المجلس الصحي السعودي
Saudi Health Council

KINGDOM OF SAUDI ARABIA
SAUDI HEALTH COUNCIL
NATIONAL CANCER CENTER
SAUDI CANCER REGISTRY

CANCER INCIDENCE REPORT SAUDI ARABIA 2023


المجلس الصحي السعودي
Saudi Health Council

KINGDOM OF SAUDI ARABIA
SAUDI HEALTH COUNCIL
NATIONAL CANCER CENTER
SAUDI CANCER REGISTRY

CANCER INCIDENCE REPORT SAUDI ARABIA 2023

In the Name of Allah, the Most Gracious, the Most Merciful

The National Cancer Center (NCC) of the Saudi Health Council, presents the annual Cancer Registry report of the year 2023. The Saudi Cancer Registry (SCR) reports support the efforts made in the fight against cancer, and provide those in-charge of cancer healthcare and educational projects with the accurate cancer data that reflect the situational analysis of cancer in Saudi Arabia. This data represents the actual situation of cancer cases in the Kingdom and identifies the most common types based on gender, age, and geographical location.

These reports allow decision-makers to plan the development of cancer healthcare and health promotion programs to control cancer, aligned with the national strategies and healthcare objectives. Inspired by Vision 2030 to achieve the goals of the ambitious leadership, and to meet the expectations of beneficiaries. Healthcare coordination and integration are the prime goal of the Saudi Health Council that strengthen healthcare provision.

The progress in our beloved country's healthcare sector is a blessing from Allah the Almighty and then, the result of the support of the ambitious leadership of the Custodian of the Two Holy Mosques, and the Royal Highness, the Crown Prince, May Allah protect them, and the close follow-up by his Excellency the Chairman, and the members of the Saudi Health Council. I would like to express my sincere gratitude to my colleagues at the Saudi Health Council, represented by National Cancer Center (NCC), for their diligent work and continuous efforts in preparing this report and achieving the mission and objectives of the Saudi Cancer Registry. I would also like to extend my appreciations to all healthcare staff, organizations, institutions, and charities that involved in healthcare provision and raising awareness to alleviate cancer burden in Saudi Arabia.

Dr. Nahar M. Al-Azemi
Secretary General of
the Saudi Health Council

Praise be to Allah, the Lord of the Worlds, and blessings and peace be upon His prophet and messenger Mohammad.

The National Cancer Center (NCC) considers its Annual Cancer Incidence Report a cornerstone activity, keenly anticipated by all Saudis. The Saudi Cancer Registry Office is central to this, diligently collecting, compiling, analyzing, and validating data on all new cancer cases in the Kingdom of Saudi Arabia for 2023.

This comprehensive report is a direct result of the collaborative, often meticulous, efforts of all government and private health sectors registrars involved in data collection.

The NCC consistently empowers the Registry, offering vital administrative and technical support. This ensures the valuable data collected is effectively used to guide and monitor Saudi Arabia's cancer control programs. Beyond this, the NCC is deeply committed to strengthening national programs, aiming to elevate the standard of care for all cancer patients.

I extend my profound thanks to the technical team who developed and executed this report, to my colleagues at the National Cancer Center, and to the dedicated cancer registrars across all health sectors for their tireless efforts in completing this significant work. We are also deeply grateful to the members of the Scientific Committee and the report's reviewers for their devoted contributions to the Saudi Cancer Registry.

Professor Mushabbab Ali Al-Asiri
General Director of The National
Cancer Center, Saudi Health Council

PREPARED BY

Mr. Saleh Al-Alyani
Senior Health Data Analyst and Quality Specialist at The Saudi Arabian National Cancer Center, Saudi Health Council.

Mr. Meshary Alotiby
Senior Health Statistician, Epidemiologist, and Data Scientist at The Saudi Arabian National Cancer Center, Saudi Health Council.

Mr. Ahmed Al-Nemari
Senior Health Data Analyst and Quality Specialist at The Saudi Arabian National Cancer Center, Saudi Health Council..

Mr. Akram Al-Zamzami
Senior Health Data Analyst and Quality Specialist at The Saudi Arabian National Cancer Center, Saudi Health Council.

REVIEWED BY

Prof. Mushabbab Ali Al-Asiri
General Director of The Saudi Arabian National Cancer Center, Saudi Health Council.

Dr. Ali Saeed Al-Zahrani
Principal Clinical Scientist / Senior Consultant, Executive Director, Gulf Center for Cancer Control & Prevention, King Faisal Specialist Hospital & Research Center.

Mrs. Adhwaa Al-Juhani
General Director Assistant of The Saudi Arabian National Cancer Center, Saudi Health Council.

Mr. Ahmed Al-Rawaji
Knowledge Mobilization Manager,Knowledge Translation Department at the Saudi National Institute of Health (SNIH).

INTRODUCTION

This is the Twenty-sixth cancer incidence report published by the Saudi Cancer Registry. Previous publications included the Incidence Reports for the years: 1994-1996, 1997-1998, 1999-2000, and yearly reports until 2022.

This report provides statistics on cancer incidence that can be used for better planning and effective measurement of early detection and management of cancer.

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 and methods of the Saudi Cancer Registry 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 presents the overall cancer incidence in Saudi Arabia diagnosed between 01 January and 31 December 2023. Figures, tables, and line/bar charts are used to present cancer distribution by gender and age groups. Morphology distributions for. the most common cancers are also presented in tables. In addition, incidence tables are used to present the total Number of Cases, Age-Standardized Incidence Rate (ASR), Crude Incidence Rate (CIR), and Cumulative Rates (per 100,000 population) by gender for each primary cancer site. Separate bar charts are used to demonstrate the distribution of the most common cancers by gender in each of the 13 administrative regions of Saudi Arabia.

PART III – CANCER INCIDENCE AMONG SAUDIS FOR THE MOST COMMON CANCER SITES 2023

In this part, the incidence of the most common cancers reported among Saudi males and females is outlined. For each cancer site, the total number and proportions of all newly diagnosed cases, the ASR, and the corresponding cancer ranking for each gender are also presented. In addition, ASR for the most common cancers among Saudis is compared with the ASR reported from selected developed and developing countries.

PART IV - CANCER INCIDENCE AMONG NON-SAUDIS FOR THE MOST COMMON CANCER SITES 2023

This part presents numbers of cancer cases among the 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 which a large proportion is aged between 25 and 59, especially among males.

PART V - INCIDENCE TABLES

This part contains the following detailed tables for all newly diagnosed cancer types for the Saudis and the non-Saudis diagnosed in 2023:

- Distribution of cancer cases among Saudis by age group and gender.

- Distribution of cancer cases among non-Saudis by age group and gender.

- Cancer Incidence (per 100,000 population) among Saudis by age group and gender.

- Cancer Incidence (per 100,000 population) among non-Saudis by age group and gender.

- Age-standardized incidence rate and relative frequencies among Saudis by cancer site, gender, and administrative regions.

PART VI- ARABIC SUMMARY

It is enclosed an Arabic summary of Cancer Statistics in Saudi Arabia for the Year 2023.

TABLE OF CONTENTS

TABLE OF CONTENTS

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 divided into 13 administrative regions Figure 1.1.

Figure 1.1: Administrative Regions of Saudi Arabia

The estimated population of Saudi Arabia in 2023 was 33,702,731. Saudi nationals were estimated to be 19,245,929 of these 9,641,422 (50.1%) were males and 9,604,507 (49.9%) were females (General Authority of Statistics, 2023).

The non-Saudi population was 14,456,802 of these 11,153,512 (77.2%) were males and 3,303,290 (22.8%) were females. Figures 1.2 and 1.3 show the Saudi and non-Saudi population pyramids, categorized by gender and age group, respectively.

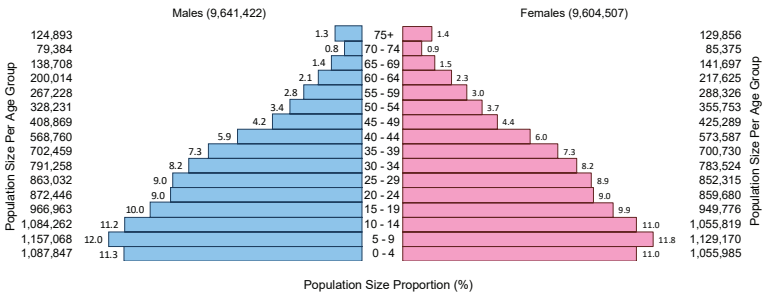


Figure 1.2: Population Pyramid of Saudis (%) by Gender and Age Group, 2023

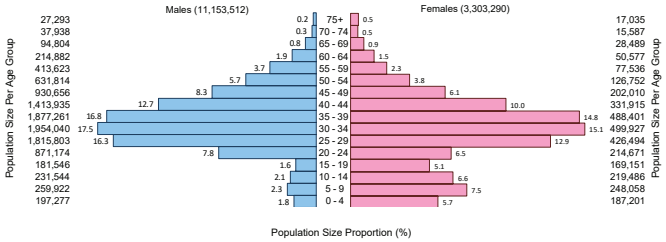


Figure 1.3: Population Pyramid of Non-Saudis (%) by Gender and Age Group, 2023

SAUDI CANCER REGISTRY

Is a population-based registry that is the cornerstone of Saudi national cancer control and prevention programs; to achieve the accurate knowledge of the numbers and rates of cancer cases and associated deaths, in addition to the geographical distribution of cancer cases, prediction of the financial and social burden of cancer-related health care activities , monitoring the results of risk factors associated with cancer (food, carcinogens and behaviors), monitoring the performance of preventive and therapeutic programs, analyzing the obstacles facing these programs, directing the local product of financial and human resources and investments, and supporting community health research and clinical studies.

The Saudi Cancer Registry is one of the first national registries in the Kingdom of Saudi Arabia, if not the first, as it was established in 1412 AH / 1992 AD. The statistical information provided by the Saudi Cancer Registry has been extremely important for developing cancer preventive and treatment services in the Kingdom over the past thirty years.

Reports have been published annually since 1994 to date. The reports are circulated as a tool to assist in making national decisions regarding cancer health services and the optimal distribution of resources. These reports are viewed by the national bodies to develop and maintain cancer care in different regions in Saudi Arabia while for the international agencies for measuring the global burden of cancer.

Cancer data are also provided if requested to various public and private sectors and to many researchers in the fields of cancer sciences.

The Saudi Cancer Registry collects data through oncology centers cancer registrars, most of all cancer cases are registered and their data is entered using a certified software. Data is processed and quality is managed, reviewed, and analyzed to generate the annual Saudi Cancer Registry reports.

ORGANIZATIONAL STRUCTURE

The SCR consists of the head office in national cancer center that oversees data collection from all over the country through ¬the hospitals-based cancer registrars in all comprehensive cancer centers and by national cancer center registrars to ensure full coverage of all healthcare facilities in the Kingdom. The registry is supervised by the director and the scientific committee of Saudi National Cancer Center (NCC) of the Saudi Health Council (SHC).

The NCC scientific committee provides scientific guidance to SCR, reviews cancer statistics reports, and provides help in disseminating reliable information; in addition to ensuring data confidentiality according to national and international guidelines.

SCR MAIN OFFICE

SCR Main Office supervises hospital-based registrars to ensure accuracy and quality of data collected from all regions and to maintains quality control processes include verification of site, morphology, staging information, case linkage (tumor and patient), and consolidation of data. The Main Office also prepares annual reports for dissemination to the medical community, government departments, international organizations and the public.

DATA MANAGEMENT

A royal 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 governmental and private hospitals, 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. Abstracted data includes personal identifications (name, ID number, gender, 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. Starting from the year 2001, changes were made in the coding of cancer types and behaviors as well as staging according to SEER Summary Stage manual 2000 to increase accuracy and consistency in stage coding.

While there have not been any changes in the primary site codes, there are significant changes regarding histology (cell types). Leukemia and lymphoma are particularly affected. Some cases that were previously considered benign are now counted as malignant. Also, a small number of cancers that were previously coded as borderline tumors are now considered benign. Counts of ovarian cancers, lymphoma, and leukemia as well as some hematopoietic diseases will change due to changes in either the report's ability or definition. However, as with the SEER 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 ICD-10 hematopoietic disease behavior changes, our software, CanReg 4.33 (developed by the International Agency for Research on Cancer (IARC), Lyon, France) 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 reviewed, linked, and consolidated, as appropriate, so that each malignancy is counted only once for statistical analysis. Data entry and incidence tables output were generated by CanReg software.

NOTIFICATION

This report covers data that were diagnosed between January and December 2023. Incident cases identified after this date (late reporting) will be reported in subsequent incidence reports. It is anticipated that the number of late-reported cases will decrease as the case ascertainment processes have improved during the past years. Our aim is to reduce reporting gap between the year of diagnosis and the year of publishing the incidence report to a maximum of 2 years while maintaining high quality and completeness of data.

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 gender group, divided by the number of mid-year population of that age and gender group.

Age-Standardized Rate (ASR)

The age-standardized rate is a summary measure of the 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 (Table 1). The calculated incidence is known as the World Standardized Incidence Rate. The rate is expressed per 100,000 population.

Table 1: World Standard Population for Age Standardization

Age group (Years)	Standard Population Weight
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
66 - 69	3,000
70 - 74	2,000
75 +	2,000
Total	**100,000**

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

Crude Incidence Rate (CIR)

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 every 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

The cumulative incidence rate is the probability or risk of individuals developing the disease during a specified period. For cancer, it is expressed as the number of newborn children (out of 100, or 1000) who would be expected to develop a particular cancer type before the age of 65 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 rate is expressed per 1000 individuals, and the age ranges between 0 to 64 and 0 to 74 are used. The cumulative rate is the summation of the cancer age-specific rates, which are computed for five-year age intervals.

ICD-10

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

CD-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 the primary site, a four-digit numeric code for cell type, a 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 period, divided by the population at risk of developing that disease.

Mean

The simple mathematical average of two or more numbers.

Median

The mid-point of the range numbers that are arranged in order of value.

Range

It 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

It is the relation between two quantities. The first quantity is a numerator and the second is a 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.

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.

Summary Stage

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

PART II

OVERVIEW OF CANCER INCIDENCE 2023

CANCER INCIDENCE IN SAUDI ARABIA,2023

Between January 01 and December 31, 2023, the total number of newly diagnosed cancer cases reported to the Saudi Cancer Registry (SCR) was 25,864. Overall cancer was more among women than men; it affected 11,153 (43%) males and 14,711 (57%) females. A total of 20496 cases were reported among Saudi nationals, 5368 among non-Saudis nationals (Table 2.1.1).

A total of 300 cases were excluded from the analysis, of which 68 cases of them were unknown nationalities, and 232 cases failed to be converted to ICD-10 codes that includes non-malignant tumors and pre-cancerous conditions which were not recognized by the software (CanReg-4) (Table 2.1.2).

Among analyzed Saudis cases, 8,569 (41.8%) were males and 11,927 (58.2%) were females with a male to female ratio of 72 to 100, approximately. The crude incidence rates (CIR) for all cancers were 88.9 per 100,000 in males and 124.3 per 100,000 in females.

The overall age-standardized incidence rate (ASR) was 135.1 per 100,000 in males and 172.0 per 100,000 in females.

Table 2.1.1: Number of Analyzed Cancer Cases Reported to Saudi Cancer Registry by Nationality and Gender, 2023

Nationality	Sex		Total
	Male	Female	
Saudi	8569	11927	20496
Non-Saudi	2584	2784	5368
Total	11153	14711	25864

Table 2.1.2: Number of Non-Analyzed Cancer Cases Reported to Saudi Cancer Registry by Nationality and Gender, 2023

Nationality	Sex		Total
	Male	Female	
Saudi	73	127	200
Non-Saudi	14	18	32
Unknown Nationality	23	45	68
Total	110	190	300

The age-specific incidence rate (AIR) increased with advancing age in both genders (Figure 2.2). The median age at diagnosis was 57 with a range of 0-112 for males, and 53 with a range of 0-106 for females.

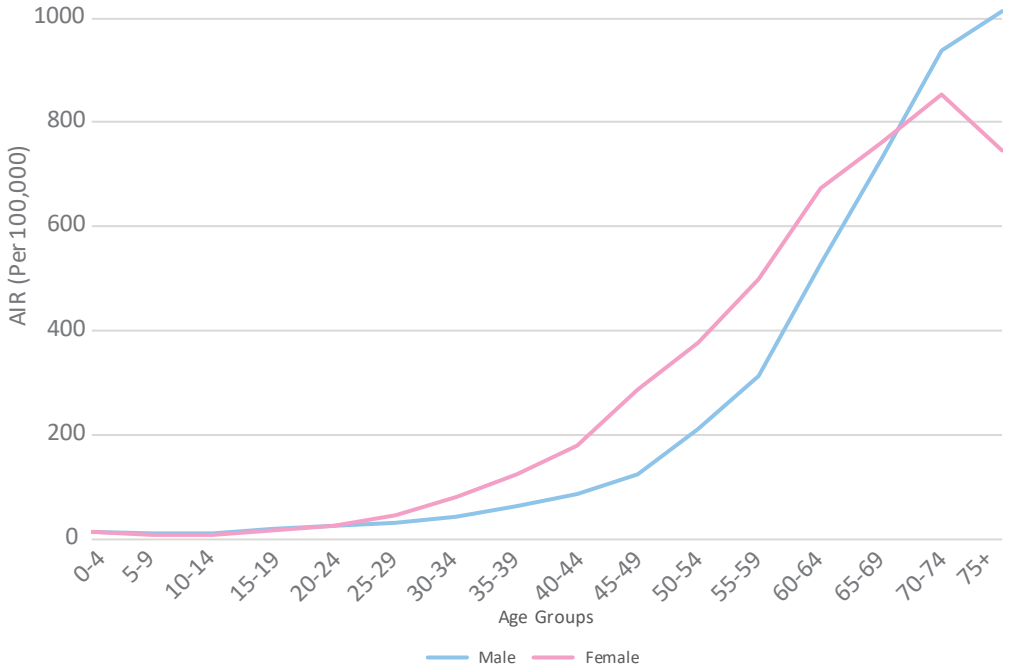


Figure 2.2: Age-Specific Incidence Rate (AIR) for All Cancer Among Saudis, 2023

Confirmation of malignancy was based mainly on histopathology reports (93.7%), followed by Cytology and Hematological (3.9%), then Histology of metastases (1.7%), then Medical Imaging (0.6%). Other sources such as Clinical and Death Certificate were the source that is about 0.1% (Table 2.3).

Table 2.3: Basis of Diagnosis of Cancer Cases, 2023

Basis of Diagnosis	No.	%
Histology of primary	24316	94.01
Cytology/Hematological	920	3.56
Histology of metastases	452	1.75
Medical Imaging	144	0.56
Unknown	11	0.04
Clinical	14	0.05
Surgery	6	0.02
DCO (Death Certificate Only)	0	0.00
Laboratory test	1	0.00
Total	**25864**	**100.0**

CANCER DISTRIBUTION AMONG SAUDI NATIONALS

In females, the highest number of cancer cases was reported for the age group (45-59), with a total of 4005 (33.6%) cancer cases. Whereas, in males, the highest number of cases was reported for the age group (60-74), with a total of 2810 (32.8%) cancer cases (Figure 2.3).

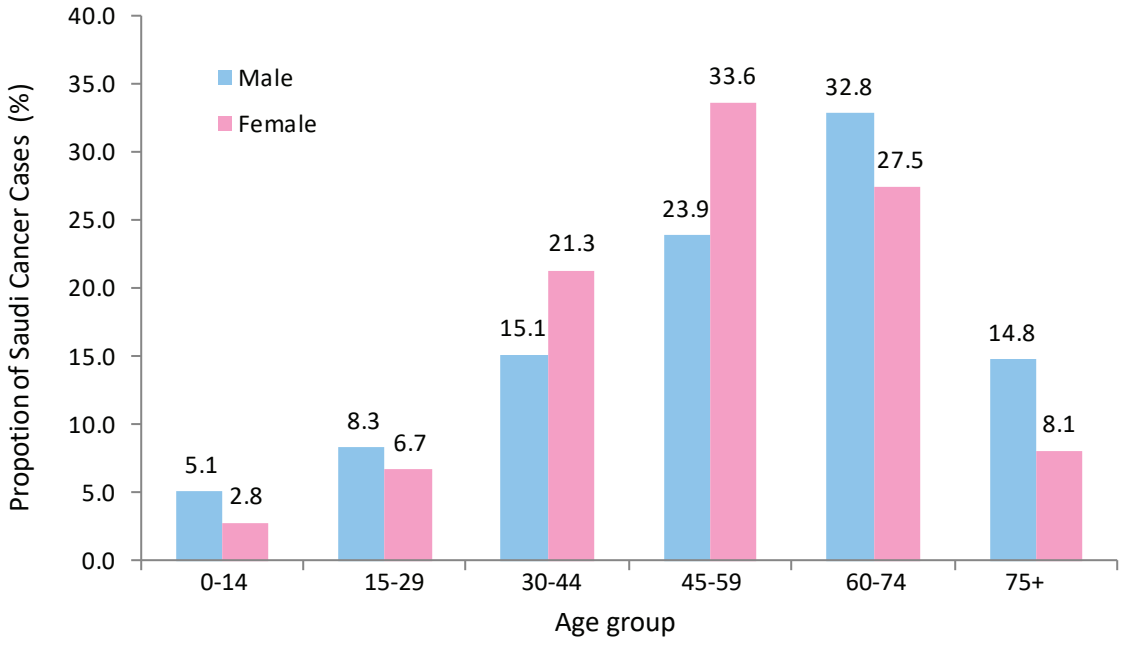
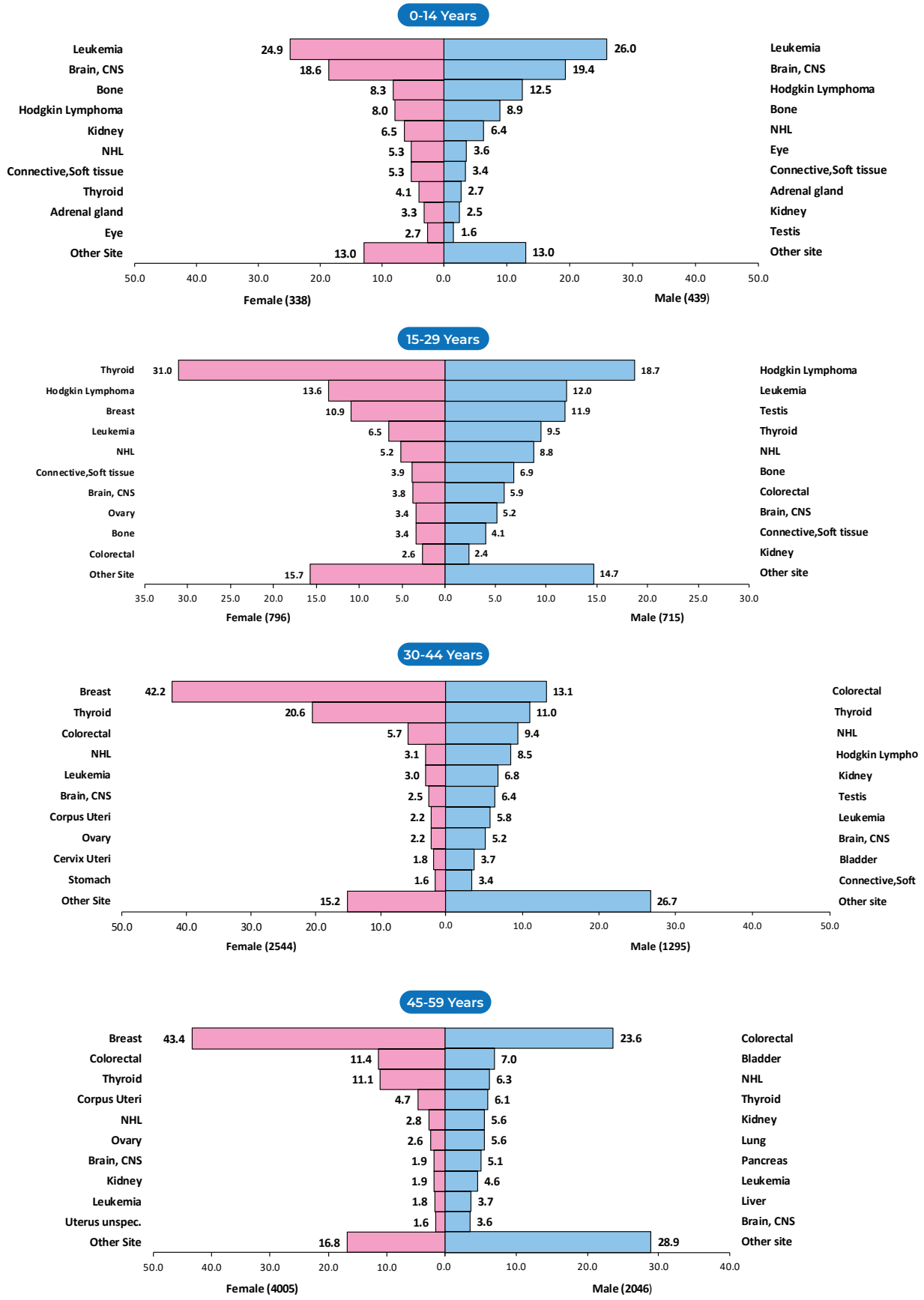
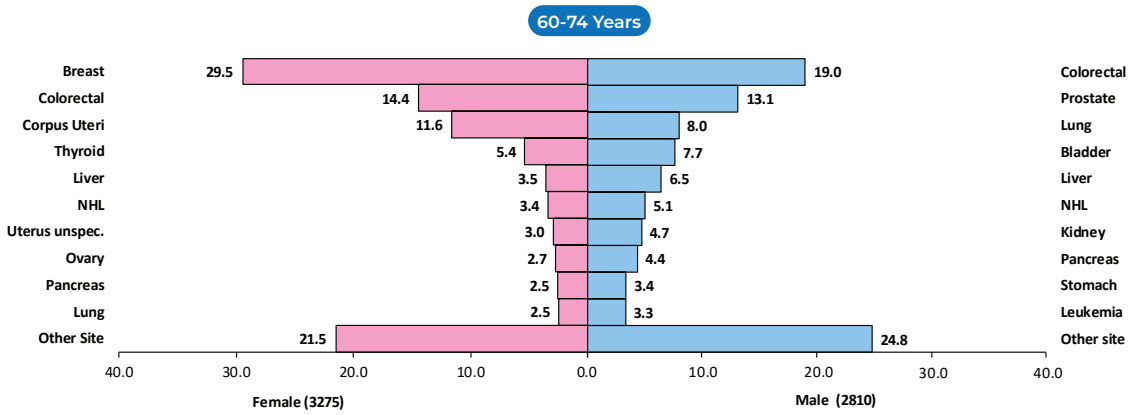
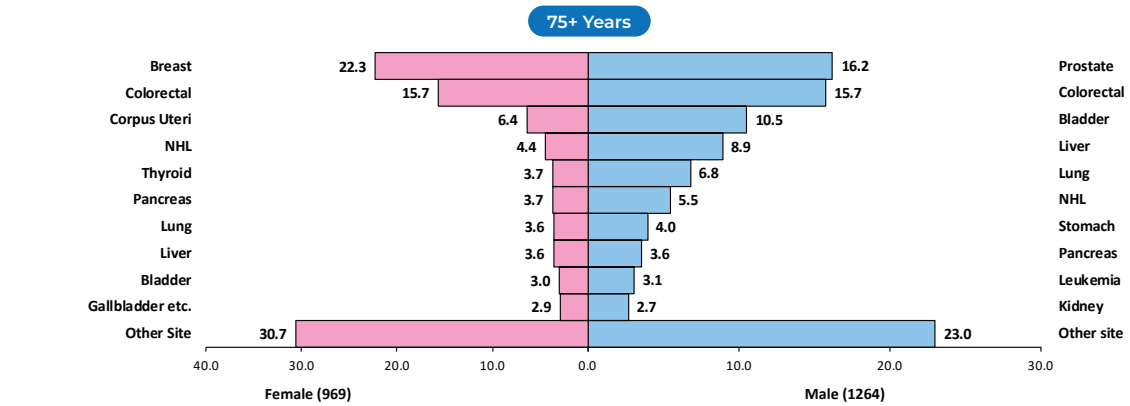


Figure 2.3: Distribution of Cancer Cases Among Saudi Nationals by Gender and Age Groups, 2023

Figure 2.4: Distributions of The Most Frequent Types of Cancer Among Saudi Nationals by Gender and Age Groups, 2023




60-74 Years
Breast 29.5
Colorectal 14.4
Corpus Uteri 11.6
Thyroid 5.4
Liver 3.5
NHL 3.4
Uterus unspec. 3.0
Ovary 2.7
Pancreas 2.5
Lung 2.5
Other Site 21.5
Colorectal 19.0
Prostate 13.1
Lung 8.0
Bladder 7.7
Liver 6.5
NHL 5.1
Kidney 4.7
Pancreas 4.4
Stomach 3.4
Leukemia 3.3
Other site 24.8
40.0 30.0 20.0 10.0 0.0 10.0 20.0 30.0 40.0
Female (3275)
Male (2810)


75+ Years
Breast 22.3
Colorectal 15.7
Corpus Uteri 6.4
NHL 4.4
Thyroid 3.7
Pancreas 3.7
Lung 3.6
Liver 3.6
Bladder 3.0
Gallbladder etc. 2.9
Other Site 30.7
Prostate 16.2
Colorectal 15.7
Bladder 10.5
Liver 8.9
Lung 6.8
NHL 5.5
Stomach 4.0
Pancreas 3.6
Leukemia 3.1
Kidney 2.7
Other site 23.0
40.0 30.0 20.0 10.0 0.0 10.0 20.0 30.0
Female (969)
Male (1264)

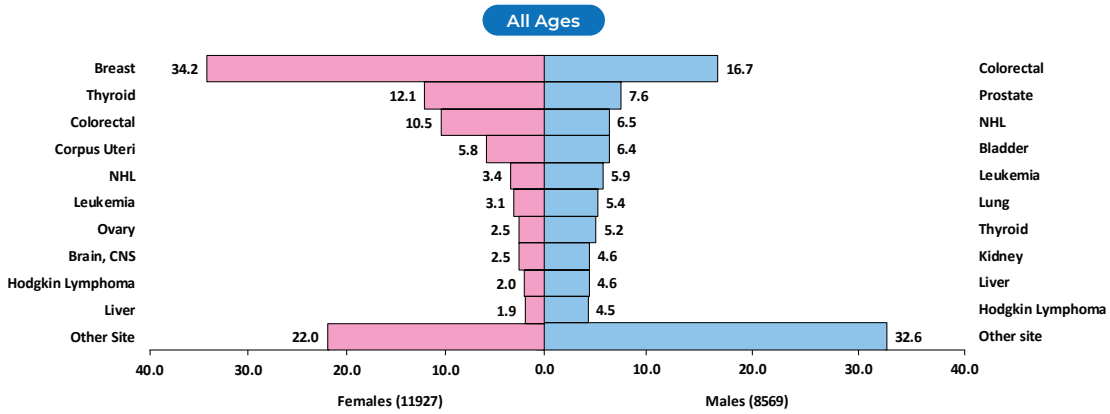

All Ages
Breast 34.2
Thyroid 12.1
Colorectal 10.5
Corpus Uteri 5.8
NHL 3.4
Leukemia 3.1
Ovary 2.5
Brain, CNS 2.5
Hodgkin Lymphoma 2.0
Liver 1.9
Other Site 22.0
Colorectal 16.7
Prostate 7.6
NHL 6.5
Bladder 6.4
Leukemia 5.9
Lung 5.4
Thyroid 5.2
Kidney 4.6
Liver 4.6
Hodgkin Lymphoma 4.5
Other site 32.6
40.0 30.0 20.0 10.0 0.0 10.0 20.0 30.0 40.0
Females (11927)
Males (8569)

Table 2.4: Most Common Cancers Among Saudi Nationals, 2023

Cancer Site	All	%
Breast	4159	20.3
Colorectal	2680	13.1
Thyroid	1891	9.2
NHL	957	4.7
Leukemia	867	4.2
Corpus Uteri	695	3.4
Lung	666	3.2
Prostate	650	3.2
Bladder	649	3.2
Brain, CNS	643	3.1

Table 2.5: Most Common Cancers Among Saudi Nationals by Sex, 2023

Cancer Site	Male	%	Cancer Site	Female	%
Colorectal	1430	16.7	Breast	4079	34.2
Prostate	650	7.6	Thyroid	1442	12.1
NHL	553	6.5	Colorectal	1250	10.5
Bladder	552	6.4	Corpus Uteri	695	5.8
Leukemia	503	5.9	NHL	404	3.4
Lung	463	5.4	Leukemia	364	3.1
Thyroid	449	5.2	Ovary	304	2.5
Kidney	397	4.6	Brain, CNS	300	2.5
Liver	394	4.6	Hodgkin Lymphoma	235	2.0
Hodgkin Lymphoma	382	4.5	Liver	231	1.9

Table 2.6: Number, Percentage, CIR, ASR (Per 100,000), And Cumulative Rates (Per 1000) Among Saudi Nationals by Primary Cancer Site and Gender, 2023

ICD-10	Cancer Site	Male						Female					
		No.	%	Crude Rate	ASR	Cumulative Rate (Per 1000)		No.	%	Crude Rate	ASR	Cumulative Rate (Per 1000)	
						0 - 64	0 - 74					0 - 64	0 - 74
ALL	All sites Total	8569	100.0	88.9	135.1	74.75	158.05	11927	100.0	124.3	172.0	117.50	198.25
NOT C44	All sites but C44	8348	%97.1	86.6	131.5	73.40	153.80	11760	%98.6	122.5	169.5	116.40	195.75
C00	Lip	0	%0.0	0	0	0.00	0.00	0	%0.0	0	0.0	0.00	0.00
C01-C02	Tongue	99	%1.2	1	1.6	1.06	2.20	75	%0.6	0.8	1.2	0.73	1.45
C03-C06	Mouth	72	%0.8	0.7	1.2	0.79	1.36	63	%0.5	0.7	1.0	0.55	1.18
C07-C08	Salivary glands	27	%0.3	0.3	0.4	0.25	0.50	26	%0.2	0.3	0.3	0.24	0.28
C09	Tonsil	5	%0.1	0.1	0.1	0.03	0.03	5	%0.0	0.1	0.1	0.06	0.06
C10	Other Oropharynx	7	%0.1	0.1	0.1	0.08	0.21	4	%0.0	0	0.1	0.04	0.10
C11	Nasopharynx	149	%1.7	1.5	2.2	1.60	2.39	58	%0.5	0.6	0.8	0.62	0.79
C12-C13	Hypopharynx	2	%0.0	0	0	0.04	0.04	10	%0.1	0.1	0.1	0.11	0.11
C14	Pharynx Unspecified	6	%0.1	0.1	0.1	0.06	0.19	5	%0.0	0.1	0.1	0.04	0.14
C15	Oesophagus	81	%0.9	0.8	1.3	0.67	1.54	54	%0.5	0.6	0.8	0.38	0.96
C16	Stomach	239	%2.8	2.5	4.2	2.11	5.12	175	%1.5	1.8	2.6	1.53	3.01
C17	Small intestine	49	%0.6	0.5	0.8	0.51	0.83	69	%0.6	0.7	1.0	0.64	1.12
C18	Colon	921	%10.7	9.6	15.6	9.28	19.55	873	%7.3	9.1	14.0	9.14	16.78
C19-C20	Rectum	509	%5.9	5.3	8.5	5.34	10.39	377	%3.2	3.9	5.9	3.79	7.35
C21	Anus	24	%0.3	0.2	0.3	0.23	0.42	9	%0.1	0.1	0.1	0.12	0.18
C22	Liver	394	%4.6	4.1	7.2	2.88	8.81	231	%1.9	2.4	3.9	1.89	5.36
C23-C24	Gallbladder etc.	111	%1.3	1.2	2	1.01	2.31	132	%1.1	1.4	2.2	1.11	2.83
C25	Pancreas	298	%3.5	3.1	5.2	3.10	6.56	187	%1.6	1.9	3.2	1.73	4.03
C30-C31	Nose, sinuses etc.	22	%0.3	0.2	0.3	0.15	0.28	15	%0.1	0.2	0.2	0.14	0.29
C32	Larynx	96	%1.1	1	1.7	1.00	2.28	13	%0.1	0.1	0.2	0.08	0.27
C33-C34	Lung	463	%5.4	4.8	8.5	3.87	11.51	203	%1.7	2.1	3.3	1.86	4.07
C37-C38	Other Thoracic organs	43	%0.5	0.4	0.6	0.35	0.84	36	%0.3	0.4	0.5	0.31	0.58
C40-C41	Bone	145	%1.7	1.5	1.6	0.99	1.33	120	%1.0	1.3	1.4	1.00	1.28
C43	Melanoma of Skin	15	%0.2	0.2	0.3	0.07	0.30	17	%0.1	0.2	0.3	0.15	0.24
C44	Other Skin	221	%2.6	2.3	3.6	1.39	4.27	167	%1.4	1.7	2.5	1.15	2.60
C45	Mesothelioma	4	%0.0	0	0.1	0.07	0.07	5	%0.0	0.1	0.1	0.05	0.08
C46	Kaposi sarcoma	20	%0.2	0.2	0.3	0.12	0.28	5	%0.0	0.1	0.1	0.00	0.04
C47;C49	Connective, Soft tissue	150	%1.8	1.6	1.9	1.15	1.95	148	%1.2	1.5	1.8	1.37	1.57
C50	Breast	80	%0.9	0.8	1.3	0.90	1.34	4079	%34.2	42.5	58.1	44.30	66.47
C51	Vulva	-	-	-	-	-	-	19	%0.2	0.2	0.3	0.15	0.26
C52	Vagina	-	-	-	-	-	-	8	%0.1	0.1	0.1	0.07	0.10
C53	Cervix Uteri	-	-	-	-	-	-	177	%1.5	1.8	2.6	1.98	3.10
C54	Corpus Uteri	-	-	-	-	-	-	695	%5.8	7.2	11.9	7.20	16.41
C55	Uterus Unspecified	-	-	-	-	-	-	195	%1.6	2	3.3	1.96	4.59
C56	Ovary	-	-	-	-	-	-	304	%2.5	3.2	4.4	3.01	5.24
C57	Other Female Genital	-	-	-	-	-	-	35	%0.3	0.4	0.5	0.39	0.59
C58	Placenta	-	-	-	-	-	-	3	%0.0	0	0.0	0.03	0.03
C60	Penis	5	%0.1	0.1	0.1	0.06	0.06	-	-	-	-	-	-
C61	Prostate	650	%7.6	6.7	12.6	3.95	16.48	-	-	-	-	-	-
C62	Testis	189	%2.2	2	1.8	1.24	1.31	-	-	-	-	-	-
C63	Other male genital	4	%0.0	0	0.1	0.08	0.08	-	-	-	-	-	-
C64	Kidney	397	%4.6	4.1	6.2	3.95	7.61	186	%2.1	1.9	2.7	1.81	2.98
C65	Renal Pelvis	9	%0.1	0.1	0.1	0.09	0.19	7	%0.1	0.1	0.1	0.03	0.09
C66	Ureter	4	%0.0	0	0.1	0.07	0.07	3	%0.1	0	0.0	0.01	0.07
C67	Bladder	552	%6.4	5.7	9.6	4.69	11.18	97	%0.8	1	1.6	0.70	1.87
C68	Other Urinary organs	6	%0.1	0.1	0.1	0.09	0.13	2	%0.0	0	0.0	0.01	0.05
C69	Eye	20	%0.2	0.2	0.2	0.12	0.12	13	%0.2	0.1	0.2	0.06	0.16
C70-C72	Brain, CNS	343	%4.0	3.6	4.5	3.08	4.50	300	%2.7	3.1	3.8	2.65	3.91
C73	Thyroid	449	%5.2	4.7	6	4.40	6.21	1442	%12.3	15	17.5	13.67	17.58
C74	Adrenal gland	19	%0.2	0.2	0.2	0.14	0.14	18	%0.3	0.2	0.2	0.12	0.18
C75	Other Endocrine	7	%0.1	0.1	0.1	0.09	0.09	12	%0.1	0.1	0.2	0.11	0.14
C81	Hodgkin Lymphoma	382	%4.5	4	4.2	2.68	3.69	235	%1.9	2.4	2.6	1.60	2.35
C82-C85;C96	NHL	553	%6.5	5.7	8	5.11	8.60	404	%4.5	4.2	5.8	3.64	6.68
C88	Immunoproliferative dis.	3	%0.0	0	0.1	0.05	0.08	0	%0.0	0	0.0	0.00	0.00
C90	Multiple Myeloma	97	%1.1	1	1.7	0.86	2.12	81	%0.8	0.8	1.3	0.90	1.69
C91	Lymphoid Leukemia	129	%1.5	1.3	1.6	0.77	1.37	77	%0.9	0.8	1.0	0.51	0.79
C92-C94	Myeloid Leukemia	181	%2.1	1.9	2.5	1.56	2.69	154	%1.7	1.6	2.0	1.30	2.14
C95	Leukemia Unspecified	193	%2.3	2	2.6	1.71	2.51	133	%0.9	1.4	1.6	1.07	1.52
OTHER	Other & unspecified	125	%1.5	1.3	1.9	0.93	2.00	166	%1.5	1.7	2.3	1.47	2.60

CANCER INCIDENCE AMONG ADULTS (> 14 YEARS)

Between January and December 2023, the total number of cancer incidence cases reported to the Saudi cancer registry among adults aged above 14 years was 25,217. Among those, 19,910 cancer cases were Saudis and 5,246 were non-Saudis, and unknown nationalities were reported in 61 cases. A total of 10,723 (42.5%) cases were males and 14,494 (57.5%) were females, with a male to female ratio of approximately 70 to 100 (Tables 2.7.1 – 2.7.2).

Table 2.7.1: Distribution of Analyzed Adult Cancer Cases Reported to Saudi Cancer Registry by Nationality and Gender, 2023

Nationality	Sex		Total
	Male	Female	
Saudi	8130	11589	19719
Non-Saudi	2493	2721	5214
Total	10623	14310	24933

Table 2.7.2: Distribution of Non-Analyzed Adult Cancer Cases Reported to Saudi Cancer Registry by Nationality and Gender, 2023

Nationality	Sex		Total
	Male	Female	
Saudi	68	123	191
Non-Saudi	14	18	32
Unknown Nationality	18	43	61
Total	100	184	284

Breast cancer was the most common cancer among Saudi adults in 2023, accounting for 21.1% of all cases, followed by colorectal cancer (13.6%) and thyroid cancer (9.5%). Other frequently reported sites included lymph nodes, blood, uterus, lung, prostate, bladder, and liver, each contributing between 3% and 5% of total cases (Table 2.7.3).

Table 2.7.3: Most Common Cancers Among Saudi Adults, 2023

Cancer Site	All	%
Breast	4159	21.1
Colorectal	2676	13.6
Thyroid	1872	9.5
NHL	915	4.6
Corpus Uteri	693	3.5
Leukemia	669	3.4
Lung	664	3.4
Prostate	650	3.3
Bladder	644	3.3
Liver	616	3.1

Table 2.7.4 highlights differences in cancer patterns by gender. Among Saudi males, colorectal cancer was the most common (17.6%), followed by prostate (8.0%), bladder (6.7%), non-Hodgkin lymphoma (6.5%), and lung cancer (5.7%). In contrast, breast cancer was the most common among Saudi females, representing 35.2% of all cases, followed by thyroid (12.3%) and colorectal cancers (10.8%). Corpus uteri, ovarian, leukemia, brain & CNS, liver, and Hodgkin Lymphoma were also among the top reported sites for females.

Table 2.7.4: Top Ten Cancers Reported Among Saudi Adults by Gender, 2023

Cancer Site (Males)	No.	%	Cancer Sites	No.	%
Colorectal	1428	17.6	Breast	4079	35.2
Prostate	650	8.0	Thyroid	1428	12.3
Bladder	548	6.7	Colorectal	1248	10.8
NHL	527	6.5	Corpus Uteri	693	6.0
Lung	462	5.7	NHL	388	3.3
Thyroid	444	5.5	Ovary	298	2.6
Liver	393	4.8	Leukemia	280	2.4
Leukemia	389	4.8	Brain, CNS	237	2.0
Kidney	386	4.7	Liver	223	1.9
Hodgkin Lymphoma	327	4.0	Hodgkin Lymphoma	208	1.8

CHILDHOOD CANCERS REPORTED TO THE SAUDI CANCER REGISTRY (≤ 14 YEARS)

A total of 947 cancer cases were diagnosed among children aged between 0 and 14 accounting for 3.6% of the total number of cancers reported to the Saudi cancer registry in 2023. The reported incidence rate shows that cancer was more common among boys than girls, 540 (57%) cases were reported among boys and 407 (43%) were reported among girls. A total of 786 cancer cases were reported among Saudi children, 154 were among non-Saudis, and 7 cases were of unknown nationalities. The total number of analyzed cases was 931 including 777 Saudis, with all non-Saudis were included in the analysis. Among Saudis, 439 (56.5 %) were boys and 338 (43.5 %) were girls (Tables 2.8.1 - 2.8.2).

Table 2.8.1: Distribution of Analyzed Reported Childhood Cancer in Saudi Arabia by Nationality and Gender, 2023

Nationality	Sex		Total
	Male	Female	
Saudi	439	338	777
Non-Saudi	91	63	154
Total	530	401	931

Table 2.8.2: Distribution of Non-Analyzed Reported Childhood Cancer in Saudi Arabia by Nationality and Gender, 2023

Nationality	Sex		Total
	Male	Female	
Saudi	5	4	9
Non-Saudi	0	0	0
Unknown Nationality	5	2	7
Total	10	6	16

Leukemia was the most common cancer among Saudi children in 2023, accounting for 25.5% of all cases, followed by brain and central nervous system (CNS) tumors (19.0%), Hodgkin lymphoma (10.6%), Bone tumors (8.6%) and Non-Hodgkin lymphoma (5.9%). Other frequently reported cancer sites included Connective Soft Tissue, Kidney, Eye, Adrenal Gland and Thyroid, each contributing between 2.4% and 4.2% of total cases (Table 2.8.3).

Table 2.8.3: Top Ten Cancers Among Saudi Children, 2023

Cancer Site	All	%
Leukemia	198	25.5
Brain, CNS	148	19.0
Hodgkin Lymphoma	82	10.6
Bone	67	8.6
NHL	46	5.9
Connective, Soft tissue	33	4.2
Kidney	33	4.2
Eye	25	3.2
Adrenal gland	23	3.0
Thyroid	19	2.4

Leukemia and brain & CNS tumors were the two most common childhood cancers in both genders in 2023, accounting for approximately 26.0% and 19.4% of male cases and 24.9% and 18.6% of female cases, respectively. Among males, Hodgkin Lymphoma, bone cancers, and non-Hodgkin lymphoma were also prevalent. In females, bone cancers, Hodgkin Lymphoma, and kidney cancers ranked next in frequency (Table 2.8.4). The detailed morphological patterns for these childhood cancers are presented in Table 2.8.5, showing the predominant subtypes for each cancer site by gender.

Table 2.8.4: Distribution of Top Ten Childhood Cancer Sites by Genders, 2023

Cancer Site (Males)	No.	%	Cancer Sites	No.	%
Leukemia	114	26.0	Leukemia	84	24.9
Brain, CNS	85	19.4	Brain, CNS	63	18.6
Hodgkin Lymphoma	55	12.5	Bone	28	8.3
Bone	39	8.9	Hodgkin Lymphoma	27	8.0
NHL	28	6.4	Kidney	22	6.5
Eye	16	3.6	Connective, Soft tissue	18	5.3
Connective, Soft tissue	15	3.4	NHL	18	5.3
Adrenal gland	12	2.7	Thyroid	14	4.1
Kidney	11	2.5	Adrenal gland	11	3.3
Testis	7	1.6	Eye	9	2.7

Table 2.8.5: Distribution of Morphological Types for The Most Common Cancers Reported Among Saudi Children by Gender, 2023

Primary Site	Code	Morphology	Male	%	Female	%	Total	%
Leukemia	98003	Leukemia, NOS	39	34.2	29	34.5	68	34.3
	98363	Precursor B-cell lymphoblastic leukemia	24	21.1	23	27.4	47	23.7
	98013	Acute leukemia, NOS	15	13.2	10	11.9	25	12.6
	98613	Acute myeloid leukemia, NOS	11	9.6	11	13.1	22	11.1
	98373	Precursor T-cell lymphoblastic leukemia	8	7.0	2	2.4	10	5.1
	98353	Precursor cell lymphoblastic leukemia, NOS	6	5.3	4	4.8	10	5.1
	98263	Burkitt cell leukemia	4	3.5	3	3.6	7	3.5
	98663	Acute promyelocytic leukemia, t(17;15)(q22;q12-11)	2	1.8	1	1.2	3	1.5
	98723	Acute myeloid leukemia, minimal differentiation	2	1.8	0	0.0	2	1.0
	99103	Acute megakaryoblastic leukemia	1	0.9	1	1.2	2	1.0
		Others	2	1.8		0.0	2	1.0
		Total	114	100.0	84	100.0	198	100.0
Brain, CNS	93803	Glioma, malignant	27	31.8	24	38.1	51	34.5
	94703	Medulloblastoma, NOS	24	28.2	10	15.9	34	23.0
	94203	Fibrillary astrocytoma	6	7.1	10	15.9	16	10.8
	93913	Ependymoma, NOS	8	9.4	4	6.3	12	8.1
	95003	Neuroblastoma, NOS	5	5.9	4	6.3	9	6.1
	94403	Glioblastoma, NOS	4	4.7	2	3.2	6	4.1
	94243	Pleomorphic xanthoastrocytoma	2	2.4	2	3.2	4	2.7
	80003	Neoplasm, malignant	2	2.4	1	1.6	3	2.0
	94003	Astrocytoma, NOS	2	2.4	1	1.6	3	2.0
	94733	Primitive neuroectodermal tumor, NOS	2	2.4	0	0.0	2	1.4
		Others	3	3.5	5	7.9	8	5.4
		Total	85	100.0	63	100.0	148	100.0
Hodgkin	96503	Hodgkin lymphoma, NOS	37	67.3	11	40.7	48	58.5
	96633	Hodgkin lymphoma, nodular sclerosis, NOS	8	14.5	13	48.1	21	25.6
	96593	Hodgkin lymphoma, nodular lymphocyte	5	9.1	2	7.4	7	8.5
	96523	predominance	3	5.5	1	3.7	4	4.9
	96513	Hodgkin lymphoma, mixed cellularity, NOS	2	3.6	0	0.0	2	2.4
		Hodgkin lymphoma, lymphocyte-rich	55	100.0	27	100.0	82	100.0
		Total						
Bone	92603	Ewing sarcoma	12	30.8	8	28.6	20	29.9
	91803	Osteosarcoma, NOS	13	33.3	5	17.9	18	26.9
	88003	Sarcoma, NOS	6	15.4	4	14.3	10	14.9
	88033	Small cell sarcoma	2	5.1	4	14.3	6	9.0
	91863	Central osteosarcoma	1	2.6	1	3.6	2	3.0
	80003	Neoplasm, malignant	0	0.0	1	3.6	1	1.5
	91813	Chondroblastic osteosarcoma	1	2.6	0	0.0	1	1.5
		Others	4	10.3	5	17.9	9	13.4
		Total	39	100.0	28	100.0	67	100.0

NHL	95903	Malignant lymphoma, NOS	5	17.9	2	11.1	7	15.2
	96803	Malignant lymphoma, large B-cell, diffuse, NOS	8	28.6	7	38.9	15	32.6
	97003	Mycosis fungoides	2	7.1	3	16.7	5	10.9
	96873	Burkitt lymphoma, NOS	5	17.9	2	11.1	7	15.2
	97273	Precursor cell lymphoblastic lymphoma, NOS	2	7.1	3	16.7	5	10.9
		Others	6	21.4	1	5.6	7	15.2
		Total	28	100.0	18	100.0	46	100.0
Kidney	89603	Nephroblastoma, NOS	6	54.5	19	86.4	25	75.8
	83123	Renal cell carcinoma, NOS	2	18.2	1	4.5	3	9.1
	95003	Neuroblastoma, NOS	2	18.2	1	4.5	3	9.1
	89643	Clear cell sarcoma of kidney	0	0.0	1	4.5	1	3.0
	89633	Malignant rhabdoid tumor	1	9.1	0	0.0	1	3.0
		Total	11	100.0	22	100.0	33	100.0
Connective,	89003	Rhabdomyosarcoma, NOS	5	33.3	2	11.1	7	21.2
	95003	Neuroblastoma, NOS	2	13.3	2	11.1	4	12.1
	94903	Ganglioneuroblastoma	1	6.7	1	5.6	2	6.1
	89203	Alveolar rhabdomyosarcoma	0	0.0	1	5.6	1	3.0
	89103	Embryonal rhabdomyosarcoma, NOS	1	6.7	0	0.0	1	3.0
	92523	Malignant tenosynovial giant cell tumor	0	0.0	1	5.6	1	3.0
	80003	Neoplasm, malignant	0	0.0	0	0.0	0	0.0
		Others	6	40.0	11	61.1	17	51.5
		Total	15	100.0	18	100.0	33	100.0
Eye	95103	Retinoblastoma, NOS	9	56.3	4	44.4	13	52.0
	95113	Retinoblastoma, differentiated	5	31.3	5	55.6	10	40.0
	95123	Retinoblastoma, undifferentiated	1	6.3	0	0.0	1	4.0
	95013	Medulloepithelioma, NOS	1	6.3	0	0.0	1	4.0
		Total	16	100.0	9	100.0	25	100.0
Adrenal gland	95003	Neuroblastoma, NOS	10	83.3	8	72.7	18	78.3
	94903	Ganglioneuroblastoma	1	8.3	1	9.1	2	8.7
	80103	Carcinoma, NOS	0	0.0	1	9.1	1	4.3
	87003	Pheochromocytoma, malignant	1	8.3	0	0.0	1	4.3
	83703	Adrenal cortical carcinoma	0	0.0	1	9.1	1	4.3
		Total	12	100.0	11	100.0	23	100.0
Thyroid	82603	Papillary adenocarcinoma, NOS	1	20.0	5	35.7	6	31.6
	80503	Papillary carcinoma, NOS	1	20.0	2	14.3	3	15.8
	80103	Carcinoma, NOS	1	20.0	0	0.0	1	5.3
	83403	Papillary carcinoma, follicular variant	0	0.0	1	7.1	1	5.3
	83413	Papillary microcarcinoma	1	20.0	1	7.1	2	10.5
	83433	Papillary carcinoma, encapsulated	0	0.0	1	7.1	1	5.3
	83303	Follicular adenocarcinoma, NOS	0	0.0	2	14.3	2	10.5
	83353	Follicular carcinoma, minimally invasive	1	20.0	0	0.0	1	5.3
		Others	0	0.0	2	14.3	2	10.5
		Total	5	100.0	14	100.0	19	100.0

INTERNATIONAL COMPARISON OF AGE-STANDARDIZED INCIDENCE RATES

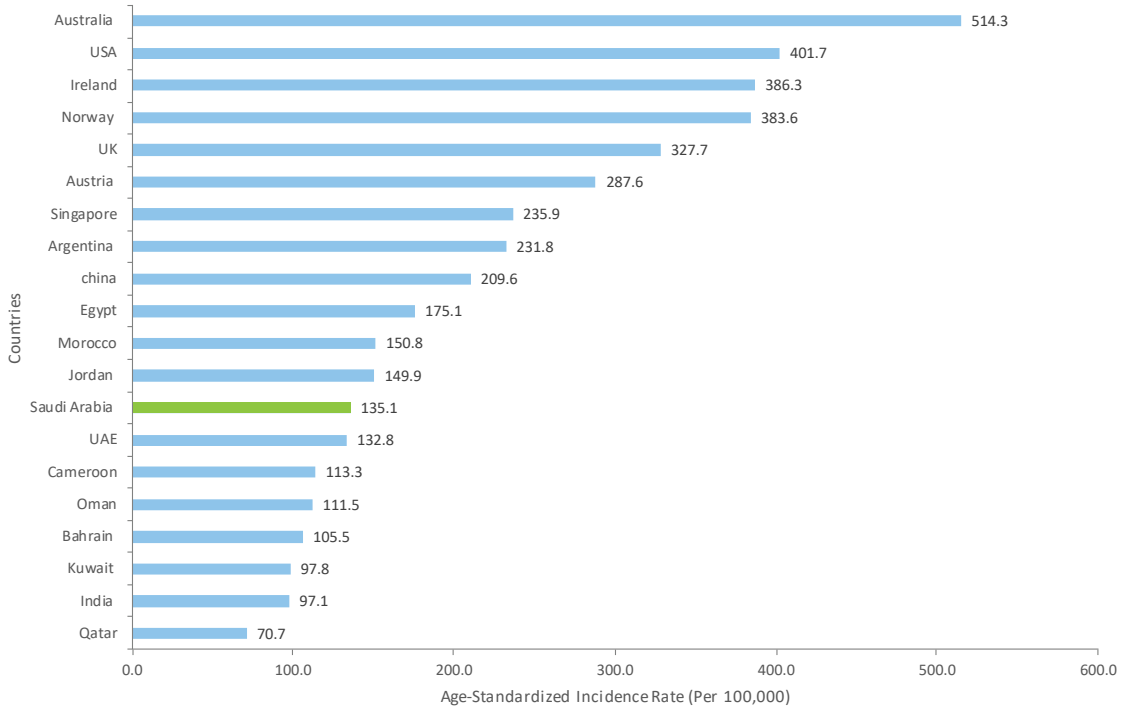


Figure 2.6.1: Comparison of Age-Standardized Incidence Rates (ASR per 100,000) for Saudi Males with Selected Countries, 2023 (Bray et al., 2024)

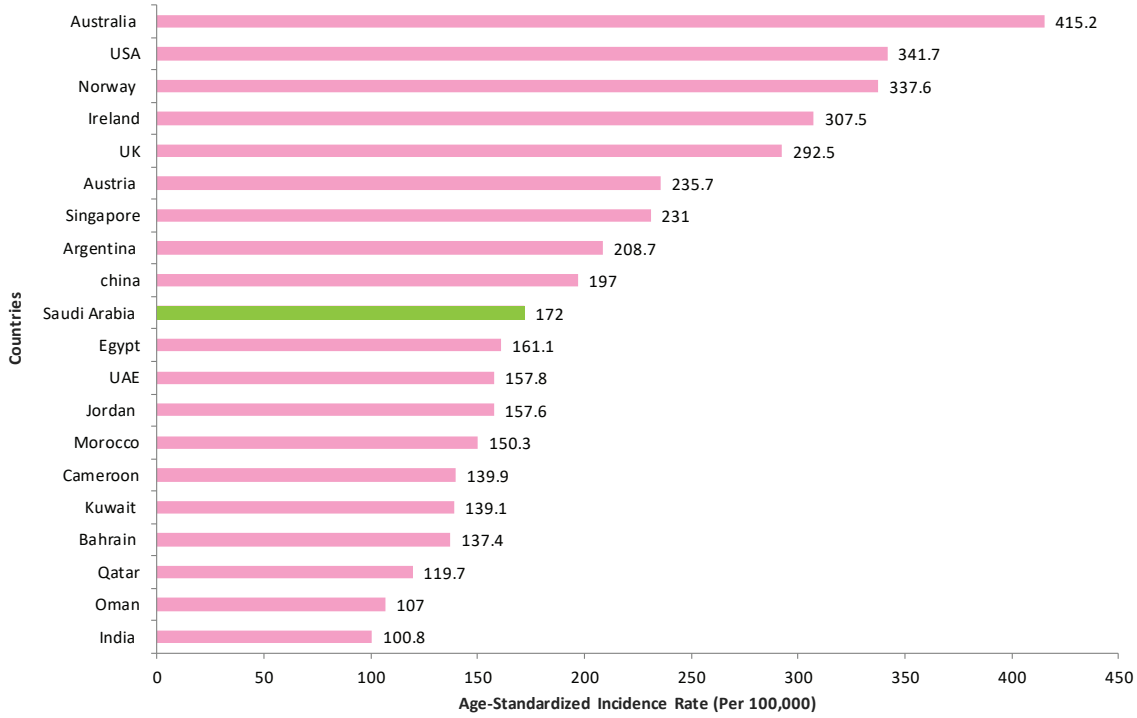


Figure 2.6.2: Comparison of Age-Standardized Incidence Rates (ASR per 100,000) for Saudi Females with Selected Countries, 2023 (Bray et al., 2024)

PART III

INCIDENCE OF MOST COMMON CANCERS DIAGNOSED AMONG SAUDI NATIONALS, 2023

CANCER INCIDENCE FOR MOST COMMON SITES AMONG SAUDI NATIONALS

This section demonstrates the most common cancers diagnosed among Saudi nationals during the period between January and December 2023 (Table 3.1). It shows the distribution of the most common cancers by gender and geographical area. Data presented as absolute numbers, relative frequency, and incidence rates. It also presents comparisons of cancer incidence among Saudis with cancer incidence reported from selected developed and developing countries.

Table 3.1: Most Common Cancer Among Saudis by Gender, 2023

Rank	Gender	Cancer Site	All	%
	Both sexes			
1		Breast	4159	20.3
2		Colorectal	2680	13.1
3		Thyroid	1891	9.2
4		NHL	957	4.7
5		Leukemia	867	4.2
6		Corpus Uteri	695	3.4
7		Lung	666	3.2
8		Prostate	650	3.2
9		Bladder	649	3.2
10		Brain, CNS	643	3.1
	Males			
1		Colorectal	1430	16.7
2		Prostate	650	7.6
3		NHL	553	6.5
4		Bladder	552	6.4
5		Leukemia	503	5.9
6		Lung	463	5.4
7		Thyroid	449	5.2
8		Kidney	397	4.6
9		Liver	394	4.6
10		Hodgkin Lymphoma	382	4.5
	Females			
1		Breast	4079	34.2
2		Thyroid	1442	12.1
3		Colorectal	1250	10.5
4		Corpus Uteri	695	5.8
5		NHL	404	3.4
6		Leukemia	364	3.1
7		Ovary	304	2.5
8		Brain, CNS	300	2.5
9		Hodgkin Lymphoma	235	2.0
10		Liver	231	1.9

FEMALE BREAST CANCER (C50)

Breast cancer remained the most common cancer among Saudi females in 2023. A total of 4,079 cases were reported, accounting for 20.3% of all cancers among Saudi nationals and 34.2% of cancers among females. The median age at diagnosis was 52 years, ranging from 15 to 105 years. The age-specific incidence rate increased steadily with age, peaking at 223.9 per 100,000 in women aged 70–74 (Figure 3.1.1). Morphologically, infiltrating duct carcinoma NOS was the predominant type, representing 82.1% of cases, followed by lobular carcinoma NOS (5.6%) (Table 3.1.1). Regarding stage at diagnosis, more than half (56.8%) of cases were diagnosed at the localized stage, while 28.8% were regional and 13.6% distant metastases (Figure 3.1.2).

The age-standardized incidence rate (ASR) for Saudi females was 58.1 per 100,000, which is comparable to rates in several regional countries but lower than those in Western nations such as Australia and the USA (Figure 3.1.4).

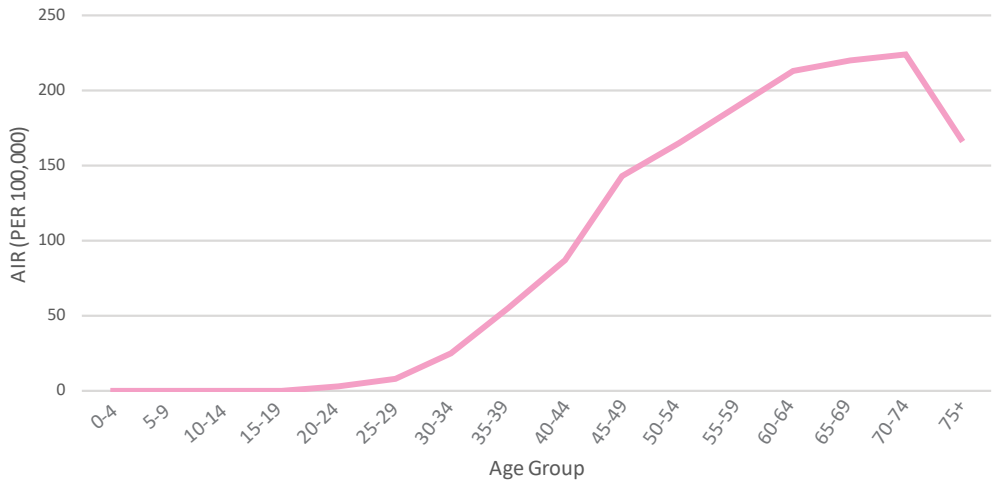


Figure 3.1.1: Age-Specific Incidence Rate (AIR) for Breast Cancer Among Saudi Females, 2023

Table 3.1.1: Morphological Distribution of Breast Cancer Among Saudi Females, 2023

ICD-O-3	Morphology	No.	%
85003	Infiltrating duct carcinoma, NOS	3347	82.1
85203	Lobular carcinoma, NOS	227	5.6
80103	Carcinoma, NOS	124	3.0
85013	Comedocarcinoma, NOS	113	2.8
85213	Infiltrating ductular carcinoma	75	1.8
	Others	193	4.7
	Total	4079	100.0

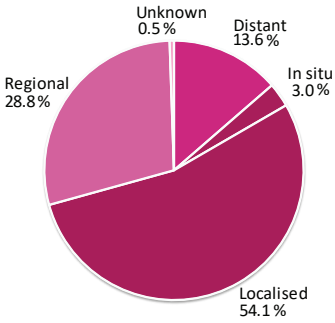


Figure 3.1.2: Stage Distribution of Breast Cancer Among Saudi Females, 2023

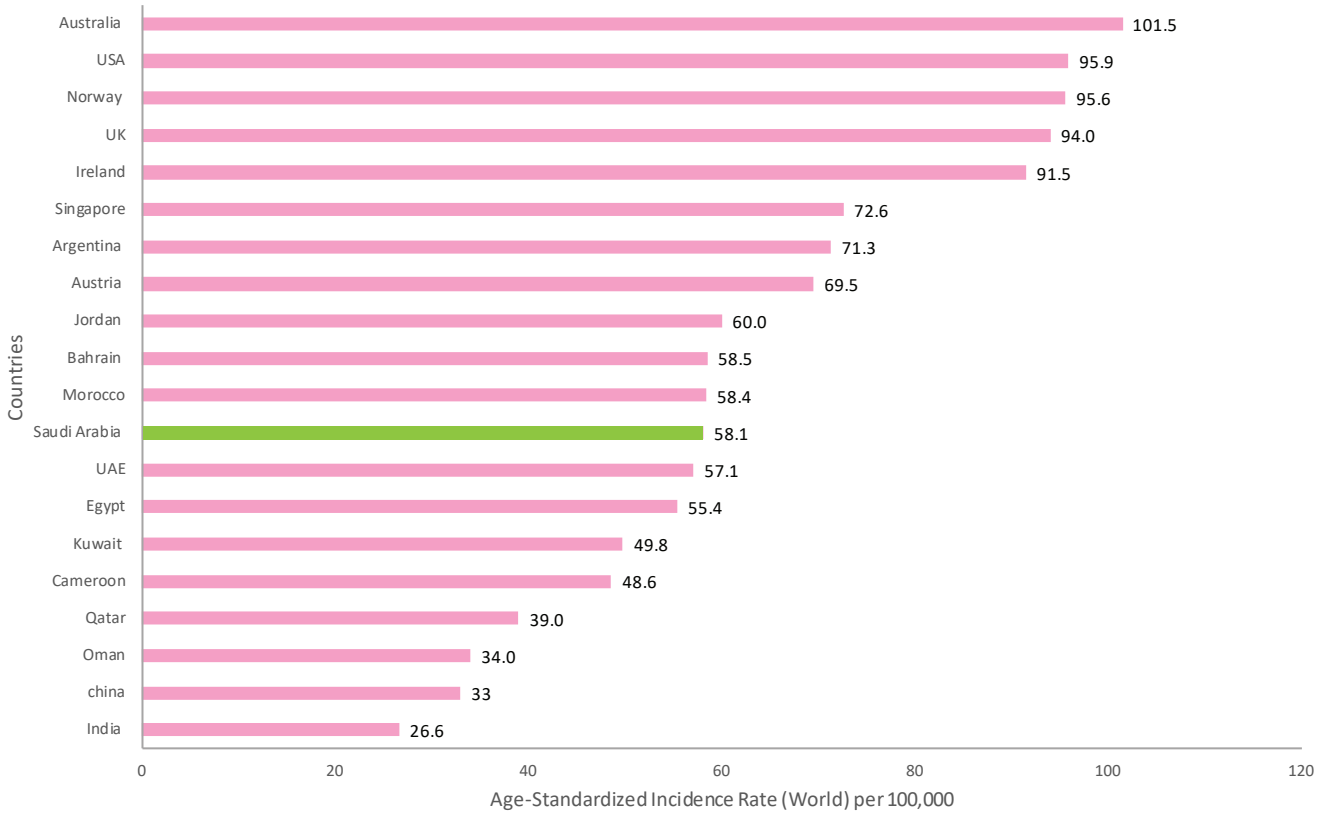


Figure 3.1.4: Comparison of Age-Standardized Incidence Rates (ASR per 100,000) for Saudi Female's Breast Cancer with Selected Countries, 2023 (Bray et al., 2024)

COLORECTAL CANCER (C18-C20)

Colorectal cancer was the most common cancer among Saudi males and the third most common among Saudi females in 2023. A total of 2,680 cases were reported, representing 13.1% of all newly diagnosed cancers among Saudi nationals. Males accounted for 1,430 cases (53.4%) and females for 1,250 cases (46.6%), with a male-to-female ratio of approximately 114 to 100. The median age at diagnosis was 60 years for males (ranging between 10 and 93) and 59.5 years for females (ranging between 10 and 106). The age-specific incidence rate increased with age in both sexes, peaking at 171.5 per 100,000 in males aged 70–74, and 117.1 per 100,000 in females aged 75+ (Figure 3.2.1).

Morphologically, adenocarcinoma NOS was by far the most common type in both genders, accounting for 92.7% of all cases (Table 3.2.1). Regarding stage at diagnosis, nearly half of cases were diagnosed at the localized stage (47.6% overall), while 27.2% were regional and 24.3% were distant metastases (Figure 3.2.2). The ASR was 24.1 per 100,000 for males and 19.9 per 100,000 for females, which is slightly higher than those rates observed in neighboring countries but lower than those in Western countries such as Norway and Australia (Figure 3.2.4).

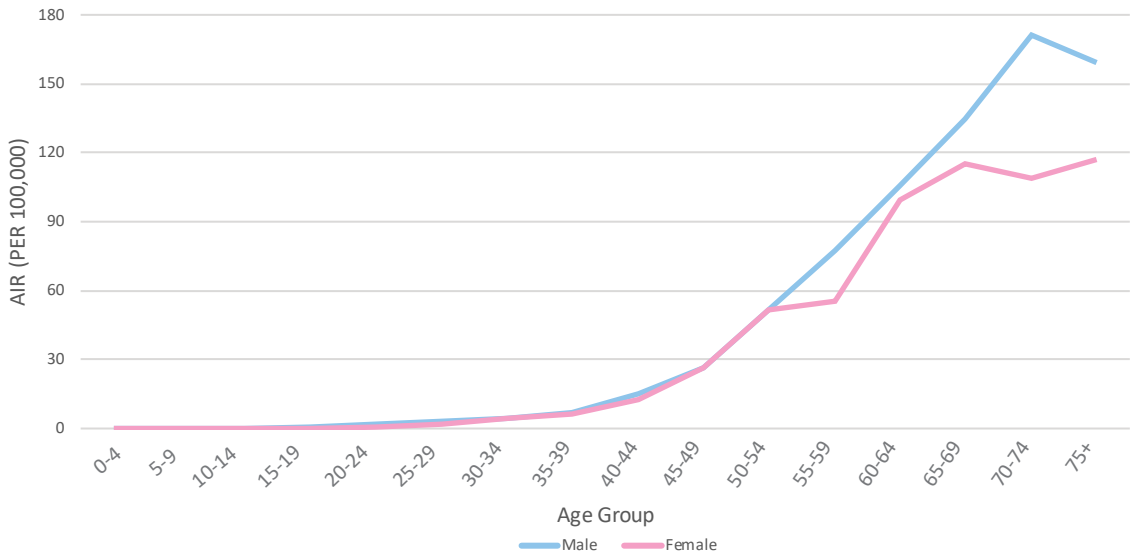


Figure 3.2.1: Age-Specific Incidence Rate (AIR) for Colorectal Cancer Among Saudi

Table 3.2.1: Morphological Distribution of Colorectal Cancer Among Saudi Nationals, 2023

ICD-O-3	Morphology	Male	%	Female	%	Total	%
81403	Adenocarcinoma, NOS	1326	92.7	1158	92.6	2484	92.7
84803	Mucinous adenocarcinoma	39	2.7	32	2.6	71	2.6
80103	Carcinoma, NOS	19	1.3	13	1.0	32	1.2
80003	Neoplasm, malignant	10	0.7	10	0.8	20	0.7
82463	Neuroendocrine carcinoma, NOS	9	0.6	7	0.6	16	0.6
	Others	27	1.9	30	2.4	57	2.1
	Total	1430	100.0	1250	100.0	2680	100.0

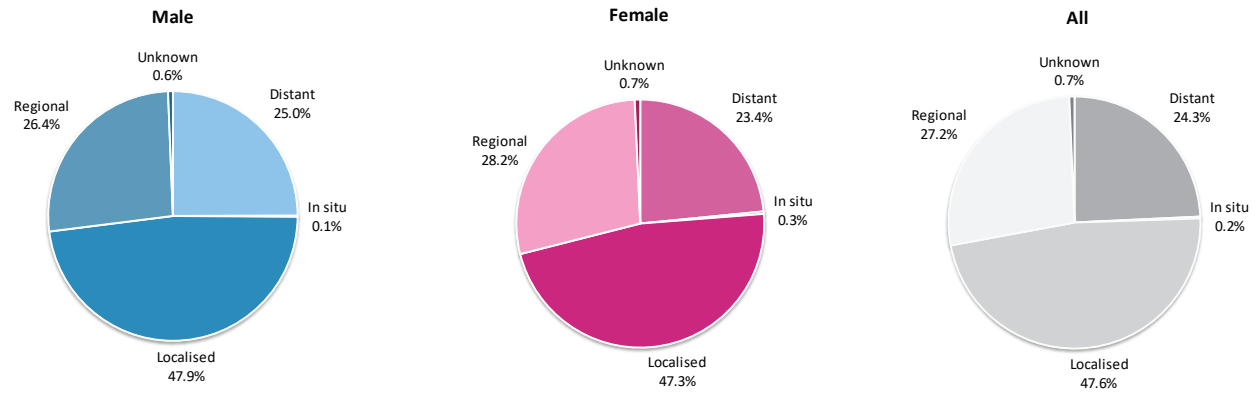


Figure 3.2.2: Stage Distribution of Colorectal Cancer Among Saudi Nationals, 2023

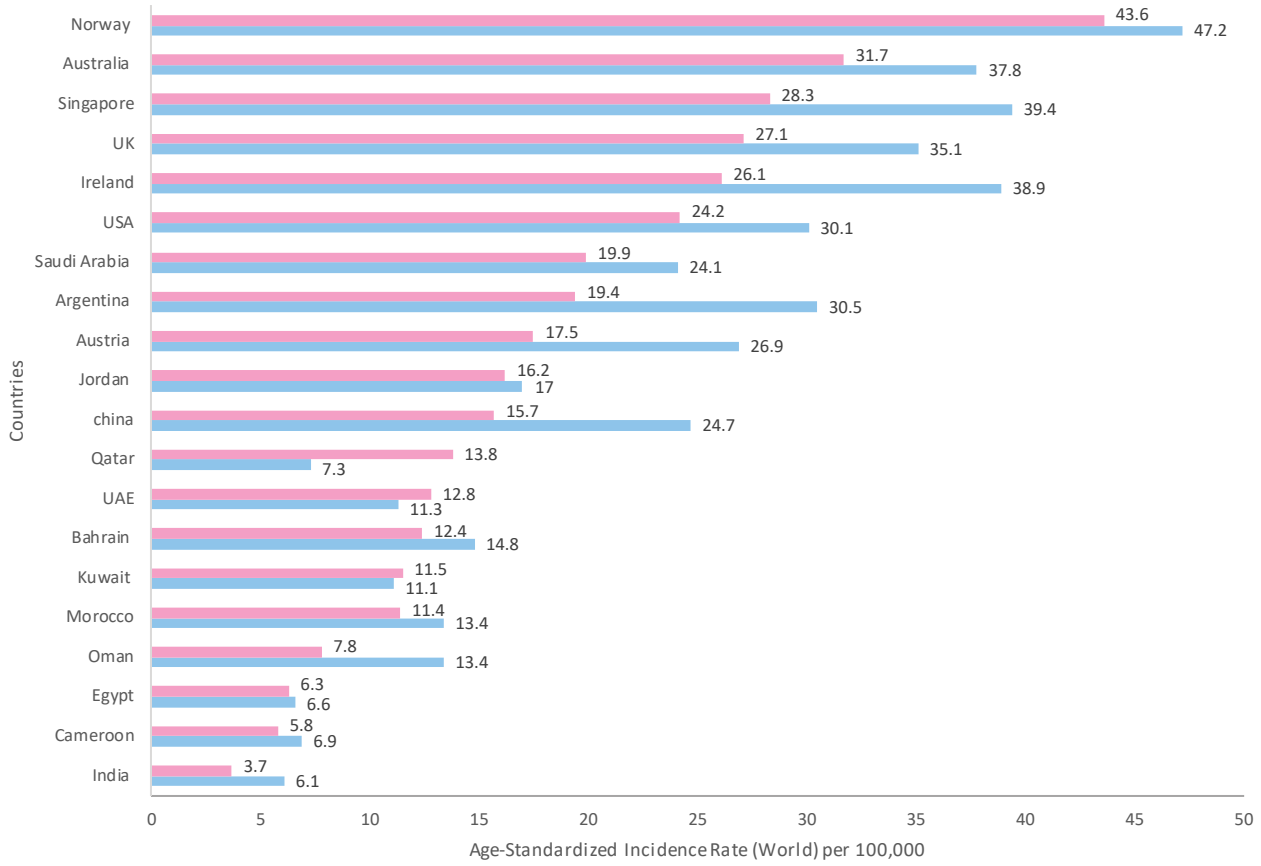


Figure 3.2.4: Comparison of Age-Standardized Incidence Rates (ASR per 100,000) for Colorectal Cancer Among Saudis with Selected Countries, 2023 (Bray et al., 2024)

THYROID CANCER (C73)

Thyroid cancer ranked second among Saudi females and seventh among Saudi males in 2023, with a total of 1,891 reported cases, representing 9.2% of all newly diagnosed cancers among Saudi nationals. Females accounted for 1,428 cases (75.5%), while males accounted for 444 cases (24.5%), resulting in a male to female ratio of approximately 31 to 100. The median age at diagnosis was 43 years for females (ranging between 5 and 104) and 46 years for males (ranging between 7 and 91). The age-specific incidence rate (AIR) increased steadily with age, peaking at 48.1 per 100,000 among females aged 50–54 years. A noticeable difference in AIR was observed between both sexes, where males having the lowest rates compared to females, ranging between 0.7 and 24.8 per 100,000 in male adults aged 15 and old (Figure 3.3.1).

Morphologically, the vast majority of thyroid cancers were papillary carcinomas, including papillary adenocarcinoma NOS (43.9%) and papillary carcinoma NOS (32.8%), with papillary microcarcinoma and follicular variants making up smaller proportions (Table 3.3.1). In terms of stage at diagnosis, most cases were identified at the localized stage (68.8% overall), with 5% presenting with distant metastasis and 24.3% at the regional stage (Figure 3.3.2).

The ASR was 17.5 per 100,000 for females and 6 per 100,000 for males, which is almost double the other rates reported in regional countries including Kuwait, Oman, Qatar, Bahrain, Jordan and Egypt but remains lower than those reported in China and the USA (Figure 3.3.4).

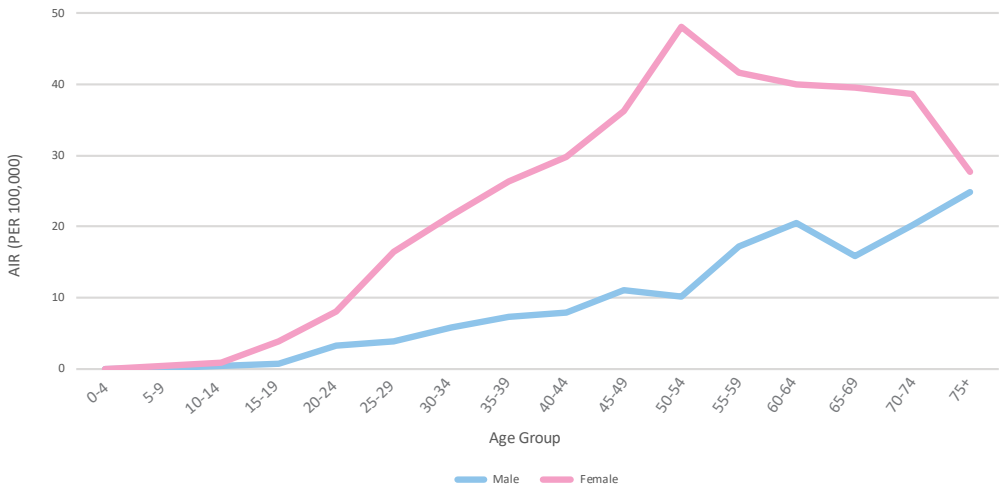


Figure 3.3.1: Age-Specific Incidence Rate (AIR) For Thyroid Cancer Among Saudi Nationals, 2023

Table 3.3.1: Morphological Distribution of Thyroid Cancer Among Saudi Nationals, 2023

Code	Morphology	Male	%	Female	%	Total	%
82603	Papillary adenocarcinoma, NOS	204	45.4	626	43.4	830	43.9
80503	Papillary carcinoma, NOS	137	30.5	483	33.5	620	32.8
83413	Papillary microcarcinoma	16	3.6	79	5.5	95	5.0
83403	Papillary carcinoma, follicular variant	20	4.5	63	4.4	83	4.4
83433	Follicular adenocarcinoma, NOS	14	3.1	34	2.4	48	2.5
	Other	58	12.9	157	10.9	215	11.4
	Total	449	100.0	1442	100.0	1891	100.0

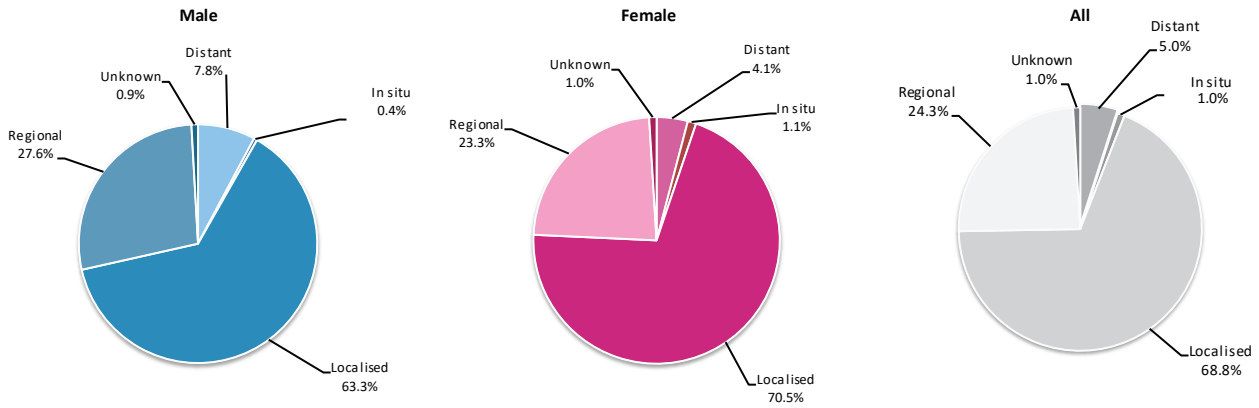


Figure 3.3.2: Stage Distribution of Thyroid Cancer Among Saudi Nationals, 2023

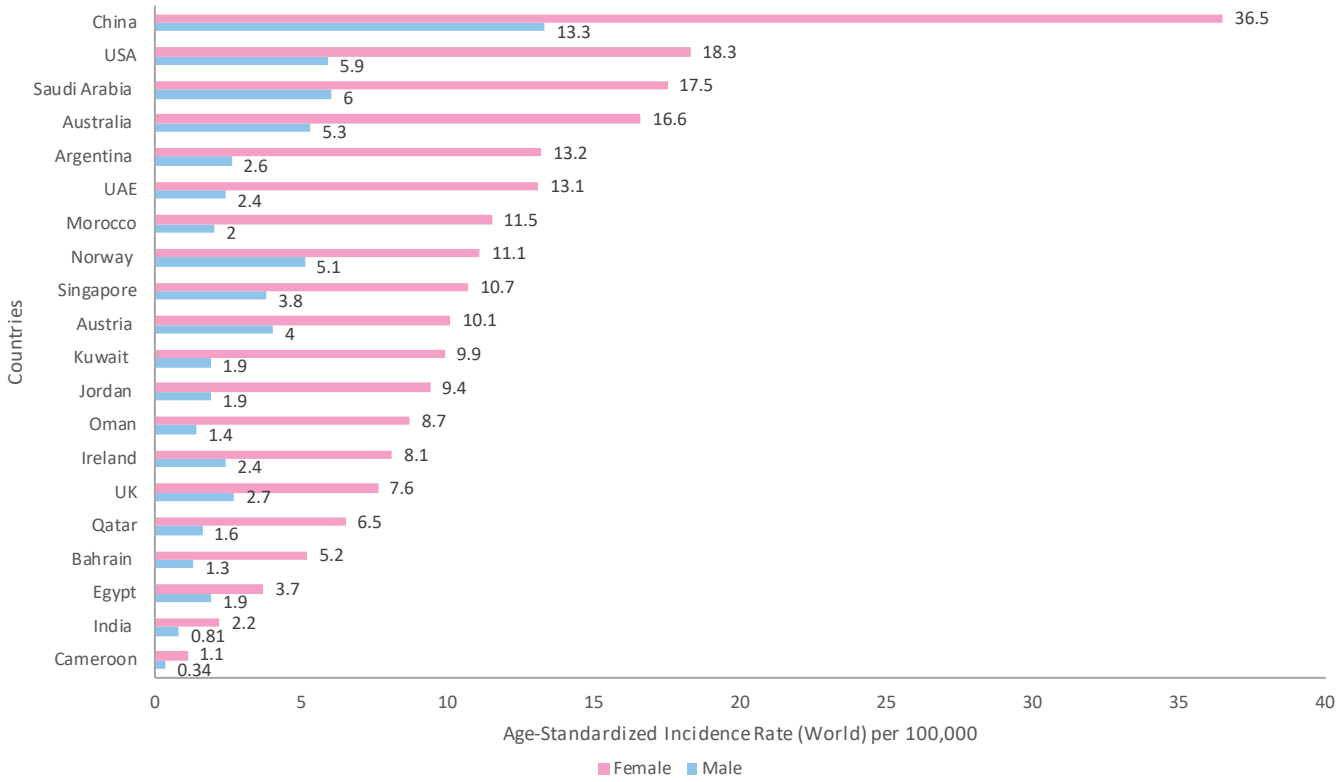


Figure 3.3.4: Comparison of Age-Standardized Incidence Rates (ASR per 100,000) for Thyroid Cancer Among Saudis With ASR In Selected Countries, 2023 (Bray et al., 2024)

NON-HODGKIN LYMPHOMA (C82-C85; C96)

Non-Hodgkin Lymphoma (NHL) ranked third among Saudi males and fifth among Saudi females in 2023, with a total of 957 reported cases, accounting for 4.7% of all cancers diagnosed among Saudi nationals. Males comprised 553 cases (56.7%), while females accounted for 404 cases (43.3%), yielding a male-to-female ratio of approximately 137 to 100. The median age at diagnosis was 53 years for males (ranging between 2 to 94) and 54 years for females (ranging between 0 to 95). The age-specific incidence rate increased steadily with age, peaking among older adults (Figure 3.4.1). Morphologically, the most common subtype was diffuse large B-cell lymphoma, comprising 62.1% of cases overall (Table 3.4.1).

The ASR was 5.9 per 100,000 for males and 6.8 per 100,000 for females, which is broadly comparable to rates seen in other Gulf countries (Figure 3.4.4).

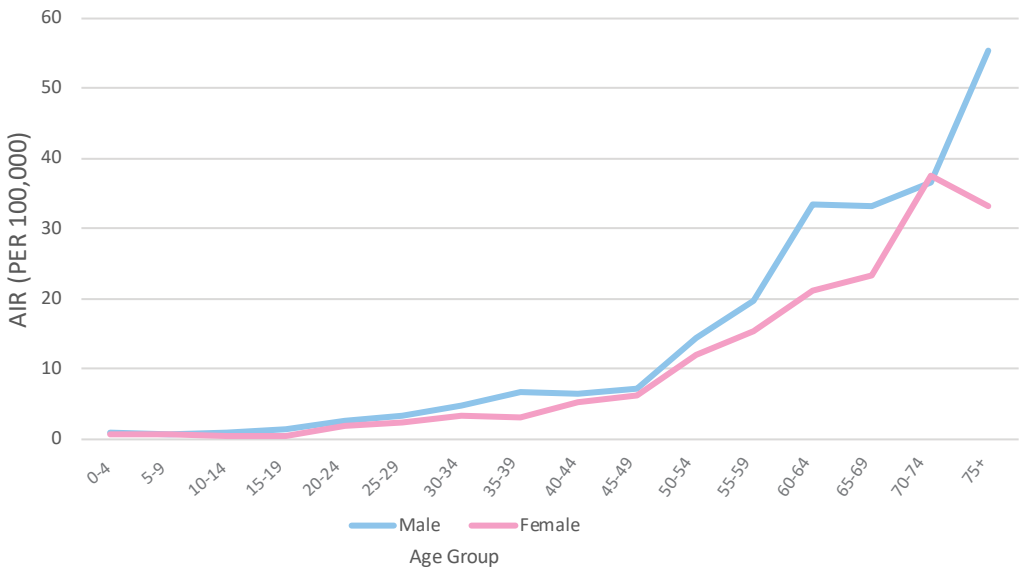


Figure 3.4.1: Age-Specific Incidence Rate (AIR) for NHL Among Saudi Nationals, 2023

Table 3.4.1 Morphological Distribution of NHL in Saudi Arabia, 2023

Code	Morphology	Male	%	Female	%	Total	%
96803	Malignant lymphoma, large B-cell, diffuse, NOS	335	60.6	259	64.1	594	62.1
95903	Malignant lymphoma, non-Hodgkin, NOS	60	10.8	33	8.2	93	9.7
95913	Malignant lymphoma, NOS	39	7.1	32	7.9	71	7.4
97003	Mycosis fungoides	39	7.1	28	6.9	67	7.0
97023	Marginal zone B-cell lymphoma, NOS	15	2.7	11	2.7	26	2.7
	Others	65	11.8	41	10.1	106	11.1
	Total	553	100.0	404	100.0	957	100.0

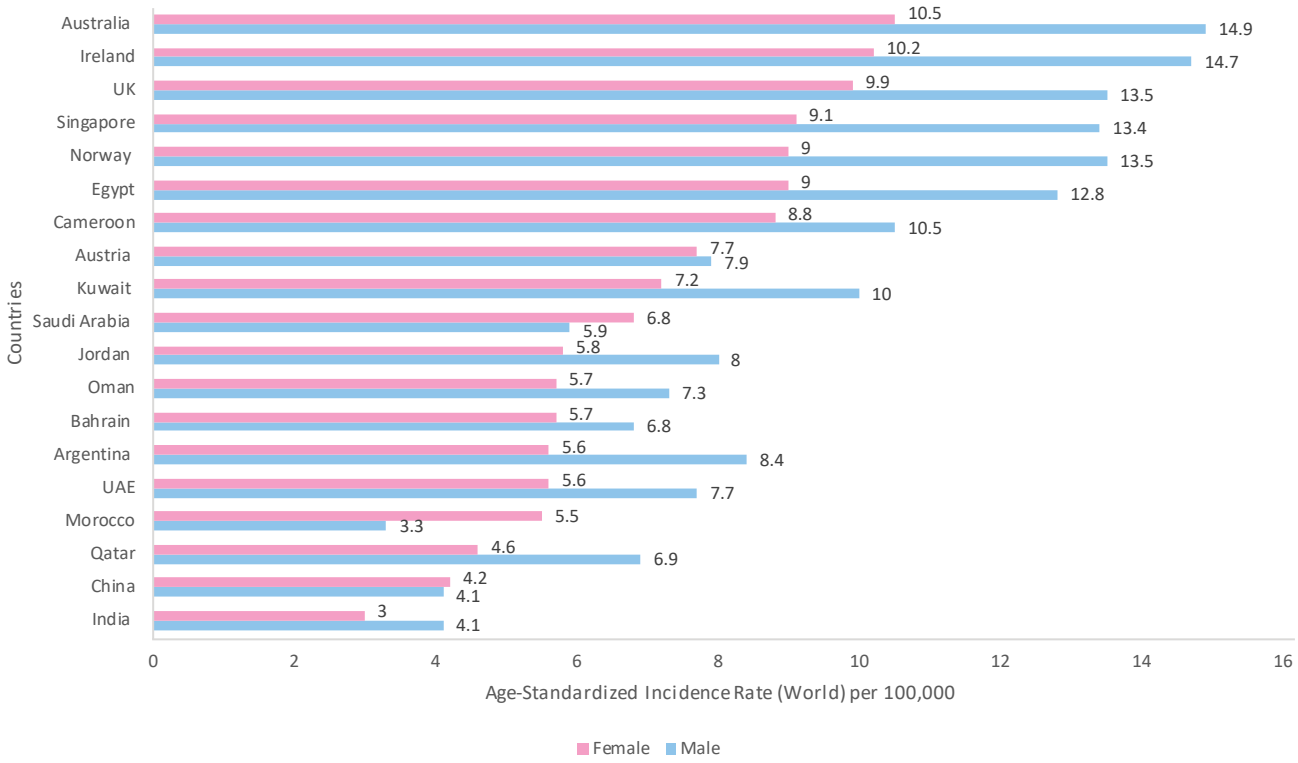


Figure 3.4.3: Comparison of Age-Standardized Incidence Rates (ASR per 100,000) for NHL Among Saudis With Selected Countries, 2023 (Bray et al., 2024)

LEUKAEMIA (C91-C95)

Leukemia ranked fifth among Saudi males and sixth among Saudi females in 2023, with a total of 867 cases reported, accounting for 4.2% of all cancers diagnosed among Saudi nationals. Males accounted for 503 cases (58.0%) and females for 364 cases (42.0%), with a male-to-female ratio of approximately 138 to 100. The median age at diagnosis was 40 years for males (ranging between 0 and 88) and 37 years for females (ranging between 0 and 95), with age-specific incidence rates increasing with age and peaking at 31.2 per 100,000 in male age 75+, and 17.5 per 100,000 in females (Figure 3.5.1). Morphologically, leukemia NOS was the most common subtype (33.0%), followed by acute myeloid leukemia NOS (18.0%) and chronic myeloid leukemia NOS (10.6%) (Table 3.5.1).

The ASR was 6.7 per 100,000 for males and 4.6 per 100,000 for females, broadly comparable with other countries in the region but lower than rates in countries such as the USA, Norway and Australia (Figure 3.5.3). R

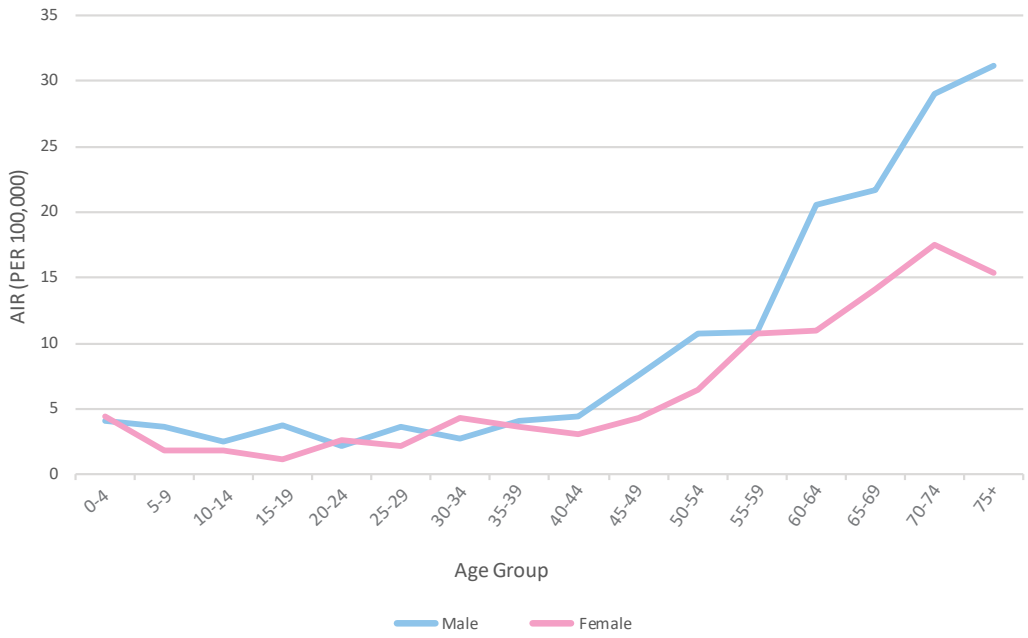


Figure 3.5.1 Age-Specific Incidence Rate (AIR) for Leukaemia in Saudi Arabia, 2023

Table 3.5.1: Morphological distribution of leukaemia among Saudi nationals, 2023

Code	Morphology	Male	%	Female	%	Total	%
98003	Leukemia, NOS	168	33.4	118	32.4	286	33.0
98613	Acute myeloid leukemia, NOS	78	15.5	78	21.4	156	18.0
98633	Precursor B-cell lymphoblastic leukemia	38	7.6	37	10.2	75	8.7
98233	Chronic myeloid leukemia, NOS	57	11.3	35	9.6	92	10.6
98363	B-cell chronic lymphocytic leukemia/small lymphocytic lymphoma	44	8.7	20	5.5	64	7.4
	Others	118	23.5	76	20.9	194	22.4
	Total	503	100.0	364	100.0	867	100.0

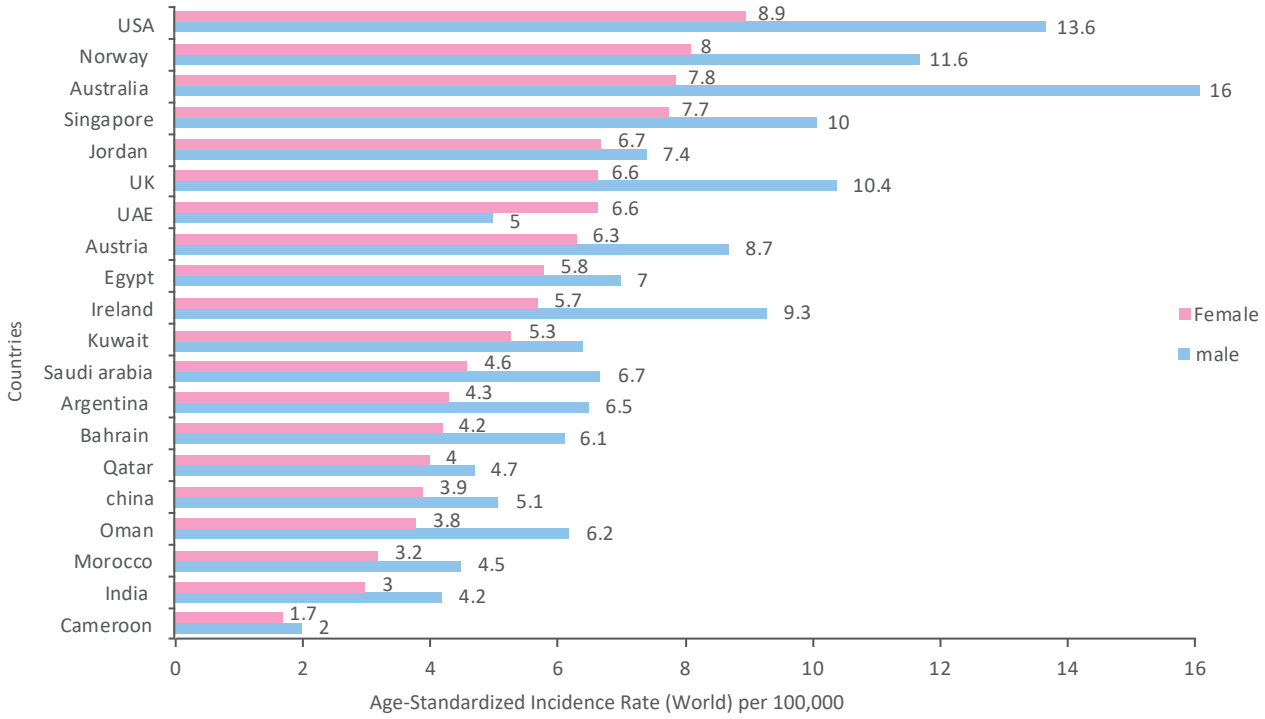


Figure 3.5.3: Comparison of Age-Standardized Incidence Rates (ASR per 100,000) for Leukemia Among Saudis With ASR In Selected Countries, 2023

CORPUS UTERI CANCER (C54)

Corpus Uteri cancer ranked fourth among Saudi females in 2023, accounting for 5.8% of all cancers diagnosed in Saudi women and 3.4% of all cancers among Saudi nationals. A total of 695 cases were reported. The median age at diagnosis was 62 years (ranging between 9 and 91 years). The age-specific incidence rate (AIR) shows that risk increases steadily with age, peaking at 97.5 per 100,000 in the 65–69 age group before declining sharply thereafter (Figure 3.6.1).

In terms of stage at diagnosis, the majority of cases (72.2%) were diagnosed at a localized stage, while 12.2% were regional and 15.1% were distant metastases; very few were unknown or in situ (Figure 3.6.2). Morphologically, endometrioid adenocarcinoma was the predominant subtype (56.4%), followed by adenocarcinoma NOS (18.4%) and serous cystadenocarcinoma (7.2%) (Table 3.6.1).

The age-standardized rate (ASR) of 2.6 per 100,000 Saudi females which is a far much lower rate than those reported in other countries like USA (22.5 per 100,000), UK (14.8), UAE (10.3) and Kuwait (8.5) (Figure 3.6.4).

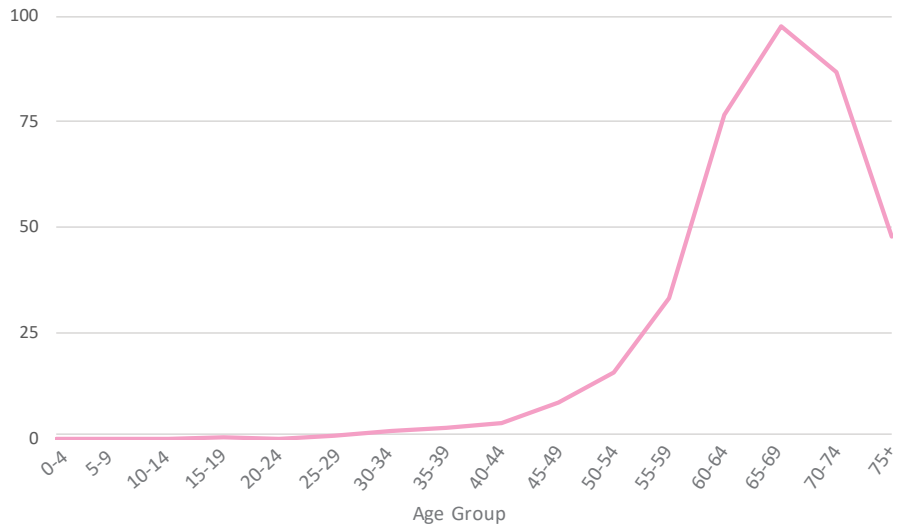


Figure 3.6.1: Age-Specific Incidence Rate (AIR) for corpus uteri cancer among Saudi females, 2023

Table 3.6.1: Morphological distribution of corpus uteri cancer among Saudi females, 2023

ICD-O-3	Morphology	No.	%
83803	Endometrioid adenocarcinoma, NOS	392	56.4
81403	Adenocarcinoma, NOS	128	18.4
84413	Serous cystadenocarcinoma, NOS	50	7.2
80103	Carcinoma, NOS	26	3.7
89803	Carcinosarcoma, NOS	26	3.7
	Others	73	10.5
	Total	695	100.0

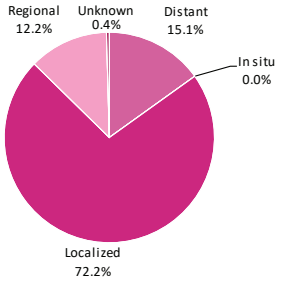


Figure 3.6.2: Stage Distribution of Corpus Uteri Cancer Among Saudi Females, 2023

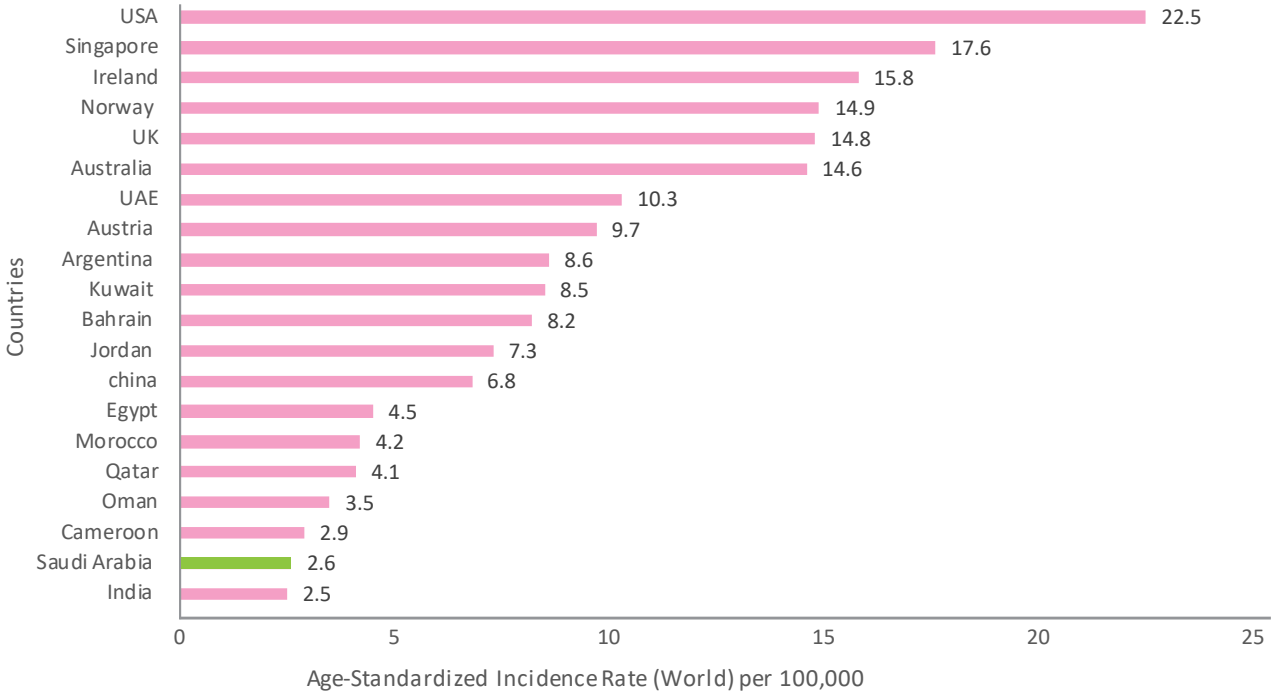


Figure 3.6.4: Comparison of Age-Standardized Incidence Rates (ASR per 100,000) for Corpus Uteri Cancer Among Saudi Females with Selected Countries, 2023 (Bray et al., 2024)

LUNG CANCER (C22)

Lung cancer was ranked sixth among Saudi males and seventh among all Saudi nationals in 2023. There were 666 newly diagnosed cases, accounting for 3.2% of all cancers among Saudi nationals. Lung cancer affected 463 males (69.5%) and 203 females (30.5%), with a male-to-female ratio of 229 to 100. The median age at diagnosis was 65 years for males (ranging between 4 and 96) and 62 years for females (ranging between 0 and 91).

The age-specific incidence rate (AIR) increases steadily after 30 years for males and 35 for females, peaking at 95.8 per 100,000 in males aged 70-74 and 27 per 100,000 in females aged 75+ (Figure 3.7.1). Morphologically, adenocarcinoma (NOS) was the predominant subtype for both males (57.4%) and females (61.4%), followed by squamous cell carcinoma and small cell carcinoma (Table 3.7.1). In terms of stage at diagnosis, over half of cases were diagnosed at a distant stage (56.8%), highlighting late detection, with only around 30.6% localized and a small proportion regional (Figure 3.7.2).

The age-standardized incidence rate (ASR) was 8.5 per 100,000 for males and 3.3 per 100,000 for females which remains lower than rates observed in countries such as China and USA (Figure 3.7.4).

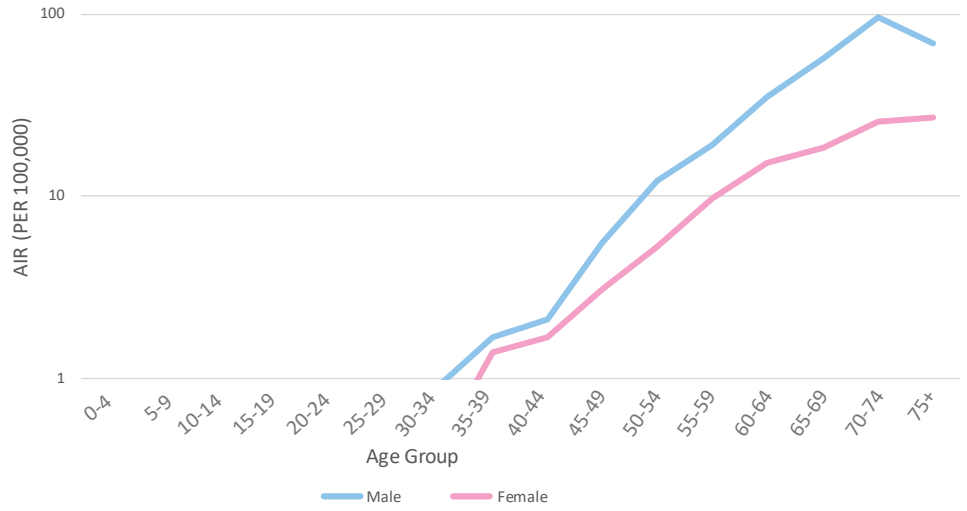
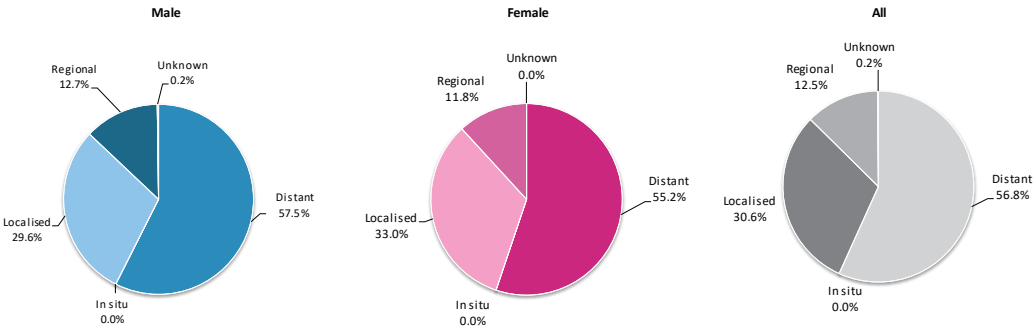


Figure 3.7.1: Age-Specific Incidence Rate (AIR) for Lung Cancer Among Saudi Nationals, 2023

Table 3.7.1: Morphological Distribution of Lung Cancer Among Saudi Nationals, 2023

Code	Morphology	Male	%	Female	%	Total	%
81403	Adenocarcinoma, NOS	265	57.2	124	61.1	389	58.4
80703	Squamous cell carcinoma, NOS	50	10.8	15	7.4	65	9.8
80413	Small cell carcinoma, NOS	39	8.4	5	2.5	44	6.6
80463	Non-small cell carcinoma	31	6.7	15	7.4	46	6.9
80103	Carcinoma, NOS	18	3.9	8	3.9	26	3.9
	Others	60	13.0	36	17.7	96	14.4
	Total	463	100.0	203	100.0	666	100.0

Figure 3.7.2: Stage Distribution of Lung Cancer Among Saudi Nationals, 2023



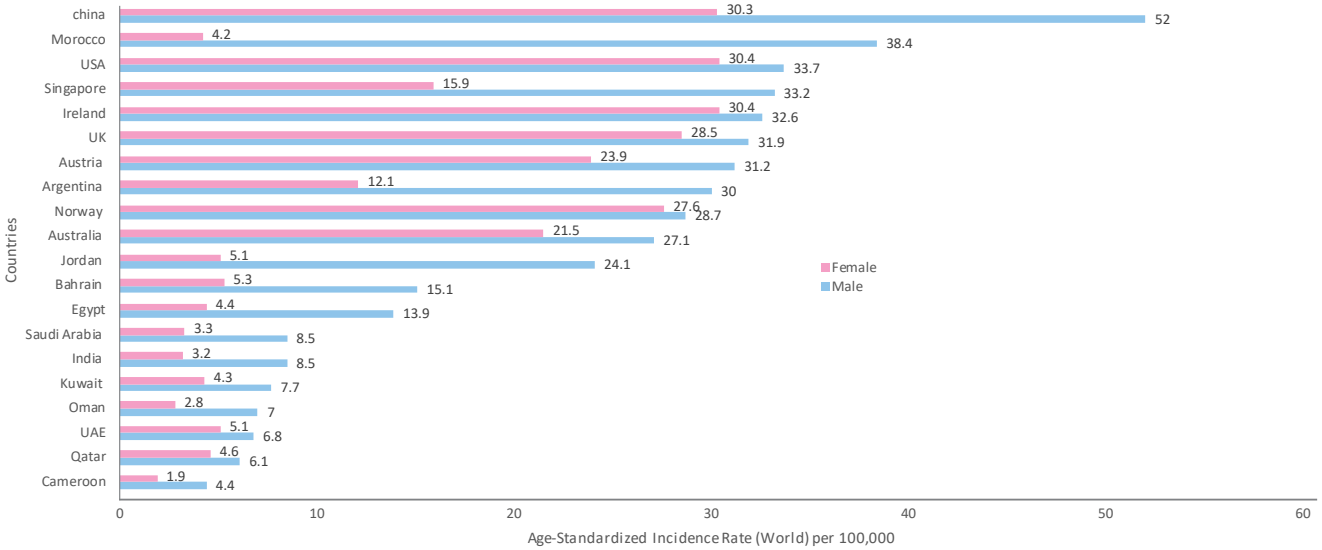


Figure 3.7.4: Comparison of Age-Standardized Incidence Rates (ASR per 100,000) for Lung Cancer Among Saudis with Selected Countries, 2023 (Bray et al., 2024)

PROSTATE CANCER (C61)

Prostate cancer was ranked second among Saudi males in 2023, with 650 newly diagnosed cases, accounting for 7.6% of all cancers among Saudi males and 3.3% of all cancers among Saudi nationals. The median age at diagnosis was 69 years (ranging between 26 and 96). The age-specific incidence rate (AIR) for prostate cancer increases sharply with age, particularly after the age of 50, peaking at 164.3 per 100,000 in patients aged 75+ (Figure 3.8.1). Morphologically, adenocarcinoma (NOS) was the most common subtype, representing 82.9% of cases, followed by acinar cell carcinoma and other subtypes (Table 3.8.1). In terms of stage at diagnosis, over 60% of prostate cancers were diagnosed at a localized stage (61.1%), while around a quarter (26%) were distant and a smaller proportion regional, suggesting moderately early detection (Figure 3.8.2). Prostate cancer affected only males, with an age-standardized incidence rate (ASR) of 12.6 per 100,000 which remains lower than that in countries such as Norway, Ireland, and Australia but relatively comparable with the rates in Gulf countries (Figure 3.8.4).

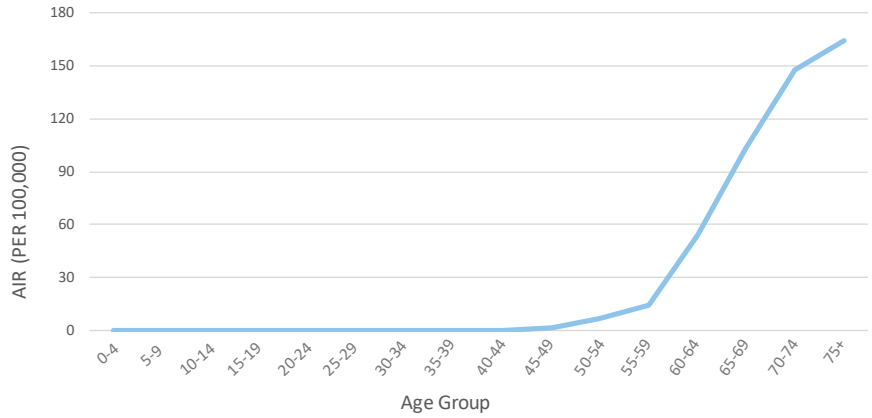


Figure 3.8.1: Age-Specific Incidence Rate (AIR) for Prostate Cancer Among Saudi Males, 2023

Table 3.8.1: Morphological Distribution of Prostate Cancer Among Saudi Males, 2023

Code	Morphology	Male	%
81403	Adenocarcinoma, NOS	539	82.9
85503	Acinar cell carcinoma	89	13.7
80103	Carcinoma, NOS	10	1.5
80003	Neoplasm, malignant	6	0.9
85513	Acinar cell cystadenocarcinoma	2	0.3
	Others	4	0.6
	Total	650	100.0

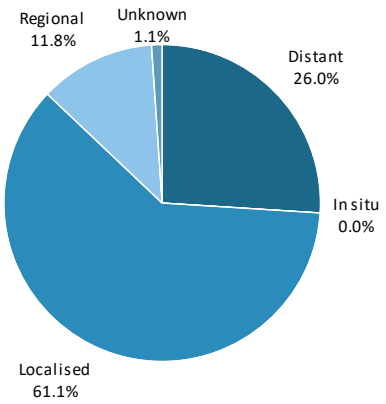


Figure 3.8.2: Stage Distribution of Prostate Cancer Among Saudi Males, 2023

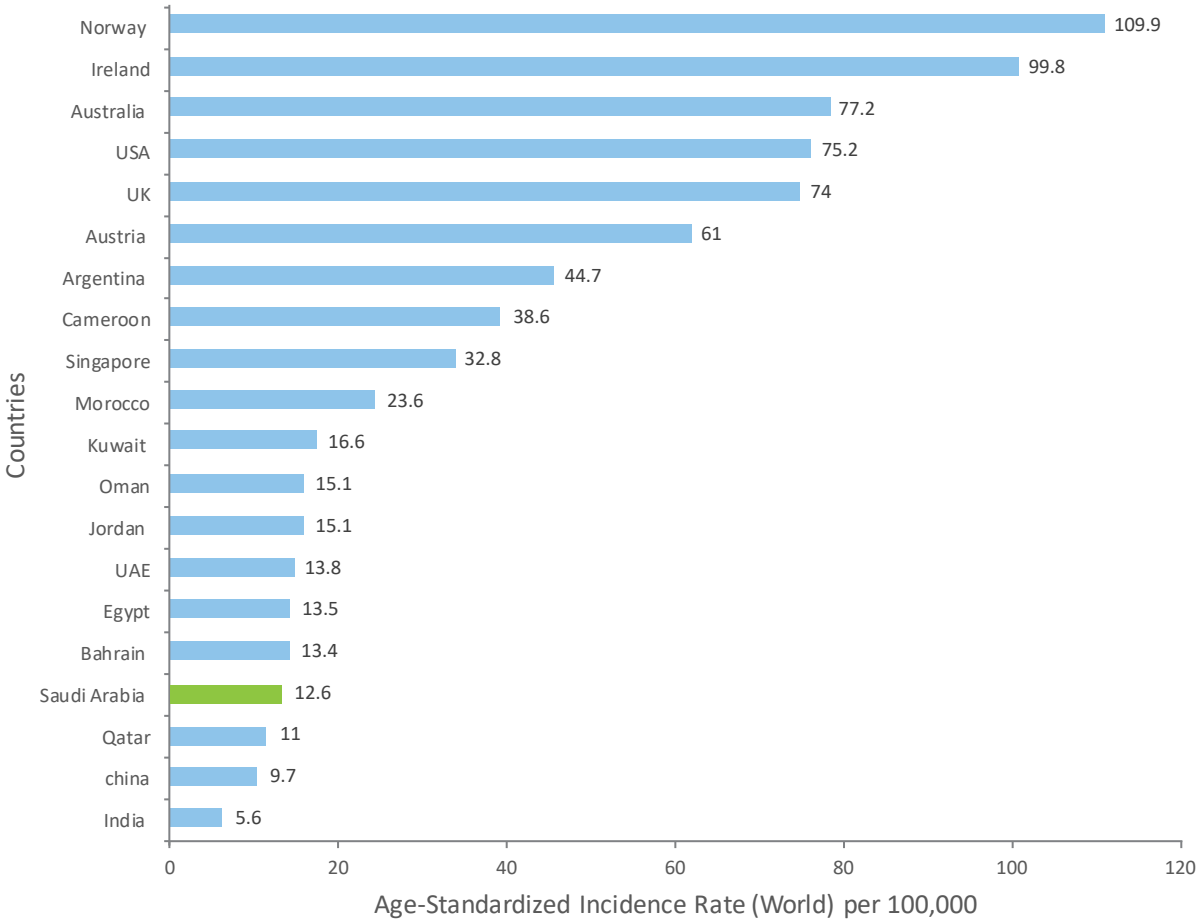


Figure 3.8.4: Comparison of Age-Standardized Incidence Rates (ASR per 100,000) for Prostate Cancer Among Saudis Males with Selected Countries, 2023 (Bray et al., 2024)

BLADDER CANCER (C67)

SBladder cancer was ranked fourth among Saudi males and ninth among all Saudi nationals in 2023. There were 649 newly diagnosed cases, accounting for 3.2% of all cancers among Saudi nationals. Bladder cancer affected 552 males (85.1%) and 97 females (14.9%), with a male-to-female ratio of 569 to 100. The median age at diagnosis was 64 years for males (ranging between 8 and 106) and 67 years for females (ranging between 14 and 92). The age-specific incidence rate (AIR) increases with age in both sexes, with the steepest rise among males over 50 reaching 106.6 per 100,000 in 75+ age group compared to 22.3 per 100,000 in females aged 75+ (Figure 3.9.1). Morphologically, papillary transitional cell carcinoma was the most common subtype for both males (46.2%) and females (40.2%), followed by transitional cell carcinoma (NOS) and papillary carcinoma (Table 3.9.1). In terms of stage at diagnosis, most bladder cancer cases were diagnosed at a localized stage, 61.2% for males and 53.6% for females, while around 12–18% were distant, in situ were up to 17.2%, and smaller proportions were regional or unknown (Figures 3.9.2).

The ASR was 1.6 per 100,000 for males and 9.6 per 100,000 for females which remains lower than in countries such as Egypt, the UK, and Norway (Figure 3.9.4).

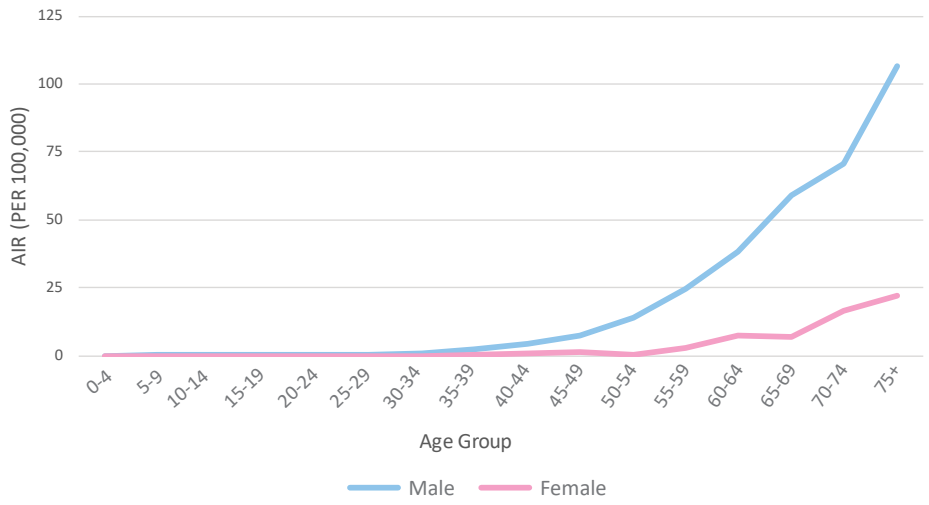


Figure 3.9.1: Age-Specific Incidence Rate (AIR) for Bladder Cancer Among Saudi Nationals, 2023

Table 3.9.1: Morphological Distribution of Bladder Cancer Among Saudi Nationals, 2023

Code	Morphology	Male	%	Female	%	Total	%
81303	Papillary transitional cell carcinoma	255	46.2	39	40.2	294	45.3
81203	Transitional cell carcinoma, NOS	174	31.5	32	33.0	206	31.7
80503	Papillary carcinoma, NOS	59	10.7	10	10.3	69	10.6
80103	Carcinoma, NOS	42	7.6	7	7.2	49	7.6
81403	Adenocarcinoma, NOS	9	1.6	2	2.1	11	1.7
	Others	13	2.4	7	7.2	20	3.1
	Total	552	100.0	97	100.0	649	100.0

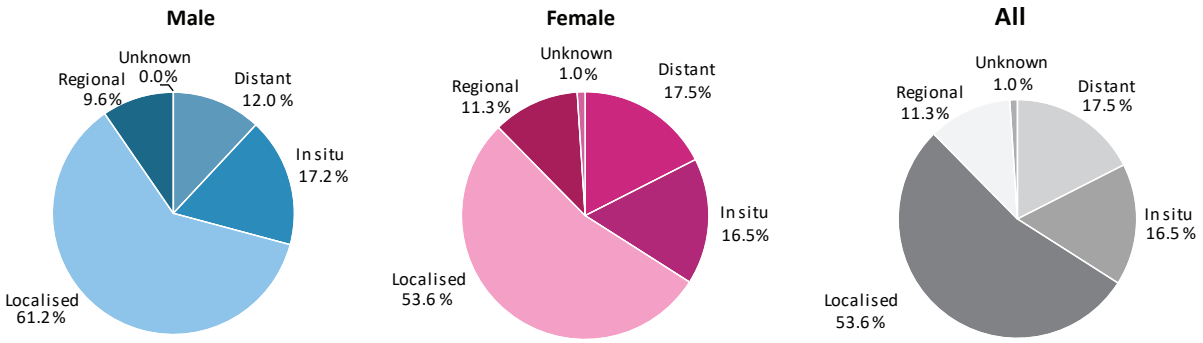


Figure 3.9.2: Stage Distribution of Bladder Cancer Among Saudi Males, 2023

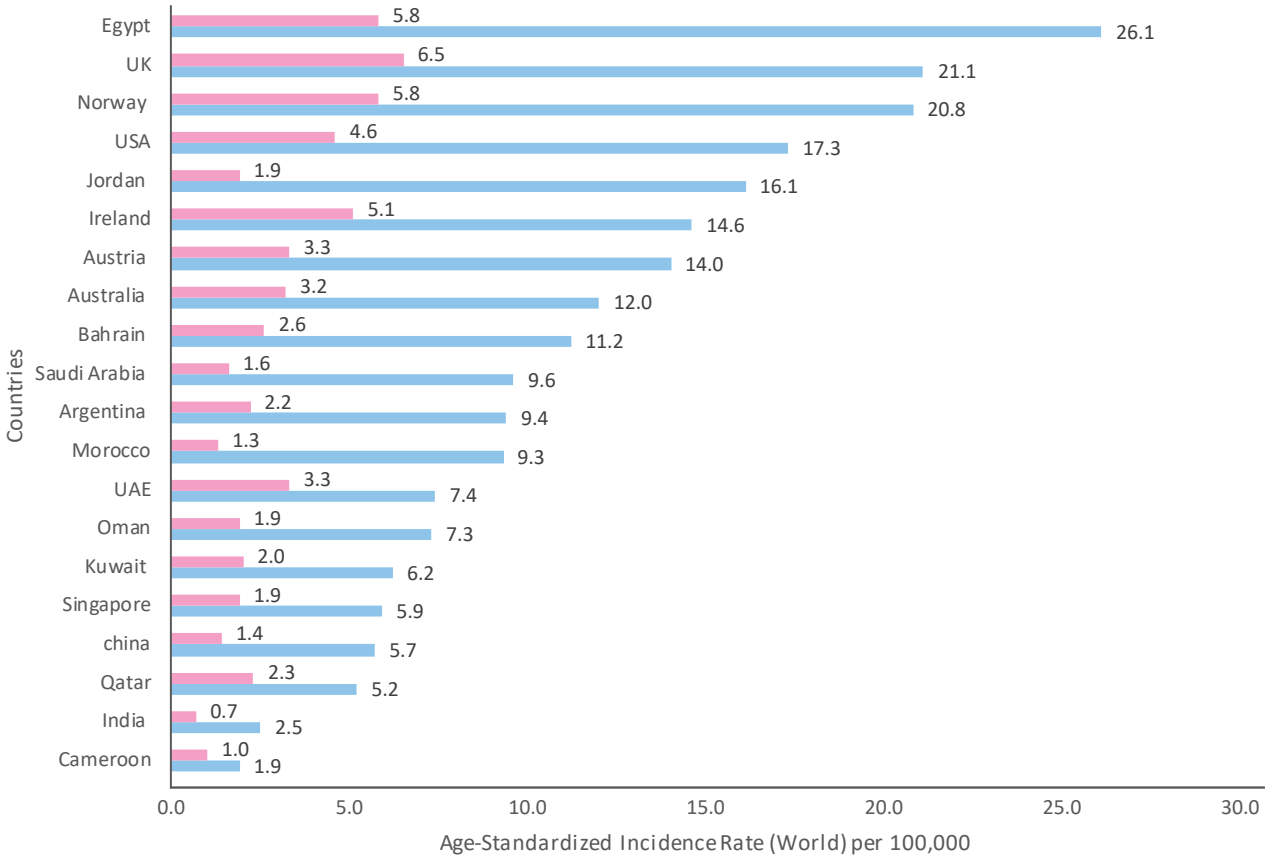


Figure 3.9.4: Comparison of Age-Standardized Incidence Rates (ASR per 100,000) for Bladder Cancer among Saudis with selected Countries, 2023

BRAIN, CENTRAL NERVOUS SYSTEM (C70-C72)

Brain and central nervous system (CNS) cancer was ranked tenth among all Saudi nationals and eighth among Saudi females in 2023. There were 643 newly diagnosed cases, accounting for 3.1% of all cancers among Saudi nationals. Brain and CNS cancer affected 300 males (46.7%) and 343 females (53.3%), with a male-to-female ratio of 87 to 100. The median age at diagnosis was 39 years for males (ranging between 0 and 86) and 42 years for females (ranging between 0 and 96). The age-specific incidence rate (AIR) increases with age, peaking among older age groups in both sexes (Figure 3.10.1). Morphologically, malignant glioma was the most common subtype in both males (32.7%) and females (32.9%), followed by glioblastoma (NOS) and astrocytoma (Table 3.10.1). The majority of cases were diagnosed at a regional stage (56.8% overall), followed by localized stage (37.6%) and around 5.2% presenting at a distant stage (Figure 3.10.2).

The age-standardized incidence rate (ASR) was 4.5 per 100,000 for males and 3.2 per 100,000 for females which remains lower than in many Western countries but higher than Gulf countries (Figure 3.8.4).

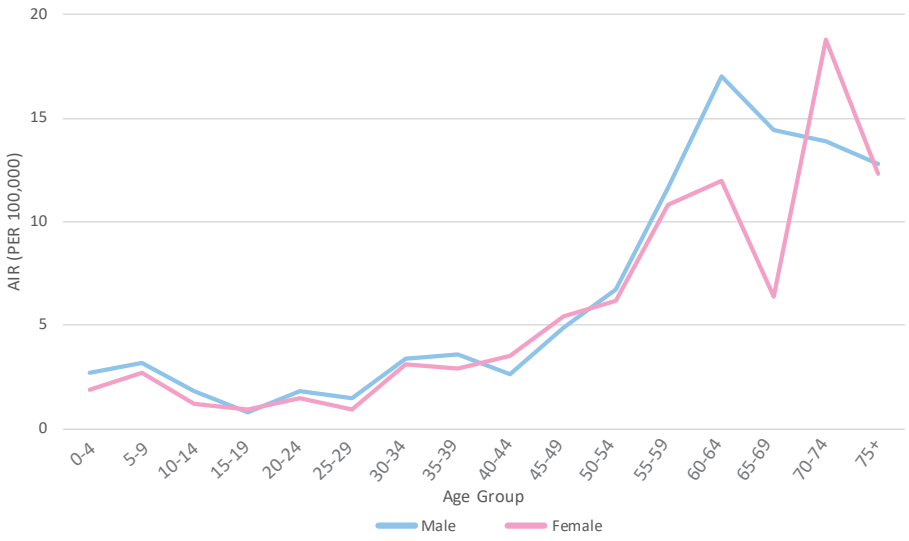


Figure 3.10.1: Age-Specific Incidence Rate (AIR) for Brain, CNS Among Saudi Nationals, 2023

Table 3.10.1: Morphological Distribution of Brain, CNS Among Saudi Nationals, 2023

Code	Morphology	Male	%	Female	%	Total	%
93803	Glioma, malignant	98	32.7	113	32.9	211	32.8
94403	Glioblastoma, NOS	60	20.0	69	20.1	129	20.1
94003	Astrocytoma, NOS	49	16.3	18	5.2	67	10.4
95303	Meningioma, malignant	20	6.7	39	11.4	59	9.2
94703	Medulloblastoma, NOS	11	3.7	30	8.7	41	6.4
	Others	62	20.7	74	21.6	136	21.2
	Total	300	100.0	343	100.0	649	100.0

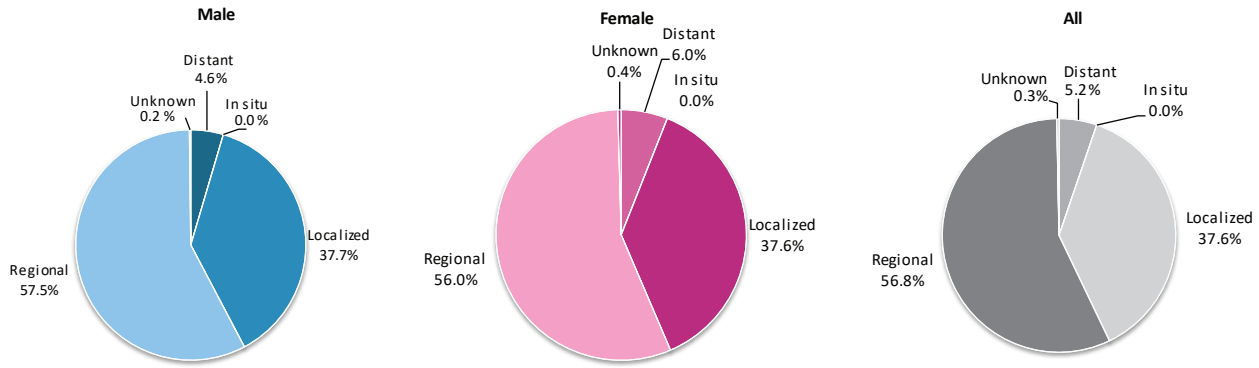


Figure 3.10.2: Stage Distribution of Brain, CNS Among Saudi Nationals, 2023

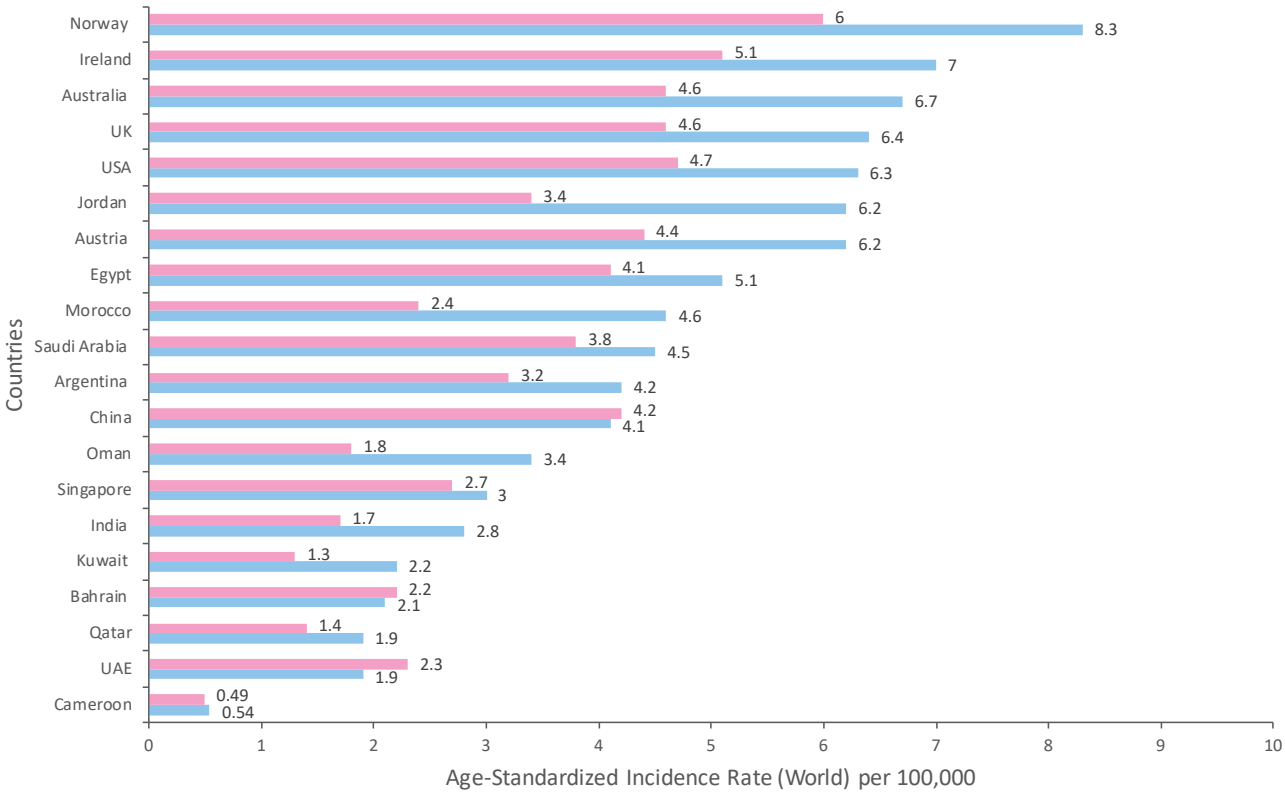


Figure 3.10.4: Comparison of Age-Standardized Incidence Rates (ASR per 100,000) for Brain, CNS Among Saudis with Selected Countries, 2023 (Bray et al., 2024)

REFERENCES

Bray, F. et al. (2024) 'Global cancer statistics 2022: Globocan estimates of incidence and mortality worldwide for 36 cancers in 185 countries', CA: A Cancer Journal for Clinicians, 74(3), pp. 229–263. doi:10.3322/caac.21834.

General Authority of Statistics (2023), Population estimates by gender, nationality, and age group 2010 - 2022, GASTAT - Statistical Database. Available at: https://database.stats.gov.sa/home/report/3869.

PART IV

C ANCER INCIDENCE AMONG NON-SAUDIS 2023

CANCER INCIDENCE AMONG NON-SAUDI POPULATION

Between January and December 2023, a total of 5,400 cancer cases were reported among the non-Saudi population. Of these, 32 cases were excluded from analysis due to in situ classification or coding mismatches, resulting in 5,368 cases analyzed. The majority of cases affected females (51.9%), with 48.1% of cases in males.

The non-Saudi population structure differs significantly from the Saudi population, with only 3.4% aged 60 and above and a large proportion (87.3%) aged 15–59 years, reflecting a predominantly working-age demographic. Consequently, the distribution of cancer by age shows that 2.9% of cases occurred before age 15, 23.8% between 15–39 years, 53.7% between 40–64 years, and 19.7% after age 64. The median age at diagnosis was 54 years for males (ranging between 0 and 93) and 48 years for females (ranging between 0 and 101). The age-specific incidence rate (AIR) rises sharply with age for both sexes, peaking among older age groups, with notably higher rates in females across most age groups (Figure 4.1).

Breast cancer was the most common cancer among non-Saudis, accounting for 21.8% of all cases, followed by colorectal cancer (12.2%), thyroid (6.8%), leukemia (4.5%), and lung cancer (4.2%) (Table 4.1). The leading cancers for males were colorectal (16.6%), prostate (7.3%), and lung (6.1%), while for females, breast (40.5%), thyroid (8.6%), and colorectal (8.2%) were most prevalent (Table 4.2). By nationality, Yemenis accounted for the largest share (22.2%), followed by Egyptians (11.0%) and Sudanese (10.9%) (Table 4.3).

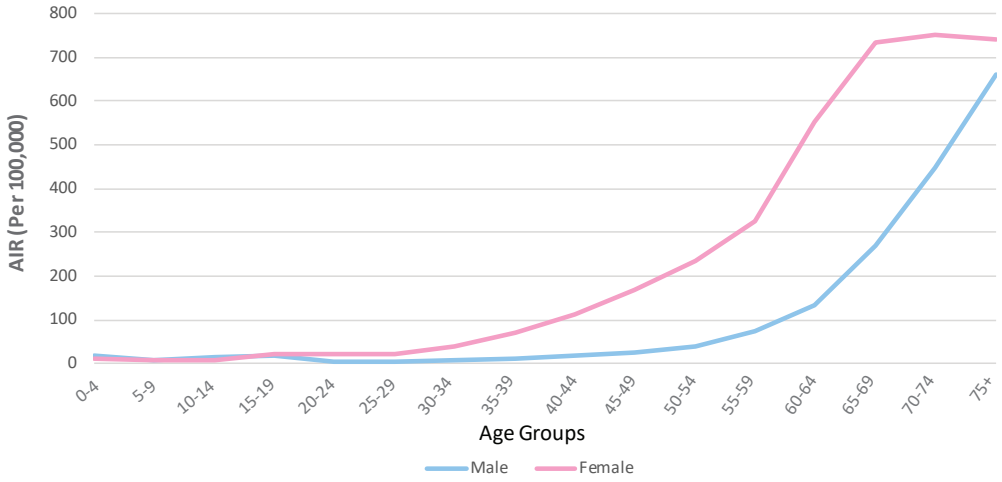


Figure 4.1: Age-Specific Incidence Rate (AIR) for All Cancers Among Non-Saudi Population, 2023

Table 4.1: Ten Most Common Cancers Among Non-Saudi Population, 2023

Site	No.	%
Breast	1171	21.8
Colorectal	657	12.2
Thyroid	366	6.8
Leukemia	244	4.5
Lung	227	4.2
NHL	198	3.7
Prostate	188	3.5
Brain, CNS	150	2.8
Bladder	146	2.7
Stomach	135	2.5
Other Sites	1886	35.1
Total	5368	100.0

Table 4.2: Most Common Cancers Among the Non-Saudi Population by Gender, 2023

Male	No.	%	Female	No.	%
Colorectal	430	16.6	Breast	1127	40.5
Prostate	188	7.3	Thyroid	240	8.6
Lung	157	6.1	Colorectal	227	8.2
Leukemia	141	5.5	Leukemia	103	3.7
Bladder	126	4.9	Corpus Uteri	88	3.2
Thyroid	126	4.9	Cervix Uteri	78	2.8
NHL	122	4.7	Ovary	78	2.8
Brain, CNS	100	3.9	NHL	76	2.7
Stomach	88	3.4	Lung	70	2.5
Kidney	81	3.1	Connective, Soft tissue	54	1.9
Other Sites	1025	39.7	Other Sites	643	23.1
Total	2584	100.0	Total	2784	100.0

Table 4.3: Distribution of Cancer Cases Among Non-Saudi by Nationality and Gender, 2023

Nationality	Male	%	Female	%	Total	%
Yemen	587	22.7	606	21.8	1193	22.2
Egypt	313	12.1	276	9.9	589	11.0
Sudan	316	12.2	267	9.6	583	10.9
Syrian Arab Republic	220	8.5	259	9.3	479	8.9
Philippines	113	4.4	259	9.3	372	6.9
Pakistan	157	6.1	145	5.2	302	5.6
India	113	4.4	78	2.8	191	3.6
Jordan	93	3.6	87	3.1	180	3.4
Occupied Palestinian Territories	47	1.8	96	3.4	143	2.7
Bangladesh	57	2.2	84	3.0	141	2.6
Indonesia	12	0.5	56	2.0	68	1.3
Kuwait	30	1.2	35	1.3	65	1.2
Lebanon	32	1.2	27	1.0	59	1.1
Morocco	9	0.3	47	1.7	56	1.0
United States of America	29	1.1	24	0.9	53	1.0
Eritrea	21	0.8	29	1.0	50	0.9
United Kingdom	30	1.2	17	0.6	47	0.9
Nigeria	21	0.8	25	0.9	46	0.9
Afghanistan	35	1.4	10	0.4	45	0.8
Somalia	14	0.5	16	0.6	30	0.6
Other Nationalities	335	13.0	341	12.2	676	12.6
Total	2584	100.0	2784	100.0	5368	100.0

PART V
INCIDENCE T ABLES

Table 5.1.1 - Number Of Cases Among Saudi Males by Primary Site And Age Groups, 2023

ICD (10th) Code	Cancer Primary Site	All Ages	Unknown Age	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+	Total (%)
C00	Lip	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	%0.00
C01-C02	Tongue	99	0	1	0	0	1	0	1	0	11	12	8	10	10	17	14	10	4	%1.20
C03-C06	Mouth	72	0	1	1	0	1	0	3	2	1	5	5	11	6	14	9	4	9	%0.80
C07-C08	Salivary glands	27	0	0	0	0	2	0	0	0	0	4	2	2	4	3	5	1	4	%0.30
C09	Tonsil	5	0	0	0	0	0	0	0	1	1	1	1	0	0	0	0	0	1	%0.10
C10	Other Oropharynx	7	0	0	0	1	0	0	0	0	0	0	0	0	1	2	2	1	0	%0.10
C11	Nasopharynx	149	0	0	0	3	5	4	6	3	11	19	14	18	22	15	15	4	10	%1.70
C12-C13	Hypopharynx	2	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	%0.00
C14	Pharynx unspec.	6	0	0	0	0	0	0	0	0	0	0	1	0	0	2	0	2	1	%0.10
C15	Oesophagus	81	0	0	0	0	0	1	4	0	4	4	7	12	8	6	12	7	16	%0.90
C16	Stomach	239	0	0	0	1	0	0	2	4	4	21	15	21	25	35	31	30	50	%2.80
C17	Small intestine	49	0	0	0	0	0	1	0	1	6	5	3	7	5	7	7	1	6	%0.60
C18	Colon	921	0	0	0	2	2	14	17	23	26	52	63	99	138	137	124	92	132	%10.70
C19-C20	Rectum	509	0	0	0	0	1	1	7	10	24	35	44	71	68	74	63	44	67	%5.90
C21	Anus	24	0	0	0	0	0	1	1	0	6	3	2	3	0	3	2	2	1	%0.30
C22	Liver	394	0	1	0	0	3	3	2	2	4	8	10	19	47	57	72	53	113	%4.60
C23-C24	Gallbladder etc.	111	0	0	0	0	0	0	2	0	1	6	5	4	17	20	15	12	29	%1.30
C25	Pancreas	298	0	0	0	0	0	0	5	5	5	11	24	31	49	49	45	29	45	%3.50
C30-C31	Nose, sinuses etc.	22	0	0	0	2	2	0	2	1	2	3	1	0	2	1	2	1	3	%0.30
C32	Larynx	96	0	0	0	3	0	0	0	0	1	7	4	15	10	18	18	10	10	%1.10
C33-C34	Trachea,Bronchus,Lung	463	0	1	0	0	0	3	3	7	12	12	23	40	51	70	79	76	86	%5.40
C37-C38	Other Thoracic organs	43	0	3	1	0	2	1	3	3	5	4	2	3	2	4	3	6	1	%0.50
C40-C41	Bone	145	0	6	11	22	18	16	15	8	6	10	6	3	3	7	6	2	6	%1.70
C43	Melanoma of Skin	15	0	0	0	0	0	0	0	0	1	0	0	1	1	1	3	2	6	%0.20
C44	Other Skin	221	0	1	1	0	1	3	1	12	15	15	10	14	18	15	29	29	57	%2.60
C45	Mesothelioma	4	0	0	0	0	0	0	0	0	0	0	0	1	0	2	0	0	1	%0.00
C46	Kaposi sarcoma	20	0	0	0	0	0	1	0	1	1	0	1	0	1	3	1	2	9	%0.20
C47;C49	Connective,Soft tissue	150	0	5	7	3	10	10	9	19	18	7	11	7	8	9	8	8	11	%1.80
C50	Breast	80	0	0	0	0	0	1	2	1	7	7	10	11	8	13	7	3	10	%0.90
C60	Penis	5	0	0	0	0	0	0	1	0	0	0	2	0	0	1	0	0	1	%0.10
C61	Prostate	650	0	0	0	0	0	0	2	1	1	2	7	24	39	109	143	117	205	%7.60
C62	Testis	189	0	4	1	2	11	30	44	35	39	9	5	4	0	1	2	0	2	%2.20
C63	Other male genital	4	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	%0.00
C64	Kidney	397	0	8	3	0	6	3	8	19	26	43	36	37	41	54	49	30	34	%4.60
C65	Renal Pelvis	9	0	0	0	0	0	0	0	2	0	0	1	1	1	1	1	1	1	%0.10
C66	Ureter	4	0	0	0	0	0	0	0	1	0	1	0	0	0	2	0	0	0	%0.00
C67	Bladder	552	0	0	2	2	2	2	5	7	17	24	30	47	66	77	82	56	133	%6.40
C68	Other Urinary organs	6	0	0	0	0	0	0	0	0	0	0	0	1	0	3	1	0	1	%0.10
C69	Eye	20	0	14	2	0	0	1	0	0	0	0	0	1	1	0	0	0	1	%0.20
C70-C72	Brain, Nervous system	343	0	29	37	19	8	16	13	27	25	15	20	22	31	34	20	11	16	%4.00
C73	Thyroid	449	0	0	1	4	7	28	33	46	51	45	45	33	46	41	22	16	31	%5.20
C74	Adrenal gland	19	0	8	4	0	0	0	0	0	0	1	2	2	0	1	0	0	1	%0.20
C75	Other Endocrine	7	0	0	0	0	1	1	0	0	2	0	0	1	1	1	0	0	0	%0.10
C81	Hodgkin disease	382	0	4	15	36	54	51	29	44	31	35	16	13	10	12	14	8	10	%4.50
C82-C85;C96	Non-Hodgkin lymphoma	553	0	10	8	10	13	22	28	38	47	37	29	47	53	67	46	29	69	%6.50
C88	Immunoproliferative dis.	3	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	%0.00
C90	Multiple Myeloma	97	0	1	0	0	0	0	3	2	4	5	10	10	7	14	12	13	16	%1.10
C91	Lymphoid Leukaemia	129	0	12	16	14	12	7	5	4	5	5	5	5	3	6	8	5	17	%1.50
C92-C94	Myeloid Leukaemia	181	0	7	6	5	8	8	18	11	19	9	11	18	13	14	12	11	11	%2.10
C95	Leukaemia unspec.	193	0	26	20	8	16	4	8	6	5	11	15	12	13	21	10	7	11	%2.30
Other	Other & unspecified	125	0	13	2	9	5	3	6	3	4	5	9	9	7	11	14	9	16	%1.50
All	All sites Total	8569	0	155	138	146	191	236	288	349	448	498	515	692	839	1057	1009	744	1264	%100.0
Not C44	All sites but C44	8348	0	154	137	146	190	233	287	337	433	483	505	678	821	1042	980	715	1207	%97.4

Table 5.1.2 - Number Of Cases Among Saudi Females by Primary Site And Age Groups, 2023

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+	Total (%)
C00	Lip	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	%0.00
C01-C02	Tongue	75	0	1	0	0	1	0	0	1	3	6	6	5	13	12	12	5	10	%0.60
C03-C06	Mouth	63	0	0	0	0	0	1	1	1	4	4	6	3	6	11	3	9	14	%0.50
C07-C08	Salivary glands	26	0	0	0	0	1	3	2	0	6	3	3	0	2	3	1	0	2	%0.20
C09	Tonsil	5	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	2	%0.00
C10	Other Oropharynx	4	0	0	0	0	0	0	0	0	0	0	1	2	0	0	0	1	0	%0.00
C11	Nasopharynx	58	0	0	0	0	4	3	5	3	3	6	7	8	9	5	3	1	1	%0.50
C12-C13	Hypopharynx	10	0	0	0	0	0	0	1	1	0	3	0	2	0	2	0	0	1	%0.10
C14	Pharynx unspec.	5	0	0	0	0	0	0	0	0	1	1	0	0	0	1	1	1	0	%0.00
C15	Oesophagus	54	0	0	0	0	0	0	0	3	5	5	1	4	4	6	5	7	14	%0.50
C16	Stomach	175	0	1	1	0	2	2	3	11	14	15	20	12	18	20	22	12	22	%1.50
C17	Small intestine	69	0	0	0	0	0	0	4	5	6	4	11	4	9	7	2	7	10	%0.60
C18	Colon	873	0	0	0	2	0	5	7	19	31	43	66	132	113	163	117	60	115	%7.30
C19-C20	Rectum	377	0	0	0	0	0	1	8	13	12	28	46	52	47	54	46	33	37	%3.20
C21	Anus	9	0	0	0	0	0	0	1	0	1	1	0	0	3	2	0	1	0	%0.10
C22	Liver	231	0	5	0	3	2	0	3	4	7	5	7	13	31	39	45	32	35	%1.90
C23-C24	Gallbladder etc.	132	0	0	0	0	0	0	1	2	3	5	6	11	18	21	19	18	28	%1.10
C25	Pancreas	187	0	0	0	0	0	1	5	3	3	3	13	9	31	35	22	26	36	%1.60
C30-C31	Nose, sinuses etc.	15	0	0	0	0	0	0	0	0	2	1	2	1	3	1	1	2	2	%0.10
C32	Larynx	13	0	0	0	0	0	0	1	1	0	0	1	0	1	2	2	2	3	%0.10
C33-C34	Trachea,Bronchus,Lung	203	0	1	0	0	0	2	1	3	10	10	13	19	28	33	26	22	35	%1.70
C37-C38	Other Thoracic organs	36	0	2	2	0	2	0	1	1	2	4	3	2	5	3	1	4	4	%0.30
C40-C41	Bone	120	0	7	5	16	16	7	4	3	12	13	10	3	6	10	3	3	2	%1.00
C43	Melanoma of Skin	17	0	0	0	0	0	0	0	0	0	0	1	1	3	3	1	1	7	%0.10
C44	Other Skin	167	0	2	0	0	3	1	9	6	11	9	8	10	16	15	13	17	47	%1.40
C45	Mesothelioma	5	0	0	0	0	0	0	2	0	0	0	0	0	2	0	1	0	0	%0.00
C46	Kaposi sarcoma	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	4	%0.00
C47;C49	Connective,Soft tissue	148	0	11	1	6	10	8	13	15	7	15	12	9	14	14	4	1	8	%1.20
C50	Breast	4079	0	0	0	0	1	21	65	194	381	498	607	586	545	463	311	191	216	%34.20
C51	Vulva	19	0	0	0	0	0	0	0	1	1	3	2	1	4	0	0	2	5	%0.20
C52	Vagina	8	0	0	0	0	0	0	0	0	0	1	1	2	1	0	1	0	2	%0.10
C53	Cervix Uteri	177	0	1	0	0	1	0	7	6	16	23	11	21	25	31	20	7	8	%1.50
C54	Corpus Uteri	695	0	0	1	1	2	0	5	16	19	21	37	56	96	167	138	74	62	%5.80
C55	Uterus unspec.	195	0	0	0	0	0	0	1	4	6	7	13	21	30	37	38	22	16	%1.60
C56	Ovary	304	0	0	3	3	12	6	9	15	20	20	32	36	35	40	30	20	23	%2.50
C57	Other Female Genital	35	0	2	0	0	0	0	0	1	0	3	5	5	6	5	4	1	3	%0.30
C58	Placenta	3	0	0	0	0	0	0	0	0	0	2	1	0	0	0	0	0	0	%0.00
C64	Kidney	186	0	17	5	0	2	0	4	10	11	8	16	24	35	14	20	8	12	%1.60
C65	Renal Pelvis	7	0	0	0	0	0	1	0	1	1	0	0	0	1	0	0	1	2	%0.10
C66	Ureter	3	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	1	%0.00
C67	Bladder	97	0	0	0	1	1	1	1	1	3	4	5	2	9	16	10	14	29	%0.80
C68	Other Urinary organs	2	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	%0.00
C69	Eye	13	0	9	0	0	0	0	0	0	0	0	0	0	1	0	1	1	1	%0.10
C70-C72	Brain, Nervous system	300	0	20	30	13	9	13	8	24	20	20	23	22	31	26	9	16	16	%2.50
C73	Thyroid	1442	0	0	5	9	37	70	140	169	184	171	154	171	120	87	56	33	36	%12.10
C74	Adrenal gland	18	0	7	4	0	0	1	0	0	1	1	2	1	0	0	0	1	0	%0.20
C75	Other Endocrine	12	0	0	0	0	2	1	0	0	2	1	2	0	1	1	1	0	1	%0.10
C81	Hodgkin disease	235	0	0	4	23	37	33	38	17	18	4	7	6	11	10	8	8	11	%2.00
C82-C85;C96	Non-Hodgkin lymphoma	404	0	6	8	4	5	16	20	26	22	30	26	43	44	46	33	32	43	%3.40
C88	Immunoproliferative dis.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	%0.00
C90	Multiple Myeloma	81	0	0	0	0	0	0	1	1	1	1	8	9	15	17	9	8	11	%0.70
C91	Lymphoid Leukaemia	77	0	20	6	6	3	6	4	0	1	3	2	4	5	4	3	3	7	%0.60
C92-C94	Myeloid Leukaemia	154	0	7	1	5	5	10	8	19	13	7	11	11	18	10	9	9	11	%1.30
C95	Leukaemia unspec.	133	0	19	13	7	3	6	7	15	11	8	5	8	8	10	8	3	2	%1.10
Other	Other & unspecified	166	0	7	2	3	10	3	12	10	10	15	9	11	15	21	17	9	12	%1.40
All	All sites Total	11927	0	145	91	102	171	222	403	625	884	1035	1223	1343	1439	1468	1078	729	969	%100.00
Not C44	All sites but C44	11760	0	143	91	102	168	221	394	619	873	1026	1215	1333	1423	1453	1065	712	922	%98.60

Table 5.1.3 Age-specific Incidence Rate (AIR), Age standardized Incidence Rate (ASR) Among Saudi Males (per 100,000) by Primary Site and Age groups, 2023

ICD (10th) Code	Cancer Primary Site	All Ages	Unknown Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75+	Crude Rate	ASR World
C00	Lip	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C01-C02	Tongue	99	0	0.1	0	0	0.1	0	0.1	0	1.6	2.1	2	3	3.7	8.5	10.1	12.6	3.2	1	1.6
C03-C06	Mouth	72	0	0.1	0.1	0	0.1	0	0.3	0.3	0.1	0.9	1.2	3.4	2.2	7	6.5	5	7.2	0.7	1.2
C07-C08	Salivary glands	27	0	0	0	0	0.2	0	0	0	0	0.7	0.5	0.6	1.5	1.5	3.6	1.3	3.2	0.3	0.4
C09	Tonsil	5	0	0	0	0	0	0	0	0.1	0.1	0.2	0.2	0	0	0	0	0	0.8	0.1	0.1
C10	Other Oropharynx	7	0	0	0	0.1	0	0	0	0	0	0	0	0	0.4	1	1.4	1.3	0	0.1	0.1
C11	Nasopharynx	149	0	0	0	0.3	0.5	0.5	0.7	0.4	1.6	3.3	3.4	5.5	8.2	7.5	10.8	5	8	1.5	2.2
C12-C13	Hypopharynx	2	0	0	0	0	0	0	0	0	0	0	0	0	0.7	0	0	0	0	0	0
C14	Pharynx unspec.	6	0	0	0	0	0	0	0	0	0	0	0.2	0	0	1	0	2.5	0.8	0.1	0.1
C15	Oesophagus	81	0	0	0	0	0	0.1	0.5	0	0.6	0.7	1.7	3.7	3	3	8.7	8.8	12.8	0.8	1.3
C16	Stomach	239	0	0	0	0.1	0	0	0.2	0.5	0.6	3.7	3.7	6.4	9.4	17.5	22.4	37.8	40.1	2.5	4.2
C17	Small intestine	49	0	0	0	0	0	0.1	0	0.1	0.9	0.9	0.7	2.1	1.9	3.5	5.1	1.3	4.8	0.5	0.8
C18	Colon	921	0	0	0	0.2	0.2	1.6	2	2.9	3.7	9.1	15.4	30.2	51.7	68.5	89.5	116	105.8	9.6	15.6
C19-C20	Rectum	509	0	0	0	0	0.1	0.1	0.8	1.3	3.4	6.2	10.8	21.6	25.5	37	45.5	55.5	53.7	5.3	8.5
C21	Anus	24	0	0	0	0	0	0.1	0.1	0	0.9	0.5	0.5	0.9	0	1.5	1.4	2.5	0.8	0.2	0.3
C22	Liver	394	0	0.1	0	0	0.3	0.3	0.2	0.3	0.6	1.4	2.4	5.8	17.6	28.5	51.9	66.8	90.5	4.1	7.2
C23-C24	Gallbladder etc.	111	0	0	0	0	0	0	0.2	0	0.1	1.1	1.2	1.2	6.4	10	10.8	15.1	23.2	1.2	2
C25	Pancreas	298	0	0	0	0	0	0	0.6	0.6	0.7	1.9	5.9	9.5	18.3	24.5	32.5	36.6	36.1	3.1	5.2
C30-C31	Nose, sinuses etc.	22	0	0	0	0.2	0.2	0	0.2	0.1	0.3	0.5	0.2	0	0.7	0.5	1.4	1.3	2.4	0.2	0.3
C32	Larynx	96	0	0	0	0.3	0	0	0	0	0.1	1.2	1	4.6	3.7	9	13	12.6	8	1	1.7
C33-C34	Trachea,Bronchus,Lung	463	0	0.1	0	0	0	0.3	0.3	0.9	1.7	2.1	5.6	12.2	19.1	35	57	95.8	68.9	4.8	8.5
C37-C38	Other Thoracic organs	43	0	0.3	0.1	0	0.2	0.1	0.3	0.4	0.7	0.7	0.5	0.9	0.7	2	2.2	7.6	0.8	0.4	0.6
C40-C41	Bone	145	0	0.6	1	2	1.9	1.8	1.7	1	0.9	1.8	1.5	0.9	1.1	3.5	4.3	2.5	4.8	1.5	1.6
C43	Melanoma of Skin	15	0	0	0	0	0	0	0	0	0.1	0	0	0.3	0.4	0.5	2.2	2.5	4.8	0.2	0.3
C44	Other Skin	221	0	0.1	0.1	0	0.1	0.3	0.1	1.5	2.1	2.6	2.4	4.3	6.7	7.5	20.9	36.6	45.7	2.3	3.6
C45	Mesothelioma	4	0	0	0	0	0	0	0	0	0	0	0	0.3	0	1	0	0	0.8	0	0.1
C46	Kaposi sarcoma	20	0	0	0	0	0	0.1	0	0.1	0.1	0	0.2	0	0.4	1.5	0.7	2.5	7.2	0.2	0.3
C47;C49	Connective,Soft tissue	150	0	0.5	0.6	0.3	1	1.1	1	2.4	2.6	1.2	2.7	2.1	3	4.5	5.8	10.1	8.8	1.6	1.9
C50	Breast	80	0	0	0	0	0	0.1	0.2	0.1	1	1.2	2.4	3.4	3	6.5	5.1	3.8	8	0.8	1.3
C60	Penis	5	0	0	0	0	0	0	0.1	0	0	0	0.5	0	0	0.5	0	0	0.8	0.1	0.1
C61	Prostate	650	0	0	0	0	0	0	0.2	0.1	0.1	0.4	1.7	7.3	14.6	54.5	103.2	147.5	164.3	6.7	12.6
C62	Testis	189	0	0.4	0.1	0.2	1.1	3.4	5.1	4.4	5.6	1.6	1.2	1.2	0	0.5	1.4	0	1.6	2	1.8
C63	Other male genital	4	0	0	0	0	0	0	0	0	0	0	0	0.6	0	1	0	0	0	0	0.1
C64	Kidney	397	0	0.7	0.3	0	0.6	0.3	0.9	2.4	3.7	7.6	8.8	11.3	15.4	27	35.4	37.8	27.2	4.1	6.2
C65	Renal Pelvis	9	0	0	0	0	0	0	0	0.3	0	0	0.2	0.3	0.4	0.5	0.7	1.3	0.8	0.1	0.1
C66	Ureter	4	0	0	0	0	0	0	0	0.1	0	0.2	0	0	0	1	0	0	0	0	0.1
C67	Bladder	552	0	0	0.2	0.2	0.2	0.2	0.6	0.9	2.4	4.2	7.3	14.3	24.7	38.5	59.2	70.6	106.6	5.7	9.6
C68	Other Urinary organs	6	0	0	0	0	0	0	0	0	0	0	0	0.3	0	1.5	0.7	0	0.8	0.1	0.1
C69	Eye	20	0	1.3	0.2	0	0	0.1	0	0	0	0	0	0.3	0.4	0	0	0	0.8	0.2	0.2
C70-C72	Brain, Nervous system	343	0	2.7	3.2	1.8	0.8	1.8	1.5	3.4	3.6	2.6	4.9	6.7	11.6	17	14.4	13.9	12.8	3.6	4.5
C73	Thyroid	449	0	0	0.1	0.4	0.7	3.2	3.8	5.8	7.3	7.9	11	10.1	17.2	20.5	15.9	20.2	24.8	4.7	6
C74	Adrenal gland	19	0	0.7	0.3	0	0	0	0	0	0	0.2	0.5	0.6	0	0.5	0	0	0.8	0.2	0.2
C75	Other Endocrine	7	0	0	0	0	0.1	0.1	0	0	0.3	0	0	0.3	0.4	0.5	0	0	0	0.1	0.1
C81	Hodgkin disease	382	0	0.4	1.3	3.3	5.6	5.8	3.4	5.6	4.4	6.2	3.9	4	3.7	6	10.1	10.1	8	4	4.2
C82-C85;C96	Non-Hodgkin lymphoma	553	0	0.9	0.7	0.9	1.3	2.5	3.2	4.8	6.7	6.5	7.1	14.3	19.8	33.5	33.2	36.6	55.3	5.7	8
C88	Immunoproliferative dis.	3	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.5	0.7	0	0	0	0.1
C90	Multiple Myeloma	97	0	0.1	0	0	0	0	0.3	0.3	0.6	0.9	2.4	3	2.6	7	8.7	16.4	12.8	1	1.7
C91	Lymphoid Leukaemia	129	0	1.1	1.4	1.3	1.2	0.8	0.6	0.5	0.7	0.9	1.2	1.5	1.1	3	5.8	6.3	13.6	1.3	1.6
C92-C94	Myeloid Leukaemia	181	0	0.6	0.5	0.5	0.8	0.9	2.1	1.4	2.7	1.6	2.7	5.5	4.9	7	8.7	13.9	8.8	1.9	2.5
C95	Leukaemia unspec.	193	0	2.4	1.7	0.7	1.7	0.5	0.9	0.8	0.7	1.9	3.7	3.7	4.9	10.5	7.2	8.8	8.8	2	2.6
Other	Other & unspecified	125	0	1.2	0.2	0.8	0.5	0.3	0.7	0.4	0.6	0.9	2.2	2.7	2.6	5.5	10.1	11.3	12.8	1.3	1.9
All	All sites Total	8569	0	14	12	13	20	27	33	44	64	88	126	211	314	529	728	938	1013	88.9	135.1
Not C44	All sites but C44	8348	0	14	12	13	20	27	33	43	62	85	124	207	307	521	707	901	967	86.6	131.5

Table 5.1.4 Age-Specific Incidence Rate (AIR), Age standardized Incidence Rate (ASR) Among Saudi Females (per 100,000) by Primary Site and Age groups, 2023

ICD (10th)	Site	All Ages	Unknown Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75+	Crude Rate	ASR World
C00	Lip	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C01-C02	Tongue	75	0	0.1	0	0	0.1	0	0	0.1	0.4	1	1.4	1.4	4.5	5.5	8.5	5.9	7.7	0.8	1.2
C03-C06	Mouth	63	0	0	0	0	0	0.1	0.1	0.1	0.6	0.7	1.4	0.8	2.1	5.1	2.1	10.5	10.8	0.7	1
C07-C08	Salivary glands	26	0	0	0	0	0.1	0.3	0.2	0	0.9	0.5	0.7	0	0.7	1.4	0.7	0	1.5	0.3	0.3
C09	Tonsil	5	0	0	0	0	0	0	0	0	0	0	0	0.3	0.3	0.5	0	0	1.5	0.1	0.1
C10	Other Oropharynx	4	0	0	0	0	0	0	0	0	0	0	0.2	0.6	0	0	0	1.2	0	0	0.1
C11	Nasopharynx	58	0	0	0	0	0.4	0.3	0.6	0.4	0.4	1	1.6	2.3	3.1	2.3	2.1	1.2	0.8	0.6	0.8
C12-C13	Hypopharynx	10	0	0	0	0	0	0	0.1	0.1	0	0.5	0	0.6	0	0.9	0	0	0.8	0.1	0.1
C14	Pharynx unspec.	5	0	0	0	0	0	0	0	0	0.1	0.2	0	0	0	0.5	0.7	1.2	0	0.1	0.1
C15	Oesophagus	54	0	0	0	0	0	0	0	0.4	0.7	0.9	0.2	1.1	1.4	2.8	3.5	8.2	10.8	0.6	0.8
C16	Stomach	175	0	0.1	0.1	0	0.2	0.2	0.4	1.4	2	2.6	4.7	3.4	6.2	9.2	15.5	14.1	17	1.8	2.6
C17	Small intestine	69	0	0	0	0	0	0	0.5	0.6	0.9	0.7	2.6	1.1	3.1	3.2	1.4	8.2	7.7	0.7	1
C18	Colon	873	0	0	0	0.2	0	0.6	0.8	2.4	4.4	7.5	15.5	37.1	39.2	75	82.6	70.3	88.6	9.1	14
C19-C20	Rectum	377	0	0	0	0	0	0.1	0.9	1.7	1.7	4.9	10.8	14.6	16.3	24.8	32.5	38.7	28.5	3.9	5.9
C21	Anus	9	0	0	0	0	0	0	0.1	0	0.1	0.2	0	0	1	0.9	0	1.2	0	0.1	0.1
C22	Liver	231	0	0.5	0	0.3	0.2	0	0.4	0.5	1	0.9	1.6	3.7	10.8	17.9	31.8	37.5	27	2.4	3.9
C23-C24	Gallbladder etc.	132	0	0	0	0	0	0	0.1	0.3	0.4	0.9	1.4	3.1	6.2	9.7	13.4	21.1	21.6	1.4	2.2
C25	Pancreas	187	0	0	0	0	0	0.1	0.6	0.4	0.4	0.5	3.1	2.5	10.8	16.1	15.5	30.5	27.7	1.9	3.2
C30-C31	Nose, sinuses etc.	15	0	0	0	0	0	0	0	0	0.3	0.2	0.5	0.3	1	0.5	0.7	2.3	1.5	0.2	0.2
C32	Larynx	13	0	0	0	0	0	0	0.1	0.1	0	0	0.2	0	0.3	0.9	1.4	2.3	2.3	0.1	0.2
C33-C34	Trachea,Bronchus,Lung	203	0	0.1	0	0	0	0.2	0.1	0.4	1.4	1.7	3.1	5.3	9.7	15.2	18.4	25.8	27	2.1	3.3
C37-C38	Other Thoracic organs	36	0	0.2	0.2	0	0.2	0	0.1	0.1	0.3	0.7	0.7	0.6	1.7	1.4	0.7	4.7	3.1	0.4	0.5
C40-C41	Bone	120	0	0.7	0.4	1.5	1.7	0.8	0.5	0.4	1.7	2.3	2.4	0.8	2.1	4.6	2.1	3.5	1.5	1.3	1.4
C43	Melanoma of Skin	17	0	0	0	0	0	0	0	0	0	0	0.2	0.3	1	1.4	0.7	1.2	5.4	0.2	0.3
C44	Other Skin	167	0	0.2	0	0	0.3	0.1	1.1	0.8	1.6	1.6	1.9	2.8	5.6	6.9	9.2	19.9	36.2	1.7	2.5
C45	Mesothelioma	5	0	0	0	0	0	0	0.2	0	0	0	0	0	0.7	0	0.7	0	0	0.1	0.1
C46	Kaposi sarcoma	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.7	0	3.1	0.1	0.1
C47;C49	Connective,Soft tissue	148	0	1	0.1	0.6	1.1	0.9	1.5	1.9	1	2.6	2.8	2.5	4.9	6.4	2.8	1.2	6.2	1.5	1.8
C50	Breast	4079	0	0	0	0	0.1	2.4	7.6	24.8	54.4	86.9	142.8	164.8	189.2	212.9	219.6	223.9	166.5	42.5	58.1
C51	Vulva	19	0	0	0	0	0	0	0	0.1	0.1	0.5	0.5	0.3	1.4	0	0	2.3	3.9	0.2	0.3
C52	Vagina	8	0	0	0	0	0	0	0	0	0	0.2	0.2	0.6	0.3	0	0.7	0	1.5	0.1	0.1
C53	Cervix Uteri	177	0	0.1	0	0	0.1	0	0.8	0.8	2.3	4	2.6	5.9	8.7	14.3	14.1	8.2	6.2	1.8	2.6
C54	Corpus Uteri	695	0	0	0.1	0.1	0.2	0	0.6	2	2.7	3.7	8.7	15.8	33.3	76.8	97.5	86.7	47.8	7.2	11.9
C55	Uterus unspec.	195	0	0	0	0	0	0	0.1	0.5	0.9	1.2	3.1	5.9	10.4	17	26.8	25.8	12.3	2	3.3
C56	Ovary	304	0	0	0.3	0.3	1.3	0.7	1.1	1.9	2.9	3.5	7.5	10.1	12.1	18.4	21.2	23.4	17.7	3.2	4.4
C57	Other Female Genital	35	0	0.2	0	0	0	0	0	0.1	0	0.5	1.2	1.4	2.1	2.3	2.8	1.2	2.3	0.4	0.5
C58	Placenta	3	0	0	0	0	0	0	0	0	0	0.3	0.2	0	0	0	0	0	0	0	0
C64	Kidney	186	0	1.6	0.4	0	0.2	0	0.5	1.3	1.6	1.4	3.8	6.8	12.1	6.4	14.1	9.4	9.2	1.9	2.7
C65	Renal Pelvis	7	0	0	0	0	0	0.1	0	0.1	0.1	0	0	0	0.3	0	0	1.2	1.5	0.1	0.1
C66	Ureter	3	0	0	0	0	0	0	0.1	0	0	0	0	0	0	0	0	1.2	0.8	0	0
C67	Bladder	97	0	0	0	0.1	0.1	0.1	0.1	0.1	0.4	0.7	1.2	0.6	3.1	7.4	7.1	16.4	22.3	1	1.6
C68	Other Urinary organs	2	0	0	0	0	0	0	0	0	0	0	0.2	0	0	0	0.7	0	0	0	0
C69	Eye	13	0	0.9	0	0	0	0	0	0	0	0	0	0	0.3	0	0.7	1.2	0.8	0.1	0.2
C70-C72	Brain, Nervous system	300	0	1.9	2.7	1.2	0.9	1.5	0.9	3.1	2.9	3.5	5.4	6.2	10.8	12	6.4	18.8	12.3	3.1	3.8
C73	Thyroid	1442	0	0	0.4	0.9	3.9	8.1	16.4	21.6	26.3	29.8	36.2	48.1	41.6	40	39.5	38.7	27.7	15	17.5
C74	Adrenal gland	18	0	0.7	0.4	0	0	0.1	0	0	0.1	0.2	0.5	0.3	0	0	0	1.2	0	0.2	0.2
C75	Other Endocrine	12	0	0	0	0	0.2	0.1	0	0	0.3	0.2	0.5	0	0.3	0.5	0.7	0	0.8	0.1	0.2
C81	Hodgkin disease	235	0	0	0.4	2.2	3.9	3.8	4.5	2.2	2.6	0.7	1.6	1.7	3.8	4.6	5.6	9.4	8.5	2.4	2.6
C82-C85;C96	Non-Hodgkin lymphoma	404	0	0.6	0.7	0.4	0.5	1.9	2.3	3.3	3.1	5.2	6.1	12.1	15.3	21.2	23.3	37.5	33.1	4.2	5.8
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	81	0	0	0	0	0	0	0.1	0.1	0.1	0.2	1.9	2.5	5.2	7.8	6.4	9.4	8.5	0.8	1.3
C91	Lymphoid Leukaemia	77	0	1.9	0.5	0.6	0.3	0.7	0.5	0	0.1	0.5	0.5	1.1	1.7	1.8	2.1	3.5	5.4	0.8	1
C92-C94	Myeloid Leukaemia	154	0	0.7	0.1	0.5	0.5	1.2	0.9	2.4	1.9	1.2	2.6	3.1	6.2	4.6	6.4	10.5	8.5	1.6	2
C95	Leukaemia unspec.	133	0	1.8	1.2	0.7	0.3	0.7	0.8	1.9	1.6	1.4	1.2	2.3	2.8	4.6	5.6	3.5	1.5	1.4	1.6
Other	Other & unspecified	166	0	0.7	0.2	0.3	1.1	0.3	1.4	1.3	1.4	2.6	2.1	3.1	5.2	9.7	12	10.5	9.2	1.7	2.3
All	All sites Total	11927	0	14	8	10	18	26	47	80	126	181	288	378	499	675	761	854	747	124.3	172
Not C44	All sites but C44	11760	0	14	8	10	18	26	46	79	125	179	286	375	494	668	752	835	711	122.5	169.5

Table 5.4.1 - Number of Cases Among Non-Saudi Males by Primary Site and Age Groups, 2023

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+	Total (%)
C00	Lip	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	%0.00
C01-C02	Tongue	31	0	0	0	0	0	1	0	1	5	6	4	0	6	0	6	1	1	%1.20
C03-C06	Mouth	22	0	0	0	1	0	0	0	0	3	2	2	5	2	4	2	0	1	%0.90
C07-C08	Salivary glands	16	0	0	1	0	1	0	1	1	4	1	3	3	0	0	1	0	0	%0.60
C09	Tonsil	2	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	%0.10
C10	Other Oropharynx	3	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	1	0	%0.10
C11	Nasopharynx	54	0	0	0	0	1	1	2	3	9	7	5	5	7	4	7	1	2	%2.10
C12-C13	Hypopharynx	5	0	0	0	0	0	0	1	1	2	0	1	0	0	0	0	0	0	%0.20
C14	Pharynx unspec.	5	0	0	0	0	0	0	0	0	1	0	1	0	1	0	1	1	0	%0.20
C15	Oesophagus	34	0	0	0	0	0	0	2	0	2	6	4	3	4	8	2	0	3	%1.30
C16	Stomach	88	0	0	1	0	0	0	1	4	8	14	4	11	12	13	7	6	7	%3.40
C17	Small intestine	26	0	0	0	0	0	0	2	0	2	1	2	6	5	3	0	4	1	%1.00
C18	Colon	291	0	0	0	1	1	4	6	14	17	20	32	41	34	43	35	24	19	%11.30
C19-C20	Rectum	139	0	0	0	0	0	0	8	5	10	15	16	18	19	16	11	12	9	%5.40
C21	Anus	5	0	0	0	0	0	0	1	1	0	1	0	0	1	0	0	0	1	%0.20
C22	Liver	80	0	0	1	1	0	1	1	4	1	7	3	5	19	11	7	8	11	%3.10
C23-C24	Gallbladder etc.	33	0	0	0	0	0	0	0	1	1	4	3	4	7	6	3	2	2	%1.30
C25	Pancreas	65	0	0	0	0	0	0	1	1	6	3	5	6	5	14	10	7	7	%2.50
C30-C31	Nose, sinuses etc.	14	0	0	0	0	1	0	1	0	1	4	2	3	0	1	0	0	1	%0.50
C32	Larynx	24	0	0	0	0	0	0	0	2	0	1	3	1	4	4	3	4	2	%0.90
C33-C34	Trachea,Bronchus,Lung	157	0	0	0	0	0	2	2	5	4	15	12	17	21	23	26	11	19	%6.10
C37-C38	Other Thoracic organs	20	0	0	0	0	0	2	1	1	1	2	3	4	1	3	0	1	1	%0.80
C40-C41	Bone	54	0	1	1	3	3	4	3	4	2	6	7	1	4	7	4	1	3	%2.10
C43	Melanoma of Skin	16	0	0	0	0	0	0	0	1	2	2	1	1	3	2	2	1	1	%0.60
C44	Other Skin	143	0	0	1	4	1	3	6	7	6	9	14	12	30	15	15	6	14	%5.50
C45	Mesothelioma	3	0	0	0	0	0	1	0	0	0	0	1	0	0	1	0	0	0	%0.10
C46	Kaposi sarcoma	2	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	%0.10
C47;C49	Connective,Soft tissue	54	0	2	0	1	1	3	3	11	7	7	3	6	1	5	2	2	0	%2.10
C50	Breast	44	0	0	0	0	0	0	2	3	2	9	6	1	4	2	8	6	1	%1.70
C60	Penis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	%0.00
C61	Prostate	188	0	0	0	0	1	0	1	0	2	6	4	15	28	27	35	36	33	%7.30
C62	Testis	49	0	2	0	0	4	4	7	6	12	4	3	1	4	0	1	1	0	%1.90
C63	Other male genital	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	%0.00
C64	Kidney	81	0	2	0	2	1	0	2	2	5	8	11	15	7	8	10	3	5	%3.10
C65	Renal Pelvis	3	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	1	0	%0.10
C66	Ureter	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	%0.00
C67	Bladder	126	0	0	0	1	1	0	1	2	7	10	9	7	19	23	16	15	15	%4.90
C68	Other Urinary organs	2	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	%0.10
C69	Eye	8	0	6	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	%0.30
C70-C72	Brain, Nervous system	100	0	6	6	3	1	5	4	9	14	9	8	11	8	11	3	2	0	%3.90
C73	Thyroid	126	0	0	1	0	1	0	6	23	28	17	20	11	6	5	4	1	3	%4.90
C74	Adrenal gland	8	0	4	0	0	0	1	0	0	0	2	0	0	0	0	1	0	0	%0.30
C75	Other Endocrine	2	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	%0.10
C81	Hodgkin disease	78	0	2	2	4	5	10	5	10	7	10	8	5	3	2	2	0	3	%3.00
C82-C85;C96	Non-Hodgkin lymphoma	122	0	1	1	2	4	5	9	9	13	17	15	10	12	8	6	1	9	%4.70
C88	Immunoproliferative dis.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	%0.00
C90	Multiple Myeloma	27	0	0	0	0	0	0	0	0	1	0	3	3	8	4	4	1	3	%1.00
C91	Lymphoid Leukaemia	44	0	3	6	4	2	2	4	5	3	1	1	0	8	1	3	1	0	%1.70
C92-C94	Myeloid Leukaemia	58	0	1	0	2	2	0	8	4	7	6	7	10	3	2	3	2	1	%2.20
C95	Leukaemia unspec.	39	0	4	3	2	1	1	4	6	1	2	3	6	1	2	1	1	1	%1.50
Other	Other & unspecified	90	0	1	0	1	3	4	8	10	6	6	8	11	7	7	12	6	0	%3.50
All	All sites Total	2584	0	35	24	32	35	55	103	156	203	241	238	260	308	290	254	170	180	%100.00
Not C44	All sites but C44	2441	0	35	23	28	34	52	97	149	197	232	224	248	278	275	239	164	166	%94.50

Table 5.4.2 - Number of Cases Among Non-Saudi Females by Primary Site and Age Groups, 2023

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+	Total (%)
C00	Lip	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	%0.00
C01-C02	Tongue	15	0	0	0	0	1	0	0	1	3	1	1	4	3	0	1	0	0	%0.50
C03-C06	Mouth	10	0	0	0	0	1	0	0	0	1	1	0	1	1	1	2	0	2	%0.40
C07-C08	Salivary glands	7	0	0	0	0	1	1	1	0	3	0	0	1	0	0	0	0	0	%0.30
C09	Tonsil	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	%0.00
C10	Other Oropharynx	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	%0.00
C11	Nasopharynx	16	0	0	0	0	0	0	2	1	2	2	1	3	2	0	1	1	1	%0.60
C12-C13	Hypopharynx	3	0	0	0	0	0	0	0	0	0	1	0	0	1	1	0	0	0	%0.10
C14	Pharynx unspec.	2	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	%0.10
C15	Oesophagus	22	0	0	0	0	0	0	0	1	0	5	3	0	0	3	2	5	3	%0.80
C16	Stomach	47	0	0	0	0	1	0	1	2	8	7	3	13	2	2	4	3	1	%1.70
C17	Small intestine	16	0	0	0	0	0	0	0	2	1	2	1	1	2	1	2	2	2	%0.60
C18	Colon	149	0	0	0	0	0	2	3	5	6	17	12	16	19	23	20	11	15	%5.40
C19-C20	Rectum	78	0	0	0	0	0	1	3	3	5	7	11	11	13	8	4	6	6	%2.80
C21	Anus	4	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	1	1	%0.10
C22	Liver	39	0	1	0	0	0	0	0	1	1	5	4	3	4	6	3	7	4	%1.40
C23-C24	Gallbladder etc.	9	0	0	0	0	0	0	0	0	0	0	1	2	0	2	1	1	2	%0.30
C25	Pancreas	23	0	0	0	0	0	1	0	1	2	2	2	2	3	3	6	1	0	%0.80
C30-C31	Nose, sinuses etc.	5	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	2	%0.20
C32	Larynx	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	%0.00
C33-C34	Trachea,Bronchus,Lung	70	0	0	0	0	0	0	3	2	4	8	12	6	4	13	10	4	4	%2.50
C37-C38	Other Thoracic organs	8	0	0	0	0	0	1	0	0	1	1	1	0	0	3	0	1	0	%0.30
C40-C41	Bone	41	0	1	2	4	5	3	1	4	4	1	0	2	1	2	5	4	2	%1.50
C43	Melanoma of Skin	7	0	0	0	0	0	1	0	0	2	1	2	0	0	1	0	0	0	%0.30
C44	Other Skin	68	0	1	0	1	0	0	1	5	6	3	9	11	4	11	6	4	6	%2.40
C45	Mesothelioma	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	%0.00
C46	Kaposi sarcoma	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	%0.00
C47;C49	Connective,Soft tissue	54	0	3	2	2	4	1	2	3	7	4	3	7	4	4	4	2	2	%1.90
C50	Breast	1127	0	0	0	0	1	4	20	79	159	188	188	127	114	106	77	29	35	%40.50
C51	Vulva	4	0	0	0	0	0	0	0	0	0	1	0	0	1	1	0	1	0	%0.10
C52	Vagina	5	0	0	0	0	0	0	0	1	0	0	1	0	1	2	0	0	0	%0.20
C53	Cervix Uteri	78	0	0	0	0	1	0	2	7	9	18	8	15	5	4	6	2	1	%2.80
C54	Corpus Uteri	88	0	0	0	0	0	0	2	1	7	14	3	9	10	16	12	7	7	%3.20
C55	Uterus unspec.	51	0	0	0	0	2	0	0	1	5	5	5	7	7	12	3	2	2	%1.80
C56	Ovary	78	0	0	0	0	1	1	4	4	8	12	12	11	6	9	4	3	3	%2.80
C57	Other Female Genital	4	0	0	0	0	0	0	0	0	0	1	0	0	1	1	1	0	0	%0.10
C58	Placenta	2	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	%0.10
C64	Kidney	38	0	1	1	0	0	1	3	3	1	5	4	3	3	4	5	4	0	%1.40
C65	Renal Pelvis	4	0	0	0	0	0	0	1	0	0	0	1	0	1	0	1	0	0	%0.10
C66	Ureter	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	%0.00
C67	Bladder	20	0	0	0	0	1	1	0	1	1	0	0	1	0	5	2	5	3	%0.70
C68	Other Urinary organs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	%0.00
C69	Eye	2	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	%0.10
C70-C72	Brain, Nervous system	50	0	6	5	1	3	3	2	3	9	5	1	3	3	3	2	0	1	%1.80
C73	Thyroid	240	0	0	2	0	3	10	32	40	53	38	24	18	5	6	5	3	1	%8.60
C74	Adrenal gland	6	0	2	0	0	0	0	0	0	1	0	1	1	0	1	0	0	0	%0.20
C75	Other Endocrine	2	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	%0.10
C81	Hodgkin disease	49	0	1	2	2	5	6	4	7	5	2	2	1	3	5	1	2	1	%1.80
C82-C85;C96	Non-Hodgkin lymphoma	76	0	1	0	1	2	2	4	5	10	7	10	6	7	7	6	3	5	%2.70
C88	Immunoproliferative dis.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	%0.00
C90	Multiple Myeloma	16	0	0	0	0	0	0	0	0	1	1	0	2	4	1	3	0	4	%0.60
C91	Lymphoid Leukaemia	23	0	3	4	1	0	0	1	1	1	2	3	1	1	2	3	0	0	%0.80
C92-C94	Myeloid Leukaemia	42	0	0	0	3	3	3	4	3	3	4	2	5	6	2	1	2	1	%1.50
C95	Leukaemia unspec.	38	0	2	2	3	1	1	2	4	4	2	4	2	3	0	2	1	5	%1.40
Other	Other & unspecified	45	0	0	0	2	2	1	1	5	6	0	5	4	8	6	3	0	2	%1.60
All	All sites Total	2784	0	23	20	20	38	45	100	199	341	375	341	299	252	279	209	117	126	%100.00
Not C44	All sites but C44	2716	0	22	20	19	38	45	99	194	335	372	332	288	248	268	203	113	120	%97.60

Table 5.4.3 Age-Specific Incidence Rate (AIR), Age standardized Incidence Rate (ASR) Among Non-Saudi Males (per 100,000) by Primary Site and Age groups, 2023

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	1.1	0	0	0	0
C01-C02	Tongue	31	0	0	0	0	0	0.1	0	0.1	0.3	0.4	0.4	0	1.5	0	6.3	2.6	3.7	0.3	0.5
C03-C06	Mouth	22	0	0	0	0.4	0	0	0	0	0.2	0.1	0.2	0.8	0.5	1.9	2.1	0	3.7	0.2	0.3
C07-C08	Salivary glands	16	0	0	0.4	0	0.6	0	0.1	0.1	0.2	0.1	0.3	0.5	0	0	1.1	0	0	0.1	0.2
C09	Tonsil	2	0	0	0	0	0	0	0	0	0.1	0	0	0.2	0	0	0	0	0	0	0
C10	Other Oropharynx	3	0	0	0	0	0	0.1	0	0	0	0	0	0	0.2	0	0	2.6	0	0	0.1
C11	Nasopharynx	54	0	0	0	0	0.6	0.1	0.1	0.2	0.5	0.5	0.5	0.8	1.7	1.9	7.4	2.6	7.3	0.5	0.8
C12-C13	Hypopharynx	5	0	0	0	0	0	0	0.1	0.1	0.1	0	0.1	0	0	0	0	0	0	0	0
C14	Pharynx unspec.	5	0	0	0	0	0	0	0	0	0.1	0	0.1	0	0.2	0	1.1	2.6	0	0	0.1
C15	Oesophagus	34	0	0	0	0	0	0	0.1	0	0.1	0.4	0.4	0.5	1	3.7	2.1	0	11	0.3	0.6
C16	Stomach	88	0	0	0.4	0	0	0	0.1	0.2	0.4	1	0.4	1.7	2.9	6.1	7.4	15.8	25.7	0.8	1.7
C17	Small intestine	26	0	0	0	0	0	0	0.1	0	0.1	0.1	0.2	1	1.2	1.4	0	10.6	3.7	0.2	0.5
C18	Colon	291	0	0	0	0.4	0.6	0.5	0.3	0.7	0.9	1.4	3.4	6.5	8.2	20	36.9	63.3	69.7	2.6	5.8
C19-C20	Rectum	139	0	0	0	0	0	0	0.4	0.3	0.5	1.1	1.7	2.9	4.6	7.5	11.6	31.7	33	1.2	2.5
C21	Anus	5	0	0	0	0	0	0	0.1	0.1	0	0.1	0	0	0.2	0	0	0	3.7	0	0.1
C22	Liver	80	0	0	0.4	0.4	0	0.1	0.1	0.2	0.1	0.5	0.3	0.8	4.6	5.1	7.4	21.1	40.3	0.7	2
C23-C24	Gallbladder etc.	33	0	0	0	0	0	0	0	0.1	0.1	0.3	0.3	0.6	1.7	2.8	3.2	5.3	7.3	0.3	0.6
C25	Pancreas	65	0	0	0	0	0	0	0.1	0.1	0.3	0.2	0.5	1	1.2	6.5	10.6	18.5	25.7	0.6	1.6
C30-C31	Nose, sinuses etc.	14	0	0	0	0	0.6	0	0.1	0	0.1	0.3	0.2	0.5	0	0.5	0	0	3.7	0.1	0.2
C32	Larynx	24	0	0	0	0	0	0	0	0.1	0	0.1	0.3	0.2	1	1.9	3.2	10.6	7.3	0.2	0.6
C33-C34	Trachea,Bronchus,Lung	157	0	0	0	0	0	0.2	0.1	0.3	0.2	1.1	1.3	2.7	5.1	10.7	27.4	29	69.7	1.4	3.8
C37-C38	Other Thoracic organs	20	0	0	0	0	0	0.2	0.1	0.1	0.1	0.1	0.3	0.6	0.2	1.4	0	2.6	3.7	0.2	0.3
C40-C41	Bone	54	0	0.5	0.4	1.3	1.7	0.5	0.2	0.2	0.1	0.4	0.8	0.2	1	3.3	4.2	2.6	11	0.5	1.1
C43	Melanoma of Skin	16	0	0	0	0	0	0	0	0.1	0.1	0.1	0.1	0.2	0.7	0.9	2.1	2.6	3.7	0.1	0.3
C44	Other Skin	143	0	0	0.4	1.7	0.6	0.3	0.3	0.4	0.3	0.6	1.5	1.9	7.3	7	15.8	15.8	51.3	1.3	2.9
C45	Mesothelioma	3	0	0	0	0	0	0.1	0	0	0	0	0.1	0	0	0.5	0	0	0	0	0
C46	Kaposi sarcoma	2	0	0	0	0	0	0	0	0	0	0.1	0	0	0	0.5	0	0	0	0	0
C47;C49	Connective,Soft tissue	54	0	1	0	0.4	0.6	0.3	0.2	0.6	0.4	0.5	0.3	1	0.2	2.3	2.1	5.3	0	0.5	0.7
C50	Breast	44	0	0	0	0	0	0	0.1	0.2	0.1	0.6	0.6	0.2	1	0.9	8.4	15.8	3.7	0.4	0.8
C60	Penis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C61	Prostate	188	0	0	0	0	0.6	0	0.1	0	0.1	0.4	0.4	2.4	6.8	12.6	36.9	95	121	1.7	6.4
C62	Testis	49	0	1	0	0	2.2	0.5	0.4	0.3	0.6	0.3	0.3	0.2	1	0	1.1	2.6	0	0.4	0.6
C63	Other male genital	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	0	0	0	0	0
C64	Kidney	81	0	1	0	0.9	0.6	0	0.1	0.1	0.3	0.6	1.2	2.4	1.7	3.7	10.6	7.9	18.3	0.7	1.6
C65	Renal Pelvis	3	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5	0	2.6	0	0	0.1
C66	Ureter	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3.7	0	0.1
C67	Bladder	126	0	0	0	0.4	0.6	0	0.1	0.1	0.4	0.7	1	1.1	4.6	10.7	16.9	39.6	55	1.1	3.3
C68	Other Urinary organs	2	0	0	0	0	0	0	0	0	0	0	0	0	0.5	0	0	0	0	0	0
C69	Eye	8	0	3	0	0	0	0	0	0	0	0	0	0.2	0	0.5	0	0	0	0.1	0.4
C70-C72	Brain, Nervous system	100	0	3	2.3	1.3	0.6	0.6	0.2	0.5	0.7	0.6	0.9	1.7	1.9	5.1	3.2	5.3	0	0.9	1.6
C73	Thyroid	126	0	0	0.4	0	0.6	0	0.3	1.2	1.5	1.2	2.2	1.7	1.5	2.3	4.2	2.6	11	1.1	1.1
C74	Adrenal gland	8	0	2	0	0	0	0.1	0	0	0	0.1	0	0	0	0	1.1	0	0	0.1	0.3
C75	Other Endocrine	2	0	0	0	0	0	0	0	0	0	0	0.1	0	0	0.5	0	0	0	0	0
C81	Hodgkin disease	78	0	1	0.8	1.7	2.8	1.1	0.3	0.5	0.4	0.7	0.9	0.8	0.7	0.9	2.1	0	11	0.7	1.3
C82-C85;C96	Non-Hodgkin lymphoma	122	0	0.5	0.4	0.9	2.2	0.6	0.5	0.5	0.7	1.2	1.6	1.6	2.9	3.7	6.3	2.6	33	1.1	1.9
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	27	0	0	0	0	0	0	0	0	0.1	0	0.3	0.5	1.9	1.9	4.2	2.6	11	0.2	0.6
C91	Lymphoid Leukaemia	44	0	1.5	2.3	1.7	1.1	0.2	0.2	0.3	0.2	0.1	0.1	0	1.9	0.5	3.2	2.6	0	0.4	1
C92-C94	Myeloid Leukaemia	58	0	0.5	0	0.9	1.1	0	0.4	0.2	0.4	0.4	0.8	1.6	0.7	0.9	3.2	5.3	3.7	0.5	0.8
C95	Leukaemia unspec.	39	0	2	1.2	0.9	0.6	0.1	0.2	0.3	0.1	0.1	0.3	1	0.2	0.9	1.1	2.6	3.7	0.3	0.8
Other	Other & unspecified	90	0	0.5	0	0.4	1.7	0.5	0.4	0.5	0.3	0.4	0.9	1.7	1.7	3.3	12.7	15.8	0	0.8	1.4
All	All sites Total	2584	0	18	9	14	19	6	6	8	11	17	26	41	75	135	268	448	660	23.2	51.3
Not C44	All sites but C44	2441	0	18	9	12	19	6	5	8	11	16	24	39	67	128	252	433	609	21.9	48.4

Table 5.4.4 Age-Specific Incidence Rate (AIR), Age standardized Incidence Rate (ASR) Among Non-Saudi Females (per 100,000) by Primary Site and Age groups, 2023

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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C01-C02	Tongue	15	0	0	0	0	0.6	0	0	0.2	0.6	0.3	0.5	3.2	3.9	0	3.5	0	0	0.5	0.6
C03-C06	Mouth	10	0	0	0	0	0.6	0	0	0	0.2	0.3	0	0.8	1.3	2	7	0	11.7	0.3	0.7
C07-C08	Salivary glands	7	0	0	0	0	0.6	0.5	0.2	0	0.6	0	0	0.8	0	0	0	0	0	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
C10	Other Oropharynx	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C11	Nasopharynx	16	0	0	0	0	0	0	0.5	0.2	0.4	0.6	0.5	2.4	2.6	0	3.5	6.4	5.9	0.5	0.7
C12-C13	Hypopharynx	3	0	0	0	0	0	0	0	0	0	0.3	0	0	1.3	2	0	0	0	0.1	0.1
C14	Pharynx unspec.	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	5.9	0.1	0.2
C15	Oesophagus	22	0	0	0	0	0	0	0	0.2	0	1.5	1.5	0	0	5.9	7	32.1	17.6	0.7	1.6
C16	Stomach	47	0	0	0	0	0.6	0	0.2	0.4	1.6	2.1	1.5	10.3	2.6	4	14.1	19.3	5.9	1.4	2.1
C17	Small intestine	16	0	0	0	0	0	0	0	0.4	0.2	0.6	0.5	0.8	2.6	2	7	12.8	11.7	0.5	1
C18	Colon	149	0	0	0	0	0	0.9	0.7	1	1.2	5.1	5.9	12.6	24.5	45.5	70.3	70.6	88.1	4.5	9.6
C19-C20	Rectum	78	0	0	0	0	0	0.5	0.7	0.6	1	2.1	5.4	8.7	16.8	15.8	14.1	38.5	35.2	2.4	4.3
C21	Anus	4	0	0	0	0	0	0	0	0.2	0	0	0	0	0	0	3.5	6.4	5.9	0.1	0.4
C22	Liver	39	0	0.5	0	0	0	0	0	0.2	0.2	1.5	2	2.4	5.2	11.9	10.5	44.9	23.5	1.2	2.8
C23-C24	Gallbladder etc.	9	0	0	0	0	0	0	0	0	0	0	0.5	1.6	0	4	3.5	6.4	11.7	0.3	0.7
C25	Pancreas	23	0	0	0	0	0	0.5	0	0.2	0.4	0.6	1	1.6	3.9	5.9	21.1	6.4	0	0.7	1.4
C30-C31	Nose, sinuses etc.	5	0	0	0	0	0	0	0	0.2	0.2	0.3	0	0	0	0	0	0	11.7	0.2	0.3
C32	Larynx	1	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0.1
C33-C34	Trachea,Bronchus,Lung	70	0	0	0	0	0	0	0.7	0.4	0.8	2.4	5.9	4.7	5.2	25.7	35.1	25.7	23.5	2.1	4.1
C37-C38	Other Thoracic organs	8	0	0	0	0	0	0.5	0	0	0.2	0.3	0.5	0	0	5.9	0	6.4	0	0.2	0.5
C40-C41	Bone	41	0	0.5	0.8	1.8	3	1.4	0.2	0.8	0.8	0.3	0	1.6	1.3	4	17.6	25.7	11.7	1.2	2.4
C43	Melanoma of Skin	7	0	0	0	0	0	0.5	0	0	0.4	0.3	1	0	0	2	0	0	0	0.2	0.2
C44	Other Skin	68	0	0.5	0	0.5	0	0	0.2	1	1.2	0.9	4.5	8.7	5.2	21.8	21.1	25.7	35.2	2.1	3.9
C45	Mesothelioma	1	0	0	0	0	0	0.5	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	0	0	5.9	0	0.1
C47;C49	Connective,Soft tissue	54	0	1.6	0.8	0.9	2.4	0.5	0.5	0.6	1.4	1.2	1.5	5.5	5.2	7.9	14.1	12.8	11.7	1.6	2.6
C50	Breast	1127	0	0	0	0	0.6	1.9	4.7	15.8	32.6	56.7	93.1	100.3	147.1	209.7	270.5	186.2	205.6	34.1	47.7
C51	Vulva	4	0	0	0	0	0	0	0	0	0	0.3	0	0	1.3	2	0	6.4	0	0.1	0.3
C52	Vagina	5	0	0	0	0	0	0	0	0.2	0	0	0.5	0	1.3	4	0	0	0	0.2	0.3
C53	Cervix Uteri	78	0	0	0	0	0.6	0	0.5	1.4	1.8	5.4	4	11.8	6.5	7.9	21.1	12.8	5.9	2.4	3
C54	Corpus Uteri	88	0	0	0	0	0	0	0.5	0.2	1.4	4.2	1.5	7.1	12.9	31.7	42.2	44.9	41.1	2.7	5.6
C55	Uterus unspec.	51	0	0	0	0	1.2	0	0	0.2	1	1.5	2.5	5.5	9	23.7	10.5	12.8	11.7	1.5	2.8
C56	Ovary	78	0	0	0	0	0.6	0.5	0.9	0.8	1.6	3.6	5.9	8.7	7.7	17.8	14.1	19.3	17.6	2.4	3.5
C57	Other Female Genital	4	0	0	0	0	0	0	0	0	0	0.3	0	0	1.3	2	3.5	0	0	0.1	0.3
C58	Placenta	2	0	0	0	0	0	0	0.2	0	0	0	0.5	0	0	0	0	0	0	0.1	0
C64	Kidney	38	0	0.5	0.4	0	0	0.5	0.7	0.6	0.2	1.5	2	2.4	3.9	7.9	17.6	25.7	0	1.2	2.1
C65	Renal Pelvis	4	0	0	0	0	0	0	0.2	0	0	0	0.5	0	1.3	0	3.5	0	0	0.1	0.2
C66	Ureter	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C67	Bladder	20	0	0	0	0	0.6	0.5	0	0.2	0.2	0	0	0.8	0	9.9	7	32.1	17.6	0.6	1.8
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	2	0	0.5	0	0	0	0	0	0	0.2	0	0	0	0	0	0	0	0	0.1	0.1
C70-C72	Brain, Nervous system	50	0	3.2	2	0.5	1.8	1.4	0.5	0.6	1.8	1.5	0.5	2.4	3.9	5.9	7	0	5.9	1.5	2
C73	Thyroid	240	0	0	0.8	0	1.8	4.7	7.5	8	10.9	11.5	11.9	14.2	6.5	11.9	17.6	19.3	5.9	7.3	6.2
C74	Adrenal gland	6	0	1.1	0	0	0	0	0	0	0	0.2	0	0.5	0.8	0	2	0	0	0.2	0.3
C75	Other Endocrine	2	0	0	0	0	0	0	0	0	0.2	0	0.3	0	0	0	0	0	0	0.1	0
C81	Hodgkin disease	49	0	0.5	0.8	0.9	3	2.8	0.9	1.4	1	0.6	1	0.8	3.9	9.9	3.5	12.8	5.9	1.5	2.1
C82-C85;C96	Non-Hodgkin lymphoma	76	0	0.5	0	0.5	1.2	0.9	0.9	1	2	2.1	5	4.7	9	13.8	21.1	19.3	29.4	2.3	3.7
C88	Immunoproliferative dis.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C90	Multiple Myeloma	16	0	0	0	0	0	0	0	0	0.2	0.3	0	1.6	5.2	2	10.5	0	23.5	0.5	1.2
C91	Lymphoid Leukaemia	23	0	1.6	1.6	0.5	0	0	0.2	0.2	0.2	0.6	1.5	0.8	1.3	4	10.5	0	0	0.7	1.1
C92-C94	Myeloid Leukaemia	42	0	0	0	1.4	1.8	1.4	0.9	0.6	0.6	1.2	1	3.9	7.7	4	3.5	12.8	5.9	1.3	1.8
C95	Leukaemia unspec.	38	0	1.1	0.8	1.4	0.6	0.5	0.5	0.8	0.8	0.6	2	1.6	3.9	0	7	6.4	29.4	1.2	1.9
Other	Other & unspecified	45	0	0	0	0.9	1.2	0.5	0.2	1	1.2	0	2.5	3.2	10.3	11.9	10.5	0	11.7	1.4	2.1
All	All sites Total	2784	0	12	8	9	22	21	23	40	70	113	169	236	325	552	734	751	740	84.3	130.9
Not C44	All sites but C44	2716	0	12	8	9	22	21	23	39	69	112	164	227	320	530	713	725	705	82.3	127

ACKNOWLEDGEMENT

We would like to express our deepest gratitude to the following champions for their invaluable contribution and support for the 2023 Report.

Based on Alphabetical order

1- Asser Central Hospital:
Eng. Marwan Mohammed Abu Ali

2- Abu Arish general hospital:
Mr. Mohammed Hussain Ayashi

3- Armed forces Hospital Riyadh:
Dr. Esam Murshid
Ms. Njoud Alshahrani

4- Armed Forces Hospital Southern region:
Mr. Ali Saeed Almarri
Mr. Amer Mohammed Alshehri

5- Almana general hospital Eastern region:
Mr. Khaled Abdulhady Ali
Ms. Amnah Jafer Aljishi
Ms. Maryem Ahmed Albuayjan

6- Alhada Armed Forces Hospital:
Ms. Marifah Abdullah Khawjah

7- Care National Hospital:
Mr. Manea Saleh Alyami

8- Dammam Medical Complex:
Dr. Mohammed Dhafir AlAhmari
Mr. Ahmed Abdullah Masood
Ms. Alaa Fathi Al.Habib
Ms. Khatoon Hussain Al.Bahrani

9- Dr. Sulaiman Al Habib Group:
Dr. Mehwish Ateeq
Ms. Alaa Abdulaziz BinAyeed
Ms. Loreta Umlas Zapanta
Ms. Nora Casuga Ramos
Ms. Cristine Faye Rojo Tacan
Ms. Haya Abdulrahman Al Dawood
Ms. Ahood Nasser Abdullah Alsaig
Mr. Ghalib AlDarbi
Ms. Essra Salah Aldeen Alkhalifa

10- International medical center hospital:
Ms. Rema Alhebshi
Ms. Elham Alsulami

11- Jazan Regional Health Laboratory:
Mr. Naif Hassan Hakami
Mr. Essa Musa Majeri
Mr. Mohammed Majrashi
Dr. Sultan Almubarki

12- Johns Hopkins Aramco Healthcare:
Ms. Maram AlAbbad
Ms. Munirah AlQahtani
Ms. Amal AlShehri
Ms. Anne Walters

13- King Abdulaziz Medical City for National guard in Riyadh:
Mr. Abd Rahman Albiaby
Mr. Sultan Bin Taleb

14- King Abdulaziz Medical City for National guard in Jeddah:
Dr. Mubarak Almansour

15- King abdulaziz university hospital:
Dr. Shadi Alkhayatt

16- King Abdullah medical city:
Dr. Hussein Elsayed
Ms. Asmaa Saeed Almadani

17- King Fahad Medical City:
Dr. Abdullah Al.Sharm
Dr. Mohammed Marei
Dr. Muhammad Nasir Khan
Mr. Awadh Saleh Alamri
Ms. Noura Alanzi
Ms. Thekra Bin Shouil
Mr. Abdullah Alanazi
Ms. Nouf Alquhtani
Ms. Amani Aljaber

18- King Saud University hospital:
Dr. Mohammed Alghamdi
Ms. Maram Alharbi

19- King Fahad armed forces hospital:
Dr. Eman Alhazmi
Dr. Sara Altayyb
Dr. Ehab Taha
Dr. Waleed Alsyyad
Dr. Semsem Mushtaq
Dr. Bahaa Allethi
Mr. Rayan Althobaity

20- King Fahad Specialist Hospital, Tabuk:
Ms. Khadija Yahya Alkaabi

21- King Fahad Hospital, Hofuf:
Dr. Ibraheem Khalifa Al. Hanoot
Dr. Hisham Abdulrahman Al.Eissa
Mrs. Jawaher Ahmed Al.Hemaid
Mrs. Abrar Mohammed Al.Hamad
Mr. Maytham Taqi Al.Haddad
Mr. Mohammed Abdulwahab Al.Aithan
Mr. Ibrahim Mohammed Al.Habib
Mr. Omar Muhanna Al.Muhani
Mr. Habeeb Hussain Al.Jubran
Dr. Jawad Hussain Al.Khalaf
Mr. Habib Khalifa Binkhalaf

22- Prince Faisal bin Bandar Center, King Fahd Specialist Hospital, Buraidah:
Mr. Mohsen Abdellatif Gadelhak

23- King Khalid General Hospital, Hail:
Mr. Ammar mohammed Almithen

24- King Abdulaziz Specialist Hospital, Al.Jouf:
Mr. Ahmed abu el gasim Abdelrahman dafaalla

25- Kingdom Hospital:
Roselle Taruc Tagao
Lito Bergonzado

26- King Khaled Eye Specialist Hospital:
Ms. Reem Abdullah AlKhodair

27- King Fahad Central Hospital, Jazan:
Mr. Ahassan Mohd Hussin Ashwi
Mr. Dinesh Chengalil

28- King Fahad Specialist hospital in Dammam:
Ms. Aisha Alsowayigh
Ms. Amal Alajmi
Ms.Amjad Alrasheed
Ms. Arwa Alswailem
Ms. Norah AlDossari

29- King Fahad Hospital of the University:
Prof. Dr. Mohammed AlShahrani
Prof. Dr. Ali AlAmri
Ms. Kholoud AlIkhwan.
Ms. Abrar AlFarid

30- King Faisal Specialist Hospital & Research Centre in Riyadh:
Dr. Shouki Bazarbashi
Ms. Doha Fatani
Ms. Salma Aljared
Mr. Mohamed Alammari
Mr. Abdul Rasim Thurakkal
Ms. Rehab Alsawi
Mr. Faisal Alanazi

31- King Faisal Specialist Hospital & Research Centre in Jeddah:
Ms. Laila Banjar
Mr. Majed Naser
Ms. Rawan Hariri
Mr. Adel Alamari

32- King Saud Medical City (KSMC):
Dr. Aamer Baghnah

33- Maternity and Children Hospital Dammam:
Dr. Bassam Alhejili
Dr. Fatimah Al.yousef
Dr. Sukinah Al.Talaq
Ms. Dalia Ali Alouf
Ms. Fatimah Al.Khazal
Ms. Alaa Redah Alhargan
Ms. Amal Roudh Alshaalan
Ms. Maryam Ahmed Almeshkhas

34- Mouwasat Hospital:
Dr. Khalid Qassam GHallab
Dr. Hebatallah Madkour
Ms. Prajeesha Pakkarath
Ms. Marwa Almassari
Ms. Noura Alrammah
Ms. Reem A. Alshmmari
Ms. Reem Alyami

35- Prince Mohammed Bin Nasser Hospital, Jazan:
Mr. Essa Hassan Jeffery

36- Specialized Medical Center hospital in Riyadh:
Dr. Hasan Masoud
Ms. Nazeek Abdelaziz
Ms. Melyn Escobar

37- Prince Sultan Oncology Center, King Salman Armed Forces Hospital, Tabuk:
Mr. Osama Mukhtar

38- Saudi German Hospital – Aseer:
Mr. Mohammed Qasim
Ms. Amjad Mesfer Alshehri

39- Samtah General hospital:
Mr. Ahmed Ghalfan Hantool

40- Sabya General Hospital:
Mr. Abdulrhman eissa Meary

41- Security Forces Hospital Makkah:
Mr. Abdulaziz obied Alwuthaynani
Ms. Hatoon Mohammed Badawood

42- Security Forces Hospital Riyadh:
Ms. Alyah Alenazi

43- Al Hammadi Al Hospitals:
Dr. Ashraf almusri

44- King Salman Hospital Hail:
Dr. Hatim alrashdan
Dr. Faris alrashdan

ARABIC SUMMARY

ملخص تقرير معدل الإصابات بمرض السرطان في المملكة العربية السعودية لعام ٢٠٢٣

أولا: السجل السعودي للأورام

تأسس السجل السعودي للأورام في عام ١٤١٢ هـ (١٩٩٢م) كجهة وطنية مسؤولة عن جمع وتوثيق بيانات السرطان من جميع أنحاء المملكة. وقد بدأ نشاطه في جمع المعلومات من شهر يناير في عام ١٩٩٤ م، حيث يتم تجميع وترميز وتحليل البيانات وفقاً لمعايير منظمة الصحة العالمية وتصنيفات ICD-O-٣ الخاصة بالأورام. بالإضافة، يقوم السجل بتزويد الجهات المختصة والباحثين بمعلومات إحصائية وفق نموذج خاص على صفحة السجل في الموقع الرسمي للمجلس الصحي السعودي.

ثانياً: نظرة عامة على الإصابات بالسرطان في عام ٢٠٢٣

بلغ إجمالي عدد حالات الإصابات بالسرطان خلال عام ٢٠٢٣ والمسجلة من مختلف المرافق الصحية الحكومية والخاصة بالمملكة العربية السعودية ٢٥,٨٦٤ حالة سرطان، من بين هذه الحالات، كان عدد الإصابات بالسرطان بين المواطنين السعوديين ٢٠,٤٩٦ حالة، بنسبة ٧٩,٢٪، بينما بلغ عدد الإصابات بالسرطان بين المقيمين غير السعوديين ٥,٣٦٨ حالة، بنسبة ٢٠,٨ ٪. وكان عدد حالات الإصابات بالسرطان لدى السعوديين الذكور ٨,٥٦٩ حالة بنسبة أجمالية قدرها ٤١,٨٪ بينما بلغ عدد حالات الإصابات بالسرطان لدى الإناث السعوديات ١١,٩٢٧ حالة بنسبة إجمالية قدرها ٥٨,٢٪ (جدول ١).

جدول١: عدد الإصابات بالسرطان بين الجنسين من المواطنين السعوديين والمقيمين غير السعوديين في المملكة العربية السعودية:

الجنسية	الجنسية		المجموع
	ذكر	أنثى	
سعوديين	٨,٥٦٩	١١,٩٢٧	٢٠,٤٩٦
غير سعوديين	٢,٥٨٤	٢,٧٨٤	٥,٣٦٨
المجموع	١١,١٥٣	١٤,٧١١	٢٥,٨٦٤

ثالثاً: السرطانات العشرة الأعلى في معدل الإصابات بالسرطان بين السعوديين لعام ٢٠٢٢:

احتل سرطان الثدي المرتبة الأولى من حيث عدد الإصابات بين السعوديين، مسجلاً ٤,١٥٩ حالة (بنسبة ٢٠,٣٪ من جميع الإصابات بالسرطان)، تلاه سرطان القولون والمستقيم بـ ٢,٦٨٠ حالة (١٣,١٪)، ثم سرطان الغدة الدرقية بـ ١٨٩١ حالة (٩,٢٪)، وسرطان الغدد اللمفاوية لا هودجكن بـ ٩٥٧ حالة (٤,٧٪)، يليه سرطان الدم (ابيضاض الدم) بـ٨٦٧ حالة (٤,٢٪)، ثم سرطان الرحم بـ ٦٩٥ حالة (٣,٤٪)، وسرطان الرئة بـ ٦٦٦ حالة (٣,٢٪)، و سرطان البروستاتا بـ٦٥٠ حالة (٣,٢٪)، وسرطان المثانة بـ٦٤٩ حالة (٣,٢٪) وأخيراً سرطان الدماغ والجهاز العصبي المركزي بـ٦٤٣ حالة (٣,١٪) (جدول ٢). حيث أن سرطان الثدي مع سرطان القولون والمستقيم يشكلون النصاب الأكبر بين باقي الإصابات بالسرطان بنسبة ٣٣,٤٪.

جدول ٢: معدل الإصابات بالسرطانات العشرة الأعلى بين المواطنين السعوديين في المملكة العربية السعودية

موقع السرطان	عدد الإصابات	النسبة (٪)
الـثدي	٤,١٥٩	٢٠,٣
الـقولون والمستقـيم	٢,٦٨٠	١٣,١
الغدة الدرقية	١٨٩١	٩,٢
اللمفاوي لا هودجكن	٩٥٧	٤,٧
ابيضاض الدم	٨٦٧	٤,٢
الرحم	٦٩٥	٣,٤
الرئة	٦٦٦	٣,٢
البروستاتا	٦٥٠	٣,٢
المثانة	٦٤٩	٣,٢
الدماغ والجهاز العصبي	٦٤٣	٣,١
المجموع (أعلى عشرة)	**١٣,٨٥٧**	**٦٧,٦**

رابعاً: إصابات السرطانات العشرة الأكثر شيوعا بين السعوديين لكلا الجنسين

الإناث السعوديات:

أظهرت البيانات أن سرطان الثدي هو الأكثر شيوعا لإصابات السرطان بين الإناث السعوديات، حيث سُجلت ٤,٠٧٩ حالة، ما يمثل ٣٤,٢٪ من إجمالي الإصابات بالسرطان في هذا الجنس. يليه سرطان الغدة الدرقية بنسبة ١٢,١٪، ثم القولون والمستقيم بنسبة ١٠,٥٪، والرحم بنسبة ٥,٨٪، كذلك سجلت أنواع أخرى من السرطان نسبًا ملحوظة مثل سرطان الغدد اللمفاوية لا هودجكن (٣,٤٪)، سرطان ابيضاض الدم (٣,١٪)، سرطان المبيض وسرطان الدماغ والجهاز العصبي المركزي نسبة متساوية (٢,٥٪) لكل منهما، سرطان الغدد اللمفاوية هودجكن (٢,٠٪)، وأخيرًا الكبد (١,٩٪). تمثل هذه الأنواع العشرة ما مجموعه ٩,٣٠٤ حالة، أي ٧٨٪ من إجمالي الإصابات بالسرطان بين الإناث في المملكة خلال العام ذاته (جدول ٣).

الذكور السعوديون:

في المقابل، تصدّر سرطان القولون والمستقيم قائمة إصابات السرطان بين الذكور السعوديين بـ ١,٤٣٠ حالة، ما يعادل ١٦,٧٪ من إجمالي الإصابات. يليه سرطان البروستاتا (٧,٦٪)، ثم سرطان الغدد اللمفاوية لا هودجكن (٦,٥٪)، والمثانة (٦,٤٪). سُجل كذلك عدد كبير من الإصابات بسرطان ابيضاض الدم (٥,٩٪)، الرئة (٥,٤٪)، الغدة الدرقية (٥,٢٪)، سرطان الكلى وسرطان الكبد بنسبة متساوية (٤,٦٪) كما ظهر سرطان الغدد اللمفاوية هودجكن (٤,٥٪) ضمن العشرة الأعلى. بلغ مجموع وفيات السرطانات العشرة الأعلى بين الذكور السعوديين ٥,٧٧٣ حالة، ما يعادل ٦٧,٤٪ من إجمالي وفيات السرطان في هذه الفئة (جدول ٣).

جدول ٣: أكثر عشرة سرطانات شيوعًا بين الإناث والذكور السعوديين:

موقع السرطان (الإناث)	عدد الوفيات	النسبة (٪)	موقع السرطان (الذكور)	عدد الوفيات	النسبة (٪)
الثدي	٤,٠٧٩	٣٤,٢	القولون والمستقيم	١,٤٣٠	١٦,٧
الغدة الدرقية	١,٤٤٢	١٢,١	البروستاتا	٣٣٦	٧,٦
القولون والمستقيم	١,٢٥٠	١٠,٥	اللمفاوي لا هودجكن	٣٠٠	٦,٥
الرحم	٦٩٥	٥,٨	المثانة	٢٤٤	٦,٤
اللمفاوي لا هودجكن	٤٠٤	٣,٤	ابيضاض الدم	٢٣٢	٥,٩
ابيضاض الدم	٣٦٤	٣,١	الرئة	٢٢٦	٥,٤
المبيض	٣٠٤	٢,٥	الغدة الدرقية	١٨٧	٥,٢
الدماغ والجهاز العصبي	٣٠٠	٢,٥	الكلى	١٨٠	٤,٦
اللمفاوي هودجكن	٢٣٥	٢,٠	الكبد	١٧٠	٤,٦
الكبد	٢٣١	١,٩	اللمفاوي هودجكن	١٥١	٤,٥
المجموع (أعلى عشرة)	**٩,٣٠٤**	**٧٨٪**		**٥,٧٧٣**	**٦٧,٤**

خامساً: السرطانات العشرة الأعلى في معدل الإصابات بالسرطان بين الأطفال السعوديين لكلا الجنسين (أقل من ١٤ عاماً):

سجل سرطان ابيضاض الدم أعلى عدد من إصابات السرطان بين الأطفال السعوديين في عام ٢٠٢٣، بـ ١٩٨حالة من إجمالي الإصابات بين الجنسين (٢٥,٥٪)، تلاه سرطان الدماغ والجهاز العصبي بـ ١٤٨ حالة (١٩,٠٪)، ثم سرطان الغدد اللمفاوية هودجكن بـ٨٢ حالة (١٠,٦٪)، وسرطان العظام بـ ٦٧ حالة (٨,٦٪)، ثم سرطان الغدد اللمفاوية لا هودجكن بـ ٤٦ حالة (٥,٩٪)، يليها سرطان الأنسجة الضامة والرخوة و سرطان الكلى بعدد متساوي ٣٣ حالة وبنسبة متساوية لكل منهما (٤,٢٪) ، وسرطان العين بـ ٢٥ حالة (٣,٢٪)، وسرطان الغدة الكظرية بـ ٢٣ حالة (٣,٠٪)، أخيرا سرطان الغدة الدرقية بـ ١٩ حالة (٢,٤٪) (جدول ٤).

جدول 4: إصابات السرطانات العشرة الأكثر شيوعا بين الأطفال السعوديين لكلا الجنسين:

موقع السرطان (الإناث)	عدد الإصابات	(٪)	موقع السرطان (الذكور)	عدد الإصابات	(٪)
ابيضاض الدم	٨٤	٢٤,٩	ابيضاض الدم	١١٤	٢٦,٠
الدماغ والجهاز العصبي	٦٣	١٨,٦	الدماغ والجهاز العصبي	٨٥	١٩,٤
العظام	٢٨	٨,٣	اللمفاوي هودجكن	٥٥	١٢,٥
اللمفاوي هودجكن	٢٧	٨,٠	العظام	٣٩	٨,٩
الكلى	٢٢	٦,٥	اللمفاوي لا هودجكن	٢٨	٦,٤
الأنسجة الضامة والرخوة	١٨	٥,٣	العين	١٦	٣,٦
اللمفاوي لا هودجكن	١٨	٥,٣	الأنسجة الضامة والرخوة	١٥	٣,٤
الغدة الدرقية	١٤	٤,١	الغدة الكظرية	١٢	٢,٧
الغدة الكظرية	١١	٣,٣	الكلى	١١	٢,٥
العين	٩	٢,٧	الخصية	٧	١,٦
المجموع (أعلى عشرة)	**٢٩٤**	**٨٧,٠**		**٣٨٢**	**٨٧,٠**

سادساً: المعدل العمري المعياري للإصابات بالسرطان (ASR):

بلغ المعدل العمري المعياري للإصابات بالسرطان في عام ٢٠٢٣ بين الذكور في المملكة العربية السعودية ١٣٥,١ حالة لكل ١٠٠,٠٠٠ نسمة، في حين بلغ بين الإناث ١٧٢ حالة لكل ١٠٠,٠٠٠ نسمة.

الملخص العربي
تقرير معدل الإصابة بمرض السرطان
في المملكة العربية السعودية
٢٠٢٣

الحمد لله والصلاة والسلام على رسول الله وعلى آله وصحبه ومن والاه، أما بعد:

يضطلع المركز الوطني للسرطان بالمجلس الصحي السعودي بأدوار مهمة تتمثل في جمع وتبويب وتحليل بيانات حالات السرطان في المملكة العربية السعودية للعام ٢٠٢٣م والتأكد من سلامتها، وذلك بمشاركة من جميع القطاعات الصحية الحكومية والأهلية في المملكة.

ويواصل المركز الوطني للسرطان على أداء السجل لمهامه بفعالية وتقديم الدعم الإداري والفني، والاستفادة من الإحصائيات المتراكمة في وضع أولويات مكافحة السرطان وعلاجه ووضع البرامج الوطنية المناسبة في هذا الشأن، وتطوير وتحسين مستويات الرعاية الصحية المقدمة لمرضى السرطان.

ويعد السجل السعودي للأورام الذي أنشئ في عام ١٤١٢هـ/ ١٩٩٢م، من أوائل السجلات الوطنية في المملكة، حيث كان يخضع لإشراف وزارة الصحة بمستشفى الملك فيصل التخصصي ومركز الأبحاث الذي استضاف السجل الى حين انتقاله لمقره الجديد في المجلس الصحي السعودي في عام ١٤٣٥هـ/ ٢٠١٤ م.

ويلاحظ في تقرير هذا العام زيادة عدد الحالات بنسبة ٢٩٪ بسبب ترحل حالات ٢٠٢٠ التي تأخر تشخيصها وعلاجها بسبب جائحة كورونا وكذلك الارتفاع الملحوظ في أعداد سرطان البروستات لدى الذكور وارتفاع أنواع السرطان المتعلقة بالتدخين.

ختاماً؛ أسعد بتقديم جزيل الشكر إلى الفريق الفني القائم على إعداد وتنفيذ هذا التقرير من الزملاء والزميلات بالمركز الوطني للسرطان ومسجلي السرطان في كافة القطاعات الصحية على جهودهم المبذولة في إنجاز هذا العمل الكبير، والشكر موصول إلى جميع أعضاء اللجنة العلمية للسرطان ولمُراجعي هذا التقرير على ما قدموه من جهود ملموسة في السجل الوطني للأورام، بما يخدم القطاع الصحي لخدمة المواطن والمقيم.

أ.د. مشبب بن علي العسيري
مدير عام المركز الوطني للسرطان

بسم الله الرحمن الرحيم

الحمد لله رب العالمين، والصلاة والسلام على أشرف خلق الله محمد بن عبد الله وعلى آلة وصحبه ومن والاه إلى يوم الدين، وبعد:

يحتوي التقرير السنوي لأعمال السجل السعودي للأورام لعام ٢٠٢٣م، الذي يقدمه المجلس الصحي السعودي ممثلًا في المركز الوطني للسرطان؛ على إنجازات السجل وأنشطته وبرامجه التي قام بها مؤخراً، حيث تدعم التقارير التي يصدرها السجل الجهود المبذولة في مجال مكافحة السرطان، وتزوّد القائمين على المشاريع العلاجية والتثقيفية بالبيانات التفصيلية الدقيقة للسرطان؛ والتي تشخّص الوضع الحقيقي لحالات للسرطان في المملكة، وتحدد أكثر أنواعه شيوعاً حسب النوع والعمر والموقع الجغرافي.

كما تتيح تقارير السجل لأصحاب القرار، التخطيط لاستحداث مراكز لعلاج مرض السرطان والتصدي له، وكذلك برامج التثقيف الصحي للوقاية منه، تماشياً مع الاستراتيجيات الوطنية والأهداف الصحية التي أعدها المجلس الصحي السعودي، المتضمنة التنسيق والتكامل بين الجهات المعنية بالصحة؛ لتحسين وتعزيز الرعاية الصحية؛ وفق رؤية المملكة ٢٠٣٠، لتحقيق تطلعات القيادة الحكيمة والمواطنين والمقيمين.

ختاماً؛ إن ما يشهده القطاع الصحي في وطننا الغالي من تطور ملموس ومشاهد؛ جاء أولاً بفضل من الله تعالى ثم بدعم حكومتنا الرشيدة بقيادة خادم الحرمين الشريفين وسمو ولي عهده الأمين -حفظهما الله، ومتابعة معالي رئيس المجلس الصحي السعودي وأعضاء المجلس، ولا يفوتني في هذا المقام أن أقدم الشكر الجزيل إلى الزملاء والزميلات في المجلس الصحي السعودي ممثلاً بالمركز الوطني للسرطان على عملهم الدؤوب وجهدهم المستمر الذي قاموا به لإعداد هذا التقرير وتحقيق رسالة السجل وأهدافه لتسجيل حالات السرطان كافة في المملكة، والشكر موصول إلى كافة منسوبي القطاع الصحي والهيئات والمؤسسات والجمعيات الخيرية الذين أولوا مرضى السرطان عناية كبيرة وقاموا بإعداد البرامج العلاجية والتوعوية للوقاية من هذا المرض في المملكة.

د. نهار بن مزكي العازمي
الأمين العام للمجلس الصحي السعودي

المملكة العربية السعودية
المجلس الصحي السعودي
المركز الوطني للســـــرطان
السجل الســـعودي للأورام

تقريـــــــــــر
معدل الإصابة
بمرض السرطان
2023

المجلس الصحي السعودي
Saudi Health Council

المجلس الصحي السعودي
Saudi Health Council

المملكة العربية السعودية
المجلس الصحي السعودي
المركز الوطني للســـــرطان
السجل الســـعودي للأورام

تقريـــــــــــر
معدل الإصابة
بمرض السرطان
2023