JCHR

Journal of Community Health Research 2022; 11(3): 219-231.

The Survey of Presenting New Health Services to Middle-aged Population in Health Transformation Plan: a Qualitative Study

Mohammad Reza Aalaei Ardakani [1], Somayeh Hessam *[2], Mahmoud Vakili [3]

1. Department of Health Services Management, Islamic Azad University, Shiraz Branch, Shiraz, Iran
2. Department of Health Services Management, South Tehran Branch, Islamic Azad University, Tehran, Iran
3. Social Medicine Specialist, Associate Professor, Department of Social Medicine, Health Monitoring Research Center, Faculty of Medicine, Shahid Sadoughi University of Medical Sciences, Yazd, Iran

ARTICLE INFO

Original Article

Received: 22 August 2022
Accepted: 3 September 2022

Corresponding Author:
Somayeh Hessam
somayehh59@yahoo.com

ABSTRACT

Introduction: Providing health services to middle-aged people is of special importance due to the large population, productivity, and the impact of health behaviors of this age group on various aspects of family health. The purpose of this study is to evaluate the provision of middle-aged health services**.**

Methods: This was a qualitative study performed in 2017 in comprehensive health centers of Yazd city. Central part of Iran. Sixty two individuals (specialists, general practitioners and experts) providing health services in comprehensive health centers were selected through targeted sampling . Interviews were done with a semi-structured individualized method. Questions were asked in the following domains: weaknesses and strengths and recommendations about the method of providing services and its content.

Results: According to the results, 15 weak points and 5 strong points in the method of providing services, and 8 strong points and 7 weak points about the content of health service packages and 17 recommended mechanisms about the improvement of the providing services and 11 recommended mechanisms about improvement of the content of packages were extracted. The main weak points in providing services were such as not observing referring system, lack of insurance coverage for some services, problems in Integrated Health Record System. The weak points of the packages of health services for middle-aged people were as lack of predicting the service packages for levels 2 and 3, repetition of the questions in evaluation, and low attention to social health and traditional medicine.

Conclusion: Concentrating on the improvement of the service providing and the contents of the packages of new health services by utilizing presented recommendations according to professional viewpoints of health service providers helps improve health level in this age group and increase the efficiency in the middle-aged people.

Key words: Health care reform, Primary health care, middle age, Integrated Health Record System

How to cite this paper:

Aalaei Ardakani MR, Hessam S, Vakili M. The Survey of presenting new health services to middle-aged population in health transformation plan: a qualitative study. J Community Health Research 2022; 11(3): 219-231.

[DOI: 10.18502/jchr.v11i3.10874]

Introduction

Epidemiologic transition and the change in the feature of health-threatening risks in the current time which have been occurred due to different reasons, has changed the requirements of the health (1), and accounting to these ever changing needs is one of the most important challenges in the health system in all societies (1,2). This is obvious in introducing high-risk groups for receiving health services and in different aspects of health. In other words, it has been provided a new attitude and approach to solve health problems for policy-makers (1).

One of the main age groups in this approach change in health system is middle ages. This age group comprises almost half of the population in developing countries and its population is ever-increasing. Specially in developing countries, this increase is faster than the total population growth, and in contrast to children population, middle-aged population will increase in the next decades (3).

27 million of 80 million Iran's population are allocated to the middle age group, increasing gradually(4,5). It is important to provide health services to this age group because of population size, productivity of this age group, and the impact of health behaviors of this age group on different aspects of family health. The importance of this age group, in addition to their role in sustainable production and development, is due to this fact that if one does not pass the middle age stage well, in transition to the next stage of life, i.e. older age, in which, he (she) needs psychological and physical abilities more than the previous life stages, he (she) won't have enough preparedness.

So, middle age can be the peak of people's lives, provided that health is taken into account in all its aspects (6). The main mission of the health system for all social and age groups is to promote health and respond to their health and disease needs (7). Countries such as China, Turkey, Thailand, Mexico and Brazil have made extensive reforms to their health system to achieve the ultimate goal of health care, which is to protect and promote the well-being of the community, providing its population with a comprehensive benefits package consisting of prevention, promotion, treatment and rehabilitation services (8, 9). In Iran, Article 29 of the Constitution of the Islamic Republic of Iran denotes that health services and health care are considered as a universal right for all citizens (8) and because of such problems as lack of resources, insufficient access to available resources, and dissatisfaction with clients, health system reforms are needed.

The expansion of urban areas and the lack of access to a wide range of services provided by the network system in addition to the high level of public literacy and people's knowledge about health providers on one hand, and the need for planning for public participation and cross-sectoral coordination in the other hand, urged the Ministry of Health to design changes to the system of providing health services in urban areas. With focus on the goal of change in rural health care centers, the Health Transformation Plan has been implemented with six plans and a number of projects to improve health indicators, increase customer satisfaction, improve health service quality since 2015 by designing and delivering health service packages for children, adolescents, young people, middle-aged and elderly people across the country (4, 10). Due to reforms in the delivery of health care services and the importance of the middle age group, the new middle-aged health services package was designed for the first time in the country by the Family and Population Office of the Ministry of Health and Medical Education. In the service package, age range of 30-59 years was conventionally termed as middle age. In this period of life, people are exposed to various physiological, physical, cognitive and social changes. Integrated health care for Iranian women (SABA) is designed for middle-aged women and integrated Iranian men's health (SAMA) for middle-aged men. Integrated health care packages focus on prevention of common illnesses and risks in middle age, with due regard to the following issues: priorities and proper education to the individual, family and community, proper and timely diagnosis and treatment of diseases and

[DOI: 10.18502/jchr.v11i3.10874]

disorders, prevention of complications of diseases and possible disabilities, treatment of complications based on clinical guidelines, timely referral to higher levels, and following the feedbacks (6). The major diseases targeted by this program include cardiovascular diseases, cancers, musculoskeletal disorders, metabolic and nutritional diseases, gastrointestinal diseases, genitourinary diseases and mental disorders (8).

Health information related to age groups is registered in the Integrated Health System (IHS) called "SIB", which has been the most important program in the health sector since 2015 in all medical universities across the country and in line with the implementation of the reform program in the health sector. Hygiene was implemented in 2016 in all important health care centers throughout Iran (11). This web-based system, used in primary care centers, is specifically designed to collect and process information about the health of different age groups that were previously recorded in the article forms and in the family file(12).

The ultimate goal of the middle age health program is to reduce premature deaths, increase life expectancy and improve the middle-aged health through intermediary goals such as reducing middle age deaths within the framework of international and national commitments to reduce premature deaths - reducing the burden of disease and common problems of this age group, including: cardiovascular diseases, cancers, musculoskeletal diseases, nutritional diseases, pulmonary diseases, accidents, urinary tract diseases and mental disorders. Other aims are reducing risk factors and controlling disease risk factors, increasing health awareness and literacy among middle-aged and organizing their self-care (6).

The implementation of any program, especially health programs, has strengths and weaknesses. According to a study conducted in Qom province (2017) by analyzing the establishment of a health transformation plan in the field of health, weaknesses including Human resource management, selection and development of managers, financial resource management, lack of infrastructure, pivotal treatment, inefficiency of health information system and payment system, opportunities are the support of officials, legal support for the project, private sector participation(4).

This study was carried out in order to achieve the second and fourth goals of the Health Transformation Plan in the field of health, in order to increase satisfaction and improve the quality of services from the viewpoint of service providers, and according to the latest statistics of deputy of health of Shahid Sadoughi University of Medical Sciences.

Methods

This was a qualitative study conducted by thematic and framework analysis method. Structure analysis (13), is an appropriate method in applied researches with the purpose of achieving specific information and providing outcomes or recommendations, on the other hand, thematic analysis (14) is a method for identifying and presenting content of text data. Both methods are extensively used in health researches.

Participants

The health service package for the middle-aged group is designed to be integrated for the care of women and men aged 59-30.The implementation of middle-aged services for early detection of problems and diseases of this age group and their timely treatment includes lifestyle, screening for mental health, non-communicable diseases, women's health during fertility and menopause.

In order to determine weak and strong points and present recommendations about the method of providing services and content of the packages of middle-age health services, 62 participants were selected by targeted sampling based upon cases with strong evidence, The participants included 62 physician and experts providing health services in comprehensive health centers of Shahid Sadoughi university of medical sciences in cities with more than 20000 population. All participants were interviewed. Inclusion criteria were as following: ability to answer the questions (physically and mentally), being specialist in the field, and

[DOI: 10.18502/jchr.v11i3.10874]

involving in the middle-aged health program. After getting an introduction letter from university deputy of health, and explaining the objectives for the authorities and obtaining their consent, required information was collected. The method of data collection was interview which was performed by skilled interviewers.

In order to produce data, semi-structured individual interview was used which is appropriate for qualitative researches due to its flexibility and profoundness. Time of Interviews were arranged by telephone or in person. During the arrangement of the interviews, enough explanation about the objectives of the interview was provided for the participants and they were reassured about the confidentiality of data and the identity of the interviewees. They were also informed that they can freely refuse from continuing to participate in the research whenever they want. In the next step, an informed consent was obtained from each participant. In order to increase the accuracy, precision and confidentiality of data, a place out of the usual workplace of the participants was prepared for interviews. The time of each session of interview was between 40 to 55 minutes according to the participants' interest and desire to continue the interview. All interviews were recorded by two electronic devices. Data analysis was started concurrent with data collection and was continued until saturation. Immediately after each interview, after twice listening to the recorded file, all conversations were typed word by word and semantic units were extracted from the text. In the next step, a classification was performed according to the similarities between the units. In order to estimate the amount of verifiability of data, supervisor review method was used, so as interviews, encodings, and class extractions were done by few experts in qualitative research without conflict of interest with the issue. After 62 interviews saturation was achieved, and according to repetition of the frequency of semantic codes, related concepts were separately classified regarding strong and weak points; recommendations were also classified in each field (method of providing services, content of packages).

In order to define strong and weak points and recommended mechanisms for quantitative and qualitative improvement of packages, two questions with the following contents were designed: Expressing the strong and weak points and presenting recommendations for the method of providing services and the content of packages of health care services for middle-aged).

Table 1. Frequency distribution of participants in the interview

Demographic variables	Levels	N	%
Gender	Male	24	38.7
	female	38	61.2
nn Expertise	Internal medicine specialists	3	4.8
	women specialist	2	3.2
	General Practitioner	11	17.7
	Health care	46	74.1
Level of Education	Associate Degree	4	6.4
	Bachelor	40	64.5
	MA	2	3.2
	Professional PhD	11	17.7
	Expert	5	8.06
work experience	Less than 5 years	14	22.5
	5-10 years	19	30.6
	10-20 years	17	27.4
	More than 20 years	12	19.3

[DOI: 10.18502/jchr.v11i3.10874]

Results

Demographic data of the participants are presented in table 1. Organizational positions of the participants included: general practitioner, internal medicine specialist, gynecologist, and health care providers. Totally, 61.2% (38) of the participants were females, 74.1% (46)were health care providers, and 64.5% (40) had bachelor degree (table 1).

After interviews and extraction of theme and structure analysis, the main strong points of the method of presenting services via new health service packages included: establishing health bases in city margins (82.2%) (51), completing, equipping and developing the networks of service presentation, providing new employees for service presentation (75.8%)(47) (table 2). Weak points of the method of presenting services including 15 subjects were extracted. The main and most frequent weak points included: activity of governmental special clinics with low tariff without referring system (96.7%)(60), lack of linking SIB system to registration office system and hospital HIS and lack of insurance coverage of some para-clinical and screening actions (91.9%)(57).

Table 2. Frequency distribution Weaknesses and strengths of how to provide services

ID	weak points	N	%	Strength points	N	%
1	Activation of specialized low-tariff government clinics without a referral system	60	96.7	Creating health centers in the suburbs and low-income areas of cities	51	82.25
2	Lack of linking the SIB system to the registry and HIS systems of hospitals	57	91.9	Completion, equipment and development of health care networks	47	75.8
3	Lack of insurance coverage for some paraclinical and screening measures	57	91.9	Providing new forces with scientific competence in the health transformation plan	47	75.8
4	Weakness in people's reading	57	91.9	Establishment of health monitoring and evaluation system	45	72.5
5	Inadequacy of inter-sectoral cooperation and public participation	53	85.4	Record the records of middle-aged people electronically in the SIB system	44	70.9
6	Impossibility to view the content of services provided by clients	53	85.4			
7	Weakness of the information system and follow-up of subsequent visits	51	82.2			
8	Incompatibility of working hours of centers with working target groups	50	80.6			

[DOI: 10.18502/jchr.v11i3.10874]

ID	weak points	N	%	Strength points	N	%
9	Incompleteness of the SIB system and the impossibility of correct reporting of this system	50	80.6			
10	Lack of population segregation based on blocking and uncertainty of the population covered by each title in the SIB system	50	80.6			
11	Monitoring teams focus on quantitative performance	48	70.4			
12	Discriminatory payments in the health team	46	74.1			
13	The length of the process of providing all the services of the package of services at the time of referral	46	74.1			
14	Insufficient awareness of medical graduates about the implementation protocols of the transformation plan	45	72.5			
15	Lack of manpower (physician, nutritionist, and clinical psychologist relative to population)	45	72.5			

From other questions in the interviews about strong points of the content of the packages, eight subjects were extracted: possibility of determining high-risk cases and those at risk of NCDs, screening of three common cancers and determining the cases for prevention and also emphasis on preventing from the complications of vitamin D deficiency by distribution of supplements (87.09%)(54), free FBS and lipid profile tests (85.4%)(53), screening of 30-59 year-old females in physical and mental aspects and common cancers and diseases (80.6%)(50) (table 3).

Extracted weak points are presented in table 3. The weak points included: lack of prediction of service packages in specialized levels 2 and 3 (88.7%)(55), multiplicity ad repetition of questions in different aspects and paying less attention to social health and traditional medicine (87.09%)(54), insufficiency of SIB system in coverage of recording service packages (82.2%)(51).

[DOI: 10.18502/jchr.v11i3.10874]

Table 3. Frequency distribution of strengths and weaknesses of the content of service packages

ID	weak points	N	%	Strength points	N	%
1	Lack of forecasting of service packages in specialized levels 2 and 3	55	88.7	Ability to identify high-risk individuals at risk for non-communicable diseases	54	87.09
2	Multiplicity and repetition of questions in different assessment areas	54	87.09	Screening for three common cancers and identifying people for prevention and treatment	54	87.09
3	Lack of attention to social health services and traditional medicine	54	87.09	Emphasis on promoting the effects of vitamin D 3 deficiency through supplementation	54	87.09
4	Inadequacy of the SIB system in covering all services	51	82.2	Free sugar and fat testing	53	85.4
5	Inconsistency between service packages and available features	48	77.41	Examination and screening of women aged 30-59 in the physical, psychological, diseases and common cancers	50	80.6
6	Contradictions of some definitions and items with scientific sources	46	74.1	Coverage of all age groups to receive health services	48	77.4
7				Emphasis on self-care and community health	47	75.8
8				Teaching the centrality of middle-aged service packages with an impact on people's lifestyles	45	72.5

The main recommendations for improvement of the method of presenting new health services in the middle-aged population are shown in table 4. Some recommendations included: development and separation of physical space of service providers, education, justification and valuation of health packages during admission of clients before providing services, installing electronic turn-taking by Integrated Health Record System (SIB), installation of electronic health file by SIB system, making para-clinical and screening services free of charge with changing the approach of insurance companies.

The main recommendations for improvement of the content of the packages were as following (table 5): adaptation of the content of packages with the requirements of the society and upstream documents, adaptation of electronic health system with the contents of the packages, presenting integrated services, predicting and performing the service packages of middle-aged population in specialized levels 2 and 3, and predicting new packages for evaluation, diagnosis, treatment and preventing common diseases.

[DOI: 10.18502/jchr.v11i3.10874]

Table 4. Frequency distribution of offer titles on how to provide services service packages distribution of offer titles on how to provide services for new service packages

ID	Offers	N	%
1	Develop and separate the physical space of service providers.	61	98.38
2	Training, promotion and evaluation of service packages at the time of admission of clients before service delivery.	61	98.38
3	Implementation of electronic queuing system through SIB system to clients	57	91.93
4	Establishment of electronic health processor through integrated SIB system	52	83.87
5	Establish a remote care system in educational counseling services and follow-up treatment	51	82.25
6	Adjusting the activity time of the units and the needs of the clients	51	82.25
7	Implement a family physician program in cities with more than 20,000 people	48	77.41
8	Creating people-managed access to electronic records of personal health records.	47	75.80
9	Simultaneous use of the private and public sectors in providing services for better customer access	47	75.80
10	Promoting self-care education and justifying the services received by clients (promoting health literacy)	47	75.80
11	Mandatory examination of staff recruitment and employment based on upstream rules (similar to workers)	46	74.19
12	Use social marketing techniques to increase service coverage	46	74.19
13	Establishing an efficient and effective monitoring and evaluation system, along with the views of service recipients	46	74.19
14	Attracting inter-sectoral participation through the establishment of the Secretariat of the Provincial Health Assembly	45	72.58
15	The participation of health volunteers and neighborhood health centers in the general call for middle-aged people	45	72.58
16	Establishing a system for paying employees fairly - motivationally, and based on the coverage and quality of services	44	70.96
17	Free paraclinical services and screening for diseases at the Comprehensive Health Service Center with a change in insurance approach	43	69.35

Table 5. Frequency distribution of suggestions related to improving the content of service packages

ID	Offers	N	%
1	Adapting the content of service packages to the needs of the community and upstream documents.	59	95.16
2	Compliance of e-health system with the content of health service packages.	56	90.32
3	Provide integrated services (no duplicate services at different levels).	56	90.32
4	Predicting and implementing middle-aged service packages at specialized levels 2 and 3	54	87.09
5	Predicting the mobility and physical activity packages of the general public with the support of the Department of Sports and Youth and the participation of municipalities.	51	82.25
6	Participation of financial and non-financial organizations in developing service packages at national and provincial levels.	50	80.64
7	Centralism in determining the content of public health service packages at the national level.	50	80.64
8	Decentralization in determining the content of private health service packages according to the specific needs and conditions of universities.	49	79.03
9	Predicting psychosocial support packages with the support of support organizations and governorates.	48	77.41
10	Predicting the packages of Iranian traditional medicine services according to the general policies of "health".	45	72.58
11	Prediction and implementation of new packages for evaluation, diagnosis and treatment and follow-up of common diseases	45	72.58

[DOI: 10.18502/jchr.v11i3.10874]

Discussion

Results of this study showed that there are several strong and weak points in the method of presenting new health service packages and the content of packages in the middle-aged population, and we can be hopeful to qualitatively and quantitatively improve it with deployment of proposed recommendations. Certainly, combination and patterning from strong and weak points of the structures of providing services, a more responsive and appropriate system will be compiled for the country and it may decrease trial and errors and unexplainable inequities and injustice due to structure will be diminished (15).

The strong points mentioned in the method of presenting services, considering more than 70% repetition included: establishing health bases in city margins and places with low facilities, completing, equipping and developing the networks of service presentation, providing new employees with scientific qualification in health transformation plan, installation of a system for monitoring and evaluating health services, electronic recording of the history of middle-aged population in Integrated Health Record System (SIB) system. According to a study conducted in Qom province (2017) by analyzing the establishment of a health transformation plan in the field of health, strengths include empowering managers, completing, equipping and developing a health network, establishing an electronic health record, increasing access to services and promoting self-care, weaknesses including Human resource management, selection and development of managers, financial resource management, lack of infrastructure, pivotal treatment, inefficiency of health information system and payment system, opportunities are the support of officials, legal support for the project, private sector participation(4).

Since the mission of the Ministry of Health and Medical Education is to provide comprehensive physical, psychological, social and spiritual wellbeing to the population living in the geographical area of the Islamic Republic of Iran with priority of less developed areas, therefore, interventions to improve the health status of different areas of the country according to upstream documents, especially the Constitution, the Iranian Islamic Model of Progress, the vision statement of 1404, general health policies communicated by the supreme leader, the population, the reform of consumption pattern, Article 44 of the Constitution, the comprehensive scientific plan of the country and the program of the ministry of health and medical education, are necessary.

Health ministry as the provider of health services, approved and operationalized this plan to prioritize the development of less developed areas, especially villages, suburbs and tribal areas. The importance of establishing these bases and creating the periphery of cities is to the extent that one of the goals of sustainable development, Objective 11.1, which directly refers to urban slum areas, states that "by 2030 the access of all persons adequate, safe and affordable housing and basic services should be ensured, and the status of slum areas be improved" (16). As a result, the creation of health centers in the countryside and less developed areas of the cities are significant points in the health transformation plan and the provision of new health service packages in the middle-aged group.

One of the most important strengths of modern health programs in the field of hygiene is the existence of a monitoring and evaluation system. Existence of monitoring and evaluation system will lead managers to be aware of health indicators in each service package, to extract priority list of problems and develop intervention plans for solving health center problems in service delivery. Emphasis on the continuous evaluation of middle-aged health care packages should be a priority for the organizations overseeing the centers. Serving the population in the field of health, even in developed countries, is difficult, for example in Canada, a study by the Canadian Network of Policy Studies on People's Health (marginalized urban areas, remote villages, and health centers, etc.) entitled "Innovation in Service Provisioning" was conducted in 2006, stating that people in these

[DOI: 10.18502/jchr.v11i3.10874]

areas usually do not have access (physical, economic, and with high quality) to services or they may have incomplete access and the most important challenges are issues of inadequate training and lack of familiarity of service providers with problems of the area, lack of adequate staff in general, inadequate budgeting models, lack of community health centers, inadequate services in the margins of the city and lack of integration (17). Consequently, some actions should be implemented in order to improve the shortcomings of human resources and their motivation, and employment of trained forces to implement the package of interventions.

Certainly a combination of new, energetic and motivated workforce with experienced ones can be an opportunity if the correct management style is applied. One study concluded that concerns about the reduction of occupational security at the private sector and its impact on the services were nor associated with employing experienced staff and work history and this increases the workforce power and knowledge (18). According to the results of the study of Kabir et al. (2018), the average satisfaction of physicians with the apple system was lower than the average level and the satisfaction of health care providers was moderate (19).

Another weakness expressed by the interviewees in this study was the unfairness of payments to health team members. And, on the other hand, there was no balance between workload and payments, which causes dissatisfaction and poor quality of services. There are also significant differences in the payments to physicians with other health care providers. Although a combination of performance-based and per capita pay has been envisaged health transformation plan, the multiplicity of payoffs between formal, contractual, and new transformation plan forces (20), as well as the significant gains received with FFS-based payment in those working in the treatment sector, it may decrease the motivation of health care workers working in the health sector to do their essential task in the field of disease prevention and increase induced demands in the treatment sector (21).

In some studies, neglect of human factors as the largest Information about the failure of information systems, including electronic health records, is well known (22).

The study of Olyaeemanesh (2018), delays in payment, lack of cooperation between insurance and private sectors, lack of strategic purchases and allocation of financial resources were among the weaknesses of the Health Transformation Plan in the Iranian health system(23).

In the above case, when the service provider's interest is in providing more and more health care, the risk of induced demand by the provider is very high. Induced demand can have two major effects: One could increase health costs or put pressure on the public budget. Second, reduce efficiency because national resources are allocated to cares that does not have much benefit (19). In addition, designing and recording of health information in SIB system was one of the strengths of the health transformation plan in this study. This system was introduced in this regard since March 2015 in the universities of medical sciences around the country. The establishment of the SIB system in all urban health centers and bases and the majority of rural centers was enabled to register modern health services electronically for all age groups (children, adolescents, youth, middle aged, elderly, pregnant mothers, etc.). At present, only the first-tier network providers in urban and rural areas of the country, including urban family physicians and health care providers, are required to record details of each service they provide to recipients in SIB system at the same day (20).

Despite the launch of the SIB system and considering the weaknesses mentioned in items 2 and 9 of table 1, there are still many disadvantages. One of the most important weakness in the systems of health information registration is the inefficiency of the health information management system, which includes the weakness of the system for collecting, recording and analyzing information in a timely manner, or for incorrect information (4). Each new system, with many strong points,

[DOI: 10.18502/jchr.v11i3.10874]

may have some weaknesses in its early stages that need to be addressed during the process. One of the major disadvantages of this system, in recording comprehensive and middle-aged services, is lack of links to the hospital registration systems (HIS) and this connection should be established. SIB system needs to be evaluated by the operators and service providers in a comprehensive project and its weaknesses should be analyzed and corrected so that accurate and comprehensive reporting on people's health status can be achieved. However, the creation of electronic health file as an essential pillar in providing new health services to the general public is one of the necessities of the health system in Iran (5, 24). Equity in health in terms of access to services, achieving benefits from services and financial protection of the people in the context of public insurance (25) has been identified as the third objective of health transformation plan, and participation of insurance companies and their coverage of health services should be the top priority of the implementation of this plan (15). Numerous studies have been carried out on the effect of financial variables on the level of access to health services. One of these is the study by Kaufman et al. (2006) conducted in New Mexico public hospitals and found that patients who pay for their own personal care were 8.76 times more likely to cancel their surgery than those who were insured (26). Therefore, the participation of insurance companies in covering some screening services is one of the important goals mentioned in the weaknesses, and as suggested in the recommendations, para-clinical services and screening tests should be covered in the new health program for the middle aged in order to cover comprehensive services.

In assessment of the strong points of the content of service packages from the viewpoint of experts following items were mentioned: the possibility of identifying high-risk population ant those at risk of non-communicable diseases, screening for three common cancers and identifying high-risk individuals for prevention, emphasis on preventing complications of vitamin D3 deficiency through distribution of supplements, free glucose and lipid profile testing, screening of women aged 30-59 years regarding physical and mental aspects, common cancers and diseases, covering all age groups to receive health services, emphasis on self-care and community health, and for middle-aged service packages being education-centered.

Summarizing the results of this part of the present study which was according to the viewpoint of service providers was consistent with the results of Abedi et al. study (1979) (4), which was an analysis of health transformation plan by SWOT method, and presented the following items as the strong points of this plan: empowering health care managers, completion, equipping and developing service delivery units, deployment if electronic health file, increasing access to health services on the margins of the city, and self-care development and education-centered health service packages.

Conclusion

Focusing on recommendations to empower strong points and improve weak points from the viewpoint of service providers and applying them can lead to improved implementation of middle-aged services and prevent their problems during aging.

This study will support the implementation of new health plans in the context of the top priorities, as well as contributing to a preventative approach to non-communicable diseases, enhancing the capacity of the modern health service delivery system, providing adequate funding for implementation of programs, simplifying the approach and integrating services in age groups for optimal use are among the benefits of middle-aged service packages. Observance of the referral system in providing services, connecting the apple system to hospital software, insurance coverage of measures and increasing inter-sectoral cooperation and reviewing the components of the apple system in service coverage are among the measures that should be taken to improve middle-aged services.

Acknowledgements

This article is taken from the doctoral dissertation of health services management from

[DOI: 10.18502/jchr.v11i3.10874]

Shiraz branch of Azad University entitled "Evaluation of the supply and content of middle-aged health services packages in the health system transformation plan in Yazd province and model presentation with quantitative and qualitative approach" with proposal code 3317 And the dissertation. 16321213951003 has been registered in the research system and all ethical principles have been observed.

The authors are grateful to Dr. Sharifi, technical deputy of province health center, Asghar Zare, statistics operator of province health center, and all interviewers (Hadi Parsaeikhah, Mahdi Foroutani, Forouzan Ehteshami, Maliheh Zahmatkesh, Ferdos Shaker, Maryam Attarha, Narges Nazari, and Reyhaneh Tighband) and all participants in this study.

Author contribution

All authors equally contributed to conducting the project and preparing the manuscript. All authors read and approved the final manuscript.

Conflict of interest

The authors received no financial support for the research, authorship, and/or publication of this article.

Reference

1.H AS. Changes in Global Patterns of Health and Disease: Demographic Transition and Transition Epidemiological. Journal of Medical History. 2012;4(11):11-43.

2.Madadizadeh F, Vali L, Khalilabad Th, Asar Me. Work-related musculoskeletal disorders among administrative employees of Kerman university of medical sciences. International Journal of Occupational Hygiene. 2016;8(2):78-84.

3.Office MAH. Executive Guide for Men and Women Health Services. 2012. p. 1-136.

4.Abedi G, Kontai S, Amir S, Marvi A, Mazidi S, Abedini E, et al. SWOT Analysis of Health Reform Plan on Healthcare Sector from the Stakeholder Perspective. Journal of Mazandaran University of Medical Sciences. 2018;28(166):199-212.

5.Menachemi N, Collum TH. Benefits and drawbacks of electronic health record systems. Risk management and healthcare policy. 2011;4:47.

6.Heidari F, Mohammadkhan KS, Vanaki Z, KAZEM NA. A Survey the effect of planned program of health promotion on stress management in middle-aged women. 2011

7.Davies P, Carrin G. Risk-pooling-necessary but not sufficient? Bulletin-World Health Organization. 2001;79(7):587-587.

8.Babashahy S, Akbari SA, Rashidian A, OLYAEE MA. Payments of physicians employed in public and private hospitals after modification of surgical and invasive services tariffs. 2012.

9.Organization WH. The world health report 2000: health systems: improving performance: World Health Organization; 2000.

10 . Education MoHaM. Implementation Guidelines for Provision and Development of Primary Health Care Programs in Urban and Suburban Areas - Version 3. 2014. p. 6.

11. Raymond L, Paré G, Marchand M. Extended use of electronic health records by primary care physicians: Does the electronic health record artefact matter? Health Informatics Journal. 2017;00:1–12.

12.News and Information Center of the Ministry of Health and Medical Education. Integrated Health System (SIB) as Important Plan of Primary Healthcare in 2016. 2016. [Last accessed on 2017 Jul 13].

13 . Johnson RB, Onwuegbuzie AJ. Mixed methods research: A research paradigm whose time has come. Educational researcher. 2004;33(7):14-26.

14 . Braun V, Clarke V. Using thematic analysis in psychology. Qualitative research in psychology. 2006;3(2):77-101.

15 . Bakhtiari A, Takian A, Sayari AA, Bairami F, Tabrizi JS, MOhammadi A, et al. Design and Deployment of Health Complexes in Line with Universal Health Coverage by Focusing on the Marginalized Population in Tabriz, Iran. 2017.

16 . Organization WH. Health in 2015: from MDGs, millennium development goals to SDGs, sustainable development goals: World Health Organization; 2015.

[DOI: 10.18502/jchr.v11i3.10874]

17. Hay D, Varga-Toth J, Hines E. Frontline health care in Canada: innovations in delivering services to vulnerable populations: Canadian Policy Research Networks Ottawa (Canada); 2006.
18 . Arshi S, Majdzadeh SR, Sadeghi Bazargan H, Sezavar SH, Tahmasian Z, Amanati L et al. Assessing the competency of staff in Ardebil Province in completing and presenting statistical charts in 2001. Journal of Ardebil University of Medical Sciences 2006; 6(1): 53-60 (in Persian).
19 . Kabir MJ, Ashrafian AH, Rabiee SM, Keshavarzi A, Hosseini S, Nasrollahpour SSD. Satisfaction of urban family physicians and health care providers in Fars and Mazandaran provinces from integrated health system. 2018; 4(4); 244 - 252.
20. Ministry of Health. Primary Health Care Expansion Plan to Achieve Public Health Coverage in Urban Areas 2017. Page 15.
21 . Khorasani E, Keyvanara M, Karimi S, Jafarian Jazi M. The Role of Patients in Induced Demand from Experts' Perception:A Qualitative Study. J Qual Res Health Sci. 2014; 2 (4) :336-345.
22..Liu YC, Huang YM. Using the UTAUT model to examine the acceptance behavior of synchronous collaboration to support peer translation. JALT CALL Journal 2015;11(1):77-91.
23. Olyaeemanesh A, Behzadifar M, Mousavinejhad N, Behzadifar M, Heydarvand S, Azari S, et al . Iran's Health System Transformation Plan: A SWOT analysis . Med J Islam Repub Iran. 2018; 32 (1) :224-230
24 . Linder JA, Ma J, Bates DW, Middleton B, Stafford RS. Electronic health record use and the quality of ambulatory care in the United States. Archives of internal medicine. 2007;167(13):1400-1405.
25. Peters DH, Garg A, Bloom G, Walker DG, Brieger WR, Hafizur Rahman M. Poverty and access to health care in developing countries. Annals of the New York Academy of Sciences. 2008;1136(1):161-171.
26 . Kaufman W, Chavez AS, Skipper B, Kaufman A. Effect of high up front charges on access to surgery for poor patients at a public hospital in New Mexico. International journal for equity in health. 2006;5(1):6.

[DOI: 10.18502/jchr.v11i3.10874]