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LETTER

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What is going on in the future for evidence-informed health policymaking in Iran?

Many initiatives have been conducted at the global and country-level to enhance the use of research evidence in health policymaking.[1] However, evidence-informed health policymaking (EIHP) is still far from the norm, particularly in many low- and middle-income countries (LMICs), calling for further efforts to address challenges of EIHP.[2] The Islamic Republic of Iran has initiated some measures toward promoting EIHP, including considering the financial burden of an issue in agenda setting, sensitivity analysis of policy options based on their feasibility, and prioritizing policy options according to multi-criteria decision-making models.[3] Nevertheless, using evidence in decision-and policymaking has not been fully institutionalized. Hence, it is required to identify the main constraints/challenges of EIHP and define context-sensitive strategies to address them purposively.

While the vast body of research is available on identifying the current hinders and enables of EIHP,[4] such evidence is scant on investigating the emerging issues that can potentially affect EIHP and the consequences that they have. There is, therefore, a need for research relevant to trends and events anticipations and the effects they have. That is because, in the past years, there have been striking changes in the global and local trends, particularly in the Middle East region. These changes have made various consequences that can significantly affect, either positively or negatively, people's health and health policymaking. Prediction of the potential challenges has a significant contribution to strategic planning, risk management, and policymaking. It helps policymakers articulate potential threats and opportunities before they occur, enabling the timely implementation of policy and practice to prevent rather than mitigate. It can also inform research prioritization.[5]

Given the importance of exploring the effects of trends on EIHP, this paper aims to identify emerging trends and issues and the likely barriers and facilitators to support EIHP in the Iran health system. It is worth noting that the present article is part of a national study on developing a roadmap for strengthening EIHP in Iran.[6]

1 | METHODS

The ethics committee of The National Institute for Medical Research Development (NIMAD) (Approval No. 958431) and Tehran University of Medical Sciences (IR.TUMS.VCR.REC.1396.3532) approved the study. We obtained informed consent from the study participants and ensure their anonymity.

The data of the present qualitative study were collected in three stages. The first stage was conducted to extract the list of trends that may affect the future health system. To this end, the text of relevant national documents, including the situation analysis reports of the health system, supplementary reports of the national scientific map, and the national health map, was thematically analyzed by two of investigators. The identified trends and issues were then classified into social, technological, economic, environmental, and political trends (STEEP analysis).

In the second stage, a focus group discussion (FGD) was held with eight relevant experts. The participants were chosen purposively from individuals (1) serving as health policymakers, or (2) involved with health policy and system research, or (3) knowing future study and (4) willing to share their knowledge. In the FGD session, the participants were asked to discuss and exchange ideas on the main trends affecting EIHP in Iran. Two facilitators were responsible for steering the communications. The FGD lasted for 2 h.

The third stage aimed to examine the impact of identified trends and find the potential opportunities and threats faced by EIHP in Iran. To this end, the second FGD session was held with the eight participants who were the same as the previous one. The participants were asked to discuss the impact of identified trends in terms of the opportunities and threats faced by EIHP in Iran. The FGD took for 3 h. With the participants' consent, their conversations during FGDs were audio-recorded with a digital voice recorder. After listening to the audio files, two investigators were transcribed verbatim and manually analyzed using framework analysis. Furthermore, six semistructured face-to-face interviews were conducted to get a further in-depth insight into the effects of future trends on EIHP and the potential opportunities and trends they may have. Interviewees were those relevant experts who did not participate in the FGDs. Respondent-driven sampling was used to select them. Interviews were completed at the respondent's office averaging 60 min per session. Interviews were audio-recorded and transcribed verbatim anonymously. Two of the researchers independently analyzed the transcripts by following five stages of the framework approach manually.

To ensure credibility, we had an engagement with all participants to build the necessary level of trust. The transferability of the study

was provided by selecting the right informants to participate in FGD and interviews. For transferability, we used a thick description of the context and experiences of participants. Audit trails were used to ensure dependability. Member check was used to achieve confirmability. While conducting qualitative studies, researchers considered the process of critical self-reflection about preferences and preconceptions as researchers to ensure reflexivity.

2 | RESULTS

Table 1 shows the trends influencing EIHP in Iran and their identified effects on the five specified trends. According to the participants, the social, technological, economic, environmental, and political trends all have a bilinear effect on the policymaking and evidence-informed approach. From the perspective of participants, the most considerable influence of trends on EIHP is related to agenda-setting and policy options development. Participants' remarks also showed the social, technological, and economic trends have a more significant effect on this policymaking approach than political and environmental trends, due to their faster impact and shorter-term returns. The identified effects of trends on EIHP in Iran are as follows.

2.1 | Social trends

The participants believed that social changes increase the need for evidence on the current state of health and the health system. That is because the requisite for any involvement in this group of decisions and getting away from personal thinking is being equipped with information and evidence. Such evidence can help policymakers to analyze the situation and propose solutions to address them. In this regard, gradually and with greater awareness of the society, their supervision and monitoring capabilities will be further enhanced. On this basis, the availability of some evidence on how the policies are implemented will be required. One of the other influential social trends is the issue of increasing demand in society. With an increase in the demand of society, the health policymaker needs evidence for controlling the demands and making the decision for choosing the best option, so based on the evidence, he/she would be able to make the right decision and respond to the demands of society. Participants highlighted that some social trends, such as the aging population, can also change the combination of decision-making and decision-maker structure and networks, reinforcing the tendency toward a single view and away from evidence in the decision-making. In the interviewees' opinion, a striking point about social trends is that these trends will willingly or unwillingly increase the need for more evidence on problems and issues related to the health system and lessen the chance of ignoring this group of evidence. The evidence related to social issues generally gets access to reliable and high-quality results in a more extended period, while for EIHP, there is a need for evidence at the right time; therefore, producing quality evidence at the right time will be the main challenge of EIHP. In this regard, it is necessary to note that the need to generate more indigenous evidence related to social issues requires researchers' training to generate evidence of social issues and attention to the composition and structure of health policymaking.

2.2 | Technological trends

From the perspective of participants, technological trends leave their impact through a quantitative increase in evidence. Due to the ease of data collecting and sharing mechanisms, these trends play an essential role in the mass production of evidence in the shortest time possible. The mass production of evidence provides policymakers with a variety of evidence, increases the possibility of converting subjects into sound and social demands, and may also increase the share of nonquality evidence and sometimes mistakes. In terms of use, these trends, by sharing information, can prevent the use of force and tastes in policymaking and change its direction toward using evidence. On the other hand, they can also lead to confusion in decision-making. The importance of using and promoting the correct and practical ways of providing information becomes essential. However, for institutional change in promoting using evidence, behavioral change mechanisms should not be ignored. Participants mentioned that technological trends could also affect the quality of evidence produced by changing the learning processes and improving teaching skills quality. By helping policymakers in decision-making, they can gain their trust to rely more on evidence.

2.3 | Environmental trends

According to many interviewees, environmental trends have the least impact on EIHP due to their long-term effects. It seems that even the effect of these trends on increasing knowledge production cannot be influential due to their deep reflection. According to some experts, the assessment of the effects of environmental trends (and, in general, environmental considerations) has not been deeply implemented in the processes of projecting, decision-making, planning, and management of the country (at all levels from macro to micro), and meanwhile, policymakers need to make appropriate decisions using the appropriate evidence to reduce the ineffective effects of these trends, especially in the field of health.

2.4 | Economic trends

Despite the emphasis of many interviewees on the impact of economic trends on informed decision-making, some interviewees also believed that policymakers encounter economic trends does not mean stepping into all economic trends. Most health policymakers' interests are toward presenting reports, analyzing performances, expressing the success of programs based on economic data, and the extent to which the cost-effectiveness and efficiency are considered in the implementation of programs. According to some interviewees, the group of economic trends that are more threatening, such as lack of financial

TABLE 1 Identified trends affecting EIHP in Iran and their effects

Category	Trend title	Trend outcome	The effects of trend outcome on evidence-informed policymaking
Social	- Change in the pattern of disease burden - Increasing the level of education and more access to information resources - Increasing social problems - Reducing social capital - Increasing consumerism - Increasing marginalization - Increasing unhealthy eating habits - Decreasing mobility and physical activity - Aging population - Increasing demand for the use of good quality health services by the public - Increasing tendency to use luxury health services	- Pressure on the policymaker to put social issues in the policymaking agenda - Changes in the characteristics of policymakers - More demands for postgraduate educations - More requests for better health services - Reviewing the country medical education system	- The need to produce indigenous evidence centered on social issues - The importance of providing desirable qualitative evidence at the right time - Attention to the greater participation of the various interest groups in the health policymaking process - The need to improve the evidence-informed policymaking skills of health policymakers - The increased production capacity of research evidence - The need to provide the necessary training to conduct applied research
Technological	- Increasing use of modern and advanced technologies in the health system - Growth of science and technology globally - Increasing foreign purchasing and transferring technology - Increasing use of emerging educational technologies - Increasing expansion of Information Technology scope in the health system - The rapid development of medical technologies - Increasing productivity concerning international standards and reducing the costs of using technology - The increasing trend of attention to use evidence in health	- The quantitative and rapid growth of data produced/mass production of evidence - Ease of access to a variety of data and evidence - Different quality and sometimes the lack of quality of evidence available - The change and evolution of educational processes - The change in evidence collecting, sharing, and producing mechanisms	- The need to acquire the skills for critical evaluation of evidence and the correct method for using reliable evidence - A policymaker's commitment to more use of evidence for accountability purposes - Setting rules and regulations for producing and using evidence - The need to equip policymakers with evidence presentation tools - Increased production of higher quality evidence
Economic	- Development of privatization - Targeted subsidies - Globalization - Contribution of science and technology to the production of goods or services - Budget constraints in the health sector - Increasing consumption of energy in the world - Economic growth in developing countries - The increasing cost of health care - Imposing economic sanctions on Iran	- The need to pay attention to the correct use of resources and to control the costs - The use of the power of the private sector - Increased competition - Change in the direction of the country's economy (from the oil-dependent economy to the knowledge-based economy) - The faster and more tangible impact of economic trends	- The need to produce scientific and acceptable evidence supported by economic figures and data - Persuasion and obligation to use economic evidence - The increased production capacity of research evidence - The transformation of production and the use of evidence into a competitive advantage - Prioritization of economic evidence
Environmental	- Increasing environmental pollutions - Global warming - Uncontrolled utilization of natural resources and reduced quality of water and soil - The expansion of green technologies - The increasing number of diseases caused by environmental pollution - Increasing hazards to the human environment	- The slower and more subtle impact of environmental trends	- The need to sensitize policymakers to generate evidence related to environmental trends actively - The necessity of longer-term planning for the production of evidence related to environmental trends

(Continues)

TABLE 1 (Continued)

Category	Trend title	Trend outcome	The effects of trend outcome on evidence-informed policymaking
Political	- The continuity of political tensions - Peoples politicism - Anti-Iran approach of some world powers - Lack of philosophy and appropriate view on health and its various dimensions among the country political parties and organizations - Making the government smaller - Reducing powers of monopolies and increased control of decision-making networks	- Increased political tensions - Increased self-confidence of Iranian society - Increasing the degree of authority delegation from the center to surroundings - Increased decision-making networks - The increased inclination of policymakers to use political power and interests and negotiations instead of evidence	- The necessity of paying attention to the production of indigenous evidence - The need to produce scientific and acceptable evidence to fulfill the regulatory role of the government - The need for training and development of skills of producing and using evidence in environmental decision-makers

resources and cost pressures, will increase the public's demand for more efficient use of resources. Based on this, health policymakers should be able to come up with the best methods to spend resources better and respond to society's demands by making the right decision. It means that economic trends will increase the need for the production of economic evidence and encourage policymakers to use them. From the point of participants' views, the impact of reinforcing economic trends, such as economic growth and increased privatization, is substantially due to the creation of more capacity for knowledge production and the provision of more access to use evidence. Economic trends will also change the country's economy from an oil-dependent economy to a knowledge-based economy. It will strengthen the position of knowledge and scientific evidence and provide the basis for the production and proper use of evidence. According to some interviewees, the need to produce more economic evidence, the need to assess credible evidence among the piles of evidence produced, the need to produce wealth-creating evidence, and build the capacity for using evidence to increase the national income are future challenges influenced by economic trends.

2.5 | Political trends

Some interviewees believed that policymakers in any country's health system, due to the political nature of policymaking, are forced to face political trends, and they need to confront these trends actively. The conditions and political environment of the country's public policymaking, attention to the nature of evidence, and the classification of evidence according to their use are some of the crucial issues to be considered. According to some of the experts participating in the study, these trends' main impact will be more toward moving away from EIHP. So that, the political crises and tensions in the region and the domestic layout and political situation of the country, instead of being an incentive to use evidence, still guide the policies toward utilization of personal tastes or the use of evidence for their purposes. Existing mistrust can also exacerbate this issue and undermine the proper use of evidence. In other respects, some political trends, such as decentralization, can exacerbate the need for evidence to make better decisions by encouraging the delegation of authority, increasing the number of decision-making centers, and decision-maker and decision-making networks. However, they can affect the type and nature of evidence, depending on decision-making objectives (planning or monitoring).

3 | DISCUSSION

This study aimed to determine the prominent trends that are likely to affect EIHP in Iran and identify the main challenges or opportunities for EIHP that Iran will face. Our study's findings showed that all of the social, technological, and economic trends have the most effects on EIHP and may create more challenges or some opportunities for the use of evidence in the health policymaking. They will increase the need to produce more evidence on social and economic health issues, as mentioned by some previous studies.[7,8] Iran has made significant development in medical science and research development in recent years compared to other similar contexts.[9] Nonetheless, it seems that studies aimed at examining social and economic issues in health and providing trustworthy evidence for policymaking purposes in these issues are not sufficient.[10] Therefore, more studies aimed at producing evidence of social and economic health issues will be needed, calling for more capacity building in EIHP.[11]

The technological trends, however, have a different effect on EIHP. These trends will facilitate more access to evidence and big-data. As has been mentioned by Nabyonga-Orem and colleagues, these changes highlight the role of using evidence in the policy process.[12] More access to evidence and data will provide more opportunities to recognize problems and potential solutions for health policymakers.[13] In this era, it is crucial to prepare policymakers with the skills and capabilities to retrieve, appraise, and use the evidence and data. The public also has more access to data and evidence. Thus, more transparency and accountability mechanisms are recommended to establish.

Our results also highlighted that political trends might affect EIHP, but less than other trends. Some previous works showed that political context, including political stability, an open to change the political environment, the credibility of concerned government officials, political involvement in research, presence of a policy momentum, and availability of policy window facilitate or hinder the knowledge translation in health policymaking.[14–15] Given the political context of Iran, we expected more effects of political trends on EIHP. It seems that more investigations are required to understand why the political trends have fewer effects on EIHP.

Given the main trends affecting EIHP, three possible challenges were identified. The growing need for high-quality local evidence and their availability for policymakers were considered barriers to EIHP. These are in line with other studies. Lavis and coauthors found that unlike clinical practice, there is not enough evidence about many critical questions related to the health system, or if there is any, they often suffer from low research quality. Also, all of the research options as a solution to health system issues are not equally effective in all contexts. The local applicability of research should be assessed.[16] Furthermore, as Rashidian mentions, the evidence is not available on time in many cases. They are not provided in a formal language to the policymaker, or the policymaker is not informed of them.[17] A prominent example of the last issue is when the evidence is obtained from a PhD thesis that lacks visibility and political interest.[13]

The participation of stakeholders was another barrier to EIHP. At the same time, Oliver and colleagues in their systematic review indicated that the relationship and collaboration between researchers and policymakers and high availability, validity, and reliability of evidence are essential facilitators of using evidence in policymaking. Also, this study added low reliability and availability of research as the main barriers to using evidence by policymakers.[18]

Findings of the study showed that capacity building for using evidence in health policymaking was another challenge. Similarly, Shroffs and colleagues found that building institutional capacity in health policy and systems research can positively affect EIHP.[19] The need for training workshops about evidence-informed policymaking was considered an opportunity in the current study. According to Uneke and coauthors, training workshops that focus on political and environmental aspects of EIHP are a principal tool for strengthening the relationship between researchers and policymakers.[20]

While most studies focused on identifying a trend that may affect the health problem issues, in this study, we identified the trends that might affect EIHP. The most important strength of the study is predicting emerging issues or challenges of EIHP. These challenges were recognized through the view of different perspectives. Nevertheless, we could not investigate the public view. That is the weakness of our study. We also did not have enough time to develop suitable scenarios for future challenges.

The policymaking process is usually a reaction to cope with the current health challenges, particularly in low and middle-income countries. Looking at the current situation is not enough to tackle future health problems. So, there are high public expectations that policymakers should set wise steps in a forward-looking manner to develop smart policies for the future. Our study's findings showed that social, technological, and economic trends might affect EIHP and cause some challenges. More evidence will be needed to address public health problems. Therefore, it is recommended to improve the multidisciplinary approach that considers different perspectives to address health problems. Moreover, there will be more access to data and evidence. It shows the need to pay more attention to capacity building for EIHP. A topic that is recently emphasized at both the global and regional levels. Improving the skills and capabilities of finding, appraising, and synthesizing evidence is also suggested for different stakeholders. It will enable them to make more evidence-informed decisions.

CONFLICT OF INTEREST

The authors declare no conflict of interest.

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REFERENCES

1. World Health Organization. EVIPNet in action: 10 years, 10 stories. World Health Organization, 2016.

2. Cairney P, Oliver K, Wellstead A. To bridge the divide between evidence and policy: reduce ambiguity as much as uncertainty. *Public Admin Rev*. 2016;76(3): 399-402. https://onlinelibrary.wiley.com/doi/abs/10.1111/puar.12555
3. Imani-Nasab MH, Seyedin H, Yazdizadeh B, Majdzadeh R. A qualitative assessment of the evidence utilization for health policy-making on the basis of SUPPORT tools in a developing country. *Int J Health Policy Manage*. 2017;6(8): 457-465.
4. Yazdizadeh B, Sajadi HS, Mohtasham F, et al. Systematic review and policy dialogue to determine challenges in evidence-informed health policy-making: findings of the SASHA study. *Health Res Policy Sys*. 2021;19:73.
5. Golkar MH, Ghazinoory SS, Saghafi F, Eivazi M-R, Poursheikhali A, Dehnavieh R. Appropriate types of futures studies scenarios in health. *Med J Islam Repub Iran*. 2017;31:82.
6. Sajadi HS, Majdzadeh R, Yazdizadeh B, et al. A roadmap for strengthening evidence-informed health policymaking in Iran: protocol for a research programme. *Health Res Policy Syst*. 2019;17(1); 50.
7. Gortmaker SL, Swinburn BA, Levy D, et al. Changing the future of obesity: science, policy, and action. *Lancet (Lond, Engl)*. 2011;378(9793); 838-847.
8. Waqa G, Bell C, Snowdon W, Moodie M. Factors affecting evidence-use in food policymaking processes in health and agriculture in Fiji. *BMC Public Health*. 2017;17(1); 51.
9. Akhondzadeh S, Ebadifar A, Eftekhari MB, Falahat F. Medical science and research in Iran. *Arch Iran Med*. 2017;20(11); 665.
10. Yazdizadeh B, Parsaeian M, Majdzadeh R, Nikooee S. Impact of health research systems on under-5 mortality rate: a trend analysis. *Int J Health Pol Manage*. 2017;6(7); 395.
11. Haq Z, Hafeez A, Zafar S, Ghaffar A. Dynamics of evidence-informed health policy making in Pakistan. *Health Pol Plan*. 2017;32(10); 1449-1456.
12. Nabyonga-Orem J, Ssengooba F, Macq J, Criel B. Malaria treatment policy change in Uganda: what role did evidence play? *Mal J*. 2014;13:345.
13. van de Goor IVD, Hamalainen RM, Syed A, et al. Determinants of evidence use in public health policy making: Results from a study across six EU countries. *Health Pol (Amster, Netherl)*. 2017;121(3); 273-281. https://pubmed.ncbi.nlm.nih.gov/28139253/
14. Liverani M, Hawkins B, Parkhurst JO. Political and institutional influences on the use of evidence in public health policy: a systematic review. *PLoS One*. 2013;8(10); e77404.
15. El-Jardali F, Ataya N, Jamal D, Jaafar M. A multi-faceted approach to promote knowledge translation platforms in eastern Mediterranean countries: climate for evidence-informed policy. *Health Res Pol Syst*. 2012;10:15.
16. Lavis JN, Posada FB, Haines A, Osei E. Use of research to inform public policymaking. *Lancet*. 2004;364(9445); 1615-1621.
17. Rashidian A. Policymaking challenges, and the need for introducing formal structures for evidence informed decision making in the health system. *Hakim Health Sys Res*. 2014;16(3); 258-261.
18. Oliver K, Innvar S, Lorenc T, Woodman J, Thomas J. A systematic review of barriers to and facilitators of the use of evidence by policymakers. *BMC Health Serv Res*. 2014;14:2.
19. Shroff ZC, Javadi D, Gilson L, Kang R, Ghaffar A. Institutional capacity to generate and use evidence in LMICs: current state and opportunities for HPSR. *Health Res Pol Syst*. 2017;15(1); 94.
20. Uneke CJ, Sombie I, Keita N, Lokossou V, Johnson E, Ongolo-Zogo P. An assessment of policymakers' engagement initiatives to promote evidence informed health policy making in Nigeria. *Pan Afr Med J*. 2017;27:57.