



المجلس الصحي السعودي
Saudi Health Council

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

**CANCER INCIDENCE
REPORT
SAUDI ARABIA**

2021



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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 2021 that outlines the recent achievements of the registry head office, its activities and programs. 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 information 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.

The reports of the registry 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 the expectations of beneficiaries, healthcare coordination and integration is the prime goal of the Saudi Health Council that strengthen healthcare provision.

In conclusion, the witnessed 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 charity 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.

National Cancer Center (NCC) at the Saudi Health Council plays important roles in collecting, compiling and analyzing data on the new cancer cases in the Kingdom of Saudi Arabia for the year 2021 and ensuring their validity, this is the result of the participation of all government and private health sectors in the Kingdom in cancer data collection.

National Cancer Center (NCC) is consistently following up on the Registry's in providing administrative and technical assistance and utilizing the accumulated statistics to establish cancer control and treatment priorities in Saudi Arabia, Moreover, National Cancer Center (NCC) is committed in developing suitable national programs to enhance the levels of healthcare provided to cancer patients. The Saudi Cancer Registry, which was established in 1992 AD, was one of the first national registers in the Kingdom.

As it was anticipated in the 2020 report, 2021 report showed an increased number of new cancer cases by %29. This increase may attributed to the cases that spillover from 2020 after the recovery from COVID-19 or may reflect a true increase in cancer incidence.

I am pleased to thank the technical team responsible for preparing and implementing this report, our National Cancer Center (NCC) colleagues and cancer registrars in all health sectors for their efforts in accomplishing this great work. We extend our gratitude to the members of the Scientific Committee and the reviewers of this report for their dedicated efforts towards the Saudi Cancer Registry, aimed at serving the health sector and benefiting both citizens and residents.

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INTRODUCTION.

This is the twenty fourth 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 2021.

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 2021. 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 FOR THE MOST COMMON SITES 2021.

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.

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 44, 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 2021.

- 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.

PART VI- ARABIC SUMMARY.

It is enclosed an Arabic summary of Cancer Statistics in Saudi Arabia for the Year 2021.

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PART I

MATERIALS AND METHODS



BACKGROUND ON SAUDI ARABIA

Saudi Arabia is a vast country extending over four-fifths of the Arabian Peninsula. It stretches from the Arabian Gulf in the east to the Red Sea in the west. It is approximately 2,149,700* square kilometers divided into 13 administrative regions Figure 1.1.



Figure 1.1: Administrative regions of Saudi Arabia.

The estimated population of Saudi Arabia in 2021 was 30784383. Saudi nationals were estimated to be 18380669 of these 9228524 (50.2%) were males and 9152145 (49.8%) were females.

The non-Saudi population was 12403714 of these 9341023 (75.3%) were males and 3062691 (24.7%) were females. Figures 1.2 and 1.3 show the Saudi and Non-Saudi population pyramids by gender and age group respectively.

Figure 1.2: Population pyramid of Saudis (%) by gender and age group, 2021.

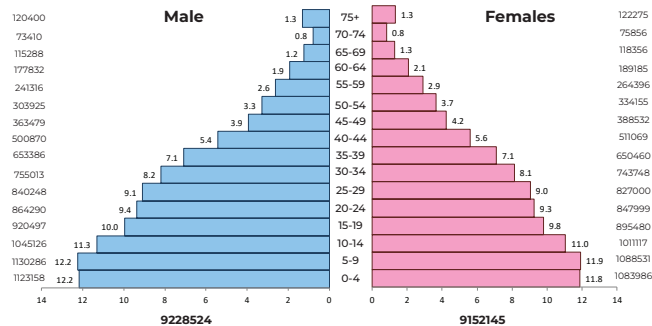
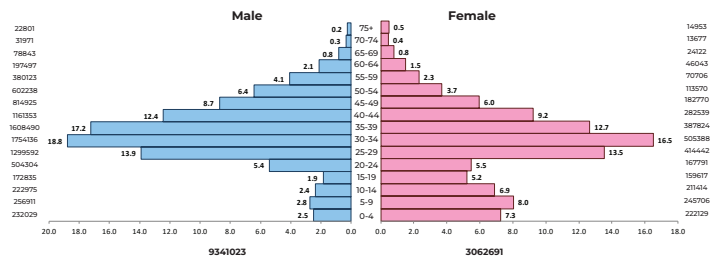


Figure 1.3: Population pyramid of non-Saudis (%) by gender and age group, 2021.



Saudi cancer registry.

The Saudi Cancer Registry (SCR) is a population-based registry. It is considered one of the first national registries in the Kingdom of Saudi Arabia. In 1992 , It was established ,funded by Ministry of Health in the King Faisal Specialist Hospital and Research Center in Riyadh; being the reference center for cancer care in the 90s named (National Cancer Registry) – The other health sectors that provide specialized cancer care : Armed Forces Hospital in Riyadh, National Guard Hospital in Riyadh, King Saud University Hospital, King Abdulaziz University Hospital , King Faisal University Hospital and Security Forces Hospital had participated in the preparation starting up of the registry . In 2005, The Ministry of Health joined the operators of specialized cancer care hospitals.

The National Cancer Registry name has been changed to the Saudi Cancer Registry and the new name appeared on the 2004 report. and it was accredited by the World Health Organization International Agency for Research on Cancer.

The statistical information provided by the Saudi Cancer Registry was significant for the

development of cancer prevention and care in Saudi Arabia during the past thirty years.

The Saudi Health Council decided - in 2014 to link the Saudi Cancer Registry to the Saudi Health Council due to the expansion and development of cancer care in all Saudi health sectors. The registry main office relocated to the headquarter of the Saudi Health Council.

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

Regional Offices.

all regions. 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. SEER Summary Stage Manual 2000 is available on the web ([can get the link here](#)).

While there have not been any changes in the primary site codes, there are significant changes regarding histology (cell types). Leukaemia 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.

Notification.

This report covers data that were diagnosed between January and December 2021. 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 (see below). The calculated incidence is known as the World Standardized Incidence Rate. The rate is expressed per 100,000 population.

World Standard Population.

Age Class	Age Class
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 70, or 75) if they had the rates of cancers currently observed. Like the age-standardized rate, it permits comparison between populations of different age structures. In this report, the age ranges 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.

ICD-O-3.

The World Health Organization's International Classification of Diseases for Oncology, 3rd Edition has been the standard coding system for neoplasms for over 25 years. The coding system includes a four-character code for 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 midpoint of the range numbers that are arranged in order of value.

Metastasis.

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

Range.

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.

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 2021



Cancer incidence in Saudi Arabia, 2021.

Between January 01 and December 31, 2021, the total number of newly diagnosed cancer cases reported to the Saudi Cancer Registry (SCR) was 22912. Overall cancer was more among women than men; it affected 9555 (41.8%) males and 13357 (58.3%) females. A total of 18471 cases were reported among Saudi nationals, 4321 among non-Saudis, and 56 of unknown nationalities.

A total of 22156 cases were analyzed, of which 17941 (81%) were Saudi nationals and 4215 (19%) were non-Saudis.

A total of 756 cases were excluded from the analysis: 120 cases of them were unknown nationalities, and 636 cases failed to be converted to ICD-10 codes. The software (CanReg-4) does not include in situ cases in the statistical analysis, **Table 2.1**.

Among Saudis 7248 (40.4%) were males and 10693 (59.6%) were females with a male to female ratio of 100 to 147.5. The crude incidence rates (CIR) of all cancers were 78.6/100,000 in males and 116.9/100,000 in females.

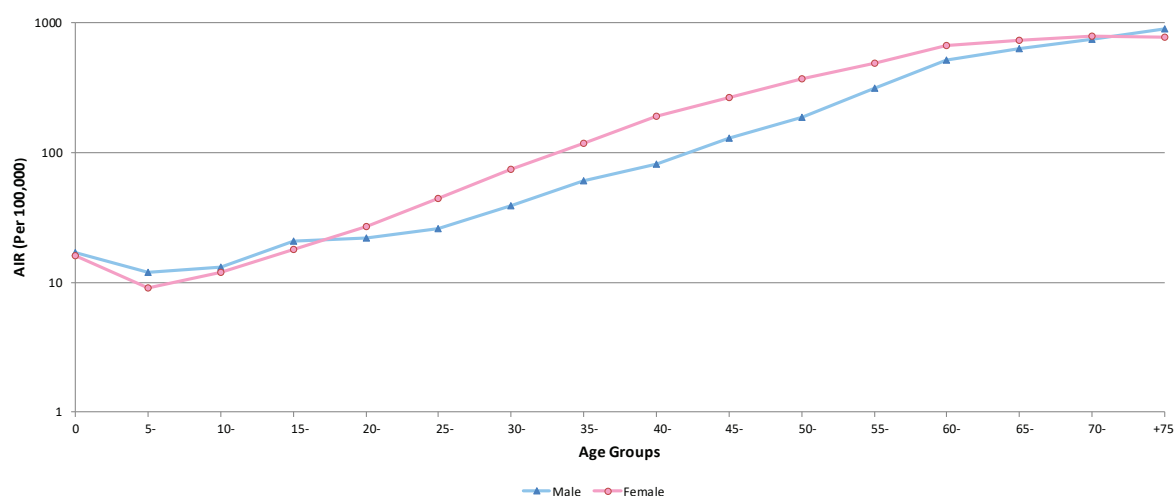
The overall age-standardized incidence rate (ASR) was 123.5/100,000 in males and 168.6/100,000 in females.

Table 2.1: Distribution of analyzed and non-analyzed cancer cases reported to Saudi Cancer Registry by nationality and gender, 2021.

Saudis						Unknown Nationality			Non-Saudis					
Analyzed			Non-Analyzed						Analyzed			Non-Analyzed		
Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
7248	10693	17941	231	299	530	54	66	120	1962	2253	4215	60	46	106

The age-specific incidence rate (AIR) increased with advancing age in both genders. The median age at diagnosis was 57 with a range of 0-104 for males, and 53 with a range of 0-109 for females, **Figure 2.2**.

Figure 2.2: Age-Specific Incidence Rate (AIR) for all cancer among Saudis, 2021.



Confirmation of malignancy was based mainly on histopathology reports (94.6%), followed by Cytology and Hematological (2.8%), then Medical Imaging (1.3%), then Histology of metastases (0.9%). Other sources such as Clinical and Death Certificate were the source that is about 0.4%, **Table 2.3**.

Table 2.3: Basis of diagnosis of cancer cases, 2021.

Basis of Diagnosis	No	%
Histology of primary	16970	94.6
Cytology/Haematological	496	2.8
Medical Imaging	240	1.3
Histology of metastases	157	0.9
Clinical	73	0.4
Laboratory test	4	0.0
Surgery	1	0.0
Total	17941	100.0

Cancer Distribution among Saudi Nationals, 2021.

In females, the highest number of cancer cases was reported for the age group (45-59), with a total of 3572 (33.4%) cancer cases. Whereas, in males, the highest number of cases was reported for the age group (60-74), with a total of 2199 (30.3%) cancer cases, **Figure 2.3**.

Figure 2.3: Distribution of cancer cases among Saudi nationals by gender and age groups, 2021.

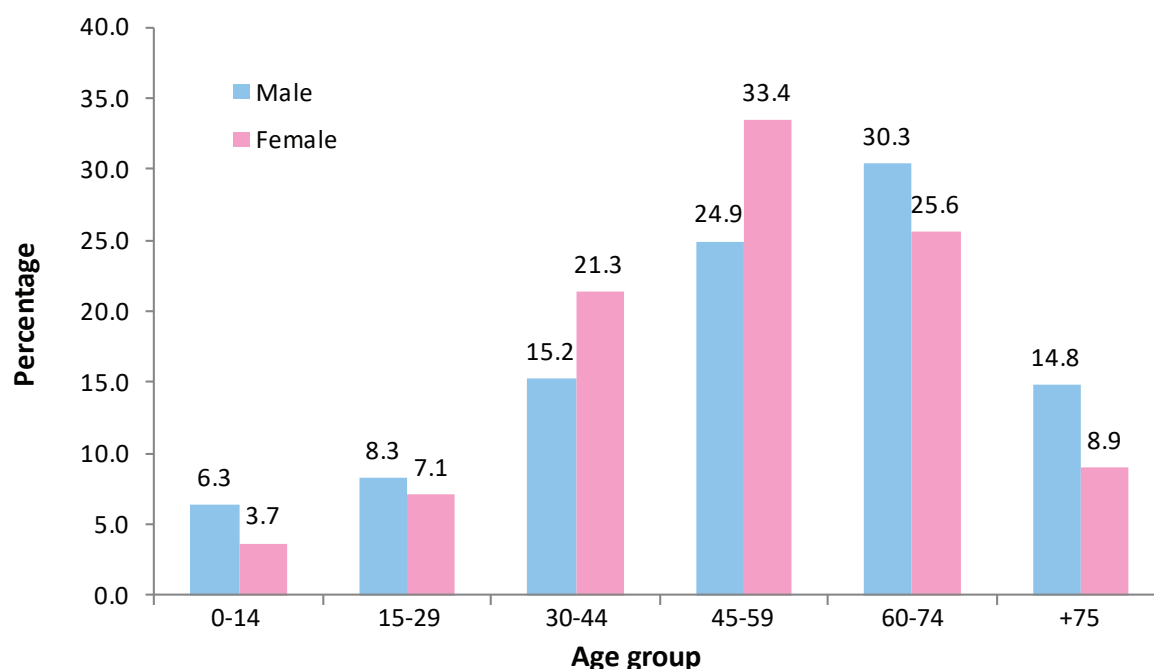
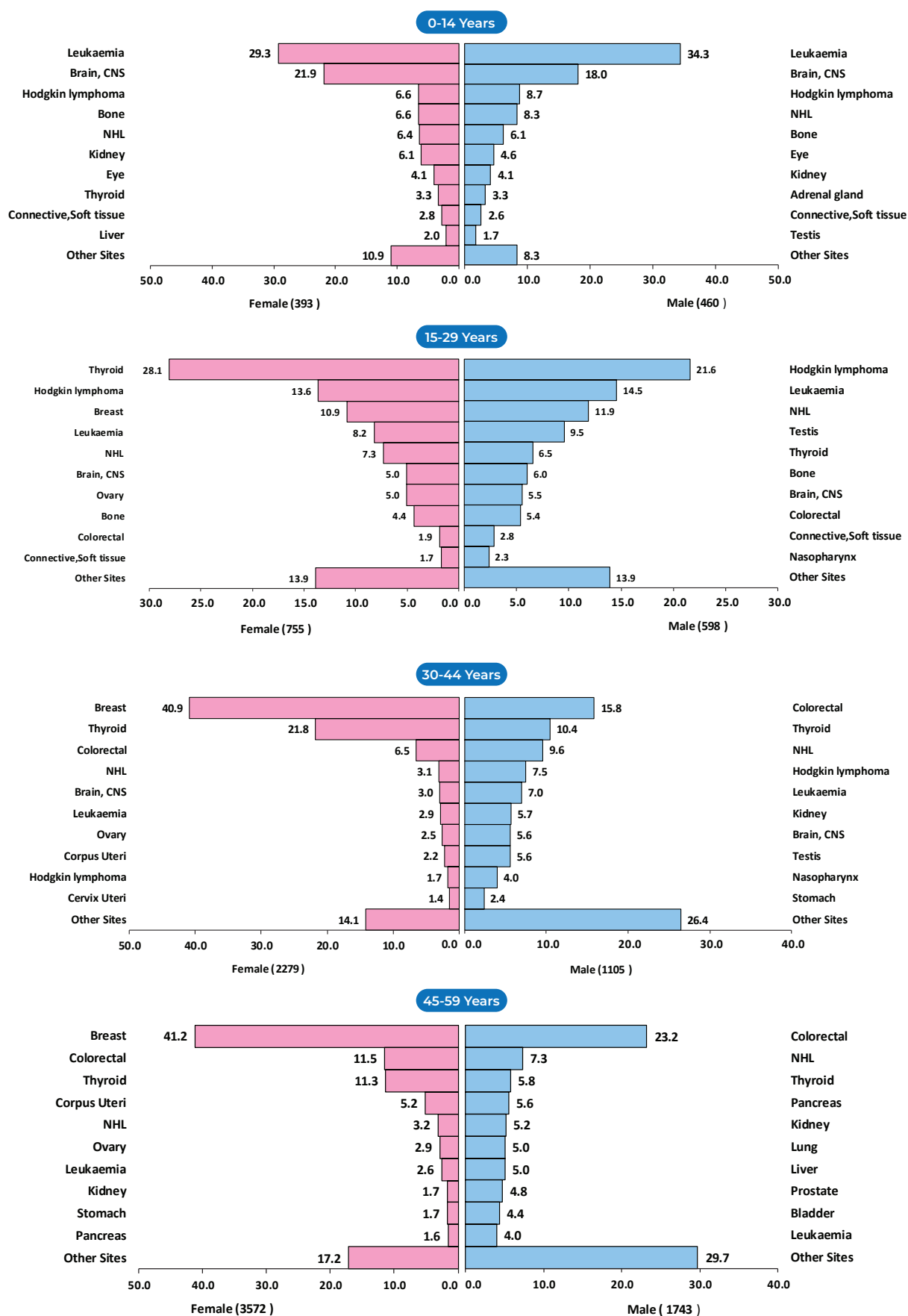


Figure 2.4: Distributions of the most frequent types of cancer among Saudi nationals by gender and age groups, 2021.



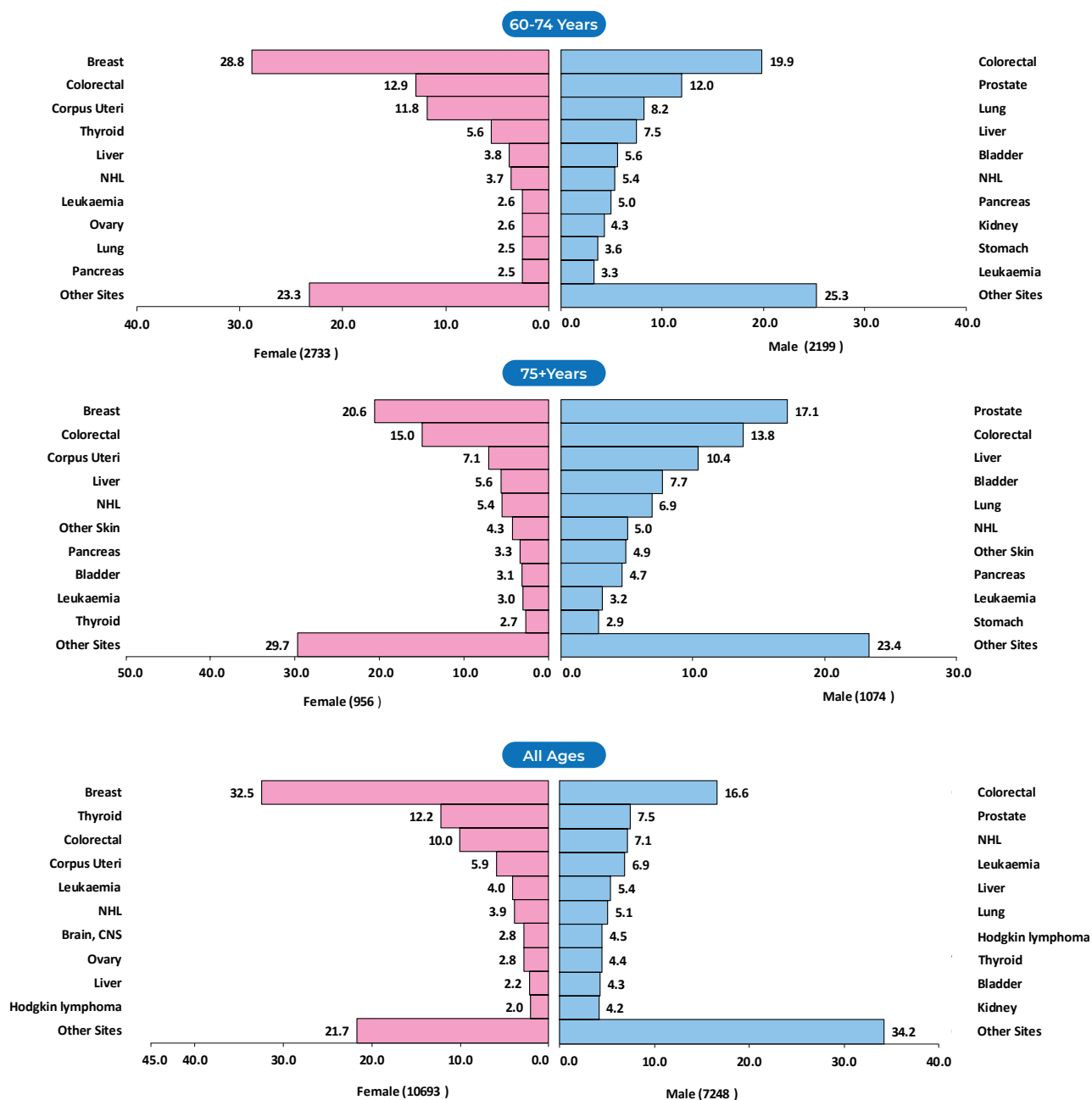


Table 2.4: Most common cancers among Saudi nationals, 2021.

Sites	No.	%
Breast	3540	19.7
Colorectal	2273	12.7
Thyroid	1626	9.1
NHL	931	5.2
Leukaemia	931	5.2
Corpus Uteri	631	3.5
Liver	620	3.5
Brain,CNS	596	3.3
Hodgkin's lymphoma	541	3.0
Prostate	540	3.0

Table 2.5: Most common cancers among Saudi nationals by sex, 2021.

Male	7248	%	Female	10693	%
Colorectal	1200	16.6	Breast	3472	32.5
Prostate	540	7.5	Thyroid	1304	12.2
NHL	515	7.1	Colorectal	1073	10.0
Leukaemia	498	6.9	Corpus Uteri	631	5.9
Liver	390	5.4	Leukaemia	433	4.0
Lung	369	5.1	NHL	416	3.9
Hodgkin's lymphoma	326	4.5	Ovary	298	2.8
Thyroid	322	4.4	Brain,CNS	298	2.8
Bladder	310	4.3	Liver	230	2.2
Kidney	301	4.2	Hodgkin's lymphoma	215	2.0

Table 2.6: Number, percentage, CIR, ASR, and cumulative rates (per 100,000) among Saudi nationals by primary cancer site and gender, 2021.

ICD-10	Site	Male						Female					
		No.	%	Crude Rate	ASR World	Cumulative Rate		No.	%	Crude Rate	ASR World	Cumulative Rate	
						0 - 64	0 - 74					0 - 64	0 - 74
All	All sites Total	7248	%100.00	78.6	123.5	244.85	308.4	10693	%100.00	116.9	168.6	412.85	486.60
Not C44	All sites but C44	7080	%97.70	76.8	120.6	240.55	302.65	10538	%98.60	115.2	166	408.45	480.90
C00	Lip	11	%0.20	0.1	0.2	0.3	0.4	6	%0.10	0.1	0.1	0.10	0.10
C01-C02	Tongue	57	%0.80	0.6	1	1.85	2.45	59	%0.60	0.6	1	1.90	2.45
C03-C06	Mouth	45	%0.60	0.5	0.8	1.60	2.05	26	%0.20	0.3	0.4	0.95	1.10
C07-C08	Salivary glands	23	%0.30	0.2	0.3	0.90	0.90	27	%0.30	0.3	0.4	1.10	1.20
C09	Tonsil	4	%0.10	0	0.1	0.15	0.15	1	%0.00	0	0	0.05	0.05
C10	Other Oropharynx	7	%0.10	0.1	0.1	0.25	0.35	1	%0.00	0	0	0.05	0.05
C11	Nasopharynx	158	%2.20	1.7	2.5	6.55	7.35	66	%0.60	0.7	1	2.80	3.10
C12-C13	Hypopharynx	4	%0.10	0	0.1	0.10	0.10	3	%0.00	0	0	0.15	0.15
C14	Pharynx unspec.	7	%0.10	0.1	0.1	0.25	0.25	3	%0.00	0	0	0.15	0.15
C15	Oesophagus	71	%1.00	0.8	1.3	1.90	2.50	48	%0.40	0.5	0.8	1.15	1.70
C16	Stomach	192	%2.60	2.1	3.7	5.60	8.05	150	%1.40	1.6	2.5	5.50	6.45
C17	Small intestine	53	%0.70	0.6	1	1.85	2.35	48	%0.40	0.5	0.7	1.75	2.05
C18	Colon	775	%10.70	8.4	14.2	25.80	33.45	724	%6.80	7.9	12.7	24.80	31.65
C19-C20	Rectum	425	%5.90	4.6	7.8	15.05	19.05	349	%3.30	3.8	5.9	12.10	14.85
C21	Anus	32	%0.40	0.3	0.6	1.20	1.50	16	%0.10	0.2	0.3	0.35	0.55
C22	Liver	390	%5.40	4.2	7.7	8.60	13.90	230	%2.20	2.5	4.3	6.00	8.80
C23-C24	Gallbladder etc.	75	%1.00	0.8	1.4	2.20	2.95	123	%1.20	1.3	2.4	3.25	5.25
C25	Pancreas	282	%3.90	3.1	5.4	8.95	11.60	176	%1.60	1.9	3.3	4.85	7.15
C30-C31	Nose, sinuses etc.	22	%0.30	0.2	0.4	0.70	0.95	10	%0.10	0.1	0.1	0.40	0.40
C32	Larynx	93	%1.30	1	1.8	2.95	4.10	13	%0.10	0.1	0.2	0.40	0.55
C33-C34	Trachea,Bronchus,Lung	369	%5.10	4	7.5	8.95	14.65	166	%1.60	1.8	3	4.75	7.10
C37-C38	Other Thoracic organs	36	%0.50	0.4	0.5	1.35	1.60	18	%0.20	0.2	0.3	0.80	0.80
C40-C41	Bone	103	%1.40	1.1	1.2	4.90	4.95	104	%1.00	1.1	1.2	4.65	4.85
C43	Melanoma of Skin	12	%0.20	0.1	0.2	0.30	0.40	16	%0.10	0.2	0.3	0.45	0.65
C44	Other Skin	168	%2.30	1.8	2.9	4.30	5.75	155	%1.40	1.7	2.6	4.40	5.70
C45	Mesothelioma	4	%0.10	0	0.1	0.05	0.15	7	%0.10	0.1	0.1	0.20	0.30
C46	Kaposi sarcoma	30	%0.40	0.3	0.6	0.75	1.15	6	%0.10	0.1	0.1	0.15	0.25
C47;C49	Connective,Soft tissue	125	%1.70	1.4	1.9	4.90	5.55	103	%1.00	1.1	1.5	3.95	4.50
C50	Breast	68	%0.90	0.7	1.2	2.40	2.85	3472	%32.50	38	54.4	143.50	163.65
C51	Vulva	-	-	-	-	-	-	31	%0.30	0.3	0.6	0.95	1.30
C52	Vagina	-	-	-	-	-	-	12	%0.10	0.1	0.2	0.45	0.60
C53	Cervix Uteri	-	-	-	-	-	-	145	%1.40	1.6	2.3	5.65	6.40
C54	Corpus Uteri	-	-	-	-	-	-	631	%5.90	6.9	12.1	19.50	28.05
C55	Uterus unspec.	-	-	-	-	-	-	150	%1.40	1.6	2.7	5.30	6.90
C56	Ovary	-	-	-	-	-	-	298	%2.80	3.3	4.6	11.75	13.80
C57	Other Female Genital	-	-	-	-	-	-	26	%0.20	0.3	0.4	1.00	1.15
C58	Placenta	-	-	-	-	-	-	1	%0.00	0	0	0.05	0.05
C60	Penis	4	%0.10	0	0.1	0.10	0.2	-	-	-	-	-	-
C61	Prostate	540	%7.50	5.9	11.2	8.90	17.75	-	-	-	-	-	-
C62	Testis	139	%1.90	1.5	1.4	6.85	6.9	-	-	-	-	-	-
C63	Other male genital	2	%0.00	0	0	0.05	0.05	-	-	-	-	-	-
C64	Kidney	301	%4.20	3.3	5.2	11.15	13.75	202	%1.90	2.2	3.3	7.45	9.05
C65	Renal Pelvis	13	%0.20	0.1	0.3	0.40	0.6	5	%0.00	0.1	0.1	0.15	0.20
C66	Ureter	6	%0.10	0.1	0.1	0.05	0.25	1	%0.00	0	0	0.05	0.05
C67	Bladder	310	%4.30	3.4	6	7.90	11.35	75	%0.70	0.8	1.4	1.65	2.25
C68	Other Urinary organs	7	%0.10	0.1	0.1	0.3	0.35	1	%0.00	0	0	0.00	0.00
C69	Eye	38	%0.50	0.4	0.5	1.4	1.45	27	%0.30	0.3	0.4	1.05	1.20
C70-C72	Brain, Nervous system	298	%4.10	3.2	4.1	13.25	14.35	298	%2.80	3.3	3.9	13.25	14.45
C73	Thyroid	322	%4.40	3.5	4.7	14.05	15.4	1304	%12.20	14.3	17.1	60.35	63.90
C74	Adrenal gland	21	%0.30	0.2	0.2	0.95	1	23	%0.20	0.3	0.3	1.10	1.15
C75	Other Endocrine	11	%0.20	0.1	0.2	0.45	0.55	10	%0.10	0.1	0.1	0.45	0.50
C81	Hodgkin disease	326	%4.50	3.5	3.8	15.6	15.95	215	%2.00	2.4	2.5	9.75	10.40
C82-C85;C96	Non-Hodgkin lymphoma	515	%7.10	5.6	8	19.35	23.05	416	%3.90	4.5	6.4	15.00	18.20
C88	Immunoproliferative dis.	0	%0.00	0	0	0	0	0	%0.00	0	0	0.00	0.00
C90	Multiple Myeloma	94	%1.30	1	1.8	3.05	3.9	103	%1.00	1.1	1.8	3.80	4.55
C91	Lymphoid Leukaemia	110	%1.50	1.2	1.6	4.45	4.9	59	%0.60	0.6	0.9	2.25	2.70
C92-C94	Myeloid Leukaemia	193	%2.70	2.1	2.7	7.8	9	211	%2.00	2.3	3	8.90	9.90
C95	Leukaemia unspec.	195	%2.70	2.1	2.3	8.9	9.3	163	%1.50	1.8	2	7.00	7.60
Other	Other & unspecified	162	%2.20	1.8	2.8	5.25	6.9	160	%1.50	1.7	2.7	5.35	6.70

Cancer incidence among adults (>14 years), 2021.

Between January and December 2021, the total number of cancer incidence cases reported to the Saudi cancer registry among adults aged above 14 was 21855. Among those, 17606 cancer cases were Saudis and 4136 were non-Saudis, and unknown nationalities were reported in 113 cases. A total of 8985 (41.1%) cases were males and 12870 (58.2%) were females with a male to female ratio of 100 to 143, **Table 2.7.1.**

Table 2.7.1: Distribution of analyzed and non-analyzed adult cancer cases reported to Saudi cancer registry by nationality and gender, 2021.

Saudis						Unknown Nationality			Non-Saudis					
Analyzed			Non-Analyzed						Analyzed			Non-Analyzed		
Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
6788	10300	17088	227	291	518	50	63	113	1862	2170	4032	58	46	104

Table 2.7.2: Most common cancers among Saudi adults, 2021.

Sites	No.	%
Breast	3540	20.7
Colorectal	2268	13.3
Thyroid	1610	9.4
NHL	868	5.1
Leukaemia	688	4.0
Corpus Uteri	631	3.7
Liver	607	3.6
Prostate	540	3.2
Lung	535	3.1
Hodgkin lymphoma	475	2.8

Table 2.7.3: Top ten cancers reported among Saudi adults by gender, 2021.

Male			Female		
	6788	%		10300	%
Colorectal	1198	17.6	Breast	3472	33.7
Prostate	540	8.0	Thyroid	1291	12.5
NHL	477	7.0	Colorectal	1070	10.4
Liver	385	5.7	Corpus Uteri	631	6.1
Lung	369	5.4	NHL	391	3.8
Leukaemia	340	5.0	Leukaemia	318	3.1
Thyroid	319	4.7	Ovary	290	2.8
Bladder	309	4.6	Liver	222	2.2
Hodgkin lymphoma	286	4.2	Brain, CNS	212	2.1
Pancreas	282	4.2	Hodgkin lymphoma	189	1.8

Childhood cancers reported to the Saudi cancer registry (≤ 14 years), 2021.

A total of 1057 cancer cases were diagnosed among children aged between 0 and 14 accounting for 4.6% of the total number of cancers reported to the Saudi cancer registry in 2021. The reported incidence show that cancer was more common among boys than girls, 570 (53.9 %) cases were reported among boys and 487 (46.1%) were reported among girls. A total of 865 cancer cases were reported among Saudi children, 185 were among non-Saudis, and 7 cases were of unknown nationalities. The total number of analyzed cases was 1036 including 853 Saudis and 183 non-Saudis. Among Saudis, 460 (53.9 %) were boys and 393 (46.1 %) were girls, **Table 2.8.1**.

Table 2.8.1: Distribution of reported childhood cancer in Saudi Arabia by nationality and gender, 2021.

Saudis						Unknown Nationality			Non-Saudis					
Analyzed			Non-Analyzed						Analyzed			Non-Analyzed		
Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
460	393	853	4	8	12	4	3	7	100	83	183	2	0	2

Childhood cancers accounted for 4.8% of all cancer among Saudis. The leading cancer among Saudi children was leukemia (28.4 %), followed by brain tumors (20.0 %), then Hodgkin's lymphoma (8.5 %), and Bone (6.7%), **Table 2.8.2**.

Table 2.8.2: Top ten cancers among Saudi children, 2021.

Sites	No.	%
leukaemia	273	32.0
Brain, CNS	169	19.8
Hodgkin lymphoma	66	7.7
NHL	63	7.4
Bone	54	6.3
Kidney	43	5.0
Eye	37	4.3
Connective,Soft tissue	23	2.7
Adrenal gland	22	2.6
Thyroid	16	1.9

Table 2.8.3: Distribution of top ten Childhood cancer sites by genders, 2021.

Male			Female		
	460	%		393	%
leukaemia	158	34.3	Leukaemia	115	29.3
Brain, CNS	83	18.0	Brain, CNS	86	21.9
Hodgkin lymphoma	40	8.7	Bone	26	6.6
NHL	38	8.3	Hodgkin lymphoma	26	6.6
Bone	28	6.1	NHL	25	6.4
Eye	21	4.6	Kidney	24	6.1
Kidney	19	4.1	Eye	16	4.1
Adrenal gland	15	3.3	Thyroid	13	3.3
Connective,Soft tissue	12	2.6	Connective,Soft tissue	11	2.8
Testis	8	1.7	Liver	8	2.0

Table 2.8.4: Distribution of morphological types for the most common cancers reported among Saudi children by gender, 2021.

Primary Site	Code	Morphology	Male	%	Female	%
Leukaemia	98003	Leukemia, NOS	93	59	62	54
	98013	Acute leukemia, NOS	14	9	15	13
	98613	Acute myeloid leukemia, NOS	14	9	11	10
	98363	Precursor B-cell lymphoblastic leukemia	14	9	6	5
	98373	Precursor T-cell lymphoblastic leukemia	5	3	1	1
	98353	Precursor cell lymphoblastic leukemia, NOS	4	3	4	3
	98263	Burkitt cell leukemia	3	2	1	1
		Others	11	7	15	13
		Total	158	100	115	100
Brain, CNS	94703	Medulloblastoma, NOS	17	20.5	13	15.1
	93803	Glioma, malignant	16	19.3	27	31.4
	94003	Astrocytoma, NOS	13	15.7	15	17.4
	80003	Neoplasm, malignant	7	8.4	6	7.0
	93923	Ependymoma, anaplastic	6	7.2	4	4.7
		Others	24	28.9	21	24.4
		Total	83	100.0	86	100.0
Hodgkin lymphoma	96503	Hodgkin lymphoma, NOS	18	45	9	35
	96593	Hodgkin lymphoma, nodular lymphocyte predominance	9	23	-	0
	96633	Hodgkin lymphoma, nodular sclerosis, NOS	8	20	16	62
	96523	Hodgkin lymphoma, mixed cellularity, NOS	3	8	-	0
	96513	Hodgkin lymphoma, lymphocyte-rich	2	5	-	0
	96533	Hodgkin lymphoma, lymphocyte depletion, NOS	-	0	1	4
		Total	40	100	26	100
			-	-	-	-
NHL	96873	Burkitt lymphoma, NOS	15	39	7	28
	95913	Malignant lymphoma, non-Hodgkin, NOS	7	18	-	0
	96803	Malignant lymphoma, large B-cell, diffuse, NOS	3	8	7	28
	95903	Malignant lymphoma, NOS	2	5	1	4
	95963	Composite Hodgkin and non-Hodgkin lymphoma	2	5	-	0
		Other	9	24	10	40
		Total	38	100	25	100

Primary Site	Code	Morphology	Male	%	Female	%
Bone	92603	Ewing sarcoma	13	46	6	23
	91803	Osteosarcoma, NOS	5	18	10	38
	80003	Neoplasm, malignant	4	14	5	19
	93643	Peripheral neuroectodermal tumor	2	7	1	4
	88003	Sarcoma, NOS	1	4	2	8
		Other	3	11	2	8
		Total	28	100	26	100
Kidney	89603	Nephroblastoma, NOS	16	84	19	79
	89643	Clear cell sarcoma of kidney	2	11	1	4
	83123	Renal cell carcinoma, NOS	1	5	3	13
	85103	Medullary carcinoma, NOS	-	0	1	4
		Total	19	100	24	100
Eye	95103	Retinoblastoma, NOS	9	43	7	44
	95113	Retinoblastoma, differentiated	8	38	7	44
	95123	Retinoblastoma, undifferentiated	3	14	2	13
	88003	Sarcoma, NOS	1	5	-	0
		Total	21	100	16	100
Connective Tissue	89003	Rhabdomyosarcoma, NOS	6	50	2	18
	88003	Sarcoma, NOS	2	17	-	0
	80003	Neoplasm, malignant	1	8	1	9
	88013	Spindle cell sarcoma	1	8	-	0
	89103	Embryonal rhabdomyosarcoma, NOS	1	8	1	9
		Other	1	8	7	64
		Total	12	100	11	100
Adrenal gland	95003	Neuroblastoma, NOS	11	73.3	5	71.4
	94903	Ganglioneuroblastoma	3	20.0	-	0.0
	83703	Adrenal cortical carcinoma	1	7	1	14
	86933	Extra-adrenal paraganglioma, malignant	-	0	1	14
		Total	15	100	7	100
Thyroid	82603	Papillary adenocarcinoma, NOS	2	67	6	46
	80503	Papillary carcinoma, NOS	1	33	4	31
	80103	Carcinoma, NOS	-	0.0	1	7.7
	83413	Papillary microcarcinoma	-	0.0	2	15.4
		Total	3	100.0	13	100.0

International comparison of age-standardized incidence rates.

Figure 2.6.1: Comparison of ASR* for Saudi males with selected countries**

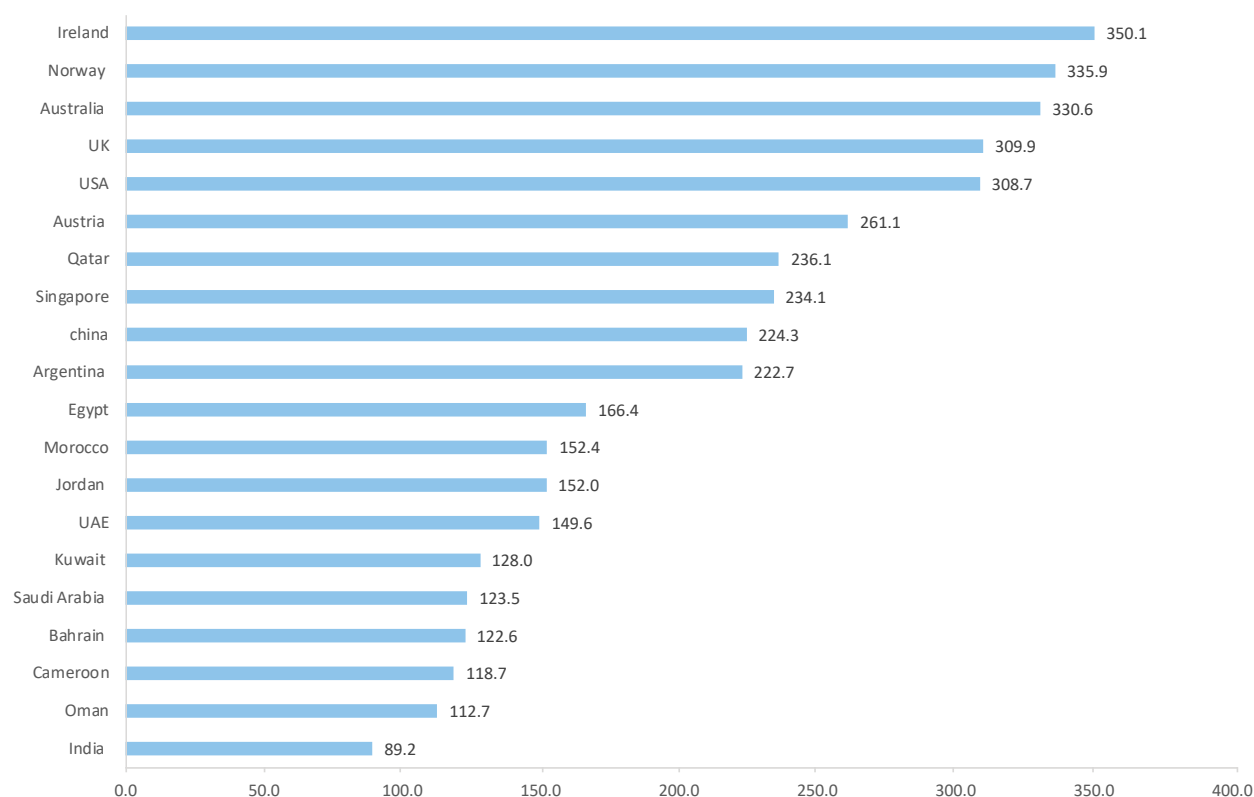
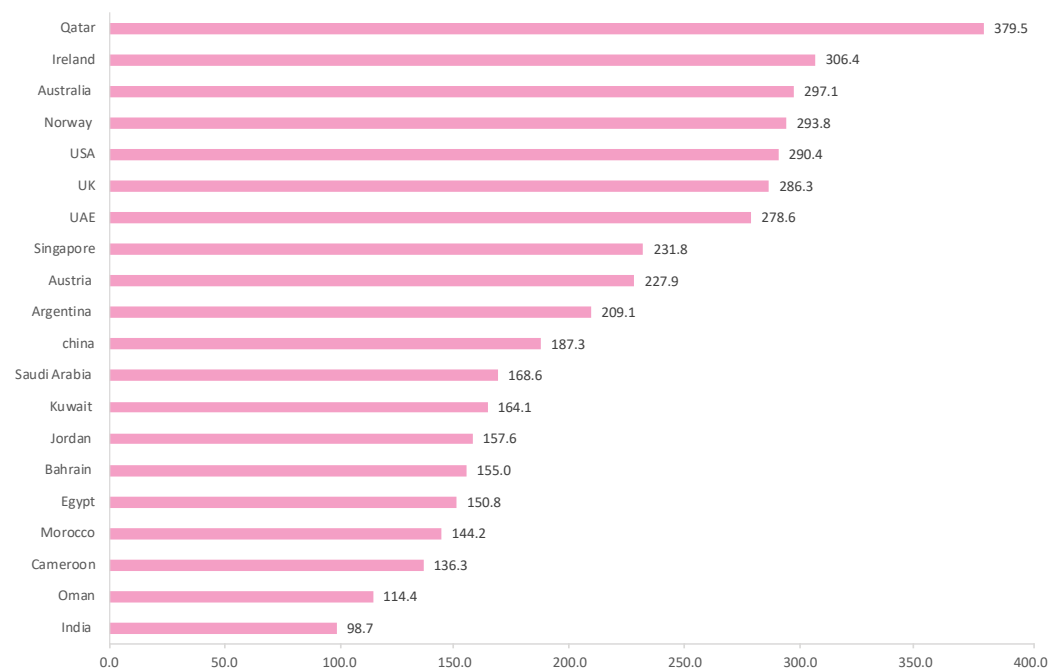


Figure 2.6.2: Comparison of ASR* for Saudi females with selected countries**



*ASR per 100,000

**Source for this information is summarized on page 56.

PART III

INCIDENCE OF MOST COMMON
CANCERS DIAGNOSED AMONG
SAUDI NATIONALS, 2021



Cancer incidence for most common sites among Saudi nationals, 2021.

This section demonstrates the most common cancers diagnosed among Saudi nationals during the period between January and December 2021. 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, 2021.

Sites	Male	Female	All	%
Breast	68	3472	3540	19.7
Colorectal	1200	1073	2273	12.7
Thyroid	322	1304	1626	9.1
NHL	515	416	931	5.2
Leukaemia	498	433	931	5.2
Corpus Uteri	-	631	631	3.5
Liver	390	230	620	3.5
Brain, CNS	298	298	596	3.3
Hodgkin lymphoma	326	215	541	3.0
Prostate	540	-	540	3.0

Female breast cancer (C50).

Breast cancer was ranked first among Saudi females. There were 3472 female breast cancer cases. Breast cancer accounted for 19.7% of all cancers reported among Saudi nationals, and 32.5% of all cancers reported among females. The ASR was 54.4/100,000 for the Saudi female population.

The median age at diagnosis was 52 years (ranging between 15 and 104).

Figure 3.1.1: Age-Specific Incidence Rate (AIR) for breast cancer among Saudi females, 2021.

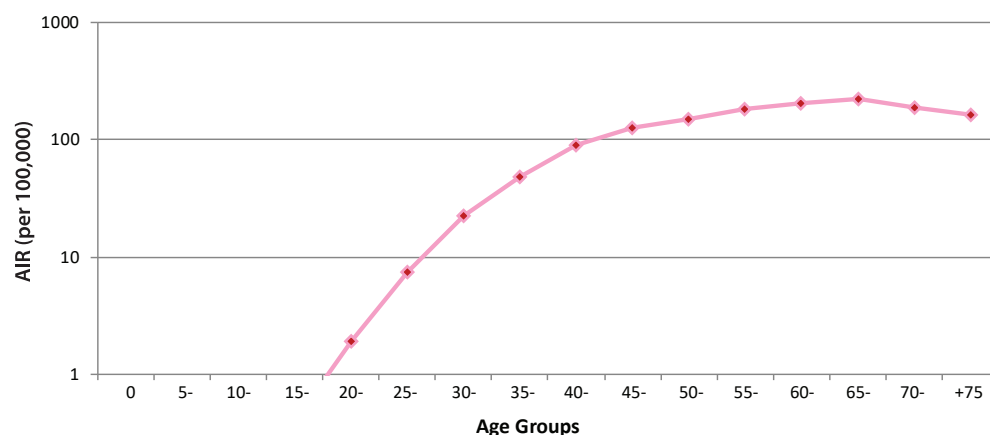


Table 3.1.1: Morphological distribution of breast cancer among Saudi females, 2021.

ICD-O-3	Morphology	NO.	%
85003	Infiltrating duct carcinoma, NOS	2834	81.6
85203	Lobular carcinoma, NOS	201	5.8
80103	Carcinoma, NOS	155	4.5
85223	Infiltrating duct and lobular carcinoma	49	1.4
81403	Adenocarcinoma, NOS	47	1.4
	Others	186	5.4
	Total	3472	100.0

Figure 3.1.2: Stage distribution of breast cancer among Saudi females, 2021.

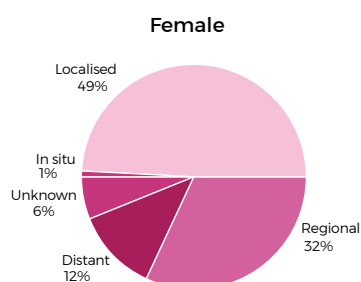
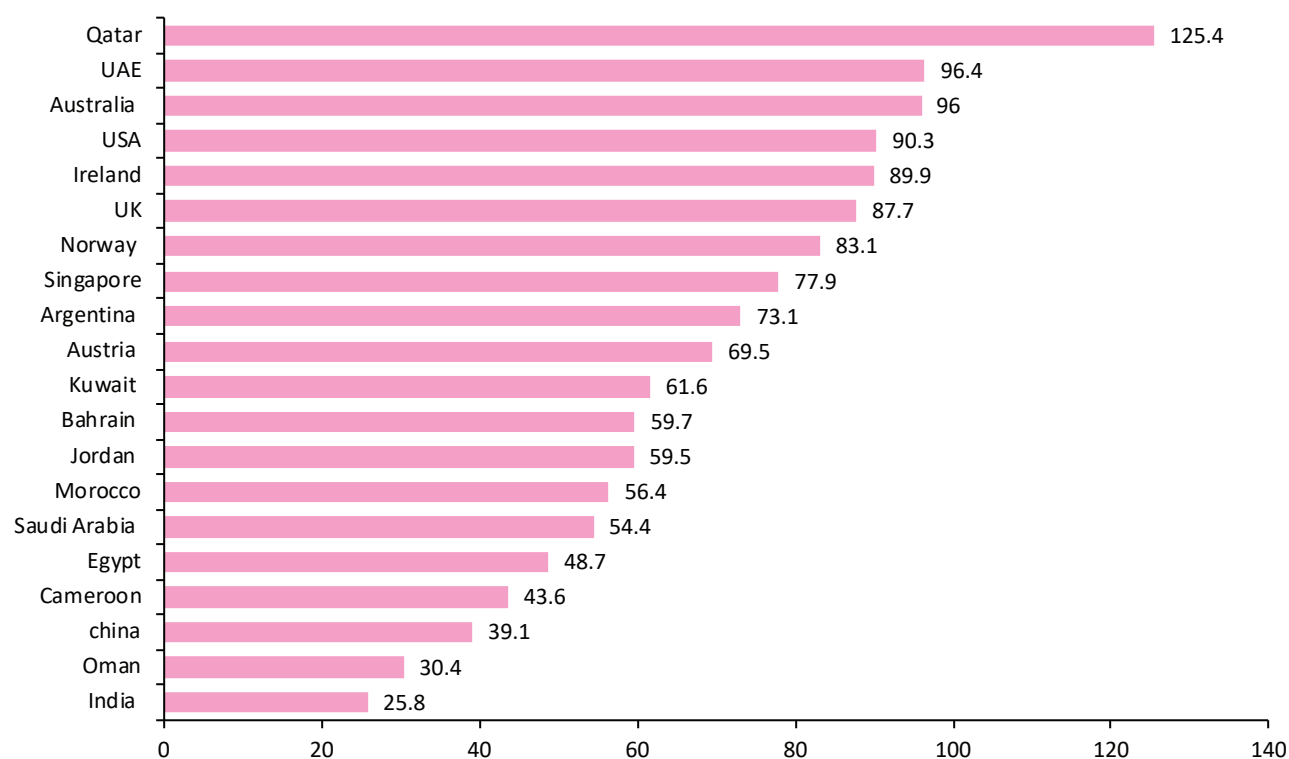


Figure 3.1.4: Comparison of ASR* for Saudi females breast cancer with selected countries.



*ASR per 100,000

**Source for this information is summarized on page 56.

Colorectal cancer (C18-C20).

Colorectal cancer was ranked first among Saudi males and third among Saudi females. There were 2273 cases of colorectal cancer accounting for 12.7% of all newly diagnosed cases in the year 2021 among Saudi nationals. It affected 1200 (52.8%) males and 1073 (47.2%) females with a male to female ratio of 112 to 100. The ASR was 22.0/100,000 for males and 18.6/100,000 for females.

The median age at diagnosis was 59 years in males (ranging between 13 and 103) and 58 years in females (ranging between 10 and 102).

Figure 3.2.1: Age-Specific Incidence Rate (AIR) for colorectal cancer among Saudi nationals, 2021.

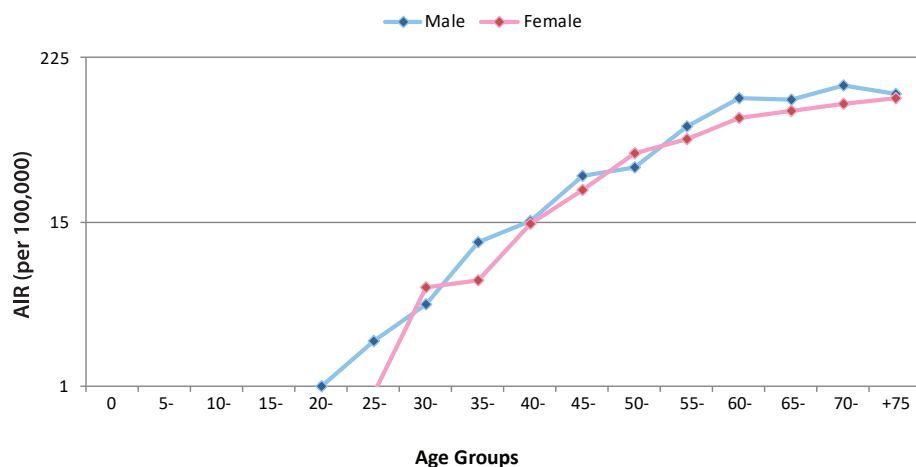


Table 3.2.1: Morphological distribution of colorectal cancer among Saudi nationals, 2021.

ICD-O-3	Morphology	Male	%	Female	%
81403	Adenocarcinoma, NOS	1055	87.9	966	90.0
84803	Mucinous adenocarcinoma	49	4.1	36	3.4
80103	Carcinoma, NOS	17	1.4	18	1.7
80003	Neoplasm, malignant	14	1.2	9	0.8
84903	Signet ring cell carcinoma	9	0.8	7	0.7
	Other	56	4.7	37	3.4
	Total	1200	100.0	1073	100.0

Figure 3.2.2: Stage distribution of colorectal cancer among Saudi nationals, 2021.

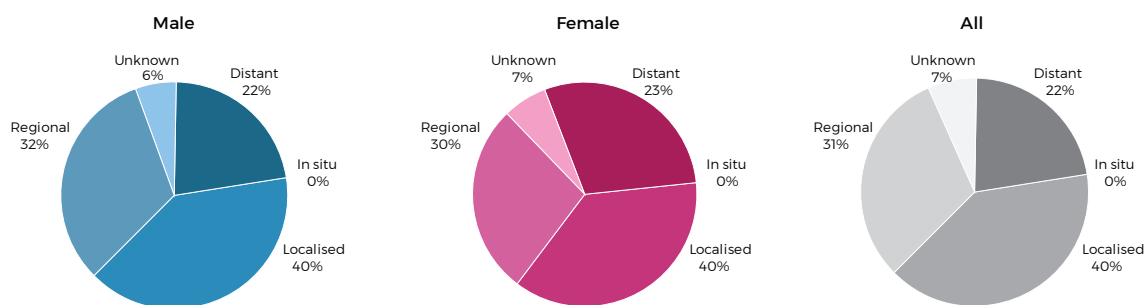
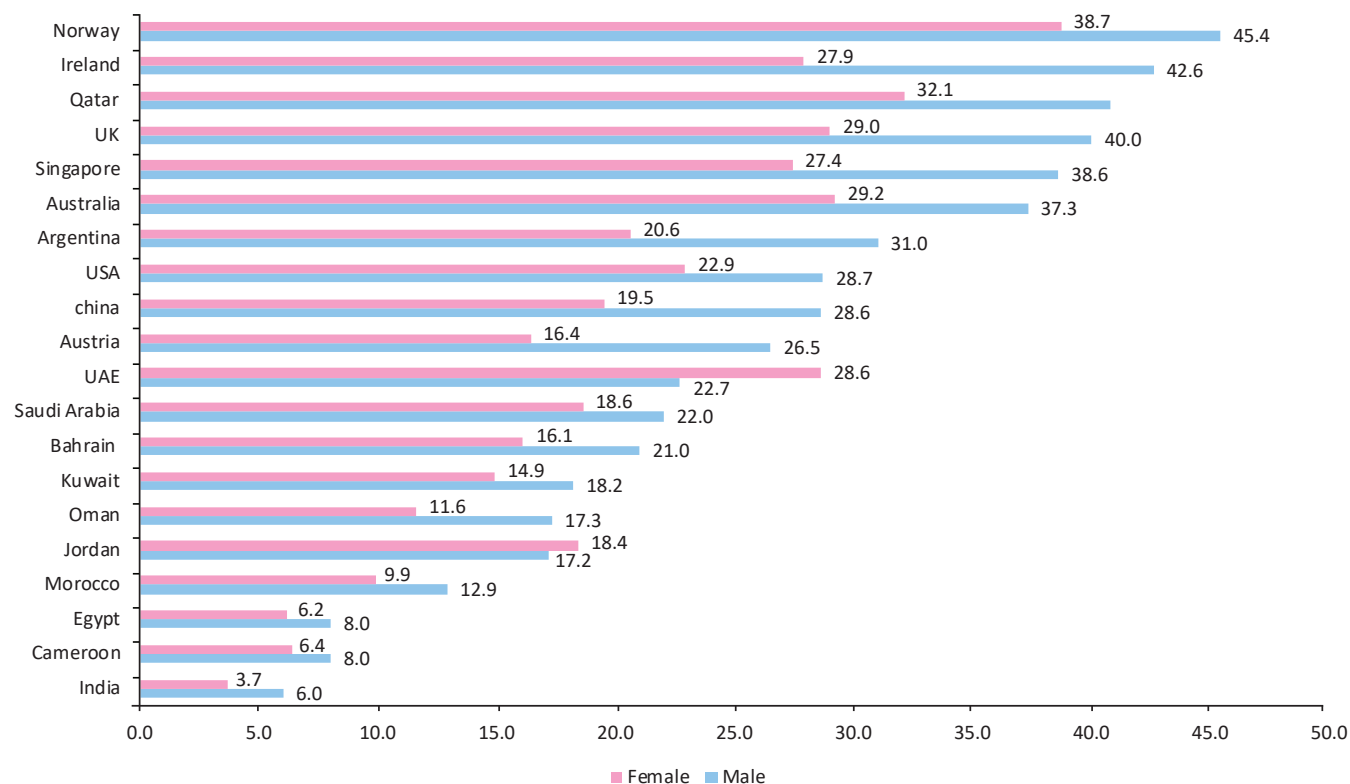


Figure 3.2.4: Comparison of ASR* for colorectal cancer among Saudis with ASR in selected countries**



*ASR per 100,000

**Source for this information is summarized on page 56.

Thyroid cancer (C73).

Thyroid cancer was ranked second among Saudi females and eighth among Saudi males. There were 1626 thyroid cases of cancer accounting for 9.1% of all newly diagnosed cancers in 2021 among Saudi nationals. Thyroid cancer affected 1304 (80.2%) females and 322 (19.8%) males, with a female to male ratio of 405 to 100. The ASR was 17.1/100,000 for females and 4.7 /100,000 for males.

The median age at diagnosis was 42 years in females (ranging between 3 and 94) and 45 years in males (ranging between 6 and 101).

Figure 3.3.1: Age-Specific Incidence Rate (AIR) for thyroid cancer among Saudi nationals, 2021.

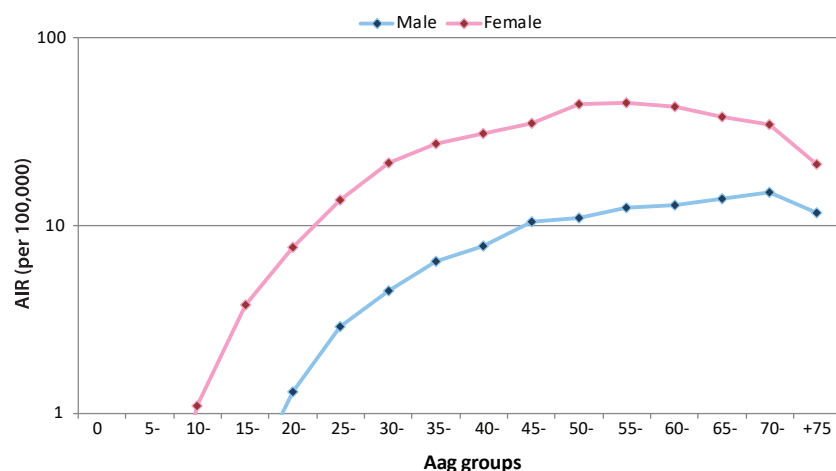


Table 3.3.1: Morphological distribution of thyroid cancer among Saudi nationals, 2021.

ICD-O-3	Morphology	Male	%	Female	%
82603	Papillary carcinoma, NOS	279	86.6	1164	89.3
83303	Follicular adenocarcinoma, NOS	12	3.7	41	3.1
85103	Medullary carcinoma, NOS	5	1.6	11	0.8
	Others	26	8.1	88	6.7
	Total	322	100	1304	100

Figure 3.3.2: Stage distribution of thyroid cancer among Saudi nationals, 2021.

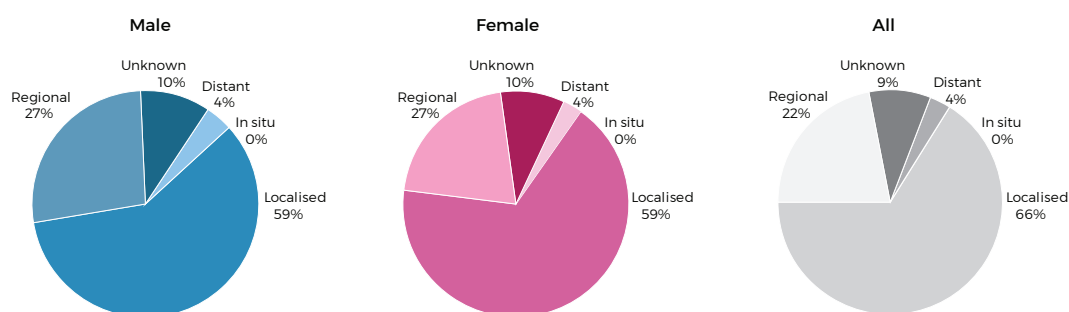
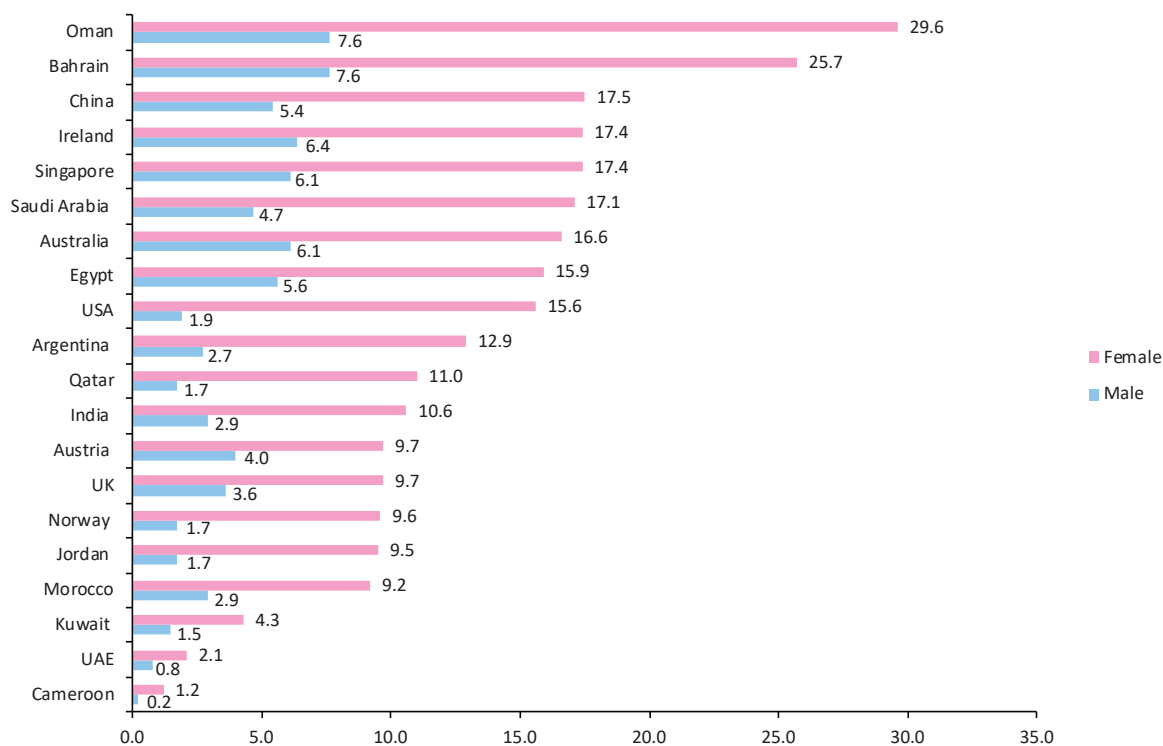


Figure 3.3.4: Comparison of ASR* for thyroid cancer among Saudis with ASR in selected countries**



*ASR per 100,000

**Source for this information is summarized on page 56.

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

Non-Hodgkin Lymphoma (NHL) was ranked third among Saudi males and sixth among Saudi females. There were 931 cases accounting for 5.2% of all cancers diagnosed among Saudi nationals in 2021. NHL affected 515 (55.3%) males, and 416 (44.7%) females, with a male to female ratio of 124 to 100. The ASR was 8 /100,000 for males and 6.4/100,000 for females.

The median age at diagnosis was 50 years in males (ranging between 1 and 103) and 53 years in females (ranging between 0 and 95).

Figure 3.4.1: Age-Specific Incidence Rate (AIR) for NHL among Saudi nationals, 2021.

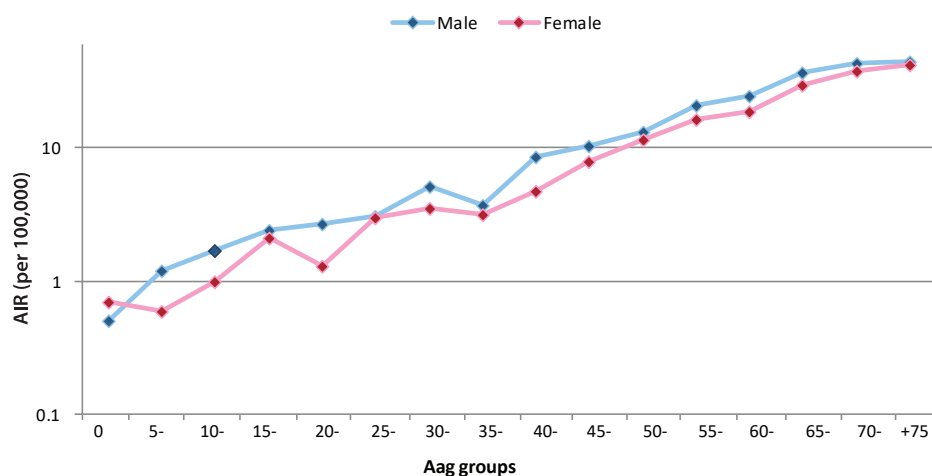
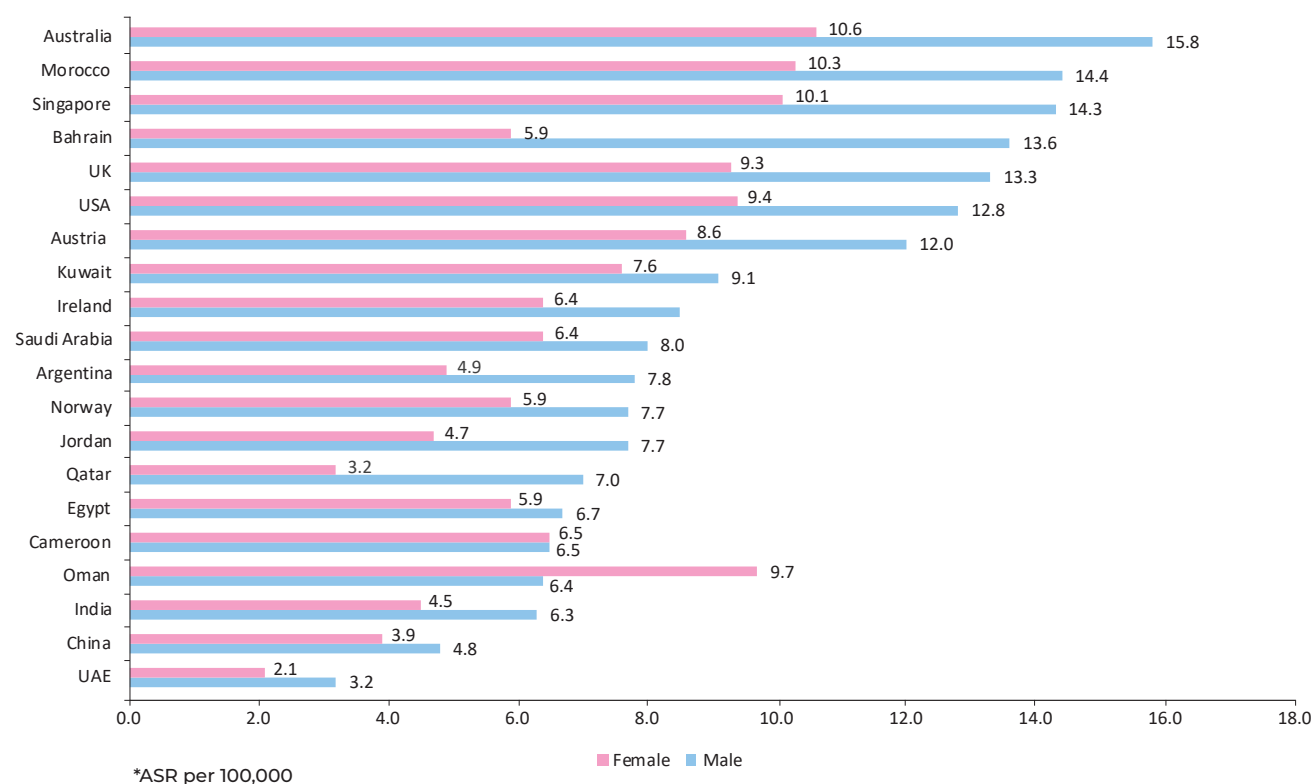


Table 3.4.1: Morphological distribution of NHL among Saudi nationals, 2021.

Code	Morphology	Male	%	Female	%
96803	Malignant lymphoma, large B-cell, diffuse, NOS	215	41.7	191	45.9
95913	Malignant lymphoma, non-Hodgkin, NOS	64	12.4	52	12.5
95903	Malignant lymphoma, NOS	57	11.1	48	11.5
96903	Follicular lymphoma, NOS	30	5.8	22	5.3
97003	Mycosis fungoides	23	4.5	25	6.0
	Other	126	24.5	78	18.8
	Total	515	100.0	416	100.0

Figure 3.4.4: Comparison of ASR* for NHL among Saudis with selected countries*



**Source for this information is summarized on page 56.

Leukaemia (C91-C95).

Leukemia was ranked fourth among Saudi males and the fifth among Saudi females. There were 931 cases accounting for 5.2% of all cancer cases diagnosed among Saudi nationals in 2021. Leukemia affected 498 (53.5%) males and 433 (46.5%) females with a male to female ratio of 115 to 100. The ASR was 6.6/100,000 for males and 5.9/100,000 for females.

The median age at diagnosis was 31.5 years in males (ranging between 0 and 92) and 40 years in females (ranging between 0 and 108).

Figure 3.5.1: Age-Specific Incidence Rate (AIR) for leukemia among Saudi nationals, 2021.

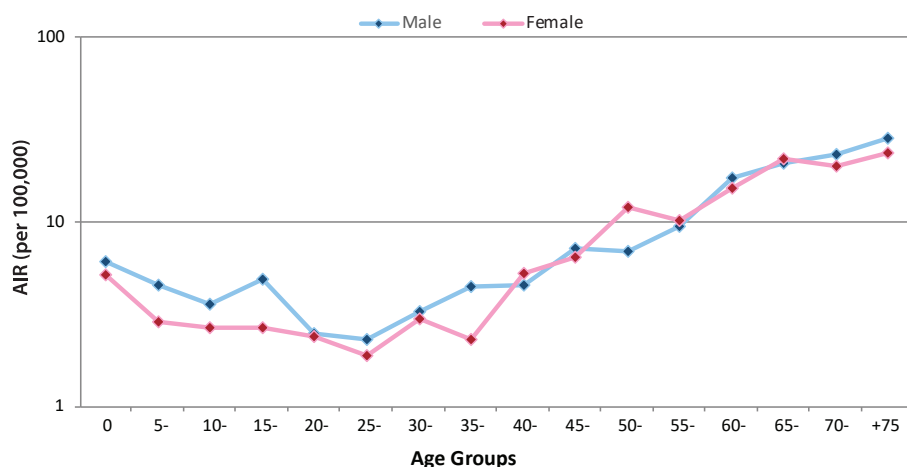
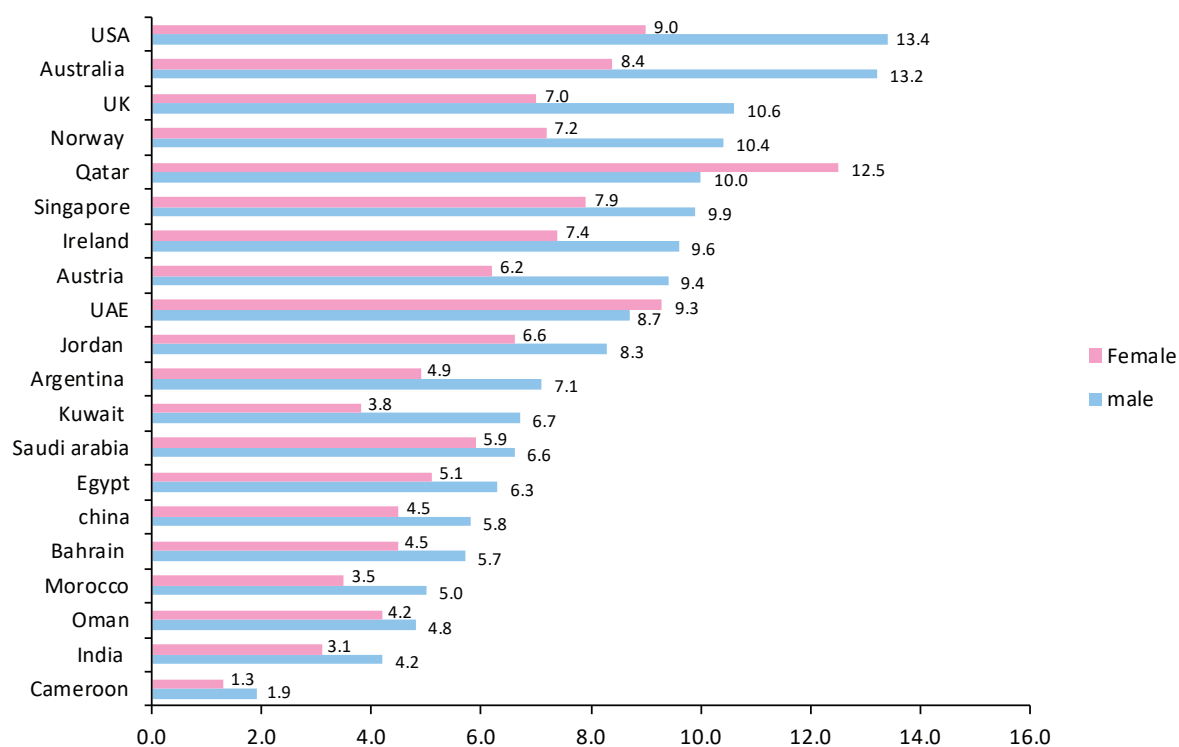


Table 3.5.1: Morphological distribution of leukaemia among Saudi nationals, 2021.

Code	Morphology	Male	%	Female	%
98003	Leukemia, NOS	168	33.7	129	29.8
98633	Chronic myeloid leukemia, NOS	70	14.1	72	16.6
98613	Acute myeloid leukemia, NOS	68	13.7	89	20.6
98233	B-cell chronic lymphocytic leukemia/small lymphocytic lymphom	43	8.6	25	5.8
98013	Acute leukemia, NOS	27	5.4	34	7.9
	Others	122	24.5	84	19.4
	Total	498	100.0	433	100

Figure 3.5.3: Comparison of ASR* for leukemia among Saudis with ASR in selected countries**



*ASR per 100,000

**Source for this information is summarized on page 56.

Corpus Uteri Cancer (C54).

Corpus uteri cancer was ranked fourth among Saudi females with 631 cases accounting for 5.9 % of all cancer cases diagnosed among Saudi females and 3.5% of all cancer cases diagnosed among Saudi nationals in 2021. The ASR was 12.1/100,000 for the Saudi female population.

The median age at diagnosis was 62 years (ranging between 21 and 98).

Figure 3.6.1: Age-Specific Incidence Rate (AIR) for corpus uteri cancer among Saudi females, 2021.

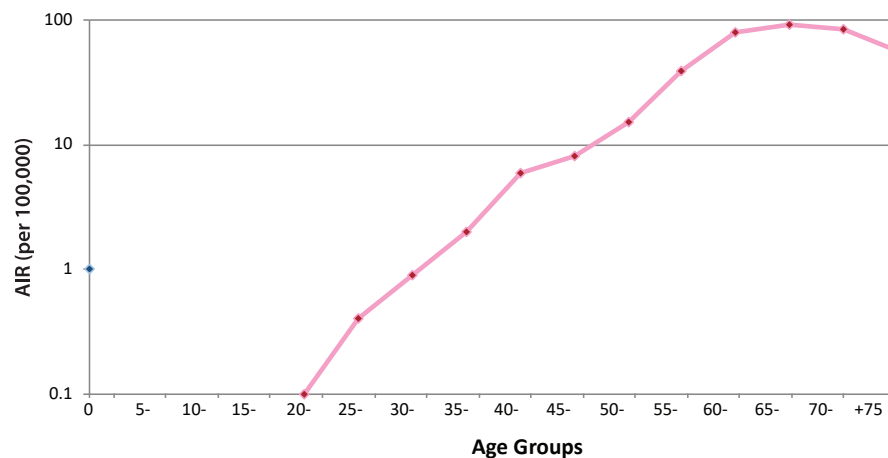


Table 3.6.1: Morphological distribution of corpus uteri cancer among Saudi females, 2021.

Code	Morphology	No	%
83803	Endometrioid adenocarcinoma, NOS	542	85.9
89803	Carcinosarcoma, NOS	59	9.4
	Others	30	4.8
	total	631	100.0

Figure 3.6.2: Stage distribution of corpus uteri cancer among Saudi females, 2021.

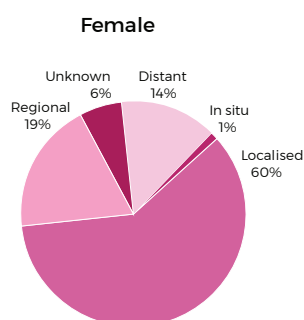
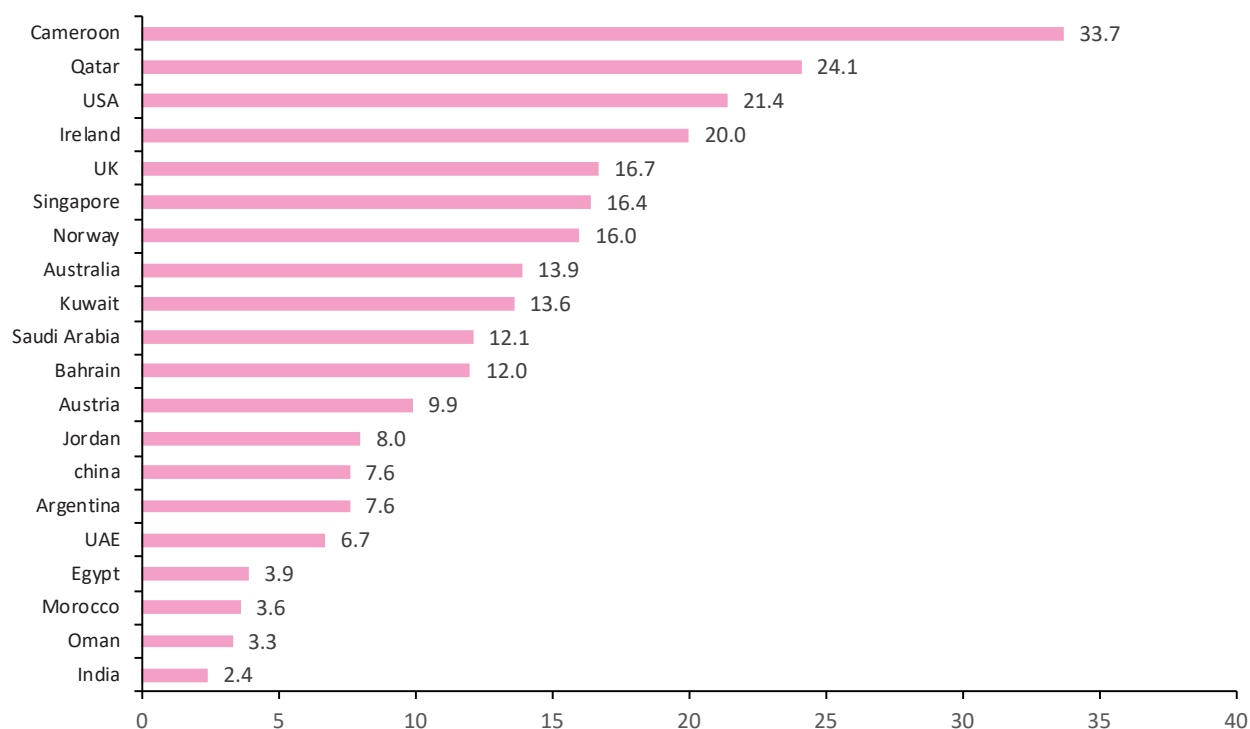


Figure 3.6.4: Comparison of ASR* for corpus uteri cancer among Saudi females with ASR in selected countries**



*ASR per 100,000

**Source for this information is summarized on page 56.

Liver Cancer (C22)

Liver cancer was ranked fifth among Saudi males and ninth among Saudi females. There were 620 liver cancer cases accounting for 3.5% of all cancer cases diagnosed among Saudi nationals in 2021. Liver cancer affected 390 (62.9%) males and 230 (37.1%) females with a male to female ratio of 170 to 100. The ASR was 7.7/100,000 for males and 4.3/100,000 for females.

The median age at diagnosis was 66 years in males (ranging between 0 and 104) and 64 years in females (ranging between 0 and 99).

Figure 3.7.1: Age-Specific Incidence Rate (AIR) for liver cancer among Saudi nationals, 2021.

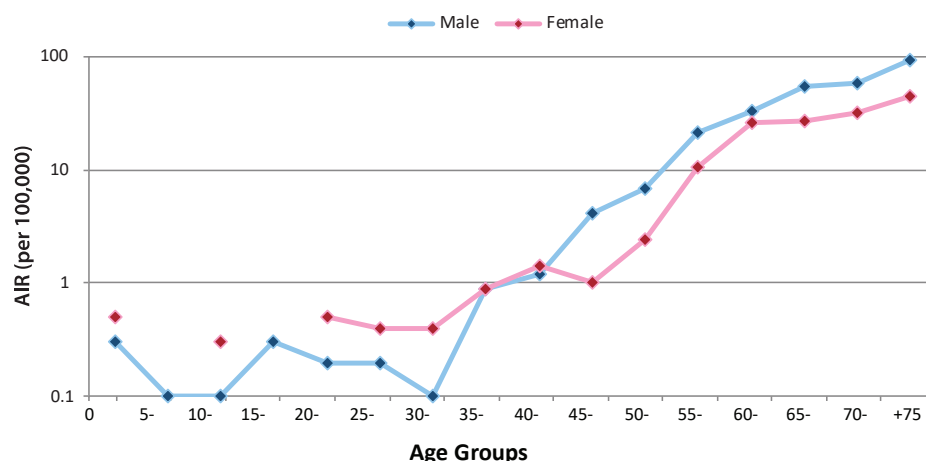


Table 3.7.1: Morphological distribution of liver cancer among Saudi nationals, 2021.

Code	Morphology	Male	%	Female	%
81703	Hepatocellular carcinoma, NOS	309	79.2	143	62.2
81403	Adenocarcinoma, NOS	28	7.2	43	18.7
81603	Cholangiocarcinoma	20	5.1	19	8.3
80103	Carcinoma, NOS	9	2.3	5	2.2
80003	Neoplasm, malignant	5	1.3	1	0.4
	Others	19	4.9	19	8.3
	Total	390	100.0	230	100.0

Figure 3.7.2: Stage distribution of liver cancer among Saudi nationals, 2021.

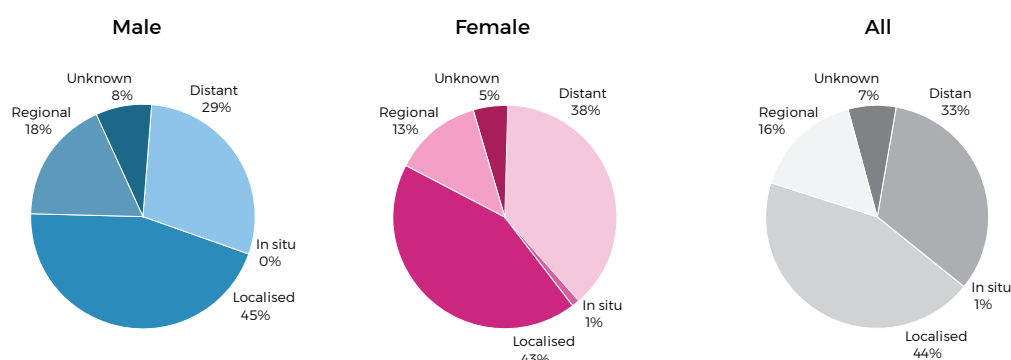
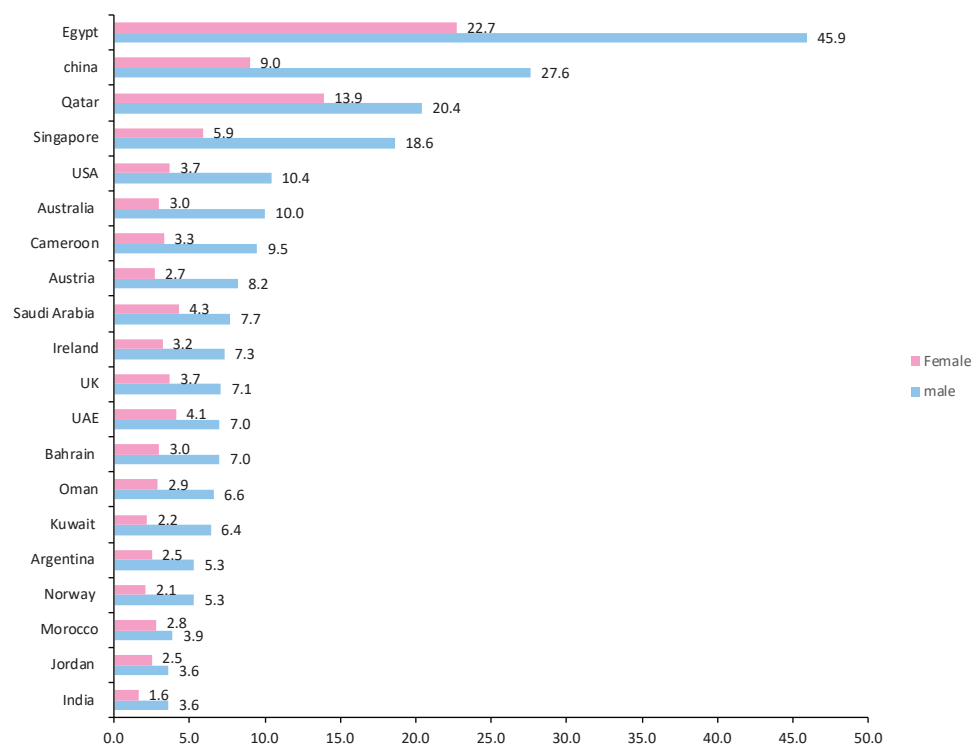


Figure 3.7.4: Comparison of ASR* for liver cancer among Saudis with ASR in selected countries**



*ASR per 100,000

**Source for this information is summarized on page 56.

Brain, Central nervous system (C70-C72).

Brain, CNS cancer was ranked eleventh among Saudi males and eighth among Saudi females. There were 596 cases accounting for 3.3% of all cancer cases diagnosed among Saudi nationals in 2021. Brain, CNS cancer affected 298 (50%) males and 298 (50%) females, with a ratio of male to female of 100 to 100. The ASR was 4.1/100,000 for males and 3.9/100,000 for females.

The median age at diagnosis was 38 years (ranging between 0 and 88) in males and 35 years (ranging between 0 and 93) in females.

Figure 3.8.1: Age-Specific Incidence Rate (AIR) for Brain, CNS among Saudi nationals, 2021.

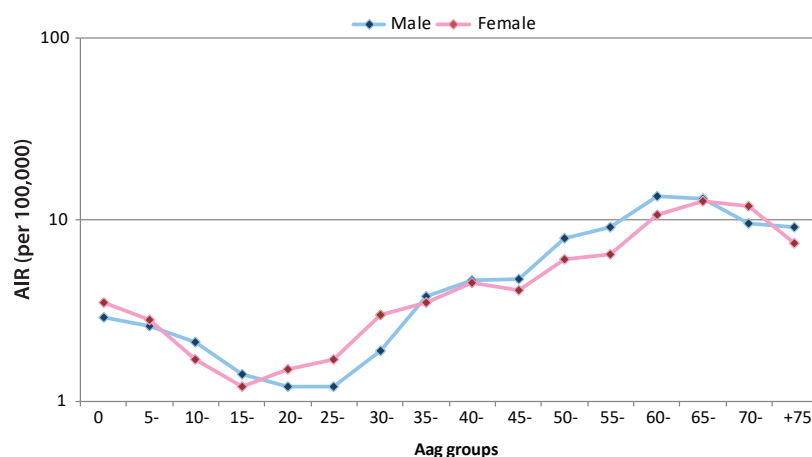


Table 3.8.1: Morphological distribution of Brain, CNS among Saudi nationals, 2021.

Code	Morphology	Male	%	Female	%
94403	Glioblastoma, NOS	86	28.9	71	23.8
93803	Glioma, malignant	67	22.5	60	20.1
94003	Astrocytoma, NOS	43	14.4	43	14.4
94703	Medulloblastoma, NOS	17	5.7	13	4.4
80003	Neoplasm, malignant	15	5.0	21	7.0
	Others	70	23.5	90	30.2
	Total	298	100.0	298	100.0

Figure 3.8.2: Stage distribution of Brain, CNS among Saudi nationals, 2021.

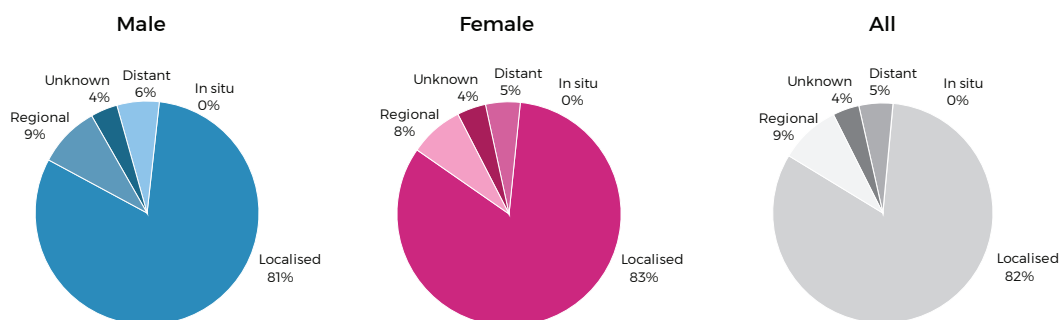
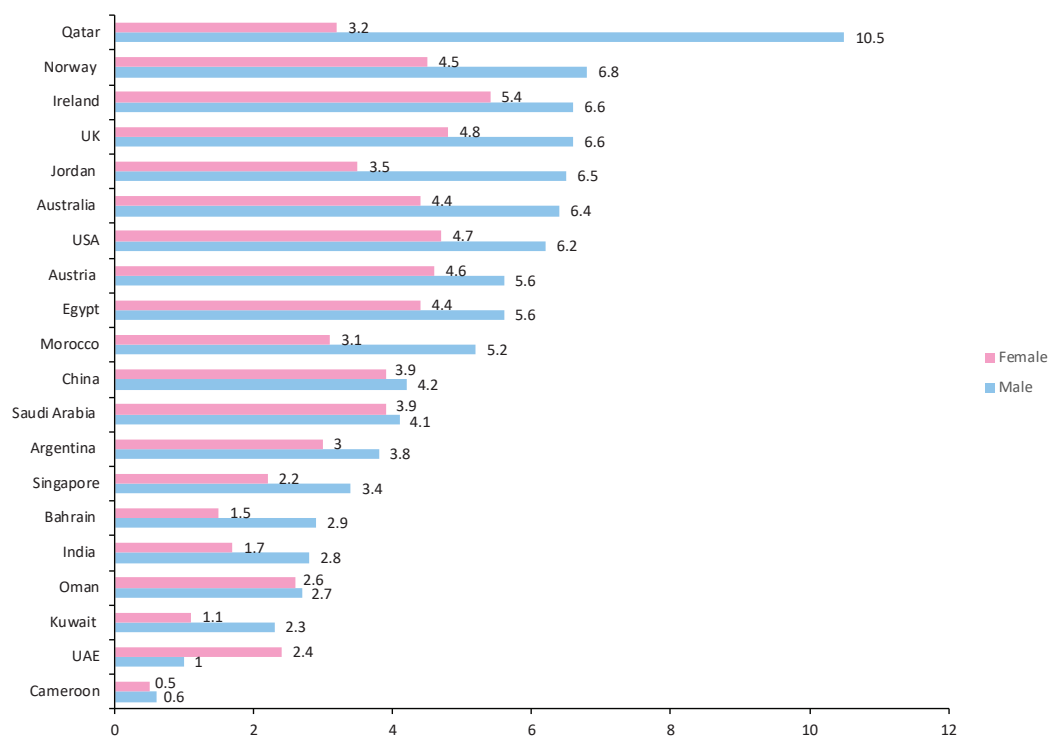


Figure 3.8.4: Comparison of ASR* for Brain, CNS among Saudis with ASR in selected countries**



*ASR per 100,000

**Source for this information is summarized on page 56.

Hodgkin's Lymphoma (C81).

Hodgkin's lymphoma was ranked Seventh among Saudi males and tenth among Saudi females. There were 541 cases of Hodgkin's lymphoma accounting for 3.0% of all cancer cases diagnosed among Saudi nationals in 2021. Hodgkin's lymphoma affected 326 (60.3%) males and 215 (39.7 %) females, with a ratio of male to female of 152 to 100. The ASR was 3.8 /100,000 for males and 2.5 /100,000 for females.

The median age at diagnosis was 29 years (ranging between 3 and 85) in males and 27 years (ranging between 6 and 86) in females.

Figure 3.9.1: Age-Specific Incidence Rate (AIR) for Hodgkin's lymphoma among Saudi nationals, 2021.

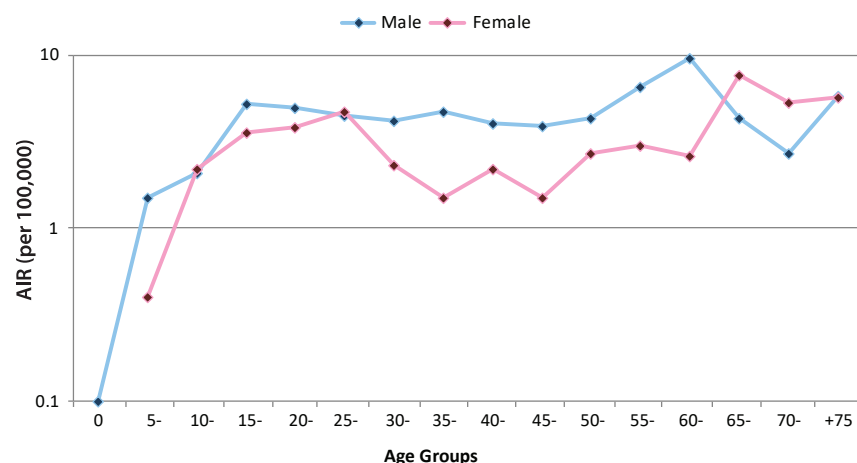
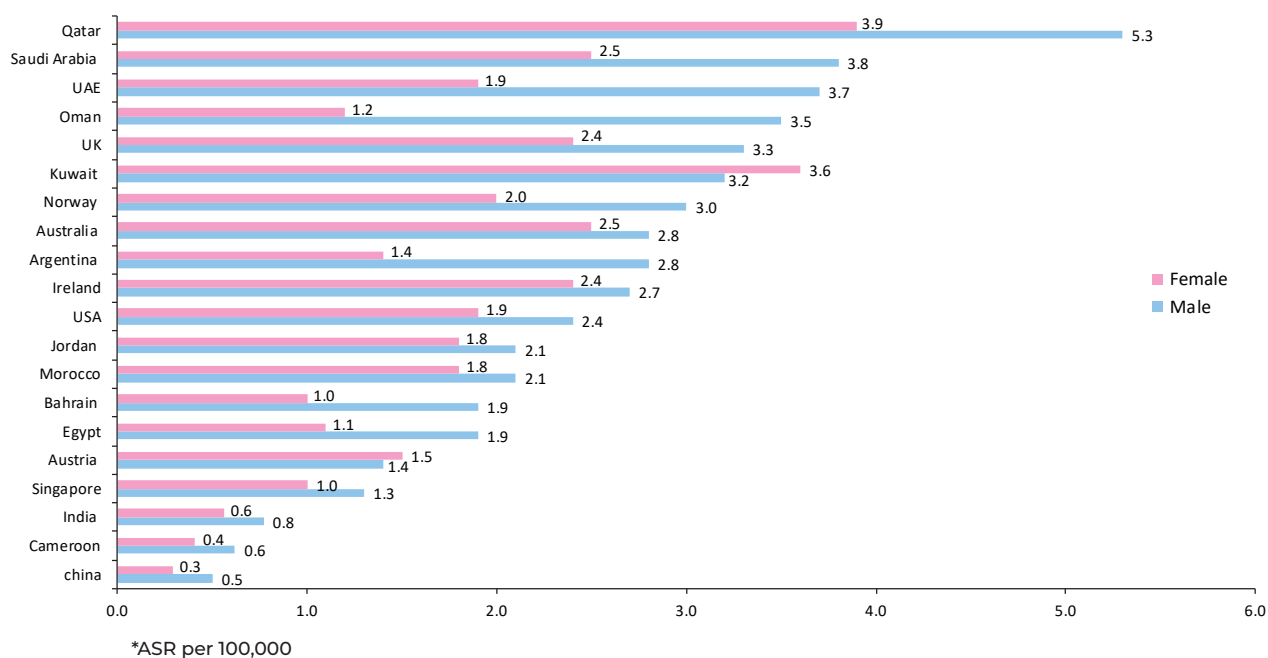


Table 3.9.1: Morphological distribution of Hodgkin's lymphoma among Saudi nationals, 2021.

Code	Morphology	Male	%	Female	%
96503	Hodgkin lymphoma, NOS	168.0	51.5	99.0	51.5
96633	Hodgkin lymphoma, nodular sclerosis, NOS	70.0	21.5	74.0	21.5
96593	Hodgkin lymphoma, nodular lymphocyte predominance	45.0	13.8	5.0	13.8
96513	Hodgkin lymphoma, lymphocyte-rich	21.0	6.4	24.0	6.4
96523	Hodgkin lymphoma, mixed cellularity, NOS	20.0	6.1	10.0	6.1
	Others	2.0	0.6	3.0	0.6
	Total	326.0	100.0	215.0	100.0

Figure 3.9.4: Comparison of ASR* for Hodgkin's lymphoma among Saudis with ASR in selected countries**



**Source for this information is summarized on page 56.

Prostate Cancer (C61)

Prostate cancer was ranked second among Saudi males with 540 cases accounting for 7.5% of all cancer cases diagnosed among Saudi males and 3% of all cancer cases diagnosed among Saudi nationals in 2021. The ASR was 11.2 /100,000 for the Saudi male population. The median age at diagnosis was 69 years (ranging between 20 and 100).

Figure 3.10.1: Age-Specific Incidence Rate (AIR) for Prostate cancer among Saudi males, 2021.

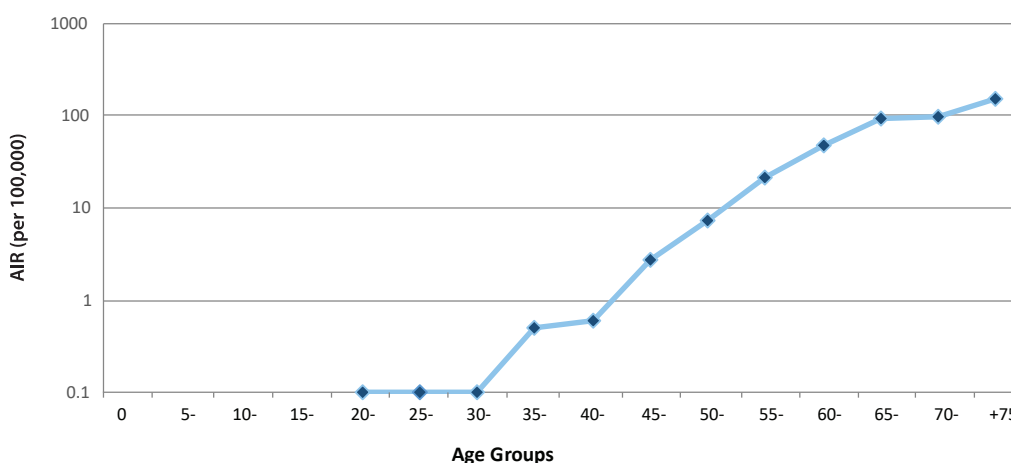


Table 3.10.1: Morphological distribution of Prostate cancer among Saudi males, 2021.

Code	Morphology	Male	%
81403	Adenocarcinoma, NOS	466	86.3
85503	Acinar cell carcinoma	55	10.2
80003	Neoplasm, malignant	10	1.9
80103	Carcinoma, NOS	5	0.9
81203	Transitional cell carcinoma, NOS	1	0.2
	Others	3	0.6
	Total	540	100.0

Figure 3.10.2: Stage distribution of Prostate cancer among Saudi males, 2021.

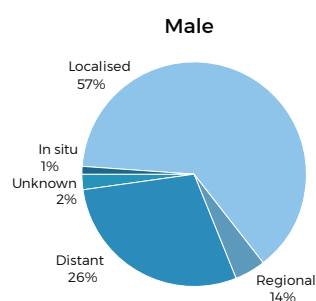
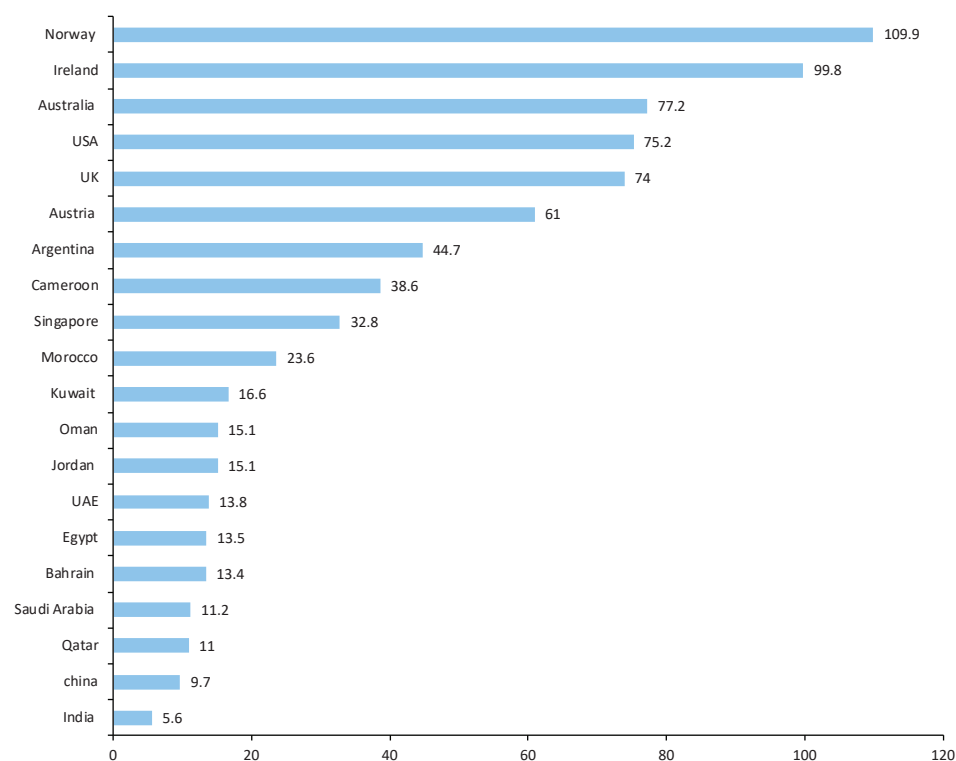


Figure 3.10.4: Comparison of ASR* for Prostate cancer among Saudis males with ASR in selected Countries**



*ASR per 100,000

**Source for this information is summarized on page 56.

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PART IV

CANCER INCIDENCE AMONG NON-SAUDIS 2021



Cancer Incidence Among Non-Saudi Population, 2021.

Between January and December 2021, a total of 4321 cancer cases were reported among the Non-Saudi population, 106 cases were excluded from analysis due to In Situ and mismatch between ICD-O-3 and ICD-10 codes. Therefore, the total Number of Cases analyzed was 4215 Out of this 1962 (46.5 %) were males and 2253 (53.4 %) were females.

Taking into consideration the population structure of non-Saudis and the fact that cancer is primarily a disease of the elderly; the pattern of cancer had some significant differences. Those who were under 15 represented 15.2% of the population, those aged 60 and above represented 3.8%, and the 15 to 59 age group represented 81% of the non-Saudi population.

In 2021, approximately 4.3% of all cancers occurred before the age of 15 years, 22.4% occurred between the ages of 15 to 39 years, 55.7% were between the ages of 40 to 64 years, and 17.6 % occurred after the age of 64 years. The median age at diagnosis was 53 years in males (ranging between 0 and 90) and 48 years in females (ranging between 0 and 94).

Table 4.1: Ten most common cancers among non-Saudi population, 2021.

Sites	No.	%
Breast	934	22.2
Colorectal	484	11.5
Thyroid	283	6.7
Leukaemia	270	6.4
NHL	156	3.7
Prostate	145	3.4
Other Skin	137	3.3
Lung	133	3.2
Brain, CNS	127	3.0
Kidney	125	3.0
Other Sites	1421	33.7

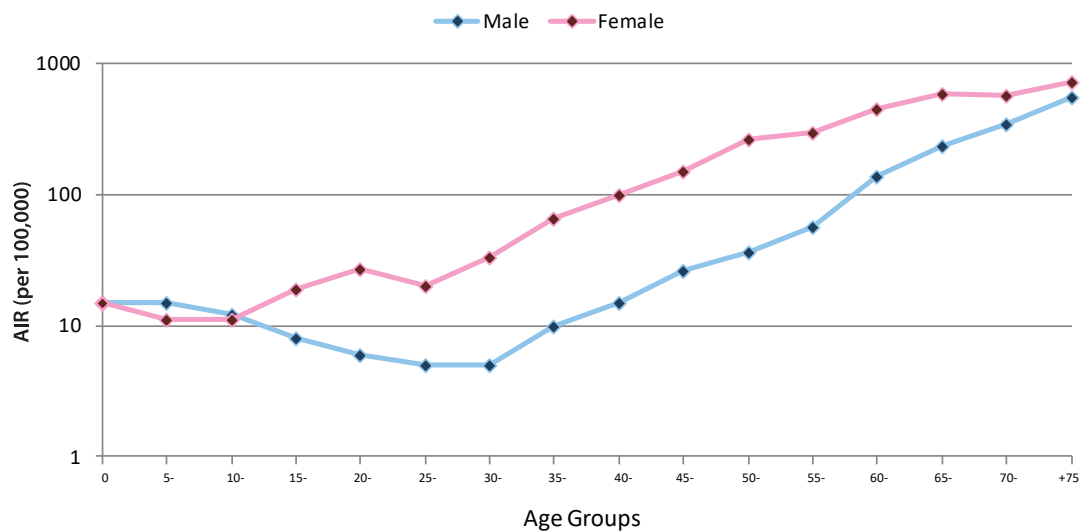
Table 4.2: Distribution of cancer cases among non-Saudi by nationality and gender, 2021.

Nationality	Male	%	Female	%	Total	%
Yemen	361	18.4	421	18.7	782	18.6
Egypt	233	11.9	213	9.5	446	10.6
Syrian Arab Republic	189	9.6	254	11.3	443	10.5
Philippines	113	5.8	288	12.8	401	9.5
Sudan	183	9.3	171	7.6	354	8.4
India	128	6.5	66	2.9	194	4.6
Pakistan	109	5.6	85	3.8	194	4.6
Jordan	65	3.3	80	3.6	145	3.4
Bangladesh	101	5.1	39	1.7	140	3.3
Indonesia	8	0.4	60	2.7	68	1.6
Myanmar	32	1.6	33	1.5	65	1.5
Lebanon	34	1.7	21	0.9	55	1.3
Afghanistan	17	0.9	35	1.6	52	1.2
USA	31	1.6	21	0.9	52	1.2
Eritrea	15	0.8	35	1.6	50	1.2
Ethiopia	18	0.9	31	1.4	49	1.2
Morocco	5	0.3	42	1.9	47	1.1
Other Nationalities	320	16.3	358	15.9	678	16.1
Total	1962	100.0	2253	100.0	4215	100.0

Table 4.3: Most common cancers among the non-Saudi population by gender, 2021.

Male	1962	%	Female	2253	%
Colorectal	305	15.5	Breast	911	40.4
Leukaemia	162	8.3	Thyroid	197	8.7
Prostate	145	7.4	Colorectal	179	7.9
Bladder	111	5.7	Leukaemia	108	4.8
Other Skin	107	5.5	Corpus Uteri	86	3.8
NHL	96	4.9	Ovary	77	3.4
Lung	89	4.5	Cervix Uteri	61	2.7
Kidney	89	4.5	NHL	60	2.7
Thyroid	86	4.4	Brain, CNS	52	2.3
Brain, CNS	75	3.8	Hodgkin lymphoma	46	2.0
Other Sites	697	35.5	Other Sites	476	21.1

Figure 4.1: Age-Specific Incidence Rate (AIR) for all cancers among Non-Saudi population, 2021.



PART V

INCIDENCE TABLES



Table 5.1.1 - Number Of Cases Among Saudi Males by Primary Site And Age Groups, 2021

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	11	0	0	0	0	0	0	0	0	2	0	0	1	1	2	2	0	3	%0.20
C01-C02	Tongue	57	0	0	0	0	0	0	1	6	6	4	0	8	5	7	5	7	8	%0.80
C03-C06	Mouth	45	0	0	0	0	0	2	2	1	2	2	7	4	6	6	5	4	4	%0.60
C07-C08	Salivary glands	23	0	0	0	0	0	1	2	1	1	3	2	4	2	2	0	0	5	%0.30
C09	Tonsil	4	0	0	0	0	0	0	0	1	0	0	1	0	0	1	0	0	1	%0.10
C10	Other Oropharynx	7	0	0	0	0	0	1	2	0	1	0	0	0	0	1	1	1	0	%0.10
C11	Nasopharynx	158	0	1	0	6	2	6	6	8	15	21	17	14	15	20	11	5	11	%2.20
C12-C13	Hypopharynx	4	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	2	%0.10
C14	Pharynx unspec.	7	0	0	0	0	0	0	0	0	0	0	2	3	0	0	0	0	2	%0.10
C15	Oesophagus	71	0	0	0	0	0	0	2	1	5	3	3	8	7	9	7	5	21	%1.00
C16	Stomach	192	0	0	0	0	1	0	3	6	9	11	13	19	19	31	22	27	31	%2.60
C17	Small intestine	53	1	0	0	0	0	1	0	2	6	5	3	5	4	11	6	4	5	%0.70
C18	Colon	775	1	1	0	1	5	7	13	18	52	40	73	69	110	127	79	74	105	%10.70
C19-C20	Rectum	425	1	0	0	0	0	2	5	11	18	36	43	44	65	77	50	30	43	%5.90
C21	Anus	32	0	0	0	0	0	0	0	1	3	1	3	2	2	12	3	3	2	%0.40
C22	Liver	390	0	3	1	1	3	2	2	1	6	6	15	21	52	59	63	43	112	%5.40
C23-C24	Gallbladder etc.	75	0	0	0	0	0	0	1	1	6	1	4	5	11	15	9	6	16	%1.00
C25	Pancreas	282	0	0	0	0	1	1	1	3	8	12	21	26	50	56	29	24	50	%3.90
C30-C31	Nose, sinuses etc.	22	0	0	0	0	0	0	1	0	3	2	0	5	2	1	3	2	3	%0.30
C32	Larynx	93	0	0	0	0	0	0	0	1	0	6	7	8	19	18	14	9	11	%1.30
C33-C34	Trachea,Bronchus,Lung	369	2	0	0	0	1	2	1	4	5	11	19	28	41	67	66	48	74	%5.10
C37-C38	Other Thoracic organs	36	0	2	0	0	2	3	3	3	2	3	0	1	6	2	2	3	4	%0.50
C40-C41	Bone	103	0	4	10	14	19	8	9	7	6	4	5	3	4	5	0	1	4	%1.40
C43	Melanoma of Skin	12	0	0	0	0	0	0	0	0	1	0	0	1	1	3	1	1	4	%0.20
C44	Other Skin	168	0	1	0	0	0	5	5	6	8	10	8	14	18	11	14	15	53	%2.30
C45	Mesothelioma	4	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	%0.10
C46	Kaposi sarcoma	30	0	0	0	0	0	1	2	1	1	0	1	2	5	2	2	6	7	%0.40
C47;C49	Connective,Soft tissue	125	0	6	4	2	7	6	4	11	8	7	10	11	10	12	10	3	14	%1.70
C50	Breast	68	0	0	0	0	0	0	1	2	6	6	10	7	9	7	4	5	11	%0.90
C60	Penis	4	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	%0.10
C61	Prostate	540	1	0	0	0	0	1	1	1	3	3	10	22	51	86	107	70	184	%7.50
C62	Testis	139	0	5	1	2	8	25	24	33	21	8	4	3	1	2	1	0	1	%1.90
C63	Other male genital	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	%0.00
C64	Kidney	301	0	15	3	1	2	2	5	13	26	24	22	33	35	42	34	18	26	%4.20
C65	Renal Pelvis	13	0	0	0	0	0	0	0	0	0	0	2	3	1	2	2	2	1	%0.20
C66	Ureter	6	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3	1	1	%0.10
C67	Bladder	310	0	1	0	0	0	0	1	2	10	13	10	31	35	55	37	32	83	%4.30
C68	Other Urinary organs	7	0	0	0	0	0	1	1	0	0	1	0	1	0	2	1	0	0	%0.10
C69	Eye	38	0	20	0	1	0	0	0	0	1	0	0	1	2	3	1	0	9	%0.50
C70-C72	Brain, Nervous system	298	0	32	29	22	13	10	10	14	25	23	17	24	22	24	15	7	11	%4.10
C73	Thyroid	322	0	0	1	2	4	11	24	34	42	39	38	33	30	23	16	11	14	%4.40
C74	Adrenal gland	21	0	11	4	0	1	0	1	0	0	0	1	1	0	0	0	1	1	%0.30
C75	Other Endocrine	11	0	1	0	1	3	1	1	0	0	0	1	0	1	0	1	1	0	%0.20
C81	Hodgkin disease	326	0	1	17	22	48	43	38	32	31	20	14	13	16	17	5	2	7	%4.50
C82-C85;C96	Non-Hodgkin lymphoma	515	0	6	14	18	22	23	26	39	24	43	38	40	50	44	42	32	54	%7.10
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	94	0	0	0	0	0	1	0	1	1	4	10	16	12	16	9	8	16	%1.30
C91	Lymphoid Leukaemia	110	0	13	7	7	11	3	2	4	3	7	6	9	8	9	3	6	12	%1.50
C92-C94	Myeloid Leukaemia	193	0	11	5	8	16	10	12	16	22	10	11	11	10	14	18	6	13	%2.70
C95	Leukaemia unspec.	195	0	44	41	22	18	9	6	5	4	6	9	1	5	8	3	5	9	%2.70
Other	Other & unspecified	162	0	10	1	3	3	1	1	5	7	15	13	12	22	12	18	15	24	%2.20
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All	All sites Total	7248	6	188	139	133	190	189	219	295	400	410	474	567	765	928	725	546	1074	%100.00
Not C44	All sites but C44	7080	6	187	139	133	190	184	214	289	392	400	466	553	747	917	711	531	1021	%97.70

Table 5.1.2 - Number Of Cases Among Saudi Females by Primary Site And Age Groups, 2021

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	6	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	4	%0.10
C01-C02	Tongue	59	0	0	0	0	0	2	3	2	2	0	5	5	9	10	6	5	10	%0.60
C03-C06	Mouth	26	0	0	0	0	2	1	0	0	1	1	3	3	3	5	3	0	4	%0.20
C07-C08	Salivary glands	27	0	0	1	0	0	2	2	3	4	3	1	3	1	2	1	1	3	%0.30
C09	Tonsil	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	%0.00
C10	Other Oropharynx	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	%0.00
C11	Nasopharynx	66	0	1	1	1	0	5	4	0	10	5	7	6	8	8	4	2	4	%0.60
C12-C13	Hypopharynx	3	0	0	0	0	0	0	0	0	1	0	1	1	0	0	0	0	0	%0.00
C14	Pharynx unspec.	3	0	0	0	0	0	0	0	0	0	0	1	2	0	0	0	0	0	%0.00
C15	Oesophagus	48	0	0	0	0	0	0	2	0	4	4	1	3	5	4	7	4	14	%0.40
C16	Stomach	150	0	0	0	0	3	4	4	1	6	13	16	21	22	20	10	9	21	%1.40
C17	Small intestine	48	0	0	0	0	1	2	0	6	3	5	1	3	9	5	4	2	7	%0.40
C18	Colon	724	0	0	0	3	0	4	6	24	24	46	71	102	106	110	81	56	91	%6.80
C19-C20	Rectum	349	0	0	0	0	1	1	2	14	13	28	29	53	51	50	31	24	52	%3.30
C21	Anus	16	0	0	0	0	0	0	0	1	2	0	1	1	2	0	2	2	5	%0.10
C22	Liver	230	0	5	0	3	0	4	3	3	6	7	4	8	28	49	32	24	54	%2.20
C23-C24	Gallbladder etc.	123	0	0	0	0	0	0	0	0	2	8	7	13	13	22	24	16	18	%1.20
C25	Pancreas	176	1	0	0	0	0	2	3	1	4	8	16	15	25	23	24	22	32	%1.60
C30-C31	Nose, sinuses etc.	10	0	0	0	1	0	0	0	0	0	2	0	4	0	1	0	0	2	%0.10
C32	Larynx	13	0	0	0	0	1	0	0	0	1	0	1	0	1	4	2	1	2	%0.10
C33-C34	Trachea,Bronchus,Lung	166	0	0	0	0	1	3	4	8	5	11	8	12	21	22	25	22	24	%1.60
C37-C38	Other Thoracic organs	18	0	1	0	0	0	0	1	0	4	0	3	1	3	3	0	0	2	%0.20
C40-C41	Bone	104	0	3	9	14	11	14	8	7	6	6	5	3	6	1	2	2	7	%1.00
C43	Melanoma of Skin	16	0	0	0	0	1	0	0	0	1	0	1	1	3	2	0	4	3	%0.10
C44	Other Skin	155	0	1	1	2	0	1	4	8	6	9	6	13	14	23	10	16	41	%1.40
C45	Mesothelioma	7	0	0	0	0	0	1	1	1	0	0	0	0	0	1	0	2	1	%0.10
C46	Kaposi sarcoma	6	0	0	0	0	0	0	0	0	1	0	0	1	1	0	0	2	1	%0.10
C47;C49	Connective,Soft tissue	103	0	6	2	3	1	8	4	11	5	8	10	8	5	8	8	3	13	%1.00
C50	Breast	3472	2	0	0	0	4	16	62	166	314	451	488	500	485	384	261	142	197	%32.50
C51	Vulva	31	0	0	0	0	0	0	1	1	3	0	3	2	4	5	4	3	5	%0.30
C52	Vagina	12	0	1	0	0	0	0	0	2	0	1	1	0	2	2	1	2	0	%0.10
C53	Cervix Uteri	145	0	0	0	1	0	0	1	4	18	10	13	19	22	25	9	6	17	%1.40
C54	Corpus Uteri	631	2	0	0	0	0	1	3	7	13	30	32	50	102	152	107	64	68	%5.90
C55	Uterus unspec.	150	0	0	0	0	0	0	6	4	4	6	11	23	19	33	18	14	12	%1.40
C56	Ovary	298	0	3	0	5	11	11	16	9	25	23	29	32	42	29	21	20	22	%2.80
C57	Other Female Genital	26	0	0	0	0	0	0	1	1	2	4	3	2	3	4	2	1	3	%0.20
C58	Placenta	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	%0.00
C64	Kidney	202	0	15	7	2	0	4	5	5	8	16	12	25	24	26	15	17	21	%1.90
C65	Renal Pelvis	5	0	0	0	0	0	0	0	1	1	0	1	0	0	0	1	0	1	%0.00
C66	Ureter	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	%0.00
C67	Bladder	75	0	1	0	0	0	1	1	0	1	3	2	3	8	13	2	10	30	%0.70
C68	Other Urinary organs	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	%0.00
C69	Eye	27	0	16	0	0	0	1	0	2	0	0	1	0	0	1	1	2	3	%0.30
C70-C72	Brain, Nervous system	298	0	38	31	17	11	13	14	22	23	23	16	20	17	20	15	9	9	%2.80
C73	Thyroid	1304	0	1	1	11	34	65	113	160	177	159	136	149	120	81	45	26	26	%12.20
C74	Adrenal gland	23	0	5	0	2	1	0	3	2	1	3	2	2	1	0	0	1	0	%0.20
C75	Other Endocrine	10	0	1	1	0	1	0	1	1	0	2	0	1	1	0	1	0	0	%0.10
C81	Hodgkin disease	215	0	0	4	22	32	32	39	17	10	11	6	9	8	5	9	4	7	%2.00
C82-C85;C96	Non-Hodgkin lymphoma	416	0	8	7	10	19	11	25	26	21	24	31	39	43	36	35	29	52	%3.90
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	103	0	0	0	0	1	0	0	2	2	5	17	16	13	20	9	6	12	%1.00
C91	Lymphoid Leukaemia	59	0	7	7	2	3	1	2	1	0	3	1	3	9	6	6	3	5	%0.60
C92-C94	Myeloid Leukaemia	211	0	10	6	6	11	13	5	15	12	21	19	28	13	19	11	9	13	%2.00
C95	Leukaemia unspec.	163	0	40	18	19	11	7	9	7	3	3	5	9	5	4	9	3	11	%1.50
Other	Other & unspecified	160	0	6	2	2	1	0	5	5	8	8	13	18	21	18	12	15	26	%1.50
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All	All sites Total	10693	5	169	98	126	162	230	363	551	758	970	1041	1232	1299	1258	870	605	956	%100.00
Not C44	All sites but C44	10538	5	168	97	124	162	229	359	543	752	961	1035	1219	1285	1235	860	589	915	%98.60

Table 5.1.3 Age-Specific Incidence Rate (AIR), Age Standardised Incidence Rate (ASR) Among Saudi Males (per 100,000) by Primary Site and Age groups, 2021

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	11	0	0	0	0	0	0	0	0	0.3	0	0	0.3	0.4	1.1	1.7	0	2.5	0.1	0.2
C01-C02	Tongue	57	0	0	0	0	0	0	0.1	0.8	0.9	0.8	0	2.6	2.1	3.9	4.3	9.5	6.6	0.6	1
C03-C06	Mouth	45	0	0	0	0	0	0.2	0.2	0.1	0.3	0.4	1.9	1.3	2.5	3.4	4.3	5.5	3.3	0.5	0.8
C07-C08	Salivary glands	23	0	0	0	0	0	0.1	0.2	0.1	0.2	0.6	0.6	1.3	0.8	1.1	0	0	4.2	0.2	0.3
C09	Tonsil	4	0	0	0	0	0	0	0	0.1	0	0	0.3	0	0	0.6	0	0	0.8	0	0.1
C10	Other Oropharynx	7	0	0	0	0	0	0.1	0.2	0	0.2	0	0	0	0	0.6	0.9	1.4	0	0.1	0.1
C11	Nasopharynx	158	0	0.1	0	0.6	0.2	0.7	0.7	1.1	2.3	4.2	4.7	4.6	6.2	11.3	9.5	6.8	9.1	1.7	2.5
C12-C13	Hypopharynx	4	0	0	0	0	0	0	0	0	0	0	0.3	0	0	0.6	0	0	1.7	0	0.1
C14	Pharynx unspec.	7	0	0	0	0	0	0	0	0	0	0	0.6	1	0	0	0	0	1.7	0.1	0.1
C15	Oesophagus	71	0	0	0	0	0	0	0.2	0.1	0.8	0.6	0.8	2.6	2.9	5.1	6.1	6.8	17.5	0.8	1.3
C16	Stomach	192	0	0	0	0	0.1	0	0.4	0.8	1.4	2.2	3.6	6.3	7.9	17.4	19.1	36.8	25.8	2.1	3.7
C17	Small intestine	53	1	0	0	0	0	0.1	0	0.3	0.9	1	0.8	1.6	1.7	6.2	5.2	5.5	4.2	0.6	1
C18	Colon	775	1	0.1	0	0.1	0.5	0.8	1.5	2.4	8	8	20.1	22.7	45.6	71.5	68.6	100.9	87.3	8.4	14.2
C19-C20	Rectum	425	1	0	0	0	0	0.2	0.6	1.5	2.8	7.2	11.8	14.5	27	43.3	43.4	40.9	35.7	4.6	7.8
C21	Anus	32	0	0	0	0	0	0	0	0.1	0.5	0.2	0.8	0.7	0.8	6.8	2.6	4.1	1.7	0.3	0.6
C22	Liver	390	0	0.3	0.1	0.1	0.3	0.2	0.2	0.1	0.9	1.2	4.1	6.9	21.6	33.2	54.7	58.6	93.1	4.2	7.7
C23-C24	Gallbladder etc.	75	0	0	0	0	0	0	0.1	0.1	0.9	0.2	1.1	1.6	4.6	8.4	7.8	8.2	13.3	0.8	1.4
C25	Pancreas	282	0	0	0	0	0.1	0.1	0.1	0.4	1.2	2.4	5.8	8.6	20.7	31.5	25.2	32.7	41.6	3.1	5.4
C30-C31	Nose, sinuses etc.	22	0	0	0	0	0	0	0.1	0	0.5	0.4	0	1.6	0.8	0.6	2.6	2.7	2.5	0.2	0.4
C32	Larynx	93	0	0	0	0	0	0	0	0.1	0	1.2	1.9	2.6	7.9	10.1	12.2	12.3	9.1	1	1.8
C33-C34	Trachea,Bronchus,Lung	369	2	0	0	0	0.1	0.2	0.1	0.5	0.8	2.2	5.2	9.2	17	37.7	57.3	65.4	61.5	4	7.5
C37-C38	Other Thoracic organs	36	0	0.2	0	0	0.2	0.3	0.4	0.4	0.3	0.6	0	0.3	2.5	1.1	1.7	4.1	3.3	0.4	0.5
C40-C41	Bone	103	0	0.4	0.9	1.3	2.1	0.9	1.1	0.9	0.9	0.8	1.4	1	1.7	2.8	0	1.4	3.3	1.1	1.2
C43	Melanoma of Skin	12	0	0	0	0	0	0	0	0	0.2	0	0	0.3	0.4	1.7	0.9	1.4	3.3	0.1	0.2
C44	Other Skin	168	0	0.1	0	0	0	0.6	0.6	0.8	1.2	2	2.2	4.6	7.5	6.2	12.2	20.4	44.1	1.8	2.9
C45	Mesothelioma	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0.6	0.9	1.4	0.8	0	0.1
C46	Kaposi sarcoma	30	0	0	0	0	0	0.1	0.2	0.1	0.2	0	0.3	0.7	2.1	1.1	1.7	8.2	5.8	0.3	0.6
C47;C49	Connective,Soft tissue	125	0	0.5	0.4	0.2	0.8	0.7	0.5	1.5	1.2	1.4	2.8	3.6	4.1	6.8	8.7	4.1	11.6	1.4	1.9
C50	Breast	68	0	0	0	0	0	0	0.1	0.3	0.9	1.2	2.8	2.3	3.7	3.9	3.5	6.8	9.1	0.7	1.2
C60	Penis	4	0	0	0	0	0	0	0	0	0	0	0	0	0	1.1	0	2.7	0	0	0.1
2	Prostate	540	1	0	0	0	0	0.1	0.1	0.1	0.5	0.6	2.8	7.2	21.1	48.4	92.9	95.4	152.9	5.9	11.2
C62	Testis	139	0	0.4	0.1	0.2	0.9	2.9	2.9	4.4	3.2	1.6	1.1	1	0.4	1.1	0.9	0	0.8	1.5	1.4
C63	Other male genital	2	0	0	0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.8	0	0
C64	Kidney	301	0	1.3	0.3	0.1	0.2	0.2	0.6	1.7	4	4.8	6.1	10.9	14.5	23.6	29.5	24.5	21.6	3.3	5.2
C65	Renal Pelvis	13	0	0	0	0	0	0	0	0	0	0	0.6	1	0.4	1.1	1.7	2.7	0.8	0.1	0.3
C66	Ureter	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0.6	2.6	1.4	0.8	0.1	0.1
C67	Bladder	310	0	0.1	0	0	0	0	0.1	0.3	1.5	2.6	2.8	10.2	14.5	30.9	32.1	43.6	69	3.4	6
C68	Other Urinary organs	7	0	0	0	0	0	0.1	0.1	0	0	0.2	0	0.3	0	1.1	0.9	0	0	0.1	0.1
C69	Eye	38	0	1.8	0	0.1	0	0	0	0	0.2	0	0	0.3	0.8	1.7	0.9	0	7.5	0.4	0.5
C70-C72	Brain, Nervous system	298	0	2.9	2.6	2.1	1.4	1.2	1.2	1.9	3.8	4.6	4.7	7.9	9.1	13.5	13	9.5	9.1	3.2	4.1
C73	Thyroid	322	0	0	0.1	0.2	0.4	1.3	2.9	4.5	6.4	7.8	10.5	10.9	12.4	12.9	13.9	15	11.6	3.5	4.7
C74	Adrenal gland	21	0	1	0.4	0	0.1	0	0.1	0	0	0	0.3	0.3	0	0	0	1.4	0.8	0.2	0.2
C75	Other Endocrine	11	0	0.1	0	0.1	0.3	0.1	0.1	0	0	0	0.3	0	0.4	0	0.9	1.4	0	0.1	0.2
C81	Hodgkin disease	326	0	0.1	1.5	2.1	5.2	5	4.5	4.2	4.7	4	3.9	4.3	6.6	9.6	4.3	2.7	5.8	3.5	3.8
C82-C85;C96	Non-Hodgkin lymphoma	515	0	0.5	1.2	1.7	2.4	2.7	3.1	5.2	3.7	8.6	10.5	13.2	20.7	24.8	36.5	43.6	44.9	5.6	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	94	0	0	0	0	0	0.1	0	0.1	0.2	0.8	2.8	5.3	5	9	7.8	10.9	13.3	1	1.8
C91	Lymphoid Leukaemia	110	0	1.2	0.6	0.7	1.2	0.3	0.2	0.5	0.5	1.4	1.7	3	3.3	5.1	2.6	8.2	10	1.2	1.6
C92-C94	Myeloid Leukaemia	193	0	1	0.4	0.8	1.7	1.2	1.4	2.1	3.4	2	3	3.6	4.1	7.9	15.6	8.2	10.8	2.1	2.7
C95	Leukaemia unspec.	195	0	3.9	3.6	2.1	2	1	0.7	0.7	0.6	1.2	2.5	0.3	2.1	4.5	2.6	6.8	7.5	2.1	2.3
Other	Other & unspecified	162	0	0.9	0.1	0.3	0.3	0.1	0.1	0.7	1.1	3	3.6	4	9.1	6.8	15.6	20.4	19.9	1.8	2.8
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All	All sites Total	7248	6	17	12	13	21	22	26	39	61	82	130	187	317	522	629	744	893	78.6	123.5
Not C44	All sites but C44	7080	6	17	12	13	21	21	25	38	60	80	128	182	310	516	617	724	849	76.8	120.6

Table 5.1.4 Age-Spesific Incidence Rate (AIR), Age Standardised Incidence Rate (ASR) Among Saudi Females (per 100,000) by Primary Site and Age groups, 2021

ICD (10th)	Site	All Ages	Age unk	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75+	Crude Rate	ASR World
C00	Lip	6	0	0	0	0	0	0	0	0	0	0	0.3	0	0.4	0	0	0	3.3	0.1	0.1
C01-C02	Tongue	59	0	0	0	0	0	0.2	0.4	0.3	0.3	0	1.3	1.5	3.4	5.3	5.1	6.6	8.2	0.6	1
C03-C06	Mouth	26	0	0	0	0	0.2	0.1	0	0	0.2	0.2	0.8	0.9	1.1	2.6	2.5	0	3.3	0.3	0.4
C07-C08	Salivary glands	27	0	0	0.1	0	0	0.2	0.2	0.4	0.6	0.6	0.3	0.9	0.4	1.1	0.8	1.3	2.5	0.3	0.4
C09	Tonsil	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	0	0	0	0	0
C10	Other Oropharynx	1	0	0	0	0	0	0	0	0.1	0	0	0	0	0	0	0	0	0	0	0
C11	Nasopharynx	66	0	0.1	0.1	0.1	0	0.6	0.5	0	1.5	1	1.8	1.8	3	4.2	3.4	2.6	3.3	0.7	1
C12-C13	Hypopharynx	3	0	0	0	0	0	0	0	0	0.2	0	0.3	0.3	0	0	0	0	0	0	0
C14	Pharynx unspec.	3	0	0	0	0	0	0	0	0	0	0	0.3	0.6	0	0	0	0	0	0	0
C15	Oesophagus	48	0	0	0	0	0	0	0.2	0	0.6	0.8	0.3	0.9	1.9	2.1	5.9	5.3	11.5	0.5	0.8
C16	Stomach	150	0	0	0	0	0.3	0.5	0.5	0.1	0.9	2.5	4.1	6.3	8.3	10.6	8.5	11.9	17.2	1.6	2.5
C17	Small intestine	48	0	0	0	0	0.1	0.2	0	0.8	0.5	1	0.3	0.9	3.4	2.6	3.4	2.6	5.7	0.5	0.7
C18	Colon	724	0	0	0	0.3	0	0.5	0.7	3.2	3.7	9	18.3	30.5	40.1	58.2	68.5	73.9	74.5	7.9	12.7
C19-C20	Rectum	349	0	0	0	0	0.1	0.1	0.2	1.9	2	5.5	7.5	15.9	19.3	26.4	26.2	31.7	42.6	3.8	5.9
C21	Anus	16	0	0	0	0	0	0	0	0.1	0.3	0	0.3	0.3	0.8	0	1.7	2.6	4.1	0.2	0.3
C22	Liver	230	0	0.5	0	0.3	0	0.5	0.4	0.4	0.9	1.4	1	2.4	10.6	25.9	27.1	31.7	44.2	2.5	4.3
C23-C24	Gallbladder etc.	123	0	0	0	0	0	0	0	0	0.3	1.6	1.8	3.9	4.9	11.6	20.3	21.1	14.7	1.3	2.4
C25	Pancreas	176	1	0	0	0	0	0.2	0.4	0.1	0.6	1.6	4.1	4.5	9.5	12.2	20.3	29	26.2	1.9	3.3
C30-C31	Nose, sinuses etc.	10	0	0	0	0.1	0	0	0	0	0	0.4	0	1.2	0	0.5	0	0	1.6	0.1	0.1
C32	Larynx	13	0	0	0	0	0.1	0	0	0	0.2	0	0.3	0	0.4	2.1	1.7	1.3	1.6	0.1	0.2
C33-C34	Trachea,Bronchus,Lung	166	0	0	0	0	0.1	0.4	0.5	1.1	0.8	2.2	2.1	3.6	7.9	11.6	21.1	29	19.6	1.8	3
C37-C38	Other Thoracic organs	18	0	0.1	0	0	0	0	0.1	0	0.6	0	0.8	0.3	1.1	1.6	0	0	1.6	0.2	0.3
C40-C41	Bone	104	0	0.3	0.8	1.4	1.2	1.7	1	0.9	0.9	1.2	1.3	0.9	2.3	0.5	1.7	2.6	5.7	1.1	1.2
C43	Melanoma of Skin	16	0	0	0	0	0.1	0	0	0	0.2	0	0.3	0.3	1.1	1.1	0	5.3	2.5	0.2	0.3
C44	Other Skin	155	0	0.1	0.1	0.2	0	0.1	0.5	1.1	0.9	1.8	1.5	3.9	5.3	12.2	8.5	21.1	33.6	1.7	2.6
C45	Mesothelioma	7	0	0	0	0	0	0.1	0.1	0.1	0	0	0	0	0	0.5	0	2.6	0.8	0.1	0.1
C46	Kaposi sarcoma	6	0	0	0	0	0	0	0	0	0.2	0	0	0.3	0.4	0	0	2.6	0.8	0.1	0.1
C47,C49	Connective,Soft tissue	103	0	0.6	0.2	0.3	0.1	0.9	0.5	1.5	0.8	1.6	2.6	2.4	1.9	4.2	6.8	4	10.6	1.1	1.5
C50	Breast	3472	2	0	0	0	0.4	1.9	7.5	22.3	48.3	88.3	125.7	149.7	183.6	203.1	220.7	187.3	161.2	38	54.4
C51	Vulva	31	0	0	0	0	0	0	0.1	0.1	0.5	0	0.8	0.6	1.5	2.6	3.4	4	4.1	0.3	0.6
C52	Vagina	12	0	0.1	0	0	0	0	0	0.3	0	0.2	0.3	0	0.8	1.1	0.8	2.6	0	0.1	0.2
C53	Cervix Uteri	145	0	0	0	0.1	0	0	0.1	0.5	2.8	2	3.3	5.7	8.3	13.2	7.6	7.9	13.9	1.6	2.3
C54	Corpus Uteri	631	2	0	0	0	0	0.1	0.4	0.9	2	5.9	8.2	15	38.6	80.4	90.5	84.4	55.7	6.9	12.1
C55	Uterus unspec.	150	0	0	0	0	0	0	0.7	0.5	0.6	1.2	2.8	6.9	7.2	17.5	15.2	18.5	9.8	1.6	2.7
C56	Ovary	298	0	0.3	0	0.5	1.2	1.3	1.9	1.2	3.8	4.5	7.5	9.6	15.9	15.3	17.8	26.4	18	3.3	4.6
C57	Other Female Genital	26	0	0	0	0	0	0	0.1	0.1	0.3	0.8	0.8	0.6	1.1	2.1	1.7	1.3	2.5	0.3	0.4
C58	Placenta	1	0	0	0	0	0	0	0	0	0.2	0	0	0	0	0	0	0	0	0	0
C64	Kidney	202	0	1.4	0.6	0.2	0	0.5	0.6	0.7	1.2	3.1	3.1	7.5	9.1	13.8	12.7	22.4	17.2	2.2	3.3
C65	Renal Pelvis	5	0	0	0	0	0	0	0	0.1	0.2	0	0.3	0	0	0	0.8	0	0.8	0.1	0.1
C66	Ureter	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	0	0	0	0	0
C67	Bladder	75	0	0.1	0	0	0	0.1	0.1	0	0.2	0.6	0.5	0.9	3	6.9	1.7	13.2	24.6	0.8	1.4
C68	Other Urinary organs	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.8	0	0
C69	Eye	27	0	1.5	0	0	0	0.1	0	0.3	0	0	0.3	0	0	0.5	0.8	2.6	2.5	0.3	0.4
C70-C72	Brain, Nervous system	298	0	3.5	2.8	1.7	1.2	1.5	1.7	3	3.5	4.5	4.1	6	6.4	10.6	12.7	11.9	7.4	3.3	3.9
C73	Thyroid	1304	0	0.1	0.1	1.1	3.8	7.7	13.7	21.5	27.2	31.1	35	44.6	45.4	42.8	38	34.3	21.3	14.3	17.1
C74	Adrenal gland	23	0	0.5	0	0.2	0.1	0	0.4	0.3	0.2	0.6	0.5	0.6	0.4	0	0	1.3	0	0.3	0.3
C75	Other Endocrine	10	0	0.1	0.1	0	0.1	0	0.1	0.1	0	0.4	0	0.3	0.4	0	0.8	0	0	0.1	0.1
C81	Hodgkin disease	215	0	0	0.4	2.2	3.6	3.8	4.7	2.3	1.5	2.2	1.5	2.7	3	2.6	7.6	5.3	5.7	2.4	2.5
C82-C85,C96	Non-Hodgkin lymphoma	416	0	0.7	0.6	1	2.1	1.3	3	3.5	3.2	4.7	8	11.7	16.3	19	29.6	38.3	42.6	4.5	6.4
C88	Immunoproliferative dis.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C90	Multiple Myeloma	103	0	0	0	0	0.1	0	0	0.3	0.3	1	4.4	4.8	4.9	10.6	7.6	7.9	9.8	1.1	1.8
C91	Lymphoid Leukaemia	59	0	0.6	0.6	0.2	0.3	0.1	0.2	0.1	0	0.6	0.3	0.9	3.4	3.2	5.1	4	4.1	0.6	0.9
C92-C94	Myeloid Leukaemia	211	0	0.9	0.6	0.6	1.2	1.5	0.6	2	1.8	4.1	4.9	8.4	4.9	10	9.3	11.9	10.6	2.3	3
C95	Leukaemia unspec.	163	0	3.7	1.7	1.9	1.2	0.8	1.1	0.9	0.5	0.6	1.3	2.7	1.9	2.1	7.6	4	9	1.8	2
Other	Other & unspecified	160	0	0.6	0.2	0.2	0.1	0	0.6	0.7	1.2	1.6	3.3	5.4	7.9	9.5	10.1	19.8	21.3	1.7	2.7
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All	All sites Total	10693	5	16	9	12	18	27	44	74	117	190	268	369	492	665	736	798	782	116.9	168.6
Not C44	All sites but C44	10538	5	16	9	12	18	27	43	73	116		267	365	486	653	727	777	749	115.2	166

Table 5.4.1 - Number Of Cases Among Non-Saudi Males by Primary Site And Age Groups, 2021

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	10	0	0	0	0	0	0	0	0	4	1	0	2	1	1	1	0	0	%0.50
C01-C02	Tongue	35	0	0	0	0	0	0	0	1	3	5	5	8	5	4	0	4	0	%1.80
C03-C06	Mouth	16	0	1	0	0	0	0	0	1	2	4	4	1	0	1	0	1	1	%0.80
C07-C08	Salivary glands	13	0	0	0	0	0	0	0	3	2	2	2	3	0	0	0	1	0	%0.70
C09	Tonsil	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	%0.10
C10	Other Oropharynx	3	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	0	%0.20
C11	Nasopharynx	29	0	0	0	2	0	1	0	0	3	5	8	1	5	2	0	1	1	%1.50
C12-C13	Hypopharynx	2	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	%0.10
C14	Pharynx unspec.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	%0.00
C15	Oesophagus	15	0	0	0	0	0	0	1	0	0	1	0	1	3	1	4	1	3	%0.80
C16	Stomach	65	0	0	0	0	0	0	3	3	7	7	11	9	5	5	8	4	3	%3.30
C17	Small intestine	19	0	0	0	0	0	0	0	0	2	0	3	4	1	3	2	1	3	%1.00
C18	Colon	189	1	0	0	0	1	1	2	9	15	16	21	21	28	30	17	14	13	%9.60
C19-C20	Rectum	116	0	0	0	0	0	0	0	4	9	13	11	20	22	19	8	4	6	%5.90
C21	Anus	8	0	0	0	0	0	1	0	0	1	2	0	1	1	2	0	0	0	%0.40
C22	Liver	48	0	1	0	0	0	0	0	1	4	3	2	1	7	15	5	4	5	%2.40
C23-C24	Gallbladder etc.	17	0	0	0	0	0	0	0	1	1	0	0	3	1	6	1	1	3	%0.90
C25	Pancreas	48	0	0	0	0	0	0	1	3	1	3	4	4	8	10	4	5	5	%2.40
C30-C31	Nose, sinuses etc.	4	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	1	%0.20
C32	Larynx	26	0	0	0	0	0	0	0	1	1	1	4	8	3	3	4	0	1	%1.30
C33-C34	Trachea,Bronchus,Lung	89	0	0	0	0	0	1	1	1	5	6	4	9	13	15	16	14	4	%4.50
C37-C38	Other Thoracic organs	18	0	0	0	1	1	0	0	2	1	4	3	2	1	2	1	0	0	%0.90
C40-C41	Bone	46	0	1	2	6	0	6	0	2	4	3	7	4	6	1	3	1	0	%2.30
C43	Melanoma of Skin	6	0	0	0	0	0	0	0	2	0	2	0	2	0	0	0	0	0	%0.30
C44	Other Skin	107	0	0	0	0	0	0	1	0	4	8	10	15	17	23	13	8	8	%5.50
C45	Mesothelioma	2	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	%0.10
C46	Kaposi sarcoma	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	%0.10
C47;C49	Connective,Soft tissue	46	0	1	1	0	0	0	6	3	7	3	9	2	1	2	5	2	4	%2.30
C50	Breast	23	0	0	0	0	0	0	1	1	0	2	2	6	2	2	4	1	2	%1.20
C60	Penis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	%0.00
C61	Prostate	145	0	0	0	0	0	0	0	1	0	3	0	11	22	35	31	20	22	%7.40
C62	Testis	29	0	0	0	0	0	2	8	4	7	5	1	1	1	0	0	0	0	%1.50
C63	Other male genital	3	0	0	0	0	0	0	0	0	1	1	0	0	0	1	0	0	0	%0.20
C64	Kidney	89	0	2	0	0	1	0	0	4	12	14	12	10	14	9	7	3	1	%4.50
C65	Renal Pelvis	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	%0.10
C66	Ureter	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	%0.10
C67	Bladder	111	0	0	0	0	0	1	0	2	12	5	13	13	11	17	17	6	14	%5.70
C68	Other Urinary organs	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	%0.10
C69	Eye	3	0	1	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	%0.20
C70-C72	Brain, Nervous system	75	0	3	5	0	1	4	5	5	9	3	8	6	6	9	4	3	4	%3.80
C73	Thyroid	86	0	0	0	0	0	2	3	8	15	13	13	12	3	9	3	2	3	%4.40
C74	Adrenal gland	3	0	0	0	0	0	0	0	1	0	0	0	0	2	0	0	0	0	%0.20
C75	Other Endocrine	4	0	0	1	0	0	1	0	0	0	0	1	1	0	0	0	0	0	%0.20
C81	Hodgkin disease	63	0	1	1	3	5	5	8	8	3	8	7	3	1	4	4	1	1	%3.20
C82-C85;C96	Non-Hodgkin lymphoma	96	0	3	0	4	0	0	6	6	8	9	18	9	12	12	5	2	2	%4.90
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	32	0	0	1	0	0	0	1	0	0	3	4	4	1	10	3	1	4	%1.60
C91	Lymphoid Leukaemia	54	0	9	20	6	2	0	2	0	1	2	0	2	3	4	3	0	0	%2.80
C92-C94	Myeloid Leukaemia	57	0	1	1	1	1	1	8	5	11	6	7	9	1	0	3	0	2	%2.90
C95	Leukaemia unspec.	51	0	10	6	2	2	3	5	2	4	5	4	2	2	0	2	0	2	%2.60
Other	Other & unspecified	56	0	1	1	1	0	0	2	4	3	5	8	5	7	7	5	3	4	%2.90
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All	All sites Total	1962	1	35	39	26	14	29	64	89	163	175	208	217	218	266	185	110	123	%100.00
Not C44	All sites but C44	1855	1	35	39	26	14	29	63	89	159	167	198	202	201	243	172	102	115	%94.50

Table 5.4.2 - Number Of Cases Among Non-Saudi Females by Primary Site And Age Groups, 2021

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	3	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	1	0	%0.10
C01-C02	Tongue	6	0	0	0	0	0	0	0	0	0	0	1	2	1	1	1	0	0	%0.30
C03-C06	Mouth	3	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	2	0	%0.10
C07-C08	Salivary glands	5	0	0	0	1	0	0	0	1	0	1	1	0	0	1	0	0	0	%0.20
C09	Tonsil	1	0	0	0	0	0	0	0	0	1	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	13	0	0	0	0	1	0	2	2	2	3	0	1	1	0	0	0	1	%0.60
C12-C13	Hypopharynx	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	%0.00
C14	Pharynx unspec.	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	%0.00
C15	Oesophagus	11	0	0	0	0	0	0	1	0	1	0	2	1	1	3	1	0	1	%0.50
C16	Stomach	30	0	0	0	0	0	0	0	2	2	1	3	5	4	3	5	2	3	%1.30
C17	Small intestine	10	0	0	0	0	0	0	0	1	1	0	0	2	4	2	0	0	0	%0.40
C18	Colon	120	0	0	0	0	1	3	5	4	12	10	13	15	10	11	14	5	17	%5.30
C19-C20	Rectum	59	0	0	0	0	0	0	1	2	7	2	11	9	7	12	4	2	2	%2.60
C21	Anus	4	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	2	%0.20
C22	Liver	30	0	0	0	0	0	0	0	0	0	1	6	4	5	2	4	6	2	%1.30
C23-C24	Gallbladder etc.	17	0	0	0	0	0	0	0	0	1	2	1	1	5	2	0	2	3	%0.80
C25	Pancreas	19	0	0	0	0	0	0	0	0	0	3	0	4	1	2	5	3	1	%0.80
C30-C31	Nose, sinuses etc.	6	0	1	0	0	0	2	1	0	1	0	0	0	0	0	1	0	0	%0.30
C32	Larynx	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	%0.00
C33-C34	Trachea,Bronchus,Lung	44	0	0	0	0	0	0	2	3	5	4	4	4	4	3	6	5	4	%2.00
C37-C38	Other Thoracic organs	7	0	1	0	0	0	0	1	1	3	0	0	0	0	0	0	1	0	%0.30
C40-C41	Bone	33	0	0	3	1	5	3	2	3	3	1	3	5	1	2	0	0	1	%1.50
C43	Melanoma of Skin	5	0	0	0	0	0	0	0	0	0	0	1	1	1	0	1	1	0	%0.20
C44	Other Skin	30	0	0	0	0	0	0	1	0	2	5	4	7	2	3	4	0	2	%1.30
C45	Mesothelioma	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	%0.00
C46	Kaposi sarcoma	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	%0.00
C47;C49	Connective,Soft tissue	26	0	0	1	1	1	2	2	2	2	2	3	1	3	2	3	0	1	%1.20
C50	Breast	911	1	0	0	0	0	4	17	67	127	158	129	129	85	80	55	24	35	%40.40
C51	Vulva	6	0	0	0	0	1	0	0	0	0	0	0	2	1	0	2	0	0	%0.30
C52	Vagina	3	0	0	0	0	0	0	0	0	0	1	0	1	0	0	1	0	0	%0.10
C53	Cervix Uteri	61	0	0	0	0	0	0	3	3	9	12	8	8	5	9	1	0	3	%2.70
C54	Corpus Uteri	86	0	0	0	0	0	3	1	0	6	7	5	17	14	14	9	5	5	%3.80
C55	Uterus unspec.	30	0	0	0	0	0	1	1	0	0	4	4	10	2	6	1	1	0	%1.30
C56	Ovary	77	0	1	0	0	1	3	1	3	6	10	13	10	6	9	5	4	5	%3.40
C57	Other Female Genital	12	0	0	0	0	0	0	0	1	2	0	2	1	3	0	2	1	0	%0.50
C58	Placenta	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	%0.00
C64	Kidney	36	0	1	2	0	0	1	0	2	6	3	4	6	4	3	2	1	1	%1.60
C65	Renal Pelvis	5	0	0	0	0	0	0	1	0	1	0	0	1	0	1	0	0	1	%0.20
C66	Ureter	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	%0.00
C67	Bladder	14	0	0	0	0	0	1	1	1	2	0	1	3	1	2	0	0	2	%0.60
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	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	%0.10
C70-C72	Brain, Nervous system	52	0	5	1	5	1	3	3	6	3	2	5	9	1	5	2	1	0	%2.30
C73	Thyroid	197	0	0	1	0	9	8	14	41	31	27	22	17	9	10	1	2	5	%8.70
C74	Adrenal gland	5	0	0	1	0	0	0	1	0	0	2	0	0	1	0	0	0	0	%0.20
C75	Other Endocrine	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	%0.00
C81	Hodgkin disease	46	0	0	1	4	2	4	7	8	5	5	5	2	1	1	0	0	1	%2.00
C82-C85;C96	Non-Hodgkin lymphoma	60	0	0	0	0	3	0	4	5	5	5	7	10	9	6	2	3	1	%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	8	0	0	0	0	0	0	0	0	0	0	2	0	3	1	2	0	0	%0.40
C91	Lymphoid Leukaemia	42	0	8	13	7	3	3	1	0	3	1	0	0	0	1	0	0	2	%1.90
C92-C94	Myeloid Leukaemia	33	0	2	0	2	2	2	5	2	4	1	4	2	3	1	1	1	1	%1.50
C95	Leukaemia unspec.	33	0	10	4	2	1	2	2	3	0	0	0	0	5	2	1	0	1	%1.50
Other	Other & unspecified	48	0	2	0	0	0	0	4	5	3	8	3	8	3	3	3	3	3	%2.10
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All	All sites Total	2253	1	33	27	23	31	45	84	168	256	281	269	300	209	203	139	78	106	%100.00
Not C44	All sites but C44	2223	1	33	27	23	31	45	83	168	254	276	265	293	207	200	135	78	104	%98.70

Table 5.4.3 Age-Spesific Incidence Rate (AIR), Age Standardised Incidence Rate (ASR) Among Non-Saudi Males (per 100,000) by Primary Site and Age groups, 2021

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	10	0	0	0	0	0	0	0	0	0.2	0.1	0	0.3	0.3	0.5	1.3	0	0	0.1	0.1
C01-C02	Tongue	35	0	0	0	0	0	0	0	0.1	0.2	0.4	0.6	1.3	1.3	2	0	12.5	0	0.4	0.5
C03-C06	Mouth	16	0	0.4	0	0	0	0	0	0.1	0.1	0.3	0.5	0.2	0	0.5	0	3.1	4.4	0.2	0.3
C07-C08	Salivary glands	13	0	0	0	0	0	0	0	0.2	0.1	0.2	0.2	0.5	0	0	0	3.1	0	0.1	0.1
C09	Tonsil	1	0	0	0	0	0	0	0	0	0	0.1	0	0	0	0	0	0	0	0	0
C10	Other Oropharynx	3	0	0	0	0	0	0	0	0	0	0	0	0.2	0	0	1.3	3.1	0	0	0.1
C11	Nasopharynx	29	0	0	0	0.9	0	0.2	0	0	0.2	0.4	1	0.2	1.3	1	0	3.1	4.4	0.3	0.4
C12-C13	Hypopharynx	2	0	0	0	0	0	0	0	0	0.1	0	0	0.2	0	0	0	0	0	0	0
C14	Pharynx unspec.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C15	Oesophagus	15	0	0	0	0	0	0	0.1	0	0	0.1	0	0.2	0.8	0.5	5.1	3.1	13.2	0.2	0.5
C16	Stomach	65	0	0	0	0	0	0	0.2	0.2	0.4	0.6	1.4	1.5	1.3	2.5	10.2	12.5	13.2	0.7	1.2
C17	Small intestine	19	0	0	0	0	0	0	0	0	0.1	0	0.4	0.7	0.3	1.5	2.5	3.1	13.2	0.2	0.5
C18	Colon	189	1	0	0	0	0.6	0.2	0.2	0.5	0.9	1.4	2.6	3.5	7.4	15.2	21.6	43.8	57.1	2	4.2
C19-C20	Rectum	116	0	0	0	0	0	0	0	0.2	0.6	1.1	1.4	3.3	5.8	9.6	10.2	12.5	26.3	1.2	2.1
C21	Anus	8	0	0	0	0	0	0.2	0	0	0.1	0.2	0	0.2	0.3	1	0	0	0	0.1	0.1
C22	Liver	48	0	0.4	0	0	0	0	0	0.1	0.2	0.3	0.2	0.2	1.8	7.6	6.3	12.5	21.9	0.5	1.4
C23-C24	Gallbladder etc.	17	0	0	0	0	0	0	0	0.1	0.1	0	0	0.5	0.3	3	1.3	3.1	13.2	0.2	0.5
C25	Pancreas	48	0	0	0	0	0	0	0.1	0.2	0.1	0.3	0.5	0.7	2.1	5.1	5.1	15.6	21.9	0.5	1.3
C30-C31	Nose, sinuses etc.	4	0	0	0	0	0	0	0	0	0	0.1	0	0	0	0.5	1.3	0	4.4	0	0.2
C32	Larynx	26	0	0	0	0	0	0	0	0.1	0.1	0.1	0.5	1.3	0.8	1.5	5.1	0	4.4	0.3	0.4
C33-C34	Trachea,Bronchus,Lung	89	0	0	0	0	0	0.2	0.1	0.1	0.3	0.5	0.5	1.5	3.4	7.6	20.3	43.8	17.6	1	2.5
C37-C38	Other Thoracic organs	18	0	0	0	0.4	0.6	0	0	0.1	0.1	0.3	0.4	0.3	0.3	1	1.3	0	0	0.2	0.3
C40-C41	Bone	46	0	0.4	0.8	2.7	0	1.2	0	0.1	0.2	0.3	0.9	0.7	1.6	0.5	3.8	3.1	0	0.5	0.8
C43	Melanoma of Skin	6	0	0	0	0	0	0	0	0.1	0	0.2	0	0.3	0	0	0	0	0	0.1	0
C44	Other Skin	107	0	0	0	0	0	0	0.1	0	0.2	0.7	1.2	2.5	4.5	11.7	16.5	25	35.1	1.1	2.6
C45	Mesothelioma	2	0	0	0	0	0	0	0	0.1	0	0	0	0	0	0.5	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	4.4	0	0.1
C47;C49	Connective,Soft tissue	46	0	0.4	0.4	0	0	0	0.5	0.2	0.4	0.3	1.1	0.3	0.3	1	6.3	6.3	17.6	0.5	1
C50	Breast	23	0	0	0	0	0	0	0.1	0.1	0	0.2	0.2	1	0.5	1	5.1	3.1	8.8	0.2	0.5
C60	Penis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C61	Prostate	145	0	0	0	0	0	0	0	0.1	0	0.3	0	1.8	5.8	17.7	39.3	62.6	96.6	1.6	5.4
C62	Testis	29	0	0	0	0	0	0.4	0.6	0.2	0.4	0.4	0.1	0.2	0.3	0	0	0	0	0.3	0.2
C63	Other male genital	3	0	0	0	0	0	0	0	0	0.1	0.1	0	0	0	0.5	0	0	0	0	0
C64	Kidney	89	0	0.9	0	0	0.6	0	0	0.2	0.7	1.2	1.5	1.7	3.7	4.6	8.9	9.4	4.4	1	1.3
C65	Renal Pelvis	1	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0	0	0	0	0	0
C66	Ureter	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3.1	0	0	0.1
C67	Bladder	111	0	0	0	0	0	0.2	0	0.1	0.7	0.4	1.6	2.2	2.9	8.6	21.6	18.8	61.4	1.2	3
C68	Other Urinary organs	1	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0	0	0	0	0	0
C69	Eye	3	0	0.4	0	0	0	0	0	0	0	0	0.2	0	0	0	0	0	0	0	0.1
C70-C72	Brain, Nervous system	75	0	1.3	1.9	0	0.6	0.8	0.4	0.3	0.6	0.3	1	1	1.6	4.6	5.1	9.4	17.6	0.8	1.6
C73	Thyroid	86	0	0	0	0	0	0.4	0.2	0.5	0.9	1.1	1.6	2	0.8	4.6	3.8	6.3	13.2	0.9	1.1
C74	Adrenal gland	3	0	0	0	0	0	0	0	0.1	0	0	0	0	0.5	0	0	0	0	0	0
C75	Other Endocrine	4	0	0	0.4	0	0	0.2	0	0	0	0	0.1	0.2	0	0	0	0	0	0	0.1
C81	Hodgkin disease	63	0	0.4	0.4	1.3	2.9	1	0.6	0.5	0.2	0.7	0.9	0.5	0.3	2	5.1	3.1	4.4	0.7	1.2
C82-C85;C96	Non-Hodgkin lymphoma	96	0	1.3	0	1.8	0	0	0.5	0.3	0.5	0.8	2.2	1.5	3.2	6.1	6.3	6.3	8.8	1	1.5
C88	Immunoproliferative dis.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C90	Multiple Myeloma	32	0	0	0.4	0	0	0	0.1	0	0	0.3	0.5	0.7	0.3	5.1	3.8	3.1	17.6	0.3	0.9
C91	Lymphoid Leukaemia	54	0	3.9	7.8	2.7	1.2	0	0.2	0	0.1	0.2	0	0.3	0.8	2	3.8	0	0	0.6	1.9
C92-C94	Myeloid Leukaemia	57	0	0.4	0.4	0.4	0.6	0.2	0.6	0.3	0.7	0.5	0.9	1.5	0.3	0	3.8	0	8.8	0.6	0.8
C95	Leukaemia unspec.	51	0	4.3	2.3	0.9	1.2	0.6	0.4	0.1	0.2	0.4	0.5	0.3	0.5	0	2.5	0	8.8	0.5	1.4
Other	Other & unspecified	56	0	0.4	0.4	0.4	0	0	0.2	0.2	0.2	0.4	1	0.8	1.8	3.5	6.3	9.4	17.6	0.6	1.2
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All	All sites Total	1962	1	15	15	12	8	6	5	5	10	15	26	36	57	135	235	344	540	21	43.6
Not C44	All sites but C44	1855	1	15	15	12	8	6	5	5	10	14	24	34	53	123	218	319	505	19.9	40.9

Table 5.4.4 Age-Spesific Incidence Rate (AIR), Age Standardised Incidence Rate (ASR) Among Non-Saudi Females (per 100,000) by Primary Site and Age groups, 2021

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	3	0	0	0	0	0	0	0	0	0	0	0	0.9	1.4	0	0	7.3	0	0.1	0.2
C01-C02	Tongue	6	0	0	0	0	0	0	0	0	0	0	0.5	1.8	1.4	2.2	4.1	0	0	0.2	0.4
C03-C06	Mouth	3	0	0	0	0	0	0	0	0	0	0	0	0	1.4	0	0	14.6	0	0.1	0.3
C07-C08	Salivary glands	5	0	0	0	0.5	0	0	0	0.2	0	0.4	0.5	0	0	2.2	0	0	0	0.2	0.2
C09	Tonsil	1	0	0	0	0	0	0	0	0	0.3	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	13	0	0	0	0	0.6	0	0.5	0.4	0.5	1.1	0	0.9	1.4	0	0	0	6.7	0.4	0.4
C12-C13	Hypopharynx	1	0	0	0	0	0	0	0	0	0	0	0.5	0	0	0	0	0	0	0	0
C14	Pharynx unspec.	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7.3	0	0	0.1
C15	Oesophagus	11	0	0	0	0	0	0	0.2	0	0.3	0	1.1	0.9	1.4	6.5	4.1	0	6.7	0.4	0.7
C16	Stomach	30	0	0	0	0	0	0	0	0.4	0.5	0.4	1.6	4.4	5.7	6.5	20.7	14.6	20.1	1	2.2
C17	Small intestine	10	0	0	0	0	0	0	0	0.2	0.3	0	0	1.8	5.7	4.3	0	0	0	0.3	0.5
C18	Colon	120	0	0	0	0	0.6	1.8	1.2	0.8	3.1	3.5	7.1	13.2	14.2	23.9	58.1	36.6	113.8	3.9	8.1
C19-C20	Rectum	59	0	0	0	0	0	0	0.2	0.4	1.8	0.7	6	7.9	9.9	26.1	16.6	14.6	13.4	1.9	3.4
C21	Anus	4	0	0	0	0	0	0	0	0	0	0	0	0	1.4	0	0	7.3	13.4	0.1	0.5
C22	Liver	30	0	0	0	0	0	0	0	0	0	0.4	3.3	3.5	7.1	4.3	16.6	43.9	13.4	1	2.5
C23-C24	Gallbladder etc.	17	0	0	0	0	0	0	0	0	0.3	0.7	0.5	0.9	7.1	4.3	0	14.6	20.1	0.6	1.3
C25	Pancreas	19	0	0	0	0	0	0	0	0	0	1.1	0	3.5	1.4	4.3	20.7	21.9	6.7	0.6	1.7
C30-C31	Nose, sinuses etc.	6	0	0.5	0	0	0	1.2	0.2	0	0.3	0	0	0	0	0	4.1	0	0	0.2	0.3
C32	Larynx	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C33-C34	Trachea,Bronchus,Lung	44	0	0	0	0	0	0	0.5	0.6	1.3	1.4	2.2	3.5	5.7	6.5	24.9	36.6	26.8	1.4	3
C37-C38	Other Thoracic organs	7	0	0.5	0	0	0	0	0.2	0.2	0.8	0	0	0	0	0	0	7.3	0	0.2	0.3
C40-C41	Bone	33	0	0	1.2	0.5	3.1	1.8	0.5	0.6	0.8	0.4	1.6	4.4	1.4	4.3	0	0	6.7	1.1	1.4
C43	Melanoma of Skin	5	0	0	0	0	0	0	0	0	0	0	0.5	0.9	1.4	0	4.1	7.3	0	0.2	0.4
C44	Other Skin	30	0	0	0	0	0	0	0.2	0	0.5	1.8	2.2	6.2	2.8	6.5	16.6	0	13.4	1	1.7
C45	Mesothelioma	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C46	Kaposi sarcoma	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C47;C49	Connective,Soft tissue	26	0	0	0.4	0.5	0.6	1.2	0.5	0.4	0.5	0.7	1.6	0.9	4.2	4.3	12.4	0	6.7	0.8	1.4
C50	Breast	911	1	0	0	0	0	2.4	4.1	13.3	32.8	56	70.6	113.7	120.3	173.9	228.2	175.6	234.2	29.8	43.4
C51	Vulva	6	0	0	0	0	0.6	0	0	0	0	0	0	1.8	1.4	0	8.3	0	0	0.2	0.5
C52	Vagina	3	0	0	0	0	0	0	0	0	0	0.4	0	0.9	0	0	4.1	0	0	0.1	0.2
C53	Cervix Uteri	61	0	0	0	0	0	0	0.7	0.6	2.3	4.3	4.4	7	7.1	19.6	4.1	0	20.1	2	2.7
C54	Corpus Uteri	86	0	0	0	0	0	1.8	0.2	0	1.5	2.5	2.7	15	19.8	30.4	37.3	36.6	33.5	2.8	5.8
C55	Uterus unspec.	30	0	0	0	0	0	0.6	0.2	0	0	1.4	2.2	8.8	2.8	13	4.1	7.3	0	1	1.6
C56	Ovary	77	0	0.5	0	0	0.6	1.8	0.2	0.6	1.5	3.5	7.1	8.8	8.5	19.6	20.7	29.3	33.5	2.5	4.5
C57	Other Female Genital	12	0	0	0	0	0	0	0	0.2	0.5	0	1.1	0.9	4.2	0	8.3	7.3	0	0.4	0.7
C58	Placenta	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C64	Kidney	36	0	0.5	0.8	0	0	0.6	0	0.4	1.5	1.1	2.2	5.3	5.7	6.5	8.3	7.3	6.7	1.2	1.8
C65	Renal Pelvis	5	0	0	0	0	0	0	0.2	0	0.3	0	0	0.9	0	2.2	0	0	6.7	0.2	0.3
C66	Ureter	1	0	0	0	0	0	0	0	0	0	0	0	0.9	0	0	0	0	0	0	0
C67	Bladder	14	0	0	0	0	0	0.6	0.2	0.2	0.5	0	0.5	2.6	1.4	4.3	0	0	13.4	0.5	0.8
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	0.9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.1
C70-C72	Brain, Nervous system	52	0	2.3	0.4	2.4	0.6	1.8	0.7	1.2	0.8	0.7	2.7	7.9	1.4	10.9	8.3	7.3	0	1.7	2.4
C73	Thyroid	197	0	0	0.4	0	5.6	4.8	3.4	8.1	8	9.6	12	15	12.7	21.7	4.1	14.6	33.5	6.4	6.7
C74	Adrenal gland	5	0	0	0.4	0	0	0	0.2	0	0	0.7	0	0	1.4	0	0	0	0	0.2	0.2
C75	Other Endocrine	1	0	0	0	0	0	0	0	0	0	0	0.5	0	0	0	0	0	0	0	0
C81	Hodgkin disease	46	0	0	0.4	1.9	1.3	2.4	1.7	1.6	1.3	1.8	2.7	1.8	1.4	2.2	0	0	6.7	1.5	1.5
C82-C85;C96	Non-Hodgkin lymphoma	60	0	0	0	0	1.9	0	1	1	1.3	1.8	3.8	8.8	12.7	13	8.3	21.9	6.7	2	3
C88	Immunoproliferative dis.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C90	Multiple Myeloma	8	0	0	0	0	0	0	0	0	0	0	1.1	0	4.2	2.2	8.3	0	0	0.3	0.6
C91	Lymphoid Leukaemia	42	0	3.6	5.3	3.3	1.9	1.8	0.2	0	0.8	0.4	0	0	0	2.2	0	0	13.4	1.4	2
C92-C94	Myeloid Leukaemia	33	0	0.9	0	0.9	1.3	1.2	1.2	0.4	1	0.4	2.2	1.8	4.2	2.2	4.1	7.3	6.7	1.1	1.5
C95	Leukaemia unspec.	33	0	4.5	1.6	0.9	0.6	1.2	0.5	0.6	0	0	0	0	7.1	4.3	4.1	0	6.7	1.1	1.7
Other	Other & unspecified	48	0	0.9	0	0	0	0	1	1	0.8	2.8	1.6	7	4.2	6.5	12.4	21.9	20.1	1.6	2.6
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All	All sites Total	2253	1	15	11	11	19	27	20	33	66	100	147	264	296	441	577	571	709	73.6	115.8
Not C44	All sites but C44	2223	1	15	11	11	19	27	20	33	66	98	145	258	293	435	560	571	696	72.6	114.1

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Based on Alphabetical order

1- Asser Central Hospital:

Mr. Ibrahim saeed Algamdi
Eng. Mohammed Meateqal Qahtani
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. Mohammed Abdu Muqarbish

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 Alsyayad
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 Khalid General Hospital, Hail:

Mr. Ahmed Awadh Alanazi

28- King Fahad Central Hospital, Jazan:

Mr. Ahassan Mohd Hussin Ashwi
Mr. Dinesh Chengalil

29- King Fahad Specialist hospital in Dammam:

Dr. Mohammed Rahal
Ms. Aisha Alsowayigh
Ms. Arwa Alswailem
Ms. Fatima Almulhim
Ms. Norah AlDossari
Ms. Munirah Alqahtani

30- King Fahad Hospital of the University:

Prof. Dr. Mohammed AlShahrani
Prof. Dr. Ali AlAmri
Ms. Kholoud Alkhwan.
Ms. Abrar AlFarid

31- 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

32- King Faisal Specialist Hospital & Research Centre in Jeddah:

Ms. Laila Banjar
Mr. Majed Naser
Ms. Rawan Hariri
Mr. Adel Alamari

33- King Saud Medical City (KSMC):

Dr. Mohammed Almashyakhi
Mr. Nabeel Khalil Gohoum

34- Maternity and Children Hospital Dammam:

Dr. Bassam Alhejili
Dr. Fatimah Alyousef
Dr. Sukinah Al.Talaq
Ms. Dalia Ali Alouf
Ms. Fatimah Al.Khazal
Ms. Alaa Redah Alhargan
Ms. Amal Roudh Alshaalan
Ms. Maryam Ahmed Almeshkhas

35- 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

36- Prince Mohammed Bin Nasser Hospital, Jazan:

Mr. Essa Hassan Jeffery

37- Specialized Medical Center hospital in Riyadh:

Dr. Hasan Masoud
Ms. Nazeek Abdelaziz
Ms. Melyn Escobar

38- Prince Sultan Oncology Center, King Salman Armed Forces Hospital, Tabuk:

Mr. Osama Mukhtar

39- Saudi German Hospital – Aseer:

Mr. Mohammed Qasim
Ms. Amjad Mesfer Alshehri

40- Samtah General hospital:

Mr. Ahmed Chalfan Hantool

41- Sabya General Hospital:

Mr. Abdulrhman eissa Meary

42- Security Forces Hospital Makkah:

Mr. Abdulaziz obied Alwuthaynani
Ms. Hatoon Mohammed Badawood

43- Security Forces Hospital Riyadh:

Ms. Alyah Alenazi

44- Al Hammadi Al Hospitals:

Dr. Emad Bukhari

ARABIC SUMMARY



السرطانات العشرة الأكثر شيوعاً بين السعوديين لكلا الجنسين:

احتل سرطان الثدي المرتبة الأولى (٣٥٤٠ حالة) بنسبة ١٩,٧٪ تلاه سرطان القولون والمستقيم (٢٢٧٣ حالة) بنسبة ١٢,٧٪ ثم سرطان الغدة الدرقية (١٦٢٦ حالة) بنسبة ٩,١٪ ثم السرطان اللمفاوي اللاهودجكن (٩٣١ حالة) بنسبة ٥,٢٪ ثم سرطان ابيضاض الدم (٩٣١ حالة) بنسبة ٥,٢٪ يليه سرطان الرحم (٦٣١ حالة) بنسبة ٣,٥٪ ثم سرطان الكبد (٦٢٠ حالة) بنسبة ٣,٥٪ يليه سرطان الجهاز العصبي (٥٩٦ حالة) بنسبة ٣,٣٪ ثم سرطان اللمفاوي هودجكن (٥٤١ حالة) بنسبة ٣٪ وأخيراً سرطان البروستاتا (٥٤٠ حالة) بنسبة ٣,٠٪.

السرطانات العشرة الأكثر شيوعاً بين السعوديين لكلا الجنسين:

الذكور	٧٣٤٨	%	الإناث	١٠٦٩٣	%
الثدي	١٢٠٠	١٦,٦	٣٤٧٢	٣٢,٥	
الغدة الدرقية	٥٤٠	٧,٥	١٣٠٤	١٢,٢	
القولون والمستقيم	٥١٥	٧,١	١٠٧٣	١٠,٠	
الرحم	٤٩٨	٦,٩	٦٣١	٥,٩	
ابيضاض الدم	٣٩٠	٥,٤	٤٣٣	٤,٠	
اللمفاوي اللاهودجكن	٣٦٩	٥,١	٤١٦	٣,٩	
المبيض	٣٢٦	٤,٥	٢٩٨	٢,٨	
الجهاز العصبي	٣٢٢	٤,٤	٢٩٨	٢,٨	
الكبد	٣١٠	٤,٣	٢٣٠	٢,٢	
اللمفاوي هودجكن	٣٠١	٤,٢	٢١٥	٢,٠	

السرطانات العشرة الأكثر شيوعاً بين الأطفال السعوديين لكلا الجنسين:

احتل سرطان ابيضاض الدم المرتبة الأولى (٢٧٣ حالة) بنسبة ٣٢,٠٪ تلاه سرطان الجهاز العصبي (١٦٩ حالة) بنسبة ١٩,٨٪ ثم السرطان اللمفاوي هودجكن (٦٦ حالة) بنسبة ٧,٧٪ ثم السرطان اللمفاوي اللاهودجكن (٦٣ حالة) بنسبة ٧,٤٪ ثم سرطان العظام (٥٤ حالة) بنسبة ٦,٣٪ يليه سرطان الكلى (٤٣ حالة) بنسبة ٥,٠٪، ثم سرطان العين (٣٧ حالة) بنسبة ٤,٣٪، ثم سرطان الأنسجة الضامة و الرخوة (٢٣ حالة) بنسبة ٢,٧٪، ثم سرطان الغدة الكظرية (٢٢ حالة) بنسبة ٢,٦٪، وأخيراً سرطان الغدة الدرقية (١٦ حالة) بنسبة ١,٩٪.

السرطانات العشرة الأكثر شيوعاً بين الأطفال السعوديين لكلا الجنسين:

الذكور	٤٦٠	%	الإناث	٣٩٣	%
ابيضاض الدم	١٥٨	٣٤,٣	١١٥	٢٩,٣	
الجهاز العصبي	٨٣	١٨,٠	٨٦	٢١,٩	
العظام	٤٠	٨,٧	٢٦	٦,٦	
اللمفاوي هودجكن	٣٨	٨,٣	٢٦	٦,٦	
اللمفاوي اللاهودجكن	٢٨	٦,١	٢٥	٦,٤	
الكلى	٢١	٤,٦	٢٤	٦,١	
العين	١٩	٤,١	١٦	٤,١	
الغدة الكظرية	١٥	٣,٣	١٣	٣,٣	
الأنسجة الضامة و الرخوة	١٢	٢,٦	١١	٢,٨	
الخصية	٨	١,٧	٨	٢,٠	

إحصائيات السرطان في المملكة العربية السعودية لعام ٢٠٢١

السجل السعودي للأورام

أنشئ السجل السعودي للأورام في عام ١٤١٢ هـ (١٩٩٢م) بدأ السجل نشاطه في جمع المعلومات من شهر يناير في عام ١٩٩٤ م، حيث يتم جمع وترميز البيانات وتدخل حسب النظام المعتمد من منظمة الصحة العالمية وتحلل البيانات بشكل دوري. يقوم السجل بتزويد الجهات المختصة والباحثين بمعلومات إحصائية وفق نموذج خاص على صفحة السجل في الموقع الرسمي للمجلس الصحي السعودي:

[HTTPS://SHC.GOV.SA/ARABIC/NCC/ACTIVITIES/PAGES/ANNUALREPORTS.ASPX](https://shc.gov.sa/arabic/ncc/activities/pages/annualreports.aspx)

إحصائيات السرطان لعام ٢٠٢١

بلغ إجمالي عدد حالات السرطان المكتشفة في عام ٢٠٢١ والمسجلة من مختلف المرافق الصحية الحكومية والخاصة بالمملكة العربية السعودية ٢٢١٥٦ حالة، من بين هذه الحالات ١٧٩٤١ سعوديين بنسبة ٨١٪ وغير سعوديين ٤٢١٥ بنسبة ١٩٪. وكان عدد حالات السرطان لدى السعوديين الذكور ٧٢٤٨ حالة بنسبة إجمالية قدرها ٤٠,٤٪ بينما بلغ عدد الحالات لدى الإناث السعوديات ١٠٦٩٣ حالة بنسبة إجمالية قدرها ٥٩,٦٪.

غير سعوديين			سعوديون			المجموع الكلي
المجموع	أنثى	ذكر	المجموع	أنثى	ذكر	٢٢١٥٦
٤٢١٥	٢٢٥٣	١٩٦٢	١٧٩٤١	١٠٦٩٣	٧٢٤٨	

بلغ المعدل المعياري للإصابة بالسرطان بين الرجال ١٣٣,٥ حالة لكل ١٠٠,٠٠٠ نسمة، وبين النساء ١٦٨,٦ حالة لكل ١٠٠,٠٠٠ نسمة.

الملخص العربي
تقرير معدل الإصابة لمرض السرطان
المملكة العربية السعودية
٢٠٢١

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 ٢٠٢١م 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 إلى حين انتقاله لمقره الجديد في المجلس الصحي السعودي في عام ١٤٣٥هـ / ٢٠١٤م.

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 وللمراجعين 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 آله وصحبه
ومن والاه إلى يوم الدين، وبعد:



يحتوي التقرير السنوي لأعمال السجل السعودي للأورام لعام ٢٠٢١م، الذي يقدمه المجلس الصحي السعودي ممثلاً 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، وتزود القائمين على المشاريع العلاجية والتثقيفية بالبيانات التفصيلية الدقيقة للسرطان؛ والتي تشخص الوضع الحقيقي لحالات السرطان 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

تقرير
معدل الإصابة
بمرض السرطان
2021



المجلس الصحي السعودي
Saudi Health Council



المجلس الصحي السعودي
Saudi Health Council

المملكة العربية السعودية
المجلس الصحي السعودي
المركز الوطني للسرطان
السجل السعودي للأورام

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