Interaction between stewardship and social health insurances: A comparative and document analysis

Aslan Nazari¹, Irvan Masoudi Asl²*, Masoud Abolhallaje³, Amir Ashkan Nasiripour⁴, Mohammad Javad Kabir⁵

Received: 10 Apr 2018 Published: 26 Aug 2018

Abstract

Background: Social health insurances provide protection to access affordable coverage of services and stewardships of health systems need to intervene to fulfill these objectives. This study conducted to assess interaction between stewardship and social health insurances.

Methods: This qualitative study conducted in two phases as comparative study and document analysis in 2018. Comparative study employed to identify the dimensions and requirements of interaction between stewardship of health systems and social health insurances in countries around the world. In document analysis, all evidence about Iran health financing reviewed. Data extraction forms were used to gather data.

Results: There were less interaction between stewardship and social health insurances in revenue collection and risk pooling. Advisory role of stewardship and proposals to coverage of uninsured people and performing risk analysis were some examples of such interaction. In Iran’s health system, where stewardship plays a magnificent role in service provision, the basis of interactions are contracts, payment systems and timeline of payments.

Conclusion: Mechanisms of interaction in Iran is not clear or does not work properly. Thus, nonstructural merging of social health insurances needs to redefine these mechanisms.

Keywords: Stewardship, Health system, Social health insurances, Interaction, Iran

Introduction

Many households, estimated more than 100 million people, face catastrophic health expenditure each year (1). In this regard, of the main methods of financing patients are health insurance and universal coverage (2).

Recently, low and middle income countries have been interested in developing social health insurance to cover the entire population of the country (2). Therefore, stewardship of health systems should help to achieve universal coverage and financial protection. Health systems through stewardship and their interaction with provision and health financing, play a critical role in improving health and also are responsible for financial protection in general and specialty hospitals (3-5). Stewardship in health systems can recognize uninsured people, warranty better purchasing and develop community insurances (6-8).

To this regard, several methods have been implemented in different countries to carry out effective interventions. Recent reforms in Turkey through the implementation of universal coverage and the health equity (9), in Latin American countries to increase the covered population (10), improving the quality of services provided in Romania by implementation of quality systems and coordinating between different levels of services (11), financing reforms in Chile and difficulties in ensuring access to affordable services (12) are part of recent interventions in health systems in different countries. In particular, recog-
nizing uninsured people and cover them through in Pakistan (7) and community insurances in Japan (8) which has received a large proportion of insurance funds are among the special experiences in health financing. Interventions in different countries may be carried out for an individual or a set of functions. However, the issue of interaction between components, and not just the effective functioning of one component, leads to sustained effectiveness of an intervention. Therefore, it is necessary to intervene in the health system financing of Iran.

Interaction is a reciprocal relationship between two or more actors/agents in which the exchange process is given in terms of a shared pattern and conceptual mediation (13). Despite its importance, patterns of interaction are questionable in provision of quality health services in a continuous manner in financing and social and health insurance, coordination in the health system, and stewardship challenges (14, 15). Interaction between the components of stewardship and social health insurances is critical because the proper function of one component is heavily influenced by the impact and proportional performance of other components. As an example, Mexico, by focusing on the role Mexican Ministry of Health, has maintained an effective interaction between the components of health policy-making and stewardship of health services and has also enabled effective areas for protecting patients' finances and the community members' coverage (16, 17).

The multiplicity of health insurance funds has made insurance companies in each country have their own approach. To this regard, some of raised challenges to the process of interaction between stewardship and social health insurances include the unmatched scope and nature of various insurance funds activities; different organizations and structures in insurance companies; the accumulation of different risks between funds due to different sizes and different age groups with different risks covered by each fund; unmatched resources of income and savings accounts for various insurance organizations; different service packages; different service packages and service purchases for the population covered by each insurance fund and the way of paying demands to providers.

To address the challenges to the health financing system of Iran requires the acquisition of financing components for effective interventions. This can be done through collaboration, coordination and interaction among components. Therefore, studying the health status of Iran shows that the biggest problems are lack of interaction between the health system and insurance in the field of financing. In this regard, the present study conducted to assess mechanisms of interaction between stewardship of health systems and social health insurances or funds.

Methods
This qualitative study was carried out in two stages of comparative and document analysis in 2017. In comparative research paradigms are identified and the status, experiences and characteristics of the subject are investigated (18). To this end, initially, various dimensions of interaction between the Ministry of Health, as a health system and social health insurance as a health sector were identified. Then, online sites and centers related to the health system financing in various countries were searched and some countries were selected for analysis based on inclusion criteria including having hospital sector health system with the public sector prevalence, a clear financing system, leading in the health system reform, having financial health experience in the health system, and having at least one published article in the field.

Data extraction form was used to collect data from selected countries. First, based on the literature review, the minimum variables of the interaction between the Ministry of Health and Social health insurances were identified and the data extraction form was designed. The information at this stage was collected through referring to books, journals, and authoritative sites including the World Bank website, World Health Organization, as well as Google scholar, ProQuest, Emerald, PubMed, Springer, Index Copernicus, Web of Science, Science Direct, and Scopus.

All studies in the field of insurance and health were investigated with following keywords: Financing, Health System, Revenue Collection, Risk Pooling, Purchasing, Interaction, Health Insurance. Documents included in this study which contain types of interactions (342 documents). All abstract and full texts were reviewed by two researchers. Mechanisms of interaction were found in 11 documents and these documents summarized by research team (Fig. 1). In order to analyze and compare the data,
comparative tables were used at this stage which included identification of interactive approaches of the Ministry of Health and social health insurances obtained from financing investigation in the studied countries. Therefore, the data were entered into a comparative table as the basis for the analysis and comparison of countries. To analyze similarities and differences of these dimensions, including collecting resources, accumulation and purchasing of services were analyzed.

In the document analysis phase, all studies, documents, reports, and existing models were related to the health system macro structure framework in Iran. Related global models were the World Health Organization 2000 model and related upstream documents, such as the 1404 Vision Document, General Health Policies, Territorial Policies, Legislation, Supreme Council Conclusions, and reports of related organizations such as the Expediency Council and the Research Center of the Islamic Consultative Assembly and the Academy of Medical Sciences. A researcher-made checklist was used to collect related political documents. This checklist contained important items such as the title, type, general description of the document/report, the time and place of publication, the organization concerned, related issues with the content of the document/report and related items to the content of the document.

### Results

**Results of comparative phase:**

1. **Revenue Collection:** Collection of resources and the ways countries provided insurance funds were different (19). Some countries, such as Vietnam, have introduced a number of multiple competitive insurance systems and in some others, such as the United States, Germany, Netherlands, Belgium, and Switzerland, followed competitive health insurance market (20). In Netherlands, insurance companies can offer lower premiums (up to 10%) to people who are registered through cumulative agreements. The premium rate can vary according to the type of coverage model (non-cash benefits against repayment) (21). In Germany, health insurance funds currently collect premiums as a same percentage of wages or gross income and premiums are collected in a national central fund, along with tax subsidies paid by the government to cover children (21). Some countries try to attract foreign donations, which is a model for interaction and cooperation between recipient governments and all stakeholders directly involved in the health sector. This approach aims to integrate all domestic and foreign funds with the state budget (22, 23) (Table 1).

2. **Risk Pooling:** In some countries, such as Mexico, they have dedicated certain resources for those who main-

### Table 1. Interaction mechanisms in revenue collection in different countries

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>Interaction mechanisms</th>
<th>Country/Countries</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Determining the premium between different groups</td>
<td>China</td>
<td>Usually in countries where the compulsory insurance system is responsible for managing the financial system in participation right and the government is responsible for managing the financial system of the rest of the population.</td>
</tr>
<tr>
<td>Revenue Collection</td>
<td>Multiple competitive insurance</td>
<td>Germany, Netherlands, Belgium, Switzerland and United States</td>
<td>The legality of the difference between insurance and service packages, the choice between the level of service packages and the premium paid to insured persons.</td>
</tr>
<tr>
<td></td>
<td>Discount on premium for collective agreement</td>
<td>Netherlands</td>
<td>Possibility to offer lower premiums to collective registration, the possibility of changing the premium rate based on the type of coverage.</td>
</tr>
<tr>
<td></td>
<td>Attracting foreign donations based on the structure of each country</td>
<td>Some African countries</td>
<td>A model for interaction and cooperation between recipient governments and all stakeholders directly involved in the health sector. The goal of this approach is to integrate all internal and external sources of funding with the state budget.</td>
</tr>
<tr>
<td></td>
<td>Determining the same premium from the gross wage or income</td>
<td>Germany</td>
<td>Determining the premiums as a same percentage of gross wages or income, collecting premiums in a central national fund with tax subsidies (for covered children).</td>
</tr>
<tr>
<td></td>
<td>Funding through mechanisms of the Ministry of Health</td>
<td>Japan, Indonesia</td>
<td>The possibility to determine the rate applied by health associations from 3 to 9.5 percent (subject to the approval of the Minister of Health and Welfare), the compulsory insurance fund for employed and retired municipal staff, retired army personnel and their relatives by the Ministry of Health and Finance.</td>
</tr>
</tbody>
</table>

### Table 2. Interaction mechanisms in risk pooling in different countries

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>Interaction mechanisms</th>
<th>Country/Countries</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Risk pooling</td>
<td>Achieving cross-subsidies</td>
<td>Japan, France</td>
<td>Japan; Standardization of service package and implementation of redistributive mechanisms, France; Integrating risk pooling programs into smaller and bigger.</td>
</tr>
<tr>
<td></td>
<td>Using the community-based insurance</td>
<td>Some African countries</td>
<td>In some low-income countries, most people in rural areas and in the informal sector do not have the opportunity to create a risk pooling fund.</td>
</tr>
<tr>
<td></td>
<td>The initial offer of the optional insurance and compulsory insurance in later stages</td>
<td>Japan</td>
<td>The development of health coverage for informal, self-employed, and unemployed populations using community-based health insurance programs based on residence managed by municipalities.</td>
</tr>
<tr>
<td></td>
<td>Identifying and uninsured populations</td>
<td>Mexico</td>
<td>Identification of uninsured populations and adding them to funds by the Ministry of Health.</td>
</tr>
</tbody>
</table>
Interaction of health system stewardship and social health insurances

... provide services for low-income groups. Therefore, the Ministry of Health, in addition to other tasks assigned, identifies uninsured populations and adds them to funds (24). In others, despite having multiple risk pooling funds, they have been able to achieve cross-subsidies by standardizing key aspects of the system and integrating risk pooling. Japan by standardizing of the service package and implementation of redistributive mechanisms and France by integrating less and bigger risk pooling programs have managed to achieve this goal in spite of the multiplicity of funds. In some low-income countries, where most people work in rural areas and there is no possibility of creating a risk pooling fund, the establishment of community-based schemes has become popular. Such plans began with African countries, often with fewer than a hundred members (25). Japan has developed health coverage to informal, self-employed, and unemployed populations by using health insurance plans based on residence managed by municipalities (26) (Table 2).

3. Purchasing services: In single-insurance systems, the insurer generally has a stronger position than insurance providers due to the exclusive purchasing power. Primary health services in countries of Austria, Belgium, France, Germany, Greece, Hungary, Japan, South Korea, Luxembourg and Poland, which have social health insurance, are compulsory for all or most of the population which the financing is through income-related social contributions and government revenue from public taxes. In these countries, insurance coverage is often related to people’s occupation and is usually extended to the employed person’s relatives. This is done in Belgium, Korea, Luxembourg, Poland and Turkey as a single payer and only one fund purchases basic health care services; however, in Austria, France, Greece, Japan and Mexico, service purchasing is not exclusively done by one fund (21) (Table 1). Countries such as Thailand and Chile have separated insurance and financial management from health services and established the National Health Fund to integrate all government health resources in a unit fund, to reduce overlap and provide a basis for implementing strategic purchases in the public sector (27).

Determining the method of payment to doctors in different countries can also be done by interacting between health insurance providers. In Belgium, the method of payment to doctors is determined by cumulative social health insurance, individual health insurance and providers. In France, this is done by federal or central government and social health insurance, and in Slovakia, it is exclusively related to the health insurance (21). Determining payment method for a hospital is also diverse in dif-

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>Interaction mechanisms</th>
<th>Country/Countries</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Negotiation to determine the initial service package by a buyer</td>
<td>Belgium, Korea, Luxembourg, Poland and Turkey</td>
<td>Coverage is often related to individuals’ occupation, the existence of a single payer, and purchasing primary health services by a fund</td>
<td></td>
</tr>
<tr>
<td>Negotiation to determine the initial service package by several buyers</td>
<td>Austria, France, Greece, Japan and Mexico</td>
<td>The purchase of services is not carried out exclusively by one fund.</td>
<td></td>
</tr>
<tr>
<td>Separation of the provider and the buyer</td>
<td>Chile, Thailand</td>
<td>Reducing overlap, providing a basis for implementing strategic purchases in the public sector</td>
<td></td>
</tr>
<tr>
<td>The package of various benefits</td>
<td>Thailand, Slovakia, Czech, Netherlands and Switzerland</td>
<td>The impossibility of reducing benefits of the insured, the possibility of increasing benefits</td>
<td></td>
</tr>
<tr>
<td>The payment method to doctors</td>
<td>Belgium, France, Slovakia</td>
<td>In Belgium, by social health insurance, individual health insurance and providers, in France the federal or central government, and social health insurance, and in Slovakia exclusively by health insurance.</td>
<td></td>
</tr>
<tr>
<td>The payment method to the hospital</td>
<td>Thailand, South Korea</td>
<td>For hospital services, the global payment system is based on dependent diagnostic groups and for health promotion and prevention services based on per capita system and performance-based payment</td>
<td></td>
</tr>
<tr>
<td>Providing information about the provider quality</td>
<td>South Korea, Netherlands, Belgium, Slovakia, Hungary</td>
<td>Information about clinical complications and using appropriate processes, the patient’s satisfaction and experience</td>
<td></td>
</tr>
<tr>
<td>Providing information on the price of the service provider</td>
<td>In most countries such as France, Greece and Slovakia</td>
<td>In the form of tariffs for designated services</td>
<td></td>
</tr>
<tr>
<td>Cost control</td>
<td>South Korea, Thailand</td>
<td>In the direction of changing the fee for service system to prospective payments system of dependent diagnostic groups</td>
<td></td>
</tr>
<tr>
<td>Negotiation of an insurer with a provider in basic services</td>
<td>Czech, Germany, Netherlands, Slovakia and Switzerland</td>
<td>The right to choose the insurer from the consumer, the obligation to register all applicants and accept the extension of their contract from health insurers</td>
<td></td>
</tr>
<tr>
<td>The insurer’s negotiation with the doctor and hospital provider</td>
<td>Czech, Germany, Slovakia and the Netherlands</td>
<td>Insurers can negotiate with doctors and hospitals in order to contract.</td>
<td></td>
</tr>
<tr>
<td>Negotiation of an insurance company with a pharmaceutical company</td>
<td>Germany and the Netherlands</td>
<td>The possibility to negotiate for insurers to ask for a discount from pharmaceutical companies</td>
<td></td>
</tr>
<tr>
<td>Determining the certain route of treatment</td>
<td>Germany and the Netherlands</td>
<td>The possibility of presenting plans requiring patients to follow specific care paths or selecting programs with limited networks of providers.</td>
<td></td>
</tr>
</tbody>
</table>
tional providers determine the type of payment to the hospital (21). For hospital services the global payment system
depended on diagnostic groups is used. Furthermore, pre-
ventive and health promotion services are part of the basic
package and the payment method to their providers are
based on the per capita system and performance-based
payment (28). In Slovakia, Czech Republic and Nether-
lands, there is no possibility to reduce benefits of the in-
sured, and there is only a possibility to increase benefits.
However, in Switzerland, in return for fewer premiums,
the insured can use managed care services (21) (Table 3).

Regarding the quality level of services offered by pro-
viders, in South Korea, insurers provide information on
clinical implications and use appropriate processes. In
Netherlands, insurers and the media report clinical out-
comes, using appropriate processes, patients’ satisfaction
and experiences; furthermore, information about the price
of provided services is also available in different coun-
tries, and insurers have options to purchase services. An
example of price information for services or tariffs in
France, Greece and Slovakia is available. In purchase of
basic health services, considering the consumer’s right to
choose the insurer is a prerequisite for a real competition
in the health insurance market. Five countries of Czech
Republic, Germany, Netherlands, Slovakia and Switzerland
offer consumers the right to choose the insurer. In all
these countries, health insurers are required to enroll all
applicants and accept their contract extension (21). In or-
to change the fee for service system to prospective
payments system, the dependent diagnostic groups of this
system were implemented voluntarily in South Korea and
Thailand in several centers (29). In four countries of
Czech, Germany, Slovakia and Netherlands, insurers can
negotiate with doctors and different hospitals in order to
contract. In Germany and Netherlands, insurers are also in
a position to ask for a discount from pharmaceutical com-
panies, and in these countries, insurers also have the pos-
sibility to present plans that require patients to follow spe-
cial care paths or to select plans with limited networks of
providers (21) (Table 3).

**Results of Document Analysis phase**

The General Health Policies (GHPs) of the Islamic Re-
public of Iran imparted by the Supreme Leader of Iran
were examined. In 7th item of these policies, the steward-
ship functions separation, financing, and provision of ser-
VICES in the field of health are described with the aim of
responding, realizing justice, and providing good therapeu-
tic services to people. In item 2-7, the management of
health resources is provided through the insurance system
of Iran Ministry of Health and Medical Education and the
cooperation of other centers and institutions. By elaborat-
ing the policy and analyzing other health policies and up-
stream legislation such as the constitution, vision and sim-
ilar regulations (other communicative policies and theoreti-
cal theories), the issue of 8th policy can be explained, de-
scribed and stipulated to have definite functional and
planned effects.

The acceptance of the insurance system as the main
method of financing has several consequences; (A) the
health system will operate out of the national medicine
method and will act as a health insurance (buyer and sell-
er), B) according to the principle of separation, the buyer
and the seller must have a certain legal role and personali-
ity and therefore the contractual relations must be formu-
lated, developed and enforced, C) the insurance must be a
cognizant buyer and act with the role of providing re-
sources and risk pooling, D) the basic insurance must pro-
vide all purchasing operations for health services with
preventive priority to treatment (2nd policy), E) the basic
social insurance should play the role of intervention and
controlling the health market; therefore, it should become
as a unit purchaser in the health system to be effective in
this market. Furthermore, the purchaser must provide
basic health care services (Integrated Health Services –
Policy, F) with effective universal coverage at a reasona-
able depth (9th Policy) to reduce people’s share from costs,
G) elimination of unnecessary services and expenditures
(9th Policy) and the same tariff for the public and non-
governmental sectors should also be highlighted in the
insurance policies, and H) Services defined outside the
base package are covered by supplementary insurance
(and not surplus insurance). Therefore, the necessity of
interaction between the Ministry of Health and social
health insurances is essential and the seriousness of the
involved sets in this field is emphasized. Reviewing ap-
provals of the Supreme Council of Insurance shows the
interactive procedure of the Ministry of Health with social
insurance funds. The review of approvals was carried out
from 2004 to 2015. Among the interactions between the
Ministry of Health and Social health insurances the fol-
lowing can be noted; Determining a percentage of people’s
salaries and income for health, Suggesting to cover certain
groups such as members of the medical system, the bar
association and non-insurance students, Determining the
specific patients’ responsibilities in the area of revenue
collection, Determining tariffs for diagnostic and therapeu-
tic services in the public and private sectors annually,
Reviewing and correcting the provisions of the contract
between the fund and providers. Implementation of family
doctor program and referral system in selected provinces
through coordination of provision and delivery, Suggest-
ing to cover dental services, accelerating the provision of
basic services, Healthy tourism and Foreigners’ insurance,
Establishing regulatory mechanisms for pharmacies’ tariff,
and the performance integrity of the base insurance funds
in the area of service purchases.

**Discussion**

Functions and components of the health system and in-
teractions between them considering the responsibility and
duties of each function shape health outcomes (16, 30-32).
Therefore, the present study was conducted with the aim of
investigating the interactive relationship between the
Ministry of Health as a health system and social welfare
funds in the field of health financing.

Based on the findings of this study, the achievement of
non-structural reforms in the field of health financing
Interaction of health system stewardship and social health insurances

through coordinated approaches and the creation of interactions among influential collections is possible. These approaches are derived from three areas of revenue collection, risk pooling and purchasing of services in a comparative way. The proposal to cover groups of people who do not have basic health insurance, as a topic both in the studied countries and in the Supreme Council of Insurance, can indicate interactions between the stewardship and social insurance funds. This issue was also investigated in the study by Shi et al. in 2003 in China and some suggestions are presented for strengthening the social role of public hospitals in the form of financing basic service packages for poor and vulnerable people and increasing government subsidies at the level of primary hospitals for ease of access (32). However, it should be noted that, despite the great benefits, a lot of time are required to gain them. As Tinsley et al., in a 2014 study entitled "Are Massachusetts Healthcare Reforms Effective for Poor Workers? The Findings from Opportunity Analysis," showed that the net amount of coverage for poor workers in general and among investigated groups has increased. Furthermore, there was an increase in the coverage of poor workers during the years of reform; however, this has been lower in poor unemployed groups and rich people. The final conclusion of this study is that the increase in coverage in the form of financial protection reforms for patients and through the development of Medicaid, despite the increased coverage, has not effectively reduced the level of inequality in insurance coverage in Massachusetts (33).

Other findings of the study showed that although there is no complete information transparency on the way the Ministry of Health interacts in the area of financing as a health care system and social insurance funds, and how it is used, there are some experiences in general topics. Areas of review and policy on per capita treatment and diagnostic and therapeutic tariffs are among these interactions which are carried out continuously and annually. Using temporary or fixed committees is a feature that can be effective in completing expert actions among stakeholders. The concept of professional ethics in selected countries and in all sectors has been studied and examined.

The health in all policies in the form of general policies of health was announced by the Supreme Leader of the Islamic Republic of Iran in order to achieve perspective goals of Iran (1404), in 14 items and approaches of development plans and the health system development map in the form of governance policy was presented. The 7th item of these policies addresses health system functions of Iran. The duty separation of the health system, financing and provision of services in the field of health with the aim of responding, realizing justice and providing good treatment services to people were investigated by considering the role of the health system, including executive policy-making, strategic planning, evaluation and supervision of the Ministry of Health and Medical Education. Such affairs were done through the insurance system based on the Ministry of Health and Medical Education and the cooperation of other centers and institutions, provision of services by service providers in private and public sectors, and the coordination and organization of them according to the mechanism determined by the law. Lack of a one-dimensional oversight at functions individually, regardless of the coordination and communication between functions is important. A comprehensive oversight at health system functions together in order to achieve a broad understanding of the health system in the country is necessary, since the proper performance of a function, without considering the impact of other functions, and the proportionality and coordination between functions, does not establish the successful performance of the health system as a single unit. It seems that in order to implement these policies and in the course of reforms that have been carried out more or less in recent years in the country, it is necessary to redesign interactive aspects and document them by playing a more serious role of the government in the coordination of organizations and relevant institutions and legal requirements in order to achieve effective and healthy society.

Among the limitations of the present study, there was a lack of data and insufficient information in some items are notable.

Conclusion

Based on the most important findings of the research, there is a specific structure and mechanism for the implementation and optimal use of the interactive capacity of the Ministry of Health in Iran as a stewardship of health system and social insurance funds, and requires the establishment of these mechanisms in a scientific way. Utilizing the concept of interaction in the field of financing requires careful examination of conditions of each country and it is necessary to create the needed infrastructure to achieve the desired situation. The necessity of identifying interactions map in different countries is inevitable. Due to the importance of this issue, using these methods is not recommended without clear rules and structures. In this regard, it is suggested to design the appropriate administrative structure based on these methods in the Supreme Council of Insurance. The existence of a common unit at the planning level of the Ministry of Health and Social health insurances and common expert actions can be effective in interacting responses.

Acknowledgments

This manuscript is part of a PhD thesis defended in the College of Medical Science and Technology, Science and Research Branch, Islamic Azad University and also supported by Social Security Research Institute by contract number 20961122 in 2018.

Conflict of Interests

The authors declare that they have no competing interests.

References
