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Review Article

Public-Private Partnerships: A Strategy for Effective Private Partnership in Health Care Provision: A Policy Option

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Abstract

Context: One of the most effective ways to cope with the financial constraints of the health system, especially in developing countries, is to engage the private sector in the form of a public-private partnership (PPP). Hence, the purpose of the present study was to introduce PPP as a general policy to increase the effective participation of the private sector in the health system.

Methods: Initially, the existing literature was reviewed to identify methods, areas, and experiences in PPP. Then, an expert panel was organized with researchers, professors, and experts in health services management and policy-making. At the beginning of the panel, the content obtained in the previous step was presented, and then the requirements of PPP implementation in healthcare were discussed.

Results: Considering the discussions, we summarized the factors affecting PPP implementation in three topics: (A) Private sector conditions: A sufficient number of eligible companies, significant financial gain for private companies; (B) Public sector conditions: Principles, policies, and indicators related to outsourcing of services, availability of transferable services, units or substations to the private sector, lower cost of providing services in the private sector than the public sector; (C) Background: Political, legal, economic, and cultural conditions, successful experiences in other cities and provinces, support of the health system scientific body, common language, and contract conditions.

Conclusions: Given the private sector's capabilities and potentials to improve the quality and quantity of services provided, transparent PPP policies should be developed as an appropriate strategy for effective private sector participation in the provision of health care, and the required infrastructure must be provided.

Keywords: Public-Private Partnerships; Health Care; Policy Option

1. Context

Considering the many years of experience of running public companies and the experience of private companies in Iran's economy, the need to create conditions necessary for a rapid rise in the society's economic and social development and optimize national resource, existing opportunities, and community assets, the Government of the Islamic Republic of Iran has decided to redress past inefficiencies by implementing the policy of transferring public companies to the private sector and through reducing its tenure to use available opportunities more desirably to increase the level of welfare and adjust income distribution in society (1). In this regard, the general policy announcement of Article 44 of the Constitution by the supreme leader, expresses the regime's attitude toward the country's economic activities. The main purpose of these policies is to transform the country's current economy into a dynamic, developmental, and competitive economy that will be achieved by reducing government tenure and expanding private sector activities (2).

Following the announcement of Article 44 policies in June 2005 (based on which, the Islamic Republic of Iran's economic system is based on three sectors: public, cooperative, and private), the private sector's attention to the health sector increased. Despite the entry of the private sector into the health sector, no significant results were achieved due to many obstacles and difficulties. As it has been 14 years since the introduction of Article 44 policies, the private sector has only 17% of the hospitals and only 13% of the total hospital beds (3). Therefore, it is necessary to increase the areas of effective participation of the private sector in the delivery of health care by accurate and long-term planning and through the implementation of effective policies. One of the most effective policies could be the public-private partnership (PPP).

Evidence suggests that currently, the willingness of governments to engage the private sector in the health system has increased (considering a variety of models such as risk-sharing, responsibility transfer, providing financ-

ing opportunities, providing services and activities in the design, construction, and maintenance of health care facilities) (4). The private sector knows that PPP is a suitable solution and an opportunity for market growth and profit-making, providing appropriate facilities and innovative management for the public sector (5, 6). One of the most important functions of PPP is to use it as a tool to support governments in their activities and change the role of the government from a provider to a coordinator and service manager (7). Governments also use PPP as an efficient and cost-effective key mechanism to implement their goals and policies (8, 9).

Considering Iran's current economic situation and the need to provide services with the lowest cost and highest quality, as well as the need to minimize the government, which is one of the objectives of Article 44 of the Constitution, Iran's health system must engage the private sector in health services provision; consequently, the Ministry of Health will be able to do its stewardship role. Currently, the use of PPP in the field of health in Iran is limited to a small number of support services (nutrition, laundry, and transportation) and clinical services (injections and pharmacy), which seems to be insufficient (10). Hence, the purpose of the present study was to introduce PPP as a general policy to increase the effective participation of the private sector in the health system.

2. History of Public-Private Partnership

The first scientific experience of a PPP plan was implemented by Britain's government in 1992, entitled "PFI". The program focused more on reducing the public sector's need for borrowing. Subsequently, in Australia, many state governments also launched PPP programs based on PFI (11). During the 1990s and 2000s, more and more countries turned to PPP in the delivery of public services. Australia and the UK were among the leading countries in the field, followed by France, Germany, Japan, South Korea, Turkey, Argentina, Brazil, and South Africa, which began to implement PPP in 2004 (12).

3. The Concept of Public-Private Partnership

Public-private partnership is a mechanism whereby the public sector (the government and other governmental institutions) provides infrastructure services (including water and wastewater, transportation, health, education, etc.) using the capacity of the private sector (including knowledge, experience, and financial resources). In other words, the private sector, on behalf of the government, performs some of the duties and responsibilities in providing these services. In PPP plans, a contract is made between the public and private sectors to share the risk, responsibility, benefits, and synergy of resources and expertise of both sectors in providing infrastructure services. In public-private partnership, the role of the government changes from investment, implementation, and exploitation of infrastructural projects to policy-making, regulating, and supervising the quantity and quality of service provision (9, 13). In general, seven models of PPP are discussed in the literature, which is briefly described below (14-17):

3.1. Service Contract

The government pays a private institution to perform specific tasks. These tasks may take place inside or outside the health care center.

3.2. Outsourcing

The government pays a private institution to manage one or more specialized departments of a health service center and provide all the required services. Medical services provision, procurements, medicine and medical supplies provision, and even personnel recruitment decisions will be made by the private institution. These contracts transfer risks, such as human resources, to a private company, but the government still remains responsible for capital costs. The duration of these contracts is for one to three years. In outsourcing contracts, what seems most necessary is to divide the activities and functions of the health service center into two main and sub-activities. The core activities are defined as the competitive advantages of the health service delivery center, and the subsidiary activities are standardized services that are widely available in the private market.

3.3. Management Contract

The government pays a private institution to manage a public hospital to run it and provide all the services people need. Decisions regarding the recruitment of specialized health care personnel, procurement, and medicine and medical supplies provision are made by the private sector. Business risks and responsibility for capital costs remain with the government. Most of the risk burden (financial and capital) is also borne by the public sector and the least amount of risk is transferred to the private sector. The responsibility for large investments and financing also remains under the responsibility of the public sector. Management contracts are useful when the main purpose of these contracts is to rapidly improve the efficiency and experience of the public sector, or gain readiness to enter high levels of PPP. The duration of this type of contract varies from three to five years and leads to efficiency in management.

3.4. Leases Contract

The private company leases the government health service center by paying a determined fee to the government and assumes the responsibility of managing the center and providing the services. In this method, the private company acquires the right to monetize its performance. In this case, all business risks are transferred to the private enterprise. The public sector is still responsible for

capital costs. Services recipient payments should cover the private sector's costs plus a reasonable rate of return. The duration of these contracts is 10 to 15 years and the most important advantage of this model is the transfer of business risks to the private sector, which is a powerful driving force. It is a good option when a health service center needs operational efficiency and productivity, but does not require new investment.

3.5. Private Finance Initiative (PFI) Contract

It is often seen as a private coalition that is responsible for all phases of the public health center to deliver services. The private sector will be responsible for investing, establishing, managing, and delivering non-clinical services (such as nutrition, laundry, security, parking services, procurements, etc.) and the main services will be provided by the public sector. In this model, the public sector owns the health service center and the private sector receives the annual budget for capital and current costs (maintenance and services) for 10 to 15 years. Private financial resources spent on government facilities and duties are reimbursed by the public sector and not by end-users; in that way, the public sector pays the private sector a defined monthly amount regularly throughout the term of the contract.

3.6. Concession Contract

In the monopoly concession contract, the public sector grants a private consortium a legal license to finance, operate, and maintain the health care center through secondary contracts. The private sector concession is comprised of several organizations including a private insurance company, investment funds, and a building company. During the operation of the health service center, the coalition comes from the service provided to the people. The duration of monopoly concession contracts is 20 to 30 years. Construction risks are completely transferred to the private sector to act as a stimulus to complete the construction phase and reduce costs. Concession contracts have the potential to improve efficiency in hospital operations and investment in the hospital.

3.7. Divesture Contract

Under the divesture contracts, ownership, operation, and maintenance, large investments and commercial risks of the public health center are transferred to the private sector. The duration of these contracts is uncertain or limited by some licenses. These types of contracts are at health service centers in two types:

A) Sale of the public health center by retaining the existing use, where the public sector will pay the private sector for providing services, as well as performs monitoring, regulating, and supervising the compliance of the private sector with the contract and duties.

B) Sale of the public health center with new use, where the private sector purchases the public health center, and based on agreement, operates it with a new use. The task of the public sector is to monitor the compliance of the new use of the health center with those agreed in the contract.

Public-private partnership models include a spectrum in which, on the one hand, the public sector assumes full responsibility for financing, construction, operation, and maintenance of the health care center along with related risks, and at the other end of the spectrum is the complete privatization, where the public health center is wholly assigned to the private sector (Figure 1) (18).

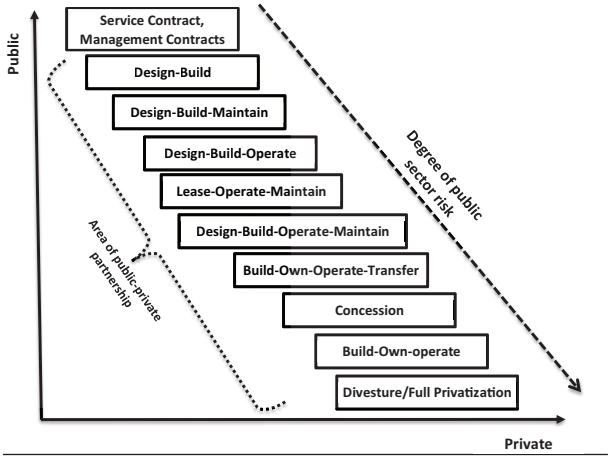

Figure 1. Spectrum of various models of public-private partnerships based on the dimensions of risk and responsibilities of public and private sectors

4. Benefits of Public-Private Partnership

The potential benefits expected of PPP include the following (19-21):

Efficient resource management;

Providing sufficient and sustainable resources;

Reducing risks and transferring the risk to other sectors;

Reducing service provision costs;

Increasing customer and community satisfaction;

Improving the status and atmosphere of creativity and innovation in managing and executing affairs;

Increasing the effectiveness and efficiency of service provision;

Improving access to health services;

Reducing out-of-pocket payments;

Creating an opportunity to promote private sector responsibility and accountability;

Creating an opportunity to improve the quality of service;

Learning and benefiting from the best practices;

Reducing government tenure in service delivery and increasing public sector agility;

Responding appropriately to changes in the organization and environment;

Better supervision and control over the private sector;

The most important challenges of public-private partnership;

The main challenges for public-private partnerships include the following:

The necessity to build trust in the private sector to government adherence to commitments;

Uncertainty on how to provide sustainable resources for government commitments in partnership contracts;

Inadequate familiarity with the PPP system in the public sector and consequently their resistance to assignment plans;

The private sector's unwillingness to participate because of the lack of financial justification for the projects;

The lack of efficient incentives for private sector investment in infrastructure projects;

The low tendency of the public sector to outsource the projects, largely due to a decrease in their authority and budget;

Insufficient integration of laws and regulations related to the area of PPP;

The lack of proper mechanisms in the process of outsourcing and managing PPP plans;

The lack of rational indicators and standards to control the efficiency and effectiveness of PPP plans (22-26).

5. Cost-Effectiveness Evidence of Public-Private Partnership Plans

Various cost-effectiveness studies show have that the implementation of PPP projects in different health areas can lead to cost savings and improved effectiveness. In a prospective cohort study conducted by Sinanovic and Kumaranayake (27) in South Africa, the cost-effectiveness of three different service delivery methods (full government, PPP, and TB treatment provided by the Mine Occupational Health Center in accordance with the national government program and government's costs) was investigated in the treatment of patients with TB. The effectiveness of each method was measured through the number of patients identified (rate of identified patients, percentage of identified patients treated) and treatment success rate (percentage of successful treatment in identified patients). Provider and patient costs were also estimated. On the other hand, the cost-effectiveness from the perspective of patients, providers, and the community was calculated based on the cost of each treatment and the cost of each successful treatment. The results showed that providing services through PPP was more cost-effective than the other two methods (27).

Pantoja et al. (28) study was conducted in Bangalore, India, to evaluate the cost and cost-effectiveness of a PPP plan in the treatment and control of TB. In 2001, the first phase of PPP was implemented in the country. The second phase of the plan, which intensified the implementation of the plan, was launched in 2003. In this phase, the costs were calculated from the perspective of providers and patients. The number of patients treated successfully was considered a measure of effectiveness. Comparing the treatment costs of patients before the implementation of PPP with the treatment costs two-stage after implementation showed that treatment cost was reduced not only for the service provider but also for patients. On the other hand, with the implementation of the PPP plan, more people utilized TB treatment services. The number of successfully treated TB patients also increased (28).

In addition, the study by Ferroussier et al. (29) in the Connor region of Kerala, India, examined and compared the cost-effectiveness of service delivery by public providers and PPP providers. In this study, data were extracted from the information system of the National Tuberculosis Control program. Effectiveness was estimated based on the number of identified patients, treatment success rate, treatment failure rate, and patient mortality rate. The results of the study showed that identifying and treating patients with tuberculosis in the PPP method was more cost-effective than that in services provided by the public sector (29).

In the study by Johns et al. (30) aiming to investigate the cost-effectiveness of PPP for using the DOTS strategy for TB control in Indonesia, three strategies were examined: (A) Outpatient diagnosis and referral to primary health care centers (PHCs) for treatment; (B) Outpatient diagnosis and treatment in the hospital; and (C) Referral of suspected cases by private practitioners to primary health care centers. The study was conducted in four provinces. The results of the study showed that all three strategies increased the number of case detection. In comparison, the cost-effectiveness of these three strategies varied across provinces. But, for all the provinces studied, individually, there was no difference between patient referral from the hospital and private practitioners to the PHC, but a referral from the hospital and treatment by PHCs was more cost-effective than hospital diagnosis and treatment (30).

The study by Floyd et al. (31) in India compared three methods: (A) Implementation of DOTS in the public sector; (B) implementation of DOTS in the form of PPP; and (C) private sector treatment of tuberculosis without using the DOTS method. The results of the study showed that the average cost of treating a patient through DOTS was the same in the public and private sectors, but the cost of treatment for the patient without the DOTS method in the private sector was much lower than that in the other two methods. According to researchers, the treatment of TB through DOTS in the format of PPP was a cost-effective way to control and treat TB (31).

The study by Ramaiah and Gawde (32) showed different results in examining the cost-effectiveness of PPP in the treatment of tuberculosis patients. Thus, service provision in the form of DOTS in the public sector was more cost-effective than providing these services in PPP.

6. Systematic Reviews of Public-Private Partnerships in the Health System

This section presents the characteristics and results of several systematic reviews of PPP in the health system.

The findings of the study by Roehrich et al. (21), which analyzed approximately 1,400 articles published during the last two decades, indicated that over the past two decades, public sector policymakers paid particular attention to the capabilities of the private sector in developing, financing, and providing health services and infrastructures. Since 2006, there has been a significant jump in the number of articles published about PPP in the health sector. The results of the study showed that despite the remarkable achievements in using PPP over the past few years, rigorous and empirical studies in this field are still limited and the concept of PPP has not yet been clearly analyzed. Finally, the authors concluded that PPP could combine prominent private sector capacities like innovation, high technical knowledge and skills, managerial efficiency, and entrepreneurial spirit with public sector characteristics such as social accountability, social justice, high experience, and responsibility, to ultimately provide high quality, low cost, accessible, and effective health care to the people (21).

In a study by Hernandez-Aguado and Zaragoza (33), the benefits and requirements of using PPP for health promotion were examined. It was concluded that health threats could not be solved by governments alone, and PPP could enhance the quality, capacity, and potential of health services provision, increase the focus on health in all policies, enhance self-control, and improve service quality. In this study, the most important recommendations and requirements made for effective PPP implementation included the precise definition of the criteria for selecting a partner/private sector (individual, industry, company) and a detailed definition of the tasks and roles of the private sector. Finally, the authors concluded that the scientific evidence and research on PPP principles and its effects on the health system is not yet complete, but at the beginning of the path, and requires more efforts from researchers and senior policy-makers of the health system (33).

The systematic review study by Lei et al. (34) with 78 papers published until 2014 examined the mechanisms of PPP programs used in different countries and their performance in controlling TB. The mechanisms used in these programs were divided into three types based on common features: Support, contract, and coalition. In addition, the effectiveness of PPP programs under different collaboration mechanisms was evaluated in six areas including the use of direct treatment strategies (DOTS), case detection, treatment outcomes, case management, costs, access, and equity. Comparative study analysis showed that PPP could improve the overall outcomes of TB services, which means that it could significantly improve diagnosis, treatment, referral, and access to services, especially in disadvantaged areas. However, the limitations of financial resources and poor governance or management were cited as the main reasons for the less positive consequences. The researchers concluded that PPP is a promising strategy to enhance global TB care and control, but is affected by different contexts across different countries and regions. Besides, PPP growth needs some basic prerequisites, in particular substantial financial supports and ongoing input resources. In addition, it is necessary to enhance the management and training of health service providers for participation through integrated cooperation mechanisms (34).

Phalkey et al. (35) in a systematic review tried to find evidence related to the role and involvement of private sector's physicians in the disease surveillance system and notification about diseases and its related factors. The results of the study showed that the current participation of physicians in the surveillance system was very weak. The most important barrier to their participation was inadequate knowledge, which led to inappropriate attitudes and misunderstandings that adversely affected their performance. On the other hand, sophisticated reporting mechanisms, unclear guidelines, and inappropriate attitudes of government and health care program managers also contributed to fewer case reporting. The researchers of this study believed that removing structural barriers, especially access to computers and skilled human resources, was necessary to improve private sector participation in the disease surveillance system. To improve case reporting, surveillance system staff were supposed to provide regular training and supportive monitoring to public and private sector service providers. Governments would also use their legal power to guide and strengthen PPP plans in disease surveillance (35).

7. Equity Considerations of Public-Private Partnership

Since equity is a crucial issue in health care delivery, the impact of any policy on it should be examined. This section examines the potential impacts of expanding PPP policy on health care delivery in terms of cost and access to services.

A) Costs: It is expected that with the outsourcing of some tasks in the form of PPP, there will be a reduction in the cost of service provision, due to the competition and efforts of the private sector to reduce costs. Under these circumstances, the most benefit is to the middle lower-income communities, which, in turn, can increase the purchasing power of this part of the population and increase equity. Ashton (36), focusing on four services including nursing home services, primary health care, surgical services, and acute health care, examined the two-year experience of implementing a buyer-provider separation plan in New Zealand. The results of the study showed that depending on the type of contract and the type of reimbursement, contract costs were lower for some services.

The lowest costs were for nursing home services and the highest costs were for mental health services (36). In the study of Loevinsohn et al. (37) in Pakistan, the performance of private and public centers located in two similar regions, in terms of socioeconomic conditions, in providing primary health care was evaluated through health center surveys, household surveys, and routine statistics and information. The results showed that the cost of providing services was the same in the private centers and public centers, but since the utilization increased, public satisfaction was higher in the areas covered by PPP centers (37).

B) Access: It seems that access is the most important impact of PPP on equity. Because it is expected that in areas where the public sector lacks the willingness or ability to provide health services, by assigning this responsibility to the private sector, people's access increases. On the other hand, by assigning provision of health care in attractive areas, such as affluent and high traffic areas, for the private sector, the capacity and potential of the public sector to provide care in disadvantaged areas will released, which will be a sign of equity in the health system. The results of the Al-Jazaeri et al. (38) study conducted in Saudi Arabia, with the aim of comparing access to cholecystectomy surgery in public and private centers, showed that access to private centers was better than access to public centers. In this study, access was measured based on the waiting time for surgery. The researchers concluded that strengthening the private sector could lead to better access for patients to this service (38). A study by Kebede et al. (39) in Ethiopia aimed to investigate the feasibility of using PPP to enhance laboratory systems. The findings of the study showed that PPP implementation significantly reduced the turnaround time of laboratory samples and increased access to quality laboratory services (39). A review study by Alkhamis (40) in Saudi Arabia, aiming at examining the impact of hospital privatization on access to clinical services, showed poor evidence of improved access to clinical care due to privatization, whereas, a study by Dutta and Lahiri (41) in two provinces of India showed the positive impact of PPP implementation on increasing the geographical and financial accessibility of the people and the greater utilization due to the high quality of services in these centers.

8. Stakeholders of Public-Private Partnership

Assigning some health system tasks in the form of PPP plans to the private sector will help the health system's authorities and policymakers perform governance tasks such as policymaking, planning, and monitoring. On the other hand, PPP plans will enable the public sector to devote their resources to the core tasks of their organization and assign other tasks to the private sector, and purchase services, with fewer resources and costs and even more quality, compared to the private sector. In addition, PPP provides an opportunity for the private sector to enhance its role and impact on community health by working with the public sector and increase its financial benefits by gaining more space in the health market. If PPP is implemented, health insurance companies can also increase people's satisfaction by spending less money and also better and precisely monitor the quality of provided services. In such circumstances, it is expected that people will receive more diverse services with more coverage, higher quality, better access, and even lower costs, which will, in turn, improve their health and increase their satisfaction.

9. Legal Issues of Public-Private Partnership

One of the concerns that has always been there regarding the development of PPP policy in Iran, particularly in health care, has been its legal challenges and backgrounds. Evidence suggests that policymakers and legislators have paid sufficient attention to the use of private sector capacity and development of PPPs in many legal matters, which are cited below as examples of laws in the Islamic Republic of Iran:

9.1. Article 44 of the Constitution

The economic system of the Islamic Republic of Iran is based on three public, cooperative, and private sectors, with systematic and sound planning. The public sector includes all major industries, parent industries, foreign trade, large mines, banking, insurance, power supply, dams and large water networks, radio and television, post and telegraph and telephone, airline, shipping, railway, and the like that are in the public domain and owned by the government. The cooperative sector includes production and distribution cooperative companies and institutes, established in accordance with Islamic standards in the city and village. The private sector comprises that part of agriculture, livestock, industry, trade and services that complement the economic activities of public and cooperative sectors. The ownership of these three sectors to the extent that will be in line with other principles of this chapter and does not fall within the scope of Islamic law and contribute to the economic growth and development of the country does not harm the community and is legally protected by the Islamic Republic.

9.2. Third Development Plan: Article 18

In accordance with the 43 and 44 articles of the Constitution, the government may lease industrial, agricultural, or service companies and such publicly owned property to cooperatives or the private sector for cash or commodity, by retaining other property rights.

9.3. Fourth Development Plan: Article 145 b

Annually at least 3% of social, cultural, productive, service, and other tenures of public agencies should be reduced, and part of gained resources are allocated to the development of non-governmental sectors to reduce the

government tenure and increase public participation in the administration of country affairs and downsizing of the government.

9.4. Fifth Development Plan: Article 214 b

To increase the efficiency and effectiveness of capital asset acquisition plans, the government is obliged to adopt appropriate enforcement procedures, such as "Financing, Constructing, Operating, and Assigning", "Financing, Constructing and Operating", "Public-Private Partnership" or "Constructing, Operating, and Owning", in compliance with the Law on how to implement Article 44 of the Constitution and with adequate safeguards.

9.5. Sixth Development Plan: Article 25 a

To popularize and expand the share of the private and cooperative sectors in the economy, and to increase productivity and improve the quality of services and optimize cost management, all public agencies that perform social, cultural, and service provision tasks (such as health units, welfare and rehabilitation centers, educational, cultural, artistic, and sports centers and service centers of agriculture inputs and animal husbandry) are permitted to purchase services from the private and cooperative sectors (rather than the production of services), within the framework of the quality standards of services set by the relevant authority.

10. Experiences of Applying Public-Private Partnership Policy in Iran's Health System

In Iran, the implementation of the PPP plan in clinical sectors was first applied by Moheb private medical institute in Moheb hospital. Hasheminejad hospital as the national referral center for kidney disease between 2000 and 2003 faced major problems such as financial constraints, lack of medical supplies, and the urgent need to improve its quality services. Therefore, the Moheb Institute in the form of PPP started its activities by establishing a 16-bed unit in 2004 in this hospital. Patients had complete discretion in choosing the ward and there was no compulsion to be admitted to the new ward or the old ward of Hasheminejad hospital. Due to the popularity of the new section, another 16-bed unit was opened in 2008. The success of these two wards gave rise to the idea of designing and building the Moheb hospital alongside Hashemitejad hospital. In 2009, Moeb hospital was opened with 100 beds, five departments, seven specialized and sub-specialized clinics, and eight operating rooms.

Following publishing credible evidence about applying PPP in primary health care and successful report of experiences in purchasing primary health care from the private sector in other countries, as well as the support of statesmen and policymakers in the development of the private sector within the framework of macro policies of the Islamic Republic of Iran in the form of cooperatives, after the agreement of the Ministry of Health with the Ministry of Cooperatives in 1999, and with the support of senior managers of Tabriz University of Medical Sciences, health cooperatives were designed by Tabriz University of Medical Sciences and started with the participation of the provincial cooperative office. Tabriz Health Cooperatives was a model of PPP that used a market-controlled model and a private-sector approach to deliver primary health care in a targeted and integrated service package. The public sector, based on continuous evaluation and quality of services provided, paid for health care based on per capita and performance-based payment methods (42, 43).

11. Executive Requirements for Private-Public Partnership in the Health Sector

Following the implementation of an experts' panel and obtaining the opinions of experts and researchers in health services management and health policy, the requirements for PPP implementation in the health sector were summarized as follows:

11.1. Private Sector Conditions

A) A prerequisite is the existence of volunteer companies that are ready to provide services under the conditions set by the health system authorities in the country. By increasing the number of these companies and creating competitive conditions, it will be possible to increase bargaining power, reduce costs, and improve the quality of care.

B) The readiness and ability of private companies to deliver the service are other prerequisites for PPP implementation. Companies must be able to provide the capital and manpower needed to provide services. At the same time, the technical capability of companies and other effective conditions in service provision should be considered.

C) Significant financial gain in service provision is another important issue for private companies that encourages them to participate with the public sector. Otherwise, the private sector's involvement in providing the services is not reasonable and companies will not be willing to participate.

11.2. Public Sector Conditions

A) Conditions of Assignment: The principles, criteria, and policies of how to outsourcing must be defined in the public sector.

B) Type of service: Another important issue in this area is the type of service. Assignable services must be specified according to the Ministry of Health's overall policies. For example, the government has to maintain the sovereignty and core functions (policy-making and long-term planning) and purchase the service provision and executive affairs.

C) Conditions of service provision in the public sector: These conditions, which largely affect the service purchasing, include the complexity of the service delivery process, the effectiveness and quality of service delivery in the public sector, and the factors associated with human resources (motivation, skill, number, and ease of staffing).

D) Cost of services provided in the public sector: Another important issue is the cost of providing services in the public sector. The cost of providing services in the private sector must be less than the cost of providing the service in the public sector, to provide services at an agreed price and provide the benefit of both parties.

E) Indicators and criteria for measuring effectiveness: Appropriate and measurable indicators and criteria, for measuring the efficiency and quality of service, must be defined by the public sector. These indicators and criteria can also be used to evaluate PPP success rates.

F) Organizational structure of the public sector: One of the issues that managers and policymakers should consider when implementing the PPP policy is the organizational structure of the public sector. Some units and organizational positions cannot be modified, and those working in these positions have a significant influence on the decision to outsource services associated with these units, as well as the success or failure of the program.

11.3. Contextual Conditions

A) Political, legal, economic, and cultural conditions: The most important factors in this area are political, legal, economic, and cultural conditions that have a great impact on the success or failure of PPP. The implementation of any plan requires the support of senior executives and policymakers and the existence of a proper legal framework; otherwise, the implementation of PPP plans would not be feasible even with economic justification. In the study of Gharaee et al. (44) aiming at the analysis of PPP in providing primary health care policy in Iran, they introduced political and economic support as the most important context factors for the policy implementation and success.

B) Successful experiences: Significant gains of PPP implementation in some areas can drive the implementation in other sectors.

C) Cooperation of scientific body of the health system: The academic and scientific sector of the health system, through monitoring the program and providing scientific evidence, can provide a basis for the implementation of PPP projects. These can help determine the terms of assignment, defining indicators, and criteria for evaluating the effectiveness and success of the project, determining the reasonable price of services, and other requirements.

D) Common language: Achieving a common language between the public and private sectors is a basis for the implementation of PPP projects. Having a common language means that the two parties agree on goals, prices, how the benefits of the two parties are met, how are monitoring, evaluation, indicators, and evaluation criteria.

E) Conditions of contract: All of the items in the "Common Language" section must be clearly stated in the contract. The contract must include the objectives, how to measure the effectiveness and quality of service, prices, and penalties determined for both parties to prevent the breach of obligations. The contract must also have the flexibility to make necessary adjustments as circumstances change, meanwhile the interests of both parties continue to be maintained.

12. Limitations

One of the main limitations of the present study was the limited number of experts and experienced people that may have affected data saturation. Also, the participants were all from Iran, which mostly had more knowledge about Iran and its setting than other countries' conditions, which may limit the generalizability of findings to other settings.

13. Conclusions

In this study, we attempted to summarize the concepts and points needed to understand PPP and its implementation as a key policy for expanding the private sector engagement in the health sector. To better understand and effectively summarize the topics, the authors propose a pattern for responsibility in public-private partnerships in health care delivery. In this pattern, the public sector is mainly responsible for policymaking and participates in planning, monitoring, training, and research activities, while the provision of services can be mainly assigned to the private sector (Figure 2). According to this model, as we move from tasks such as service provision to governance tasks, such as stewardship, supporting, and supervision, the role of the private sector becomes less and the role of the public sector becomes more considerable. For the government to properly perform its tasks, it must assign lower-level duties to the private sector and spend most of its time and energy on stewardship and governance tasks. Also, under this model, some specific services can be provided by the public sector, which may decrease or increase depending on the capacity of the private sector and the existence of required infrastructures for providing these specific services in this sector, as well as the capacity of the public sector to monitor and support.

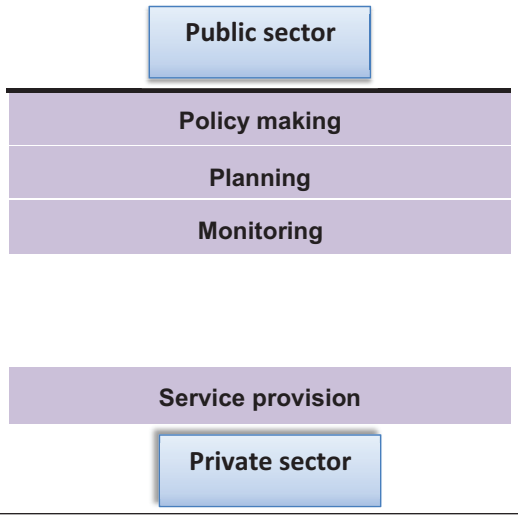

Figure 2. Pattern of responsibilities in public-private partnership in health care delivery

Like most countries in the world, in recent years, Universal Health Coverage (UHC) in Iran has been one of the major priorities of the country and many programs and interventions have been implemented to achieve it (45). Success in the transition to UHC requires policies in the health system that bring the public and private sectors together on the path of policies moving toward the realization of the UHC. One of the basic strategies for achieving UHC is PPP (46). Ignoring the potential of the private sector is a major obstacle to achieving this important goal. In this regard, the private sector can take on a variety of responsibilities and play an effective role in achieving UHC by increasing access to health services, providing people with the services they need, and enhancing the utilization of people from the services. The results of the literature review also indicated that most of the leading countries in the field of UHC have paid special attention to the private sector (47-50).

Despite legal protections and supportive macro-national policies, general policies of the health system and adequate proper capacities and opportunities, and the presence of a capable and enthusiastic private sector in Iran, unfortunately, in recent years, many barriers to private sector performance have constrained and the role of this empowered sector in the field of health has diminished. Given the capabilities and potentials of the private sector to improve the quality and quantity of service provision, transparent and supportive PPP policies as a viable solution for effective private sector participation in health services provision in Iran should be developed and the necessary infrastructure should be provided.

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