# Project Completion Report

# Project for Improving Continuum of Care with Focus on Intrapartum and Neonatal Care in Cambodia

## May, 2022

**Cambodia, National Maternal and Child Health Center (NMCHC)**

**Japan International Cooperation Agency (JICA)**

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# Contents of the Project Completion Report

# I. Basic Information of the Project

## 1. Country

Kingdom of Cambodia

## 2. Title of the Project

Project for Improving Continuum of Care with focus on Intrapartum and Neonatal Care

## 3. Duration of the Project (Planned and Actual)

From 16th May 2016 to 15th May 2022 (one year extension from the planned duration)

## 4. Background (from Record of Discussions(R/D))

In Cambodia, since the end of the civil war, major maternal and child health indicators have improved dramatically with tireless efforts of the government to rebuild its deteriorated health system as well as continuous assistance of the government of Japan and other international development partners. However, maternal and child mortality levels in Cambodia are still high compared to regional standard. Especially, there is big room for improvement in neonatal mortality rate (18/1000), with newborn deaths making up more than half of the under-five child deaths. Aiming to improve the maternal and child health status with focus on newborn health, the government of Cambodia requested to the government of Japan to implement technical cooperation.

Maternal and child health has been one of the priority areas for JICA's health sector assistance for Cambodia since 1992, and remains the important area of JICA's cooperation. In addition, the efforts to improve maternal, newborn and child health will contribute to achievement of Universal Health Coverage, which the government of Japan promotes in its global health policy, by strengthening health systems for expanding coverage and effectively delivering quality services to all women and newborns.

## 5. Overall Goal and Project Purpose (from Record of Discussions(R/D))

***Overall Goal:*** Reduce the neonatal mortality at target provinces

***Project Purpose:*** Continuum of Care with focus on intrapartum and neonatal care is strengthened at target provinces

## 6. Implementing Structure

(1) Cambodian Ministry of Health

(a) Project Director: Secretary of State, Ministry of Health

(b) Project Manager: Director, National Maternal and Child Health Center

(2) JICA Experts

(3) Joint Coordinating Committee

Fig 1. Project Organization Chart (Annex III of Record of Discussion)

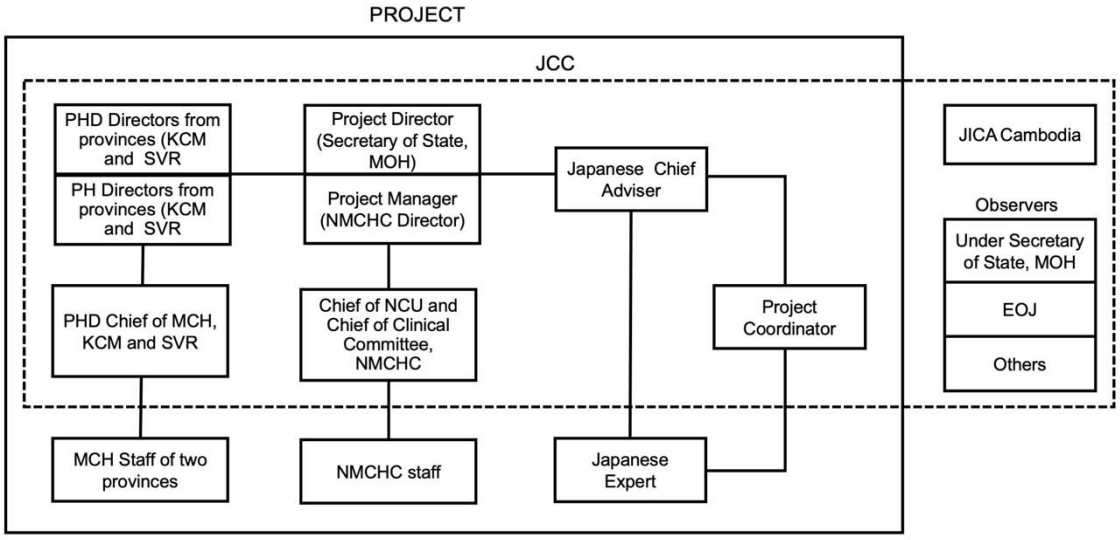
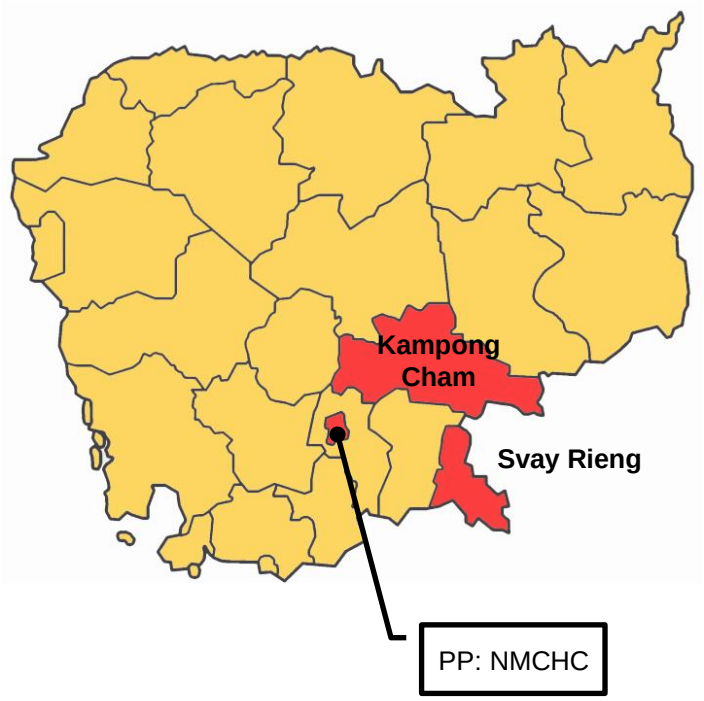



Fig 2. Project Sites




National Maternal and Child Health Center (NMCHC) in Phnom Penh

Kampong Cham Provincial Hospitals

Svay Rieng Provincial Hospitals

# II. Results of the Project

## 1. Results of the Project

### 1-1 Input by the Japanese side (Planned and Actual)

| Item | Actual Input |
|---|---|
| **(1)** Expert dispatch | Long Term Expert Dispatchment Total: 7 (2 for Chief Advisor, 2 for Community Maternal and Newborn Health, 1 for Intrapartum Care, 1 for Project Coordinator/Training Management, and 1 for Project Coordinator)<br>Short-term Experts Dispatchment Total: 30 times (Baseline Survey 1, Health Information System 4, Obstetric Care 3, Midwifery/Intrapartum Care 9, Neonatology 6, Newborn Care 6, Statistic & Epidemiology 1) |
| **(2)** Receipt of training participants | Receipt of training course in Cambodia Total**:** 4,812<br>Immediate Newborn Care (INC) Coaching 873, including supportive supervision<br>Midwifery Coordination Alliance Team (MCAT): 1,415,<br>Intrapartum Care:1,269, including online training due to Covid-19<br>Safe Delivery App: 366 including online training<br>Information, Education and Communication (IEC) Materials on Health Education: 647, including online training<br>Others: 242<br>Receipt of training course in Japan Total: 20 |
| **(3)** Equipment provision | JPY40,528,272 was spent on office equipment, project vehicle, and medical equipment, including Covid-19 emergency supplies in FY2020 and 2021 |
| **(4)** Overseas activities cost | JPY71,698,908 (USD 588,081) was spent on the following:<br>Staff salaries of Cambodian project staff<br>Office supplies and consumables<br>Activity fees<br>Travel expenses |

### 1-2 Input by the Cambodian side (Planned and Actual)

| Item | Actual Input |
|---|---|
| **(1)** Counterpart assignment | Total 96 counterparts have been assigned, including Project Director, Project Manager from Ministry of Health/National Maternal Child Health Center, Kampong Cham province, and Svay Rieng Province side. Some of whom are members of the Joint Coordination Committee. |
| **(2)** In-kind contribution | Office space and furniture, Electricity, and Wi-Fi network |

### 1-3 Activities (Planned and Actual)

The activities of the project were implemented based on the agreed Project Design Matrix (PDM) and Plan of Operation (PO). This section reports the results of the activities for each output based on the final version of the PDM ver. 3.

**Output 1. Training and supervision on intrapartum and Immediate Newborn Care**

The activities in Output 1 are related to the human resource development of health care professionals working in primary health care facilities, which is essential for continuity of care. The Newborn Care training was conducted on schedule using the existing WHO modules, but the intrapartum care training was affected by the COVID-19 pandemic as the needs assessment suggested the need to develop new modules, which took time to develop and delayed the implementation. Activities 1-8 to 1-10 are added in PDM ver. 3 where the decision was made to develop online materials in response to the COVID-19 pandemic.

1-1 Develop a plan for scaling up the coverage of INC training to Referral Hospitals (RHs) and Health Centers (HCs) in Kampong Cham (KCM) and Svay Rieng (SVR)

**(Done)** Both KCM and SVR Maternal and Child Health (MCH )sections completed development of the plan for scaling up the coverage of INC coaching in November 2016 as planned.

1-2 Conduct Training of Trainers (TOT) on INC and intrapartum care for NMCHC, KCM and SVR

**(Done)** TOT on INC in KCM has been already conducted before this project started with the support from World Health Organization. TOT on INC in SVR completed at NMCHC in May 2017. TOT on intrapartum care was held in both KCM and SVR on 7-11 October 2019, 14th February 2020.

1-3 Conduct INC training for staff at HCs, RHs, PHs in KCM and SVR

**(Done)** Trainings for current staff in both KCM and SVR were completed in 2018.

1-4 Conduct training of Intrapartum care for staffs at HCs, RHs, Provincial Hospitals (PHs) in KCM and SVR

**(Cancelled)** Due to COVID-19, the project revised the plan as activities 1-10.

1-5 Review and revise existing supportive supervision tools for intrapartum and INC

**(Done)** Existing tools for INC were revised and utilized. As for the follow-up of the participants of intrapartum care training, the project developed the methods that can be applied during the COVID-19 pandemic as described below.

1-6 Support Provincial Health Department (PHD) and PH to conduct supportive supervision on intrapartum and INC in KCM & SVR

**(Done)** Both provinces conducted on-site supportive supervision for INC using the above mentioned materials three months after the training as planned. However, for the intrapartum care training, the project used the follow-up online training three month after the first training to confirm the improvement of the performance and successfully conducted in Nov 2021.

1-7 Support KCM and SVR PHD to conduct MCAT after Supportive Supervision system is established

**(Done)** MCAT had been conducted till COVID-19 pandemic.

1-8 Develop the training module for continuing the education program with Infection Prevention Control (IPC)

**(Done)** The project contracted out the development of online training module for health education and intrapartum care to the Japanese production company to make good quality materials. Video shooting was done in Jan and Feb 2021 with national trainers in NMCHC. All the developed training modules have been delivered to the project in Aug 2021.

1-9 Adapt the Safe Delivery App (SDA) into Cambodian context and include Initial Assessment Sheet (IAS) and other materials developed by the Project

**(Done)** The project contracted with the Maternity Foundation in Denmark to develop the Khmer version of SDA. The content of the global version of SDA was translated in Khmer and discussed by the formulated national committee to adopt based on the National Guidelines in Dec 2020, which took 9-time meeting for agreement. After getting approval from MoH, MF developed Khmer version and made it available at AppStore and Google play in June 2021.

1-10 Conduct the training using the developed modules and tools

**(Done)** The project conducted online training for intrapartum care by collaborating with Cambodian Midwives Association (CMA) in Sep 2021.

**Output 2: Management of sick newborns and preterm/low birth weight (LBW) infants is improved**

Output 2 are related to the improvement of care for sick babies admitted to the Neonatal Care Units (NCUs) of the national maternal and child health centers and provincial hospitals. Since the TORs of the dispatched long-term experts did not include activities in this output, those activities were mainly dependent on short-term experts and counterpart training in Japan, but the later phase of the project was affected by the COVID-19 pandemic, which suspends the dispatch of short-term experts and counterpart training in Japan. However, fortunately, the project was able to implement most of the activities. Furthermore, in addition to the planned activities, the increased

budget for equipment in response to COVID-19 allowed us to equip the neonatal unit to provide care with appropriate infection control, contributing to the achievement of the output.

2-1 Develop and implement the NMCHC manual for managing sick, preterm/LBW newborns in NCU

**(Done)** NMCHC manual for doctors (second version) and nurses in NCU was published and has been used already.

2-2 Conduct essential trainings for NCU and relevant staff at NMCHC and target provincial hospitals

**(Done)** The essential trainings for NCU care were repeatedly provided as needed. For example, video materials on the procedures on the nursing checklist, such as hand hygiene, continuous positive airway pressure (CPAP) therapy, tube feeding, and micro infusion, were prepared by short-term experts and made available for repeated viewing. In addition, the short-term experts also provided technical assistance to make effective use of the project's equipment, especially in the SVR where the NCU was newly established and unfamiliar with neonatal equipment.

2-3 Conduct training on management of sick, preterm, LBW newborns for NCU staff in KCM & SVR

**(Done)** Sixteen NCU staff in KCM and SVR in total has been joined the training course in Japan on management of sick, preterm, LBW newborns. Four staff (doctors and nurses) from SVR were trained at NMCHC NCU in 2017. Training of Echocardiography has also been provided. (KCM PH did not want to join this program because they thought the level of neonatal care at KCM PH was as almost the same as NMCHC.)

2-4 Develop a checklist to monitor implementation according to the manual.

**(Done)** The project has developed a checklist for eight prioritized neonatal nursing care such as 1) hand hygiene, 2) CPAP, 3) naso-gastric tube, 4) syringe pump, 5) micro-drip set, 6) cleaning equipment, 7) Routine work, 8) Resuscitation

2-5 Conduct periodical monitoring with the checklist and necessary refresher training for NCU staff in KCM & SVR

**(Done)** The project supports monitoring the checklist several times and provides coaching on how to monitor with the checklist to NCU staff (Feb 2019, Mar 2020, and Feb 2021).

2-6 Support SVR and KCM PHs to conduct Obstetrics and Gynecology (OBGY) and Pediatrics joint case conference

**(Done)** The project found that both SVR & KCM PH have already held the joint case conference as the monthly Hospital Core Team meeting and no need to be setup the another conference.

2-7 Train NCU staff to conduct the newborn physical checkup with the checklist at NMCHC and PHs

**(Done)** NMCHC and KCM have done newborn physical checkup already. Four staff (Dr & Ns) from SVR PH were trained at NMCHC in 2017.

2-8 Train staff to conduct KMC according to KMC manual at NMCHC and in PHs

**(Done)** NMCHC and KCM-PH have already started Kangaroo Mother Care (KMC). The project conducted 1st coaching on KMC (Feb 2020) in SVR-PH to support the introduction of KMC but planned 2nd & 3rd coaching were postponed and canceled due to the COVID-19.

2-9 Identify obstacles to provide follow-up OPD for high risk babies and suggest possible solutions

**(Done)** The telephone interview to 41 family members of the babies discharged from KCM-NCU in 2017 revealed that nearly 40 % of respondents did not know about the NCU follow-up and suggested to work on the awareness raising among these family members to increase the coverage of the NCU follow-up, including reminder phone calls to family members who do not come to the follow-up visit to notify the follow-up visit date as possible solution.

**Output 3: Follow-up for high-risk (neonates or infants discharged from NCU or showing danger signs) and low birth weight infants is strengthened**

The activities in Output 3 are aimed at ensuring that high-risk children are not dropped out of the network of care. Activities have been implemented to ensure that danger signs are not missed at home and that medical services are available when needed.

For this output, a pilot of the “Maternal and Child Health Educational Handbook” was conducted in selected facilities in Svay Rieng Province, but due to the impact of COVID-19, the survey to evaluate its effectiveness could not be performed as planned and could not show its effectiveness. However, the survey revealed a lack of tools and knowledge to provide health education to mothers during ANC and PNC visits, so the project shifted to developing flipcharts for health education and educational materials for health care providers. These were distributed to health centers across the country, not just in the target provinces, and an official launch involving all provincial health departments took place in June 2021.

3-1 Review/revise existing IEC materials for better home care, a danger sign, and/or develop new tool if need

**(Done)** After reviewing the existing IEC materials, the project developed various IEC materials that can be used for facilitating the better home care and understanding on the danger sign of pregnant women and babies, including 4 different posters to be

sticked at health facilities, "Mother and Child Health Educational Handbook" for distributing to mothers who comes to pilot facilities, and "Flipchart on a continuum of care of Maternal and Child Health" which distributed to all health centers nationwide through PHDs, and online training materials on health education for health care workers. The project has also created and released digital materials on the danger signs of newborns that are available via QR codes and websites.

3-2 Train staff on usage of revised/developed IEC materials

**(Done)** The project has conducted online training using the developed materials for health education with 212 participants in Aug 2021 in two target provinces collaborating with CMA. Developed online materials were distributed to all PHDs, Regional Training Centers, and partners.

3-3 Support regular Early Essential Newborn Care (EENC) Review Meeting to discuss neonatal care and follow-up of sick newborns

**(Done)** The project has supported the annual EENC review meetings in both KCM and SVR. In addition, Since the Ministry of Health has set Battambang, Kampong Cham, and Takeo as model provinces leading the implementation of EENCs, a study tour to Battambang Province with officials from the target provinces was held in 2019, and a joint review meeting with Takeo and the target provinces was held in 2020.

3-4 Develop the guideline on the response of neonates showing danger signs outside of facility

**(Done)** "Technical guidelines for using the Maternal and Child Health Educational Handbook" developed by the project can be used for responding to neonates showing danger signs outside of the facility.

3-5 Identify the way to promote Post Natal Care and follow-up for neonates showing danger signs

**(Done)** The flipchart was developed aiming to promote Post Natal Care and follow-up for neonates showing danger signs and distributed nationwide and online orientation with all PHD has conducted (June 2021)

**Output 4: Health systems, which are essential to improve Continuum of Care for better MNCH services, are strengthened**

The activities in Output 4 are health systems strengthening necessary for the functioning of maternal and child health services strengthened by the activities in Output 1-3. Some activities were deleted due to unexpected reduction of the overseas activity cost in 2017, but the activities necessary to achieve the project objectives through the achievement of the outputs were carefully examined and selected for implementation. (See "II-3. History of PDM Modification")

In addition to the planned activities, the project procured medical equipment using the

increased project budget for COVID-19 response, and facilitate the installation of the equipment provided through Japanese grant aid for COVID-19 response, and those equipment contributed to strengthening the health system necessary for service delivery during and after the COVID-19 pandemic.

4-1 Support MoH to develop Neonatal Death Audit Guidelines

**(Done)** The project has supported MoH to develop the guidelines by providing technical comments in 2017-2018. The guidelines have been waiting for final endorsement by MoH.

4-2 Support the committee to conduct pilot Neonatal Death Audit in NMCHC and KCM/SVR provinces.

**(Partially Done)** KCM-PH has already introduced and regularly conducted death audit by themselves. However, the introduction of the neonatal death audit into the NMCHC and SVR-PH could not be implemented during the project period because the MoH's neonatal officer was concurrently working with the Cambodian Center for Disease Control and has been busy for responding to COVID-19 and repeatedly postponed the introductory training.

4-3 Support organizing Training Unit (TU) in Svay Rieng

**(Done)** SVR PH established the TU in collaboration with PHD in Aug 2017.

4-4 Enhance implementation of relevant trainings by KCM/SVR TU

**(Done)** The project has supported the various training organized by the TU in NMCHC, KCM and SVR, including Infection Prevention Control, 5S, hospitality, and Kangaroo Mother Care. In addition, the project experts provided lectures on specific topics when needed, such as care for COVID-19 affected babies.

4-4 Identify causes of patient overflow at obstetrics in KCM -PH and suggest possible solutions

**(Done)** The project conducted a situation analysis in 2017 to identify the causes of overcrowding in the KCM-PH obstetrics ward and compiled a report that pointed out that as a regional higher medical hospital (CPA3), the referral system was not functioning and recommended that normal deliveries be decentralized to primary care facilities. In addition, since the overcrowding was not only in the obstetrics ward but also in the neonatal unit, the possibility of expanding the hospital beds through the Japanese Embassy's grassroots grant aid program was explored, but unfortunately was not selected.

**Output 5: Findings, lessons learned and evidence for MNCH services focused on intrapartum and newborn care are reflected on national policies/ strategies/guidelines.**

The activities in Output 5 are designed to disseminate the project outcomes beyond the target area by compiling the findings through the project activities and reflecting them in the national guidelines. The project experts participated in many technical committees and actively disseminated the findings.

5-1 Compile the existing MNCH policies/ strategies/ guidelines

**(Done)** The project gathered existing MNCH documents published by MoH as much as possible and found that many of them were revised by MoH in 2016.

5-2 Support revision and/or development of MNCH policies/strategies/guidelines based on the findings

**(Done)** The project experts were selected for the committee for Safe Motherhood Protocol in 2021 and contributed based on the findings through the project activities. The contribution was acknowledged in the foreword of the protocol.

5-3 Share lessons learned, findings and evidence of the project at relevant technical working groups

**(Done)** The project experts joined the various TWGs (MCH, e-leaning, etc.) and shared lessons learned, findings and evidence of the project.

5-4 Make recommendations on pre-service training for intrapartum and neonatal care to the MoH

**(Done)** The project experts joined the TWG meeting on the revision of curriculum for Advanced Diploma in Midwifery (ADM) as well as the Consultative meeting on Newborn Care SOP to contribute by sharing the findings and evidence of the project. The project also tried to contribute for the pre-service training by distributing the developed teaching materials to regional training centers and nursing schools.

5-5 Apply the training materials developed by the project for Continuing Professional Development program

**(Done)** SDA was approved for the self-learning tool for 20 CPD points. Online trainings were also approved for CPD points.

## 2. Achievements of the Project

### 2-1 Outputs and indicators

The project has selected five necessary outputs to achieve the project purpose, and has set indicators to evaluate the achievement of each output. Based on PDM ver. 3, the achievement of the indicators for each output is described below.

**Output 1. Training and supervision on intrapartum and Immediate Newborn Care:**

**1-1.** ***All target facilities in target provinces receive trainings and supervisions on***

***Intrapartum and Immediate Newborn Care***

**(High)** INC coaching and follow up after 3 months has been completed (299 by MoH + 87 by the project in KCM, 16 by MoH + 238 by the project in SVR). From the 50 target facilities agreed at the 4th JCC (27 in KCM, 23 in SVR), 212 selected participants took the online training on intrapartum care in Sep 2021. The online follow-up successfully conducted with 197 participants from all 50 target facilities at the end of Nov 2021.

**1-2.** ***Scores of the checklists of Intrapartum and Neonatal Care are improved in NMCHC and target provinces***

**(High)** The participants of the INC coaching showed an improvement in performance at the follow-up 3-month after of the training as average score of all participants has improved from 65% to 85% in knowledge test. As for the intrapartum care training this time, we see the 15% improvement in average score of all participants from 68% to 83% on the pre- and post-tests. The project confirmed the improvement in all target facilities.

**1-3.** ***E-learning module and other tool for sustainable educational platform for continuum of care in MCH was developed***

**(High)** The project completed the development of the Khmer version of the Safe Delivery App in June 2021, and the e-learning modules for intrapartum care and health education in August 2021. All the deliverables have been handover to the Project and made them freely available at the Appstore, Google play, and YouTube.

**Output 2. Management of sick newborns and preterm/low birth weight infants:**

**2-1.** ***Manual for provincial NCU is developed.***

**(Done)** NCU manual for doctors has developed in Jan 2019 that is applicable for the province hospital NCU.

**2-2.** ***Score of monitoring checklist is improved***

**(Medium)** The developed checklist has been used in NMCHC-NCU (Mar 2020)
In addition, the Shor-term Expert on neonatal care introduce the NCU care manual and checklist into NCU in KCM-PH and SVR-PH (Jan-Mar, 2021). However, standardization of procedures by evaluation using checklists did not fit well in the Cambodian culture, and there was a tendency for everyone to give the highest marks, so the project changed the direction to use the checklists as teaching materials to be used as points for checking procedures. (Video materials were also developed.)

**2-3.** ***Joint conference between OBGY and Ped in PHs is regularly conducted in Kampong Cham and Svay Rieng Provincial Hospitals***

**(High)** Joint conferences have been regularly conducted in KCM PH and SVR PH as the regular Hospital Core Team (HCT) monthly meeting.

**Output 3. Follow-up for high-risk and low birth weight infants:**

**3-1.** ***Standardized IEC materials are developed***

**(High)** The project has been developing several IEC materials such as posters and booklets.
In addition, the project developed a continuum of care flipchart based on the MCH handbook and Government's 1,000 days policy. After getting approval from the MoH, 1,965 copies were made and distributed to nationwide in June 2021.

**3-2.** ***Number of staff of target facilities in pilot areas who can utilize IEC material at PNC etc. is increased (Scores of staffs in pre/post-test on usage of revised/developed IEC materials for PNC, etc. are improved)***

**(High)** The post-test of the online health education training conducted in August 2021 showed an average score of 91%, and 97% of the participants scored at least 70%, which is a passing score. The seven participants who did not meet the passing score were followed up and all were confirmed to have reached the passing score.

**3-3.** ***Guidelines on response for neonatal infants showing danger signs outside of facility is developed***

**(Medium)** The project has developed the "technical guideline for using the Maternal and Child Health Educational Handbook" (Jan 2019).
In addition, the project developed online-module for health education that provide the technical guidance how to provide health education using developed flipchart, and conduct the online-training in KCM and SVR with 212 participants (Aug 2021).

**Output 4. Health systems, which are essential to improve continuum of care**

**4-1.** ***The number of neonatal death audit carried out by Death Audit Committee at NMCHC and Kampong Cham/Svay Rieng Provinces will be more than 10 cases by the end of Project period***

**(Medium)** KCM PH HCT held regular neonatal death audit for all inborn mortality cases in the monthly HCT meeting, and **10** cases has been reviewed. However, the introduction of the neonatal death audit were not yet conducted in NMCHC and SVR.

**4-2.** ***The number of trainings arranged by Training Units in Kampong Cham/ Svay Rieng provinces will be more than 20 by the end of Project period***

**(High)** Since the year 2017, the Training Unit in KCM Provincial Hospital/ SVR Provincial Hospital conducted **40** training sessions, such as Infection Prevention and Control, 5S, hospitality, KMC etc.

**Output 5. Findings, lessons learned and evidence from the Project:**

**5-1.** ***Number of the policies/strategies/ guidelines on which the project's findings and***

***lessons learned has been reflected.***

**(High)** The number became **8**; project products approved by MoH are "NCU clinical manual", "NMCHC manual for nurses in NCU", "Initial Assessment Sheet", "Guide Initial Assessment", "Safe Delivery App", and "Flipchart on a continuum of care of Maternal and Child Health" and the publications in which the project has technically contributed and been acknowledged are "Safe Motherhood Protocol for Referral Hospitals", and "Safe Motherhood Protocol for Health Centers"

## 2-2 Project Purpose and indicators

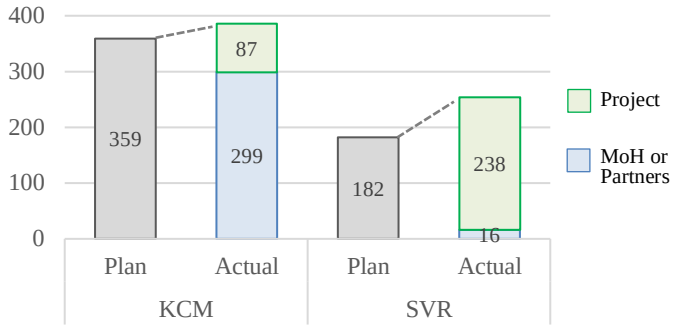
***Project Purpose:*** **Continuum of Care with focus on intrapartum and neonatal care is strengthened at target provinces**

In order to evaluate the achievement of the above project purpose, the following three indicators have been selected for PDM ver. 3. The details of the achievement status of each indicator are described below.

**Indicator 1: 100% of target facilities can provide essential intrapartum and neonatal service in target provinces**

**(High)** The indicator was assessed to have been achieved as follows.
Definition of providing essential care is "staffs trained for intrapartum care and immediate newborn care (INC) are able to show good performance at the supportive supervision 3 months later of the training or other alternative way". As for the target facility, all health centers were selected for immediate newborn care training, while the target facility for intrapartum care training was selected as those that assisted more than 10 deliveries per month.
The project conducted the newborn care training first by using WHO's INC coaching and completed almost all within first two years of the project. The supportive supervision by the provincial team has been conducted to all the participants three months after the training, including the assessment. Then the project continued to provide training to those who were newly employed and assigned to the health centers in the target provinces. As shown in the Fig 1 below, the project was able to conduct the training and verify the skills in supportive supervision, far beyond the original plan.

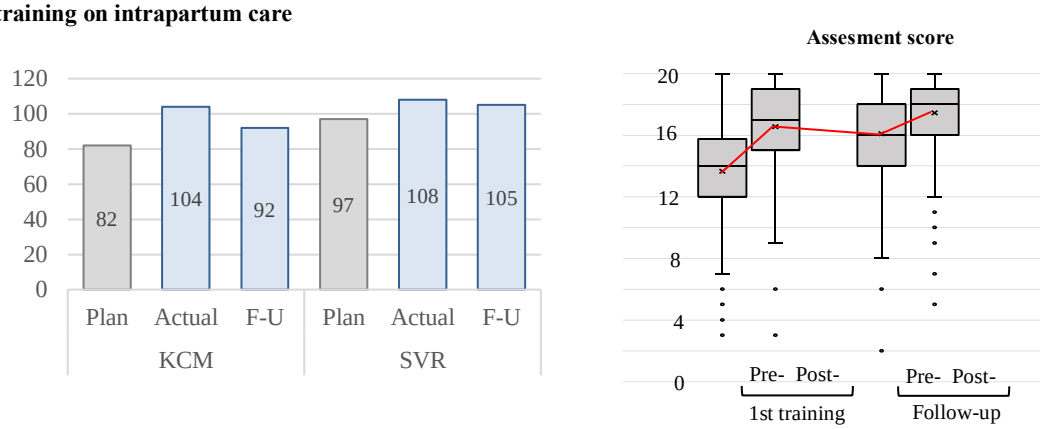
**Fig 1. The number of staffs who show good performance at the supportive supervision 3 months later of the training on immediate newborn care**




Assessment in Supportive supervsion

On the other hand, there was a significant delay in implementing intrapartum care training. Based on the situation analysis conducted in the early phase of the project, it was decided that the existing training modules were not sufficient and that training materials should be developed specifically for the initial assessment of pregnant women. (Initial Assessment Sheet). However, its development took much longer than expected, and when it was completed at the end of the fourth year of the project, a COVID-19 pandemic made it difficult to conduct in-person training. Therefore, the project decided to develop online educational materials based on the training modules developed. Finally, the project conducted an online training in September 2021, with a follow-up in November to ensure knowledge retention. Finally, the project was able to conduct online training in September 2021 for more health care providers than planned, with a follow-up in November to confirm the retention of knowledge. Details are shown in Fig. 2.

**Fig 2. The number of staffs who show good performance at the supportive supervision 3 months later of the training on intrapartum care**

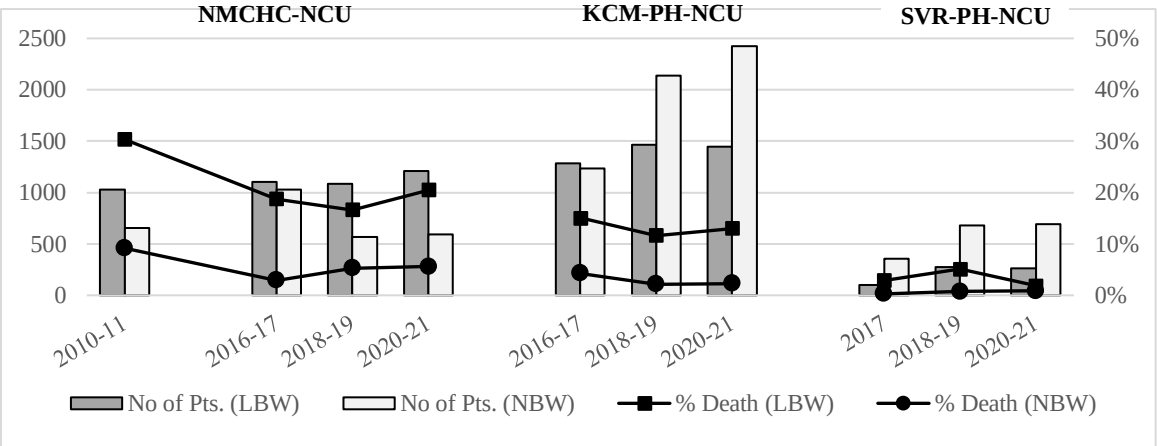



Combining the results of these two trainings, the project concluded that the continuum of care has been strengthened in all target facilities and that essential medical services can now be provided.

**Indicator 2: Percentage of neonatal death among neonates admitted to pediatric/ NCU is decreased (stratified by birth weight)**

**(Medium)** The decreasing trend of neonatal death rate in the NMCHC-NCU and KCM-NCU has been observed until the first half of 2021. In the second half of 2021, neonatal deaths surged, especially among low-birth-weight babies, as the COVID-19 pandemic made it difficult to transfer seriously ill patients. In particular, NMCHC accepts very low birth weight infants (birth weight less than 1,000g), but cannot provide ventilatory management or administer artificial surfactant. Therefore, the difficulty in transferring these severely ill infants has had a critical impact. The death rate in SVR-NCU worsened after the opening in 2017, but this may have been due to the gradual acceptance of more severely ill infants, which has since improved. NMCHC-NCU is also showing an improving trend, although it is slowing down.

**Fig 3. The number of admissions and percentage of neonatal death in each hospital's NCU stratified by birth weight.**

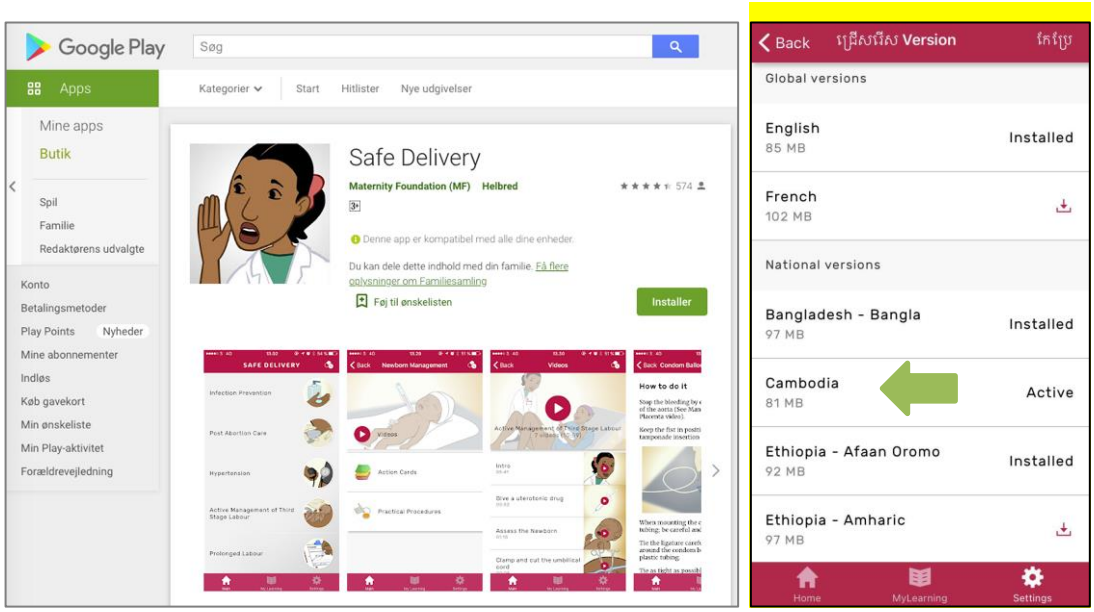



**Indicator 3: Sustainable educational system was established and adopted for the Continuing Professional Development program**

**(High)** As described in the achievement of output 1-3 and output 3-3, the project completed development of the Khmer version of the Safe Delivery Apps (SDA) in June 2021 and the e-learning modules for intrapartum care and health education in August 2021. SDA was made available at AppStore and Google Play freely, and accredited for the self-learning tool of continuing professional development program by the Cambodian Midwifery Council. As of end of February 2022, 2,378 people (94% were Health Professional, 35% were working at Health Centers) downloaded the apps and

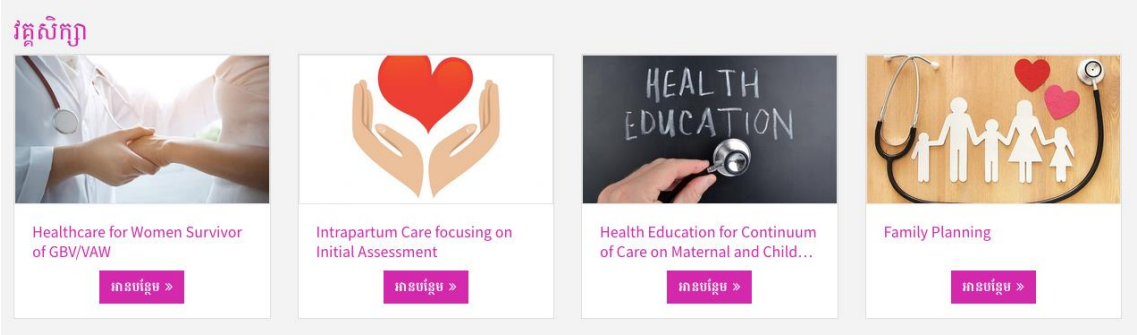
130 users completed self-learning course and certified for 20 CPD points.

**Fig.4 Site screen where SDA can be downloaded and language selection screen where Cambodian version can be selected.**




The developed e-learning modules were used for online-training in KCM and SVR collaborated with Cambodian Midwives Association (CMA), that was also accredited for the CPD program. Cooperation with the CMA is important for sustainability, as it is the only organization that currently provides regular online CPD training. The developed e-learning modules were also uploaded to the educational management system in NMCHC using “Moodle” supported by UNFPA and other partners.

**Fig. 5 Home screen of NMCHC's online educational management system, where educational materials developed by the project are uploaded.**




## 3. History of PDM Modification

Over the six-year project period, the project has revised the project design matrix three times. The history of these changes is described here.

In the three revisions of the PDM, the original framework for the project has remained the same, with the project goal of strengthening the maternal and child health continuum of care in the target provinces (project purpose) in order to reduce neonatal deaths in the target provinces (overall goal), and five outputs selected as necessary to achieve this goal. A summary of the PDM modification history is shown in Table 1.

The first revision was in July 2017, in the second year of the project. This was planned in the R/D, where the PDM was to be reviewed and necessary revisions made based on the baseline survey conducted after the start of the project. JICA project consultation mission team was dispatched from JICA HQ to discuss the project in detail, and it was agreed in the 2nd JCC that the basic design of the project agreed in the R/D would not be changed and minor revisions would be made. The main points of modification were: several new activities have been added such as surveys on follow-up OPD for high-risk babies (2-10 of PDM-1), Post Natal Care and follow-up for neonates showing danger signs (3-5 of PDM-1), and patient overflow of Kampong Cham provincial hospital (4-4-1 of PDM-1), activities on infection control and 5S in and around neonatal unit (4-3 of PDM-0) moved to and involved in 2-3 of PDM-1, and JICA IINeoC Project will also support Training Unit in Svay Rieng province.

The second revision was made in September 2018, at the midpoint of the project, in response to an unexpected reduction of JICA's budget and project oversea costs in the previous year, which resulted in a reduction of the project scope. In particular, activities and indicators related to the development of data systems for Output 4, Health System Strengthening, were deleted, and activities and indicators related to the revision of clinical guidelines on newborn care for Output 2, the improvement of care of sick babies, were also deleted as it was concluded that the clinical guidelines were still appropriate and did not need to be revised.

The third and final revision was made in August 2020, the last year of the project, in response to the COVID-19 pandemic. Since all the long-term experts were evacuated to Japan and it became difficult to achieve the project purpose within the project period, it was agreed to extend the project period for one year. In addition, the implementation of intrapartum care training, which had been delayed, was a bottleneck for strengthening the continuity of care, a project purpose, but restrictions on gatherings due to COVID-19 pandemic, made it difficult to conduct face-to-face training as planned. Therefore, new activities, output indicators and project target indicators were added to bring "the establishment of the sustainable educational system adopted for continuing professional development" into the project scope, including the development of online training materials and implementation of the online trainings.

**Table 1. Summary of the PDM modification history**

| Ver. | Date | Revision | Reason |
|---|---|---|---|
| 0 | Oct. 2015<br>By R/D | — | — |
| 1 | Jul. 2017<br>2nd JCC | • Several new activities have been added such as surveys on follow-up OPD, Post Natal Care and follow-up, and patient overflow at KCM-PH<br>• Activities on infection control and 5S in and around neonatal unit under the output 4 moved to under the output 2 | The PDM was reviewed and revised based on the baseline survey according to the initial plan (two-stage approach).<br>A mission team was dispatched from JICA headquarters to support the revision. |
| 2 | Sep. 2018<br>3rd JCC | • Activities and indicators related to the development of data systems for Output 4 were removed<br>• Activities and indicators related to the revision of clinical guidelines on newborn care for Output 2 were removed | Due to the unexpected reduction of JICA`s budget and project oversea cost, the project should narrow down the scope. |
| 3 | Aug. 2020<br>5th JCC | • The project period was extended for one year.<br>• New project purpose indicator, outcome indicator, and activities for establishing e-leaning system were added | Due to the COVID-19 pandemic, project activities were affected by the evacuation of experts and city lockdown, and the planned human resource development activities could not be implemented. |

# III. Results of Joint Review

## 1. Results of Review based on DAC Evaluation Criteria[1]

### 1-1 Relevance

Rating: **High**

The rationale for the rating is as below;

***Responding to needs;***

Even though major maternal and child health indicators has improved dramatically since the end of the civil war, maternal and child mortality levels in Cambodia are still high compared to regional standard and there is big room for improvement especially in neonatal mortality rate (18/1000), with newborn deaths making up more than half of the under-five child deaths. In addition, there are large regional disparities, and the most recent Cambodian Demographic Health Survey (CDHS) 2014[2], which provides data by province, shows that the target province is higher than the national average for both neonatal, infant, and under-five deaths. On the other hand, in the same survey, the service coverage indicators such as ANC attendance and health facility delivery rate are high, and the disparity among provinces is not large. (See Table 2) Therefore, the CDHS 2014 reveals the need for improved maternal and child health services in Rural, including the target Provinces.

**Table 2. MCH indicators and service coverage in target provinces described in CDHS 2014**

| | National estimate | KCM | SVR | Urban | Rural |
|---|---|---|---|---|---|
| **MCH indicators** | | | | | |
| Maternal mortality* | 170 | — | — | — | — |
| Neonatal mortality** | 18 | 25 | 20 | 10 | 23 |
| Infant mortality** | 28 | 39 | 46 | 13 | 42 |
| Under 5 mortality** | 35 | 48 | 63 | 18 | 52 |
| **Service coverage** | | | | | |
| ANC attendance [%] | 75.6 | — | — | 85.4 | 73.9 |
| Facility Delivery [%] | 83.2 | 84.5 | 82.4 | 96.0 | 81.0 |

* per 100,000 live birth, **per 1,000 live birth

The "Questionnaire survey report on knowledge of Skilled Birth Attendant in Kampong Cham and Svay Rieng" conducted in the early stages of the project to assess training needs showed that there were gaps in the knowledge of basic obstetric care required for risk assessment of pregnant women who came to the facilities, indicating the need for medical staff to provide maternal and

**Table 3. Percentage of correct answer in assessment of knowledge on intrapartum care**

| Items | % correct |
|---|---|
| **Stage of labour** | |
| starting point of active stage | 61.6% |
| **Normal value / range** | |
| Fetal heart rate (BCF) | 68.3% |
| Blood pressure | 71.4% |
| Postpartum hemorrhage | 49.9% |
| **Regular check-up interval** | |
| BCF in 1st stage | 59.2% |
| BCF in 2nd stage | 40.8% |
| Cervical dilatation in 1st stage | 53.7% |
| Uterine contraction in 1st stage | 34.1% |

[1] https://www.oecd-ilibrary.org/sites/543e84ed-en/1/3/4/index.html?itemId=/content/publication/543e84ed-en&_csp_=535d2f2a848b7727d35502d7f36e4885&itemIGO=oecd&itemContentType=book#section-d1e4964

[2] Cambodian Demographic Health Survey 2014, https://dhsprogram.com/publications/publication-fr312-dhs-final-reports.cfm

child health services. (see Table 3.)
From the above, we conclude that the project meets the needs of the target community, society and target group.

***Policies and priorities;***

Cambodia's National Health Strategic Plan 2008-2015 (HSP2)[3], which follows the National Health Strategic Plan 2003-2007 (HSP1)[4], focuses on improving the health of the entire population, especially the poor, women, and children, and includes maternal and child health as one of its three core programs. In the subsequent National Health Strategic Plan 2016-2020 (HSP3)[5], maternal and child health, including newborn care, is one of the four prioritized programs of the Ministry of Health. In the National Health Strategic Plan 2022-2030 (HSP4), which is currently under development, maternal and child health, including newborn care, is expected to be one of the strategic priorities for health improvement, along with Non-Communicable Diseases (NCDs) and infectious disease control. Furthermore, the Cambodian government introduced the "1000 Days Policy", cash transferring to poor-pregnant women and children under 2 years old[6,7], in 2019 to support poor women and children in receiving medical care and improving nutrition. This project aims to improve continuous maternal and child care, especially for newborns, which is in line with the policy of the Cambodian government.

***Quality of design;***

Japan drastically improved maternal and child health after World War II. Through provision of comprehensive and quality maternal and child health services, Japan has one of the lowest maternal and child mortality rate. It has been considered that Japan has technical advantage in the field of maternal and child health, and JICA has been providing comprehensive technical cooperation in various countries by sharing the experiences of Japan[8].
It is considered appropriate to take this project approach, which aims to strengthen the continuum of care for maternal and child health services in the target areas through capacity development of health care workers at front-line facilities such as health centers, was expected to have a synergistic effect with the cash transfer program (1000 days

[3] Cambodian Ministry of Health, National Health Strategic Plan 2008-2015, https://www.mindbank.info/item/1737
[4] Cambodian Ministry of Health, National Health Strategic Plan 2003-2007,
[5] Cambodian Ministry of Health, National Health Strategic Plan 2016-2020, https://www.mindbank.info/item/7234
[6] Cambodian Ministry of Health, Prakas No.474 snf, Guideline on implementing cash transferring program to pregnant women and children under two years old of families who hold Pre-ID and Post-ID, Phnom Penh, 23rd of May, 2019
[7] Cambodian Ministry of Economy and Finance, No. 524 shr.bjrk, Inter-ministry PRAKAS on implementation of cash transferring program to poor- pregnant women and children under two years old of families who hold Pre-ID and Post-ID, Phnom Penh, 21st of May, 2019
[8] JICA, Maternal and Child Health – Continuum of Care (CoC) to protect precious lives, https://www.jica.go.jp/english/publications/brochures/c8h0vm0000avs7w2-att/japan_brand_01.pdf

policy) for the poor, which facilitates antenatal and postnatal care visit and facility deliveries as a condition. The selection of target areas and counterpart organizations was also appropriate, taking into consideration JICA's previous cooperation and support under other schemes such as the construction of provincial hospitals.
According to the revised PDM in response to the outbreak of the COVID-19, the project developed online-training materials and conducted online-training using those materials collaborating with the Cambodian Midwifery Association, which has already begun to provide online training for its members as Continuing Professional Development Program linked to license renewal, and UNFPA, which has been supporting the implementation of the Emergency Obstetric & Newborn Care (EmONC) training. We expect that this collaboration will have a synergistic effect and a ripple effect beyond the target area, even after the project completion. In fact, it has been observed that the developed Safe Delivery App and Flipcharts for health education are being used even outside the project area, and it can be said that the implementation of the project with ODA has been fully justified.

### 1-2 Coherence

Rating: **High**
The rationale for the rating is as below;

***Internal Coherence;***

Maternal and child health has also been one of the priority areas for JICA's health sector assistance for Cambodia since 1992, and remains to be the important area of JICA's cooperation as stated in Country Assistance Policy for Cambodia revised in July 2017[9].
In addition, the efforts to improve maternal, newborn and child health will contribute to achievement of Universal Health Coverage, which the government of Japan promotes in its global health policy[10], by strengthening health systems for expanding coverage and effectively delivering quality services to all women and newborns.
In accordance with the above policy, JICA has been actively engaged in the renovation of national and provincial hospitals in Cambodia. The National Maternal and Child Health Center, Kampong Cham Provincial Hospital, and Svay Rieng Provincial Hospital, which are the target of this project, are also medical facilities that have been renovated through JICA grant aid. By integrating hardware support for hospital renovation and software support for strengthening maternal and child health services, a synergistic

[9] Japanese Ministry of Foreign Aaafaire, Country Assistance Policy for Respective Countries (Cambodia) https://www.mofa.go.jp/mofaj/gaiko/oda/seisaku/kuni_enjyo_kakkoku.html
[10] Abe S. Japan's strategy for global health diplomacy: why it matters. Lancet. 2013 Sep 14;382(9896):915-6. doi: 10.1016/S0140-6736(13)61639-6. PMID: 24034284.

effect has been created. In addition, the know-how accumulated through past projects, including the project for human resource development for health, has been utilized for the project implementation, which is essential for strengthening maternal and child health services.
Based on the above, it was concluded that this project is highly consistent with the Japanese aid policy and JICA's assistance implementation policy.

***External Coherence***
The project is also aligned with external policy commitments, such as the Sustainable Development Goals, such as Target 3.2 of "By 2030, end preventable deaths of newborns and children under 5 years of age, with all countries aiming to reduce neonatal mortality to at least as low as 12 per 1,000 live births and under-5 mortality to at least as low as 25 per 1,000 live births", Target 3.1 of "By 2030, reduce the global maternal mortality ratio to less than 70 per 100,000 live births", Target 3.7 of "By 2030, ensure universal access to sexual and reproductive health-care services, including for family planning, information and education, and the integration of reproductive health into national strategies and programmes" and Target 3.8 of "Achieve universal health coverage, including financial risk protection, access to quality essential health-care services and access to safe, effective, quality and affordable essential medicines and vaccines for all".
In addition to the health-related goals, the project is also aligned with SDG 5: Achieve gender equality and empower all women and girls.

## 1-3 Effectiveness

Rating: **High**
The rationale for the rating is as below;

***Achievement of Project purpose and contribution of project outputs for it***
As described in section II, 2-2, the evaluation concluded that the project achieved its project purpose of "Continuum of Care with focus on intrapartum and neonatal care is strengthened at target provinces" by assessing the three indicators prescribed in the PDM.
It was observed that improvement of the knowledge and skills on intrapartum and neonatal care among the health care workers in the target facilities, reduction of mortality rate in the neonatal care unit of the target provincial hospital, and establishment of a system that allows health care workers working in the rural areas to continue learning.
In order to consider the contribution of the outputs to the achievement of the project purpose, the evaluation reviewed the design of the project. Output 1 is to improve the

skills of health care workers at front-line facilities in delivery and newborn care in order to protect the health of mothers and babies. Output 2 is the improvement of the ability to manage sick babies, which still occur to some extent, and Output 3 is the strengthening of the follow-up of babies who have been discharged from the hospital, so that any signs of danger can be detected and connected to medical care. By coordinating these efforts, it is expected that the continuity of care will be strengthened, but it is also necessary to strengthen the health system, which is the foundation for providing quality health services, as output 4. In addition, output 5 is the compilation of findings to expand the achievements of the project beyond the target area. The project achieved its goals by achieving Outputs 1-5, and it is considered that the project functioned as expected. Therefore, the delay in developing education materials for intrapartum care training under Output 1, causing a delay in the human resource development for providing continuum of care in MCH service, was a significant risk to the achievement of the project objectives. It was fortunate that the project was able to complete the online conversion of the materials within the extended project timeframe and achieve its original goals. Although at first glance, Output 5 does not appear to contribute directly to strengthening the continuum of care in the target areas, in fact, it can reinforce activities in the target areas by reflecting project findings in national guidelines and other documents, so consolidating project findings is always useful in technical cooperation projects and should be included in the PDM at the output level.

***Factors affecting the achievement of the project purposes including the important assumption***

The PDM include two important assumptions that might affect the achievement of project purpose, such as “MoH does not change the current policies on maternal and neonatal issues” and “Serious endemic which effects neonatal health will not happen”.

With regard to the policy context related to maternal and child health, the government's commitment was maintained throughout the project period, rather strengthened, such as the issuing of the 1,000 days policy (2019). In addition to maternal and child health, the launch of the Continuing Professional Development (CPD) program (2020), which is linked to the license renewal system for health care professionals, also provided a tailwind for the project to address human resource development for health care professionals.

As for the infectious disease epidemic, the pandemic of COVID-19 had a major impact on the project, including the evacuation of Japanese experts, but by extending the project period by one year and shifting the focus to the development of online educational materials at an early stage, we were able to take the opportunity to strengthen the project

in terms of sustainability development and impact. This evaluation analyzes that the success of the project was due to early decisions on the direction of the project in close coordination with CPs, stakeholders, and JICA headquarters and offices, even under the COVID-19 pandemic.

### 1-4 Efficiency

Rating: **Medium**

The rationale for the rating is as below;

***Attainment of the output indicators and input required***

As described in section II, 2-1, the evaluation concluded that attainment of the output indicators were quite high as most of them were fulfilled by the project.

The inputs required were also largely in line with the plan, but a few points need to be pointed out here: firstly, the impact of the unexpected reduction of JICA's budget and project oversea cost in 2017. As a result, the project had to narrow down the project scope and reduce its activities, and the impact on the activities under Output 4, Health Systems Strengthening, was particularly significant. For this reason, the project had to revise the PDM (ver. 2). Secondly, the project was negatively affected by the COVID-19 pandemic, although which had some positive aspects, such as an increase in the cost of equipment for the COVID-19 response. In addition to the evacuation of long-term experts (7 months), the suspension of dispatch of short-term experts and the postponement of activities due to restrictions on gatherings had a significant negative impact on the implementation of the input plan. Thirdly, delays in developing training materials for intrapartum care resulted in expansion of inputs, including short term expert deployments, long term expert efforts, and CP commitments. It has been noted that this has caused some squeezing of other activities.

Although this evaluation did not score "high" on the efficiency rating because of the negative impact of these factors on the implementation of the input plan, it should be noted that first two factors have negatively impacted JICA's technical cooperation projects around the world, and the project has been able to minimize their impact, as detailed in Section II, 3.

***Cost sharing, integration to the existing system, and collaboration***

The project has taken several efforts to improve efficiency, including cost sharing and integration into existing systems. For example, in activities such as MCAT and training unit activities, cost-sharing has been done with the provincial health department. Joint conferences between OBGY and Pediatrics in Kampong Cham and Svay Rieng Provincial Hospitals have been regularly conducted as the regular Hospital Core Team

(HCT) monthly meeting. The developed online training materials were uploaded to the educational management system in NMCHC supported by the UNFPA for development based on the Moodle and launched in 2021. These efforts have contributed not only to increased efficiency, but also to improved sustainability after the project completion.

### 1-5 Impact

Rating: **High**

The rationale for the rating is as below;

***Prospects for achievement of overall goals, significance, & transformational change***

As described in detail in section IV, the overall neonatal deaths in the country have been reported to have decreased steadily during the project period and it is highly expected that the Overall Goal of "Reduce the neonatal mortality at target provinces" will be achieved after the project completion. Considering that half of all childhood deaths occur in the first month of life, the significance of reducing neonatal deaths is enormous for overall maternal and child health.

The project has been working to improve maternal and child health services through human resource development. The introduction of the Continuing Professional Development program (CPD) linked to the license renewal system and the COVID-19 pandemic has been a great opportunity to change the traditional human resource development, which had been a costly burden including daily allowance and accommodation for the participants. The Cambodian Midwifery Association provides monthly online CPD training for its members, and the 500 available slots are occupied within minutes every month without any financial incentives. Through the development of online materials and collaboration with the CMA, the project has supported the transformational change that is observed in the human resource development for health in Cambodia.

***Differential impact & unintended effects***

In keeping with the SDGs remit to "leave no one behind" and to safeguard human rights, including gender equality, assessing the differential impacts is important. For the project, the direct beneficiaries of the project are mothers and children, and in this sense, the impact of the project has already been differentiated. The government's 1,000-day policy and other measures have helped to uncover the medical needs of the poor, and it is expected that the project will benefit these groups as well, while it is difficult to assess through regular monitoring and we need to wait for the results of the Demographic Health Survey that is planned to be conducted in 2022. Although it does not show up in figures, we have been conscious of involving fathers in the development of health

education materials. On the other hand, the pilot of the “Maternal and Child Health Booklet” conducted by the project and other studies have revealed that mothers who work in factories are increasingly separating from their children in order to return to work immediately after childbirth[11], and this is likely to become a new issue in improving maternal and child health in Cambodia.

The project has intensified its activities to ride the tide of digital health, which has advanced rapidly in Cambodia in the context of the COVID-19 pandemic. Among health care workers, there is a group with low IT literacy, mainly among order age group, and special attention has been paid to them in the implementation of online education, but more attention needs to be paid to the “digital divide” in the future. In fact, the project has also contributed to improving IT literacy through its activities.

### 1-6 Sustainability

Rating: **High**

The rationale for the rating is as below;

***Continuation of positive effects: Actual and prospective sustainability***

The project aims to achieve the delivery of continuity of care and improve maternal and child health care, including reduction of neonatal deaths, through health human resource development. Since health personnel are constantly being replaced through transfers, retirements, and recruitment, human resource development must be continuous, and the sustainability of health personnel development is directly related to the sustainability of the project achievements. Therefore, the establishment of a sustainable system even in the event of a COVID-19 pandemic was one of the main scopes of the project, and set the indicators of the project's goal as "Sustainable educational system was established and adopted for the Continuing Professional Development program”,. As described in detail in section II, 2-2, this indicator has been achieved, and therefore it is highly likely that the positive effect will continue even after the project completion. In fact, the Khmer version of the Safe Delivery Apps, a self-learning app developed under the project, has been steadily increasing its number of users since its launch in June 2021, with nearly 2,000 people already using it beyond the project target provinces. It is also CPD certified, with 20 points given to those who complete the course (60 points are required over three years to renew a license), and nearly 100 people have already completed the course. The developed online materials have been included in the education management system for self-learning at the National Maternal and Child Health Center. Introductory workshops

[11] Schneiders ML, Phou M, Tun V, Kelley M, Parker M, Turner C. Grandparent caregiving in Cambodian skip-generation households: Roles and impact on child nutrition. Matern Child Nutr. 2021 Jul;17 Suppl 1(Suppl 1):e13169. doi: 10.1111/mcn.13169. Erratum in: Matern Child Nutr. 2021 Oct;17(4):e13269. PMID: 34241960; PMCID: PMC8269139.

have been conducted in the target provinces up to the Operational District (OD) level.

As for the sustainability of the other project achievement, the reduction of mortality in the NCUs, the largest determinant of the level of care in the NCUs is the people who work there and the human resource development too. The difficulty is that NCU care is a high level of medical care, and there are many factors that can affect quality maintenance and improvement. Indeed, neonatal mortality, which had been improving in the wake of the COVID-19 pandemic, worsened in the last 6 months of the project. This was due to limited transport of critically ill infants.

***Building an enabling environment for sustainable development***

The ownership and commitment of the government in the area of maternal and child health has been high, which has supported the sustainability of the project achievements. Technically, the findings from the project activities have been reflected in the national guidelines that the experts participated in the development process, and are expected to be used even after the project completion. As described in detail in II, 2-1, output 5, the project has had the opportunity to be involved in and contribute to the development of the Safe Motherhood protocol, a core clinical guide for intrapartum care, as well as other national guidelines. In addition, we have been working to incorporate the achievements into not only post-graduate education but also pre-service education by distributing the developed teaching materials to regional training centers and nursing schools and participating in the TWG meeting on revision of curriculum for Advanced Diploma in Midwifery (ADM).

***Risks and potential trade-offs***

The adoption of digital health has been rapid in the context of the COVID-19 pandemic, but it remains to be seen whether it will take root in the post COVID-19 era, or whether it will be a temporary phenomenon. Since many digital health services require maintenance costs, the ability to include these costs in budget planning may be a challenge to their establishment. For example, the UNFPA-supported online education management system for the National Maternal and Child Health Center has a two-year budget for maintenance, but no budget has been secured for subsequent years at this moment. As a project, we have put our deliverables on several channels in addition to this platform so that we are not dependent on a single system. However, it is intrinsically the level of adoption of digital health in Cambodia in post COVID-19 will determine how much of the positive impact of the project will be sustained. It is also essential to ensure that the “digital divide” should not be promoted any more.

## 2. Key Factors Affecting Implementation and Outcomes

During the six years of the project, there were a number of factors that affected the implementation of the plan and the outcomes, but the following three are discussed here.

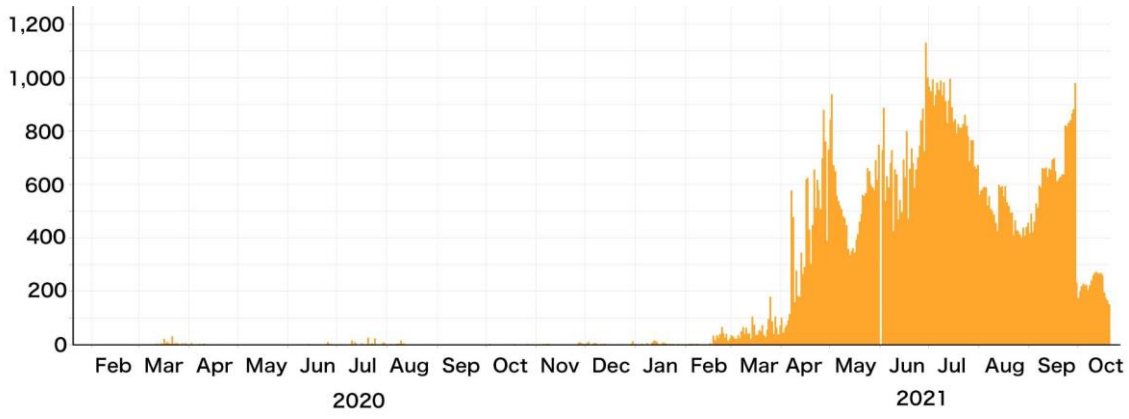
***Unexpected reduction of JICA's budget and project oversea cost***

In 2017, the second year of the project, there was a reduction of JICA's technical cooperation budget, which affected all of the JICA businesses around the world, including this project. The impact of budget reductions lasted for 2 years, but improved. Specifically, the project was forced to postpone the dispatch of experts and activities. After the COVID-19 pandemic in 2020, the project's budget was increased to cover the cost of equipment necessary for COVID-19.

***COVID-19 pandemic***

The global outbreak of COVID-19, which originated in Wuhan in November 2019, has had a significant impact on Cambodia. After the first imported case was reported on 27th January 2020, there has been no major community infection for a long time, with only sporadic imported cases having been reported. The phase of the outbreak changed in February 2021, when a large-scale community-outbreak detected in Phnom Penh. The government took a number of measures, including city lockdown, but due to the influx of delta strains from Thailand, the spread of the disease was not easily controlled until around October 2021, when the vaccination program that began in February 2021 reached a high vaccination coverage in the region.

**Fig 6. Number of reported COVID-19 cases in Cambodia**




This pandemic, which began at the end of the fourth year of the project and became serious in the fifth year, affected the project in many ways: in March 2020, all Japanese experts were evacuated to Japan, and it was only in October 2020 that all experts were in Cambodia. During this period, the experts had to continue their activities, including the organization of the JCC, remotely from Japan. All short-term expert dispatches were

suspended and resumed at the end of 2020, but were soon suspended again. They were not resumed until February 2021, near the end of the project. Restrictions on gatherings were imposed for infection control, and meetings and trainings were also restricted. In addition, the National Maternal and Child Health Center and provincial hospitals were designated as hospitals to receive COVID-19 patients and were also designated as vaccination sites, making them extremely busy. This made it difficult to implement the activities as planned.

On the other hand, there were positive impacts on the project's efficiency and sustainability, as the rapid digitalization of the system, such as holding online meetings and conducting online trainings, reduced the financial and opportunity costs of each activity.

***New policies on maternal and child health and human resources for health***

While this was a positive impact on the project activities, the release of the "1,000-day policy" related to maternal and child health and the "Continuing Professional Development (CPD) Program" linked to the renewal of the licensing system for health professionals related to human resource development were synergistic with the project activities. The details are described in II, 1. Results of Review based on DAC Evaluation Criteria and will not be repeated here, but the successful alignment of the project with these new policies issued during the project period has resulted in increased impact and sustainability.

## 3. Evaluation on the results of the Project Risk Management

In this section, we will evaluate the results of risk management taken by the project for the two factors mentioned above that had a negative impact on the project. In general, the project's risk management has been functioning well, and the project has succeeded in achieving better-than-expected results considering the situation.

***Unexpected reduction of JICA's budget and project oversea cost***

After the careful assessment, the project revised the PDM to narrow down the project scope in 3rd JCC on Sept. 2018. The activities that were reduced were mainly those related to Outcome 4, Health System Strengthening, specifically data systems, and were scrutinized to minimize their impact on the overall project framework. Although the indicators of the project goals were not revised at this time, the project has been able to achieve them and has received high ratings in terms of effectiveness, impact, and sustainability in this evaluation. In addition, the medical equipment procured using the increased project budget for COVID-19 response, as well as provided through Japanese

grant aid for COVID-19 response, have contributed to strengthening the health system necessary for service delivery.

As described in the Ex-ante Evaluation report of the project, this project planned to implement the strengthening of the maternal and child health information system under Outcome 4, based on the lessons learned from the "Project for Maternal and Child Health in Quetzaltenango, Totonicapan, and Solola in the Republic of Guatemala" to enable NMCHC and each health facility to better understand the national, provincial, and facility context and to improve the quality of care for mothers and children. Unfortunately, activities under the output 4 was scaled back for the above reasons, but the project has continued to make evidence-based recommendations based on data from the field. The fact that the experts' recommendations were listened attentively in discussions on the development of national guidelines or in the Technical Working Group on Maternal and Child Health was largely due to the fact that they were based on such evidence and experience in the field.

***COVID-19 pandemic***

When the COVID-19 pandemic occurred, the project gathered the information required for a decision making on whether it could shift to developing online educational materials and conducting online trainings with them. Because the delay in the implementation of intrapartum care training was recognized as a major bottleneck in achieving the project purpose at the time. At the end of the fourth year of the project, the project had completed the development of training materials based on the needs assessment and was ready to implement the training, but before it could start, the COVID-19 pandemic occurred and the training was suspended. The assessment found a number of positive factors that helped the project made the decision to shift its scope to develop online materials. For example, a number of other partners in Cambodia were also planning to develop online materials, there were plans to develop an education management system to store these materials, there were no easy-to-understand video materials in Khmer language for intrapartum care, the Continuing Professional Development Program linked to the license renewal system for medical professionals was launched and implemented, the Cambodian Midwifery Association has started to organize its own online training for CPD with 500 participants every month, and most of the medical professionals own smart phones. Based on the assessment, the project revised the PDM in 4$^{th}$ JCC meeting on August 2020 to include the “sustainable educational system was established and adopted for Continuous Professional Development program” as project purpose indicator and extended the project period for 1 year.

The evaluation concluded that the project made a decision and shifted direction at an early

stage, making the COVID-19 pandemic an opportunity to improve the impact and sustainability of the project as described in the section III, 1.

## 4. Lessons Learnt

Lesson learned obtained through the project activities are summarized below.

***The role of training units is becoming increasingly important as the need for training in hospitals increases.***

Not only in maternal and child health, but also in response to COVID-19, the need for training in hospitals has been growing, and the role of training units is becoming increasingly important in responding to new health issues such as NCDs. The project supported the establishment of a training unit in Svay Rieng Province, as the training unit was already active in Kampong Cham Province. It is expected that the training unit will be expanded to other provinces as well. The importance of the human resource development departments established within hospitals is expected to increase in the future.

***Cambodia is getting ready to adopt digital health, including online education, with the necessary infrastructure.***

Before making the decision to develop online educational materials for the project, the concern was whether it would be feasible in Cambodia. After investigating, the project found that smartphone ownership in Cambodia is high, low communication costs, and most of the medical professionals own a smartphone. In addition, the CMA had already started online training for its members, and it was a success, with 500 seats filled within minutes every month. Online meetings using Zoom were also rapidly expanding, and meetings organized by the Ministry of Health were also shifting to online. On the other hand, when the online training was actually implemented, the issue of Internet access still remained, especially in rural areas. There were also issues of IT literacy, especially among the elderly healthcare workers. Overall, the situation, including infrastructure, is getting better, but careful attention needs to be paid to the regional and generational disparities.

***Careful support is required when introducing online training to avoid the digital divide***

When the first online meeting of the project was organized, an orientation was held beforehand, and the participants practiced participating in zoom and answering the pre- and post-tests using a google form. The project also developed the how-to videos for using the developed materials and tools. And they also created a group on Telegram, a

common social media in Cambodia, and used it for troubleshooting, including before and after the training. Because of this, they were able to conduct the training smoothly, even though it was the first time for some of the participants to participate in online training. This kind of support is not always possible as it requires manpower, but it should be considered, especially when conducting training for the first time.

***Online training is not a universal solution, but it can be used effectively by considering its advantages and disadvantages***

Although there are some limiting factors in online training, such as the difficulty of practical training and limited mutual communication among trainees, there are also significant advantages. In addition to the practical benefits, such as the reduction of the long time away from work, including travel, and the expense involved in training in the past, it was found that there were also benefits in terms of educational effectiveness. In the past, a certificate of completion was often issued even if the participant did not achieve a satisfactory score on the post-test, but with online training, the results of the post-test are immediately available, and those who do not achieve a satisfactory score can be encouraged to watch video materials, retest, and a certificate of completion can be issued only to those who achieve a satisfactory score. Such follow-up can be done relatively easily. In particular, it is recommended that online training be utilized to maximize the merits of repeatable learning.

***Gaps in technical assistance were identified through the development of online materials***

Since online materials are expected to be viewed repeatedly, the content is carefully examined. In this process, discrepancies between WHO's global guidance and national guidelines were sometimes identified. For example, the Safe Delivery Apps are based on the latest WHO guidance and evidence, and the country versions are modified based on the national guidelines. In the process, discrepancies were found in the definition and management of hypertension in pregnancy. It was finally decided to revise the prescription in the national guidelines, the Safe Motherhood Protocol, which was being revised at the same time. In addition, a national trainer served as a lecturer for the filming of the video materials, but there were some mistakes in the explanations and they had to be retaken.

Thus, the development of materials that will be viewed repeatedly can be an opportunity to review the national guidelines and the skills of trainers.

***The Continuing Professional Development Program seems to be working effectively, at least for midwives***

The CPD program is a strong motivator for midwives to take the training, as evidenced by the fact that applications for the CMA's online training, which has a capacity of 500 people, fill up within minutes. The Khmer version of SDA developed by the project was certified for CPD and was given 20 points for requiring 20 hours of self-study. The fact that nearly 100 people have already completed the course is another proof.
However, it was found that some health care providers had not yet registered with the Cambodian Midwife Council (CMC) that are in charge of CPD program, during the implementation of online training. Some midwives in the project provinces were not aware of the introduction of the CPD program. Two years from now, license renewal will take place, the first time since the introduction of CPD. Given the situation, it is likely that some remedial measures will be needed for these people, but on the other hand, fair measures that do not discourage those who have been working diligently on CPD will be important for the continuation of the CPD program.

***It is not realistic to expect that the good practices that a project has developed intensively at a pilot site will be rolled out nationwide by the partner country***

The Maternal and Child Health Handbook has been used all over the world to improve maternal and child health care, and the project also conducted a pilot at few selected health centers in one of the target provinces as a tool to improve the follow-up of the babies. However, due to the COVID-19 pandemic, the survey to evaluate its effectiveness could not be conducted as planned, and its effectiveness could not be demonstrated. Even if it showed effectiveness, it was difficult to draw a roadmap for making the system sustainable after the project's completion from such small scale pilot within the remaining project period: to get it approved as an official national material, to secure the costs of printing and distribution, and to build a system to deliver it to the end health centers without running out. On the other hand, the effectiveness survey revealed that there is a need to improve the knowledge of health education, as even healthcare workers do not have a proper understanding on the number of postpartum checkups. For this reason, a flip chart for health education was developed and distributed to health centers nationwide after receiving approval from the Ministry of Health. Online materials for health education for health care workers were also developed and distributed to provincial health departments across the country. Unlike the MCH handbook distributed to mothers, the flipchart can continue to be used as long as it is not broken, does not need to be reprinted, and was able to obtain government approval for nationwide distribution. Pilot activities need to be strategized, including a vision for after the project is completed.

***Further improvements in maternal and child health services are becoming more difficult.***

To date, Cambodia has succeeded in making significant improvements in maternal and child health services. On the other hand, areas that can be easily improved have been improved, such as the facility delivery rate and the antenatal check-up rate, which have also improved significantly. Further improvement will require a greater input, as it will be necessary to approach hard-to-reach populations that have not yet been reached, and to address resource-intensive advanced life-saving medicine. In particular, the nursing field has a lot of room for improvement, and the introduction of advanced medical care, including neonatal care, will require a transformation of the system that relies on family nursing care for patients. In order to achieve this, it is expected that a large amount of input will be required, such as securing personnel costs for medical personnel and human resources.

In addition, it has become apparent that mothers and babies are being separated immediately after childbirth, especially among factory workers, and this is becoming a new issue in the context of economic development.

## 5. Performance

The evaluation found that experienced project national staff were crucial to the smooth implementation of the project. Particularly during the six-month period when the COVID-19 pandemic forced the evacuation of the project's long-term experts and major decisions had to be made, including the holding of the JCC for the revision of the PDM, the national staffs often mediated and supported the discussions between the project experts and their counterparts. In addition, the mission team was dispatched from the headquarters to assist in making technically appropriate decisions when important project decisions had to be made.

Furthermore, in order to continue project activities under the COVID-19 pandemic, JICA headquarters and Cambodia office provided flexible support for necessary contract out such as the development of E-Learning materials by Japanese production company and the development of Khmer version of SDA by NGO in the third country.

## 6. Additionality

As the findings of this project, such as the introduction of online training, were thought to be useful for other similar projects, they were compiled into a recommendation to the Ministry of Health, reported at JICA's experience sharing meetings, and presented at academic conferences. The pilot of the Maternal and Child Health Booklet was also

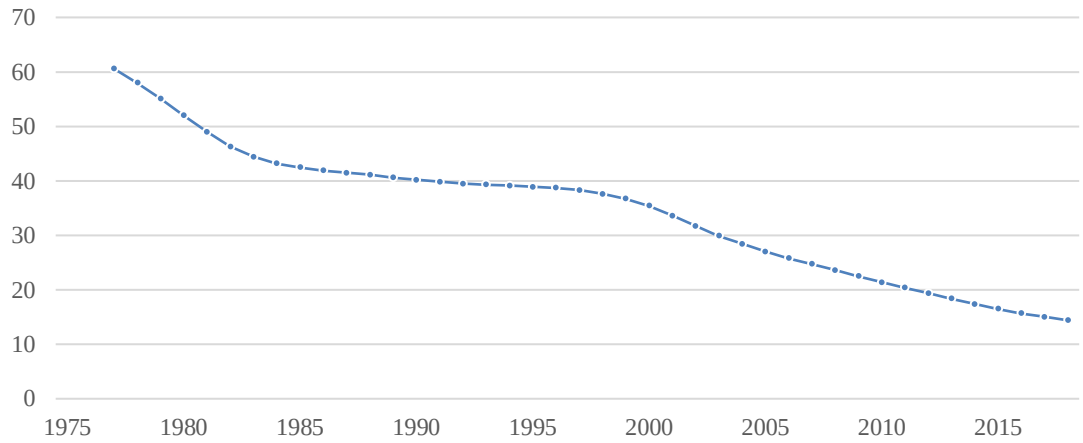
reported in "the Knowledge Sharing Program on Maternal and Child Health Handbook" organized by JICA`s Project for Enhancing the Quality of Maternal and Child Health Program and the Implementation of Maternal and Child Health Handbook in the era of Decentralization, and other occasions, although unfortunately it could not be proven to be effective. In addition, the project has reported on the analysis of verbal autopsies of neonatal deaths conducted in conjunction with the baseline survey at conferences and published in the medical journal.

# IV. For the Achievement of Overall Goals after the Project Completion

## 1. Prospects to achieve Overall Goal

It is highly expected that the Overall Goal of "Reduce the neonatal mortality at target provinces" will be achieved after the project is completed, as shown below. The most recent estimates of neonatal deaths per province in Cambodia are based on the Demographic Health Survey conducted in 2014. At that time, the national average was 18 deaths per 1,000 live births, that in Kampong Cham province was 25 deaths per 1,000 live births, and that in Svay Rieng province was 20 deaths per 1,000 live births. It can be seen that neonatal deaths in both provinces are slightly higher than that of the national average. In Cambodia, the CDHS has been conducted every five years, but the survey planned for 2020 has been postponed due to COVID-19 and is expected to be conducted in 2022 and released around 2023. Estimates of neonatal mortality in each target province should wait for the results of this survey to be made public. On the other hand, estimates of the national average of neonatal deaths are reported annually by the World Bank and have been continuously declining, as shown in the following figure. The latest reports are up to 2018, and we have to wait for reports on subsequent years, which raises concerns about the impact of COVID-19. However, the impact of COVID-19 on maternal and child health services in Cambodia is reportedly not significant, and it is expected that improvements will continue. If national averages continue to improve, then neonatal deaths in both target provinces are expected to improve as well.

**Fig 7. Neonatal mortality rate in Cambodia**




However, it is difficult to show the contribution of the project as it has been continuously improving in the past. Since the project has been contributing through human resource development and various way in the target provinces, if the difference between the two

provinces and the national average will be decreasing, it is most likely the result of the project's contribution.

## 2. Plan of Operation and Implementation Structure of the Cambodian side to achieve Overall Goal

As explained in section III, 1-1 Relevance, the Cambodian government has been and will continue to show a high level of commitment to improving maternal and child health. The promotion of continuum of care in maternal and child health, as exemplified by the 1000-day policy, is a priority in health policy.

Although publication has been delayed due to the COVID-19 pandemic, a national strategy following the National Strategy for Reproductive and Sexual Health in Cambodia 2017-2020[12] is being developed, based on which improvements in maternal and child health services will continue. Based on this strategy, the improvement of maternal and child health services will continue to be addressed. The Cambodian Ministry of Health is currently in the process of decentralization, delegating implementation authority to the provincial health departments. Thus, the implementation structure will be as follows: the National Center for Maternal and Child Health will provide technical guidance and the Provincial Health Department will implement the activities according to new national strategic plan.

## 3. Recommendations for the Cambodian side

The evaluation recommends to Cambodian Ministry of Health to consider the following actions to ensure that project achievements will be sustained and further enhanced:

***The Neonatal Care Unit clinical manual needs to be continuously updated.***

In this project, NCU clinical manuals for doctors and nurses were developed at the Maternal and Child Health Center. These were useful in standardizing procedures of the care and assessing the skills of health care workers, and were therefore introduced to provincial hospitals. However, these are not comprehensive, as they were developed to meet the level of medical care currently being provided at the National Maternal and Child Health Center. As the level of neonatal care that can be provided at the National Maternal and Child Health Center and provincial hospitals is improved in the future, it is necessary to repeat the revisions.

***Maintenance cost for the digital health should be secured***

[12]Ministry of Health, National Strategy for Reproductive and Sexual Health in Cambodia 2017-2020 https://cambodia.unfpa.org/en/publications/national-strategy-reproductive-and-sexual-health-cambodia-2017-2020

In Cambodia, digital health has been rapidly adopted in the context of the COVID-19 pandemic. In order to continue to receive the benefits of this system, it is essential to ensure maintenance costs. In many cases, maintaining digital health, including online training, requires costs such as outsourcing maintenance, hiring IT personnel, and rental fees for servers, or hiring IT staff, securing IT personnel. It is important to examine the necessity of these systems and ensure maintenance costs for those that are needed.

***Careful support should be given to prevent further expansion of the digital divide***

Digital health offers many opportunities for people, but access to them is uneven. Even among health care providers, the older generation is generally less IT literate and often has limited access to IT tools. If digital health is introduced without consideration for these people, the digital divide, the gap between those who cannot benefit and those who can, will widen further.

***Sufficient preparations should be made to avoid confusion and inequality when first renewing medical licenses after the issuance of Continuing Professional Development program, which will come in two years***

The CPD program is a well-designed system that works well, at least for midwives, and is a strong motivator for attending in-service training. However, the project activities revealed that CPD programs are not always widely recognized, especially in rural areas, and that some people are not yet registered to the Cambodian Midwives Council, that are responsible for CPD program. It is necessary to be more proactive in promoting awareness of the CPD program and encouraging CMC registration.

Given this situation, it is concerned that many midwives may not be aware of the CPD program and may not have acquired the required points at the time of their first license renewal after the issuance of CPD program, which will come in two years. Some kind of remedy for these people might be needed, but it needs to be a fair solution that does not discourage those who have taken the training seriously and have earned CPD points.

***More strategic and resource-intensive activities will be required to further improvement of maternal and child health services in Cambodia***

Cambodia has succeeded in rapidly improving maternal and child health, including improving the institutional delivery rate and reducing maternal and child deaths. In order to further improve maternal and child health indicators in the future, it will be necessary to reach out to people who have not been reached so far, and to engage in advanced medical treatment to save lives of those who cannot be saved by conventional medical treatment. In order to do so, it will be difficult in some cases to simply continue with the way things have always been done, and the unit cost of improvement is expected to be

higher than ever before. It will be necessary to be more strategic and be prepared to invest more resources.

## 4. Monitoring Plan from the end of the Project to Ex-post Evaluation

JICA Cambodia Office will support and monitor the efforts of NMCHC on the utilization of E-learning materials developed by NMCHC and IINeoC project through participation in the meetings, such as TWG meeting for RMNCH, and regular contact with the project manager in the following manners:

1. Monitor and encourage the promotion of NMCHC's E-learning platform and Safe Delivery Application's usage.
2. Monitor and encourage the revision of SDA contents according to the update of relevant national guidelines and protocols.
3. Encourage the usage of SDA by other partner organizations

With regard to the impact indicator "Reduce the neonatal mortality at target provinces", the Demographic Health Survey scheduled for 2020 has been postponed due to the COVID-19 pandemic, but it is planned to be conducted once the outbreak has been resolved. When the report is published, the JICA office will verify the progress in KCM and SVR provinces.

**ANNEX 1: Results of the Project**
(List of Dispatched Experts, List of Counterparts, List of Trainings, Equipment Provision and Operational Expense)
**ANNEX 2: List of Products (Report, Manuals, Handbooks, etc.) Produced by the Project**
**ANNEX 3: PDM (All versions of PDM)**
**ANNEX 4: R/D, M/M, Minutes of JCC (copy) (*)**
**ANNEX 5: Monitoring Sheet (copy) (*)**
(Remarks: ANNEX 4 and 5 are internal reference only.)

**Separate Volume: Copy of Products Produced by the Project**

Annex1-1

## Experts

Long-term Experts

| JFY | Name of Experts | Title of Assigment | Period of Assignment | | |
|---|---|---|---|---|---|
| JFY2016-2022 | Ms.Azusa Iwamoto | Chief Advisor | 2016/5/16 | ～ | 2020/5/15 |
| | Mr.Ikuma Nozaki | Chief Advisor | 2020/5/15 | ～ | 2022/5/15 |
| | Ms.Asako Hayashi | Project Coordinator/ Training Management | 2016/5/25 | ～ | 2018/5/24 |
| | Ms.Mihoko Shimoji | Project Coordinator | 2018/8/20 | ～ | 2022/5/15 |
| | Ms.Yoko Masaki | Community maternal and newborn health | 2017/4/18 | ～ | 2019/11/19 |
| | Ms.Yorin Watabe | Community maternal and newborn health | 2020/2/17 | ～ | 2021/9/30 |
| | Ms.Tsukada Minori | Intrapartum care | 2019/11/13 | ～ | 2022/5/15 |

Short-term Experts

| JFY | Name of Experts | Title of Assigment | Period of Assignment | | |
|---|---|---|---|---|---|
| JFY2016 | Ms.Kimiko Inaoka | Newborn care | 2016/7/5 | ～ | 2016/8/11 |
| | Ms.Hiroshi Takenaka | Intrapartum care | 2016/8/22 | ～ | 2016/9/28 |
| | Ms.Minori Tsukada | Midwifery/intrapartum care | 2016/11/17 | ～ | 2016/12/23 |
| | Ms.Yoko Masaki | Community-based newborn care | 2017/1/12 | ～ | 2017/2/28 |
| | Ms.Tomomi Kitamura | Baseline survey | 2017/1/16 | ～ | 2017/2/15 |
| | Mr.Hiroyuki Ide | Health information system | 2017/3/22 | ～ | 2017/4/5 |
| JFY2017 | Ms.Tomomi Kitamura | Neonatology | 2017/6/12 | ～ | 2017/7/28 |
| | Ms.Akemi Kamidaira | Newborn care | 2017/7/24 | ～ | 2017/8/22 |
| | Mr.Hiroyuki Ide | Health information system | 2017/8/7 | ～ | 2017/8/11 |
| | Ms.Minori Tsukada | Midwifery care 1 | 2017/11/6 | ～ | 2017/12/8 |
| | Ms.Miwa Ishioka | Midwifery care 2 | 2017/11/29 | ～ | 2017/12/29 |
| | Mr.Mitsuaki Matsui | Obstetric care | 2017/12/11 | ～ | 2017/12/29 |
| | Mr.Hiroyuki Ide | Health information system | 2017/3/23 | ～ | 2017/4/5 |
| JFY2018 | Mr.Hiroyuki Ide | Health information system | 2018/5/8 | ～ | 2018/5/11 |
| | Mr.Mitsuaki Matsui | Obstetric care | 2018/6/11 | ～ | 2018/7/6 |
| | Ms.Miwa Ishioka | Midwifery care | 2018/6/19 | ～ | 2018/7/13 |
| | Ms.Mari Honda | Neonatology | 2018/12/6 | ～ | 2018/12/29 |
| | Ms.Mari Honda | Neonatology | 2019/1/21 | ～ | 2019/2/14 |
| | Ms.Megumi Ikarashi | Neonatal care | 2019/2/7 | ～ | 2019/3/1 |
| | Ms.Chisato Masuda | Midwifery care | 2019/2/18 | ～ | 2019/3/16 |
| | Ms.Asuka Miyazaki | Midwifery care | 2019/3/5 | ～ | 2019/4/2 |
| JFY2019 | Ms. Chisato Masuda | Midwifery care | 2019/5/23 | ～ | 2019/7/20 |
| | Mr.Mitsuaki Matsui | Obstetric care | 2019/6/5 | ～ | 2019/6/19 |
| | Mr. Sadatosh Matsuoka | Statistics & Epidemiology | 2019/6/9 | ～ | 2019/6/15 |
| | Mr.Shinichi Hosokawa | Neonatology | 2019/11/3 | ～ | 2019/11/9 |
| | Ms.Makiko Noguchi | Midwifery care | 2020/1/19 | ～ | 2020/1/25 |
| | Mr.Shinichi Hosokawa | Neonatology | 2020/3/1 | ～ | 2020/3/7 |

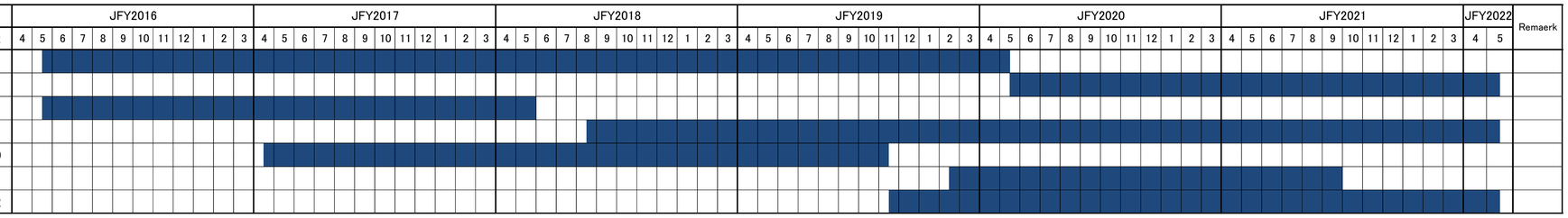
| | | | | | | |
|---|---|---|---|---|---|---|
| JFY2020 | Mr. Sadatoshi Matsuoka | Statistics & Epidemiology | 2020/8/1 | ～ | 2021/1/31 | *Based in Japan due to Covid-19 Situation |
| | Ms. Juko Watanabe | Newborn care in NCU | 2020/12/23 | ～ | 2021/3/22 | |
| JFY2021 | Mr. Tomoo Ito | Neonatology | 2022/2/15 | ～ | 2022/3/15 | |
| | Ms. Kaori Seino | Neonatal care | 2022/2/15 | ～ | 2022/3/15 | |

Annex1-1

Experts dispatch schedule

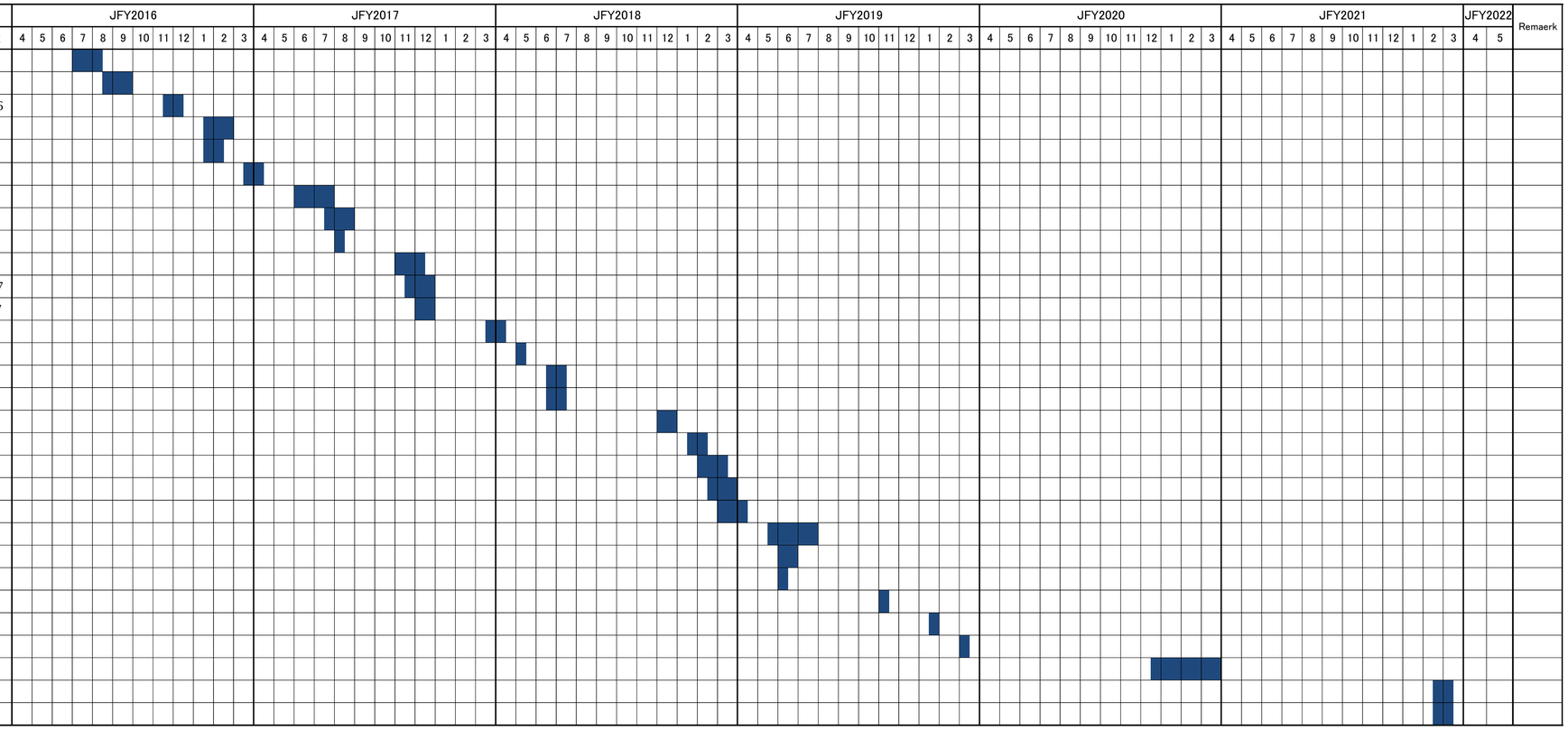
(long-term)

| No | Name of Expert | Field of Experties | Duration of Assignment | Remaerk |
|---|---|---|---|---|
| 1 | Ms.Azusa Iwamoto | Chief Advisor | 5/16/2016-5/15/2020 | |
| 2 | Mr.Ikuma Nozaki | Chief Advisor | 5/15/2020-5/15/2022 | |
| 3 | Ms.Asaki Hayashi | Project Coordinator/ Training Management | 5/25/2016-5/24/2018 | |
| 4 | Ms.Mihoko Shimoji | Project Coordinator | 8/20/2018-5/15/2022 | |
| 5 | Ms.Yoko Masaki | Community maternal and newborn health | 4/18/2017-11/19/2019 | |
| 6 | Ms.Yorin Watabe | Community maternal and newborn health | 2/17/2020-9/30/2021 | |
| 7 | Ms.Tsukada Minori | Intrapartum care | 11/13/2019-5/16/2022 | |




(short-term)

| No | Name of Expert | Field of Experties | Duration of Assignment | Remaerk |
|---|---|---|---|---|
| 1 | Ms.Kimiko Inaoka | Newborn care | 7/5/2016 - 8/11/2016 | |
| 2 | Ms.Hiroshi Takenaka | Intrapartum care | 8/22/2016 - 9/28/2016 | |
| 3 | Ms.Minori Tsukada | Midwifery/intrapartum care | 11/17/2016 - 12/23/2016 | |
| 4 | Ms.Yoko Masaki | Community-based newborn care | 1/12/2017 - 2/28/2017 | |
| 5 | Ms.Tomomi Kitamura | Baseline survey | 1/16/2017 - 2/15/2017 | |
| 6 | Mr.Hiroyuki Ide | Health information system | 3/22/2017 - 4/5/2017 | |
| 7 | Ms.Tomomi Kitamura | Neonatology | 6/12/2017 - 7/28/2017 | |
| 8 | Ms.Kamidaira | Newborn care | 7/24/2017 - 8/22/2017 | |
| 9 | Mr.Hiroyuki Ide | Health information system | 8/7/2017 - 8/11/2017 | |
| 10 | Ms.Minori Tsukada | Midwifery care 1 | 11/6/2017 - 12/8/2017 | |
| 11 | Ms.Miwa Ishioka | Midwifery care 2 | 11/29/2017 - 12/29/2017 | |
| 12 | Mr.Mitsuaki Matsui | Obstetric care | 12/11/2017 -12/29/2017 | |
| 13 | Mr.Hiroyuki Ide | Health information system | 3/23/2017 - 4/5/2017 | |
| 14 | Mr.Hiroyuki Ide | Health information system | 5/8/2018 - 5/11/2018 | |
| 15 | Mr.Mitsuaki Matsui | Obstetric care | 6/11/2018 - 7/6/2018 | |
| 16 | Ms.Miwa Ishioka | Midwifery care | 6/19/2018 - 7/13/2018 | |
| 17 | Ms.Mari Honda | Neonatology | 12/6/2018 - 12/29/2018 | |
| 18 | Ms.Mari Honda | Neonatology | 1/21/2019 - 2/14/2019 | |
| 19 | Ms.Megumi Ikarashi | Neonatal care | 2/7/2019 - 3/1/2019 | |
| 20 | Ms.Chisato Masuda | Midwifery care | 2/18/2019 - 3/16/2019 | |
| 21 | Ms.Asuka Miyazaki | Midwifery care | 3/5/2019 - 4/2/2019 | |
| 22 | Ms.Chisato Masuda | Midwifery care | 5/23/2019 -7/20/2019 | |
| 23 | Mr.Mitsuaki Matsui | Obstetric care | 6/5/2019 - 6/19/2019 | |
| 24 | Mr.Sadatoshi Matsuoka | Statistics & Epidemiology | 6/9/2019 - 6/15/2029 | |
| 25 | Mr.Shinichi Hosokawa | Neonatology | 11/3/2019 - 11/9/2019 | |
| 26 | Ms. Makiko Noguchi | Midwifery care | 1/19/2020 -1/25/2020 | |
| 27 | Mr. Shinichi Hosokawa | Neonatology | 3/1/2020 - 3/7/2020 | |
| 28 | Juko Watanabe | Newborn care in NCU | 12/23/2020 - 3/22/2021 | |
| 29 | Mr. Tomoo Ito | Neonatology | 2/15/2022 - 3/15/2022 | |
| 30 | Ms. Kaori Seino | Neonatal care | 2/15/2022 - 3/15/2022 | |



Annex1-2

## Ministry of Health

| No. | Name | Position | Title | Remark |
|---|---|---|---|---|
| 1 | H.E. Prof. Eng Huot | Secretary of State for Health, Ministry of Health | Professor | |
| 2 | H.E. Dr. Chhour Y Meng | Under Secretary of State, Ministry of Health | Doctor | |
| 3 | Dr. Krang Sidon | Deputy director, Bureau of prevention control, communicable disease control department | Doctor | |

Annex1-2

## National Maternal and Child Health Center (NMCHC)

| | Name | Position | Title | Remark |
|---|---|---|---|---|
| 1 | Prof. Tung Rathavy | Director | Professor | Project manager since 2016 till 2020 (Retired) |
| 2 | Dr. Kim Ratana | Director of NMCHC | Doctor | Successor of Dr. Tung Rathavy from 2020 |
| 3 | Dr. Te Kuychiv | Debuty director, NMCHC | Doctor | |
| 4 | Dr. Keo Muoy Sroy | Deputy Director, Chief of Clinical Committee, NMCHC | Doctor | |
| 5 | Asst. Prof. Pech Sothy | Debuty director, chief of TU | Doctor (Assistant Professor) | |
| 6 | Asst. Prof Som Vanrithy | Chief of Technical Bureau. | Doctor (Assistant Professor) | |
| 7 | Mr. Chou Sarith | Chief of Admimistration Bureau | | |
| 8 | Mr. Ngeth Titya | Vice Chief of Administration Bureau | | |
| 9 | Dr. Ros Sophat | Chief of Gynecology ward | Doctor | |
| 10 | Dr. Nuon Vesna | Chief of Maternity ward | Doctor | |
| 11 | Dr. Krouch Rayounette | Chief of outpatient ward | Doctor | Retired in 2021 |
| 12 | Ms. Chhay Sveng Cheaath | Director of Nursing division Training coordinator | Secondary Midwife | |
| 13 | Dr. Seang Sody | Chief of Neonatal Care Unit, NMCHC | Doctor | |
| 14 | Dr. Som Rithy | Vice Chief of NCU | Doctor | |
| 15 | Ms. Voeuk Phea | Chief of Nurse, Neonatal Care Unit, NMCHC | Nurse | |
| 16 | Dr. Meng Leang | Team leader | Doctor | |
| 17 | Ms. Yeap Sopheana | Team leader | Nurse | |
| 18 | Ms. Pal Sreyly | NCU's nurse | Nurse | |
| 19 | Ms. Oung Lida | Head of Nurse, OPD Ward, NCMCH | Bachelor Midwifery | |
| 20 | Ms. Pan Kimleang | Head of Nurse, Delivery Ward, NCMCH | Secondary Midwife | |

| | | | | |
|---|---|---|---|---|
| 21 | Dr. Saing Sona | Chief of TU | Doctor | Retired in 2021 |
| 22 | Ms. Heng Ngim | Training Coordinator | Secondary Midwife | |
| 23 | Ms. Chhin Soknay | TU's Staff | Secondary Midwife | |
| 24 | Ms. Sun Same Ean | TU's Staff | Secondary Midwife | |
| 25 | Dr. Chhan Naneth | Chief of OPD ward, NMCHC | Doctor | |
| 26 | Ms. Heng Thavy | Staff of Training Unit | Secondary Midwife | |
| 27 | Ms. Keo Vantha | Chief of MW, Delivery unit | Secondary Midwife | |
| 28 | Ms. Chea Preymony | Staff of PMTCT | Secondary Midwife | |
| 29 | Ms. Net Samrang | Staff of OPD ward | Doctor (Specialist) | |
| 30 | Ms. Sor Lyna | Vice chief of OPD ward | Secondary Midwife | |

Annex1-2

## Kampong Cham Provincial Health Department (PHD)

| No. | Name | Position | Title | Remark |
|---|---|---|---|---|
| 1 | Dr. Kim Sour Phirun | Director of PHD | Doctor | |
| 2 | Dr. Taing Bunsreng | Chief of Maternal and Child Health, Kampong Cham provincial health Department | Doctor | |
| 3 | Dr. Peang Nara | Vice Chif of PHD-MCH | Doctor | |
| 4 | Ms. Chhayly | MCH's Staff | Doctor | Retired in Septemeber, 2019 |

## Kampong Cham Provincial Referral Hospital (PRH)

| No | Name | Position | Title | Remark |
|---|---|---|---|---|
| 5 | Prof. Yin Sinath | Director of Provincial Hospital | Doctor (Professor) | |
| 6 | Asst. Prof. Lorn Try Patric | Deputy director, chief of HCT-EENC, KCM-PH | Doctor (Assistant Professor) | |
| 7 | Dr. Chab Chan Thida | Deputy director of provinicial hopital | Doctor | |
| 8 | Dr. Mey Moniborin | Deputy director of hospital, Chief of TU | Doctor | |
| 9 | Dr. Than Sovandeth | vice chief of Training Unit, KCM-PH | Doctor | |
| 10 | Dr. Kim Kimsrorn | Deputy director, KCM-PH | Doctor | |
| 11 | Dr. Nem Buntheourn | Chief of maternity ward | Doctor | |
| 12 | Dr. Ngoun Vathannak | Pediatrician | Doctor | |
| 13 | Dr. Teuk Sopheak | Pediatrician | Doctor | |
| 14 | Ms. Ork Karona | Head of midwife at Maternity ward, KCM-PH | Midwife | |
| 15 | Ms. Ou Narom | Nurse at NCU | Nurse | |
| 16 | Ms. Muth Sovannara | Midwife at maternity ward, KCM-PH | Midwife | |
| 17 | Mr. Lun Tetra | Nurse at NCU | Nurse | |
| 18 | Mr. Chay Rithy | vice chief of Training Unit, KCM-PH | | |

| | | | | |
|---|---|---|---|---|
| 19 | Mr. Art Naroth | Facilitator of Traning Unit, KCM-PH | | |
| 20 | Ms. Heang Bunny | Administrative staff of Training Unit, KCM-PH | Midwife | |
| 21 | Mr. Chan Moniroth | Administrative staff of Training Unit, KCM-PH | | |
| 22 | Mr. Vong Piseth | IT officer of TU | Bachelor of IT | |
| 23 | Dr. Uch SokRathavy | Staff of Maternity ward | Doctor | |
| 24 | Ms. Nourn Thary | Staff of Maternity ward | Secondary midwife | |
| 25 | Ms. Chin Chanthou | Staff of Maternity ward | Secondary midwife | |
| 26 | Ms. Pay Sophea | Team Leader | Secondary midwife | |
| 27 | Ms. Leav Vouchnea | Staff of Maternity ward | Secondary midwife | |

## Operational Districts of Kampong Cham Provincial Health Department (ODs)

| | | | | |
|---|---|---|---|---|
| 28 | Ms. Krouch Solina | MCH's Chief of Batheay OD | Secondary midwife | |
| 29 | Ms. Tem Malynat | MCH's Chief of Chamkar Leu OD | Secondary midwife | |
| 30 | Ms. Seak Phary | MCH's Chief of Cheurng Prey OD | Secondary midwife | |
| 31 | Ms. Try Dalen | MCH's Chief of Kampong Siem OD | Secondary midwife | |
| 32 | Ms. Leang Thearith | MCH's Chief of Koh Soutin OD | Secondary midwife | |
| 33 | Ms. Kheng Solida | MCH's Chief of Kang Meas OD | Secondary midwife | |
| 34 | Ms. Bo Chantha | MCH's Chief of Prey Chhor OD | Secondary midwife | |
| 35 | Ms. Oun Laline | MCH's Chief of Steung Trang OD | Secondary midwife | |
| 36 | Ms. Chhun Bophea | MCH's Chief of Srey Santhor OD | Secondary midwife | |

Annex1-2

## Svay Rieng Provincial Health Department (PHD)

| No. | Name | Position | Title | Remark |
|---|---|---|---|---|
| 1 | Dr. Ke Ratha | Director of PHD | Doctor | |
| 2 | Dr. Moung Sophal | Deputy Director of PHD | Doctor | |
| 3 | Dr. Oum Saron | Chief of Technical Bureau | Doctor | |
| 4 | Dr. Nhek Chamnan | Chief of Maternal and Child health | Doctor | |
| 5 | Ms. You Pheach | Vice Chief of Maternal and Child Health. | secondary midwife | Retired in September, 2021 |
| 6 | Ms. Ouk Sovanndy | MCH's Staff | Midwife | |
| 7 | Ms. Meak Sonita | MCH's Staff | Midwife | |

## Svay Rieng Provincial Referral Hospital (PRH)

| No | Name | Position | Title | Remark |
|---|---|---|---|---|
| 8 | Dr. Chan Dara | Director of Provincial Hospital | Doctor | |
| 9 | Dr. Monh Sokha | Deputy Director of Provincial Hospital | Doctor | |
| 10 | Dr. Thong Umsothea | Deputy director of hospital, Chief of TU | Doctor | |
| 11 | Dr. An Sophy | Chief of pediatric ward | Doctor | |
| 12 | Dr. So Boran | Chief of NCU | Doctor | |
| 13 | Dr. Meas Kangha | Pediatrician | Doctor | Transfer to OD Svay Rieng |
| 14 | Dr. Pen Phunravy | Pediatrician | Doctor | |
| 15 | MA. Pich Sothy | Chief of maternity ward | Medical assistant | |

| | | | | |
|---|---|---|---|---|
| 16 | Dr. Preab Sothy | OBGYN doctor | Doctor | |
| 17 | Mr. Prum Sarith | Nurse at Pediatric ward | Nurse | |
| 18 | Ms. Som Chanthy | Nurse at Pediatric ward | Nurse | |
| 19 | Ms. Kong Kosal | Nurse at NCU | Nurse | |
| 20 | Ms. Kong Bunna | Head of midwives, maternity ward | secondary midwife | Retired in September, 2021 |
| 21 | Ms. So Vannariny | TU staff | Nurse | |
| 22 | Mr. Chorn Serdy | IT Staff of TU | | |
| 23 | Ms. Kov Neang Chivorn | Administrative staff of TU | | |

## Operational Districts of Svay Rieng provincial Health Department (ODs)

| | | | | |
|---|---|---|---|---|
| 24 | Ms. Chea Sorachana | MCH's Chief of Svay Rieng OD | secondary midwife | |
| 25 | Ms. Leang Chanmala | MCH's Chief of Svay Teab OD | secondary midwife | |
| 26 | Ms. Ou Raby | MCH's Chief of Romeas Hek OD | secondary midwife | |
| 27 | Ms. Teav Sareth | MCH's Chief of Chi Pho OD | secondary midwife | |

INC coaching in KCM

| No | Date | Number of participants | Number of Health Facility |
|---|---|---|---|
| 1 | 20-21/Dec/ 2016 | 17 | 10 |
| 2 | 15-16/Mar/2017 | 12 | 11 |
| 3 | 27/July/2017 | 8 | 8 |
| 4 | 27-28/Nov/2017 | 12 | 11 |
| 5 | 29-30/Nov/2017 | 12 | 11 |
| 6 | 3-4/July/2018 | 12 | 5 |
| 7 | 5-6/July/2018 | 14 | 5 |
| 8 | 18-19/July/2018 | 13 | 11 |
| 9 | 22-23/Aug/2019 | 14 | 7 |
| 10 | 29-30/Aug/2019 | 15 | 9 |
| 11 | 21-22/Oct/2019 | 10 | 6 |
| 12 | 24-25/oct/2019 | 9 | 8 |
| 13 | 30-31/Oct/2019 | 11 | 9 |
| 14 | 30-31/Dec/2019 | 11 | 5 |
| Total | | 170 | 116 |

INC coaching in SVR

| No | Date | Number of participants | Number of Health Facility |
|---|---|---|---|
| 1 | 13-14/Mar/ 2017 | 11 | 10 |
| 2 | 8-9/May/2017 | 20 | 19 |
| 3 | 29-30/May/2017 | 20 | 19 |
| 4 | 28-29/Jun/2017 | 11 | 9 |
| 5 | 9-10/Aug/2017 | 11 | 9 |
| 6 | 22-23/Aug/2017 | 12 | 9 |
| 7 | 12-13/Sep/2017 | 12 | 10 |
| 8 | 26-27/Sep/2017 | 10 | 10 |
| 9 | 10-11/Oct/2017 | 11 | 9 |
| 10 | 17-18/Oct/2017 | 12 | 9 |
| 11 | 25-26/Oct/2017 | 12 | 12 |
| 12 | 13-14/Nov.2017 | 12 | 11 |
| 13 | 17-18/Jan/2018 | 12 | 9 |
| 14 | 22-23/Jan/2018 | 12 | 10 |
| 15 | 25-26/Jan/2018 | 12 | 11 |
| 16 | 29-30/Jan/2018 | 12 | 9 |
| 17 | 5-6/Feb/2018 | 11 | 8 |
| 18 | 7-8/Feb/2018 | 12 | 6 |
| 19 | 11-12/Sep/2019 | 12 | 12 |
| 20 | 17-18/Sep/2019 | 13 | 13 |
| 21 | 19-20/Sep/2019 | 14 | 13 |
| 22 | 15-16/Dec/2020 | 10 | 9 |
| 22 | 17-18/Dec/2020 | 10 | 6 |
| 23 | 22-23/Dec/2020 | 9 | 8 |
| Total | | 293 | 250 |

**Supportive Supervision in KCM**

| No | Date | Number of participants | Health Facility |
|---|---|---|---|
| 1 | 16-Apr-17 | 4 | Srork HC, Trean HC |
| 2 | 17-May-17 | 1 | Moha Knhong HC |
| 3 | 18-May-17 | 2 | KohSomrong HC, Korkor HC |
| 4 | 19-May-17 | 2 | Koh Sotin HC, Lve HC |
| 5 | 25-Aug-17 | 2 | srey Santhor RH |
| 6 | 28-Aug-17 | 4 | Batheay RH, Cheung Prey RH |
| 7 | 30-Aug-17 | 1 | Steung Trang RH |
| 8 | 25-Dec-17 | 2 | Chamkar Lue RH |
| 9 | 28-Dec-17 | 1 | Batheay RH |
| 10 | 12-Feb-18 | 4 | Batheay RH, Chheung Prey HC |
| 11 | 13-Feb-18 | 2 | Ou Mlou HC, Toul Sam Bo HC |
| 12 | 19-Feb-18 | 2 | Dorng Kda HC, Meak Bei HC |
| 13 | 20-Feb-18 | 3 | Peam Koh Sna HC,Kpob Ta Nguon HC |
| 14 | 23-Feb-18 | 2 | So Pheas HC, Steung Trang RH |
| 15 | 23-Apr-18 | 2 | Chheung Prey RH, Daun Dom HC |
| 16 | 24-Apr-18 | 3 | Chamkar Lue RH, Spue HC, Taing Krong HC |
| 17 | 22-Jan-19 | 7 | KCM PH |
| 18 | 24-Jan-19 | 5 | Cheung Chhonk HC, Boeung Kok HC, Vealvong HC |
| 19 | 25-Jan-19 | 2 | Trean HC, Srok HC |
| 20 | 28-Jan-19 | 3 | Lvea Ler HC, Prey Chhor RH, Kor HC |
| 21 | 29-Jan-19 | 2 | Korkor HC, Koh Roka HC |
| 23 | 20-Feb-19 | 3 | srey Santhor RH |
| 24 | 21-Feb-19 | 3 | Trong Trolach HC, Baray HC |
| 25 | 22-Feb-19 | 2 | Cheung Prey RH, Doun Dum HC |
| 26 | 25-Feb-19 | 1 | Doun Thy HC |
| 27 | 5-Mar-19 | 1 | Kpob Ta Nguon HC |
| 28 | 6-Mar-19 | 3 | Toul Preak Klang HC, Prek Bak HC |
| 29 | 7-Mar-19 | 3 | Moha Loung HC, Koh Sotin OD, Kampong Reab HC |
| 30 | 11-Mar-19 | 3 | Roka Ah HC, Peam Chi Kang HC |
| 31 | 12-Mar-19 | 2 | Tumnob HC,Troub HC |
| 32 | 13-Mar-19 | 2 | Batheay RH, Skun HC |
| 33 | 30-Apr-19 | 2 | Reay Pay HC, Sdav HC |
| 34 | 13-Jan-20 | 4 | Cheurng Chhnok HC |
| 35 | 14-Jan-20 | 5 | Sambo HC, Taing Krosaing HC |
| 36 | 15-Jan-20 | 2 | Tumnob HC, San dek HC |
| 37 | 16-Jan-20 | 2 | Troub HC, Pha-av HC |
| 38 | 20-Jan-20 | 1 | Svay Sach Phnom HC |
| 39 | 21-Jan-20 | 8 | Cheurng Prey RH |
| 40 | 22-Jan-20 | 3 | Sderng Chey HC, Knol Dom bang HC |
| 41 | 3-Feb-20 | 2 | Chey yo HC |
| 42 | 4-Feb-20 | 6 | Speur HC (2), Svay Teab HC (1), RH (3) |
| 43 | 5-Feb-20 | 4 | RH (3), Peam Preah Thnoh (1) |
| 44 | 6-Feb-20 | 1 | Koh Soutin HC |
| 45 | 17-Feb-20 | 4 | Krouch HC, Srongae HC |
| 46 | 18-Feb-20 | 4 | Thmor Pun HC, Baray HC, RH |
| 47 | 19-Feb-20 | 5 | Kchao HC, Ro Ka ar HC |
| 48 | 25-Feb-20 | 3 | Kpob Ta Nguon HC, Toul Sombo HC |
| 49 | 26-Feb-20 | 4 | Toul Preak Klang HC, Steung Trang RH |
| 50 | 27-Feb-20 | 6 | Sopheas HC, Kang Meas RH |
| 51 | 28-Feb-20 | 10 | PH |
| Total | | 155 | |

**Supportive Supervision in SVR**

| No | Date | Number of participants | Health Facility |
|---|---|---|---|
| 1 | 1-Mar-18 | 2 | Chres HC |
| 2 | | 3 | Tuol Sdei HC |
| 3 | 2-Mar-18 | 1 | Chi Phou RH |
| 4 | | 3 | Bavet HC |
| 5 | | 3 | Prey Angkhunh HC |
| 6 | 6-Mar-18 | 3 | Prek Kokir HC |
| 7 | 7-Mar-18 | 6 | Chi Phou OD |
| 8 | 13-Mar-18 | 4 | Ksetre HC |
| 9 | 14-Mar-18 | 4 | Samlei HC (Svay ta yean) |
| 10 | 25-Apr-18 | 2 | Me Sarthngork HC |
| 11 | 26-Apr-18 | 2 | Tnoat HC |
| 12 | 8-May-18 | 1 | Bos Morn HC |
| 13 | | 3 | Than Thnong HC |
| 14 | 9-May-18 | 5 | Svay Teab RH |
| 15 | 10-May-18 | 6 | Nhor HC |
| 16 | 24-May-18 | 3 | Svay Rumpel HC |
| 17 | 25-May-18 | 3 | Pong Teuk HC |
| 18 | | 3 | Porpet HC |
| 19 | | 2 | Post H Tuol Sala |
| 20 | 6-Jun-18 | 1 | Preah Punlea HC |
| 21 | | 4 | Samyong HC |
| 22 | 11-Jun-18 | 3 | Chek Dei HC |
| 23 | 13-Jun-18 | 4 | Svay Chrum HC |
| 24 | | 1 | Samaky Romdoul |
| 25 | 14-Jun-18 | 5 | Chek HC |
| 26 | 6-Jul-18 | 2 | Chork HC |
| 27 | | 2 | Svay Teab RH |
| 28 | 21-Aug-18 | 1 | Bos Morn HC |
| 29 | 22-Aug-18 | 3 | Me Sarthngork HC |
| 30 | | 2 | Tnoat HC |
| 31 | 23-Aug-18 | 6 | Svay Chrum RH |
| 32 | 28-Aug-18 | 1 | Chek HC |
| 33 | | 2 | Kraol Ko HC |
| 34 | | 1 | Svay Chrum HC |
| 35 | | 1 | Chek HC |
| 36 | 29-Aug-18 | 5 | Chamlong HC |
| 37 | 30-Aug-18 | 5 | Svay Chrum RH |
| 38 | 4-Sep-18 | 4 | Kruos HC |
| 39 | 5-Sep-18 | 3 | Svay Angk HC |
| 40 | 6-Sep-18 | 6 | Svay Thum HC |
| 41 | 11-Sep-18 | 3 | Svay Yea HC |
| 42 | 12-Sep-18 | 5 | Doun Sar HC |
| 43 | 13-Sep-18 | 5 | Sang Khor HC |
| 44 | 18-Sep-18 | 2 | Svay Rieng HC |
| 45 | 19-Sep-18 | 6 | Svay Rieng PH |
| 46 | 20-Sep-18 | 1 | Basak HC |
| 47 | 7-Nov-18 | 4 | Kampong Trach HC |
| 48 | 8-Nov-18 | 3 | Ampil HC |
| 49 | 13-Nov-18 | 1 | Romeas Hek RH |
| 50 | | 2 | Krasang HC |
| 51 | | 2 | Mream HC |
| 52 | 14-Nov-18 | 3 | Krasang HC |
| 53 | | 2 | Romeas Hek RH |

| | | | |
|---|---|---|---|
| 54 | 15-Nov-18 | 4 | Romeas Hek OD |
| 55 | | 3 | Romeas Hek RH |
| 56 | 28-Nov-18 | 4 | Romeas Hek RH |
| 57 | 29-Nov-18 | 3 | Trapeang Sdav HC |
| 58 | 4-Dec-18 | 4 | Chanrei HC |
| 59 | 5-Dec-18 | 3 | Doung HC |
| 60 | 6-Dec-18 | 3 | Angk Prasrea HC |
| 61 | 23-Apr-19 | 3 | Trapeang Sdav HC |
| 62 | 24-Apr-19 | 1 | Romeas Hek RH |
| 63 | | 1 | Doung HC |
| 64 | | 1 | Mream HC |
| 65 | 25-Apr-19 | 2 | Me Sarthngork HC |
| 66 | 2-May-19 | 1 | Prey Angkhunh HC |
| 67 | 2-May-19 | 1 | Prek Kokir HC |
| 68 | 3-May-19 | 1 | Ksetre HC |
| 69 | | 3 | Samlei HC (Svay ta yean) |
| 70 | 7-May-19 | 2 | Bavet HC |
| 71 | | 1 | Tnoat HC |
| 72 | 8-May-19 | 1 | Svay Chrum RH |
| 73 | | 1 | Kraol Ko HC |
| 74 | | 1 | Svay Thum HC |
| 75 | 9-May-19 | 1 | Samaky Romdoul |
| 76 | | 3 | Basak HC |
| 77 | 10-May-19 | 2 | Svay Rieng PH |
| 78 | | 1 | Svay Rieng PHD |
| 79 | | 3 | Svay Rieng HC |
| 80 | 19-Nov-19 | 1 | Chek Dei HC |
| 81 | | 1 | Krasang Hc |
| 82 | 20-Nov-19 | 4 | Romeas Hek RH |
| 83 | 21-Nov-19 | 1 | Koki HC |
| 84 | | 1 | Ang Prosrae HC |
| 85 | 26-Nov-19 | 3 | Muk Da HC |
| 86 | | 1 | Tropaing Sdav HC |
| 87 | 27-Nov-19 | 1 | Mream HC |
| 88 | | 1 | Chantrei HC |
| 89 | 28-Nov-19 | 1 | Popet HC |
| 90 | | 1 | Svay Rumpea HC |

| | | | |
|---|---|---|---|
| 91 | 2-Dec-19 | 2 | Preah Punlea HC |
| 92 | 3-Dec-19 | 1 | Bos Morn HC |
| 93 | | 1 | Samaky Roumdol RH |
| 94 | | 1 | Pong Teuk HC |
| 95 | 4-Dec-19 | 1 | Bavit HC |
| 96 | | 1 | Prey Anhkunh |
| 97 | | 2 | Chi Phou RH |
| 98 | 11-Dec-19 | 1 | Tnout HC |
| 99 | | 1 | Toul Sdei HC |
| 100 | | 1 | Chres HC |
| 101 | 12-Dec-19 | 1 | Prey Koki HC |
| 102 | | 2 | Svay Ta yean HC |
| 103 | 13-Dec-19 | 1 | Svay Yea hc |
| 104 | | 3 | Kroul Ko HC |
| 105 | 17-Dec-19 | 2 | Ta sous HC |
| 106 | | 2 | Svay Chrom Hc |
| 107 | 18-Dec-19 | 1 | Sangkhor hc |
| 108 | | 1 | Basac HC |
| Total | | 255 | |
| Total (1st SS) | | 184 | |
| Total (2nd SS) | | 71 | |

# MCAT in Kampong Cham province

| No | OD Name | Date | Topic | Number of participant | Supervisor(Name/PH,PHD) |
|---|---|---|---|---|---|
| 1 | Koh Soutin | 3-Dec-19 | PPH and Dexamethasone | 17 | Dr. Chap Chanthida KCM-PH<br>Ms. Lea Vouchnea KCM-PH<br>Ms. Siv Sodaly, MCH, KCM-PHD |
| 2 | Kang Meas | 25&26 April 19 | use of MgSO4 and Dexamethasone | 33 | Dr. Chap Chanthida KCM-PH<br>Ms. Chen Chanthou, KCM-PH<br>Ms. Siv Sodaly, MCH, KCM-PHD |
| 3 | Cheurg Prey | 25&26 April 19 | PPH and Dexamethasone | 47 | Ms. Bun Savy, KCM-PH<br>Ms. Khai Khema, KCM-PH<br>Ms. Khouy Kimsath, MCH, KCM-PHD |
| 4 | Chamkar Leur | 25&26 April 19 | Partograph | 49 | Ms. Pay Sophea,KCM-PH<br>Ms. Lea Vouchnea KCM-PH<br>Ms. Penh Sokunthy, MCH, KCM-PHD |
| 5 | Srey Santhor | 29 & 30 May 19 | INC and Dexamethasone | 36 | Ms. Penh Sokunthy, MCH, KCM-PHD<br>Ms. Pay Sophea,KCM-PH<br>Ms. Lea Vouchnea KCM-PH |
| 6 | Steung Trang | 24 & 25June 19 | Leopold's maneuvers and Partograph | 46 | Ms. Kouy Kimsath, MCH, KCM-PHD<br>Ms. Pay Sophea,KCM-PH<br>Ms. Noun Thavy KCM-PH |
| 7 | Cheurg Prey | 24 & 25June 19 | INC and ANC | 60 | Dr. Taing Bunsreng, MCH, KCM-PHD<br>Ms. Penh Sokunthy, MCH, KCM-PHD<br>Ms. Muth Sovannara, KCM-PH |
| 8 | Batheay | 27 & 28 June 19 | INC and ANC | 72 | Dr. Taing Bunsreng, MCH, KCM-PHD<br>Ms. Penh Sokunthy, MCH, KCM-PHD<br>Ms. Liv Vouchnea, KCM-PH. |
| 9 | Prey Chhor | 2 &3 July 19 | Post-partum hemorrhage | 60 | Ms. Siv Sodaly, MCH, KCM-PHD<br>Ms. Bun Savy, KCM-PH<br>Ms. Liv Vouchnea, KCM-PH. |
| 10 | Chamkar Leur | 10&11 July 19 | Post-partum hemorrhage | 60 | Ms. Penh Sokunthy, MCH, KCM-PHD<br>Ms. Bun Savy, KCM-PH<br>Ms. Noun Thavy KCM-PH |
| 11 | Kang Meas | 24 &25 July 19 | INC and ANC | 40 | Ms. Muth Sovannara, KCM-PH<br>Ms. Penh Sokunthy, MCH, KCM-PHD<br>Dr. Taing Bunsreng, MCH, KCM-PHD |
| 12 | Koh Soutin | 30th July | Pre-eclampsia | 25 | Dr. Chap Chanthida KCM-PH<br>Ms. Chen Chanthou, KCM-PH<br>Ms. Siv Sodaly, MCH, KCM-PHD |
| 13 | Cheurg Prey | 24-25th Oct 19 | Family Planning | 54 | Dr. Chap Chanthida KCM-PH<br>Ms. Siv Sodaly, MCH, KCM-PHD<br>Ms. Peang Nara, KCM-PHD |

| | | | | | |
|---|---|---|---|---|---|
| 14 | Srey Santhor | 30th-31th Oct 19 | ANC | 36 | Dr. Chab Chanthida KCM-PH<br>Ms. Penh Sokunthy, MCH, KCM-PHD<br>Ms. Hout Chanlavy, MHC-KCM-PHD |
| 15 | Kang Meas | 6th -7th Nov 19 | PPH | 37 | Ms. Bun Savy, KCM-PH<br>Dr. Eang Eang Hor, KCM-PH<br>Ms. Penh Sokunthy, MCH, KCM-PHD |
| 16 | Steung Trang | 6th -7th Nov 19 | INC and PNC | 50 | Dr. Chab Chanthida KCM-PH<br>Ms. Pay Sophea,KCM-PH<br>Ms. Hout Chanlavy, MHC-KCM-PHD |
| 17 | Steung Trang | 30th -31th Dec 19 | Family Planning | 50 | Ms. Muth Sovannara, KCM-PH<br>Ms. Peang Nara, KCM-PHD<br>Ms. Penh Sokunthy, MCH, KCM-PHD |
| 18 | Koh Soutin | 8th Jan 20 | Family Planning, IUD | 25 | Ms. Yun Syne, KCM-PH<br>Dr. Peang Nara, KCM-PHD<br>Ms. Penh Sokunthy, MCH, KCM-PHD |
| 19 | Cheurg Prey | 30-31 Jan 20 | PPH | 67 | Dr. Ieang eang hor, KCM-PH<br>Ms. Bun Savy, KCM-PH<br>Ms. Penh Sokunthy, MCH, KCM-PHD |
| 20 | Prey Chhor | 4-5 Feb 20 | Family planning | 51 | Ms. Muth Sovannara, KCM-PH<br>Dr. Peang Nara, KCM-PHD<br>Ms. Penh Sokunthy, MCH, KCM-PHD |
| 21 | Kang Meas | 6-7 Feb 20 | Family planning | 42 | Ms. Muth Sovannara, KCM-PH<br>Dr. Peang Nara, KCM-PHD<br>Ms. Penh Sokunthy, MCH, KCM-PHD |
| 22 | Srey Santhor | 10-11 March 20 | Family Planning | 42 | Ms. Yun Syne, KCM-PH<br>Dr. Peang Nara, KCM-PHD<br>Ms. Kouy Kimsath, MCH, KCM-PHD |
| Total | | | | 999 | |

# MCAT in Svay Rieng Province

| No | OD Name | Date | Topic | Number of participants | Supervisor(Name/PH,PHD) |
|---|---|---|---|---|---|
| 1 | Svay Rieng | 28-29 Jan 20 | ANC recording , ANC new guidline | 81 | Mr. Pich Sothy, SVR-PH<br>Dr. Nhek Chamnan, SVR-PHD<br>Ms. Meak Sonita, SVR-PHD |
| 2 | Romeas Hek O | 30-31 Jan 20 | PPH | 73 | Mr. Pich Sothy, SVR-PH<br>Dr. Nhek Chamnan, SVR-PHD<br>Ms. Ouk Sovanndy, SVR-PH |
| 3 | Romeas Hek O | 17-18 Nov 20 | Partograph | 63 | Ms. Kong Bunna, SVR-PH<br>Ms. You Pheach, SVR-PHD<br>Ms. Ouk Sovanndy, SVR-PH |
| 4 | Svay Rieng | 19-20 Nov 20 | Partograph | 83 | Mr. Pich Sothy, SVR-PH<br>Ms. Kong Bunna, SVR-PH<br>Ms. You Pheach, SVR-PHD |
| 5 | Svay Teab | 24-25 Nov 20 | Partograph | 65 | Mr. Pich Sothy, SVR-PH<br>Ms. Kong Bunna, SVR-PH<br>Ms. You Pheach, SVR-PHD |
| 6 | Chi Pho | 26-27 Nov 20 | Partograph | 51 | Ms. Kong Bunna, SVR-PH<br>Ms. Ou Raby, MCH's Romeas Hek OD<br>Ms. Ouk Sovanndy, SVR-PH |
| Total | | | | **416** | |

**Intrapartum care TOT**

| | Date | AM/PM | Number of participants | In-Person/Online | Contents |
|---|---|---|---|---|---|
| 1 | 13-Mar-19 | AM | 9 | In-Person | Initial Assessment Sheet |
| | 14-Mar-19 | AM | 8 | In-Person | Initial Assessment Sheet |
| | 15-Mar-19 | AM | 8 | In-Person | Initial Assessment Sheet, FHR |
| 2 | 21-Mar-19 | PM | 9 | In-Person | Initial Assessment Sheet, Record sheet, OP,TP |
| 3 | 7-Jun-19 | AM | 10 | In-Person | Initial Assessment Sheet, |
| 4 | 19-Jun-19 | AM | 10 | In-Person | Initial Assessment Sheet(Khmer translation) |
| 5 | 4-Jul-19 | AM | 13 | In-Person | Initial Assessment Sheet(Khmer translation), Overview of Guideline |
| 6 | 8-Jul-19 | AM | 13 | In-Person | Initial Assessment Sheet(Khmer translation), Overview of Guideline |
| 7 | 12-Sep-19 | AM | 11 | In-Person | Overview of Guideline, IAS record Sheet, Case study |
| 8 | 20-Sep-19 | AM | 8 | In-Person | IAS record sheet, Case study |
| 9 | 25-Sep-19 | AM | 7 | In-Person | IAS record sheet, Case study, TOT schedule |
| 10 | 1-Oct-19 | AM | 10 | In-Person | IAS record sheet, Case study, Guideline(Chapter 5) |

| | | | | | |
|---|---|---|---|---|---|
| 11 | 7-Oct-19 | PM | 13 | In-Person | TOT |
| | 8-Oct-19 | PM | 13 | In-Person | |
| | 9-Oct-19 | PM | 13 | In-Person | |
| | 10-Oct-19 | PM | 13 | In-Person | |
| | 11-Oct-19 | PM | 13 | In-Person | |
| 12 | 25-Nov-19 | AM | 9 | In-Person | Preparation for Orientation workshop |
| 13 | 5-Dec-19 | AM/PM | 33 | In-Person | Orientation workshop |
| 14 | 29-Jan-20 | PM | 10 | In-Person | Preparation for traning |
| 15 | 14-Feb-20 | AM | 12 | In-Person | Preparation for training |
| 16 | 21-Feb-20 | AM-PM | 24 | In-Person | Refresher Training for Trainer on Intrapartum Care |
| 17 | 3-Mar-20 | AM-PM | 36 | In-Person | Intrapartum Care Training for Health Center Midwives |
| | 4-Mar-20 | AM-PM | 36 | In-Person | |
| | 5-Mar-20 | AM-PM | 36 | In-Person | |
| | 6-Mar-20 | AM-PM | 36 | In-Person | |
| 18 | 21-Jul-20 | AM | 12 | Online | Core member meeting on Implementation plan of the intrapartum care trainig. |
| 19 | 23, 24, 25, 26-Aug-21 | PM | 214 | online | Online orientation for training on Intrapartum Care and Health Education |

| | | | | | |
|---|---|---|---|---|---|
| 20 | 13,14, 20, 21-Sep-21 | PM | 417 | online | Online training on Intrapartum Care focusing on Initial Assessment (Abdominal Palpation and Fetal Heartbeat) |
| 21 | 4-Nov-21 | AM | 8 | In-Person | Core member meeting for Intrapartum Care training focusing on IAS. |
| 22 | 11-Nov-21 | PM | 8 | In-Person | TOT for SDA at NMCHC |
| 23 | 24 and 25-Nov-21 | PM | 197 | online | Online follow-up training on Abdominal Palpation and Fetal Heartbeat Auscultation based on IAS |
| Total | | | 1269 | | |

**SDA**

| | Date | AM/PM | No. of participants | in-person/online | Contents |
|---|---|---|---|---|---|
| 1 | 15, 16, 22, 29, Dec-20 , 21, 22, 26-Jan, 2, Feb-21 | AM | 10 | in-person | Finalization workshop for developing SDA Khmer version |
| 3 | 9-Jun-21 | AM | 61 | online | Online orientation Workshop on Flipchart for Continuum of Care in MCH and SDA Khmer version |
| 4 | 6-Jul-21 | PM | 27 | online | Online ToT on SDA Khmer version for NMCHC, CMA and health partners |
| 6 | 26-Nov-21 10, 29, 30-Dec-21 | PM | 92 | in-person | Training on how to download, register and use SDA Khmer version |
| 7 | 14-Jan-22 | AM | 13 | in-person | Workshop on e-Learning materials developed by NMCHC and JICA IINeoC Project at TSMC |
| 8 | 17,18,19-Jan-22 | AM/PM | 100 | in-person | Training on SDA Khmer version and NMCHC's E-learning Platform at Kampong Cham |
| 9 | 20-Jan-22 | AM | 13 | in-person | Workshop on e-Learning materials developed by NMCHC and JICA IINeoC Project at KCM RTC |
| 10 | 24, 25-Jan-22 | AM/PM | 50 | in-person | Training on SDA Khmer version and NMCHC's E-learning Platform at Svay Rieng |
| | TOTAL | | 366 | | |

# Booklet activity

**1) Booklet Preparation and ToT**

| No | Date | Number of participants | Participants | In-person/Online | Place |
|---|---|---|---|---|---|
| 1 | 23-May-18 | 10 | SVR PHD, OD | In-person | SVR PHD |
| 2 | 31-May-18 | 10 | NMCHC committee | In-person | NMCHC |
| 3 | 10-Jul-18 | 6 | NMCHC committee | In-person | NMCHC |
| 4 | 13-Feb-19 | 28 | SVR-OD, SVT OD(Intervention HCs) | In-person | SVR-PHD |
| 5 | 14-Feb-19 | 30 | SVR-OD, SVT OD(Intervention HCs) | In-person | SVR-PHD |
| 6 | 20-Mar-19 | 21 | NMCHC(OPD,Emergency, Delivery, Maternity) | In-person | NMCHC, meeting room |
| 7 | 21-Mar-19 | 59 | NMCHC(OPD,Emergency, Delivery, Maternity) | In-person | NMCHC, auditorium |
| 8 | 8-Aug-19 | 55 | SVR HC, Romeas Heak OD | In-person | SVR-PHD |
| 9 | 9-Aug-19 | 55 | SVR HC, Romeas Heak OD | In-person | SVR-PHD |
| Total | | 274 | | | |

**2) HCMC**

| No | Date | Number of participants | Participants | In-person/Online | Place |
|---|---|---|---|---|---|
| 1 | 30-Jan-19 | 104 | SVR OD, SVT OD | In-person | SVR-PHD |
| 2 | 25-Jun-19 | 26 | ChiPhou OD | In-person | ChiPhou OD |
| 3 | 27-Jun-19 | 31 | Romeas Heak OD | In-person | Romeas Heak OD |
| Total | | 161 | | | |

**3). Booklet training**

| No | Date | Number of participants | Title | In-person/Online |
|---|---|---|---|---|
| 1 | 30, 31-Aug-21 | 212 | Zoom training on Health Education for Continuum of care in MCH | Online |
| TOTAL | | 212 | | |

**Training Report 2018-2021 of Kg. Cham**

| No | Date | Number of Day | Number of Participants | Title |
|---|---|---|---|---|
| 1 | 30-31-Oct-17 & 1-Nov-17 | 3days | 177 | IPC |
| 2 | 17-19 July, 2018 | 3days | 60 | IPC |
| 3 | 7-9 Aug, 2018 | 3days | 63 | IPC |
| 4 | 5-7 Sep, 2018 | 3days | 57 | IPC |
| 5 | 19-21 Dec, 2018 | 3days | 40 | IPC |
| 6 | 18-Jan-19 | 1 day | 67 | IPC |
| 7 | 24 Apr- 03 May, 2019 | 10 days | 4 | Coaching |
| 8 | 13-Mar-19 | AM/PM | 10 | 5S Workshop |
| 9 | 16 - 18 Jul., 2019 | 3 days | 24 | IPC |
| 10 | 21 Aug., 2019 | 1 day | 40 | 5S |
| 11 | 29 Nov., 2019 | 1 day | 40 | 5S |
| 12 | 02-03 Feb., 2020 | 2 days | 30 | Hospitalitiy |
| 13 | 04-07 Feb., 2020 | 2 days | 30 | Hospitalitiy |
| 14 | 19 Mar., 2020 | 1 day | 18 | Flow and triage of patients with servier respiratory illness caused by covid-19 virus |
| 15 | 08-09 Feb., 2021 | 2 days | 12 | Kangaroo Mother Care (KMC) |
| 16 | 15-16 Feb., 2021 | 2 days | 12 | Kangaroo Mother Care (KMC) |
| 17 | 18-19 Feb., 2021 | 2 days | 12 | Kangaroo Mother Care (KMC) |
| TOTAL | | | 696 | |

**Training report 2018-2021 of SVR**

| No | Date | Number of Day | Number of Participants | Title |
|---|---|---|---|---|
| 1 | 16-18-May-18 | 3days | 45 | TU Training in SVR |
| 2 | 10-12 July, 2018 | 3days | 158 | 5S Training |
| 3 | 23-25 Jan., 2019 | 3 days | 150 | Knowledge and practice of 5S in the hospital |
| 4 | 13-Mar-19 | AM/PM | 10 | 5S Workshop |
| 5 | 20-21 Jun., 2019 | 2 days | 198 | 5S progress |
| 6 | 12 Jul., 2019 | 1 day | 19 | Infant warmer |
| 7 | 09-10-11 Oct., 2019 | 3 days | 130 | IPC + hand hygiene |
| 8 | 30-31 Oct., 2019 | 2 days | 36 | Kangaroo Mother Care (KMC) |
| 9 | 22 Nov., 2019 | 1 day | 34 | Anti-Microbial Resistance(AMR) |
| 10 | 29 Nov., 2019 | 1 day | 21 | Premature newborn care |
| 11 | 11 Dec., 2019 | 1 day | 32 | Hospitalization documentation |
| 12 | 09 Jan. 2020 | 1 day | 28 | Filling hospitalization document |
| 13 | 31 Jan., 2020 | 1 day | 26 | Management of snake bite |
| 14 | 04 Dec., 2020 | 1 day | 21 | Collecting microbiology sample |
| 15 | 17 Dec., 2020 | 1 day | 26 | Strengthening quality and effectiveness of using partograph and follow-up during delivery to reduce mortality rate of mother and newborn in the hospital |

| | | | | |
|---|---|---|---|---|
| 16 | 08 Jan., 2021 | 1 day | 22 | Laboratory activity of biological group 2021 |
| 17 | 21 Jan., 2021 | 1 day | 35 | Waste management in Svay Rieng Hospital |
| 18 | 26 Jan., 2021 | 1 day | 21 | Hospital infection prevention |
| 19 | 10 Feb., 2021 | 1 day | 32 | Covid-19 vaccination campaign protocol |
| 20 | 26 Feb., 2021 | 1 day | 40 | Hospital infection prevention |
| 21 | 03 Mar., 2021 | 1 day | 53 | Covid-19 treatment |
| 22 | 21 Apr., 2021 | 1 day | 31 | The use of PPE for covid-19 |
| 23 | 23 Apr., 2021 | 1 day | 35 | Hospital waste management |
| TOTAL | | | 1203 | |

# Other Meeting, Workshop and Training

| No | Date | AM/PM | Number of participants | Title | Place |
|---|---|---|---|---|---|
| 1 | 21-Jul-16 | AM | 38 | Workshop on Challenges and Actions for Better Neonatal Care | KCM PH |
| 2 | 10-Aug-16 | AM | 34 | Workshop on Challenges and Actions for Better Neonatal Care | SVR PH |
| 3 | 27-Dec-16 | AM/PM | 12 | EENC Review Meeting | KCM PHD |
| 4 | 20-Jun-17 | AM/PM | 50 | EENC Review Meeting | KCM PHD |
| 5 | 23-Nov-17 | AM/PM | 6 | Training Unit Study Tour in KCM | KCM PH |
| 6 | 1-Feb-18 | AM/PM | 46 | EENC Review Meeting | KCM PHD |
| 7 | 3-Jul-18 | AM-PM | 16 | Health Center Midwife Curriculum revision | NMCHC |
| 8 | 27-28-Dec-18 | AM/PM | 28 | Study Tour to BTB | BTB |
| 9 | 20-21-Feb-20 | AM/PM | 12 | KMC Coaching | SVR PH |
| Total | | | 242 | | |

## Counterpart Training in Japan

| No. | Fiscal Year | Period | Numbers of Participants | Training Course | Training Place |
|---|---|---|---|---|---|
| 1 | FY 2016 | 28 Nov 2016-<br>9 Dec 2016 | 8 | Neonatal Care and Hospital Management | NCGM, Nagano Children's Hopital |
| 2 | FY 2017 | 15 Jan 2017-<br>28 Jan 2017 | 8 | Neonatal Care and Hospital Management | NCGM, Nagano Children's Hopital, Nagano Prefectural Office, Health Centers in Nagano |
| 3 | FY2019 | 11 Dec 2019-<br>20 Dec 2019 | 4 | Neonatal Care and Follow-up | NCGM, National Hospital Okayama Medical Center |
| | | Total | 20 | | |

Annex 1_4

## Equipment Provision

| Item | Manufacturure & Model name | Q'ty | Unit cost (US$) | Total cost (US$) | Total cost (JPY) | Installed Place | Note |
|---|---|---|---|---|---|---|---|
| JFY2016 | | | | | | | |
| ISUZU MU-X | IZUZU Year 2017 | 2 | 32,000.00 | 64,000.00 | 6,748,160 | NMCHC | |
| Laptop Lenovo | Lenovo ThinkPad X250 | 1 | 1,050.00 | 2,730.00 | 261,757 | NMCHC | |
| 3 Laptop for office | Dell Vostro 3559-I5 6200U | 3 | 560.00 | | | NMCHC | |
| CPAP | MTTS Dolphin CPAP | 8 | 4,116.44 | 29,638.37 | 3,479,012 | NMCHC | Applied 10% discount |
| Stethscopes | Littman Classic II Pediatrics | 28 | 100.00 | 2,800.00 | 322,403 | NMCHC | |
| Laryngoscope Blade Premature | GIMA 34460 (MILLER N00 OXY blade) | 2 | 228.50 | 457.00 | 168,370 | NMCHC | |
| Laryngoscope Blade Term | GIMA 34461 (MILLER N0 blade) | 2 | 214.00 | 428.00 | | NMCHC | |
| Laryngoscope Handle | GIMA 34480 (Pediatric HALOGEN rechargeable metal bandle) | 2 | 239.50 | 479.00 | | NMCHC | |
| Newborn Simulator (Mannequin) | LAERDAL Neonatal Intubation Trainer Ref. 250-00101 | 2 | 2,550.00 | 5,100.00 | 779,123 | NMCHC | |
| LSR Silicone mask no. 00 | LAERDAL LSR silicone mask no. 00 Ref. 851500 | 20 | 55.00 | 1,100.00 | | NMCHC | |
| LSR Silicone mask no. 0/1 | LAERDAL LSR silicone mask no. 0/1 Ref. 851600 | 20 | 55.00 | 1,100.00 | | NMCHC | |
| Infant Incubator | Air Incu I(ATOM, Japan) | 2 | 8,000.00 | 16,000.00 | 1,795,472 | NMCHC | |
| JFY2018 | | | | | | | |
| Delivery Bed | GYNEX PROFESSIONAL 27515 | 1 | 4,365.00 | 4,365.00 | 486,274 | KCM | Applied 3% discount |
| CPAP | MTTS Dolphin CPAP V4 | 1 | 5,300.00 | 5,300.00 | 599,054 | KCM | |
| JFY2019 | | | | | | | |
| Patient Monitor (JAPAN/NIHONKOHDEN) | PVM-2701 | 1 | 4,000.00 | 4,000.00 | 5,142,376 | KCM | Applied 1% discount |
| Pulse Oximeter (JAPAN/NIHONKOHDEN) | OLV-4201 | 4 | 2,900.00 | 11,600.00 | | KCM | |
| Infant Incubator (JAPAN/ATOM) | Air Incu I (Cabinet Stand Type) | 2 | 8,300.00 | 16,600.00 | | KCM | |
| Vacuum Extractor (JAPAN/ATOM) | VP-450 | 1 | 5,700.00 | 5,700.00 | | KCM | |
| Doppler (JAPAN/TOITU) | FD-491 | 2 | 1,700.00 | 3,400.00 | | KCM | |
| CPAP (US, Germany, Assemble in Vietnam) | Dolphin V4 | 1 | 6,800.00 | 6,800.00 | | KCM | |
| JFY2020 | | | | | | | |
| Maternity mannequin | Model Type II (JAPAN) LM043N | 2 | 5,750.00 | 11,500.00 | 1,197,794 | KCM and SVR | |
| Doppler | BT200L(Bistos, Korea) | 60 | 301.28 | 18,076.80 | 4,226,823 | HCs, OD, PH in KCM and SVR | Emergency Supply Covid 19 |
| Pulse Oximeter | PO30 (Beirer, Germany) | 60 | 135.79 | 8,147.40 | | HCs, OD, PH in KCM and SVR | Emergency Supply Covid 19 |
| Thermometer | FT90 (Beirer, Germany) | 60 | 135.79 | 8,147.40 | | HCs, OD, PH in KCM and SVR | Emergency Supply Covid 19 |
| Blood Pressure Monitor | BM35(Beirer, Germany) | 60 | 93.35 | 5,601.00 | | HCs, OD, PH in KCM and SVR | Emergency Supply Covid 19 |
| JFY2021 | | | | | | | |

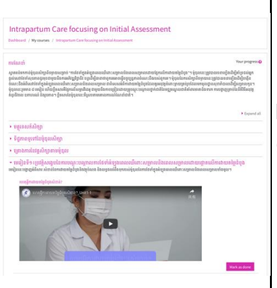
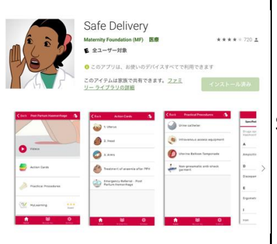
| | | | | | | | |
|---|---|---|---|---|---|---|---|
| CPAP | MTTS Dolphin | 10 | 4,560.00 | 45,600.00 | 5,041,171 | NMCHC(4), KCM(3), SVR(3) | Emergency Supply Covid 19 |
| Bilirubin Detector | BiliProbe Jaundice Detector(Avi Healthcare, India) | 2 | 2,200.00 | 4,400.00 | 10,280,483 | NMCHC(1), SVR(1) | Emergency Supply Covid 19 |
| AABR screen for infants | ALGO 7i screener (Natus, USA) | 1 | 18,640.00 | 18,640.00 | | KCM | Emergency Supply Covid 19 |
| SPO2 Monitor | 10005941-SG(Medtronic, USA) | 12 | 1,310.00 | 15,720.00 | | NMCHC(4), KCM(4), SVR(4) | Emergency Supply Covid 19 |
| Training Doll for INC | NeoNatalie Basic (LAERDAL) | 4 | 275.00 | 1,100.00 | | KCM(2), SVR(2) | Emergency Supply Covid 19 |
| Phototherapy | Stand/Mobile-Type 60360 (ATOM, Japan) | 6 | 3,700.00 | 22,200.00 | | NMCHC(2), KCM(2), SVR(2) | Emergency Supply Covid 19 |
| Infant Warmer | 61567 Model (ATOM, Japan) | 3 | 7,000.00 | 21,000.00 | | NMCHC(1), KCM(1), SVR(1) | Emergency Supply Covid 19 |
| Doppler | FD-491(TOITU, Japan) | 3 | 1,400.00 | 4,200.00 | | NMCHC | Emergency Supply Covid 19 |
| | | | TOTAL: | 365,929.97 | 40,528,272 | | |

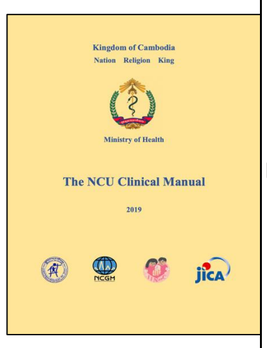
**Operational Expense**
**Japanese Support for the Operational Cost**

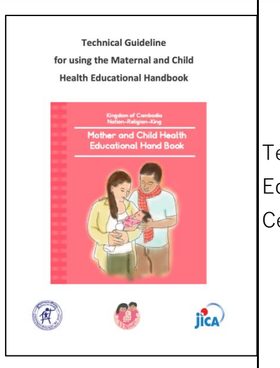
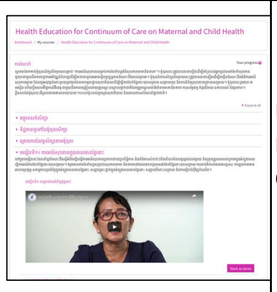
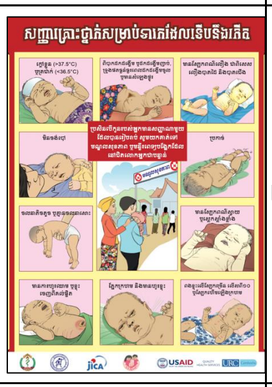
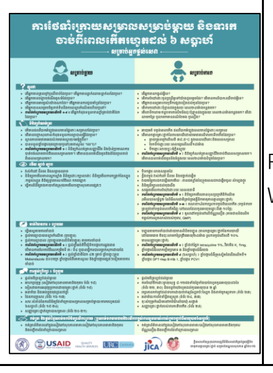
**(in USD)**

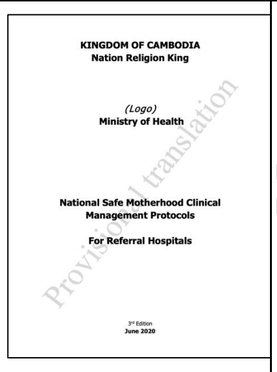
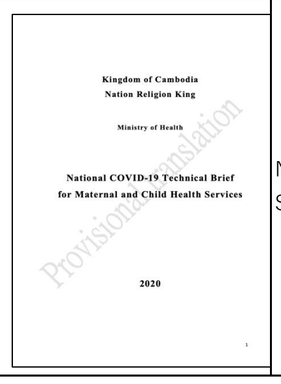
| Fiscal Year/ Expenditure Type | Biz Trip(Air Fare) | Biz Trip(Non Air Fare) | Miscellaneous | Agent Service Expense | Sub Total (FY) |
|---|---|---|---|---|---|
| FY2016 (Apr 2016 - Mar 2017) | 1,130.00 | 0.00 | 41,670.22 | 0.00 | 42,800.22 |
| FY2017 (Apr 2017 - Mar 2018) | 915.00 | 34,493.30 | 54,567.19 | 0.00 | 89,975.49 |
| FY2018 (Apr 2018 - Mar 2019) | 50,012.00 | 2,137.00 | 70,006.61 | 0.00 | 122,155.61 |
| FY2019 (Apr 2019 - Mar 2020) | 1,549.00 | 42,408.50 | 101,928.90 | 0.00 | 145,886.40 |
| FY2020 (Apr 2020 - Mar 2021) | 0.00 | 9,108.50 | 77,525.64 | 0.00 | 86,634.14 |
| FY2021 (Apr 2021 - Mar 2022) | 0.00 | 7,540.00 | 93,089.74 | 0.00 | 100,629.74 |
| Sub-Total (Type) | 53,606.00 | 95,687.30 | 438,788.30 | 0.00 | 588,081.60 |

## Annex 2: List of Products (Report, Manuals, Handbooks, etc.) Produced by the Project

| A. Products on Output 1: Intrapartum Care | | | |
|---|---|---|---|
| No. | Image | Name | URL |
| 1 |  | Guide for Initial Assessment (2020), Ministry of Health | [ Khmer ] https://nmchc.gov.kh/wp-content/uploads/2021/10/materials_12.pdf<br><br>[ English ] https://nmchc.gov.kh/wp-content/uploads/2021/10/materials_11.pdf |
| 2 |  | Guide for Initial Assessment (2020), Ministry of Health | [ Khmer ] https://nmchc.gov.kh/wp-content/uploads/2021/10/materials_10.pdf<br><br>[ English ] https://nmchc.gov.kh/wp-content/uploads/2021/10/materials_09-1.pdf |
| 3 |  | E-Learning module on Intrapartum Care focusing on Initial Assessment (2021), National Manernal and Child Health Center | [ English ] https://elearning.nmchc.gov.kh/?lang=en<br><br>[ Khmer ] https://elearning.nmchc.gov.kh/?lang=km |
| 4 |  | Safe Delivery Application Khmer version (2021), Ministry of Health | [ Google Play ]<br>https://play.google.com/store/apps/details?id=dk.maternity.safedelivery&hl=ja&gl=US<br><br>[ App store] https://apps.apple.com/us/app/safe-delivery/id985603707 |

| B. Products on Output 2: Neonatal Care | | | |
|---|---|---|---|
| No. | Image | Name | URL |
| 5 |  | NCU clinical manual (2019), Ministry of Health | [ English ] https://nmchc.gov.kh/wp-content/uploads/2022/01/Final-NCU-clinical-Manual-2019-.pdf |
| 6 |  | Nursing Manual for Neonatal Care Unit (2018), Ministry of Health | [ Khmer ] https://nmchc.gov.kh/wp-content/uploads/2021/10/materials_08.pdf<br><br>[ English ] https://nmchc.gov.kh/wp-content/uploads/2021/10/materials_07.pdf |

| C. Products on Output 3: IEC materials | | | |
|---|---|---|---|
| No. | Image | Name | URL |
| 7 |  | Mother and Child Health Educational Hand Book (2019), National Maternal and Child Health Center | [ Khmer ] https://nmchc.gov.kh/wp-content/uploads/2021/10/materials_02.pdf |
| | | | [ English ] https://nmchc.gov.kh/wp-content/uploads/2021/10/materials_01.pdf |
| 8 |  | Technical Guideline for using the Maternal and Child Health Educational Handbook (2019), National maternal and Child Health Center | [ Khmer ] https://nmchc.gov.kh/wp-content/uploads/2021/07/FINAL_SEA_SECTION-4_KHMER.pdf |
| | | | [ English] https://nmchc.gov.kh/wp-content/uploads/2021/10/materials_03.pdf |
| 9 |  | Flipchart for Continuum of Care in Maternal and Child Health (2021), Ministry of Health | [ Khmer ] https://nmchc.gov.kh/wp-content/uploads/2022/01/FlipChart_low.pdf |
| 10 |  | E-Learning module on Health Education for Continuum of Care on Maternal and Child Health (2021), National Manernal and Child Health Center | [ English ] https://elearning.nmchc.gov.kh/?lang=en |
| | | | [ Khmer ] https://elearning.nmchc.gov.kh/?lang=km |
| 11 |  | Poster on Danger signs for Newborn | [ Khmer ] https://nmchc.gov.kh/wp-content/uploads/2021/10/materials_05.pdf |
| | | | [ English ] https://nmchc.gov.kh/wp-content/uploads/2021/10/materials_05.pdf |
| 12 |  | Poster on Routine Newborn Monitoring | [ Khmer ] https://nmchc.gov.kh/wp-content/uploads/2021/10/materials_04.pdf |
| | | | [ English ] https://nmchc.gov.kh/wp-content/uploads/2021/10/materials_04.pdf |
| 13 |  | Poster on advocating PNC visit | N/A |
| 14 |  | Poster on check points of Mother and Newborn  at PNC visit (Birth to 6 Weeks) | N/A |

| D. Provisional Translation of National Guidelines/Protocols | | | |
|---|---|---|---|
| No. | Image | Name | URL |
| 13 |  | National Safe Motherhood Clinical Management Protocols For Referral Hospitals (2021) | https://nmchc.gov.kh/wp-content/uploads/2021/10/materials_14.pdf |
| 14 |  | National Covid-19 Technical Brief for Maternal and Child Health Services (2020) | https://nmchc.gov.kh/wp-content/uploads/2021/10/materials_13.pdf |

**E. Publication**

1. Ayako Suzuki, Mitsuaki Matsui, Rathavy Tung, Azusa Iwamoto. Why did our baby die soon after birth?"—Lessons on neonatal death in rural Cambodia from the perspective of caregivers. PLoS ONE. 2021, 16(6): e0252663. https://doi.org/10.1371/journal.pone.0252663

   https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0252663

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**F. Baseline Survey**

1. The Survey on Neonatal Mortality in Kampong Cham and Svay Rieng Provinces

**G. Others**

1. Leaflet of the materials developed by NMCHC and the project (Khmer)
2. Project's Monthly Report (May 2016- April 2020 avairable in Japanese, May 2020- avairable in English))

ANNEX I Ver. 0

**Project Title: Project for Improving Continuum of Care with focus on Intrapartum and Neonatal Care in Cambodia** **Dated November 11, 2015**

**Implementing Agency: National Maternal and Child Health Center (NMCHC), Provincial Health Departments (PHDs) and Provincial Hospitals(PHs) in Kampong Cham (KCM) Province and Svay Rieng (SVR) Province**

**Target Group: Health Professionals working for intrapartum and newborn care services in NMCHC, KCM Province and SVR Province**

**Period of Project: 5 years (expected from March 2016 to March 2021)**

**Project Site:NMCHC, KCM Province and SVR Province**

| Narrative Summary | Objectively Verifiable Indicators | Means of Verification | Important Assumption | Achievement | Remarks |
|---|---|---|---|---|---|
| **Overall Goal** | | | | | |
| Reduce the neonatal mortality at target provinces | Neonatal Mortality Rates at target provinces are decreased in KCM and SVR. | CDHS | MOH does not chage major policies on MNCH (maternal, newborn and child health)<br><br>Government policy will not change drastically<br><br>No serious endemic which will effect neonatal health | | |
| **Project Purpose** | | | | | |
| Contiuum of Care with focus on intrapartum and neonatal care is strengthened at target provinces | 1. Percentage of neonatal death among neonates admitted to pediatric/NCU (Neonatal Care Unit) is decreased (stratified by birth weight)<br><br>2. 100% of target facilities can provide essential intrapartum and neonatal service in target provinces | 1. baseline/endline<br><br>2.baseline/endline, supportive supervision report, Relevant national reports | MOH does not change the current policies on maternal and neonatal issues.<br><br>Serious endemic which effects neonatal health will not happen | | |
| **Outputs** | | | | | |
| 1. Training and supervision on Intrapartum and Immediate Newborn Care (INC) for MNCH staff is strengthened. | 1-1. Revised checklist for supervision is used.<br>1-2. Score of the checklists on intrapartum and neonatal care (ex. neonatal resuscitation and antenatal steroid) is improved | 1. Supportive supervision report | Trainers and counterparts will not leave their current posts. | | |
| 2. Management of sick newborns and preterm/low birth weight (LBW) infants is improved. | 2-1. Manual for provincial NCU is developed.<br><br>2-2. Score of monitoring checklist is improved<br><br>2-3. Joint conference between OBGY and Ped in PHs is regularly conducted. | 2-1 observation<br><br>2-2 monitoring report<br><br>2-3 record of conference | | | |

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| 3. Follow-up for high-risk (neonates or infants discharged from NCU or showing danger signs) and low birth weight infants is strengthened. | 3-1. Standardised IEC tool is used in both provinces | 3-1. observation | | | | |
| | 3-2. Number* of staff who can advise on danger signs with the IEC tool at PNC (Postnatal Care) is increased | 3-2. baseline/endline survey | | | | |
| | 3-3. Number of management meetings in which neonatal care is discussed is increased | 3-3. meeting record | | | | |
| | 3-4. Guidelines on neonatal infants showing danger signs outside of facility is developed | 3-4. Observation | | | | |
| 4. Health systems, which are essential to improve Continuum of Care for better MNCH services, are strengthened | 4-1-1. Information system is developed and in use. | 4-1-1. Observation | | | | |
| | 4-1-2. Neonatal Death Audit Guidelines is developed. | 4-1-2. Observation | | | | |
| | 4-2. Number of training courses arranged by KCM PH Training Unit (TU) is increased. | 4-2. Training record | | | | |
| | 4-3. 80% of MNCH staff in KCM and SVR PH is trained | 4-3. training record | | | | |
| | 4-4. Monitoring score of 5S and infection control at NCU is improved | 4-4. monitoring reports | | | | |
| 5. Findings, lessons learned and evidence for MNCH services focused on intra-partum and newborn care are reflected on national policies/strategies/guidelines. | 5-1. Number of the policies/strategies/ guidelines* on which the project's findings and lessons learned has been reflected. | 5-1. project progress and completion report | | | | |
| | *number will be set based on baseline. | | | | | |

| Activities | Inputs | | pre-condition |
|---|---|---|---|
| | The Japanese Side | The Cambodian Side | |
| 0. Baseline and Endline survey<br>1-1. Develop a plan for scaling up the coverage of INC training to Referal Hospitals (RHs) and Health Centers (HCs) in KCM and SVR<br>1-2. Conduct Training of Trainers (ToT) on INC for Maternal Newborn and Child Health (MNCH) staff of KCM PH<br>1-3. Trainers of KCM PH conduct training on INC for remaining and new staff at HCs, RHs, PHs in KCM and SVR<br>1-4. Training of selected Emergency Obstetric and Neonatal Care (EmONC) facility staff on preterm labor etc. in KCM and SVR<br>1-5. Review on-going supportive supervision mechanisms and integrate component of intrapartum and INC practice<br>1-6. Review and revise existing supportive supervision tools for intrapartum care and INC<br>1-7. Support PHD and PH to conduct supportive supervision on intrapartum and INC in KCM and SVR<br>1-8. Support SVR PHD to conduct quarterly Midwifery Coordination Alliance Team (MCAT) meeting (including refresher sessions on Intrapartum and INC)<br>2-1. Develop and implement the NMCHC manual for managing sick, preterm/LBW newborns in NCU<br>2-2. Revise and adapt the NMCHC manual for managing sick and preterm/LBW newborns in NCU in PHs<br>2-3.Conduct ToT for NCU staff of NMCHC<br>2-4. Trainers conduct training on management of sick and preterm/LBW newborns for NCU staff from KCM and SVR PHs at NMCHC<br>2-5. Develop a checklist to monitor implementation according to the manual and conduct periodical monitoring with the checklist and refresher training for NCU staff in KCM and SVR PHs.<br>2-6. Support SVR and KCM PHs to conduct OBGY and Ped joint case conference to improve communication among maternity/delivery, neonatal care unit and other related units | 【Expert】<br>Chief Adviser<br>Neonatal Care Coordinator/training management<br>Other short term experts<br><br>【Project staff】<br>Local staff<br><br>【Facility Renovation】<br>KCM PH NCU renovation<br><br>【Equipment】<br>equipment necessary for project activities | 【CP】<br>Project Director<br>Project manager<br><br>【Facilities】<br>Project office space<br><br>【local cost】<br>Project office equipment and the management cost<br><br>Space for meetings at NMCHC other necessary cost | Constraction work under Project for Expansion of NMCHC does not delay more than 6 months. |

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| 2-7. train NCU staff to conduct the newborn physical checkup with the checklist within 24 hours at NMCHC and PHs | | | | |
| 2-8. train staff to conduct KMC according to KMC manual at NMCHC and in PHs | | | | |
| 3-1 Review/revise existing IEC tool for awareness raising on better home care, danger signs, reminder for service uptake, and birth registration and/or develop new tool if necessary | | | | |
| 3-2 Train staff on awareness raising of parents using IEC tool | | | | |
| 3-3 Support management meetings at PHDs and Oerational Districts (ODs) to discuss status of the neonates with danger signs, neonatal deaths and care for sick newborns and follow-up of them. | | | | |
| 3-4. Develop the guideline on neonates showing danger signs outside of facility | | | | |
| 4-1.Information Management on Intrapartrum and Neonatal Care is strengthened . | | | | |
| 4-1-1. Facility base information management system introduced | | | | |
| 4-1-1-1. Plan and Design maternal and child (OBGY/Peadiatric) information system at NMCHC. | | | | |
| 4-1-1-2. Develop the information system on Intrapartam and Neonatal Care | | | | |
| 4-1-1-3. Introduce the system in NMCHC (installation, training of use of system and data analysis, maintenance) | | | | |
| 4-1-1-4. Modify the system to provincial level. | | | | |
| 4-1-1-5. Introduce the system to KCM PH | | | | |
| 4-1-1-6. Utilize data of the information system for decision making for better service | | | | |
| 4-1-2. Neonatal Death Audit is implemented | | | | |
| 4-1-2-1. Support MOH to develop Neonatal Death Audit Guidelines | | | | |
| 4-1-2-2. Support the Neonatal Death Audit committee to conduct pilot facility Neonatal Death Audit in targeted provinces. | | | | |
| 4-1-2-3. Support the committee to conduct pilot community Neonatal Death Audit in targeted provinces. | | | | |

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| 4-2. Training Unit at KCM PH is strengthened<br><br>4-2-1. Conduct ToT for KCM PH for training to be done as activities in output 1-3.<br>4-2-2. KCM PH conduct training for SVR health staff on TU<br><br>4-3. 5S and Infection Control in and around NCU is improved.<br>4-3-1. Rehabilitate the facility and procure equipment for NCU in KCM PH.<br>4-3-2. Support Equipment Maintenance Staff in KCM and SVR PH<br>4-3-3. Conduct training on 5S and Infection Control for NCU staff and other MNCH in KCM PH<br>4-3-4. Conduct training on 5S and infection control for SVR Hospital Core Team (HCT).<br>4-3-5. Conduct training on 5S and Infection control for NCU staff and other MNCH staff in SVR PH.<br>4-3-6. Conduct routine monitoring of NCU and around NCU (KCM PH, SVR PH) by HCT<br><br>5-1. Compile the existing MNCH policies/strategies/guidelines<br>5-2. Support revision and/or development of new MNCH policies /strategies /guidelines based on findings of the project<br>5-3. Share lessons learned, findings and evidence of the project at relevant technical working groups<br>5-4 Make recommendations on pre-service training for intrapartum and neonatal care to the MoH | | | | |

NMCHC=National Maternal and Child Health Center
KCM=Kampong Cham
SR=Svay Rieng
PH=PH
RH=referral hospital
HC=health center

# Version 1

**Project Title: Project for Improving Continuum of Care with focus on Intrapartum and Neonatal Care in Cambodia** **Dated July 7th 2017**

**Implementing Agency: National Maternal and Child Health Center (NMCHC), Provincial Health Departments (PHDs) and Provincial Hospitals(PHs) in Kampong Cham (KCM) Province and Svay Rieng (SVR) Province**

**Target Group: Health Professionals working for intrapartum and newborn care services in NMCHC, KCM Province and SVR Province**

**Period of Project: 5 years (expected from March 2016 to March 2021)**

**Project Site:NMCHC, KCM Province and SVR Province**

| Narrative Summary | Objectively Verifiable Indicators | Means of Verification | Important Assumption | Achievement | Remarks |
|---|---|---|---|---|---|
| **Overall Goal** | | | | | |
| Reduce the neonatal mortality at target provinces | Neonatal Mortality Rates at target provinces are decreased in KCM and SVR. | CDHS | MOH does not chage major policies on MNCH (maternal, newborn and child health)<br><br>Government policy will not change drastically<br><br>No serious endemic which will effect neonatal health | | |
| **Project Purpose** | | | | | |
| Contiuum of Care with focus on intrapartum and neonatal care is strengthened at target provinces | 1. 100% of target facilities can provide essential intrapartum and neonatal service in target provinces<br><br>2. Percentage of neonatal death among neonates admitted to pediatric/NCU (Neonatal Care Unit) is decreased (stratified by birth weight) | 1. baseline/endline, supportive supervision report, Relevant national reports<br><br>2. baseline/endline | MOH does not change the current policies on maternal and neonatal issues.<br><br>Serious endemic which effects neonatal health will not happen | | |
| **Outputs** | | | | | |
| 1. Training and supervision on Intrapartum and Immediate Newborn Care (INC) for MNCH staff is strengthened. | 1-1. All target facilities in target provinces receive trainings and supervisions on Intrapartum and Immediate Newborn Care<br><br>1-2. Scores of the checklists of Intrapartum and Neonatal Care are improved in NMCHC and target provinces | 1. Supportive supervision report | Trainers and counterparts will not leave their current posts. | | |

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| 2. Management of sick newborns and preterm/low birth weight (LBW) infants is improved. | 2-1. Manual for provincial NCU is developed. | 2-1 observation | | | | |
| | 2-2. Score of monitoring checklist is improved | 2-2 monitoring report | | | | |
| | 2-3. Joint conference between OBGY and Ped in PHs is regularly conducted in Kampong Cham and Svay Rieng Provincial Hospitals | 2-3 record of conference | | | | |
| 3. Follow-up for neonates (especially those showing danger signs) is strengthened. | 3-1. Standardised IEC materials are developed in both provinces | 3-1. observation | | | | |
| | 3-2. Number of staff of target facilities in 2 provinces who can utilize INC material at PNC etc is increased.(Scores of staffs in pre-post test on usage of revised/developed IEC materials for PNC, etc. are improved) | 3-2. baseline/endline survey | | | | |
| | 3-3. Guidelines on response for neonatal infants showing danger signs outside of facility is developed | 3-3. Observation | | | | |
| 4. Health systems, which are essential to improve Continuum of Care for better MNCH services, are strengthened | 4-1. Maternal and neonatal information system is developed and used at NMCHC | 4-1. Observation | | | | |
| | 4-2. The number of neonatal death audit carried out by Death Audit Committee at NMCHC and Kampong Cham/Svay Rieng Provinces will be more than 10 cases by the end of Project period | 4-2. Observation | | | | |
| | 4-3. The number of trainings arranged by Training Units in Kampong Cham/ Svay Rieng provinces will be more than 20 by the end of Project period | 4-3. Training record | | | | |
| 5. Findings, lessons learned and evidence for MNCH services focused on intra-partum and newborn care are reflected on national policies/strategies/guidelines. | 5-1. Number of the policies/strategies/ guidelines* on which the project's findings and lessons learned has been reflected.<br>*number will be set based on baseline. | 5-1. project progress and completion report | | | | |

| Activities | Inputs | | pre-condition |
|---|---|---|---|
| | The Japanese Side | The Cambodian Side | |
| 0. Baseline and Endline survey | | | |
| 1-1. Develop a plan for scaling up the coverage of INC training to Referal Hospitals (RHs) and Health Centers (HCs) in KCM and SVR<br>1-2. Conduct Training of Trainers (ToT) on INC and intrapartum care for Maternal Child Health (MCH) staff of SVR PH<br>1-3. Conduct INC training for remaining and new staffs at HCs, RHs, PHs in KCM and SVR by trainers of each province<br>1-4. Conduct training of Intrapartum care for remaining and new staffs at HCs, RHs, PHs in KCM and SVR by trainers of each province<br>1-5. Review and revise existing supportive supervision tools for intrapartum and INC<br>1-6. Support PHD and PH to conduct supportive supervision on intrapartum and INC in KCM and SVR<br>1-7.Support KCM and SVR PHD to conduct MCAT after Supportive Supervision system is established | 【Expert】<br>Chief Adviser<br>Community Newborn Care Coordinator/training management<br>Other short term experts<br><br>【Project staff】<br>Local staff<br><br>【Facility Renovation】<br>KCM PH NCU renovation<br>【Equipment】<br>equipment necessary for project activities | 【CP】<br>Project Director<br>Project manager<br><br>【Facilities】<br>Project office space<br><br>【local cost】<br>Project office equipment and the management cost<br><br>Space for meetings at NMCHC other necessary cost | Constraction work under Project for Expansion of NMCHC does not delay more than 6 months. |
| 2-1. Develop and implement the NMCHC manual for managing sick, preterm/LBW newborns in NCU<br>2-2. Revise and adapt the NMCHC manual for managing sick and preterm/LBW newborns in NCU in PHs<br>2-3. Conduct essential trainings for NCU and relevant staff at NMCHC and target provinial hospitals (For usage and maintenance of medical equipment, infection control, 5S etc)<br>2-4. Trainers conduct training on management of sick and preterm/LBW newborns for NCU staff from KCM and SVR PHs at NMCHC<br>2-5. Develop a checklist to monitor implementation according to the manual.<br>2-6. Conduct periodical monitoring with the checklist and if necessary refresher training for NCU staff in KCM and SVR PHs | | | |

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| 2-7. Support SVR and KCM PHs to conduct OBGY and Ped joint case conference to improve communication among maternity/delivery, neonatal care unit and other related units | | | | |
| 2-8. Train NCU staff to conduct the newborn physical checkup with the checklist at NMCHC and PHs | | | | |
| 2-9. Train staff to conduct KMC according to KMC manual at NMCHC and in PHs | | | | |
| 2-10. Identify obstacles to provide follow-up OPD for high-risk babies who were discharged from NCU and suggest possible solutions | | | | |
| 3-1. Review/revise exisiting IEC materials for awareness raising on better home care, danger sign, reminder for service uptake, and birth registration and/or develop new tool if necessary | | | | |
| 3-2. Train staff on usage of revised/developed IEC materials | | | | |
| 3-3. Support regular EENC Review Meeting to discuss status of the neonates with danger signs, neonatal deaths and care for and follow-up of sick newborns | | | | |
| 3-4<br>Develop the guideline on response of neonates showing danger signs outside of facility (1. Community education on danger signs of neonates and identification of danger signs, 2. Appropriate refferal criteria, 3. Mutual information sharing among neonates' parents and health facilities in refferal case) | | | | |
| 3-5<br>Identify the way to promote Post Natal Care (PNC) and follow-up for neonates showing danger signs | | | | |
| 4-1.Information Management on Intrapartrum and Neonatal Care is strengthened . | | | | |
| 4-1-1. Plan and design maternal and neonatal information system at NMCHC | | | | |
| 4-1-2. Develop the maternal and neonatal information system at NMCHC | | | | |
| 4-1-3. Introduce the system in NMCHC (installation, training of use of system and data analysis, maintenance) | | | | |

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| 4-2. Neonatal Death Audit is implemented<br>4-2-1. Support MOH to develop Neonatal Death Audit Guidelines<br><br>4-2-2. Support the committee to conduct pilot Neonatal Death Audit in NMCHC and KCM/SVR provinces.<br><br>4-3. Training Unit at target provincial hospitals is strengthened<br><br>4-3-1. Support organizing TU in Svay Rieng<br><br>4-3-2. Enhance implementation of relevant trainings by KCM/SVR TU<br>4-3-3 Enhance implementation of relevant training by KCM/SVR TU<br>4-4. Others<br>4-4-1. Identify causes of patient overflow at obstetrics in Kampong Cham provincial hospital and suggest possible solutions<br><br>5-1. Compile the existing MNCH policies/strategies/guidelines<br>5-2. Support revision and/or development of new MNCH policies /strategies /guidelines based on findings of the project<br>5-3. Share lessons learned, findings and evidence of the project at relevant technical working groups<br>5-4 Make recommendations on pre-service training for intrapartum and neonatal care to the MoH | | | | |

NMCHC=National Maternal and Child Health Center
KCM=Kampong Cham
SR=Svay Rieng
PH=PH
RH=referral hospital
HC=health center

# Version 2

**Project Title: Project for Improving Continuum of Care with focus on Intrapartum and Neonatal Care in Cambodia** **Dated 25th Sep. 2018**

**Implementing Agency: National Maternal and Child Health Center (NMCHC), Provincial Health Departments (PHDs) and Provincial Hospitals(PHs) in Kampong Cham (KCM) Province and Svay Rieng (SVR) Province**

**Target Group: Health Professionals working for intrapartum and newborn care services in NMCHC, KCM Province and SVR Province**

**Period of Project: 5 years (expected from March 2016 to March 2021)**

**Project Site:NMCHC, KCM Province and SVR Province**

| Narrative Summary | Objectively Verifiable Indicators | Means of Verification | Important Assumption | Achievement | Remarks |
|---|---|---|---|---|---|
| **Overall Goal**<br>Reduce the neonatal mortality at target provinces | Neonatal Mortality Rates at target provinces are decreased in KCM and SVR. | CDHS | MOH does not chage major policies on MNCH (maternal, newborn and child health)<br><br>Government policy will not change drastically | | |
| **Project Purpose**<br>Contiuum of Care with focus on intrapartum and neonatal care is strengthened at target provinces | 1. 100% of target facilities can provide essential intrapartum and neonatal service in target provinces<br><br>2. Percentage of neonatal death among neonates admitted to pediatric/NCU (Neonatal Care Unit) is decreased (stratified by birth weight) | 1. baseline/endline, supportive supervision report, Relevant national reports<br><br>2. baseline/endline | MOH does not change the current policies on maternal and neonatal issues.<br><br>Serious endemic which effects neonatal health will not happen | | |
| **Outputs**<br>1. Training and supervision on Intrapartum and Immediate Newborn Care (INC) for MNCH staff is strengthened. | 1-1. All target facilities in target provinces receive trainings and supervisions on Intrapartum and Immediate Newborn Care<br><br>1-2. Scores of the checklists of Intrapartum and Neonatal Care are improved in NMCHC and target provinces | 1. Supportive supervision report | Trainers and counterparts will not leave their current posts. | | |

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|---|---|---|---|---|---|---|
| 2. Management of sick newborns and preterm/low birth weight (LBW) infants is improved. | 2-1. Manual for provincial NCU is developed.<br><br>2-2. Score of monitoring checklist is improved<br><br>2-3. Joint conference between OBGY and Ped in PHs is regularly conducted in Kampong Cham and Svay Rieng Provincial Hospitals | 2-1 observation<br><br>2-2 monitoring report<br><br>2-3 record of conference | | | | |
| 3. Follow-up for neonates (especially those showing danger signs) is strengthened. | 3-1. Standardised IEC materials are developed<br><br>3-2. Number of staff of target facilities in pilot areas who can utilize INC material at PNC etc. is increased (Scores of staffs in pre-post test on usage of revised/developed IEC materials for PNC, etc. are improved)<br><br>3-3. Guidelines on response for neonatal infants showing danger signs outside of facility is developed | 3-1. observation<br><br>3-2. baseline/endline survey<br><br>3-3. Observation | | | | |
| 4. Health systems, which are essential to improve Continuum of Care for better MNCH services, are strengthened | 4-1. The number of neonatal death audit carried out by Death Audit Committee at NMCHC and Kampong Cham/Svay Rieng Provinces will be more than 10 cases by the end of Project period<br><br>4-2. The number of trainings arranged by Training Units in Kampong Cham/ Svay Rieng provinces will be more than 20 by the end of Project period | 4-1. Observation<br><br>4-2. Observation<br><br>4-3. Training record | | | | |
| 5. Findings, lessons learned and evidence for MNCH services focused on intra-partum and newborn care are reflected on national policies/strategies/guidelines. | 5-1. Number of the policies/strategies/ guidelines* on which the project's findings and lessons learned has been reflected.<br><br>*number will be set based on baseline. | 5-1. project progress and completion report | | | | |

| Activities | Inputs | | pre-condition |
|---|---|---|---|
| | The Japanese Side | The Cambodian Side | |
| 0. Baseline and Endline survey<br><br>1-1. Develop a plan for scaling up the coverage of INC training to Referal Hospitals (RHs) and Health Centers (HCs) in KCM and SVR<br><br>1-2. Conduct Training of Trainers (TOT) on INC for Maternal Child Health (MCH) staff of SVR PH, on intrapatrum care for MCH staff of NMCHC, KCM PH and SVR PH<br><br>1-3. Conduct INC training for remaining and new staffs at HCs, RHs, PHs in KCM and SVR by trainers of each province<br><br>1-4. Conduct training of Intrapartum care for remaining and new staffs at HCs, RHs, PHs in KCM and SVR by trainers of NMCHC or each provinces<br><br>1-5. Review and revise existing supportive supervision tools for intrapartum and INC<br><br>1-6. Support PHD and PH to conduct supportive supervision on intrapartum and INC in KCM and SVR<br><br>1-7.Support KCM and SVR PHD to conduct MCAT after Supportive Supervision system is established<br><br>2-1. Develop and implement the NMCHC manual for managing sick, preterm/LBW newborns in NCU<br><br>2-2. Conduct essential trainings for NCU and relevant staff at NMCHC and target provinial hospitals (For usage and maintenance of medical equipment, infection control, 5S etc)<br><br>2-3. Trainers conduct training on management of sick and preterm/LBW newborns for NCU staff from KCM and SVR PHs at NMCHC<br><br>2-4. Develop a checklist to monitor implementation according to the manual.<br><br>2-5. Conduct periodical monitoring with the checklist and if necessary refresher training for NCU staff in KCM and SVR PHs | 【Expert】<br>Chief Adviser<br>Community Newborn Care Coordinator/training management<br>Other short term experts<br><br>【Project staff】<br>Local staff<br><br>【Facility Renovation】<br>KCM PH NCU renovation<br>【Equipment】<br>Equipment necessary for project activities | 【CP】<br>Project Director<br>Project manager<br><br>【Facilities】<br>Project office space<br><br>【local cost】<br>Project office equipment and the management cost<br><br>Space for meetings at NMCHC other necessary cost | Construction work under Project for Expansion of NMCHC does not delay more than 6 months |

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| 2-6. Support SVR and KCM PHs to conduct OBGY and Ped joint case conference to improve communication among maternity/delivery, neonatal care unit and other related units | | | | |
| 2-7. Train NCU staff to conduct the newborn physical checkup with the checklist at NMCHC and PHs | | | | |
| 2-8. Train staff to conduct KMC according to KMC manual at NMCHC and in PHs | | | | |
| 2-9. Identify obstacles to provide follow-up OPD for high-risk babies who were discharged from NCU and suggest possible solutions | | | | |
| 3-1. Review/revise existing IEC materials for awareness raising on better home care, danger sign, reminder for service uptake, and birth registration and/or develop new tool if necessary | | | | |
| 3-2. Train staff on usage of revised/developed IEC materials | | | | |
| 3-3. Support regular EENC Review Meeting to discuss status of the neonates with danger signs, neonatal deaths and care for and follow-up of sick newborns | | | | |
| 3-4. Develop the guideline on response of neonates showing danger signs outside of facility (1. Community education on danger signs of neonates and identification of danger signs, 2. Appropriate refferal criteria, 3. Mutual information sharing among neonates' parents and health facilities in refferal case) | | | | |
| 3-5. Identify the way to promote Post Natal Care (PNC) and follow-up for neonates showing danger signs | | | | |
| 4-1.Information Management on Intrapartrum and Neonatal Care is strengthened | | | | |
| 4-1-1. Conduct activities, which contribute to strengthen Information Management on Intra partum and Neonatal Care at NMCHC | | | | |
| 4-2. Neonatal Death Audit is implemented | | | | |
| 4-2-1. Support MOH to develop Neonatal Death Audit Guidelines | | | | |

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| 4-2-2. Support the committee to conduct pilot Neonatal Death Audit in NMCHC and KCM/SVR provinces.<br><br>4-3. Training Unit at target provincial hospitals is strengthened<br><br>4-3-1. Support organizing TU in Svay Rieng<br><br>4-3-2. Enhance implementation of relevant trainings by KCM/SVR TU<br><br>4-3-3 Enhance implementation of relevant training by KCM/SVR TU<br><br>4-4. Others<br><br>4-4-1. Identify causes of patient overflow at obstetrics in Kampong Cham provincial hospital and suggest possible solutions<br><br>5-1. Compile the existing MNCH policies/strategies/guidelines<br><br>5-2. Support revision and/or development of new MNCH policies /strategies /guidelines based on findings of the project<br>5-3. Share lessons learned, findings and evidence of the project at relevant technical working groups<br><br>5-4 Make recommendations on pre-service training for intrapartum and neonatal care to the MoH | | | |

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KCM=Kampong Cham
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# Version 3.0

**Project Title: Project for Improving Continuum of Care with focus on Intrapartum and Neonatal Care in Cambodia** **Dated: 13th Jan 2021**

**Implementing Agency: National Maternal and Child Health Center (NMCHC), Provincial Health Departments (PHDs) and Provincial Hospitals(PHs) in Kampong Cham (KCM) Province and Svay Rieng (SVR) Province**

**Target Group: Health Professionals working for intrapartum and newborn care services in NMCHC, KCM Province and SVR Province**

**Period of Project: 6 years (from May 2016 to May 2022)**

**Project Site:NMCHC, KCM Province and SVR Province**

| Narrative Summary | Objectively Verifiable Indicators | Means of Verification | Important Assumption | Achievement | Remarks |
|---|---|---|---|---|---|
| **Overall Goal** | | | | | |
| Reduce the neonatal mortality at target provinces | Neonatal Mortality Rates at target provinces are decreased in KCM and SVR. | CDHS | (1) MOH does not chage major policies on MNCH (maternal, newborn and child health)<br>(2) Government policy will not change drastically<br>(3) No serious endemic which will effect neonatal health | | |
| **Project Purpose** | | | | | |
| Contiuum of Care with focus on intrapartum and neonatal care is strengthened at target provinces | 1. 100% of target facilities can provide essential intrapartum and neonatal service in target provinces<br><br>2. Percentage of neonatal death among neonates admitted to pediatric/NCU (Neonatal Care Unit) is decreased (stratified by birth weight)<br><br>3. Sustainable educational system was established and adopted for Continuous Professional Development program | 1. baseline/endline, supportive supervision report, Relevant national reports<br><br>2. baseline/endline<br><br>3. Observation/ Record of professional council | (1) MOH does not change the current policies on maternal and neonatal issues.<br><br>(2) Serious endemic which effects neonatal health will not happen | | |
| **Outputs** | | | | | |
| 1. Training and supervision on Intrapartum and Immediate Newborn Care (INC) for MNCH staff is strengthened. | 1-1. All target facilities in target provinces receive trainings and supervisions on Intrapartum and Immediate Newborn Care<br><br>1-2. Scores of the checklists of Intrapartum and Neonatal Care are improved in NMCHC and target provinces<br><br>1-3. E-learning module and other tool for sustainable educational platform for continuum of care in MCH was developed | 1-1. Supportive supervision report<br><br>1-2. Supportive supervision report<br><br>1-3. Project record/observation | Trainers and counterparts will not leave their current posts. | | |
| 2. Management of sick newborns and preterm/low birth weight (LBW) infants is improved. | 2-1. Manual for provincial NCU is developed.<br><br>2-2. Score of monitoring checklist is improved<br><br>2-3. Joint conference between OBGY and Ped in PHs is regularly conducted in Kampong Cham and Svay Rieng Provincial Hospitals | 2-1 observation<br><br>2-2 monitoring report<br><br>2-3 record of conference | | | |
| 3. Follow-up for neonates (especially those showing danger signs) is strengthened. | 3-1. Standardised IEC materials are developed<br><br>3-2. Number of staff of target facilities in pilot areas who can utilize INC material at PNC etc. is increased (Scores of staffs in pre-post test on usage of revised/developed IEC materials for PNC, etc. are improved)<br><br>3-3. Guidelines on response for neonatal infants showing danger signs outside of facility is developed | 3-1. observation<br><br>3-2. baseline/endline survey<br><br>3-3. Observation | | | |
| 4. Health systems, which are essential to improve Continuum of Care for better MNCH services, are strengthened | 4-1. The number of neonatal death audit carried out by Death Audit Committee at NMCHC and Kampong Cham/Svay Rieng Provinces will be more than 10 cases by the end of Project period<br><br>4-2. The number of trainings arranged by Training Units in Kampong Cham/ Svay Rieng provinces will be more than 20 by the end of Project period | 4-1. Observation<br><br>4-3. Training record | | | |
| 5. Findings, lessons learned and evidence for MNCH services focused on intra-partum and newborn care are reflected on national policies/strategies/guidelines. | 5-1. Number of the policies/strategies/ guidelines* on which the project's findings and lessons learned has been reflected.<br><br>*number will be set based on baseline. | 5-1. project progress and completion report | | | |

| Activities | Inputs | | pre-condition |
|---|---|---|---|
| | The Japanese Side | The Cambodian Side | |
| 0. Baseline ~~and Endline survey~~ | | | |
| 1-1. Develop a plan for scaling up the coverage of INC training to Referal Hospitals (RHs) and Health Centers (HCs) in KCM and SVR | 【Expert】<br>Chief Adviser<br>Community Newborn Care Coordinator/training management<br>Other short term experts | 【CP】<br>Project Director<br>Project manager | Constraction work under Project for Expansion of NMCHC does not delay more than 6 months. |
| 1-2. Conduct Training of Trainers (TOT) on INC for Maternal Child Health (MCH) staff of SVR PH, on intrapatrum care for MCH staff of NMCHC, KCM PH and SVR PH | | 【Facilities】<br>Project office space | |
| 1-3. Conduct INC training for remaining and new staffs at HCs, RHs, PHs in KCM and SVR by trainers of each province | 【Project staff】<br>Local staff | 【local cost】<br>Project office equipment and the management cost | |
| 1-4. Conduct training of Intrapartum care for remaining and new staffs at HCs, RHs, PHs in KCM and SVR by trainers of NMCHC or each provinces | 【Facility Renovation】<br>KCM PH NCU renovation<br>【Equipment】<br>Equipment necessary for project activities | Space for meetings at NMCHC other necessary cost | |
| 1-5. Review and revise existing supportive supervision tools for intrapartum and INC | | | |
| 1-6. Support PHD and PH to conduct supportive supervision on intrapartum and INC in KCM and SVR | | | |
| 1-7.Support KCM and SVR PHD to conduct MCAT after Supportive Supervision system is established | | | |
| 1-8. Develop the training module for continuing the education program according to CPD guidelines | | | |
| 1-9. Adapt the Safe Delivery Apps into Cambodian context and included IAS and other materials developed by the Project | | | |
| 1-10. Conduct the training using the developed modules and tools | | | |
| 2-1. Develop and implement the NMCHC manual for managing sick, preterm/LBW newborns in NCU | | | |
| 2-2. Conduct essential trainings for NCU and relevant staff at NMCHC and target provinial hospitals (For usage and maintenance of medical equipment, infection control, 5S etc) | | | |
| 2-3. Trainers conduct training on management of sick and preterm/LBW newborns for NCU staff from KCM and SVR PHs at NMCHC | | | |
| 2-4. Develop a checklist to monitor implementation according to the manual. | | | |
| 2-5. Conduct periodical monitoring with the checklist and if necessary refresher training for NCU staff in KCM and SVR PHs | | | |
| 2-6. Support SVR and KCM PHs to conduct OBGY and Ped joint case conference to improve communication among maternity/delivery, neonatal care unit and other related units | | | |
| 2-7. Train NCU staff to conduct the newborn physical checkup with the checklist at NMCHC and PHs | | | |
| 2-8. Train staff to conduct KMC according to KMC manual at NMCHC and in PHs | | | |
| 2-9. Identify obstacles to provide follow-up OPD for high-risk babies who were discharged from NCU and suggest possible solutions | | | |
| 3-1. Review/revise existing IEC materials for awareness raising on better home care, danger sign, reminder for service uptake, and birth registration and/or develop new tool if necessary | | | |
| 3-2. Train staff on usage of revised/developed IEC materials | | | |
| 3-3. Support regular EENC Review Meeting to discuss status of the neonates with danger signs, neonatal deaths and care for and follow-up of sick newborns | | | |
| 3-4. Develop the guideline on response of neonates showing danger signs outside of facility (1. Community education on danger signs of neonates and identification of danger signs, 2. Appropriate refferal criteria, 3. Mutual information sharing among neonates' parents and health facilities in refferal case) | | | |
| 3-5. Identify the way to promote Post Natal Care (PNC) and follow-up for neonates showing danger signs | | | |

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| 4-1.Information Management on Intrapartrum and Neonatal Care is strengthened<br><br>4-1-1. Conduct activities, which contribute to strengthen Information Management on Intra partum and Neonatal Care at NMCHC<br><br>4-2. Neonatal Death Audit is implemented<br><br>4-2-1. Support MOH to develop Neonatal Death Audit Guidelines<br><br>4-2-2. Support the committee to conduct pilot Neonatal Death Audit in NMCHC and KCM/SVR provinces.<br><br>4-3. Training Unit at target provincial hospitals is strengthened<br><br>4-3-1. Support organizing TU in Svay Rieng<br><br>4-3-2. Enhance implementation of relevant trainings by KCM/SVR TU<br><br>4-3-3 Enhance implementation of relevant training by KCM/SVR TU<br><br>4-4. Others<br><br>4-4-1. Identify causes of patient overflow at obstetrics in Kampong Cham provincial hospital and suggest possible solutions<br><br>5-1. Compile the existing MNCH policies/strategies/guidelines<br><br>5-2. Support revision and/or development of new MNCH policies /strategies /guidelines based on findings of the project<br>5-3. Share lessons learned, findings and evidence of the project at relevant technical working groups<br><br>5-4 Make recommendations on pre-service training for intrapartum and neonatal care to the MoH<br>5-5 Apply the training materials developed by the project for Continuing Professional Development program | | | |

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