

Evaluation of the National Health Care Reform Program from the Perspective of Experts

Fereydoon Khayeri ^{1,2}, Leila Goodarzi ³, Ali Meshkini ³, Ebrahim Khaki ³

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

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

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

Article info:

Received: 19 Aug. 2014

Accepted: 16 Jan. 2015

ABSTRACT

Background: Health is a national priority and it is always a duty of the government to establish a good and fair health system. The National health care system reform program and evaluation of health system reform plan funding these programs were enforced by the Honorable Minister of Health and Medical Education on May 5th, 2014. Given the importance of this issue, the present study was conducted to evaluate the implementation of 6 programs of national health system reform plan based on the main indexes of each program.

Methods: This is a cross-sectional, applied study conducted from May 8th, 2014 to September 2nd, 2014. The sample of study which were selected through random sampling method included 197 hospitals affiliated to 57 universities of Medical Sciences. A standard checklist designed by experts of Commission of Ministry of Health and Medical Education, including the main indexes which after confirmation of its validity and reliability, was reviewed and monitored by the experts at the Department of Health Monitoring and Accreditation of Ministry of Health and Medical Education through observation and interview.

Results: Findings of this study showed that the indicators of current health care reform have been improved related to indexes of the cost paid by hospitalized patients, promotion of natural birth, promotion of inpatient services, residency of doctors, encouraging doctors to remain in deprived areas and improvement of the quality of hoteling. The following objectives were achieved too: 'not providing medication and medical supplies and equipment from outside the hospitals' (88.5%), 'free franchise of natural birth' (90.8%), 'active participation of resident doctors according to the program and suitability of the facilities and conditions of doctors' residence at the hospitals' (60.3%), 'timely payment of doctors' salary according to the regulations and based on monitoring their performance' (81.8%), 'employing approved specialists in accordance with the type of visits and patients' (65.2%) 'operational program, Gantt chart of the program in terms of evaluation and executive measures regarding the building and facilities' (73.3%) had the most desirable condition in comparison with other indexes.

Conclusion: The findings of this study showed that health care system reform program has been successful in Iran. Among the objectives of the program, promotion of natural birth has been more successful than other indexes of health care system reform program.

Keywords:

Iran, System reform plan, Indicators, Evaluation, Monitoring

* Corresponding Author:

Fereydoon Khayeri

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

Tel.: +98 (912) 3081384

Email: khayerf@iums.ac.ir

1. Background

Nowadays, organizations have faced with a dynamic, ambiguous, and changing environment. One of the most conspicuous characteristics of the present era is the tremendous and continuous changes and reform in the thought, ideologies, social values, methods and so on; while changes in the environment of health organization is faster than other organizations process of change is faster in healthcare and medical organizations (Salman et al, 2012). As health is a valuable asset, which its preserve and promot. Healthy individual and community is core of sustainable development. Therefore, investment on health has always been an important priority for health organizations (Peyrovan et al, 2014). A health system is good if it is accountable and just and if it can promote health in society by reducing mortality rate and preventable disabilities, alleviating avoidable pain and suffering as well as honoring the dignity of people (Shariati, 2010).

The main mission of the health care system is the promotion of health and response to the needs of the society. These needs are affected by the constantly changing economic, social, political, and environmental conditions. At the same time, diseases and health risk factors are constantly changing, particularly in the present era, which undergoes dramatic changes. Responding to these changes is the most important justification for reforming the health care system.

Therefore, reforming and improving the health system is an opportunity for identifying the emergent needs, satisfying them, and strengthening the health care system (Ministry of Health and Medical Education, 2015). Even in countries with an accountable health care system, reforming is a mission in order to ensure efficient financing and good health care organization (Davies and Carrin, 2001). In Iran, since the Fourth Development Plan, to emphasize to reform the health care financing in order to achieve universal access to health services. Empathizing the necessity of reformation of the health system is not peculiar to Iran, but rather an international documents reveals that most of the countries are somehow or completely reforming their health care system, completing, or reforming their health systems (Shariati, 2010).

Thus, Also, evaluation the performance of health care system and efficient evaluation of this system are of undeniable necessity because of the complexity of the activities in this field, its significant impact as the protector of the health system of the country as well as rapid and

interconnected changes occurring in this field (Salman et al, 2012).

In our country, for many years people have been waiting for a firm resolve to move towards the ultimate goals of the health system, which were establishment of justice in funding and provision of health system services, improvement of the quality of services, honoring the dignity of patients/families and, finally, reduction of people's share in direct payment of the costs of healthcare services. They are looking forward to the decisions of policymakers and executives. After many years, practical commitment of the government to the improvement of public health has been demonstrated through approval of the programs for the health system reform and funding these programs, following the announcement of Iran's Fifth Development Plan, the programs for health system reform were prepared and announced to all medical universities/colleges and health centers by the Honorable Minister of Health and Medical Education on May 5th, 2014.

Various studies have shown that despite the presence of numerous indexes of implementation of the processes, selection of the best and most comprehensive indexes approved by healthcare experts of the country has been neglected (Haqdoust et al, 2013). Since the Health System Reform Plan has been recently implemented, few structured studies have been conducted in this area. Therefore, this study seeks to evaluate the implementation of these programs in hospitals, which are subsidiaries of the Ministry of Health and Medical Education based on the main indexes of each program and in this way, ensures the policymakers that these programs are in line with the development perspective, principles, values, and realizes the government's policies.

2. Materials & Methods

This is a cross-sectional, applied study conducted in 2014. The population of this study included 256 hospitals out of the 550 hospitals affiliated to 57 state university/faculty of Medical Sciences, which were included in the Health System Reform Plan. They were studied using random sampling method. The data were collected from hospitals using a checklist prepared at the Department of Health Monitoring and Accreditation of Ministry of Health and Medical Education to evaluate the implementation of the programs through periodical visits by teams of representatives from departments, deputies, and subsidiary offices of Ministry of Health.

According to the schedule, periodical visits started from May 8th, 2014 and continued to September 2nd,

2014 during which the 6 implemented programs, including the programs for the reduction of the cost paid by hospitalized patients, promotion of natural birth, promotion of inpatient services, residency of doctors, encouraging doctors to remain in deprived areas and improvement of the quality of hotelling were monitored since the beginning of the implementation of each program. The studied indicators were selected based on the main objectives of the programs and the guidelines of health system reform plan issued by MOHME (Ministry of Health and Medical Education, 2014).

The validity and reliability of the expert-designed checklist were verified by the internal evaluation software used by Ministry of Health and Medical Education (Fathabady, 1998). The checklist was also sent to the authorities in charge of the 6 programs at the Deputy Commission of Health, Ministry of Health and after receiving their expert opinions, the checklist was finally approved. The checklist comprised 72 questions related to monitoring the 6 executive programs of the Health System Reform Plan with an emphasis on key indicators in each program, including 30 questions regarding the program for “reduction of the cost paid by hospitalized patients” focusing on 11 indexes, 10 questions regarding the program for “promotion of natural birth” focusing on 7 indexes, 8 questions regarding the program for “encouraging doctors to remain in deprived areas” focusing on 7 indexes and 9 questions regarding the program for “residency of doctors” focusing on 6 indexes and finally, 14 questions regarding the program for “promotion of inpatient services” focusing on 6 indexes. With regard to the program for “improvement of the quality of hotelling”, since the initial phase of this program had begun, indexes of the implementation of the program, including operational program, Gantt charts of the operation and executive measures regarding buildings and facilities were evaluated. For each program, the main indexes were determined and evaluated according to the announced guidelines and the opinions of the authorities in charge.

In order to determine the method of implementation of the programs, the answers to checklist questions were scored and calculated. At the end, descriptive statistical indexes were used to analyze the data. The obtained data were analyzed through such statistical tests using SPSS software version 20.

3. Results

During monitoring visits, which were conducted almost simultaneously with the advent of the Health Sys-

tem Reform Plan, 57 universities of Medical Sciences and health services and 256 hospitals, which were included in the Health System Reform Plan, were monitored. The results of the realization of indexes related to each program were reported as follows:

Level of realization of the indicators of the program for reduction of the cost paid by hospitalized patients:

While studying the realization of the indexes of the program for reduction of the catastrophic costs paid by hospitalized patients, it was observed that the indexes of ‘patients/ families not providing medication and medical supplies and equipment from outside the hospitals’ (88.5%), ‘patients not providing medical equipment from outside the hospitals’ (86.4%), and ‘not referring patients for providing paraclinical services outside the patients’ referral chain’ (86.6%) had the best condition. On the other hand, ‘observing the standards of patient’s family’ (33.3%) had the lowest realization. Also, ‘enforcing 10% and 5% franchises,’ as one of the main objectives of this program, had 68.9% desirability. In addition, it was observed that 23% of the doctors overcharged the patients, which was considered an undesirable condition. Distribution of hygienic packages was done at 49.4%, indicating a proper situation (Figure 1).

Furthermore, during different monitoring visits, irregularities were observed in holding the meetings of the executive committees of the Health System Reform Plan, ethics, medication, and equipment which among them, the executive committee of the Health System Reform Plan with the desirability of 75% had a better condition (Figure 2).

Level of realization of the indexes of promotion of natural birth:

Levels of realization of the indexes of the program for promotion of natural birth has been presented in Figure 3. The index of ‘free franchise of natural birth’ as the most important index of this program among the subsidiary hospitals had the highest desirability (90.8%). Next was the index of ‘Informing pregnant women/husbands’ (75.2%) about free franchise of natural birth’ at state hospitals, affiliated to the universities. In addition, it was observed that decreasing the rate of caesarean section and increasing the rate of natural birth as compared to the period prior to the implementation of the program, as other major goals, had 63.4% and 61.5% of desirability, respectively. Unfortunately, performing a variety of painless and physiological childbirths as well as optimi-

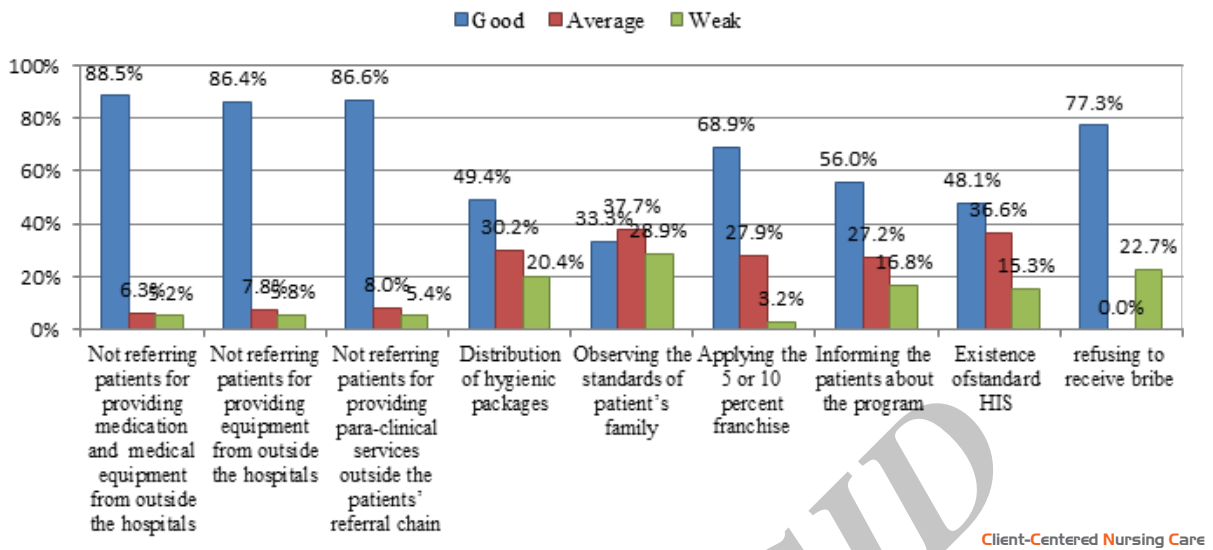


Figure 1. Level of realization of the indexes of the program for reduction of the cost paid by patients hospitalized in hospitals included in the Health System Reform Plan.

zation of the delivery blocks in hospitals included in this program were in a relatively poor condition (Figure 3).

Level of realization of the program for residency of doctors:

Regarding the implementation of the program for residency of doctors, the indexes of 'active participation of resident doctors according to the program' and 'suitability of the facilities and conditions of doctors' residence at the hospitals' (71.2%) had the highest desirability among the indexes studied in this program. While monitoring this program according to the announced guide-

lines, it was observed that 'paying residency fees' based on doctors' performance evaluation ratings and acquired scores and annual guidelines with 60.3% desirability and also controlling and recording the attendance of resident doctors and monitoring their performance were observed in most of the hospitals included in the Health System Reform Plan (Figure 4).

Level of realization of the program for encouraging doctors to remain in underdeveloped and deprived areas:

The indexes of 'timely payment of doctors' salary' according to the regulations and based on monitoring their

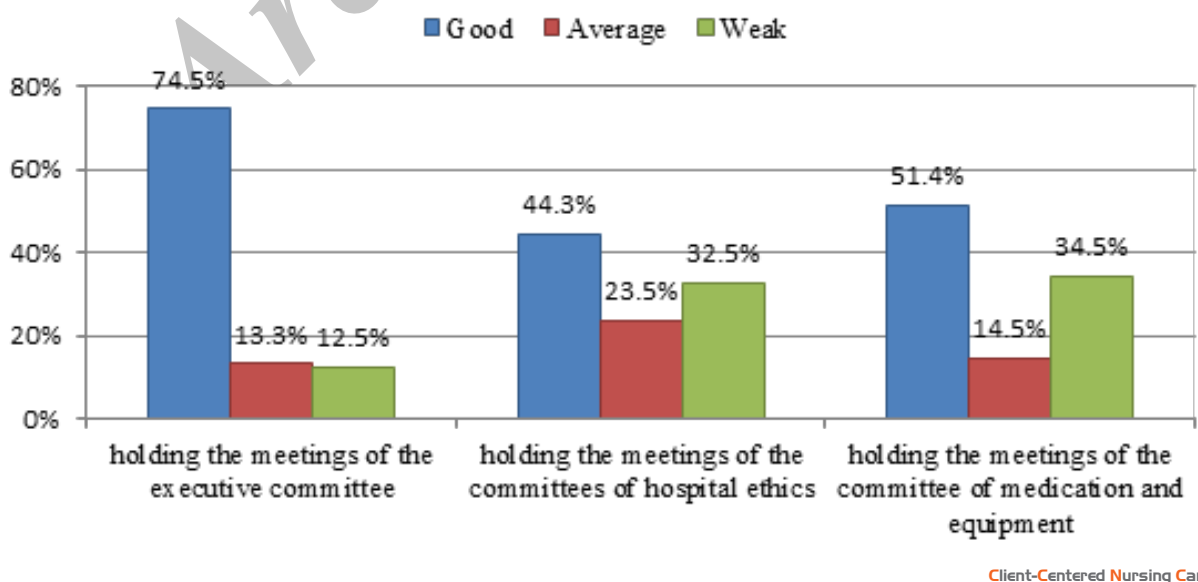


Figure 2. Formation of the executive committees of the Health System Reform Plan, ethics, and medication and equipment in the hospitals included in the Health System Reform Plan.

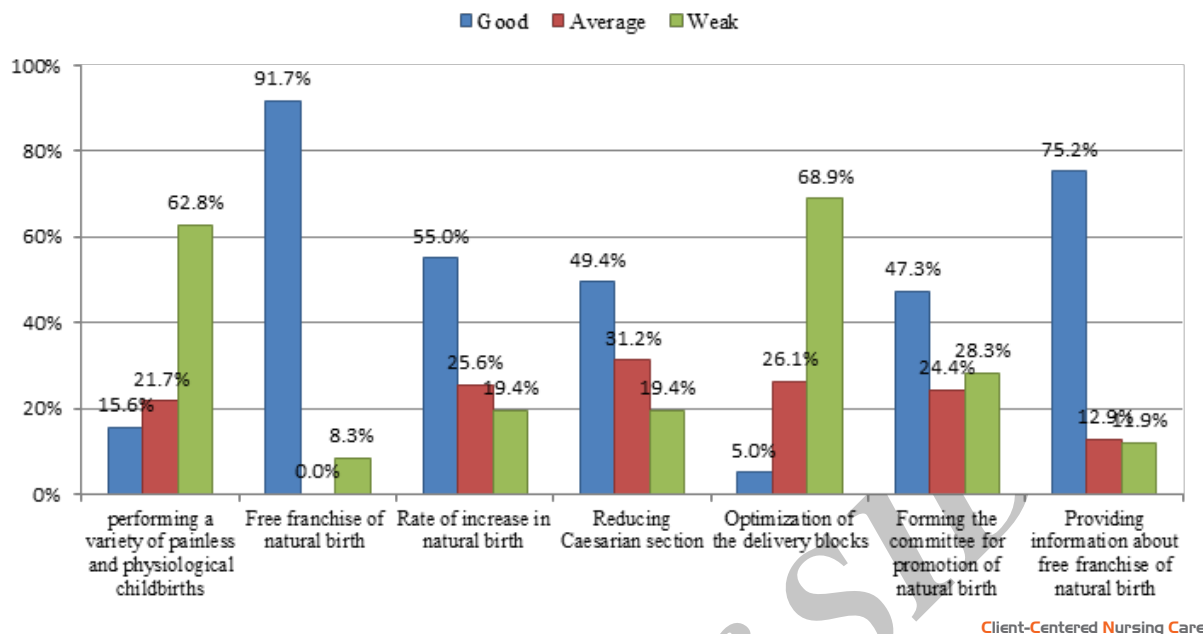


Figure 3. Level of realization of the indexes of the program for promotion of natural birth in the hospitals included in the Health System Reform Plan

performance and ‘doctors not receiving cash in addition to hospital fees and formal procedures from patients’ and after that, ‘physical and active presence at medical centers,’ the main objectives of the program, were in a rather desirable condition (Figure 5).

Level of realization of the program for promotion of inpatient services:

While monitoring the program for promotion of visiting services, it was observed that employing approved specialists in accordance with the type of visits and patients and ‘standard format of clinic bills’ had the highest and lowest desirability in terms of realization of the

objectives of the program with 65.2% and 20.3% desirability, respectively (Figure 6).

Level of realization of the index of the program for improvement of the quality of hospitals hotelling:

Figure 7 shows the level of realization of the index of the program for ‘improvement of the quality of hospitals hotelling’ and operational program, Gantt chart of the program in terms of evaluation and executive measures regarding the building and facilities. This index, which has been implemented in the initial phase of its program, with 73.3% is in a rather suitable condition

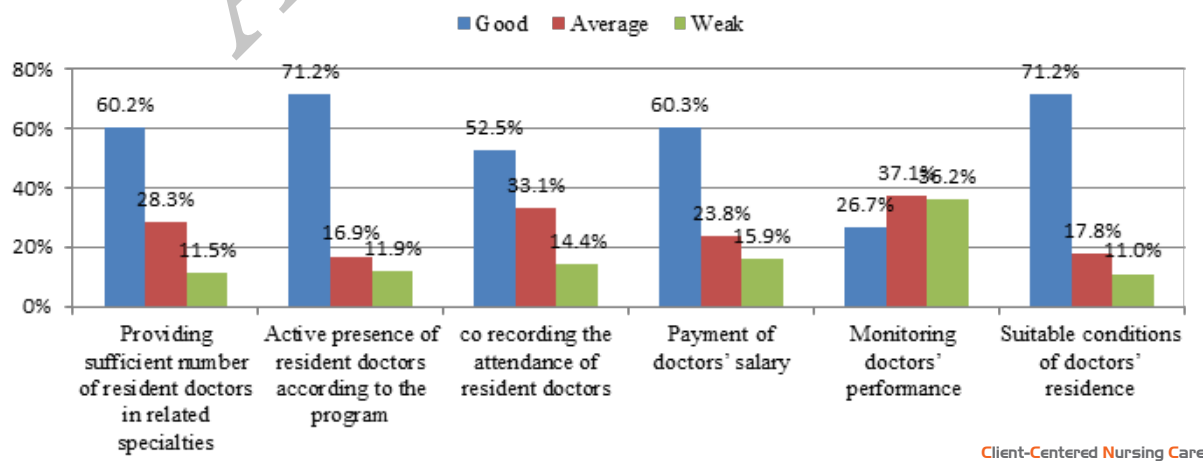


Figure 4. Level of realization of the index of the program for residency of doctors in the hospitals included in the Health System Reform Plan.

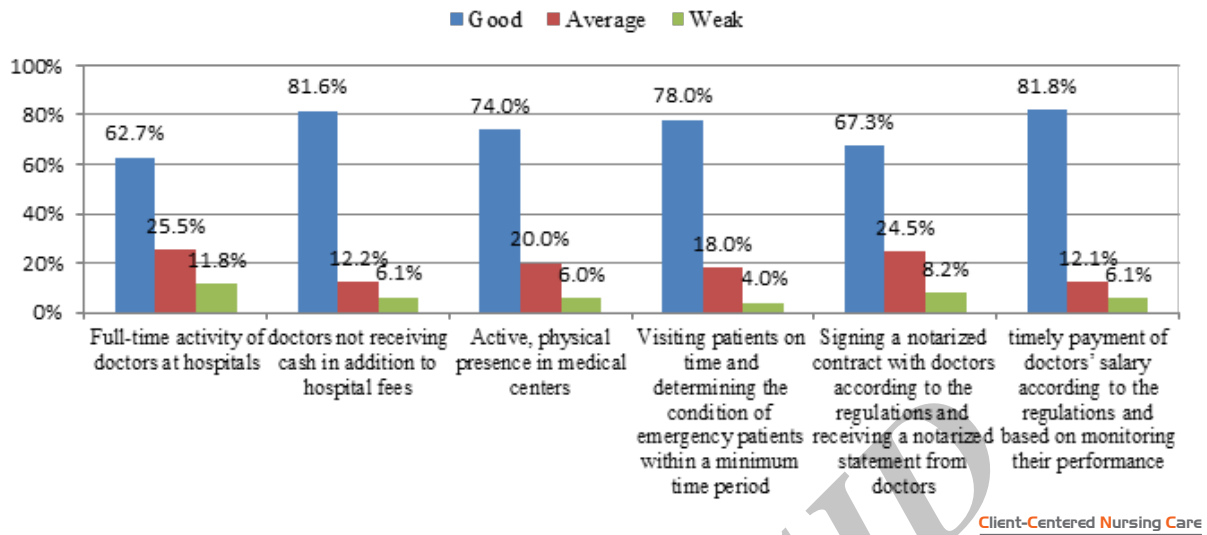


Figure 5. Level of realization of the index of the program for encouraging doctors to remain in underdeveloped and deprived areas in the hospitals included in the Health System Reform Plan.

among the Hospitals, which are included in the Health System Reform Plan (Figure 7).

4. Discussion

The World Health Report 2000 defines the goal of the health system as promoting the health of people and society, responding to non-medical needs of people such as respecting the patient, reducing the waiting time for surgery, protecting confidentiality of patient information, and expecting equal financial participation of the public in order to benefit from health services. To achieve these goals, the health system must have 4 main functions: trusteeship (policymaking, developing proper regulations, supervision, establishing an appropriate information system), resources (especially human resources),

funding (methods of revenue collection, methods of accumulation and management of resources and using the resources to pay for health services), and providing services (World Health Organization, 2003). On the other hand, the term “Health Sector Reform” is increasingly used in the studies related to promotion of health. This global attention has led developing countries to the use of strategies and alternatives for achieving the goals of the health system. Therefore, dealing with this issue appears to be interesting and challenging (Aqlmand and Pour Reza , 2004). Health system reform must ensure the realization of the abovementioned goals and pave the way for achieving them. It is necessary to transform the decision making structure and management system of the units providing governmental services. In this regard,

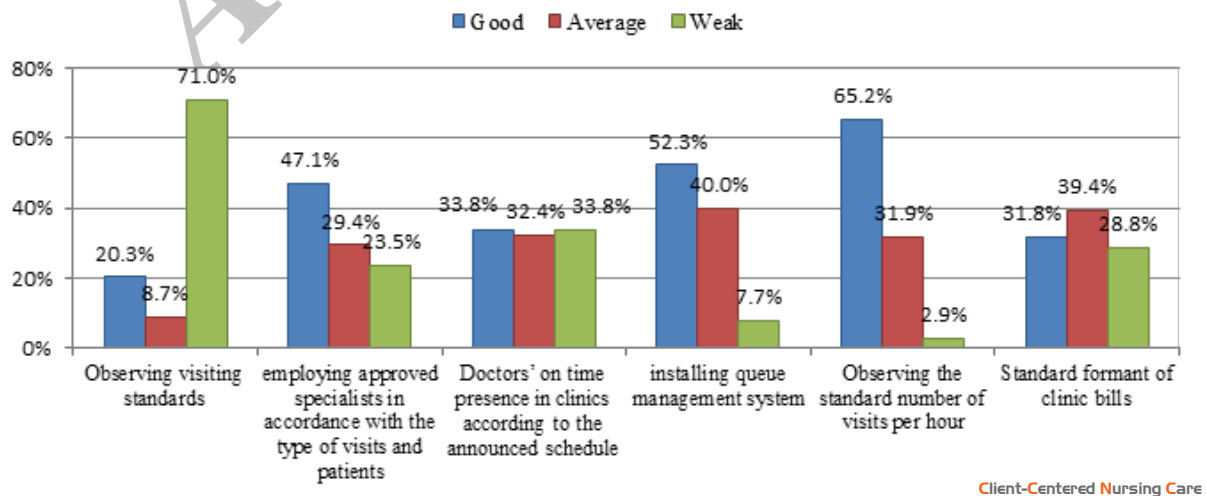


Figure 6. Level of realization of the index of the program for promotion of inpatient services in the hospitals included in the Health System Reform Plan.

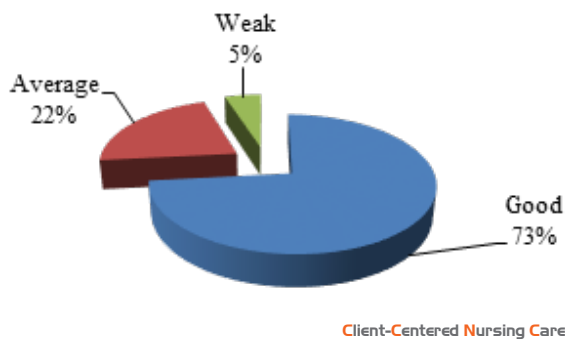


Figure 7. Level of realization of the index of the operational program in terms of evaluation and executive measures regarding the building and facilities in the hospitals included in the Health System Reform Plan.

Iran's National Health System Reform Plan has been implemented since early May, 2014, with the objective of promoting health in society.

With the beginning of the implementation of Health System Reform Plan, according to the times announced for starting each program, their supervision was conducted by experts at Commission of MoHME. In order to implement the programs of Health System Reform Plan in a proper way, simultaneous with the implementation of these programs, the process of their implementation as well as their effectiveness must be monitored using certain indexes. Accordingly, in this study, the main indexes of each program were monitored using the standard checklist used by medical centers, which are subsidiaries of the Ministry of Health and Medical Education, and the results and their problems were presented. Since the beginning of the implementation of the programs of Health System Reform Plan, only the two programs of 'reduction of the cost paid by hospitalized patients' and 'promotion of natural birth had been implemented. Consequently, more hospitals were visited in this regard.

In this study, realization of the indexes of programs for reduction of the cost paid by hospitalized patients was observed. According to the guidelines announced by Ministry of Health, the indexes of 'patients/families not providing medication and medical supplies and equipment from outside the hospitals, 'not referring patients for providing para-clinical services outside referral chain' and 'enforcing 10% and 5% franchises,' as the main objectives of this program had a rather desirable condition.

The method and composition of funding have always been a major challenge for health system policymakers in developing countries.

In fact, paying attention to the amount of direct payments by households and the consequent catastrophic costs are two main factors, which must be considered in planning and policymaking (World Health Organization, 2001, OECD, 2003). Instances of referring patients/families to places outside the hospitals to provide medication and medical supplies and equipment and buying orthopedic equipment, which are not included in the list announced by Medical Equipment Department of Ministry of Health at a higher price, were observed. These indexes at healthcare centers have a rather desirable condition, although they have not been realized one hundred percent. However, the conducted evaluations also focused on receiving cash in addition to legal fees (bribe). Unfortunately, in the evaluations, documents were found, which revealed that illegal money had been received by doctors working at the hospitals which were subsidiaries of universities of Medical Sciences with 23% undesirability. According to the documents pertinent to this phenomenon, cash amounts had been reported from \$60 to over \$600.

Other problems observed during monitoring, which posed challenges to the implementation of this program include: the discrepancy between the formats of hospital bills of inpatients in a number of hospitals and the standard format of the bills, failing to prepare hygienic packages or providing low quality packages, failing to inform the patients or providing incomplete information about the program, failing to hold briefing and training sessions about the Health System Reform Plan for the personnel and doctors, failing to prepare pharmacopoeia lists for hospital approved by food and drug deputy of the university, irregularity in the patients referral chain and paraclinical services, various problems with HIS systems, failing to regularly hold the meetings of the executive committees of Health System Reform Plan, ethics, medication and equipment and, occasionally the lack of the 12-digit code of the medical equipment and prostheses used in the treatment of patients. Also, in various studies, it was observed that holding the meetings of the executive committees of Health System Reform Plan had a better condition. Since this program was among the first announced programs, problems were more prevalent in the beginning of the program and as time passed, the number of problems decreased.

In implementation of the program for the promotion of natural birth, the index of 'free franchise of natural birth' as the main index of this program had a high desirability in the subsidiary hospitals. Reducing the rate of caesarean section and increasing the rate of natural birth as compared to the period prior to the implementa-

tion of the program, performing a variety of painless and physiological childbirths, and also optimization of the delivery blocks in hospitals as other main goals of this program have not been sufficiently realized yet. Other problems of implementation of this program observed during this study were delay in the payment of incentives for natural birth, failing to implement LDR plan, optimization of most delivery blocks and also insufficient presence of gynecologists and obstetricians during natural births according to the plan in a number of hospitals, all of which have led to incomplete realization of the goals of this program.

While studying the program for residency of the doctors according to the announced guidelines, it was observed that doctors have been present in hospitals according to the announced program with 71.2% desirability. Since this program is not implemented in all hospitals, the indexes of 'doctors' salaries are paid on time due to timely payment of funds' and also 'controlling and recording the attendance of resident doctors and monitoring their performance' were checked in most of the hospitals, which are included in the Health System Reform Plan. With respect to monitoring, in most provinces, the highest amount of residency salary was paid without monitoring doctors' performance and acquired scores or the physical presence of the resident doctors. Performance of therapeutic measures by resident doctors was often according to the former procedure. Medical services were not provided on all days of the month, especially in the fields of gynecology, orthopedics, general surgery, and anesthesiology. Doctors' shifts were changed without prior notice or inclusion in the hospital and university schedule; and conditions of doctors' residence in a number of hospitals were unsuitable.

Although the program for encouraging doctors to remain in deprived areas was not implemented in all subsidiary state hospitals, the main indexes of this program were relatively at the middle level of health care system (Medical universities).

Also the studies of the realization of the program for promotion of visiting services revealed problems such as failing to use the announced format of the bills, doctors' delay and failing to record the accurate time of doctors' presence in clinics, failing to observe the standards, visiting 8 patients per hour and lack of some specialized fields, failing to include all of the fields in the program, especially gynecologists and obstetricians, orthopedics, and general surgery, failing to file the cases and record the case history of all the patients referring to clinics, and failing to install digital queue management system in a

number of hospitals, which have led to incomplete realization of the goals of the program for the promotion of inpatient services.

With regard to implementation of the program for improvement of the quality of hotelling, the basis of evaluation of the operational program, Gantt chart of the program in terms of evaluation and executive measures regarding the building and facilities, implemented in the first phase of the program, was in a rather desirable condition, although it was implemented later than other studied programs.

The findings of this research indicated that although the studied indexes of the programs failed to realize one-hundred percent, they have had a rather desirable condition. Because evaluations were conducted during various time periods since the beginning of each program, this low degree of non-realization can be due to different reasons, including inadequate training of the personnel and doctors, shortage of personnel, lack of preparation of infrastructures such as health information system, increased load of patients visiting the centers, increased problems of medical centers at the beginning of implementation of the programs, etc. Finally, it is recommended that the second round of visits to medical centers be started with the same determination and the desirability of these indexes be evaluated in comparison to the results of the first round of visits. Also, the feedback report on the problems observed in the first round of visits along with improvable points and current challenges identified during the visits should be announced to the presidents of universities of Medical Sciences throughout provinces and follow-up measures should be taken to correct them.

Conflict of Interest

The authors declare no conflict of interest.

Acknowledgements

We sincerely appreciate the support of Deputy of Health staff who kindly helped us designing the indexes and conduct evaluation and monitor programs of Health System Reform Plan (including the personnel of Department of Health Monitoring and Accreditation, representatives of the departments, the deputy and subsidiary departments of Ministry of Health, office of planning and coordination of health insurance, disaster management center, office of midwifery, deputy of development, deputy of nursery, deputy of food and medication and department of medical equipment, etc.).

References

- Akhavan-Behbahani, A 2013, [An analytic review of Iran's health policies in development plans (Persian)], *Scientific Journal of Medical Council of Islamic Republic of Iran*, 31(2), pp. 105-112.
- Aqlmand, S, & Pour Reza, A 2004, [Health system reform (Persian)]. *Research Journal of Social Welfare*, 4(14), pp. 3-36.
- Davies, P, & Carrin, G 2001, *Risk-pooling necessary but not sufficient*, *Bull World Health Organ*, 79(7), 587.
- Fathabady, H 1998, *Report internal evaluation, 1st ed. Tehran: Ministry of Health, Treatment and Medical Sciences.*
- Haqdoust, A A, Mehr Al-Hassani, M H, Khajeh-Kazemi, R, Falah, M, S, & Dehnouyeh, R 2013, [Determination of the indices of evaluation of health system reform plan (Persian)], *Hakim Research Journal*, 16(3), pp. 171-181.
- Ministry of Health and Medical Education. 2014, *Guidelines of health system reform plan*. Executive version, Deputy of Health.
- Ministry of Health and Medical Education, 2015, *Islamic Republic of Iran health system reform plan based on the Islamic-Iranian model of its progress beyond the policies of Ministry of Health and Medical Education.*
- OECD, 2003, *DAC Guidelines and Reference Series, Poverty and health*: Paris, OECD.
- Peyrovan, F, Asefzadeh, S & Alijanzadeh, M 2014, [Out of pocket expenditures for diagnosis services of outpatients in educational hospitals (Persian)], *Payesh Journal*, 13(3), pp. 267- 276.
- Salman, M, Naser, N & Behzad, J 2012, [Evaluation of the financial performance of Universities of Medical Sciences and Healthcare Services in Iran based on accrual accounting (Persian)]. *Quarterly of Health Accounting*, 1, pp. 47-55.
- Shariati, M 2010, *Health System Reform, Why and How? The Sixth Epidemiology Congress, Iran, Comprehensive Lecture*. University of Medical Sciences and Healthcare Services, Shahroud, pp. 20-21.
- World Health Organization, 2001, *Report of the commission on macroeconomics and health* (CMIines). Geneva: World Health Organization.
- World Health Organization, 2003, *The World Health Report 2000; Health Systems: Improving Performance*, First Edition, Tehran: Ministry of Health and Medical Education.