

## Internal Ex-Post Evaluation for Grant Aid Project

conducted by Guatemala Office: October 2011

Country	The Project for the Improvement of Major National Hospitals in Metropolitan Area
Guatemala	

### I. Project Outline

Project Cost	E/N Grant Limit: 899 million yen	Contract Amount: 890 million yen
E/N Date	August, 2006	
Completion Date	March, 2008	
Implementing Agency	Ministry of Public Health and Social Assistance (MoPHSA)	
Related Studies	Basic Design Study: December, 2005 - July, 2006	
Contracted Agencies	Consultant(s)	System Science Consultants
	Contractor(s)	Hazama Corporation
	Supplier(s)	Itochu Corporation
Related Projects (if any)	Other donors' cooperations: EU, CIDA, IADB, UNFPA, The Damien Fountain	
Background	In Guatemala, Infant Mortality Rate (IMR) and Maternal Mortality Rate (MMR) among population in poverty is high. After Peace Agreement, heavy migration from rural area to urban area is considerable (Population in Metropolitan area: 1.8 million in 1994, 2.5 million in 2002). Consequently, the situation of health service provision in Metropolitan area has been deteriorated. The Anti-tuberculosis Sanatorium San Vicente (specialized in anti-infectious disease including tuberculosis), Hospital General San Juan de Dios and Hospital Roosevelt (General Hospitals with specialty in Maternal and Child Health (MCH)) have been tackling the above-mentioned issues through referral system of health facilities, but they are not adequately prepared / equipped.	
Project Objectives	<b>Outcome</b> To provide the quality medical services in MCH and Infectious Diseases to Metropolitan area by improvement of buildings / facilities and procurement of medical equipment to the Anti-tuberculosis Sanatorium San Vicente , Hospital General San Juan de Dios, and Hospital Roosevelt	
	<b>Outputs</b> <b>Japanese Side</b> <ul style="list-style-type: none"> <li>- Reconstruction of Outpatient consultation ward, Laboratory, Isolation ward, and other incidental facilities.</li> <li>- Procurement of medical equipment related to anti-tuberculosis, pediatrics, obstetrics and gynecology.</li> </ul> <b>Guatemalan Side</b> <ul style="list-style-type: none"> <li>- Procurement of the necessary equipment (furniture, etc.) after the removal of the old one.</li> </ul>	

### II. Result of the Evaluation

Summary of the Evaluation
<p>The 3 hospitals (Anti-tuberculosis Sanatorium San Vicente, Hospital General San Juan de Dios, Hospital Roosevelt) were not adequately prepared / equipped in order to tackle the deteriorated situation of health service provision in Metropolitan area at the time of ex-ante evaluation (2006).</p> <p>This Project has achieved its objectives of providing the quality medical services in MCH and Infectious Diseases to Metropolitan area by improvement of buildings/facilities and procurement medical equipment to the Anti-Tuberculosis Sanatorium San Vicente, Hospital General San Juan De Dios and Hospital Roosevelt with specialty in MCH, due to the fact that the target indicators have been exceeded by the actual value (e.g. number of inpatients in isolation ward (Anti-tuberculosis Sanatorium San Vicente): 36 beds/day in 2005, 148beds/day in 2008, 254beds/day in 2010). As for sustainability, some problems have been observed in terms of technical, financial, current status of operation and maintenance aspects due to the recent trends of equipment maintenance (bid as a big package), high cost of imported spare parts, etc. For relevance, the project has been highly relevant with Guatemalan development policy, development needs as well as Japan's ODA policy at the time of both ex-ante and ex-post evaluation. For efficiency, project period slightly exceeded the plan. In the light of above, this project is evaluated to be satisfactory.</p>

### 1 Relevance

This project has been highly relevant with the Guatemalan development plan (the government policy “Hope Plan”, Goal of Millennium and National Health Plan of 2008-2012, and Health Policy), development needs of low health indices and deteriorated situation of health service provision in Metropolitan area, as well as Japan’s ODA policy at the time of both ex-ante and ex-post evaluation. Therefore, its relevance is high.

### 2 Efficiency

Project cost was within the plan (99%). However, project period was slightly longer than planned (108% against plan). Therefore, efficiency of the project is fair.

### 3 Effectiveness/Impact

This project has largely achieved its objectives of providing the quality medical services in MCH and Infectious Diseases to Metropolitan area by improvement of buildings / facilities and procurement of medical equipment to the Anti-tuberculosis Sanatorium San Vicente (specialized in anti-infectious disease including tuberculosis) , Hospital General San Juan de Dios and Hospital Roosevelt (General Hospitals with specialty in MCH). The number of outpatients and inpatients in isolation ward (Anti-tuberculosis Sanatorium San Vicente), and waiting days after reservation for consultation/treatment (Hospital Roosevelt) expected were achieved at both target year and the time of ex-post evaluation due to improvement of efficiency of medical services. In particular, San Vicente Hospital explained that the rapid increase in outpatients at the Anti-tuberculosis Sanatorium and inpatients in the isolation ward is due to the role of the hospital now being considered as a referral hospital of respiratory diseases, and the increasing demand for specialized care of respiratory diseases. Also the survival rate of premature baby (Hospital Roosevelt, Hospital General San Juan de Dios) expected was increased at both target year and the time of ex-post evaluation. Moreover, based on the questionnaire to the hospitals and interview to the personnel in each hospital (director, administrative staffs, nurses, personnel in charge of the satisfaction office and some patients),it was found that Quality of Life (QOL) during consultation / treatment at Anti-tuberculosis Sanatorium San Vicente has been improved through better attention to patients, effectively conditioned rooms, etc., and that the hospitals have started functioning as education hospitals thanks to the facility development by this project. Also, based on the statistical data from the targeted three hospitals, the expected better hospital environment to prevent infection cases to staff and in hospitals at Anti-tuberculosis Sanatorium San Vicente, as well as the expected more treatment opportunities for serious patients in perinatal period, are deemed to be appearing.



Procured equipment at Hospital San Vicente

As for environmental issues, efforts in wastewater treatment including liquid waste from laboratories have been made by the assisted hospitals although planned environmental actions have not been completed perfectly yet (e.g., the sewage treatment plant of the Hospital San Juan de Dios not in full operation; some old pumps at the Hospital Roosevelt). And no immediate negative impacts on natural environments have been reported.

Therefore, effectiveness/impact of this project is high.

#### Quantitative Effects

Indicator(unit)	Baseline value (year 2005)	Target value (year 2008)	Actual value (year 2008)	Actual value (2010)
Number of outpatients (Anti-tuberculosis Sanatorium San Vicente)	12,000 (48/day)	12,750 (51/day)	14,003 (56/day)	25,000 (100/day)
Number of inpatients in isolation ward (Anti-tuberculosis Sanatorium San Vicente)	36 beds/day	42 beds/day	148 beds/day	254 beds/day
Mortality rate of serious patients of ICU disease (Anti-tuberculosis Sanatorium San Vicente)	15%	12%	6.9%	13.%
Number of exams conducted in the constructed laboratory (Anti-tuberculosis Sanatorium San Vicente)	N/A	N/A	58,092	61,250 (Year 2010) 44,200 (Year 2011)
Number of waiting days after reservation for consultation/treatment (Hospital Roosevelt)	10-14 days	7 day	14	7
Survival rate of premature baby (Hospital Roosevelt) (Hospital General San Juan de Dios)	N.A.	Increase	Increased	Increased

(Source: Result of Interview and questionnaire to the Hospitals )

#### 4 Sustainability

The responsibilities for operation and maintenance (O&M) of medical equipment are given to 3 hospitals. Although no problem was found in the structure of the three hospitals except no inventory and a systematic plan, there are some problems in the technical aspect due to no allocation of specialized staffs in maintenance at the 2 hospitals (Hospital Roosevelt, San Vicente). Also, MoPHSA and the hospitals have some problems in the financial aspect due to the considerably high prices to import the spare parts. Currently, MoPHSA and the hospitals are handling this financial issue by giving priorities for equipment maintenance. In the aspect of operation and maintenance status, while most of the procured equipment is still in operation, the O&M agencies have some problems of unavailability of some spare parts due to the absence of a branch/representative of the company that deals the procured equipment in Guatemala, besides minor problems in the sewage treatment of Roosevelt and San Juan de Dios Hospitals as mentioned above. Therefore, sustainability of the project is fair.



Full utilization of equipment at Hospital Roosevelt

### III. Recommendations & Lessons Learned

Recommendations for Implementing agency:

- It is necessary to carry out actions for the sewage treatment for the Roosevelt and San Juan de Dios Hospitals,.
- It is necessary to guarantee the continuous sufficient budget allocation for the maintenance of equipment.
- It is necessary to have an inventory and a systematic plan of maintenance of hospital equipment.
- It is desirable to start negotiations on the extension and/or remodeling of the hospital buildings towards the more convenient environment for the patients.

Lessons learned for JICA:

- It is important to monitor and to record the operation result of the equipment utilization to clearly see the effectiveness of the procured equipment.