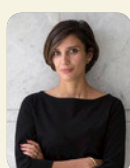


# Editorial: Cancer control in the Eastern Mediterranean Region

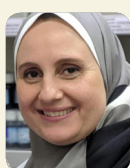
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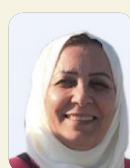
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The World Health Organization's (WHO) Eastern Mediterranean Region (EMR) comprises 22 countries with a population of over 700 million people (1). Although, most of these countries share a language, religion and culture, they vary widely in their socioeconomic status, health system development and health challenges. Moreover, several countries in the region have been heavily affected by protracted armed conflict and political instability resulting in a generalized state of insecurity and dysfunctional health systems (2). Cancer is a growing public health challenge in the EMR accounting for considerable burdens of disease and death (3). Based on WHO's International Agency for Research on Cancer (IARC) data, approximately 734,000 new cancer cases and over 458,600 deaths were documented in the EMR in 2020. These numbers are projected to double by 2040, challenging this region with the highest estimated increase in cancer burden out of all of the six WHO regions worldwide (4).

The expected rising burden of cancer cases in the region varies from doubling (e.g. Kuwait and Oman) to tripling (e.g. Saudi Arabia). Moreover, the expected increase in burden of cancer mortality across the region is estimated to double by 2040 (4).

The expected increase can be partially explained by an ageing population, improved diagnostics and better reporting of cancer cases. The region has some of the highest lifestyle-related risk factors for cancer, such as physical inactivity, a high caloric diet and obesity, and tobacco smoking, all of which have shown a steady increase since 2000 (5). The prevalence of obesity in the EMR remains high, particularly among adolescents with a high body mass index (BMI) (5). This phenomenon is expected to lead to a future increase in

incidence of colorectal, liver and gastric carcinoma particularly among males, and breast cancer incidence among females (6).

This increasing burden is also critical for future health planning, as it will inevitably lead to the need to upscale infrastructure, doubling the number of hospital beds, the number of providers and other resources allocated to cancer. The implementation of existing national cancer plans and programmes in most EMR countries already face challenges such as weak commitment to cancer control, fragmentation of services, scarcity of human and technological resources, limited funding, lack of access to cancer services and medicines, and the weakness of public health systems, particularly in low- and middle-income countries (7). Moreover, political instability in many countries, associated with population displacement and the destruction of health services, has negatively impacted on cancer services in almost half of the EMR countries (8).

Cancer prevention is a priority health need in the EMR. According to GLOBOCAN, the three most frequently diagnosed cancers in the region amongst women are cancers of the breast, colorectum and cervix. For men, they are lung, liver and prostate cancer (4). Most of these common cancers in the region are easily preventable by feasible and cost-effective public health interventions, including implementation of the Framework Convention on Tobacco Control (FCTC), increasing coverage human papillomavirus (HPV) vaccination and reducing exposure to occupational carcinogens through more stringent industrial safety standards (7).

Evidence has shown that the increasing trends in cancer incidence are driven by the rising incidence of common risk factors, especially tobacco use. For instance, smoking is

estimated to have the second-highest population attributable fraction (14.9%) for cancer just below infections (15.3%) (9). Unfortunately, tobacco use in the EMR is one of the highest compared to other WHO regions, with around 19% of adults in this region tobacco users, mostly men. Only one country (Iran) is on track to reach the tobacco reduction target by 2025 and four out of the six countries who are predicted to experience a rise in tobacco use are in the EMR (Egypt, Jordan, Lebanon and Oman) (10, 11, 12).

Despite all the challenges and setbacks, the region has experienced some promising developments. Population-based cancer registration (PBCR) coverage has increased in the last two decades (7) in the EMR region. Moreover, considerable efforts over the last two decades by both civil society organizations (CSOs) and governments, focusing on improving public awareness have shown a positive impact on trends for cancer downstaging of breast cancer in several EMR countries (13), especially where cancer cases present at late stages. The recent campaign to eliminate Hepatitis C in Egypt and Pakistan will have major impact on the incidence of liver cancer in Egypt, and possibly in Pakistan.

For early detection of common cancers, which is critical for cancer control programmes in the region, there are two complementary approaches: cancer screening and early diagnosis. Implementation of these, varies substantially across the region. For instance, almost half of the EMR countries reported having organized population-based screening programmes for breast cancer, one-third and one-fifth of the countries reported having population-based organized cervical and colorectal cancer screening. Nevertheless, none of the screening programmes in the EMR have met the criteria to be considered as population-based, programmes and the majority lack most of the components of an organized screening programmes (14, 15).

By contrast, the early diagnosis approach remains an effective key intervention in all countries in the EMR, considering the late presentation of most cancers. Therefore, early diagnosis measures need to be enhanced as a foundation and feasible approach to improving cancer curability and survival even in low-resources settings in the EMR (15).

Whilst almost two thirds of the 22 countries in the EMR (68%) have PBCR for cancer registration, a considerable variation prevails across the region, both in cancer registry coverage and the quality of cancer data. There are still limitations for cancer registration in the region due to a shortage of funding, poor quality of data, population mobility and political instability that currently affect several EMR countries (16).

Paediatric oncology diagnostics and treatment interventions remain poorly reflected in national cancer control programmes

and benefit packages. The lack of accurate and accessible data regarding childhood cancer incidence and outcomes is one of the significant challenges in identifying and implementing needed changes to improve care (17). Within the context of the WHO Global Initiative for Childhood Cancer, in addition to the regional focus country, Morocco, six more countries in the region have recently been involved in accelerating their national childhood cancer programmes through a variety of childhood cancer projects engaging both CSOs and ministries of health. Significant efforts by civil society actors in the region have also contributed to the overall regional childhood cancer agenda.

As for cancer palliative care services, several initiatives have been developed in the region. Most EMR countries have not yet considered palliative care as a public health need and have not included it in their national health plans. The EMR has a vast variation in national laws, religious affiliations, and access to healthcare. As a result, there is great variability in palliative care policies and access to controlled medications, especially intravenous medications such as morphine or fentanyl. Most countries in the EMR have much lower consumption levels of opioids than the steadily rising global consumption levels. There are many reasons for this, the most significant reason being the lack of access to opioids for both patients and healthcare professionals (18), but also other factors such as limiting prescription laws and misconceptions about the use of opioids for pain relief.

The availability of skilled healthcare workers to address all types of cancer care is a critical element for cancer management. More than half of countries in the region do not meet the minimum threshold of doctors, nurses and midwives per 10,000 population (4). Problems are exacerbated by the migration of specialists to high-income countries and those who sometimes stay in these countries after completion of their training courses. Considering the increasing incidence of cancers in developing countries, the brain drain of specialists will shortly lead to serious challenges and shortcomings in the region (19).

The COVID-19 pandemic has further complicated the situation of cancer prevention and control in the region. It has adversely affected all cancer services, from planning to palliative care, in the low-income countries. According to a WHO survey in 2020, cancer services were reportedly disrupted in more than 40% of countries in EMR (20). These disruptions of cancer services, including the suspension of screening programmes, delays in diagnosis and treatment (including palliative care), are likely to exacerbate the current situation with an increase in advanced-stage diagnoses and, as a result, an increase of potentially preventable cancer mortality. Whilst countries continue to mitigate the service

disruptions, the extent of the effects of the pandemic has yet to be thoroughly evaluated.

In the context of achieving the health-related SDG targets, and in particular SDG 3.4 to reduce the premature mortality of NCDs, most EMR countries will struggle to achieve the SDGs by 2030 (21). It is therefore imperative to intensify efforts to fight cancer and support accelerated progress in cancer prevention and control measures to further reduce mortality and develop actions beyond “business as usual”.

Many supportive tools and measures have been developed to address gaps in a comprehensive approach for cancer control, including, but not limited to, the *WHO EMRO Regional Framework for Action on Cancer Prevention and Control*, which lists strategic interventions along with the six areas of cancer prevention and control along with indicators for better evaluation of the existing cancer-related programmes (22).

Despite tremendous regional challenges and instability, there is a growing momentum towards an “All-of-Society, All-

of-Lifetime” approach and there are many opportunities to advance the cancer agenda. The ongoing global WHO initiatives related to childhood cancer, cervical and breast cancer will provide the EMR countries with a unique opportunity to elevate the priority of cancer control programmes while creating a regional platform to improve advocacy and clinical practice by joining forces with existing regional collaborative efforts. The potential decrease in cancer mortality represents a substantial contribution to the achievement of SDG Target 3.4 to reduce premature NCD mortality by 2030. Civil society organizations should be encouraged to play a bigger role in educating the public and supporting cancer prevention and screening initiatives. However, the primary responsibility for the health of the populations in the region and for the achievement of SDG target 3.4 rests with governments and can only be fulfilled by the provision of adequate health and social measures guaranteed by the implementation of universal health coverage. ■

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