UNITED ARAB EMIRATES
MINISTRY OF HEALTH & PREVENTION

CANCER INCIDENCE IN UNITED ARAB EMIRATES ANNUAL REPORT OF THE UAE-NATIONAL CANCER REGISTRY-2015

Statistics and Research Center

www.mohap.gov.ae

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HIS HIGHNESS SHEIKH KHALIFA BIN ZAYED AL NAHYAN

President of the United Arab Emirates

HIS HIGHNESS SHEIKH MOHAMMED BIN RASHID AL MAKTOUM

Vice President and Prime Minister of UAE and Ruler of Dubai

WORD FROM THE UNDERSECRETARY

Ministry of health and prevention is a government body set up with the mandate leadership and stewardship within health sector. Our primary aim is to promote well-being and healthy lives for everyone. Therefore, injuries, diabetes, cancer and heart diseases are rapidly increasing and cannot be ignored. The UAE Ministry of Health and Prevention is considerably making efforts to tackle NCDs that predominantly takes into account development of national NCD strategies in addition to increased expansion and funding of health care services.

UAE is in the midst of a war on non-communicable diseases (NCDs). Innovation is important and as our contribution to tackle non-communicable diseases, we are continuously making efforts to conduct research into innovation as well as finding ways to introduce it on a larger scale. Too often, important innovations spread inadequately and slowly.

We therefore work in collaboration to improve the quality of life, well-being, and health for all the individuals, our wider society, and communities that are affected by non-communicable diseases.

For meeting this target, the significance of owning correct data cannot be overstated. Effective surveillance and monitoring are thought to be a cornerstone for tracking this progress. Systematic risk factors monitoring and vigorous records are essential. With accurate analysis and data, a nation will be capable of prioritizing vital resources and develop sound policy decisions.

This document will throw light on the cancer burden in United Arab Emirates, and it is perceived as a golden opportunity for understanding the environment and is predicted to bring improvements and change in future.

I would like to extend my appreciation to all stakeholders who gave support to the UAE-National Cancer Registry namely Department of Health-Abu Dhabi (DOH), Dubai Health Authority (DHA) and all healthcare providers public and private all across UAE.

Dr. Mohamed Salim Al Olama
Undersecretary of the Ministry of Health & Prevention

WORD FROM THE DIRECTOR OF THE STATISTICS AND RESEARCH CENTER

UAE national cancer registry is a population based Cancer Registry with epidemiological and public health aspects in mind. We are keeping patients at the top of our attention and focus and try to provide the best available information which would in turn act as a tool to take on cancer by providing unique and excellent health services matching international standards. The functions of the UAE national cancer registry cover a wide scope of activities including collection, filtering, coding and analysis of all newly diagnosed cancer cases, as well as dissemination of informative data to oncologists, scientists, researchers and decision makers concerned with cancer control and prevention on national and international levels.

The availability of data on continuous basis has a special importance as uniformly collected long term data helps in understanding the trends in cancer occurrence in our country. The annual cancer registries make this continuous data available for research and evaluation of cancer control efforts to effectively confront the disease. Countrywide figures on the incidence of cancer are published online, while experts and academics will have access to more detailed data on request. The data will also allow UAE cancer patterns to be compared with those of other countries, through organizations such as the International Agency for Cancer Research at the World Health Organization.

The data consolidated and rightly concluded by UAE Cancer Registry can help to develop right weapons to fight with cancer i.e., better prevention, targeted screening programs, introduction of latest treatment programs and technology which in turn would cut the number of deaths.

Thanks to the UAE national cancer registry team in Ministry of Health & Prevention for their great efforts, and also many thanks to all stakeholders and healthcare providers who shared the success of this endeavor.

We are certain that this will help the decision makers in Healthcare of our great nation to understand the burden of cancer and shall execute measures to keep it under control.

Looking forward to see forthcoming reports in this series and reports on an annual basis related to trends, and developments in treatment of cancer.

Alya Zaid Mohammed Harbi
Director of Statistics and Research Center

PREPARED BY

Wael Shelpai, CTR®
Certified Tumor Registrar
Head, National Diseases Registry Section,
Statistics and Research Center,
Ministry of Health and Prevention

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ABBREVIATIONS

SEER	Surveillance, Epidemiology and End Results
UAE	United Arab Emirates
MOHAP	Ministry of Health And Prevention
DOH	Department of Health-Abu Dhabi
DHA	Dubai Health Authority
AR	Age-specific rate
ASR	Age Standardized Rate
CTR	Certified Tumor Registrar
ICD-10	International Classification of Disease 10th Revision
ICD-O-3	International Classification of Diseases for Oncology, third Edition
UAE-NCR	United Arab Emirates, National Cancer Registry
HIMS	Health information management system
NCDs	Non-communicable diseases

ACKNOWLEDGEMENTS

This annual report was produced through the joint efforts of the following organizations:

Ministry of Health and Prevention (MOHAP)

Department of Health-Abu Dhabi (DOH)
Public Health Division, Department of Health:

Dr. Jala Asaad Taher
Manager, Non-Communicable Diseases

Nart Shabsough, CTR®
Sr. Officer, Cancer Prevention & Control Non- Communicable Diseases

Health Authority Dubai (DHA)
Health Information Management Section

Dr. Hosam Bashandy
Head of Cancer Registry Subunit
Dubai Hospital

The Statistics and Research Center at (MOHAP) would like to acknowledge with deep appreciation and gratitude to all stakeholders, healthcare providers and medical professionals from the various governmental, non-governmental and private facilities, and all other health sectors in UAE for their invaluable help, hard work and timely data collection, submission, and compliance by providing cancer patients data to the UAE national cancer registry.

We would like to express our deep gratitude to focal personals in different hospitals, clinics, and laboratories for the timely collection and compliance.

The production of this report has been made possible by the active cooperation of physicians, general practitioners, pathology laboratories, labs, nursing staff, technicians, information specialists, CTR's, medical records staff, clinical coders, and directors in the different UAE healthcare facilities.

We wish to express our sincere gratitude for the generous assistance, and hard work offered by the UAE national cancer registry team:

- Maimoona Mohammad Saeed
- Haneen Khaled Al Rousan
- Marwa Mujahed Al Eraki
- Vineetha Thomas

GLOSSARY

SEER Summary Staging 2000

Summary staging is the most basic way of categorizing how far a cancer has spread from its point of origin. Summary staging has also been called General Staging, California Staging, and SEER Staging. The 2000 version of Summary Stage applies to every anatomic site, including the lymphomas and leukemia's. Summary staging uses all information available in the medical record; in other words, it is a combination of the most precise clinical and pathological documentation of the extent of disease [1].

UAE Resident Population

The resident population of the UAE is an estimate of all people who are usually living in UAE permanently or on a long-term basis.

Staging

Staging describes the severity of a person's cancer based on the size and/or extent (reach) of the original (primary) tumor and whether or not cancer has spread in the body. Staging is important for several reasons:

- Staging helps the doctor plan the appropriate treatment.
- Cancer stage can be used in estimating a person's prognosis.
- Knowing the stage of cancer identifying clinical trials that may be a suitable treatment option for a patient.
- Staging helps health care providers and researchers exchange information about patients, it also gives them a common terminology for evaluating the results of clinical trials and comparing the results of different trials [1, 2].

TNM Stage

The TNM Staging System was developed and is maintained by the American Joint Cancer Committee (AJCC) and the Union for International Cancer Control (UICC). It is the most commonly used staging system by medical professionals around the world. The TNM classification system was developed as a tool for doctors to stage different types of cancer based on certain, standardized criteria.

The TNM Staging System is based on the extent of the tumor (T), the extent of spread to the lymph nodes (N), and the presence of metastasis (M) [2].

International Classification of Diseases (ICD)

The International Classification of Diseases (ICD) the standard diagnostic tool for epidemiology, health management and clinical purposes. This includes the analysis of the general health situation of population groups. It is used to monitor the incidence and prevalence of diseases and other health problems, proving a picture of the general health situation of countries and populations. ICD is used by physicians, nurses, other providers, researchers, health information managers and coders, health information technology workers, policy-makers, insurers and patient organizations to classify diseases and other health problems recorded on many types of health and vital records, including death certificates and health records. In addition to enabling the storage and retrieval of diagnostic information for clinical, epidemiological and quality purposes, these records also provide the basis for the compilation of national mortality and morbidity statistics by WHO Member States. Finally, ICD is used for reimbursement and resource allocation decision-making by countries [3].

Age-Standardized Rate

The age-standardized incidence rate is a summary measure, indicating the rate that a population would have if it had a standard age structure. It is calculated by summing the age-specific rates weighting to the world standard population; the calculated incidence rate is then called the World Standardized incidence rate. It is also expressed per 100,000.

Age-Specific Rates

Age-specific rates provide information on the incidence of a particular event in an age group relative to the total number of population at risk of that event in the same age group. It is calculated by dividing the number of events occurring in each specified age group by the corresponding 'at risk' population in the same age group and then multiplying the result by a constant (for example 100,000) to derive the rate. Age-specific rates are often expressed per 100,000 populations.

Crude Incidence Rate

The number of new cancer cases (incidence cases) observed in the population during a defined period, divided by the number of population at risk in the same period. It is usually expressed per 100,000.

Crude Mortality Rate

A crude rate is calculated simply by dividing the number of cancer deaths observed during a given time period by the corresponding number of person years in the population at risk. For cancer, the result is usually expressed as an annual rate per 100,000 persons at risk [4].

Carcinoma In situ

An early stage cancer in which the cancerous growth or tumor is still confined to the site from which it started, and has not spread to surrounding tissue or other organs in the body. When cancer in situ involves cells that line the internal organs, or epithelial cells, it is called carcinoma in situ.

Malignant Tumors

The tumor is malignant (cancerous) if the cells can grow into (invade) surrounding tissues or spread (metastasize) to distant areas of the body.

EXECUTIVE SUMMARY

This is the 2nd annual statistical report of the UAE National Cancer Registry. This report summarizes cancer incidence and mortality in United Arab Emiratis for the period 2015.

There is no doubt that cancer has become an over whelming problem worldwide, and this is also evident in the United Arab Emirates, where the incidence and burden of cancer is increasing.

A total number of 3968 incident cancer cases (malignant & in situ) were diagnosed among the UAE resident population during the period of 1st January and 31 December, 2015 (Table 1), representing an overall crude incidence rate of 43.3/100,000, for females 87.3/100,000 and for males 27.2/100.000 (Table 60). Of which 3744 (94.4%) were malignant and 224 (5.6%) were In situ cases. Of these 1822 (45.9%) were reported in males and 2146 (54.1%) in females (Table 60) with a male to female ration of 1 to 1.18.

1113 cases were UAE citizens (28.0%) and 2855 were Non-UAE citizens (72.0%) (Table 1). The crude incidence rates for total male and female cancer patients were 27.2 and 87.3/100,000 UAE resident populations respectively (Table 60).

Figures for all invasive cancers (malignant), represented 94.4% of all registered cases and 3744 were registered; equivalent to an incidence rate of 40.9/100,000. Figures 2015 demonstrated a clear female predominance for cancer incidence.

For the year 2015, the crude incidence rate for invasive cancers (malignant) is higher for females 80.6/100,000 than males 26.3/100,000. Summary of incidence data for individual cancers is listed in (Table 60).

Breast, colorectal and thyroid cancer were the top ranked cancers among all new cancer cases in both genders (Table 22). Colorectal, prostate, and leukemia cancer were the top ranked cancers among the males resident population (Table 24).

Among female residents, breast, thyroid and colorectal cancer were the top ranked cancers (malignant tumors) (Table 23).

The overall age-standardized incidence rate (ASR) was 108.9/100,000.

The third leading cause of death in UAE after diseases of the circulatory system and injuries was found to be cancer.

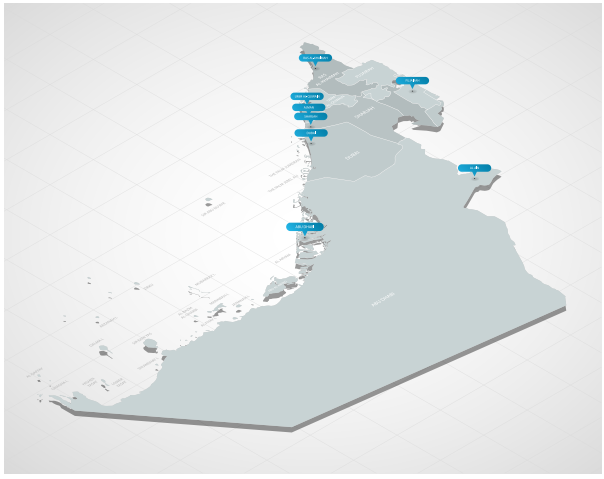
A total of 867 deaths from cancer, this represented 9.9% of all deaths occurred in 2015 and a crude mortality rate of 9.46/100,000.

Breast cancer (113 total deaths in 2015) was the leading cause of cancer death, malignant of trachea bronchus & lung cancer had been reported as the second leading cause of death counting for 104 cases and colorectal cancers represented the third leading cause of cancer death.

1. INTRODUCTION

UAE Geography

The United Arab Emirates (UAE) was formed as a constitutional federation of seven emirates: Abu Dhabi, Dubai, Sharjah, Ajman, Umm Al Quwain, Ras Al Khaimah and Fujairah, which came together as one state on 2nd December 1971 under the former president, His Highness the late Sheikh Zayed bin Sultan Al Nahyan. Through exploitation of the UAE's abundant oil and natural gas resources starting in the 1960s, the country has been transformed from a tribal society reliant on agriculture and fishing to a significant and respected supplier in global energy markets as well as an important member of the international community [5].



During this period, the UAE has forged a distinct national identity and enjoyed a high degree of political stability. The UAE is located at the tip of the Arabian Peninsula with coastlines on the Gulf of Oman and the Arabian Gulf. It lies between Oman and Saudi Arabia, and is a strategic location along the Strait of Hormuz, a vital transit point for the world's crude oil [5]. According to the National Bureau of Statistics (NBS), the UAE's total land area is 71,023.6 square kilometers (km2). The Emirate of Abu Dhabi accounts for 59,435 km2, 83.7% of the total land area, while the smallest emirate, Ajman, encompasses only 0.4% of it, 268 km2 [5].

Four-fifth of the UAE is desert but has contrasting landscapes-from the towering red dunes of the Liwa to the rich palm-filled Oasis of Al Ain, from the precipitous Hajjar Mountains to the more fertile stretches of its coastal plains. The UAE has become an important player in regional and international affairs [6]. In 1971, the late President Sheikh Zayed bin Sultan Al Nahyan unified the small, underdeveloped states into a federation, the only one in the Arab world. With his visionary leadership, oil wealth was used to develop the UAE into one of the world's most open and successful economies. In 2004, His Highness Sheikh Khalifa bin Zayed Al Nahyan became the President and has since continued to strive towards an ambitious vision for the UAE [6].

Location

Bordered to the North by the Arabian Gulf, to the East by the Gulf of Oman and Sultanate of Oman, to the South by Saudi Arabia and Sultanate of Oman and to the West by Qatar and Saudi Arabia [7].

Cancer Registry

Cancer registration is a vital and essential tool in cancer control. A cancer registry has been defined as an organization for the storage, collection, analysis, and interpretation of data on individuals with cancer. A population-based cancer registry gathers the data from numerous healthcare providers in a defined geographic area and can serve to demonstrate incidence trends for cancer of different sites over time or between population subdivisions. It can offer data to assess the effects of different types of treatment over time and to assess the effects of early detection programs, such as colorectal screening or mammography. Cancer registry data can be used for epidemiologic studies to identify causes of cancer. It can be useful in identifying unusual clusters of cancer cases [8]. Information on the mortality as well as incidence of cancers, in addition to their changing trends, is an important element in the planning and monitoring of programs for early detection, cancer prevention, and treatment [9].

UAE National Cancer Registry

MOHAP aims to establish unified accurate national diseases registries. MOHAP has established the National Diseases Registries to enable the diseases registries to access medical information while safeguarding data confidentiality. United Arab Emirates National Cancer Registry is the population based cancer registry for the United Arab Emirates established under the jurisdiction of the Ministry of Health and Prevention (MOHAP) by the order of UAE Cabinet and His Excellency the Minister of Health and Prevention.

UAE National Cancer Registry systematically collects, stores, summarizes, analyses and distributes information about cancer patients who are diagnosed and/or treated in UAE [10]. It provides information on cancer patterns and trends over time as well as monitors cancer incidence in UAE. The Cancer Registry is a part of the National Diseases Registries and it comes under the auspices of the Statistics and Research Center. UAE National Cancer Registry will produce a report about the cancer incidence on an annual basis, and as incidence data are accumulated over the years, the registry will eventually be able to produce certain trends which would help in studying the distribution of such conditions in different regions of the country.

The primary aim of UAE national cancer registry is to provide population based cancer incidence data to the public in a timely and accurate manner as well as other indicators like survival, prevalence, and mortality in UAE, planning cancer services, cancer control, cancer screening program, and cancer research projects.

UAE National Cancer Registry Staff

Mr. Wael Shelpai, Head of national diseases registries

Ms. Maimoona Mohammad Saeed, Administrator

Ms. Marwa Mujahed Al Eraki, Statistician

Ms. Haneen Al Rousan, Statistician

Ms. Vineetha Thomas, Statistician

Methods

The UAE national cancer registry (UAE-NCR) records demographic, cancer, staging, clinical, and treatment information for all cancers diagnosed in UAE in accordance with internationally accepted registration and coding standards. For UAE and Non-UAE citizens all malignant and in situ cases diagnosed in UAE during 1st Jan. – 31st Dec. 2015 were notified and registered to UAE national cancer registry.

There are two methods of data collection:

Active method

Data was collected and abstracted by registry staff through regular visits to medical treatment abroad department at MOHAP.

Passive method

The focal points from stakeholder and healthcare providers across UAE, collect cancer data from patient's files, HIMS (Health information management system), and pathology reports, complete a standardized form and submit it to the UAE national cancer registry.

Mortality data of Abu Dhabi was provided by the department of health – Abu Dhabi and mortality data of other Emirates was provided by MOHAP.

National anonymized datasets for all cancer deaths are provided to the Registry annually.

Incidence and mortality rates were calculated by using total UAE population as estimated by United Nations-Department of Economic and Social Affairs, population division.

Source of Data and Data Processing

The registry collects data on malignant neoplasms according to the recommendations of the International Agency for Research on Cancer (IARC) from a combination of sources, such as:

a) DOH central cancer registry: highly qualified central based cancer registry in DOH, this registry acts as a central one covering all cancer data in Abu Dhabi.

b) DHA central cancer registry: highly qualified central based cancer registry in DHA.

c) Hospital admissions and medical records departments from all public, private, and university hospitals all over UAE through international classification of disease ICD-10 and ICD-O.

d) Notifications by the medical profession.

e) Reports from the pathology laboratories.

f) Mortality data, medical treatment abroad and others. Notifications were made mandatory since 2013.

All data supplied for this report were coded to ICD-O-3 and then were converted to ICD-10 for analysis and report writing to ensure data comparability, all cases notified to the UAE-NCR must follow the IARC rules.

All relevant information of new cases would be checked for possible duplication against a master index. The clinical data would then be verified by CTR staff.

Registered cases of carcinoma in situ were included in the computation of crude incidence rate. All the results refer to the resident population (UAE citizens and Non-UAE citizens).

The data is used for monitoring the trends in incidence, research, planning, and evaluation of the cancer care facilities.

Information presented in this report are based on the cancer data collected about patients newly diagnosed during January 1 to December 31, 2015 in UAE.

Reportable List

All cases with a behavior code 2 and 3 of the International Classification of Diseases for Oncology, third Edition (ICD-O-3), malignant and in situ cases of the ICD-10 were included in the registry.

Data Management

Every item relating to the patient were collated and updated. The registry registered all new cases of cancer diagnosed in UAE. Multiple sources of data had assisted in optimizing completeness of collection; however, this could create problem of multiple notification of a patient. This issue was addressed by cross checking Emirates ID number, names, age, gender, date of birth and address, which is a good quality indicator and shows good coverage and completeness of cancer cases in UAE. Emirates identification card number is a unique number given to each UAE citizen and Non-UAE citizen.

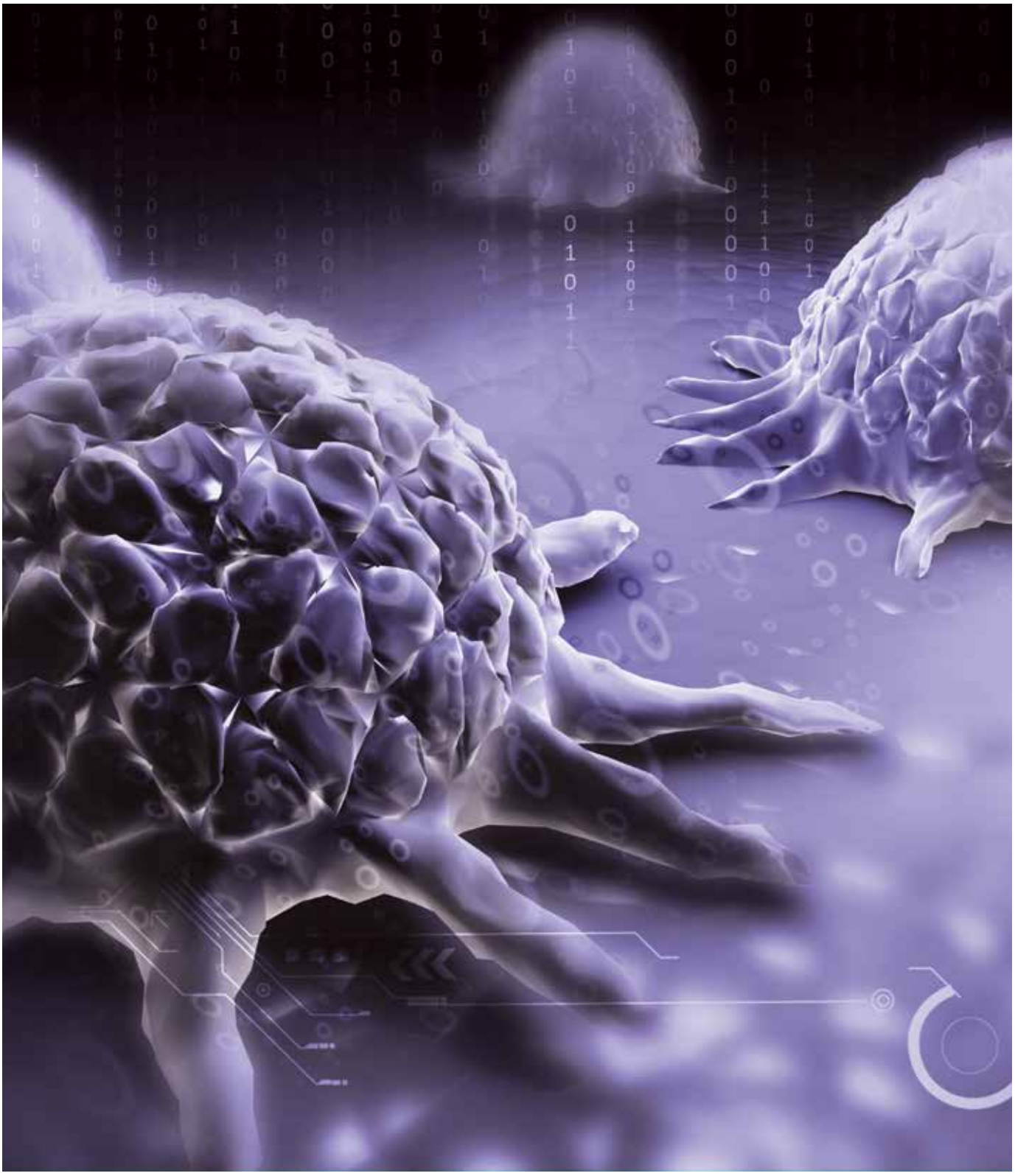
After checking and filtering cancer data received, we updated the data and excluded any duplicate and already registered cases.

Every effort was made to ensure that all the variables were completed. In the event if there was incomplete information, the notification forms with incomplete information were sent back to the respective data providers for further clarification and returned back to the registry upon completion.

All updated information collected on hardcopies, either passively or actively, were entered into the computer database. Electronic data maintained in the cancer registry databases were subjected to on-going quality control.

The UAE Population Used to Calculate Rates

In this report, we have used the UAE population as estimated by United Nations-Department of Economic and Social Affairs, population division to compute the crude incidence rates, and mortality rates in order to describe various indicators where 'rates' were calculated [11].



2. OVERALL CANCER INCIDENT CASES

The incidence and mortality rates are essential epidemiological measures to quantify the pattern of cancer occurrence in a specific society, and in different sub-groups of the population [12]. These cancer rates can be used for predicting the occurrence of cancers and their future magnitude and also in estimating the future demands for treatment, diagnosis and prevention of cancers across the community. The natural data source on the cancer occurrence has long been considered to be a hospital based, where majority of the cancer patients are offered treatments [12].

In this report, we have presented the number of new cancer cases among UAE and Non-UAE citizens, who were diagnosed and treated in UAE. Malignant and in situ behaviors are reportable to UAE-NCR, while benign and borderline malignancies are not reportable in this registry in the year 2015.

Cancer Incidence (malignant & in situ)

A total of 3968 new cancer cases were diagnosed in UAE for the period of 1st January to 31 December 2015; of which 3744 (94.4%) were malignant and 224 (5.6%) were in situ cases.

Among UAE citizens, a total number of 1113 cases were newly diagnosed with cancer; out of which 1048 (94.2%) cases were malignant and 65 (5.8%) were in situ cases. Similarly, in Non-UAE citizens, 2855 cases were newly diagnosed with cancer, 2696 (94.4%) cases were malignant and 159 (5.6%) were in situ cases.

Breast, Colorectal, Thyroid, Leukemia and Prostate cancer were the top ranked cancers among the Non-UAE citizens.

While, Breast, Colorectal, Thyroid, leukemia and Non-Hodgkin lymphoma were the top ranked cancers among the UAE citizens.

Table 1 represents the distribution of all types of cancer cases among UAE population (UAE and Non-UAE citizens) according to gender.

Table 1: Number of cancer cases among UAE population according to primary site, gender, and nationality, 2015

Primary Site ICD-10	Non-UAE Citizens			UAE Citizens			Grand Total
	Female	Male	Total	Female	Male	Total	
(C00-C96) All invasive cancers (malignant cases)	1377	1319	2696	605	443	1048	3744
C00-C14 Lip, Oral cavity & Pharynx	21	66	87	14	16	30	117
C15 Esophagus	7	13	20	1	4	5	25
C16 Stomach	22	56	78	11	19	30	108
C17 Small intestine	7	9	16	1	7	8	24

Primary Site ICD-10	Non-UAE Citizens			UAE Citizens			Grand Total
	Female	Male	Total	Female	Male	Total	
C18-C21 Colorectal	84	172	256	57	60	117	373
C22 Liver and intrahepatic bile ducts	13	37	50	8	10	18	68
C23-C24 Gallbladder, Other and unspecified part of biliary tract	11	18	29	3	2	5	34
C25 Pancreas	14	20	34	8	11	19	53
C30, C31 Nasal cavity, middle ear, accessory sinuses	2	2	4	1	1	2	6
C32 Larynx	0	38	38	0	6	6	44
C34 Bronchus and Lung	33	78	111	15	35	50	161
C40-C41 Bone and articular cartilage	4	8	12	3	2	5	17
C43 Skin melanoma	11	16	27	0	4	4	31
C44 Skin	32	75	107	4	13	17	124
C45 Mesothelioma	3	2	5	0	0	0	5
C46 Kaposi sarcoma	0	1	1	0	4	4	5
C48 Retroperitoneum and peritoneum	2	5	7	5	1	6	13
C49 Connective and soft tissue	8	22	30	5	6	11	41
C50 Breast	548	8	556	208	1	209	765
C53 Cervix uteri	61	0	61	13	0	13	74
C54-C55 Uterus	64	0	64	35	0	35	99
C56 Ovary	45	0	45	17	0	17	62
C61 Prostate	0	119	119	0	47	47	166
C62 Testis	0	32	32	0	7	7	39
C64-C65 Kidney & Renal pelvis	10	47	57	11	18	29	86
C66, C68 Ureter and Other urinary organs	0	3	3	1	1	2	5
C67 Urinary bladder	11	47	58	11	30	41	99
C69 Eye	0	2	2	1	4	5	7
C70-C72 Brain & CNS	29	46	75	13	11	24	99
C73 Thyroid	173	61	234	83	27	110	344
C74-C75 Other endocrine glands	3	5	8	4	2	6	14
C76-C80 Unknown and Unspecified sites	26	27	53	7	9	16	69
C81 Hodgkin's lymphoma	14	30	44	6	12	18	62

Primary Site ICD-10	Non-UAE Citizens			UAE Citizens			Grand Total
	Female	Male	Total	Female	Male	Total	
C82-C85, C96 Non-Hodgkin lymphoma	30	89	119	24	27	51	170
C88, C90 Multiple myeloma	13	37	50	2	8	10	60
C91-C95 Leukemia	67	119	186	30	37	67	253
Other malignancy	9	9	18	3	1	4	22
(D00-D09) Non-invasive cancers (in situ cases)	115	44	159	49	16	65	224
D00 Carcinoma in situ of oral cavity, oesophagus and stomach	0	3	3	1	0	1	4
D01 Carcinoma in situ of other and unspecified digestive organs	2	8	10	2	2	4	14
D03 Melanoma in situ	2	1	3	0	0	0	3
D04 Carcinoma in situ of skin	2	2	4	0	0	0	4
D05 Carcinoma in situ of breast	48	2	50	13	0	13	63
D06 Carcinoma in situ of cervix uteri	56	0	56	25	0	25	81
D07 Carcinoma in situ of other and unspecified genital organs	3	3	6	2	0	2	8
D09 Carcinoma in situ of other and unspecified sites	2	25	27	6	14	20	47
Grand Total	1492	1363	2855	654	459	1113	3968

Figure 1: Distribution of cancer cases among UAE population by type of tumor, 2015

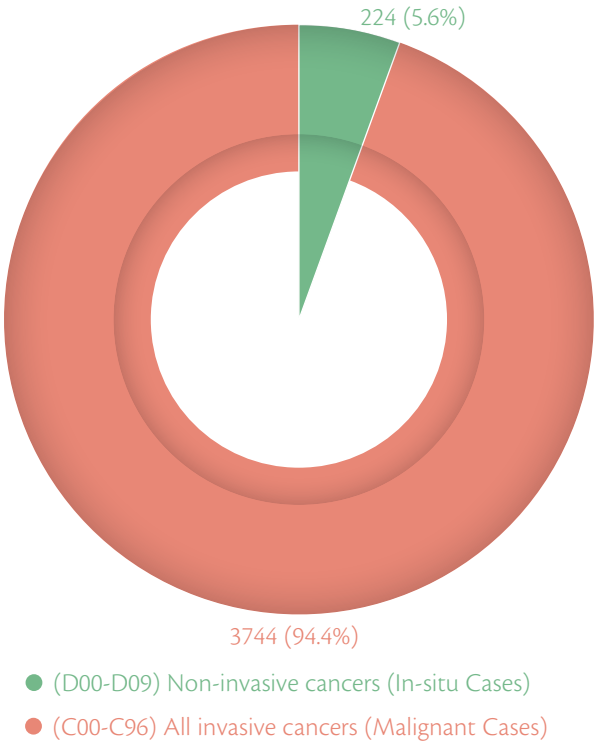


Figure 1 demonstrates the distribution of cancer cases among UAE population by the type of tumor in 2015, with 94.4% of malignant cases and 5.6% of the in situ cases.

Figure 2: Distribution of cancer cases among UAE population by nationality and type of tumor, 2015

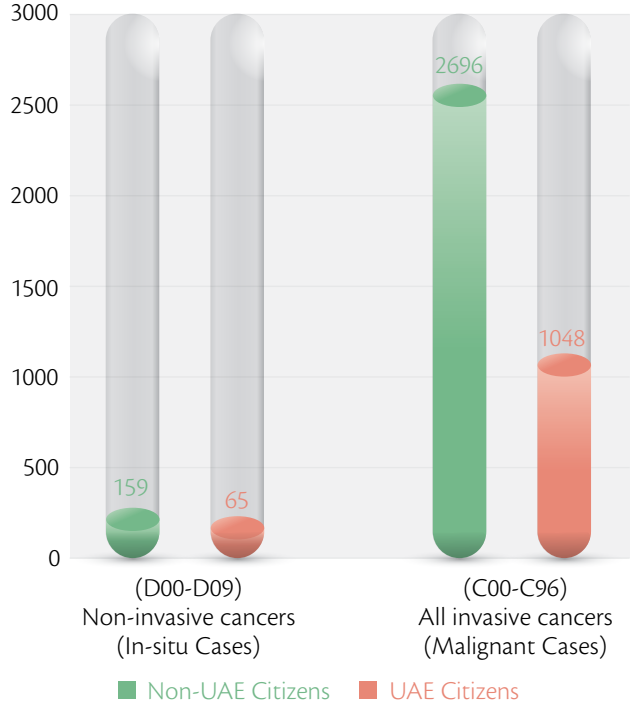


Figure 2 demonstrates the distribution of cancer cases among UAE population by nationality and type of tumor in 2015. 1048 malignant (all invasive cancers) cases were reported among UAE citizens and 2696 malignant (all invasive cancers) cases were reported among Non UAE citizens, while 65 were in situ cases reported in UAE citizens and 159 were in situ cases reported in Non UAE citizens.

Figure 3: Distribution of cancer cases among UAE population by gender and type of tumor, 2015

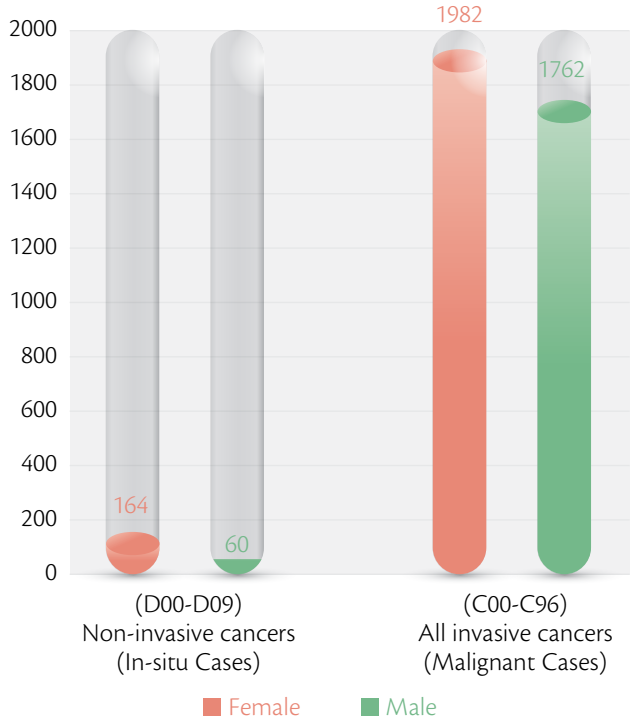


Figure 3 demonstrates the distribution of cancer cases among UAE population by gender and type of tumor in 2015, with 1762 cases being malignant reported among males, and 1982 cases being malignant among females, while, 60 cases were in situ reported among males and 164 were in situ cases reported among females.

Cancer Cases (Malignant Only), 2015

A total number of 3744 malignant cases were diagnosed in UAE among both UAE and Non-UAE citizens during the period of January to December 2015, of which represented 94.4% of all new cancer cases were diagnosed in 2015.

Malignant cases by nationality in UAE, 2015

Table 2 demonstrates that 2696 and 1048 patients having malignant cancers were Non-UAE and UAE citizens respectively.

Table 2: Distribution of malignant cases by nationality among UAE population, 2015

Primary Site ICD-10	Non-UAE Citizens	UAE Citizens	Grand Total
(C00-C96) All invasive cancers (malignant cases)	2696	1048	3744

Figure 4: Distribution of malignant cases by nationality among UAE population, 2015

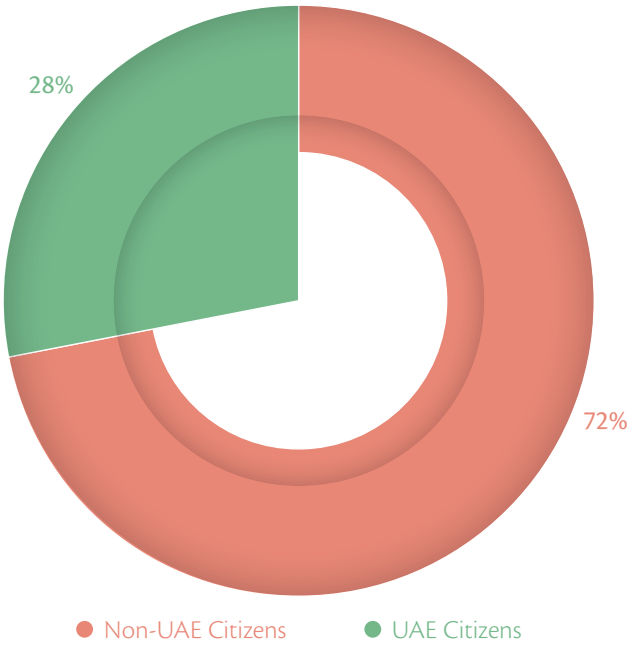


Figure 4 demonstrates the distribution of malignant cancers based on nationality in UAE in the year 2015. 28% of total malignant cases were UAE citizens and the remaining 72% were Non UAE citizens.

Malignant cases by gender in UAE, 2015

Table 3 Distribution of malignant cases by gender among UAE population, 2015

Malignant Cases	Female	Male	Grand Total
(C00-C96) All invasive cancers (malignant cases)	1982	1762	3744

Table 3 represents a total of 3744 malignant cases 1762 (47%) males and 1982 (53%) females, among both males and females were registered in 2015 showing more of females with malignant cancers.

Figure 5: Distribution of males and females malignant cases by gender, 2015

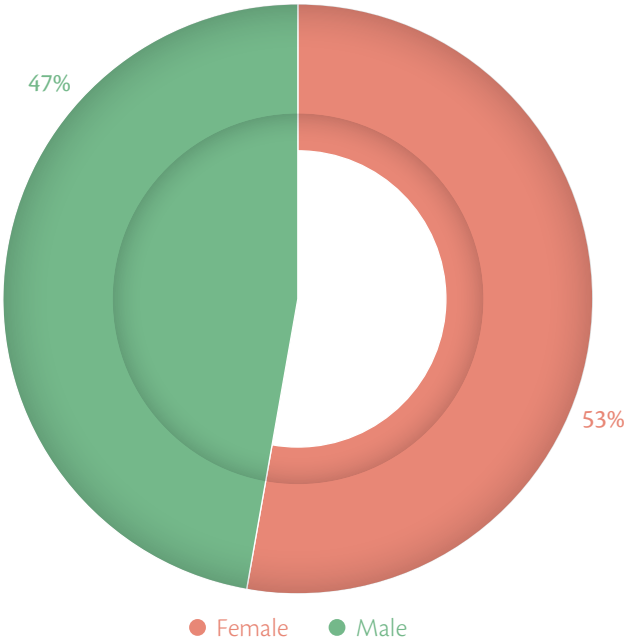


Figure 5 demonstrates the distribution of males and females malignant cases by gender. Out of all malignant cases, 47% were males and 53% were females. The distribution of frequency indicates that more female were diagnosed with cancer than males in 2015.

Malignant cases by gender in UAE citizens, 2015

A total of 1048 malignant cases among UAE citizens were registered in 2015. These cases included 443 males and 605 females. Table 4 shows that malignant cases were higher in females than in males among UAE citizens.

Table 4: Distribution of malignant cases by gender among UAE citizens, 2015

Malignant Cases	Female	Male	Grand Total
(C00-C96) All invasive cancers (malignant cases)	605	443	1048

Figure 6: Distribution of malignant cases by gender among UAE citizens

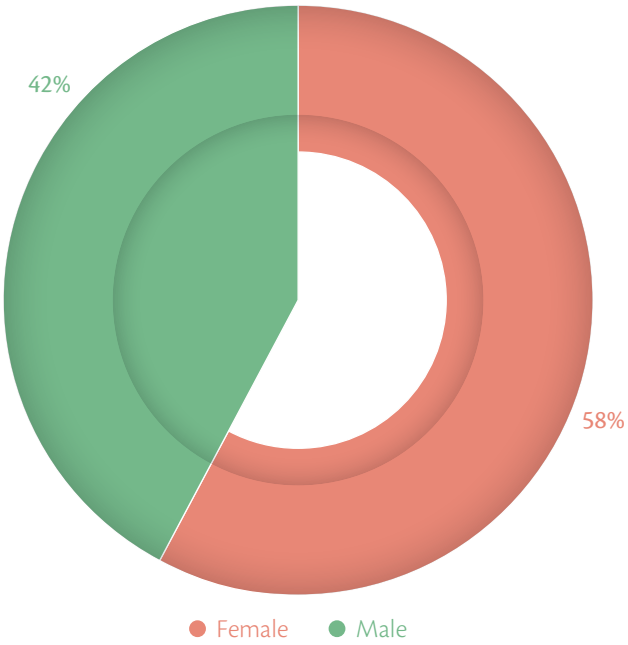


Figure 6 demonstrates the distribution of malignant cases by gender. Out of 1048 malignant cases, 443 (42%) males and 605 (58%) were females.

Malignant cases by gender among Non-UAE citizens, 2015

A total of 2696 new malignant cases among Non-UAE citizens were registered in 2015. These cases included 1319 males and 1377 females. Table 5 shows malignant cases registered were higher in females than in males among Non-UAE citizens.

Table 5: Distribution of malignant cases by gender among Non-UAE citizens, 2015

Malignant Cases	Female	Male	Grand Total
(C00-C96) All invasive cancers (malignant cases)	1377	1319	2696

Figure 7: Distribution of malignant cases by gender among Non UAE citizens, 2015

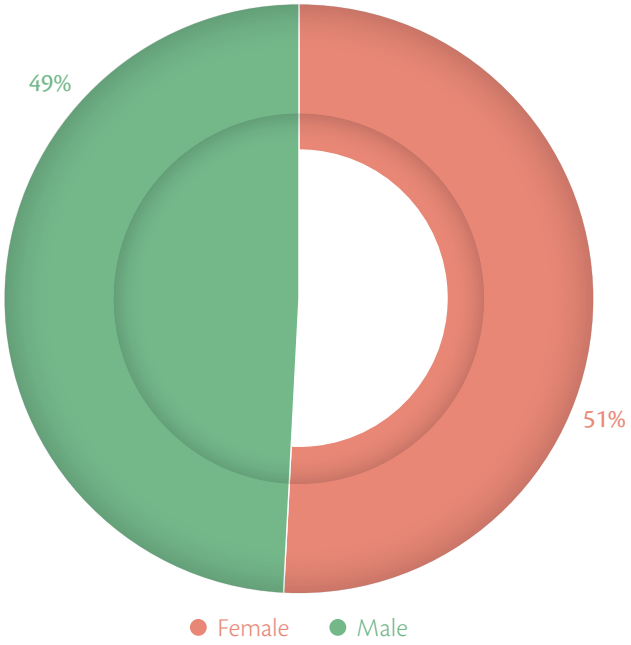


Figure 7 demonstrates the distribution of malignant cases by gender among Non UAE citizens. Out of 2696 malignant cases, 49% were males and 51% were females.

Frequency of incident cases of cancer according to primary site in different age groups and genders

Primary site (malignant) distribution by gender, among all UAE population, 2015

The information related to the cancer site is available through codes from the "International Classification of Diseases, 10th revision (ICD-10)". Table 6 reports data of primary site malignancy using the ICD-10 extracted include gender, and incident cases of cancer site. In 2015, the reported malignant cases were 3744 cases (1982 females, 1762 males). The most commonly diagnosed cancers among all UAE population were breast, colorectal, and thyroid.

Table 6: Distribution of primary sites (malignant cases) by gender among all UAE population, 2015

Primary Site ICD-10	Female	Male	Grand Total
(C00-C96) All invasive cancers (malignant cases)	1982	1762	3744
C00-C14 Lip, Oral cavity & Pharynx	35	82	117
C15 Esophagus	8	17	25
C16 Stomach	33	75	108
C17 Small intestine	8	16	24
C18-C21 Colorectal	141	232	373

Primary Site ICD-10	Female	Male	Grand Total
C22 Liver and intrahepatic bile ducts	21	47	68
C23-C24 Gallbladder, Other and unspecified part of biliary tract	14	20	34
C25 Pancreas	22	31	53
C30, C31 Nasal cavity, middle ear, accessory sinuses	3	3	6
C32 Larynx	0	44	44
C34 Bronchus and Lung	48	113	161
C40-C41 Bone and articular cartilage	7	10	17
C43 Skin melanoma	11	20	31
C44 Skin	36	88	124
C45 Mesothelioma	3	2	5
C46 Kaposi sarcoma	0	5	5
C48 Retroperitoneum and peritoneum	7	6	13
C49 Connective and soft tissue	13	28	41
C50 Breast	756	9	765
C53 Cervix uteri	74	-	74
C54-C55 Uterus	99	-	99
C56 Ovary	62	-	62
C61 Prostate	-	166	166
C62 Testis	-	39	39
C64-C65 Kidney & Renal pelvis	21	65	86
C66, C68 Ureter and Other urinary organs	1	4	5
C67 Urinary bladder	22	77	99
C69 Eye	1	6	7
C70-C72 Brain & CNS	42	57	99
C73 Thyroid	256	88	344
C74-C75 Other endocrine glands	7	7	14
C76-C80 Unknown and Unspecified sites	33	36	69
C81 Hodgkin's lymphoma	20	42	62
C82-C85, C96 Non-Hodgkin lymphoma	54	116	170
C88, C90 Multiple myeloma	15	45	60

Primary Site ICD-10	Female	Male	Grand Total
C91-C95 Leukemia	97	156	253
Other malignancy	12	10	22
Grand Total	1982	1762	3744

Primary site (malignant) distribution by gender among UAE citizens, 2015

The distribution of malignant cases according to gender among UAE citizens is described in Table 7. In 2015, the new malignant cases were 1048 (605 females, 443 males) among UAE citizens. The most commonly diagnosed cancers among UAE citizens were breast, colorectal, and thyroid.

Table 7: Primary Site (malignant) distribution by gender among UAE citizens, 2015

Primary Site ICD-10	Female	Male	Grand Total
(C00-C96) All invasive cancers (malignant cases)	605	443	1048
C00-C14 Lip, Oral cavity & Pharynx	14	16	30
C15 Esophagus	1	4	5
C16 Stomach	11	19	30
C17 Small intestine	1	7	8
C18-C21 Colorectal	57	60	117
C22 Liver and intrahepatic bile ducts	8	10	18
C23-C24 Gallbladder, Other and unspecified part of biliary tract	3	2	5
C25 Pancreas	8	11	19
C30, C31 Nasal cavity, middle ear, accessory sinuses	1	1	2
C32 Larynx	0	6	6
C34 Bronchus and Lung	15	35	50
C40-C41 Bone and articular cartilage	3	2	5
C43 Skin melanoma	0	4	4
C44 Skin	4	13	17
C46 Kaposi sarcoma	0	4	4
C48 Retroperitoneum and peritoneum	5	1	6
C49 Connective and soft tissue	5	6	11
C50 Breast	208	1	209
C53 Cervix uteri	13	-	13
C54-C55 Uterus	35	-	35
C56 Ovary	17	-	17

Primary Site ICD-10	Female	Male	Grand Total
C61 Prostate	-	47	47
C62 Testis	-	7	7
C64-C65 Kidney & Renal pelvis	11	18	29
C66, C68 Ureter and Other urinary organs	1	1	2
C67 Urinary bladder	11	30	41
C69 Eye	1	4	5
C70-C72 Brain & CNS	13	11	24
C73 Thyroid	83	27	110
C74-C75 Other endocrine glands	4	2	6
C76-C80 Unknown and Unspecified sites	7	9	16
C81 Hodgkin's lymphoma	6	12	18
C82-C85, C96 Non-Hodgkin lymphoma	24	27	51
C88, C90 Multiple myeloma	2	8	10
C91-C95 Leukemia	30	37	67
Other malignancy	3	1	4
Grand Total	605	443	1048

Primary site (malignant) distribution by gender among Non-UAE citizens, 2015

The distribution of malignant cases according to gender among Non-UAE citizens is described in Table 8. In 2015, the new malignant cases were 2696 (1377 females, 1319 males) among Non-UAE citizens. The most commonly diagnosed cancers among Non-UAE citizens were breast, colorectal and thyroid.

Table 8: Primary site (malignant) distribution by gender among Non-UAE citizens, 2015

Primary Site ICD-10	Female	Male	Grand Total
(C00-C96) All invasive cancers (malignant cases)	1377	1319	2696
C00-C14 Lip, Oral cavity & Pharynx	21	66	87
C15 Esophagus	7	13	20
C16 Stomach	22	56	78
C17 Small intestine	7	9	16
C18-C21 Colorectal	84	172	256
C22 Liver and intrahepatic bile ducts	13	37	50
C23-C24 Gallbladder, Other and unspecified part of biliary tract	11	18	29

Primary Site ICD-10	Female	Male	Grand Total
C25 Pancreas	14	20	34
C30, C31 Nasal cavity, middle ear, accessory sinuses	2	2	4
C32 Larynx	0	38	38
C34 Bronchus and Lung	33	78	111
C40-C41 Bone and articular cartilage	4	8	12
C43 Skin melanoma	11	16	27
C44 Skin	32	75	107
C45 Mesothelioma	3	2	5
C46 Kaposi sarcoma	0	1	1
C48 Retroperitoneum and peritoneum	2	5	7
C49 Connective and soft tissue	8	22	30
C50 Breast	548	8	556
C53 Cervix uteri	61	-	61
C54-C55 Uterus	64	-	64
C56 Ovary	45	-	45
C61 Prostate	-	119	119
C62 Testis	-	32	32
C64-C65 Kidney & Renal pelvis	10	47	57
C66, C68 Ureter and Other urinary organs	0	3	3
C67 Urinary bladder	11	47	58
C69 Eye	0	2	2
C70-C72 Brain & CNS	29	46	75
C73 Thyroid	173	61	234
C74-C75 Other endocrine glands	3	5	8
C76-C80 Unknown and Unspecified sites	26	27	53
C81 Hodgkin's lymphoma	14	30	44
C82-C85, C96 Non-Hodgkin lymphoma	30	89	119
C88, C90 Multiple myeloma	13	37	50
C91-C95 Leukemia	67	119	186
Other malignancy	9	9	18
Grand Total	1377	1319	2696

Age-group distribution of malignant cases in UAE, all gender, 2015

Table 9 reveals the distribution of malignant cancer cases in UAE by age group in the year 2015. The data indicates highest frequencies of malignant cases are found among age groups 55-59 years (11.06%), 50-54 year (10.55%), 45-49 year age group (9.91%) and 60-64 years age group (9.64%) It is noteworthy that 3744 malignant cases were reported in 2015 with less frequency of cancer reported in "10-14 year" age group (1.12%).

Table 9: Age group distribution of malignant cases in UAE, all gender, 2015

Age Group	Number of malignant cases 2015	%
(0-4)	75	2.00%
(5-9)	47	1.26%
(10-14)	42	1.12%
(15-19)	47	1.26%
(20-24)	60	1.60%
(25-29)	163	4.35%
(30-34)	282	7.53%
(35-39)	358	9.56%
(40-44)	355	9.48%
(45-49)	371	9.91%
(50-54)	395	10.55%
(55-59)	414	11.06%
(60-64)	361	9.64%
(65-69)	275	7.35%
(70-74)	203	5.42%
(75-79)	140	3.74%
(80-84)	84	2.24%
(85+)	62	1.66%
Unknown	10	0.27%
Grand Total	3744	100.00%

Figure 8: Age group distribution of malignant cases in UAE, All gender, 2015

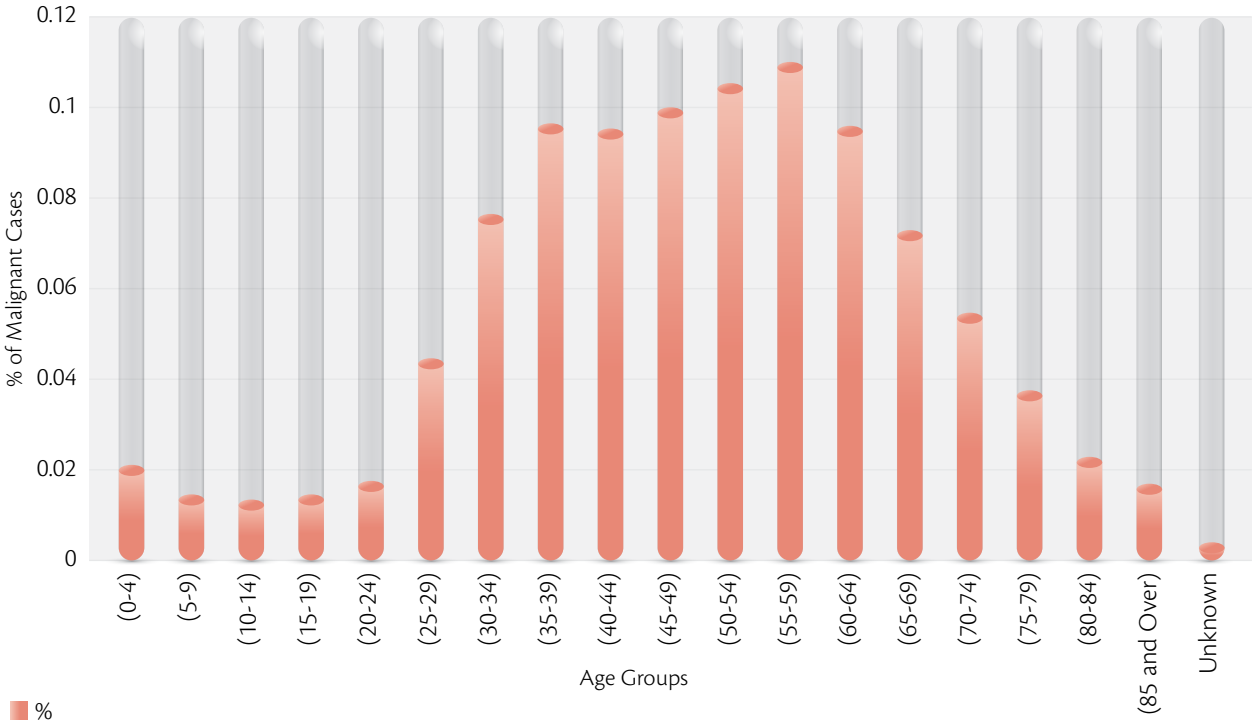


Figure 8 shows and summarizes the distribution of malignant cases by age group in UAE for the year 2015. The (55-59) year age group reached its highest peak showing highest frequency of cancer, but in contrast, malignant cases occurred relatively less frequently at young ages (10-14 year).

Age-group distribution of malignant cases in UAE, among female, 2015

Table 10: Age group distribution of malignant cases in UAE, among female, 2015

Age Group	Number of malignant cases 2015	%
(0-4)	31	1.56%
(5-9)	18	0.91%
(10-14)	22	1.11%
(15-19)	25	1.26%
(20-24)	28	1.41%
(25-29)	83	4.19%
(30-34)	172	8.68%
(35-39)	243	12.26%
(40-44)	234	11.81%
(45-49)	228	11.50%
(50-54)	214	10.80%
(55-59)	192	9.69%
(60-64)	169	8.53%
(65-69)	115	5.80%

Age Group	Number of malignant cases 2015	%
(70-74)	82	4.14%
(75-79)	59	2.98%
(80-84)	36	1.82%
(85 and Over)	26	1.31%
Unknown	5	0.25%
Grand Total	1982	100.00%

Table 10 demonstrates the distribution by age group of malignant cases among females in UAE in the year 2015. The data indicates highest frequencies of malignant cases among females was observed in the age groups of 35-39 year (12.26%), the 2nd was in the age groups 40-44 year (11.81%). It is noteworthy that 1982 malignant cases were reported in 2015 with less frequency of cancer reported in "5-9 year" age group (0.91%).

Figure 9: Age group distribution of malignant cases in UAE, among female 2015

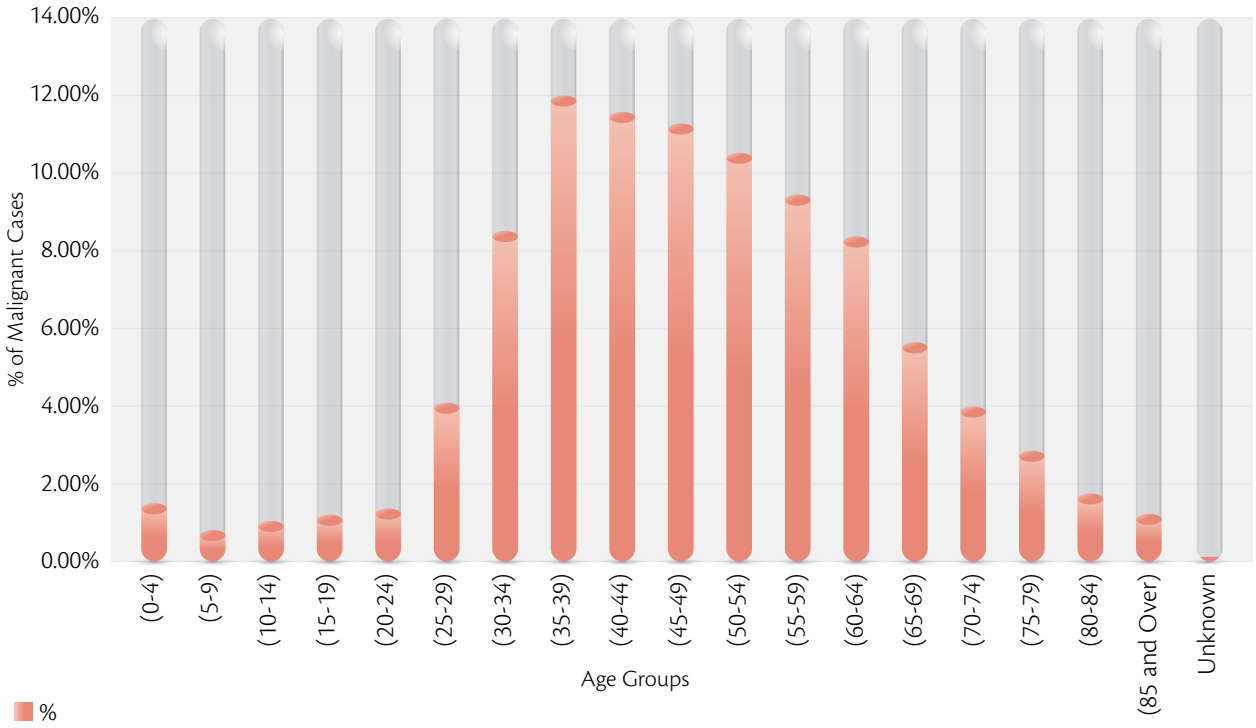


Figure 9 demonstrates and summarizes the distribution by age group of malignant cancer cases among females in UAE in year 2015. The 35-39 year age group reached its highest peak showing highest frequency of cancer, but in contrast, malignant cases occurred relatively less frequently at young ages 5-9 year.

Age-group distribution of malignant cases in UAE, among males, 2015

Table 11: Age group distribution of malignant cases in UAE, among males, 2015

Age Group	Number of malignant cases 2015	%
(0-4)	44	2.50%
(5-9)	29	1.65%
(10-14)	20	1.14%
(15-19)	22	1.25%
(20-24)	32	1.82%
(25-29)	80	4.54%

Age Group	Number of malignant cases 2015	%
(30-34)	110	6.24%
(35-39)	115	6.53%
(40-44)	121	6.87%
(45-49)	143	8.12%
(50-54)	181	10.27%
(55-59)	222	12.60%
(60-64)	192	10.90%
(65-69)	160	9.08%
(70-74)	121	6.87%
(75-79)	81	4.60%
(80-84)	48	2.72%
(85 and Over)	36	2.04%
Unknown	5	0.28%
Grand Total	1762	100.00%

Table 11 highlights the distribution of malignant cases among males in UAE by age group in the year 2015. The data indicates highest frequency of cancer among males was observed in the age group of 55-59 year (12.60%) then in the age group 60-64 year (10.90%). It is noteworthy that 1762 malignant cases were reported in 2015 with less frequency of cancer reported in the "10-14 year" age group (1.14%).

Figure 10: Age group distribution of malignant cases in UAE, among males, 2015

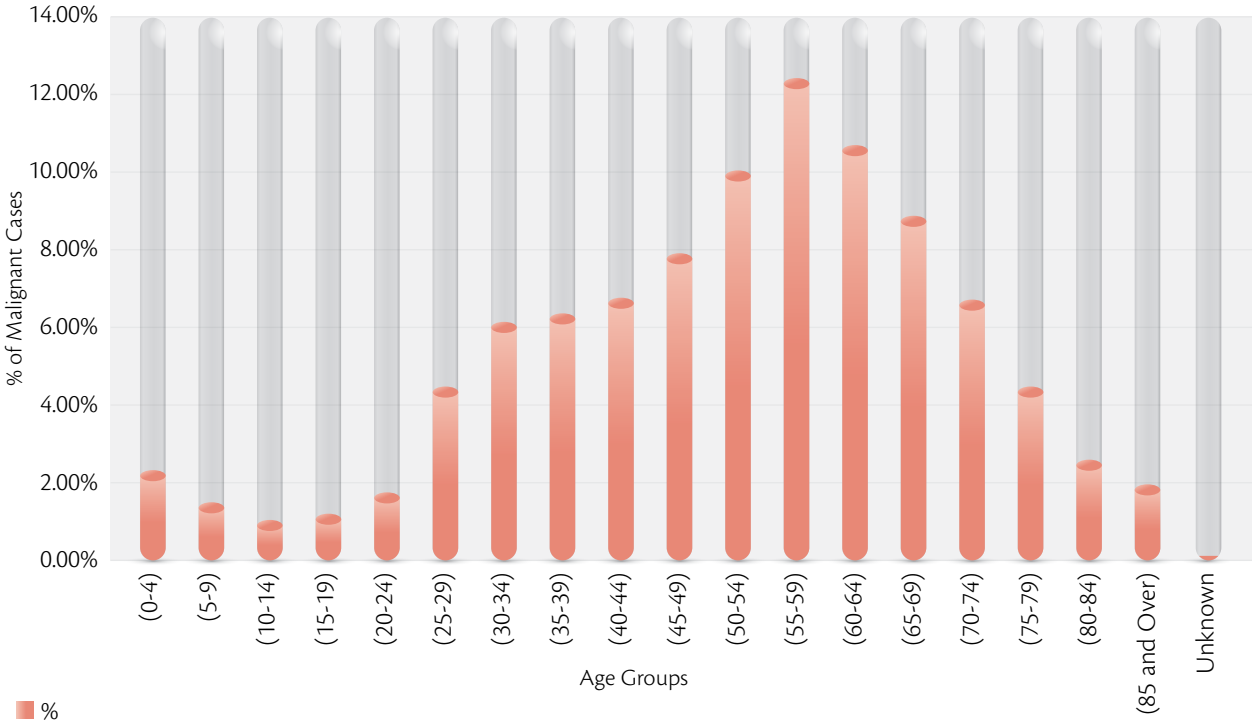


Figure 10 demonstrates and summarizes the distribution by age group of malignant cancer cases among males in UAE in year 2015. The 55-59 year age group reached its highest peak showing highest frequency of cancer, but in contrast, malignant cases occurred relatively less frequently at young ages 10-14 year.

Age-group distribution of malignant cases among UAE citizens, 2015

Table 12: Age group distribution of malignant cases among UAE citizens, 2015

Age Group	Number of malignant cases 2015	%
(0-4)	28	2.67%
(5-9)	17	1.62%
(10-14)	17	1.62%
(15-19)	16	1.53%
(20-24)	18	1.72%
(25-29)	39	3.72%
(30-34)	66	6.30%
(35-39)	73	6.97%
(40-44)	75	7.16%
(45-49)	78	7.44%
(50-54)	88	8.40%
(55-59)	95	9.06%
(60-64)	95	9.06%
(65-69)	84	8.02%
(70-74)	100	9.54%
(75-79)	64	6.11%
(80-84)	49	4.68%
(85 and Over)	42	4.01%
Unknown	4	0.38%
Grand Total	1048	100.00%

Table 12 demonstrates the distribution by age group of malignant cases among UAE citizens in the year 2015. The data indicates that the highest frequency of cancers was observed in the age group 70-74 year (9.54%). It is noteworthy that 1048 malignant cases were reported in 2015 with less frequency of cancer reported in "15-19 year" age group (1.53%).

Figure 11: Age group distribution of malignant cases among UAE citizens, 2015

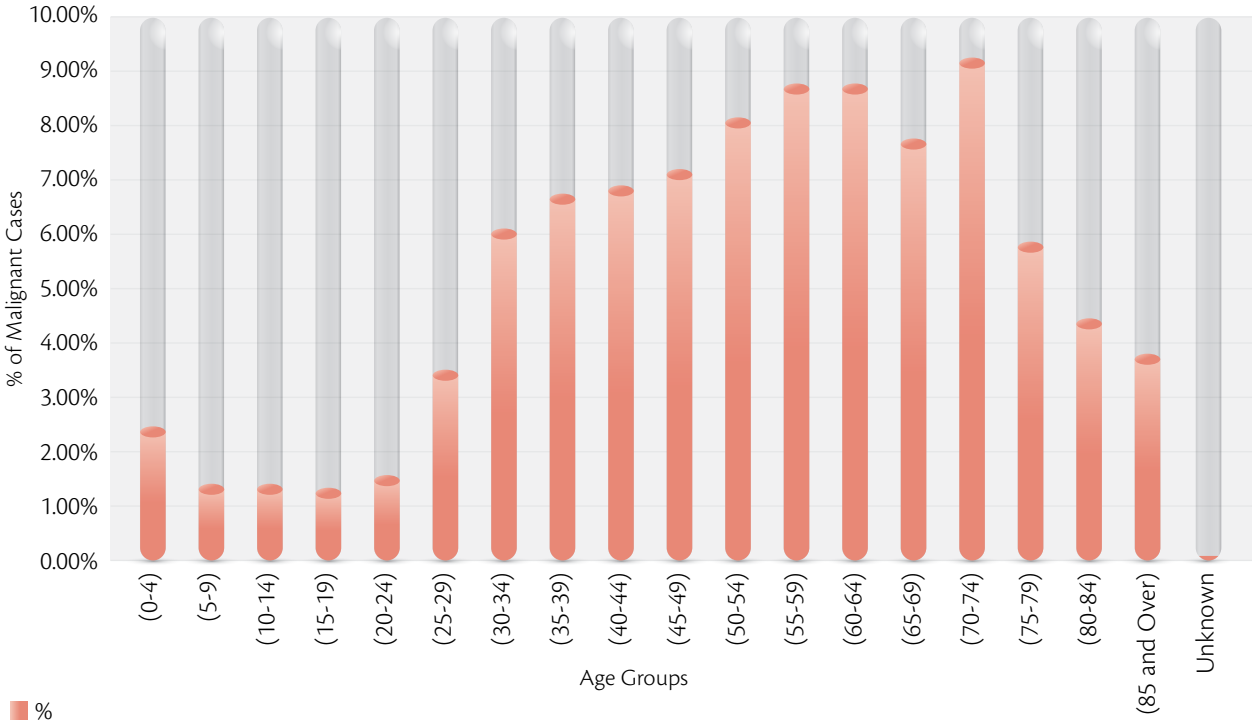


Figure 11 demonstrates and summarizes the distribution of malignant cases by age group among UAE Citizens in 2015. The 70-74 year age group reached its highest peak showing highest frequency of cancer, but in contrast, malignant cases occurred relatively less frequently at young ages 15-19 year.

Age-group distribution of malignant cases among UAE female citizens, 2015

Table 13: Age group distribution of malignant cases among female UAE citizens, 2015

Age Group	Number of malignant cases 2015	%
(0-4)	11	1.82%
(5-9)	5	0.83%
(10-14)	8	1.32%
(15-19)	9	1.49%
(20-24)	8	1.32%
(25-29)	21	3.47%
(30-34)	44	7.27%
(35-39)	53	8.76%
(40-44)	55	9.09%
(45-49)	60	9.92%
(50-54)	60	9.92%
(55-59)	60	9.92%
(60-64)	59	9.75%
(65-69)	42	6.94%

Age Group	Number of malignant cases 2015	%
(70-74)	37	6.12%
(75-79)	28	4.63%
(80-84)	23	3.80%
(85 and Over)	18	2.98%
Unknown	4	0.66%
Grand Total	605	100.00%

Table 13 determines the distribution by age group of malignant cases among female UAE citizens in 2015. The data shows that the highest frequency of cancer among females was observed in the age group of 45-49, 50-54 and 55-59 year (9.92%), second highest frequency was in the age group of 60-64 years (9.75%). It is notable that 605 malignant cases were reported in 2015 with less frequency of cancer reported in age group 5-9 year (0.83%).

Figure 12: Age group distribution of malignant cases among female UAE citizens, 2015

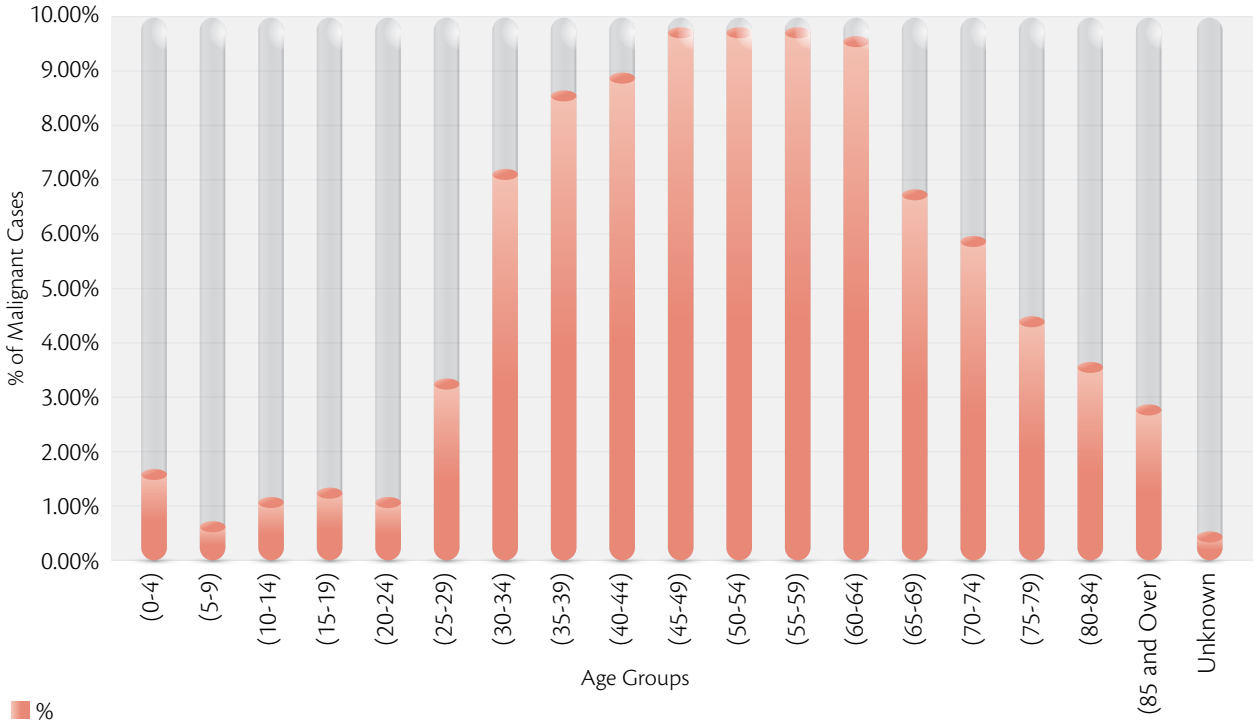


Figure 12 demonstrates and summarizes the distribution of malignant cases by age group among female UAE citizens in 2015. The age group 45-49, 50-54 and 55-59 year reached its highest peak showing highest frequency of cancer, but in contrast, malignant cases occurred relatively less frequently at young ages 5-9 year.

Age-group distribution of malignant cases among male UAE citizens, 2015

Table 14: Age-group distribution of malignant cases among male UAE citizens, 2015

Age Group	Number of malignant cases 2015	%
(0-4)	17	3.84%
(5-9)	12	2.71%
(10-14)	9	2.03%
(15-19)	7	1.58%
(20-24)	10	2.26%

Age Group	Number of malignant cases 2015	%
(25-29)	18	4.06%
(30-34)	22	4.97%
(35-39)	20	4.51%
(40-44)	20	4.51%
(45-49)	18	4.06%
(50-54)	28	6.32%
(55-59)	35	7.90%
(60-64)	36	8.13%
(65-69)	42	9.48%
(70-74)	63	14.22%
(75-79)	36	8.13%
(80-84)	26	5.87%
(85 and Over)	24	5.42%
Grand Total	443	100.00%

Table 14 demonstrates the distribution by age group of malignant cases among males UAE citizens in 2015. The data indicates highest frequency of cancer among males is observed in the age group of 70-74 year (14.22%), second highest frequency in the age group of 65-69 year (9.48%). It is noteworthy that 443 malignant cases were reported in 2015 among males with less frequency of cancer reported in age group 15-19 year (1.58%).

Figure 13: Age group distribution of malignant cases among male UAE citizens, 2015

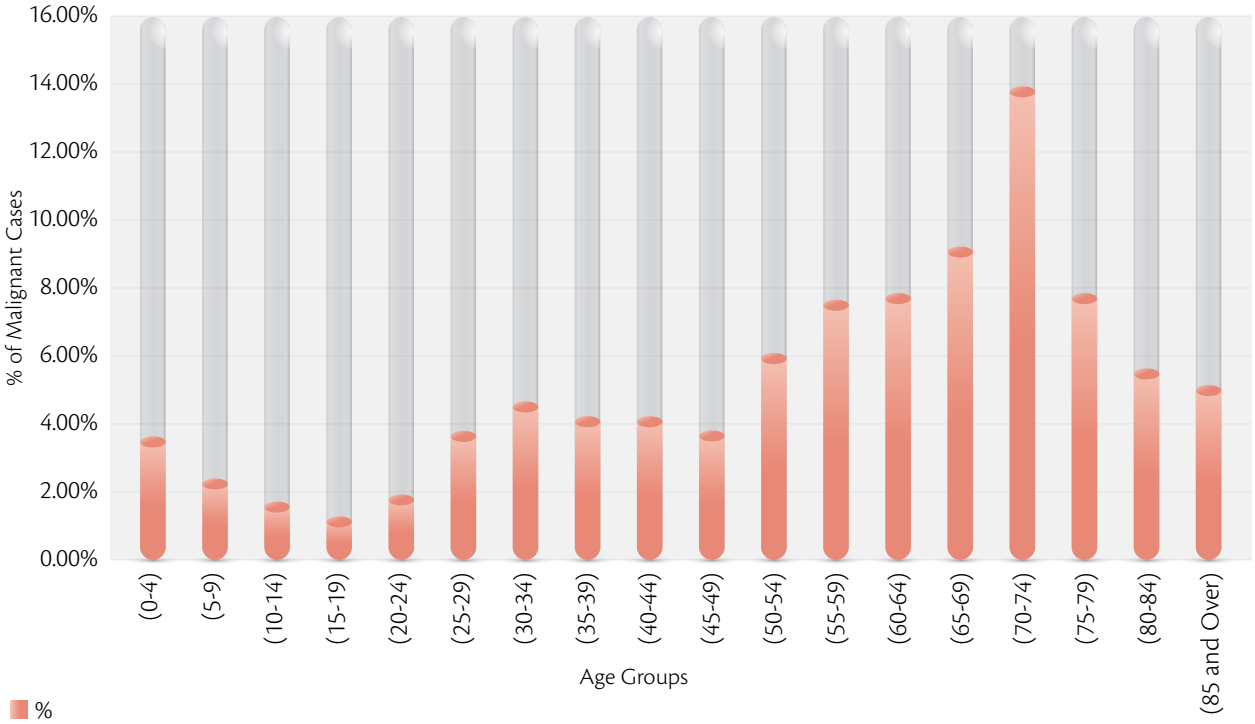


Figure 13 demonstrates and summarizes the distribution of malignant cases by age group among male UAE citizens in 2015. The age group 70-74 year reached its highest peak showing highest frequency of cancer, but in contrast, malignant cases occurred relatively less frequently at young ages 15-19 year.

Age group distribution of malignant cases among Non-UAE citizens, 2015

Table 15: Age-group distribution of malignant cases among Non-UAE citizens, 2015

Age Group	Number of malignant cases 2015	%
(0-4)	47	1.74%
(5-9)	30	1.11%
(10-14)	25	0.93%
(15-19)	31	1.15%
(20-24)	42	1.56%
(25-29)	124	4.60%
(30-34)	216	8.01%
(35-39)	285	10.57%
(40-44)	280	10.39%
(45-49)	293	10.87%
(50-54)	307	11.39%
(55-59)	319	11.83%
(60-64)	266	9.87%
(65-69)	191	7.08%
(70-74)	103	3.82%
(75-79)	76	2.82%
(80-84)	35	1.30%
(85 and Over)	20	0.74%
Unknown	6	0.22%
Grand Total	2696	100.00%

Table 15 displays the distribution by age group of malignant cases among Non-UAE citizens in the year 2015. The data indicates highest frequency of cancer is observed in the age group 55-59 years (11.83%), second highest frequency in the age group 50-54 years (11.39%). It is remarkable that 2696 malignant cases were reported in 2015 with less frequency of cancer reported in age group 85 and over (0.74%).

Figure 14: Age-group distribution of malignant cases among Non UAE citizens, 2015

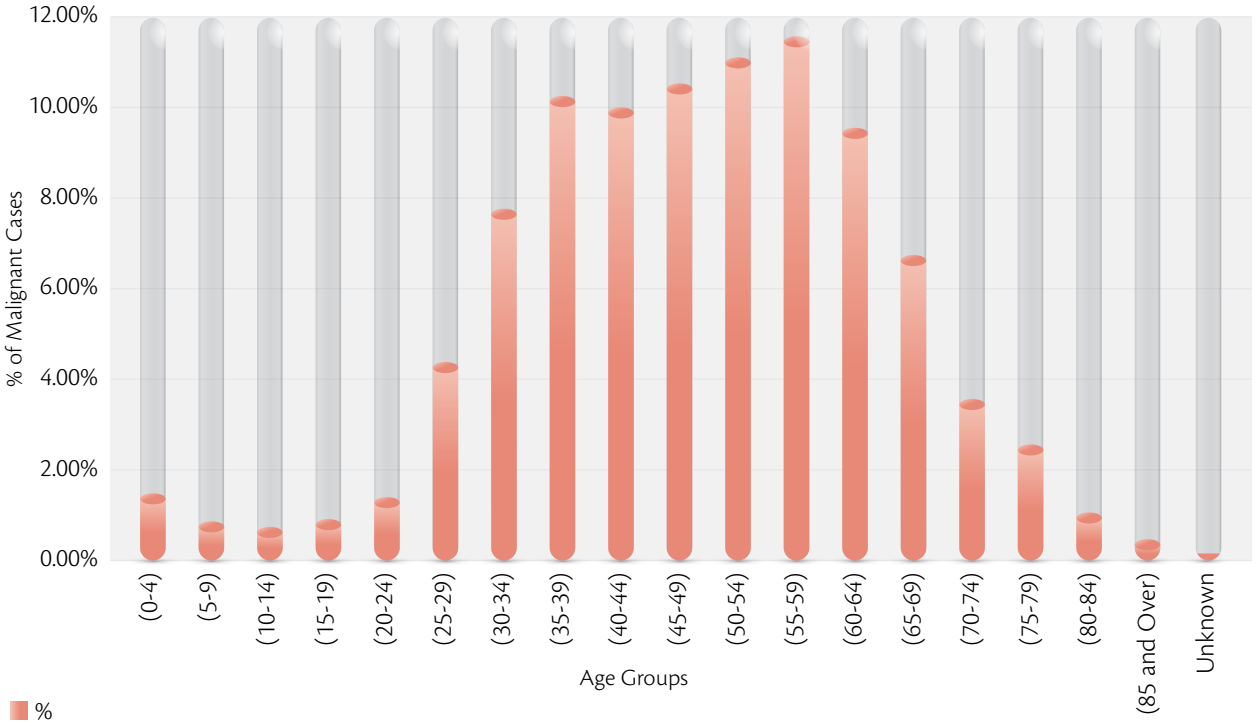


Figure 14 demonstrates and summarizes the distribution of malignant cases by age group among Non UAE citizens in 2015. The age group 55-59 year reached its highest peak showing highest frequency of cancer, but in contrast, malignant cases occurred relatively less frequently at ages 85 and over.

Age group distribution of malignant cases among female Non-UAE citizens, 2015

Table 16: Age group distribution of malignant cases among female Non-UAE citizens, 2015

Age Group	Number of malignant cases 2015	%
(0-4)	20	1.45%
(5-9)	13	0.94%
(10-14)	14	1.02%
(15-19)	16	1.16%
(20-24)	20	1.45%
(25-29)	62	4.50%
(30-34)	128	9.30%
(35-39)	190	13.80%
(40-44)	179	13.00%
(45-49)	168	12.20%
(50-54)	154	11.18%
(55-59)	132	9.59%
(60-64)	110	7.99%
(65-69)	73	5.30%

Age Group	Number of malignant cases 2015	%
(70-74)	45	3.27%
(75-79)	31	2.25%
(80-84)	13	0.94%
(85 and Over)	8	0.58%
Unknown	1	0.07%
Grand Total	1377	100.00%

Table 16 reveals the distribution by age group of malignant cases among female Non-UAE citizens in the year 2015. The data indicates highest frequency of cancer is observed in the age group 35-39 year (13.8%), second highest frequency in the age group 40-44 year (13.0%). It is notable that 1377 malignant cases were reported in 2015 in females with less frequency of cancer reported in age group 85 and over (0.58%).

Figure 15: Age group distribution of malignant cases among females, Non UAE citizens, 2015

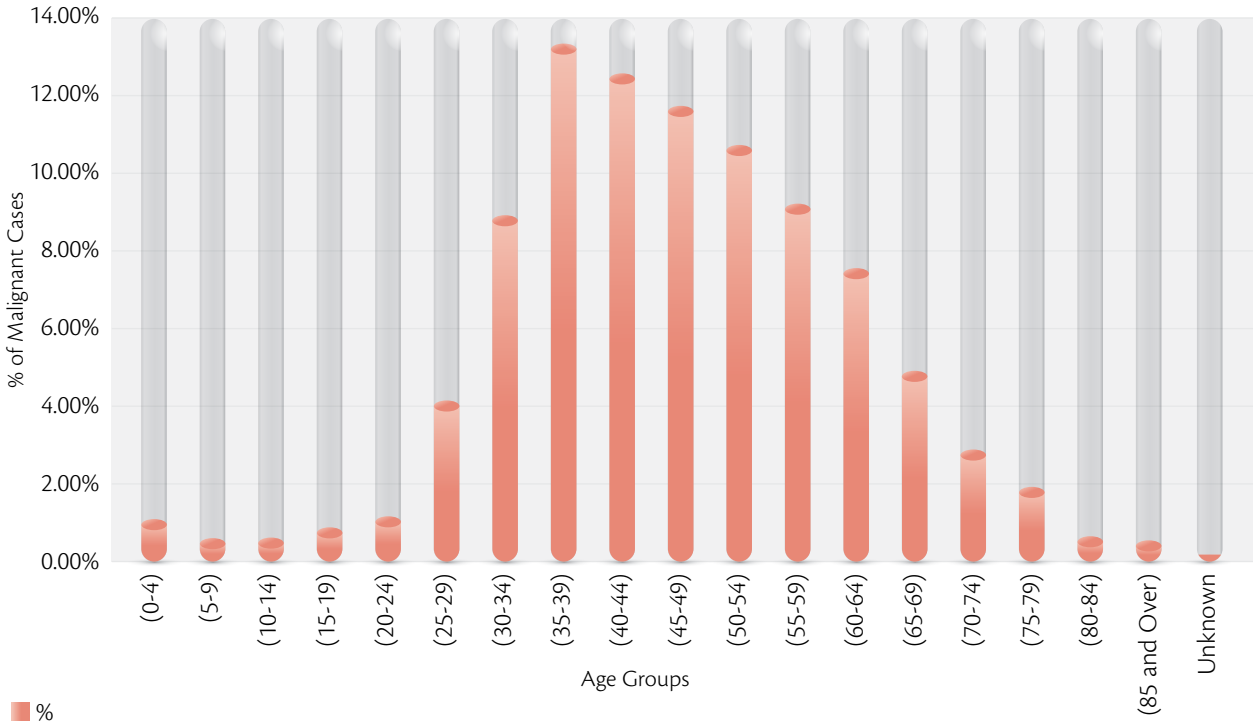


Figure 15 demonstrates and summarizes the distribution by age group of malignant cases among female Non UAE citizens in the year 2015. The age group 35-39 year reached its highest peak showing highest frequency of cancer, but in contrast, malignant cancer occurred relatively less frequently at age group 85 and over.

Age group distribution of malignant cases among male Non-UAE citizens, 2015

Table 17: Age group distribution of malignant cases among male Non-UAE citizens, 2015

Age Group	Number of malignant cases 2015	%
(0-4)	27	2.05%
(5-9)	17	1.29%
(10-14)	11	0.83%
(15-19)	15	1.14%
(20-24)	22	1.67%

Age Group	Number of malignant cases 2015	%
(25-29)	62	4.70%
(30-34)	88	6.67%
(35-39)	95	7.20%
(40-44)	101	7.66%
(45-49)	125	9.48%
(50-54)	153	11.60%
(55-59)	187	14.18%
(60-64)	156	11.83%
(65-69)	118	8.95%
(70-74)	58	4.40%
(75-79)	45	3.41%
(80-84)	22	1.67%
(85 and Over)	12	0.91%
Unknown	5	0.38%
Grand Total	1319	100.00%

Table 17 demonstrates the distribution by age group of malignant cases among male Non-UAE citizens in the year 2015. The data indicates highest frequency of cancer is observed in the 55-59 year age (14.18%) group. It is noteworthy that 1319 malignant cases were reported in 2015 in males with less frequency of cancer reported in age group 10-14 year (0.83%).

Figure 16: Age group distribution of malignant cases among male Non UAE citizens, 2015

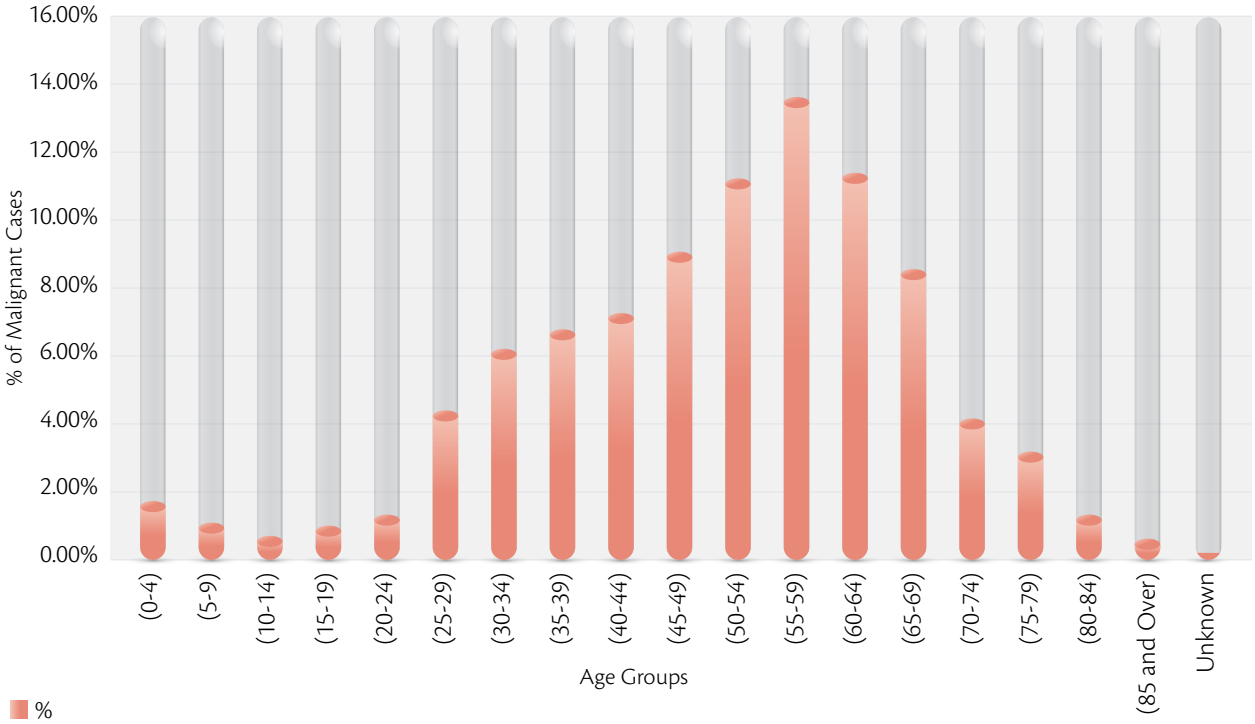


Figure 16 demonstrates and summarizes the distribution by age group of malignant cases among male Non UAE citizens in 2015. The age group 55-59 year indicated highest frequency of cancer, but in less frequently at young, age group 10-14 year.

Primary site (malignant) distribution by age group, among all, 2015

The most commonly diagnosed cancers in the UAE population vary considerably by age group, with particular differences in the cancer types diagnosed in children (0-14), teenagers (15-24), young adults (25-49), adults (50-74) compared with the types diagnosed in older people (75 and over).

Table 18: Primary site (malignant) distribution by age group, among all, 2015

Primary site ICD-10	(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)	(75-79)	(80-84)	(85 and Over)	Unknown
C00-C14 Lip, Oral cavity & Pharynx	1	1	1	0	3	6	6	9	12	10	23	17	12	4	7	1	4	0	0
C15 Esophagus	0	0	0	0	0	0	0	0	2	0	4	6	2	6	0	3	1	1	0
C16 Stomach	0	0	0	0	1	2	9	10	8	9	15	17	11	5	6	7	4	4	0
C17 Small intestine	0	0	0	0	0	2	2	1	3	2	6	0	0	4	1	2	0	1	0
C18-C21 Colorectal	0	0	0	3	2	9	31	35	22	31	40	55	41	37	17	17	14	14	3
C22 Liver and intrahepatic bile ducts	4	0	1	0	0	0	1	7	2	8	6	4	6	9	10	0	7	1	2
C23-C24 Gallbladder, Other and unspecified part of biliary tract	0	0	0	0	0	0	1	2	1	4	3	4	9	3	0	3	3	1	0
C25 Pancreas	0	0	0	0	0	1	1	1	3	2	9	9	10	5	7	3	1	1	0
C30, C31 Nasal cavity, middle ear, accessory sinuses	0	0	0	0	0	0	0	0	0	0	1	2	1	2	0	0	0	0	0
C32 Larynx	0	0	0	0	0	0	2	2	3	7	7	10	4	2	4	2	1	0	0
C34 Bronchus and Lung	0	0	0	1	0	1	3	5	7	13	14	16	30	22	25	15	6	3	0
C40-C41 Bone and articular cartilage	0	1	2	2	1	4	1	1	1	2	1	1	0	0	0	0	0	0	0
C43 Skin melanoma	0	0	1	0	1	0	1	2	1	5	3	10	3	1	1	1	1	0	0
C44 Skin	1	0	0	0	2	3	5	11	8	10	17	17	16	13	10	6	1	4	0
C45 Mesothelioma	0	0	0	0	0	0	1	0	0	0	0	1	1	0	2	0	0	0	0
C46 Kaposi sarcoma	0	0	0	0	0	0	0	0	1	0	1	0	0	2	0	1	0	0	0
C48 Retroperitoneum and peritoneum	2	0	0	0	0	0	0	0	1	4	1	0	1	0	2	0	1	1	0

Primary site ICD-10	(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)	(75-79)	(80-84)	(85 and Over)	Unknown
C49 Connective and soft tissue	1	1	2	0	4	7	7	2	4	5	4	1	1	0	0	0	1	1	0
C50 Breast	0	0	0	0	3	24	55	95	133	122	92	86	56	39	19	22	10	7	2
C53 Cervix uteri	0	0	0	0	0	3	10	16	13	12	9	3	5	1	0	1	1	0	0
C54-C55 Uterus	0	0	0	0	1	2	7	6	5	5	12	12	22	10	9	7	1	0	0
C56 Ovary	2	1	1	1	2	1	6	5	5	12	6	4	6	3	2	2	0	2	1
C61 Prostate	0	0	0	0	0	0	1	0	2	2	10	23	33	36	32	15	6	4	2
C62 Testis	1	1	0	3	2	10	12	4	5	0	1	0	0	0	0	0	0	0	0
C64-C65 Kidney & Renal pelvis	8	1	1	0	0	2	6	3	6	13	7	14	7	9	5	2	1	1	0
C66, C68 Ureter and Other urinary organs	0	0	0	0	0	0	0	0	0	1	0	2	1	0	1	0	0	0	0
C67 Urinary bladder	0	0	0	0	0	2	4	0	1	8	9	15	12	11	12	12	6	7	0
C69 Eye	3	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	0
C70-C72 Brain & CNS	11	4	6	3	2	11	14	6	10	9	8	5	5	1	1	2	0	1	0
C73 Thyroid	0	0	2	11	12	35	50	76	47	32	36	14	9	10	9	0	1	0	0
C74-C75 Other endocrine glands	3	1	2	0	0	0	1	0	0	1	1	2	2	0	1	0	0	0	0
C76-C80 Unknown and Unspecified sites	1	0	0	1	1	2	2	3	8	4	3	13	7	9	5	3	5	2	0
C81 Hodgkin's lymphoma	1	3	6	9	4	10	7	8	5	3	2	0	3	0	1	0	0	0	0
C82-C85, C96 Non-Hodgkin lymphoma	5	6	4	1	5	10	12	13	16	10	14	24	19	11	5	7	4	4	0
C88, C90 Multiple myeloma	0	0	0	0	1	1	2	2	6	9	8	9	9	7	3	2	0	1	0
C91-C95 Leukemia	30	25	13	12	12	15	22	30	10	13	20	15	14	12	4	3	3	0	0
Other malignancy	1	2	0	0	1	0	0	3	4	3	2	3	3	1	1	0	0	0	0
Grand Total	75	47	42	47	60	163	282	358	355	371	395	414	361	275	203	140	84	62	10

Primary site (malignant) distribution by age group among UAE citizens, 2015

The most commonly diagnosed cancers among UAE citizens varies considerably by age group, with particular differences in the cancer types diagnosed in children (0-14), teenagers (15-24), young adults (25-49), adults (50-74) compared with the types diagnosed in older people (75 and over). The highest frequencies of breast cancer cases were found among age groups 40-44 and 45-49 year, followed by age group (55-59) years. It was also noted that the smallest percentage of breast cancer cases were diagnosed in the age group of (20-24). The highest frequencies of colorectal cancer cases were found among age groups (60-64) years, followed by age group (65-69) years. It was also noted that the smallest percentage of colorectal cancer cases were diagnosed in the age group of (25-29).

Table 19: Primary site (malignant) distribution by Age group among UAE citizens, 2015

Primary site ICD-10	(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)	(75-79)	(80-84)	(85 and Over)	Unknown
C00-C14 Lip, Oral cavity & Pharynx	1	1	0	0	0	1	2	1	1	3	2	5	2	2	5	0	4	0	0
C15 Esophagus	0	0	0	0	0	0	0	0	0	0	0	2	1	1	0	1	0	0	0
C16 Stomach	0	0	0	0	1	0	0	1	2	2	3	3	3	1	3	5	2	4	0
C17 Small intestine	0	0	0	0	0	2	0	1	0	1	2	0	0	0	0	1	0	1	0
C18-C21 Colorectal	0	0	0	0	0	2	5	6	7	7	12	9	14	13	12	8	10	10	1
C22 Liver and intrahepatic bile ducts	0	0	0	0	0	0	0	0	1	1	1	0	2	3	2	0	6	1	1
C23-C24 Gallbladder, Other and unspecified part of biliary tract	0	0	0	0	0	0	0	0	0	0	1	0	1	1	0	0	1	1	0
C25 Pancreas	0	0	0	0	0	0	0	1	1	0	3	4	1	2	5	1	0	1	0
C30, C31 Nasal cavity, middle ear, accessory sinuses	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0
C32 Larynx	0	0	0	0	0	0	0	0	0	1	0	0	1	0	2	2	0	0	0
C34 Bronchus and Lung	0	0	0	1	0	1	1	0	1	2	3	0	8	6	18	6	2	1	
C40-C41 Bone and articular cartilage	0	0	0	1	0	2	1	0	0	1	0	0	0	0	0	0	0	0	0
C43 Skin melanoma	0	0	1	0	0	0	0	0	0	1	0	1	0	0	1	0	0	0	0
C44 Skin	1	0	0	0	1	0	1	0	1	0	2	2	1	3	2	2	0	1	0
C46 Kaposi sarcoma	0	0	0	0	0	0	0	0	1	0	1	0	0	1	0	1	0	0	0

Primary site ICD-10	(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)	(75-79)	(80-84)	(85 and Over)	Unknown
C48 Retroperitoneum and peritoneum	2	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	1	1	0
C49 Connective and soft tissue	0	1	1	0	0	2	3	1	0	1	0	0	0	0	0	0	1	1	0
C50 Breast	0	0	0	0	1	4	10	22	30	30	18	28	16	16	12	12	6	3	1
C53 Cervix uteri	0	0	0	0	0	0	0	1	0	5	3	1	3	0	0	0	0	0	0
C54-C55 Uterus	0	0	0	0	0	1	1	1	1	1	3	6	12	3	2	3	1	0	0
C56 Ovary	1	0	0	0	2	1	0	0	0	4	1	0	2	3	0	1	0	1	1
C61 Prostate	0	0	0	0	0	0	1	0	0	0	5	7	6	5	12	5	3	3	0
C62 Testis	1	1	0	1	1	1	2	0	0	0	0	0	0	0	0	0	0	0	0
C64-C65 Kidney & Renal pelvis	2	1	0	0	0	1	3	0	1	4	2	7	0	4	1	1	1	1	0
C66, C68 Ureter and Other urinary organs	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0
C67 Urinary bladder	0	0	0	0	0	0	1	0	0	1	0	6	2	7	8	6	4	6	0
C69 Eye	2	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0
C70-C72 Brain & CNS	3	1	2	1	0	1	4	1	3	0	2	3	0	1	1	1	0	0	0
C73 Thyroid	0	0	1	6	2	12	16	19	17	7	12	5	3	5	5	0	0	0	0
C74-C75 Other endocrine glands	1	0	2	0	0	0	0	0	0	0	1	0	1	0	1	0	0	0	0
C76-C80 Unknown and Unspecified sites	0	0	0	0	0	0	0	0	2	0	1	0	1	2	3	2	3	2	0
C81 Hodgkin's lymphoma	0	2	2	2	3	1	2	3	1	1	0	0	1	0	0	0	0	0	0
C82-C85, C96 Non-Hodgkin lymphoma	0	1	2	1	2	2	9	4	3	1	3	3	6	3	1	4	3	3	0
C88, C90 Multiple myeloma	0	0	0	0	1	1	0	1	1	0	1	0	2	1	1	0	0	1	0
C91-C95 Leukemia	13	9	6	3	3	4	4	10	1	2	4	2	3	1	1	1	0	0	0
Other malignancy	1	0	0	0	1	0	0	0	0	0	1	1	1	0	0	0	0	0	0
Grand Total	28	17	17	16	18	39	66	73	75	78	88	95	95	84	100	64	49	42	4

Primary site (malignant) distribution by age group among Non-UAE citizens, 2015

The commonly diagnosed cancers among Non-UAE citizens varies considerably by age group, with particular differences in the cancer types diagnosed in children (0-14), teenagers (15-24), young adults (25-49), adults (50-74) compared with the types diagnosed in older people (75 and over).The highest frequencies of breast cancer cases were found among age groups 40-44 years, followed by age group (45-49) years. It was also noted that the smallest percentage of breast cancer cases were diagnosed in the age group of (20-24). The highest frequencies of colorectal cancer cases were found among age groups (55-59) years, followed by age group (35-39) years. It was also noted that the smallest percentage of colorectal cancer cases were diagnosed in the age group of (20-24).

Table 20: Primary site (malignant) distribution by age group, among Non-UAE citizens, 2015

Primary site ICD-10	(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)	(75-79)	(80-84)	(85 and Over)	Unknown
C00-C14 Lip, Oral cavity & Pharynx	0	0	1	0	3	5	4	8	11	7	21	12	10	2	2	1	0	0	0
C15 Esophagus	0	0	0	0	0	0	0	0	2	0	4	4	1	5	0	2	1	1	0
C16 Stomach	0	0	0	0	0	2	9	9	6	7	12	14	8	4	3	2	2	0	0
C17 Small intestine	0	0	0	0	0	0	2	0	3	1	4	0	0	4	1	1	0	0	0
C18-C21 Colorectal	0	0	0	3	2	7	26	29	15	24	28	46	27	24	5	9	4	4	2
C22 Liver and intrahepatic bile ducts	4	0	1	0	0	0	1	7	1	7	5	4	4	6	8	0	1	0	1
C23-C24 Gallbladder, Other and unspecified part of biliary tract	0	0	0	0	0	0	1	2	1	4	2	4	8	2	0	3	2	0	0
C25 Pancreas	0	0	0	0	0	1	1	0	2	2	6	5	9	3	2	2	1	0	0
C30, C31 Nasal cavity, middle ear, accessory sinuses	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0
C32 Larynx	0	0	0	0	0	0	2	2	3	6	7	10	3	2	2	0	1	0	0
C34 Bronchus and Lung	0	0	0	0	0	0	2	5	6	11	11	16	22	16	7	9	4	2	0
C40-C41 Bone and articular cartilage	0	1	2	1	1	2	0	1	1	1	1	1	0	0	0	0	0	0	0
C43 Skin melanoma	0	0	0	0	1	0	1	2	1	4	3	9	3	1	0	1	1	0	0
C44 Skin	0	0	0	0	1	3	4	11	7	10	15	15	15	10	8	4	1	3	0
C45 Mesothelioma	0	0	0	0	0	0	1	0	0	0	0	1	1	0	2	0	0	0	0
C46 Kaposi sarcoma	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0

Primary site ICD-10	(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)	(75-79)	(80-84)	(85 and Over)	Unknown
C48 Retroperitoneum & peritoneum	0	0	0	0	0	0	0	0	1	2	1	0	1	0	2	0	0	0	0
C49 Connective and soft tissue	1	0	1	0	4	5	4	1	4	4	4	1	1	0	0	0	0	0	0
C50 Breast	0	0	0	0	2	20	45	73	103	92	74	58	40	23	7	10	4	4	1
C53 Cervix uteri	0	0	0	0	0	3	10	15	13	7	6	2	2	1	0	1	1	0	0
C54-C55 Uterus	0	0	0	0	1	1	6	5	4	4	9	6	10	7	7	4	0	0	0
C56 Ovary	1	1	1	1	0	0	6	5	5	8	5	4	4	0	2	1	0	1	0
C61 Prostate	0	0	0	0	0	0	0	0	2	2	5	16	27	31	20	10	3	1	2
C62 Testis	0	0	0	2	1	9	10	4	5	0	1	0	0	0	0	0	0	0	0
C64-C65 Kidney & Renal pelvis	6	0	1	0	0	1	3	3	5	9	5	7	7	5	4	1	0	0	0
C66, C68 Ureter & Other urinary organs	0	0	0	0	0	0	0	0	0	1	0	2	0	0	0	0	0	0	0
C67 Urinary bladder	0	0	0	0	0	2	3	0	1	7	9	9	10	4	4	6	2	1	0
C69 Eye	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
C70-C72 Brain & CNS	8	3	4	2	2	10	10	5	7	9	6	2	5	0	0	1	0	1	0
C73 Thyroid	0	0	1	5	10	23	34	57	30	25	24	9	6	5	4	0	1	0	0
C74-C75 Other endocrine glands	2	1	0	0	0	0	1	0	0	1	0	2	1	0	0	0	0	0	0
C76-C80 Unknown & Unspecified sites	1	0	0	1	1	2	2	3	6	4	2	13	6	7	2	1	2	0	0
C81 Hodgkin's lymphoma	1	1	4	7	1	9	5	5	4	2	2	0	2	0	1	0	0	0	0
C82-C85, C96 Non-Hodgkin lymphoma	5	5	2	0	3	8	3	9	13	9	11	21	13	8	4	3	1	1	0
C88, C90 Multiple myeloma	0	0	0	0	0	0	2	1	5	9	7	9	7	6	2	2	0	0	0
C91-C95 Leukemia	17	16	7	9	9	11	18	20	9	11	16	13	11	11	3	2	3	0	0
Other malignancy	0	2	0	0	0	0	0	3	4	3	1	2	2	1	1	0	0	0	0
Grand Total	47	30	25	31	42	124	216	285	280	293	307	319	266	191	103	76	35	20	6

Primary site (malignant) distribution by nationality, 2015

Among 3744 cases of primary site malignancies that have been observed in UAE population, 2696 were Non-UAE and 1048 were UAE citizens respectively. Table 21 demonstrates that the three most commonly diagnosed cancers in both UAE and Non-UAE citizens are, breast, colorectal and thyroid cancers.

Table 21: Primary site (malignant) distribution by nationality, 2015

Primary site ICD-10	Non-UAE Citizens	UAE Citizens	Grand Total
C00-C14 Lip, Oral cavity & Pharynx	87	30	117
C15 Esophagus	20	5	25
C16 Stomach	78	30	108
C17 Small intestine	16	8	24
C18-C21 Colorectal	256	117	373
C22 Liver and intrahepatic bile ducts	50	18	68
C23-C24 Gallbladder, Other and unspecified part of biliary tract	29	5	34
C25 Pancreas	34	19	53
C30, C31 Nasal cavity, middle ear, accessory sinuses	4	2	6
C32 Larynx	38	6	44
C34 Bronchus and Lung	111	50	161
C40-C41 Bone and articular cartilage	12	5	17
C43 Skin melanoma	27	4	31
C44 Skin	107	17	124
C45 Mesothelioma	5	0	5
C46 Kaposi sarcoma	1	4	5
C48 Retroperitoneum and peritoneum	7	6	13
C49 Connective and soft tissue	30	11	41
C50 Breast	556	209	765
C53 Cervix uteri	61	13	74
C54-C55 Uterus	64	35	99
C56 Ovary	45	17	62
C61 Prostate	119	47	166
C62 Testis	32	7	39
C64-C65 Kidney & Renal pelvis	57	29	86
C66, C68 Ureter and Other urinary organs	3	2	5
C67 Urinary bladder	58	41	99

Primary site ICD-10	Non-UAE Citizens	UAE Citizens	Grand Total
C69 Eye	2	5	7
C70-C72 Brain & CNS	75	24	99
C73 Thyroid	234	110	344
C74-C75 Other endocrine glands	8	6	14
C76-C80 Unknown and Unspecified sites	53	16	69
C81 Hodgkin's lymphoma	44	18	62
C82-C85, C96 Non-Hodgkin lymphoma	119	51	170
C88, C90 Multiple myeloma	50	10	60
C91-C95 Leukemia	186	67	253
Other malignancy	18	4	22
Grand Total	2696	1048	3744

Top malignant primary sites among all UAE population, 2015

In UAE population, breast is the most common site for cancer, representing 20.43% of all malignant cases in 2015. Table 22 demonstrates the 10 most commonly diagnosed cancers among the UAE population. Five most commonly diagnosed cancers among UAE population are breast, colorectal thyroid, leukemia and Non-Hodgkin lymphoma.

Table 22: Top ten most common malignant primary sites among all UAE population, 2015

Primary site ICD-10	Number of malignant cases 2015	%
C50 Breast	765	20.43%
C18-C21 Colorectal	373	9.96%
C73 Thyroid	344	9.19%
C91-C95 Leukemia	253	6.76%
C82-C85, C96 Non-Hodgkin lymphoma	170	4.54%
C61 Prostate	166	4.43%
C34 Bronchus and Lung	161	4.30%
C44 Skin	124	3.31%
C00-C14 Lip, Oral cavity & Pharynx	117	3.13%
C16 Stomach	108	2.88%

Top malignant primary sites among all females, 2015

In females, breast is the most common cancer, representing 38.14% of all female malignant cases in 2015. Five most commonly diagnosed cancers among females are breast, thyroid, colorectal, uterus and Leukemia, Table 23.

Table 23: Malignant primary sites among all females, 2015

Primary site ICD-10	Number of malignant cases 2015	%
C50 Breast	756	38.14%
C73 Thyroid	256	12.92%
C18-C21 Colorectal	141	7.11%
C54-C55 Uterus	99	4.99%
C91-C95 Leukemia	97	4.89%
C53 Cervix uteri	74	3.73%
C56 Ovary	62	3.13%
C82-C85, C96 Non-Hodgkin lymphoma	54	2.72%
C34 Bronchus and Lung	48	2.42%
C70-C72 Brain & CNS	42	2.12%

Top malignant primary sites among all males, 2015

In males, colorectal is the most common cancer, representing 13.17% of all male malignant cases in 2015. Five most commonly diagnosed cancers among men are: colorectal, prostate, leukemia, Non-Hodgkin lymphoma and bronchus and lung, Table 24.

Table 24: Malignant primary sites among all males, 2015

Primary site ICD-10	Number of malignant cases 2015	%
C18-C21 Colorectal	232	13.17%
C61 Prostate	166	9.42%
C91-C95 Leukemia	156	8.85%
C82-C85, C96 Non-Hodgkin lymphoma	116	6.58%
C34 Bronchus and Lung	113	6.41%
C44 Skin	88	4.99%
C73 Thyroid	88	4.99%
C00-C14 Lip, Oral cavity & Pharynx	82	4.65%
C67 Urinary bladder	77	4.37%
C16 Stomach	75	4.26%

Top malignant primary sites among all males & females, 2015

Breast cancer in females and colorectal cancer in males have shown the fastest increase in incidence over the past decade across UAE. The incidence of breast, thyroid, & colorectal cancers in females and colorectal, prostate, and leukemia cancers in males has also been observed to increase markedly in 2015, Table 25.

Table 25: Malignant primary sites among all males & females, 2015

Females		Males	
Primary site ICD-10	%	Primary site ICD-10	%
C50 Breast	38.14%	C18-C21 Colorectal	13.17%
C73 Thyroid	12.92%	C61 Prostate	9.42%
C18-C21 Colorectal	7.11%	C91-C95 Leukemia	8.85%
C54-C55 Uterus	4.99%	C82-C85, C96 Non-Hodgkin lymphoma	6.58%
C91-C95 Leukemia	4.89%	C34 Bronchus and Lung	6.41%
C53 Cervix uteri	3.73%	C44 Skin	4.99%
C56 Ovary	3.13%	C73 Thyroid	4.99%
C82-C85, C96 Non-Hodgkin lymphoma	2.72%	C00-C14 Lip, Oral cavity & Pharynx	4.65%
C34 Bronchus and Lung	2.42%	C67 Urinary bladder	4.37%
C70-C72 Brain & CNS	2.12%	C16 Stomach	4.26%

Top malignant primary sites among UAE citizens, 2015

In UAE citizens, breast is the most common cancer, representing 19.94% of all malignant cases in 2015. The 5 most commonly diagnosed cancers among UAE citizens are: breast, colorectal, thyroid, leukemia and Non-Hodgkin lymphoma, Table 26.

Table 26: Malignant primary sites among UAE citizens, 2015

Primary site ICD-10	Number of malignant cases 2015	%
C50 Breast	209	19.94%
C18-C21 Colorectal	117	11.16%
C73 Thyroid	110	10.50%
C91-C95 Leukemia	67	6.39%
C82-C85, C96 Non-Hodgkin lymphoma	51	4.87%
C34 Bronchus and Lung	50	4.77%
C61 Prostate	47	4.48%
C67 Urinary bladder	41	3.91%
C54-C55 Uterus	35	3.34%
C00-C14 Lip, Oral cavity & Pharynx	30	2.86%

Top malignant primary sites among female UAE citizens, 2015

In female UAE citizens, breast is the most common cancer, representing 34.38% of all female malignant cases in 2015. The 5 most commonly diagnosed cancers among female UAE citizens are breast, thyroid, colorectal, uterus, and leukemia, Table 27.

Table 27: Malignant primary sites among female UAE citizens, 2015

Primary site ICD-10	Number of malignant cases 2015	%
C50 Breast	208	34.38%
C73 Thyroid	83	13.72%
C18-C21 Colorectal	57	9.42%
C54-C55 Uterus	35	5.79%
C91-C95 Leukemia	30	4.96%
C82-C85, C96 Non-Hodgkin lymphoma	24	3.97%
C56 Ovary	17	2.81%
C34 Bronchus and Lung	15	2.48%
C00-C14 Lip, Oral cavity & Pharynx	14	2.31%
C53 Cervix uteri	13	2.15%

Top malignant primary sites among male UAE citizens, 2015

In male UAE citizens, colorectal is the most common cancer, representing 13.54% of all male malignant cases in 2015. The 5 most commonly diagnosed cancers among male UAE citizens are colorectal, prostate, Leukemia, Bronchus and Lung and urinary bladder. Table 28

Table 28: Malignant primary sites among male UAE citizens, 2015

Primary site ICD-10	Number of malignant cases 2015	%
C18-C21 Colorectal	60	13.54%
C61 Prostate	47	10.61%
C91-C95 Leukemia	37	8.35%
C34 Bronchus and Lung	35	7.90%
C67 Urinary bladder	30	6.77%
C73 Thyroid	27	6.09%
C82-C85, C96 Non-Hodgkin lymphoma	27	6.09%
C16 Stomach	19	4.29%
C64-C65 Kidney & Renal pelvis	18	4.06%
C00-C14 Lip, Oral cavity & Pharynx	16	3.61%

Top malignant primary sites among all UAE citizens, males & females, 2015

Among UAE citizens, colorectal is the most common cancer, representing 13.54% of all malignant cases among males and 34.38% of all breast cancer cases among females in 2015, Table 29.

Table 29: Malignant Primary Sites among all UAE citizens, Males & Females, 2015

Females		Males	
Primary site ICD-10	%	Primary site ICD-10	%
C50 Breast	34.38%	C18-C21 Colorectal	13.54%
C73 Thyroid	13.72%	C61 Prostate	10.61%
C18-C21 Colorectal	9.42%	C91-C95 Leukemia	8.35%
C54-C55 Uterus	5.79%	C34 Bronchus and Lung	7.90%
C91-C95 Leukemia	4.96%	C67 Urinary bladder	6.77%
C82-C85, C96 Non-Hodgkin lymphoma	3.97%	C73 Thyroid	6.09%
C56 Ovary	2.81%	C82-C85, C96 Non-Hodgkin lymphoma	6.09%
C34 Bronchus and Lung	2.48%	C16 Stomach	4.29%
C00-C14 Lip, Oral cavity & Pharynx	2.31%	C64-C65 Kidney & Renal pelvis	4.06%
C53 Cervix uteri	2.15%	C00-C14 Lip, Oral cavity & Pharynx	3.61%

Top malignant primary sites among Non-UAE citizens, 2015

Among Non-UAE citizens, breast is the most common cancer, representing 20.62% of all malignant cases found in Non-UAE citizens in 2015. The 5 most commonly diagnosed cancers among Non-UAE citizens are breast, colorectal, thyroid, leukemia, and prostate, Table 30.

Table 30: Malignant primary sites among Non-UAE citizens, 2015

Primary site ICD-10	Number of malignant cases 2015	%
C50 Breast	556	20.62%
C18-C21 Colorectal	256	9.50%
C73 Thyroid	234	8.68%
C91-C95 Leukemia	186	6.90%
C61 Prostate	119	4.41%
C82-C85, C96 Non-Hodgkin lymphoma	119	4.41%
C34 Bronchus and Lung	111	4.12%
C44 Skin	107	3.97%
C00-C14 Lip, Oral cavity & Pharynx	87	3.23%
C16 Stomach	78	2.89%

Top malignant primary sites among female Non-UAE citizens, 2015

Among Non-UAE citizens, breast is the most common cancer, representing 39.80% of malignant cases found in expatriate females in 2015. The 5 most commonly diagnosed cancers among female Non-UAE citizens are breast, thyroid, colorectal, leukemia and uterus, Table 31.

Table 31: Malignant primary sites among female Non-UAE citizens, 2015

Primary site ICD-10	Number of malignant cases 2015	%
C50 Breast	548	39.80%
C73 Thyroid	173	12.56%
C18-C21 Colorectal	84	6.10%
C91-C95 Leukemia	67	4.87%
C54-C55 Uterus	64	4.65%
C53 Cervix uteri	61	4.43%
C56 Ovary	45	3.27%
C34 Bronchus and Lung	33	2.40%
C44 Skin	32	2.32%
C82-C85, C96 Non-Hodgkin lymphoma	30	2.18%

Top malignant primary sites among male Non-UAE citizens, 2015

Among Non-UAE citizens, colorectal is the most common cancer, representing 13.04% of cases found in expatriate males in 2015. The 5 most commonly diagnosed cancers among male Non-UAE citizens are colorectal, prostate, leukemia, Non-Hodgkin lymphoma and bronchus and lung, Table 32.

Table 32: Malignant primary sites among male Non-UAE citizens, 2015

Primary site ICD-10	Number of malignant cases 2015	%
C18-C21 Colorectal	172	13.04%
C61 Prostate	119	9.02%
C91-C95 Leukemia	119	9.02%
C82-C85, C96 Non-Hodgkin lymphoma	89	6.75%
C34 Bronchus and Lung	78	5.91%
C44 Skin	75	5.69%
C00-C14 Lip, Oral cavity & Pharynx	66	5.00%
C73 Thyroid	61	4.62%
C16 Stomach	56	4.25%
C64-C65 Kidney & Renal pelvis	47	3.56%

Top malignant primary sites among all Non-UAE citizens, males & females, 2015

Among Non-UAE citizens, colorectal is the most common cancer, representing 13.04% of malignant cases diagnosed among males and 39.80% of breast cancer cases diagnosed among females in 2015, Table 33.

Table 33: Malignant Primary Sites among all Non-UAE citizens, Males & Females, 2015

Females		Males	
Primary site ICD-10	%	Primary site ICD-10	%
C50 Breast	39.80%	C18-C21 Colorectal	13.04%
C73 Thyroid	12.56%	C61 Prostate	9.02%
C18-C21 Colorectal	6.10%	C91-C95 Leukemia	9.02%
C91-C95 Leukemia	4.87%	C82-C85, C96 Non-Hodgkin lymphoma	6.75%
C54-C55 Uterus	4.65%	C34 Bronchus and Lung	5.91%
C53 Cervix uteri	4.43%	C44 Skin	5.69%
C56 Ovary	3.27%	C00-C14 Lip, Oral cavity & Pharynx	5.00%
C34 Bronchus and Lung	2.40%	C73 Thyroid	4.62%
C44 Skin	2.32%	C16 Stomach	4.25%
C82-C85, C96 Non-Hodgkin lymphoma	2.18%	C64-C65 Kidney & Renal pelvis	3.56%

Cancer Cases (In Situ Only) Among UAE Population

Primary site (in situ) distribution by gender, among all, 2015

In 2015, there were 63 new in situ breast carcinomas cases reported among UAE females. The majority of the cases were reported for the in situ cervix uteri carcinoma in 81 females. Thus, total distribution of primary site (In Situ) cases diagnosed among UAE population includes 224 individuals with 164 females and 60 males, Table 34.

Table 34: Primary site (in situ) distribution by gender, among all – 2015

Primary site ICD-10	Female	Male	Grand Total
D00 Carcinoma in situ of oral cavity, oesophagus and stomach	1	3	4
D01 Carcinoma in situ of other and unspecified digestive organs	4	10	14
D03 Melanoma in situ	2	1	3
D04 Carcinoma in situ of skin	2	2	4
D05 Carcinoma in situ of breast	61	2	63
D06 Carcinoma in situ of cervix uteri	81	0	81
D07 Carcinoma in situ of other and unspecified genital organs	5	3	8
D09 Carcinoma in situ of other and unspecified sites	8	39	47
Grand Total	164	60	224

Top Primary sites (in situ) among all, 2015

Table 35 demonstrates latest top primary sites in situ statistics for the UAE population. Carcinoma in situ of cervix uteri (36.16%) was most commonly observed among all in situ cases. The 10 most common types of cancer diagnosed in UAE population are mentioned (in order of frequency): Carcinoma in situ of cervix uteri (36.16%), carcinoma in situ of breast (28.13%), carcinoma in situ of other and unspecified sites (20.98%), carcinoma in situ of other and unspecified digestive organs (6.25%), carcinoma in situ of other and unspecified genital organs (3.57%), carcinoma in situ of oral cavity, esophagus and stomach (1.79%), carcinoma in situ of skin (1.79) and melanoma in situ(1.34%).

Table 35: Top primary sites (in situ) among all, 2015

Primary site ICD-10	Number of in situ cases 2015	%
D06 Carcinoma in situ of cervix uteri	81	36.16%
D05 Carcinoma in situ of breast	63	28.13%
D09 Carcinoma in situ of other and unspecified sites	47	20.98%
D01 Carcinoma in situ of other and unspecified digestive organs	14	6.25%
D07 Carcinoma in situ of other and unspecified genital organs	8	3.57%
D00 Carcinoma in situ of oral cavity, oesophagus and stomach	4	1.79%
D04 Carcinoma in situ of skin	4	1.79%
D03 Melanoma in situ	3	1.34%
Grand Total	224	100.00%

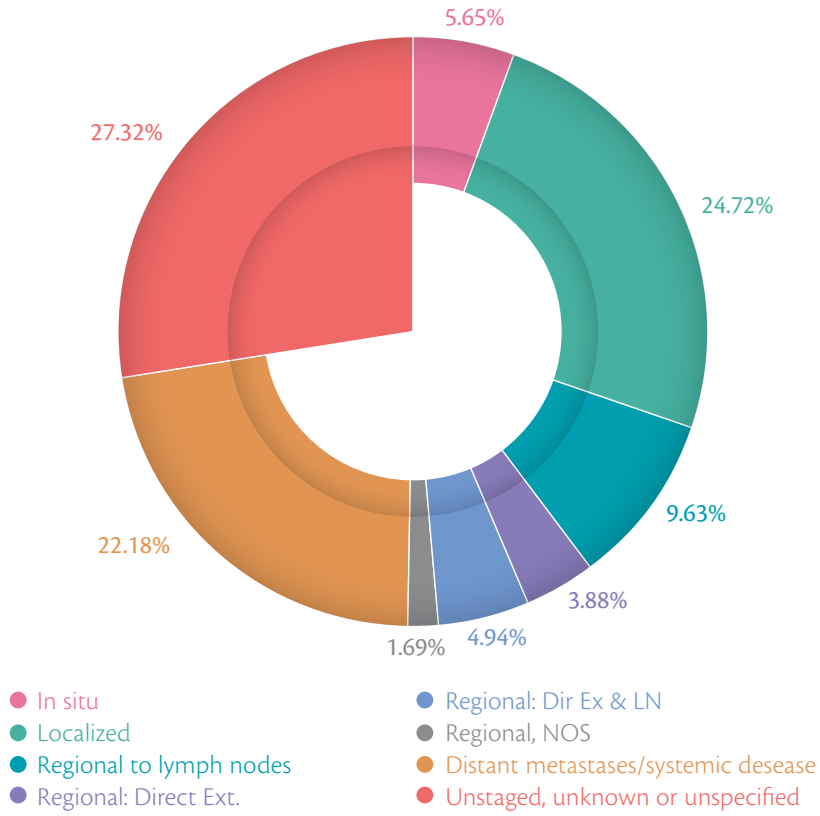
Distribution of Cancer Cases (malignant & in situ) Among All, According to Surveillance, Epidemiology and end Results (Seer) Staging, 2015

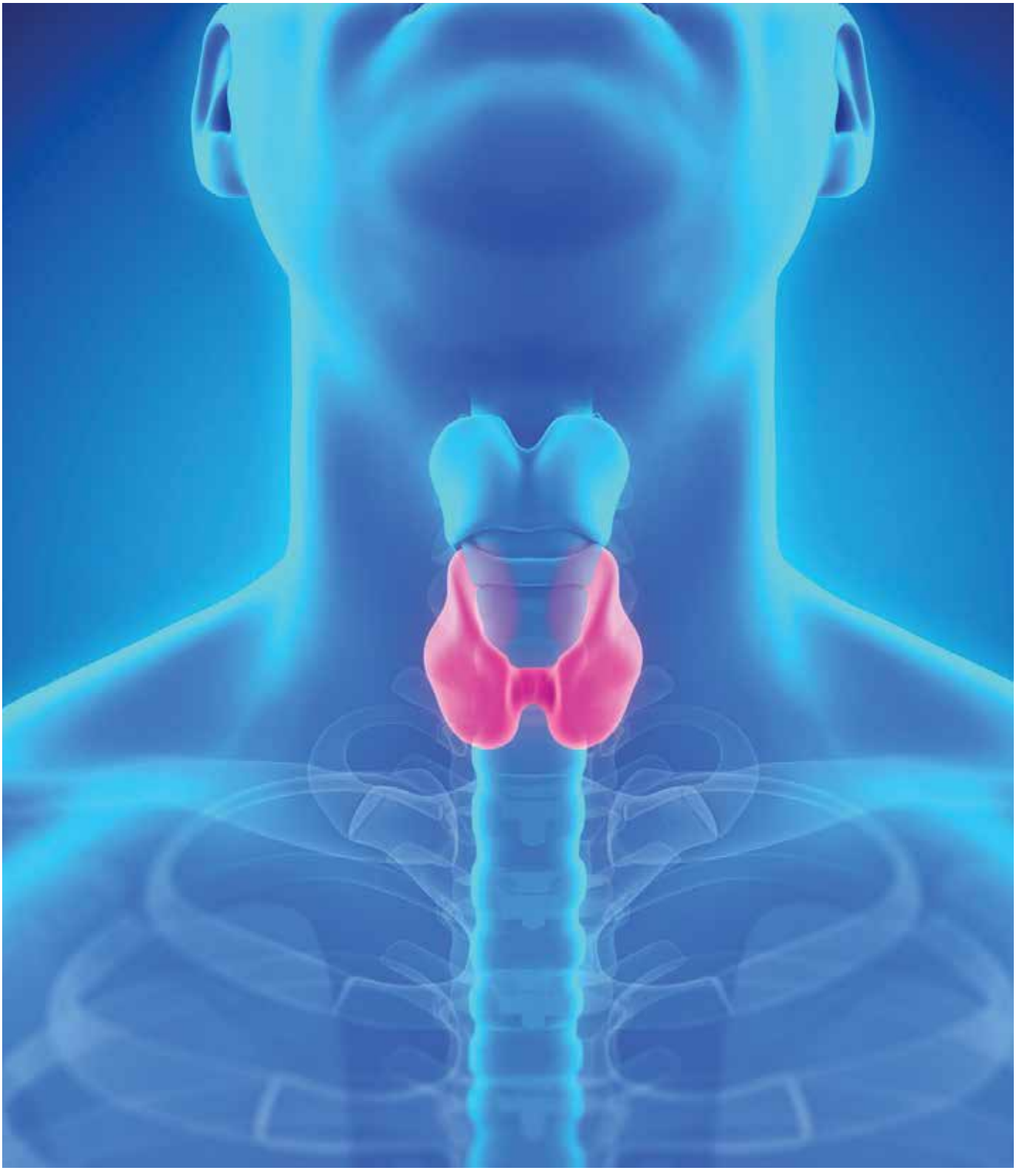
Table 36 demonstrates the distribution by SEER stage at diagnosis of 3968 total cases (malignant & in situ) among UAE population in the year of 2015. The data signifies that the highest frequency of tumor cases (malignant & in situ) was observed in the Localized with (24.72%) of all cases followed by Distant (22.18%), Regional (20.14%) and the less number of tumor cases in In situ stage (5.65%). Similar type of findings is also demonstrated in the pie chart shown in figure 17.

Table 36: SEER stage distribution of total cancer cases in UAE, 2015

SEER Stage	Number of cases 2015	%
In situ	224	5.65%
Localized	981	24.72%
Regional to lymph nodes	382	9.63%
Regional:Direct Ext.	154	3.88%
Regional:Dir Ex & LN	196	4.94%
Regional, NOS	67	1.69%
Distant metastases/systemic disease	880	22.18%
Unstaged, unknown, or unspecified	1084	27.32%
Grand Total	3968	100.00%

Figure 17: SEER stage distribution of total cancer cases in UAE, 2015

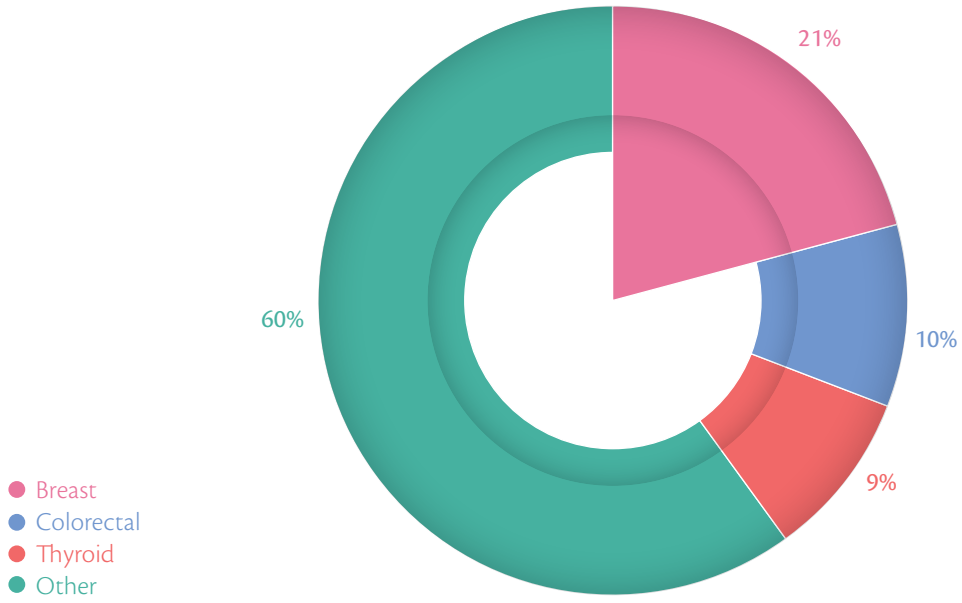




3. SPECIAL REPORT ON BREAST, COLORECTAL AND THYROID GLAND

Cancer is the third leading cause of death in the UAE. In 2015, total number of cases diagnosed with cancer (malignant & in situ) was 3968. The most common types of cancers among UAE population was breast representing (21%) of total malignant and in situ cases followed by colorectal cancer (10%) and thyroid cancer (9%), Figure 18.

Figure 18: Most common types of cancers among UAE population, 2015



BREAST CANCER (malignant & in situ)

Breast cancer is the most common of all females' cancer worldwide with an incidence of 16% and 22.9% of invasive cancers in women. 18.2% of all cancer deaths worldwide, counting both males and females, are from breast cancer [13].

Total breast tumor cases (malignant & in situ) by nationality in UAE 2015

Breast cancer represents the most common cancer among UAE population regardless of nationality and gender [14]. During 2015, a total number of 828 new cases were diagnosed with breast cancer in UAE among both UAE and Non-UAE citizens respectively; of which 765 (92.4%) were breast malignant cases and 63 (7.6%) were breast in situ tumor cases.

Among the malignant cases, 72.7% were Non-UAE citizens and 27.3% were UAE citizens. Similarly among the in situ of breast tumors, 79.4% were Non-UAE citizens and 20.6% were UAE citizens. The following table 37 represents the distribution of both types of tumors cases among UAE population (UAE citizens and Non-UAE citizens) among both gender.

Table 37: Distribution of total breast tumor cases (malignant & in situ) by nationality in UAE 2015

Primary site ICD-10	Non-UAE Citizens	%	UAE Citizens	%	Grand Total
C50 Breast	556	72.7%	209	27.3%	765
D05 Carcinoma in situ of breast	50	79.4%	13	20.6%	63
Grand Total	606	73.2%	222	26.8%	828

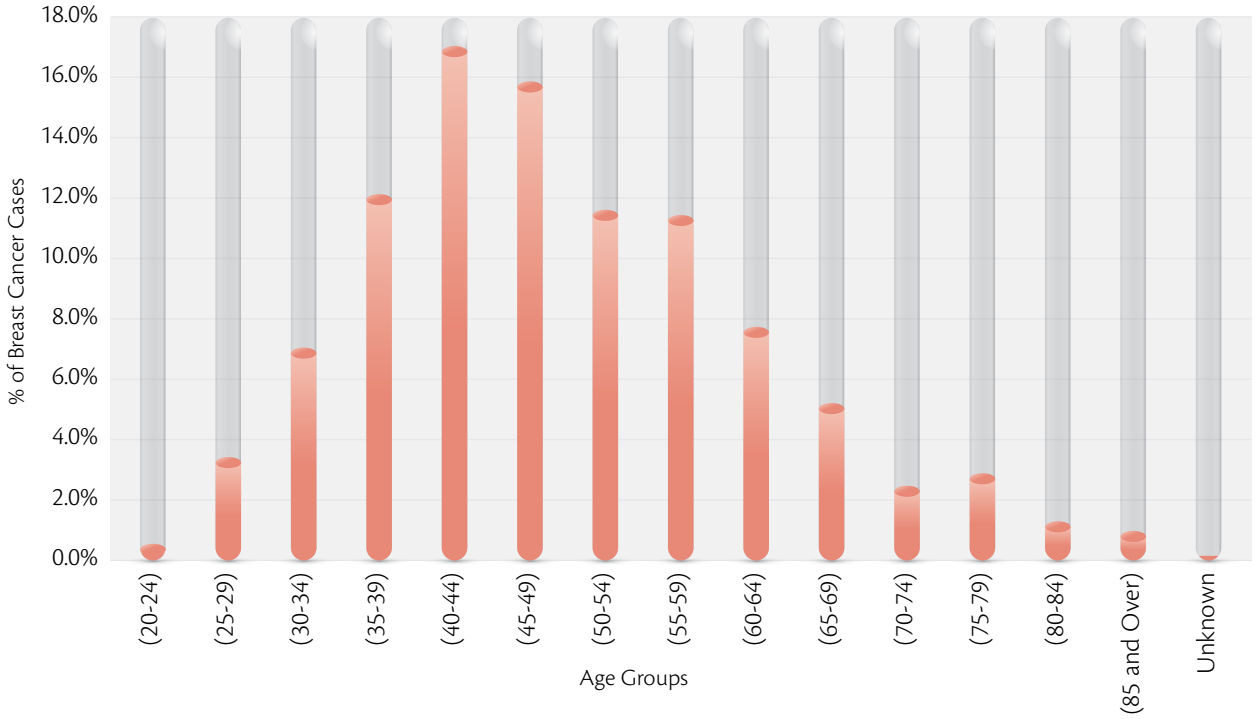
Distribution of breast cases (malignant & in situ) by age groups in UAE, 2015

Table 38: Age-Group Distribution of Breast (malignant & in situ) Cases in UAE, 2015

Age Group	Number of breast cancer cases (malignant & in situ)	%
(20-24)	3	0.4%
(25-29)	28	3.4%
(30-34)	58	7.0%
(35-39)	101	12.2%
(40-44)	143	17.3%
(45-49)	133	16.1%
(50-54)	97	11.7%
(55-59)	96	11.6%
(60-64)	64	7.7%
(65-69)	42	5.1%
(70-74)	21	2.5%
(75-79)	23	2.8%
(80-84)	10	1.2%
(85 and Over)	7	0.8%
Unknown	2	0.2%
Grand Total	828	100.0%

Table 38 reveals the distribution by age group of 828 breast (malignant & in situ) cases in UAE in the year 2015. The data specifies the highest frequencies of breast cancer cases was found among age group 40-44 years with 17.3% of all breast cancer cases, followed by age group 45-49 (16.1%), 35-39 (12.2%) and 50-54 (11.7%) and it was noted that the minimum frequency of breast cancer was diagnosed in the age group of 20-24 years (0.4%). In the similar fashion, figure 19 also represents such findings.

Figure 19: Age-group distribution of breast (malignant & in situ) cases in UAE, 2015



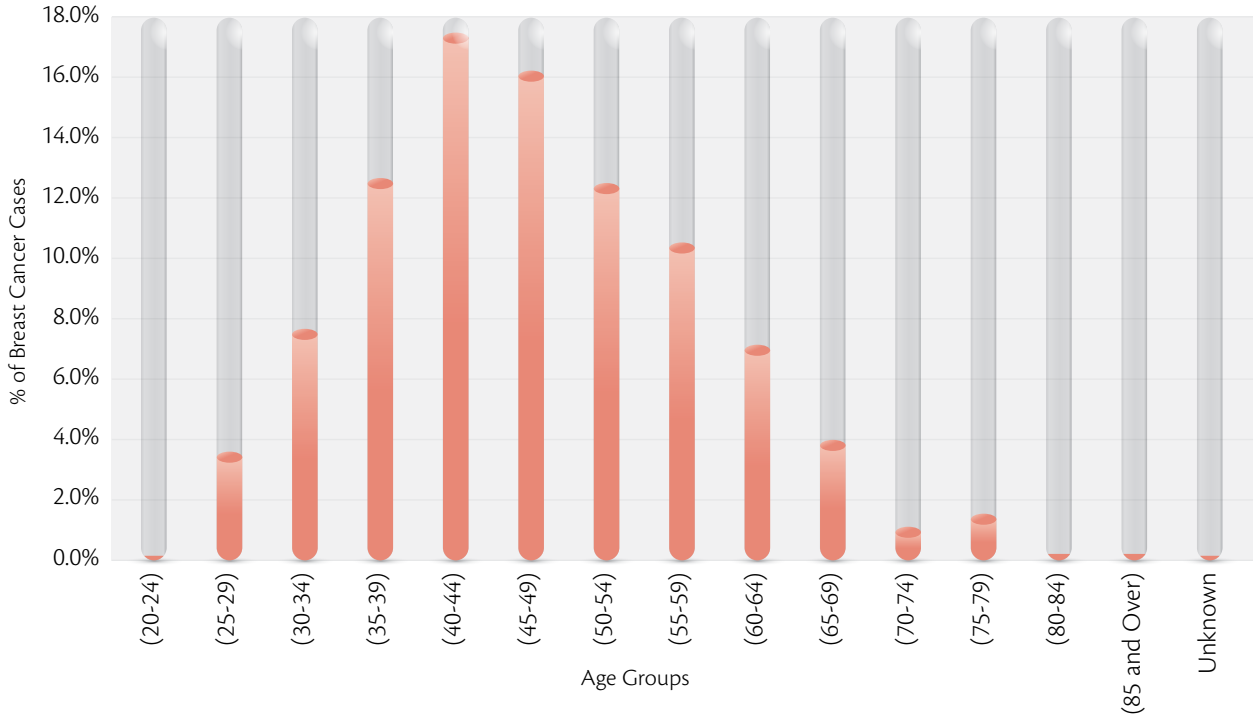
Distribution of breast cases (malignant & in situ) among Non-UAE citizens by age groups

Table 39: Age-group distribution of breast (malignant & in situ) among Non-UAE citizens, 2015

Age Group	Number of breast cancer cases (malignant & in situ)	%
(20-24)	2	0.3%
(25-29)	24	4.0%
(30-34)	48	7.9%
(35-39)	79	13.0%
(40-44)	109	18.0%
(45-49)	101	16.7%
(50-54)	78	12.9%
(55-59)	66	10.9%
(60-64)	45	7.4%
(65-69)	26	4.3%
(70-74)	8	1.3%
(75-79)	11	1.8%
(80-84)	4	0.7%
(85 and Over)	4	0.7%
Unknown	1	0.2%
Grand Total	606	100.00%

Table 39 demonstrates the distribution by age group of 606 breast (malignant & in situ) cases among Non-UAE citizens in the year of 2015. The data shows that the highest frequency of breast tumor was observed in the age group 40-44 year with 18.0% of all breast cancer cases. It is also notable that the minimum frequency of breast tumor (malignant & in situ) among Non-UAE citizens was reported in the age group 20-24 year (0.3%). Figure 20 also shows similar type of findings regarding distribution of breast cancer among Non-UAE citizens.

Figure 20: Age-Group Distribution of Breast (malignant & in situ) among Non UAE citizens, 2015



Distribution of breast cases (malignant & in situ) among UAE citizens by age groups

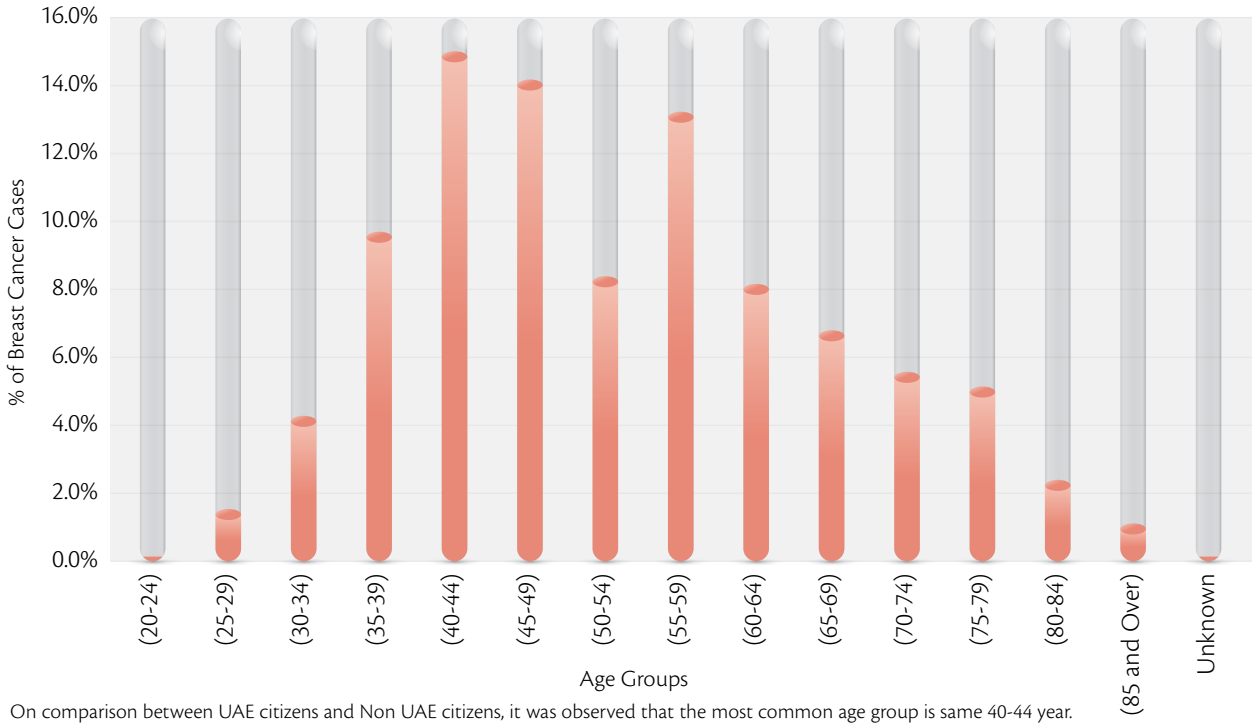
Table 40: Age-group distribution of breast (malignant & in situ) cases among UAE citizens, 2015

Age Group	Number of breast cancer cases (Malignant & in situ)	%
(20-24)	1	0.5%
(25-29)	4	1.8%
(30-34)	10	4.5%
(35-39)	22	9.9%
(40-44)	34	15.3%
(45-49)	32	14.4%
(50-54)	19	8.6%
(55-59)	30	13.5%
(60-64)	19	8.6%
(65-69)	16	7.2%
(70-74)	13	5.9%
(75-79)	12	5.4%
(80-84)	6	2.7%

Age Group	Number of breast cancer cases (Malignant & in situ)	%
(85 and Over)	3	1.4%
Unknown	1	0.5%
Grand Total	222	100.0%

Table 40 demonstrates the distribution by age group of 222 breast (malignant & in situ) cases among UAE citizens in the year of 2015. The data indicates that the highest frequencies of breast tumor was observed in the age groups 40-44 year with 15.3% of all breast cancer cases among UAE citizens, 45-49 yeas (14.4%) and 55-59 year (13.5%). It is also notable that the minimum frequency of breast tumor (malignant & in situ) among UAE citizens was reported in the age group 20-24 year (0.5%). Figure 21 also shows similar type of findings regarding distribution of breast cancer among UAE citizens.

Figure 21: Age-group distribution of breast (malignant & in situ) cases among UAE citizens, 2015



On comparison between UAE citizens and Non UAE citizens, it was observed that the most common age group is same 40-44 year.

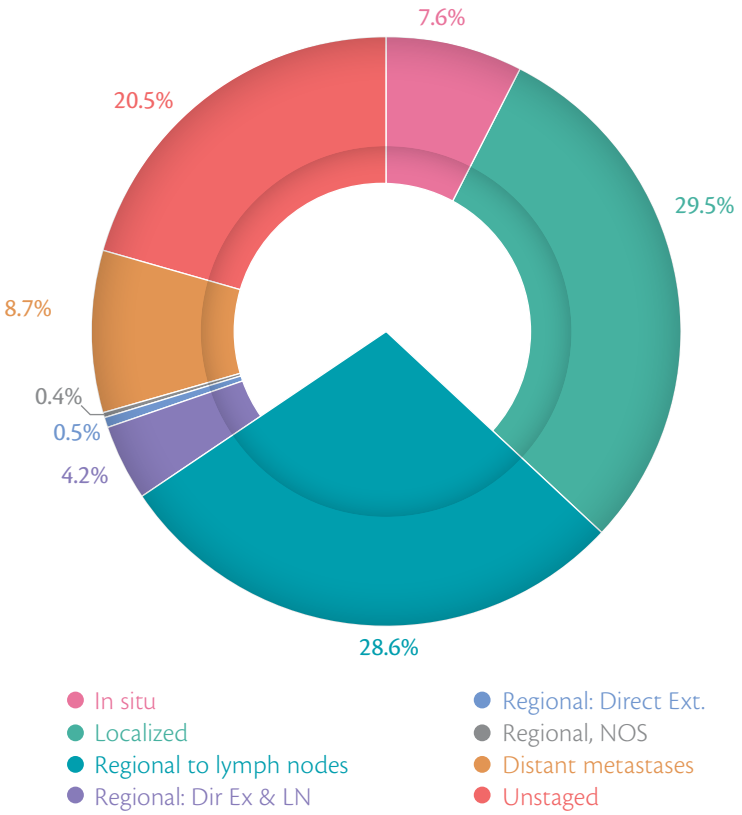
Distribution of breast cases (malignant & in situ) by SEER stage in UAE

Table 41: SEER stage distribution of breast cases (malignant & in situ) in UAE, 2015

SEER stage	Number of breast cancer cases (malignant & in situ)	%
In situ	63	7.6%
Localized	244	29.5%
Regional to lymph nodes	237	28.6%
Regional:Dir Ex & LN	35	4.2%
Regional:Direct Ext.	4	0.5%
Regional, NOS	3	0.4%
Distant metastases	72	8.7%
Unstaged	170	20.5%
Grand Total	828	8.6%

Table 41 and Figure 22 demonstrate the distribution by SEER stage at diagnosis of 828 breast (malignant & in situ) cases among UAE population in the year of 2015. The data signifies that the highest frequency of breast cases (malignant & in situ) was observed in the regional stage (33.7%) followed by localized (29.5%), distant metastases (8.7%) and the less number of breast cases in in situ stage (7.6%).

Figure 22: Distribution of breast cases (malignant & in situ) by SEER stage in UAE, 2015



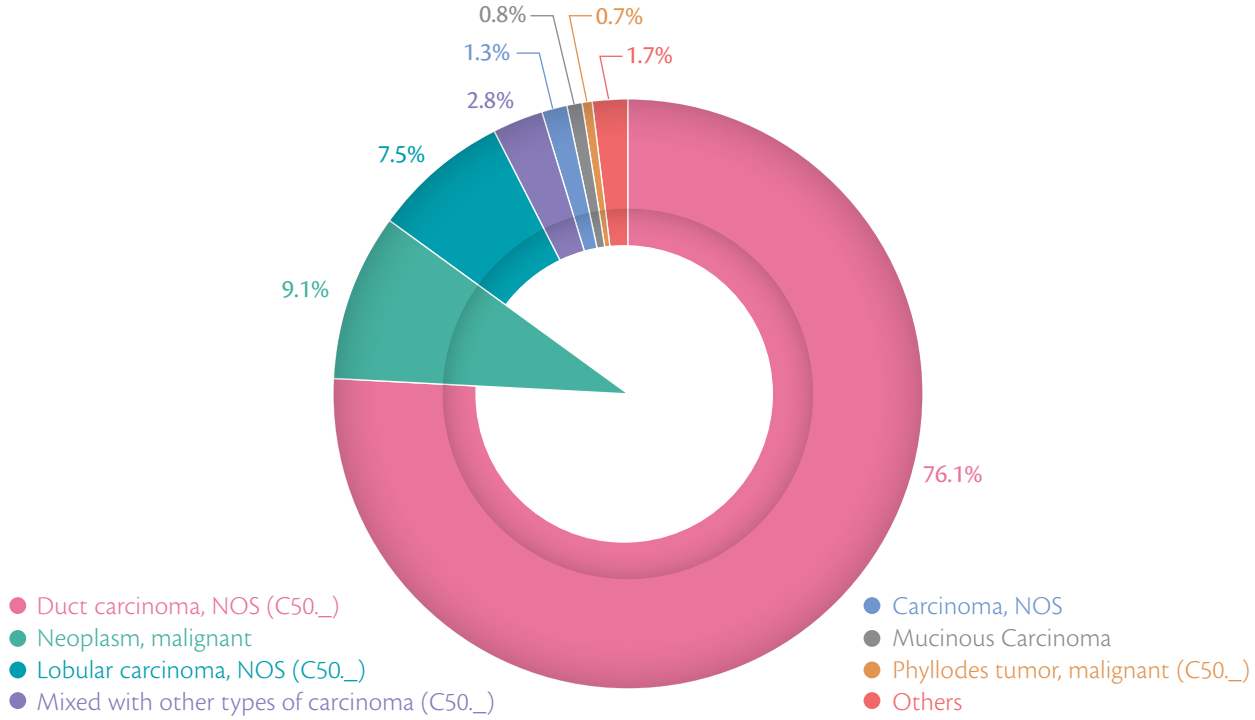
Distribution of breast cases (malignant & in situ) by morphology

Table 42: Distribution of breast cases (malignant & in situ) by morphology in UAE, 2015

Morphology	Number of breast cancer cases (malignant & in situ)	%
Duct carcinoma, NOS (C50._)	630	76.1%
Neoplasm, malignant	75	9.1%
Lobular carcinoma, NOS (C50._)	62	7.5%
Mixed with other types of carcinoma (C50._)	23	2.8%
Carcinoma, NOS	11	1.3%
Mucinous Carcinoma	7	0.8%
Phyllodes tumor, malignant (C50._)	6	0.7%
Others	14	1.7%
Grand Total	828	100.0%

Table 42 and Figure 23 show the distribution by morphology-specific breast cancer (malignant & in situ) of 828 cases among UAE population in the year of 2015. The data signifies that the ductal and lobular carcinoma were the most common form of breast cancer, with the highest frequency of Ductal carcinoma (76.1%) followed by lobular (7.5%), and the minimum number of breast cases were diagnosed in phyllodes tumor, malignant (0.7%).

Figure 23: Distribution of breast cases (malignant & in situ) by morphology in UAE, 2015



Colorectal Cancer (malignant & in situ)

Colorectal cancer is one of the main leading causes of death among cancer patients in the UAE [15]. The risk of developing colorectal cancer rises after age 50 and is common in both men and women [16].

Total colorectal cancer cases by nationality in UAE 2015

Colorectal cancer represents the second most common cancer among UAE population regardless of nationality and gender [15], and the first most common cancer among males In the period from January to December of 2015, a total number of 387 new cases were diagnosed with colorectal cancer in UAE among both UAE citizens and Non-UAE citizens; of which 373 (96.4%) were malignant colorectal cases and 14 (3.6%) were carcinoma in situ.

Among the malignant colorectal cases, 256 (68.6)% were Non-UAE citizens and 117 (31.4%) were UAE citizens. Similarly regarding the carcinoma in situ of colorectal 10 (71.4%) were Non-UAE citizens and 4 (28.6%) were UAE citizens.

The following table 43 represents the distribution of colorectal cancer cases (malignant & in situ) among UAE population in both genders.

Table 43: Distribution of total colorectal (malignant & in situ) cases by nationality in UAE, 2015

Primary site ICD-10	Non-UAE Citizens	%	UAE Citizens	%	Grand Total
C18-C21 Colorectal	256	68.6%	117	31.4%	373
D01 Carcinoma in situ of other and unspecified digestive organs	10	71.4%	4	28.6%	14
Grand Total	266	68.7%	121	31.3%	387

Distribution of colorectal cases (malignant & in situ) by age groups

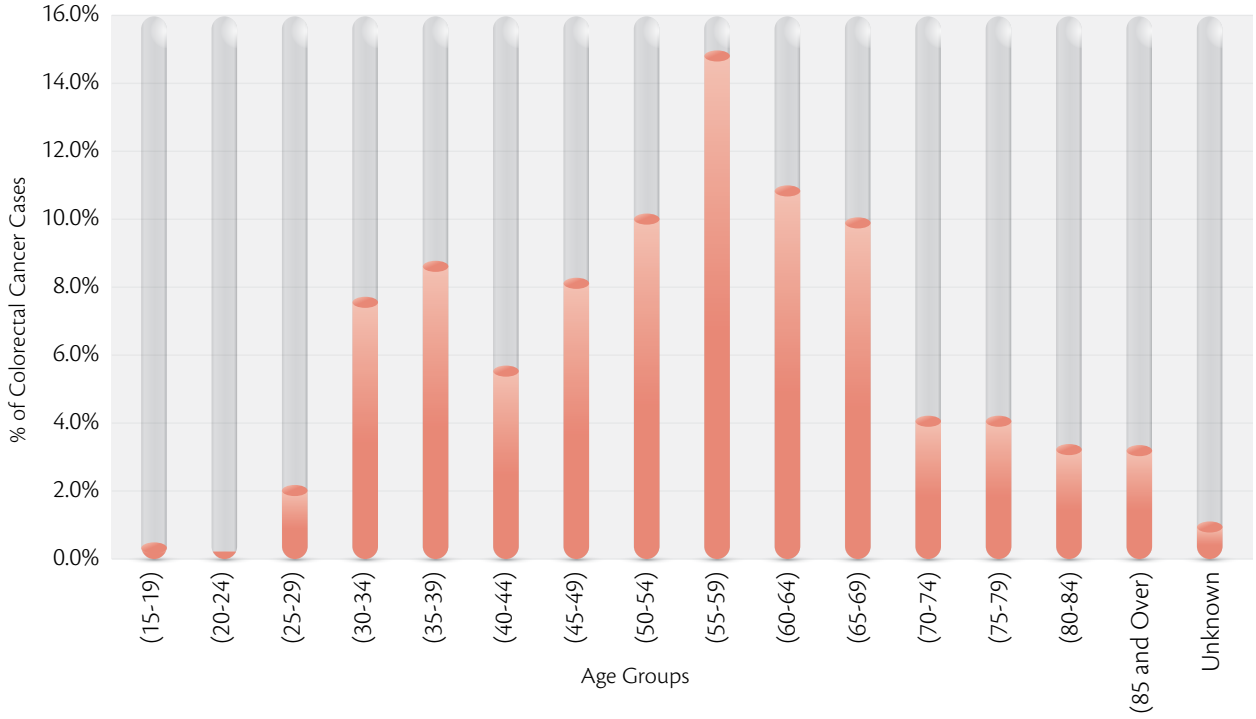
Table 44: Age-group distribution of colorectal (malignant & in situ) cases in UAE, 2015

Age Group	%
(15-19)	0.8%
(20-24)	0.5%
(25-29)	2.3%

Age Group	%
(30-34)	8.0%
(35-39)	9.0%
(40-44)	5.9%
(45-49)	8.5%
(50-54)	10.6%
(55-59)	15.2%
(60-64)	11.4%
(65-69)	10.3%
(70-74)	4.4%
(75-79)	4.4%
(80-84)	3.6%
(85 and Over)	3.6%
Unknown	1.3%
Grand Total	100.0%

Table 44 represents the distribution by age group of 387 colorectal (malignant & in situ) cases in UAE in the year 2015. The data indicates that the highest frequencies of colorectal cases were found among age groups 55-59 years (15.2%), followed by age group 60-64 year (11.4%) and it was also noted that the smallest percentage of colorectal cancer was diagnosed in the age group of 20-24 year (0.5%).

Figure 24: Age-group distribution of colorectal (malignant & in situ) cases in UAE, 2015



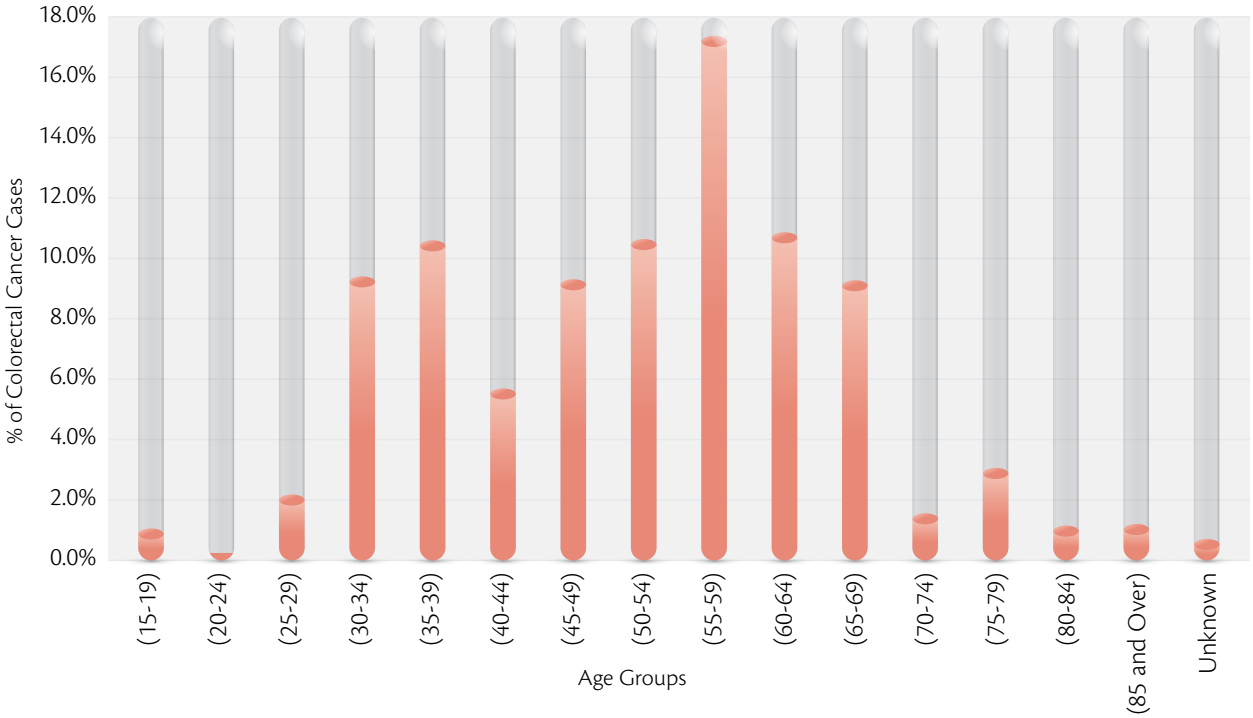
Distribution of colorectal (malignant & in situ) cases among Non-UAE citizens by age groups

Table 45: Age-group distribution of colorectal (malignant & in situ) among Non-UAE citizens, 2015

Age Group	%
(15-19)	1.1%
(20-24)	0.8%
(25-29)	2.6%
(30-34)	9.8%
(35-39)	10.9%
(40-44)	6.0%
(45-49)	9.8%
(50-54)	10.9%
(55-59)	17.7%
(60-64)	11.3%
(65-69)	9.8%
(70-74)	1.9%
(75-79)	3.4%
(80-84)	1.5%
(85 and Over)	1.5%
Unknown	1.1%
Grand Total	100.0%

Table 45 and Figure 25 demonstrate the distribution by age group of 266 colorectal (malignant & in situ) cases among Non-UAE citizens in the year of 2015. The data indicates that the highest and same percentages of colorectal tumor were observed in the age group 55-59. It is also noteworthy that the minimum percentage of colorectal tumor (malignant & in situ) among Non-UAE citizens was reported in the age group 20-24 year (0.8%).

Figure 25: Age-group distribution of colorectal (malignant & in situ) among Non UAE citizens, 2015



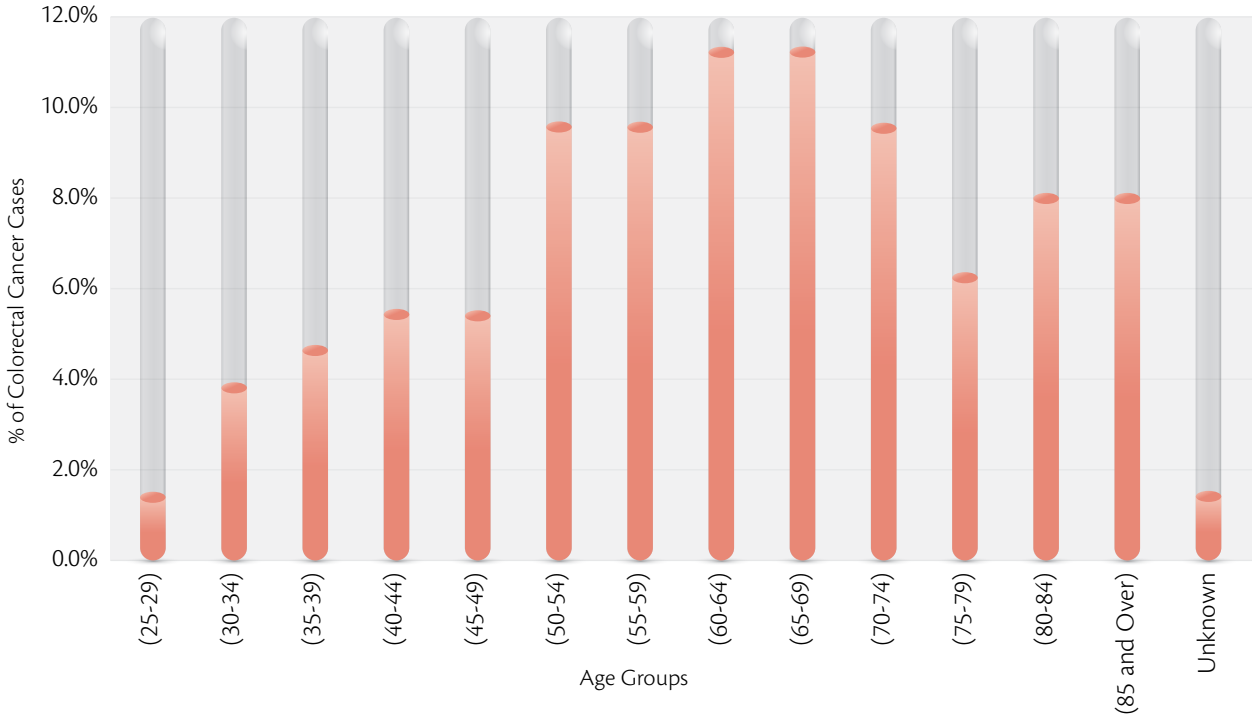
Distribution of colorectal cases (malignant & in situ) among UAE citizens by age groups

Table 46: Age-group distribution of colorectal (malignant & in situ) among UAE citizens, 2015

Age Group	%
(25-29)	1.7%
(30-34)	4.1%
(35-39)	5.0%
(40-44)	5.8%
(45-49)	5.8%
(50-54)	9.9%
(55-59)	9.9%
(60-64)	11.6%
(65-69)	11.6%
(70-74)	9.9%
(75-79)	6.6%
(80-84)	8.3%
(85 and Over)	8.3%
Unknown	1.7%
Grand Total	100.0%

Table 46 and Figure 26 demonstrate the distribution by age group of 121 colorectal (malignant & in situ) cases among UAE citizens in the year of 2015. The data specifies that the highest frequencies of colorectal tumor were observed in the age groups 60-64 & 65-69 year that is (11.6%). But in contrast, it is noteworthy that the cases of colorectal (malignant & in situ) cases were found relatively less in age groups 25-29 that is (1.7%).

Figure 26: Age-group distribution of colorectal (malignant & in situ) among UAE citizens, 2015



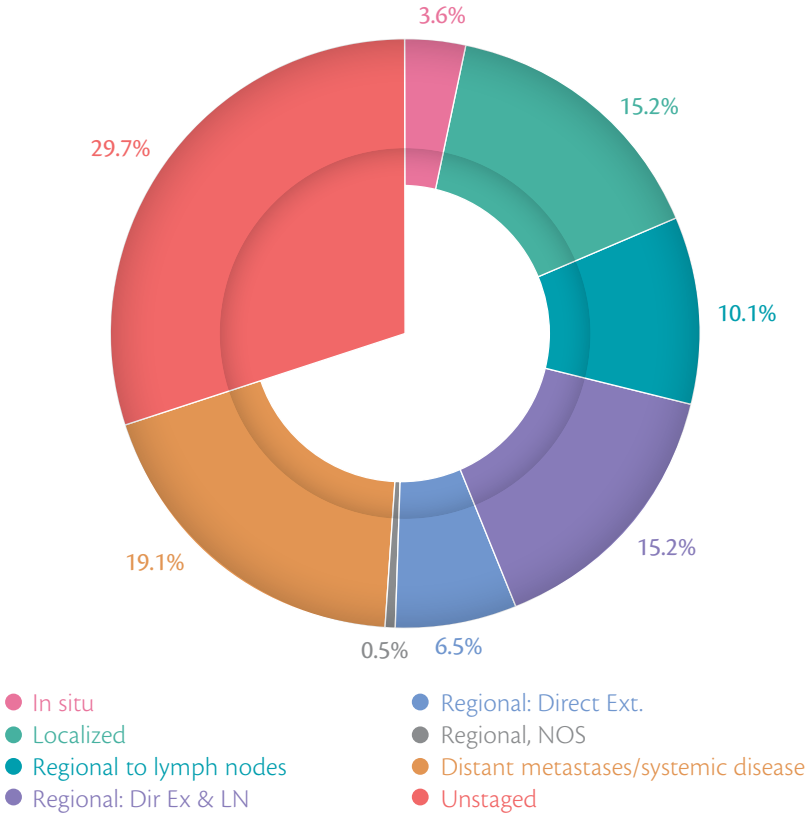
Distribution of colorectal cases (malignant & in situ) by SEER stage

Table 47: SEER Stage Distribution of Colorectal Cases (malignant & in situ) in UAE, 2015

SEER stage	%
In situ	3.6%
Localized	15.2%
Regional to lymph nodes	10.1%
Regional:Dir Ex & LN	15.2%
Regional:Direct Ext.	6.5%
Regional, NOS	0.5%
Distant metastases	19.1%
Unstaged	29.7%
Grand Total	100.0%

Table 47 and Figure 27 demonstrate the distribution by SEER stage at diagnosis of 387 colorectal (malignant & in situ) cases among UAE population in the year of 2015. The data signifies that the highest percentage of colorectal cases (malignant & in situ) was observed in the regional stage (32.3%) followed by Distant metastases (19.1%), localized (15.2%) and the less number of colorectal cases in in situ stage (3.6%).

Figure 27: Distribution of colorectal cases (malignant & in situ) by SEER stage in UAE, 2015



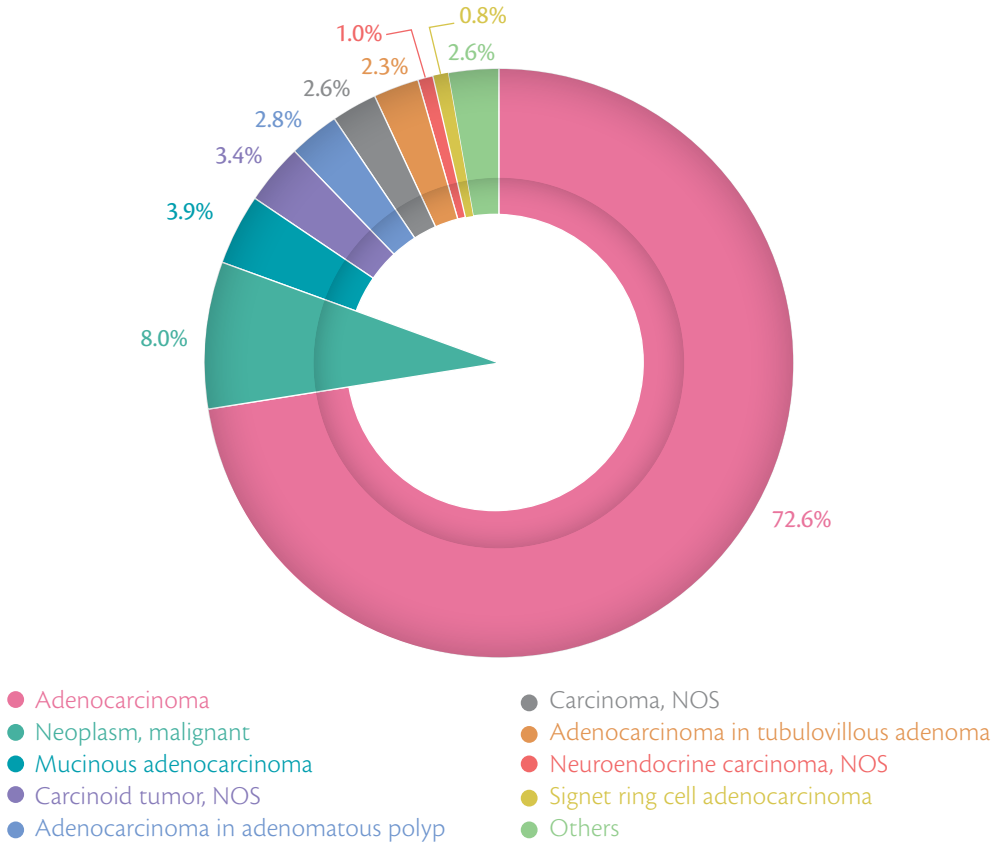
Distribution of colorectal cancer (malignant & in situ) by morphology

Table 48: Distribution of colorectal cases (malignant & in situ) by morphology in UAE, 2015

Morphology	Number of colorectal cancer cases (malignant & in situ)	%
Adenocarcinoma, NOS	281	72.6%
Neoplasm, malignant	31	8.0%
Mucinous adenocarcinoma	15	3.9%
Carcinoid tumor, NOS	13	3.4%
Adenocarcinoma in adenomatous polyp	11	2.8%
Carcinoma, NOS	10	2.6%
Adenocarcinoma in tubulovillous adenoma	9	2.3%
Neuroendocrine carcinoma, NOS	4	1.0%
Signet ring cell adenocarcinoma	3	0.8%
Others	10	2.6%
Grand Total	387	100.0%

Table 48 and Figure 28 show the distribution by morphology-specific colorectal (malignant & in situ) of 387 cases among UAE population in the year of 2015. The data indicates that the Adenocarcinoma, NOS was the most common morphology with the highest percentage of Adenocarcinoma, NOS (72.6%) followed by Neoplasm, Malignant (8.0%), Mucinous adenocarcinoma (3.9%), Carcinoid tumor, NOS (3.4%), Adenocarcinoma in adenomatous polyp (2.8%), Carcinoma, NOS (2.6%), and the minimum number of Colorectal cases were diagnosed in Signet ring cell adenocarcinoma with a percentage of (0.8%).

Figure 28: Distribution of colorectal (malignant & in situ) cases by morphology in UAE, 2015



Thyroid Cancer (malignant & in situ)

Thyroid cancer has been rising worldwide over the past few decades [17].

Total thyroid cancer cases by nationality in UAE 2015

Thyroid cancer represents the third most common cancer in UAE [9]. During the period from January to December of 2015, a total number of 346 new cases were diagnosed with thyroid cancer in UAE among both UAE citizens 110 (31.8%) and Non-UAE citizens 236 (68.2%); of which 344 (99.4%) were malignant thyroid cases and 2 (0.6%) were carcinoma in situ of thyroid.

Among the malignant thyroid cases, 234 (68.0)% were Non-UAE citizens and 110 (32.0%) were UAE citizens and similarly the carcinoma in situ of thyroid 2 (100.0%) were Non-UAE citizens. Table 49 represents the distribution of thyroid cancer cases by nationality among UAE population in both genders.

Table 49: Distribution of total thyroid cancer cases by nationality in UAE, 2015

Primary site ICD-10	Non-UAE Citizens	%	UAE Citizens	%	Grand Total
C73 Thyroid	234	68.0%	110	32.0%	344
D093 Carcinoma in situ of thyroid	2	100.0%	0	0.0%	2
Grand Total	236	68.2%	110	31.8%	346

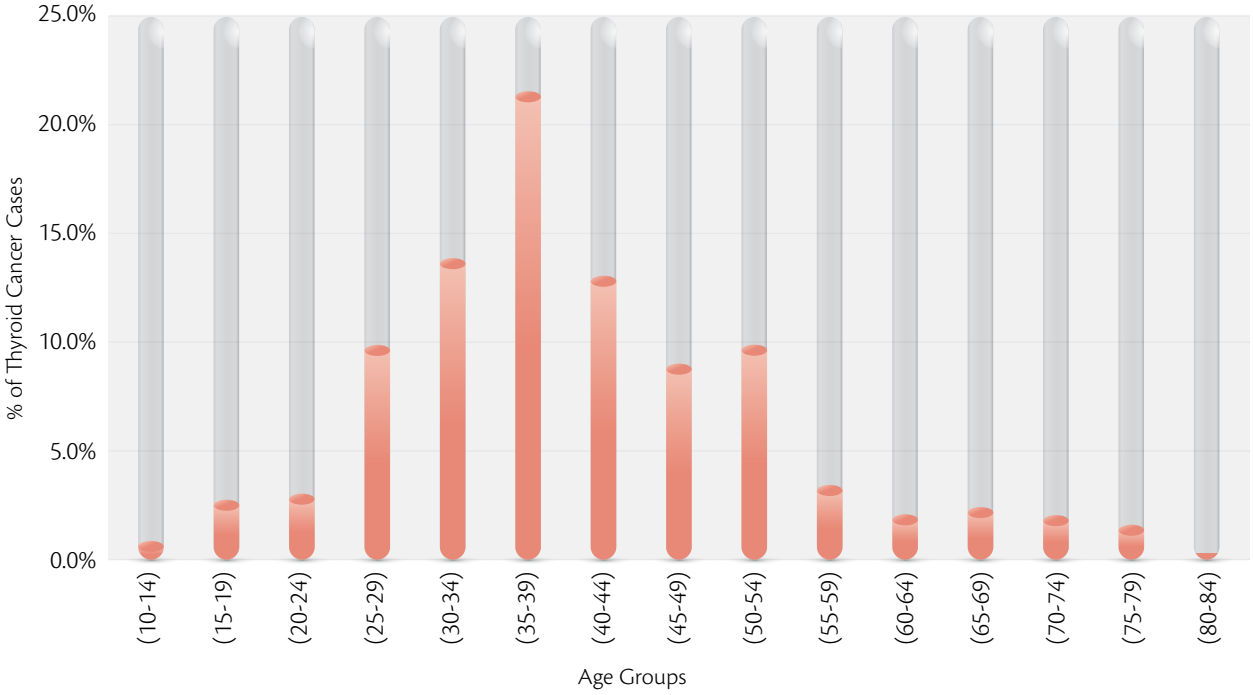
Distribution of thyroid cases (malignant & in situ) by age groups

Table 50: Age-group distribution of thyroid (malignant & in situ) cases in UAE, 2015

Age Group	%
(10-14)	0.6%
(15-19)	3.2%
(20-24)	3.5%
(25-29)	10.4%
(30-34)	14.5%
(35-39)	22.0%
(40-44)	13.6%
(45-49)	9.5%
(50-54)	10.4%
(55-59)	4.0%
(60-64)	2.6%
(65-69)	2.9%
(70-74)	2.6%
(80-84)	0.3%
Grand Total	100.0%

Table 50 represents the distribution by age group of 346 thyroid (malignant & in situ) cases in UAE in the year 2015. The data specifies that the highest frequencies of thyroid (malignant & in situ) cases were observed in the age group 35-39 year (22.0%), followed by age group 30-34 year (14.5%), 40-44 year (13.6%). It was noted that the smallest percentages of Thyroid cancer was diagnosed in the age group 80-84 year (0.3%). This is also evident from Figure 29.

Figure 29: Age-group distribution of thyroid (malignant & in situ) cases in UAE, 2015



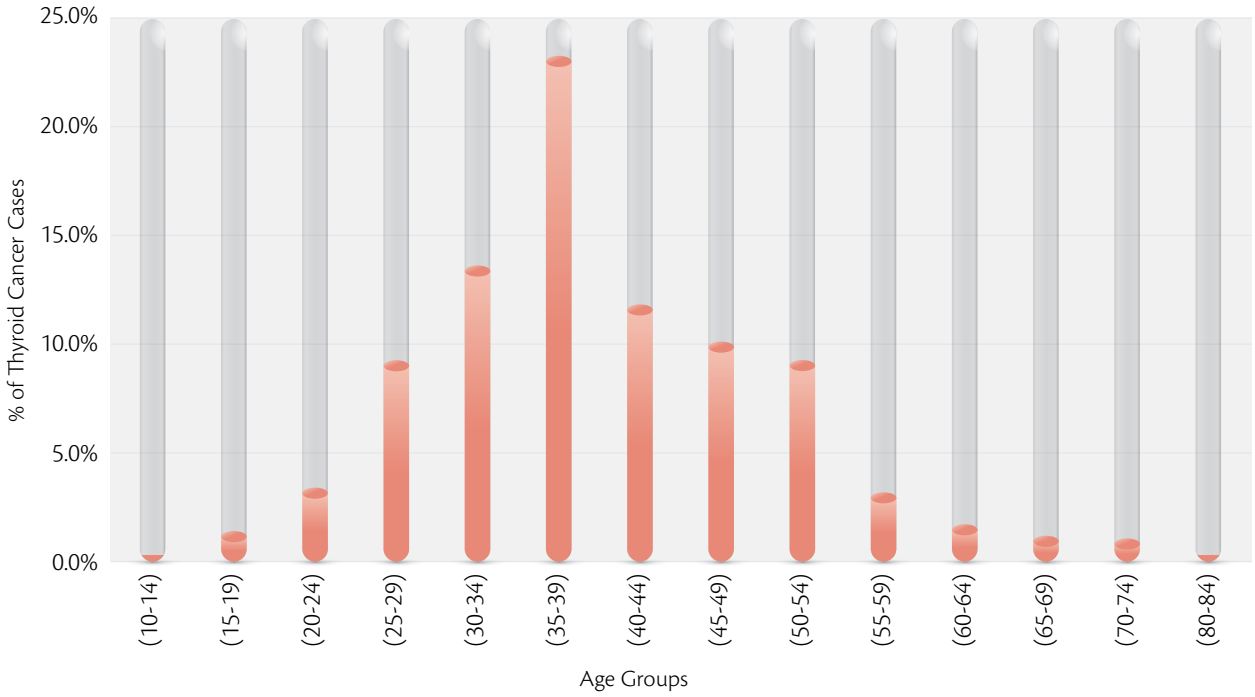
Distribution of thyroid cases (malignant & in situ) among Non-UAE citizens by age groups

Table 51: Age-group distribution of thyroid cases (malignant & in situ) among Non-UAE citizens, 2015

Age Group	%
(10-14)	0.4%
(15-19)	2.1%
(20-24)	4.2%
(25-29)	10.2%
(30-34)	14.4%
(35-39)	24.2%
(40-44)	12.7%
(45-49)	11.0%
(50-54)	10.2%
(55-59)	3.8%
(60-64)	2.5%
(65-69)	2.1%
(70-74)	1.7%
(80-84)	0.4%
Grand Total	100.0%

Table 51 demonstrates the distribution by age group of 236 Thyroid (malignant & in situ) cases among Non-UAE Citizens in the year of 2015. The data indicates that the highest percentages of thyroid cases was observed in the young age group 35-39 year that is (24.2%) followed by 30-34 year (14.4%). It is also noteworthy that the minimum percentage of thyroid (malignant & in situ) cases reported in the age group 10-14 year (0.4%).

Figure 30: Distribution of thyroid cases (malignant & in situ) among Non UAE citizens by age-group, 2015



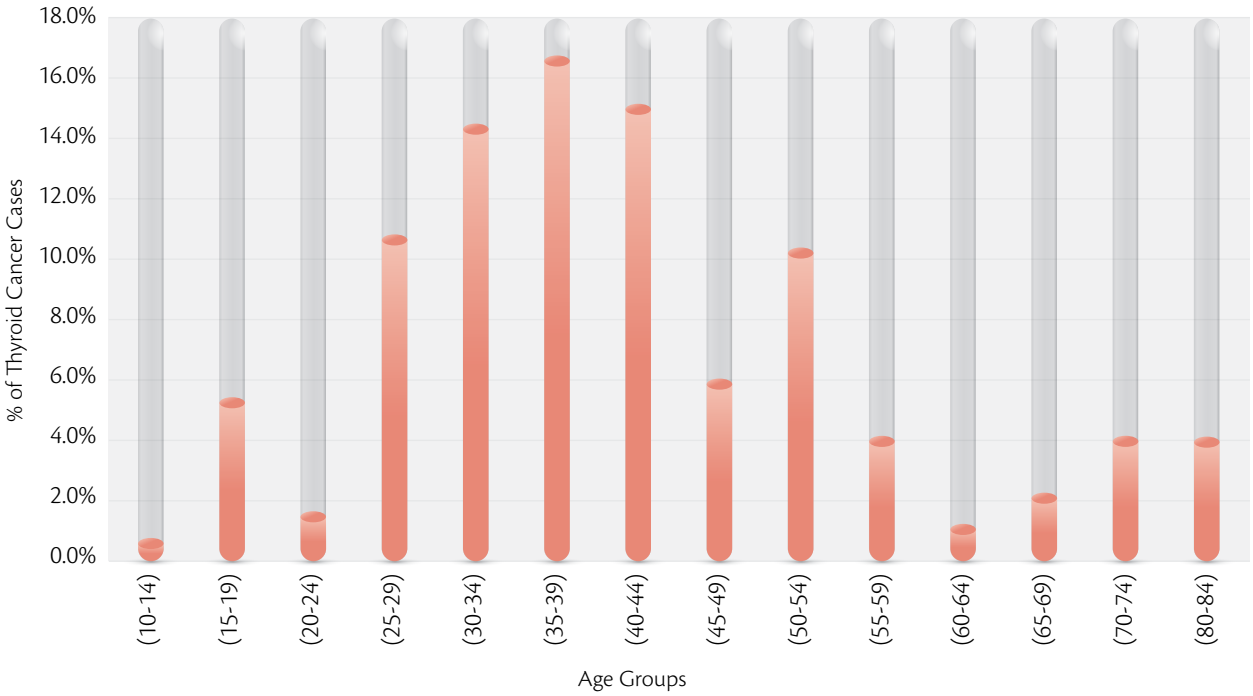
Distribution of thyroid cases (malignant & in situ) among UAE citizens by age groups

Table 52: Age-group distribution of thyroid cases (malignant & in situ) among UAE citizens, 2015

Age Group	%
(10-14)	0.9%
(15-19)	5.5%
(20-24)	1.8%
(25-29)	10.9%
(30-34)	14.5%
(35-39)	17.3%
(40-44)	15.5%
(45-49)	6.4%
(50-54)	10.9%
(55-59)	4.5%
(60-64)	2.7%
(65-69)	4.5%
(70-74)	4.5%
Grand Total	100.0%

Table 52 reveals the distribution by age group of 110 thyroid (malignant & in situ) cases among UAE citizens in the year of 2015. The data indicates that the highest percentages of thyroid cancer cases was observed in the age groups 35-39 year that is (17.3%) followed by 40-44 years (15.5%). It is also noteworthy that the minimum percentage of thyroid (malignant & in situ) cases reported in the age group 10-14 year (0.9%) as shown in Figure 31 also.

Figure 31: Distribution of thyroid cases (malignant & in situ) among UAE citizens by age-group, 2015



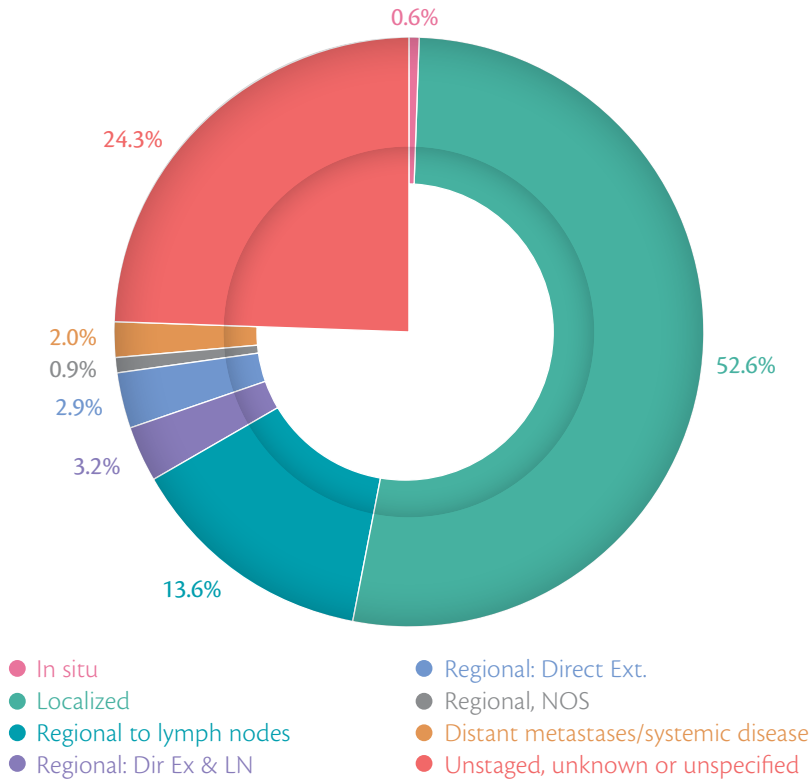
Distribution of thyroid cases (malignant & in situ) by SEER stage

Table 53: SEER stage distribution of thyroid cases (malignant & in situ) in UAE, 2015

SEER stage	%
In situ	0.6%
Localized	52.6%
Regional to lymph nodes	13.6%
Regional:Dir Ex & LN	3.2%
Regional:Direct Ext.	2.9%
Regional, NOS	0.9%
Distant metastases	2.0%
Unstaged, unknown, or unspecified	24.3%
Grand Total	100.0%

Table 53 shows the distribution by SEER stage at diagnosis of 346 thyroid (malignant & in situ) cases among UAE population in the year of 2015. The data signifies that the highest percentage of thyroid cancer cases (malignant & in situ) was observed in the localized stage (52.6%) followed by regional (20.6%), Distant metastases (2.0%) and the fewer number of thyroid cases in in situ stage (0.6%). Similar findings are presented in Figure 32.

Figure 32: Distribution of thyroid cases (malignant & in situ) by SEER stage in UAE, 2015



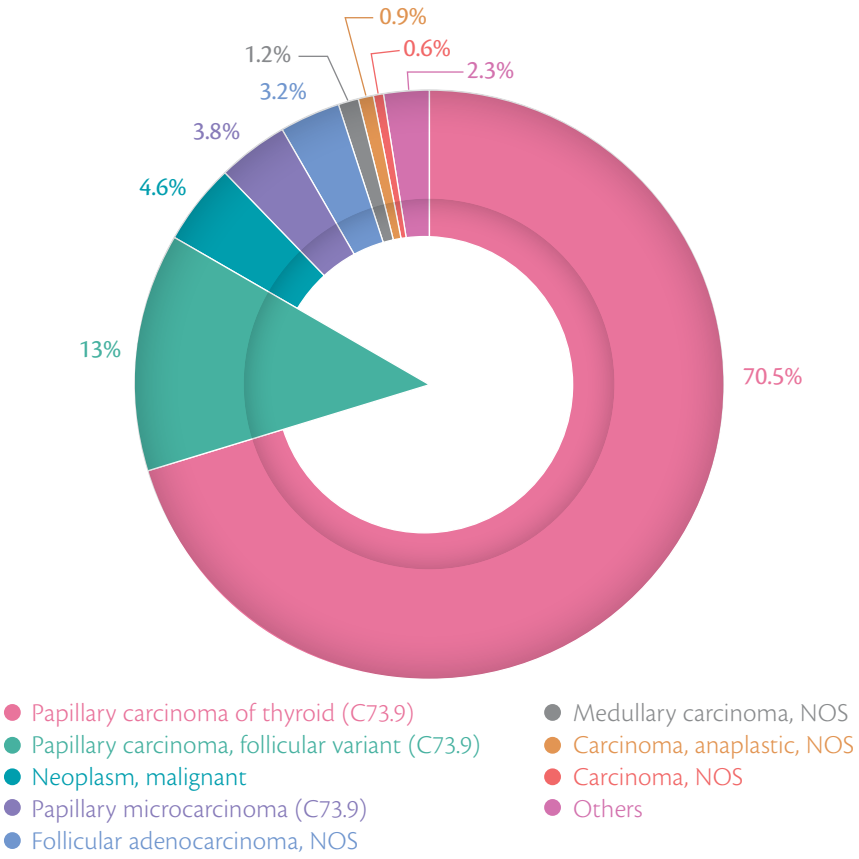
Distribution of thyroid cancer (malignant & in situ) by morphology

Table 54: Distribution of thyroid cancer (malignant & in situ) by morphology in UAE, 2015

Morphology	Number of thyroid cancer cases (malignant & in situ)	%
Papillary carcinoma of thyroid (C73.9)	244	70.5%
Papillary carcinoma, follicular variant (C73.9)	45	13.0%
Neoplasm, malignant	16	4.6%
Papillary microcarcinoma (C73.9)	13	3.8%
Follicular adenocarcinoma, NOS	11	3.2%
Medullary carcinoma, NOS	4	1.2%
Carcinoma, anaplastic, NOS	3	0.9%
Carcinoma, NOS	2	0.6%
Others	8	2.3%
Grand Total	346	100.0%

Table 54 illustrates the distribution by morphology-specific thyroid cancer (malignant & in situ) of 346 cases among UAE population in the year of 2015. The data indicates that the Papillary thyroid carcinoma was the most common type with the highest percentage comprising (70.5%) followed by Papillary carcinoma, follicular variant involved (13.0%).

Figure 33: Distribution of thyroid cases (malignant & in situ) by morphology in UAE, 2015



4. PEDIATRIC MALIGNANCIES IN UAE

Until now cancer is the second prominent cause of death (following accidents) in children aged 5 to 14 years [18].

Incidence of pediatric cancers differ worldwide representing between 0.5% and 4.6% of all cancers. Overall incidence rates fluctuate between 50 and 200 per million children across the world [19].

Pediatric Malignancies in UAE, 2015

In the year of 2015, there were 165 children at the age-group of 0-14 years diagnosed with new cancer in UAE. This constitutes about (4.2%) of all registered malignant and in situ cases.

Pediatric cancer cases by gender in UAE, 2015

Figure 34: Distribution by gender of new pediatric cancer cases in UAE, 2015

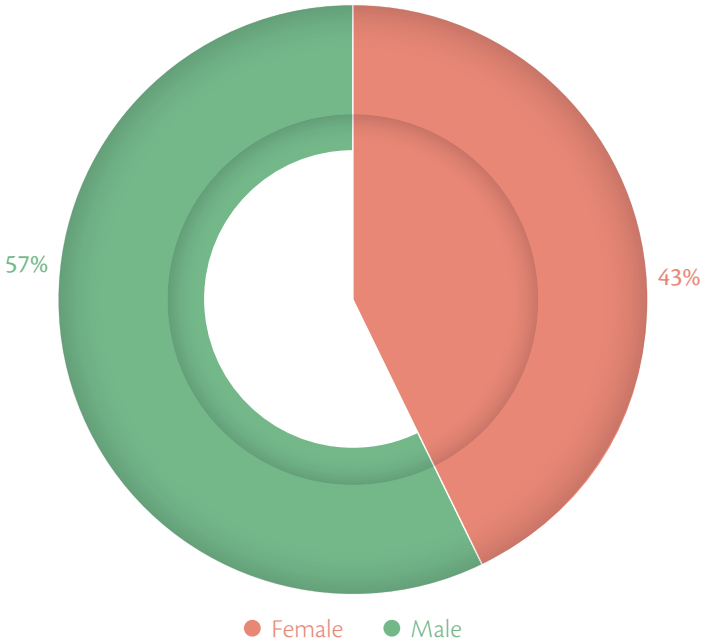


Figure 34 represents a total of 165 new pediatric cancer cases that were registered out of which 43 % were females and 57 % were males, among both UAE citizens and Non UAE citizens.

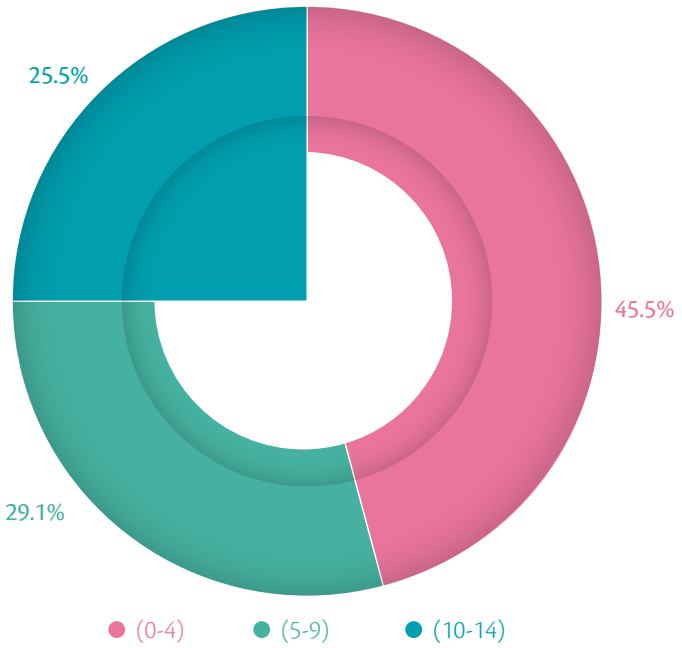
Distribution of pediatric cancer cases by age group in UAE, 2015

Table 55: Age-group distribution of pediatric cancer cases in UAE, 2015

Age group	Number of pediatric cancer cases	%
(0-4)	75	45.5%
(5-9)	48	29.1%
(10-14)	42	25.5%
Grand Total	165	100.0%

Table 55 shows the distribution by age group of 165 pediatric cancer cases in UAE in the year of 2015. The data indicates that the top most frequency of pediatric cancer cases was found among age group 0-4 year (75; 45.5%), followed by age group 5-9 year (48; 29.1%). It was noted that the less number of cancer cases in pediatric population were diagnosed in the age group of 10-14 year (42; 25.5%).

Figure 35: Distribution of pediatric cancer cases by age groups in UAE, 2015



Distribution by primary sites of pediatric cancers cases in UAE, 2015

Table 56: Distribution of pediatric cancer cases by primary sites in UAE, 2015

Primary sites ICD-10	Number of pediatric cancer cases	%
C00-C14 Lip, Oral cavity & Pharynx	3	1.8%
C22 Liver and intrahepatic bile ducts	5	3.0%
C40-C41 Bone and articular cartilage	3	1.8%
C43 Skin melanoma	1	0.6%
C44 Skin	1	0.6%
C48 Retroperitoneum and peritoneum	2	1.2%
C49 Connective and soft tissue	4	2.4%
C56 Ovary	4	2.4%

Primary sites ICD-10	Number of pediatric cancer cases	%
C62 Testis	2	1.2%
C64-C65 Kidney & Renal pelvis	10	6.1%
C69 Eye	3	1.8%
C70-C72 Brain & CNS	21	12.7%
C73 Thyroid	2	1.2%
C74-C75 Other endocrine glands	6	3.6%
C81 Hodgkin's lymphoma	10	6.1%
C82-C85, C96 Non-Hodgkin lymphoma	15	9.1%
C91-C95 Leukemia	68	41.2%
Other Malignancy and Carcinoma in Situ	5	3.0%
Grand Total	165	100.0%

Table 56 indicates the distribution of pediatric cancer cases by types in UAE among both genders in the year of 2015. The data illustrates that out of 165 cancer cases, the highest frequency of malignancy was for leukemia (41.2%) of all pediatric cancer cases followed by Brain &CNS (12.7%).

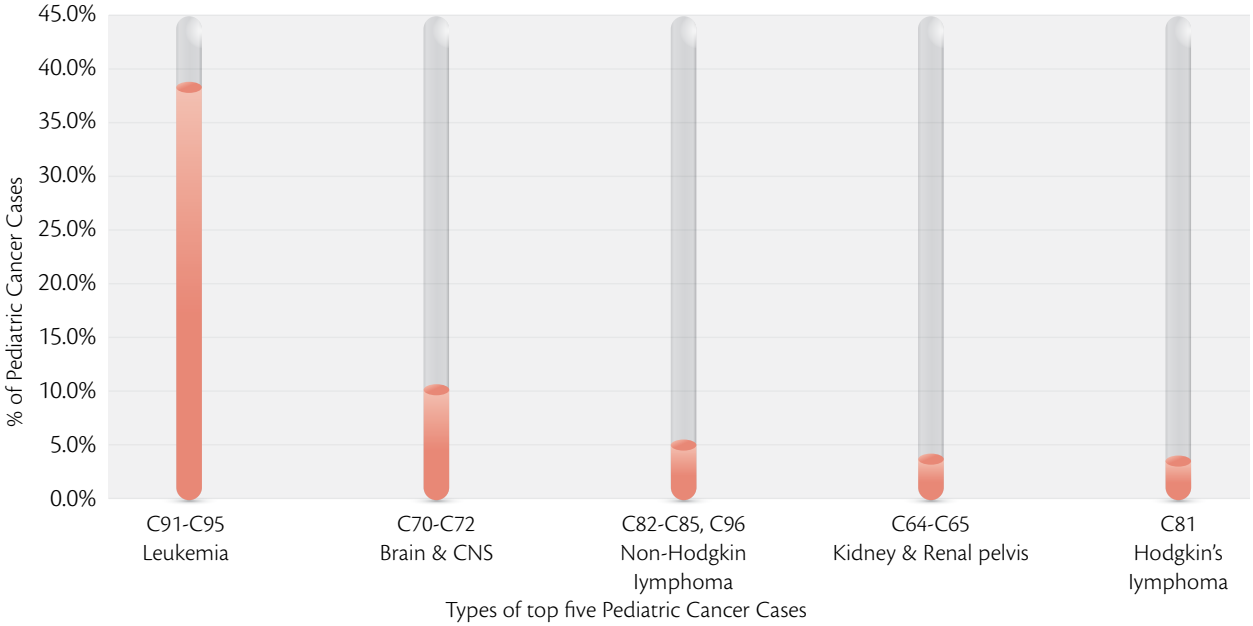
Top five pediatric cancers by primary sites among both genders in UAE, 2015

Table 57: Distribution of top five pediatric cancer cases by primary sites in UAE, 2015

Primary sites ICD-10	Number of pediatric cancer cases	%
C91-C95 Leukemia	68	41.2%
C70-C72 Brain & CNS	21	12.7%
C82-C85, C96 Non-Hodgkin lymphoma	15	9.1%
C64-C65 Kidney & Renal pelvis	10	6.1%
C81 Hodgkin's lymphoma	10	6.1%

Table 57 demonstrates the distribution of top five pediatric cancer sites among both genders in UAE population in the year 2015. The data represents that most common occurring cancer was Leukemia (41.2%) followed by Brain & CNS (12.7%), Non-Hodgkin lymphoma (9.1%), Kidney & Renal pelvis (6.1%), & Hodgkin's lymphoma (6.1%).

Figure 36: Distribution of top five pediatric cancer cases in UAE, 2015



Distribution of pediatric cancer cases by primary site and age groups in UAE, 2015

Table 58: Distribution of pediatric cancer cases by primary site and age groups in UAE, 2015

Primary sites ICD-10	(0-4)	(5-9)	(10-14)	Grand Total	%
C00-C14 Lip, Oral cavity & Pharynx	1	1	1	3	1.8%
C22 Liver and intrahepatic bile ducts	4	0	1	5	3.0%
C40-C41 Bone and articular cartilage	0	1	2	3	1.8%
C43 Skin melanoma	0	0	1	1	0.6%
C44 Skin	1	0	0	1	0.6%
C48 Retroperitoneum and peritoneum	2	0	0	2	1.2%
C49 Connective and soft tissue	1	1	2	4	2.4%
C56 Ovary	2	1	1	4	2.4%
C62 Testis	1	1	0	2	1.2%
C64-C65 Kidney & Renal pelvis	8	1	1	10	6.1%
C69 Eye	3	0	0	3	1.8%
C70-C72 Brain & CNS	11	4	6	21	12.7%
C73 Thyroid	0	0	2	2	1.2%
C74-C75 Other endocrine glands	3	1	2	6	3.6%
C81 Hodgkin's lymphoma	1	3	6	10	6.1%
C82-C85, C96 Non-Hodgkin lymphoma	5	6	4	15	9.1%
C91-C95 Leukemia	30	25	13	68	41.2%
Other Malignancy and Carcinoma in Situ	2	3	0	5	3.0%
Grand Total	75	48	42	165	100.0%

Table 58 shows the distribution of pediatric cancer sites among both genders by age group in UAE population in the year 2015. The data represents that most commonly occurring cancer was Leukemia (68; 41.2%) among all age groups; (0-4) years (30), (5-9) years (25) and (10-14) years (13), followed by brain & CNS, then Non-Hodgkin lymphoma.

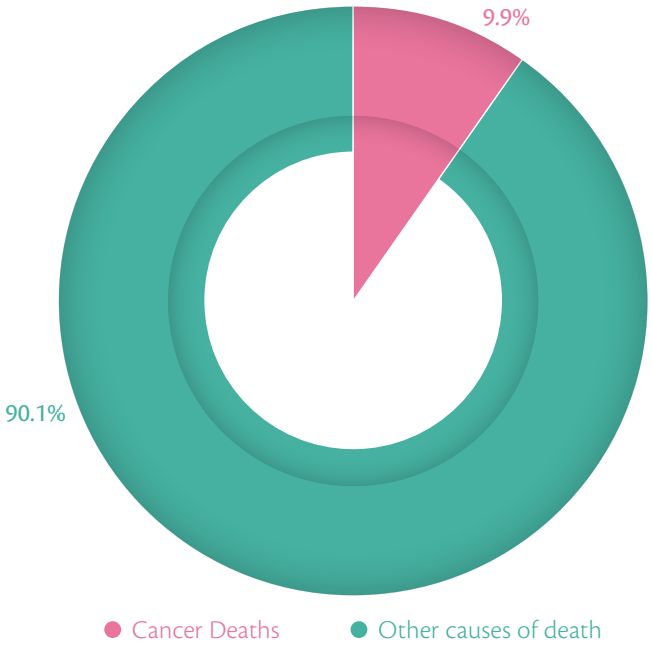
5. CANCER MORTALITY, 2015

Total Number of Deaths

Cancer mortality has been contributed as the third leading cause of death in the United Arab Emirates after diseases of the circulatory system and injuries [20]. In 2015, a total number of 8755 death cases were reported in UAE among both UAE citizens and Non-UAE citizens regardless of the gender.

Of which, the total number of reported cancer deaths in UAE counted for 867 (9.9%) cases regardless of nationality, type of cancer or gender. Figure 37 represent the percentage of the reported cancer deaths as compared to other causes of death among UAE population in 2015.

Figure 37: Percentage of reported cancer deaths among in UAE population, 2015



Mortality according to the primary sites

Breast cancer represented the most common type of cancer among UAE population in 2015. As a consequence, malignant breast cancer had been reported as the leading cause of death amongst all malignant cancer death cases in UAE population in 2015 with respect to nationality and gender (Table 59).

In 2015, a total number of 113 (13.0%) malignant breast cancer death cases were reported; coming in second place, malignant of trachea bronchus & lung cancer had been reported as the second leading cause of death counting for 104 (12.0%) cases. The following table represents distribution and percentage of the top leading causes of cancer death cases classified by the type of malignant cancers in UAE, 2015.

Table 59: Distribution of malignant cancer death cases by type of cancer among UAE population, 2015

Underlying cause of death	Number	Percentage
Malignant Neoplasm of Breast	113	13.0%
Malignant Neoplasm of Trachea Bronchus& Lung	104	12.0%
Malignant Neoplasm of Colorectal	92	10.6%
Leukemia	53	6.1%
Malignant Neoplasm of Stomach	44	5.1%
Malignant Neoplasm of Cervix Uteri	18	2.1%
Other Malignant Neoplasm	443	51.1%
Grand Total	867	100.0%

6. INCIDENCE AND MORTALITY RATES

Cancer Incidence Rates

The UAE population has substantially increased over the past few decades, and this is primarily due to the high net inward migration of the expatriate workers. Among UAE citizen, a total number of 1113 cases were newly diagnosed with cancer; of which 1048 (94.2%) cases were malignant and 65 (5.8%) were in situ cases. Correspondingly, in Non-UAE citizens, 2855 cases were newly diagnosed with cancer, 2696 (94.4%) cases were malignant and 159 (5.6%) were in situ cases. The risk of Breast, colorectal and thyroid cancers was significantly higher for both sexes in UAE.

For men, the risk of colorectal, prostate, and leukemia cancer was higher in resident population and, for women, cancer of the breast, thyroid and colorectal cancer (malignant tumors).

A total of 3968 new cancer cases (malignant & in situ) were registered between 1st January and 31 December, 2015, representing a crude incidence rate of 43.3/100,000 in 2015. Of these diagnosed cases, 224 and 3744 cases were in situ and malignant, respectively.

Records for all invasive cancers (malignant cases), demonstrated 94.4% of all registered cases in addition to 3744 invasive cases; corresponding to a crude incidence rate of 40.9/100,000. Figures showed a clear female predominance for cancer incidence. The crude incidence rate for malignant cases was higher for females 80.6/100,000 than for males 26.3/100,000. Summary incidence data for 2015 for individual cancers (ICD-10 code) is listed in Table 60.

The overall age-standardized incidence rate (ASR) was 108.9/100,000.

Table 60: Cancer crude incidence rates (The main primary sites ICD-10) among the male and female population in UAE, 2015

Primary Site ICD-10	Cancer incidence cases 2015			Crude incidence rates per 100,000 population		
	Female	Male	Total	Female	Male	Total
(C00-C96) All invasive cancers (malignant cases)	1982	1762	3744	80.6	26.3	40.9
C00-C14 Lip, Oral cavity & Pharynx	35	82	117	1.4	1.2	1.3
C15 Esophagus	8	17	25	0.3	0.3	0.3
C16 Stomach	33	75	108	1.3	1.1	1.2
C17 Small intestine	8	16	24	0.3	0.2	0.3
C18-C21 Colorectal	141	232	373	5.7	3.5	4.1
C22 Liver and intrahepatic bile ducts	21	47	68	0.9	0.7	0.7
C23-C24 Gallbladder, Other and unspecified part of biliary tract	14	20	34	0.6	0.3	0.4
C25 Pancreas	22	31	53	0.9	0.5	0.6
C30, C31 Nasal cavity, middle ear, accessory sinuses	3	3	6	0.1	0.0	0.1
C32 Larynx	0	44	44	0.0	0.7	0.5

Primary Site ICD-10	Cancer incidence cases 2015			Crude incidence rates per 100,000 population		
	Female	Male	Total	Female	Male	Total
C34 Bronchus and Lung	48	113	161	2.0	1.7	1.8
C40-C41 Bone and articular cartilage	7	10	17	0.3	0.1	0.2
C43 Skin melanoma	11	20	31	0.4	0.3	0.3
C44 Skin	36	88	124	1.5	1.3	1.4
C45 Mesothelioma	3	2	5	0.1	0.0	0.1
C46 Kaposi sarcoma	0	5	5	0.0	0.1	0.1
C48 Retroperitoneum and peritoneum	7	6	13	0.3	0.1	0.1
C49 Connective and soft tissue	13	28	41	0.5	0.4	0.4
C50 Breast	756	9	765	30.7	0.1	-
C53 Cervix uteri	74	-	74	3.0	-	-
C54-C55 Uterus	99	-	99	4.0	-	-
C56 Ovary	62	-	62	2.5	-	-
C61 Prostate	-	166	166	-	2.5	-
C62 Testis	-	39	39	-	0.6	-
C64-C65 Kidney & Renal pelvis	21	65	86	0.9	1.0	0.9
C66, C68 Ureter and Other urinary organs	1	4	5	0.0	0.1	0.1
C67 Urinary bladder	22	77	99	0.9	1.2	1.1
C69 Eye	1	6	7	0.0	0.1	0.1
C70-C72 Brain & CNS	42	57	99	1.7	0.9	1.1
C73 Thyroid	256	88	344	10.4	1.3	3.8
C74-C75 Other endocrine glands	7	7	14	0.3	0.1	0.2
C76-C80 Unknown and Unspecified sites	33	36	69	1.3	0.5	0.8
C81 Hodgkin's lymphoma	20	42	62	0.8	0.6	0.7
C82-C85, C96 Non-Hodgkin lymphoma	54	116	170	2.2	1.7	1.9
C88, C90 Multiple myeloma	15	45	60	0.6	0.7	0.7
C91-C95 Leukemia	97	156	253	3.9	2.3	2.8
Other malignancy	12	10	22	0.5	0.1	0.2
(D00-D09) Non-invasive cancers (in situ cases)	164	60	224	6.7	0.9	2.4
D00 Carcinoma in situ of oral cavity, oesophagus and stomach	1	3	4	0.0	0.0	0.0

Primary Site ICD-10	Cancer incidence cases 2015			Crude incidence rates per 100,000 population		
	Female	Male	Total	Female	Male	Total
D01 Carcinoma in situ of other and unspecified digestive organs	4	10	14	0.2	0.1	0.2
D03 Melanoma in situ	2	1	3	0.1	0.0	0.0
D04 Carcinoma in situ of skin	2	2	4	0.1	0.0	0.0
D05 Carcinoma in situ of breast	61	2	63	2.5	0.0	-
D06 Carcinoma in situ of cervix uteri	81	0	81	3.3	-	-
D07 Carcinoma in situ of other and unspecified genital organs	5	3	8	0.2	0.0	0.1
D09 Carcinoma in situ of other and unspecified sites	8	39	47	0.3	0.6	0.5
Grand Total	2146	1822	3968	87.3	27.2	43.3

*Crude incidence rate: number of new cases per 100,000 population per year, we used an estimated population from United Nations (Department of Economic and Social Affairs, Population Division) to calculate Crude incidence rate [8].

Figure 38: Distribution of age-specific incidence rate (AIR) for all cancer among UAE population, 2015

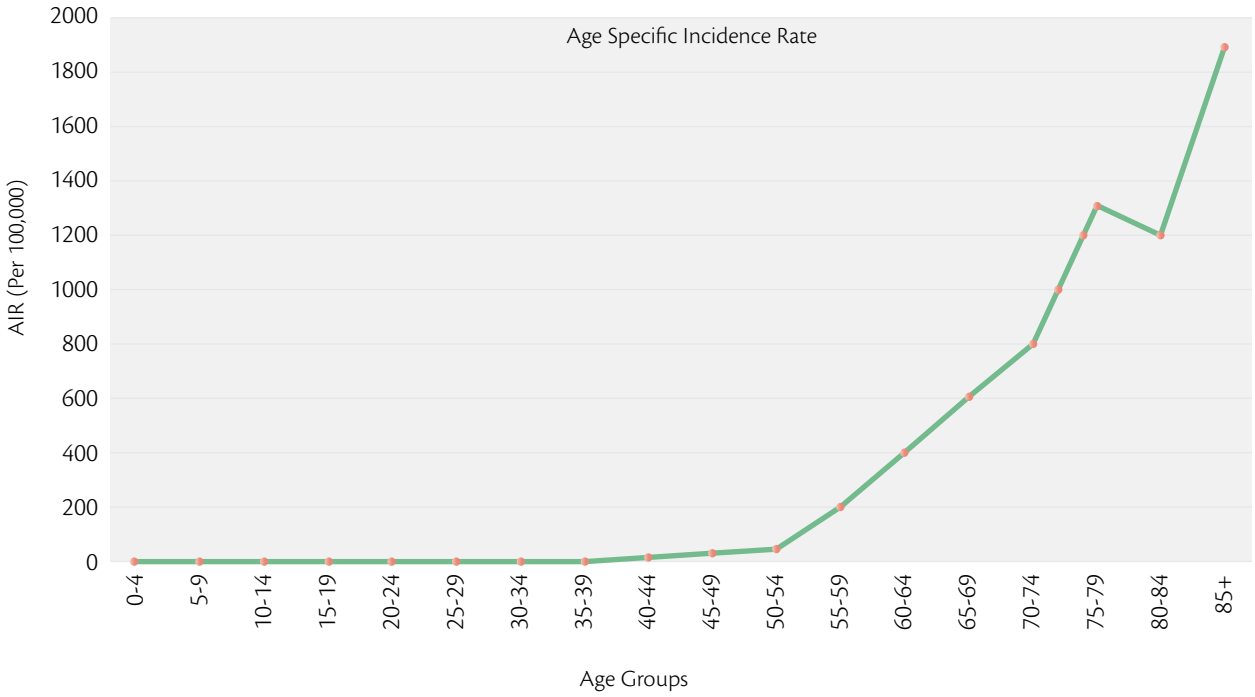
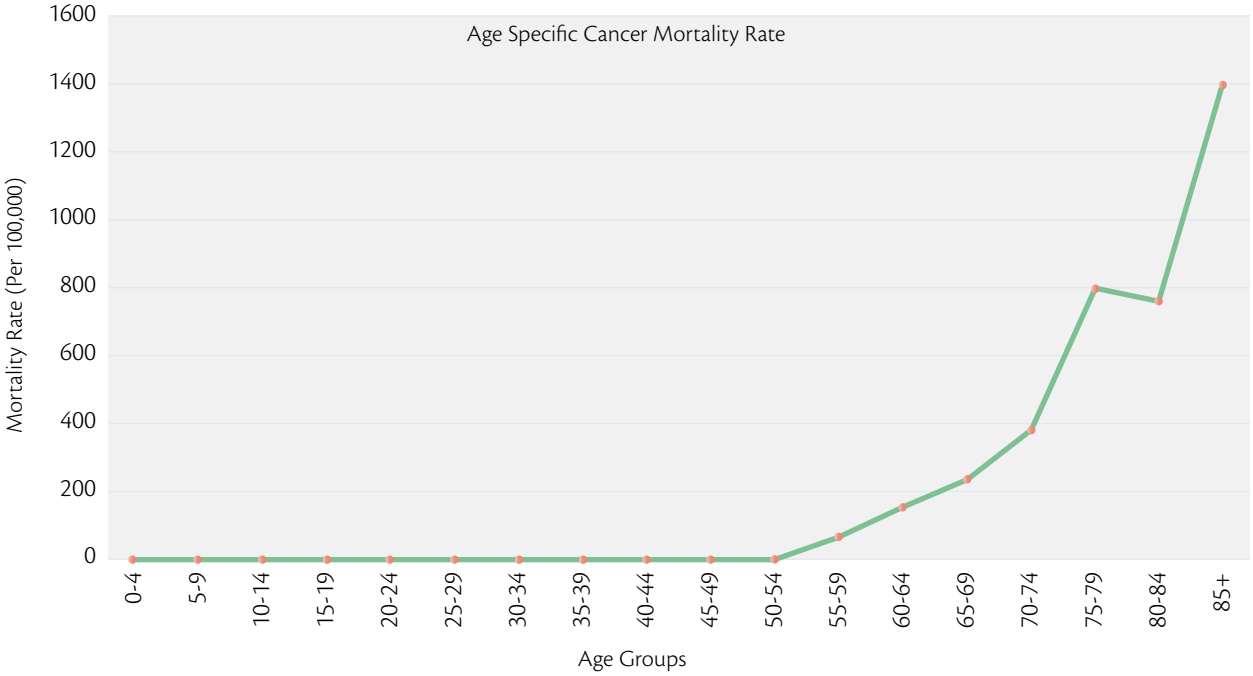


Figure 38 shows the age-specific incidence rate (AIR) increased with advancing age and peak at 85+ years 1,900/100,000. Despite this, certain cancers continue to increase in incidence even after age 85.

Cancer Mortality Rates

A cancer mortality rate is the number of deaths, with cancer as the underlying cause of death, occurring in a specified population during a year. In 2015, cancer was the third most common leading cause of death, after diseases of the circulatory system and injuries, and a total of 867 deaths from cancer were reported. This represented 9.9% of all deaths in 2015 and a crude mortality rate of 9.46/100,000.

Figure 39: Distribution of age-specific cancer mortality rates among UAE population, 2015



Age-specific cancer mortality rates, like age-specific incidence rates, continue to rise with advancing age group (Figure 39). Mortality, however, does not peak before reaching the oldest age group (85+ age group).

ARABIC SUMMARY

أهم إحصائيات السرطان لعام 2015 م

بلغ إجمالي عدد حالات السرطان الجديدة المكتشفة في عام 2015 م والمسجلة من مختلف مقدمي الرعاية الصحية في دولة الإمارات العربية المتحدة 3968 حالة سرطان، حيث تم تجميع الحالات اعتماداً على تاريخ التشخيص من تاريخ 1 يناير الى 31 ديسمبر 2015، من بينها 3744 حالة سرطان خبيثة وبنسبة 94.4% من اجمالي حالات السرطان و 224 وبنسبة 5.6% حالة سرطان موضعي. ومن بين هذه الحالات 1822حالة وبنسبة 45.9% من الذكور و 2146 حالة وبنسبة إجمالية 54.1% من الإناث.

وكان عدد حالات السرطان لدى الإماراتين 1113 حالة وبنسبة 28% من إجمالي حالات السرطان و2855 حالة غير إماراتين و بنسبة 72%.

بلغ إجمالي معدل الإصابة الخام بالسرطان 43.3 /100,000 نسمة لكلا الجنسين، بينما بين الإناث 87.3 /100,000 نسمة و بين الذكور 27.2 /100,000 نسمة، كما بلغ المعدل المعياري العمري للإصابة بالسرطان لكلا الجنسين 108.9 /100,000 نسمة.

	%	عدد حالات السرطان
حالات السرطان الموضعي	%5.6	224
حالات السرطان الخبيث	%94.4	3744
الإجمالي	%100	3968

أكثر أنواع السرطان شيوعاً بين سكان دولة الإمارات العربية المتحدة لكلا الجنسين

احتل سرطان الثدي المرتبة الأولى بين كلا الجنسين تلاه سرطان القولون والمستقيم ومن ثم سرطان الغدة الدرقية، فيما جاء سرطان الثدي بالمرتبة الأولى بنسبة 38.14% من إجمالي حالات السرطان بين الإناث تلاه سرطان الغدة الدرقية بنسبة 12.92% و من ثم سرطان القولون والمستقيم بنسبة 7.11%، و جاء سرطان القولون و المستقيم بالمرتبة الأولى بين الذكور بنسبة 13.17% تلاه سرطان البروستات بنسبة 9.42% تلاه سرطان ابيضاض الدم بنسبة 8.85%.

أكثر أنواع السرطان شيوعاً بين الأطفال لكلا الجنسين

احتل سرطان ابيضاض الدم المرتبة الأولى بين الأطفال بنسبة 41.2% من إجمالي عدد حالات السرطان بين الأطفال تلاه سرطان الدماغ و الجهاز العصبي بنسبة 12.7% تلاه سرطان اللمفاوي اللاهودجكن بنسبة 9.1% تلاه سرطان الكلية و حوض الكلية و سرطان اللمفاوي هودجكن بنسبة 6.1% لكلاً منهما.

أكثر الأسباب شيوعاً للوفاه نتيجة الإصابة بمرض السرطان بين سكان دولة الإمارات العربية المتحدة لكلا الجنسين

مرض السرطان هو السبب الثالث المؤدي للوفاه في دولة الإمارات العربية المتحدة بعد أمراض جهاز الدورة الدموية و الإصابات. حيث بلغ إجمالي عدد حالات الوفاه الناتجة عن الإصابة بمرض السرطان و المسجلة من مختلف مقدمي الرعاية الصحية في دولة الإمارات العربية المتحدة 867 حالة وفاه بنسبة 9.9% من إجمالي حالات الوفاه لعام 2015.

بلغ المعدل الخام للوفاه بالسرطان 9.46 /100,000 نسمة، حيث احتل سرطان الثدي المرتبة الأولى (113 حالة وفاة) بين أسباب الوفاه نتيجة الإصابة بمرض السرطان، فيما جاء سرطان الرئة في المرتبة الثانية (104 حالة وفاة) و من ثم سرطان القولون والمستقيم في المرتبة الثالثة.

أكثر أنواع السرطان شيوعاً بين سكان دولة الإمارات العربية المتحدة لكلا الجنسين:

الإناث	%	الذكور	%
الثدي	38.14%	القولون والمستقيم	13.17%
الغدة الدرقية	12.92%	البروستات	9.42%
القولون والمستقيم	7.11%	ابيضاض الدم	8.85%
الرحم	4.99%	اللمفاوي اللاهودجكن	6.58%
ابيضاض الدم	4.89%	الرئة	6.41%
عنق الرحم	3.73%	الجلد الغير ميلانيني	4.99%
المبيض	3.13%	الغدة الدرقية	4.99%
اللمفاوي اللاهودجكن	2.72%	الشفة و جوف الفم والجنجرة	4.65%
الرئة	2.42%	المثانة	4.37%
الدماغ والجهاز العصبي	2.12%	المعدة	4.26%

أكثر أنواع السرطان شيوعاً بين الأطفال لكلا الجنسين:

نوع السرطان	%
ابيضاض الدم	41.2%
الدماغ والجهاز العصبي	12.7%
اللمفاوي اللاهودجكن	9.1%
الكلى و حوض الكلى	6.1%
اللمفاوي هودجكن	6.1%

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