

Summary of the Evaluation

I. Outline of the Project	
Country : The Republic of Armenia	Project title : Reproductive Health Project
Issue/Sector : Healthcare and medical care	Cooperation scheme : Technical Cooperation Project
Division in charge : Reproductive Health Team, Human Development Department	Total cost (as of the time of evaluation): 130 million Japanese yen
Period of Cooperation on	(R/D): December 1, 2004 – November 30, 2006
	(Extension): (F/U) (E/N) Grant Aid)
	Partner Country's Implementing Organization : Ministry of Health, IPOG (Institute of Perinatology, Obstetrics and Gynecology), Maternity Hospital of Hrazdan, Maternity Hospital of Gavar
	Supporting Organization in Japan : None
Related Cooperation : Grant aid	
1. Background of the Project	
<p>The Republic of Armenia (hereinafter "Armenia"), has faced several major events, such as the great earthquake of 1988, the collapse of the Soviet Union and consequent independence, economic turmoil after its conversion to a market economy, and armed conflict with Azerbaijan. These events caused the marked deterioration of social and economic conditions in the 1990s, and accordingly, the functions of the healthcare and medical care sectors and the quality of healthcare services also deteriorated. At the same time, with the healthcare system in Armenia, facilities and personnel were in oversupply from the time of the former Soviet Union, which was causing chronic financial difficulty. The tertiary medical organization (IPOG) of the capital city Yerevan was overcrowded, since pregnant women were brought in from all over the country. Thus, there were serious problems with the patient referral system. Based on this background, the Armenian government made in 2001 the "Health System Optimization Program," and has been promoting improvement projects, such as elimination and consolidation of medical institutions and departments, and reduction of hospital beds and the number of medical care staff, but the project is still underway.</p> <p>Within the medical care sector, the Armenian government prioritizes the improvement in the quality of and accessibility to healthcare services for pregnant women, and infants, who are socially vulnerable and easily affected by the deterioration of social and economic conditions. However, the maternal mortality rate (51 in 0.1 million births in 2003, according to UNFPA) and infant mortality rate (17 in 1,000 births in 2003, according to UNFPA) have not been improved even in recent years, and the birth rate has not stopped decreasing. Therefore, urgent assistance in this field has become necessary, and this project was begun at the request of the Armenian government.</p>	

2. Project Overview

(1) Overall Goal

Health conditions of pregnant, parturient (about to give birth) and puerperal (have just given birth) women, and neonates (newborn children) in Armenia are improved.

(2) Project Purpose

The services for pregnant, parturient and puerperal women, and neonates in the project's target hospitals are improved.

(3) Project Outputs

1. Healthcare and medical care staff in the project's target hospitals understand effective and efficient evidence-based healthcare and medical care for pregnant and parturient women and the concrete methods of practice.
2. Effective and efficient healthcare and medical care for pregnant and parturient women are provided in the project's target hospitals.
3. The patient referral system among IPOG, Maternity Hospital of Hrazdan and Maternity Hospital of Gavar is improved.

(4) Inputs (as of the time of evaluation)

Japanese side :

Short-term Expert: 9 people (39.15 M/M) **Equipment :** 4,803,664 Japanese yen

Trainees received : 21 people

Work in Armenia: 12 million yen

Armenian Side :

C/P arrangement Accepted trainees : 21 people

Local Cost : C/P expenses for personnel, utilities, etc.

Land and Facilities : Project office

II. Evaluation Team

Members of Evaluation Team	Leader/Supervisor: Kiyoshi Ishii , Team Leader, Central Asia and the Caucasus Team, Regional Department II, JICA Reproductive Health: Dr. Chizuru Misago , Professor, Department of International and Cultural Studies, Tsuda College Cooperation planning: Akiko Endo , Junior Advisor, Health Human Resources Team, Group III (Health I), Human Development Department, JICA Evaluation analysis: Tami Sugihara , Researcher, Global Linc Management Inc.
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Period of Evaluation	October 9 - 20, 2006	Type of Evaluation : Terminal evaluation
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III. Results of Evaluation

1. Achievements

(1) Project Outputs Achievement

Among the planned three outputs, Outputs 1 and 2, which are the outputs on Evidence-Based Medicine (EBM) for pregnant and parturient women, can be said to have been almost achieved. On the other hand, the expected outcome for Output 3 was unachievable, since the items and contents of activities planned at the beginning were drastically reduced, and the achievement indicators could not be confirmed by this evaluation.

Regarding Output 1, all 167 staff members engaged in healthcare and medical care for pregnant/parturient women and neonates in the project's target hospitals, have participated in at least one of the various training sessions on EBM planned and implemented by this project, and learned about the concepts

and methodology of EBM. The endline survey of 165 people indicated that knowledge and practicing methods of EBM were widely understood as the result. It was also confirmed for Output 2 that implementation of knowledge and skills on EBM by the medical staff resulted in the provision of effective and efficient healthcare and medical care for pregnant and parturient women in the target hospitals. The indicators have been achieved for the number of antenatal checkups, the perineal incision rate, the cesarean section rate, and the neonatal rate with an Apgar score of seven or below. In addition, the "free-style position" for delivery, which had not been practiced before the project, is now used. In addition, it was confirmed that the degree of women's satisfaction with delivery and the performance of medical staff has greatly improved. Thus, all indicators have achieved the targets.

Although Output 3 has not reached the expected level, its influence on the whole is small, since its contribution to the project purpose is low.

(2) Project Purpose Achievement

Because the term for the project was only as two years, no big changes were observed in the quantitative indicators (such as mortality of pregnant and parturient women, perinatal mortality, neonatal mortality, and rate of serious pregnancy complications in the project target hospitals) of achievement of the project purpose—"The services for pregnant, parturient, and puerperal women and neonates in the project's target hospitals are improved." In qualitative terms, however, many cases of improvement were confirmed. As a result of this project's implementation, the target hospitals began to provide new medical services for pregnant, parturient, and puerperal women and neonates, including giving permission for husbands to attend childbirth, and promoting mothers and babies being in the same room after childbirth. In particular, both Hrazdan Hospital for Obstetrics and Gynecology and Gavar Hospital for Obstetrics and Gynecology have introduced many new services. All hospitals have adopted the aim of providing more patient-oriented medical care based on the "Concept of Care" that this project introduced together with EBM. Such improvements in the content and quality of services in each hospital are favorably received by patients and others, and this is reflected in the increase in the number of patients in some hospitals. Thus, great improvement has been confirmed in the quality of services, and it can be said that the project purpose has almost been achieved.

(3) Overall Goal Achievement

It is difficult to forecast at this time the probability of overall goal achievement. For the indicators related to overall goal achievement (the rates of maternal mortality, perinatal mortality, and neonatal mortality in Armenia), there is not enough reliable statistical data at present, and the achievement needs to be judged by checking statistical changes in the future.

(4) Implementation Process

With this project, the implemented course of action was to clarify the project purpose at the beginning and to promote concrete activities and methods by flexibly coping with the situation at the site. Regarding technology transfer, although a series of training activities planned and implemented by this project was very effective in terms of content and methods, when it came to making teaching materials (CO-ROMs and books) with voluntary help of medical staff in mind, versatile teaching materials could not be fully prepared. This project was the first technical project for Armenia, and was started before the arrival of the JICA office and Japanese Embassy. However, the management system of the

project was generally good, and effective communication between Japanese experts and the project director who has the decision making power in Armenia was maintained by keeping a system for continuous and close communication. As for C/P, what has contributed to the achievement of the project's outputs was that a person appropriate to play the role of maximizing the effect of this project, and expanding it to the development of the whole country was assigned, from the viewpoint of expertise, title, status and power. The medical staff of the target hospitals has a good understanding and a deep knowledge of this project, and they assertively practice and apply in the hospitals the knowledge gained through this project, and thus their sense of ownership is fully secured. What can be pointed out as problems for project implementation, are that the conditions for communication at the site were inadequate and that uninterrupted management of the project office was not possible, due to the difficulty of securing continuous employment of local staff for the project.

2. Summary of Evaluation Results

(1) Relevance

Relevance is judged high in light of the conformity with the Armenian government's development policy in this field, with the Japanese government's assistance policy, and with the needs of the target group (healthcare and medical care staff for pregnant/parturient women and neonates in the three target hospitals). In Armenia, based on the Poverty Reduction Strategy Paper (PRSP) formulated in 2003, the reform in the healthcare and medical care sectors for the purpose of poverty reduction has been promoted, and as a part of the effort, improvement and enforcement of mother and child healthcare (MCH) services is aimed at. Japan points out "cooperation for social sectors, including healthcare and medical care" as one of the priority areas for the support of the countries of Central Asia and the Caucasus; this project conforms to the assistance policy of the Japanese government. This project also satisfies the needs of the medical staff in Armenia who seeks for the departure from the traditional system that puts too much emphasis on medical care, and has a strong interest in the global trend of EBM and desires to reform clinical practices by the introduction of new knowledge and technology.

(2) Effectiveness

It is difficult to judge the project purpose achievement from the changes in quantitative indicators such as the mortality rate of pregnant and parturient women, the rates of perinatal mortality, neonatal mortality, and serious pregnancy complications. However, since great advancement has been confirmed in the content and quality of medical services for pregnant, parturient, and puerperal women and neonates, the project purpose, "The services for pregnant, parturient, and puerperal women and neonates in the project target hospitals are improved," can be said to have almost been achieved, and effectiveness of the project is high. Regarding the three outputs set to achieve the project purpose, by sufficiently achieving Output 2 (output on the implementation of EBM), the healthcare services for pregnant/parturient women and neonates in the project's target hospitals have been greatly improved.

(3) Efficiency

The project was implemented almost exactly according to the plan and it contributed to the achievement of the project purpose. Three factors enabled realistic and efficient project implementation: a detailed survey (baseline survey) on the needs at the site was done at an early stage of the project, the

project strategy and plan were made based on the results of the survey, and a course of action was taken to promote concrete activities and methods by flexibly coping with the situation of the site. These factors have also contributed to the achievement of output related to the promotion of understanding and practice of EBM among the Armenian people concerned. The contents, times, methods, and target trainees of a series of training activities and seminars, such as those in Japan and in Armenia, were carefully planned. They were thoroughly implemented and have brought about a good training effect. On the other hand, with the computers, computer-related equipment, and teaching materials such as books and CD-ROMs, which were provided to enable medical staff in the target hospitals to collect and search for information on EBM and then apply and practice it, the people who can use them are limited because of the computer environment in Armenia and the language used (English), and the issue has been left to be solved by addressing the content of input. In addition, short-term project experts were dispatched several times, which caused opening and closing of offices before and after each activity at the site. In terms of project administration and management, it was not particularly efficient.

(4) Impact

As stated above, it is difficult to forecast at this time the probability of overall goal achievement. However, some C/P members who play the role of educators in the sector of healthcare and medical care for pregnant and parturient women in Armenia have been using the knowledge gained through this project in their educational activities, and they are also trying to disseminate this project by reporting in international conferences and presenting papers through the domestic media. At present, this initiative has not extended to the organizational building of a mechanism to expand the project all over the country, but it has gained understanding from the C/P that can take leadership in this area and their commitment for the ongoing activities in the future. If the contents of this project can be reflected in the policy of Armenian government as hoped, then achievement of the overall goal can be expected.

(5) Sustainability

Judging from political, organizational, financial, and technical viewpoints, there is a high possibility that the effect of project implementation will continue in the project's target hospitals. However, there is no certain prospect that the effect of the project will spread all over the country and continue. The effort to improve the health of pregnant, parturient, and puerperal women and neonates is expected to continue in the future in the policy for the sectors of healthcare and medical care of Armenia, and the retention rates of the staff in the target hospitals are high. Thus, the project has as much sustainability in organizational, financial, and technical aspects as to keep the effect of this project in the future. On the other hand, the mechanism to disseminate and establish the knowledge and technology on EBM all over Armenia has not been built up, and how to expand them in local areas in the future is not clear at the moment. C/P has started to work in political and institutional aspects for nationwide expansion, and the trend in the future needs to be watched carefully.

3. Factors Contributing in the Production of Effect

(1) Content of the Plan

With this project, the early stage of the project was devoted to the detailed survey of the needs at the site, and the decision on the project policy and activity plan was made accordingly. This process was performed continually throughout

the project by Japanese experts, and activities to meet the needs and conditions of the target hospitals and medical staff were planned and implemented each time. Such flexible planning (interactive-style project formation to absorb the needs) has been very effective, especially in a series of training activities. By planning the training in Japan outside the term for project activities, the chief advisor who had returned to Japan could attend the training and give support. For the medical staff who could not participate in the training in Japan, effort was made to satisfy their needs and to widely disseminate knowledge and skills, by implementing the training at sites such as seminars and workshops and inviting experienced Japanese experts for a short period of time. By accumulating "dialogue" that always respects the ideas and needs of C/P in Armenia, without forcing Japanese ways, and reflecting the dialogue on detailed planning and administration, the training increased participants' satisfaction, enabled the acquisition of skills, and prompted hands-on practice.

This project was planned in combination with a supply of medical equipment provided by grant aid, and it resulted in a great synergetic effect, just as intended, at the beginning. Japanese experts from this project participated in the survey of the grant aid project, and gave appropriate advice on the selection of medical equipment. Thus, a close cooperation system between the two projects enhanced the efficiency of both projects and greatly contributed to the realization of project effect.

By adding and introducing the idea of "continuous care," which is unique to Japan, to the concept and approach of EBM advocated by WHO, the method of medical services for pregnant, parturient, and puerperal women and neonates, which is more attentive and sophisticated than the EBM practiced in Europe and the U.S. has been successfully disseminated.

(2) Implementation Process

The Director of IPOG, a person who is expected to take leadership in Armenia in the future as an authority in this field, has been actively involved and has cooperated from the planning stage to the completion of the project. In addition, the continuous cooperation of four major C/Ps (Ministry of Health, Director of IOPG, Directors of both Maternity Hospital of Hrazdan and Maternity Hospital of Gavar) was able to be gained throughout the project term, and it resulted in a large effect.

4. Problems and Factors that Raised Problems

(1) Content of the Plan

Computer-related teaching materials and some books provided through the project are not used often, due to a lack of computer skills and language (English) problems, and have not reached the status of self-reliant use by the medical staff in general. For the EBM database, measures such as translation into Armenian were examined, but there was no other choice than to give up due to the time and cost it would take.

The supply of medical equipment by grant aid was behind the original schedule, and enough time could not be spent on improving the referral system among hospitals, which had been scheduled depending on the supply, so the plan was forced to be curtailed.

(2) Implementation Process

The management of the project with short-term dispatches of experts needed time and labor for opening and closing the office, and it caused reduction of the time available for substantial activities. The burden on the two Japanese experts was heavy and it was difficult to secure enough time for activities.

5. Conclusion

With this evaluation, it was confirmed that this project improved the knowledge and skills and also promoted a change in awareness and activities of the medical staff engaged in MCH and neonatal medical care in the target hospitals.

With this project, the approach of medical care that respects the safety and humanity of the woman giving birth has been introduced together with the introduction of EBM. Understanding on the essence of this idea has led to efforts to provide patient-oriented services in the project's target hospitals, such as re-examination of the relationship between medical staff and patients and avoidance of unnecessary medical interventions. A big factor was that the understanding and commitment were gained from the people concerned in Armenia, including the Ministry of Health and the C/P, who can take leadership in the field of RH. The background for such effective technical transfer by the leadership of the central government, was the situation of the healthcare system in Armenia, where the level of medical technology was one of the highest within the former Soviet bloc, i.e. 1) there was enough manpower for healthcare and medical care, and there was accumulated technology, but 2) the function of the healthcare system has deteriorated and medical technology has become old-fashioned since the collapse of the Soviet Union. 3) However, the system to renovate healthcare technology by the leadership of the central government still remained. The course of action and direction in this area shown by the project, was accepted as an idea to promote the departure from MCH and medical care based on traditional medical models, and to support the construction of effective and efficient healthcare and medical care systems that Armenia aims at, as well as to contribute to the improvement of the health of pregnant and parturient women and neonates. On the other hand, the project implementation period of two years was too short to confirm the fostering of human resources in Armenia who can independently develop the activities after the project completion. Regarding assuring the reform of each hospital, expanding and developing the outcome of technical cooperation of this project, and reflecting it on the political level of Armenia in the future, the self-help effort of Armenian C/P for policy making, which is done at present, is naturally effective, but it is also appropriate to give necessary support in one way or another by fully examining the request from the Armenian side and its receptiveness.

6. Recommendations

Based on the above evaluation results, the evaluation team made the following proposals on the challenging issues after the project's completion.

(1) For the following (2) to (5), the Japanese side is expected to give support using appropriate schemes as necessary, after fully analyzing and examining the situation in Armenia.

(2) Making policy for healthcare and medical care using the Project Outputs

In order to continuously develop the project outputs, what is considered to be the most effective and efficient method is to reflect the content of project outputs in the policy of Armenian government on healthcare and medical care and to standardize it as a system of the country. The effort by the Ministry of Health in

Armenia is recommended for the development of a legal system towards the realization and implementation of the policies.

(3) Enhancement of the role and function of IPOG

IPOG is a central figure as the best referral hospital in Armenia and also as a medical education facility. It is expected that, based on the outputs of this project, its role and function are strengthened as a foothold of the EBM information network and as a training center in Armenia.

(4) Building the network among secondary medical/health facilities and dissemination of "Implementation of EBM"

In local areas of Armenia medical staff retention rates are high, and a good effect can be expected from the inputs for human resource development. On the other hand, horizontal connections among secondary medical/health facilities are poor and there is almost no chance to share information at the hospital staff level. A future challenging issue is how the project outputs can be expanded and developed in local areas, and the discussion and examination among the Armenian people concerned are necessary.

(5) Promotion of research activities and improvement in research capability

To disseminate the EBM concept in the practical scenes of medicine, the medical staff needs to engage in research and development activities themselves. However, it is hard to say, when viewing the entire country of Armenia, that the system to support it has been established. It is hoped that the computer equipment provided in accordance with the promotion of research and development activities will be effectively used and that the environment in which data collection is available will be established.

7. Lessons Learned

Since short-term dispatches of experts were conducted because of safety reasons, time and labor were used for opening and closing the project office, and this caused the reduction of the substantial activity period. From the viewpoint of improvement in project efficiency, some measures, such as keeping a staff member at the site, need to be examined in similar future projects.

For the C/P's training in Japan, the chief advisor of the project joined from the planning stage and attended the training when it was implemented, and thus supported it continuously. As a result a strong training effect was achieved, and the project outputs were effective. It is necessary in the future to make a support system where long-term experts can return to Japan and attend training sessions.

The selection of short-term experts and time of dispatch were appropriate and a large effect was gained in the training, seminars and workshop activities in Armenia. What greatly contributed to the project outputs was that high level short-term experts, who are working actively in the front line of the healthcare and medical care scene in Japan, were selected and some were dispatched several times in a row.

A coordinator who knows well the local condition of the former Soviet bloc and the language (Russian) was arranged, who enabled the building of an appropriate relationship with C/P and greatly contributed to the project outputs. Regarding selecting the medical equipment to provide, the experts of the Technology Cooperation Project had participated from the researching stage and had given appropriate advice. Due to this, a good synergetic effect was obtained by the matching with grant aid. On the other hand, the provision of the planned

equipment was delayed and caused hindrance of the Technology Cooperation Project. It was confirmed that the provision of necessary equipment at an appropriate time is an important condition that determines outputs of a project with short-term dispatches of experts.

A baseline survey and endline survey were planned and implemented within the project term, and the project was managed based on a concept related to epidemiology studies. As a result, even during the short-term project of two years, quantitative and qualitative effects of the activities were able to be shown objectively. On the other hand, the project implementation period of two years was too short to confirm the changes in the indicators caused by the project. When designing a project, it is necessary to fully set an appropriate project implementation period, including a project evaluation period.

8.Outlook of future cooperation

The project implementation period of two years was too short to ensure the project outputs that this project brought about in the target hospitals and to continuously develop the services in the future, and it has not been confirmed that human resources in Armenia who can independently develop the activities after the project completion have been fostered.

With the connections among the hospitals, the relationship is weak, especially at the hospital staff level. An educational training system, which can enhance the effect of the project and expand the activities to other areas, does not exist at present. To expand and develop the output of technical cooperation of this project and to eventually reflect it at the political level of Armenia, the effort of the Armenian side is naturally necessary, but it is also appropriate to give necessary support in one way or another, by fully examining the request from the Armenian side and how receptive it is. A concrete support scheme was not discussed specifically during the discussion between this evaluation team and the Armenian side, but examination of the support by the Japanese side for the challenging issues clarified by the evaluation results is included in the recommendations.