

## Summary of Terminal Evaluation Results

<b>1. Outline of the Project</b>		
<b>Country:</b> The Republic of Burundi		<b>Project title:</b> The Project for Strengthening Capacities of Prince Régent Charles hospital and Public Health Centers in Bujumbura City for Improvement of Mother and Child Health
<b>Issue/Sector:</b> Health		<b>Cooperation scheme :</b> Technical Cooperation Project
<b>Division in charge:</b> JICA Human Development Department		<b>Total cost:</b> 300 million Japanese Yen
<b>Period of Cooperation</b>	Jan. 2009 - Jan. 2012	<b>Counterpart Agencies:</b> Ministry of Public Health and Fight against AIDs
<p><b>Related Cooperation:</b></p> <ul style="list-style-type: none"> <li>• Japanese Grant Aid Assistance “The Project for Improvement of Health Facilities in Bujumbura City”</li> <li>• Former AAKCP Program “The Preparatory Survey for Quality Improvement of health Services by 5S-KAIZEN-TQM”</li> </ul>		
<p><b>1-1. Background of the Project</b></p> <p>Due to the civil war over decade since 1993 in Burundi, medical and health facilities have been deteriorated and hence their quality service has been also a big challenge in the country. Among the several problems in the health sector, the Burundian government prioritizes the reduction of Maternal Mortality Ratio (MMR) and Infant Mortality Rate (IMR) by the year of 2015. With this situation, the Burundian government requested a technical cooperation project for “Strengthening Capacities of Prince Régent Charles Hospital and Public Health Centers in Bujumbura City for Improvement of Mother and Child Health” (hereinafter referred to as ‘the Project’) to the government of Japan. In response to the request, Japan International Cooperation Agency (hereinafter referred to as ‘JICA’) launched the three year project from January 2009 to January 2012 having the Ministry of Public Health and Fight against AIDS (hereinafter referred to as ‘MOPH’) of Burundi as a counterpart organization.</p> <p>This project aims at improving the maternal and neonatal child health care at Obstetrics, Gynaecology and Neonatal departments of Prince Régent Charles Hospital (hereinafter referred to as ‘HPRC’) which is the most utilized among the top referral hospitals, and nine public health centers (hereinafter referred to as ‘HC’) in Bujumbura city by practicing ‘patient-centered care’. This project is primarily working on activities to improve the working environment at the health facility based on the concept of ‘patient-centered care’, which can be practiced with low input and less difficulty. 5S-KAIZEN approach was introduced to achieve the improvement of working environment, which is a base in the health service provision and the said improvement. Firstly, those who are working for health</p>		

service provision could experience the benefit of the improved and efficient working environment through the implementation process of 5S-KAIZEN-TQM<sup>4</sup> activities. This experience is secondly expected to encourage the staff to have a mind-set change to improve their service in charge and maintain more responsibility in their duties.

## **1-2. Project Overview**

This project aims at improving the maternal and neonatal child health care at Obstetrics, Gynaecology and Neonatal departments of Prince Régent Charles Hospital (hereinafter referred to as ‘HPRC’) which is the most utilized among the top referral hospitals, and nine public health centers (hereinafter referred to as ‘HC’) in Bujumbura city by practicing ‘patient-centered care’.

### **(1) Overall Goal**

Quality of services for maternal and neonatal care is improved at the targeted facilities.

### **(2) Project Purpose**

Patient-centered maternal and neonatal care is practiced under improved management at HPRC and targeted health centers.

### **(3) Outputs**

- 1) Leadership of the top and middle class managers is fostered at HPRC and targeted health centers, involving directors of facilities and heads of all departments & units.
- 2) Work environment for maternal & neonatal care is improved through practicing 5S activities under the leadership of directors.
- 3) Preventive maintenance of medical equipment is continuously practiced with full participation of health staff in the targeted facilities.
- 4) Knowledge and skills of nursing staff (including midwives) are upgraded for maternal & neonatal care at the targeted facilities.

### **(4) Inputs**

#### **Japanese side: (Total 300 million Yen)**

<b>Short-term Experts:</b>	A total of 11 persons (63.83 M/M)
<b>Overseas Training:</b>	15 persons
<b>Provision of Equipment:</b>	Equivalent to 5,616 Thousand Yen
<b>Local Operational Expenses:</b>	Equivalent to 26,904 Thousand Yen

#### **Burundian side:**

<b>Counterpart personnel :</b>	31 persons
<b>Local Cost Sharing:</b>	About 1,000 US dollar
<b>Provision of spaces</b>	Project office in MOPH and HPRC

<sup>4</sup> Three-step-approach; “5S- KAIZEN (CQI) -TQM” <5S: Seiri, Seiton, Seiso, Seiketsu and Shitsuke , CQI: continuous quality improvement (An evidence-based participatory problem solving) , TQM: total quality management> to improve hospital management under limited resources.

<b>2. Evaluation Team</b>			
<b>Members of Evaluation Team</b>	Team leader	Ms. Keiko Osaki	Senior Advisor, JICA
	Cooperation Planning	Mr. Yoshimasa Takemura	Deputy Director, Health Division 1, Human Development Department, JICA
	Evaluation Analyst	Ms. Fumiko Iseki	Researcher, Global Link Management
	Interpreter	Ms. Ryoko Kojima	Training Coordinator, Japan International Cooperation Center (JICE)
<b>Period of Evaluation</b>	Sept 17- Oct 7, 2011	<b>Type of Evaluation :</b> Terminal Evaluation	
<b>3. Result of Evaluation</b>			
<b>3-1. Project Performance</b>			
<b>(1) Outputs</b>			
<p>Achievement under Output 1 is moderate. The indicators a), b), c) were achieved, although some challenges remain during the remaining Project period. 5S committees were established at HPRC and BPS (Bureau Provoncial de Sante). WITs (Working Improvement Team) were also established at all targeted health facilities. Vision and Mission are displaced at three targeted departments in HPRC and nine HCs. The majority of CPs, the leaders of targeted facilities had opportunities to participate in training abroad, and Japanese experts assisted in conducting the feedback seminar when they come back from abroad. However, the 5S committee meetings have been held less frequently, and some HCs do not hold WIT meetings regularly due to the reasons such as personnel reshuffling. Although the Project aimed at establishing the system for the information sharing among the HPRC and targeted HCs especially for improving the referral cases, it was not materialized yet.</p>			
<p>Achievement under Output 2 is relatively high. Checklist for environment and sanitation is formulated/implemented, as well as the medical waste box is introduced. Although the storing rules for articles have not been written down yet, the rules are formulated and implemented. New benches for outpatients are located in proper places. Initially, the Project faced with the resistance of health staff in introducing the principle of 5S, especially because the doctor and nurses do not consider the cleaning as their roles in Burundian culture. By now, health staff has noticed the advantages of conducting 5S activities for their own sake, and their sense of responsibility to provide better health care service is observed.</p>			
<p>Achievement under Output 3 is relatively high. “How to use tag” is attached to the most equipment at the targeted health facilities. Preventive maintenance sheets are displayed at four departments of HPRC and nine HCs. “How to use tag” is reported to be useful when the new staff is assigned. The check sheet was prepared as a tool to make health staff accustomed to the preventive maintenance by filling/checking the form weekly. By now, staff, especially the chiefs of departments and WIT members, have developed their awareness that periodical maintenance could prolong the lifetime of equipment. On the other hand, the Project had to overcome handling the different capacity of maintenance in HPRC and HCs.</p>			

According to the indicators, Output 4 is mostly achieved. However, some activities were only conducted at HPRC, not at HCs. Three out of four training post-tests, all trainees scored more than 50 out of 100 points. The accumulative number of participants at eight obstetric trainings reached to 238. After coming back from the study tour in Madagascar, the participants played the major role in developing the Normal Delivery Care Checklist by incorporating the concept of Patient-centered care, at the same time by applying the principle of 5S, the visualization and the standardization of the procedure. Even at the HCs where delivery has not started yet, it is reported that the Checklist is helpful for the health staff to understand the patient-centered care, improving their attitude towards the patients. The result of the endline survey confirmed that the mindset and the attitude of health personnel have been improved. However, the Project confronted with the difficulty in handling the different capacity between HPRC and HCs. Moreover, the Project had to focus on the capacity development at HPRC and was not able to involve HCs sufficiently, since the input of experts (duration of stay in Burundi) was limited.

## **(2)Project Purpose**

The Project Purpose is expected to mostly meet the target by the end of the Project. The working environment at the targeted facilities has improved almost to the expected level<sup>5</sup>. The number of mothers who gave positive answers of being fully attended by health personnel and family all through their delivery process increased, according to the survey conducted in two months after the introduction of the Normal Delivery Care Checklist. Furthermore, the PBF (Performance Based Finance) scores on maternity/obstetric services at HPRC improved from 84.2% to 94.7% during the one year since the introduction of PBF. Although not specific to maternity/obstetric, the scores of quality at HCs in general have improved in all targeted HCs except two. It is deduced that 5S activities have been contributing to gain PBF points because more than 30% of indicators relate to 5S activities. Overall, 5S activities and the normal delivery care checklist played the major roles in changing the mind-set of health staff and in introducing the concept of “Patient-centered care,” leading to the behavioural change.

## **3-2. Summary of Evaluation Results**

### **(1) Relevance**

Relevance of the Project is high in terms of the policies and the needs of the governments of Burundi (GoB) and Japan (GoJ), but the Project design had some constraints.

- The Project is coherent with the policy priorities of GoB as expressed in Poverty Reduction Strategy Paper (PRSP), National Health Development Plan (PNDS), as well as National Program for Reproductive Health (PNSR), which target to reduce the under-five mortality rate and maternal mortality ratio. The project is also relevant to the JICA’s priority areas of development assistance for Burundi (i.e., health).
- Initially the Project was formulated, centering on 5S activities, thus the input of maternal and neonatal care was less. It is deduced that this was one of the factors which led the Project focus their activities on 5S, as the relation between 5S and the maternal/neonatal care was not clear until the Mid-term Review.

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<sup>5</sup> Indicator a) “Working environment at the targeted facilities is improved” is considered to be at the level of Output 2. However, the Terminal Evaluation Team did not made any adjustment in order not to cause the confusion among CPs.

• The definitions of “Patient-centered care” in the Project Purpose, as well as Output 4 “skills for maternal and neonatal care” were not set clearly. As a result, the common understanding of Project Purpose was not formulated until Mid-Term Review, which also affected to set the focused direction of the activities under Output 4.

## **(2) Effectiveness**

The effectiveness of the Project found relatively high. Most outputs produced the expected effect, and the achievement of Project purpose is most likely to meet to the expected level by the end of the Project. Although the more efforts and time were spent on 5S activities and the progress of activities related to the maternal and child care was delayed until the Mid-term review, this ended up producing a good result when introducing the concept of patient-centered care. In brief, fostering leadership by output 1 and 5S activities by output 2 facilitated the change of CPs mentality. It is deduced that CPs were ready to conduct the maintenance of equipment of output 3 and accept the new notion of Patient-centered care for output 4, leading to the behavioural change. Furthermore, the normal delivery checklist was formulated based on the principle of 5S, the visualization and the standardization of the procedure. The concept of patient-centered care was also well integrated in the checklist.

## **(3) Efficiency**

The efficiency of the Project found moderate. The Project was coordinated well with the implementation of AAKCP program, other JICA-funded trainings in Japan and Japanese Grant Aid Assistance in a timely manner. Furthermore, the study tours in Madagascar were conducted in a timely and effective manner. On the other hand, the most activities were suspended for five months, since Japanese experts had to evacuate due to the election in 2010. This also delayed the conduct of Mid-term Review, affected on the timely adjustment of the direction of the Project. Furthermore, not only the Project had less input and activities related to maternal and neonatal care, but also the Project was not able to dispatch flexibly the expert who was in charge of these activities, based on the progress of the Project implementation. The latter two factors lowered the efficiency.

## **(4) Impact**

If Burundian side maintains the effects of the Project and continues the initiatives started by the Project, Overall Goal is more likely to be achieved in three years after the termination of the Project, especially the increase in no. of deliveries and in no. of beneficiaries of anti-natal care. However, the impact of the Project on the increase in the number of referral was limited, compared to the one of PBF. Regarding the indicator d) “100% of normal deliveries are practiced based on the Normal Delivery Care Checklist,” the Terminal Evaluation team found that targeting 100% is not feasible when considering the situation on the ground. The reasons of its low utilization rate need to be further analyzed, the checklist/sheet to be amended if necessary, and this indicator to be revised.

Concerning other positive effects, the Project cultivated the interest in 5S activities among the health staff as follows:

- 1) At HPRC, the no. of WIT has increased from three to 18 departments.
- 2) Three hospitals in Bujumbura, the heads of BPS as well as the directors of hospitals from four regions have developed their interest in introducing 5S activities through participating in the 5S dynamic competition.

3) With the leadership of the CP members, the National 5S Committee was established in June 2011 to disseminate the Project activities nationwide, centering on 5S.

#### **(5) Sustainability**

The political sustainability is relatively high, but the sustainability in other aspects relatively low.

1) Political sustainability is relatively high.

The introduction of PBF in 2010 has enhanced the commitment of health staff on implementing 5S activities. Moreover, in June 2011, MOPH has established the National 5S Committee to disseminate these activities nationwide.

2) The technical level of health staff at the targeted health facilities has reached to the certain degree, but needs to be further strengthened.

The staff has developed the commitment to continue 5S activities, but the meetings by 5S committees and WITs have not been regularly held. The National 5S Committee has been also established, however, it has not started functioning yet. Therefore, it is deduced that the Project has reached to S4 and S5<sup>6</sup> to some extent, but not fully achieved yet. Moreover, the concern remains on the low utilization rate of the Normal Delivery Care Checklist/sheet. Thus, the reason for its low utilization needs to be analyzed and the adjustment to accommodate the condition on the ground may be required.

3) The organizational sustainability needs to be further strengthened.

Even though BPS is making efforts to establish the monitoring system of the Project activities implemented at HC level, it is still at the early stage. To establish a firm monitoring system in line of MOPH-BPS-BDS (Bureau de District Sanitaire)-HC, its action plan needs to be formulated.

4) Financial sustainability also needs to be strengthened.

In light of disseminating the Project activities centering on 5S nationwide, the financial sustainability is a challenge. MOPH and HPRC are making efforts to include the budget of 5S activities in line of “quality of service,” which is expected to be materialized and to be secured annually for the future.

### **3-3. Factors promoting the realization of effects**

#### **(1) Factors concerning to the Planning**

- The coordination with Japanese Grant Aid and the Preparatory Survey (AAKCP Program)

Procurement of medical equipment to the target facilities made by grant aid project and training on 5S activities conducted by AAKCP program supplemented the Project activity and resulted in synergetic effect to the Project.

#### **(2) Factors concerning to the Implementation Process**

- The introduction of PBF in 2010

PBF accelerated the promotion of 5S activities, because it contains the similar values of 5S activities.

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<sup>6</sup> The Project defines S4 as to maintain 3S activities by holding monthly WIT meeting, and S5 as for the leaders motivating the staff to continue and upgrading the activities.

- The cultivation of ownership of the Project by the Burundian side

Japanese experts made sufficient efforts to involve the Burundian side, and there are some Burundian members who are committed to the Project activities.

- Trainings abroad and the regularization of feedback seminar

Overseas training sensitized CPs and provided the goal which Burundian could also aim at. In addition, the regularization of feedback seminar by the training participants was an effective way to share the findings of the participants with other members, as well as to enhance the sense of leadership who participated in the training abroad.

- The implementation of Mid-Term Review

The recommendations and revision of PDM made at Mid-term Review made it smooth to implement the Project activities and helped the Project to make up for the delay.

- The Peer Review (evaluation by other department) at HPRC

HPRC has introduced the peer review system, an evaluation system by the other department. This found to be an effective way to accelerate the sense of ownership.

### **3-4. Factors inhibiting the realization of effects**

#### **(1) Factors concerning to the Planning**

- Different needs of HPRC and HCs

Due to the difference in technical level and services provided by HPRC and HCs, the Project needed to consider the respective needs of HPRC and HCs.

- The less input in the maternal and neonatal activities

The Project was not able to dispatch the expert of maternal and child health care flexibly based on the progress of the Project implementation. With this limitation, activities on maternal and child health care were focused on HPRC.

- The unclear definitions of “Patient-centered care” in Project Purpose and of Output 4 “skills for maternal and neonatal care”

The lack of common understanding on the “Patient-centered care” and “skills for maternal and neonatal care” among the staff concerned resulted in the delay of the Project activities, especially that of output 4. These definitions were shared at the Mid-term Review and well disseminated among the CPs afterward.

- 5S activities as a method to achieve a project purpose

At the initial stage, logical framework on how 5S method contributes to achieve the Project purpose was not well assessed and 5S itself was understood as an end of activities.

#### **(2) Factors concerning to the Implementation Process**

- Changes in the surrounding environment

- a) The evacuation of Japanese experts due to the election in 2010 (the pre-condition)
- b) The transfer of nearly half of counterparts (the important assumption)
- c) The reduction of health staff at targeted HCs as a result of the redistribution of staff (the important assumption)

- Less attention on exit strategy

Even though the Japanese experts involved the Burundian CPs, core management aspects were led by Japanese side (i.e. planning, organizing workshops/training, monitoring).

- Communication among Japanese experts

Meeting among the Japanese experts were not held regularly and sharing information on the progress of each expert activity was not enough. With the recommendation made at the Mid-term review, the collaboration within the experts was improved.

- Not well utilization of PDM as a management and monitoring tool

Before the Mid-term Reviews, the Project did not utilize PDM as a management and monitoring tool appropriately. This could be stemmed from the not-well understanding on the role of PDM, as well as from the unclear indicators set in the initial PDM. Thus, the revision of PDM was delayed although it was desired at an earlier stage.

### **3-5. Conclusion**

Regarding the relevance, the needs and the policies of GoB and GoJ were met, while the design of the Project had some constraints. Despite the changes in surrounding environment, the Project maintains its effectiveness. The overall efficiency was moderate. The evacuation of the Japanese experts during the election period, which lowered the efficiency, was beyond the control of the Project. If Burundian side maintains the effects of the Project and continues the initiatives started by the Project, Overall Goal is more likely to be achieved. Concerning the other positive impacts, the Project cultivated the interest in 5S activities at the level of HPRC, Bujumbura city and regional hospitals; in addition, the National 5S Committee was established. In terms of sustainability, now GoB is expected to make further efforts to secure the sustainability of the initiatives of the Project, especially in establishing the monitoring system, the firm mechanism to reduce the effect of frequent staff transfer in continuing activities and to secure the annual budget.

As a conclusion, although the management and monitoring system to sustain the Project activities need to be further strengthened, it is reasonable to terminate the Project considering that the Project has produced a certain level of achievement.

## **4. Recommendations and Lessons learned**

### **4-1. Recommendations**

1. To 5S committees at BPS and HPRC
  - (1) Existing 5S committees at HPRC and BPS can be Steering Committees as managerial and coordination bodies of WIT as well as the Project activities which focus on the progress of activities and have the responsibility for follow up. The members of 5S committee at HPRC should include a staff from the Maintenance Dept.



(2) Each 5S committee at BPS and HPRC is recommended to be held every three months and submit the monitoring report to the National 5S Committee.

(3) WIT meetings shall be hold periodically so that the function of WIT is consolidated in the 5S activity framework and WIT members can lead and encourage other staff with strong leadership.

2. To BPS and MOPH

It is recommended that the 5S monitoring at Health Centers be integrated into the existing supervision system conducted by BDS. Its monitoring and reporting format needs to be developed by the end of October, 2011.

3. To BPS and BDS

The number of the Normal Delivery Care Check Sheet filled in needs to be monitored by BDS and reported to the 5S committee at BPS.

4. To HPRC

The number of the Normal Delivery Care Check Sheet filled in needs to be monitored by the members of MCH committee at HPRC and reported to the 5S committee at HPRC.

5. To National 5S Committee

The National 5S Committee shall share the monitoring result submitted by the 5S committees at BPS and HPRC with the relevant departments of MOPH for technical supervision.

6. To the Project and MOPH

(1) It is suggested to the Project to analyze the result of the patient satisfaction survey conducted in September 2011, as a part of end-line surveys, to provide the health staff with the feedback in order to improve normal delivery care and to make necessary adjustments of the Normal Delivery Care Check Sheet in the remaining Project period.

(2) MOPH is suggested to carry out the same survey to be included in the planned ex-post evaluation after a year of the Project termination by the National 5S Committee with the support of MOPH (i.e., EPISTAT and/or INSP).

(3) The indicator *d*) of the Overall Goal ‘100 % of normal deliveries are practiced based on ‘Normal Delivery Care Checklist’ is suggested to be modified, since those who get accustomed to the delivery procedures are not necessarily required to fill in the Checksheet. Furthermore, it is recommended to add another indicator of the Overall Goal “The rate of positive answer to each question from the mothers in the patient satisfaction survey will reach to XX%” so that the standardization of the Normal Delivery Care List can be measured. Once these indicators are decided, the revision of PDM needs to be officially authorized by the JCC in the remaining Project period.

(4) Some other descriptions in the PDM 2.0 also need to be amended as per the PDM version 3.0<sup>7</sup>.

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<sup>7</sup> Following points in PDM were amended: (1) the time limit for achieving the Overall Goal (two years after the project →three years), (2) the lowering levels of important assumptions (the ones necessary to achieve Super Goal and Overall Goal →at the level of the ones for Overall Goal and Project Purpose), (3) the means of verification for indicator a) of Project Purpose (Direct observation at delivery rooms→ Records of “Monitoring and Evaluation on the Progress of 5S Activity.”

7. To MOPH

- (1) The management of the most activities has been led by the Japanese side. In order to sustain these activities, the Burundian side is required to strengthen its capacity and the ownership for the management of the activities during the remaining Project period.
- (2) The Project activities centering on 5S shall be taken into the operational plan starting from 2012 of the National Health Development Plan 2011-2015 as a tool to improve the quality of health care.

8. To the Directorate General of Public Health

The utilization status of the Normal Delivery Care Check List needs to be added into the supervision items.

9. To the Directorate General of Resources

- (1) In order to maintain equipment at the health centers, MOPH is suggested to assign staff to take charge of the maintenance at the BPS level.
- (2) Necessary budget shall be allocated annually to implement the National 5S Committee's Action Plan.
- (3) Disposal of medical equipment as well as medical waste treatment has been a serious challenge when promoting the 5S activities. MOPH is required to deal with the issue in consultation with the relevant ministries.

10. To the National 5S Committee

Before disseminating the Project activities centering on 5S nationwide, following points should be considered;

- (1) Monitoring system of the Project activities shall be formulated.
- (2) An Action Plan of the Committee shall be formulated by the end of October, 2011.

**4-2. Lessons Learned**

1. It is effective to consider the following points in order to formulate a functional project utilizing the 5S activities;
  - (1) To understand that the 5S activities themselves are not an end to pursuit but a method to achieve a project purpose.
  - (2) To examine logic on how the 5S activities contribute to a project purpose.
2. To facilitate common understanding of the project purpose, as well as to manage the project properly, it is essential for the project to utilize PDM and PO as a monitoring and management tool.
3. When a new concept is to be introduced, it is effective to conduct a study tour in a country where the concept is materialized, especially in a country which has a similar socio-economic background.
4. For an effective technical transfer and capacity development, especially in the initial phase, collaborative works by Japanese experts and counterparts' participation in all processes such as

planning, implementation and review are inevitable. From a certain point of the process, in order to enhance the sustainability, it is essential to have an exit strategy to gradually hand over the responsibility of project management and monitoring from Japanese experts to counterparts.