

Country Name	<b>Project for Reinforcement for Maternal and New Born Health Care Phase 2</b>
Republic of Senegal	

**I. Project Outline**

Background	In Senegal, the Demographic Health Survey (DHS) 2010-2011 estimated the maternal mortality rate at 392 per 100,000 live births, which had been steadily reduced but not achieved the Millennium Development Goals (MDGs). Other indicators including neonatal mortality rate, rate of delivery by qualified birth attendants, and antenatal checkup rate also remained at undesirable levels. With that background, the Ministry of Health and Social Action (MHSA) implemented a technical cooperation project, the “Project for Reinforcement of Maternal and Child Health Care in Tambacounda and Kedougou Regions (PRESSMN)” (2009-2011), with the assistance of the government of Japan and established the “PRESSMN model” as an evidence-based comprehensive methodology to improve maternal and neonatal health care. The PRESSMN model was approved by MHSA and its concept was integrated in the national reproductive health protocol and expected to be applied nationwide.		
Objectives of the Project	Through establishment of a coordination system at national and regional level for scaling-up the PRESSMN model, integration of the PRESSMN model into the training curricula for nurses and midwives, and assessment of the effects of the PRESSMN model, the project aimed at the nationwide scaling-up of the PRESSMN model, thereby contributing to reduction in the rates of maternal and neonatal mortality.		
	1. Overall Goal: Maternal mortality rate and neonatal mortality rate are reduced through improvement of services for maternal and neonatal health in Senegal. 2. Project Purpose: The scaling-up of PRESSMN model is realized nationwide.		
Activities of the Project	1. Project Site: all regions of Senegal 2. Main Activities: 1) establishment and operationalization of a national level coordination system in MHSA for the scale-up of PRESSMN model, 2) establishment and operationalization of a regional level coordination system in 14 Regional Medical Offices for the scale-up of PRESSMN model, 3) integration of the PRESSMN model into the training curricula for registered nurses and midwives, 4) assessment of the effects of PRESSMN model by research studies. 3. Inputs (to carry out above activities) Japanese Side 1) Experts: 5 persons 2) Trainees received: 31 persons 3) Equipment: vehicles, copy machines, neonatal mannequins, etc. Senegalese Side 1) Staff allocated: 42 persons 2) Land and facilities: project offices 3) Local cost: cost for utility of offices (electricity, water and telephone), fuel for cars and motorcycles		
Project Period	(ex-ante) November 2012 - October 2016 (actual) November 2012 - March 2018	Project Cost	(ex-ante) 330 million yen (actual) 470 million yen
Implementing Agency	· Ministry of Health and Social Action (MHSA) (current General Directorate of Public Health (GDPH)): Office of Administration, Directorate of Health, Directorate of Human Resources, Division of Mother and Newborn Health (DMNBH) of the Directorate of Mother and Child Health · National School of Health and Social Development (ENDSS)		
Cooperation Agency in Japan	National Center for Global Health and Medicine (NCGM)		

**II. Result of the Evaluation**

## &lt;Constraints on Evaluation&gt;

- In this ex-post evaluation, the evaluation judgment was made by analyzing information acquired by the questionnaire survey and telephone interviews with officials of DMNBH, the “Situation Analysis Survey Result” (2021) documented by the phase 3 project<sup>1</sup>, and the “Final Report of Information Collection and Confirmation Survey on UHC in Senegal” (2021)<sup>2</sup>. No field survey was conducted due to the incidence of COVID 19.

**1 Relevance**

## &lt;Consistency with the Development Policy of Senegal at the Time of Ex-Ante Evaluation&gt;

The project was consistent with the development policies of Senegal at the time of ex-ante evaluation. The “National Health Development Plan 2009-2018” (PNDS 2009-2018) was a long-term national health policy. It envisioned better access for the entire population to quality health and medical services focusing on the decrease of maternal and neonatal mortality and morbidity rates. The “Mid-term Sector Expenditure Framework 2011-2013” (CDSMT 2011-2013) was composed of the mid-term programs and their expenditure framework for the health sector in Senegal. In line with PNDS, CDSMT placed the top-priority on “maternal, newborn, child and adolescent health.”

## &lt;Consistency with the Development Needs of Senegal at the Time of Ex-Ante Evaluation&gt;

The project was consistent with the development needs of Senegal at the time of ex-ante evaluation. According to DHS 2010-2011, the maternal mortality rate in Senegal had been steadily improved but not achieved MDGs’ target aimed at the decrease of maternal mortality

<sup>1</sup> The succeeding project titled “Project for Reinforcement of Maternal and Newborn Healthcare in Senegal Phase 3” started in 2019 for five years and is ongoing at the time of the ex-post evaluation.

<sup>2</sup> The nation-wide survey on the situation of universal health coverage (UHC) in Senegal conducted by JICA in 2021. Universal health coverage means that all people have access to the health services they need, when and where they need them, without financial hardship.

rate to the level of one-quarter of the level in 1990 by 2015. The neonatal mortality rate, estimated at 29 per 1,000 live births in 2011, was also improved from 35 in 2005 but still remained at high level. The rate of delivery by skilled birth attendants was low as 65% with a significant gap between urban and rural areas (90.7% in urban areas and 49.2% in rural areas). As for the antenatal checkup rate, while the rate for more than one time checkup reached at 93%, the rate for more than 4 times checkup which was recommended by the World Health Organization (WHO) was as low as 50%.

<Consistency with Japan's ODA Policy at the Time of Ex-Ante Evaluation>

The project was consistent with the Japan's ODA policy for Senegal at the time of ex-ante evaluation. In the "Country Assistance Policy for the Republic of Senegal" (May 2012 revised in April 2014) of the government of Japan, one of the two major goals was the improvement of basic social services, and it aimed to achieve the MDGs' targets in the areas of health and hygiene and education. As for health and hygiene, it was expected to improve the coordination with other development partners and international organizations especially in the area of maternal and neonatal health the government of Japan has supported on a priority basis.

<Evaluation Result>

In light of the above, the relevance of the project is high.

## 2 Effectiveness/Impact

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

The Project Purpose was achieved at the time of project completion. According to the survey conducted by the project, all of the four indicators, i.e., the satisfaction rate of women who used health facilities applied PRESSMN model (Indicator 1), the satisfaction rate of health staff in health facilities applied PRESSMN model (Indicator 2), the number of health staff who practiced evidence-based maternity care<sup>3</sup> (Indicator 3), and the practicing rate of the components of PRESSMN model (Indicator 4), have been statistically significantly increased.

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

The project effects have been partially continued at the time of ex-post evaluation. Data of the satisfaction rates of women who used health facilities and health staff in health facilities applied PRESSMN model were not available. About evidence-based maternity care, according to DMNBH, freestyle childbirth<sup>4</sup> has been practiced in all Health Districts involved in the project. As for the practice of PRESSMN model, according to DMNBH, out of five components of the PRESSMN model<sup>5</sup>, 5S<sup>6</sup> and freestyle childbirth have been continuously practiced.

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

The Overall Goal was partially achieved at the time of ex-post evaluation. The maternal mortality rate and the proportion of delivery by skilled birth attendants have been improved during the project period and have sustained their tendencies after the completion of the project. As for the four indicators of neonatal mortality rate, rate of utilization of antenatal care, proportion of delivery in the health facilities, and rate of postnatal care, although the values of them in 2020 showed improvements compared with the ones in 2011, they have been fluctuating and it's hard to confirm their improvement tendencies.

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

According to DMNBH, midwives and nurses trained by the project have improved their communication with mothers and their families, and their sense of responsibility for safe deliveries has been heightened. Better communication with mothers and their families contributes to the improvement of accountability of birth attendant services. Service disparities between the health facilities involved and uninvolved in the project has been observed in some Health Districts. While the regional extension conducted by the project was limited to the primary and secondary health facilities of health centers and health posts, the successor of the project or the third phase project extends its activities to the tertiary health facilities of hospitals footing on the PRESSMN model health services introduced by the project. No negative impact on natural, social and economic environment has been observed.

<Evaluation Result>

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

### Achievement of Project Purpose and Overall Goal

Aim	Indicators	Results	Source
Project Purpose: The scaling-up of PRESSMN model is realized nationwide.	Indicator 1: Satisfaction rate of women who used health facilities applied PRESSMN model is increased at least in one Health District in each of 14 regions.	Status of the Achievement (Status of the Continuation): Achieved (not verified) (Project Completion) The project conducted a comparative survey comparing one intervention health district and one control health district in each of 14 regions. The survey asked 17 evaluation questions about 8 factors including health staff's explanation about delivery process, respect for delivery body position, and others. The survey result showed that satisfaction rate of women who delivered in the health facilities applied PRESSMN model was higher on all of 17 evaluation questions than the rate of women who delivered in the facilities which did not apply PRESSMN model. Note, however, that the survey compared all intervention groups and control groups but not groups in each health district. Therefore, the achievement of the indicator district by district was not verified.	Project Completion Report, Questionnaire survey on DMNBH

<sup>3</sup> Scientifically sound technical interventions in the maternal and neonatal health care to conduce low-risk deliveries to normal deliveries.

<sup>4</sup> A way of delivery which allows a mother to choose the body position, place of birth, and others respecting the intension of the mother.

<sup>5</sup> Five components of PRESSMN model are: 1) communication with communities, 2) sharing of the concept of respectful maternity care, 3) work environment improvement through 5S, 4) practice of evidence-based maternity care, and 5) support from the government.

<sup>6</sup> 5S is a slogan taken from the initials of "sort, set, shine, standardize, sustain" aiming at positive transformation of staff's awareness and attitude about improvement of work process and work environment. (Source: web site of JICA)

		(Ex-post Evaluation) Although the number of women who used antenatal care service and delivered assisted by skilled birth attendants has been increased (see the Overall Goal), data of the satisfaction rate was not available because the satisfaction rate survey has not been conducted after the completion of the project.																																											
	Indicator 2: Satisfaction rate of health staff in health facilities applied PRESSMN model is increased at least in one Health District in each of 14 regions.	Status of the Achievement (Status of the Continuation): Achieved (not verified) (Project Completion) According to the survey stated above (see Indicator 1), satisfaction rate of health staff in health facilities applied PRESSMN model was higher on all of 15 evaluation questions about five components of PRESSMN model than the rate of staff in the facilities which did not apply PRESSMN model. However, the achievement of the indicator district by district was not verified due to the reason stated above (see Indicator 1). (Ex-post Evaluation) No data was available because the satisfaction rate survey has not been conducted after the completion of the project.	Project Completion Report, Questionnaire survey on DMNBH																																										
	Indicator 3: The number of health staff who practices evidence-based health care is increased at least in one Health District in each of 14 regions.	Status of the Achievement (Status of the Continuation): Achieved (partially continued) (Project Completion) According to the survey stated above (see Indicator 1), the evidence-based health care practicing rate of the intervention group was significantly high on all of 14 items about the evidence-based health care including care in delivery stage, care after delivery, and others. However, the achievement of the indicator district by district was not verified due to the reason stated above (see Indicator 1). (Ex-post Evaluation) According to DMNBH, freestyle childbirth has been practiced in all Health Districts involved in the project. The situation analysis survey conducted by the phase 3 project and the information collection survey on UHC also reported the increase of freestyle childbirth in the country.	Project Completion Report, Questionnaire survey on DMNBH Situation Analysis Survey Result by the phase 3 project Final Report of Information Collection and Confirmation Survey on UHC in Senegal																																										
	Indicator 4: Practicing rate of the components of PRESSMN model is increased at least in one Health District in each of 14 regions.	Status of the Achievement (Status of the Continuation): Achieved (partially continued) (Project Completion) According to the survey stated above (see Indicator 1), practicing rate of PRESSMN model of the intervention group was statistically significantly higher than the control group on all of four components of PRESSMN model except the evidence-based health care (Indicator 3). However, the achievement of the indicator district by district was not verified due to the reason stated above (see Indicator 1). (Ex-post Evaluation) Out of five components of the PRESSMN model, 5S and freestyle childbirth which is one of the evidence-based maternity care have been continuously practiced. 5S has been practiced on a personal basis in a number of health facilities. For freestyle childbirth, see Indicator 3 above.	Project Completion Report, Questionnaire survey on DMNBH																																										
Overall Goal: Maternal mortality rate and neonatal mortality rate are reduced through improvement of services for maternal and neonatal health in Senegal.	Indicator: Following indicators mentioned in the Sectoral Mid-term Expenditure Framework 2011-2013 (1) Maternal mortality rate (2) Neonatal mortality rate (3) Rate of utilization of antenatal care (4) Proportion of delivery in the health facilities (5) Proportion of delivery by skilled birth attendants (6) Rate of postnatal care	(Ex-post Evaluation) Partially achieved Table 1: Achievement of the indicators <table><tr><th colspan="2">Indicators</th><th>2011</th><th>2016</th><th>2017</th><th>2020</th></tr><tr><td>1</td><td>Maternal mortality rate (per 100,000 live births)</td><td>392</td><td>315</td><td>236</td><td>236</td></tr><tr><td>2</td><td>Neonatal mortality rate (per 1,000 live births)</td><td>47</td><td>19</td><td>42</td><td>33</td></tr><tr><td>3</td><td>Rate of utilization of antenatal care (%)</td><td>50</td><td>48.1</td><td>97</td><td>92</td></tr><tr><td>4</td><td>Proportion of delivery in the health facilities (%)</td><td>73</td><td>76</td><td>78</td><td>77</td></tr><tr><td>5</td><td>Proportion of delivery by skilled birth attendants (%)</td><td>65</td><td>59.7</td><td>68.9</td><td>96</td></tr><tr><td>6</td><td>Rate of postnatal</td><td>50.5</td><td>99.9</td><td>104.1</td><td>78</td></tr></table>	Indicators		2011	2016	2017	2020	1	Maternal mortality rate (per 100,000 live births)	392	315	236	236	2	Neonatal mortality rate (per 1,000 live births)	47	19	42	33	3	Rate of utilization of antenatal care (%)	50	48.1	97	92	4	Proportion of delivery in the health facilities (%)	73	76	78	77	5	Proportion of delivery by skilled birth attendants (%)	65	59.7	68.9	96	6	Rate of postnatal	50.5	99.9	104.1	78	Project Completion Report, Questionnaire survey on DMNBH
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			care (%)					
3 Efficiency								
<p>Both the project period and cost exceeded the plan (ratio against the plan was 135% and 142% respectively). At the early stage of the project, it took time for making a consensus with related agencies on the methods for baseline survey and for the procurement of survey consultant. In addition, because one of the Japanese leading experts left the project, replanning and rescheduling of the project was required. Due to those issues, it was decided to extend the project period. The outputs were produced as originally planned by the end of the extended period of the project. Therefore, the efficiency of the project is fair.</p>								
4 Sustainability								
<p>&lt;Policy Aspect&gt;</p> <p>The “National Health and Social Development Plan 2019-2028” (PNDSS 2019-2028) prepared by MHAS denotes three strategic directions of 1) strengthening of governance and financing for health and social action, 2) development of the supply of health services and social action, and 3) promotion of social protection. Under the strategy for the development of supply of health services and social action, one of the intermediate results is the improvement of maternal and neonatal health care services targeting the reduction of maternal and neonatal mortality rate.</p> <p>&lt;Institutional/Organizational Aspect&gt;</p> <p>The Reproductive Health Division of the Directorate of Health was separated and upgraded as DMCH in 2020 given more responsibilities and mandates to improve the maternal and neonatal health care services and sustain the effects of the project. The number of staff of DMNBH, the division in charge of mother and newborn health care in DMCH, is eight including the director, which is sufficient for its workload according to DMNBH. Although the information about institutional/organizational situation of RMOs, Health Districts, and Health Posts were not available, the information collection survey on UHC reported that, as of 2019, 680 nurses, 1,547 midwives, and 1,821 assistant nurses were insufficient in Health Posts relative to the health human resource allocation standard of MHSA. The survey also reported that 2,297 stadiometers, 1,460 delivery tables, and 1,018 stethoscopes were insufficient in Health Posts in 2019 relative to the standard of MHSA. According to the situation analysis survey conducted by the phase 3 project, delivery training equipment (active chairs, mattresses, cushions, screens, baby care training models, etc.) provided by the project has not been utilized in the Regional Health Training Centers (CRFS) because delivery training has been practiced not in those centers but in hospitals.</p> <p>&lt;Technical Aspect&gt;</p> <p>DMNBH keeps providing training on freestyle childbirth and 5S for qualified and unqualified medical staff. Supervision has also been conducted by DMNBH for maternal and neonatal health care staff applying the knowledge and tools introduced by the project. Check items for the supervision are ones prepared by the project. Freestyle childbirth has been practiced in all Health Districts, and 5S has been practiced on a personal basis in a number of health facilities. However, the practice of other components of PRESSMN model was not confirmed. ENDSS also keep providing theoretical and practical training of PRESSMN model since it's included in the curriculum for midwives and nurses.</p> <p>&lt;Financial Aspect&gt;</p> <p>The amount of budget allocated to maternal and neonatal health care services was not available. However, according to DMNBH, the state budget for MHAS has been steadily increasing reflecting the high policy priority placed on the health sector. Adding to the state budget, MHAS has applied for the Japan's food assistance (KR) grant and been financially supported by the development partners including the World Bank, WHO, and others. No information about financial situation of RMOs, Health Districts, and Health Posts was available. However, insufficiency of human resources and equipment in Health Posts stated above in &lt;Institutional/Organizational Aspect&gt; indicated financial difficulties in the field level health facilities.</p> <p>&lt;Evaluation Result&gt;</p> <p>In light of the above, some problems have been observed in terms of the institutional/organizational, technical and financial aspects of the implementing agency. Therefore, the sustainability of the effectiveness through the project is fair.</p>								
5 Summary of the Evaluation								
<p>The Project Purpose was achieved by increasing the values of all of four indicators. The Overall Goal was partially achieved. While the maternal mortality rate and the proportion of delivery by skilled birth attendants have been improved and sustain their tendencies after the completion of the project, values of other four indicators have been fluctuating and it's hard to confirm their improvement tendencies. As for sustainability, some problems have been observed in terms of the institutional/organizational, technical, and financial aspects. As for efficiency, both the project period and cost exceeded the plan. Considering all the above points, this project is evaluated to be partially satisfactory.</p>								

### III. Recommendations & Lessons Learned

#### Recommendations for Implementing Agency:

- Although the project targeted the country-wide extension of PRESSMN model and evidence-based maternity care, the activities continuously implemented in the regions have been limited to freestyle childbirth and 5S. Therefore, it is recommended that DMNBH encourages pilot facilities intervened by the project to restart the activities of PRESSMN model and evidence-based maternity care. In order to accelerate it, it is recommended DMNBH to discuss with the phase 3 project to find possible ways without placing extra burdens on the phase 3 project.
- It is recommended that DMNBH discuss with CRFSs provided with the delivery training equipment but not used them to reallocate the equipment to other health facilities or health education facilities who have high and real needs for them.

#### Lessons Learned for JICA:

- The project set up a base in each region for the country-wide extension of PRESSMN model. However, the project did not prepare any extension plan or action plan to be implemented by DMNBH after the completion of the project. Therefore, continuation of the activities of PRESSMN model and evidence-based maternity care has been limited to freestyle childbirth and 5S, and monitoring to confirm the extension situation has not been conducted. Country-wide extension of a new system usually takes considerable time. Hence, most of the projects targeting country-wide extension are planned and implemented on the premise of continuous implementation of extension

activities by the counterpart agencies after the completion of the projects. Therefore, it is recommended that a project targeting country-wide extension of a system prepares a specific and feasible action plan to be implemented by the counterpart agency after the completion of the project. In order to make a technically and financially feasible action plan for the counterpart agency, close and candid discussion with the counterpart agency will be indispensable.

- The project provided delivery training equipment to some CRFSs but in some cases it has not been fully utilized. Even though this problem is being followed-up by the ongoing phase 3 of PRESSMN, it is recommended that a project conducts extensive surveys and has in-depth discussions with possible-recipient-facilities of equipment to find actual needs of them and to provide equipment to facilities who have real necessities.



Discussion in the Hospital de la Paix in Ziguinchor Region about the contents of the upcoming training program (2021).



Experience sharing seminar on "Respectful Care" in Dakar (2022)