Simplified Ex-Post Evaluation for Grant Aid Project

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Project Name	The Project for Improvement of Medical Equipment of Da Nang Hospital in the Socialist Republic of Viet Nam	January 2010 – December 2010

I Project Outline

Country Name	The Socialist Republic of Viet Nam	
Project Period	January 2005-December 2005	
Executing Agency	Da Nang Hospital	
Project Cost	Grant Limit: 326 million yen	Actual Grant Amount: 324 million yen
Main Contractors	Sojitz Corporation	
Main Consultants	Fujita Planning Co. Ltd. / Medical Engineering & Planning Co. Ltd.	
Basic Design	July 2004	
Related Projects (if any)	JICA, "The Project for Improvement of Medical Service in Central Region" (2005-2010) (Technical Cooperation Project)	
Project Background	Based on the analysis in "Health Care and Protection Strategy for the Period of 2001 to 2010" and "the Master Plan for the Development of the Hospital Network in Viet Nam until 2050 and 2010," the central region of the country is deemed to require additional investment to strengthen existing medical centers and core medical facilities. Specifically, Da Nang Hospital serves as one of the most important referral hospitals in the region. However, holdings of both equipment and supplies in the hospital have greatly deteriorated over the years, preventing supply of the desired level of medical services. Therefore, the government of Viet Nam urgently requested Japan to provide necessary equipment to improve medical services both in terms of quality and quantity.	
Project Objective	To refurbish the medical equipment and supplies of Da Nang Hospital, in order to improve the quality of medical services in the central region of Viet Nam.	
Output[s] (Japanese Side)	1. Imaging Diagnosis: X-ray Fluoroscopic Machine, X-ray General Machine, X-ray Mobile Machine,Ultrasound A , Ultrasound, Color Doppler 2. Operation: Anesthesia Machine with Ventilator, Operation Table. Electro Surgical Unit, Operation Lamp, Patient Monitor B, Electro Suction Pump, Surgical Instrument Set, Syringe Pump, Steam Sterilizer B 3. ICU: Patient monitor A, Ventilator, Electro Suction Pump, Electrocardiograph, Syringe Pump 4. Emergency: Defibrillator, Operation Lump, Patient Monitor A Ventilator, Electrocardiograph, Electro Suction Pump 5. OB/GY Examination: Fetal Actocardiograph, Ultrasound B 6. Pediatric (ICU + Pathological neonate): Patient monitor, Ventilator, Electrocardiograph, Electro Suction Pump, Syringe Pump, Infant Incubator, Phototherapy Unit, Bilirubin, Analyzer 7. Examination (Endoscopic Diagnosis, Cardiovascular, Hematology, Microbiology) : Gastrointestinal Fiberscope, Broncho Fiberscope, Colono Fiberscope, ERCP Endoscopy, Stress Test System, Microscope, Steam Sterilizer, Vertical type 8. Blood Bank: Refrigerator 9. Sterilization: Steam Sterilizer A, Instrument Washing Machine	

II Result of the Evaluation

Summary of the evaluation

From data and information compiled according to five criteria, we note that on the whole, the project is highly evaluated. Regarding its efficiency, it was carried out within the scope of the plan. In particular, regarding the effectiveness, according to the indicators determined at the time of project planning, the actual numbers surpass the target numbers and they remain on an upward trend. The continuation of its effectiveness in quantitative terms is most likely the result of Da Nang Hospital's proactive policy for streamlining its system of medical service by providing capabilities such as shown in the constant increase of the size of the medical staff. And it can be said that the project is an exemplary case in that it could contribute in terms of further enhancement of medical services and human resources of the executing agency. While we note that there is a high degree of usage of equipment provided by the project, there is some concern regarding the purchase of spare parts and renewal of certain items of equipment. As has been indicated by Da Nang Hospital, given the increasing demand for medical services in Da Nang city, usage of equipment may have exceeded proper levels. However, it is deemed that this problem mainly arises from the drastic population increase including influx in Da Nang city which is undergoing socio-economic change, promoted by the rapid economic growth in Viet Nam.

In light of the above, this project is evaluated to be highly satisfactory.

<Recommendations>

As a recommendation to the executing agency, as shown by the numbers for the quantitative indicators, it is inevitable that Da Nang Hospital continues to face ever- increasing medical services demand from many patients in the region. To do so, based on accurate demand projections for medical services, it requires strategic investment in human resource management, in order to maintain

the proper number of skilled technical staff members for fully utilizing the medical equipment provided by the project. Also, to support realization of such a future investment plan, it is important to take measures for securing a stable revenue source from the earnings structure.

<Constraints of this evaluation study>

Detailed information about financial status item by item was not obtained. It was difficult to carry out in-depth analysis on financial issues regarding sustainability. Further, as noted above regarding the relationship between medical service demand at Da Nang Hospital and population increase in the city, it was difficult to obtain quantitative data which clearly show the contribution of the project in terms of the number of patients and utilization rate of equipment for diagnosis.

1 Relevance

(1) Relevance with the Development Plan of Viet Nam

Throughout the time of project planning to the ex-post evaluation, as addressed in a series of policy documents, “Socio-Economic Development Strategy for 2001~2010”, “Health Care and Protection Strategy for the period of 2001 to 2010 years” and “the Master Plan for the Development of the Hospital Network in Viet Nam until 2005 and 2010”, Viet Nam has been trying to provide high-quality medical services by making additional investment in existing core medical institutions. This project has been consistent with priority programs.

(2) Relevance with the Development Needs of Viet Nam

Potential beneficiaries of Da Nang Hospital can be reasonably taken to be its entire population. At the time of project planning, the city had a population of over 700,000 (720,000 in 2002) but this increased to 900,000 in 2009. At the time of the ex-post evaluation the city had the highest rate of population increase in the entire central region. In 2014 the population is projected to reach one million. Therefore when those children to be born in the future are included in considerations, it is clear that the number of beneficiaries and their needs continue to be high. In addition to this, the hospital serves the central plateau region, where many residents are in poverty, so this project can also be said to have the vital mission of contributing to the supply of medical and health care services to the poor.

When the project was planned the hospital had 730 beds and at the time of the ex-post evaluation there were 1,100. We are told that the number of patients at the hospital daily exceeds 1,500, indicating that demand for the services of the hospital continue to be at a high level. Also, the relationship between this project and the improvement of medical care services at the hospital is recognized and it is reported that the target group and target scope are generally appropriate.

(3) Relevance with Japan’s ODA Policy

At the time the project was planned, the assistance program Japan had for Viet Nam (released in 2004) gave as one of three priority areas the improvement of people’s lives and various social services. Within the priority, one of target sectors mentioned was healthcare and medical services, so the project conforms to ODA policy.

This project has been highly relevant with Vietnam’s development plan, development needs, as well as Japan’s ODA policy, therefore its relevance is high.

2 Efficiency

(1) Project Outputs

As output from the Japanese side, the plan was essentially accomplished, although with minor modifications such as alteration of the location of some pieces of equipment accompanied with the completion of the new emergency ward, outpatient and examination wing on December 26, 2004.

(2) Project Period (Project Inputs)

The plan period of the project was from January 2005 (E/N) to December of the same year, or 12 months, and the project was accomplished as planned (100%).

(3) Project Cost (Project Inputs)

The funding for the project was 326 million yen and actual cost was 324 million yen, so the accomplishment was within planned budget (99%).

Both project period and project cost were mostly as planned, therefore efficiency of the project is high.

3 Effectiveness / Impact

(1) Quantitative Effects

To determine the effects of supply of the major equipment, namely X-ray, ultrasound, and endoscope units, the number of persons examined was compared to the target figures. There was a degree of doubt as to whether the target figures were appropriate considering the high level of demand at Da Nang Hospital. The objective of this project was to achieve an increase of 15% over the levels of 2003 but no target year was decided other than it should be after the equipment was provided.

As a result the degree of usage of the X-ray and ultrasound equipment at the time the equipment was provided, 2004, already exceeded the target. Although this does not permit the judgment that all of the equipment supplied has been similarly used, it is believed from the growth in the number of patients that endoscopes have been effectively used.

Specifically, the target for use of the X-ray equipment was about 80,000 patients, but in 2004 the number exceeded 90,000 and in 2006 it was 130,000. In 2009 more than 180,000 persons were examined using the equipment. A similar situation took place concerning ultrasound equipment, and usage has been at a consistently high level since the project was completed. The situation is somewhat different for endoscopes. The target was about 5,500 patients; in 2006, after the project was completed, 5,000 examinations were made, somewhat short of the target. In 2009, however, the number was above 7,000.

It has also been confirmed that subsequent to 2004 the number of medical staff assigned to these items of equipment has increased. This indicates that the hospital has taken action on its own to use the provided equipment for its intended purpose, to meet the need for more accurate diagnostic work. In terms of determining the effectiveness of the project, this finding is highly desirable.

Moreover, targets had been determined in terms of the number of patients. Comparison was made of the number at the time of planning, 2003, and in 2007.

The target was made a total of 24,000 patients. This was 2,000 higher than the number treated in 2005, prior to the supply of the equipment. After the equipment was provided, in 2006, in 2007 the total rose to 40,000, reaching the target. We can say that this represented an increase in the need to provide examinations at Da Nang Hospital that exceeded the initial estimate. For that reason it is difficult to state that the high number treated is a reflection only of the project.

(2) Impacts (Impacts on the natural environment, Land Acquisition and Resettlement, Unintended Positive/Negative Impact)

Considering the impact from the viewpoint of improvement of diagnosis and precision of therapeutic care required as the top referral medical institution in the region, what can be noted is that there was a great increase in the number of patient after the project was completed. Specifically, the number of patient referral was 20,000 in 2005 before the equipment was provided, and in 2007 was above 300,000. The number of patient referral consistently makes up the majority.

Further, according to testimonial from patients, it is noteworthy that the improved precision of examination and diagnosis is being provided for the same price as before the project; and the improved ability to administer treatment for more number of patients by the hour; we have been told that this has greatly abetted the increase in patients examined with the equipment.

No particular problem was reported regarding the natural environment, land acquisition and resettlement, or other negative impacts.

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

4 Sustainability

(1) Structural Aspects of Operation Maintenance

After completion of the project, support on its behalf has been provided by the hospital management as well as the Da Nang People's Committee and central government policy. It is confirmed that the project, through the use of the equipment provided, has improved the financial condition of the hospital and in view of the response to us indicating that the number of staff members has been increased it is believed that the overall arrangements for use of the equipment are set in place.

(2) Technical Aspects of Operation Maintenance

Eighteen persons were newly assigned to operation and maintenance of the equipment after completion of the project. Further, a training program in O&M of medical equipment has been carried out for senior staff of the hospital as well as medical and health care personnel including personnel from equipment makers. It was also reported to us that checks were duly made to ensure that the staff members understood the contents of the manuals for the equipment.

(3) Financial Aspects of Operation Maintenance

The response to our questions indicated that the ordinary expenses of O&M for medical equipment at Da Nang Hospital were stably provided by the government. Da Nang Hospital receives financial support from the central government for improvement of its medical services, so the finances of the hospital appear to be firm. We have confirmed, however, that the annual cost of O&M of the equipment greatly exceeds the original estimate of the basic design. There is some cause for concern over the extent that need to make use of the equipment has grown, the need to replace equipment, the need to buy spare parts, and the need for a contingency budget in anticipation of a sudden, unexpected breakdown. Further, since there has been the formidable increase in staffing of 300 persons compared to the level of 2005, and an increase in personnel costs of five-fold, when we consider the ratio of O&M expense for the equipment relative to the overall scale of the hospital budget, it is thought that it is fully possible to secure the necessary funding for O&M.

(4) Current Status of Operation Maintenance

At present 10 pieces of equipment out of the 40 provided are inoperative. Six of them are waiting for replacement parts and one is deemed not repairable. However, judging from the financial data obtained from the hospital, it is thought to be within the reasonable capability of the hospital to purchase the needed spare parts.

No major problems have been observed in the operation and maintenance system, therefore sustainability of the project effects is high.