

Terminal Evaluation

Asia

I. Outline of the Project

- Country: Thailand
- Project Title: Project for Development of the Trauma Center Complex
- Issue/Sector: Health
- Cooperation Scheme: Technical cooperation
- Division in Charge: Human Development Department
- Total Cost: 3.36 billion yen (at the time of the evaluation)
- Partner Country's Implementing Organization: Khon Kaen Regional Hospital
- Period of Cooperation
(R/D):
April 12, 2000
- Supporting Organization in Japan: National Police Agency, Fire and Disaster Management Agency, Osaka Municipal Fire Department, Osaka City University, Osaka City Medical Center, St. Mary's Hospital
- Other Related Assistance: Public Health Project

1. Background of the Project

In recent years in Thailand, the number of transport-related deaths and casualties has drastically increased. As a consequence, trauma has now become the second largest cause of death after heart diseases. The Japanese government implemented the Public Health Project in Khon Kaen Province from 1991 to 1996. The Project purpose was to establish a practical regional medical care system through a series of activities such as analyzing the problems of the existing health service system, planning and implementing action plans. While the project received high marks, the Thai government aimed at further enhancing traffic accident prevention and emergency medical service (EMS) activities in Khon Kaen Province, and constructed the Trauma and Critical Care Center (hereinafter referred as "TCC") at the Khon Kaen Regional Hospital (KKH). At the Thai government's request, Japan has been conducting a technical cooperation project named the Project for Development of the Trauma Center Complex since July 2000 for the period of 5 years with KKH as a counterpart organization. The project aims to reduce the mortality rate from traffic injury in Khon Kaen Province. Four years and seven months have passed since the project commencement. A mission was sent in February 2005 to evaluate project achievements and the implementation process, and clarify the activities for the remaining cooperation period.

2. Project Overview

(1) Overall Goal

1. The Khon Kaen model of traffic injury care and prevention is applied in other provinces.
2. The mortality rate from traffic injury in Thailand is reduced.

(2) Project Purpose

The mortality rate from traffic injury is reduced in Khon Kaen Province.

(3) Outputs

1. Management for trauma patients in hospitals improves.
2. Pre-hospital trauma care becomes effective.
3. Prevention of traffic injury is promoted.
4. Training and research centers are established at KKH.
5. Project activities are generalized as a model for other provinces.

(4) Inputs

Japanese side:

Dispatch of long-term experts	4 people	Equipment/facilities	Approximately 132,930,000 yen (48,621,833 Bahts)
Dispatch of short-term experts	About 30 people	Local costs	Approximately 46,150,000 yen (16,884,256 Bahts)
Training in Japan	29 people (Training costs for 15 people were shared with Ministry of Public Health (MOPH) in Thailand)		

Thai side:

Counterparts	3 people	Equipment	Approximately 84,780,000 yen (31,014,340 Bahts)
Land and facilities	Project Office TCC building	Local costs	Approximately 53,610,000 yen (19,614,730 Bahts)

Note: Actual disbursement by the end of 2004 was calculated at the exchange rate of 1 Baht = 2.734 yen.

II. Evaluation Team

Members of the Evaluation Team

HASHIZUME Akira,

Team Leader, Technical Advisor, Human Development Department, JICA HQ

MIYAKE Masakazu,

Emergency Medical Service, Chief of Ambulance Instructing Unit, Ambulance Section, Fire Defense Division, Osaka Municipal Fire Department

MINAMI Kazue,

Cooperation Planning, Human Development Department, JICA HQ

NOJI Keiko,

Project evaluation, Consultant, IC Net Ltd.

Period of the Evaluation

February 8 to 23, 2005

Type of the Evaluation:

Terminal evaluation

III. Results of the Evaluation

1. Summary of the Evaluation Results

(1) Relevance

As a result of economic development and motorization, the number of traffic accidents and the mortality rate from them have rapidly increased and accidents became the second leading cause of death in Thailand. Khon Kaen Province is the center of northeastern Thailand, and the province had a higher mortality rate from traffic injury than the national average. Reduction of traffic accidents and provision of quality EMS service are emphasized in the 9th National Social and Economic Development Plan and the strategic plan of MOPH. Thus the project matches the government's policy and the social needs in Thailand. In addition, the project is consistent with a priority area in Japan's ODA strategies. The Ministry of Foreign Affairs of Japan focuses on the technical cooperation on "the problems which increase along with social development", and "the fields which governmental initiatives are necessary" in Thailand. WHO and JICA are the only international donor agencies that support the sector in Thailand. There was no unnecessary overlap between WHO and JICA's cooperation to TCC. Thus the project is highly relevant.

(2) Effectiveness

Reduction of the mortality rate from injury depends largely on prevention of traffic accidents, timely provision of first aid and transport, appropriate care at health institutions. The project aims to bring about comprehensive improvement in these areas.

After the project commencement, many indicators in PDM showed improvement and the mortality rate from traffic injury at Khon Kaen province became lower than the national average. The project established a region-wide EMS system in Thailand for the first time. As a result of traffic safety activities, the percentage of bike riders who wear a helmet and car drivers who wear a seat belt increased. The project trained emergency medical care and first aid staff members not only from KKH but also from district hospitals and volunteer organizations. They have promoted local health care by applying the acquired skills and knowledge at work. Therefore, effectiveness of the project is high.

(3) Efficiency

KKH constructed the TCC building with its budget. Since cooperation with MOPH was active and the Thai side bore more than half the project operation cost, the cost to JICA was relatively small given the scope of the project activities. Since the project scope is wide, a relatively large number of counterpart members received training in Japan and many short-term experts were dispatched. However, the number of long-term experts was small (2). In addition, most of counterpart members who received training in Japan remain working for the project. Thus, their acquired skills and knowledge are effectively utilized for the project activities. The timing of the installment of all inputs was appropriate. Due to appropriate selection and maintenance of equipment by the hospital supply and maintenance section, most of the purchased equipment and facilities are functioning and in use. Thus the project was efficiently conducted.

(4) Impact

By including activities under Output 5, the project contributed to achieving the Overall Goal. Regional hospitals and provincial hospitals in the Northeastern region have consulted with KKH's activities when they enhanced their hospitals' EMS system. As MOPH expands the EMS system nationwide, and the Directing Center for Road Safety under the Office of the Prime Minister implements its master plan based on the MOPH policies, the mortality rate from traffic injury in Thailand would be reduced gradually. MOPH formally certified emergency medical technicians (EMT) as medical personnel and permitted hiring them as civil servants. As a result, EMT courses at health and nursing colleges were established not only in Khon Kaen Province but also in other places. Since many traffic accident prevention activities of the project were implemented in other provinces, the police have tightened control in other provinces on compliance of laws on wearing a helmet and not drinking alcohol while driving motorbikes. These are the project's positive impacts in the last four to five years.

(5) Sustainability

During the project duration, the network among stakeholders for the EMS system and traffic accident prevention activities was established. TCC established a training system not only for KKH's newcomers but also for other organizations' staff members. Counterpart members are expected to work for the present posts after the project completion. The main concern for organizational sustainability is the shortage of human resources.

Financial sustainability is promising because KKH has its own source of income and the project is likely to receive additional funding from the Health Promotion Foundation and through the special financial scheme of MOPH for introducing the EMS system (10 bahts per capita). Technical transfer from the Japanese experts to the Thai counterparts was smooth. No major technical problems are observed for technical staff members at the supply and maintenance section at KKH in maintaining the existing equipment and facilities. Thus the technical sustainability is high. However, the project needs to ensure an information source to update the counterparts' technical knowledge and skills after the project completion.

2. Promoting Factors

(1) Project formulation

A Project Cycle Management (PCM) workshop was held for the project planning. The Project was designed in a participatory manner by incorporating opinions of many stakeholders. The mid-term evaluation team also conducted a PCM workshop to revise the PDM to accommodate the changes during the project implementation. The project had a focus on data collection and defined the type of indicators to be obtained from the project commencement. Data were a very useful tool to receive understanding and cooperation of stakeholders, and disseminate the "Khon Kaen model" to other provinces. The project scope covers not only trauma treatment at hospitals, but also patient transport and traffic accident prevention. With this approach, the project increased the chance of achieving the Project Purpose and Overall Goal.

(2) Implementation process

The counterparts' diligence and sense of ownership of the project are notable. The project has many stakeholders such as MOPH, provincial/district health offices, provincial/district government, schools, police, volunteer organizations, and local communities and KKH has coordinated their opinions. The cooperation enabled the project to conduct a wide range of work specified in PDM and achieve the challenging project purpose. For instance, volunteer organizations transport patients to the hospitals as part of the EMS system at Khon Kaen municipality. The police promoted compliance with the traffic law by tightening control on drunk driving and driving without seatbelts. School and local communities have actively conducted traffic injury prevention activities.

3. Inhibiting Factors

(1) Project formulation

The series of PDMs (versions from the planning stage to the end of the project duration) do not clearly define the numerical targets of Objectively Verifiable Indicators. The project should have set appropriate numerical targets to show how much it should achieve during the project period of five years. The project should also have clearly defined the "Khon Kaen model" to disseminate the model to other provinces. Lack of numerical indicators and a clear definition of the model made it difficult for the terminal evaluation team to assess objectively the achievement level of the project.

(2) Implementation process

Partially due to the Thai government policy of "zero increase in the number of civil servants", KKH does not have a sufficient number of human resources. Even though the project has a wide scope of work, the number of staff members who engage in the project activities is small, and most of the counterpart members hold assignments apart from the project. This situation hinders smooth implementation of project activities. For example, the training course could not be implemented as much as the project personnel wished due to the shortage of instructors. Even after the person in charge of research activities under Output 4 was transferred to another section, no successor was appointed. As a result, the research activities were downsized.

4. Conclusion

The project matches the social needs of the Thai people and the Thai government's policy as well as the Japanese government's cooperation policy for Thailand. The Project Purpose and most of the Outputs were effectively achieved. As the Thai and Japanese governments actively carried out cost sharing, the Japanese input for the project was relatively small given the large scope of work. The project has already seen some impacts. For instance, MOPH formally certified EMT as medical personnel and health and nursing colleges established EMT courses. Sustainability of project effects seems good despite a few minor issues, e.g. shortage of staff who can continue to work for project activities and have access to new information and skills.

5. Recommendations

<TCC>

(1) Although stakeholders like the police take the lead in activities such as injury prevention, many members of TCC have either an excessive workload or shortage of staff members. For sustainability of the activities, the project team needs to analyze its own tasks and try to reduce their workload and/or take countermeasures such as requesting other stakeholders to dispatch their personnel to work at TCC. It makes sense to have other stakeholders initiate more activities.

(2) Assistance to the Provincial Health Office (PHO) to expand EMS and traffic injury prevention activities to the district and sub-district levels is highly recommended.

<Governor of Khon Kaen Province and PHO >

(1) To expand the EMS system and traffic injury prevention activities to the local level in Khon Kaen Province, close cooperation is crucial between local administrative organizations, e.g., district and sub-district (OBOTO) administrative organizations, and local hospitals, e.g., community hospitals and health centers. In addition, EMS activities and traffic injury prevention activities need to be closely linked for effective implementation. Therefore, the project needs to avoid any unnecessary overlap between OBOTO and a community hospital's services in introducing the EMS system. Members of the District Safety Committees, i.e. representatives from local administrative organizations and community hospitals, and others, should meet regularly to promote and monitor activities.

<MOPH>

(1) MOPH should initiate studies on project activities at KKH by generalizing the Khon Kaen Model and extracting lessons for other hospitals. It would be a good idea to set up a task force for this purpose. To disseminate the experiences in Khon Kaen province elsewhere, effectiveness and applicability of the Khon Kaen model should be analyzed and summarized, with assistance of KKH/TCC and other stakeholders.

(2) An effective monitoring and auditing mechanism at MOPH will help other provinces conduct project activities smoothly.

(3) Project activities at KKH/TCC contain many useful lessons not only for other provinces in Thailand but also for other countries. It makes sense for MOPH to study the project experiences further and provide technical cooperation to other countries.

6. Lessons learned for similar projects

(1) At the initial stage of project, it is a good idea for hospitals that usually receive emergency patients to take the lead in a network among stakeholders in pre-hospital care and injury prevention activities. Such a network will facilitate cooperation among stakeholders.

(2) If project implementation involves many activities and stakeholders, the individuals and organizations involved need to share common goals. To keep staff members motivated, it is highly effective to have empirical data from such sources as trauma registry and share results of the activities among them.

(3) It is essential to establish a cross-sectional traffic safety committee to strengthen the network for traffic accident prevention activities. The leader of the safety committee should be an official with the highest decision making authority in his or her jurisdiction, e.g. governor or mayor.

(4) To expand the service coverage area of trauma care, community hospitals and district and sub-district administrative organizations need to take on major responsibilities. For this purpose, it makes sense to strengthen the function of a regional hospital to provide advice to PHO and that of sub-district administrative organizations to provide pre-hospital care.