C06	Mouth	0.7	1.3	1.1	0.7	1.1	1.1	0.7	0.6	0.7	0.7	0.5	0.9	0.8
C07-C08	Salivary glands	0.2	0.2	0.2	0.1	0.3	0.2	0.2	0.2	0.1	0.2	0.3	0.2	0.2
C09	Tonsil	0.0	0.1	0.1	0.1	0.0	0.0	0.1	0.0	0.1	0.1	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	0.1	0.0	0.1	0.1	0.0
C11	Nasopharynx	0.9	0.6	1.0	0.8	0.9	0.8	0.5	0.7	0.8	0.7	0.9	0.7	0.8
C12-C13	Hypopharynx	0.6	0.3	0.5	0.5	0.6	0.4	0.3	0.3	0.2	0.0	0.4	0.4	0.2
C14	Pharynx unspecified	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.1	0.0	0.0
C15	Oesophagus	2.7	1.8	2.2	1.7	1.5	1.4	1.5	1.0	1.5	1.3	1.2	1.6	1.6
C16	Stomach	2.4	2.4	2.1	1.8	2.0	1.9	1.6	1.7	1.8	1.8	1.7	1.7	2.7
C17	Small intestine	0.3	0.4	0.3	0.3	0.5	0.2	0.2	0.3	0.2	0.2	0.3	0.3	0.3
C18	Colon	2.2	2.7	2.6	2.2	2.2	2.9	2.6	3.4	3.1	3.4	4.2	4.3	5.3
C19-C20	Rectum	1.6	1.7	1.6	1.9	1.7	2.3	1.8	2.0	2.4	2.5	2.7	3.1	3.3
C21	Anus	0.2	0.1	0.1	0.1	0.2	0.0	0.1	0.1	0.1	0.2	0.1	0.2	0.2
C22	Liver	3.9	3.1	3.3	2.9	3.8	2.7	3.2	2.7	2.8	3.3	2.9	2.6	3.1
C23-C24	Gallbladder etc.	1.8	1.4	0.8	1.0	1.6	1.7	1.3	1.4	1.1	1.5	1.3	1.6	1.7
C25	Pancreas	1.1	1.1	0.8	0.9	1.6	1.2	0.9	0.8	1.4	1.0	0.9	1.3	1.8
C30-C31	Nose, sinuses etc.	0.2	0.2	0.1	0.1	0.2	0.2	0.1	0.1	0.2	0.0	0.1	0.2	0.2
C32	Larynx	0.3	0.1	0.2	0.3	0.3	0.3	0.3	0.1	0.2	0.1	0.2	0.1	0.2
C33-C34	Trachea, Bronchus, Lung	1.9	2.0	1.5	1.6	1.6	1.4	1.5	1.4	1.2	1.6	1.7	2.0	2.0
C37-C38	Other Thoracic organs	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.1	0.0	0.1	0.2	0.2	0.2
C40-C41	Bone	0.4	0.7	0.7	0.4	0.6	0.5	0.5	0.5	0.4	0.5	0.5	0.4	0.4
C43	Melanoma of Skin	0.3	0.2	0.2	0.1	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.3
C44	Other Skin	2.7	1.8	2.7	1.9	2.4	2.1	2.0	2.5	2.2	2.9	3.0	2.9	3.0
C45	Mesothelioma	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.2	0.1	0.2	0.1
C46	Kaposi sarcoma	0.0	0.1	0.0	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.3
C47; C49	Connective, Soft tissue	0.9	1.3	1.0	1.0	1.1	1.0	0.8	0.6	0.6	0.8	1.3	0.7	0.5
C50	Breast	13.4	13.0	13.4	13.3	14.3	12.6	13.7	12.1	13.9	14.6	16.5	18.7	18.0
C51	Vulva	0.3	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.2	0.0	0.1
C52	Vagina	0.2	0.2	0.0	0.2	0.0	0.1	0.0	0.1	0.1	0.0	0.1	0.2	0.0
C53	Cervix Uteri	2.4	2.2	2.5	2.3	2.9	2.0	1.9	2.0	1.8	1.9	2.0	2.1	1.5
C54	Corpus Uteri	2.1	1.4	1.4	1.6	2.0	1.6	2.5	2.1	2.2	2.8	2.9	3.6	3.6
C55	Uterus unspecified.	0.1	0.1	0.3	0.3	0.5	0.4	0.1	0.4	0.3	0.3	0.3	0.4	0.5
C56	Ovary	2.9	2.9	2.7	3.1	3.1	2.2	2.2	2.4	2.3	2.5	2.4	2.9	2.8
C57	Other Female Genital	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.2
C58	Placenta	0.4	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.2
C64	Kidney	1.5	1.0	1.1	1.3	1.4	1.4	0.9	1.4	1.4	1.4	1.8	1.2	1.5
C65	Renal Pelvis	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.0	0.1	0.1
C66	Ureter	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
C67	Bladder	1.0	1.2	0.7	1.0	1.3	1.0	1.1	1.3	1.0	1.1	1.0	0.8	1.0
C68	Other Urinary organs	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
C69	Eye	0.3	0.3	0.4	0.2	0.2	0.4	0.4	0.3	0.4	0.3	0.3	0.3	0.3
C70-C72	Brain, Nervous system	1.4	1.5	1.4	1.8	1.5	1.4	1.5	1.5	1.3	1.5	1.7	1.4	1.6
C73	Thyroid	5.5	5.3	4.6	5.0	5.7	5.4	4.8	4.6	4.7	6.1	5.7	6.4	6.5
C74	Adrenal gland	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1
C75	Other Endocrine	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1
C81	Hodgkin disease	1.4	1.3	1.0	1.1	1.3	1.2	1.2	1.1	1.0	1.5	1.4	1.3	1.6
C82-C85; C96	Non-Hodgkin lymphoma	4.3	4.2	4.1	4.0	5.0	4.3	4.1	4.4	4.4	5.0	5.0	5.3	4.8
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
C90	Multiple Myeloma	0.8	1.2	0.7	0.4	0.8	0.8	0.7	0.5	0.5	0.4	0.6	0.6	0.6
C91	Lymphoid Leukemia	1.1	1.6	1.2	1.0	1.0	1.2	1.6	1.2	1.3	1.2	1.0	1.0	1.2
C92-C94	Myeloid Leukemia	1.8	1.7	1.6	1.7	1.6	1.7	1.6	1.8	1.8	1.6	1.9	1.6	2.0
C95	Leukemia unspecified.	0.1	0.1	0.0	0.1	0.2	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.2
Other	Other & unspecified	3.5	3.1	2.8	2.8	4.3	3.3	3.2	3.0	2.8	3.9	4.1	3.3	4.1
<b>All</b>	<b>All sites Total</b>	<b>71.2</b>	<b>67.6</b>	<b>64.7</b>	<b>63.4</b>	<b>73.3</b>	<b>66.2</b>	<b>64.0</b>	<b>62.4</b>	<b>64.2</b>	<b>71.2</b>	<b>75.7</b>	<b>78.5</b>	<b>82.7</b>
<b>Not C44</b>	<b>All sites but C44</b>	<b>68.5</b>	<b>65.8</b>	<b>61.9</b>	<b>61.6</b>	<b>70.9</b>	<b>64.1</b>	<b>62.1</b>	<b>59.9</b>	<b>62.0</b>	<b>68.3</b>	<b>72.7</b>	<b>75.6</b>	<b>79.8</b>



**PART VI**  
**APPENDICES**

## APPENDIX: A Reporting Health care Facilities

<b>Asir Region</b>	
Abha General Hospital (Maternity) Abha Private Hospital AFH Military Hospital Ahli Hospital (Abha) Asir Central Hospital (Abha) Balasmar General Hospital Bisha General Hospital Dhahran Janoob Hospital Khamis Mushayt Civil Hospital King Fahad Hospital, AFH (Khamis Mushayt)	King Faisal Military Hospital Mahael General Hospital Majaridah General Hospital Namas General Hospital Prince Abdul Bin Abdul Aziz Hospital Rijal Al Maa Hospital Sarat Obeidah General Hospital Saudi German Hospital (Abha) Tathleeth General Hospital
<b>Baha Region</b>	
Baha National Hospital Baljurashi General Hospital Ghodran Hospital	King Fahad Hospital (Baha) Mandaq Hospital Mikhwah Hospital
<b>Eastern Province</b>	
Ahsa Hospital (Hofuf) AL Borg Lab (DM) Anak General Hospital ARAMCO Clinic Armed Forces Hospital (Hafr Al Batin) Astoon Hospital (Thomairy) Badr Rubaie Dispensary Dammam Central Hospital Dossary Hospital (Khobar) Dr. Fakhry & Mouhawis Hospital Dr. Noor Khan Hospital (Hafr Al Batin) Eastern Province Hospital Fanateer Hospital Faraby Dispensary Huwaylat Hospital Imam Abdul Rahman Bin Faisal, NGH (DM) Jabir Eye & ENT Hospital Jubail General Hospital Jubail Military Hospital Jufer Hospital (Hofuf) Khafji General Hospital Khafji Joint Operation King Abdul Aziz Airbase King Abdul Aziz Port Clinic King Abdul Aziz Navy Base King Abdulaziz (NGH) Hospital King Fahad Hospital (Hofuf)	King Fahad Hospital of the University (Khobar) King Fahad Military Medical Complex (AFH) King Fahad Specialist Hospital (DM) King Khalid General Hospital King Khalid Military Complex Mana General Hospital (DM) Mana General Hospital (Hofuf) Mana General Hospital (Jubail) Mana General Hospital (Khobar) Maternity & Children's Hospital (Hofuf) Maternity & Children's Hospital (Khobar) Mousa Hospital (Hofuf) Mouwasat Hospital (DM) Naireia General Hospital Prince Saud Bin Jalawi Hospital Qatif Central Hospital Qatif General Hospital Ras Tanura Center (ARAMCO Clinic) Rowdha Dispensary Saad Specialist Hospital Center (Khobar) Saddiq Hospital Salama Hospital Saudi ARAMCO Medical Services Organizations Tadawy General Hospital Tapline Qaisuma Hospital (ARAMCO) Yousif Hospital Zamil Hospital
<b>Hail Region</b>	
AlBorg Lab (Hail) Baqah Hospital Hail General Hospital King Khaled General Hospital Maternity & Children's Hospital	Rashid Hospital Safa Polyclinic (RY) Salamat Private Hospital Shamli (Hail)

**APPENDIX: A (continued...)**

<b>Jazan Region</b>	
Abu Arish General Hospital Baysh General Hospital Darb Hospital Jazan General Hospital	Jazan Hospital NOS Jazan Military Hospital King Fahad Central Hospital Samtah General Hospital
<b>Jouf Region</b>	
Dawamat Jandal Hospital Maternity & Children's Hospital Pr AbdulRahman Sudairi General Hospital	Qurayat General Hospital Tabarjal General Hospital
<b>Madinah Region</b>	
Al Borg Lab Aneis Al Khair Lab Ansar Hospital (MD) Ansary Specialist Hospital Badr General Hospital (Yanbu) Dr Erfan Saadi Hospital (Yanbu) Hanakyah General Hospital Khaybar General Hospital King Abdul Aziz NGH Hospital King Fahad Hospital (MD) Madina Hospital, NOS Madina National Hospital	Madinah Maternity & Children's Hospital Magrabi Eye Hospital (MD) Mahd General Hospital Meeqat Hospital Mouwasat Hospital (Madinah) Ohoud Hospital Prince Abdul Mohsen Ola General Hospital Royal Commission Medical Center (Yanboa) Saudi German Hospital (MD) Yanboa General Hospital Zahra Private Hospital Zen Laboratory
<b>Makkah Region</b>	
Abdul Rahman Qari Center Abdullah Saeim Daher Abuzinada Hospital Adwani General Hospital (Taif) Ahli Clinic Ajiyyad General Hospital (MK) Alawi Tunsi & Bros Hospital AlBorg Lab (JD) AlBorg Lab (MK) Amen Hospital (Taif) Ansar Hospital (JD) Bugshan General Hospital (JD) Chest Disease Hospital (Taif) Dr Abdul Rahman Bakhsh Hospital Dr Erfan & Bagedo Hospital Dr Ghassan Pharaon Hospital Dr Khalid Idrissi Hospital Dr Solaiman Fakeeh Hospital Elaj Laboratory (JD) Eye Hospital (JD) Ghannam Clinic Hada Military Hospital (AFH) Hai Jamea Hospital Hayat Hospital (JD) Hera General Hospital (MK) International Medical Jazerah Hospital (JD)	King Faisal Hospital (Taif) King Faisal Specialist Hospital (JD) King Saud Hospital (JD) Leeth Hospital Maghraby Eye Hospital (JD) Makkah Hospital NOS Maternity & Children's Hospital (JD) Maternity & Children's Hospital (TF) Maternity & Children's Hospital (MK) Muhammad Saleh Bashrahi Misan Blhareth (Taif) Mustaqbal Hospital (Dhagastani) Nahda National Hospital (TF) National Saudi Hospital (JD) New Jeddah Clinic Noor Specialist Hospital (MK) Nourah Oncology Center Pioneers Laboratory Qunfudah General Hospital Rabegh General Hospital Rafie Hospital (MK) Rahmah Polyclinic (JD) Royal Commission Medical Center (Yanboa) Salam Hospital Salamah Hospital (Closed) Saudi German Hospital (JD) Saudi Hospital

**APPENDIX: A (continued...)**

<b>Makkah Region continued.....</b>	
Jedaani Hospital Jeddah Clinic Hospital Jeddah General Hospital Khadra Lab (JD) King AbdulAziz Hospital & Oncology Center (JD) King AbdulAziz Hospital (Al Zaher) (MK) King AbdulAziz Specialist Hospital (Taif) King AbdulAziz University Hospital (JD) King Fahad General Hospital King Fahad Hospital, AFH (JD) King Fahd Air Base Hospital King Faisal (Al Shesha) Hospital (MK)	Saudia Airlines Medical Services Shaty Hospital (Closed) Sheffaa Hospital Taif Chest Hospital Taif Children's Hospital (Taif) Taif Medical Center Thagher Hospital Torbah Hospital Umm Qura General Hospital United Doctors Hospital (Shaty Hospital) Zahra Hospital (JD) Zahra Hospital (JD)
<b>Najran Region</b>	
Dhafer Hospital (Najran) King Khaled Hospital (Najran) Maternity & Children's Hospital Najran Armed Forces Hospital	Najran General Hospital Najran Hospitalital NOS Sharourah Armed Forces Sharourah General Hospital
<b>Northern Region</b>	
Arar Central Hospital Northern Hospital, NO	Rafha General Hospital Turayf General Hospital
<b>Qassim Region</b>	
Bukairiya General Hospital Buraidah Central Hospital King Fahd Specialist Hospital King Saud University Hospital Maternity & Children's Hospital	Midhnab General Hospital Qassim Hospital NOS Rass General Hospital Wafa Hospital
<b>Riyadh Region</b>	
Abdullah Medical Clinic Adama Hospital Advance Cell Laboratory AFH Military (RKH) Afif General Hospital Aflaj General Hospital Ahad Madina Polyclinic Alam Medical Center AlBorg Lab (RY) Amal Clinic (I) Amal Psychiatric Hospital Ameed Polyclinic (Kharj) Anda Medical Laborator Armed Forces (Wadi Dawasir) Artwiyah Clinic Ashbelia Medical Clinic Aziziah Medical Laboratory Basheer Obaid Dental Clinic Bustan Clinic Chest Diseases Hospital (Kharj) Consultative Medical Center	Ismail Raslan Polyclinic Jafel International Ho Jazeera Laboratories Jazeera Medical Clinic Khaleejy Medical Clinic King Abdul Aziz Medical City King Abdul Aziz University King Fahad Medical City King Faisal Specialist Hospital & Research Center King Khaled Eye Specialist Hospital King Khaled General Hospital King Khaled University Hospital Maghraby Eye Hospital (RY) Mamlaka Hospital (Kingdom) Masaudi Clinic Maternity & Children's Hospital (RY) Mobarak Hospital Mouwasat Hospital (Ry) Mowed Medical Center Obeid Hospital (RY) Olaya Medical Center

**APPENDIX: A (continued....)**

<b>Riyadh Region continued.....</b>	
Consulting Radiologist Dallah Hospital Dar Hekma Clinic (RY) Dar Shifa Hospital Dawadmi General Hospital Dawssary Polyclinic (Kharj) Delta Medical Laboratory Digits Clinic Dilem General Hospital (Kharj) Dr Abdul Rahman Mishari Hospital Dr Fahd Sheduokhy Polyclinic Dr Hamed Mutabagani Med Dr Moagel's Polyclinic Dr Mofarreh Polyclinic Dr Mohamed Anazi Medical Center Dr Mohamed Shaker Heto Dr Suliman Habib Medical Center Elaj Laboratory Elite Medical & Surgical Eman General Hospital ENT Medical Center Faiha Medical Center Faleh International Hospital Finger Print Laboratory Green Crescent Hospital Gulf Radiology Center Hammadi Hospital Hayat Polyclinic (Kharj) Hilah Medical Clinic Hotta Bani Tammim Hospital Howtat Sudair Hospital Huraymila General Hospital Ibn Sina Lab (RY)	Osrah Clinic Osrah International Hospital Prince Nasser Bin Saad Prince Salman Bin Abdulaziz Hospital Quwayiyah General Hospital Rathawiah Medical Spec Rawabi Qurtuba Clinic Riyadh Care Hospital (Social Insurance) Riyadh Hospital NOS Riyadh Medical Center Riyadh Medical Complex Saati Medical Center Clinic Safa Makka Polyclinic Saudi German Hospital Saudi Medical Services Security Forces Hospital Shaqra General Hospital Shibel National Clinic Shifa Health Center Specialized Medical Center Sports Medicine Hospital Sughayyer Clinic Sulail Hospital Taif Medical Center (RY) Tumayr (Majmaah) United Medical Laboratory Wadi Dawasser Hospital Watan Clinic Watani Hospital (RY) Wroud Medical Clinic Yamamah Hospital Zulfi General Hospital
<b>Tabuk Region</b>	
Badaa Hospital (Tabuk) Dhuba General Hospital King Abd Aziz Military King Fahad Hospital (Tabuk) King Khalid Civil King Khalid General Hospital	Maternity & Children's Hospital North West Armed Forces Hospital Prince Fahad Bin Sultan Hospital Taima General Hospital Umlujj General Hospital Wajh General Hospital
<b>International Hospitals in the following Countries</b>	
Bahrain Bangladesh Canada China Cyprus Egypt Eritrea Ethiopia France Germany India Iraq Ireland Japan	Jordan Kuwait Lebanon Nigeria Pakistan Philippines Qatar Sudan Syrian Arab Republic United Arab Emirates United Kingdom United States of America Yemen

## APPENDIX: B SCR Board Member Contact Information

### SCR Main Office

MBC 64  
PO Box 3354, Riyadh 11211  
Saudi Arabia  
Tel: 01-442-3929  
Fax: 01-442-3924  
Email: [bazarbashi@kfshrc.edu.sa](mailto:bazarbashi@kfshrc.edu.sa)  
[haleid@kfshrc.edu.sa](mailto:haleid@kfshrc.edu.sa)  
Website: [www.scr.org.sa](http://www.scr.org.sa)

### Chairman:

**Shouki Bazarbashi, MD**

Admin. Director: Haya Al Eid, BDS, DFE, CTR  
Tumor Registrar: Mohamed Hayder, CTR  
Asst. Tumor Registrar: Maisoun Khaled  
Secretary: Marielen S. Manalo

### Armed Forces Hospitals

Riyadh Military Hospital  
PO Box 7897, Riyadh 11159  
Tel: 01-477-7714 x 6747  
Fax: 01-477-6743 x 6743  
Email: [rhalasiri@hotmail.com](mailto:rhalasiri@hotmail.com)

### Director:

**Rizqullah Assiri, MD**

### Central Region

King Fahad Medical City  
PO Box 59046, Riyadh 11525  
Tel: 01-288-9999 x 7086  
Fax: 01-288-1965  
Email: [aalhumaidi@kfmc.med.sa](mailto:aalhumaidi@kfmc.med.sa)

### Director:

**Abdulaziz Al Humaidi, MD**

### Eastern Region

King Fahd Hospital of the University  
PO Box 40004, Al Khobar 31952  
Tel: 03-896-6741  
Fax: 03-869-6741  
Email: [halidrissi@yahoo.com](mailto:halidrissi@yahoo.com)

### Director:

**Prof. Hassan Al Idrissi, MD**

### King Abdulaziz University Hospital

Faculty of Medicine  
PO Box 80215, Jeddah 21589  
Tel: 02-624-0000 x 18244/18253  
Fax: 02-617-1412  
Email: [kau\\_vdca@yahoo.com](mailto:kau_vdca@yahoo.com)

### Director:

**Prof. Mohmoud Shaheen Al Ahwal, MD**

### King Faisal Specialist Hospital & Research Center

MBC-64  
PO Box 3354, Riyadh 11211  
Tel: 01-442-4286  
Fax: 01-442-4542  
Email: [alisaz@kfshrc.edu.sa](mailto:alisaz@kfshrc.edu.sa)

### Directors:

**Shouki Bazarbashi, MD  
Ali Al-Zahrani, MD, PhD**

## APPENDIX: B Continued....

<p><b>Madinah &amp; Northern Region</b>          King Fahad Hospital          Madinah Al Monawarah          Tel: 04-836-2000 x 2465/2462          Fax: 04-836-0937          Email: <a href="mailto:tarawah@yahoo.com">tarawah@yahoo.com</a></p>	<p><b>Director:</b></p>	<p><b>Ahmed Tarawa, MD</b></p>
<p><b>National Guard Hospitals</b>          King Abdulaziz Medical City (KKNHG)          PO Box 9515, Jeddah 21423          Tel: 02-624-0000 x 24082          Fax: 02-624-0000 x 24081          Email: <a href="mailto:awandejani@yahoo.com">awandejani@yahoo.com</a></p>	<p><b>Director:</b></p>	<p><b>Abdulwahab Andejani, MD</b></p>
<p><b>Security Forces Hospital</b>          PO Box 3643, Riyadh 11481          Tel: 01-477-4480 x 1193          Fax: 01-475-3814          Email: <a href="mailto:aabahussein@hotmail.com">aabahussein@hotmail.com</a></p>	<p><b>Director:</b></p>	<p><b>Abdulaziz Saleh Aba Hussein, MD</b></p>
<p><b>Southern Region</b>          King Khalid University          PO Box 641, Abha          Tel: 07-224-0711 / 224-7800 x 118          Fax: 07-224-0964 / 224-7570</p>	<p><b>Director:</b></p>	<p><b>Abdul Rahman Al Shehri, MD</b></p>
<p><b>Western Region</b>          King Abdulaziz Hosp. &amp; Oncology          Center          PO Box 31467, Jeddah 21497          Tel: 02-637-5555 x 2276          Fax: 02-635-6410          Email: <a href="mailto:hasnah_ncr_w@hotmail.com">hasnah_ncr_w@hotmail.com</a></p>	<p><b>Director:</b></p>	<p><b>Hasnah Al Ghamdi, MD</b></p>
<p><b>Ministry of Health</b>          Kingdom of Saudi Arabia          PO Box 335157, Riyadh 11314          Tel: 01-475-0426 x 201          Fax: 01-475-0428          Email: <a href="mailto:mysa88@yahoo.com">mysa88@yahoo.com</a></p>	<p><b>Representative:</b></p>	<p><b>Mohammad Y. Saeedi, MD</b></p>
<p><b>Nasser Al Hamdan,</b></p>	<p><b>Dep. Chairman</b></p>	<p><b>1992 - 2006</b></p>
<p><b>Edward De Vol, PhD</b></p>	<p><b>Director</b></p>	<p><b>January 2001 - April 2006</b></p>
<p><b>Hadir Meir, MD</b></p>	<p><b>Director</b></p>	<p><b>January 2001 - August 2005</b></p>
<p><b>Hassan Trabulsi, MD</b></p>	<p><b>Director</b></p>	<p><b>November 2001 - June 2007</b></p>
<p><b>Dahish Ajarim, MD</b></p>	<p><b>Director</b></p>	<p><b>1999 - December 2009</b></p>
<p><b>Susan E. Young, CCHRA®, CTR</b></p>	<p><b>Admin. Director</b></p>	<p><b>March 2003 - May 2006</b></p>

# APPENDIX C: Cancer Registration Abstract Form

**SAUDI CANCER REGISTRY**  
**Ministry of Health**  
**Kingdom of Saudi Arabia**

## CANCER REGISTRATION ABSTRACT

Revised 03, 2010

1. ACCESSION DATE          
d d m m y y y y

2. CanReg-4 No. (Accession Number)              
(Computer Assigned)

### PATIENT

3. First <i>(Must be filled)</i>	4. FATHER <i>(Must be filled)</i>	5. GRANDFATHER	6. FAMILY <i>(Must be filled)</i>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

*Use SCR standardized name spellings*

7. Saudi ID/Passport/ Iqama Number

8. Sex   
1-Male  
 2-Female  
 9-Unknown

9. Date of Birth   -   -        
d d m m y y y y y  
 (if only year is known, use 01/07/\_\_\_\_)

10. Age at Diagnosis

11. Nationality Code

12. Nationality Text *(Must be filled)*

13. Marital Status   
1. Single 4. Widowed  
 2. Married 9. Unknown  
 3. Divorced

14. Address Code *(Must be filled)*

15. Address Details *(Must be filled)*  
 City:  Suburb/District  P.O. Box  Zip Code:

16. Mobile Number *(Must be filled)*

17. Telephone Number 1 *(Must be filled)*

18. Extension 1

19. Telephone Number 2

20. Extension 2

### TUMOR

21. Date of Diagnosis *(First time physician states that patient has a malignancy clinically or pathologically)*  
*(if only year is known, use 01/07/\_\_\_\_)*            
d d m m y y y y y  
 (Must be filled)

22. Topography Code

23. Topography Text *(Must be filled)*

24. Morphology Code

25. Morphology Text *(Must be filled)*

(behavior)

26. Behavior   
2. In situ  
 3. Malignant/Invasive

27. Grade   
1. Well differentiated / Differentiated, NOS  
 2. Moderately / Moderately well differentiated  
 3. Poorly Differentiated  
 4. Undifferentiated / Anaplastic  
 5. T-Cell\*  
 6. B-Cell/Pre-B/B-cursor\*  
 7. Null Cell/Non-T-Non-B\*  
 8. Natural Killer cell\*  
 9. Unknown\*

28. SEER Summary Stage (Extent)   
1. In situ  
 2. Localized  
 3. Regional by direct extent  
 4. Regional by lymph node  
 5. Regional (both 3 and 4)  
 6. Regional, NOS  
 7. Distant Metastasis / Systemic disease  
 9. Unknown

\* for leukemias & lymphomas only

29. Laterality   
0. Not paired (unknown, ill defined)  
 1. Right  
 2. Left  
 3. One side, but unknown  
 4. Bilateral involvement, laterality origin unknown  
 9. Paired site, laterally not stated

30. Basis of Diagnosis   
0. DCO (death certificate only)  
 1. Clinical  
 2. Medical Imaging (Radiology)  
 3. Surgery (Visualization without Biopsy)  
 4. Lab test (tumor marker)  
 5. Cytology / Hematology  
 6. Histology of Metastasis  
 7. Histology of Primary  
 8. Autopsy  
 9. Unknown

## APPENDIX C: Cancer Registration Abstract Form

### HOSPITAL

31. Date first seen at Source1 for this cancer  
*(Must be filled)*

d	d	m	m	y	y	y	y

32. Source 1

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

33. Reporting Hospital Text

--

34. MRN 1

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

35. Path 1

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

36. Source 2

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

37. Referral Hospital Text

--

38. MRN 2

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

39. Path 2

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

40. Source 3

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

41. Referral Hospital Text

--

42. MRN 3

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

43. Path 3

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

44. Source 4

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

45. Referral Hospital Text

--

46. MRN 4

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

47. Path 4

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

48. Source 5

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

49. Referral Hospital Text

--

50. MRN 5

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

51. Path 5

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

52. Source 6

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

53. Referral Hospital Text

--

54. MRN 6

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

55. Path 6

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

---

### FOLLOW-UP

56. Last Contact

d	d	m	m	y	y	y	y		

57. Status

- 1. Dead
- 2. Alive
- 9. Unknown

58. Cause of Death

- 1. Cancer
- 2. Other
- 3. Not Applicable
- 9. Unknown

59. Coder ID #

--	--	--

60. Data Entry ID #

--	--	--

Signature: \_\_\_\_\_

Signature: \_\_\_\_\_

QUESTIONS / QUERIES / PROBLEMS

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## APPENDIX D: Summary of Cancer Statistics in Saudi Arabia for the Year 2006

### إحصائيات السرطان في المملكة العربية السعودية لعام 2006 م

أنشئ السجل السعودي للأورام في عام 1412 هـ (1992م) بمستشفى الملك فيصل التخصصي ومركز الأبحاث تحت إشراف وزارة الصحة وبمشاركة من القطاعات الصحية الحكومية . يضم السجل خمسة فروع في مناطق المملكة بالإضافة إلى وجود مكاتب في كل من مستشفيات القوات المسلحة بالرياض والملك فهد للحرس الوطني بجدة وقوى الأمن بالرياض . بدأ السجل نشاطه في جمع المعلومات من شهر يناير في عام 1994م. تدون المعلومات عن كل حالة سرطان وفق نموذج خاص بالسجل وترمز البيانات وتدخل حسب النظام المعتمد من منظمة الصحة العالمية وتحلل بشكل دوري . كما أن السجل يقوم بتزويد الجهات المختصة والباحثين بمعلومات إحصائية مفصلة بناءً على طلبهم وفق نموذج خاص. بلغ إجمالي عدد حالات السرطان المسجلة في عام 2006 م 11,040 حالة. من بين هذه الحالات 8,253 سعوديين و 2,395 غير سعوديين. وبعد تنقيح البيانات تم إستبعاد 662 حالة لأسباب منها: جنسيات غير محددة ووجود تصنيفات جديدة للسرطان بدون رمز مقابل مُحدث في ICD-10 من منظمة الصحة العالمية بالإضافة إلى حالات السرطان في مكانه (In Situ).

الكل	جنسيات غير محددة			غير سعوديين			سعوديين		
	المجموع	انثى	ذكر	المجموع	انثى	ذكر	المجموع	انثى	ذكر
المجموع	11040	392	195	2395	1119	1276	8253	4250	4003
غازي	10814	382	193	2331	1093	1238	8101	4178	3923
في مكانه	222	10	2	63	26	37	149	72	77
سرطان غير مرمر	58	4	1	7	3	4	47	22	25
الحالات المُحللة	10378	378	192	2324	1090	1234	8054	4156	3898

بلغت حالات السعوديين المحللة 8,054 بنسبة 77.6 % وغير السعوديين 2,324 بنسبة 22.4 % من بين السعوديين 3,898 حالة رجال بنسبة 48.4 % والنساء 4,156 حالة بنسبة 51.6 % . يبلغ معدل الإصابة بالسرطان المعايير 83.2 في كل 100,000 من السكان (83.6 بين الرجال و 82.7 بين النساء).

#### السرطانات العشرة الأكثر شيوعاً بين السعوديين في كلا الجنسين

يحثل سرطان الثدي المرتبة الأولى (999 حالة بنسبة 12.4 % ثم سرطان القولون والمستقيم (784 حالة) بنسبة 9.7 % يليه السرطان اللمفاوي لاهودجكن (585) بنسبة 7.3 % ثم سرطان الغدة الدرقية (541) بنسبة 6.7 % يليه سرطان ابيضاض الدم (508) بنسبة 6.3 % يليه سرطان الكبد (416) بنسبة 5.2 % يليه سرطان الجلد (327) بنسبة 4.1 % يليه السرطان اللمفاوي هودجكن (293) بنسبة 3.6 % وأخيراً سرطان المعدة (275) بنسبة 3.4 % .

#### السرطانات العشرة الأكثر شيوعاً بين الأطفال السعوديين في كلا الجنسين

يحثل سرطان ابيضاض الدم المرتبة الأولى (180) حالة بنسبة 31.7 % يليه سرطان المخ (81) حالة بنسبة 14.3 % ثم السرطان اللمفاوي هودجكن (73 حالة) بنسبة 12.9 % يليه السرطان اللمفاوي لاهودجكن (46) بنسبة 8.1 % ثم سرطان العظام (36) بنسبة 6.3 % يليه سرطان العين (31) بنسبة 5.5 % يليه سرطان الكلى (26) بنسبة 4.6 % يليه سرطان الأنسجة الضامة والرخوة وسرطان الغدة الأدرينالية (21) بنسبة 3.7 % لكل منهما ثم سرطان الغدة الدرقية (9) بنسبة 1.6 % وأخيراً سرطان الانف البلعومي (6) بنسبة 1.1 % .



