

Original Article

Research Needs Assessment in the Health Insurance Organization: Level of Health Care Provider

Mohammadkarim Bahadori ¹, Ramin Ravangard ², Ali Farzaneh ³, Seyyed Mostafa Hakimzadeh ³

1: Assistant Professor, Health Management Research Centre, Baqiyatallah University of Medical Sciences, Tehran, Iran

2: School of Management and Medical Information Sciences, Shiraz University of Medical Sciences, Shiraz, Iran

3: Health Management Research Centre, Baqiyatallah University of Medical Sciences, Tehran, Iran

* **Corresponding Author:** Mohammadkarim Bahadori, Health Management Research Centre, Baqiyatallah University of Medical Sciences, Mollasadra Street, Tehran, Iran. Tell: +98.2182482416, Fax: +98.2188057022. Email: bahadorihealth@gmail.com

ABSTRACT:

Objective: Setting research priorities in the research management cycle is a key. It is important to set the research priorities to make optimal use of scarce resources. The aim of this research was to determine the research needs of Health Insurance Organization based on its health care centers research needs.

Methods: This is a qualitative, descriptive and cross-sectional study that was conducted in 2011. A purposeful sample of 60 participants from 14 hospitals, seven dispensaries, five dental clinics, two rehabilitation centers, four radiology centers, six medical diagnostic laboratories, 12 pharmacies, and 20 medical offices that were contracted with the Health Insurance Organization in Iran was interviewed. The framework analysis method (a qualitative research method) was used for analysis of interviews. Atlas-Ti software was used to analyze quantitative data, respectively. The topics were prioritized using the Analytical Hierarchy Process (AHP) method through Expert Choice software.

Results: Based on the problems extracted in our qualitative study, 12 research topics were proposed by the experts. Among these "Design of standard treatment protocols," "Designing model of ranking the health care centers under contract," and "Pathology of payment system" took the priority ranks of 1 to 3, earning the scores of 0.44, 0.42, and 0.37, respectively.

Conclusion: Considering limited resources and unlimited needs and to prevent research resource wasting, conducting research related to health care providers in the Health Insurance Organization can help it achieve its goals.

Keywords: Need Assessment; Research; Health Insurance Organization.

Received: 03 October 2011

Revised: 20 November 2011

Accepted: 28 November 2011

Published: 03 December 2011

© 2009-2011 Electronic Physician

1. INTRODUCTION

Given the importance of conducting research on sustainable development and in line with the country's research policies, organizations have

provided suitable conditions to emerge innovations, discoveries, and improve the quantity and quality level of research. According to the objectives of these organizations' research deputies, including

conducting purposeful research, as well as supporting researchers, it is essential to increase the utilization of the findings of the applied research to solve the current problems and increase community knowledge in to promote people's health. Therefore, it is important to set research priorities to make optimal use of scarce resources (1).

Research conducted without any needs assessment not only do not help solve problems but also increase the current problems and result in a waste of limited resources. The outputs of such research conducted in an international wide scope have led to a great gap between research and administrative fields. In research project literature reviews, researchers generally study the findings of other published studies. The majority of research has been conducted in developed countries whose problems do not have any similarities with those of developing countries. In other words, their needs are completely different from each other (2-3). The Health Insurance Organization in its close relationship with providing community people health has an important role in allocating scarce resources of the health sector and improving insurers' health. This organization should identify its current and near future external and internal challenges and problems to achieve its goals. Its managers and administrators can recognize these challenges and problems scientifically and solve the prioritized ones. Some of these problems can be solved by administrative measures but others need scientific research to be solved (4). Therefore, to make optimal use of resources and focus on all stakeholders in the health sector, setting research priorities is an essential (5). Setting the research priorities in the research management cycle is a key. Scarcities in financial and human resources, as well as changes in national policies, are the most important reasons for the need to set research priorities. Setting research priorities is useful and practical from the macro and national level to research and education departments' level. Both macro and micro level priorities should comply with national policies (6).

It should be noted that needs assessment and prioritization are not separable because they are completely interrelated (7). Much research is conducted without taking country research needs into consideration. Also, much research conducted in our country occurs without any strategic thinking and is restricted to specific centers, person-dependent, and without continuity (8). These trend outcomes result in research that tends to be conducted with quick impact and taste-based research without taking research priorities into account. Sometimes, the goal of conducting research is to obtain academic qualifications and related documents and their

selected subjects are often repetitive, gathering data only to represent the problem not solve it (9).

Farsar and Kolahi's research findings showed that in Iran the process of establishing research priorities setting is not suitable because their priorities are usually set subjectively, based on researchers' and executive managers' opinions not any needs assessment. This process seems not to have desired outcomes (10). Other research findings concluded that the subjects of thesis and research projects conducted by health students and organizations spending much time, money, and energy were not in line with the real needs and priorities. Therefore their findings were less applicable for the community (11). In several international research projects, different health and social needs have been reviewed using a rapid appraisal method, which results in recognizing a broad scope of their problems. However, in this study the research needs will be identified in order to conduct applied research based on community needs not researchers' opinions (12). The aim of this research was to determine the research needs of the Health Insurance Organization based on its health care centers research needs.

2. MATERIAL AND METHODS

This is a qualitative, descriptive, and cross-sectional study that was conducted in 2011. A purposeful sample of 60 participants from 14 hospitals, seven dispensaries, five dental clinics, two rehabilitation centers, four radiology centers, six medical diagnostic laboratories, 12 pharmacies, and 20 medical offices contracted with the Health Insurance Organization in Iran was interviewed.

The related data was gathered using eight initial in-depth interviews, 52 semi-structured interviews by one of the authors from February to April 2011. Each interview lasted for an average of 50 minutes. Consent for the interviews audio-recording was obtained, and they were transcribed. In these interviews, four questions were used to capture the participants' opinions about the topic. All interviewees spoke Persian so there was no translation. The content validation of interview questions was conducted by the four assistant professors of health services management and health economics in Health Management Research Center of Baqyatallah University of Medical Sciences.

The problem-oriented model was used for needs assessment. In other words, the research titles were extracted based on the main problems that the service clients had experienced in relation to the insurer. The framework analysis method used was comprised of the following five stages: introduction, understanding the conceptual framework, coding,

charting, and mapping and interpretation. The initial thematic framework was developed using interviews, prior thoughts and literature (Arredondo and Orozco 2008), research questions, and also the thematic guide. The initial thematic guide was discussed in a series of iterative meetings between the researchers. Then the thematic framework was checked based on the interviews by repeating the familiarization process. The third author (AF) initially indexed the transcribed interviews using Atlas-Ti software (3, 13). Sections of data were indexed with one or more codes (cross-indexing) wherever appropriate (14). The indexed text was then discussed with the other authors and adjusted where appropriate. This process was repeated several times for all the interviews (15). Then they were compared with the different interviewees' point of views about each theme using the analysis chart. This technique increases the credibility of the research. The relation between themes and sub-themes was also investigated. We consulted the transcribed interviews and added extracts to the chart whenever necessary. The interpretation of the themes followed a process similar to that explained for indexing (16). According to this analysis, we reached four themes and 42 codes.

Then based on the extracted codes, the research topics were suggested and prioritized by a group of eight health services management experts and health economists using the focus group discussion method. The Atlas-Ti software was used to analyze quantitative data, respectively. The topics were prioritized using the Analytical Hierarchy Process (AHP) method through Expert Choice software. According to the insurer directors' requirement, the most important criteria for prioritizing the research topics were acceptability, time significance, and cost-benefit. Since in the AHP method, topics are compared in pairs, the Expert Group was asked to compare each topic with the other topics and determine its importance in relation to the other topics.

Analytical Hierarchy Process (AHP) is one of the most comprehensive designed systems for decision making by different criteria because if we enjoy this model, we can arrange the topics in a hierarchy mode and consider various quantity and quality criteria. This process involves different choices in making decisions and provides analysis capability for criteria and sub-criteria. Meanwhile, this process is based on dual comparison having the capability to facilitate decisions and calculations.

3. RESULTS

Based on the problems extracted in our qualitative study, 12 research topics were proposed by the experts. Among these, "Designing standard treatment protocols," "Designing model of ranking the health care centers under contract," and "Pathology of payment system" took the priority ranks of 1 to 3, earning the scores of 0.44, 0.42 and 0.37, respectively. Also the topics of "Reviewing the performance indicators of physicians under contract," "The process of examining bills and provide corrective strategies' and centers under contract and providing improvement solutions," and "Causes of deduction and strategies to reducing them" took the priority ranks of 10th to 12th, earning the scores of 0.27, 0.24 and 0.22, respectively" (Table 1).

4. DISCUSSIONS

The aim of this study was to set the research priorities of the Health Insurance Organization based on health care providers' perspective. This study lasted six months. The main question was that from health care providers' perspective as organizations under contract to Health Insurance Organization, what problems could be solved by conducting research. A problem-oriented model was used in this study. In this model, the current problems and weaknesses of the organization performance are identified and then the corrective measures are taken to resolve them. One of these corrective measures is a research needs assessment (17). One of the strengths of this study is the involvement of the health care providers as one of the main stakeholders.

Previous research findings show that the majority of medical research in Iran is conducted on available patients. Medical research is expected to be in line with achieving the goal of health that is, providing health for all, so that the related findings lead to utilizing services (18). One of the influential components of selecting research topics is researchers' interest. However, because resources are limited and needs are unlimited, though researchers' interest is an important point, it is in the subsequent priorities and it is important to drive the research so that the community can benefit from their findings, that is, the research priority setting should be based on community needs (19).

Table 1. Prioritizing the proposed research topics using the Analytical Hierarchy Process (AHP) Method

Topic	Criteria			Total significance	Consistency rate	Priority
	Acceptability (0.12)	Time significance (0.65)	Cost-benefit (0.22)			
Designing standard treatment protocols	0.07	0.07	0.33	0.44	0.02	1
Designing model of ranking the health care centers under contract	0.04	0.13	0.31	0.42	0.02	2
Pathology of payment system	0.07	0.08	0.21	0.37	0.02	3
Designing the mechanisms for quality control in health care centers	0.04	0.06	0.24	0.34	0.01	4
Establishing the incentive mechanisms to develop the quantity and quality of contractual services	0.04	0.07	0.20	0.31	0.01	5
Comparison of prescribed diagnostic services	0.03	0.04	0.22	0.29	0.01	6
Comparative study of health insurance contract from law perspective and designing a model	0.04	0.06	0.19	0.28	0.01	7
Comparative study of diagnostic services rate	0.03	0.04	0.20	0.27	0.01	8
Reviewing and modifying the claims payment processes	0.08	0.06	0.10	0.24	0.01	9
Reviewing the performance indicators of physicians under contract	0.02	0.02	0.18	0.22	0.01	10
The process of examining bills and provide corrective strategies	0.04	0.04	0.09	0.19	0.01	11
Causes of deduction and strategies to reducing them	0.02	0.02	0.09	0.13	0.01	12

In past years, several studies have been conducted to determine research priorities. Karimi (6) and Hatmi (20) and their colleagues have identified these priorities using a different method. The findings of Dehnavieh and his colleagues' study titled "Information criterion of medical insurance service packages," showed that the criterion related to the health care providers was one of the important issues in determining medical insurance service packages. Therefore, considering health care providers as one of the stakeholders is essential. One of the important issues for both insurers and providers is the lack of standard clinical guidelines. Conducting research to issue them is a high priority (21). There is much research on hospital accreditation, which indicates its importance as one of the research priorities. However, research on ranking and accreditation of physicians' offices and clinics has been rarely

conducted so there is not enough information about their accreditation. Therefore, "Designing model of ranking the health care centers under contract" has been determined as one of the high research priorities of the Health Insurance Organization (22-24). Nowadays, health care organizations use different payment methods. Each one has pros and cons so the organization payment method pathology is an important and a high-priority topic (25-26).

One of the proposed research topics is "Designing the mechanisms for quality control in health care centers" and it is important to provide a customized model based on a comparative study findings. The quality of health care services is improving throughout the world. In Iranian health care centers, however, the quality methods used in developed countries are used only for getting high accreditation scores without any consideration for

providing required infrastructures for quality improvement models, as well as, customization (27-29). Unfortunately, one of the topics not considered carefully is the quality of the insurance contracts. Thus conducting research for improving their quality to meet health care providers' satisfaction is essential, because the condition of insurance contracts is changing rapidly (30-31). The quantity and quality of diagnostic tests as important and costly issues have been studied in some countries. Also, much research has been conducted on different diseases. Therefore, conducting several systematic reviews and field studies in the level of the health care centers under contract to the Health Insurance Organization is one of its research priorities (32-35).

5. CONCLUSION

Considering limited resources and unlimited needs and in order to prevent research resource wasting, conducting research related to the health care providers in the Health Insurance Organization can help it to achieve its goals.

ACKNOWLEDGEMENTS

Utmost thanks and appreciation are presented to all the managers of the Health Insurance Organization that gave us help throughout this research.

REFERENCES

1. Aminoroaia M, Attari A, Hasanzadeh A. Research Priorities in Behavioural Sciences from Viewpoint of Mental Health Professionals in Isfahan. *Iran J Psychiatry Clin Psychol*. 2010;16(2):127-34.
2. Basiri A, Moghadam SMMH. need assessment "an urgent need to identify research priorities at research centers. *Journal of the Faculty of Medicine*. 2004;28(2):91-5.
3. Bahadori M, Teimourzadeh E, Farzaneh A, Nejati M. Prioritizing research needs: insights from a healthcare organization in Iran. *Arch Pharma Pract*. 2011;2(3):135-40.
4. Damari B, HasanZadeh A, Pourreza A. Research Priorities of Social Security Organization. *Journal of Social Security*. 2006;8(25):525-50.
5. Fard MY, Kamali F, Sharifi S, Motamed N. nursing research priorities from the perspective of nurses working in the city of Bushehr by Delphi method. *Iranian South Medical Journal*. 2007;10(2):182-89.
6. Karimi G, Damari B, Gharabaghian A, Rahbari M, Vafaeen V, Salemi EM. Assessment and research priorities of the Iranian Blood Transfusion Organization Research Center. *Blood*. 2005;2(4):123-34.
7. Khadivi R, Raeisi R, Habibi S, Ghaderi S. Empowerment of people in determine the research priorities of population laboratory of Farrukh Shahr, Chahar Mahal and Bakhtiari. *Journal of Sharekord University of Medical Sciences*. 2006;8(1):37-45.
8. Kolahi A, Sohrabi M, Abdollahi M, Souri H. Research priority of Shahid Beheshti University of Medical Science: Methods, problems and restricts. *Research Journal of Shahid Beheshti University of Medical Science*. 2010;4(76):143-51.
9. Mohammadi MR, Mesgarpour B. Systematic approach to health research in Iran and the world. *Hakim Journal*. 2002;5(2):151-67.
10. Farsar AR, Kolahi A. Situation of research priorities in country. Tehran: Ministry of Health 2002; Available from: <http://hbi.ir/>.
11. Mjirdpour A, Edalatkah H, Sezavar SH, Sani NA. Identify health research priorities in Ardebil province: an experience. *Research & Scientific Journal of Ardabil University of Medical Sciences*. 2003;3(1): 22-7.
12. Raeisi R, Yousefi H, Habibi S, Hemati A. Research assessment of site investigation and development of health promotion in the city of Farrukh Shahr of Chahar-Mahal Bakhtiari *Journal of Sharekord University of Medical Sciences*. 2005;8(1):1-6.
13. Arredondo A, Orozco E. Equity, governance and financing after health care reform: lessons from Mexico. *The Int J of Health Plan M*. 2008;23(1):37-49.
14. Lacey A, Luff D. Trent Focus for Research and Development in Primary Health care: an Introduction to Qualitative Analysis Trent Focus. 2001.
15. Ibrahimipour H, Maleki MR, Brown R, Gohari M, Karimi I, Dehnavieh R. A qualitative study of the difficulties in reaching sustainable universal health insurance coverage in Iran. *Health policy and planning*. 2011.
16. Rashidian A, Eccles MP, Russell I. Falling on stony ground? A qualitative study of implementation of clinical guidelines' prescribing recommendations in primary care. *Health Policy*. 2008;85(2):148-61.
17. Yarmohammadiyan MH, Bahrami S, Foroghi AA. Managers and health experts and models for assessment. *Iranian Journal of Medical Education*. 2003;3(3):71-9.
18. Kolahi A, Tahmoureszadeh S, Sohrabi M, Shokohi S, Nabavi M. Research priorities of infectious diseases research center, Shaheed

- Beheshti University of Medical Sciences. Iran J Infect Dis Trop Med. 2007;12(38):1-9.
19. Shahidi S, Changiz T, Salmanzadeh H, Yousefi A. Components of effective assessment programs in continuing education: to provide practical guidelines for selecting and applying patterns and techniques of assessment. Iran J Med Educ. 2009;9(4):321-30.
 20. Hatmi Z, Mohammadi N, Sedaghat M. Determination research priorities in the medical faculty departments. Tehran Univ Med J. 2006;63(11):913-9.
 21. Dehnavieh R, Rashidian A, Maleki M. Challenges the basic package of health insurance in Iran. Payesh. 2011;10(2):273-83.
 22. Braithwaite J, Greenfield D, Westbrook J, Pawsey M, Westbrook M, Gibberd R, et al. Health service accreditation as a predictor of clinical and organisational performance: a blinded, random, stratified study. Qual Saf Health Care. 2010;19(1):14.
 23. Greenfield D, Braithwaite J. Health sector accreditation research: a systematic review. Int J Qual Health C. 2008;20(3):172.
 24. Purvis GP, Jacobs D, Kak N. International Health Care Accreditation Models and Country Experiences: Introductory Report on Options for The Republic of South Africa. 2010.
 25. Paulus RA, Davis K, Steele GD. Continuous innovation in health care: implications of the Geisinger experience. Health Aff. 2008;27(5):1235.
 26. Mechanic RE, Altman SH. Payment reform options: episode payment is a good place to start. Health Aff. 2009;28(2):w262.
 27. Lynn J, Baily MA, Bottrell M, Jennings B, Levine RJ, Davidoff F, et al. The ethics of using quality improvement methods in health care. Ann Intern Med. 2007;146(9):666.
 28. Minkman M, Ahaus K, Huijsman R. Performance improvement based on integrated quality management models: what evidence do we have? A systematic literature review. Int J Qual Health C. 2007;19(2):90.
 29. Schouten LMT, Hulscher MEJL, Everdingen JJE, Huijsman R, Grol RPTM. Evidence for the impact of quality improvement collaboratives: systematic review. BMJ. 2008;336(7659):1491.
 30. Van de Ven WPMM, Schut FT. Universal mandatory health insurance in the Netherlands: a model for the United States? Health Aff. 2008;27(3):771.
 31. Roos AF, Schut FT. Spillover effects of supplementary on basic health insurance: evidence from the Netherlands. Eur J Health Econ. 2009:1-12.
 32. Brenner D, Huda W. Effective dose: A useful concept in diagnostic radiology? Radiat prot dosimetr. 2008;128(4):503.
 33. Gerlich W, Glebe D, Schüttler C. Deficiencies in the standardization and sensitivity of diagnostic tests for hepatitis B virus. J Viral Hepat. 2007;14:16-21.
 34. McGee RG, Neuen BL, Mitchell RL, Craig JC, Webster AC. Diagnostic Test Studies in Nephrology: Quantity, Quality, and Scope. Am J Kidney Dis. 2011.
 35. Neel GT, Modzelewski BE, Casterline CS. Diagnostic test system. EP Patent 2,275,023; 2011.