

*Original Article****Intra sector Policy Interventions to Improve Iranian Health Financial System***

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Abstract

Background and purpose: To determine an appropriate financial model for the health system of Iran, several studies have been conducted. But it seems that these studies were not comprehensive and further investigation is required. So to design a valid and enforceable mechanism, the study of policy interventions will be considered through consensus of all stakeholders. This investigation was done to determine the necessary policies and internal interventions for health care system financial improvement in Iran.

Materials and Methods: The present work was carried out through investigating all key stakeholders in the medical system and the related sectors in Iran, along with the analysis of internal and external communication by using SWOT and STEEP.V methods.

Results: Strategic management of health-care costs, the development of a new financial system, clarity of costs, benefiting from health national accounts, the regulation of budget based on operations, preparing the credit of per capita from prepayment and risk accumulation, the development of referral systems and mechanisms, the establishment of public fund for services purchase, preventing the involvement of insurances in non-insurance cases, competing services with the private sector and increasing resources for the promotion of equality level have been determined as the key proposed interventions.

Conclusion: It seems that the interventions based to the development of improving health financial system including the deployment of full accrual basis instead of cash basis, preparing and using services cost and operational budgeting and finally, cost management and productivity are the prerequisites of reforming health financial system. [Bastani P. *Taher Nejad K. Zargan J. Shaarbafchizadeh N. Alishavandi R. **Intra sector Policy Interventions to Improve Iranian Health Financial System. IJHS 2013; 1(2):1-9**] <http://jhs.mazums.ac.ir>

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1. Introduction

Health care costs in all sectors have been increased due to multilateral development of technology in various fields such as medical technologies and people's expectations rise of health systems(1).

In addition, people's lifestyle change and population aging lead to the increase in more chronic diseases and increase in treatment periods that result in imposing more costs on health system. In this regard, it is necessary to investigate appropriate strategies for financing medical system and public participation in financing that leads to the distribution of risk from rich people to poor people as well as from healthy people to patients (2,3).

In this respect, for health system financing, four ways are considered by Bramaniam including direct paying to health care providers by consumers, paying by the government on behalf of consumers, paying mandatory social insurance and private health insurance(4).

It was reported that various methods have been chosen for health system financing in different countries and payment system, the actual cost of health care and the health care costs of the people without insurance are determined as the main methods for financing health systems. (5,6). Selecting each method will have different effects on social justice and efficiency of health system (7). So it is imperative that based on the conditions in the countries, an effective funding source be chosen to support financing public and private health care systems.

In this regard, there are significant differences between countries. For example, in high-

income countries, financing health sector is primarily funded through taxes and social insurance and in low-income countries, it's mainly done through direct payment of households. It was reported that in more than half of the countries with revenues of less than \$ 1000, the direct payment share of households for health sector is more than 40%. According to the report by Iran National Health Accounts Center, annually 30% of financing for health sector has been done through public resources, 11% from employers and more than 50% by direct payments of households (8).

In resource management's view and despite high insurance coverage in Iran, insurance agencies have not had an important role in collecting and managing health system financing. It seems that an effective policy has not been employed in selecting interventions combination and financing methods. And service providers have had a special role in selecting policies, interventions and financial resources (9).

The decrease of financial resources leads to lower quality of services offered by insurance agencies. This vicious cycle reduces the insurance role leading to the reduction of fair participation and financial resources of health sector (10).

According to the evidence, about 36.9% of Iranian population is covered by social security organizations that its financing is similar to Bismarck system. About 39.2% of Iranian population is covered by Iran health insurance organizations that Like Bvryj system is financed out of taxes. On the other

hand, 29.2% and 5.2% of above population are villagers and urban people, respectively covered by medical support services of Imam Khomeini charity organization. Furthermore, about 3.2% of Iran population is covered by Iran armed forces medical insurance (11) that similar to Iran health insurance organizations; patients and users of health services directly pay part of the costs of the services.

To determine an appropriate financial model for the health system, several studies have been performed in Iran (6-10). But it seems that these studies are not comprehensive and further investigation is required. So to design a valid and enforceable mechanism, studying policy interventions and consensus of views of all stakeholders have been considered. This research was done to determine the policies and necessary internal interventions of the Ministry of Health and Medical Education of Iran to improve health care financing system.

2. Materials and Methods

This study was conducted to determine internal policy interventions to boost health care financing system of Iran through studying the key financing research cases in the medical system and the related sectors in Iran along with the analysis of internal and external communication.

So initially, almost all Iranian experts in various areas of policy, health system and its challenges have been determined. Finally, ten governmental experts from vice- presidency for strategic planning and supervision, the ministry of economic affairs and finance, statistics center and health insurance organizations and eight medical and health experts of the ministry of health and medical

education of Iran have been selected as research fellows of this study.

The results of this study was determined using consensus and convergence methods and organization of ten expert panel along with the analysis of internal and external communication by using SWOT and STEEP.V.

SWOT was used to analyze the current evaluation of beneficiary systems including internal strengths and weaknesses and external opportunities and threatening factors. Current trends such as social factors, technological, economic, environmental, political and spiritual were evaluated by STEEP.V method.

3. Results

The results of this study demonstrated seventeen policy interventions related to functions and duties of intra-sector of health system.

The outline of interventions is summarized in table 1. The interventions are characterized as the following:

1. The managements of logistic, financial, human, information and equipment of the Ministry of Health and Medical Education of Iran change to strategic management of health-care costs. Health services extend to various sections including health services, primary health care, outpatient, admission, rehabilitation and other ancillary services.
2. According to management accounting, collecting, recording, saving and processing of financial and economic data of any organization according to the accounting principles, rules and standards should be done. However, as the prerequisite for implementing executive system, it is necessary to design or

optimize the related factors such as health services cost, rehabilitation, education, research and supporting service units and the other related systems. Furthermore, the most essential requirement is to determine a new financial system and to change accounting approach from cash to the accrual method.

3. The major problem for evaluating public hospitals services is a new hospitals 'management method called self-management. According to this method, it is expected that the efficiency of hospital management be increased. But after the implementation of this management, evidence showed that the costs of consumers' services increased and attention to consumers' satisfaction and social costs decreased relatively. Despite additional funding allocated to these institutions, due to persistent shortages of funding in hospitals self-management, compensation of lost benefits of consumers is very difficult. In this situation, clarification of dual expenses, including self-management and offsetting the social costs is necessary, in order to identify community and social benefits.

4. The process of national health accounts should be institutionalized. Due to rapidly changing of dependent environmental factors, updating national health accounts at a frequency of four or five years is not sufficient. The government must use more accurate data of national health accounts tables and it is necessary to update them every one or two year. Having reliable information about the services costs is essential for appropriate allocation of financial resources to public and private sectors. The next necessary step is to use trained personnel to extract national health accounts in order to be able to

evaluate the performance of health systems and their impact on stakeholders, on topics such as service utilization, financial and economic situation, and ultimately health and welfare.

5. A major part of the funds of Iranian Ministry of Health and Medical Sciences Universities is financed through public budget. Operational requirements of the medical universities have led to operational and financial independence. Recent studies revealed that communication and interaction between the universities and the Ministry of Health in the exchange of financial information and cost is at good level. Although, at the present time, the relationship and interaction between the universities and the Ministry of Health of Iran in the exchange of financial information and cost is satisfactory, in this condition, the exchange of information between the universities and the Ministry of Health, according to the standard detail in National health accounts tables and financial indices, should be regulated to create a more accommodating policy. Furthermore, this mechanism for other financial sources of universities such as health insurance revenue, household and contracts with other agencies in compliance with the detailed information required for the National Health Accounts is necessary.

6. Correcting budgeting system is essential to upgrade the process of health sector financing. Now, basic steps have been taken to improve budgeting. In a modern financial system framework, improvements of coding cost centers, property and assets record ,the cycle of accounting documents procedures, funding, storage, salaries, the regulation of standard financial statements, and cost determination of

operational services have been performed. Determining the exact prices is fundamental and an important step to create accrual accounting, evidence-based tariff setting, performance-based payment, operational budget that will lead to a DRG model. For establishing an operating budget as an appropriate model, the budgeting process of the country should change. In this regard, cultural practices, and sensitivity in governance level have been started but more activities are required in decision making levels of macro-economy. Obviously, by the establishment of this model, budget regulation based on the development rules will be improved. Furthermore, allocation and distribution of funds based on the planning and performance of administrative and executive units will be done. In addition, payments to individuals will be performed according to the model of performance-based payment.

7. To increase the efficiency as a result of the use of financial resources, a considerable proportion of health expenditure per capita of country should be derived from pre-payment and risk accumulation. In this case, less capital expenditure and cost of per capita will be imposed on each person. * This type of performance in health sector will occur when the insurances contributions from household consumption basket that a significant part of which will be spent by their direct payments increase to at least double compared with the current level.

8. The status of section exchanges indicates that unlike the other economic sectors, health service users have no role in determining prices level of health services. Most consumers do not receive effective services

due to lack of attention to health services cost in public institutions. If it is assumed that the current situation of public institutions and private nonprofit centers is suitable and due to the necessity to create and maintain integrity in health system, it seems that the development of referral system and/or managed care system are able to provide effective services using all resources funds of public and private sectors.

9. Enhancing production capacity and health services in the sector due to the existing potential capacity is possible in particular by solving the unemployment problem of the graduates of health and medical science. Now, the problem of poor geographical distribution of skilled manpower of health sector is one of the barriers to increase the service capacity, which is more important than the general problems of employment involved in the section exchanges. In this regard, predicting and providing governmental specific budget for manpower employment and compensation in appropriate level according to geographical location of employment place will be necessary.

10. The problems of vertical disparities in the sector should be reduced for patients who employ the services of public agencies for treatment and are covered by insurance institutions through facilitating insurance payments. Due to lack of continuing to support insurance after treatment completion, health insurance cannot be considered as prepayment of people for cost reduction of disease risk. According to the results of this research, the health insurance for Iranian insured people is a financial intermediary to the transfer of state payments. Therefore, it is recommended that the necessary steps

including insurance companies not involving in non-insurance activities, clarification of facilities costs as the cost of social services, public and direct treatments and limitations on the operation of health insurance be considered.

11. Due to the rapid differentiation strategy, clear separation of purchaser and provider of services in public sector and organizational support through integrating all public resources for health care and reducing administrative overhead costs, uniformity in the contract with all providers, creating a "public fund buying services" apart from health service providers will be necessary.

12. Another issue is equality, but instead of equal access, equal needs should be emphasized.

In equality according to the needs, needs-based service allocation with the best method to perform the services and after reducing the unnecessary costs will be considered. The most suitable way to supply medical services is to design a referral mechanism. In the absence of such a mechanism, devoting resources to this kind of equality should be assigned to public service institutions. As result of this study, it is revealed that increasing and orientating funding sources for equality of funding and the direction of services to provide the most appropriate health-care and least expenses are possible.

13. To integrate the exchange system in the health sectors and to compete with private and non-profit sectors, the services and activities of public hospitals and health institutions similar to the private centers should be developed for those who wish to receive this type of service with paying more than the state rate.

14. Getting a bit more proportion from the received amounts by private for-profit institutions compared to nonprofits centers is one of the alarming threats of Iranian health sector, particularly in comparison with the other countries. According to the results mentioned in the last paragraph and with an emphasis on the definition of services compensation of physicians and fringe benefits in the private sector, the process of granting licenses for private nonprofit institutions and their operational and financial support should be rapidly improved. As a long-term goal, the proportion from the received amounts by private nonprofits institutions and private for-profit institutions should be changed to 40% and 60%, respectively. It seems that promoting these ratios similar to the situation in developed countries will provide a very good condition for private non-profit institutions to have contract and cooperation with social and health insurances according to regulatory frameworks of ministry of health.

15. Due to the remarkable capacity of the health sector to provide health services, education and diagnosis, production of medical equipment, the existing regulations should be modified as a priority in the field of finance through transactions spreading from this area and the share of resources from export in total health resources should increase. 16. Integrating systems of data, information, monitoring and evaluation to establish a relationship between the determinants of health, utilization, costs and outcomes should be conducted. This work can be performed in the first level as well as the second level of services.

Such a system would be useful for payment and increasing quality that results in providing permanent infrastructure for directories and guidelines based on the evidence.

17. Maintaining and improving society health is the responsibility of the government and according to the fifth program; healthy human has been introduced as the central subject of sustainable development. As a result of this research, we propose that in order to ensure

financial stability, increasing decision-making power of health ministry and performing governance responsibilities (policy, standardization, relations planning, funds allocation and monitoring) and all credits of health sector be collected in a unit fund entitled "Health Promotion Fund". According to this suggestion, enterprise development will be increased through exchange and stock market which may lead to the establishment of a bank called "Health Banks".

Table 1. Identified interventions as a result of technical discussions with internal and external-sector beneficiary

Policy interventions related to health financing system
Changing the managements of logistic, financial, human, information, and equipment of the Ministry of Health and Medical Education of Iran to strategic management of health-care costs
Designing a new financial system and changing accounting approach from cash to accrual method
Expenses clarification of dual sources including self-management and offsetting social costs
Exploitation from national health accounts to evaluate health system performance and their impact on stakeholders
Providing arrangements to adapt regulatory information details for interaction between universities and the ministry of health with standard details in tables of national health accounts and financial indicators using policymaking
Planning health-care budget based on rules and developmental programs and allocation and distribution of funds according to planning and performance of executive and administrative units
Providing a significant share from expenditure per capita of health using prepayments and deposits risk
Development of referral system and/or managed care
Predicting and providing governmental specific budget for manpower employment and compensation in an appropriate level according to geographical location of employment place
Insurance companies front involving in non-insurance activities, clarification of facilities costs as the cost of social services, public and direct treatments and considering limitations on the health insurance operation
Necessity to create "public fund of buying services" and independent from service providers in health market
Providing competitive services in hospitals and public health institutions with nonprofit rates and in competition with private centers
Increasing and orienting funding sources for equality of funding and direction of services in order to provide most appropriate health-care and least expenses
Emphasis on the definition of physicians salary and fringe benefits in the private systems and rapid recovery procedures for the establishment of non-profit private institutions, granting financial and operational support to them
Emphasis on the need to exchange expanding health sector and increasing the share of funding sources from exports in total health funding sources by improving the existing regulations
Designing and implementation of integrated systems of statistics, information, monitoring and evaluation for communication with health determinants, benefits, costs and consequences
Gathering health credits in a fund entitled "Health Promotion Fund"

4. Discussion

It was reported that the government of Iran has a prominent role in financing health sector. Government obligations include supplying at least 10% of funds of social security organizations, employer's role in insuring civil employees and armed forces paying nearly the entire cost of rural insurance and urban hospital, paying 70-100 % of fee paid in strata insurance, paying part of the premium of insurance of Imam Khomeini charity organization and direct payment of public funds to health centers (12).

However, despite government support, World Health Organization in 2000 reported that out of 191 countries in health status, Iran ranked 93 and from the perspective of justice in the allocation of financial resources, its rank is 112 (13). Furthermore, World Health Organization report in 2006 also indicated that 50% of the expenses of medical health care at the time were paid directly by the customer (14). The results of this study implied that determining policies of internal and external sectors and coordination with the other related departments and health-related ones in order to decrease the direct payment of customers and to create a fair system of funding will be necessary. Therefore, in this study, we suggested various interventions to update national health care accounts and to use accurate data based on household data. Moreover, management accounting, a tool to ensure appropriate use of funds and establishing a system for accountability against it is defined as accounting planning activities, control and decisions making in an organization (15).

The interventions that are determined by further reform in the health financial system are very important. In this regard, complete and comprehensive settlement accrual basis instead of cash basis and cost of services, operating budget and finally, cost management and productivity are the prerequisites for reforming finance system.

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References

1. Colombo Francesca. Lessons for Developing Countries from the OECD. In: Preker Alexander S, Scheffle Richard M, Bassett Mark C, editors. Private Voluntary Health Insurance in Development: Friend or Foe? Washington D.C, the World Bank; 2007.
2. Ekman B. Community-Based Health Insurance in Low-Income Countries: A Systematic Review of the Evidence. Oxford University, 2004; 19(5) Available from: <http://www.ncbi.nlm.nih.gov/pubmed/15310661>.
3. Limwattananona S, Tangcharoensathienb V, Prakongsai P. Catastrophic and poverty impacts of health payments: results from national household surveys in Thailand". Bulletin of the World Health Organization. August 2007; 85(5):8-18.
4. Wanderling D, Gruen R, Black N. Private Health Insurance. In: Introduction to Health Economics, 2004; Open University Press.
5. Sekhri N, Savedoff W, Thirpathi Sh. Regulating Private health insurance to Serve the Public Interest: Policy Issues for Developing Countries. World Health Organization, 2005.

6. Barouni M, The comparative study on health financing mechanisms for insurance companies in selected countries and presenting an appropriate model for Iran, Theses for MSc in Health economics, Health Management and Information Sciences, Iran University of Medical Sciences, 2004 [Thesis in Persian].
7. Ivans D, Kareen Hoo K. Designing financing systems to reduce catastrophic expenditures, *Homaye Saadat*, 2006;13(2):10-19
8. Hagh Parast H, Estimation of product function of general hospitals affiliated with Iran University of Medical Sciences Theses for MSc in Health economics, Health Management and Information Sciences, Iran University of Medical Sciences, 2003 [Thesis in Persian].
9. Ramezani M, the survey on health financing sector of selected countries, Theses for MSc in Health economics, Health Management and Information Sciences, Iran University of Medical Sciences, 2005 [Thesis in Persian]
10. Zaree H, The strategies of privatization in treatment insurance: a comparative study (vision, strategies, model), 2nd ed. Tehran, treatment service organization, cultural and scientific company, 2006 [Book in Persian].
11. Haji Zadeh M. The survey on Iranian health sector financing applying household budget and Kakvani Index during 1996-2001, Theses for MSc in Health economics, Health Management and Information Sciences, Iran University of Medical Sciences, 2002 [Thesis in Persian].
12. Maleki MR, Ibrahimi Pour H, Karimi I, Gohari MR. The challenges of reaching sustainable overall insurance, *Payesh*, 2009;9(2):173-87
13. World Health Report 2000, Health Systems: Improving Performance. WHO: Geneva, 2000
14. The World Health Report 2006: working together for health. World Health Organization: Geneva, 2006
15. Moghadam AK, Shafie zadeh A. Accounting principal, 3rd ed, Tehran, Payam Parastoo Press, 2005[Book in Persian].