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Original Article

Needs Assessment in Health Research Projects: A New Approach to Project Management in Iran

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Abstract

Background: The science and technology health plan has defined the outline of health research to the national vision of Iran by 2025. The aim of this study was to focus on the process of needs assessment of health research projects also health research priority setting in Iran.

Methods: The project management life cycle has four phases: Initiation, Planning, Execution and Closure. Based on abovementioned points we conducted the study.

Results: Focusing on the needs assessment led to systematic implementation of needs assessment of health project in all of the medical sciences universities. Parallel with this achieved strategies health research priority setting was followed through specific process from empowerment to implementation.

Conclusion: We should adopt with more systematic progressive methods of health project managements for both our national convenience as well as our international health research programs.

Keywords: Health, Needs assessment, Project management, Iran

Introduction

Needs assessment is considered as a systematic process for determining the needs, or gaps between current conditions and desired or wanted conditions. Thus it is an important part of the planning process whether for improving the current performance or for correcting a deficiency (1-3). During this process sufficient data based on reasonable judgment will address the specific groups' needs and wants (1, 2). From this point of view the finite resources can be directed towards developing and implementing the feasible and applicable priority (4-6).These component through enlisting the processing groups including the processes initiation, planning, execution, controlling and closing through which the great and complicated projects divide into the phases and activities (3-5).

No health system, especially in developing countries, can afford to pay for every research they want to do (1). Needs assessment and extraction of the corresponding requirements in different health area is one of the most important issues in a health research system (2).

It is an important process in the management of a country's health research to allocating often limited human and financial resources (2). Research needs assessment is the efficient combination of the needs assessment and the research management. Follows, in the optimum condition, through the predefined process of identify potential health research needs; set health priorities among research projects and appropriate decision on the allocation of define health resources to the best and most important projects (3-5). It enables the heath policy maker and other stakeholders to the systematic health priority setting and resource allocation (1-3).

The aim of this study was to focus on the process of needs assessment of health research projects also health research priority setting in Iran.

Methods

Aiming to direction and enabling the universities to coordinate with medium and long term developmental programs of health research; in 2001 the Ministry of Health and Medical Education of Iran assigned a process to annual research performance evaluation of governmental medical science and their affiliated research institutions (4,5).

As it was a vast multidimensional project, this article focused on the process of needs assessment of health research projects also health research priority setting. The project management life cycle has four phases: Initiation, Planning, Execution and Closure. Each project life cycle phase is described below, along with the tasks needed to complete it (6-8).

In initiation phase after peer reviewing the project requirements' based on the result of predefined situation analyze and health research stakeholders' opinions', the objective of project were finalized for national and sub national levels. Strategies were fitted to country defined health vision and project scope was developed.

During planning phase; using some indicators of WHO/ Health Research System and UNESCO science and technology through integrating stakeholders' opinions data collection forms were designed. Through that we could assess to require data that formed input of evaluation of the program progress. Then, based on a pilot study with participation of eight Medical Science Universities, the validity and reliability of the evaluation form was confirmed (4,5,9,10).

Aiming to the execution we benefited from the strengths of this method of evaluation .It is a process orientation approach in which stewardship and development of human recourse are two main components .We also considered the flexible process based on participatory approach involved all off the health research stakeholders. The evaluation criteria and indicators were modified and developed based on the feedback of stakeholders and level of assess to objectives during the project.

From the ownership point of view; during the project life cycle, the project process was stable despite turnover of policy makers. It was also document orientation project during that all of the outputs were assessed based on reliable documents.

In Closure phase; post implementation review led to recommendations for future promotion that were transferred to the stakeholders in different areas at the different levels.

It is noticeable that aim to prevention of diversion of project also to facilitate and accelerate the achievement of objectives, all phases of project were supervised under the predefined external monitoring and evaluation process through specialized participant teams.

Results

Considering the aim and scope of the project of national health projects' needs assessment, we have simultaneously followed two approaches. First we should specify the obtained achievements that mainly assess through predetermined standards. More over as a dynamic targeted process we should adopt with the updated expectation rooted in ongoing national and international country health research planning's. Such a flexible approach is provided through

project management when in last step the post implementation review provide the level of project success and note any lessons learned for future projects.

The evaluation form consists of 2 main parts; human resource and allocated research budget as the main available inputs, and the corresponding results of evaluation indicators as the essential outputs. For comprehensive evaluation of health research in medical sciences universities, indicators were scored in three axes based on effective HRS functions: Stewardship, Capacity Building, and Knowledge Production. The final ranking was performed based on the total obtained score.

Related to present paper, needs assessment of health research projects and health research priority setting were the initial considered indicators that were categorized in subdivisions of the stewardship axes.

Focusing on the needs assessment during first five years led to systematic implementation of needs assessment of health project in all of the medical sciences universities. Parallel with this achieved strategies health research priority setting was followed through specific process from empowerment to implementation. Whereas in 2003, priority setting has been conducted in 50% of under supervision medical sciences universities, in 2008 all of them had determined the health research priorities. More over about 70% (5404 from 7757) of projects approval were based on the health research priorities. Also the funds allocations to priority order projects follow the similar ascending trend. On the other hand the proportion of research project budget to total university budget, from 2003 to 2008, rose from 0.8 to 1. It means the 10% increasing of funds allocation.

Alongside above all of the medical sciences university's research policies are based on their strategic planning's which are extracted from their evidence based needs assessment and corresponding health priority setting.

The correspond relationship between different phase of the needs assessment in health research projects parallel with its subdivision processing groups and expected outcome are detailed in Table 1. During the life cycle of health needs assessment project; after pre project preparation, all parts under the whole supervision of monitoring and evaluation, follow through four main levels of efforts from concept transplantation to finish parallel with practical referred process. It is noticeable that each of mentioned components, essentially as an independent projects a function of its lifecycle including the initiation, planning, and execution, controlling and closing phases. Eventually these consecutive process lead to project's output, out come and impact.

Discussion

Needs assessment and health priority setting proposed the best solution to resource allocation or rationing as the most important health policy questions of the 21st century (10,11). During the past decades, many different approaches to needs assessment and priority setting have been developed. Evidence-based medicine, cost-effectiveness analysis, the analysis of the burden of disease, and equity analysis are the most common applied approaches (11-13).

Unfortunately, the truth is that in Iran many health organizations even medical science universities and health research institutes did not have the evidence needs assessment based priorities list for many years. What's worse, when they faced with critical situations such as reducing the budget, in many cases unconsidered and non scientific decisions would waste the finite resources (13-15). As it mentioned previously through project management of comprehensive and sensitive health project we will be able to move forward the ongoing national health strategies (16,17).

Now based on the contribution of commitment on Health System Research in Iran by 2025 defined vision, all of the health stakeholders specially health research policy-makers must more than any other times turn to the systematic approaches of project management (8,18).

Only through this approach they would be able to achieve the coordination and dynamic collection of goals, policies strategies, and requisites have been designed in Comprehensive Scientific of the Country (17).

Project management through the application of knowledge, skills, tools and techniques fulfill the health project requirement and provide the highest level of reliable evidence for health policy maker (2,19).

Table 1: The needs assessment project life cycle

Pre project	**Needs Assessment Project life cycle**											
Needs	**Planning**	**Producing**										
	Monitoring and control / Communication facilitation											
Level of efforts	Concept	Define	Define	Define	Define	Define	Define	Execute	Execute	Execute	Execute	Finish
Process	Issue	Team planning	Goals and objectives	Stakeholders analyses	literature review	Data collection methods	Sampling scheme	Pilot study	Data gathering	Data analyzing	Data Managing	Final report
	IPECC*	IPECC	IPECC	IPECC	IPECC	IPECC	IPECC	IPECC	IPECC	IPECC	IPECC	IPECC
Inputs	data	recourses /data	data	data	data	data	data	recourses / data	recourses / data	recourses /data	recourses / data	recourses / data
Out puts	Research questions/research	Proposal	Proposal	stakeholders definition	Study protocol	Methods of study	Methods of sampling	Approved methods	data sources	practical information, Knowledge claims	The wisdom , evidence	The wise decision
Out come	developing policy, improving health systems and better health outcomes											
Impact	Community health promotion											

* Initiation, planning, execution, controlling and closing phases

Based on our proposed experience, systematic health project management as a reliable and feasible strategy should be more adopted in our Health System Research. Totally reviewing the process of our experience along with the other similar cases brings the important lessons learned including concerns, challenges and opportunities as follows:

- Systematic health project management provides an interactive, multidisciplinary approach to health research improvement;
- Considering the limitation of research budget, new approaches to research budget management facilitates the evidence based recourse allocation from governmental to regional level ;
- Health research stakeholders specially health research policy-makers should be more involve in systematic approaches of project management;
- Capacity building of health research stakeholders is one of the most valuable achievements of participatory health project needs assessment;
- Reinforcement of documentation specially for recourse allocation (structural and infra structural) is another consequence of health project needs assessment ;
- Recourses and infrastructures should be providing based on special extracted needs requirement. (11, 20-23).

Ethical considerations

Ethical issues (Including plagiarism, Informed Consent, misconduct, data fabrication and/or falsification, double publication and/or submission, redundancy, etc) have been completely observed by the authors.

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