

# Barriers and challenges of establishing family physician policy for urban population; evidence from a qualitative study in Iran

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## Keywords

Family physician • Health care reform • Conflict of interest • Referral system • Payment system • Iran • Health policy

## Summary

**Background.** Family physicians play a crucial role in healthcare delivery systems worldwide. In Iran, the family physician program has been introduced in only two provinces, with its expansion to other regions currently stalled due to various challenges. This study aims to identify the barriers and challenges hindering the effective implementation of the family physician program in urban areas of Iran.

**Methods.** This qualitative study utilized purposeful sampling to select health system policymakers, senior administrators, and physicians as participants. Data were collected through semi-structured interviews with 32 participants until saturation was reached. The data were analyzed using grounded theory, involving open, axial, and selective coding to identify key themes and sub-themes.

**Results.** The primary challenge in implementing the urban family physician program was conflicting interests among stakeholders, identified as the core category. Key contributing factors included payment mechanism complexities, stewardship, structural issues, financial constraints, and cultural elements. Specialist physicians, in particular, resisted the program's implementation, often employing reverse referral as a coping strategy. These challenges collectively hindered the nationwide rollout of the program.

**Conclusions.** Addressing the barriers to implementing urban family physician policies requires a comprehensive reassessment of stakeholder roles and a restructuring of the payment system. Additionally, proactive efforts to resolve the complex contextual challenges within the healthcare system are essential for the successful implementation of these policies.

## Introduction

The family physician program stands as a globally recognized cornerstone of healthcare systems [1]. The World Health Organization (WHO) has emphasized the pivotal role of implementing the family physician program as a strategic imperative to enhance healthcare service quality, foster equitable healthcare distribution, and curtail costs [2]. Therefore, family physicians bear the responsibility of furnishing comprehensive and high-quality healthcare services to safeguard and enhance individual, familial, and communal well-being [3]. Moreover, evidential discourse underscores the indispensability of this program in realizing universal health coverage (UHC) [4, 5]. As a result more than 100 nations are affiliated with the World Organization of Family Doctors (WONCA) and have embraced this paradigm. In these countries, the family physician program, open to all citizens, is delineated, and family physicians fulfil the role of gatekeepers within the healthcare framework [6].

Considering the absolute benefits of family physician programs, most nations would be motivated to establish such initiative. Nevertheless, the rollout of the family physician program has been a tapestry of accomplishments and trials. Manca et al. underscored in the Canadian context the pivotal attributes of comprehensive care, preventive care, and care continuity engendered by this program [7]. Meanwhile, Scler's study spotlighted the United States, where issues in payment systems and conflicts of interest with insurers, alongside disparate care quality and coverage among payer entities, emerged as primary program challenges [8]. In other studies, the most important challenges of the family physician program were weak governance, financing and payment system problems, weak referral system and cultural considerations [9, 10].

### *Family physician program in Iran*

In the Iranian context, after a comprehensive analysis of diverse healthcare systems and a nuanced assessment of

the Canadian and British family physician models, the Ministry of Health and Medical Education (MoHME) inaugurated a family physician program tailored for rural regions in 2005 [11]. Subsequently, efforts were directed toward extending this program to urban areas, with Fars and Mazandaran provinces serving as pilot zones since 2012. However, despite a decade's passage, this initiative remains confined to a mere two out of the nation's 31 provinces, a trajectory that fails to exhibit nationwide proliferation [12]. Owing to the relative novelty of this program within the country, empirical inquiry delving into the predicaments and challenges of the urban family physician program (UFPP) has been scant. Behzadifar et al. uncovered persisting obstacles to the realization of the family physician program's positive health impact, necessitating targeted measures to surmount these impediments. Iranian health decision-makers and policy architects are compelled to confront these challenges head-on, harnessing all available capacities to surmount them [13]. Mehrolihassani et al. have investigated the challenges of implementing the urban family physician program in Iran. The study's findings revealed that the most significant challenge in UFPP was the international pressure and rush to implement the program without prior infrastructure preparation. Also, the budget limitations and diversity of insurance organizations and their interactions with the health system have been among the most important challenges in implementing the program [14]. In this study, the challenges and obstacles of urban family physician implementation have been updated and the relationship between the factors has been investigated in a deeper way using the grounded theory method. A new approach has been used to investigate obstacles and challenges and categorize them into two causal and contextual categories. Strategic recommendations for policymakers and managers in Iran and similar contexts have been presented lastly.

## Methods

### STUDY DESIGN

This research adopts a qualitative approach to delve into the intricacies of challenges and issues pertaining to the UFPP in Iran.

### SETTING AND SAMPLING

The study was conducted within the premises of the MoHME in Tehran, as well as Fars and Mazandaran Universities of Medical Sciences, two provinces each hosted the UFPP. The provincial healthcare network encompassed both public and private hospitals, community health centers, and health insurance organizations. The participants for this study were meticulously selected through purposive sampling. This encompassed individuals possessing expertise or research experience in the domain of family physician practice, seasoned senior managers with a minimum of five years in policymaking and family physician program implementation, as well as urban family physicians.

Additionally, a snowball sampling technique was incorporated, originating from the initial interviewees, to identify potential further participants. This recruitment process persisted until data saturation was reached, culminating in 32 interviewees (Tab. I.). The interviews were conducted in person, with the lead author venturing to Fars, Mazandaran, and Tehran provinces.

### DATA COLLECTION

A topic guide, meticulously shaped by the literature review and the insights of the research team, underpinned the data collection process. This guide encompassed overarching inquiries touching upon executive hurdles of the UFPP, training and evaluation, referral systems, electronic health records, financing, and payment systems. The interview sessions were scheduled at times and locations catering to the participants' preferences. Each interview was embarked upon with a preamble outlining the study objectives and ensuring the confidentiality of responses. Upon agreement, informed consent forms were obtained. With participants' consensus, the interview sessions were recorded. Moreover, during these interviews, detailed notes were compiled to facilitate probing questions and recap the session's main takeaways, aligning with the principle of "member checking" [14]. On average, each interview spanned about an hour. In instances where face-to-face interviews were unfeasible, telephone interviews were conducted with three participants.

### DATA ANALYSIS

The initial two interviews and preliminary analyses were a collaborative effort of researchers RM and AA. After aligning on the interview methodology and coding procedures, RM and AA continued with the subsequent interviews. The data analysis was anchored in the grounded theory approach, serving to unearth the axial and causal relationships between the study's thematic components. RM, RS and SA transcribed the interviews verbatim. Following a comprehensive review of the transcripts, the researchers established open codes, subsequently progressing to axial codes in accordance with Strauss and Corbin's framework [15]. Thereafter, selective coding was enacted, culminating in the identification of the core category by discerning logical and causal interconnections among themes and sub-themes. The entire coding process and the delineation of relationships were subject to collective scrutiny and endorsement by all authors. The initial manuscript framework was constructed by RM and AA, and subsequently refined under the aegis of RS, SA and MB. All authors reviewed and edited the manuscript and approved the final version of the manuscript.

### ETHICAL ISSUES/STATEMENT

This study was part of a PhD thesis supported by the School of Health Management, Iran University of Medical Sciences, Iran (IUMS/SHIMS-97-4-37-13765) and received ethical sanction from the National Institute for Ethics in Biomedical Research (Ethics Code: IR.IUMS.REC.1397.920). Key ethical principles

Tab. I. Characteristics of the study participants.

No	Position	Organization	City	Experience Years
1	Policy maker	MoHME	Tehran	28
2	Executive assistant to the deputy for curative affairs	University of Medical Sciences	Shiraz	22
3	Executive assistant to the deputy for curative affairs	University of Medical Sciences	Mazandaran	28
4	Executive director of the deputy for public health	University of Medical Sciences	Shiraz	14
5	Executive director of the deputy for public health	University of Medical Sciences	Mazandaran	19
6	Senior director of the health insurance organization	University of Medical Sciences	Shiraz	26
7	Senior director of the health insurance organization	University of Medical Sciences	Mazandaran	20
8	Senior manager of the family physician program	University of Medical Sciences	Mazandaran	16
9	Executive assistant of the district health networks	the district health networks	Shiraz	20
10	Senior director of the Social Security Insurance Organization	University of Medical Sciences	Sari	19
11	Senior manager the family physician program of the Social Security Insurance Organization	Social Security Organization	Shiraz	20
12	Policy maker	MoHME	Tehran	27
13	Professor of public health department	MoHME	Tehran	22
14	Senior manager	National institute for health research	Tehran	28
15	Associate professor of medical department	University of Medical Sciences	Tehran	12
16	Researcher	Islamic Parliament Research Center of the Islamic Republic of Iran	Tehran	5
17	Director of family physician program	MoHME	Tehran	18
18	Manager of the district health networks	University of Medical Sciences	Shiraz	11
19	Specialist physician in the private sector	University of Medical Sciences	Shiraz	25
20	Specialist physician in the private sector	University of Medical Sciences	Mazandaran	15
21	Specialist physician in private sector	University of Medical Sciences	Shiraz	18
22	Specialist physician in public sector	University of Medical Sciences	Mazandaran	22
23	Specialist physician in public sector	University of Medical Sciences	Shiraz	21
24	Family physician in private sector	University of Medical Sciences	Mazandaran	16
25	Family physician in private sector	University of Medical Sciences	Shiraz	17
26	Family physician in private sector	University of Medical Sciences	Mazandaran	20
27	Family physician in private sector	University of Medical Sciences	Shiraz	17
28	Family physician in public sector	University of Medical Sciences	Mazandaran	19
29	Family physician in public sector	University of Medical Sciences	Shiraz	27
30	Family physician in public sector	University of Medical Sciences	Mazandaran	17
31	Family health expert in private sector	University of Medical Sciences	Shiraz	18
32	Family health expert in public sector	University of Medical Sciences	Mazandaran	5

including obtaining informed and voluntary consent, confidentiality of information shared, anonymity of research participants and beneficence were considered.

## Results

The participants boasted an average professional tenure of 15 years, all marked by a minimum of five years' engagement in policymaking, program implementation, research, and field work within the family physician domain (Tab. I).

In the initial stage of coding, a total of 1679 open-source codes surfaced. Subsequent scrutiny, involving a comparative analysis and the integration of analogous codes, yielded a refined set of 483 codes – those directly aligned with the research question. These distilled codes were further grouped into categories, which in turn amalgamated to forge sub-themes. This hierarchical

structuring culminated in the establishment of broader thematic clusters. Four cardinal themes emerged and their interrelation is illustrated in Figure 1.

Central to the emergent theory, Conflict of Interest (COI), emerged as the fulcrum around which the study's narrative revolved. This core category profoundly underscored its status as the principal impediment obstructing the nationwide rollout of the UFPP. Concomitantly, the referral and payment systems, designated as the "causal factors", significantly contributed to fomenting COI. Simultaneously, the study unveiled the pertinence of "Contextual factors" within the healthcare ecosystem, namely stewardship, structural dynamics, financial dynamics, and cultural elements, all exerting their influence in challenging the execution of reform initiatives like the UFPP.

The participants' perspectives highlighted specific strategies adopted by stakeholders to address UFPP issues and mitigate COI. These strategies encompassed

lobbying and a concept termed “reverse referral,” collectively christened as coping strategies. Each theme is elucidated as follows:

**THEME 1 (CORE CATEGORY):  
CONFLICT OF INTEREST**

The insights gleaned from the interview data unequivocally underscored how COI cast a substantial pall over the comprehensive and nation-level deployment of the UFPP. The participants’ narratives illuminated that the lack of cohesive stewardship and the incongruence in the objectives of two pivotal ministries, the Ministry of Health and Medical Education and the Ministry of Cooperatives, Labor and Social Welfare (MoCLSW), intensified the COI predicament. The MoHME, entrusted with the mantle of UFPP execution, was handicapped by a dearth of authoritative clout to orchestrate the actions of other stakeholders.

*“An underlying challenge in implementing the UFPP is the existence of conflicting interests due to the presence of two ministries with differing orientations. By ignoring the stewardship of the MoHME, the MoCLSW created problems in the implementation process of the program and implemented parallel programs such as the pilot project of “Amin’s physician” in Gilan in 2013.” (Participant 14).*

A substantial hurdle lay in the dominant role of physicians within Iran’s healthcare fabric. Their potent positions held within the system were paradoxically antagonistic to the UFPP’s implementation, potentially curbing the excessive delivery of specialized care a practice sustained by a fee-for-service (FFS) model. Simultaneously, the dual roles donned by physicians as both policymakers and implementers, straddling the public and private spheres, exacerbated COI concerns.

*“The intersection of physicians’ roles as policymakers within the MoHME and the Supreme Council for Health Insurance, coupled with their legislative positions within the parliament, manifests overt conflicts of interest.” (Participant 12).*

**THEME 2: CASUAL FACTOR; FEE-FOR-SERVICE PAYMENT SYSTEM**

This theme includes the triggering factor for the COI. The healthcare system in Iran is dominated by the FFS payment

mechanism especially at the secondary and tertiary health care. Hence healthcare properties such as hospitals are paid per service they provide. Even public hospitals, besides the budget paid by government, charge per service they provide, payable jointly by patients and the insurance organizations/companies. The FFS mechanism applies to the individual payment level as well; physicians who work in the public hospitals or clinics also receive the main part of their revenue through fee-for-service mechanism. Private sector hospitals and clinics are fully paid based on FFS. Even pharmacies which are generally private, are paid through the amount of medication they sell to patients. Hence by establishing UFPP, with its inherent role of gatekeeping, the referral of patients to the secondary and tertiary level is regulated and this can affect the earnings at both the property and individual levels.

*“The intrinsic nature of the referral system inherently breeds a conflict of interest, as it limits inadequate referrals and induced demands.” (Participant 20).*

*“Our prevalent FFS payment mechanism inherently generates this Conflict of Interest. The more patients a doctor attends to within the FFS system, the greater their earnings.” (Participants 18, 19).*

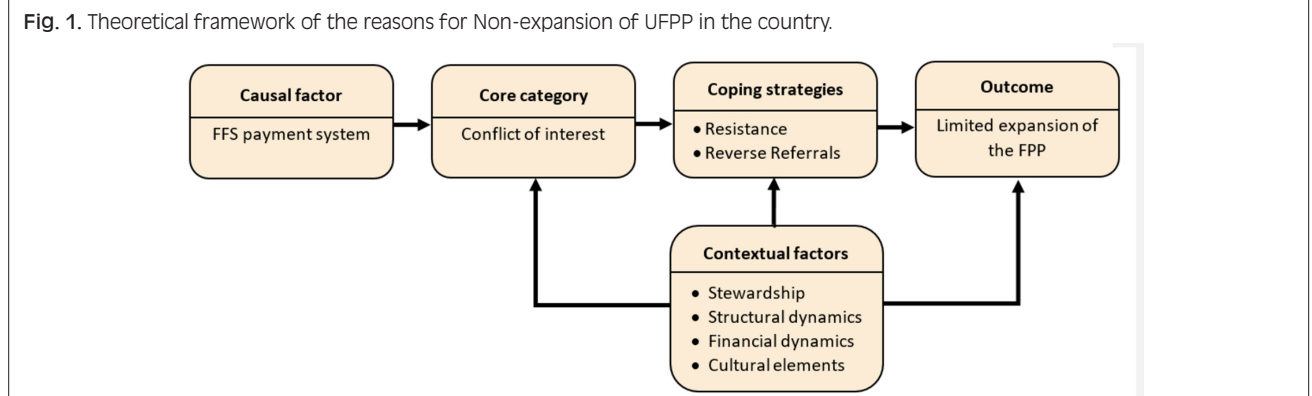
**THEME 3: CONTEXTUAL FACTORS**

It was recognized that COI not only manifested but also grew within the landscape of Iran’s healthcare system. Vital contextual factors encompassing stewardship, structural dynamics, financial considerations, and cultural facets emerged as pivotal determinants impacting UFPP implementation.

*Stewardship*

Stewardship, a foundational pillar of any healthcare system, exerts a direct influence on other core functions, namely resource provisioning and service delivery. Within Iran’s healthcare ecosystem, the lack of evidence-informed policy crafting, a top-down decision-making paradigm, paucity of stakeholder participation in policy formulation, lack of transparency and accountability, and managerial instability collectively contribute to policy faltering.

*“Our policy-making oftentimes overlooks historical experiences and fails to engage key stakeholders in UFPP formulation... For the UFPP one day the president*



asked the [ MoHME] minister to establish it within one year, and one year later the minister formally opened the UFPP in Shiraz while no negotiation had been made with the key stakeholders like specialist doctors, general doctors, insurance organizations and companies, pharmacies and drug industries, etc. Even people were not aware of such program and the program was not promoted in public” (Participants 11, 15).

#### Structural dynamics

The bedrock for policy implementation rests in the establishment of requisite structural foundations. Within Iran’s healthcare landscape, deficits in human resources, particularly a scarcity of General Practitioners (GPs) and specialists – a pivotal prerequisite for UFPP execution – loom large. Moreover, inadequacies in healthcare network development, a lack of interconnectivity between primary, secondary, and tertiary tiers of healthcare delivery, a frail primary healthcare infrastructure, and dearth of electronic health records and clinical guidelines surfaced as recurrent concerns.

“Our electronic infrastructure remains ill-equipped for the UFPP and referral system implementation; we have various electronic features within our healthcare system working unconnected and incompatible with each other ... and the absence of adequate family physicians compounds this deficiency.” (Participants 20, 27).

#### Financial dynamics

In the realm of financial considerations, uncertainty surrounding sustainable resources emerged as a foremost obstacle tarnishing UFPP implementation. The inefficiencies and inadequacies besetting insurance organizations, owing to a fragmented health insurance apparatus and an absence of fund pooling, exacerbated the situation. Furthermore, the convergence of UFPP implementation with prevailing political and economic sanctions in Iran cast further shadows on the program’s progress.

“Within 2-3 years post UFPP launch, allocated financial resources were slashed by half, diverted to non-UFPP endeavors... So since 2012 no minister at the MoHME would risk applying a nationwide UFPP. It would be a big risk for them endangering their credits” (Participants 4, 7).

#### Cultural elements

Foremost among the UFPP’s predicaments was the absence of adequate education and a suitable cultural milieu predating its rollout. The pervasive trend towards overspecialization in Iran exacerbated resistance towards prevention-focused initiatives.

“Our approach has sorely lacked culture-building. Patients used to take an appointment from a specialist doctor for a simple headache. Everyone likes bypassing GPs.” (Participants 12, 26).

### THEME 4: COPING STRATEGIES

The existence of COI, coupled with causal and contextual health system factors within the UFPP’s implementation,

elicited negative responses from stakeholders, termed “coping strategies,” targeted to shut down or game the UFPP, including lobbying and reverse referrals.

#### Resistance against UFPP implementation

Originally rooted in the endeavor to sway legislative votes, the concept of lobbying has permeated the UFPP landscape. Some stakeholders, through members of parliament, were engaged prior to, during, or following parliament’s decision-making sessions, in order to cancel or postpone the expansion of UFPP to the rest of the country.

“The UFPP targets the legitimate and illicit interests of numerous stakeholders; they impede the UFPP and safeguard their personal interests. The parliament has been influenced a lot by such stakeholders”. (Participant 12).

#### Reverse Referrals

A few years after implementation of the UFPP in Shiraz, due to huge resistance against the referral mechanism among specialist doctors and patients, the government allowed the UFPP run with optional referrals. Through such initiative patients can refer directly to specialist physician with no order from a family physician, while a referral through a family physician route would benefit the specialist doctors by a higher FFS payable by insurance organizations. This framework incentivizes specialists to redirect patients to family physicians for referral tickets, even if patients initiate contact directly with specialists. Such dysfunctional consequence increases the cost of running the UFPP.

“In the UFPP, substantial incentives lure specialists to refer patients back and forth, favouring the insidious phenomenon of ‘reverse referrals’. By such behaviour government and payers would incur a higher financial burden.” (Participant 4).

## Discussion

Efforts to enhance health system performance through policy interventions must inherently grapple with the intricate challenges of implementation [16]. Despite Iran’s accentuation on UFPP within its upper-tier health policies, the program’s nationwide deployment has been confined solely to the provinces of Fars and Mazandaran, with its broader realization quashed. The study’s core category underscores the pivotal role of COI as the fundamental obstacle impairing nationwide UFPP implementation. The COI originates from intricacies within the payment system. With FFS as the dominant payment mechanism, the family physician, acting as a gatekeeper within the referral system, curtails patient access to hospitals and specialists and such gauging role would affect volume of patients refer to the secondary level of care and so the earning at this level. For a better understanding of the potential effect of establishing UFPP on patients access to the secondary care and the resulted revenue for care providers we should remind that Iran’s urban population have not ever needed a referral order and they could access

specialist care in public and private sector. Furthermore, data on secondary care in Iran show a huge rate of inappropriate services, including inappropriate hospital admissions, inappropriate diagnostic services [17], and even inappropriate interventions, such as invasive procedures [18] that induced to patients [19], especially due to asymmetric information between patients and healthcare providers [20].

Hence introduction of a gatekeeping role could affect earnings in the secondary care level with a dominant FFS payment mechanism [21]. Hence, although FFS mechanisms for the secondary care may improve access to healthcare services [22], it can result in COI against preventive mechanisms and gatekeeping policies such as family physician programs. Current evidence is in consistent with this conclusion [23]. Alternatives such as reforming payment systems, amalgamating methodologies, and implementing pay-for-performance (P4P) initiatives can steer healthcare professionals' conduct [24, 25].

Besides the payment mechanism, the family physician program's tribulations unfold against the backdrop of contextual factors within the healthcare system, encompassing stewardship, structural, financial, and cultural complexities. The top-down implementation of healthcare policies has a long history in Iran's health system [26], and the UFPP was no exception to this rule. The implementation was ordered directly from Iran's president to the minister, with a strict deadline [27]. While this approach may prove effective for small-scale interventions [28], establishing a UFPP with substantial and influential stakeholders, including public and private sector physicians, hospitals, and pharmaceutical industries, would pose significant challenges [29]. The global experience around successful implementation of family physician programs also supports gradual and bottom-up or clear and agreed processes among the key stakeholders [30]. Stakeholder engagement, recognized as pivotal, should underpin policy development from formulation to evaluation, particularly as stakeholders hold the power to influence policy outcomes [31-33].

Lack of technical infrastructure such as electronic records, which is a chronic problem in Iran's health system [34] and shortage of trained family physicians [13] also were among structural barriers that halted to expansion of the UFPP. Evidence also suggests that without a comprehensive electronic medical record system and e-referrals, which interconnects all levels of care, family physician programmes will be challenged [35].

Iran's UFPP was also challenged by lack of financial support which is one of the essential pre-requisites of any family physician policy in the world [10].

Last but not the least, the government in Iran did not consider role of public and their culture in the implementation of the UFPP. The public's interest in specialized care and bypassing GPs which is a general trend in most Iranian urban population [36], as well as insurance companies' coverage even on non-referred consultations and procedures, meant that UFPP would face low adherence by people. Such resistance caused the MoHME step back from

compulsory referrals to optional referrals so that patients could bypass the GP if they preferred to do so. Political, social, and economic elements, alongside national and cross-sectoral determinants, exert substantial influence on referral system execution [37]. International experience over the establishment of family physicians also shows that government should work on cultural aspects of care and behaviour of people towards promotion of preventive care rather than treatment car [38, 39]. Cultivating trust in family physicians through robust education and media campaigns are essential strategies [40, 41]. Overall, as a result of different sources of conflicting interests, Iran's UFPP was challenged seriously, and various stakeholders showed their resistance against its establishment. The blurred border of public and private organizations in Iran's health system also reinforced the resistance against the establishment and expansion of the UFPP. Such resistance is caused by dual engagement of stakeholders, including specialized physicians, in the public and private sectors [42]. However, where the UFPP is established, such as the Fars Province, the policy was gamed through the "reverse referral" phenomenon which would increase the operational cost of UFPP and threaten the cost-effectiveness of the policy [43, 44].

## Conclusions

Successful implementation of preventive medicine policies, such as family physicians programs hinges on a comprehensive re-evaluation of mechanisms, particularly addressing the COI barrier via payment system reform. FFS payment systems in secondary care can cause COI against preventive initiatives and gatekeeping policies. Strengthening infrastructures, assuring financial resources, integrating stakeholder perspectives, and meticulous monitoring are paramount. Robust commitment from governmental and parliamentary bodies, alongside transparent regulations and stringent oversight, are prerequisites for successful reform implementation.

## Key messages

### 1. IMPLICATIONS FOR POLICY-MAKERS

Establishing preventive and gatekeeping policies such as family physician programs can trigger conflict of interests for those earn from healthcare market.

Fee-for-service payment mechanism for reimbursing secondary care within public sector can cause conflict of interest against preventive care policies.

Establishing family physician programs need a comprehensive understanding of the main stakeholders' interests and powers and conducting necessary negotiations with them.

### 2. IMPLICATIONS FOR PUBLIC

By conducting this study we tried to help policymakers for better establishment of health care reforms, especially preventive programs. Programs such as family physician,

when established without sufficient initiations and consideration of stakeholders, can cause resistance which will result in waste of resources for governments and the public. Governments and policymakers should define payment systems that are not contrary to the interests of those working in the health care system, including healthcare providers and the related industries such as pharmaceutical companies. People should be considered by policymakers when a policy is going to be established and their concerns should be addressed.

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## Data availability statement

Not applicable.

## Informed consent statement

Not applicable.

## Conflict of interest statement

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

## Authors' contributions

AA and RM: designed the study, RM, AA, MB, RS conceived the manuscript; AA, RM, MB, NA, SA drafted the manuscript; AA, RM, RS: revised the manuscript; AA, MB, MM performed a search of the literature; MB, MM critically revised the manuscript; conceptualization, and methodology; AA, RS, RM: investigation and data curation; AA, RM: original draft preparation; MM, MB: Final editing. All authors have read and approved the latest version of the paper for publication.

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