

Country Name	Project for Strengthening Primary Health Care for Pregnant Women and Newborns in Health Region III
Dominican Republic	

I. Project Outline

Background	<p>In Dominican Republic, the maternal mortality rate was 92 per 100,000 live births in 2015, and it was much higher than the average of 67 for the whole Latin American and Caribbean Region. The under 5 child mortality rate for the country was 30.9 per 1,000 live births in 2015 while 17.96 for the whole Latin American and Caribbean Region. On the other hand, the coverage of fourth antenatal care (98%), skilled birth attendance (97.7%), and hospitalized delivery (98%) were all high. The reason for the relatively high mortality rates were, thus, pointed out in the quality of health care for pregnant women and newborns. Deliveries were made in most cases at hospitals, while antenatal and puerperal medical checkup and care for newborns were mainly responsibilities of Primary Attention Units (UNAPs). However, the quality of services provided by health facilities differed from each other and collaboration was not well established and functioning among medical facilities at primary, secondary, and tertiary levels.</p>												
Objectives of the Project	<p>Through capacity development of the primary health facilities, improvement of the counter referral, prevention of accidents/incidents in the Health Region III, the project aimed at improving the quality of prenatal, neonatal and puerperal care provided by the health facilities, especially the primary health care centers and UNAPs, thereby contributing to a decrease in maternal and neonatal mortality.</p> <p>1. Overall Goal: Maternal and neonatal mortality is reduced in Health Region III. 2. Project Purpose: The quality of prenatal, neonatal and puerperal care provided by health facilities, especially the primary health care centers and the UNAPs, is improved.</p>												
Activities of the project	<p>1. Project site: Health Region III (Provinces of Duarte, Maria Trinidad Sanchez, Hermanas Mirabal and Samaná) 2. Main activities: Training of UNAP staff on maternal and child health and information, education and communication (IEC), development of training materials, training of Regional Health Service-Health Area Management (SRS-GA), hospitals and UNAPs on counter referral, training of hospitals and SRS-GA on prevention of incidents/accidents, etc. 3. Inputs (to carry out above activities)</p> <table border="0"> <tr> <td>Japanese Side</td> <td>Dominican Republic Side</td> </tr> <tr> <td>1) Experts from Japan: 5 persons</td> <td>1) Staff allocated: Counterpart personnel from SRSN and MOH.</td> </tr> <tr> <td>2) Trainees in Japan: 12 persons</td> <td>2) Land and facilities: Office space,</td> </tr> <tr> <td>3) Equipment: Doppler fetal photo-cardiographs, blood pressure monitors, baby scales, ultrasonic diagnostic equipment, UPS electronic fetal monitors for ultrasonic diagnostic equipment, etc.</td> <td>3) Local cost: activity operation, travel expenses, etc. electricity and water fee, etc.</td> </tr> <tr> <td>4) Local cost: training implementation, etc.</td> <td></td> </tr> </table>			Japanese Side	Dominican Republic Side	1) Experts from Japan: 5 persons	1) Staff allocated: Counterpart personnel from SRSN and MOH.	2) Trainees in Japan: 12 persons	2) Land and facilities: Office space,	3) Equipment: Doppler fetal photo-cardiographs, blood pressure monitors, baby scales, ultrasonic diagnostic equipment, UPS electronic fetal monitors for ultrasonic diagnostic equipment, etc.	3) Local cost: activity operation, travel expenses, etc. electricity and water fee, etc.	4) Local cost: training implementation, etc.	
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Project Period	May 2013 to May 2017	Project Cost	(ex-ante) 303 million yen, (actual) 295 million yen										
Implementing Agency	Ministry of Public Health (MSP) and National Health Service (SNS)												
Cooperation Agency in Japan	None.												
Related Project	Technical cooperation: Regional Primary Health Service Reinforcement Project (2004-2009)												

II. Result of the Evaluation

1 Relevance
<p><Consistency with the Development Policy of Dominican Republic at the time of Ex-ante Evaluation> The “National Development Strategy 2010-2030” aimed at decreasing maternal and infant mortality rates which were set as important indicators. Also, the “National Health Plan 2006-2015” put emphasis on improvement of maternal and children care. Thus, the project was consistent with the development policy of Dominican Republic at the time of ex-ante evaluation.</p> <p><Consistency with the Development Needs of Dominican Republic at the time of Ex-ante Evaluation> In Dominican Republic, the maternal mortality rate and the under-5 child mortality rate were higher than the average of the Latin American and Caribbean countries, due to the low quality of health care for pregnant women and newborns. There were needs for better maternal and child health services, and the project was consistent with these development needs of Dominican Republic at the time of ex-ante evaluation.</p> <p><Consistency with Japan’s ODA Policy at the time of Ex-ante Evaluation> Based on the policy dialogue in 2011, three priority areas including poverty reduction were set¹. The project targeted the public health services which were usually utilized by the low-income people. Thus, the project was consistent with Japan’s ODA policy at the time of ex-ante evaluation.</p> <p><Evaluation Result> In light of the above, the relevance of the project is high.</p>
2 Effectiveness/Impact

¹ Ministry of Foreign Affairs, “ODA Databook” (2012).

<Status of Achievement for the Project Purpose at the time of Project Completion>

The Project Purpose was achieved by the time of project completion. The prenatal, neonatal and puerperal care for pregnant women and newborns were improved in quantity and quality. More pregnant women received health orientation from the doctor or nurse regarding nutrition, signs and symptoms of alarm during pregnancy, etc., as described in the booklet promoted by the project² (Indicator 1), and more women who gave birth and newborns received home visits from the UNAP team within 72 hours of discharge, than planned (Indicator 2).

<Continuation Status of Project Effects at the time of Ex-post Evaluation>

The project effects have continued. UNAPs have continued the health orientation to the pregnant women. The booklet of care for women during pregnancy, childbirth and postpartum developed by the project have been utilized, and the 20 items described in the booklet have continued to be applied. Women have been guided about nutrition, signs and alarm symptoms during pregnancy, childbirth and puerperium in all first-level centers in the Health Region III. Deliveries have been notified from the provincial and municipal hospitals to SRS-GA based on the guideline, but not from the regional hospitals. It is because the regional hospitals have been too busy with response tasks to COVID-19, although they have been in charge of many deliveries. Actually, Duarte Province were classified by MSP as one of the most severely affected provinces with many numbers of infection and death at the beginning of the pandemic, and thus it was presumed that regional hospitals were very busy dealing with COVID-19 patients. Notifications that SRS-GA have received have been forwarded to the first-level centers. In case of Duarte Province, deliveries had been notified from SRS-GA to the first-level centers by e-mail, but as of the time of ex-post evaluation, they have been limited due to the personnel shortage because of the pandemic of COVID-19. Instead, deliveries have been notified through health promoters or nursing staff of the first-level centers. UNAP teams have continued home visits to mothers and newborns as mentioned. However, the visits have not been conducted in all cases, because the postpartum notification has not perfectly been conducted and also because some mothers have refused the visit to prevent the infection of COVID-19. Thus, the pandemic of COVID-19 has much affected the provision of maternal and child health services, as the majority of health personnel have had to work for treating and controlling of the infection and also some of them themselves have got the infection.

UNAP health promoters have continued health promotion activities with the livelihood approach. For example, the Health Committee and community leaders have been made aware of re-purifying water of the health center and beautifying the facility structure and environment in a community in Santa Ana, Villa Tapia Municipality of Hermanas Mirabal Province. In another community in Pimentel Municipality of Duarte Province, the Health Committee and community leaders were facilitated for carrying out activities including fund raising to purchase the center's power generator.

<Status of Achievement for Overall Goal at the time of Ex-post Evaluation>

The Overall Goal has been partially achieved by the time of ex-post evaluation. The maternal mortality ratio decreased to 45.9 per 100,000 births in 2017 but then increased to 111.9 in 2020 in the Health Region III (Indicator 1). The ratio varied much among the four provinces (0.0 in María T. Sanchez, 66.8 in Hermanas Mirabal, 139.7 in Duarte, and 203.8 in Samaná). According to the Regional Health Services of the Nordest (SRSN), the increase in Duarte and Samaná in 2020 was caused by the pandemic of COVID-19 as explained above. Major causes of maternal death were pregnancy-induced hypertension, hemorrhages, sepsis and abortion which has been totally banned in the country. Another factor for the maternal death in the two provinces was the overloaded work of the health personnel which hindered careful attention to the delivery services at the regional hospitals. Also, in Duarte, it was pointed out by the Provincial Direction of Health (DPS) of Duarte that some migrants, mainly Haitians, arrived at the moment of delivery without any evidence of and with added pathologies (Hypertensive disorders of pregnancy, severe anemia and infections), which in many cases has made it difficult to reverse the conditions.

On the other hand, factors for decreasing or stable maternal mortality ratio in the Health Region III have been attributed to the improved prenatal care, use of the “Clinical Guide for Women's Care during Pregnancy, Childbirth and Puerperium” in all the first-level centers, activated Extreme Maternal Morbidity Committee, improved equipment provided by the project, bimonthly meetings with the regional management team including SRS-GA, etc. Factors or good practices of no maternal death in María T. Sanchez in 2020 could not be confirmed in the ex-post evaluation. The neonatal mortality ratio decreased to 12.2 per 1,000 births in the Region III in 2017, but it turned to increase in 2020, while the national average was decreasing (Indicator 2). Factors for the neonatal mortality were imperfect adherence to neonatal management protocols such as the home visits within 72 hours, poor follow-up in antenatal care, high-rate pregnancy in adolescents, unavailable neonatal unit, deficiency in the articulation of the network, and so on, due to the earlier mentioned reasons. In 2019, SNS identified 27 public hospitals that had contributed the most to reducing maternal and infant mortality, which included the San Vicente de Paul Regional Hospital in Duarte Province and the Leopoldo Pou Hospital in Samaná Province.

<Other Impacts at the time of Ex-post Evaluation>

Several positive impacts have been confirmed. First, fathers were sensitized to understand better the situations that mothers’ went through during pregnancy and became more empathetic with them, according to DPS of Duarte where the focal point person on gender equity was assigned. By participating in the fathers’ classes, they could perceive what the mothers felt with the pregnancy. By putting an artificial pregnancy weight on their stomach, they simulated a pregnant women to collect things on the floor, feel the low back pain, etc. However, these classes have been suspended since the personnel were moved to other offices. Second, in the Municipality of Las Guáranas of Duarte Province, community activities have been conducted, where mothers from low income families have been benefitted by the support from the municipality, such as “pregnancy baskets” which contain necessary inputs for the care of newborns through the breastfeeding circle. Third, the project experiences, such as use of monitoring instruments of maternal and child care, conduct of home visits, and establishment of health committees, have been diffused to other Health Networks, through meetings organized by MSP.

<Evaluation Result>

Therefore, the effectiveness/impact of the project is high.

Achievement of the Project Purpose and Overall Goal

Aim	Indicators	Results
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² Before the project was implemented, the use of the booklet was very limited in the Health Region III. The use was extended to the whole region by the project’s promotion.

(Project Purpose) The quality of prenatal, neonatal and puerperal care provided by health facilities, especially the primary health care centers and the UNAPs, is improved.	1. By May 2017, among the pregnant women who attend prenatal consultations in UNAPs, more than 50% receive health orientation from the doctor or nurse regarding nutrition, signs and symptoms of alarm during pregnancy, etc., according to the scheme established in the booklet of care for women during pregnancy, childbirth and postpartum that describes 20 items.	<u>Status of achievement: Achieved (Continued).</u> (Project Completion) - 93.5% of the pregnant women received health orientation from the doctor or nurse regarding nutrition, signs and symptoms of alarm during pregnancy, etc., according to the scheme established in the booklet of care for women during pregnancy, childbirth and postpartum that describes 20 items. (Ex-post Evaluation) - UNAPs have continued the health orientation to almost all of pregnant women who attended prenatal check-ups in UNAPs, regarding nutrition, signs and symptoms of alarm during pregnancy, etc., according to the 20 items of the maternity health record book.																																			
	2. More than 50% of women giving birth in municipal, provincial and regional hospitals and newborns receive home visits from the UNAP team within 72 hours of discharge, compared to the percentage recorded in May 2017.	<u>Status of achievement: Achieved (Continued).</u> (Project Completion) - 71.0% of women giving birth in municipal, provincial and regional hospitals and newborns received home visits from the UNAP team within 72 hours of discharge. (Ex-post Evaluation) - All UNAP teams have continued home visits to mothers and newborns within 72 hours of discharge.																																			
(Overall Goal) Maternal and neonatal mortality is reduced in Health Region III.	1. The maternal mortality ratio against 100,000 births decreases from 106 (2011) to 50 (2022).	<u>Status of achievement: Not achieved.</u> (Ex-post Evaluation) - The maternal mortality ratio against 100,000 births decreased in 2017 but increased to 111.9 in 2020. Table: Maternal mortality ratio per 100,000 births <table border="1"> <thead> <tr> <th></th> <th>2017</th> <th>2018</th> <th>2019</th> <th>2020</th> </tr> </thead> <tbody> <tr> <td>National</td> <td>104.4</td> <td>107.1</td> <td>89.0</td> <td>109</td> </tr> <tr> <td>Region III</td> <td>45.9</td> <td>73.7</td> <td>64.9</td> <td>111.9</td> </tr> <tr> <td>Duarte</td> <td>19.9</td> <td>99.6</td> <td>19.9</td> <td>139.7</td> </tr> <tr> <td>María T. Sánchez</td> <td>45.0</td> <td>44.7</td> <td>133.4</td> <td>0.0</td> </tr> <tr> <td>Hermanas Mirabal</td> <td>62.0</td> <td>63.5</td> <td>65.1</td> <td>66.8</td> </tr> <tr> <td>Samaná</td> <td>98.0</td> <td>49.6</td> <td>100.5</td> <td>203.8</td> </tr> </tbody> </table> <p>Note: Figures for 2019 and 2020 are preliminary. Source: Project Completion Report, information provided by MSP, SRSN and DPS of the Health Region III.</p>		2017	2018	2019	2020	National	104.4	107.1	89.0	109	Region III	45.9	73.7	64.9	111.9	Duarte	19.9	99.6	19.9	139.7	María T. Sánchez	45.0	44.7	133.4	0.0	Hermanas Mirabal	62.0	63.5	65.1	66.8	Samaná	98.0	49.6	100.5	203.8
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2. The neonatal mortality ratio against 1,000 births decreases from 22 (2011) to 13 (2022).	<u>Status of achievement: Achieved.</u> (Ex-post Evaluation) - The neonatal mortality ratio against 1,000 births decreased to 14.0 in the Region III in 2020, although it slightly increased from 12.2 in 2017. Table: Maternal mortality ratio per 100,000 births <table border="1"> <thead> <tr> <th></th> <th>2017</th> <th>2018</th> <th>2019</th> <th>2020</th> </tr> </thead> <tbody> <tr> <td>National</td> <td>18.7</td> <td>18.4</td> <td>15.6</td> <td>13.4</td> </tr> <tr> <td>Region III</td> <td>12.2</td> <td>13.3</td> <td>14.8</td> <td>14.0</td> </tr> <tr> <td>Duarte</td> <td>13.4</td> <td>13.5</td> <td>16.6</td> <td>14.0</td> </tr> <tr> <td>María T. Sánchez</td> <td>14.9</td> <td>11.2</td> <td>15.6</td> <td>7.1</td> </tr> <tr> <td>Hermanas Mirabal</td> <td>9.9</td> <td>12.7</td> <td>11.1</td> <td>15.4</td> </tr> <tr> <td>Samaná</td> <td>8.3</td> <td>15.4</td> <td>12.6</td> <td>7.1</td> </tr> </tbody> </table> <p>Note: Figures for 2019 and 2020 are preliminary. Source: Project Completion Report, information provided by MSP, SRSN and DPS of the Health Region III.</p>		2017	2018	2019	2020	National	18.7	18.4	15.6	13.4	Region III	12.2	13.3	14.8	14.0	Duarte	13.4	13.5	16.6	14.0	María T. Sánchez	14.9	11.2	15.6	7.1	Hermanas Mirabal	9.9	12.7	11.1	15.4	Samaná	8.3	15.4	12.6	7.1	
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Source: Project Completion Report and information provided by MSP, SRSN and DPS of the Health Region III..

3 Efficiency

Both of the project cost and period were within the plan (ratio against the plan: 97% and 100%, respectively). Outputs were produced as planned. Therefore, the project efficiency is high.

4 Sustainability

<Policy Aspect>

SNS has launched the “Maternal and Neonatal Mortality Reduction Plan 2020” and the “Plan to Accelerate the Reduction of Maternal and Infant Mortality” in 2019 to decrease the maternal and neonatal mortality ratio, which have been in line with the “National Development Strategy 2030.”

<Institutional/Organizational Aspect>

There has been no change in the organizational structure to provide maternal and child services, sustaining the SRS-GA-Hospital-UNAP circuit. Regular meetings were conducted between SRS (hospitals, GA, UNAPs, etc.) and MSP (DPS) to analyse situations of maternal and child care. However, since the outbreak of COVID-19, they have been suspended like other meetings in the country so as to prevent infection of COVID-19. The number of hospitals been sufficient to attend deliveries, although it has been desired to have one more regional hospital to ensure geographically equitable access to the pregnant women in the four provinces, according to SRSN. The extreme maternal morbidity committee has been sustained in the hospitals, and meetings have been held upon the needed cases. As the system for proactive prevention of incidents/accidents, infrastructure problems have been reviewed and solutions have been implemented. However, human incidents have not been formally reported or recorded. There had not been much culture of risk prevention and notification, as they were reluctant to report risks or incidents/accidents for fear of being reprimanded or losing his job. Since the time of project completion,

SRSN has tried motivating the hospitals for the operation, but it has not been very successful. At the time of ex-post evaluation, 131 UNAPs was functioning to conduct pre-natal check-up, post-natal check-up, and referral/counter referral and health promotion activities with the livelihood approach in the Health Region III, which, however, has not been sufficient to cover all community health services. Although a UNAP needs to consist of one family physician, one physician assistant, one bachelor in nursing, nursing assistants per 250 families and promoters per 100 families at the urban level, it has been difficult to assign sufficient qualified unit members as regulated. UNAP performance has been monitored by the Zone Coordinators assigned in each province. However, since the pandemic of COVID-19, due to the lack of vehicles and financial inputs, the supervision has become irregular.

<Technical Aspect>

UNAP members have sustained necessary skills and knowledge for their functions, thanks to continuous training of new staff and feedback to existing staff, and regular monitoring of maternal and child actions. However, training of the health personnel including UNAPs by the nursing health committees has been limited since 2020 because of the pandemic of COVID-19 and also the personnel turnover made by the new administration. In addition, the hospitals have not sustained necessary skills and knowledge for preventing incidents/accidents, as they have not been continuously trained. The guidelines and reporting formats introduced by the project have been utilized, but due to the outbreak of COVID-19, regular meetings or opportunities where the reports are used have been suspended.

<Financial Aspect>

The budget of SNS for the first level health care has been on an increasing trend. SRSN has received budget in general, not specifically earmarked for maternal and child health care. 1.6% of the gross domestic product has been assigned to the health sector in 2020, but it should be 7% for the further proper functioning of the sector, according to SRSN. At the first-level centers, supplies and equipment to guarantee maternal and child health care have been budgeted mainly from the sales of services, which have been sufficient for prenatal care and other maternal and child services. SNS has provided the budget to the regional hospital to strengthen its maternal and child care in the Health Region III for the equipment³ valued at RD\$8,000,000. In addition, a maternal and neonatal unit was established at the Pablo A. Paulino Hospital in Las Terrenas Municipality of Samaná Province with all the necessary equipment. All hospitals in the Health Region III have allocated the necessary fund both from the central budget and the sales of services.

SNS budget for the first level health care (million RD\$)

	2018	2019	2020	2021
Budget	3,585	3,728	3,878	4,033

Source: SNS

<Evaluation Result>

In the light above, there have been issues in the institutional and technical aspects. Therefore, the sustainability of the effects is fair.

5 Summary of the Evaluation

The Project Purpose which was to improve the quality of prenatal, neonatal and puerperal care provided by health facilities, especially first level centers, was achieved. Both the maternal mortality ratio and the neonatal mortality ratio decreased as targeted right after the project completion, and since then the ratios have been fluctuating. Regarding sustainability, the SRS-GA-Hospital-UNAP circuit has been sustained to provide maternal and child services. Although more UNAPs would be needed to attend all health needs at the community level, they have sustained necessary skills and knowledge for their functions.

Considering all of the above points, this project is evaluated to be highly satisfactory.

III. Recommendations & Lessons Learned

Recommendations for Implementing agency:

- The Nursing Health Committees would be a key for capacity development and empowerment of health personnel. It is recommended to SRSN to encourage their training function within the region and extend their experience to other regions.
- It is recommended to SRSN to reconsider the notification route of deliveries so that sufficient information would be conveyed to the first level centers in a responsive and reliable manner based on the inter-institutional discussion and agreement between SRSN and MSP.

Lessons Learned for JICA:

- Since the time of project completion, regardless of the influences of COVID-19 pandemic, many efforts for maternal and child health care services strengthened by the project have continued. For example, deliveries have been notified from the provincial and municipal hospitals to SRS-GA and then to the first-level centers so that they could provide necessary post-natal services, with an exception of the regional hospitals that have been too busy with response tasks to COVID-19. This continuity has been regarded successful in the Dominican Republic where the administration change would often cause personnel change and thus affect follow-up of the project effects. In such cases, the project should be designed to involve and empower stakeholders at various levels, such as the community members, first-level centers, hospitals and strengthen the inter-institutional partnership among them. Besides, it is important to identify and empower leaders of each group and accumulate the protocol of partnership in the documents. By taking these approaches, the project effects would continue in a way appropriate for the situations and places.

³ 10 incubators, 2 gynecological stretchers, 4 goose lamps, 1 sonography, 6 Dopplers, 2 phototherapy lamps and 1 fetal monitor for the maternity and neonatology area of the regional hospital.



Training of nurses in the Health Region III



Contest of the posters on MCH made by UNAPs