

# Assessment of the Role of Health System Reform Plan in Franchise Reduction for Patients Referred to University Hospitals in Iran

Fereydoon Khayeri <sup>\*1,2</sup>, Leila Goodarzi <sup>1</sup>, Ali Meshkini <sup>1</sup>, Ebrahim Khaki <sup>1</sup>

1. Department of Treatment Supervision, Ministry of Health and Medical Education, Tehran, Iran.

2. Department of Nursing, School of Nursing & Midwifery, Iran University of Medical Sciences, Tehran, Iran.

Article info:

Received: 10 Nov. 2014

Accepted: 11 Feb. 2015

## Keywords:

Franchise reduction,  
Health reform,  
Assessment

## ABSTRACT

**Background:** Today health care system is considered as a important organization to achieve equity and improve the performance so it is necessary for policy makers and decision makers improve performance of health care system. This study was performed to evaluate the health care reform program with emphasis to decrease catastrophic payment of patients hospitalized in public hospitals.

**Methods:** This study is a descriptive cross-sectional design which was done from 8 May 2014 to 2 Sept. 2014. A sample of hospitals included 197 hospitals out of 550 hospitals affiliated to 57 universities of medical sciences which were selected randomly and were visited by experts. The main tool of this study was a standard checklist prepared by experts of headquarters of Ministry of Health and Medical Education (MoHMD).

**Results:** Out of the entire hospitals studied, 79% were public and 21% were private. The highest mean and standard deviation was related to referral chain ( $2.71 \pm 0.53$ ) as the most favorable dimension and the least mean and standard deviation was related to two dimensions of education and information of staff personnel ( $2.37 \pm 0.67$ ) as the most unfavorable dimension. The results of study also indicated that there is statistical, significant correlation between dimension of informing personnel and type of hospitals. The difference in mean of sections scores was significant except for the dimension of investigating health documents at universities.

**Conclusion:** As a result, current health care reform plan will increase responsiveness and accessibility and will finally decrease unnecessary expenses in health market.

## 1. Background

Equity in health, as a basic goal of health care reform has been considered more than before by Ministry of Health and Medical Education (MoHME). This attention requires investigation of and intervention for the factors causing injustice and also, establishment of the measures which will promote justice in health. Policy makers have paid attention to the organization of health care systems to guarantee universal access to services. Service purchase

is actually a process in course of which the collected resources are paid to the providers to deliver a set of services and general and specialized health care interventions. Therefore, several financial pressures are imposed upon health sectors in societies (Murray et al. 2003, p. 12). It has been observed that if patients are not financially supported in health sector, they will suffer from extreme poverty and families will face with catastrophic expenses due to illness and economic poverty (Keshavarz et al. 2012). Deploying equity in health sectors and protecting vulnerable and indigent groups is one of the major responsibilities

### \* Corresponding Author:

Fereydoon Khayeri

Address: Department of Nursing, School of Nursing & Midwifery, Iran University of Medical Sciences, Rashid Yasemi St., Vali-Asr Ave., Tehran, Iran.

Tel: +98 (912) 3081384

E-mail: khayer.f@iums.ac.ir

ties of governments. Private sector dominance and lack of cohesive financial system in health care system are among serious obstacles to increase optimal and favorable productivity from resources. Considering the nature of health sector, it is necessary to design indices by which we can make decisions and give special priority to vulnerable groups.

In recent years, policy makers have controlled catastrophic expenses and fair contribution of families through developing physical facilities and service provider human resources. They have allocated resources for supplying expenses of incurable patients, but this does not suffice (Murray et al. 2001). Each year, about 44 million families and more than 150 million persons are faced with catastrophic of health and almost 25 million families and more than 100 million persons are led toward poverty. It is also possible that a number of people decide not to use preventive or screening services due to lack of financial ability or give up to use these services due to indirect expenses such as food and transportation (Asef-Zadeh et al. 2014).

Health care expenses may decrease access of patients to necessary treatments and the use of effective medicines and will ultimately decrease health status and quality of patients' life especially low income patients. These expenses can increase rapidly and affect family budget. Out-of-pocket expenses are one of the reasons that patients do not follow or complete their treatment plan (Al-exandria 2010).

After many years, the government has kept its promise to promote people's health by enacting health reform plans. Franchise reduction plan for hospitalized patients in university hospitals was established in 05.05.2014 with

the aim of financially protecting citizens against health expenses with emphasis on vulnerable groups through reforming the delivery of care in hospitals.

Attaining the purposes stated in paragraph 13 of general policies and paragraph B of article 13 of law regarding 5th development plan (reducing people's share from health expenses to 11% up to the end of plan) has been considered within the framework of health care reform plan and the resources has been supplied from 2nd stage of subsidy reform plan (Health-Reform-Plan protocol). Regarding the importance of the issue, the office of supervision and accreditation of treatment affairs has completed periodical visits from 08.05.2014 to 02.09.2014 in order to evaluate the establishment of purposes of the health care reform plan.

## 2. Materials & Methods

The present descriptive cross-sectional study was conducted in MoHME in year 2014. The study sample included 197 out of 550 hospitals affiliated to 57 universities of medical sciences that were randomly selected according to the scheduling plan and visited during health reform plan. These hospitals were both public and private. The main tool of study was the standard checklist prepared by experts at policy-maker departments. The checklist included 30 questions in 8 dimensions which evaluated franchise reduction plan.

The main issues investigated in franchise reduction plan were as follows: major responsibilities, training staff, informing patients, the mode of delivery of health services, referral chain, management of health information, internal supervision and complaints' following up, and satisfaction measurement. Likert scale (good, average, weak)

**Table 1.** The highest, the lowest, and the mean score and standard deviation for each dimension.

Dimension	Lowest	Highest	Mean	Standard Deviation
Major responsibilities	1.17	3.00	2.48	0.48
Training staff	1.00	3.00	2.37	0.67
Informing patients	1.00	3.00	2.37	0.70
Method of service delivery	1.20	3.00	2.55	0.44
Referral system	1.00	3.00	2.71	0.53
Health information system	1.57	3.00	2.53	0.30
Supervision	1.00	3.00	2.48	0.56
Patients satisfaction	1.00	3.00	2.42	0.51
Total	2.07	2.90	2.66	0.20

**Table 2.** Mean, standard deviation and percentage of questions of each dimension.

	Question	Weak*	Average*	Good*	Mean	Standard Deviation
Major responsibilities	Forming executive committee	7.5	17.8	74.7	2.67	0.6
	Forming and activity of hospital ethic committee	19.4	25.4	55.2	2.36	0.78
	Forming committee of drug, equipment and necessary materials	20.1	19	60.9	2.41	0.8
	Controlling bills issued by hospital by insurance agent	12.1	16.9	71	2.58	0.69
	Providing list of hospital pharmacopoeia confirmed by the university	17.6	27.8	54.5	2.37	0.76
	Existing of standard HIS	15.4	38.5	46.2	2.31	0.72
Training & informing personnel	Informing and training all physicians and employees regarding the plan	10.7	41.6	47.8	2.37	0.67
Informing patients	Installing notice in reception ward	19	25.1	55.9	2.37	0.78
	Informing clients about the plan and putting the telephone number, short message service and email	17.6	26.7	55.7	2.38	0.76
Method of service delivery	Not providing medicine and medical supplies by patients outside the hospital	5.1	5.7	89.2	2.84	0.48
	Not providing orthopedic equipment, lens and etc. by patients outside the hospital	6	7.4	86.6	2.8	0.53
	Not sending patient outside the hospital for doing test, CT scan & MRI	6.1	9.1	84.8	2.78	0.54
	Providing health package according to the direction	19.9	30.4	49.7	2.29	0.78
	Standard for patient's company by hospital	28.9	37.7	33.3	2.04	0.79
Referral system	Coordinating and drawing up contract with hospitals or diagnostic & treatment centers for patients referral	8.2	19.3	72.5	2.64	0.62
	Ambulance condition for patients referral	4.7	10.1	85.2	2.8	0.51
	Drawing up contract with private paraclinic centers according to governmental tariff or based on agreement	11.5	16.3	42.1	2.6	0.68
Investigating documents	Investigating financial bill of patient by hospital insurer authority	29	29.7	41.3	2.12	0.83
	Format of issuing services bill and observing received franchise (5% & 10%) according to the direction	3.4	29.3	67.2	2.63	0.54
	Determining patients' status in case of having basic insurance	10.8	19.2	70.1	2.59	0.67
	Inserting all information in patients' file completely and carefully	10.3	31.6	58	2.47	0.67
	Physicians medication orders according to hospital pharmacopoeia	3.8	22.1	74	2.7	0.54
	Increase in number of patients in relation to previous days prior to commencement of plan	9.4	28.3	62.3	2.52	0.66
	Level of offered services specially expensive services, without insurance cover, high tariff and expensive medical equipment	17.2	29.7	53.1	2.35	0.76

	Question	Weak*	Average*	Good*	Mean	Standard Deviation
Internal supervision & investigating complaints	Visiting emergency ward and other wards by executive committee	15.7	34.9	49.4	2.33	0.73
	Measurements taken against offender personnel working at non-treatment and treatment wards	18.2	21.2	60.6	2.42	0.78
	Responding process and investigating complaints in hospitals	12.4	32.5	55	2.42	0.71
Satisfaction measurement	Level of patients' satisfaction or his company with the services offered	12.7	24.9	62.4	2.49	0.71
	Level of patients' satisfaction or his company with physician	12.1	36.2	51.7	2.39	0.69
	Level of personnel' satisfaction and physicians with the plan	6.5	53.8	39.6	2.33	0.59

\*Positive raw data were divided into three equal parts and categorized as: less than 33.3%, weak; between 33.4 to 66.6%, average; and more than 66.7, good.

Client-Centered Nursing Care

was used for the items. To confirm content validity, the questionnaire was evaluated by faculty members in the field of management and their comments were considered. The reliability of the questionnaire was determined to be 85% using Cronbach's alpha test.

The data were collected during periodical visits of agents of offices, deputy and subdivision of MoHME (Agents of Office of Supervision and Accreditation of Treatment Affairs, Department of Planning and Coordination of Health Insurance, Disaster Management Center, Office of Midwifery, Deputy of Development, Deputy of Food and Drug, and Department of Medical Equipment).

### 3. Results

Out of 197 hospitals studied, 155 hospitals (79%) were public and 42 hospitals (21%) were private. Table 1 shows the mean and standard Deviation of dimensions related

to franchise reduction plan for hospitalized patients. According to the findings, the highest mean score belongs to referral chain (2.71±0.53) as the most favorable dimension and the lowest mean belongs to two dimensions of training and informing personnel (2.37±0.67) and informing patients (2.37±0.70) as the most unfavorable dimension.

Total mean score and standard deviation was reported as 2.66±0.20 (Table 1).

Table 2 shows the percentage of responses and mean score and standard deviation for each item. The highest mean scores were reported for items forming executive committee (2.67±0.60) (major responsibilities dimension), not providing medicine and medical supplies by patients or his company outside the hospital (2.84±0.48) (mode of delivery) and medication orders according to

**Table 3.** Comparison of universities and hospitals in terms of mean score of franchise reduction plan for hospitalized patients.

Dimension	Universities		Type of hospitals	
	Test value*	Sig	Test value*	Sig
Major responsibilities	62.30	0.000	4.06	0.131
Training & informing personnel	66.05	0.002	0.917	0.632
Informing patients	65.59	0.002	8.48	0.014
Method of service delivery	46.39	0.001	3.92	0.140
Referral chain	63.85	0.000	1.51	0.470
Investigating documents	19.38	0.151	0.27	0.874
Supervision	37.76	0.027	1.57	0.454
Satisfaction measurement	71.06	0.000	1.01	0.602
Total	14.20	0.164	0.162	0.688

\*Kruskal-Wallis test

Client-Centered Nursing Care

hospital pharmacopoeia ( $2.7 \pm 0.54$ ) (investigating documents).

The Kruskal–Wallis test showed a statistically significant relationship between the dimension of informing patients and type of hospital. Also, a statistically significant relationship was found between university and all dimensions, except the dimension investigating documents (Table 3).

#### 4. Discussion

Health is a basic right of all humans and they should all enjoy it. The factors which jeopardize health should be decreased for all. During illness, all humans should be provided with services appropriate to type and severity of illness. It has been observed in different studies that despite of emphasis on justice in health care services and its important role in theoretical basis of health, unfortunately all health care systems in the world somewhat suffers injustice. Even in rich countries which provide a good performance universal coverage, there are too many differences in health consequences between social classes and this degrades them to the level of poor countries. In order to remove these inequalities, programs, services and supports should be purposefully developed for vulnerable groups and there should also be continuous control to check whether the groups with most financial straits have enjoyed from these services or not. Providing equity in health requires continuous planning and care (Bagheri-Lankarani et al. 2010).

Reducing expenses of health care as well as changing the universal attitude toward health is regarded as a useful tool for reforming health and treatment sectors. Paying attention to treatment and care expenses is considered as an evidence for reforming health care system (Pileroudi et al. 1981).

Unfortunately, in providing resources of health care system, the emphasis is primarily on financial resources. Therefore, we have also studied the manner of implementing franchise reduction plan for hospitalized patients in universities of medical sciences as one of the major goals of health system reform plan (Bagheri-Lankarani et al. 2010). The expense for treatment services is a complicated, ambiguous and unpredictable, but it is essential for humans. Today, the authorities responsible for health, and more importantly, world health organization has decided to remove people's concern about health expenses and has determined protecting people against these expenses as one of the main goals of health care systems.

In this way, in article 90 of 4th Development Plan Act, a great deal of emphasis has been put on establishing justice between families in order to financially provide health care services and to achieve final purpose of health care system (Davies & Carrin 2001; Razavi et al. 2007).

Franchise reduction plan of hospitalized patients has been implemented to minimize these differences and with purpose of protecting low-income groups together with reforming the tariff system since 05.05.2014. In this study, all hospitals had a moderate to high status regarding franchise reduction plan. This finding will double the importance of implementing health system reform plan. Therefore, government/MoHME can protect families against out-of-pocket expenses by having more accurate supervision over public hospitals.

In some studies, weakness in referral chain has been confirmed (Nasrollahpour-Shirvani et al. 2010, Golali-Zadeh et al. 2012). In the present study, the mean and test value of referral chain element was favorable which this will increase accountability and accessibility and finally, it will decrease unnecessary expenses in health market. It has been also observed that except in case of investigating documents in universities, the difference of mean scores was significant.

In this study, mean score of patients' satisfaction or those accompanying the patient with services delivered at hospital was at a favorable level. Increase in satisfaction and peoples' accessibility to treatment services will finally give rise to justice in health system. It has been concluded that there is a significant relationship between the dimension of informing patients and type of hospitals.

Regarding good performance of health care system, assessment of customer view and their satisfaction is essential. Therefore, new policies should be taken to cover patients' expenses. In this way, equity index can be fulfilled and financial obstacles that patients are faced with can be decreased. In the perspective of this plan, increase of people's satisfaction with health services and reduction in hospitalization expenses at hospitals are important priorities.

#### Conflict of interest

The authors declare that they have no conflict of interest.

## Acknowledgment

We do appreciate all respectable authorities who cooperated in assessment of health reform plan including franchise reduction plan for hospitalized patients in deputy of treatment (such as personnel at Office of Supervision and Accreditation of Treatment Affairs, Agents of Offices, Deputy and Department of Ministry (Department of Planning and Coordination of Health Insurance, Disaster Management Center, Office of Midwifery, Deputy of Development, Deputy of Nursing, Deputy of Food and Drug, Department of Medical Equipment).

## References

- Asef-Zadeh, S, Alijan-Zadeh, M, & Pirouyan, F 2014, ['Out-of-pocket expenses for outpatient services' (Persian)], *Payesh Journal*, vol. 13, no. 3, pp. 267-276.
- Bagheri-Lankarani, K, Lotfi, F, & Karimiyan, Z 2010, [*Equity in the health sector* (Persian)], Center for Health Policy Research and Education Development Center, Shiraz University of Medical Sciences, Shiraz, Iran.
- Davies, P, & Carrin, G 2001, 'Risk-pooling necessary but not sufficient', *Bulletin of the World Health Organization*, vol. 79, no. 7, pp. 587.
- Golali-Zadeh, E, Moosazadeh, M, Amiresmaili, M & Ahangar, N 2012, 'Challenges related to second level of the referral system in family medicine plan: A qualitative research', *Medical Journal of the Islamic Republic of Iran*, vol. 29, no. 4, pp. 309-21.
- Hagh-Doost, A, Mehrol-Hosseini, MH, Fallah, MS & Dehnavi-yeh, R 2013, ['Determining assessment indices of map of health reform plan' (Persian)], *Hakim Research Journal*, vol. 16, no. 3, pp. 171-181.
- Ministry of Health and Medical Education, 2014, *Health Reform Plan Instruction*, Prepared by Ministry of Health and Medical Education, Tehran, Iran.
- Jayadevappa, R, Sanford Schwartz, J & Chhatre, S 2010, 'The burden of out-of-pocket and indirect costs of prostate cancer', *The Prostate*, vol. 70, no. 11, pp. 1255-1264.
- Keshavarz, A, Kalhor, R, Javadi, A & Asef-Zadeh, S 2012, ['Estimating out-of-pocket expenses for costs of treatment in Qazvin city in 2009' (Persian)], *Journal of Hospital*, vol. 10, no. 4, pp. 71-77.
- Murray, CJ, Knaul, F, Musgrove, P, Xu, K & Kawabata, K 2001, *Defining and measuring fairness in financial contribution to the health system*, World Health Organization, Geneva.
- Murray, CJ, Xu, K, Klavus, J, Kawabata, K, Hanvoravongchai, P, Zeramdini, R, Aguilar-Rivera, AM, & Evans, DB 2003, *Assessing the distribution of household financial contributions to the health system: concepts and empirical application. Health systems performance assessment: debates, methods and empiricism*, World Health Organization, Geneva, Switzerland.
- Nasrollahpour-Shirvani, D, Ashrafian-Amiri, H, Motlagh, ME & et al 2010, ['Evaluation of the function of referral system in-family physician program in Northern provinces of Iran 2008' (Persian)], *Journal of Babol University of Medical Sciences*, vol. 11, no. 6, pp. 46-52.
- Pileroudi, S, Shadpour, K, & Vakil, H 1981, [*Review of health and training of manpower* (Persian)], Review of Health and Training Manpower, Tehran, Iran.
- Razavi, S, Hasan-Zadeh, A & Basminji, K 2007, [*Equitable participation in the financing of the health sector* (Persian)], Ministry of Health and Medical Education, Tehran, Iran.