

Designing the Financing Model of Primary Health Care for the Elderly in Iran

Samin Nobakht, PhD;
Leila Riahi, PhD;
Leila Nazarimanesh, PhD;
Kamran Hajinabi, PhD

Department of Health Services
Management, Science and Research
branch, Islamic Azad University,
Tehran, Iran

Correspondence:

Leila Riahi, PhD;
Department of Health Services
Management, Science and Research
branch, Islamic Azad University,
Tehran, Iran

Tel: +98 9121131901

Email: l.riahi@srbiau.ac.ir

Received: 05 January 2024

Revised: 13 February 2024

Accepted: 17 March 2024

Abstract

Background: Strengthening primary health care services for the elderly is vital. In this regard, adequate and sustainable financing is necessary for primary health care. Therefore, the present study aimed to investigate the methods of financing primary health care for the elderly in Iran in 2021.

Methods: This is a mixed method cross-sectional study carried out in 2021 with a combination of quantitative and qualitative data. The sample size was estimated to be 254 subjects. Sampling was done in a stratified manner. The studied variables were the result of a comparative study and interview. In this study, to measure the construct validity, exploratory and confirmatory factor analysis method was used. Data were analyzed using SPSS-21 and AMOS-24 software.

Results: The results of exploratory factor analysis showed that all variables had factor loadings above 0.3. The results of the second-order confirmatory factor analysis showed that all the items of primary health care financing for the elderly were approved. These items include the allocation of GDP to cover part of the costs of old age care, tax collection, social insurance coverage for the disabled and retired, allocation of subsidies to vulnerable groups, private and supplementary insurances, transfer of employee insurance premiums to medical funds to cover the health and medical expenses in old age, the use of municipal and governorate budgets, and incentive policies. The results showed that the use of municipal and governorate budgets and incentive policies had the highest (0.726) and the lowest (0.531) standard coefficients, respectively.

Conclusion: The findings of the study show that the construct validity of the designed model has a good level. Using this model by managers, policymakers, and health planners can improve the financing of primary health care services for the elderly and thus meet their health needs.

Please cite this article as: Nobakht S, Riahi L, Nazarimanesh L, Hajinabi K. Designing the Financing Model of Primary Health Care for the Elderly in Iran. *J Health Sci Surveillance Sys.* 2024;12(2):185-191.

Keywords: Primary health care, Aged, Healthcare financing

Introduction

Increasing the quality of life and life expectancy, reducing the birth rate, and increasing access to health services have led to a change in the demographic pyramid and the aging of the world population.^{1,2} Therefore, the annual growth rate of the world population is 1.7%, but

the growth rate of people over 65 years old is 2.5%.³ It is predicted that the number of people over 60 in the world will increase to 16.5% by 2030 and to 21.5% by 2050.^{4,5} Iranian population is also moving towards old age, and it is expected to reach the point of equality of birth and death in the next 30 years.⁶ Currently, 6% of people in Iran are over 65 years old, which is predicted

to reach 22% by 2050.^{7,8} Increasing life expectancy, implementing population control policies, reducing the birth rate, improving the economic situation, and improving health care are among the reasons for the increase in the older adult population in Iran.^{9,10}

In general, getting older is a natural and biological process that cannot be controlled. This process is associated with many psychological, social, and environmental damages.^{11,12} These injuries cause a feeling of loss of values, purposelessness, reduction of self-confidence, inability to maintain independence, and increased need for help.¹²⁻¹⁴ Due to the existence of these challenges and the rapid decline in the health status of older adults, health issues have become an acute problem for most societies.¹⁵ However, the focus of many global health goals is on younger age groups, and the elderly are ignored.¹⁶

The spread of aging poses extensive challenges on health authorities and social planners due to the rapid burden of chronic diseases among the elderly,^{3,17} so the United Nations recommends providing care for them and their complete well-being. Therefore, it is necessary to create a healthy old age with minimal problems. Responding appropriately to the phenomenon of aging and meeting the comprehensive needs of the ever-increasing elderly population is one of the duties of health managers and planners. This issue is only possible with the creation and proper management of care programs, especially primary health care,¹⁸ because primary health care plays a central role in achieving sustainable development and is one of the basic components of health systems.^{19,20} Thus, health systems based on primary health care have brought better health outcomes, better access, satisfaction, and participation of users. Therefore, the World Health Organization (WHO) has emphasized that its members prioritize the strengthening of their primary care.^{21,22} Also, since primary health care is a reliable resource for the elderly population,²³ improving the primary health care services is vital.¹⁸

Accordingly, policymakers around the world seek to improve the performance of the primary care system.²⁴ Meanwhile, the financing system and the costs of providing services play an effective role in the performance of health systems.²⁵ Without adequate and sustainable financing, primary health care will not be fair and will fail.^{26,27} Therefore, Santos et al. believe that the financial dimension is the most influential factor in the performance of public health systems.²⁸ A comparative study shows that in countries such as the United States, England, Japan, South Korea, and Italy, the elderly policy system is centralized. They also use public tax methods, insurance funds, and the national medicine system to finance elderly programs. These are effective examples of provisioning approaches in providing elderly services.²⁹ However, Rahimi et al.'s study has shown that the function of financing

the primary health care system in Iran faces the challenges of lack of allocation on time, inadequacy, and instability of financial resources.²³ On the other hand, increase in the health care costs is one of the challenges of increasing aging,¹⁵ but primary health care can help protect them financially.³⁰

Therefore, the lack of a comprehensive service provision plan from a financial perspective, the lack of access to prevention and screening services for the elderly, as well as the lack of funding for the care and maintenance of the elderly impose a great financial burden on families.²⁹ Thus, paying attention to the primary health care financing system and solving its challenges requires attention. The present study aimed to identify the ways of financing the primary health care of the elderly in Iran in 2021.

Methods

Study Setting

This is a descriptive and applied study that was conducted in 2021. The research population was all managers and activists in the field of geriatrics in the health system.

Sample Size and Sampling

Considering that in factor analysis studies, the sample size is based on the number of hidden variables, in this study, the sample size was estimated to be 250 people. The sampling method was stratified. In this way, geographically, the provinces of the country were considered in 5 categories: central, north, south, east, and west, and in each region, the questionnaire was randomly provided to managers and owners of the process.

Inclusion and Exclusion Criteria

The inclusion criteria included relevant education, related executive work experience in the managerial levels of the health system, and relevant research implementation experience. Unwillingness to continue participating in the study was considered as the exclusion criteria.

Data Collection Tools

The data collection tool was a self-made questionnaire on the financing of primary health care for the elderly in Iran, which was the result of a comparative study and interview, and its validity (face and content) and reliability were measured. Validity assessment was done with the participation of 13 experts. Face validity was approved by experts. Both qualitative and quantitative methods were used to measure content validity. Quantitative analysis of content validity was done using two indexes of content validity ratio (CVR) and content validity index (CVI).

To measure the reliability of the questionnaire with the participation of 250 health system experts, were used Cronbach's alpha coefficient and its internal homogeneity coefficient. The results of the content validity ratio showed that all the questions had a score higher than 0.54 and were, therefore, considered suitable. The results of the content validity index showed that the values of all the questionnaire items were greater than 0.85 and were accepted. Cronbach's alpha of the questionnaire was 0.974. In this way, the questionnaire included 8 items, which were answered on a 5-point Likert scale.

Data Collection

The final questionnaire was given to 254 health system managers and experts in the field of elderly care in different provinces, and 248 completed questionnaires were collected (97.64% response rate).

Data Analysis

Before the exploratory factor analysis, assuming that the population is normal, Bartlett and KMO test methods were used to evaluate the possibility of conducting an exploratory factor analysis and determining the adequacy of the sample size, and the Varimax method was also used to rotate the axes. Furthermore, to check the correctness of the presented conceptual model, the factor analysis method was used, which was performed in two parts: exploratory factor analysis and confirmatory factor analysis (second order). By performing exploratory factor analysis, items whose factor loading was above 0.5 were extracted. After the necessary corrections were made in the initial conceptual model, to confirm the extracted items from the exploratory factor analysis questionnaire, AMOS

confirmatory factor analysis was used. The fit and goodness of fit indices such as chi-square, relative chi-square, and mean square error of estimation index as well as other indices were calculated for all items. Data were analyzed using SPSS-21 and AMOS-24 software. In the descriptive part, statistical characteristics such as frequency, percentage, mean, and standard deviation were used for data analysis, and the inferential part was analyzed in two parts: exploratory factor analysis and confirmatory factor analysis.

Results

The results showed that 65.3% of the respondents were female, 68% were married, and 36.4% had Ph.D. The average age was 38.5 years, and they had 7.8 years of experience (Table 1).

The results of the study showed that the average score of financing was 31.63 (± 5.24). The results of the KMO sample adequacy test showed that, considering the significant value of less than 0.05, it can be said that the matrix is not the same. According to the results of the KMO index greater than 0.7 and the results of Bartlett's test, it is significant at the significance level of 95%, so factor analysis is allowed. The results of the exploratory factor analysis showed that all the questions in the questionnaire had factor loadings above 0.3, which has a suitable factor loading on the relevant variable. The results indicated that in the financing factor item number 3 entitled "Social insurance coverage for the disabled and retired" the factor load of 0.673 had the highest factor load, and in item number 8 entitled "Incentive policies (for example granting benefits) for early discharge)", the factor load of 0.377 had the lowest factor loading (Table 2).

Table 1: Demographic Information of Respondents to the Questionnaire

Variable		Frequency	Percentage
Gender	Female	158	65.3
	Male	90	34.7
Marital status	Single	82	32
	Married	166	68
Education level	Bachelor of Science	74	30
	Master of Science	91	36.4
	Doctor of Philosophy	83	33.6
Age (mean \pm standard deviation)		38.496 \pm 9.731	
Management history (mean \pm standard deviation)		7.79 \pm 8.157	

Table 2: Factor Loading Values of the Financing Items of Primary Health Care Management for the Elderly in Iran

Factor name	Question number		Factor loading
Financing	Q3	Social insurance coverage for the disabled and retired	0.673
	Q4	Allocating subsidies to vulnerable groups	0.647
	Q7	Use of municipal and governorate budgets	0.640
	Q5	Private and supplementary insurance	0.634
	Q6	Transferring employee insurance premiums to medical funds to cover health and medical expenses in old age	0.613
	Q1	Allocation of GDP to finance a part of the elderly care costs	0.558
	Q2	Tax collection	0.549
	Q8	Incentive policies (for example, granting benefits for early discharge)	0.377

The results of second-order confirmatory factor analysis showed that all primary health care financing items were confirmed (Table 3 and Figure 1).

The results of confirmatory factor analysis were analyzed using the well-known fit indices. The obtained value by dividing chi-square fit statistics by degree of freedom (CMIN/DF) was 2.676, which

is a suitable value. The largeness of the goodness of fit index (GFI) of 0.948 and the smallness of the root mean square error of approximation (RMSEA) of 0.082 indicate the relative suitability of the presented model. Furthermore, the values of RMSEA and relative chi-square are appropriate (Table 4). In general, when at least three fit indices have values

Table 3: Results of Confirmatory Factor Analysis of Primary Health Care Management Financing for Older Adults

Variable		Standard coefficient	Significance coefficient	Result
Allocation of GDP to finance a part of elderly care costs	Q1	0.606	-	Confirmed
Tax collection	Q2	0.551	7.186	Confirmed
Social insurance coverage for the disabled and retired	Q3	0.628	7.943	Confirmed
Allocating subsidies to vulnerable groups	Q4	0.575	7.424	Confirmed
Private and supplementary insurances	Q5	0.61	7.774	Confirmed
Transferring employee insurance premiums to medical funds to cover health and medical expenses in old age	Q6	0.672	8.351	Confirmed
Use of municipal and governorate budgets	Q7	0.726	8.803	Confirmed
Incentive policies (for example, granting benefits for early discharge)	Q8	0.531	6.976	Confirmed

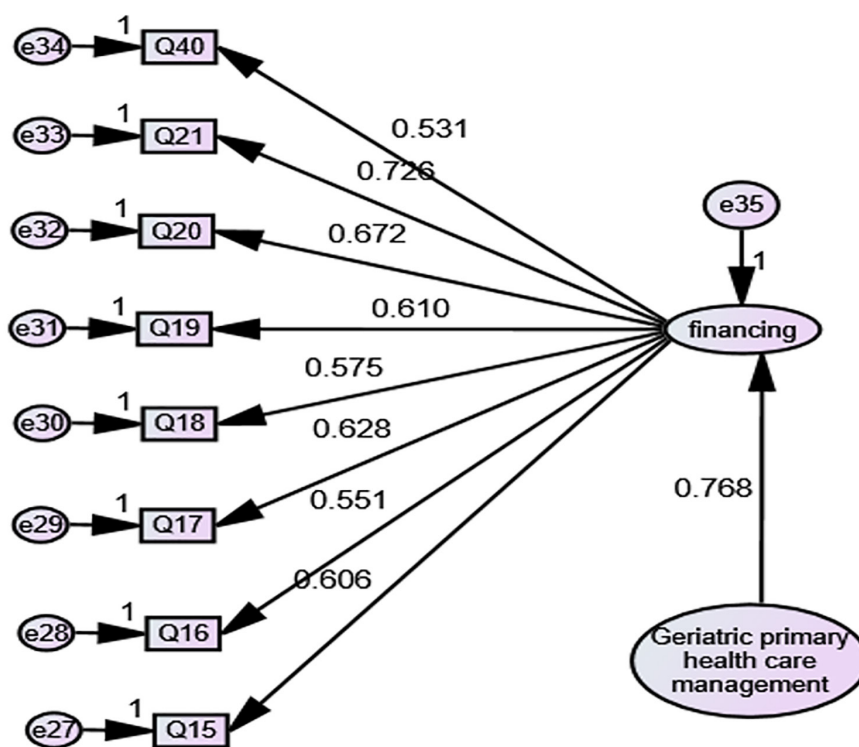


Figure 1: Second-order confirmatory factor analysis model of primary health care financing items for the elderly based on standardized coefficients (This figure was designed by the authors through Amos software)

Table 4: Fit Indices of the Primary Health Care Financing Model for Older Adults

Test name	Description	Acceptable values	Obtained values
χ^2/df	Relative chi-square	3>Good, 5>acceptable	2.676
GFI	The goodness of fit index	>0.9	0.948
AGFI	Adjusted goodness of fit index	>0.9	0.906
NFI	Normed Fit Index	>0.9	0.905
RFI	Relative fit index	>0.9	0.867
IFI	Increased fit index	>0.9	0.938
TLI	Tucker-Lewis index	>0.9	0.912
CFI	Comparative fit index	>0.9	0.937
RMSEA	The root-mean-square error of approximation	Good<0.08, Weak>0.1	0.082

in the acceptable range, the fit of the model is good and acceptable.

Discussion

The main purpose of the present study was to identify the methods of financing primary health care of the elderly in Iran. In this study, questionnaire items were collected by reviewing scientific texts, comparative studies, and interviews. Based on the results of factor analysis in this study, 8 identified strategies for financing primary health care of the elderly were effective. These solutions include allocating Gross Domestic Production (GDP) to cover part of the costs of old age care, tax collection, social insurance coverage for the disabled and retired, allocating subsidies to vulnerable groups, private and supplementary insurance, the use of municipal and governorate budgets, and incentive policies (for example, granting benefits for early discharge).

Based on the results of this study, one of the proposed methods for financing the primary health care was tax collection. In this regard, investing in tax-based universal health coverage systems has been introduced as one of the solutions to deal with the threat of unsustainability of the primary care financing system.^{26,29} In Nigeria, the necessity of increasing tax revenues and allocating them to health insurance coverage, especially for vulnerable groups, with the aim of expanding universal health coverage, has been emphasized.³¹

Social insurance coverage for the disabled and retired was also recognized as another method of financing primary health care for older adults. Integrating risk through social health insurance is one way to achieve adequate access to health needs without paying money. Moreover, social health insurance is the strategy of countries to increase universal coverage.³² In another study, the policy of exempting the elderly from health insurance premiums has been evaluated to provide better health care to all members of society.³³

Given that the economic situation of the country and the fact that many elderly people are poor, it is necessary to provide them with medical expenses and other services.⁵ However, Approaches to financing the elderly in Iran show that insurance systems in Iran do not have a suitable and integrated plan to cover the growing elderly population so that the appropriate resources are not allocated by identifying the needs of the target community. Therefore, the provision of services is limited and incomplete in the form of supportive plans.²⁹ In this regard, Kalantari suggested that Iran should create long-term care insurance for its elderly people or provide more complete services to the elderly at lower costs with the existing insurance. It has also been suggested that, in addition to the existing methods, part of the value-added tax/consumption of harmful goods and the targeting of subsidies should be allocated to the field of the elderly health to finance

services for the elderly.⁷

The results of this study are of significance since one of the important ways to support the development of primary health care is to create appropriate financing arrangements. Because improving financing arrangements can promote the primary health care services and respond more effectively to the health needs of the target community.³⁰ Edelman et al. have also introduced equity-based financing practices as one of the key enablers of primary health care implementation.³⁴ However, the provision of essential primary health care services is often challenged due to unbalanced allocation of public resources and unfair financing models.^{26, 35} Therefore, the results of this study can help the policy makers and decision makers of the health sector in Iran by presenting methods of financing primary health care for older adults.

The strength of the study was the use of the opinions of experts across the country with maximum diversity. The weakness of the study is that only the opinions of experts and service providers were used, and the opinions of the target group, the elderly, were not examined.

Conclusion

In general, the findings of the study show that the construct validity of the designed tool has a good level. This study identified eight primary health care financing methods that can be used to manage and develop the financing of primary health care services for the elderly in Iran. Therefore, using these methods by managers, policymakers, and health planners can solve the challenges of financing primary health care services for older adults. As a result of this planning, it can develop and improve health services for the elderly and improve their quality of life. Given the importance of primary health care for the elderly and its appropriate and stable financing, it is hoped that the results of this study can be a suitable way to conduct further studies in the field of management and financing of primary health care.

Ethics Statement

This article forms an integral part of a thesis that has been registered at the Islamic Azad University, with the ethical code of IR.IAU.SRB.REC.1400.159.

Authors' Contribution

SN data collection and article writing, LR data collection and article writing, LN data analysis and article writing, KH data analysis and article writing,

Acknowledgement

This article was a part of the dissertation on health

care management at Tehran University of Science and Research. The authors hereby express their gratitude to all those who supported and accompanied us in conducting this research.

Funding: Not applicable.

Conflict of Interest: None declared.

References

- 1 Padayachey U, Ramlall S, Chipps J. Depression in older adults: prevalence and risk factors in a primary health care sample. *South African family practice*. 2017;59(2):61-6. doi: 10.1080/20786190.2016.1272250.
- 2 Borba AKdOT, Arruda IKG, Marques APdO, Leal MCC, Diniz AdS. Knowledge and attitude about diabetes self-care of older adults in primary health care. *Cien Saude Colet*. 2019;24:125-36. doi: 10.1590/1413-81232018241.35052016. PMID: 30698247.
- 3 Shokry AAE, Adel MR, Rashad AE-sA. Educational program to improve quality of life among elderly regarding oral health. *Future Dental Journal*. 2018;4(2):211-5. doi: 10.1016/j.fdj.2018.07.002.
- 4 Wang L, Guruge S, Montana G. Older immigrants' access to primary health care in Canada: A scoping review. *Can J Aging*. 2019;38(2):193-209. doi: 10.1017/S0714980818000648. PMID: 30777582.
- 5 Gholipour Z, Farahani MMMA, Riahi L, Hajinabi K. Active ageing management in Iran: Designing a model. *Asia Pacific Journal of Health Management*. 2020;15(2):61-70. doi: 10.24083/apjhm.v15i2.359.
- 6 Safdari R, Shams Abadi AR, Pahlevany Nejad S. Improve health of the elderly people with M-health and technology. *Iranian Journal of Ageing*. 2018;13(3):288-99. doi:10.32598/sija.13.3.288.
- 7 Kalantari AR, Mehroolhassani MH, Shati M, Dehnavieh R. Health service delivery models for elderly people: A systematic review. *Med J Islam Repub Iran*. 2021;35:21. doi: 10.47176/mjiri.35.21. PMID: 34169033. PMCID: PMC8214038.
- 8 Emami S-A, Motevalian SA, Momeni M, Karimi H. The epidemiology of geriatric burns in Iran: A national burn registry-based study. *Burns*. 2016;42(5):1128-32. doi: 10.1016/j.burns.2016.03.011. PMID: 27126815.
- 9 Amini R, Chee KH, Sen K, Ingman SR. Elder care in Iran: a case with a unique demographic profile. *J Aging Soc Policy*. 2021;33(6):611-25. doi: 10.1080/08959420.2020.1722896. PMID: 31992153.
- 10 Gholipour Z, Mahmoodi Majd Abadi Farahani M, Riahi L, Hajinabi K. Factors Affecting in Providing Active Aging Services in Iran. *Journal of healthcare management*. 2019;10(2):61-72.
- 11 Banerjee D. The impact of Covid-19 pandemic on elderly mental health. *Int J Geriatr Psychiatry*. 2020;35(12):1466. doi: 10.1002/gps.5320. PMID: 32364283. PMCID: PMC7267435.
- 12 Miller KL, Baraldi CA. Geriatric gynecology: promoting health and avoiding harm *Am J Obstet Gynecol*. 2012;207(5):355-67. doi: 10.1016/j.ajog.2012.04.014. PMID: 22607665.
- 13 Kostopoulos P, Kyritsis AI, Ricard V, Deriaz M, Konstantas D. Enhance daily live and health of elderly people. *Procedia computer science*. 2018;130:967-72. doi: 10.1016/j.procs.2018.04.097.
- 14 Onay O, Aydin C. The distribution of geriatric problems in otolaryngology and their alteration from young adults. *Niger J Clin Pract*. 2021;24(5):640-. doi: 10.4103/njcp.njcp_509_19. PMID: 34018971.
- 15 Hosseinzadeh M, Koohpayehzadeh J, Ghafour MY, Ahmed AM, Asghari P, Souri A, et al. An elderly health monitoring system based on biological and behavioral indicators in internet of things. *Journal of Ambient Intelligence and Humanized Computing*. 2020:1-11. doi: 10.1007/s12652-020-02579-7.
- 16 Gao Q, Prina AM, Ma Y, Aceituno D, Mayston R. Inequalities in older age and primary health care utilization in low-and middle-income countries: a systematic review. *I Int J Health Serv*. 2022;52(1):99-114. doi: 10.1177/00207314211041234. PMID: 34672829. PMCID: PMC8645300.
- 17 Rahimi H, Kalantari A, Rafiee N, Khosravi S. Social trends affecting the future of Iran's health system: A qualitative study using focus group discussion. *Int J Prev Med*. 2019;10:115. doi: 0.4103/ijpvm.IJPVM_322_18. PMID: 31367279. PMCID: PMC6639845.
- 18 Bahador F, Mahfoozpour S, Masoudiasl I, Vahdat S. A Systematic Review of the Management of Preventive Health Care for the Elderly in the World. *Iranian Journal of Ageing*. 2022;16(4):592-607. doi: 10.32598/sija.2021.3180.2.
- 19 Pettigrew LM, De Maeseneer J, Anderson M-IP, Essuman A, Kidd MR, Haines A. Primary health care and the Sustainable Development Goals. *Lancet*. 2015;386(10009):2119-21. doi: 10.1016/S0140-6736(15)00949-6. PMID: 26638948.
- 20 Amado CAdeF, Dos Santos SP. Challenges for performance assessment and improvement in primary health care: the case of the Portuguese health centres. *Health policy*. 2009;91(1):43-56. doi: 10.1016/j.healthpol.2008.11.008. PMID: 19118917.
- 21 Takian A, Doshmangir L, Rashidian A. Implementing family physician programme in rural Iran: exploring the role of an existing primary health care network. *Fam Pract*. 2013;30(5):551-9. doi: 10.1093/fampra/cmt025. PMID: 23788202.
- 22 Noorihekmat S, Rahimi H, Mehroolhassani MH, Chashmyazdan M, Haghdoost AA, Tabatabaei SVA, et al. Frameworks of performance measurement in public health and primary care system: A scoping review and meta-synthesis. *Int J Prev Med*. 2020;11. doi:10.4103/ijpvm.IJPVM_34_19. PMID: 33312474. PMCID: PMC7716605.

- 23 Rahimi H, Haghdoost A, Noorihekmat S. A qualitative study of challenges affecting the primary care system performance: Learning from Iran's experience. *Health Sci Rep.* 2022;5(2):e568. doi: 10.1002/hsr2.568. PMID: 35308421. PMCID: PMC8919451.
- 24 Esmacili R, Hadian M, Rashidian A, Shariati M, Ghaderi H. Family medicine in Iran: facing the health system challenges. *Glob J Health Sci.* 2015;7(3):260. doi: 10.5539/gjhs.v7n3p260. PMID: 25948450. PMCID: PMC4802109.
- 25 Rahimi H, Bahmaei J, Shojaei P, Kavosi Z, Khavasi M. Developing a strategy map to improve public hospitals performance with balanced scorecard and DEMATEL approach. *Shiraz E Medical Journal.* 2018;19(7):e64056. doi: 10.5812/semj.64056.
- 26 Kraef C, Kallestrup P. After the Astana declaration: is comprehensive primary health care set for success this time? *BMJ Glob Health.* 2019;4(6):e001871. doi: 10.1136/bmjgh-2019-001871. PMID: 31799000. PMCID: PMC6861067.
- 27 Rahimi H, Goudarzi R, Noorihekmat S, Haghdoost A, Khodabandeh F. Inequality in households' access to primary health care (PHC): a case study in Kerman, southeast Iran. *BMC Health Serv Res.* 2022;22(1):1-11. doi: 10.1186/s12913-022-08467-4. PMID: 35999541. PMCID: PMC9400231.
- 28 Santos MARd, Salomon VAP, Marins FAS. Analytic network process and balanced scorecard applied to the performance evaluation of public health systems. *Pesquisa Operacional.* 2015;35:353-61. doi: 10.1590/0101-7438.2015.035.02.0353.
- 29 Zoghtalab Hassas S, Riahi L, Nazarimanesh L, Tabibi SJ. Review Structure of Health Care Services Related to the Elderly People With Emphasis on Financing. *Iran J Health Insur.* 2021;4(3):231-40.
- 30 Hanson K, Brikci N, Erlangga D, Alebachew A, De Allegri M, Balabanova D, et al. The Lancet Global Health Commission on financing primary health care: putting people at the centre. *Lancet Glob Health.* 2022;10(5):e715-e72. doi: 10.1016/S2214-109X(22)00005-5. PMID: 35390342. PMCID: PMC9005653.
- 31 Aregbeshola BS. A tax-based, noncontributory, health-financing system can accelerate progress toward universal health coverage in Nigeria. *MEDICC Rev.* 2018;20:40-5. doi: 10.37757/MR2018.V20.N4.9. PMID: 31242171.
- 32 Uzochukwu B, Ughasoro M, Etiaba E, Okwuosa C, Envuladu E, Onwujekwe O. Health care financing in Nigeria: Implications for achieving universal health coverage. *Niger J Clin Pract.* 2015;18(4):437-44. doi: 10.4103/1119-3077.154196. PMID: 25966712.
- 33 Duku SKO, van Dullemen CE, Fenenga C. Does health insurance premium exemption policy for older people increase access to health care? Evidence from Ghana. *J Aging Soc Policy.* 2015;27(4):331-47. doi: 10.1080/08959420.2015.1056650. PMID: 26161589.
- 34 Edelman A, Marten R, Montenegro H, Sheikh K, Barkley S, Ghaffar A, et al. Modified scoping review of the enablers and barriers to implementing primary health care in the COVID-19 context. *Health Policy Plan.* 2021;36(7):1163-86. doi: 10.1093/heapol/czab075. PMID: 34185844. PMCID: PMC8344743.
- 35 Asante A, Price J, Hayen A, Jan S, Wiseman V. Equity in health care financing in low-and middle-income countries: a systematic review of evidence from studies using benefit and financing incidence analyses. *PloS one.* 2016;11(4):e0152866. doi: 10.1371/journal.pone.0152866. PMID: 27064991. PMCID: PMC4827871.