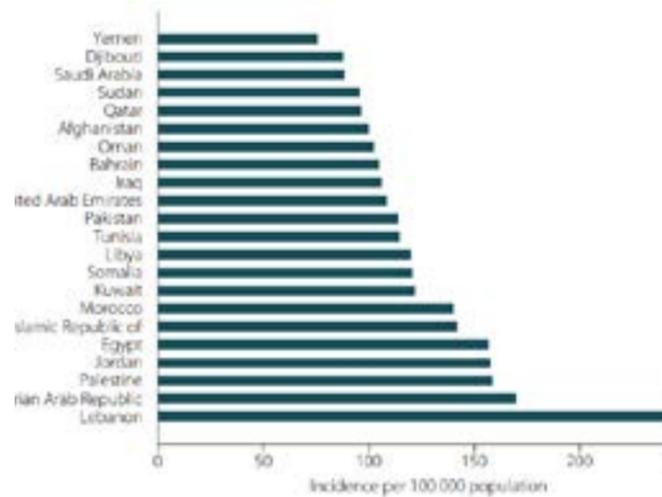


# Cancer in Lebanon: Disease Burden And Options to Face it



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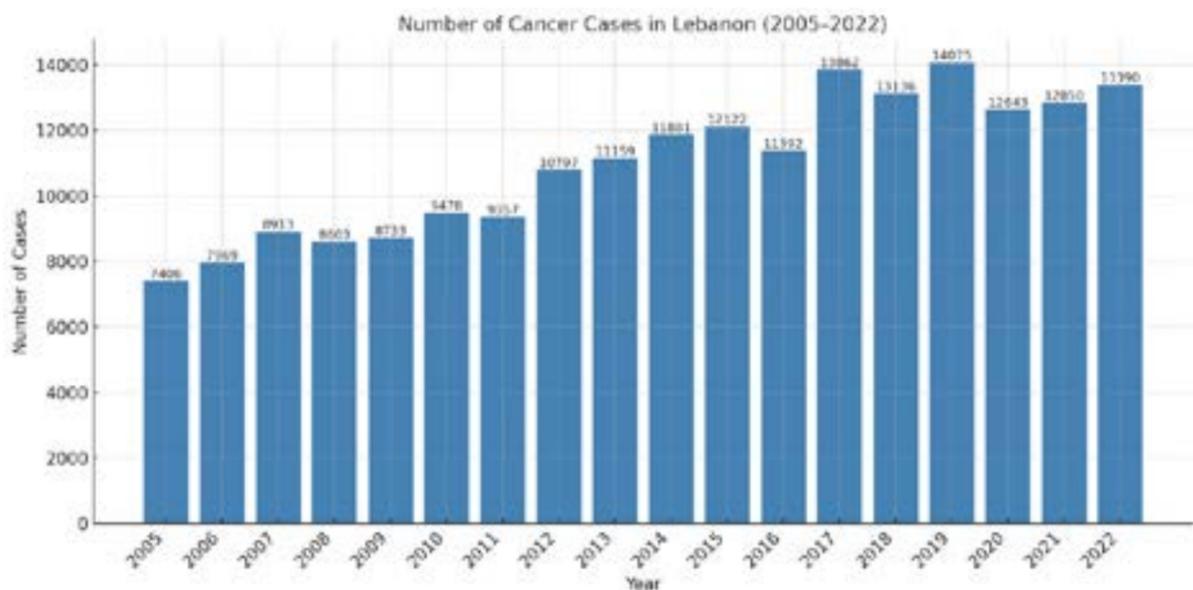
Regionally, Lebanon ranks first in terms of cancer incidence in the eastern Mediterranean region with an estimated 243 cases per 100,000 people annually.



Source: Health and well-being profile of the Eastern Mediterranean Region. WHO 2019

Cancer is a major health care problem that most countries have. Lebanon is no exception. Data from the Epidemiological Surveillance Program at the Lebanese Ministry of Public Health show a steady increase in cancer cases over time with an estimated 13,390 cases diagnosed in 2022.

Breast cancer ranks first in incidence with around 3300 cases diagnosed in 2022, this is followed by lung (1300 cases), colon (1250 cases), bladder (1100 cases) and prostate cancer (900 cases).



While this number is alarming, several factors might have contributed to it. First, it is not age-standardized. The population median age in Lebanon is higher than the rest of the area and cancer incidence increases with age. In fact, cancer incidence in Lebanon remains significantly lower than that of most Western countries where the median age is higher. Second, access to various diagnostic modalities is widely available in the country and this might lead to more detection of cancer cancers. However, we should not attribute this high incidence to these factors only.

Lebanon ranks very high in the prevalence of various risk factors for cancer including obesity, low physical activity, pollution and, most importantly, the very high rate of tobacco consumption. Unfortunately, access to various tobacco products is not controlled, tobacco prices are among the cheapest compared to other countries and laws that control tobacco use (law 174), remain not enforced.

A recent article published in the journal Lancet predicted that cancer mortality in Lebanon will increase by 80% by the year 2050. This study used the data available about the prevalence of each cancer risk factor (tobacco, unhealthy lifestyle, pollution, obesity, and others) and multiplied the prevalence of each factor by the percentage increase in cancer mortality from that risk factor and ended up with an estimated predicted 80% increase in cancer mortality by the year 2050.

This projection should be an alarm to all people involved in healthcare delivery and policy makers to act now to avoid this incoming epidemic.

## Various Treatments

Treatment for various malignancies has significantly advanced over the past few decades. These involve better imaging modalities for better staging of the tumor, more sophisticated pathological and molecular definition of tumors in order to better tailor therapy to the specific characteristics of each tumor. More accurate and less invasive surgical techniques as well as more targeted and less toxic radiation therapy modalities. In terms of therapeutics, great progress has been made as well. There is less and less dependence on the old traditional chemotherapeutic drugs with their significant toxicity and the development of targeted agents that attack a specific receptor or pathway while sparing the normal cells. It is very common to do genomic profiling on tumor specimens in order to understand its biology and better choose the best targeted agent for it. Most recently, the introduction of immunotherapeutic agents that enhance the body's immune

response against the tumor made huge improvements in the outcome of multiple tumors.

## Treatment Cost

In Lebanon, we pride ourselves with the availability of all these diagnostic and therapeutic options that will allow us to deliver optimal care to our cancer patients.

The recent economic collapse had its toll on affordability of many of these recent and significantly expensive therapeutic modalities. While patients with private insurance continue to have excellent access to newer therapeutic agents, others don't have that luxury. With the cut in the budget of the Lebanese Ministry of Public Health (MOPH), restrictions were imposed on access to the most expensive drugs in order to optimize the use of this limited budget to the largest possible portion of the Lebanese patients.

## The Lebanese National Cancer Control Plan (NCCP)

The Lebanese National Cancer Control Plan (NCCP) is an ambitious 5-year plan launched in 2023 aiming to address various aspect of cancer control and care in the country. It is comprised of 5 chapter each is dedicated to addressing a specific area related to cancer.

**The first chapter** addresses the topic of cancer epidemiology and mortality. It aims at optimizing data collection and its accuracy and to start generating mortality data. It also aims to establish a surveillance system for various cancer risk factors.

**Chapter two** is aimed at raising public awareness about cancer and early detection and control.

**Chapter three** aims at optimizing the quality of care we provide to cancer patients, in terms of setting accreditation criteria for cancer treatment centers as well as diagnostic and therapeutic modalities. It also aims to optimize multidisciplinary care involving medical and paramedical specialists.

**Chapter four** aims to advance the field of palliative care in terms of awareness, availability, accreditation criteria for palliative care agencies and reimbursement.

**Chapter five** addresses issues cancer survivors face in terms of long-term psychosocial issues.

This plan is well underway now and has achieved a significant portion of the above aims. It is led by a team of dedicated people with the full support of the Ministry of Health.

A comprehensive coordinated effort involving, in addition to MOPH, many other ministries and agencies need to be launched in order to minimize the prevalence of various cancer risk factors in an attempt to avoid the expected huge increase in cancer incidence and mortality.