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Ex-post Evaluation Report on the Project for the Improvement of Maternal and Neonatal Health in Guatemala

한국국제협력단

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2013. 12



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The Korea International Cooperation Agency (KOICA) performs various types of evaluation in order to secure accountability and achieve better development results by learning.

KOICA conducts evaluations within different phases of projects and programs, such as ex-ante evaluations, interim evaluations, end-of-project evaluations, and ex-post evaluations. Moreover, sector evaluations, country program evaluations, thematic evaluations, and modality evaluations are also performed.

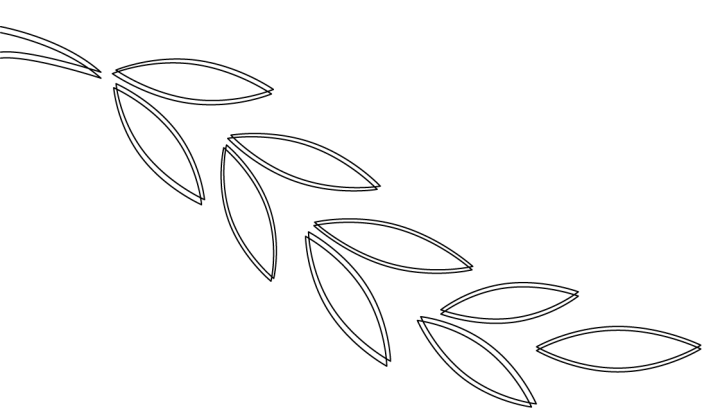
In order to ensure the independence of evaluation contents and results, a large amount of evaluation work is carried out by external evaluators. Also, the Evaluation Office directly reports evaluation results to the President of KOICA.

KOICA has a feedback system under which planning and project operation departments take evaluation findings into account in programming and implementation. Evaluation reports are widely disseminated to staffs and management within KOICA, as well as to stakeholders both in Korea and partner countries. All evaluation reports published by KOICA are posted on the KOICA website. (www.koica.go.kr)

This evaluation study was entrusted to Kyunghee University by KOICA for the purpose of independent evaluation research. The views expressed in this report do not necessarily reflect KOICA's position.

Contents

I . Introduction	1
1. Evaluation Background	3
2. Evaluation Purpose and Scope	3
3. Evaluation Subject	5
II . Methodology and Evaluation Process	7
1. Evaluation Criteria and Methodologies	9
2. Limitations and Constraints of Evaluation	10
3. Internal and External Research and Investigation Methodologies	11
III. Evaluation Results	19
1. Relevance	21
2. Efficiency	25
3. Effectiveness	28
4. Impact	34
5. Sustainability	38
6. Cross-cutting Issues (Gender Mainstreaming)	40
IV. Conclusion and Recommendation	43
1. Main evaluation results and lessons	45
2. Project-related recommendations (for sector/country)	46
3. Policy Recommendation	47



I . Introduction

1. Evaluation Background
2. Evaluation Purpose and Scope
3. Evaluation Subject



I Introduction



1. Evaluation Background

- Korea International Cooperation Agency (KOICA) aims to contribute to reducing maternal and child death rates in developing countries by creating safe environment for childbirth as well as by improving access to maternal and child health facilities.
- The “Project for Capacity Building for Maternal and Child Health in Guatemala”(hereinafter referred to as “the Project”) is an extension of the “Maternal and Child Health Project at Chimaltenango, Guatemala”, in which the effectiveness of local training programs was highly approved through a project completion evaluation. ‘
- Therefore, the focus of the evaluation should not only be on the process and initial outcomes but also on drawing recommendations for the future capacity building projects for maternal and child health in terms of health system improvement and effective achievements within basic health indicators.



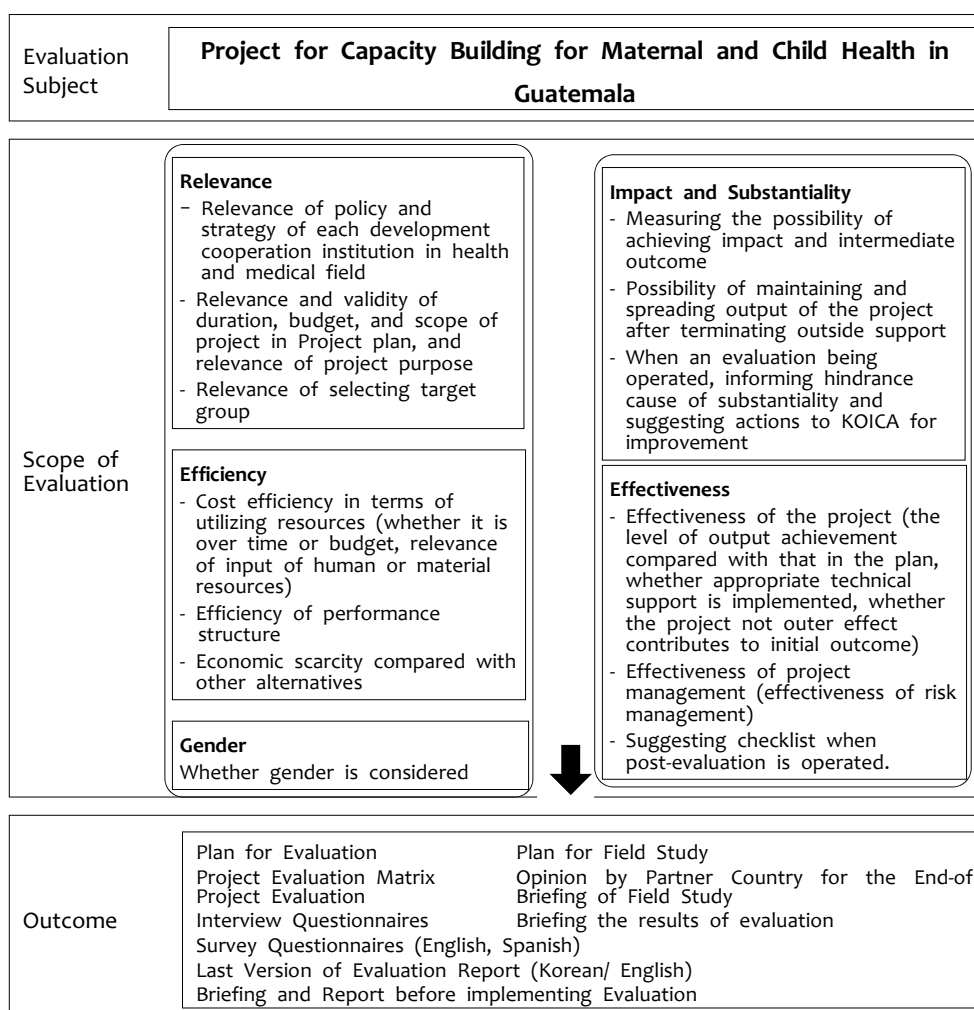
2. Evaluation Purpose and Scope

A. Purpose

- Drawing the initial outcomes and foreseeing the long-term impact of the project through an ex-post evaluation
- Drawing recommendations and strategic lessons for successful implementations of future capacity building projects for maternal and child health in the partner countries including Guatemala

B. Scope

- The scope of this ex-post evaluation is as follows.





3. Evaluation Subject

A. Project Objectives

- Development Goal (Highest Goal)
 - Reducing the maternal and child death rates of Guatemala
- Objectives (Initial Outcomes)
 - Strengthening the maternal and child health system of Guatemala
 - Capacity building for maternal and child healthcare agents in Guatemala

B. Project Background

- Political and diplomatic aspect
 - Guatemala is one of the three(3) main partner countries for Korean grant ODA in Latin America. Total Korean export amount to Guatemala is about USD 500 million per year. Korea maintains an annual trade surplus of USD 300 million to Guatemala.
 - During the presidential visit to Guatemala in 2011, the President of Korea emphasized that Guatemala is one of the most important partner countries in Latin America, that the Korean Government desires to build and strengthen a future-oriented relationship with Guatemala.
 - Using the infrastructure previously supported to Chimaltenango Hospital (CH) and Patzun Maternal and Child Health Center (PMCHC), a synergy effect is expected with regards to the publicity of the project.
 - A positive publicity can be expected that KOICA makes a concentrated investment on the improvement of maternal health, which is an MDG indicator with least possibility for accomplishment.

□ Health and medical aspect

- The maternal death rate of Guatemala as of 2010 was one of the highest in Latin America, recording 290 per 100,000. With regards to the childbirth, only 26% of the pregnant women had access to professional medical staff, while 60% of total child delivery was on the hands of untrained midwives.
- Training for the workforce related to maternal and child health is expected to strengthen the maternal and child health service system, thereby improving the current situation of Guatemala with regards to maternal and child health.
- Training program targeting at nurses from entire Guatemala will enable appropriate antenatal and maternal care, contributing to increasing the delivery rate in the local facilities in Guatemala.
- The project can be effectively linked to the previously supported project, making use of the health infrastructure including CH and PMCHC. Also, the project is expected to pair with the 1st phase health service expansion project proposed by the Guatemalan Government, establishing a sustainable training programs and systems.

□ Strengthening the linkage with the previous project

- ‘The Maternal and Child Health Project at Chimaltenango, Guatemala’ closed in 2009 is highly appropriate in terms of alignment between Korea and Guatemala. However, the project completion evaluation report pinpointed the project’s shortcomings in efficiency and effectiveness, as PMCHC was not properly operated after its establishment.
- Based on the results of the project completion evaluation, an ex-post evaluation for the “Maternal and Child Health Project at Chimaltenango, Guatemala” is conducted to clarify the success and failure factors of the project, and to examine the sustainability of its outcomes and impact.



II . Methodology and Evaluation Process

1. Evaluation Criteria and Methodologies
2. Limitations and Constraints of Evaluation
3. Internal and External Research and Investigation Methodologies



II

Methodology and Evaluation Process



1. Evaluation Criteria and Methodologies

Criteria

- The 5 evaluation criteria recommended by OECD DAC, i.e. relevance, efficiency, effectiveness, impact (ripple effect), and sustainability, are followed along with considerations on gender and environment
- Relevance and efficiency are evaluated when necessary while conducting the evaluation. Recommendations and lessons are proposed for similar projects in the future.

Method

- This evaluation partially incorporates Participatory Impact Pathway Analysis (PIPA), an evaluation method which tries to strengthen the voice and capacity of the participants and improve the organizational learning in terms of sustainability. PIPA may as well contributes to drawing highly relevant questions, and to improving the performance of the program.
- Thus, analyses on each criterion will be based on a reconstructed PDM for evaluation (PDMe), mainly focusing on the measurement of medium to long term impact and sustainability.



2. Limitations and Constraints of Evaluation

- Statistical data between 2008 and 2012 on maternal death rate, registration rate of pregnant women, delivery rate in health facilities, and degree of improvement on maternal and child health were requested to Guatemalan Ministry of Health and Social Affairs, CH, and PMCHC; however, only a few of which were accessible.
- The data management systems of government institutions and hospitals are not well-established, so the expressions for a number of indicators were not consistent. For instance, WHO expresses maternal death in terms of maternal mortality ratio per 100,000 live births, but the local authorities of Guatemala uses maternal mortality ratio mixed with maternal death rate.
- WHO classifies delivery methods into delivery in health facilities, delivery with trained assistants, delivery with untrained assistants, and delivery at home. However, in Guatemala, a delivery in health facilities indicates a delivery with trained assistants or professional health staff.
- Although the survey papers were distributed in advance, and some surveys were conducted while doing the field investigation, the return rate of the survey papers was significantly low in some regions. In Patzun, specifically, the survey papers distributed to the midwives, who are the beneficiaries of capacity building, were not collected at all.
- A list of desired interviewees were sent to the relevant institutions, but some of the beneficiaries were not approachable due to personal reasons like change of jobs.



3. Internal and External Research and Investigation Methodologies

A. Literature Investigation

- Collecting and analyzing the documents related to Korea's maternal and child health projects to Chimaltenango, Guatemala.
- Comprehending the development goals of the Guatemalan Ministry of Health and Social Affairs, together with the current context, policies, and main problems in the health sector of Guatemala.
- Drawing an effective and practical recommendations to improve KOICA's support for maternal and child health of Guatemala by examining relevant strategies and situational data of major aid agencies.

B. Internal and External Interviews

- In-depth interviews were conducted to relevant persons from KOICA, PMC, recipient government, recipient institution, implementer, and other donor agencies.

C. Surveys

Overview

Item	Surveys targeting recipient government personnel, project stakeholders, and the users of the recipient institution
Contents	Relevance, efficiency, effectiveness, impact (ripple effect), sustainability, and crosscutting issues related to the construction of CH and PMCHC
Targets	Guatemalan government institutions, relevant persons from CH and PMCHC (including the beneficiaries of invited training), and the users of CH and PMCHC
Methods	Complementary use of both On-line and Off-line methods; Collecting survey papers prior to the visit interviews

D. Field Investigation

Overview

Item	Field Investigation for Maternal and Child Health Project at Chimaltenango, Guatemala
Date	2013. 07. 28 (Sun) - 2013. 08. 17 (Sat)
Procedure	Field investigation launching report→Launching meeting of evaluation team →Begin field investigation→Wrap-up field investigation
Contents	<ul style="list-style-type: none"> - Situation analysis on the use of medical facilities in the target region - Maintenance and management status of hospital facilities, administrative problems and improvement suggestions - Level of maternal health improvement in the target region as the result of the project - Contribution to antenatal care system and capacity building for professional medical labor force (nurse), and nonprofessional labor force (midwives) - Self-reliance of recipient institution
Breakdown	<ul style="list-style-type: none"> - Collecting local information and conducting local interviews - Checking survey results and collecting responses - Conducting group discussions and local evaluation sessions - Reflecting on the field investigation results; sharing results with recipient government and KOICA

E. PDMe

Criteria	Sub-Questions	Performance Indicators	Sources of Information	Information Collection
Relevance	<ul style="list-style-type: none"> Does the project correspond with national development strategy and the sector priorities of Guatemala? 	<ul style="list-style-type: none"> Correspondence with the national development strategy of Guatemala Correspondence with the policies of the Guatemalan Ministry of Health and Social Affairs 	<ul style="list-style-type: none"> National Development Strategy of Guatemala Policies of Guatemalan Ministry of Health and Social Affairs Government Personnel 	<ul style="list-style-type: none"> Literature Investigation Interview
	<ul style="list-style-type: none"> Does the project correspond with health sector policies of KOICA as well as the country partnership strategy of the Korean Government? 	<ul style="list-style-type: none"> Correspondence with the country partnership strategy of Korea Correspondence with the health sector aid policies of KOICA 	<ul style="list-style-type: none"> Partnership Strategies for Guatemala KOICA Health Sector Mid-Term Plan KOICA Statistics 	<ul style="list-style-type: none"> Literature Investigation
	<ul style="list-style-type: none"> Is the goal of the project relevant to the accomplishment of MDGs? 	<ul style="list-style-type: none"> Comparative analysis between the project goal and goals 3,4, and 5 of MDGs 	<ul style="list-style-type: none"> MDGs Indicators for Guatemala 	<ul style="list-style-type: none"> Literature Investigation
	<ul style="list-style-type: none"> Is the project in an harmony with the maternal and child health projects of other aid agencies? 	<ul style="list-style-type: none"> Situational data of maternal and child health capacity building projects of other aid agencies 	<ul style="list-style-type: none"> Documents on capacity building projects for maternal and child health of other aid agencies 	<ul style="list-style-type: none"> Interview Case Investigation

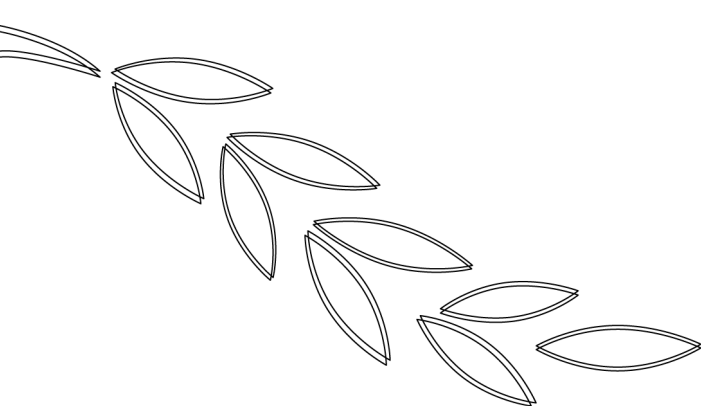
Criteria	Sub-Questions	Performance Indicators	Sources of Information	Information Collection
	<ul style="list-style-type: none"> In the planning stage, was there an appropriate process to accommodate the opinions of the beneficiaries? 	<ul style="list-style-type: none"> Regional level of maternal and child health in Guatemala Situational data on capacity building programs for maternal and child health 	<ul style="list-style-type: none"> Analytical data on capacity building for maternal and child health Preliminary Survey Report Record of Discussion Interim Evaluation Report Guatemalan Government Personnel 	<ul style="list-style-type: none"> Literature Investigation Interview Survey
	<ul style="list-style-type: none"> Was a sufficient agreement drawn with the recipient government in the process of target area selection? 	<ul style="list-style-type: none"> Agreement process for target area selection 	<ul style="list-style-type: none"> Preliminary Survey Report Record of Discussion Interim Evaluation Report Guatemalan Government Personnel 	<ul style="list-style-type: none"> Literature Investigation Interview Survey
	<ul style="list-style-type: none"> Does the newly developed antenatal care service meet the local demand? 	<ul style="list-style-type: none"> Correspondence between antenatal care program and current maternal and child health situation 	<ul style="list-style-type: none"> Current health situation of Guatemala Interim Evaluation Report 	<ul style="list-style-type: none"> Literature Investigation Interview Survey
Effectiveness	<ul style="list-style-type: none"> Does the output correspond with the plans of the project? - Are the training contents practical to the actual work? - Were the training contents actually used in practice? - Do you think maternal and infant mortality rates have decreased as a result of the project? 	<ul style="list-style-type: none"> Transfer rate to medical facilities Participation of midwives in childbirths Contents and quality of capacity building programs for nurses and midwives Establishment of basic operational plans for 	<ul style="list-style-type: none"> Curriculum and teaching materials for capacity building for healthcare providers Report on invited training outcomes Report on specialists dispatch 	<ul style="list-style-type: none"> Literature Investigation Survey Direct Observation

Criteria	Sub-Questions	Performance Indicators	Sources of Information	Information Collection
		maternal and child healthcare center and public health center <ul style="list-style-type: none"> Annual maternal death rate of Guatemala 		
	<ul style="list-style-type: none"> Are there possible measures to improve the operational effectiveness of the maternal and child healthcare center? 	<ul style="list-style-type: none"> Basic operational plan for the training center 	<ul style="list-style-type: none"> Project Completion Report Completion Evaluation Report Basic operational plan for the training center 	<ul style="list-style-type: none"> Literature Investigation
	<ul style="list-style-type: none"> Was the project implemented according to the planned schedule? 	<ul style="list-style-type: none"> Project implementation schedule 	<ul style="list-style-type: none"> Internal report on the project 	<ul style="list-style-type: none"> Literature Investigation Survey
	<ul style="list-style-type: none"> Was the monitoring system effective and relevant? 	<ul style="list-style-type: none"> Timeliness of labor input Timeliness of capital input Relevance of time allocation 	<ul style="list-style-type: none"> Internal report on the project PMC & other persons concerned 	<ul style="list-style-type: none"> Literature Investigation Survey Interview
Efficiency	<ul style="list-style-type: none"> Compared to similar projects, did the project make an effort for cost reduction?? 	<ul style="list-style-type: none"> Expenditure efficiency relative to similar projects 	<ul style="list-style-type: none"> Documents on Guatemalan projects from KOICA and other aid agencies 	<ul style="list-style-type: none"> Literature Investigation Survey
	<ul style="list-style-type: none"> Did the training contribute to the trainees' capacity building? 	<ul style="list-style-type: none"> Degree of improvement in the maternal and child mortality as the result of the project Perception change among beneficiaries 	<ul style="list-style-type: none"> Current health situation of Guatemala Beneficiaries of the training program 	<ul style="list-style-type: none"> Literature Investigation Survey

Criteria	Sub-Questions	Performance Indicators	Sources of Information	Information Collection
	<ul style="list-style-type: none"> Did the project make a positive impact to the improvement of the regional environment for maternal and child health? 	<ul style="list-style-type: none"> View of the Ministry of Health and Social Affairs to the training program Leadership of the National University of Health Survey 	<ul style="list-style-type: none"> Organization and management of training program PMC and other relevant persons from the university Government personnel Beneficiaries of the training program 	<ul style="list-style-type: none"> Literature Investigation Survey Interview
Impact (Ripple Effect)	<ul style="list-style-type: none"> Was the maternal and child health environment of Guatemala improved? <ul style="list-style-type: none"> How was the learning from the training program transferred to the non-participants of the program? Are you currently working for a related industry? 	<ul style="list-style-type: none"> Degree of improvement in the maternal and child mortality as the result of the project Change in the number of childbirths attended by trained healthcare providers Employment of trained healthcare providers in related industries 	<ul style="list-style-type: none"> Current health situation of Guatemala Government personnel Beneficiaries of the training program 	<ul style="list-style-type: none"> Literature Investigation Survey Interview
	<ul style="list-style-type: none"> Was the awareness on maternal and child health in Guatemala improved? 	<ul style="list-style-type: none"> Registration rate of pregnant women and women of childbearing age to antenatal care program The number of trained midwives 	<ul style="list-style-type: none"> Current health situation of Guatemala Beneficiaries of the training program 	<ul style="list-style-type: none"> Literature Investigation Interview

Criteria	Sub-Questions	Performance Indicators	Sources of Information	Information Collection
	<ul style="list-style-type: none"> Were the health projects in the related field expanded? 	<ul style="list-style-type: none"> Current situation of developed and expanded health programs Frequency and purpose of utilizing the maternal and child healthcare center 	<ul style="list-style-type: none"> Situational report on health sector development project in Guatemala 	<ul style="list-style-type: none"> Direct Observation and Interview
	<ul style="list-style-type: none"> Is the Guatemalan Government capable of sustaining political and institutional support? - Do you think the recipient institution can maintain the training program? 	<ul style="list-style-type: none"> Presence of medium to long term plans for the improvement of maternal and child health of Guatemala Establishment of policies related to capacity building for healthcare providers 	<ul style="list-style-type: none"> Preliminary Survey Report Record of Discussion Project Completion Report Government personnel 	<ul style="list-style-type: none"> Literature Investigation Interview
Sustainability	<ul style="list-style-type: none"> Were the central and provincial maternal and child health systems well linked? Do the maternal and child health facility have effective operational structure? Do the maternal and child health facility have technical capacity to manage and maintain related facilities? 	<ul style="list-style-type: none"> Cooperative situation and future plans for central and provincial maternal and child health systems Organizational structure and division of duties in the maternal and child healthcare center Management and repair techniques for the equipments in the training facility 	<ul style="list-style-type: none"> Situational report on health sector development project in Guatemala Organizational chart and operational plan of the maternal and child healthcare center Management register for equipments, organizational chart, and operational plan 	<ul style="list-style-type: none"> Literature Investigation Literature Investigation Literature Investigation

Criteria	Sub-Questions	Performance Indicators	Sources of Information	Information Collection
	<ul style="list-style-type: none"> Can the outcomes of the project be sustained and expanded? - Have you been provided with additional training since the termination of the project? 	<ul style="list-style-type: none"> The Guatemalan Government's finance system for the training program Current budget for training Labor input situation Change in the number of beneficiaries from trained midwives 	<ul style="list-style-type: none"> Annual budget and expenditure related to maternal and child health Situational report on health sector development project in Guatemala Person in charge from the hospital 	<ul style="list-style-type: none"> Literature Investigation Survey Interview
Others	<ul style="list-style-type: none"> Did the project give considerations on gender mainstreaming since its planning stage? Did the project make any impact on gender relationships and gender equality among the beneficiaries? Was a social capacity building for female healthcare providers in Guatemala achieved? 	<ul style="list-style-type: none"> Presence of strategies for gender mainstreaming Improvement on the participation and social position of women Changes in female and male perception and reaction to maternal and child health projects 	<ul style="list-style-type: none"> Preliminary Survey Report Completion Evaluation Report Situational report on health sector development project Female residents of the region 	<ul style="list-style-type: none"> Literature Investigation Survey Interview



III. Evaluation Results

1. Relevance
2. Efficiency
3. Effectiveness
4. Impact
5. Sustainability
6. Cross-cutting Issues (Gender Mainstreaming)



III

Evaluation Results



1. Relevance

- The project is highly correspondent to the National Development Strategy as well as to the sectoral development priorities of Guatemala
 - According to the Poverty Reduction Strategy 2004-2007 of the Guatemalan Government, (Estrategía de Reducción de la Pobreza 2004-2007) “improvement of health environment (infant protection, vaccine increase, health service enhancement, budget expansion)” is one of the investment factors for human capital development.
 - Moreover, reducing maternal and infant mortality is a top priority of health sector of Guatemala, that the Guatemalan Government has enacted the Law of Social Development (Ley de Desarrollo Social) in 2001 to improve its poor maternal and child health situation.
 - To the questions, “Do you think the project matches the needs of your country?”, “Do you think the project corresponds with your national health system and related policies?”, and “Do you think the health services provided by CH and PMCHC meet the local demands?”, all respondents from the Guatemalan Ministry of Health and Social Affairs gave positive answers.

- The project corresponds with the ODA policy and country partnership strategy of Korea as well as with the health sector policy of KOICA.
 - The project belongs to the 8 focus sectors¹⁾ proposed in the “International Development Cooperation Advancement Strategies.” The project is also related to the main policy directions of “2008-2010 KOICA Mid-Term Strategies for Grant Projects”, specifically to, ① implementation of outcome-oriented aid, driven by the needs of the recipient country, and ② development of training programs transferring the Korean development experience.
 - At that time, the focus areas of “KOICA’s Country Assistance Strategy (CAS) for Guatemala” included health sector with a special emphasis on maternal and child health, and infant mortality reduction, so the project is highly relevant to KOICA’s strategy for Guatemala.
 - In the planning stage of the project, “KOICA’s Health Sector Strategies 2011-2015” were also in the preparation stage. Hence, the project did not directly reflect the health sector strategies, but is still relevant to the strategies’ overall direction of strengthening support to the socially disadvantaged groups (women and children).
- The project goal is relevant to the achievement of MDGs.
 - The goal of the project is reducing maternal and infant mortality rate through capacity building for maternal and child health services in Chimaltenango. The goal is highly relevant to MDG 4, reduced child mortality rate, and MDG 5, improved maternal health. Hence the project contributes to achieving the MDGs.

1) 8 Focus Sectors: economy, health, human capital, administration and ICT, agriculture and fisheries, country construction, environment, industrial energy

- The project lacks harmony with the maternal and child health projects of other aid agencies.
- The health sector is a focus area for most donors operating in Guatemala. Such bilateral aid agencies as United States Agency for International Development (USAID), Japan International Cooperation Agency (JICA), and Agencia Española de Cooperación Internacional para el Desarrollo (AECID) have longer histories of implementing large scale projects in the sector than Korea has.
 - These advanced donor agencies tend to ① focus on technical assistance (TA) ② refrain from providing commodities to encourage policy and resource engagement of the recipient country, and ③ focus on capacity building and demand creation.
- KOICA may consider working in partnership with other aid agencies or INGOs for aid harmonization when planning for future projects.
 - Tula Salud, a Canadian NGO, is implementing innovative projects such as installing traditional delivery facilities in modern hospitals, and providing mobile phones and prepaid cards to the midwives for emergency situations.
 - ALAS²⁾, an American NGO is implementing a family planning project in Cobán, Guatemala. Many of the nurses trained in KOICA's capacity building program are now participating in the ALAS project, so a connection may be built between the projects of KOICA and ALAS in the future.
- The structure of the PDM is generally logical, however, the input and the output lack organic connections.
- According to the initial PDM, the goal of the project is to reduce maternal and infant mortality rate through capacity building for nurses and midwives

2) An NGO specializing in maternal and child health. It has been working in 7 provinces including Chimaltenango for about 10 years. Its focus areas are family planning, cervical cancer examination, health education for teenagers and men, and human rights protection.

who make direct impact to maternal and child health.

- The output, which is an initial outcome of the input, consists of factors that are hardly measurable in short term. Hence, the input and the output of the project lack organic connection with each other.
- The process of reflecting the opinions of the recipient country and the beneficiaries in the project planning stage was appropriate.
- The project was designed based on the information that the maternal and child health infrastructure of Guatemala is dependent on the local midwives, and therefore, capacity building for the local midwives would be the best measure to improve the health system of Guatemala. Such an information was gained through a discussion with the Public Nursing College of Guatemala.
- Implementing a capacity development program for midwives would make more direct impact to the improvement of maternal and child health environment rather than to conduct invited training program for government officials.
- Discussions on the project elements have been regularly held. The training period, teaching staff, number of trainees and curriculum were all decided after joint discussions with the relevant stakeholders from the Ministry of Health and the Nursing College.
- The target area was selected after sufficient discussions with the recipient government.
- The 5 target regions (Quetzaltenango, Cobán, Guatemala City) were selected through an agreement between the Public Nursing College of Guatemala and KOICA.

- The contents of capacity building sessions were appropriate.
 - According to the survey and the interview on the relevance of training methods (budget, schedule etc), the training curriculum was distributed through an agreement among the nursing college professors, so all the necessary details related to maternal and child health were well reflected. The contents of the capacity building sessions, therefore, were appropriate.
 - Nonetheless, the capacity building program targeted at nurses had some shortcomings in terms of in-depth research; and there were opinions that the six(6) month training period was too short to accommodate both lecture and practice.



2. Efficiency

- Budget execution was not efficient due to frequent changes in project plan and labor input, Also, overloaded work for the coordinator hindered timely disbursement of resources.
 - The baseline/endline survey was conducted only in the implementing stage, instead of the designing stage of the project. Thus, there were constraints in systematically organizing time, labor and survey contents. Also, due to frequent redirections, the budget was not precisely executed.
 - In the preliminary investigation, registration project for pregnant women was selected without any specific plan. In the implementation stage, the registration project was changed; and a new project was designed, implemented, and evaluated, causing difficulties for efficient and effective implementation.

- The capacity building project in Chimaltenango involved more midwives compared to other regions, so there were some difficulties in maintaining communication and cooperative relationships with the nurses in charge. The project coordinator, who was supposed to focus on managing the outcomes, had to focus rather on miscellaneous activities such as distributing transportation expenses to the midwives and coordinating training schedule.
- It is hard to directly compare the projects of KOICA and of other aid agencies; however, the project's output relative to its input was generally efficient.
- Maternal and child health projects implemented by a Spanish NGO, FUDE N³), and by JICA are similar to the project. Nevertheless, the target area, composition elements, and input elements are not identical, so it is impossible to conduct an I/O analysis comparing those three(3) projects.
- The trainers and the beneficiaries of training programs gave higher marks to the KOICA project than to the ones of other aid agencies. Innovative input elements such as provision of childbirth kit and providing more than 20 practical exercises (ex. USAID provides only 1~2 practices) on childbirth assistance seem to have impressed the trainers and the beneficiaries.
- A mediation and communication channel was not sufficiently established among the stakeholders.
- According to the local PM, communication among the Ministry of Health, the regional board of health, and the nursing college was done through Spanish interpretation. For the midwives using the Mayan language, double interpretation was done, requiring additional confirmation process for clear

3) AECID is working with FUDEN (Fundación para el Desarrollo de la Enfermería) to promote ante and post delivery care for women through capacity building for nurses and midwives, thereby aiming to improve maternal and child health in Guatemala.

communication.

- In the occurrence of problems and constraints, the Dean of the Nursing College had a tendency to handle the issue directly without reporting to the PM, implying an existence of unidentified problems.
- According to the local PM, a gap occurred in the budget plan and project execution plan due to insufficient communication between Korea and Guatemala. Consequently, there were a number of constraints in monitoring the training programs.
- There were many difficulties in the initial stage of the project due to insufficient communication and cooperation between the head of Chimaltenango public health clinic and the Dean of the Nursing College. The PM then mediated to solve the conflict, ending up doubling her workloads.
- In the interviews, the professors of the nursing college said that the training curriculum and schedule were set through a smooth agreement, but the trainees' opinions were that the curriculum was too massive to be covered in a relatively short time frame.
- Frequent staff relocation in the partner government and absence of inter-department cooperation hindered efficiency of the project.
 - According to the local PM, abrupt personnel transfer in the recipient government required additional effort for the maintenance of the project.
 - Requesting cooperation from other departments required a number of days to be attended.
 - To recruit nurses, regional public health clinics were contacted; and a number of government departments were requested to send official documents. However, sending of official documents were delayed, causing a postponement and

adjustment of the recruitment process.

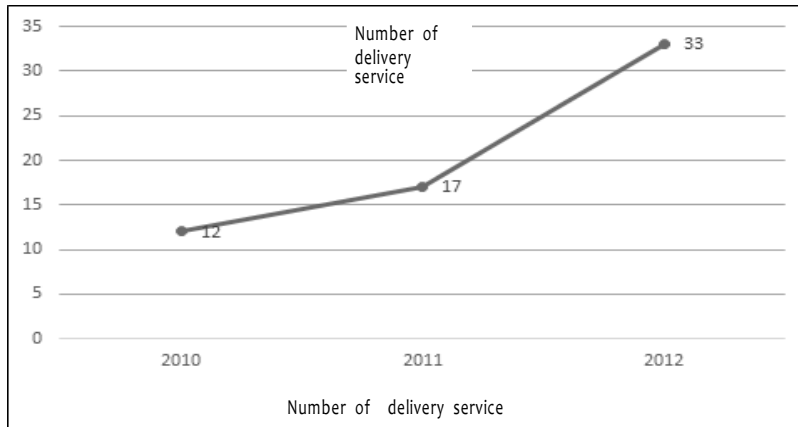
- In the case of health education for students of Chimaltenango, several days were spent to initiate the project due to the absence of cooperation from the regional board of health and the board of education. An additional effort was made to request for cooperation through personal meetings with the persons in charge from the board of education and the schools.



3. Effectiveness

- The actual output of the project generally correspond with the initial plan as the number of trained maternal and child healthcare providers has increased as the result of the project. However, some of the nurses have changed their duties, working in irrelevant areas to the capacity building.
- The capacity building sessions actually strengthened the capacity of the nurses, giving them a sense of self-conviction with regards to childbirth assistance.
 - Specifically, the trainees were able to gain a self-trust through more than 20 practical exercises on childbirth, thereby enabled to provide safe healthcare service and to take proper actions in case of emergency and danger.
 - Since some nurses requested for an additional training on in-depth research, the request can be considered when implementing a higher level project in the future for further enhancement of capacity of nurses.

<Image 1> Number of delivery service provided by the nurses trained in the Coban capacity building program (annual average per person)



Source: Collected by the local coordinator⁴⁾

- According to the PM, the training contents are helpful for the performance improvement in the field. Especially, in Cobán, the number of delivery service has rapidly increased since the trained nurses began to provide delivery services in hospitals and public health clinics (Centro de Atención Permanente, C.A.P.) with necessary facilities for childbirth.
- On one hand, many of the nurses are currently working in a field irrelevant to the capacity building, offsetting the effect of the project. A significant portion of the trainees are students, so the capacity building would be helpful for an improvement of future health services rather than making an immediate improvement.
- Capacity of the midwives who participated in the project has generally improved, though there are some regional differences.
- Training for the midwives includes preventing infection in delivery, understanding and building trust on health facilities, and considerations for

4) Research on number of delivery service provided was conducted to the nurses who participated in the capacity building program in Cobán Nursing College. A total of 60 respondents.

the local culture. The teaching materials are mainly made of pictures and messages considering the midwives' level of understanding. The materials were effective for antenatal care, as they provide information helpful for the education of pregnant women as well.

- Basic health kit (sterilized scissors, suture set, forceps and others) for home delivery was provided to accommodate relatively safe home delivery in case of emergency. The midwives were highly satisfied with the provided kits, but the design of the carrier may need to be upgraded in the future.
- According to the interviews, capacity building for midwives contributes to early detection and transfer of high risk mothers to health facilities. Such a contribution, however, largely differs according to individual and regional culture, custom, and environment.
 - According to the doctors who trained the midwives in Chimaltenango, the latter seemed to understand only about 20-30% of the training contents. In Cobán, where institutions are well-converged, capacity building for midwives progressed more smoothly.
- The regional difference of the effectiveness of capacity building seems to arise from the following factors.
 - ① Convergence between institutions and the residents of the region
 - Patzun and Chimaltenango are using CachiQue language. They are conservative and are greatly affected by political changes due to a large gap between the institutions (whites-Mestizo) and the residents (Indio). For instance, the maternity hospital was restricting the access of the midwives and families for reasons like a risk of infection. In Cobán, on the other hand, the institutions and the residents are relatively cooperative to each other.

② Economics of delivery

- Delivery assistance is a major source of income for the midwives as they receive about 100-700 Quetzal for delivery assistance, while only 10-20 Quetzal for house calls for ante and post delivery cares. Thus, an improvement on awareness of delivery at health facilities might be perceived as a threat to the income of the midwives.
- The midwives in Cobán, where traditional and modern lifestyles are relatively well converged, think that they are not working for mere income, but rather for a holy purpose of safeguarding the lives of the people. The general hospital also provides facilities for traditional delivery, and allows midwives to participate in deliveries.
- In contrast, the midwives in Chimaltenango were deeply worried about a decrease in their income, which would not dramatically increase the transfer of mothers to the hospital for delivery.
- Hence, a holistic approach, which links the project with other projects in the relevant sectors such as family planning, nutrition, and cultural convergence is necessary. Various NGOs from countries including Korea, USA, and Spain are currently implementing regional development projects in Guatemala. Therefore, an effort to build linkages with other projects through a partnership with agencies and NGOs would be vital.

③ Incentive for training

- A weekly incentive (for 5 days) of 350 Quetzal was paid to the trainees. This corresponds to 45,000 Korean Won, and is a significant incentive considering that a weekly transportation cost in Guatemala is around 75 Quetzal.
- Unlike in Cobán and Quetzaltenango, most of the midwives in Chimaltenango are likely to have participated in the training program because of the financial incentive.

- The beneficiaries provided positive feedbacks to the invited training program, but the impact of the program might decrease due to workplace transfers.
 - In the interview, most beneficiaries of the invited training program provided positive feedbacks. The trainees were especially motivated by the session led by the Korean specialist (nursing professor) where Korean experiences were shared.
 - However, some trainees reported that some contents of the training lacked direct relevance to their works. Hence, program design and trainee selection may need to be more consistent to the purpose; and a continuous monitoring on the application of the training may be necessary.
- A training for the residents were not effective, offsetting a spreading effect of maternal and child healthcare service.
 - In Patzun, training for the residents and students was conducted; and regional committees for maternal and child health were established with an expectation that strengthened institutionalization will enhanced the level-up of the maternity care. According to the interviews, however, only 3-4 of the committees are actually operating; and the trainees had passively participated in the program. Consequently, the impact on increased maternal and child health public clinic utilization and expanded maternal and child healthcare service fell short of expectations.
 - This is because the elements of the project did not meet the local demand. Nonetheless, PMCHC is aware of such a problem, and is planning for publicity and educational activities. Thus, if a joint monitoring is done through NGO projects, then it would be helpful for analysing impact and drawing recommendation in the future.

- A linkage with the previously implemented project will maximize the impact of the project.
- “Maternal and Child Health Project at Chimaltenango, Guatemala” established a basic structure including the construction of maternal and child healthcare center and public clinic, provision of equipments for maternal and child health improvement, and training for maternal and child healthcare providers.
- The project can operate more effective and efficient capacity building programs for maternal and child healthcare providers through a linkage with the “Maternal and Child Health Project at Chimaltenango, Guatemala”, thereby inducing a massive improvement on the maternal and child health situation of Guatemala.



4. Impact

- The project made a positive impact to the maternal and child health environment of its target regions (Guatemala City, Quetzaltenango, Cobán, Chimaltenango), thereby making an indirect contribution to improving the maternal and child health environment of Guatemala.

<Table 1> Alta Verapaz Maternal and Child Health Indicators

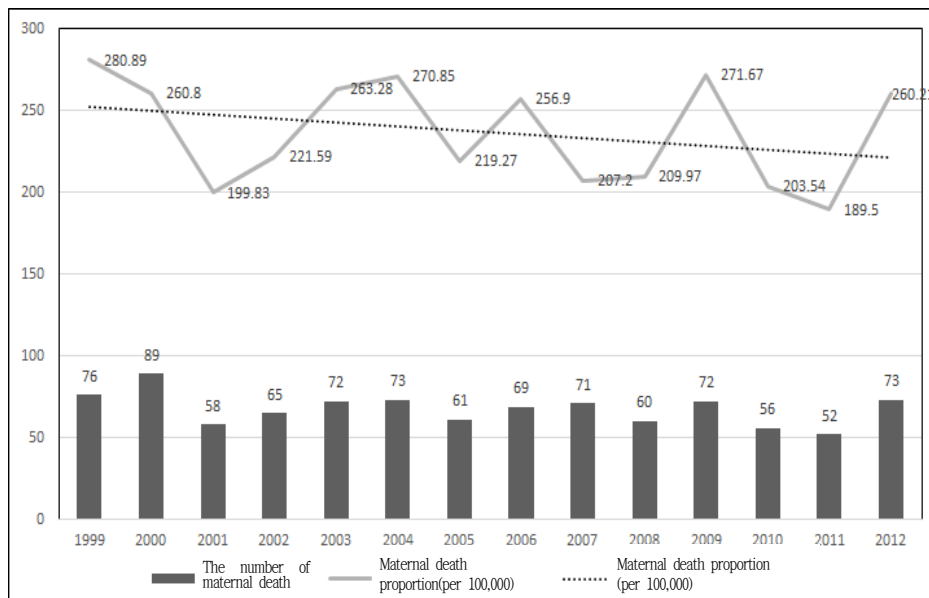
	2008	2009	2010	2011	2012
Total Population	1,014,421	1,046,180	1,078,951	1,112,781	1,147,593
Total Birthrate (%)	27.57	25.33	25.50	24.66	23.57
Neonatal Death Rate (%)	2.32	1.96	1.38	1.86	1.22
Infant Death Rate (%)	22.42	18.49	18.06	13.30	14.38
Maternal Death Proportion	185.94	271.67	203.54	189.5	269.85
Number of antenatal Examination	42,313	46,311	42,469	21,100	34,031
Total Number of Delivery	27,966	26,503	27,513	27,435	27,052
Number of Delivery with Trained Workers	4,899 (17.5%)	7,710 (29.1%)	10,025 (36.4%)	11,774 (42.92%)	11,721 (43.3%)
Number of Delivery with a Untrained Worker (Midwives)	17,379 (62.1%)	16,368 (61.8%)	15,335 (55.7%)	13,118 (47.81%)	13,395 (49.5%)

Source: Guatemalan Ministry of Health and Social Affairs, regional statistics of Alta Verapaz

- In Alta Verapaz, where Cobán is located, total birthrate, neonatal death rate, and infant death rate have been decreasing slightly. Delivery attended by doctors is increasing, while delivery with midwives is decreasing in number.

- Knowing that the main causes of maternal deaths are postpartum bleeding and toxemia of pregnancy, lack of appropriate health service in hospitals might have reduced the impact of the capacity building project.
- Increase in the number of delivery with trained healthcare providers is not a direct effect of the project. However, the project enabled an early detection of high risk mothers and relevant actions to take place for those mothers. Therefore, the project did make an impact on the improvement of regional maternal and child health environment.
- An objective analysis would not be possible as maternal and child health indicators of other target regions were inaccessible. However, a regional statistics involving Guatemala City also proved that the number of delivery attended by trained healthcare providers increased from 73% in 2008 to 93% in 2012.

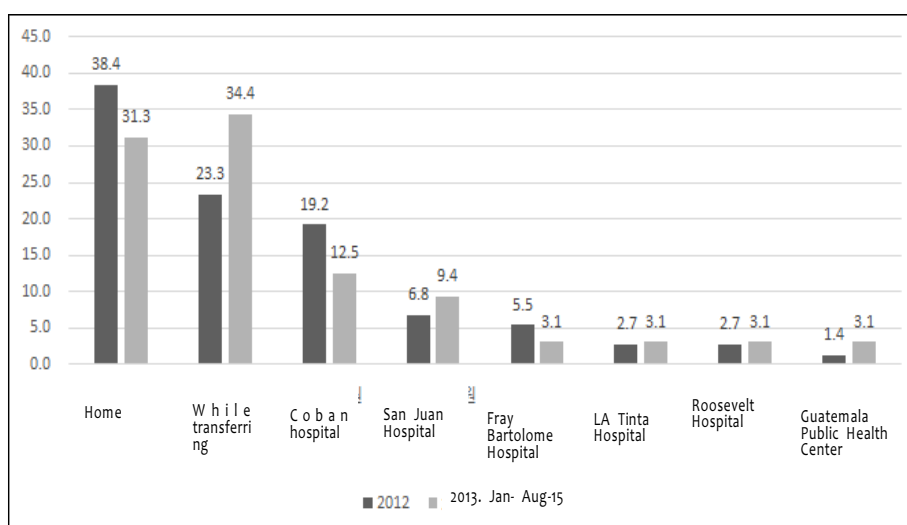
<Image 2> Change in Maternal Death Proportion in Alta Verapaz



Source: Alta Verapaz Regional Ministry of Health (Area de Salud de Alta Verapaz)

- The maternal death proportion of Alta Verapaz is decreasing gradually, though the trend is not consistent. Limitations exist as indicators of other target regions are inaccessible, but the project does seem to have made an impact to reducing the regional maternal deaths.

<Image 3> Maternal Death Rate in Alta Verapaz according to Places of Deaths(%)



Source: Alta Verapaz Regional Ministry of Health (Area de Salud de Alta Verapaz)⁵⁾

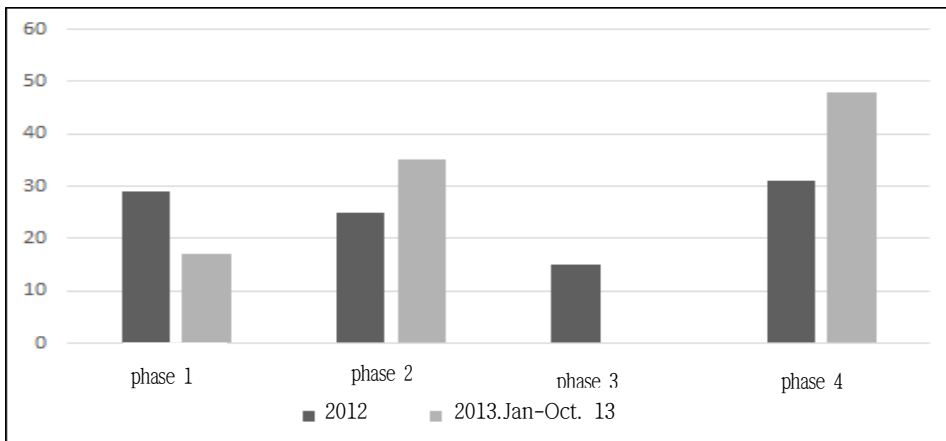
- In 2013, the number of deaths at home had decreased from the number in 2012. This is presumably caused by an increase in the number of delivery in health facilities. Limitations exist as there are no accurate statistics, but

5) Maternal Death Rate in Alta Verapaz according to Places of Deaths

Places of Maternal Deaths	2012		Jan. 2013 – Aug. 15, 2013	
	Number	%	Number	%
Home	28	38.4	10	31.3
While transferring	17	23.3	11	34.4
Cobán Hospital	14	19.2	4	12.5
San Juan Hospital	5	6.8	3	9.4
Fray Bartolome Hospital	4	5.5	1	3.1
LA Tinta Hospital	2	2.7	1	3.1
Roosevelt Hospital	2	2.7	1	3.1
Guatemala Public Health Center	1	1.4	1	3.1

considering the traditional delivery process in Cobán, it is assumed that now the mothers are more frequently transferred to health facilities by the midwives.

<Image 4> Change of Maternal Death Rate in Alta Verapaz according to the Phases of Delay (%)



Source: Alta Verapaz Regional Ministry of Health (Area de Salud de Alta Verapaz)⁶⁾

- The information on maternal death rate according to the phases of delay also shows that the number of deaths in phase 1 (demora 1) has decreased. It is therefore, assumed that high risk mothers were detected in an early stage, and relevant actions were taken by the midwives and the nurses trained in the capacity building program.
- Through capacity building, the midwives' recognition on maternal and child health is improving, but a continuous effort is necessary to overcome their old fixed perceptions.

6) Phase 1: the mother decides whether she wants a medical assistance
Phase 2: whether a health facility is accessible
Phase 3: whether the health facility provides an appropriate service
Phase 4: whether the health facility provides an appropriate surgery

- Independent maternal and child health centers were established in Chimaltenango and Patzun, and recognition on maternal and child health has followed through the capacity building program, securing visibility for Korean aid.
- In rural areas like Patzun, antenatal care is seldom provided by the husbands and the parents-in-law due to cultural reasons. Hence, an education for the husbands, community leaders, and students was necessary, though there were constraints in creating voluntary demand in the communities.



5. Sustainability

- The management of the capacity building program for maternal and child health lacks sustainability.
 - Generally, the capacity building project was a one-off project, falling short in terms of continuity and sustainability.
 - Maintenance of the regional committees that consist of the head of public clinic, nurses, and social workers was a critical factor for the impact of the project, but it was not sustainable. This implies that maternal and child health improvement projects should take a regional-level approach. Communities should be aware of their own needs and be self-motivated.
- Sustainability of the project should be improved, utilizing the close attention of the Guatemalan Government on the improvement of maternal and child health and its related facilities.
 - The Guatemalan Government is showing an absolute and relative

enthusiasm for development of maternal and child health sector. However, the government has numerous constraints in terms of resources, input methods, and establishment of an effective supporting system. Without external supports, the Guatemalan Government would face a number of constraints in improving its maternal and child health environment. Thus, an appropriate exit strategy should be established by specifying the role of the donor country in order to ensure sustainability of the project.

- The trained nurses are taking important positions in the society, spreading the outcomes of the project.
- The nurses who participated in the KOICA training are called “KOICA nurses”. The KOICA nurses are taking important positions with improved status in their organizations after the training.
- In the recently initiated project of a Spanish NGO (FUDEN), many of the beneficiaries of KOICA capacity building project are participating as key persons, maximizing the impact of the project.
- The Nursing College of Guatemala is planning to open a graduate course for professional nurses together with San Carlos University; and a training program for midwives is also to be initiated. Therefore, the professors and students who participated in the project can be utilized and be further developed in those plans.



6. Cross-cutting Issues (Gender Mainstreaming)

- Strategies for gender mainstreaming were established in the project designing stage.
 - The project was designed to reduce maternal and infant mortality rates through improving the capacity of the nurses and the midwives in Guatemala City, Quetzaltenango, Cobán and Chimaltenango.
 - An education on antenatal care, contraception, and family planning was provided to men and students in the target regions; and such an effort made a positive contribution to gender mainstreaming in Guatemala.
- Social capacity of female healthcare providers in Guatemala has improved through the capacity building program.
 - The project was designed to reduce maternal and infant mortality rates through improving the capacity of the maternal and child healthcare providers; and thus, the project targets at nurses and midwives who are mostly women.
 - The nurses who completed the capacity building program are making positive influences in hospitals, public health centers, and NGOs working for maternal and child health. The midwives are also expanding their influences forming a cooperative relationship with hospitals and public health centers, though there are regional gaps. Therefore, the capacity building program has improved the social capacity of female health providers in Guatemala.
- The project positively affected the beneficiaries' gender relationships and gender equality.
 - In the survey conducted to nurses, the percentage of respondents who

gave positive answers to the question asking about the project's level of contribution to promoting gender equality reached 100% in Chimaltenango, 87.8% in Guatemala City, 90.6% in Quetzaltenango, and 76.9% in Cobán⁷⁾. In the survey conducted to midwives, 55.5% of the respondents in Quetzaltenango, and 87.6% in Cobán provided positive feedbacks about the project's contribution to promoting gender equality.⁸⁾

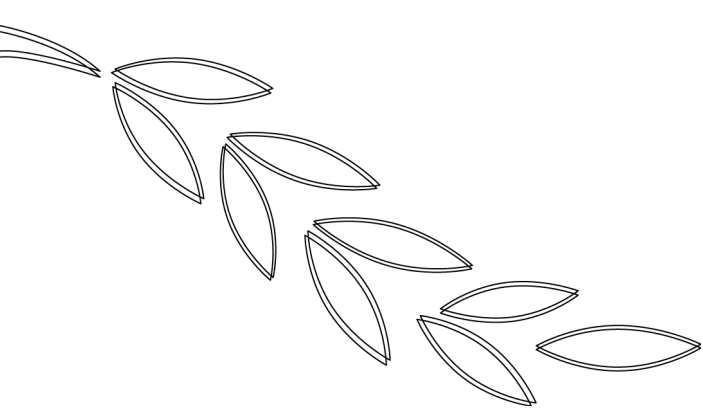
7) Number of Respondents according to Region (Nurses)

Chimaltenango	Guatemala City	Quetzaltenango	Cobán
9	29	32	13

8) Number of Respondents according to Region (Midwives)

Chimaltenango	Guatemala City	Quetzaltenango	Cobán
0	0	36	16

Survey papers were distributed but not collected in Chimaltenango and Guatemala City.



IV. Conclusion and Recommendation

1. Main evaluation results and lessons
2. Project-related recommendations (for sector/country)
3. Policy Recommendation



1. Main evaluation results and lessons

- The project was designed to reduce maternal and infant mortality rates through improving the capacity of the nurses and the midwives in Guatemala City, Quetzaltenango, Cobán and Chimaltenango.
- The contents of the training program for nurses and midwives were effectively structured with both theory and practice.
- The trained nurses are making positive influences, carrying the name of “KOICA nurses.” Nonetheless, a plan for the utilization of trained workforce should be specified in the planning and implementing stages when initiating a similar project in the future.
- Considering that traditional customs, perceptions and the relationship between midwives and institutions acted as an important variable in the project, any future projects should be designed and implemented upon a social and cultural understanding on the target area.
- Projects might terminate as one-off attempt when sustainability is not ensured. Like in the case of Cobán, building a linkage with the projects of other aid institutions could be helpful. Since maternal and child health projects can create a synergy when accompanied with regional development and education, a joint project with NGOs and aid agencies in such fields is worth considering.



2. Project-related recommendations (for sector/country)

- If the purpose of the project was to increase the rate of delivery in health facilities by training the midwives, then a training program alone may have limitations. As discovered from the investigation, institutional strategies should be provided to compensate possible financial losses of the midwives. There is a case in Zambia, for example, where incentives were provided for deliveries in health facilities, and the number of delivery in health facilities had actually increased as the result.
- To comprehend the local situation and provide relevant recommendations, it is recommended that a health specialist (consultant) be dispatched for about 2 years.
 - Maternal and child health of Guatemala is one of the poorest in Latin America; and is in need for health facilities, healthcare providers, and institutional development. Hence in the future projects, development of health system and institutions should be considered as well as enhancement of health facilities and equipments and workforce training.
 - Moreover, to maximize the impact of the capacity building project for nurses and midwives, continuous monitoring and evaluation should be conducted on whether the trained workforce are effectively utilized. Monitoring and evaluation were requested by the recipient government as well, and both institutional and technical approaches should be considered. Thus, a health specialist dispatch can serve as a cooperative project.
- The training program, for instance, should be implemented mainly to the workers who will stay at least for 3 years in Chimaltenango Hospital to establish an effective system with a consideration on the hospital's purpose and achievements.



3. Policy Recommendation

- In the previous project, the main input elements were hardwares. (project termination immediately after the construction of health centers) Consequently, the constructed hospital failed to position itself in the health system of the recipient country, falling short of its role of connecting the central and regional health levels. The project, in contrast, bridges maternal and child health center, maternal and child health public clinic, and regional communities by involving capacity building even for the midwives. It is necessary to develop such a module, thereby expanding a regional development approach to maternal and child health projects.
- Guatemala is not a big country in terms of population and area. However, its territory consists mainly of mountainous areas, so its transportation infrastructure is poor. Therefore, characteristics of each region should be carefully considered when implementing regional projects. Especially for maternal and child health projects, project impact tends to be larger in the regions with cooperative atmosphere (ex. Cobán) than the others (ex. Chimaltenango). Therefore, target areas should be selected based on a sufficient understanding on the complexities of politics, administration, environment and power relation among participants in each region, city, and community.
- An effort for aid harmonization is necessary since other donor countries are implementing a number of projects in the relevant sectors such as family planning and nutrition. An aid harmonization with horizontal convergence would be most ideal. For instance, if a linkage is built in a form of family planning (by American NGO) - maternal and child health (KOICA) - nutrition (USAID) in one region, then development effectiveness will be significantly increased.

- A consideration for the role of developed workforce in the recipient country's health system is prerequisite.
 - Midwives are actually taking a significant role in childbirth in Chimaltenango, but they are not included in the official frame for healthcare providers. Hence, a research project to develop a system to manage and evaluate the quality of health service provided by the midwives need to be implemented as well.
 - An utilization plan including the workplace, duties, and positions of the trained workforce should be specified in the planning stage.

- The reason why the educational program for the local communities was not effective is because the project was implemented in a top-down approach, failing to reflect the demand of the local communities to a sufficient degree. Considering that a voluntary participation of local communities is one of the most critical factors for the success of the project, it is recommended that a sufficient time be allocated for a preliminary validity investigation.

**Ex-post Evaluation Report on the Project for the Improvement of
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