

終了時評価調査結果要約表（英文）

<b>I. Outline of the Project</b>		
<b>Country :</b> Mexico		<b>Project title :</b> Project for Prevention and Control of Uterine Cervical Cancer in the Southern States of Mexico
<b>Issue/Sector :</b> Mother and Child's Health, Reproductive Health		<b>Cooperation scheme :</b> Technical Cooperation Project
<b>Division in charge :</b> JICA Mexico		<b>Total cost(At the point of evaluation) :</b> 333 million Yens
<b>Period of Cooperation</b>	(R/D): October 4, 2004 - October 3, 2007	<b>Partner Country's Implementing Organization :</b> National Gender Equity and Reproductive Health Center of the Ministry of Health, Health Service of the State of Veracruz, Health Services of the 6 States
	(E/N) (Grant Aid)	<b>Supporting Organization in Japan :</b> Chubu Hospital in Okinawa Prefecture, The Cancer Institute Hospital of the JFCR, Kyorin University, Kurashiki University of Science and Arts - School of Life Science, Miyazaki Prefecture Hospital, Oncological Diagnostic Center in Tama - Tokyo, Japanese Society of Clinical Cytology
<b>Related Cooperation :</b>		
<p><b>1 Background of the Project</b></p> <p>In Mexico, malignant tumors are the second cause of death amongst women (INEGI&lt;The National Institute of Statistics, Geography and Informatics&gt; 2001), and cervical cancer is the major cause in women older than 25 years of age, particularly indigenous women living in poverty in the southern states who lack the necessary diagnostic systems for timely detection and treatment and know little about health, hygiene, cervical cancer and its cultural and social history.</p> <p>The National Health Program (2001-2006) placed special emphasis on the importance of adopting preventive measures to fight cervical cancer at the national level. This circumstance prompted the development of the Women's Health Project by the Ministry of Health and JICA, implemented in Veracruz as the site of a 5-year corporation in July 1999. The Project was meant to increase the rates of cervical cancer screening and improve cytological diagnosis; consequently, compared to the rates at the beginning of the Project, a five-fold increase was achieved in the rates of timely detection for cervical cancer.</p> <p>Based on the aforementioned results, in October 2004, the Ministry of Health and JICA initiated a 3-year Project that mainly focused on the states of southern Mexico with the intent of spreading the same results and improving the diagnostic techniques in cytology, colposcopy, and histopathology as follows:</p> <p>1) To promote prevention of cervical cancer; 2) To improve the technique for cytological diagnostics; 3) To improve diagnostic techniques of cytologists, colposcopists, and histopathologists ; 4) To reinforce patient follow-up.</p>		

## 2 Project Overview

Seven Mexican states served as object sites for this Project and the institutional counterparts that directed it were the National Gender Equity and Reproductive Health Center of the Ministry of Health, the Ministry of Health for each of the participating state, personnel responsible for cervical cancer, nurses working in this field at hospitals, laboratories and health clinics, cytologists, colposcopists, and histopathologists. The project purpose was to train government officers and health workers to increase diagnostic rates, technical instruction to obtain samples and stain, and to improve overall diagnostic techniques in Cytology and Histopathology in order to increase timely cervical cancer detection rates.

### (1) Overall Goal

Decrease mortality rates of cervical cancer in the area where the Project was implemented (Chiapas, Guerrero, Nayarit, Oaxaca, Puebla, Yucatan, and Veracruz)

### (2) Project Purpose

Increase the numbers of detections of early cervical cancer cases in the area where the Project is implemented

### (3) Outputs

- 1) Increase the number of women that are screened in Cytology
- 2) Increase the detection rate of CIN3 (Cervical Intraepithelial Neoplasia Grade 3) and CIN2 (Cervical Intraepithelial Neoplasia Grade 2) in the cytological level
- 3) Improve the diagnostic techniques of cytologists, colposcopists, and histopathologists
- 4) Reinforce follow-up procedures for patients with positive diagnosis

### (4) Inputs

#### Japanese side:

Long-term Experts: 2, total

Short-term Experts: 11, total (2 more people will be included)

Trainees received in Japan: 37

Equipment: 128 million Yens

Local Cost: 30 million Yens

#### Mexican side:

Counterpart: 4 people from the Ministry of Health and 31 people responsible for the 7 State Health Ministries

Local Cost: 24 million Mexican Pesos, one office for the Project, the provision of laboratories

## II. Evaluation Team

Members of Evaluation Team	1) Leader: Dr. Kyo HANADA, Technical Advisor for Health and Hygiene Programs, JICA Regional Support Office for Central America and the Caribbean	
	2) Planning Evaluation: Mr. Tomoyuki ODANI, Staff, JICA Mexico	
	3) Evaluation Analysis: Mr. Isao DOJUN, Chuo Kaihatsu Corporation	
Period of Evaluation	July 30, 2007 – August 19, 2007	Type of Evaluation : Terminal

### **III. Results of Evaluation**

#### **III-1 Confirmation of the results**

- (1) The Project purpose “Increase the numbers of detections of early cervical cancer cases in the area where the Project is implemented”, was met and approximately twice the number of cases (620-1,254) were detected. The indicator stated that “At the end of the Project, one and half times more CIN3 cases were detected with histopathological screening than at the beginning of the Project in 2004”.
- (2) Regarding Output 1; “Increase the number of women that are screened in Cytology”, there are the indicators 1-1: “Increase by over 50% the number of women who have a cytological examination”; 1-2: “The percentage of women that have a cytological examination for the first time within the area of coverage exceeds the total number of women that are examined by 50%”; and 1-3: “Achieve coverage for more than 80% of the total number of women that should be examined for cervical cancer”. Most of the states did not achieve indicators 1-1, 1-2.
- (3) Regarding Output 2 “Increase the detection rate of CIN3 and CIN2 in the cytological level”, the indicators were achieved for indicator 2-1; “Increase by 1.5 times the number of CIN3 and CIN2 cases that are detected per 100,000 women that are screened”, and 2-2; “Reduce the rate of erroneous CIN3 and CIN2 diagnostics at a cytological level (less than 10% false positives and less than 7% false negatives)”.
- (4) Regarding Output 3 “Improve the diagnostic techniques of cytologists, colposcopists, and histopathologists”, the indicator “A 60% increase of diagnostic concordance” was not achieved. Although a yearly improvement is evidenced in meetings and activities in which former trainees and subjects participate, the rate obtained was 36%.
- (5) Regarding Output 4 “Reinforce follow up procedures for patients with positive diagnosis”, most states did not comply with the indicator “For all patients within five months” in 4-1 that also establishes “Deliver the results of the histopathological examination to more than 50% of examined women within three months and to 100% of the women within five months upon conclusion of the Project”. Five of the participating states did not comply with indicator 4-2 “Increase to 90% the follow-up rate for patients diagnosed with CIN2 and CIN3” although there was an improvement towards the established goal.

#### **III- 2 Summary of the Evaluation Results**

##### **( 1 ) Relevance: High**

In Mexico, malignant tumors are the second cause of death amongst women and gynecological cancer, particularly cervical cancer, represents a serious problem. The Project considerably improved early detection and prompt care systems for cervical cancer patients by drawing samples for cytological screening and diagnosing using colposcopy and histopathology. Nevertheless, it is still important to further reduce mortality rates due to cervical cancer as well as expand and reinforce the Cervical Cancer Program in the states of Southern Mexico. The National Development Plan (2007 – 2012) is a guideline for basic domestic policy and within its “Five Pillars of Priority” in the area of “Equal Opportunities”, special emphasis is placed on the need to work in the health sector in order to accomplish its comprehensive development throughout the country. The National Health Program will emphasize the importance of preventing and controlling uterine cervical cancer as priorities within its activities at a national level. JICA Country Program for Mexico defines as one of its top priorities “Measures for health of women and children ”.

## **( 2 ) Effectiveness: Satisfactory**

Despite the fact that the outputs for 1.3.4 did not achieve the expected target in most of the states, the Project purpose was achieved in terms of doubling timely detection rates by histopathological diagnosis. The context in which the project purpose was achieved despite of the three outputs not achieved, is that the State of Veracruz where has experience from “Women’s Health Project” obtained more than 1.5 times of the histopathological detections, which raised up overall detection rate.

## **( 3 ) Efficiency: Satisfactory**

Overall, the input made by the Mexican and Japanese sides was adequate in volume, quality, and timing, and it was efficiently used for the Project activities. It is important to point out that, considering the limited human resources available on the Japanese side for the extensive region comprising the seven states of southern Mexico, the effort and coordination by the Ministry of Health at a federal level and at the level of the participating states, constituted a very valuable contribution. From the Japanese perspective, with a limited input, the Project achieved significant results and is to be considered highly efficient.

However, since activities were focused on Output 2 “Cytological examination” to comply with the Project purpose, the inputs and activities were insufficient to achieve the indicator in Output 1. In reference to Outputs 3 and 4, a gradual improvement can be observed which will contribute to the second half of the Project , however the goal was not achieved due to a lack of communication amongst Mexican physicians. In order to achieve the outputs that were not achieved, it is expected that the Ministry of Health and its state branches make valid use of the material prepared during the Project.

## **( 4 ) Impact**

### **1) Perspective on Complying with the Project Overall Goal**

Because the official data regarding mortality rates for the year 2007 will not be published until a year from now, it is difficult to evaluate at this moment whether the Project contributed to reducing mortality rates due to cervical cancer. As the Project Overall Goal was to reduce rates in the next 5 years by more than 30% upon conclusion of the Project, it is apparent that the objective will not be met if the same average reduction rates continue. The 5-year reduction rate is calculated between 5 and 16 percent per year, in order to obtain the 30% reduction established as the Project Overall goal, The mortality rate needs to be reduced at two or three times faster. From this point of view, the criterion “30% reduction of mortality rates” should have been modified. In the meantime, continuous efforts and activities by the Ministry of Health and ministries at a state level could make it possible to reach the overall goal. However, if mortality rates due to cervical cancer are to be reduced at a state or national level, it is necessary to work more integrally with the IMSS (Mexican Institute of Social Security, per its acronym in Spanish) and ISSSTE (Institute of Security, and Social Services for State Employees, per its acronym in Spanish), in addition to the efforts by the Ministry of Health .

## 2) Other Impacting Factors

- i) The attitude and behavior change among the people involved in the Cervical Cancer Program.
- ii) The methods that were being introduced in this Project to improve diagnostic quality were included in the Amendment of the Official Mexican Standard.
- iii) The scope of results achieved in the Project, i.e, training to obtain, smear, and embed cytological samples was extended to other states in Mexico.
- iv) Medical students, nursing students, and personnel from other Public Health institutions participated in training sessions on how to obtain, smear, and embed cytological samples.
- v) Experts from the Japanese Society of Clinical Cytology and the Mexican Cytology Institution have established a working relationship.

## (5) Sustainability

It is considered that the sustainability of the Project, both politically and organizationally, is well ensured. As for financial resources, even after the Project concludes, the Cervical Cancer Program should have a budget equal to or larger than the one assigned during the Project term. Regarding the technical aspect, training for personnel should be further enforced together with more solid cooperation among all those involved. Therefore, the Ministry of Health and the state branches will hold Third country training program "Prevention and Control of Uterine Cervical Cancer" to spread these techniques in Central America whereby Mexicans participating in this Project will also be able to enhance their training skills.

### 1) Political Aspect

The importance of preventing and controlling uterine cervical cancer will continue to be emphasized in the 2007-2012 National Development Plan and in the National Health Program that is currently being put together. Likewise, the seven states established the prevention and control of cervical cancer as a priority in their state policies. All this would appear to indicate that, politically, the prevention and control of uterine cervical cancer will remain a priority, although any state government changes can modify its policies in general terms.

### 2) Institutional Aspect

#### i) Ministry of Health

The Ministry of Health (SSA) holds training courses in states that are not Project subjects, to obtain, smear, and embed the cytological samples and intends to continue providing this type of courses. The Ministry of Health thus concretely propagates the results of the Project and, instead of limiting its success to the seven participating states, its results are expected to multiply throughout the country. Nevertheless, orientation and support may be required in the states that have not organized diagnostic observation debate. The meetings of ex-participants of training in Japan should be organized to follow-up on patients diagnosed positive in order to offer them the best possible treatment.

#### ii) Ministry of Health at state level

Throughout the Project, favorable relationships were established in all states among health personal involved in the issue. It's probable that they will continue the teamwork generated in this project to far the develop the project's results.

It is indispensable to hold periodic correlation meetings to further enhance diagnostic accuracy in those states where this type of meeting has not been held.

Additionally, given the fact that patients diagnosed positive are not satisfactorily followed up on with treatment, it is essential to improve the follow up process.

### **3) Financial Aspect**

As the political aspect continue to reflect the importance of this issue, it may be possible to continue maintaining a government funding. Although the state financial plans are decided by those in charge of the Ministry at state level, it is assumed that a certain amount will be budgeted to follow up on correlation meetings and that machine maintenance will be given the awareness and importance amongst state officials. It is transcendental to ensure the necessary funds. Even though the Project has concluded, the SSA and state Health Ministries are expected budget an amount at least equivalent to that of the Project.

### **4) Technical Aspect**

Throughout the Project, the technique to obtain, smear, and embed samples among laboratory technicians and nurses and the diagnostic capacity among cytologists, colposcopists, and histopathologists were improved. This type of activities will probably continue in the future as former trainees Japan. The task of obtaining, smearing and embedding samples is usually assigned to new physicians and nurses, therefore it is important that they continue to be trained. In addition, although the diagnostic technique was improved, the training has to be continued to develop further training for cytologists, colposcopists, and histopathologists in periodical meetings that afford them the chance to exchange opinions and deliberate on problematic cases.

## **III- 3 Factors that promoted realization of effects**

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

None.

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

Throughout the Project, the transfer of knowledge and techniques relating to it were the specialists involved in the entire process of the Uterine Cervical Cancer Program. The specialists involved in the Project included cytologists, staining technicians, colposcopists and histopathologists working in the Ministry of Health for the state as well as jurisdictional program coordinators who were trained technically in the Project. In turn, have transferred their newly acquired knowledge and techniques on obtaining, smearing, and embedding samples to the physicians, nurses, and other technicians at the clinics. The Project is considered highly efficient because of the significant number of people that comprise the chain that begins with the detection of uterine cervical cancer and leads to its medical treatment.

## **III- 4 Factors that impeded realization of effects**

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

Because the Project initially had as priority transfer of techniques and know-how for cytological screening, there was no input on Japanese side for Result 1 "To increase the number of women that have a cytological examination". Information materials were developed within the Project, but it was not possible to achieve the initially expected increase of women tested. This number could have been larger if the Project had done more concrete activities.

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

Due to the lack of communication among the people involved, especially doctors, the criteria was not met for Result 3 “Improve the diagnostic techniques of cytologists, colposcopists, and histopathologists” and Result 4 “Reinforce follow-up procedures for patients with positive diagnosis”. Proud doctors tended to quickly walk away from communication, although it’s essential to have moral awareness that “the last diagnosis is unique” and “the idea of working together as a team with adequate diagnosis is to save patients’ lives”. It is expected that communication shall be improved in this aspect among those involved in the Project and that awareness of the recommendations herein, “improvement of coordinated diagnosis” and “follow-up for patients diagnosed positive”.

In some states, lack of collaboration between the areas for reproductive health and promotions impacted on the promotional activities that could have increased the number of women tested.

## **III- 5. Conclusion**

The Project sought to further increase the number of cytological screenings and improve the quality of cytological diagnosis in the seven states of southern Mexico with results similar to those obtained for the Project performed in the state of Veracruz, “Women’s Health and the Prevention of Uterine Cervical Cancer”. Based on the numeric data compiled up until 2006, the Project Objective was fully met with outstanding results. The success was due to the implementation of concentrated efforts on activities that were strategically selected in order to take full advantage of limited human and financial resources from the Japanese side for a period of 3 years in favor of a vast population in an extensive area that benefited from the Project.

A survey was performed at the beginning of the Project with the purpose of identifying the actual status of the detection system via Pap smears. The Project devoted its efforts on improving the basic techniques for preparing cytology slides to resolve the step that was causing a bottleneck in the process as a means to reinforce cytological diagnosing capacity. Once this matter was resolved, the Project focused on integrating the general process for cytological, colposcopic, and histopathological diagnostics, involving all healthcare personnel in a single work team to strengthen their systematic function. Integration was accomplished by having the participants share information, show images of their diagnoses, and hold sessions to correlate their findings. Even though the Project is concluded, it is considered feasible to attain the Overall Goal if the most is made of the information originating from the follow-up for patients diagnosed positive and the improved correlation rates obtained in the sessions. Therefore, it is expected that these activities will be developed in each of the states.

### **III- 6. Recommendations**

- (1) An appropriate maintenance system for donated equipments  
The Ministry of Health and its state branches should budget for maintaining the equipments donated including preventive maintenance, and assigning personnel necessary for that.
- (2) Continuous support for the Uterine Cervical Cancer Program by the state governments  
State governments should politically and financially support the prevention and health care techniques improved through the Project.
- (3) Utilization of didactic materials prepared during the Project  
The Ministry of Health and its state branches should utilize the 6 items that were created during the Project to maximize promotion throughout the country.
- (4) Training on obtaining, smearing, and embedding cytological samples for new lab technicians, medical and nursing students  
The Ministry of Health and its state branches should provide training on the process of cytological diagnosis to physicians and resident students at their clinics, prior to working in the laboratory, in order to achieve adequate and consistent diagnoses.
- (5) Improvement of diagnostic concordance among cytologists, colposcopists, and histopathologists.  
The Ministry of Health and its state branches should continuously hold periodical sessions and discussions using digital photographs that can be later utilized as training material.
- (6) Follow-up of patients diagnosed positive  
In order assure follow-up and treatment of patients who are diagnosed positive, the Ministry of Health and its state branches is required to enforce the following ;a)conduct follow up survey implemented during the project, b)improve timeliness of the diagnostic result to patients, c)spread the use SICAM, d)improve the colposcopic clinic.
- (7) Continuous meeting of state coordinators and former JICA trainees  
The Ministry of Health and its state branches are required to provide information to state doctors on the result of especially problem cases through continuation of regular meeting between the JICA former trainees implemented during the project.
- (8) Promotion of academic exchange between the cytological associations of both countries  
The Ministry of health is required to continue its support informally of the exchange between the cytological of the two countries started on the project associations.
- (9) Improving technical capacity in Mexico as well as in Central and South America by offering third country training program on the "Prevention and Control of Cervical Cancer"  
In 2007, the third country training program are offered for the next 5 years to Central and South American countries. The Ministry of Health and its state branches will take advantage of the opportunity to enhance their training skills through this third country courses.
- (10) Reviewing the project overall goal  
For the sake of feasibility, the criteria of Project overall goal "To reduce mortality rates caused by cervical cancer in the area of the Project" and the overall goal should be revised, taking into consideration the post evaluation.



### **III- 7. Lessons Learned**

- (1) The required techniques have been established by the transfer of basic knowledge and technique

The Project was an example of demonstrating efficiency through training on the basic techniques of cytologic diagnosis, which tend to be ignored.

- (2) Behavior change among health workers

During the Project, the Ministry of Health and its state branches performed studies that clarified the local situation and revealed many cases of incongruent diagnostic results and insufficient patient follow up.

The issues were clarified based on the information that was researched and physicians accepted the facts with a raised awareness and willingness to listen to the patients.

- (3) Formation of teamwork based on each participant's capacity building

A state coordinator was selected as the key person to head the team formed by other workers to improve individual techniques and contribute to meeting the Project Objective.

- (4) Coordination between institutions involved in order to improve both number of women tested and diagnostic technique

Some of the states divided their efforts in two areas; one to increase the number of examinations and the other to improve diagnostic techniques. Not all the activities were completed satisfactorily due to a lack of communication among the participants. A need to more efficiently coordinate the participants during the development of the Project was identified.

- (5) Effectiveness of cooperation through the participation of Japanese Association are formed from experts groups and institutions for experts' selection and training in Japan

Thanks to the Japanese Association of Cytology, experts and training courses were successfully selected in Japan. In addition, institutions provided support and human resources in many fields contributing to the advancement of all activities.