Performance Evaluation on the province ministry joint projects in Henan Province from 2007 to 2011

Wei Huang¹, Shanshan Yin ², Wei Nie^{2,3}, Yongjun Guo ², Li Li²

¹Henan Health and Family Planning Commission, Zhengzhou 450003, Henan Province, China ² Henan Academy of Medical Science, Zhengzhou 450003, Henan Province, China ³ Institute of Hospital Administration, Zhengzhou University, Zhengzhou 450001, Henan Province, China nieshanren@live.cn

Abstract: Objective: The study is to accurately grasp the project performance and enhance the role of projects to promote the overall level of health technology. **Methods:** A questionnaire and on-site inspection methods were used for the acceptance projects from 2007 to 2011 to analyze the material. **Results:** Among 76 province ministry projects, 29 basic research (accounting for 38.16%), 26 clinical research (34.21%), 21 application research (representing 27.63%), covering 24 three disciplines. 32 projects achieved the desired goal, accounting for 70.05%. 7 projects exceeded the targets, accounting for 9.21 %. 6 projects did not achieve the expected goal, accounting for 7.89%. 9 projects was on schedule, accounting for 11.84%. Scientific and technological achievements attained a total of 48 awards, winning rate 66.2%. Other outputs included 583 papers, 185 SCI indexed, 7 patents and so on. [Wei Huang, Shanshan Yin, Wei Nie, Yongjun Guo, Li Li. **Performance Evaluation on the province ministry joint projects in Henan Province from 2007 to 2011.** *Life Sci J* 2014; 11(11):849-852]. (ISSN: 1097-8135). http://www.lifesciencesite.com. 138

Key words: Province ministry joint projects; performance evaluation

1. Introduction

To speed up the development of science and technology of health in Henan , under the guidance of the National Health and Family Planning Commission (formerly province ministry joint projects) Science and Education Division, since 2007 Health Department of Henan Province take an annual investment of 2 million RMB to set up the National Health and Family Planning Commission of Henan Province topic fund construction projects (hereinafter referred to as "project of Ministry"), becoming one of the four provinces approved implementation of the project . In order to accurately grasp the project performance and enhance the role of project to promote the overall level of health science and technology [1], the provincial health department organized experts to conduct a performance evaluation on the projects from 2007 to 2011.

2. Objects and methods

The study population consisted of all province ministry joint projects from 2007 to 2011 year in Henan. Through literature review ^[2,3,4] and expert

argumentation, we voluntarily designed province ministry joint project acceptance table, which include topics task completion, assessment objectives, main technical and economic indicators, the implementation of scientific topics chosen technology roadmap and key technologies, advanced and innovation, applied for or authorized patents and other intellectual property cases, personnel training and so on.

The questionnaires were used to survey on the projects from 2007 to 2011. In the study we made quality control on the questionnaire by the verification annex prove material. The survey collected 76 valid questionnaires, which entered into Microsoft Excel 2007 and were analyzed by SPSS 17.0.

3. Results

3.1 Basic situation

3.1.1 Projects distribution. Among 76 projects, there were basic research 29 (accounting for 38.16%), clinical research 26 (34.21%), application research 21 (representing 27.63%), as shown in table 1.Table 2 showed the professional distribution of projects.

Table 1. Projects distribution

Year	Basic research (Items)	Clinical research (Items)	Application research (Items)
2007	6	4	5
2008	8	2	4
2009	9	4	2
2010	2	8	5
2011	4	8	5
total	29	26	21

Table2. Project professional distribution

Specialty	The number of items	Percentage (%) 13.2	
Oncology	10		
epidemiology	8	10.5	
Obstetrics and Gynecology	5	6.6	
endocrinology	5	6.6	
General Surgery	5	6.6	
Neurology	5	6.6	
Orthopedics	4	5.3	
Cardiology	4	5.3	
Respiratory Medicine	3	3.9	
Gastroenterology	3	3.9	
Hematology	3	3.9	
Nutrition	2	2.6	
Pathology	2	2.6	
Pediatrics	2	2.6	
Psychiatry	2	2.6	
Anesthesiology	2	2.6	
Nephrology	2	2.6	
Reproductive Medicine	2	2.6	
Pharmacology	2	2.6	
Occupational Medicine	1	1.3	
Otorhinolaryngology	1	1.3	
Urology	1	1.3	
Immunology	1	1.3	
Biochemistry	1	1.3	
Total	76	100.0	

3.1.2 Project leader situation.

Project leaders included 56 males (73.7%) and 20 females, accounting for 26.3%. The age distribution was as follows. Five leaders were less than 40 years old, accounting for 6.6%. 46 ones were 40 to 50 years old, accounting for 60.5%. 25 ones were 50 years old and above, accounting for 32.9%. All project leaders were senior title, in which 13 people were associate professors (17.1%), and 63 titles were high, accounting for 82.9%.

3.2 Project management implementation

To ensure the implementation of approved projects, health department revised the "medical science research projects management approach in Henan" in 2008, which called for not less than 1:1 matching funds to the projects and earmarked funding. Funds supporting and implementation were shown in table 3.

We urged all units of daily project management and made the results identification replace

concluding acceptance. Project leaders were actively encouraged the reporting of scientific research, while

seeking a higher level research project on the basis of existing research results.

Table3 .Project financial allocations and unit matching funds

Year	Financial allocations	Unit matching funds	Matching rate (%)
2007	200	146	73.0
2008	200	164	82.0
2009	200	161	80.5
2010	200	165	82.5
2011	200	178	89.0
total	1000	814	81.4

Table4. Project completion

Year	Funded projects	Completed projects	Completion rate (%)	
2007	15	14	93.3	
2008	14	14	100.0	
2009	15	14	93.3	
2010	15	11	73.3	
2011	17	12	70.6	
total	76	65	85.5	

3.3 Project Performance circumstances

3.3.1 Project completion. Among 76 projects, 32 achieved the desired goal, accounting for 70.1%, 7 exceeding the targets, accounting for 9.2%, 6 not achieving the desired goal, accounting for 7.9%,9 on schedule, accounting for 11.8%.

3.3.2 The project received achievement awards situation.65 projects have been completed, accessing to a total of 48 science and technology achievement awards, winning rate 66.2%, which included 3 national second prize, 5 provincial first prize, 5 the grand prize

award on technology abroad, 5 the relevant foreign technology first prize, 3 foreign related technology second prize, 9 provincial second prize, 8 departmental level first prize and 5 departmental second prize.

3.3.3 Outputs of the project Publications. In this study, the project publications outputs were analyzed. 76 subjects brought about 583 publications. The maximum output of single project was up to 84 papers. One project published SCI papers up to 16.The cumulative impact factors of published papers were up to 74.2 from one project.

Table 5. Outputs of the project Publications

Category	Min	Max	Mean	Total
paper (Piece)	1.0	84.0	9.9	583.0
SCI (Piece)	0.0	16.0	3.6	185.0
Cumulative impact factors	0.0	74.2	10.0	502.0
monograph (section)	0.0	10.0	1.8	75.0

3.3 4 Other output. 2007-2011 project leaders obtained 7 patents. Through implementation of the project, leaders trained 12 doctors and 69 masters.

4. Implementation effect

4.1Projects were well done. The study showed that about 80% projects were completed well, which exceeded the target, much higher than the completion

rate(67%) of World Bank's health, nutrition, and population (HNP) projects ^[5].Projects achieved results in terms of published papers ,patents and so on.Per capita (only the first author and corresponding author)were slightly lower than the highest one (14.21)of the professional category of National Science and Technology Support Program in 2006^[6].Some project leader published the leading international

research on the world-class magazine, such as nature, which indicated that the relevant research in Henan province reached the international advanced level.

- **4.2** The health system of science and technology projects was improved. The projects included clinical, basic and applied research, covering more than 20three subjects such as oncology, cardiology, epidemiology and so on. Evaluation experts of the projects were leading talents from related domestic fields. Through project review, technological professionals in Henan learned from exchanges with national experts, broadened scientific thinking and strengthened academic exchanges, which enhanced the level of provincial health technology projects.
- **4.3 Scientists and technicians enthusiasm was inspired.** Through the projects implementation, the scientific enthusiasm of health technology professionals was rising in Henan. Although the projects funds and supported number were not increased, the number of department-level health technology projects was reporting more and more yearly. Meanwhile, the number of declaring national and provincial health research projects in Henan was increasing, did the funded projects also.
- **4.4 High level health personnel were trained.** Project manager are mostly young, senior title, professional skills and rich heritage on the golden stage performance. By nurturing the projects, the province health industry made breach in terms of national awards, national medical association chairman and academician reserve talents. Meanwhile, the projects also trained master and doctoral students in related fields for health development reserve of talent.
- **4.5** The deficiencies. Due to the transfer of project leaders, two unfinished projects can't continue. Echelon construction of project team should be strengthened to ensure the sustainable development of benign research work. In addition, the projects produced less high level achievement than that in developed areas especially in terms of national awards and patents.
- **4.6 Development proposals.** The management of health research should be strengthened by drawing from domestic and foreign scientific management mode ^[7].It is suggested that the developed projects well should be taken into national health fund reserve project under the policy support. The number of province ministry joint projects could be increased in order to meet the need of health researchers, increase research funding and protect health research.

Henan key projects for health science and technology development in 2010 (Health Department), Project number: 201004019

References

1. HUANG-yanbin. A tentative exploration on key

- Technology Projects management [J]. Scientific Management Research.2010;8(24):33-34.
- 2. Hao Li, Sara Barsanti, Anna Boni. Building China's municipal healthcare performance evaluation system: a Tuscan perspective. Int J Qual Health Care .2012; 24 (4): 403-410.
- 3. Wei Nie, Huihui Wang, Shanshan Yin .Analysis of the research capability of young and middle aged health innovative talents in Henan province [J]. Life science journal, 2013;(4):111-113.
- 4. E Andrew, Balas; Peter L. Technology transfer from biomedical research to clinical practice measuring innovation performance [J]. Evaluation & the health professions. 2013;36(4): 505-522.
- 5. Morris K. World Bank health projects get mixed review[J]. The Lancet. 2009;373(9677):1749-1750.
- 6. LIU Yan, HE You-qin, LIANG Jin-ying. Analysis on published papers granted by state" eleven-five" program in population [J]. Chin J Med Sci Res Manage.2008;4(21):227-231.
- 7. HU Xing, LI Ning, DENG Xiaolin. U.S. NIH research management model and inspiration [J]. Journal of Luzhou medical college. 2003; 26(5): 471-472.

24/10/2014