

# Project for Early Detection of Gastric Cancer



Project Site Cartago Province

## 1. Background of Project

Costa Rica was a country with one of Latin America's highest health standards, but diseases such as cancer and cardiac infarction were increasing. In particular, the death rate from gastric cancer was high due to the poor rate of early diagnosis. Under these circumstances, the Government of Costa Rica completely renovated the gastric cancer detection center of Dr. Max Peralta Hospital (MPH) in Cartago Province under the Grant Assistance for Grassroots Project of Japan. Following this, the Government requested Project-type Technical Cooperation from Japan aiming at establishment of a mass screening, detection, and treatment system (hereafter referred to as the "System") of gastric cancer.

## 2. Project Overview

### (1) Period of Cooperation

1 March 1995-28 February 2000

### (2) Type of Cooperation

Project-type Technical Cooperation

### (3) Partner Country's Implementing Organization

Costa Rican Social Security System

### (4) Narrative Summary

- 1) Overall Goal  
The death rate of gastric cancer is reduced in Costa Rica.
- 2) Project Purpose  
A mass screening, detection and treatment system for gastric cancer in the service areas of Dr. Max Peralta Hospital is established.
- 3) Outputs
  - a) A mass screening system of gastric cancer is established in the model areas in Cartago City.
  - b) A database information system on gastric cancer is established.
  - c) Research and epidemiological study of gastric cancer are strengthened.
  - d) Personnel in charge of diagnosis and treatment of

gastric cancer are developed.

- e) Hospital administration and health attention related to mass screening, detection, and treatment of gastric cancer are improved.
- f) Cost-effectiveness study on mass screening, detection, and treatment system of gastric cancer is carried out.

### 4) Inputs

#### Japanese Side

Long-term experts	12
Short-term experts	21
Trainees received	17
Equipment	approx. 312 million yen
Local cost	approx. 40 million yen

#### Costa Rican Side

Counterparts	27
Land and facilities (The detection center of gastric cancer)	89 million colons (approx. 30 million yen)
Local cost	125 million colons (approx. 43 million yen)

## 3. Members of Evaluation Team

### Team Leader:

Tetsuro KAJIWARA, Professor and Director, Department of Surgery, Tokyo Women's Medical University Daini Hospital

### Radiology:

Tomohiko OKAWA, Professor, Department of Radiology, Tokyo Women's Medical University

### Nursing:

Fumiyo MORITA, Chief nurse, Tokyo Women's Medical University Daini Hospital

### Evaluation Planning:

Akio OKAMURA, Second Medical Cooperation Division, Medical Cooperation Department, JICA

### Evaluation Analysis:

Yasushi WADA, IC Net, Ltd.

#### 4. Period of Evaluation

18 August 1999-30 August 1999

#### 5. Results of Evaluation

##### (1) Efficiency

The inputs on the Japanese side were carried out generally on schedule, although the project leader and the experts on medical databases were dispatched late. On the other hand, the Costa Rican side took two years to complete the allocation of the counterparts, and the establishment of the Computerized Axial Tomography (CAT) was also delayed. Furthermore, diagnosis activities were suspended for eight months due to the reconstruction of MPH. However, the basic activities of this project were implemented thanks to the efforts of both parties.

##### (2) Effectiveness

It was recognized that transfer of technology was completed except for operation of the CAT system which was installed late and the system for early diagnosis and treatment of gastric cancer was established. At the time of this evaluation study, the Center had carried out more than 8,000 examinations and almost 50 surgeries. In terms of mass screening activities in particular, a set of activities, such as transporting community people, examination, and notification of examination results, were now a routine part of the system, and it was expected that all 8,793 people in the target communities could receive health checks by the time of termination of the project. Also, collection of data from examinations was thorough and this contributed to epidemiological studies.

##### (3) Impact

Fifty-six gastric cancer patients out of fifty-eight patients returned to their normal way of life. Medical treatment cost was also reduced as the hospitalization period was shortened through the project, and this brought an economic benefit to patients. In addition, early gastric cancers, expected to develop into progressive cancer in a few years time, were found; therefore, the reduction of the cases of death by gastric cancer was expected to decrease in the project sites.

##### (4) Relevance

Gastric cancer was a high-priority issue in the countermeasures for cancer plan of the government of Costa Rica. Therefore, the overall goal of reducing the death rate from gastric cancer in Costa Rica as initially planned was relevant.

##### (5) Sustainability

In terms of financial sustainability, the Costa Rican Social Security System declared their commitment to provide financial assistance. Also, the outcome of the project was considered to be developed at a national level and, thus, a certain level of organizational sustainability



Expert giving a lecture on CT scanner technique

was also expected. Concurrently, although the Center was considered technically sustainable as well, assistance to transfer the technology of CAT system operation and diagnostics should be continued as it was behind schedule.

#### 6. Lessons Learned and Recommendations

##### (1) Lessons Learned

Availability of the basic facility for project activities should be a condition for commencement of a project.

In the case where cooperation covers several technical fields, sufficient numbers of counterpart personnel should be allocated for each field, and an existence of a system should be confirmed for correct dissemination of technique to counterpart personnel.

##### (2) Recommendations

In order to diffuse project achievements in other parts of Costa Rica, it was recommended that the Costa Rican authorities develop a strategy plan which would be feasible from the viewpoint of financial, human resources, and equipment allocation.

It was also recommended that the cooperation through the experts in radiology be continued for a fixed period of time after completion of the project to ensure complementary technical guidance concerning the CAT system.

#### 7. Follow-up Situation

Based on the recommendations made above, cooperation through the dispatch of two experts in radiology was continued after termination of the project until 18 December 2000.