Beyond the Impact Factor: Why Medical Journals Must Join the Battle Against Non-Communicable Diseases

Abdullah S. Al-Mujaini*

Department of Ophthalmology, College of medicine and Health Sciences, Sultan Qaboos University, University Medical City, Muscat, Oman

Received: 30 June 2026
Accepted: 1 July 2026

*Corresponding author: abdullah.almujaini@gmail.com

DOI 10.5001/omj.2026.88

Non-communicable diseases (NCDs) represent a major public health issue, not solely in Oman but across the entire broader Middle East and North Africa (MENA) region. This group of diseases is responsible for the vast majority of premature deaths, a rising share of national health budgets and are driven largely by preventable or reversible risk factors, of which many are still poorly controlled. However, below their surface veneer of seeming impartiality, medical journals and their respective editorial boards are active participants in this epidemiological war. Specifically, they shape what types of research topics are pursued, which types of evidence are valued, and whether or not this evidence makes its way to the relevant decisionmakers and policymakers who are capable of effecting change. Medical journals in the region, therefore, have both a scientific and moral duty to take on a more proactive role in the ongoing struggle against NCDs.

The burden of NCDs and their shared risk factors

In Oman, NCDs remain the leading cause of mortality, causing an estimated 185.75 deaths per 100,000 individuals in the local population.[1] This is a pattern seen across most Gulf countries.[2] Cardiovascular disease (CVD) is the principal culprit, reflecting a cluster of risk factors, including obesity, type 2 diabetes, hypertension, dyslipidemia, and tobacco use. This is made abundantly clear by the national 2017 STEPS survey.[1] In a cross-sectional study of 9,053 Omani adults, 66% were identified as overweight or obese, 33% had high blood pressure, and 36% raised total cholesterol; in total, 95% met the criteria for at least one modifiable risk factor and, alarmingly, one-third were impacted by three or more modifiable risk factors.[1] Cardiometabolic multimorbidity, therefore, is more likely to be the rule than the exception. At the same time, tobacco use, while lower among Omani women, represents an urgent concern for both Omani men and adolescents. High levels of physical inactivity and dietary changes also continue to spur rising obesity trends. In principle, each of these factors is fully modifiable.

Diabetes also warrants specific emphasis. The adult prevalence is predicted to increase from around 15% to 23.8% by the year 2050, with type 2 responsible for nearly a third of total health expenditure in Oman.[3] In the Gulf Cooperation Council (GCC), diabetes prevalence rates already exceed 22% in several nations, once again primarily as a result of obesity and rapid changes in diet and lifestyle.[4] Chiefly, obesity represents a key factor linking diabetes, hypertension, dyslipidemia, and CVD in a largely preventable interconnected chain.

Cancer also constitutes a significant concern, ranking as the second-leading NCD in the region. In 2020, the six GCC countries together recorded 42,475 new cancer cases, with projections indicating an increase of 116% to 270% by the year 2040.[5] Breast and colorectal cancers dominate; notably, the former tends to occur at a much younger age in the MENA region compared to Western populations, with an accompanying mortality rate that surpasses that seen in most other regions of the world.[5,6] Despite its moderate incidence, the continued high mortality associated with this cancer indicates a "survival gap" due to late diagnosis and lack of access to timely testing and therapy, a gap that can be directly solved through research focused on organized screening and early-detection.[6]

Mental health still remains most neglected. The first national screening program in Saudi Arabia revealed that, though up to 13% of adults are at risk for major depression or anxiety, very few receive a formal diagnosis or treatment.[7] Community-based data from across the Middle East likewise indicates prevalence rates between 16% and 36%.[8] As depression and anxiety are associated with poor glycemic control, lower adherence to cardiovascular therapy, and worse cancer outcomes, mental health is both an NCD in its own right and a key factor influencing other NCDs. As a result, any national NCD strategy that ignores this component of health is, by definition, incomplete.

In any case, an economic case for intervention is sufficient. Combined, the top four NCDs accounted for close to $50 billion USD in losses for the GCC economy in 2019, whereas a coordinated scale-up of cost-effective interventions recommended by the World Health Organization would yield an estimated return of just under $5 for every dollar invested.[9] Despite the complementary and evidence-based nature of many alternative strategies to tackle modifiable risk factors (e.g., tobacco control legislation, blood pressure and lipid-lowering management, obesity prevention, etc.), implementation remains a major challenge. In other words, persistent low rates of NCD awareness, treatment and control reflect the repeated failure of preventive care, not lack of knowledge.

A misalignment between disease burden and research output

But even though the burden of NCDs in this region is well documented, our research response is clearly insufficient. Several Gulf states, including Oman, underinvest in biomedical research relative to their gross domestic product as per bibliometric analysis; moreover, research output does not match local disease distribution.[10] Our health policy response has been aptly described as poorly calibrated to the epidemiological reality.[11] In part this is because of problems of publication, where novelty (rather than relevance) and international impact (rather than local benefit) dominate research funding and publishing decisions and contribute to a culture of producing research that fails to truly benefit our own populations. This misalignment, and its resolution, is both a scientific and ethical duty of journal editors throughout the region.

But the case for using locally generated evidence is methodological rather than sentimental. Risk equations, screening criteria, and diagnostic cut-offs developed for use among European or North American cohorts are not necessarily accurate when they are applied to populations with entirely different body compositions, genetic backgrounds, consanguinity rates, and external environments. For instance, in many GCC countries, migrant workers form a large proportion of the workforce. For these individuals, extreme heat is a quantifiable risk; indeed, a time-series analysis in Kuwait found that summer temperatures within the routine seasonal range were associated with a 44% increase in workplace injuries, despite an existing ban on midday work.[12] Evidence from elsewhere does not do much to further our understanding of region-specific occupational exposures of this type; they require the publication of local studies, followed by local action.

Artificial intelligence as an editorial responsibility

Artificial intelligence (AI) is an increasingly inescapable topic in discussions related to healthcare and scholarly publishing. According to a systematic review of 100 studies exploring AI applications in Middle Eastern healthcare systems, Khosravi *et al*. found that system-wide AI implementation remains absent in our region of the world.[13] Similarly, López *et al.* identified data quality, infrastructure, regulation and workforce preparedness as persistent challenges to the implementation of these technologies in health ecosystems in low- and middle-income countries.[14]

When it comes to AI implications for regional research, medical editors must take on additional responsibilities. For manuscripts involving AI-based diagnostic and predictive models, they must ensure that authors are fully transparent when it comes to reporting the characteristics of the populations used in the training dataset for the model. In instances where models have been developed on datasets that do not match the characteristics of local populations, the model has to be externally validated with regional cohorts; otherwise, there is a risk of model bias that may result in serious misclassification errors for patients from this region.

There is also a need for clear editorial policies regarding how AI is to be used in manuscript preparation. While AI technologies can be used legitimately to help authors in preparing manuscripts, particularly non-native English speakers, there is a fine line between appropriate utilization of these technologies and ghost writing. Finally, editors need to encourage the creation of partnerships within the region to more effectively leverage AI technologies in our battle against NCDs. This may include the creation of regional registries and databases for sharing scientific information, clinical data, and Arabic medical informatics.

Linking evidence to policy

Linking evidence to policy remains a critical weakness of our research system. Financial investments, scientific resources, research efforts; these are all fundamentally squandered if the evidence produced through local research efforts is not considered in official policy decisions. But, to do so, several barriers stand in our way. A scoping review identified inflexible institutional structures, insufficient research time allocation, and low demand for evidence from local policy-makers as barriers to the sustainable implementation of eastern Mediterranean knowledge translation platforms.[15]

Journal editors can help close the gap between research and policy. For example, they can mandate that authors connect original research with policy implications, or commission policy briefs in addition to other article types. They can also choose to dedicate additional publishing space for implementation and health systems research, an under-represented field, but one that is vital if we wish to convert evidence into policy. Most importantly, they need to acknowledge the importance of their function in facilitating dialogues between researchers, health ministries, and other institutions, and the responsibility that arises as a result. As the chief disseminators of published medical research, their role is vital when it comes to ensuring real-world impacts for patient care.

A mandate for journal editors

Regional medical journals must develop strategy plans aligned with their existing resources and expertise. Editors should solicit any missing evidence that may inform effective responses for the purposes of NCD control. This may include presently non-existent registries of disease and risk-factor burden at the national level, practical clinical trials, implementation studies and health-economic assessments. We require not only an increase in the quantity of regional research, but also its quality. Thus, editors need to update their methodological and reporting criteria to meet international standards. They also need to expect that regional research outcomes are likely to be disaggregated by nationality and gender, in line with the demographic complexity of local populations in the Gulf.

We also urgently require adequate representation on editorial boards. Regrettably, scholars from the MENA region remain woefully under-represented in international editorial roles.[16] This carries significant implications for the resulting publication choices and research priorities set by those holding positions of editorial power. In line with this, journal editors must also actively work to develop the competencies of young or inexperienced researchers and train regional peer-reviewers in order to support sustainable scientific quality, which is dependent not only on policy but also our human resource capacity.

Journals must also ensure that that they make their publications available on an open access basis to increase access to regional research by local healthcare professionals, patients, and decision-makers. Articles published in prestigious journals are often entirely inaccessible to non-academics, and are certainly not written to be easily understood by them, so including both short study summaries and Arabic versions of relevant published research is key. Finally, journal editors need to apply the same level of rigor that historically has been brought to CVD to other research areas, such as mental health, occupational health and cancer, so as to further our understanding of other important NCD domains.

We have the evidence base, disease burden and the scientific workforce. What remains underdeveloped, however, is the editorial will to align them. Journal editors in Oman and the wider MENA region should not see themselves as passive purveyors of completed research, but rather active tools with the opportunity and duty to advance NCD control through agenda-setting, scientific rigor, reporting standards, and local evidence-policy linkages. That is the kind of editorial mandate this region desperately needs.

References

1. Al-Mawali A, Jayapal SK, Morsi M, et al. Prevalence of risk factors of non-communicable diseases in the Sultanate of Oman: STEPS survey 2017. PLoS One. 2021 Oct 28;16(10):e0259239.
2. Fadhil I, Ali R, Al-Raisi SS, et al. Review of national healthcare systems in the Gulf Cooperation Council countries for noncommunicable diseases management. Oman Med J. 2022 May 10;37(3):e370.
3. Awad SF, Al-Mawali A, Al-Lawati JA, et al. Forecasting the type 2 diabetes mellitus epidemic and the role of key risk factors in Oman up to 2050: mathematical modeling analyses. J Diabetes Investig. 2021 Jul;12(7):1162-1174.
4. Aljulifi MZ. Prevalence and reasons of increased type 2 diabetes in Gulf Cooperation Council countries. Saudi Med J. 2021 May;42(5):481-490.
5. Alessy SA, Alqahtani SA, Vignat J, et al. The current and future cancer burden in the Gulf Cooperation Council (GCC) countries. Cancer Med. 2024 Sep;13(7):e70141.
6. Zahwe M, Bendahhou K, Eser S, et al. Current and future burden of female breast cancer in the Middle East and North Africa region using estimates from GLOBOCAN 2022. Int J Cancer. 2025 Jun 15;156(12):2320-2329.
7. Alhabeeb AA, Al-Duraihem RA, Alasmary S, et al. National screening for anxiety and depression in Saudi Arabia 2022. Front Public Health. 2023 Jun 27;11:1213851.

8. Ibrahim NK. Epidemiology of mental health problems in the Middle East. In: Laher I (Ed). *Handbook of Healthcare in the Arab World*. Switzerland: Springer, 2021. Pp. 133-149.

9. Elmusharaf K, Grafton D, Jung JS, et al. The case for investing in the prevention and control of non-communicable diseases in the six countries of the Gulf Cooperation Council: an economic evaluation. BMJ Glob Health. 2022 Jun;7(6):e008670.

10. Aggarwal A, Patel P, Lewison G, et al. The profile of non-communicable disease (NCD) research in the Middle East and North Africa (MENA) region: analyzing the NCD burden, research outputs and international research collaboration. PLoS One. 2020 Apr 27;15(4):e0232077.

11. Rahim HFA, Sibai A, Khader Y, et al. Non-communicable diseases in the Arab world. Lancet. 2014 Jan 25;383(9914):62383-1.

12. Alahmad B, Al-Hemoud A, Al-Bouwarthan M, et al. Extreme heat and work injuries in Kuwait's hot summers. Occup Environ Med. 2023 Jun;80(6):347-352.

13. Khosravi M, Mojtabaeian SM, Demiray EKD, Sayar B. A systematic review of the outcomes of utilization of artificial intelligence within the healthcare systems of the Middle East: a thematic analysis of findings. Health Sci Rep. 2024 Dec 24;7(12):e70300.

14. López DM, Rico-Olarte C, Blobel B, Hullin C. Challenges and solutions for transforming health ecosystems in low- and middle-income countries through artificial intelligence. Front Med (Lausanne). 2022 Dec 2;9:958097.

15. Belrhiti Z, El Kirat H, Diallo D, et al. Barriers and facilitators to the institutionalization and sustainability of knowledge translation platforms in the eastern Mediterranean: a scoping review. Health Res Policy Syst. 2025 Sep 26;23(1):114.

16. Melhem G, Rees CA, Sunguya BF, Ali M, Kurpad A, Duggan CP. Association of international editorial staff with published articles from low- and middle-income countries. JAMA Netw Open. 2022 May 2;5(5):e2213269.