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Policy Brief

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Addressing the Burden of Non-Communicable Diseases in the Eastern Mediterranean Region



EXECUTIVE SUMMARY

The burden of non-communicable diseases (NCDs) in the Eastern Mediterranean Region (EMR) has reached alarming rates, and mortality of NCDs in most EMR countries is above the world average. Multiple challenges and gaps exist, and the fragility of the health systems in the EMR in providing NCD prevention and care services has been highlighted by the COVID-19 pandemic.

The Global Action Plan for the Prevention and Control of NCDs (NCD-GAP) 2013-2020 stresses on the need to strengthen research to generate and translate knowledge that can guide countries in monitoring NCDs. While promising initiatives are emerging, what is still rarely addressed is the human capacity to take on the multi-dimensional task of ensuring NCDs are kept on the radar of governments, NGOs, and health professionals.

Reducing NCD-related morbidity and mortality necessitates an ecological, lifecourse approach to study disease etiology coupled with multisectoral action and policy, and the implementation of effective multi-level interventions and “best buys”. None of this is achievable without a strong national and regional capacity to produce locally relevant NCD evidence.

This policy brief briefly summarizes the challenges to be overcome, including the gaps in the current NCDs response structure, and focuses on current approaches and strategies for an effective response to the NCD crisis in the EMR

Highlights

In generating evidence for action to address NCDs, there are 5 approaches/ perspectives to focus on:

- ▶ The epidemiological approach
- ▶ The implementation approach
- ▶ The life-course approach
- ▶ The ecological perspective and structural determinants of NCDs

5 strategies to implement an effective and sustainable response to NCD burden in the EMR:

- ▶ Form a national-NCD committee of key stakeholders
- ▶ Generate effective data to back action and policies by evidence
- ▶ Restructure the health system to reorient it towards NCDs
- ▶ Strengthen primary health care and continuity of care
- ▶ Ensure strong political commitment and accountability

INTRODUCTION

► Global NCD Burden

As per the 2020 World Health Organization (WHO) Global Health Estimates report, NCDs now account for a considerable majority of deaths globally. The 4 main NCD killers include cardiovascular diseases, cancers, chronic pulmonary diseases and diabetes¹.

In the year 2000, death from NCDs accounted for an equivalent of 60% of all deaths globally; this has increased to an approximate 71% in the year 2016, with 85% of premature NCD related deaths occurring in Low-Middle Income Countries (LMICs)².

► NCD burden in the EMR

The EMR has one of the highest prevalence of NCDs globally. In 2019, 79% of all deaths in the Middle East and North Africa Region were a result of NCDs, which was higher than the world average of 74%, and death from NCDs ranged between 75% to 89% in 13 of the 22 EMR countries (Figure 1)³.

More than 1.7 million people in the EMR die from cardiovascular diseases, cancer, chronic respiratory diseases and diabetes annually, and this is expected to increase to 2.4 million deaths by the year 2025 unless prompt action is taken⁴.

A substantial proportion of NCD burden in the region is caused by the modifiable risk factors, including tobacco use, physical inactivity, and unhealthy diet.

The EMR also hosts the majority of the world's refugees and internally displaced persons⁵, and the epidemiological transition from communicable diseases to NCDs has obliged organizations such as the International Committee of the Red Cross to re-orient its medical response in Lebanon, Pakistan, Sudan, Syria and Iraq⁶.

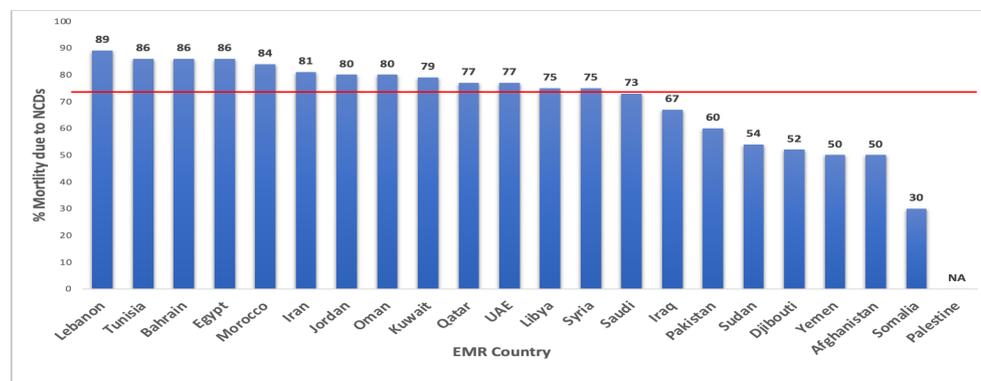


Figure 1 Percentage (%) mortality due to non-communicable diseases (NCDs) in countries of the Eastern Mediterranean Region (EMR), representing 2019 data. Red line represents World Average of 74%. Adapted from World Bank NCD Mortality Data³.

> 1.7 million

Annually die in the EMR from cardiovascular diseases, cancer, chronic respiratory diseases and diabetes annually⁴



► Global Roadmap, Targets, Goals

In 2013, the World Health Assembly endorsed the **Global Action Plan for the Prevention and Control of NCDs (NCD-GAP) 2013-2020**, which was presented as a roadmap for action to reach the identified nine global NCD targets by 2025, embracing a 25% reduction in premature mortality from NCDs⁷.

This overarching mortality target was later incorporated in the **Sustainable Development Goals** agenda with a revised aim to achieve 30% reduction by 2030. Focusing on an integrated approach for tackling NCDs, the plan centered around 6 interrelated objectives to guide activities and policy measures needed to meet the NCD global targets. Two of these objectives drive the need to strengthen research for the sake of generating and translating knowledge that can guide countries in monitoring NCDs:

- Objective 5 - Promote and support national capacity for high-quality research and development for the prevention and control of NCDs
- Objective 6 – Monitor the trends and determinants of NCDs and evaluate progress in their prevention and control.

¹ WHO. World health statistics 2020: Monitoring health for the SDGs, sustainable development goals. Geneva: WHO; 2020.

² WHO. Global health estimates 2016: deaths by cause, age, sex, by country and by region, 2000-2016. Geneva, WHO; 2018.

³ World Bank NCD Mortality Data [Accessed Feb 6th] <https://data.worldbank.org/indicator/SH.DTH.NCOM.ZS?view=chart>

⁴ WHO Noncommunicable diseases. WHO, Regional Office for the Eastern Mediterranean. [Accessed Sep 5 2020] Available:

<http://www.emro.who.int/noncommunicable-diseases/diseases/diseases.html>

⁵ Slama S, et al. The development of the noncommunicable diseases emergency health kit. East Mediterr Health J. 2018;24:92-8. 10.26719/2018.24.1.92

⁶ Aebischer PS, et al. Non-communicable diseases in humanitarian settings: ten essential questions. Confl Health. 2017;11:17. 10.1186/s13031-017-0119-8

⁷ WHO. Global Action Plan for the Prevention and Control of NCDs 2013-2020. 2013.

CHALLENGES & GAPS

With their health system oriented towards providing acute care more than promoting prevention and healthy lifestyles, most countries in the EMR have limited experience with integrated approaches to address NCDs. This is further complicated by

- Absence of evidence to improve existing programs and policies and to inform new ones.
- Lack of opportunities, constrained resources and weak research capacity, and thus low research productivity, which undermine informed decision-making.
- The majority of publications on NCDs and their risk factors in EMR are based on observational studies emanating from isolated institutes, rather than multidisciplinary research collaboratives.
- Implementation studies assessing intervention programmes and monitoring population-based policies are especially scarce, as most existing studies are descriptive.
- Results are rarely translated into interventions or policymaking, due to the lack of multidisciplinary research teams with linkages to relevant stakeholders, and the policies and guidelines that exist are mostly based on studies from high-income countries.
- Insufficient research training has resulted in inadequate funding opportunities for research in NCDs and missed opportunities to develop, submit, and administer research applications and awards.
- Career development has been limited by an absence of an infrastructure that allows for collaboration between the community, existing researchers, physicians/medical specialists, governmental bodies and entities that inform public policy.
- Inadequate governmental oversight and regulation of key sectors affecting public health including food, hospitality, or tobacco industry. Thus, structural and environmental factors that contribute to NCDs persist and negatively affect behavioural risk factors.

CHALLENGES DUE TO COVID-19

The pandemic affected basic NCD services, and people were no longer going to health care centers. The WHO conducted two surveys with the countries, the first was done early in May 2020, and showed that the EMR had the highest disruption in NCD health services compared to other regions. Many centers closed, there was stigma and people were afraid that these centers will become places for transmission⁸. The WHO worked very closely with the countries and published guidelines specifically to help address the impact of the pandemic on essential health services. A survey conducted one year later, in April 2021, showed significant improvement due to these guidelines, however, it was not yet back to normal⁹.

Additionally, there has been a steady increase in the need for data, new methodologies and analysis in NCD research, and this need was highlighted by the COVID-19 pandemic as the world has seen how central it is to have well trained scientists and researchers. COVID-19 highlighted countries' need for guidance on several issues, including:

- How to incorporate NCDs in public health emergency response protocols
- How to provide ambulatory essential NCD services during lockdowns
- How to provide medical care for NCDs through telemedicine and digital solutions
- Algorithms for managing patients with chronic NCDs in a pandemic and limited access to medical care
- How to collect and report comparable data on comorbidities
- How to develop projection models to make the impact of the COVID-19 pandemic on NCDs visible
- Development of tools to calculate YLL and YLD related to NCDs during COVID pandemic

To improve health outcomes, countries have to strengthen their national health systems for which local evidence and research capacity is fundamental. Of the many challenges faced, the most pressing is creating a sustainable infrastructure for research, including a human capital of trained researchers.

Investing in the research capacity of investigators and institutions and in developing multi-sectoral, interdisciplinary research partnerships is a critical component of combatting NCDs. This not only helps foster a research culture and solidify local ownership of the research, but it also ensures that the most appropriate solutions are developed, increasing the likelihood that these solutions are sustainable over time

⁸ WHO. The impact of the COVID-19 pandemic on noncommunicable disease resources and services: results of a rapid assessment. Geneva: WHO; 2020 Licence: CC BY-NC-SA 3.0 IGO.

⁹ WHO. Presentation of Preliminary Results of 2021 Assessment on NCD Service Disruption during COVID-19 Pandemic. 25 November 2021; Available from: <https://www.who.int/publications/m/item/presentation-of-preliminary-results-of-2021-assessment-on-ncd-service-disruption-during-covid-19-pandemic> [Accessed December 21 2021].

WAY FORWARD

The complex etiology of NCDs, requires a wholistic ecological strategy for prevention and control that shifts from the biomedical model of health and embraces structural determinants that fall outside the health sector, including contextual factors like displaced populations. The life-long accumulation of NCD risk, requires a lifecourse approach that addresses determinants early in life and throughout critical windows in the lifespan.

Thus, reducing NCD-related morbidity and mortality necessitates an ecological, lifecourse approach to study disease etiology coupled with multisectoral action and policy, and the implementation of effective multi-level interventions and “best buys”. None of this is achievable without a strong national and regional capacity to produce locally relevant evidence.



Figure 2 The Five Areas of Focus in building the capacities to combat the NCD burden in the EMR

► Focus on epidemiologic research

A more granular assessment of burden, patterns, and outcomes, a characterization of proximal risk factors and distal determinants, and an evaluation of the impact and feasibility of prevention and control measures require skills in quantitative, qualitative, and mixed research methods. Currently, these disciplines are not routinely embedded in curricula of degree programs that train medical doctors and other health science graduates in the country.

► Focus on implementation research

The EMR faces challenges in implementing NCD policies, programs, and interventions effectively. This is difficult since data on NCDs is limited, and many of the NCD “best buys” have not been assessed in EMR.

When data exists, many contextual barriers remain to the implementation of interventions and programs, and overcoming those requires organizational change and adoption of theoretically derived models.

This reality highlights the need not only for data and epidemiologic methods, but also for implementation research, a discipline that provides a useful set of theories, approaches, and tools to characterize barriers and develop context-specific solutions for translating evidence and broad strategies into action. Therefore, research training that focuses on implementation is fundamental for bridging the knowledge generation-translation gap and making an impactful change on the burden of NCDs.

► Focus on life-course perspective

Considering the needs of all age groups when addressing NCD prevention and control is underpinned by evidence showing how NCDs are influenced by early life factors and is recommended in the WHO NCD-GAP. The levels of obesity, lack of exercise and unhealthy habits in children are alarming in the EMR and many unhealthy behaviors leading to NCDs begin in childhood and adolescent years. Interventions targeted at modifying behavior in adults have had disappointing results, especially since NCD risk starts early in the life-course. Addressing NCD prevention and management early in the life-course corresponds to the rights of children to attain the highest standard of health, stressed in the United Nations Convention on the Rights of the Child. Additionally, certain high morbidity and mortality NCDs affecting the aging population, such as osteoporosis and hip fractures, are understudied in the region and have received little interest by authorities due to insufficient data and evidence.

NCD prevention is most effective when it targets a problem at its roots, thus it is vital that a life-course perspective that encompasses young children, adults, and the aging population, is integrated more fully into any NCD research training program. This approach helps inform national efforts on the need for collective action across the life-course.

► Focus on an ecological perspective and structural determinants

It is crucial to build research capacity to investigate the structural determinants of NCD, including social, political, economic, environmental, among others, to inform intervention and policy change. Public health and epidemiology capacity in the region is largely based on the medical model that targets the individual and has limited integration of other disciplines, such as sociology, environmental health, medical anthropology, health economics and urban planning, among others.

It is critical to equip NCD researchers with an interdisciplinary, multisectoral perspective that breaks siloed approaches, applies the ecological model in research and practice, and embraces the complex interplay between individual-level NCD risk factors and behaviors with broader contextual determinants, the majority of which fall outside the health sector.

NOW IS TIME TO ACT!

There is an urgency for action, and strategies for action include

▶ **Planning: Forming a national-level NCD committee**

The committee should consist of key stakeholders across the government, civil societies and the private sector. It should be endorsed by the highest political authority in the country so that it is empowered to effectively result in the necessary regulatory changes and implement useful measures to address NCDs. A high-level political decree should be issued to form this national-level committee, specifying its scope and significance. It should take charge of identifying NCD priorities and targets for countries.

▶ **Data-to-Action: Back action and policies up by evidence**

There is an immense need for quality data collection and analysis, information synthesis and knowledge translation. Building research capacities should address this data-to-action continuum. Defining a clear set of national targets and indicators would streamline efforts in the fight against NCDs. In addition to investing in human capacities, creating a sustainable infrastructure includes building national, regional and international collaborations. Curriculum development and in-service training are needed for physicians to assess risk factors and implement early prevention using evidence-based guidelines for risk assessment and management.

▶ **Health System Restructuring: Reorientation towards NCDs**

Reorientation of the health system towards outreach, prevention and management of risk factors and comorbidities, counselling, and patient self-management of NCDs, is needed. This can be greatly aided by political commitment at the highest level for the implementation of universal health coverage. Reliable data and sound economic analyses can help support the call for additional funding.

▶ **Health System Strengthening: Strengthening Primary Health Care and Continuity of Care**

Strengthening of primary health care is a necessary strategy to deliver preventive and curative care, for the general population and for individuals at high risk or already diagnosed with NCDs.

Linking primary health care to secondary and tertiary levels through a coherent system of referral needs reliable and strong health information system that allow accurate assessment and effective management of NCDs and their risk factors.

▶ **Political Commitment**

High level political commitment is critical for the implementation of an effective and sustainable response to NCDs burden in EMR countries. Governments and policymakers should be held accountable for compliance with international frameworks. This should be done through continuous monitoring and reporting of NCD risk factors, morbidity, and mortality, in addition to implementation of effective interventions and multisectoral policies that ensure adequate financial and regulatory support.

CONCLUSION

As a way forward, EMR countries should join the international efforts that are emerging to tackle and reduce the burden of NCDs and their risk factors. Reducing NCD-related morbidity and mortality necessitates effective multi-level evidence informing multisectoral action and policy. None of this is achievable without a strong national capacity to produce locally relevant data and evidence.

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GHD and EMPHNET: Working together for better health

Global Health Development (GHD) is a regional initiative created to support countries in the Eastern Mediterranean Region (EMR) and to strengthen their health systems to respond to public health challenges and threats. GHD was initiated to advance the work of the Eastern Mediterranean Public Health Network (EMPHNET) by building coordinating mechanisms with Ministries of Health, International Organizations and other institutions to improve population health outcomes. As an implementing arm to EMPHNET, GHD aligns its strategies with national policies and directions. Serving as a collaborative platform, GHD/EMPHNET is dedicated to serve the region by supporting national efforts to promote public health policies, strategic planning, sustainable financing, resource mobilization, public health programs, and other related services.

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