

## Simplified Ex-Post Evaluation for Technical Cooperation Project

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Project Name	Expanded Program on Immunization Strengthening Project	January 2010 – December 2010

### I Project Outline

Country Name	People's Republic of China			
Project Period	June 2000-May 2005			
Executing Agency	Department of Disease Control, Ministry of Health (Supervising agency), Chinese Center for Disease Control and Prevention (Executing Agency)			
Cooperation Agency in Japan	Medical Center for Global Health and Medicine, National Institute of Infectious Diseases			
Total Cost	935.7 million yen			
Related Projects (if any)	World Health Organization (WHO)			
Overall Goal	Effective and safe EPI services are provided in all the covered provinces.			
Project Objective	The EPI services in all the covered provinces are improved (after revision during the mid-term evaluation).			
Output[s]	1. Safe injections are performed. 2. EPI vaccination services improve. 3. The surveillance of EPI diseases, such as poliomyelitis, is strengthened. 4. EPI information is brought online and used.			
	Inputs (Japanese Side)		Inputs (Chinese Side)	
Experts	8 for long term, 67 for short term		Staff allocated	30 (3 to 7 per year)
Equipments	377.3 million yen		Equipments	Vaccine: 82.95 million Chinese yuan
Local Cost	Unknown		Local Cost	154.78 million Chinese yuan
Trainees Received	19		Land etc provided	Land, office, existing equipment
Others	Dispatching Project Consulting Teams (13.11 million yen)		Others	

### II Result of the Evaluation

Summary of the evaluation
<p>The relevance of this project is high. As for the project objective and outputs, the desired goals have been essentially achieved. The impacts have been partially achieved. Regarding efficiency, appropriate inputs have helped accomplish the outputs. During the project, SARS broke out, which could have been a big obstructive factor. The outbreak, however, did not result in a significant delay in the activities, thanks to both China's and Japan's efforts. Early in the project, the areas were divided into model areas (two provinces) and non-model areas (three provinces). Although all of the five provinces were defined as the project area in the middle of the project period, in the end the effects were observed in all the provinces. It could be said, therefore, that the project has been carried out efficiently. It must be also mentioned other donors and inputs of other projects have helped a lot as it is said "performing safe injections," one of the objectively verifiable indicators, has been accomplished by the "spread of AD syringes", according to the information from JICA. On sustainability, there are some concerns financially and technically. However, China regards this project as related to an important national policy and the government programs and systems are being strengthened, so the impact of the project can be expected to be sustained.</p> <p>In light of the above, this project is evaluated to be highly satisfactory.</p> <p>&lt;Constraints of this evaluation study&gt;</p> <p>This project covers five provinces; Shanxi, Shaanxi, Gansu, Qinghai and Ningxia. Information on the individual provinces was not obtained during this study. As an ex-post study was conducted last year (2009) on this project, it must be noted that many of the findings from that study, from JICA, have been used in this evaluation.</p> <p>Changes have been made in the outputs and the objective of this project's PDM as well as their objectively verifiable indicators after the mid-term evaluation for the reasons below.</p> <p>(1) All of the five provinces were designated as the project areas, not divided into model areas (two provinces) and non-model areas (three provinces).</p> <p>(2) The system for maintaining polio-free status needed to be strengthened and therefore strengthening of the functions of national polio laboratories and those of high-risk provinces (Guizhou, Yunnan and Sichuan) were added to the activities.</p>
1 Relevance

### (1) Relevance to the Development Plan of People's Republic of China

The 9th Five-Year Plan (1996 to 2000) and the 2010 long-term objective guidelines (established in 1996) call for, as development plan policy for the 15 years ending in 2010, maintaining well-balanced development of regional economy and reducing disparities in development between regions. The 10th Five-Year Plan on national economy and social development (2001 to 2005) calls for giving importance to prevention of diseases and strengthening prevention and control of common diseases, endemic diseases, occupational diseases and communicable diseases. In the China Children Development Guideline (2001 to 2010) the State Council established among the goals raising of the vaccination rate to more than 90% at the township and town level, incorporating the hepatitis B vaccination rate into the EPI, and including new vaccines in the vaccination immunity control plan. In December 2004, the Communicable Disease Control Act was revised.

Accordingly, this project can be evaluated as having been consistently relevant to China's national policies during the project period.

### (2) Relevance with the Development Needs of People's Republic of China

In the late 1970s, China announced its decision to implement the Expanded Program on Immunization (EPI). In the 1980s, it started nationwide vaccinations (BCG, DPT, measles, and polio) according to a systematic and unified schedule. The EPI activities, which were carried out as an important policy matter, increased the national vaccination rate to a high level. But, in poor areas, there were some problems such as the still-pending situation of the establishment of a cold chain for vaccines, lack of knowledge and experience on the part of persons who gave vaccinations, and a shortage of syringes or sterilizing devices caused by the shortage of funds, and these problems operated as obstructive factors in efficient implementation of the EPI program. Also, infections caused by inadequate assurance of the safety of syringes was a problem.

Therefore, this project can be evaluated to have met China's development needs.

### (3) Relevance with Japan's ODA Policy

When this project was being planned, Japan's ODA policy for China focused on reducing poverty and disparities between regions as one of the priority fields. It called for assistance in the mid-west, and especially poor regions there ("The 2nd Country Study for Japan's Official Development Assistance to People's Republic of China," 1999). In the economic assistance plan for China established in 2001, one of the priority fields in economic assistance policy was assistance for addressing global problems, such as environmental problems. Also, to combat communicable diseases was used as an example.

Accordingly, this project can be regarded as having been compliant with Japan's ODA Policy.

This project has been highly relevant with China's development plan, development needs, as well as Japan's ODA Policy; and therefore its relevance is high.

## 2 Effectiveness / Impact

### (1) Achievement of Project Outputs and Project Objective(s)

The achievement level of each Project Output is as follows.

Indicator 1 for Output 1: "The number of persons qualified to perform safe injections increases". Since almost 100% of the EPI staff has become able to perform safe injections in all the provinces ("terminal evaluation report"), the indicator has been achieved.

Indicator 2 for Output 1: "Training and educational materials for safe injection increase". This has been achieved to a high extent, and various materials have been created and used for education of EPI staff, doctors and the community ("terminal evaluation report").

Indicator 3 for Output 1: "The number of visits by the supervisors using a monitoring standard format increases". The indicator has been achieved; the monitoring system has been established and the supervisor visits conducted ("terminal evaluation report").

Indicator 4 for Output 1: "A model for collection of used EPI disposable syringes is established". The indicator has been achieved; the model has been established. The spillover to neighboring areas has been confirmed ("terminal evaluation report").

Accordingly, Output 1 has been satisfactorily achieved.

Indicator 1 for Output 2: "The hepatitis B vaccination rate improves". It has been achieved more than 80%; the vaccination rate has been kept at 80 to 95% ("terminal evaluation report").

Indicator 2 for Output 2: "OPV, MV, DPT and BCG vaccination rates are maintained or improved". Since the complete data on each province as of the final year of the project (2005) were not available, it is not possible to judge how far this has been achieved. According to the data for 2004; OPV, DPT and BCG vaccination rates were lower than those at the beginning of the project (2000) in three out of the five provinces (Gansu, Qinghai and Ningxia) ("terminal evaluation report"). For two of these three provinces, part of the data of 2005 was not available.

Indicator 3 for Output 2: "Understanding of the importance of EPI increases among the persons who administer vaccination and the community". The level of understanding has improved to 80 to 95% ("terminal evaluation report"); China CDC said that this project has greatly helped improve the EPI services and strengthen people's awareness of the importance of safe injections (reply from China CDC).

Indicator 4 for Output 2: "Accuracy of reported EPI vaccination rates". It cannot be judged to have been achieved since it is difficult to get figures on the movement of the population and unplanned births ("terminal evaluation report" and information from the JICA).

Accordingly, the achievement of output 2 is limited.

Indicator 1 for Output 3: "The standard level of AFP surveillance is maintained". It has been achieved ("terminal evaluation report" and reply from China CDC).

Indicator 2 for Output 3: "The number of national and provincial polio laboratories that meet the WHO standards is maintained". It has been achieved ("terminal evaluation report").

Accordingly, Output 3 is highly achieved.

As for Output 4, since the information network linking the provinces, prefectures and counties was configured and utilized before

the terminal evaluation, it has been achieved (“terminal evaluation report”).

Achievement for the Project objective: “The EPI services improve in all the project areas” is as follows.

Indicator 1: “The safe injection rate”. Since AD syringes that cannot be reused are used 100%, the rule of One Needle, One Syringe, Only One Time is observed 100% (information from the JICA).

Indicator 2: “The complete vaccination rate (vaccination rate of four types of vaccines) improves”. This has been largely achieved; although complete data on each province are not available, there is obvious improvement in four of the five provinces (data for 2002 and 2005: 88.8% → 99.26% in Shaanxi, 86.1% → 97.94% in Qinghai, 86.5% → 98.74% in Ningxia, four vaccines at 87.8% (2002) → five vaccines including hepatitis B at 90.7% (2005) in Shanxi (reply from China CDC))

Indicator 3: “The polio surveillance results are fed back for mapping out or implementation of the policies to maintain polio-free status”. This has been achieved; the surveillance results are used as scientific evidence by government departments in taking appropriate measures (reply from China CDC).

Accordingly, the project objective has been achieved.

Although some achievements of the outputs are limited, the outputs and the objective have been largely achieved, considering the overall output achievement.

This project benefits from synergy by cooperation with other donors and inputs of JICA’s other projects: for example, funds for AD syringes and hepatitis B vaccines from other donors (Global Alliance for Vaccine and Immunization), administration of polio vaccines by supply of special medical equipment, provision of training-related equipment, and complementing and expansion of cold chains by JICA’s grand aid projects.

## (2) Achievement of Overall Goal, Intended and Unintended Impacts

The achievement level of the Overall Goal is as follows.

Indicator 1: “The number of EPI disease patients and the number of deaths decrease”. This has been achieved to a certain extent; though complete statistic data are not available, according to the obtained data, the incidence rates have not improved very much for some types of diseases or in some provinces (see attached document). The fatality rates, however, have improved for almost all the diseases and provinces.

Indicator 2: “The polio-free status is maintained”. This has been achieved; no polio case has been reported.

Therefore, the overall goal has been achieved, too, although limited.

In the reply from China CDC, some effects of this project are listed. The check of vaccination certificate at the entry to kindergartens and schools has improved in thoroughness in the project areas. The awareness of vaccination has increased. Training of the persons engaged in the project has been strengthened. China CDC says that these effects will help EPI in other areas besides the project areas. CDC also says that the attitudes of the Japanese experts towards their jobs have influenced the local staff.

No negative indirect effects have been reported.

This project has largely achieved its objective; therefore, its effectiveness is high.

## 3 Efficiency

### (1) Outputs

As stated in “Effectiveness·Impact,” this project has produced the desired outputs.

### (2) Elements of Inputs

Inputs to these projects are as shown in “Project Outline.” During the project, SARS broke out in 2003. The project was held up for three to four months; however, the outputs have been achieved in the end. Also, the terminal evaluation report says that the efficiency of the project is high and that the timing, quantity and quality of the inputs to the project areas are appropriate.

At first, the project aimed at establishing a model in the model areas (Shanxi and Shaanxi) and using the model to improve the EPI services in the non-model areas (Gansu, Qinghai and Ningxia) (project objective). But, it was difficult to create a model since the provinces varied geologically, socially, economically and culturally. After the mid-term evaluation, all of the five provinces were designated equally as the project areas instead of dividing them into model area and non-model area. Although the project areas were expanded, the desired outputs have been produced. That indicates that this is an efficient project.

### (3) Project Cost, Period of Cooperation

Both the scheduled period and the actual period are five years. The project has been carried out as planned (100%). The project cost is 935.702 million yen. The projected cost is unknown.

The inputs are appropriate for producing outputs and achieving the project objective; therefore, efficiency of the project is high.

## 4 Sustainability

(1) Related Policy towards the Project

After the project was finished, EPI related policies have been formulated. The 11th Five-Year plan of health program (2006 to 2010) has strengthening of communicable disease surveillance as a key goal. Various laws and regulations relating to EPI have been established or improved: the Communicable Disease Control Act (revised in 2004), vaccine administration rules (2005), ordinance on vaccine distribution and vaccination control (2005), rules for vaccine storage and cold transport control (2006), nationwide plan to control viral hepatitis type B (2006 to 2010), nationwide action plan to eradicate measles (2006 to 2012), and determination of abnormal reaction to vaccination (2008). In March 2009, the State Council notified the bill on immediate priorities in the medical and health system reform (2009 to 2011). One of the five major goals of the reform is phased promotion of equalization of basic public health services. And, it includes strengthening of EPI. National efforts are being made for medical reforms, expansion of the national vaccination plan and for other related projects. That indicates that the sustainability of policies is very high.

(2) Institutional and Operational Aspects of the Executing Agency

Led by the Ministry of Health, health related authorities of the local governments at all levels (province → city → county → town → village) are systematically controlled. There seems to be no problem in structural aspects. According to the data on health authorities of the five provinces of the project, the number of the health authorities (e.g., hospitals, health institutes and disease prevention and control centers) is decreasing. But the number of health personnel including technical experts has been increasing every year since 2004.

(3) Technical Aspects of the Executing Agency

Regarding the technical levels of the executing agencies, although training is conducted periodically (reply from China CDC), control or technology is not conveyed to the grass roots. Therefore, there is a tendency for those people to not know well about a cold chain or safe injections well (information from the JICA). In the bill on immediate priorities in the medical and health system reform (2009 to 2011) above, training for total 1.37 million people is planned to foster and strengthen rank and file medical personal resources. Technical level is expected to improve in the future.

(4) Financial Aspects of the Executing Agency

Detailed financial data are not available. According to the reply from China CDC, since 2007, the Chinese government has been paying the expenses of vaccines, syringes, and cold chain facilities. Local governments pay the expenses of related projects. About AFP surveillance, provinces pay the expenses of surveillance, measurement and examination of AFP cases, fact-finding study and diagnosis of the cases, and education and training. For example, Shanxi province pays approximately 100,000 yuan a year as expenses of AFP surveillance and measurement. Rural areas are short of money for the services and training and that is affecting implementation of effective EPI services. (Reply from China CDC) It is thought that some regions lack adequate finance. The bill on immediate priorities in the medical and health system reform (2009 to 2011) above calls for the governments at all levels to invest 860 billion yuan (of which 331.8 billion yuan is to borne by the national government) in three years, to achieve the goals of the reform. It is unknown how much of the money is to go to EPI. It is expected that the financial situation will improve with the progress of the reform, which aims at reducing medical disparity.

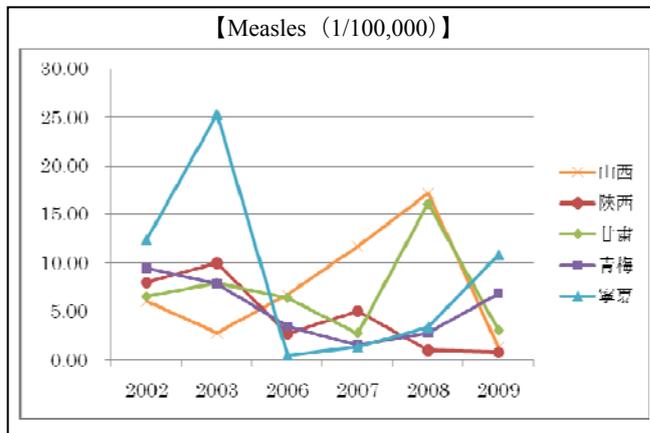
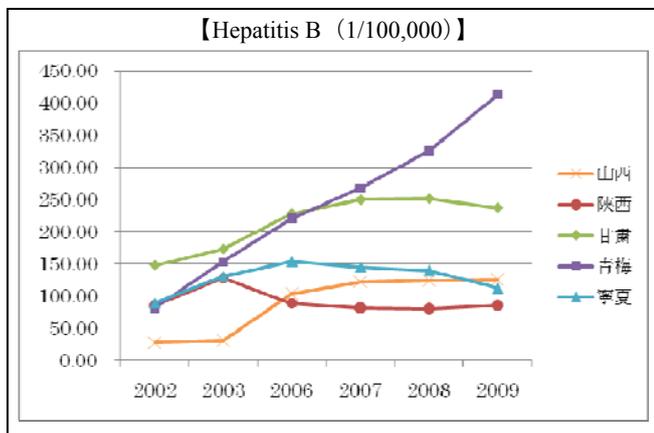
(5) Continuity of Effectiveness and Impact

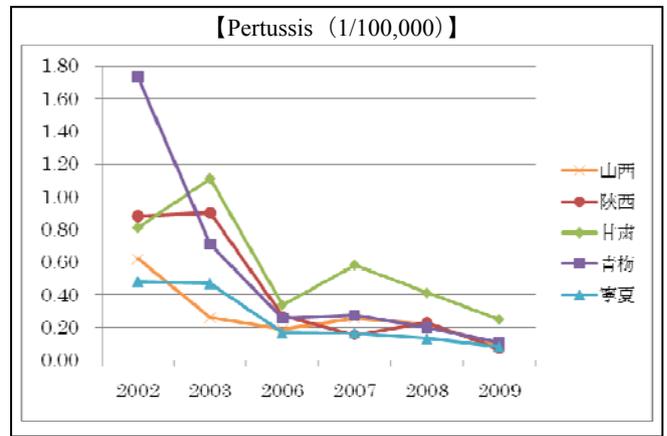
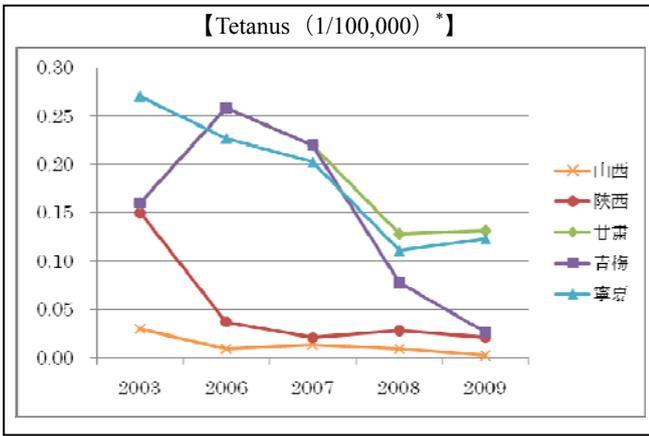
EPI is one of the priority programs of the country. The effect of this project will be sustained budget-wise and policy-wise. Furthermore, this project has been succeeded by a new project\*; the project areas include Gansu and Ningxia. The new project aims at improving quality of surveillance and vaccination services. It is expected that the effects derived from the technical and personal resources of this project will continue and develop with the help of the new project.

\* Project for Surveillance and Control for Vaccine-Preventable Diseases (cooperation period of the project: 2006 to 2011)

Some problems in terms of the technical and financial aspects; therefore, sustainability of this project effects is fair.

Number of the patients of EPI target disease (incidence)





※No report on cases of diphtheria and polio

\* Incidence rate of tetanus in 2002 : Shanxi 3.63, Shanxi 15.98, Gansu 21.42, Qinghai 7.72, Ningxia 18.79

Source: data of 2002 and 2003; "Terminal Evaluation Report"; the other data; "Zhongguo Weisheng Nianjian (2007, 2008, 2009, 2010)"