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The Challenges of Implementing the Family Physician Plan in Iran and Providing Solutions for Its Improvement: A Qualitative Study on Urban Family Physicians

Zahra Zare[1], Lili Ferdosipour[1*], Yousef Ahmadi[1]

[1] Department of Management, Si.C., Islamic Azad University, Sirjan, Iran

Abstract

Introduction: The family physician plan is a key health policy proposed in Iran over the past decade, emphasizing the vital role of health in societal development and welfare. Its importance necessitates a thorough study that focuses on the support systems, trends, and events affecting its implementation. This research aims to develop future scenarios for the urban family physician plan in Iran to inform policymaking better and enhance its effectiveness.

Methods: This 2024 qualitative study identified key challenges and drivers of the family physician plan through 18 interviews with experts, policymakers, and executives. Using an uncertainty approach, these drivers were mapped into a matrix to develop future scenarios.

Results: Based on content analysis of the interviews, challenges were categorized into 37 subcategories and 10 main categories, while solutions were organized into 51 subcategories and 12 main categories. After identifying the most critical solutions to address these challenges, a 2x2 matrix was created using an uncertainty-based approach, leading to four future scenarios for the family physician plan.

Conclusion: According to the views of this program's experts and policymakers, the most important solution to improve the quality and effectiveness of the family physician plan is to reform and strengthen the referral system and secure sustainable financing.

Keywords: Family physician, Policymaking, Health system

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***Correspondence to:**
Lili Ferdosipour,
Department of Management, Si.C., Islamic Azad University, Sirjan, Iran

Email:
liliFerdosipour@iau.ac.ir

Introduction

The Urban Family Physician Plan is one of the most important programs in the Iranian health system, which has been implemented as a pilot plan in Fars and Mazandaran provinces since 2012 to promote equitable access to health and medical services, reduce medical costs, and improve the quality of primary care in the country's cities (1). Despite these lofty goals, numerous evaluations conducted in recent years have shown that the Urban Family Physician Program faces numerous structural, organizational, financial, and cultural challenges that have affected its performance and sustainability (2).For example, the lack of specialized human resources, weaknesses in the electronic referral and registration system, inability to secure sustainable financial resources, and lack of full public participation in the program have been identified as major problems (1, 3). A study identified five factors—organization, financing, payment, regulation, and behavior—as barriers to urban family physicians (4).

Given the numerous challenges to implementing the urban family physician plan in Iran, it is necessary to adopt comprehensive solutions. The most important of these solutions is strengthening the referral system and improving the level of continuous training for human resources, thereby improving coordination across different levels of care and enhancing service quality (5). Also, the development of health information technology infrastructure, including the implementation of electronic health records, has been proposed as a key tool to improve data management, increase

transparency, and facilitate access to medical information, which plays an important role in improving the effectiveness of family physician services (6). In addition, securing sustainable financial resources and reforming payment models to focus on service performance and quality are essential strategies to ensure program sustainability (6, 7).

Continuous evaluation and review of implementation policies based on real data and evaluation results allow for the identification of programstrengths andweaknesses and, as a result, lead to timely corrections and improvements in service quality (8-10). Continuous evaluation and review of implementation policies based on real data and evaluation results allow for the identification of program strengths and weaknesses and, as a result, lead to timely corrections and improvements in service quality (5, 9). In the urban family physician plan, despite challenges such as limited financial resources, demographic changes, a shortage of skilled personnel, and fluctuations in health policy, accurately predicting the future is difficult without scenario writing. Numerous studies in health management show that developing future scenarios enables managers to revise their strategic plans and prevent potential failures by recognizing emerging opportunities and threats (11, 12). The strengths should encourage policymakers to support this program further and expand it to other provinces in Iran, while the weaknesses should be used to refine and improve it (13).

Although the Urban Family Physician Program in Iran has been implemented to promote equitable access to health services and improve the quality of primary care, there is still a lack of a comprehensive and consistent understanding of how the precise profile of factors affecting the sustainability and effectiveness of this program is determined. Specifically, in Iran, there is a need to determine which combination of organizational, financial, behavioral, and information technology barriers has the most significant impact on achieving the program's goals, and how this impact is influenced by the level of human resources (specialized workforce), referral structure, and electronic records.

Methods

This 2024 qualitative study identified key challenges and drivers of the family physician plan through 18 interviews with experts, policymakers, and executives. They were selected through purposive sampling, and after providing information about the study objectives, we conducted face-to-face or telephone interviews as desired. In this study, content analysis was used to analyze the data.

The data collection process included recording, fully transcribing the interviews, and repeated reading of the texts. Then, the data were analyzed based on the following steps:

Familiarization with the data: Repeated reading of the interview texts for a general understanding.

Initial coding: Extracting semantic units and assigning codes to key sentences or phrases.

Categorization: Grouping similar codes into categories and subcategories.

Extracting main themes: Identifying patterns and central concepts that expressed common or distinctive views of the elites.

To increase the credibility and validity of the findings, standard qualitative research methods were used, including member checks and continuous data comparison. Also, field notes and careful documentation of the analysis steps contributed to the transparency and reliability of the results.

The interviews were conducted at a time convenient for the participants and in a quiet location. To ensure uninterrupted recording of the interviewees' voices, two voice recorders were used to minimize any potential problems or disruptions. The interviewer took notes during the interviews, and after each interview, the transcript was transcribed and reviewed several times to gain a general understanding of its content. Data collection and analysis were conducted simultaneously. The texts were then carefully reviewed, and semantic units were extracted through content analysis. Open codes were formed, and we categorized them into subthemes. In the next step, the subthemes were interpreted to create the main themes. The interviews continued until the data were saturated and no new codes were extracted. Ultimately, the study concluded with 18 interviews, averaging 26 minutes per interview.

In this study, a semi-structured interview was used to collect data. Initially, a draft of 57 research questions was extracted by reviewing

the theoretical background and similar studies. To ensure content validity, these questions were provided to several university professors and relevant executive managers, and after receiving their feedback, they were revised and finally became 22 questions.

For example, 1- Are there alternative models for paying more efficient physicians? 2- How can the quality of services provided within the framework of the urban family physician plan be evaluated? 3- How can an appropriate culture be created for the acceptance of the family physician plan among the people?

The interviews were designed so that participants(18 experts, managers, andspecialists) first expressed their views freely. If the principal axes of the research (challenges and drivers) were not mentioned, the conversation was directed toward the study objectives through guiding questions (22 final questions). This combination of flexibility in questioning and guided structure ensured that the resulting data had both the necessary depth and comprehensiveness.

Visualizing the Final Result

Following the identification of the most salient solutions to address the challenges and to support the effective implementation of the urban family physician plan, we translated these insights into a structured futures framework. Specifically, we constructed a two-by-two (2x2) matrix to organize the key uncertainties that could influence the trajectory of the plan. The matrix was designed to illuminate alternative futures by contrasting two critical dimensions:

1. Public cultural acceptance of the family physician plan (high vs low), and

2. The effectiveness and sustainability of physician payment models (stable and efficient vs flawed and unsustainable).

These two dimensions were chosen for their centrality to both policy viability and frontline execution, as indicated by qualitative data from experts, policymakers, and executives. By plotting combinations of these uncertainties, we derived four distinct scenarios that sketch plausible pathways for the urban family physician program under conditions of uncertainty. Each scenario conveys (a) the anticipated policy and operational implications, (b) the strategic priorities for short- and mid-term action, and (c) the monitoring indicators that would signal which scenario is materializing. The scenario-based approach translates qualitative findings into concrete, policy-relevant planning tools, enabling policymakers and implementers to design robust, adaptive strategies that remain resilient across multiple possible futures.

Ethical Consideration

In this study, participants provided verbal informed consent. The Ethics Committee of Shiraz University of Medical Sciences also approved the study. (Code: IR.SUMS.MED.REC.1404.349).

Results

General Features

The average age of the participants was 52.5 years, and their average service experience was 24.7 years. The educational mix of the participants included 2 master's degrees, 1 doctorate in pharmacy, 7 general practitioners, 3 MPH degrees, 1 doctorate in health sciences, 1 internal medicine specialist, 1 social medicine specialist, 1 family medicine specialist, and 1 pediatric infectious disease specialist. The interviews began with a general question: "If you were the executive director of the Urban Family Physician Plan, what actions would you take?" When the answers did not address all predetermined questions, the researcher skillfully and in an interventional manner asked supplementary questions during the interview to ensure that all aspects of the challenges and solutions related to the implementation of the urban family physician plan were examined. The participants were all official personnel working in the Ministry of Health, Treatment, and Medical Education. The interviewees were coded 1-18. The findings of these interviews are presented in detail in the following tables and sections

Challenges of the Family Physician Plan

Table 1 presents the findings from a content analysis of 18 semi-structured interviews with policymakers, experts, and executives of the Urban Family Physician Plan in Iran, focusing on the plan's challenges. A total of 115 conceptual codes were extracted in this analysis. After refining, comparing, and combining, these codes were categorizedinto 37 subcategories. Thesubcategories were finally organized into 10 main categories based on conceptual and content commonalities.

Table 1: Challenges of the Urban Family Physician Plan

Category	Subcategory	Participant number
Human Resources Issues	Shortage of family physicians	2-7-18
	Shortage of health personnel	2-3-11-18
	Easy public access to specialists	3
	High workload	11-13
	Incomplete population coverage	11
Inadequate Infrastructure	Poor internet access	2-13
	Inefficiency of the arbitration committee in dispute resolution	11
	"sib" system problems	2-16-18-13
Deficiencies in the Education System	Insufficient training for physicians and healthcare caregivers	2-3-1
	Physicians' inability to provide all services	3
	Inefficient education system	4
Inappropriate Evaluation	Lack of qualitative evaluation	10-3
	Lack of accurate evaluation	7-18
	Shortage of supervisors	2
	Inappropriate behavior of evaluators	11
Financial Issues	Insufficient capitation fee for family physicians	17-6-5-18-2-1
	Conflict of interest between family physician and specialist	1
	Inappropriate current payment system	2-3-12-11-13-14-15-16
	Economic crisis	14-13-17-3-5
	Non-consolidation of insurance funds	18
	Transfer of the health budget to treatment	15
Treatment-oriented view instead of health-oriented	People's view is treatment-oriented	12
	Personnel's view is treatment-oriented	4
Vague Definition of the Program	Lack of consensus in the definition of a family physician	4-5-9-7
	Incorrect definition of family physician	8-18
	Difference in the meaning of family physician in the minds of officials	7
Mismanagement	Superficial and incomplete Implementation of the program	1-18-11-7-4
	Lack of a systemic approach	15-16
	Insufficient support from officials	16-13-10-5-3-2-9
	Creation of a hostile atmosphere and dissemination of incorrect data	6
	Non-appointment of officials based on competencies	7
Deficient Regulations	Lack of guideline revision	2-6-7-11-18
	Absence of a deterrent and a supporting law system	8-11-13-15
Deficient Regulations	Cumbersome administrative bureaucracy	13-14
	Mandatory selection of a family physician	3
Improper Implementation of the Referral System	Non-adherence to the referral system	2-7-3-18-14
	Incomplete implementation of the referral system	1-4-5-6-8-11

"sib": This is a Persian name for the information recording system in which family doctors enter health record information for the covered population.

This analytical structure reflects the breadth and depth of the challenges in implementing the Urban Family Physician Plan in Iran. It helps systematically understand the different dimensions of the problems at the policy, management, structural, and operational levels. In the following, each of these main categories is presented in detail, along with their conceptual subsets, examples of extracted codes, and references to interviewees' statements (Table 1).

Human resource issues: One of the challenges in implementing the urban family physician plan is the lack of family physicians and complementary health workers, direct access of the public to specialist physicians, high workload, and incomplete coverage of the population are among the main problems that affect the quality of services and performance of the health team. According to P9: "*Family medicine is a team consisting of midwives, family health, nutritionists, mental health experts, and physicians who work together to ensure the health of the public*".

Inadequate infrastructure: Another major challenge of the Family Physician Plan was identified, including poor internet access, the ineffectiveness of the arbitration committee in handling disputes, and technical problems with

the information registration system ("sib"). These issues, extracted from 8 codes and 3 subcategories, have disrupted the processes of providing services, registering information, and resolving disputes between institutions. P18: "*Time pressure and hasty start of the plan resulted in the failure to provide appropriate infrastructure*".

Deficiencies in the educational system: One of the serious obstacles to the effective implementation of the family physician plan was analyzed using 5 codes and 3 subcategories. Inadequate physician training, the inability to provide comprehensive services, and structural weaknesses in the medical education system for family physician training are among the most important axes of this challenge.

P4: "*The current family physician is based on physiology, anatomy, and biochemistry, while he should be knowledgeable in social sciences, management sciences, environmental issues, and interdisciplinary sciences*".

Inappropriate evaluation: One of the key challenges of the family physician plan is the lack of quality evaluation, low accuracy, insufficient supervision, and inappropriate treatment during the evaluation process. These challenges, identified using 6 codes and 4 subcategories, have reduced the effectiveness of evaluation and feedback. P 7: "*External evaluators should be used who are fully trained in this field and are not interested in it*".

Financial issues: One of the most pervasive and impactful challenges in implementing the urban family physician plan is identified with 28 analytical codes and 6 subcategories. Inadequate per capita payments to family physicians have led to dissatisfaction, reduced motivation, and a decline in service quality. Conflicts of interest between family physicians and specialist physicians, especially in the referral system, have hindered practical cooperation between service levels and led to unhealthy competition. The inappropriateness of the current payment system, which is mainly based on per capita payments and lacks qualitative incentive mechanisms, has led to physicians' and the health team's actual efforts not being adequately compensated. The country's general economic crisis and inflationary pressures have negatively impacted all aspects of the plan's implementation, from recruitment to resource provision. The lack of integration of insurance funds has led to multiple decision-making, unfair resource allocation, and parallel work. The transfer of budget from the health sector to treatment has weakened the prevention and care infrastructure and shifted the focus from health-centered to treatment-centered. These challenges directly affect the financial sustainability, equity in service delivery, and efficiency of the health system. Without a fundamental overhaul of resource procurement, allocation, and payment policies, the successful implementation of this plan will be in doubt. P4: "*If we do not have a sustainable financing system, I promise that we will fail unless the health system doubles its share of GDP*."

Treatment-oriented view rather than health-oriented: One of the fundamental obstacles to implementing the urban family doctor plan was identified using 2 codes and 2 subcategories. The treatment-oriented view of people has led them to focus more on treating diseases than on preventing and caring for them, placing double pressure on the treatment system and reducing the effectiveness of health programs. The treatment-oriented view of health system personnel has led medical staff to focus more on providing treatment services than on preventive measures and health education. This challenge requires a change in attitude to adopt a health-oriented, prevention-focused approach to achieve the plan's goals in a sustainable manner. P9: "*The goal of the family doctor is to transform the current treatment-oriented system into a health-oriented one*".

Ambiguous program definition: Another important obstacle to implementing the urban family physician plan is its definition, which was based on 7 codes and 3 subcategories. The lack of consensus among stakeholders on the definition of family physician has led to confusion about this role's goals and duties. The wrong definition of a family physician is sometimes considered limited and treatment-oriented rather than focused on comprehensive services. The difference in the meaning of the term 'family physician' in officials' minds has led to strategies not being implemented correctly. These challenges require clarifying definitions and aligning views at the decision-making and implementation levels to ensure the plan's efficiency and success. P7: "*Family physician in Iran has a different meaning in the language of each official and even has different forms in different countries*".

Mismanagement: Another obstacle to implementing the urban family physician plan is identified, based on 21 codes and 5 subcategories. The program is showy, primarily superficial, and promotional implementation neglects to deepen the implementation process. A lack of a systematic approach to managing the plan has led to the various components not operating in harmony. Insufficient support from officials, which includes paying little attention to financial issues, human resources, and infrastructure, has reduced employee motivation. Creating a hostile atmosphere and disseminating incorrect data among teams and managers has caused distrust and confusion among the plan executives. Failure to assign officials based on capabilities has led to management being delegated to individuals without regard for the necessary expertise and experience. These factors have led to inconsistent implementation of the plan and require a fundamental review of management policies. P1: "Senior managers of the health system should leave their offices and go to comprehensive health centers and see the implementation of the family physician program up close and make decisions to improve the program by listening to the voices of the people".

Incomplete laws: This is also a serious obstacle to implementing the urban family doctor plan, which was analyzed using 15 codes and 4 subcategories. The lack of timely, continuous review of guidelines has prevented laws and regulations from changing in line with current conditions and needs. The lack of a system to support the laws has led to violations and deficiencies in the implementation of the plan, leaving them unaccounted for. Complex and cumbersome bureaucracy has made implementation processes slow and difficult. The requirement to choose a family doctor has caused dissatisfaction and resistance among some segments of society and has limited the plan's flexibility. These challenges highlight the need to amend and update laws, create effective monitoring mechanisms, and increase public participation in choosing a family doctor. P 13: "Unfortunately, in some cases, circumventing the law and, for example, accessing a specialist before a visit by a family doctor is considered a privilege."

Incorrect implementation of the referral system: One of the significant obstacles to advancing the urban family physician plan was analyzed using 11 codes and 2 subcategories. Non-adherence to the referral system by some patients and even staff has increased the burden of direct referrals to higher levels of treatment. The incomplete implementation of the referral system, due to structural, educational, and managerial weaknesses, has reduced the plan's efficiency and effectiveness. These challenges indicate the need for training to improve processes and strengthen the referral system. P17: "*For those who follow the family physician and the referral system, the deductible should be reduced. This will increase adherence to the referral system"*.

Strategies to Improve the Implementation of the Family Doctor Plan

Table 2 presents the findings from the content analysis of 18 semi-structured interviews with policymakers, experts, and executives of the Urban Family Physician Plan in Iran, focusing on the solutions of the Urban Family Physician Plan. A total of 186 conceptual codes were extracted in this analysis. After refining, comparing, and combining these codes, they were categorized into 51 subcategories. The subcategories were finally organized into 12 main categories based on conceptual and content commonalities. Another column in Table 2 lists the number of interviewees who spoke about each category, and the last column lists the number of interviewees who mentioned each category. The findings show that the most important solution is a sustainable referral and financing system. This analytical structure captures the breadth of solutions for implementing the urban family physician plan in Iran. It contributes to a more systematic understanding of the different dimensions of these solutions across policy, management, structural, and operational levels. In the following, each primary category is presented in detail, along with its conceptual subsets, examples of extracted codes, and references to interviewees' statements.

Research is one of the strategies for advancing the urban family physician plan, which was analyzed using 4 codes and 4 subcategories. Conducting a detailed study before and after implementing the family physician plan, examining the health outcomes of the people covered by the plan, using research results in decision-making, and holding meetings and congresses on family physicians are among the

Table 2: Strategies to improve the implementation of the family physician plan

Category	Subcategory	Participant number	Number of participants
Research and Investigation	Reviewing health outcomes of the covered population	1	3
	Conducting a thorough study before implementation	18	
	Utilizing research results in decision-making	1	
	Holding meetings and congresses on the topic of family physicians	8	
Inter-sectoral Coordination	Involving all ministries	12-16-14-1	12
	Creating a national determination for program implementation	11-2-7-9	
	Forming a strategic headquarters with representatives from the three branches of 16 government	17-	
	Government support of the health system	17-4-3-9-16-2	
	Government support for the program	14-15-10-9-2-16	
Culture Building	Educating the public	10-11	11
	Providing a suitable showcase	3-7	
	Providing widespread awareness to the public	18-4	
	Continuously providing level-one services	11	
	Localizing the family physician model with the culture of the people	10-11	
	Conducting surveys of the public	3-7	
Sustainable Funding	Reforming the payment method	12-3-2-16-14-1-17	13
	Allocating sufficient per capita funding	18-17-3-10-1	
	Increasing the share of health from the gross domestic product	11-4-17-5-2	
	Specific financial fund	18-10-16-6	
	Offering financial incentives to attract physicians	6-12-17	
	Differentiating payment based on academic level	1	
Education and Empowerment	Family physicians as actors in the plan	4	11
	Defining a unified concept of family physician	18-8-7	
	Preparing and compiling training packages	8	
	Transforming the current treatment-oriented system into a health-oriented system	17-9-6	
	Providing continuous training for managers, physicians, and health workers	2-3-6-9-4-13	
	Fundamentally revising the educational system	1-4	
Technology	Using artificial intelligence	12-8-3	9
	Improving the “sib”* system	6-2-10-16	
	Smart health card	18	
	Internet infrastructure	2-6	
Using National and International Experiences	Learning from international models	12-10-8-7-6-2	8
	Using the experiences of the Fars and Mazandaran provinces	9-5-12-2	
Trust Building and Transparency	Public participation in decision-making	12-4	6
	Building public confidence in the capabilities of family physicians	13-9-7-1	
	Allocating sufficient time for the patient	13	
	Free selection of a family physician	9	
Performance Evaluation	Evaluating the quality of services	3-1	6
	Using evaluators from outside the organization	7	
	Virtual evaluation	11	
	Continuous monitoring and evaluation	18-10	
Amending Laws	Updating the family physician plan guidelines	13-10-2-14-8-17	9
	Using the opinions of executives in drafting laws	2-14	
	Creating laws with enforcement guarantees	11-15-6	
	Amending related laws in insurance organizations	8-17	
Human Resources	Strengthening the structure of the organization and human resources	4-7-9-10	9
	Arranging officials based on their capabilities	5-3-1	
Referral System	Reforming the referral system	5-3-1	14
	Adhering to the referral system	15-12-9-7-6-3-1	
	Creating an integrated electronic system	10-4	
	Understanding the concept of the referral system	18-13-8	

sib: This is a Persian name for the information recording system in which family doctors enter health record information for the covered population.

subcategories. Research is a fundamental strategy for addressing the challenges of the family physician plan because, by carefully examining existing problems, the system's weaknesses and strengths can be identified, and scientific, evidence-based solutions can be presented. P18: "*Very little research has been done on the family physician plan in Iran. First, some information should be collected about the number of physicians, followed by the number of trained physicians, the number of physicians who need to be trained, and other necessary items*".

Inter-sectoral coordination is another strategy for advancing the urban family physician plan, which was analyzed using 31 codes and 5 subcategories. Government support for the plan and creating national determination to implement the plan, forming a strategic headquarters with the presence of representatives of the branches, government support for the family physician plan, and involving all ministries in implementing the plan are subcategories that lead to inter-sectoral coordination and increasing the effectiveness of the plan, improving the quality of care and citizen satisfaction, and reducing administrative and structural obstacles. P10: "*The family physician strategic headquarters, which according to the directive should be formed at least once a year with the presence of representatives of all three branches, has not been formed in the past 13 years*".

Culture building is another strategy for advancing the urban family physician plan, which was analyzed using 18 codes and 6 subcategories. Localizing the family physician model through cultural alignment, widespread public awareness, community education, continuity in providing first-level services, opinion surveys of family physicians, and appropriate showcases are subcategories of culture-building plans that require changing the attitudes and behaviors of the community and service providers. P10: "*Accurate information should be provided throughout the country about the reason for implementing family physicians*".

Sustainable financing is one of the most important strategies for advancing the urban family physician plan, which was analyzed using 28 codes and 6 subcategories. Increasing the share of health in the gross national product, creating a specific financial fund, reforming the payment method, allocating sufficient per capita, providing financial incentives to attract doctors, and differentiating payments to doctors based on their academic level and type of performance are subcategories of sustainable financing, which are the main pillars of the successful implementation of the family physician plan. P18: "*Insurance funds should be consolidated before implementing the program"*.

Training and Empowerment is another strategy for advancing the urban family physician plan, which was analyzed using 19 codes and 6 subcategories. A fundamental review of the educational system, preparation and compilation of educational packages, family physicians in the role of actors, a single definition of family physicians, ongoing training of managers, physicians, and health care providers, and transforming the current treatment system into a health-centered one are subcategories of training and Empowerment that lead to technical and behavioral improvements for employees. P13: "*Empowerment is important, but it is less important for physicians and more important for health care providers. Sometimes health care providers are not aware of how much the recording of care can affect follow-ups*".

Technology is another solution to advancing the urban family physician plan, which was analyzed using 12 codes and 4 subcategories. Internet infrastructure, the use of artificial intelligence, smart health cards, and improvements to the "sib" system are among the subcategories of the technology solution that enable more accurate patient tracking, facilitate the referral system, and improve data management. P2: "*The efficiency of the 'sib' system should be increased in the areas of prescription writing, care registration, and reporting so that doctors do not have to resort to other systems and we have a comprehensive electronic system*".

Using national and international experiences is another strategy for advancing the urban family physician plan, which was analyzed using 11 codes and 2 subcategories. Learning from international models and using the experiences of Fars and Mazandaran provinces are two subcategories of using national and international experiences. The mechanisms for implementing the plan can be adjusted based on successful experiences. P 11: "*Family physicians will be successful by using the experiences of other countries, intelligently modeling and localizing the*

system with Iranian culture, and using sociologists, artists, philosophers, and clerics".

Trust-building and transparency are other strategies for advancing the urban family doctor plan, which was analyzed using 10 codes and 4 subcategories. Creating confidence in people in the family doctor's ability to care for their health, free choice of family doctor, allocating sufficient time for the patient, and public participation in decision-making are subcategories of the trust-building and transparency strategy that play a role in the proper implementation of the family doctor plan. P11: "*The doctor must have a listening ear to listen to the patient's words and not only seek to treat his body and current illness. This builds trust*".

Performance evaluation is another strategy for advancing the urban family physician plan, which was analyzed using 7 codes and 4 subcategories. Evaluating service quality using an external evaluator, virtual evaluation, and continuous supervision and monitoring are subcategories of performance evaluation. Continuous and accurate performance evaluation is an important tool for identifying the strengths and weaknesses of the family physician plan. P 11: "*Performance evaluation should be virtual in a way that maintains the dignity of personnel*".

Reforming laws is another strategy for advancing the urban family physician plan, which was analyzed using 17 codes and 4 subcategories. Updating the family physician plan guidelines, using executive opinions to formulate laws, creating laws with enforcement guarantees, and amending related laws within insurance organizations are subcategories of law reform. This action helps remove ambiguities and facilitates achieving the plan's goals. P 6: "*The law should support the physician in implementing the family physician's guidelines, for example, determining the need to refer or not to refer a patient to a specialist*".

Human resources is another strategy for advancing the urban family physician plan, which was analyzed using 13 codes and 2 subcategories. Strengthening the organizational structure and human resources, and arranging officials based on capabilities are subcategories of human resources. These measures will improve service quality and ensure proper implementation of the family physician plan. P 12: "*The current structure of the family physician is well defined, but adherence to the structure and lack of movement of health care providers will institutionalize the thinking and attitude of the family physician plan in them*".

The referral system is another strategy to advance the urban family physician plan, which was analyzed using 15 codes and 4 subcategories. Understanding the concept of the referral system, creating an integrated electronic system, reforming the referral system, and observing the referral system are subcategories of the referral system. An efficient referral system plays a pivotal role in managing health services and optimizing resource use. P16: "*Without a referral system, the comprehensiveness of the family physician will be greatly reduced, and a major blow will be inflicted on its body*".

Summary

There are various approaches to scenario planning, each of which has developed strategic planning thinking. The Chermak method is one of the most widely used scenario-planning methods in the present study. In this method, the researcher selects the two factors with the most significant impact and creates a 2x2 matrix that combines the different states of these factors to generate four potential futures. The researcher names these four states according to the subject.

The findings indicate that, according to the statements of 14 interviewees, the referral system solution, and, according to the statements of 13 interviewees, the sustainable financing solution, are the most important solutions. Therefore, considering that, based on the research conducted, from the perspective of experts and policymakers of this program, the most important solution to improve the quality and effectiveness of the family physician plan is to reform and strengthen the referral system and secure sustainable financing, four scenarios can be envisioned (Table 3): Blooming spring, Autumn, Hot summer, Cold winter.

Cold winter: In this scenario, the lack of political will, inattention to reforming the referral system, and financial instability lead to the gradual collapse of the program, loss of public trust, waste of resources, and its complete ineffectiveness. In this situation, the family physician is practically transformed into a formal role, and the effectiveness of the primary care system is severely weakened.

Table 3: Future research matrix for the urban family physician plan based on the status of different scenarios

The correct referral system			
Sustainable financing	Blooming spring	Autumn	Instability in payments
	Hot summer	Cold winter	
Improper implementation of the referral system			

Autumn: This scenario represents the continuation of the program in an uncertain and unbalanced state; In it, one or more corrective measures may be taken in the field of payments, but due to the lack of coherence between components, lack of coordination of institutions, and weak monitoring of the correct implementation of the referral system, progress remains fragile and unstable. In this situation, decision-makers make decisions in an ambiguous environment without a clear roadmap, and the quality of services and beneficiaries' satisfaction do not improve.

Hot summer: This scenario represents a critical stage of the program in which health system decision-makers, under pressure from financial, social, or legal crises, inevitably embark on a path of reforms. The referral system is reviewed either under duress or out of urgency, but faces significant resistance and financial strain. If this process is not managed professionally, there is a risk of failure or a return to the previous situation. However, if managed well, it can lead to a positive transformation.

Blooming spring: The most favorable scenario in which, with the simultaneous and gradual realization of an integrated referral system and sustainable financing, and the support of other key solutions, the urban family physician program reaches structural maturity, operational effectiveness, and social acceptance. In this situation, population health indicators, patient satisfaction, staff professional motivation, and resource efficiency improve significantly. The family physician program is established as the core of the urban primary care system, laying the groundwork for sustainable urban health development.

Discussion

The Family Physician Plan, with its emphasis on health-centeredness and prevention, can play a key role in improving community health and optimizing resource use. However, the implementation of this plan faces several challenges, the most important of which are mismanagement, legal shortcomings, a treatment-centered approach instead of a health-centered one, a misinterpretation of the role of the family physician, financial issues, and, most importantly, the incorrect implementation of the referral system (9, 14, 15).

Research helps identify challenges and accurately assess the effectiveness of solutions. The development of policies and programs should be based on scientific data and real-world experience to avoid trial-and-error (6, 7). This process allows the program to adapt to local conditions and community needs. Ultimately, research and development will inform the development of macro-policies and structural reforms that enable more successful and sustainable implementation of the family physician program. Extensive cultural development among the population and health service providers is essential to ensure that the role of the family physician and the referral system are correctly understood and that public acceptance increases (5, 16).

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In the family physician plan, challenges such as a treatment-oriented approach and incorrect implementation of the referral system stem from insufficient awareness among the public and staff. Building awareness through education, widespread information, and active public participation paves the way for the acceptance of this plan. Increasing awareness increases patients' trust and cooperation with family physicians and facilitates the implementation of the referral system. The referral system should be developed electronically, in a coordinated and efficient

manner, to enable accurate patient follow-up and timely referral. Also, raising public awareness and continuing education for family physicians about the benefits of the referral system are essential (17). Challenges arising from incorrect implementation of the referral system increase the burden on specialized centers, reduce patient satisfaction, and increase costs. Reforming the referral system by leveraging education, technology, and culture-building will streamline the referral process, increase productivity, and improve service quality. The use of information technology, such as electronic health records and integrated systems, enables accurate tracking and evaluation of patients and services and increases the efficiency of the referral system (18).

The use of modern information and communication technologies in the health system, especially electronic health records, plays an important role in improving the infrastructure and implementation processes of the family physician program. Challenges such as inadequate infrastructure and evaluation can be addressed mainly by leveraging digital technologies. Drawing on national and international experiences can be a helpful guide for reforming and improving the family physician program in Iran. Transferring knowledge and practical methods through scientific collaborations and the exchange of experiences helps improve the program's quality (19).

Successful experiences from other countries and national examples in family medicine are valuable sources for modifying and improving programs. Taking advantage of these experiences reduces implementation errors and accelerates learning. Creating trust and transparency among the public, doctors, and health system managers is a key factor in the program's acceptance and sustainability. Accurate information and prompt responses to concerns will pave the way for active community participation in the plan (10). Building trust among the community, staff, and managers through transparency in decision-making, resource allocation, and performance evaluation is an important pillar of the family physician plan's success. One reason for the improper implementation of the referral system and the treatment-oriented approach is a lack of trust and transparency. Accurate information and officials' accountability increase public participation. Continuous performance evaluation, using standard indicators and stakeholder feedback, enables timely corrections and continuous program improvement (20).

Quantitative and qualitative assessments conducted in urban areas have shown that increasing the number of doctors and midwives and improving family health indicators through the implementation of the plan requires a review of job descriptions and the performance evaluation of medical teams (21). Inadequate evaluation prevents the program from being improved and managed optimally. Designing an evaluation system based on quantitative and qualitative indicators enables accurate monitoring, better decision-making, and enhanced service quality. Reforming laws and regulations to remove ambiguities and ensure legal protections for family physicians and the referral system is another essential strategy that has been emphasized in various studies and is essential for the sustainability and effectiveness of the program (5).

The lack of comprehensive, transparent laws has resulted in duties and responsibilities not being properly defined, and in the necessary legal support for family physicians and the referral system not being provided (22). The existence of incomplete and ambiguous laws is a significant obstacle to the successful implementation of the family physician plan. Amending and updating laws and creating an appropriate, coordinated legal framework will provide the necessary legal support for implementing the plan. Special attention to human resources should be a priority in policymaking, enabling the creation of appropriate structures, specialized training, and motivation to improve the quality of health services and achieve justice in health (4, 23).

A skilled, committed, and capable workforce is the foundation for the sustainability and quality of services in the family physician plan. Challenges such as staff shortages, inappropriate distribution, and training deficiencies undermine the program's effectiveness. Recruiting sufficient staff, continuous training, and creating job motivation are among the most important strategies for improving human resource performance. Interdepartmental coordination is another strategy that has been emphasized in numerous studies. The lack of coordination between the Ministry of Health, insurance organizations, and other related institutions has led to parallel

work, conflicts of interest, and reduced program efficiency and effectiveness. Creating coordinated structures and integrated communication networks can reduce this problem (24).

Communication and interaction among stakeholders, including physicians, patients, and policymakers, play a key role in addressing challenges in the referral system, and further research in this area can help improve performance (24).

Inter-sectoral coordination is an effective solution to address the challenges of the urban family physician plan, as it integrates health services and prevents duplication and task fragmentation. When related organizations and institutions, such as the Ministry of Health, municipalities, insurance companies, and social service centers, work together coherently, they can manage resources more efficiently and ensure patients' access to more comprehensive, faster services. Sustainable financing is considered a key pillar of the plan's success. The lack of sufficient financial resources and inappropriate budget allocation has led to serious problems in implementing the plan. Research emphasizes the need for continuous and transparent budget allocation to maintain service quality (19).

A fair payment system is essential to maintain the motivation of family physicians and health care providers. Economic studies have shown that the lack of payment proportionate to the volume and quality of services provided is one of the main factors discouraging physicians from participating in the scheme (25).

Developing a performance-based payment system and providing financial and non-financial incentives are priorities. Financial challenges and budget shortages create serious obstacles to developing infrastructure, attracting and retaining human resources, and providing quality services. Inadequate funding leads to incomplete program implementation and reduced staff motivation. On the other hand, regular budgeting and optimal resource allocation enable accurate planning and improve service quality. Training and empowering human resources through continuous training programs and the use of new technologies, such as electronic health records, leads to improved service quality and increased patient satisfaction. Studies have shown that targeted training and the use of information technology facilitate the referral system and improve communication between service levels (24).

Conclusion

The Iranian Urban Family Physician plan has been implemented to promote health equity, improve service quality, reduce costs, and strengthen a health-centered approach. However, studies show it faces numerous structural, managerial, financial, cultural, and institutional obstacles. The ten main challenges include a shortage of human resources, inadequate infrastructure, a weak education and empowerment system, low efficiency in performance evaluation, a lack of sustainable financing, a treatment-oriented approach, an unclear definition of the project, ineffectivemanagementandimplementation, legal inconsistencies, and incorrect implementation of referrals. In response, 12 key solutions have been proposed, including strengthening research and applied knowledge production, establishing inter-agency coordination mechanisms, strengthening community culture and participation, sustainable financing, targeted training of human resources, and leveraging health technologies and national and international experiences.

Two key axes of "efficient referral system" and "sustainable financing" are introduced as pillars of transformation and prerequisites for other measures. Analysis of future scenarios shows that the plan's future is the result of strategic decisions and informed policymaking, and that designing a future path based on local and global data can prevent its collapse. An urban example of primary health care grounded in justice, accountability, and efficiency can be built, offered at regional and international levels, and lead to the realization of the right to health and sustainable human development.

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Authors' Contribution

Z.Z., L.F., and Y.A. conceptualized the study, conducted the research, wrote the manuscript, and approved the final version of the manuscript.

Ethics Approval and Consent to Participate

Informed consent was obtained verbally in this study. The Ethics Committee of Shiraz University of Medical Sciences also approved the study.

Conflict of Interest

There are no conflicts of interest.

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