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Iranian health financing system challenges to promote health outcomes: Qualitative study

Alireza Jabbari, Ali Zakeri¹, Fatemeh Saghafi², Marziye Hadian³

Abstract:

BACKGROUND: Adequate health financing system should have key criteria and characteristics such as risk distribution over time, risk accumulation, sustainable resource provision, and resource allocation based on meeting essential needs. Weakness of the tariff system, lack of attention to strategic purchasing, inefficient allocation of manpower, and a weak payment system are among the problems within the Iranian financing system. Given the weaknesses of the current health financing system, it seems necessary to identify challenges and provide effective solutions to address them.

MATERIALS AND METHODS: This qualitative study was conducted to explore the views of a group of 32 major policymakers and planners in the various departments and levels of the Ministry of Health, Universities of Medical Sciences, Medical System Organization, and Health Insurance Organization in Iran ($n = 32$), selected through purposive sampling. The data was collected through in-depth and semi-structured interviews and analyzed using Graneheim and Lundman's conventional content analysis methods. The trial version of MAXQDA 16 software was used to manage the coding process.

RESULTS: Based on the results of data analysis, a total of 5 categories and 28 subcategories were obtained. In this study, five main categories were obtained through the content analysis method, including (1) stewardship; (2) providing services; (3) production of resources; (4) collecting resources; and (5) purchasing and allocation of resources.

CONCLUSION: It is suggested that those in charge of the health system, following the reform of the organization of the health system, move toward the improvement and widespread implementation of the referral system and that clinical guidelines be carefully compiled. Also, appropriate motivational and legal tools should be used to implement them. However, insurance companies need to make cost, population, and service coverage more effective.

Keywords:

Financing, health financing, healthcare, Iran

Introduction

One of the most important factors in the reforming of the health systems of countries is the proper production of financial resources for health service providers, which has a very important impact on the performance of the health system.^[1-3] The production of financial resources covers various issues. It is the policy of producing financial resources that determines how many resources

are available. Who bears the financial burden? Which authority controls the credits? How are risks accumulated and can healthcare costs be controlled? These factors, in turn, help determine who has access to health care. Who is protected from the poverty caused by the devastating cost of medicine and what is the health status of the country's population?^[4-6] Therefore, in this model, the World Health Organization has considered financing as an important function of the health system^[5] to provide the necessary financial protection in relation to justice, efficiency,

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Health Management and Economics Research Center, Isfahan University of Medical Sciences, Isfahan, Iran, ¹Assistant Professor of Foresight, Department of Industrial Engineering and Futures Studies, Faculty of Engineering, University of Isfahan, Isfahan, Iran, ²Iran Telecommunication Research Center, Tehran, Iran, ³Department of Health Services Management, Student Research Committee, Health Management and Economics Research Center, Isfahan University of Medical Sciences, Isfahan, Iran

Address for correspondence:

Mrs. Marziye Hadian, Health Management and Economics Research Center, Isfahan University of Medical Sciences, Hezarjereb Street, Isfahan, Iran.
E-mail: m.hadian68@gmail.com

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and effectiveness in the community's access to essential health services.^[7,8]

Accordingly, an appropriate financing system in the field of health should have key criteria and characteristics such as risk distribution over time, risk accumulation, sustainable resource provision, and resource allocation based on meeting essential needs.^[9-11] To this end, Schieber and Media in their model consider the aggregation, accumulation, and allocation of resources and the purchase of services as the main sub-functions of financing and express the relationship between planners in this field.^[12] In this model, the financing system is a combined system consisting of public funds (taxes, premiums, sales of natural resources, etc.), private funds (out-of-pocket payments, premiums, charitable resources, etc.), and external resources. Meanwhile, before the start of the health transformation plan, the private sector provided about 64.9% of the financial resources in the field of health, of which direct payment from the purse accounted for about 56.1%,^[13] Out-of-pocket, direct payment costs and heavy financial burden, a high share of oil revenues and its instability of the total share of public sector revenues, accumulation and control of only 25.6% of health sector financial resources, and poor distribution.^[14,15]

The risk between healthy and sick people and high-income and low-income groups is one of the most important problems of Iran's health sector financing system.^[16,17] Weakness of the tariff system, lack of attention to strategic purchasing, inefficient allocation of staff, and a weak payment system are other problems within the sector.^[18-21] In general conclusion, it can be said that considering the weaknesses of the current health financing system and considering that many of these shortcomings and limitations have led to the creation of a regressive financing system in the health sector of the country, it is necessary to identify these challenges and provide effective solutions to address them.

Materials and Method

Study design and setting

This qualitative study was conducted from May 2021 to January 2022 and used content analysis methods. Content analysis can be used with qualitative or quantitative data, induction, or deduction. This method is useful when the existing theory or research literature on a certain phenomenon is limited.^[22,23]

Study participants and sampling

This qualitative study was conducted in Iran, and the study population included 32 major policymakers and planners in various departments and levels of the Ministry of Health, Universities of Medical Sciences;

Medical System Organization; and Health Insurance Organization in Iran. The number of participants in this study included 8 managers, 14 faculty members, and 10 financial experts. A total of 22 males and 10 females were interviewed, ranging from 31 to 52 years of age. Participants were chosen using a purposeful sampling method. The inclusion criteria consisted of the following: participants must have at least 1 year of work experience in the mentioned position and still be working in the health sector of the country; exclusion criteria included lack of consent for participating in the study. Sampling was carried out until data saturation occurred, that is, when the researcher concluded that further interviews would fail to provide new information.

Data collection tool and technique

This qualitative study was done using in-depth and semi-structured interviews, beginning with open questions and gradually becoming more detailed. Interviews began with broad questions such as "what are the most important challenges and shortcomings for financing in the health system?" "What were the causes of these challenges and shortcomings?" "What was the most common cause of these challenges?" "Would you explain more?" The interviews were taped and lasted from 25 to 74 minutes. The time and place of interviews were set by agreement between the researcher and participants. Field notes were written during interviews to describe and interpret the responses correctly. The interviews were conducted by M.H. face-to-face and individually. The process of data collection was under the supervision of D.A.J.

Data analysis

The data gathered in this stage were analyzed using the Graneheim and Lundman method^[24,25] by the content analysis approach. In this inductive process, the researcher reads the transcribed texts several times to fully understand them. Next, the units of meaning (words, sentences, or paragraphs) that answered questions about the challenges and issues of financing in the health system were condensed and labeled with a code. Similar codes which represented similar concepts were classified into subcategories and then made into a category (manifest level). Each category emerged from a group of content that shared a commonality, so the categories were internally homogeneous and externally heterogeneous. The main theme emerged as the relationship between the underlying meanings in categories, which is an expression of the latent meaning. The trial version of the MAXQDA 16 software was used to manage the coding process.

Rigors

This study employed strategies recommended by Lincoln and Guba for reliability and validity tests.^[24] According

to this recommendation, four criteria of creditability, dependency, conformability, and transferability are required to ensure reliability. To increase data creditability, the study researchers engaged with data and the environment for 11 months while constantly making observations and compiling field notes. Peer check strategies were used to assess data dependability. A check was performed on a monthly basis to ensure that the research team had a thorough discussion about emerging data. Background information and personal interests of researchers on the corresponding topics and document maintenance were used for assessing the conformability of data. The context of the interviews, codes, and the extracted categories were reviewed by the research team and other professional colleagues in the field of qualitative research. Using sampling with maximum variation, the researchers were able to collect quite a mixed variety of different comments, observations, and interpretations.

Ethical consideration

The Ethics Committee of Isfahan University of Medical Sciences approved this study. All methods were performed in accordance with the relevant guidelines and regulations; this article does not contain any studies with animals performed by any of the authors. Informed consent was obtained from all individual participants included in the study; written informed consent was obtained from individual participants. The confidentiality and anonymity of the participants were ensured by coding the questionnaires. Study participants were informed clearly about their freedom to opt out of the study at any point in time without justifying for doing so.

Result

The participants included 32 major policymakers and planners in the various departments and levels of the Ministry of Health, Universities of Medical Sciences, Medical System Organization, and Health Insurance Organization with a mean age of 41.5 ± 4.8 years, ranging from 31 to 52 years. The mean duration of work experience was 11.25 ± 3.4 years, and all participants had more than one year of experience in financing in the health system.

Main results

Based on the results of data analysis, a total of 5 categories and 28 subcategories were obtained. After several rounds of reviewing and summarizing the data and taking into account similarities and differences, five main categories were obtained through the content analysis method, including (1) stewardship, (2) providing services, (3) production of resources, (4) collection of resources, and (5) purchase and allocation of

resources. The results are also presented in Table 1. The five major categories were in turn classified into several subcategories and extracted via analyzing handwritten notes and interviews. The categories and corresponding subcategories are described in the following sections.

Stewardship

According to the findings, most of the challenges in this study have been in this area. Based on the findings of most of the interviewees, low-backed decision-making, weak referral system and service regionalizing, poor transparency of financial information as a basis for decision-making, political instability of the government, less value of prevention than treatment, role segregation, various governance bodies in the fields of health, administrative bureaucracy, centralization, and corruption, reducing the role of the government in financing its governing duties, including health, non-compensation for damage to health by other sectors and development factors, non-compliance of distribution policymakers, public resources to macro-health policies based on the priority of health among policies and the intervention of other organizations in the provision, and distribution of health resources are among the challenges of financing in the health system.

"In the last decade, the Ministry of Health has begun to shift accounting practice from cash to accrual at all universities. But policymakers and planners do not use this information to make decisions. That is why they are difficult and failing."(p1)

"When we have a weakness in the referral system, we should not expect the costs of the health sector to be controlled. In fact, with this situation, the current referral system only imposes costs on the system over time and increases the costs."(p5)

"There is weak stewardship at various levels, including the High Council of Health Insurance and the poor oversight of the Ministry of Health, especially in the private sector, which is very important and unfortunately we are still facing it given the country's major documents."(p2)

Providing services

Based on the findings of most of the interviewees, poor quality control of services, service packages and depth of insurance coverage, and the incompatibility of public funds with the volume of current activities required are among the challenges of financing in the health system.

"Currently, both the Ministry of Health and insurance companies are trying to monitor and control the quality of services, and this has a direct impact on poor quality control of services, increased referrals, patient dissatisfaction and ultimately increased costs. This must be strictly controlled, because it has very negative effects in the long run."(p9)

Table 1: Challenges affecting health system financing

Theme	Subtheme
Stewardship	Decisions with low support
	Weak referral system and service regionalizing
	Poor transparency of financial information as a basis for decision-making
	Political instability of the government
	Lower value of prevention than treatment
	Separation of different governance roles in the field of health
	Administrative bureaucracy, centralization and corruption
	Reduce the role of the government in financing its governing duties, including health
	Failure to compensate for damage to health by other sectors and development factors
	Lack of adherence of policy makers in the distribution of public resources to macro-health policies based on the priority of health among policies
	Intervention of other organizations in providing and distributing health resources
Providing services	Poor quality control of service delivery
	The package of services provided and the depth of their insurance coverage
	Inadequacy of public funds with the volume of current activities required
Production of resources	Human resource management and manpower volume based on qualifications
	Requirement to provide expensive equipment or build physical space without considering the needs assessment
Collect resources	Health sector share of government resources
	The share of tolls on harmful goods
	Tax mechanism and structure
	Reducing the role of social insurance in financing the health sector
	How to calculate risk in insurance, especially supplementary insurance and in insurance plans
	Franchise payment law
	New models and methods of financing banks and monetary and financial centers
Purchase and allocation of resources	Strategic purchasing mechanism of health services by insurance and support organizations
	Lack of tariffs based on cost price
	Large gap between public and private sector tariffs
	Challenges in the payment system in the field of health
	Budgeting methods and models

“Service packages in our country, Iran, will not be thoroughly reviewed and revised, which will affect the health system in the future and will challenge the health system financing system. If the same thing happens, insurance and people incur a lot of costs, which of course is not real.”(p11)

“One of the challenges we face is that, unfortunately, the budget allocated to the health sector is not commensurate with the amount of services provided at all and is much lower than the standard.”(p28)

Production resources

According to the findings of most of the interviewees, human resource management and manpower volume based on credentials and the need to provide expensive equipment or build physical space without considering the need assessment are among the challenges of financing in the health system.

“Iran’s health care system is facing a very large number of manpower. The management of these cases is very important and necessary. With this high volume, providing the resources they need is very costly. We close them and guarantee them to stay in the system for years, regardless of productivity, etc.”(p15)

“If we start providing expensive equipment or building physical environments without paying attention to needs assessment or instructions or grading, we will lead to increased health costs and reduced productivity.”(p10)

Collection of resources

Based on the findings of most of the interviewees, the share of the health sector in government resources, the share of tolls on harmful goods, the mechanism and structure of the tax, the law on the collection of resources per capita, how to calculate risk in insurance, especially supplementary insurance and In insurance plans, franchise payment law, financing models and methods, and reducing the role of social insurance in financing the costs imposed on the health sector are among the financing challenges in the health system.

“Given that the financial burden of harmful goods on health is high and increases over time, the Ministry of Health to reflect on attracting and increasing the share of tolls on harmful goods can help the financing system.”(p13)

“The deductible payment law and the lack of careful supervision and full review of it, has a great impact on providing health expenses and proper management of revenues and expenses.”

“New financing models and methods with the cooperation of banks and financial centers in new methods of financing hospitals and health care centers can be very effective. Traditional methods alone cause financial challenges to the health system.”(p19)

Purchase and allocation of resources

Based on the findings of most of the interviewees, the mechanism of strategic purchase of health services by insurance and support organizations, the lack of tariffs based on cost, the long gap between public and private sector tariffs, the challenges of the payment system in the field of health and methods, and budgeting models are among the financing challenges in the health system.

“Tariffs are not cost-based and the gap between public and private sector tariffs is very large. This policy of public-private tariffs is not real and fair and is challenging.”(p2)

“Health services are direct services, and personnel costs account for about 70% of the total costs. It is very important which method is chosen in the payment system and how much it is monitored. If the right method is not chosen, it causes funding crises.”(p16)

“Currently, there is only a nominal strategic purchasing mechanism and there are shortcomings in its implementation. Until this mechanism is not implemented properly, we cannot expect the reform of the financing system.”(p21)

Discussion

Challenges in the health system and especially the challenges of the country's health financing system, public attention, including the government and parliament and the private sector have focused on the issue of financing and its justification strategies.^[26] The present study was conducted to identify the financial challenges of the Iranian health system. Based on the findings of the research, 5 themes and 28 sub-themes were extracted in relation to the financial challenges of the Iranian health system, which we will discuss in relation to each of the topics, respectively.

Taking stewardship as the most important function of the health system means the production of evidence and collective wisdom to determine the orientations and strategies for all actors in this sector, accepting macro-responsibility and accountability at the highest level and determining and strengthening executive rules in three sub-functions of policy (line determination of macro-health system policy and orientation), intra-sectoral governance (taking all possible measures to ensure the implementation of adopted policies), and inter-sectoral leadership (using legitimate means of influencing other sectors to achieve the goals and

ideals of the health system) are important.^[27] Regarding the challenges presented in the field of stewardship, the interviewees stated that centralization, a weak referral system, low support for the adopted policies, poor transparency of financial information as a basis for decision-making, political instability of the government, less value of prevention than treatment, separation of different governance roles in the field of health, administrative bureaucracy, centralization, and corruption, reducing the role of the government in financing its governing duties, including health, non-compensation for health damage by other sectors and development factors, non-compliance with the involvement of policymakers in the distribution of public resources to the macro-policies of the health sector based on the priority of health among policies and the intervention of other organizations in the provision and distribution of financial resources in the health sector are among the challenges in the field of financing. In a study conducted by Safizadeh Jam *et al.* in 2018 entitled “Analysis of the Patient Referral System with SWOT approach from the Perspective of Stakeholders: A Qualitative Study” using in-depth and semi-structured interviews, the findings showed a lack of public awareness and related issues. The quality of supervision of physicians, management, payment mechanisms, electronic health records, insurance organizations, and insufficient facilities of health centers are among the weaknesses of the health system. However, the threats included a lack of coordination and alignment between policymakers, a treatment-oriented health system, a lack of public attention to health care, and private sector intrusion. It showed that although the correct implementation of the referral system promotes community health and reduces healthcare costs; in the current situation, this system does not follow its rules. It is related to several factors that require serious care, proper planning, and timely action of health system managers to eliminate them. The results of the Safizadeh Jam study confirm the results of the present study.^[28] In a study conducted by Ramezani in 2018 entitled “Future study of the Iranian Health Financing System in the Horizon of 1417,” the findings showed insufficient transparency of financial information for decision-making and the intervention of other organizations in the provision and distribution of financial resources in the health sector. It is one of the major challenges in health financing and requires planning for the future of the health system to prevent the situation from becoming critical,^[29] which is consistent with the results of the present study. The study of Zare *et al.*^[30] (2007) entitled “Organization and Management of Organizations Providing Health Care Packages” with the aim of a comparative study of the principles of determining health care packages in selected countries and providing a model for Iran while reviewing the health systems in countries identified

a principle in which all countries have accepted that health is a universal right and the government has a duty to ensure the rights of individuals. This comparative study shows that the existing system in most countries is federal and state with a focus on decentralization in the health sector. Policymakers' focus in this regard is on a planned move toward decentralization, taking into account regional characteristics. Paying attention to this issue reduces the current challenges of the financing system. The results of this study confirm the present results.

Providing health services as the main function of the health system in the form of creating appropriate mechanisms for controlling infectious and non-communicable diseases, control of health threats, providing and promoting family health, environmental and occupational health, and rehabilitation in the form of intervention programs: promotional (first), health and prevention (second), diagnostic and therapeutic (third), and rehabilitation (fourth) services are provided in community-based, outpatient, and inpatient settings.^[8] Regarding the challenges in providing services, the interviewees stated that the lack of quality control of services, the package of services provided and the depth of their insurance coverage, and the mismatch of public funds with the volume of current activities required are among the challenges in the field of financing. The study by Khayat-zadeh *et al.*^[31] (2014) entitled "Determining Health Priorities and its Implementation in the Centralized Health System of Iran" showed that inequality in health payments in the studied areas has been the main determinant of national inequality. However, poor quality control in the services provided has negative effects on the progress of financing and causes it to decline. Prioritization is more of a political process than a tactical one, and the criterion of transparency should be used in setting priorities.^[31] The results of the Khayat-zadeh study confirm the available findings. Heydari *et al.* (2013) in their study entitled Analytical Review of Resources and Treatment Costs of Insurance Funds of the Health Insurance Organization of Iran showed the inadequacy of resources to costs and losses and deficit of resources during different years, leading to disproportion and imbalance between services provided with available resources.^[32] The findings of this study confirm the findings of the present study.

Resource production includes the three main inputs of the health system, namely, human resources, physical capital, and consumables. Therefore, all investments are made to provide trained, skilled, and specialized manpower; investment in research, construction, equipment, drug supply, medical supplies, etc., is manifested in the form of this function of the health system. Regarding the challenges presented in the field of resource production,

the interviewees stated that human resource management and manpower volume based on educational qualifications and the need to provide expensive equipment or build physical space without considering the needs assessment are among the challenges in the field of financing.^[33-35] In the study of Ramezani *et al.*,^[16] which was conducted in 2018 under the title of Future study of Iran in a combined method and in the form of script writing, the findings showed that to purchase services before any process, the service needs must be assessed. Otherwise, costs and financing will be in crisis in the long run, and we will see increased costs and reduced productivity. The findings of the Ramazanian study confirm the findings of the present study.

Resource collection is the process by which the health system provides its financial resources through the government, households, employers, insurance companies, donations, non-government organizations, charities, and international organizations.^[36,37] Regarding the challenges presented in the field of resource collection, the interviewees stated that the share of the health sector from government resources, the share of tolls on harmful goods, tax mechanism and structure, reducing the role of social insurance in financing the health sector, how to calculate risks in insurance, especially supplementary insurance and in insurance plans, franchise payment law, and new models and methods of financing banks and monetary and financial centers are among the challenges in the field of financing. In the study of Tourani *et al.*,^[38] 2019, with the aim of analyzing the prioritization process at different levels of the Iranian health system, which was done qualitatively, the findings showed that the prioritization process is more based on personal judgment. The results show that macro-level prioritization depends on how the health sector is funded from the general budget. This share is the per capita right that is insufficient and harms service delivery and disrupts the prioritization process. The results of the Tourani study confirm the results of the present study. In the study of Safdari *et al.*^[39] (2010) entitled "Comparative Study of Health Insurance Payment Mechanisms in the United States, Australia, and Iran," the findings indicate that the financing of health insurance in all three countries is influenced by the government, which is somehow involved in providing budgets for health care. Also, this study showed that although Iran has a comprehensive system of welfare and social security, in addition to the structure, providing sustainable financial resources and expanding population coverage, as well as developing a payment system for healthcare providers to improve the payment mechanism of health insurance, it seems necessary to emphasize the role of social insurance in timing and providing healthcare costs. The results of the Safdari study confirm the results of the present study.

Service purchasing is the process by which aggregated resources are paid to service providers to perform a range of effective interventions in promoting individual health. Regarding the challenges in purchasing and allocating resources, the interviewees stated that the strategic purchasing mechanism of health services by insurance and support organizations, the lack of tariffs based on cost, the long gap between public and private sector tariffs, and the challenges of the payment system all contributed to this. The field of health and budgeting methods and models are among the challenges in the field of financing. In the study of Mosadeghrad *et al.*,^[17] 2020, entitled Sustainable Financing Strategies for the Iranian Health System: An Scope Review, the findings showed that increasing the share of health in the gross domestic product, expanding tax revenues, using health prepayment methods, strengthening public-private partnership, increasing the efficiency of the health system, reducing the costs of the health system, consolidating insurance funds, eliminating insurance overlaps, determining support packages based on the need for health services, tariffs based on the value of health services, and using fixed and based payment methods are important. The most commonly used strategy for sustainable financing of the Iranian health system was performance to healthcare providers. The results of Mosadeghrad's study confirm the findings of the present study. In a 2004 study by Maher *et al.*,^[40] entitled Identifying the methods of financing the health systems of selected countries between 1998 and 2004 and presenting the mechanisms of producing new financial resources in the Iranian health system, the findings showed that adopting approaches such as financing through taxation, selection of upward financing methods, setting tariffs for health services based on the cost of services, a coherent relationship between the private and public sectors in providing health services, clarifying the share of public and government participation in financing the health system, organizing the situation charities in the country in terms of input resources and spending, and so forth can be effective in the production of new financial resources and increase the effectiveness of the results of health policies adopted and increase their justice orientation.

Limitations and recommendation

This study has a strong point considering that it has been done in the whole country, and its challenge has been extracted all over the country. However, due to the prevalence of covid-19 disease, some interviews were not possible in person and had to be conducted virtually.

Conclusion

Given the weaknesses of the current health financing system and given that many of these shortcomings and

limitations have led to a regressive financing system in the country's health sector, which in itself leads to the formation of an unfair financing system, considering a program that includes solutions, it is essential that it should be able to help eliminate these shortcomings as much as possible and change the direction of the current system toward a progressive and equitable financial system. Thus, it can be expected that if the current situation continues, problems such as a sharp increase in health expenditures in the country compared to the limited growth of resources in this sector, a high percentage of the country's population falling into poverty, spreading inequality and injustice in access to services, lack of resource stability as a result of reduced financial capacity and level of demand of individuals, and as a result of unemployment of a large part of the sector's capital, lack of attention to primary health care and increasing development of specialized third-level medical centers that endanger public health due to decline cost effectiveness, increasing inconsistencies in cost distribution so that drug and laboratory costs will consume more resources, weakening and diminishing the role of social health insurance in the health services market and falling performance indicators of the country's healthcare system to levels that it will be lower in the ranking of countries can occur. Therefore, it is suggested that those in charge of the health system, following the reform of the organization of the health system, move toward the improvement and widespread implementation of the referral system and that clinical guidelines be carefully compiled. Also, appropriate motivational and legal tools should be used to implement them. However, insurance companies need to make cost, population, and service coverage more effective.

Declaration of participant consent

The authors certify that they have obtained all appropriate participant consent forms. In the form, the participant(s) has/have given his/her/their consent for his/her/their interview to be reported in the journal. The participant understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

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Conflicts of interest

There are no conflicts of interest.

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