Internal Ex-Post Evaluation for Grant Aid Project

conducted by Burundi Office: January 2015

Country Name	Project for Improvement of Health Facilities in Bujumbura City
Republic of Burundi	

I. Project Outline

Background	The health sector in the Republic of Burundi (hereinafter referred as Burundi) had problems of shortage of human resources, lack and mismanagement of medicines and medical equipment, and as a result, medical services, especially maternal and child health service, were not provided appropriately. In order to improve the situation, an executive order of free medical services for pregnant women and under age 5 children was issued in 2006. This resulted in that hospitals which provide secondary and tertiary medical services became full of patients. In order to solve the concentration of delivery at the secondary and tertiary hospitals, there was a plan to enable health centers, which are the primary health service institutions to provide service for normal delivery. However, due to the budget shortage, necessary equipment was neither renewed nor supplemented at the health centers.				
Objectives of the Project	To improve maternal and child health service in Bujumbura, the capital, and the neighboring provinces by supplying the medical equipment of obstetrics and neonatal care to hospitals and health centers				
Outputs of the Project	1. Project site: (1) Three public hospitals in Bujumbura (tertiary medical institutes): Hospital Prince Regent Charles (HPRC), Clinique Prince Louis Rwagasore (CPLR) and Hospitalo-Academic Center of Kamenge (CHUK), (2) nine health centers in Bujumbura: the northern area: Kamenge, Ngagara, Buterere I, Mutakura, the central area: Bwiza-Jabe, Buyenzi, the southern area: Musaga, Kanyosha, Ruziba 2. Major Project Component: Fund necessary to procure equipment to the above sites: tocomonitor, ultrasound equipment, child birth instrument kits, infant warmers, oxygen masks, beds, operating tables and other obstetric related equipment and communication equipment: total 43 units) 3. Burundi side : Removal of existing equipment, renovation of the site for setting equipment, Renovation of facilities (electricity and water supply/discharge)				
Ex-Ante Evaluation	2009	E/N Date	20 February, 2009	Completion Date	16 April, 2010
Project Cost	E/N Grant Limit：230 million yen			Actual Grant Amount:158 million yen	
Implementing Agency	Ministry of Public Health and Fight against HIV/AIDS (‘Ministry of Heath’ at the time of the captioned project implementation)				
Contracted Agencies	International Techno Center Co., Ltd., Ogawa Seiki Co., Ltd.				

II. Result of the Evaluation

1 Relevance

This project has been highly relevant with the Burundi’s development policies at both ex-ante and ex-post evaluations. Poverty Reduction Strategy Paper (2006-2010), National Health Development Plan (PNDS, 2006-2010) and PNDS II (2011-2015) prioritize improvement of maternal mortality rate and neonatal mortality rate. The project also has been highly consistent with development needs at the both ex-ante and ex-post evaluation: improvement of maternal health related indicators which are much worse than the neighboring countries and necessity of equipment for maternal and neonatal related care which respond to the issue of continuous high birth rate in Burundi It was also consistent with Japan’s ODA policy (The second policy consultation for economic cooperation held on November 2008) at the time of ex-ante evaluation which prioritized “improvement of basic living environment” as one of the three priority areas and included implementation of health administration and maternal and child health program under the area. Therefore, relevance of this project is high.

2 Effectiveness/Impact

The project has somewhat achieved its objective, “to improve maternal and child health service in Bujumbura, the capital, and the neighboring provinces”. Because of the limited number of medical/health facilities in Burundi, demand for delivery at the target facilities is still high. The number of delivery by caesarean section, which is needed to be operated at the tertiary hospital, has increased at the target hospitals. Equipment procured under the project such as operating ramps, anesthesia apparatuses, aspirators for operation, radio knife, patient monitor (adults and newborns) have contributed to the stable performance of delivery by caesarean section. The number of normal delivery has decreased at two out of the three hospitals, while the number of delivery and prenatal checkup has significantly increased at the health centers compared with the situation before the implementation of the project (refer to figure 1). The checkup kits procured under the project have been utilized for the checkup. According to the General Directorate of Resources maternal and child health service such as delivery and prenatal checkup has been widely utilized at the health centers, and therefore, less pregnant women have directly visited the tertiary hospitals and the concentration of delivery at the hospitals has been solved to some extent. According to General Directorate of Resources, in the areas where the health centers are located, people can receive maternal and child health service nearby without going to hospitals in the center of the capital, and therefore, one half of the pregnant women have taken prenatal checkup, which shows that the service to the people in the surrounding provinces of Bujumbura has expanded. A part of equipment procured under the project has not been fully utilized[1]. For example, as the parts have not been replaced,

[1] There were cases such as (1) after the type of services provided by each health institute have changed, (based on the health regulation in

ultrasound equipment, anesthesia apparatuses and washing machines have not been used. Delivery beds have not been used either since the footrests were broken as the beds did not fit the size of the Burundian women.

As for impacts, the difference of services performed by the health centers and target hospitals has become clear. It was identified by the follow up study (carried out in April, 2014) that the referral system have functioned as pregnant women were referred to hospitals when the abnormal delivery was found. Although the decrease in maternal mortality rate and neonatal mortality rate was expected at the time of ex-ante evaluation, it was difficult to confirm whether this expected impact is achieved, as only the data on the numbers of death of pregnant women and newborn babies at the target hospitals was available. However, causal relationship between these figures and the project is not clear. For reference, in case of entire country, both of under 5 mortality rate and maternal mortality rate have improved. Under 5 mortality rate has decreased from 190/1,000 births (2004) to 104.3/1,000 births (2012), and maternal mortality rate has decreased from 1,000/100,000 births (2000) to 800/100,000 births (2010)[2]. There is no negative impact on environment and no land acquisition and involuntary resettlement occurred.

In light of the above, effectiveness/impact of the project is fair.

Quantitative Effects (1) The number of normal delivery and delivery by caesarian section at the three target hospitals

Indicators	Name of hospitals	(Before the project) Actual	2011 (target year) Target	2011 (target year) Actual	2013 (The latest year before the ex-post evaluation) Actual
The number of normal delivery	HPRC	3,500～4,700	N/A	3,615	3,514
	CPLR	2,900～3,600	N/A	3,907	3,817
	CHUK	2,500～2,800	N/A	3,366	3,452
The number of delivery by caesarian section	HPRC	570～670	N/A	695	N/A
	CPLR	580～640	N/A	811	N/A
	CHUK	800～1,000	N/A	1,134	N/A

(Note) The year of actual value before the project implementation was not mentioned and the target value was not set. The data on delivery by caesarian section is not disclosed at the time of the ex-post evaluation.

Source : Basic Design Study, Interviews with the General Directorate of Resources and the Directorate of Public Health Information National System, JICA internal document

(2) Delivery service at the target health center (Delivery service is provided at 6 centers)

Indicators	Name of health center	(Before the project) Actual	2011 (target year) Target	2011 (target year) Actual	2013 (The latest year before the ex-post evaluation) Actual
The number of delivery	Kamenge	103	Increase	583	663
	Buterere I	50	Increase	381	363
	Ngagara	(no delivery service)[3]	Increase	(Delivery service started in 2013)	2
	Mutakura	(no delivery service)[4]	Increase	(Delivery service started in 2013)	415
	Musaga	54	Increase	168	195
	Kanyosha	(No delivery service) (started in 2008)	Increase	176	477

2013), ventilators procured under the project have not been used at the health centers which do not provide emergent obstetric service, (2) tocomonitors have not been used at the hospitals as the hospitals judge the stress is too heavy to pregnant women because the tocomonitors connect various parts to pregnant women, (3) accessories have problems (at the point of contact) and therefore the equipment items have left unused (probe of ultrasound equipment, rubber seals of washing machines, anesthesia apparatuses, foot rest of delivery beds, sterilizers which cannot be energized, worn radio knives due to overuse and others), (4) use of digital weight scales for the newborn is suspended because they do not function when the buttery is low, (5) even though there is no problem, some items were not used because staff does not know how to use them (dry heat sterilizers and digital weight scales for the newborn). Regarding (1), in accordance with the recommendation made by the follow up study (April 2014), ventilators have been transferred through appropriate procedure to the target hospitals where the ventilators are more frequently used. As to (2), (3), and (5), renewal of equipment, procurement of parts and training will be carried out by May, 2015 under the framework of follow up cooperation.

[2] ODA databook, UNICEF documents

[3] Ngagara health centre did not provide delivery services because there was no space for delivery in 2011, and there is a private hospital by Methodist Church right next to the centre which provided free obstetric service (the scope of free service is not unclear). Ngagara health centre constructed a new building and has provided normal delivery service.

[4] Mutakura health center started its normal delivery service in 2012. Due to security issues, the center had not provided any delivery service before. However, JICA constructed a fence throughout a technical cooperation project, “The Project for Strengthening Capacities of Prince Regent Charles Hospital and Public Health Centers in Bujumbura City for Improvement of Mother and Child Health” which enabled the center to provide the service during day and night.

（Note）For prenatal checkup, refer to figure 1

Source：Basic Design, Interviews with the General Directorate of Resources Reference Information

The number of death of pregnant women and the newborn

		2009	2010	2011	2012	2013
CPLR	The number of death of the newborn	2	10	8	7	19
	The number of death of pregnant women	0	4	7	5	17
HPRC	The number of death of the newborn	68	83	125	65	106
	The number of death of pregnant women	19	4	7	2	2
CHUK	The number of death of the newborn	N/A	0	N/A	18	N/A
	The number of death of pregnant women	N/A	14	10	16	9

Source: Interviews with the Directorate of Public Health Information National System

3 Efficiency

Although the project cost was within the plan (ratio against the plan: 69％), the project period slightly exceeded the plan (ratio against the plan: 115%) because it took time to transport the equipment. Outputs were produced as plan. Therefore, efficiency of the project is fair.

4 Sustainability

The operation and maintenance of the equipment at the target hospitals is conducted by several maintenance staff members who carry out maintenance and inspection, diagnosis for failure and repair. At the health centers operation and maintenance is carried out mainly by the chiefs of the centers. This institutional structure sustains what it was considered desirable at the time of ex-ante evaluation

Technically, the hospitals perform maintenance by themselves as much as possible, and the hospitals and the health centers are able to contact manufactures (agent, technicians) constantly and receive advices on the basic troubles. However, some equipment items cannot be diagnosed with the skills of the technical staff at the hospitals and centers. Manuals are kept especially for the equipment items whose usage is complicating, however, the internal technical transfer has not been made after the technical staff who took part in the training for the equipment usage was relocated. In addition, although the initial training was carried out and manuals were distributed, some equipment items (dry heat sterilizer and digital weight scale for the newborn) are left unused because how to use those items were not instructed.

Financially, subsidies from the Ministry of Public Health and Fight against HIV/AIDS to the target 3 hospitals have increased every year as planned; however, there are some variations depending on the hospitals. No subsidies were provided to the health centers from the Ministry, and the budget was supported by the development partners. Although there are some differences in the amount of budget, most health centers secure necessary budget.

On the current status of operation and maintenance, some equipment items have problems: some have been deteriorated due to frequent use; some have not been functional because voltage is unstable and people do not understand the proper usage. At the target hospitals, maintenance staff carries out checkup every day and keeps record. Based on the request from various departments, maintenance staff carries out minor repairs such as replacement of parts. Local agents[5] of manufacturers set the free one-year guarantee period. After the period, some parts were not supplied as there were no stocks and therefore, parts of some equipment items were not replaced at the time of ex-post evaluation. Generally, local agents sign maintenance agreement with a system to supply spare parts for five years after delivery of materials. However, in the case of this project, the implementing agency and local agents were not aware of the system. The reasons considered for this unawareness are; that although five-year after-sales service was included in a contract between counterpart the Ministry of Public Health and Fight against HIV/AIDS and Japanese procurement agencies, the coverage of the contract was not well understood at a level of hospital and health center; and that after-sales service were supposed to be provided via local agents however; they did not recognize this service well either. Thus, as there are problems in technical and financial aspects as well as the current status of operation and maintenance, sustainability of the project effect is fair.

5 Summary of the Evaluation

The project has somewhat achieved its objective, “to improve maternal and child health service in Bujumbura, the capital, and the neighboring provinces”. The project responds to the demand of high birth rate and concentration of pregnant women to hospitals has been solved to some extent. Convenience has improved as people are able to receive maternal and child health service (delivery and prenatal checkup) at the health centers nearby. As for sustainability, problems are observed in the technical and financial aspects as well as the current status of operation and maintenance. For efficiency, project period slightly exceeded the plan.

In light of the above, although the problems are observed in efficiency and sustainability, as the relevance is high and effectiveness/impact is fair, the project is evaluated to be partially successful.

III. Recommendations & Lessons Learned

Recommendations to implementing agency:

After the ex-post evaluation until 2014, the agents, the Ministry of Public Health and Fight against HIV/AIDS the target hospitals and the target health centers should share the same understanding on after sales service and should use the service effectively. After 2015, they are recommended to consider signing an after-sales service agreement to receive the service. Training and dissemination of manuals are not sufficient and therefore, newly assigned staff needs to take part in training by

[5] One company serves as an agent for all equipment items except one item.

technical experts of manufactures.

Lessons learned for JICA:

1. In this project, equipment items which are essential to achieve the project objective and which are frequently used (delivery beds, radio knives, high-pressure steam sterilizers and other obstetric equipment) were broken, and JICA carried out an follow up study (in April, 2014). On the selection of equipment items at the time of ex-ante evaluation, JICA should scrutinize items whose frequency is high, and pay attention to the specification to incorporate durability and easiness of maintenance

2. A sterilizer supplied to Hospital Prince Regent Charles by a grant aid project in 1993 has been used until now with replacement of parts one time, as maintenance staff at the hospital took part in training in Japan and therefore is able to make failure diagnosis and repair. On the other hand, sterilizers procured under the project were broken soon after the supply. Although efforts for repair were made, they were unsuccessful and the sterilizers were left unused since then. In project planning, equipment should be selected by taking the environment of the equipment (frequency of usage, technical level of staff and others) into consideration. Besides an appropriate training plan (including contents, period and evaluation of the result) for staff in charge of the equipment should be made and surely implemented.

A waiting room for people waiting for prenatal checkup and neonatal checkup (Health Centre Kamenge)

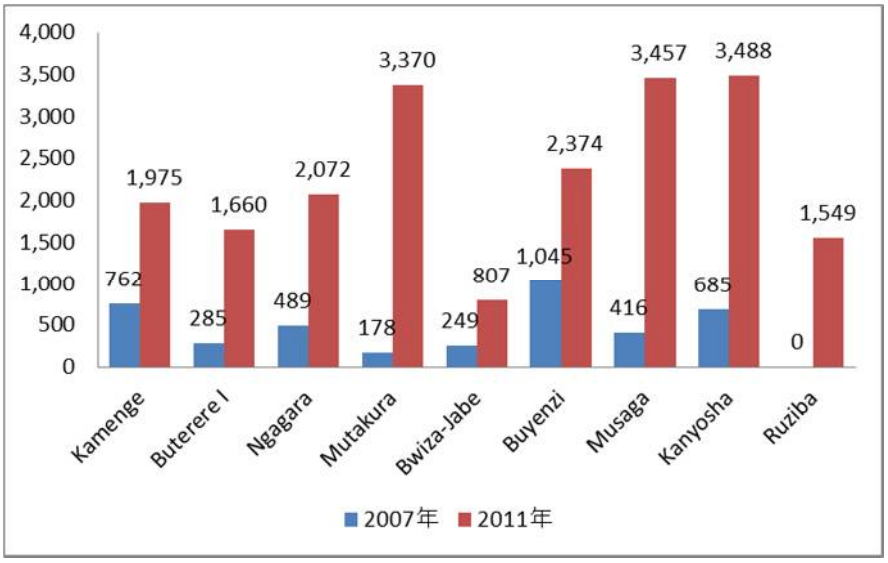

Figure 1: Changes in the numbers of prenatal checkup at the health centers before and after the project implementation

Note: (1) All figures increased from 2007 to 2011. (2) No information on the number of checkup at Ruziba before the project implementation.

Source: Basic Design Study, Interviews with theGeneral Directorate of Resouces