Published online 2018 August 15.

Research Article



Iranian Health Reform Advantages in Health Care System: A Qualitative Study

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Received 2018 May 28; Revised 2018 August 06; Accepted 2018 August 07.

Abstract

Background: Iranian Health Reform Plan in health care systems launched in 2014. The aim of this program was to expand equity in the field of health, improve quality, increase accessibility to health services, and increase people's satisfaction.

Objectives: This study designed to explore Iranian health reform advantages in health care systems on the perspective of health managers, health care providers, and clients.

Methods: In this content analysis study, participants included 22 health managers, 118 health care providers, and 15 clients affiliated with the health deputy of the Qom University of Medical Sciences. Sampling was conducted in the purposeful method. Individual semi-structured interviews were used for data gathering and data was analyzed by the conventional approach. Similar codes were merged and categorized and the extracted subcategories were named based on their essence. MAXQDA software was used to manage qualitative data.

Results: 328 codes, 19 subcategories and 7 main categories were extracted. On the perspective of participants, Iranian health reform advantages in health care system, categorized in 7 main categories included; improvement of general health, improvement of equity in the health system, improvement of health literacy, providing comprehensive health services, providing personalized health services, increased general satisfaction, and providing electronic health records.

Conclusions: Health managers, health care providers, and clients expressed their satisfaction from Health Reform Plans and pointed to different aspects of it. On these findings, Iranian Health Reform Plans can facilitate promoting health care services and in sequence, public health.

Keywords: Health Care Reform, Health Services, Primary Health Care, Iran

1. Background

Health system reform means sustainable and purposeful changes for improvement of efficiency, equity, and effectiveness in the health section (1). This term does not have a specific definition (2) and each government, based on their challenges and needs, would review and correct the health system of their country. For example, in 2003, Turkey started their health system transition program with the aim of easy access, efficiency, and effectiveness of health services for the public. In addition, in 2008, this country applied the national health insurance and social security law for supporting everybody in the country. Then in 2010, the family specialists' program included all of the families. To increase efficiency, in 2004, payment based on performance was executed at all the hospitals and health care centers. The health information system was qualified and changed into a case-combined system, which would lead to more efficient use of the resources (3). In Korea, the national health insurance program was emphasized on the payment method to health care providers and price modification (4). In Colombia, the healthcare reform plans were executed following generalization of multispectral health system, separating care providers and care receivers, and transforming governmental hospitals to self-governing centers (5).

Considering the role of health, prevention, and selfcare, as well as special attention toward non-therapeutic interventions due to their effective and widespread functions in society and also society's higher expectations in the field of supplying and improving safety, quality, and equity during the recent years (6), implementation of the Health Reform Plan in the health system became the top priority for the Ministry of Health and Medical Education

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of Iran in 2014. The aim of this plan was to expand equity in the field of health, improve the quality, increase accessibility to health services, and increase people's satisfaction (7).

The Health Reform Plan was first implemented for the exurbanites and residents of unofficial settlements to improve the health level of the target population, increase fair access to health services, improve the quality of service provision, increase satisfaction, increase fair participation in financing the services, improve efficiency, and moving toward resource management in the country. Then, as a trial, for the first time, this plan was implemented for the general population of the city of Qom in 2015 (8). To achieve the goals of this plan, medical-health centers were changed into "community health centers" and 11 health packages provided for people through these centers included: self-care at the place of living, working, educating, recreation, and ...; diagnostic and early determination of risk factors and diseases; assessment, diagnostic and starting early treatment for chronic and common and seasonal diseases; care of pregnant and breastfeeding mothers, children and adolescents, the youth, the middle-aged and elderly; counseling and psychological care; counseling and caring related to healthy eating and physical activity; social counseling and caring; maintaining and improving the management of contagious diseases; oral and dental health; environmental and occupational health; health during events and disasters (7).

Definitely, implementing this plan in Iran, a wide country with a great population, would encounter various problems and have some weaknesses and strengths that assessment, evaluation, and determination of these items could be helpful for policy makers and plan executors to resolve the defects and achieve the goals of the plan (9). Since no study has yet been conducted to evaluate the outcomes of the Health Reform Plan in the field of health care and also, since Qom University of Medical Sciences was the pioneer in implanting in this plan in Iran, the present study was conducted to evaluate the outcomes of the Health Reform Plan in the field of health care system in Qom.

2. Methods

The present study was a qualitative study with conventional content analysis approach to evaluate the outcomes of the Health Reform Plan in the field of the health care system.

The study environment included the health care center affiliated with the health deputy of the Qom University of Medical Sciences. Participants were technical and operational managers as well as health care providers affiliated with the health deputy of the Qom University of Med-

ical Sciences and clients who referred to the health care centers. Operational and field managers were enrolled in the study trough census sampling method. Therefore, the researcher referred to the health deputy of the Qom University of Medical Sciences and asked the operational and field managers to represent their opinions about the outcomes of Health Reform Plan in the health system. Eventually, 22 operational and field managers participated in the study. The city of Qom contains 10 regions, 41 health care centers, and 138 related homes. In each region, one health care center was selected by the lottery. Healthcare providers and clients of these health care centers were selected through purposeful sampling method, in which healthcare providers and clients that have a tendency to participate in the study and share their experiences as well as opinions were included in the study. In total, 118 healthcare providers (Midwife, Health education expert, psychologist, nutritionist, physician, dentist, environmental health expert, and male health caregiver) and 15 clients answered the interview questions. Sampling continued until data saturation. The inclusion criteria were willingness to participate in the study and ability in expressing personal experiences and opinions. The exclusion criterion was withdrawing from the study.

Participants' experiences and opinions about the outcomes of the Health Reform Plan in the field of health care system were gathered using personal interviews and semi-structured questionnaire. The semi-structured questionnaire included questions such as "please explain about Health Reform Plan in the field of health care system.", "what changes do you see in this reform?", and "in your opinion, what are the outcomes and advantages of the Health Reform Plan in the field of health care system?" More exploratory questions were asked based on the participants' answers. Duration of interviews were variables from 15 up to 60 minutes.

The gathered data were analyzed using the conventional content analysis method. The researcher transcribed the recorded interviews immediately after each interview verbatim. Each transcript was read a few times to enable the researcher to become adequately familiar with the participants' views and important sentences and phrases were determined and named as the essence of the texts (coding). Then, similar codes were merged and categorized and the extracted subcategories were named based on their essence. Subcategories were compared to each other and similar subcategories shaped main categories. In addition, the notes of the participants were gathered and analyzed. MAXQDA software was used to manage qualitative data. Sampling continued until no new codes were achieved from data analysis.

2.1. Trustworthiness and Rigors

Using diversity in selecting the participants (including all health managers, selecting health care provider from all regions of city and all fields, and clients from all region, different gender, and different age), the credibility of data was achieved. Conformability was assessed by reading and confirming the transcribed interviews, extracted codes, and categories by two participants. Reliability was confirmed by recoding the transcribed interviews of other colleagues. Transferability of data was achieved by completely and constantly recoding the researcher's activities regarding data gathering and analysis (10).

2.2. Study Limitations

One of the limitations of this study was lack of access to some of the experts and key individuals.

2.3. Ethical Considerations

During the study, necessary permissions were obtained and presented to the participants. The goals of the study were explained for the participants and they were assured that their interviews would be kept anonymous and their information would remain confidential. In addition, informed consent was obtained from all the participants for participation in the study and recording the interviews. The participants were informed of their right to withdraw from the study at any desired time.

3. Results

Demographic characteristics of participants in the study are shown in Table 1.

Qualitative data after analysis were categorized into 328 codes, 19 subcategories and 7 main categories, which are shown in Box 1.

From the viewpoint of the participants in the present study, Iranian health reform advantages in the field of health care system were improvement of general health, improvement of equity in the health system, improvement of health literacy, providing comprehensive health services, providing personalized health services, increased general satisfaction, and providing electronic health records. These categories are explained below:

3.1. Improvement of General Health

From the participants' viewpoint, the Health Reform Plan has led to improvement of general health due to the fact that issues, such as early diagnosis and treatment of diseases, patients' follow-up, promotion of healthy lifestyle, and prioritizing health prevention have been regarded in this plan.

3.1.1. Early Diagnosis and Treatment of Diseases

Participants stated that providing services for early diagnosis of risk factors of chronic and non-contagious diseases, especially cardiovascular diseases (lifestyle and high risk habits), and referring high risk individuals to specialists and counselors; complete and comprehensive evaluation of the target population' history and providing in-time services for preventing and controlling noncontagious diseases; screening; risk assessment and early diagnosis of diabetes, hypertension, HIV; eye examination for teenagers; in-time treatment using diets and exercises; and mental health improvement have been helpful in preventing an increase in the number of patients and also preventing patients from reaching an uncontrollable point in their disease; its effect would become more clear in the future on the decrease in the statistics of chronic diseases, especially cardiovascular diseases.

"During this period, we have diagnosed two cases of breast cancer and one case of positive tuberculosis."

3.1.2. Follow-Up

Follow up patients' problems until achieving the desired outcome was another result of the Health Reform Plan that health care providers and patients mentioned.

"Follow up patient until reaching the desired result and warning people about diseases and common health concerns of the society such as nutrition, physical activity, the increased rate of cardiovascular diseases and diabetes, and smoking, could be very beneficial."

3.1.3. Promoting Healthy Lifestyle

Another outcome of the Health Reform Plan was addressing the issue of a healthy lifestyle and promoting healthy behaviors among people including a healthy diet (lowering the consumption of salt, sugar, and fat), regular physical activity, and sensitizing people to the health of consumed food, overweight, inactivity....

"Another positive point is determining the health problems of the family such as incorrect diet, which is sometimes not related to the economic condition of the family, as well as inactivity, obesity..."

3.1.4. Prioritizing Health Against Treatment

Overall, addressing the mentioned issues, especially early diagnosis and treatment of the diseases and promoting a healthy lifestyle are the signs of prioritizing prevention and health by the health system in the Health Reform Plan; the outcome would be a decreased burden of the diseases and treatments' costs.

"Considering that economic and cultural poverty could be disposing factors for disease spread, providing

Demographic Characteristics	Operational and Field Managers	Healthcare Providers	Clients
Age (y)	27 - 53 (35.46 ± 4.33)	23 - 49 (28.16 ± 4.23)	18 - 64 (37.80 ± 7.45)
Gender			
Male	10	17	3
Female	12	101	12
Education			
MD	1	11	2
MSc	9	16	8
BSc	12	91	5
Vocation field			
Family health and population	6		
Schools and oral health	2		
Prevention of disease	4		
Health education and development	2		
Psychological health	2		
Nutritional health	1		
Professional health	2		
Environmental health	3	13	
Midwifery		34	
Health education (female)		21	
Health education (male)		5	
Psychology		21	
Nutrition		13	
General medicine		7	
Dentistry		4	
Student			1
Retired			1
Employee			2
Self-employment			2
House keeper			9
Duration of employment (y)	$7 - 28 (18.33 \pm 3.49)$	$1-23 (9.52 \pm 3.76)$	-
Total	22	118	15

Abbreviations: BSc, Bachelor of Science; MD, Medicine Doctor; MSc, Master of Science.

free services could encourage people with lower economic status to pay attention to their health and nutritional issues."

3.2. Improvement of Equity in the Health System

The Health Reform Plan has led to improvement of equity in the health system by facilitating access to health services and decreasing the costs of health for population, on the viewpoints of participants.

3.2.1. Facilitating Access to Health Services

Some of the outcomes of the Health Reform Plan are increased number of health centers and health care providers, decreased distance, and easy access to health services for everyone from all ages and genders in any part of the city.

"Before the Health Reform Plan, there were about 55 health centers in Qom, however, now, there are about 120

Box 1. Iranian Health Reform Advantages in the Health Care System from the View of Managers, Health Care Providers, and Clients

Main Categories and Subcategories

Improvement of general health

Early diagnosis and treatment of the diseases

Patients' follow-up

Promoting healthy lifestyle

Prioritizing health and prevention

Improvement of equity in the health system

Facilitating access to health services

Decreased costs of health services for population

Improvement of health literacy

Increased health knowledge and sensitivity

Development of self-care

Culturalize the referral system

Providing comprehensive health services

Completion and development of health service packages

Care for all members of the family

Providing individual-oriented health services

Providing comprehensive care for the clients

Providing care by the constant caregiver

Increased general satisfaction

Good interaction by health care providers

Improvement of the physical environment of health centers

Developing employment opportunities for the graduates of medical sciences $\,$

Providing electronic medical records

Facilitating access to health statistics

Eliminating paper documents

Easy access to medical records

centers. It means that the number of centers has increased by 2.5 times and consequently, the access has increase by the same rate."

3.2.2. Decreased Costs of Health Services for Population

The Health Reform Plan has decreased client's payments by providing free health services and protected them against the costs of health services. Since the provided services are health-related and preventive, not only would it decrease the economic and financial burden of the general population, but also it is expected that in the long-term it would decrease the government's economic burden and costs in the field of treatment. On the other hand providing free services would create an opportunity for all the groups of the society to access health services,

which would be helpful in accessibility and equity in the health system.

"Free services would be provided for low-income people that would improve their health level; it would somehow help achieve health equity in the society."

3.3. Improvement of Health Literacy

From the participants' viewpoint, other outcomes of the Health Reform Plan were increased health knowledge and sensitivity, development of self-care and culturalizing the referral system, which have been achieved through health education. Emphasizing on face-to-face education, distributing educational pamphlets, conducting educational classes, and educating health ambassadors are some of the activities conducted by the health system to promote public education and improve the level of health knowledge among the general population.

3.3.1. Increased Health Knowledge and Sensitivity

Questions that would be asked from the clients about their lifestyle and consequently, provided personal or group health educations for the clients would increase people's awareness and sensitivity toward health issues. On the other hand, advantaging from health follow-ups and constant education is hoped that these could lead to changes in behaviors and improvement of health among the clients.

"The Health Reform Plan has increased awareness and encouraged people to have a healthy lifestyle; it had a good effect on them. Participating in weekly classes at the center and classes for the health ambassadors has increased people's awareness about health and care."

3.3.2. Development of Self-Care

Participants in the present study believed that the provided educations and follow-ups by the Health Reform Plan have encouraged people to participate in their own health and developed self-care.

"People's awareness about themselves has increased due to the comprehensive questions that they would be asked."

3.3.3. Culturalizing the Referral System

Another mission of the health system is creating a referral system in the health system and institutionalizing it among the population and specialists. Since the health system provided its services at the first level of healthcare, it is sometimes necessary to refer the patients to the second or third levels of healthcare. Respecting this hierarchy in the health system would strengthen the referral system among the patients and the physicians. From the participants' viewpoint, respecting the referral system would

decrease the workload and financial burden at the second and third levels of healthcare.

"They referred me to the physicians that I needed. For example I had Arthritis; they referred me to a doctor."

3.4. Providing Comprehensive Healthcare

Completing and developing health service packages and care for all the members of the family, have made it possible to provide comprehensive healthcare for all the clients; therefore, no one, due to their gender, age, or ethnicity, would be deprived from healthcare.

3.4.1. Completing and Developing of Health Service Packages

Health system planners have made their efforts to gradually place most of the health care as health packages into the health care system; this process is still continuing and these services are spreading out more and more. For example the addition health service packages such as psychological health, encountering disasters, self-care, specific groups, adolescent, middle aged and elderly care, and screening for chronic diseases, could be mentioned.

"Before the Health Reform Plan we did not have a nutritionist and psychiatrist in our center. The programs that have been added into the health services after the Health Reform Plan, such as encountering disasters and self-care did not exist before."

3.4.2. Providing Care for All the Members of the Family

Health cares and service packages in the Health Reform Plan include a wide range of services that could cover the health of all the members of the family. Since the medical file of each family would be assigned to one caregiver and also, the health of each family member has a close relation with the health of others, it is hoped that this type of caregiving would have a positive impact on improvement the individual's, family's, and society's health. This type of care would also provide a more accurate understanding and awareness for the caregiver regarding all the aspects of the family and caregiver's closer relationship with the family so they could more effectively plan and intervene for the health of the family members. One of the strengths of the Health Reform Plan is addressing men's health, which has been ignored in the past. Also, the services of the Health Reform Plan have been designed in a way that could cover the health of every family member from infant to the elderly.

"The person in charge of a family's health could definitely not evaluate the mother's health without considering the father's condition; they could also not evaluate the child's health without regarding the mother's health. Well, this was a good event."

3.5. Providing Individual-Oriented Health Services

Unlike the previous health system, which was serviceoriented, the current health system is individual-oriented, meaning that it emphasizes in providing care for each client by the constant caregiver.

3.5.1. Providing Comprehensive Care for the Clients

Health services in the Health Reform Plan are emphasizing on the importance and evaluation of every aspects of health in individuals.

"Evaluating all the aspects of health in the individual like lifestyle, nutrition, and mental and psychological aspects."

3.5.2. Providing Care by the Constant Caregiver

In the Health Reform Plan, caring for same patients would assigned to the same defined health care providers. This caregiver is responsible for providing care for their assigned clients.

"Before the Health Reform Plan, our colleagues working at the center were responsible for one program. One of them would provide care for the mothers and another for the children; however, after the Health Reform Plan, we divided the individuals between the personnel. For instance, instead of of assigning one task such as providing care for mothers to one personnel, we assigned about 2000 clients to one personnel and made them responsible for their health."

3.6. Increased General Satisfaction

Good interaction by health care providers, improvement of the physical environment of health centers, and developing employment opportunities for the graduates of medical sciences were some of the issues that participants were satisfied with.

3.6.1. Good Interaction by Health Care Providers

Patients who participated in the present study expressed their satisfaction with the behaviors of health care providers at health care centers and mentioned that they have appropriately been greeted and spoken to, their questions have been answered, and their expectations have been fulfilled.

"The fact that they would listen to the patient, for example if you have a medical file, they would come, act appropriately, are not in a hurry, and would not send you out in a rush are all positive points. They completely listen to you and guide you. If you have a question, they would answer it. It really is good from this aspect, I approve it."

3.6.2. Improvement of the Physical Environment of Health Centers

Some of the participants mentioned that the physical environment of the health care centers have been repaired and expressed their satisfaction with the cleanness and beauty of the health centers.

"Clean place..."

3.6.3. Developing Employment Opportunities for the Graduates of Medical Sciences

Considering the need of the health system to increase the number of care providers to achieve the goals of the Health Reform Plan and to increase the coverage of health care services, many graduates of medical sciences have been absorbed and employed.

"Creating jobs and employing a number of experts and specialists of the sub-branches of medical sciences"

3.7. Providing Electronic Medical Records

Creating electronic medical files that were performed simultaneously with implementation of the Health Reform Plan had advantages such as easy access to health statistics, eliminating paper documents, and facilitating access to medical records.

3.7.1. Facilitating Access to Health Statistics

Recording clients' information in electronic files have provided the opportunity to easily extract health-related statistics at the time of need for determining the health condition and health issues in the society. Therefore, to achieve the statistics, it would not be necessary to count the existing information in the files and notes and fill the paper tables.

"Achieving an accurate statistic of the patients including metabolic diseases and contagious and non-contagious diseases".

3.7.2. Eliminating Paper Documents

Eliminating paper profiles, reducing paper consumption, and not needing to provide a physical space for archiving paper profiles are some of the advantages of creating electronic medical records.

"The electronic process of the work and elimination of paper is great. Recording the services in various forms and notebooks were really time-consuming; in addition, paper files did not have the stability and would be destroyed."

3.7.3. Easy Access to Medical Records

By electronically recording the health information of the patients, health care providers could access the necessary information as classified by category. "The possibility of simultaneous access of all the service providers including the caregiver, the nutritionist, the psychologist, and physician to patient's information and accurate history of diseases and examinations"

4. Discussion

Results of the present study showed that, according to the experiences and viewpoints of managers, health care providers, and clients, the Iranian health reform advantages in the health care system could be explained in seven categories of improvement of general health, improvement of equity in the health system, improvement of health literacy, providing comprehensive health services, providing personalized health services, increased general satisfaction, and providing electronic health records.

The instructions of the Ministry of Health Medical Education have emphasized on the fact that, in the Health Reform Plan, prevention is prioritized to treatment and outpatient treatment is prioritized to inpatient treatment; in addition, the health services packages include health improvement, general education and empowerment of the society, primary prevention, active care, finding patients, screening and in-time diagnosis, outpatient treatment in first level, referral, receiving feedback, and performing necessary acts based on the feedbacks (11). These are in line with the perceptions of receivers and providers of health services that indicated general health improvement using early diagnosis and treatment of diseases, patients' follow-up, promoting a healthy lifestyle, and prioritizing health and prevention.

Participants in the present study believed that the Health Reform Plan, by facilitating access to health services and decreasing health costs for clients, have improved equity in the health. According to the health policies in Iran, providing health services at all health centers is free of charge (12). On the other hand, increasing the number of service providing centers is another policy of the Health Ministry for increasing people's access to health services. Therefore, all of the members of the society, with any income level, could benefit from these services. In Turkey, the Health Reform Plan has been implemented since 2003 to develop easy access and provide high quality, effective, and efficient care for the people. From the viewpoint of Turkish people, the Health Reform Plan had positive results including increased access of people, decreased inequity in receiving health services, and decreased costs (3).

From the participants' viewpoint in the present study, increased health knowledge, development of self-care, and culturalizing the referral system were some other advantages of the Health Reform Plan that have been achieved

through health education. The mission of the health system is to achieve a developed society in which people would be able to determine and prioritize the health needs of themselves, their families, peers, and society with sufficient power, hope, awareness, skill, and competence individually, as a group, and collectively. Furthermore, they would plan and act to achieve their prioritized needs so that by respecting a healthy lifestyle, self-care, mutual cooperation, and group participation control and improve the health, security, vitality and efficiency of themselves, their family, peers, society and the world they are living in (13). In this regard, the health system would benefit from various educational tools including face-to-face education, educational pamphlets, educational classes, and health ambassadors (14). Service receivers in the present study mentioned that they have closely realized these educations and improved the level of their health knowledge using them.

Paying attention to completing and developing health packages and caring for all the family members have made it possible to provide comprehensive health services for all the clients. Inclusiveness and comprehensiveness of the health services have been mentioned in the instructions of the Health Ministry due to the fact that health service packages in the Health Reform Plan include health improvement, general education and empowerment of the society, primary prevention, active care, finding patients, screening and in-time diagnosis, first level outpatient treatment, referral, receiving feedback from the higher levels, and performing necessary acts based on the received feedbacks. Target groups have been categorized as the age groups of infants and children, adolescents, youth, middle-aged, and elderly, and services have been presented based on appropriate education for parents, individuals, family, and society, considering the priorities and with emphasize on preventing diseases and common risks of each age group, correct and in-time diagnosis and treatment of diseases and occurred disorders, preventing the occurrence of possible complications and disabilities, and treating the occurred complications (11).

Participants in the present study expressed that in the Health Reform Plan, the health system has been defined as individual-oriented due to the fact that it emphasizes on providing comprehensive care for every client. The Health Ministry has defined primary services and health cares in the Health Reform Plan as individual-oriented and society-oriented. Individual-oriented services include individual prevention and individual health education, diagnosis, and treatment of diseases based on the health service package, emergency management, and management of covered persons. Society-oriented services (general health) include environmental and occupational health services,

school health, controlling contagious and non-contagious diseases and injuries and damages during epidemics and disasters, and preventing and promoting health, which their goals is society's health (12). Participants in the present study did not mention society-oriented services; the reason might be that individual-oriented services have been more tangible and understandable for them.

Health care providers and patients in the present study were satisfied with measures such as appropriate behaviors of health care providers, improved physical environment of the health centers and employment of the medical sciences graduates. Client satisfaction of available services is one of the key goals of the health system, which means the fulfillment of expectations and needs of the clients. Different factors could impact people's satisfaction including the health system pattern, the manner of providing care, and personal characteristics (15). We could not find any study that has evaluated people's satisfaction with health care service. In the field of treatment, the findings of Pourkiani and Kashipazan research showed that most of the hospitalized patients (82%) were satisfied with the implementation of the Health Reform Plan; the highest satisfaction was with the decreased costs of hospitalization and the lowest satisfaction was with hoteling (16). Kalhor and Samilrad also believed that performing the Health Reform Plan has had many advantages and has increased patients' satisfaction (17).

Each patient's electronic health record contains information about their health from their birth to their death (12). Fakhrzad et al. (18), in their study that was titled "the role of electronic health record in providing health information", mentioned that electronic healthcare records would save time and costs and improve the process of patient care by organizing patients' records; it would also facilitate the process of treatment and diagnosis. Meanwhile, using paper records is associated with various problems including mistakes related to misreading and miswriting, increased costs for printing the forms, folders, and cards and more importantly, the place of archives and educating expert personnel for archiving, which requires heavy costs. Participants in the present study also emphasized that creating electronic medical records that was performed simultaneously with the Health Reform Plan had various advantages including easy access to health statistics, eliminating paper files and facilitating access to medical records.

Related to Iranian health reform advantages in health care system, managers, and health care providers and clients expressed their satisfaction with this plan and mentioned positive advantages such as early diagnosis and treatment of diseases, patients' follow-up, promoting healthy lifestyle, emphasizing individual education, de-

creased costs of health services for people, culturalizing referral system, paying attention to men's health, providing care for all the age groups, appropriate behaviors of health care providers, and creating electronic health records. All of these criteria indicate a creation of appropriate structures for improvement of general health in Iran. It is hoped that by growing the development of the health system and resolving its defects, we would observe the improvement of health level and decrease in health costs in our country. Further studies in this field are recommended.

References

- Cassels A. Health sector reform: key issues in less developed countries. J Int Dev. 1995;7(3):329–47. doi: 10.1002/jid.3380070303.
- Cassels A, Janovsky K. Reform of the health sector in Ghana and Zambia: commonalities and contrasts. Geneva, Switzerland: World Health Organization [WHO]; 1996. Available from: https://www.popline.org/node/308711.
- 3. Ali Jadoo SA, Aljunid SM, Sulku SN, Nur AM. Turkish health system reform from the people's perspective: a cross sectional study. *Health Serv Res.* 2014;14(1). doi: 10.1186/1472-6963-14-30.
- 4. Kwon S. Payment system reform for health care providers in Korea. *Health Policy Plan*. 2003;**18**(1):84–92. doi: 10.1093/heapol/18.1.84.
- 5. McPake B. Is the Colombian health system reform improving the performance of public hospitals in Bogota? *Health Policy Plan*. 2003;**18**(2):182–94. doi: 10.1093/heapol/czg023.
- 6. Mahmoudi N, Ghanizadeh G, Baboli R, Alidadi A. [challanges and threats of health and preventhion in health reform plan]. *National Congress in Criticism 11th Iranian Government In Health Domain*. Tehran. 2015. Persian.
- 7. Ministry of Health and Medical Education; Qom University of Medical Sciences and Health Services. Plan of health system reform in

- health domain. 2014. Available from: http://www.muq.ac.ir/index.aspx?fkeyid=&siteid=109&pageid=17065. Persian.
- 8. Health deputy of qom university of medical sciences; Qom University of Medical Sciences and Health Services. *Plan of health system reform in health care system*. 2015. Available from: http://fdo.muq.ac.ir/index.aspx?fkeyid=&siteid=109&pageid=17587. Persian.
- Hanberger A. What is the policy problem? Eval. 2016;7(1):45-62. doi: 10.1177/13563890122209513.
- Creswell JW, Clark VLP. Designing and conducting mixed methods research. New York: wiley; 2007.
- Gozliyan Z. [What do you know about health reform plan and new health services?]. Health Seas J. 2015;2:4–8. Persian.
- Ministry of Health and Medical Education health deputy system manangment center. Plan of produce and improvment primary health care in form of health and treatment system development and reinforcement in urban regions. 2015. Available from: http://abadanums.ac.ir/portal/File/ShowFile.aspx?ID=3645db27-519d-400f-beb8-46412f21fee1. Persian.
- 13. Salafi P, Jalal Razaghi N. [Self care]. Health Seas J. 2015;2(17). Persian.
- 14. Jalal Razaghi N. [Role of health volunteers in health reform plan]. Health Seas J. 2015;2:57-8. Persian.
- Stokes J, Gurol-Urganci I, Hone T, Atun R. Effect of health system reforms in Turkey on user satisfaction. J Glob Health. 2015;5(2):20403. doi: 10.7189/jogh.05.020403. [PubMed: 26528391]. [PubMed Central: PMC4622488].
- Pourkiani J, Kashipazan N. [Inpatint's satisfaction from applying health system reform in governmental hospitals in Mashhad, 2014]. National Congress In Criticism 11th Iranian Government In Health Domain. Tehran. 2015. Persian.
- 17. Kalhor M, Samiirad F. [Challanges and results of health reform plan in Kosar hospital: Qazvin]. *National Congress In Criticism 11th Iranian Government In Health Domain*. Tehran. 2015. Persian.
- Fakhrzad M, Fakhrzad N, Dehghani M. [The role of electronic health records in presenting health information. A review study]. J Health Admin. 2012;2(4). Persian.