Rising cancer rates in the Arab World: now is the time for action

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Introduction

Cancer is a universal public health problem. It is a leading cause of death worldwide, accounting for an estimated 9.6 million deaths in 2018. More than half of all cancers (56.8%) and cancer deaths (64.9%) in 2012 occurred in lower income regions of the world, and these proportions will increase further by 2025 (*1,2*). Among Arabs, cancer is growing at an alarming pace. The Gulf States and the Eastern Mediterranean Region (EMR) countries show a disturbing rise in the number of cancer patients, Long-term projections show that, by 2030 there would be a 1.8 fold increase in cancer incidence (Table 1). While 80% of countries in the Region have national cancer control policies, only 45% of these programmes are operational (*3*). In addition, the total research output remains low, particularly studies relating to preventative cancer control policies (*4*).

The 2016 report by the Statistical, Economic and Social Research and Training Centre for Islamic Countries (*5*), indicates that more than one and half million new cases of cancer were diagnosed in 2012 (*5*), and that Islamic countries accounted for 11% of cancer cases globally and 17% in low and middle-income countries (*5*). Breast cancer is by far the most prevalent cancer, followed by lung cancer, cervical cancer, colorectal cancer, and prostate cancer. In absolute numbers, cancers in Islamic Countries caused 1.02 million deaths in 2012, accounting for 17.4% of the total deaths in low and middle-income countries and 12% of the global cancer deaths (*5*) (Table 2).

The age standardized incidence rate of the top five cancers in Islamic countries, in addition to the liver and bladder cancer in Egypt, has increased during the past 10 years (*6-9*). Lung cancer is also the most common cancer affecting males in the Gulf States as well as Algeria, Jordan, Lebanon, Palestinian Territories, Morocco and Tunisia. It is predicted that there will be 29 576 new cases of lung cancer in 2020, up from 16 596 in 2008 (*10*). Such increased burden is ascribed to increased cigarette smoking and other tobacco products among young adults (*11*).

Meanwhile, the general incidence of cancer in Lebanon is among the highest in the EMR and is expected to remain as such over the coming decade, where the number of cases has been increasing by 4–5% annually (*9,12*). While cancer etiology is multifactorial, a set of known risk factors have been hypothesized as contributing to the dynamics of cancer epidemiology (*13*). While only 10–30% of all cancers are due to genetic predisposition, lifestyle factors such as smoking, more use of transport and less exercise, unhealthy foods and alcohol consumption have contributed to 70–90% of cancer cases, accentuated by emotional stress and environmental and air pollution in the Arab World (*14*).

The prevalence of obesity in adults in the EMR is very high, particularly among women, and the prevalence of diabetes mellitus parallels that of obesity. Increases in body mass indexes (BMIs) is expected to increase colorectal, liver and gastric carcinoma, particularly among males, where BMI has a stronger effect on cancer incidence in males than in females, as observed in some counties such as Lebanon (*15*).

The paucity of cancer research in Arab populations is a loss to the academic community. The variety of environments, lifestyles and ethnic differences provides a spectrum of opportunities, which, if studied adequately, would lead to a much more rapid increase in our understanding of the causes of cancer and our ability to control it. While breast cancer screening programmes

Table 1 Incidence, mortality and prevalence of cancer globally and in the Eastern Mediterranean Region (in 2002 and projection in 2030) (21)

	World 2002	World 2030	EMR 2002	EMR 2030
Population census	6 229 629 168	8 206 457 382	492 721 000	649 074 572
Absolute incidence	11 000 000	27 000 000	529 000	1 953 714
Deaths	7 000 000	17 000 000	272 000	1 003 145
Prevalence	25 000 000	75 000 000	1 017 441	3 758 142

Table 2 Distribution of the most common sites of cancer among men and women in Arab and Islamic countries, 2012 (5).

Men		Women	
Site	**Percentage from the total cancers**	**Site**	**Percentage from the total cancers**
Lung cancer	23.9%	Breast cancer	49.9%
Prostate cancer	17%	Cervical cancer	18%
Colorectal cancer	12.2%	Colorectal cancer	7.3%
Liver cancer	10.9%	Ovarian cancer	5%
Urinary bladder cancer	7.3%	Stomach cancer	2.5%
Total % of all cancers	**71.3%**		**82.7%**

are the only adopted programme in most Arab countries, an earlier survey showed a very low rates of breast cancer screening adherence among women in Saudi Arabia, a country with free health services, which indicates that social and psychological barriers to breast cancer screening exist (*16*).

The World Health Organization Cancer Control Strategy

According to the World Health Organization (WHO), cancer has become a health priority in the EMR. The aim of the WHO Cancer Control Strategy is to strengthen and accelerate the translation of cancer control knowledge into public health action. The focus is placed on the reduction of cancer cases and the improvement of the quality of life of cancer patients and their families.

However, the largest obstacle to tackling the global cancer incidence and mortality rate in the EMR is the lack of accurate and well-defined data, including a lack of a clear and well-documented public health policy for all noncommunicable diseases, including cancer; and lack of political support to develop legislation and regulation to build up and enhance the viability of cancer registries (*17*).

While most of Arab countries have population-based cancer registries, not all cancers are well documented and data on cancer mortality are limited; for example, no solid evidence exists regarding the true prevalence and incidence of oral cancers in most Arab countries due to the lack of population-based studies (*18*). In addition, according to the latest cancer incidence report from the Gulf Centre for Cancer Control and Prevention (*19*), and other studies (*20*), most cancers among nationals from the Gulf States were diagnosed at late stages and affected a much younger population. A variety of factors are at play, including geographic barriers that make it difficult to access care, lack of medical infrastructure and trained professionals to provide quality care, as well as a lack of awareness or insufficient understanding of the biology of cancer.

Plan of action in the Islamic and Arab World

Prevention and control measures should be targeting modifiable risk factors through primary and secondary prevention, early detection and protection of the population's health and well-being. This could be approached through the adoption of national screening programmes for the most prevalent cancers found in Arab countries, or through shared decision-making policy, where patients are supported to consider options and achieve informed preferences, e.g. shared decision-making practice for early detection of cancer prostate. Ultimately, there is a need for a public health approach, improvement of regional and national cancer registries, as well as health education campaigns addressing the barriers to cancer screening.

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