THE REPUBLIC OF GHANA
GHANA HEALTH SERVICE

PROJECT FOR IMPROVING CONTINUUM OF CARE FOR MOTHERS AND CHILDREN THROUGH INTRODUCTION OF COMBINED MCH RECORD BOOK

THE REPUBLIC OF GHANA

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JICA Project Completion Report

Project Title:

Project for Improving Continuum of Care for Mothers and Children through introduction of combined MCH Record Book (Ghana MCH Record Book Project)

Country:
Republic of Ghana

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Abbreviation

ANC	Antenatal Care
BDR	Birth and Death Registration
CHMS	Community Health Management Committee
CHN	Community Health Nurse
CHO	Community Health Officer
CHPS	Community-based Health Planning and Services
CIC	Community Information Center
CoC	Continuum of Care
CWC	Child Welfare Clinic
DFID	Department for International Development
DHIMS	District Health Information Management System
DHMT	District Health Management Team
ECD	Early Childhood Development
EMBRACE	Ensure Mothers and Babies Regular Access to Care
EPI	Expanded Program on Immunization
FHD	Family Health Division
FP	Family Planning
GDHS	Ghana Demographic Health Survey
GHS	Ghana Health Service
HIV	human immunodeficiency virus
IYCF	Infant and Young Child Feeding
JCC	Joint Coordination Committee
JICA	Japan International Cooperation Agency
JOICFP	Japanese Organization for International Cooperation in Family Planning
MCH RB	Maternal and Child Health Record Book
MDGs	Millennium Development Goals
MMDA	Metropolitan, Municipal, and District Assemblies
MMR	Maternal Mortality Ratio
MNCH	Maternal, Newborn and Child Health
MOH	Ministry of Health
M&S	Monitoring and Supervision

NCSRC	Nutrition Counseling Services and Respectful Care
NHIA	National Health Insurance Authority
NHIS	National Health Insurance Scheme
NMR	Neonatal Mortality Rate
PNC	Postnatal Care
GAQHI	Ghana Association of Quasi-Government Health Institutions
QoC	Quality of Care
RCC	Regional Coordinating Council
R/D	Record of Discussion
RHMT	Regional Health Management Team
SBA	Skilled Birth Attendant
SBCC	Social, Behavioral Change and Communication
SD	Delivery assisted by Skilled Birth Attendant
SSDM	Supply, Storage, Distribution and Management
TB	Tuberculosis
TBA	Traditional Birth Attendant
ToT	Training of Trainers
UNFPA	United Nations Population Fund
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
WB	World Bank
WFP	World Food Program
WHO	World Health Organization

I. Basic Information of the Project

1-1. Country

The Republic of Ghana

1-2. Title of the Project:

Project for Improving Continuum of Care for Mothers and Children through the Introduction of Combined MCH Record Book（Ghana MCH Record Book Project）

1-3. Duration of the Project (Planned and Actual)

Planned: April 2018 – April 2021 (3 years)

Actual: April 2018 – January 2022 (3 years and 9 months)

The Project extended the duration of the Project due to the COVID-19 pandemic. It delayed various project activities and thus the end of the Project was revised from 9 April 2021 to 9 January 2022 (9-month extension).

1-4. Background (from Record of Discussions(R/D))

Ghana has made good progress in recent years in many social development indicators including health. However, it did not achieve the MDGs 4 and 5 by 2015 – maternal mortality ratio (MMR) is still as high as 319 per 100,000 live births (Ghana Demographic Health Survey 2014 (GDHS 2014)) and neonatal morality rate (NMR) is 29 per 1,000 live births (GDHS 2014). With regards to nutrition status, Ghana is one of only seven countries in sub-Saharan Africa which met the MDG 1 target and experiencing a decline on reduction of most forms of undernutrition. Stunting among children under age 5 has been steadily reduced in the last two decades from 35 per cent in 2003 to 19 per cent in 2014. However, there are disparities among geographical locations and socio-economic groups. Among 10 regions, stunting among children under age 5 varies from 10 per cent in the Greater Accra Region to 33 per cent in the Northern Region.

To improve maternal, newborn and child health (MNCH), the World Health Organization (WHO) and other organizations including JICA have been advocating continuum of care (CoC) for MNCH as an avenue to promote a key package of interventions for MNCH services. Evidence shows that improved continuum of key packages of interventions for MNCH is contributing to the reduction of maternal and neonatal mortality and morbidity. An effective CoC connects essential MNCH and nutrition packages, throughout pregnancy, childbirth, postnatal and newborn periods and into childhood. It also requires ensuring every mother and child have access to necessary care at the household and community level to facility-based clinical care. In Ghana, the EMBRACE[1] implementation research was conducted from 2012 to 2016 to identify a feasible, sustainable, and evidence-based intervention package that improves the health outcomes of mothers and babies through strengthening CoC in

[1] EMBRACE stands for Ensure Mothers and Babies Regular Access to Care. The EMBRACE implementation research project was carried out from 2012 to 2016 based on the CoC concept. It was implemented by the Ghana Health Service in technical collaboration with the University of Tokyo with financial support from JICA.

Ghana. Based on the formative research, an intervention package was developed and provided which included the capacity building of health workers to explain to mothers and encourage them to seek CoC, promotion of CoC using a home-based record called the CoC card and creating an enabling environment. A cluster-randomized controlled trial was conducted to evaluate the impact of an integrated package of CoC interventions in three areas that had different healthcare service coverages in Ghana. An integrated package of interventions increased CoC completion and decreased maternal complications requiring hospitalization during pregnancy. It also reduced maternal mortality after the trial period. The acceptability of the interventions was high among mothers and health workers. Based on the research findings, the Ministry of Health (MOH) and Ghana Health Service (GHS) decided to promote CoC with a client-centered approach and started the development of the new MCH RB in 2016.

1-5. Overall Goal and Project Purpose (from Record of Discussions(R/D))

Overall Goal: More women and children complete Continuum of Care (CoC).

Project Purpose: More women and children utilize quality MCH services.

1-6. Implementing Agency

Ghana Health Service (GHS)

Project Director: Director General, Ghana Health Service

Project Manager: Director, Family Health Division, Ghana Health Service

Figure 1. Project Description

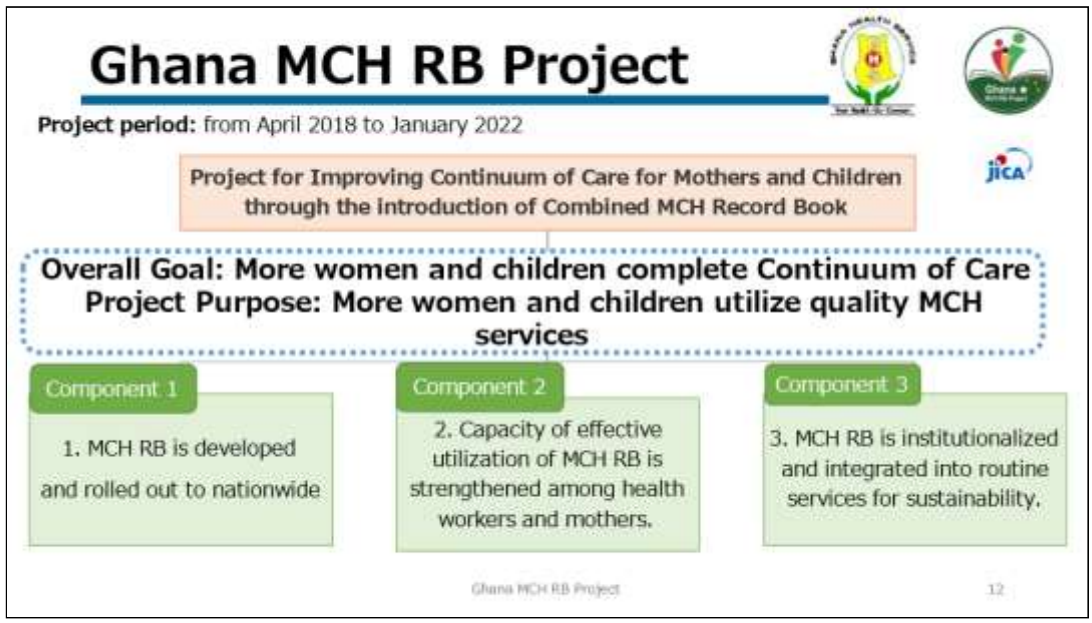
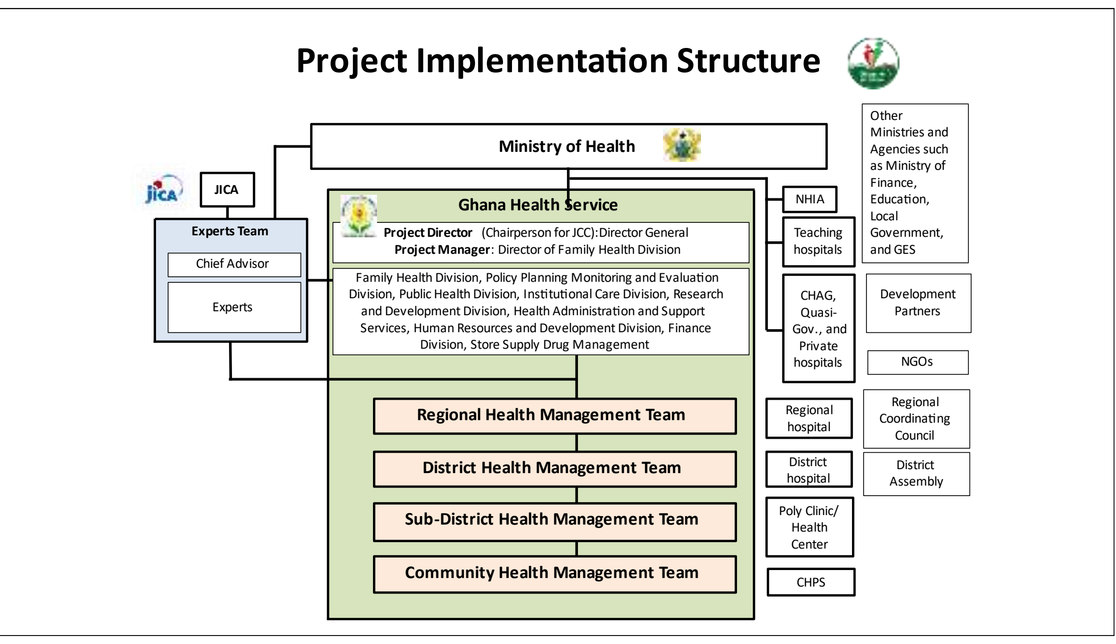


Figure 2. Project Implementation Structure



II. Results of the Project

Executive summary

The Ministry of Health (MOH) and Ghana Health Service (GHS) developed the Maternal and Child Health Record Book (MCH RB), the Ghanian official MCH Handbook, in 2016-2018, with technical and financial support from Japan International Cooperation Agency (JICA). MCH RB is a home-based health record which contains personal health records and educational messages to promote the health and wellbeing of a woman and her child. The objective of the MCH RB was to promote quality Continuum of Care (CoC) for maternal, newborn and child health (MNCH). The CoC for MNCH is a set of interventions that have been identified as effective in improving MNCH conditions over time and space.

Despite various restrictions due to the COVID-19 pandemic and other security issues, the MCH RB Project was conducted with the leadership and commitment of the GHS and JICA experts' team. The Project promoted the use of the MCH RB for the quality CoC for MNCH and institutionalized it for sustainability. It produced various implementation knowledge on the national rollout of the MCH RB, the integration of the nutrition services into the routine MCH services, and the effective use of MCH RB to some indicators of the WHO Quality of Care (QoC) standard.

Capacity building activities were conducted with the development of the standard training package, and the provision of training, monitoring, and supervision (M&S) nationwide (Outcome 1). More intensive training of all health workers on "nutrition counseling and respectful care utilizing the MCH RB" and post-training monitoring and coaching, and Social and Behavioral Change Communication (SBCC) activities were conducted in the selected 11 focus districts in the Ashanti Region (Outcome 2). The achievement of the effective use of the MCH RB was monitored and evaluated at both national level and selected districts with the coverage indicators and selected QoC indicators. It demonstrated the potential value of the MCH RB for some of the components of the WHO QoC standards: actionable information system, effective communication, and respectful care. The use of the MCH RB improved the accurate and complete recording of essential health services, utilization of services, effective communication, positive experiences and improved health care and feeding practices at home.

The major achievements of the Project were:

- All health facilities across the country have started using the MCH RB.
- More than 3,000 health workers (midwives, public health nurses, nurses, and nutritionists) nationwide have been trained in the use of the MCH RB and in nutrition guidance and counseling techniques using locally available foods.
- High-quality maternal and child health and nutrition services are now provided throughout the country, using the MCH RB, and counseling that emphasizes the dignity of the mother based on the individual health records, such as date of birth, physical measurements and laboratory test results.
- Coverage and documentation of antenatal and postnatal care, a gap in the maternal and child continuum

of care, improved from 45% in 2019 to 83% nationally and 93% in the 11 focus districts in 2021.

- 81% of mothers nationally and 99% in the 11 focus districts received nutrition counseling, and 96% of mothers nationally and 98% in the 11 focus districts were able to recall the advice given by health care providers during counseling.

The Project also developed a set of regulations, a management guide, for the operation and management of the MCH RB program and established a system to sustain the MCH RB by bringing various stakeholders including various development partners (Outcome 3).
As a result, high-quality maternal and child health and nutrition services are provided throughout the country with the use of MCH RB. The MOH and the GHS will continue to print and use the MCH RB to provide quality maternal and child health services in Ghana.

1-1. Input (Planned and Actual)

Inputs made by both the Japanese and Ghanaian sides are summarized as follows.

(1) Total Amount of the Japanese Inputs : 609 million Japanese Yen

(2) Experts :Five long-term experts and two short-term experts

(3) Participation of International Conferences/Meetings: 16 presentations made at 8 international, regional and Japanese conferences.

(4) Equipment and Machinery : 17 million Japanese Yen (The Project procured weighing scales, height/length boards, and hemoglobin analyzer for selected health facilities in 11 districts in the Ashanti Region in 2020.)

(5) Local costs : 369 million Japanese Yen (including 49 million Japanese Yen approved during the COVID-19 pandemic for emergency) (Training, M&S, printing of the MCH RB including additional printing during COVID-19 pandemic, printing of the training materials, development and printing of the management guide, employment of the project national staff, medical consumables due to COVID-19 pandemic, running expenses necessary for the implementation of the Project including those incurred during the extension of the project period due to COVID-19 pandemic...etc.)

Table 1. Planned and Actual Inputs from the Japanese Side

(Planned)	(Actual)
a) Experts • Chief Advisor • Maternal and Child Health • Nutrition • Community Health • Project Coordinator • Other Short-term experts (as required)	Five long-term experts and two short-term experts were deployed for the implementation of project activities. They include: • Project Coordinator (1) (April 2018-March 2020) • Project Coordinator (2) (March 2020-January 2022) (March 2020-January 2022: assigned in Japan in March 2020 and arrived in Ghana January 2021. The arrival to Ghana delayed by COVID-19 pandemic)) • Maternal and Child Health (April 2018-November 2021)

	• Nutrition (April 2018-April 2021) (August 2021-September 2021 assigned again as a short-term expert) • Community Health (May 2019-January 2022) • Chief Advisor has been deployed as a short-term expert (April 2018-December 2021) (A total 30 months assigned in Ghana, with 10 trips. All the other month throughout the project period, the Chief Advisor was taking care of the Project in Japan with on-line basis) • One National Program Officer and two Project Assistants, and two drivers have been employed by the Project at GHS HQ Office. One Project Secretary and one driver have been employed by the Project at Ashanti Region Project Office. Two additional Project Assistants were employed by the Project from May 2021 at Ashanti Region Project Office.
b) Printing and distribution cost for MCH RB	The Project developed and printed 1,932,500 MCH RB including additional printing during COVID-19 pandemic, 11,600 "MCH RB for educational purposes" (as a training material), 30,200 User Guide, 4,540 participant's guide and 1,790 trainer's guides.
c) Participation in international/regional conferences etc.	The Project participated in at least 8 international/regional conferences and made presentations about the Project achievements.
d) Machinery and Equipment • Equipment for MCH RB training, Vehicles and Office equipment	The Project procured two vehicles for the Project activities in 2018. The Project procured weighing scales, height/length boards, and hemoglobin analyzer for selected health facilities in 11 districts in the Ashanti Region in 2020. The Project has procured equipment including furniture for the Project office, ICT equipment such as Laptop computers, Printers and other business tools necessary for the implementation of the Project activities. The Project provided necessary office equipment for the Project Office in Ashanti Regional Health Directorate. The Project procured additional medical consumables and equipment due to COVID-19 pandemic.
e) Running expenses necessary for the implementation of the Project	Running expenses necessary for the implementation of the Project including expenses incurred during the extension of the project period due to COVID-19 pandemic was covered by the Japanese side.

Inputs from the Ghanaian side are as follows:

a) Counterpart Personnel necessary for the Project

The Family Health Division (FHD), GHS, selected staff of the Ashanti Regional Health Directorate, GHS, to be assigned as Counterparts of the Project.

b) Project office

A Project office was set up at the GHS headquarter in Accra and another one at GHS Ashanti Regional

Health Directorate.

c) Logistic cost of the distribution of the MCH RB and User Guide

MCH Record Book and User Guide were delivered to the Central Medical Store (CMS) of GHS and distributed from CMS to 16 Regions and from the Regional Medical Stores to the districts. Local costs incurred for the distribution and storage were borne by GHS.

1-2. Activities (Planned and Actual)

Activities conducted for Output 1

Table 2. Activities conducted for Output 1

Planned activities	Actual Activities
1-1. Develop MCH RB and authorize it as national standard Home-based record	1-1. MCH RB was developed and was authorized as national standard Home-based record by MOH
1-2. Conduct pilot test and evaluate results	1-2. Pilot test was conducted, and the results were presented at National MCH and Nutrition conference.
1-3. Develop procurement plan for national rollout	1-3. Procurement plan was developed for national rollout
1-4. Develop User Guide and training materials	1-4. User Guide was developed and utilized for ToT.
1-5. National facilitators train regional facilitators (ToT)	1-5. 11 National facilitators trained 71 regional facilitators (ToT)
1-6. Regional facilitators train district facilitators (ToT)	1-6. Regional facilitators trained 857 district facilitators (ToT).
1-7. Conduct health worker training at selected major hospitals	1-7. 652 health workers at the major hospitals and other facilities were trained on the effective use of MCH RB
1-8. Conduct Monitoring and Supervision in 16 regions	1-8. National M&S was conducted in all 16 regions, 73 districts and 241 facilities.
1-9. Develop Audio-visual learning aid and explore e-learning system	1-9. Audiovisual learning materials were developed with English and 5 local languages.
1-10. Conduct national MCH RB review	1-10 National Review of MCH RB was conducted with all 16 regions
1-11. Print and distribute MCH RB	1-11.1,932,500 MCH RB were printed and distributed to 16 regions.
1-12. Procure equipment for MCH RB for focus districts	1-12. Length board, weighing scale. HB meters with cuvettes and lancets were procured to 11 districts.
1-13. Dissemination of Good Practices of national rollout	1-13. Dissemination Seminar was conducted to share good practices inviting all national and regional teams.

1-1 MCH RB was developed and adopted as national standard Home-based record by the MOH.

The MOH and GHS developed the MCH RB, the Ghanian official MCH Handbook, in 2016-2018, with technical and financial support from JICA.

In the last few decades, Ghana has been utilising two separate home-based record books, a "Maternal Health Records" for pregnant women and mothers, and a "Child Health Records" for children. Although useful for record-keeping, those books were presented separately, and did not provide the essential linkage for the continuum of care from pregnancy to age five.

The results of the Ghana Ensure Mothers and Babies Regular Access to Care (EMBRACE) Implementation Research Project (2012-16) highlighted the importance of linking Maternal Health Record and Child Health Record and educating mothers on the importance to promote CoC. In response to the recommendation, the MOH and GHS decided to develop a new combined Maternal and Child Health Record Book with technical and financial support by JICA.

Under the leadership of GHS and JICA, a series of meetings with key stakeholders, development partners, private sector, Malaria, TB, HIV programs, Expanded Program on Immunization, etc. were conducted for the development of the MCH RB. Pre-test and pilot test were conducted to test the feasibility of the book and its expected impact in 2016-2018. Based on the results of the pilot test, the MCH RB was finalized in 2018. The Launching ceremony of the MCH RB was held in Cape Coast on March 2, 2018, in the presence of the Second Lady of the Republic, Her Excellency Mrs. Samira Bawumia and the Deputy Minister of Health, Hon. Kingsley Aboagye Gyedu. In order to address the urgent need for new MCH RBs in Ghana, the launch ceremony was held before the project period. https://www.jica.go.jp/project/english/ghana/010/news/180409.html

1-2. Pilot test was conducted, and the results were presented at National MCH and Nutrition conference.

GHS/JICA conducted pretest of the draft MCH RB in October 2016 in three different sites (Bongo, Bolgatanga, and Accra) to identify the levels of understanding, acceptance, socio-cultural acceptance, attractiveness and compliance/motivation for behavioral changes among mother, fathers and grandparents as well as utilization, acceptance and work efficiency among health workers. The draft MCH RB was modified according to the results of the pretest.

GHS/JICA conducted a pilot test from June 2017 to February 2018 at 15 selected health facilities in six districts in three regions (Upper West, Ashanti and Central) to test if there are comparative advantages of MCH RB to on-going maternal health records and child health records and to test if the books are utilized effectively for all different service delivery points at all stages of care (Antenatal Care (ANC), delivery, Postnatal Care (PNC), Child Welfare Clinics (CWC)). The main finding of the study was that CoC completion rate among the intervention group was higher than in control (Intervention 76%, Control 63%). Difference-In-Difference (DID) analyses confirmed that knowledge related to MCH were significantly higher in the intervention group than in the control

group. Significantly greater proportions of couples in the intervention group discussed delivery plan (intervention from 71.5% to 83.6%, control from 68.6% to 64.3%, DID 16.4%, P < 0.001), and actually prepared for delivery (intervention from 73.2% to 94.2%, control from 72.6% to 81.3%, DID 12.3%, P < 0.01).

See the project news 'Pilot test for using MCH RB in Ghana'.

https://www.jica.go.jp/project/english/ghana/010/news/180430.html

The results of the pilot test were presented at National MCH and Nutrition conference in Ghana.
https://www.jica.go.jp/project/english/ghana/010/materials/c8h0vm0000fec7eb-att/banner_02.pdf

The results of the pilot test were compiled as a technical brief and published at JICA Home Page.
https://www.jica.go.jp/activities/issues/health/mch_handbook/ku57pq000028koi9-att/technical_brief_26.pdf

1-3. Procurement plan was developed for national rollout.

Projection for procurement of MCH RB was developed for national rollout for 2018 by MOH and GHS.

1-4. User Guide was developed and utilized for ToT.

The Project developed and printed the User guides (N=30,200) and distributed them to all regions and health facilities. The Project also developed trainer's Guide (N=1,790), Participant's Guide (N=4,650) and Job-aid Flipchart (N=14,650).

See Table 49 Procurement of MCH RB and training materials by JICA in Annex 1.

Figure 3. Training materials developed.

1-5. 1-6. 939 Facilitators were trained in all 16 regions (ToT)

The Project has trained a total of 939 facilitators in all 16 regions in Ghana, who were expected to conduct orientations and training for health workers at each designated health facilities. Participants were Nutrition Officers, Midwives, Public Health Nurses, Community Health Nurses (CHNs), Health Promotion Officers, Health Information Officers, Representatives from some Partner Organizations (USAID Spring Project, WFP and JICA CHPS for Life Project), and Tutors of some Health Training Institutions.

Table 3. Facilitator's training (TOT) conducted.

National / Region	Date	JFY	Number of District Facilitators trained	Number of Regional Facilitators trained	Number of National Facilitators trained	Total Trained
National No.1	20-23 Feb.	2017	0	41	0	41
National No.2	9-11 May	2018	0	16	6	22
Central	26-28 Feb.	2017	40	0	0	40
Central additional	5-9 Nov.	2018	40	0	0	40
Brong Ahafo	25-29 June	2018	81	0	0	81
Greater Accra	3-6 July	2018	63	0	0	63
GA additional	10-13 Dec.	2018	40	0	0	40
Northern	10-14 July	2018	83	0	0	83
Upper West	16-19 July	2018	36	0	0	36
Eastern	14-17 Aug.	2018	78	0	0	78
Ashanti	28-31 Aug.	2018	90	0	0	90
Ashanti additional	19-23 Nov.	2018	39	0	0	39
Volta	3-7 Sept.	2018	73	2	0	75
Western	17-20 Sept.	2018	64	2	0	66
Upper East	25-28 Sept.	2018	40	2	0	42
Ashanti 11 districts	24-27 Sept.	2019	33	0	0	33
5 new Region and 3 control districts	14-17 Sept.	2021	57	8	5	70
Total Number of facilitators trained			**857**	**71**	**11**	**939**

The four-day training covered how to introduce the MCH RB, how to fill the record, and how to explain to a mother the results and guidance with simple language and respectful manners. Training was participatory and included role play and group discussion.

Figure 4 Training conducted for the facilitators in all 16 regions and 260 districts

939 Facilitators were trained in all 16 Regions and 260 districts

1-7. 652 health workers at the major hospitals and other facilities were trained on the effective use of MCH RB

The Project trained 652 health workers from major hospitals and other health facilities. The Project conducted pretest and posttest at each training and found that more than 90% of trained health workers improved their knowledge and skills on how to use MCH RB effectively.

Table 4. Number of Health Workers trained at the Health Worker Training for Major Hospitals

Region	Date	JFY	Number of Health Workers trained
Ashanti (Bekwai)	19-23 Nov. 2018	2018	42
Central (Cape coast Metro)	9-10 Nov. 2018	2018	41
GA (Ayawasu Distict)	13-14 Dec. 2018	2018	40
HWs from major hospitals included in TOT	2018	2018	33
Ashanti MHT	3-5 Dec. 2019	2019	37
Volta MHT	March 2020	2019	34
Greater Accra MHT1	March 2020	2019	21
Greater Accra MHT2	Oct. 2020	2020	31
MHT	Nov. 2020	2020	31
Ashanti 3 control districts	Nov. 2021	2021	342
Total			**652**

1-8. National M&S was conducted at all 16 regions, 73 districts and 241 facilities.

The Project conducted National M&S, in all 16 regions, 73 districts and 241 facilities. The Project conducted the first M&S in 10 regions in 2019 and the 2nd national M&S in 16 regions in 2021. The objectives of the M&S were 1) to assess the use of MCH RB by health workers, 2) to strengthen the

capacity of health workers on the effective use of the book and 3) to document best practices and challenges to improve the MCH RB implementation.

Table 5. Number of M&S conducted

	Number of Regions	Number of districts	Number of facilities
1st M&S Feb-Mach 2019	10	34	95
2nd M&S Feb-Oct. 2021	16	39	146
Total period	26	73	241

The Project developed checklists for all three administrative levels: regions, districts and sub-districts targeting facilities and communities. They included a series of questions on logistics for MCH RB services and the completion of training. They had sections to check the skills and knowledge of health workers and the level of understanding among clients.
A monitoring team was with a National facilitator, Regional facilitator, District facilitator and staff of the MCH RB Project. In each region, the monitoring teams visited the Regional Health Directorate (RHD), three District Health Directorates (DHDs) and an average of nine health facilities within one week. Facilitators provided on-site-coaching at the M&S.

Table 6. The 1st National Monitoring and Supervision Conducted (2019)

Region	Date	Districts visited
Northern	21 to 26 January	Tamale Metro, West Mampursi, East Gonja
Western	4 to 8 February	Tarkwa, Jomoro, Secondi Takoradi Metro
Brong Ahafo	11 to 15 February	Sunyani Municipality, Jaman North, Nkoranza South
Upper West	11 to 15 February	Nadowli-Kaleo, Wa Municipal, Sissala East Municipal
Ashanti	18 to 22 February	Kumasi Metro, Ejura, Ajaho Ano South
Eastern	25 Feb to 1 March	Fanteakwa, Nsawam-Adoagyiri Munisipality, Kwahi West Municipality
Volta	25 Feb to 1 March	Adakl, Biakoye, Krachi East
Greater Accra	4 to 8 March	Shai Osudoku, Ledzokuku Krowor, Ga South, Ada East, Ada West, Ningo Prampram
Central	11 to 15 March	Cape Coat Metropolitan, Agona East, Twifo Atti Morkwa
Upper East	18 to 22 March	Bolgatanga Municipal, Talensi, Bawku West, Kassena Nankana

Table 7. The 2nd National Monitoring and Supervision Conducted (2021)

Region	Date	Districts visited
Greater Accra	22 to 26 Feb	Ningo Prampram, Ada East, Shai Osu-Doku
Northern	22 to 26 Feb	Yendi, Tolon, Sagnerigu
Central	1 to 5 Mar	Twifo Hmang Lower Denkyira, Abura Asebu Kwamanese, Cape Coast
Oti	1 to 5 Mar	Jasikan, Krachi West, Biakoye
Eastern	8 to 12 Mar	Suhum, West Akim, Yilo Krobo
Ahafo	8 to 12 Mar	Asutifi South, Asunafo North, Tano South

Upper East	4 to 7 May	Bawku West, Binduri, Bongo
Ashanti	4 to 7 May	Asante Akim Central, Asante Akim South, Ejisu
Bono	17 to 21 May	Tain, Jaman South, Dormaa East
Western North	31 May to 4 June	Juaboso, Bia West, Bibiani Anhwiaso Bekwai
Volta	31 May to 4 June	Akatsi South, Afadzato South, Ho Municipal
Savannah	27-30 June	North East Gonja, Bole,
Western	27-30 June	Ellembelle,Mpohor, Wassa East
Bono East	6-9 September	Kintampo North, Atebubu Amanti Municipal,Techiman Municipal
Upper West	12-15 Oct.	Wa East,Lambussie,Jirapa
North East	19-22 Oct.	Chereponi,Yunyoo Nasuan

Table 8. Results of the Monitoring and Supervision (1) Use of MCH RB

Monitoring indicators	**National M&S I** Feb-Mach 2019 95 health facilities (observation/valid cases)	**National M&S II** Feb-Oct. 2021 146 health facilities (observation/valid cases)
% of health facilities which used MCH RB	82% (78/95)	100% (146/146)
% of health facilities where the MCH RB are available without shortage	48% (46/95)	31% (45/146)

MCH RB was used at 82% of health facilities in 2019 and 100% in 2021 including the public, private, and NGO facilities nationwide. However, the availability of the MCH RB without shortage was 48% in 2019 and 31% in 2021. The logistic management of the MCH RB remained as implementation challenge in 2021. GHS HQ and all regional teams discussed the implementation challenges of the MCH RB at the national review meeting in 2021 and took necessary measures (see activity 1-10).

There was shortage of the MCH RB at regions (94%), districts (92%), and facilities (66%). (See Table 9,10,11). The main reason for the shortage was the distribution of the MCH RB to older children (1-5 years old) beyond the pre-fixed distribution criteria (pregnant women or the children (all pregnant women and children up to one-year-old) due to the high demands of the MCH RB for older children who did not have any Home-based Record or their preference of switching their child health records to a MCH HB. GHS decided to develop a management guide and clearly stated the distribution criteria: "The MCH RB shall be distributed exclusively to ANC registrants at the health facility (government or private owned) during the first visit after pregnancy is confirmed."

The Length/Height board was available in only 53% of facilities at the first national M&S in 2019, whereas it was available in 84% of facilities by 2021. GHS took a strong leadership role in procuring the length/height board, and facilities gradually began to measure length/height. (Table 12). Hemoglobin meters were only available at 47% (68 out of 146) facilities in 2021, and clients at some facilities needed to go to other facilities to get HB tested.

Table 9. Results of the Monitoring and Supervision (2) Availability of the MCH RB (Regions)

Response	National M&S2 2021 16 Regions	Name of Regions
No shortage in the last three months	6% (1/16)	North East
Temporary shortage but received later	44% (7/16)	Central, Ashanti, Bono, Western North, Savanna, Western, Upper West
Current shortage	50% (8/16)	Greater Accra, Northern, Oti, Eastern, Ahafo, Upper East, Volta, Bono East

Table 10. Results of the Monitoring and Supervision (3) Availability of the MCH RB (Districts)

Response	National M&S2 (2021) 48 districts visited
No shortage in the last three months	6% (3/48)
Temporary shortage but received later	52% (25/48)
Current shortage	40% (19/48)
No Answer	2% (1/48)

Table 11. Results of the Monitoring and Supervision (4) Availability of the MCH RB (Facilities)

Response	National M&S2 (2021) 146 facilities visited
No shortage in the last three months	31% (45/146)
Temporary shortage but received later	39% (57/146)
Current shortage	27% (40/146)
No answer	2% (3/146)

Table 12. Results of the Monitoring and Supervision (5) Availability of length/height board (Facilities)

	1st M&S in 10 regions (2019) N=95	2nd M&S in 16 regions (2021) N=146
2 pieces length board	43 (41/95)	65% (96/146)
3 pieces length board	14% (13/95)	25% (37/146)
At least one length board	53% (50/95)	84% (123/146)
2 in 1 scale: height/weight	No data	62% (90/146)
2 in 1 scale: length/weight	No data	14% (20/146)

The Project selected indicators for the M&S of the effective use of the MCH RB from two major WHO standards documents i.e., “Standards for improving quality of maternal and newborn care in health facilities”, and “Standards for improving the quality of care for children and young adolescents in health facilities”. Selected indicators were tested at the first phase of M&S and modified for the subsequent M&S (Figure 5).

Figure 5. QoC indicators modified from the WHO QoC standards for M&S

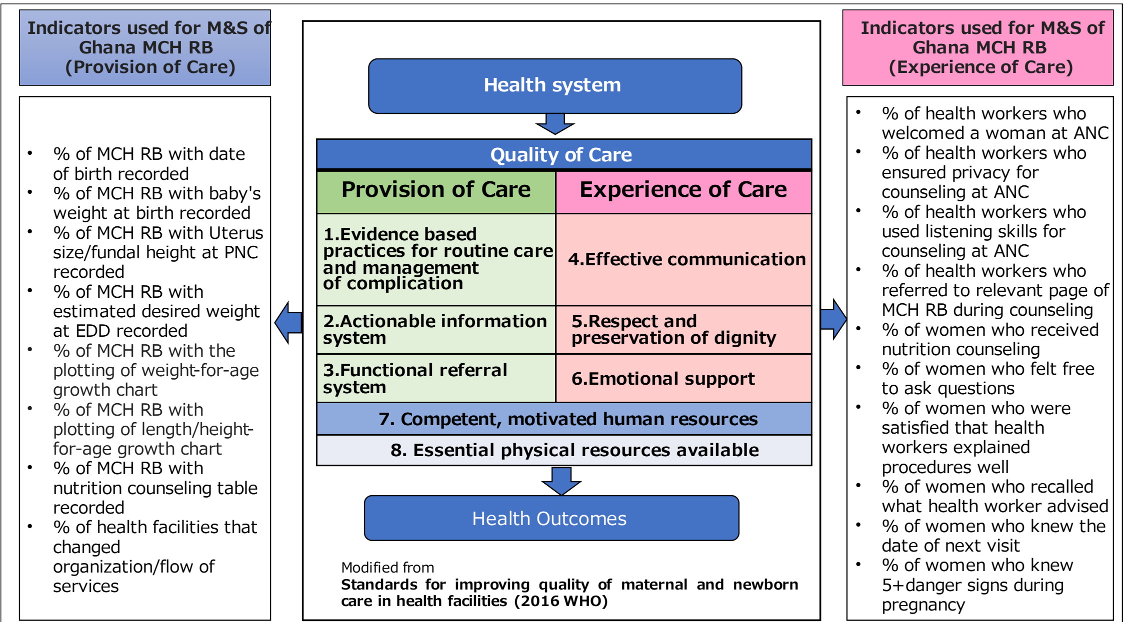


Table 13 shows the results of the M&S II in 146 facilities in all 16 regions in 2021. The date of birth, birth weight, and postnatal care records, which were poorly recorded before the introduction of the MCH RB, were filled properly. Recording of estimated desired weight at expected date of delivery was relatively low (14%). It was because many pregnant women came to the first ANC after 12th week of pregnancy and thus health workers could not use women’s weight for the estimation of desired weight gain according to the protocol.

The Project trained health workers nationwide in the effective use of the MCH RB. However, the Project did not support health workers to conduct awareness-raising activities on the importance of early booking of the first ANC. Women and the community did not seem to be well informed about the importance of early booking of the first ANC. In addition, there was a traditional belief in Ghana that early booking of the first ANC increased the risk of some adverse events such as miscarriage. These findings suggest that the Project should have supported some community awareness raising activities. Based on this observation, the Project conducted awareness raising activities in model 11 districts in Ashanti Region (see Output 2 activities).

The plotting of the child’s length/height (23%) and the recording of the nutrition counseling table (9%) were low because they were the new service started with the MCH RB and it was because it required additional on-site skill training/coaching and the availability of functional equipment. While the Project trained health workers and supported the repeated on-site coaching and the provision of the length/height scale in the model 11 districts in Ashanti Region, the Project

provided training and on-site M&S to limited number of health workers in non-model districts. This resulted in the higher achievements in model districts: the plotting of the child's length/height was 93% and the recording of the nutrition counseling table was 87% in model 11 districts (see **Table 27**). To take care of the low achievement of the recording of the length/height and nutrition counseling table, GHS decided to continue capacity building of health workers even after the completion of the Project.

GHS will also develop a digital job aid for health workers with Ajinomoto Foundation /Koko Plus Foundation, NEC Corporation, and Sysmex Corporation, with the funding from the World Food Program, to properly conduct nutrition counseling and recording. MCH RB Project supported the development of the concept note for this new digital job aid project as it can promote the sustainability of the MCH RB and nutrition counseling.

Regarding the experience of care, 81% women received nutrition counselling. Majority of health workers welcomed women and ensured privacy during ANC and most women were satisfied that health worker explained procedures well. 71% of health workers used listening skills and 61% referred to the relevant pages of MCH RB. 91% mothers felt free to ask questions during the counselling and 96% mothers could recall what health worker advised during the counselling. This means pregnant women and caregiver received nutrition counselling and remembers what were advised by health worker.

Table 13. Results of the Monitoring and Supervision (6) QoC indicators

QoC Indicators	National M&S II (Feb-Oct. 2021) 146 health facilities
1. Provision of Care (observation/valid cases)	
% of MCH RB with date of birth recorded	83% (91/110) ∗
% of MCH RB with baby's weight at birth recorded	83% (91/110)
% of MCH RB with Uterus size/fundal height at PNC recorded	46% (53/115)
% of MCH RB with estimated desired weight at EDD recorded	14% (18/127)
% of MCH RB with the plotting of weight-for-age growth chart	62% (72/116)
% of MCH RB with plotting of length/height-for-age growth chart	23% (26/114)
% of MCH RB with nutrition counseling table recorded	9% (11/124)
% of health facilities which changed organization/flow of services (to accommodate length measurement counseling and other services.)	39% (54/139)
2. Experience of Care	
% of health workers who welcomed a woman at ANC	51% (47/92)
% of health workers who ensured privacy for counseling at ANC	72% (98/137)
% of health workers who used listening skills at ANC	71% (89/125)
% of health workers who referred to relevant page of MCH RB during counseling	61% (87/143)
% of women who received nutrition counseling	81% (98/121)
% of women who felt free to ask questions	91% (109/120)
% of women who were satisfied that health worker explained procedures well	92% (111/121)
% of women who recalled what health worker advised	96% (95/99)
% of women who knew the date of next visit	95% (114/120)
% of women who knew five danger signs during pregnancy	87% (104/119)

∗ The number of missing values varied between questions, and so did the denominator; we report the final sample size for each indicator after removing missing data.

Good practice observed at the 2nd National M&S

- WhatsApp group was created for mothers to post their questions or concerns regarding the care of the child especially on messages in the MCH RB. (Ningo Prampram in Greater Accra Region)
- District assembly helped in printing MCH RB for the district under the supervision and approval of the GHS HQ. (West Akim in Eastern Region). MOH and GHS advocated for the printing of the MCH HB with national budget, NHIA, or the support of the private company, district assembly and other entities to ensure sustainability. The Regional Director of the

Eastern Region coordinated with the GHS HQ and supported the West Akin District, Eastern Region, to print the 500 MCH RB with the funding from the District Assembly. This was a good model of the printing of the MCH RB with the local government budget. MOH and GHS will continue to lead and coordinate the advocacy and fundraising activities for the procurement of the MCH RB and encourage the RHMT, DHMT, public hospitals (teaching hospitals, CHAG, Quasi-government facilities) and private hospitals to advocate and raise funds to support the procurement of their annual estimates at their respective levels.

- Teamwork of Nutrition Officers, Midwives and CHNs in calculation and filling of BMI, recording of the birth weight. (Ho teaching hospital, Volta Region))
- Regional/District Nutrition team requested health workers to send record of nutrition counselling table through WhatsApp, and they checked the contents and gave feedback to the health workers. (Volta Region)
- Coding of MCH RB at the regional and sub regional levels to track the distribution of the books (Bono, Ahafo & Bono East regions)

Challenges identified at the 2nd M&S

- Shortage of the MCH RB
- Incomplete filling of the records especially Nutrition counselling tables, CoC cards, estimated desired weight at Expected Date of Delivery (EDD) and Early Childhood Development (ECD) checklist.
- Poor usage or lack of star stamps for the CoC cards. (CoC card was not properly used to motivate mothers to complete all CoC services.)
- Inadequate counselling skills.
- Absence or poor use of the User guide
- Absence or inadequate number of other logistics-Anthropometric equipment.

The Project presented the results, good practices and challenges identified at the 2nd M&S at the national review meeting and discussed the next actions. See 1-10 National Review of the MCH RB.

Figure 6. Monitoring and Supervision

Monitoring and Supervision

- M&S was conducted at 241 health facilities nationwide. (2019-2021)
- M&S in 11 districts were conducted at 331 health facilities (2019-2021)

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1-9. Audiovisual learning materials were developed with English and 5 local languages.

The Audio-Visual (AV) Learning Material were developed in English and 5 local languages (Twi, Akan, Hausa, Ga and Ewe) to promote health worker's learning of new skills and services introduced with the MCH RB. GHS plans to upload the AV materials to the GHS website.

Table 14. List of Audiovisual learning materials developed

Audio-visual learning materials for Health Workers' Self Learning
1. "Dear Mother": Respectful way for introduction of MCH Record Book to mother (for health worker) 2. What is Continuum of Care (CoC) and how to use CoC card 3. Developmental Milestone 4. Height/Length and weight measurements and plotting, 5. BMI calculation and desired weight at Expected Date of Delivery (EDD) 6. Counseling skills and steps including demonstration on both pregnant women and caregiver
Audio-visual learning materials for mothers
1. "Dear Mother": Respectful way for introduction of MCH Record Book to mother 2. Danger signs

Pretest of the storyboards completed: See HP

Pre-testing of Storyboards for the Audio-Visual Learning Material | Technical Cooperation Projects | JICA

The Project also developed a documentary film (short movie) to disseminate the Project achievements and good practices of the national rollout of the MCH RB for national and international stakeholders.

National Rollout of the Ghana Maternal and Child Health Record Book - YouTube

Figure 7. shooting of the audio-visual learning materials

Development of Audio-Visual learning materials

- The video was shot in June -July 2021 and edited in Aug-October 2021.
- Pretest of the developed video was conducted in Kwabre East District, Ashanti region at the HW training.

1-10 National Review of MCH RB was conducted with all 16 regions

The Project conducted National Review of MCH RB for 2 days in Kumasi (30 September and 1 October 2021), Ashanti Region. The purpose of the meeting was to appraise the progress of the national roll-out of the MCH RB and discuss remaining activities for sustainability. Participants were JICA, WHO, USAID, and Managers from the various Divisions of the GHS.

Regional Health Teams from all 16 regions shared their achievements, challenges and good practices, and actively exchanged ideas for sustainability.

Good practices reported at the National Review

- The facilitators in Greater Accra region trained more than 1000 health workers and conducted on-site monitoring and coaching with their available resources by combining 29 administrative districts into 16 clusters.
- In Volta Region, the Regional Health Team conducted M&S periodically after the training. They sometimes consulted health workers with phone calls that made it possible for health workers to solve problems on time and provided quality of care without delay.
- The Regional Health Team in Eastern region coordinated with the GHS HQ and organized an advocacy meeting with the Regional Minister and the Regional Coordinating Council to address the importance of MCH RB and received support from the Metropolitan, Municipal, and District Chief Executive to print 500 MCH RB.

Common implementation challenges identified at the National Review Meeting:

- Shortage of the MCH RB and the lack of accountability for the regular supply to the MCH RB due to the following reasons:
  - Delays in procurement,
  - Inadequate forecasting and estimation of the number of MCH RB needed
  - Inadequate logistic and stock management
  - Distribution criteria was not adhered to (as health workers were not well informed

about it)

- Lack of communication between national and sub-national teams regarding the procurement plan and procurement process (Front-line health workers were not fully informed on the procurement plan.)

- Lack of health system support to health workers
  - Provision of equipment and logistics
  - Coaching and mentoring of health workers
  - Timely training/orientation to the newly assigned health workers

Recommendations generated at the National Review Meeting for the sustainability of the MCH RB

- Accountability and better communication on the supply and distribution of the MCH RB
- Provide systematic orientation on the use of MCH RB and respectful care for newly assigned health workers.
- Integrate the use of MCH RB and respectful care in the curriculum of the nursing and midwifery training schools.
- Continuous M&S to maintain standards.
- Integrate the use of MCH RB in the key strategies, guidelines and programs.

Actions taken

- Enforcement of the distribution criteria in the Management Guide

Director of FHD, GHS, reaffirmed the distribution criteria of the MCH RB to be pregnant women. While the GHS decided in 2018 that all pregnant women and children up to one-year-old should receive the MCH RB, health workers in some regions and districts have distributed them to children under 5-year-old because of strong demand from clients. It caused a shortage of the MCH RB in 2019 and 2020. He will take separate measures to ensure all the children less than 5-year-old should have some forms of home-based health records.

The Project supported the GHS to develop the Management Guide, which was the rules and guidelines related the management of the MCH RB program at the national, sub-national and facility levels, and stated the distribution criteria in the Guide: “The MCH RB shall be distributed exclusively to ANC registrants at the health facility (government or private owned) during the first visit after pregnancy is confirmed.”

1-11. 1,932,500 MCH RB were printed by JICA and distributed to 16 regions.

The Project printed 1,932,500 MCH RB and the GHS distributed them to 16 regions.
See Table 52 Procurement of MCH RB between JFY 2017 to JFY2021 by JICA and Partners, and Table 53 Procurement of MCH RB and training materials by JICA in Annex 1.

1-12. Length board, weighing scale. HB meters with cuvettes and lancets were procured to 11 districts.

The Project procured weighing scales, height/length boards, and hemoglobin measuring equipment with cuvettes and lancets for selected health facilities in 11 focus districts in Ashanti Region.
See Table 55 Procurement of Equipment in Annex 1.

1-13 Dissemination Seminar was conducted to share good practices inviting all national and regional teams.

The Project conducted the national dissemination seminar in Accra on 2nd December 2021.
Participants were MOH, National Health Insurance Authority (NHIA), WHO, UNFPA, WFP, USAID, Christian Health Association of Ghana (CHAG), University of Ghana, Ministry of Finance, Teaching hospitals, directors and staff at various divisions of GHS HQ, Regional Health Teams from all 16 regions, Ajinomoto Foundation, and JICA Ghana Office. The total number of participants were 103.
The Project presented the overall achievement and shared good practices and lessons learned.
The Director-General, GHS/Project Director, addressed that the government should be responsible to provide MCH RB for all pregnant women. DG also encouraged GHS and partners to work together for further promotion and sustainability of the MCH RB program.
The Chief Executive of NHIA stated that she recognized MCH RB was a tool to prevent early risks of illness and avoid unnecessary treatment among mothers and children and to further promote UHC. She added that NHIA printed 500,000 MCH RB in 2021 and was willing to produce more books in 2022.
Continuous provision of the MCH RB, and capacity building among health workers, were two key issues discussed for sustainability. Regional health directors expressed their willingness to sustain training, orientation, monitoring, and coaching for the effective use of the MCH RB, whether at the regional, district, or sub-district level.

Activities conducted for Output 2

Table 15. Activities conducted for Output 2

Planned activities	Actual Activities
2-0. Select 6 focus districts	2-0. GHS selected 11 focus districts at JCC1
2-1. Conduct baseline/end line survey and situation analysis in 11 focus districts	2-1. Baseline survey and situation analysis and End-line survey were conducted at selected districts (3 intervention and 3 control districts in Ashanti Region)
2-2. Develop training materials on nutrition counseling services and respectful care (NCS&RC)	2-2. Training materials on nutrition counseling service and respectful care (NCS&RC) were developed, printed and distributed to all regions.
2-3. Regional and District facilitators train health workers in focus 11 districts	2-3. 33 District facilitators trained 990 health workers on NCS & RC at focus 11 districts and 342 health workers in 3 control districts
2-4. Regional and District facilitators conduct monitoring and supervision in focus 11 districts	2-4. Regional and District facilitators conducted monitoring and supervision at 331 health facilities in 11 focus districts

2-5. Develop SBCC messages and SBCC materials in focus districts	2-5. SBCC strategies, plan and messages were developed at SBCC workshop and SBCC materials (mainly posters) were developed at the district meetings in 11 focus districts.
2-6. Conduct SBCC in focus districts	2-6. SBCC activities were conducted in 11 focus districts
2-7. Dissemination of good practices in 11 districts	2-7. Dissemination seminar was conducted to disseminate the good practices in 11 districts

2-0. GHS selected 11 focus districts at JCC1

GHS first selected 7 focus districts at the technical workshop conducted in Ashanti Region utilizing the selection criteria agreed at the first JCC meeting in October. 2018. Although the Project planned to select 6 districts, GHS requested to add Atwima Kwanwoma (intervention district at the pilot in 2017) as another focus districts and the Project agreed.

The selected 7 districts were divided into 11 districts in 2019. The Project adjusted the plan and worked with the 11 district health teams, instead of the 6 districts.

Table 16. Selected focus districts in Ashanti Region

Selected 7 districts (2018)		Newly created 11 districts (2019)	
1	Adansi North	1	Adansi Asokwa
		2	Adansi North
2	Adansi South	3	Adansi South
		4	Adansi Akrofruom
3	Amansie Central	5	Amansie Central
4	Amansie West	6	Amansie South
		7	Amansie West
5	Atwima Mponua	8	Atwima Mponua
6	Atwima Nwabiagya	9	Atwima Nwabiagya
		10	Atwima Nwabiagya North
7	Atwima-Kwanwoma	11	Atwima Kwanwoma

2-1. Baseline survey and situation analysis, and End-line survey were conducted at selected districts (3 intervention and 3 control districts in Ashanti Region)

The Project conducted a baseline survey and situation analysis in July-August 2019 before the intervention and the end-line survey in August-September 2021 after the intervention.

Before starting more intensive capacity building activities on the MCH RB in 7 focus districts in Ashanti Region, the Project conducted the baseline survey and situation analysis in June-August 2019 in order to set the base to assess the effectiveness of the activities and to study current situation regarding maternal and child health and nutrition. The Project originally planned to conduct the post intervention the end-line survey in 2020, however, due to COVID-19 pandemic, the end-line survey was postponed to 2021 accordingly.

The objective of the survey was to compare the outcomes and outputs variables at intervention and control districts. The target population for the study were pregnant women attending ANC, mothers

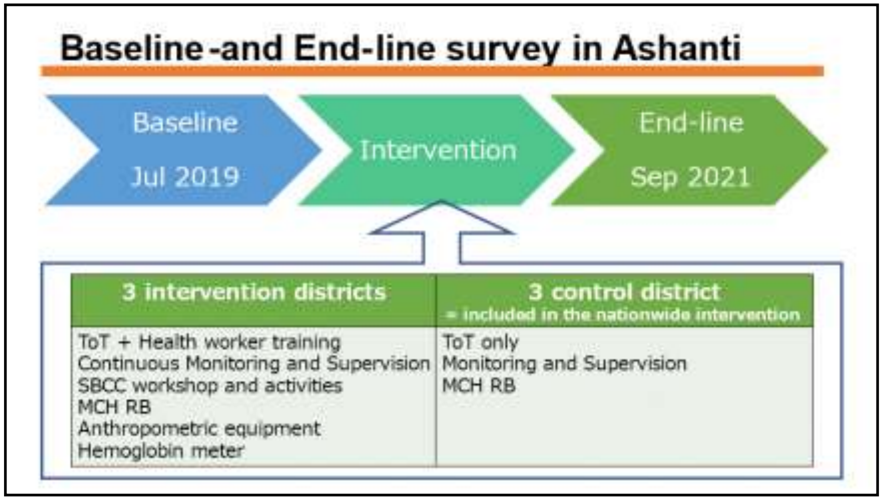
after delivery at facility, mothers with 6-11 months old child attending CWC.
Quantitative and qualitative methods were applied in 3 intervention and 3 control districts covering sample size of 300 mothers in each group. Data collection was mainly through face to face/ individual interviews to participating mothers by using structured questionnaires.

Table 17. Selected intervention and control districts and health facilities for the study

Intervention		Control	
District	Facilities	District	Facilities
Adansi North	St. Bennito Menni Hospital	Asanti Akyem South	Juaso Government Hospital
	Fomena Health Centre		Stewards Hospital
	Asokwa Health Centre		Bompata Health Centre
Amansie Central	St. Peters Hospital	Ejisu	Ejisu Hospital
	Tweapease Health Centre		Juaben Hospital
	Atobiase Health Centre		Living Waters Hospital
Atwima Nwabiagya	Toase Government Hospital	Kwabre East	Asonomaso Municipal Hospital
	Abuakwa Poly Clinic		Mamponteng Polyclinic
	Afari Community Hospital		Aboaso Health Centre

The intervention composes 1) health worker training on MCH RB, 2) training on respectful care and nutrition counselling, 3) on-site monitoring and coaching at health facilities after the trainings and 4) SBCC activities to support above four interventions. Additionally, the Project procured weighing scales, height/length board, and hemoglobin measuring equipment for health facilities. MCH RB and user Guide were provided to all health facilities in both intervention and control districts.

Figure 8. Design of the Baseline and Endline Survey



Results of the Baseline survey (summary)

The baseline results: The coverage of the MNCH service was a big challenge as less than 30% of women interviewed received first Antenatal Care (ANC) before the 12 weeks of pregnancy at the intervention districts. Less than 15% of mothers received three Postnatal Care (PNCs) within a scheduled period at both the intervention and control districts. About 59% of mothers with 6-11 months' babies at the intervention districts and 34% of those at the control districts received Child Welfare Clinic (CWC) services in scheduled timing. The study showed that recordings of the MCH RB in both intervention and control districts were generally low. Key gaps were also realized in diet and feeding practices. The study also assessed the experiences and knowledge of mothers and health workers, among others.

Barriers for Exclusive Breastfeeding

Factors that made it easier/possible for mothers to exclusively breastfeed babies for 6 months were identified at the situation analysis. The Project decided to create supportive environment for mothers to practice exclusive breast feeding and other child feeding practice by educating mothers and conducing community sensitization activities.

Table 18. Factors that made it easier/possible for mothers to exclusively breast feed babies for 6 months

	Doers (N = 52)		Non-Doers (N = 68)		Difference	
	Prop.	Std. Error	Prop.	Std. Error	Prop.	p-value
Support and education provided by health workers	0.54	0.07	0.28	0.05	0.26***	0.000
I can stay home for first 6 months (Maternity leave)	0.08	0.04	0.06	0.03	0.02*	0.086
I can take the baby to school/workplace	0.02	0.02	0.06	0.03	-0.04***	0.009
I know the benefits	0.67	0.07	0.19	0.05	0.48***	0.000
My family/relatives and I understand the importance	0.23	0.06	0.06	0.03	0.17***	0.000
Able to give expressed-breast milk	0.17	0.05	0.09	0.03	0.08***	0.002

*** $p<0.01$, ** $p<0.05$, * $p<0.1$

Results of the Endline survey and the Impact analysis (summary)

Effective use of MCH RB by health worker

MCH RB was used effectively for the recording particularly at intervention health facilities, where most of the health workers participated the training and received on-site coaching on the use of MCH RB. Recording of the MCH RB improved in both intervention and control facilities, with more improvement in intervention faciltiies, such as the recording of the BMI, birth, and child length.

Table 19. Recording of MCH RB

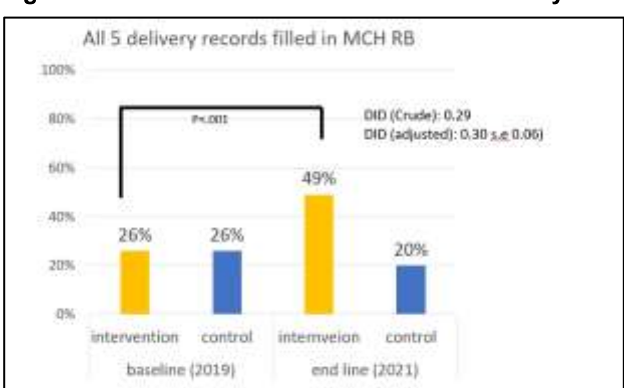
	Baseline (%)		End-line(%)		DID: Crude impact	DID with Propensity Score weighting **(SE)
	Intervention	Control	Intervention	Control		
BMI record	11	15	42	5	41	42 (4)
Delivery records (all 5 records)	26	26	49	20	29	30 (16)
Newborn records (all 5 records)	28	27	56	42	13	13 (16)
Plotting on Weight for age chart	73	89	97	89	24	25 (7)
Child length/height records	26	19	73	44	22	22 (16)
Plotting on Length for age chart	27	10	68	38	13	9 (13)

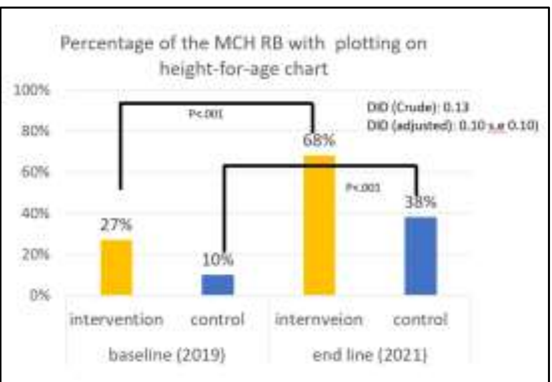
** Propensity Score weighting with DID analysis using a Logistic regression model with facility-based cluster robust standard errors

Recording of the BMI, the delivery, newborn, and the length/height for age chart improved significantly in the intervention facilities, demonstrating the the impact of the Project intervention (Training, Repeated M&S, Community SBCC activities). Plotting on weight for age char was high in both intervention and control facilities at baseline survey as this has been include in the previous MNCH services and Child Health Records. All health workers were familiar with this skill and recording.

Recording of height/length for age in the table and plotting on the chart were low in both intervention and control facilities at the baseline survey as these were newly included in the MNCH services and the new MCH RB. The improvement was higher in the intervention facilities where the Project conducted training and M&S to all the health workers and provided the length/height scale to all health facilities where needed. There was some improvement in recording and plotting of the length/height for age in the control facilities, which may be the impact of using the new combined MCH RB. The new MCH RB guides health workers to complete and the plot the length/height with a user-friendly format.

Figure 9. Results of Baseline and End-line survey





Mothers' knowledge and experiences

More women can recall danger signs associated with pregnancy and know the date of their next visit at the intervention facilities after the intervention(endline). More women felt they were adequately informed by health workers about the examinations and procedures and felt that health workers involved them in decisions about their care at the intervention facilities. However, women felt that they were given the opportunity to discuss their concerns and preferences and their privacy was protected at both intervention and control facilities after the intervention. The indicators in the control facilities were relatively high as one of the hospitals in control districts was the model facility of the WHO UNICEF QoC Network* and already the QoC interventions had started before the Project intervention.

*The Network for Improving Quality of Care for Maternal, Newborn and Child Health (QoC Network) is a partnership of governments, implementation partners and funding agencies working to deliver the vision that 'every pregnant woman and newborn receives good quality care throughout pregnancy, childbirth and the postnatal period' established in 2017 supported by WHO, UNICEF, UNFPA and other organizations and Ghana is one of the 11 pathfinder countries. The Project attended quarterly meetings of the National Technical Working Group (TWG) for Ghana's Quality of Care Network to coordinate with other organizations and programs of the QoC in Ghana.

Table 20. Results – Effective use of MCH RB by Mothers

	Baseline (%)		End-line(%)		DID: Crude impact	DID with Propensity Score weighting **(SE)
	Intervention	Control	Intervention	Control		
Mothers that can recall at least **3 danger signs** associated with pregnancy	36	45	76	44	41	39 (8)
Percentage of mothers who **know the date of next visit**	80	85	94	82	17	14 (7)

** Propensity Score weighting with DID analysis using a Logistic regression model with facility-based cluster robust standard errors

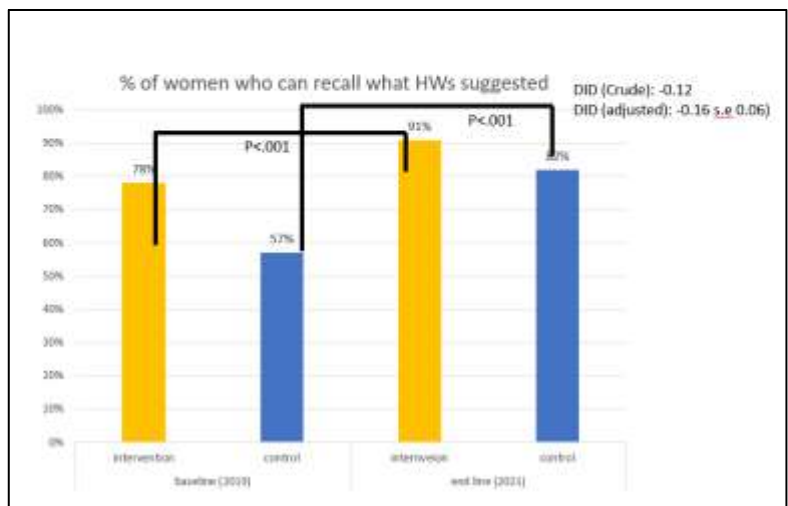
Table 21: Experience and satisfaction of pregnant women/mothers

	Baseline (%)		End-line (%)		DID: Crude impact	DID with Propensity Score weighting **(SE)
	Intervention	Control	Intervention	Control		
women who reported that they were **given the opportunity to discuss their concern and preference**	56	81	84	82	27	27 (13)
women who felt they were **adequately informed** by health care staff about the examinations, actions and decisions taken for their care	75	88	87	67	33	38 (14)
women who felt like health workers **involved her in decisions** about her care	73	85	92	74	30	31 (12)
women examined and treated in the health facility who expressed satisfaction with the degree of **privacy** during examination and treatment	96	93	98	97	-2	1(3)

** Propensity Score weighting with DID analysis using a Logistic regression model with facility-based cluster robust standard errors

The percentage of women who could recall the health workers' suggestions improved in both intervention and control facilities. This may be due to the MCH RB's ability to remind women of key educational messages through a user-friendly design. We assume that many women gained knowledge by reading or seeing the illustrations in the book at home.

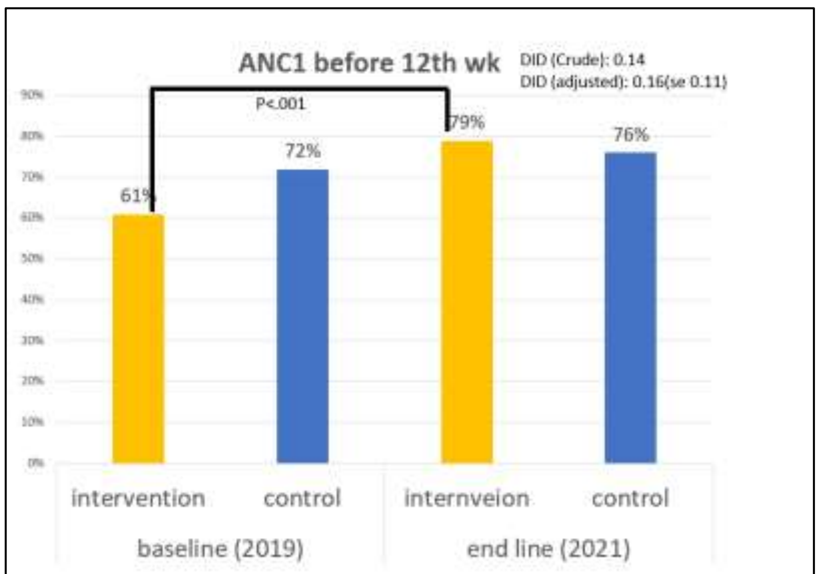
Figure 10. Results of Baseline and End-line survey



Women’s uptake of services and practice at home improved significantly in the intervention facilities. More women received ANC1 before the 12th week of pregnancy in the intervention facilities, which may be a result of the community sensitization activities conducted to create an enabling environment

for women in the intervention districts. (**See Table 28. SBCC activities conducted in 11 districts and Table 29. Photos of the SBCC activities in 11 districts.)**

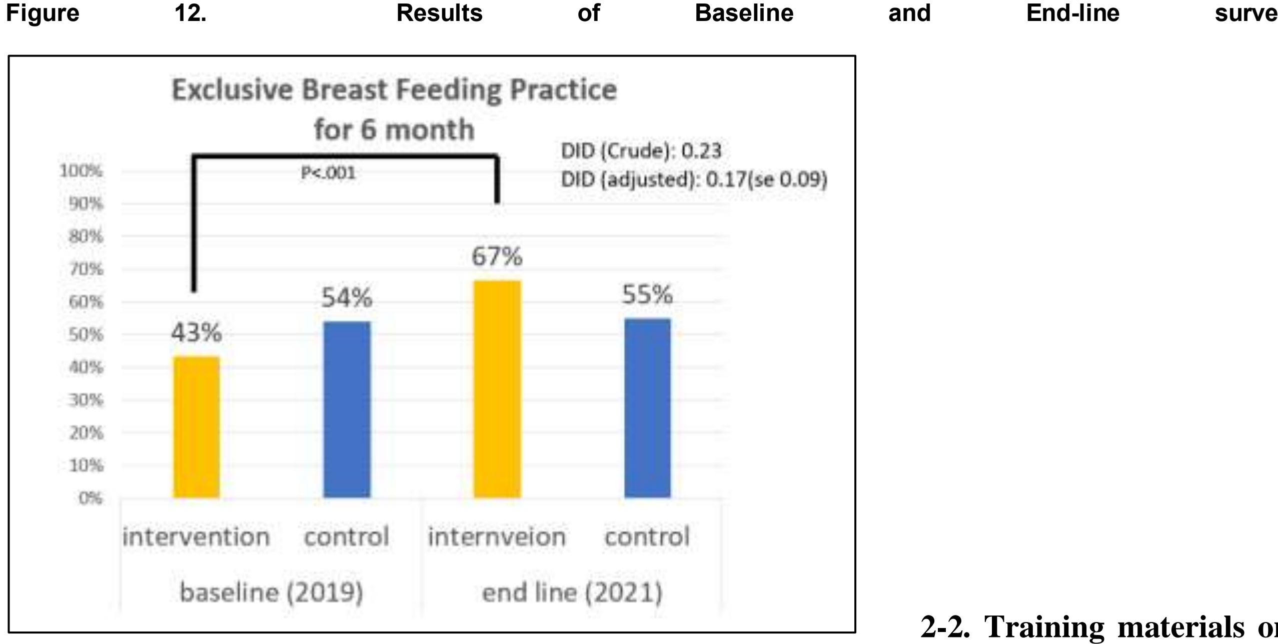
Figure 11. Results of Baseline and End-line survey



More women completed the exclusive breastfeeding for the first 6 months after the delivery, which may be the impact of the individual counseling using the MCH RB and community sensitization activities.

Findings indicated that MCH RB together with the capacity building activities, procurement of equipment, and community sensitization activities contributed to the increase of service uptake, positive experiences and knowledge of better feeding practices at home among mothers.

Figure 12. Results of Baseline and End-line survey



2-2. Training materials on

nutrition counseling service and respectful care (NCS&RC) were developed, printed and distributed to all regions.

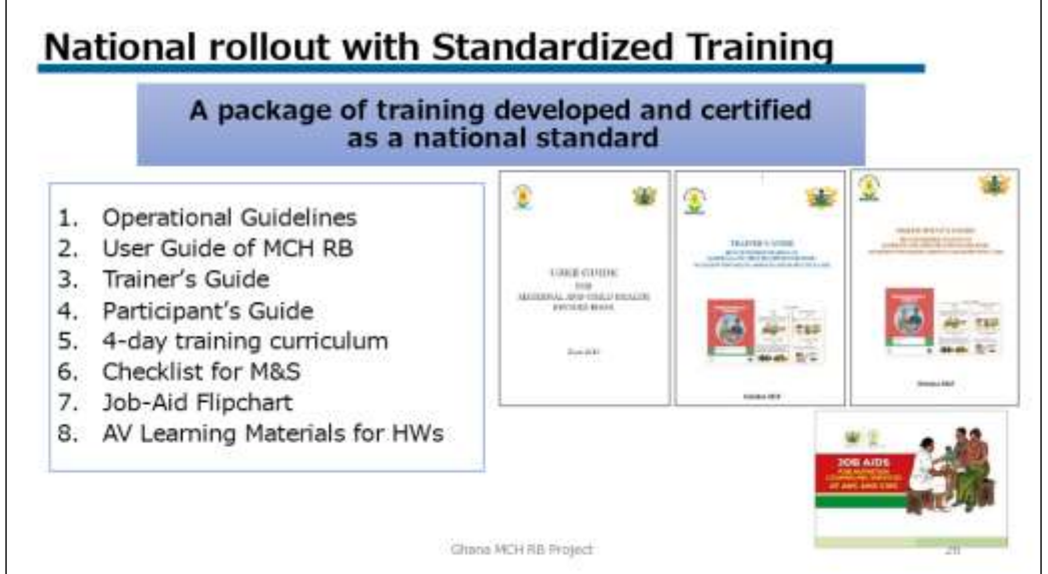
The Project developed "Operational Guidelines on Nutrition Counseling Services and Respectful Care (NCSRC)" to guide the health professionals in carrying out nutrition counseling services and respectful care effectively utilizing the MCH RB.

Parallel to the development of the Operational Guidelines, a team of core national facilitators and JICA experts developed training materials for health worker training on effective utilization of MCH RB, Nutrition Counseling Services and Respectful Care. The Project printed 30,200 User Guide, 1790 Trainer's Guide, 4540 Participant's Guide and 13,600 MCH RB for educational purpose for the training of health workers.

The Project also developed Job-aid Flip Chart to support health workers to conduct nutrition counseling with the standardized algorithm. The Project produced flipcharts for 11 districts (N=1050) and for all health facilities nationwide (N=13,600) and distributed them to designated districts and regions. (See Table 49 Procurement of MCH RB and training materials by JICA in Annex 1.) All Training Materials are available at Project HP.

https://www.jica.go.jp/Resource/project/english/ghana/010/materials/index.html

Figure 13. A package of training materials developed



The Project first developed the training curriculum for 3-days and later revised it for four-day program to have more practical and participatory exercises.

Table 22. Revision of Health Worker Training Curriculum

	Before revision	Time	After revision	Time
1	Introduction of Maternal and Child Health Record Book	1h 30m	Introduction of Maternal and Child Health Record Book	1h 20m
2	Completing recording sections in MCH RB	2h 30m	Completing recording sections in MCH RB	2h
3	Measurement of height/length and weight	2h 30m	Determining age and Measurement of height/length and weight	3h
4	Plotting and Interpretation	1h 30m	Plotting and Interpretation	1h 30m
5	Basic Nutrition and Health and Nutrition Messages	2h 30m	Basic Nutrition and Health and Nutrition Messages	2h 30m
6	Nutrition Counseling and Respectful Care	2h 30m	Nutrition Counseling	3h 40m
7	Field Practice	5h	Field Practice	4h 30m
8	Strengthening Nutrition Counseling Services	3h	Strengthening Nutrition Counseling Services and Respectful Care	5h 20m
		Total 21h		Total 23h50m

2-3. 33 District facilitators trained 990 health workers on NCS & RC at focus 11 districts and 342 health workers in 3 control districts.

In 2019, the Project conducted training for health workers on the MCH RB with emphasis on Nutrition Counseling Services and Respectful Care in 11 focus districts of Ashanti region. The 30 sessions of the four-day training between October 2019 and January 2020 covered 990 health workers. Trained health workers were midwives, CHNs, and nutrition officers who provide MCH and nutrition services utilizing the MCH RB at hospitals, health centers, CHPS (Community-based Health Planning and Services) compounds, and community. All participants went through the lectures, practical sessions at the training venue as well as at the health facilities and successfully completed the training. The Project conducted pretest and posttest at each training and found that more than 90% of trained health workers improved their knowledge and skills on how to use MCH RB effectively.

TABLE 23. Number of Health Workers trained in 11 focus districts

7 Districts (old demarcation)	11 Districts (new demarcation)	Number of Participants
Adansi North	Adansi Asokwa	97
	Adansi North	
Adansi South	Adansi South	119
	Adansi Akrofruom	
Amansie Central	Amansie Central	76
Amansie West	Amansie South	132
	Amansie West	
Atwima Mponua	Atwima Mponua	106
Atwima Nwabiagya	Atwima Nwabiagya	308
	Atwima Nwabiagya North	
Atwima Kwanwoma	Atwima Kwanwoma	152
Total		990

Fifteen District facilitators of the three control districts in Ashanti Region went through the TOT and they conducted health worker training in each district after the TOT, conducted 6October 2021 till 12 November 2021 after the end-line survey. Ten batches of training were conducted, and 342 health workers completed the training. Oveall the Project trained 1,642 health workers and 939 facilitators (trainers) all together 2018-2021.

Table 24. Number of Health Workers Trained In 3 Control Districts

3 control districts	Number of Health Workers trained
Ejisu	105
Kwabre East	154
Asante Akim South	83
Total	**342**

Figure 14. Training and Coaching on the effective use of MCH RB

Training and Coaching on the effective use of MCH RB for Nutrition Counseling and Respectful Care

Achievement:
Trained Midwives, PHNs, Nurses and Nutrition Officers
Nutrition counseling was integrated into ANC, and Child Care
(2500 health workers trained by Dec. 2021)

Respectful care training

Providing Nutrition Counseling to a pregnant woman and her husband, November 2021, Ashanti Region

Counseling for a pregnant woman June 2021, Ashanti Region

Coaching on the measurement skills June 2021, Ashanti Region

Practical Health Worker's Training on Nutrition Counseling utilizing locally available food, November 2021, Ashanti Region

Health Worker Training Completed in 11 Districts | Technical Cooperation Projects | JICA

Completion of Health Worker Training in Three Control Districts in Ashanti Region: MCH RB Project trained 1642 health workers on the MCH RB in Ghana | Technical Cooperation Projects | JICA

2-4. Regional and District facilitators conduct monitoring and supervision in focus 11 districts

Regional and District facilitators conducted M&S at 331 health facilities in 11 focus districts.

Table 25. Monitoring and Supervision conducted in focus 11 districts

	1st M&S	2nd M&S	3rd M&S
Dates	January-February 2020	February-March 2021	May-July 2021
Number of Districts	11	4	11
Number of Facilities	129	58	144

Table 26 shows the results of the M&S in 11 focus districts. MCH RB was used in all 144 health facilities in May-July 2021 where the M&S team visited including the public, private, and NGO facilities.

Table 26. Results of the Monitoring and Supervision (1) Use of MCH RB

Indicators	11 focus districts M&S 1 (Jan-Feb 2020) 129 health facilities	11 focus districts M&S 2 (Feb 2021) 58 health facilities	11 focus districts M&S3 (May-July 2021) 144 health facilities
% of health facilities which used MCH RB	99% (128/129)	100% (58/58)	100% (144/144)
% of health facilities where the MCH RB are available without shortage	9% (11/129)	53% (31/58)	49% (71/144)

Table 27 shows the results of the M&S in 11 focus districts in Ashanti Region and in 16 regions as references of the national achievement. The date of birth, birth weight, and postnatal care records, which were poorly recorded before the introduction of the MCH RB, were filled well in both 11 focus districts and 16 regions. Recording of the date of birth and birth weight were lower when the Maternal Records and Child Records were separated and thus the improvement of the recording of the date of birth and birth weight may be the impact of the integration of maternal record book and child record book into one. The new MCH RB was also developed with the user-friendly design for both mothers and health workers and thus the filling rate of the basic information improved.
However, the recording of estimated desired weight at expected date of delivery was relatively low both in the 11 focus districts (53%) and 16 regions (14%). It was because many pregnant women came to the first ANC after 12th week of pregnancy and thus health workers could not use women's weight for the estimation of desired weight gain according to the protocol. The proportion was higher in 11 focus districts, possibly because women and community residents were informed well on the importance of early and regular ANC with the SBCC activities such as local radio program and community events.
While the plotting of the child's weight was high in both 11 focus districts and 16 regions, the plotting of the child's length/height was high in 11 focus districts (93%) and low in 16 regions (23%). Length/height measurement was the new service started with the MCH RB and it required skill training/coaching and the availability of functional equipment. Similarly, the recording of the nutrition counseling table was high in the 11 focus districts (87%) and low in 16 regions (9%) as this was also new service and required repeated on-site coaching.
More health facilities in 11 focus districts changed organizations/flow of services to adopt new growth and nutrition services into routine MCH services to ensure efficiency and privacy.
These results indicated that the use of the MCH RB for better provision of care required a combination of inputs of the capacity building of health workers, equipment, and client's service-seeking behaviors. All indicators of the QoC improved in the 11 focus districts, where the capacity building of health workers with repeated on-site coaching was conducted together with the provision of the equipment and the community awareness-raising activities.

Table 27. Results of the Monitoring and Supervision (2) Effective Use of MCH RB

Quality of care Indicators	Baseline (3 district) (Aug.2019)	11 focus districts M&S 1 (Jan Feb2020)	11 focus districts M&S 2 (Feb 2021)	11 focus districts M&S 3 2021 (May-July 2021)	National M&S 2 in 16 Regions (April-Oct.2021)
1) Provision of Care					
Date of delivery recorded	48% (102/210)		89% (50/56)	93% (118/127)	83% (91/110)
Baby's weight at birth recorded	41% (88/210)		94%(122/130)	98%(314/321)	83% (91/110)
Uterus size/fundal height at PNC recorded	24% (52/210)		62%(34/55)	77% (92/120)	46% (53/115)
Measurement of child's weight done well	not assessed	96% (91/94)	89% (48/54)	98% (122/124)	86% (109/127)
Plotting on weight-for-age growth chart done well	45% (95/210)		96%(140/146)	99%(338/342)	62% (72/116)
Measurement of child's length/height done well	not assessed	77% (63/81)	68% (32/47)	79% (96/121)	66% (69/105)
Plotting on length/height-for-age growth chart done well	8% (18/210)		84%(102/121)	93%(259/278)	23% (26/114)
Recording of child's length/height	7% (16/210)		64% (34/53)	67% (85/126)	32% (37/115)
Nutrition counseling is conducted	not assessed	90%(100/111)	96% (55/57)	99% (140/141)	81%(98/121)
Nutrition counseling tables for pregnancy is filled	7% (15/210)	58%(25/59)	72% (66/92)	87%(215/247)	9% (11/124)
Nutrition counseling tables for a child is filled	2% (5/210)	52%(37/77)	88% (98/112)	91%(225/246)	16% (18/114)
utilization of the job aid for counseling	not assessed		84% (47/56)	87% (124/142)	54% (74/136)
Welcomed mothers at ANC	not assessed	93% (57/61)	66%(31/47)	94% (115/122)	51% (47/92)
Use listening skills for counseling at ANC	not assessed		94% (45/48)	94% (116/123)	71% (89/125)
Use confidence building skills at ANC	not assessed		72% (34/47)	97% (119/123)	61% (77/126)
changed organization/flow of services	not assessed		86% (50/58)	83% (117/141)	39% (54/139)
privacy for counseling at ANC	not assessed		83% (48/58)	80% (113/142)	72% (98/137)
privacy for counseling at CWC	not assessed	not assessed	not assessed	not assessed	38% (35/92)
2) Experience of Care					
know the date of next visit	48% (101/210)	93%(95/102)	82%(46/56)	99% (349/353)	95% (114/120)
can tell danger signs	not assessed	94%(100/106)	93%(52/56)	99%(136/138)	87% (104/119)
felt free to ask questions	70%(148/210)	89%(92/103)	90%(52/58)	98% (137/140)	91% (109/120)
can recall what health worker advised	73%(155/210)	92%(94/102)	96% (132/138)	98% (349/355)	96% (95/99)
felt health worker explained procedures well	73%(155/210)	90%(88/97)	95% (138/145)	99% (369/371)	92% (111/121)
3) outcome Indicators					
ANC4+, SD, PNC3 are all completed（CoC completion)	not assessed		88% (105/119)	92% (284/310)	not assessed
ANC1 before 12th week of pregnancy	23% (48/210)		83% (85/102)	90% (219/244)	not assessed

2-5. SBCC strategies, plan and messages were developed at SBCC workshop and SBCC materials (mainly posters) were developed at the district meetings in 11 focus districts.

Workshop for the development of the SBCC strategies was conducted in Kumasi to promote family members and the community to support women and children to use MCH RB and continue to receive quality MCH care and services.

The technical workshop was conducted for 2 days, 28 April and 29 April 2021 in Kumasi. District Health Teams of 11 focus districts with a total of (44 staff), Regional Health Team of Ashanti Region, National facilitators from GHS HQ, and JICA experts and National staff participated in the workshop**.** The 11 district health teams developed a draft district SBCC plan through the group work and they finalized their plan in their districts with the engagement of the community.

2-6. SBCC activities were conducted in 11 focus districts.

GHS/JICA supported the health teams in the 11 focus district to conduct SBCC activities, such as community events and local radio programs to deliver the essential MCH messages to the community.

The 11 districts health teams selected 37 communities and conducted SBCC activities with 308 health workers and at least 3,827 community people. Main messages and activities listed in the table below.

Table 28. SBCC activities conducted in 11 districts

	District	Main Message	Activities	Who attended the SBCC activities	No of health staff involved	No of community people involved
1	Atwima Kwanwoma	"Attend Antenatal Clinic Early (within 12 weeks of pregnancy)" "Capture All Your Pregnant Women within first trimester of pregnancy"	Meeting with DHMT, Stakeholder engagement meeting including CHMC and assembly members, Durbar, Health education, CIC, Poster	Pregnant women, Community members	28	368
2	Atwima Nwabiagya North	Early ANC1	Meeting with DHMT, CHMC, CIC	Mothers, Husbands, Community members	16	362
3	Atwima Nwabiagya Municipal	"Attend Regular Antenatal Care At Health Facility For Better Pregnancy Outcome"	Meeting with DHMT, Opinion leaders, CHMC, CIC, Poster, Banner, Durbar (2)	Pregnant women, Community members	22	195
4	Atwima Mponua	"Regular ANC Attendance, A Must For All Pregnant Women!!"	Meeting with DHMT, Chiefs and CHMC, Poster, Banner, Durbar (2), Health education, Food demonstration and preparation	Pregnant women, Chiefs, CHMT, Community members	18	257

5	Amansie West	"Reducing Anemia among Pregnant women: our collective responsibility"	Meeting with DHMT, SDMT, CHMC, key messages on Poster, Banner, community sensitization and education at CICs, ANC, CWC, OPD, community Durbar (3)	Pregnant women, Husbands/partners, religious leaders, chiefs and queen mothers and all other Community members.	17	437
6	Amansie Central	"Home Delivery, A threat to life"	Engagement meeting with stakeholders, Meeting with DHMT, CHMC, Poster, Banner, Durbar (2), Float, Food demonstration, Picture/Photo card, Sensitization at market, churches, CIC, mosque and radio station, Drama, Education of MCH RB	Pregnant women, Community members including traditional and religious leaders	30	600
7	Amansie South	"Let's reduce Maternal Mortality"	Meeting with DHMT, CHMC, Chiefs, Opinion leaders and Pregnant women Poster, Durbar (1)	Pregnant women, Husbands and Community members	20	315
8	Adansi North	Control Anemia Among Pregnant Women,	Engagement with community and health workers, Meeting with DHMT, CHMC, CIC, Poster, Darbar (3)	Pregnant women, Husbands, In-laws, Mothers and Stakeholders	21	305
9	Adansi South	Early care seeking of ANC	Meeting with DHMT, Community including Opinion leaders and TBAs, Durbar, CIC	Pregnant women, Community members	18	287
10	Adansi Asokwa	"Deliver At The Health Facilities, Let The Midwife Deliver You Safely"	Meeting with DHMT, Midwives, TBAs and CHMC, Durbar (3), Poster, Banner	Pregnant women, Community members	10	353
11	Adansi Akrofuom	Teenage pregnancy and Anemia in pregnancy	Meeting with DHMT, Opinion leaders, Poster, Banner, Darbar (2), Food demonstration	Pregnant women, Community members including chiefs and elders	8	348
	Total				208	3,827

*CHMC (Community Health Management Committee)

*CIC (Community Information Center)

*ANC (Antenatal Clinic)

*TBA (Traditional Birth Attendant)

*DHMT (District Health Management Team)

Table 29. Photos of the SBCC activities in 11 districts

Community Stakeholders at the Durbar	Demonstration at the Durbar
Sensitization at the Church	Display of Food items
Community Float	Community Radio Program
Poster	Poster

2-7. Dissemination seminar to share good practices in 11 districts.

On 6 December 2021, the Project conducted the dissemination seminar for the 11 focus districts in Kumasi, Ashanti Region to wrap up the achievement in the 11 districts and to document good practices and lessons learned in the 11 districts. Regional Director and the Chief Advisor of the Project awarded certificate to the district teams and some facilitators. District Health Team of 11 focus districts and 3 control districts, Regional Health Team of Ashanti Region, JICA experts and project's National staff participated in the workshop. The total number of participants was 89.

Regional Nutrition Officer presented the major activities conducted in 11 districts and reviewed achievements and lessons learned. Health management teams in 11 districts observed positive changes, such as an increase in ANC, Delivery at health facility, PNC, decrease of anemia among pregnancy, increase of children whose weight and length/height measured and recorded properly in the MCH RB. They also reported that traditional leaders and opinion leaders in the communities appreciated the importance of CoC and committed to supporting all mothers and children to receive MCH RB and CoC services at health facilities.

Wrap-up seminar for 11 focus districts in Ashanti region | Technical Cooperation Projects | JICA

Activities conducted for Output 3

Table 30. Activities conducted for Output 3

Planned activities	Actual Activities
3-1. Appoint MCH RB focal persons at GHS and regional levels	3-1. National facilitators and Regional Public Health Nurse were appointed as MCH RB focal persons
3-2. GHS promotes M&S of MCH RB to be integrated into existing monitoring system	3-2. GHS promoted M&S of MCH RB to be integrated into existing monitoring system in the management guide
3-3. GHS Promotes CoC utilizing the MCH RB in their policy and regulations	3-3. GHS promoted effective use of the MCH RB and promotion of CoC in their policy and regulations, such as child health strategy, ECD strategies and Guidelines for MCH and Nutrition service under COVID-19
3-4. Develop Management Guide	3-4. The Management Guide was developed.
3-5. Support development of national Mid-term Procurement Plan of MCH RB	3-5.GHS developed Procurement Plan of MCH RB for 2021-2024
3-6. Identify most suitable existing mechanism for stakeholder coordination	3-6. Child Health Sub-committee and GHS FHD were assigned to coordinate the MCH RB Program with stakeholders
3-7. GHS advocates MOH on the use of MCH RB in all health facilities including teaching hospitals, CHAG, and private hospitals and facilities	3-7. MOH and GHS advocated MOH on the use of MCH RB in all health facilities including teaching hospitals, CHAG, and private hospitals and facilities
3-8. MOH and GHS promote the training on MCH RB to be integrated into the pre-service training programs for health worker	3-8. Essential service contents related to MCH RB were integrated into the pre-service training programs for health worker
3-9. Advocated support from Private and other stakeholders for support	3-9. GHS advocated support from Private and other stakeholders
3-10. Participate in international/regional conferences to share experiences	3-10. Participated and presented project achievements at international conferences

3-1. National facilitators and Regional Public Health Nurse were appointed as MCH RB focal persons

National Facilitators and Regional Public Health Nurses were responsible for the technical and logistic support and coordination of the MCH RB program. These focal persons were trainers, supervisors and expected to report on the progress and achievement of the MCH RB program.

3-2. GHS promoted M&S of MCH RB to be integrated into existing monitoring system in the management guide

The Project supported GHS in conducting M&S at the national, regional and district levels during the project period. M&S was one of the key project inputs to ensure the quality MNCH and nutrition services provided at MCH RB. GHS conducted the M&S on a special schedule with national, regional and regional facilitators, Japan experts, and with the support of JICA funding. This type of M&S was very effective, but it required a great deal of manpower and financial resources, and it was not practical to continue after the Project ended.

The Project discussed the sustainability of the M&S and concluded that the M&S to be integrated into the existing routine healthcare system. As a result of this Project, GHS published a management guide and shared it with stakeholders. The management guide is a set of rules and regulations related to the implementation of the MCH RB program at the national and sub-national levels. (See 3-4).

Chapter 6 of the Management Guide "Monitoring and Supervision" states that "The monitoring and supportive supervision on the rollout of the books will follow the existing national monitoring framework which requires the national level to provide oversight to sub-national levels in terms of planning, implementation and reporting. This system utilizes existing mechanisms for collecting routine program and service data obtained from the Policy, Planning, Monitoring and Evaluation Division which is the statutory division with direct responsibility for program monitoring and supervision" (Management Guide for MCH RB 2021).

The Management Guide outlines three categories of monitoring: 1) program-specific M&S at all levels, which is conducted twice a year by national facilitators, quarterly by regional facilitators, and monthly by district facilitators; 2) integrated M&S conducted with other programs; and 3) on-the-job monitoring and coaching at each health facility.

https://www.jica.go.jp/Resource/project/ghana/010/materials/ku57pq00003ukpxl-att/management_guide.pdf

3-3. GHS Promotes CoC utilizing the MCH RB in their policy and regulations.

GHS integrated the effective use of the MCH RB for CoC in their policy and regulations, such as Child Health Strategy, Early Childhood Development Strategies and Guidelines for MCH and Nutrition service under COVID-19. GHS intended the MCH RB to be used in all the programs related to Reproductive, Maternal, Newborn, Child and Adolescent Health and Nutrition (RMNCAHN), and Child Development and Protection and Civil Registration. GHS invited the Project experts to the

meetings and workshops for the development of the above mentioned policies and strategies to better integrate the Project activities into the national policies and regulations.

Figure 15. MNCH policies and Strategies in Ghana

3-4. Management Guide were developed

The Project developed the "Management Guide" through several workshops with stakeholders on the contents. The objective of the management guide is to introduce rules and regulations related to the national rollout of the MCH RB as a reference document and to promote the MCH RB program with sustainability. FHD, Public Health Division and Store, Supplies and Drug Management Division of GHS HQ, Ashanti Regional Health Directorate (RHD), and RHD of other Regions, Ministry of Health, Christian Health Association of Ghana (CHAG), Ghana Association of Quasi Government Health Institutions (GAQHI), Society of Private Medical & Dental Practitioners, WHO, UNICEF and JICA Ghana office were major stakeholders in the development of the guide.

The content of the management guides is as follows,

1) Introduction of Management Guide
2) Implementation and Decision-Making Structure
3) Production and Reproduction of MCH RB
4) Logistic Management of MCH RB
5) Monitoring and Supervision of Utilization of the MCH RB
6) Use of the MCH RB as a source of reliable data of MCCAHAN

Figure 16. Management Guide

The 3rd Stakeholder Workshop for the Development of the MCH RB Management Guide | Technical Cooperation Projects | JICA

1) The first Stakeholder Workshop: 3 May 2019

The Project held a Stakeholder consultative workshop on the 3rd of May 2019 with the FHD, RHD, National AIDS Control Program, National Malaria Control Program, Practicing Midwives, UNICEF, CHAG, and JICA. The participants discussed the contents of the management guide which provided guidance for the core task team to commence drafting the management guide.

2) The second Stakeholder Workshop: 14 January 20

The Project held the second stakeholder workshop for the Management Guide on 14 January 2021 in Kumasi. Thirty-two stakeholders from the GHS HQ, Ashanti Regional Health Directorate (RHD), Western North RHD, Bono RHD, Bono East RHD, Eastern RHD, UNFPA, and the MCH RB Project attended. The participants formed three groups to review the draft Management Guide by analyzing the current situation/practice, gaps, and recommended actions on the outstanding contents of the three key areas: 1) coordination and partnership, 2) logistics management, and 3) operational issues and sustainability.

3) The third Stakeholder Workshop: 10 June 2021

The Project hosted the third Stakeholder Workshop for the MCH RB Management Guide on 10 June 2021 in Accra. Twenty-nine stakeholders from the Family Health Division, Public Health Division and Supplies, Stores and Drug Management Division of GHS HQ, Ashanti RHD, Central RHD, Ministry of Health, CHAG, Ghana Association of Quasi Government Health Institutions (GAQHI), Society of Private Medical & Dental Practitioners, WHO, UNICEF, JICA Ghana office and MCH RB Project members attended the workshop. The participants discussed outstanding critical issues in the Management Guide and agreed on the contents. The Private and Quasi-Governmental Facilities stated that they would follow the standards of production, distribution, utilization and reporting if the GHS and the MOH shared information with them.

4) The final technical meeting for the Management Guide: 26 November 2021

The Project conducted the final technical meeting for the Management Guide on 26 November 2021 in Accra. Fifteen core members from the GHS' FHD, Supplies, Stores and Drug Management (SSDM) Division, and RHDs reviewed the final draft and made necessary revisions.
Copyright, advertisement and sponsorship, steps to register the production and distribution of the MCH RB with the Ghana Logistic Management and Information System and Last Mile Distribution System were a few which were reviewed and confirmed.

5) Printing and Distribution of Management Guide Nationwide

Project printed the Management Guide (N=1,000) in January 2022 and the GHS distributed to all stakeholders and 16 regions. management_01.pdf (jica.go.jp)

3-5. GHS developed Procurement Plan of MCH RB for 2021-2024

Table 31. Procurement Plan of MCH RB for 2021-2024

Year	Plan
2021	NHIA 500,000 books, Japan-UNICEF 160,000 books **JICA printed 660,000 (Jan-March 2021)
2022	AfDB fund, NHIA, MP common fund, PPP printing
2023	World Bank, NHIA, MP common fund, PPP printing
2024	NHIA, MP common fund, Government budget

3-6. Child Health sub-committee and GHS FHD were assigned to coordinate the MCH RB Program with stakeholders

The Project discussed the function of the national coordination of the MCH RB program should be delegated from the Project JCC to the existing national coordination mechanism in Ghana. The GHS concluded that the GHS FHD will coordinate and collaborate with relevant departments, divisions, partners and Metropolitan, Municipal, and District Assemblies (MMDAs) to ensure smooth implementation with the existing Child Health and Newborn Technical Working Group serving as the secretariat. Key issues arising from the implementation will be tabled by the Secretariat through the Director FHD to the appropriate technical committee for review and coordination. All regional and district level coordination will take place through similar existing decentralized structures of government and technical committee within the GHS and relevant MMDAs.

3-7. MOH and GHS promoted the use of MCH RB in all health facilities including teaching hospitals, CHAG, and private hospitals and facilities

Although the MOH and GHS announced that the MCH RB was a national home-based record (see Activity 1-1), they still needed to operationalize its use in all health facilities, including teaching hospitals, CHAG, and private hospitals and facilities. JICA has experience in other countries where non-public health facilities did not fully utilize the MCH handbook despite the government's announcement of the book as a national home-based record. Therefore, the Project supported MOH and GHS in ensuring the actual operationalization of the declaration.

To achieve this, the GHS collaborated with the MOH and invited other health service providers managed by the MOH to discuss how to effectively use and sustain the MCH RB at national and stakeholder meetings. The GHS HQ encouraged collaboration between regions, districts, teaching hospitals, CHAG, and private hospitals to provide standard MNCH and nutrition services using the MCH RB. As a result, the MCH RB is now being used in all health facilities throughout Ghana.

3-8. Essential service contents related to MCH RB were integrated into the pre-service training programs for health workers.

The GHS coordinated with the Nursing and Midwifery Council on the inclusion of the effective use of MCH RB into the pre-service training programs for health workers. The preservice training curriculum now includes crucial information on the effective use of MCH RB, counseling services, and respectful care.

3-9. GHS advocated support from Private and other stakeholders.

The GHS took necessary actions and strategies to effectively engage with the private sector at the JCC meetings and other relevant national meetings.

The GHS promoted effective collaboration with NHIA, MOE, MMDAs and others to ensure sustainability of the MCH RB program. The NHIA printed 500,000 copies of the MCH RB for 2021.

The GHS requested the NHIA to print more MCH RB for 2022 and the NHIA pledged more support at the project dissemination seminar held on 2 December 2021. District Assembly in Easter Region printed the MCH RB, which was an excellent example of the collaboration of the GHS HQ, Regional Health Management, District Health Management, and District Assembly. The GHS is also advocating for support from the international organizations, bilateral partners and private sector for the procurement of MCH RB as in 3-5.

3-10. Participated and presented project achievements at international conferences.

The Project counterparts and experts participated in international conferences and academic meetings such as the International Conference of the MCH handbook and the International Pediatric Association Congress to document and disseminate implementation findings, processes for specific interventions and outcomes for the nationwide rollout of the Ghana Maternal and Child Health Record Book. (See Table 50. Presentation in international / regional conferences)

The Project also took significant role as an example of promotion of maternal and child nutrition that integrates continuous care for mother and child and improvement of maternal and child nutrition through effective use of the MCH handbook. This approach was introduced at the Nutrition for Growth in Tokyo 2021 led by the Japanese government as a major approach for improving maternal and child nutrition in Japan.

2. Achievements of the Project

2-1 Outputs and indicators

Table 32. Achievement of Output 1

Output 1. MCH RB is developed and rolled out nationwide.	
Target values	**Achievement**
1-1. Existence of MCH RB	1-1. MCH RB was developed and a total number of 3,166,500 MCH RB were printed by JICA in 2018-2021. (1,932,500 MCH RB printed by JICA 2018-2021) (completed) See **Table 52. Procurement of MCH RB between JFY 2017 to JFY2021 by JICA and Partners.**
1-2. Existence of User Guide	1-2. User Guide was developed and a total number of 30,200 User Guide was printed in 2018-2021. (completed)
1-3. MCH RB are distributed to 90% of health facilities which offers MCH services	1-3. MCH RB and User Guide were distributed to more than 90% of health facilities through the Regional Medical Stores in all 16 regions. (completed)
1-4. MCH RB are used at 80% of health facilities which offers MCH services	1-4. MCH RB were used at 146 out of 146 health facilities visited in all 16 regions during the 2nd national monitoring. (completed)
1-5. 30 of regional and 532 district facilitators trained and 90% of them has competency to facilitate and supervise health workers	1-5. 12 national, 71 regional and 857 district facilitators were trained by the Project and more than 90% has competency to facilitate and supervise health workers. (completed)
1-6. 300 health workers from major hospitals and other health institutions are trained and 90% of them show their knowledge and skills on MCH RB are satisfactory.	1-6. 652 health workers from major hospitals and other health institutions are trained and more than 90% of them showed their knowledge and skills on MCH RB were satisfactory (completed)

Table 33. Achievement of Output 2

Output 2. Capacity of effective utilization of MCH RB is strengthened among health workers and mothers.	
Target values	**Achievement**
2-1. Guideline, training package on MCH RB and NCSRC are developed	2-1. Guideline, training package on MCH RB and NCSRC are developed (completed)
2-2. Behavior change communication (SBCC)activities are conducted in selected districts	2-2. Behavior change communication (SBCC)activities are conducted in 11 focus districts (completed)
2-3. 900 health workers are trained in MCH RB and NCSRC in 11 focus districts	2-3. 990 health workers are trained in MCH RB and NCSRC in 11 focus districts (completed)
2-4. 80 percent of health workers who	2-4. More than 80 percent of health workers who

participated in the training improve skills on filling and utilizing MCH RB correctly in 11 focus districts 2-5. 80 percent of women/caregivers can answer the date of next visit by utilizing MCH RB in 11 focus districts 2-6. 90 percent of children have a plotting of weight recorded correctly in MCH RB in 11 focus districts 2-7. 50 percent of children have a plotting of length/height recorded correctly in MCH RB in 11 focus districts 2-8. Nutrition counseling table (3A) is completed for pregnant women/child (70%/70%) in 11 focus districts 2-9. 70 percent of women report that health worker explained procedures and services they provide 2-10. 50 percent of women/caregivers can recall recommended action by health worker in 11 districts 2-11. 70 percent of pregnant women register the first ANC before 12th week of pregnancy in 11 districts	participated in the training improve skills on filling and utilizing MCH RB correctly in 11 focus districts (completed) 2-5. More than 90% of the mothers were able to answer the date of next visit in 11 focus districts (completed) 2-6. 99 percent of children have a plotting of weight recorded correctly in MCH RB in 11 focus districts (completed) 2-7. 93 percent of children have a plotting of length/height recorded correctly in MCH RB in 11 focus districts (completed) 2-8. Nutrition counseling table (3A) is completed for pregnant women/child (87%/91%) in 11 focus districts (completed) 2-9. 99 percent of the mothers were told procedure and services in 11 focus districts (completed) 2-10.98 percent of the mothers can recall recommended action by health worker in 11 focus districts (completed) 2-11. 90 percent of pregnant women register the first ANC before 12th week of pregnancy in 11 focus districts (completed)

Table 34. Achievement of Output 3

Output 3. MCH RB is institutionalized and integrated into routine services for sustainability.	
Target values	**Achievement**
3-1. Existence of Management Guide 3-2. Existence of national Mid-term procurement plan of MCH RB 3-3. Recording section of the results of medical screening for pre-school and primary school entrants are added to MCH RB 3-4. Existence of the national guideline which promote CoC with MCH RB	3-1. Management Guide was developed and printed (completed) 3-2. National Mid-term procurement plan of MCH RB was developed (completed) 3-3. The major revision of the MCH RB was planned after 2023 and it was agreed to add the section recording the results of the medical screening for pre-school and primary school enrolment, but the actual revision was not completed.(not completed) 3-4. Effective use of MCH RB to promote CoC of MNCH and Nutrition was included in national guidelines such as "Child health strategies" and "Guidelines for MCH and Nutrition service under COVID-19" (completed)

2-2 Project Purpose and Indicators

(Target values and actual values achieved at completion)

Table 35. Achievement of the Project Purpose

Target	**Achievement**
1. 80 percent of women utilize ANC4+, 65 percent of women utilized SD, 88 percent of women and children utilize PNC within 48 hours.	1. 82.1 percent of women utilize ANC4+, 63.5 percent of women utilized SD, 97.4 percent of children received PNC within 48 hours. (GHS FHD Annual Review 2021) (partially completed)
2. 70 percent of all births are recorded in the MCH RB	2. 83 percent of all births are recorded in the MCH RB (2nd National M&S 2021) (Completed)
3. 50 percent of pregnant women and children who receive nutrition counselling at least once.	3. 81 percent of pregnant women and children who receive nutrition counselling at least once. (2nd National M&S 2021) (Completed)

ANC4+: Antenatal care coverage - at least four visits

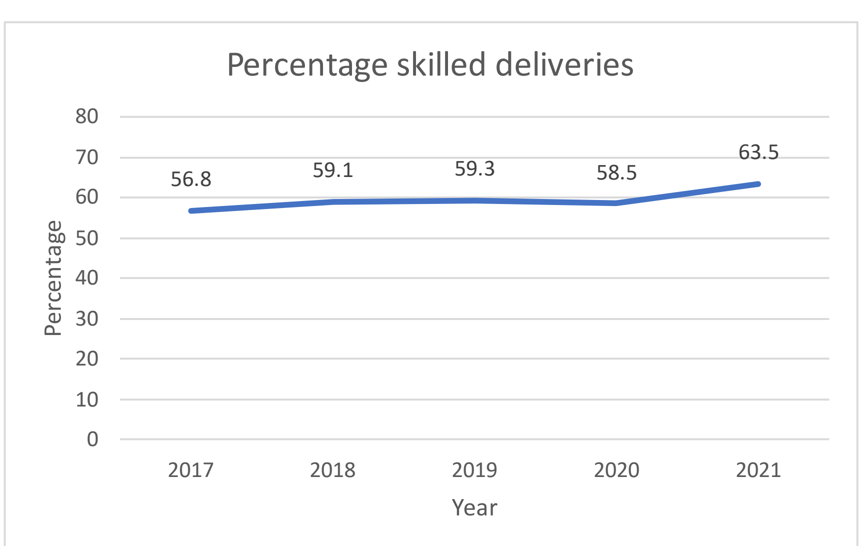
SD: Percentage of delivery assisted by Skilled Birth Attendant

PNC within 48 hours: Percentage of newborn babies who receive Postnatal care within 48 hours

The Project purpose was achieved except the coverage of the delivery assisted by skilled birth attendant (SD) which was 63.5% and did not achieve the expected target which was 65%.

There was a decrease in the SD from 2019 to 2020 in Ghana most likely due to COVID-19 pandemic and other related reasons. Women tended to avoid giving birth at hospitals in Accra from 2019 to 2020. Although the SD improved again from 58.5 to 63.6 from 2020 to 2021, the improvement was not enough to reach 65% but was substantial to show the increasing trends towards 65% and above for 2022 and future. Members of the Project was quite positive for this trend.

Figure 17. Trend in Skilled Delivery (SD) in Ghana 2017-2021 (FHD 2021 Annual Report)



The Project completed all the milestones of the national rollout of the MCH RB (Table 32).
The Project supported GHS to train 939 facilitators in all districts, who were supposed to conduct orientations/ training on the effective use of MCH RB, M&S for health workers at each designated health facility. M&S were conducted at 241 health facilities in 16 regions in 2019-2021. (Output1)
GHS/JICA selected 11 districts in Ashanti Region as model districts for more effective use of the MCH RB. GHS/JICA conducted the training for all health workers engaged in MCH and nutrition services at all facilities in the the 11 focus districts. 990 health workers completed the training in the 11 focus districts. M&S was conducted at a total of 331 health facilities in 11 focus districts. On-site coaching was also conducted at the occasion of monitoring for some specific skills, such as counseling skills, ensuring privacy with available resources, and filling the records of nutrition counseling table. In addition, GHS/JICA procured weighing scales, height/length board, and hemoglobin measuring equipment for health facilities in model districts and supported districts to conduct SBCC activities that have been undertaken to disseminate key MCH and nutrition messages to the community, such as community gathering, community radio programs and posters. (Output 2)
For the sustainability of the MCH RB Program, the GHS and JICA developed a management guide with the support of key stakeholders in the health sector such as CHAG, Ghana Association of

Quasi-Government Health Institutions (GAQHI), Society of Private Medical & Dental Practitioners, WHO, and UNICEF. The management guide serves as a reference guide for the management and administration of the MCH RB at all levels. It contains guidance on key issues such as copyright, printing by third parties, distribution policy and quality control. (Output3)

Table 36. National Rollout of the MCH RB in Ghana (2018-2022)

	Milestones	Status	Remarks
1	Pre-test and Pilot test	Completed	In 2017 and 2018
2	National Launch and first batch of printing	Completed	National distribution started March 2018.
3	Procurement of Equipment for measurement (in 11 districts)	Completed	Length board, weighing scale, HB machine procured to focus districts
4	Training of Facilitators	Completed	939 facilitators trained
5	Training of Health Workers	Completed	1642 health workers trained
6	Sensitization of Regional leaders	Completed	Conducted in all regions
7	Monitoring and Supervision	Completed	241 health facilities nationwide. (2019-2021) 331 health facilities (2019-2021)
8	Utilization of MCH RB at health facilities	Completed	Utilized at all health facilities (N=290) M&S team visited in 2021
9	Development of training materials and integration into other Partner funded activities	Completed	Training materials, User Guide, Management Guide, Job Aids and audio-visual materials
10	Development of Management Guide	Completed	Finalized and printed in 2022.

3. History of PDM Modification

Revisions of the PDM0 to PDM1

Record of Discussion was revised on 3 September 2020 with the approval of the PDM1 and the termination of the Project was extended from 9 April 2021 to 9 January 2022.

1-1. Project duration

Table 37. Revision of the PDM (Project Duration)

Before (PDM0)	Amended Version (PDM1)
4. Project Outline 4.2 Project Duration The duration of the Project will be three (3) years from the date of the assignment of the first expert.	4. Project Outline 4.2 Project Duration The duration of the Project will be three (3) years and nine (9) months from the date of the assignment of the first expert.
Reason: Because of the global spread of COVID-19, the Project postponed, or canceled some activities. In order to achieve the Project purpose, project duration needed extension.	

<u>Revisions of the PDM1 to PDM2</u>

Record of Discussion was revised on 13 November 2020 with the approval of the PDM2.

2-1. Focused District

Table 38. Revision of the PDM (Focused District)

Before (PDM1)	Amended Version (PDM2)
Six districts in one region	11 districts in Ashanti Region
Reason: Seven focus districts, (6 new and 1 district which was already capacitated at the pilot test of MCH RB) were selected by the Ashanti Region according to the selection criteria agreed at JCC1, then the seven focus districts have been currently split into 11 districts.	

2-2. Indicators of the Overall Goal

Table 39. Revision of the PDM (Indicators of the Overall Goal)

Before (PDM1)	Amended Version (PDM2)
XX percent of women and children complete CoC*. * CoC: ANC4+ +SD+3 PNC	1. 80 percent of women and children complete Continuum of Care (CoC) * checked by MCH RB * CoC: ANC 4 times and more +Delivery Assisted by Skilled Birth Attendant (SBA)+PNC 3 times 2. 70 percent of pregnant women and children receive nutrition counselling at least three times 3. 65 percent of women and children practice Exclusive Breastfeeding 4. 70 percent of women and children practice Early Initiation of Breastfeeding 5. MCH RB are used with correct ways at 80% of health facilities which offers MCH services
Reason: Target indicators were set, and additional indicators were added to evaluate the improvement of the coverage and the quality of CoC services. Indicators 3 and 4 were shifted from the Project Purpose as they are critical national targets to be achieved with as a collective effort with various other programs. Indicator 5 was shifted from output1 as this is one of the most critical indicators for the successful implementation of MCH RB nationwide and to be achieved as collective efforts with other programs.	

2-3. Indicators of Project Purpose

Table 40. Revision of the PDM (Indicators of Project Purpose)

Before (PDM1)	Amended Version (PDM2)
1. XX percent of women and children utilize MCH services (ANC4+, SD, 2nd PNC, CWC)	1. 90 percent of women utilize ANC 4 times and more, 80 percent of women receive delivery care by SBA, 88 percent of women and children utilize 2nd PNC.
2. XX percent of women and children practice Early Initiation of Breastfeeding	shifted to the Overall Goal
3. XX percent of women and children practice Exclusive Breastfeeding	shifted to the Overall Goal
4. XX percent of women and children utilize Vitamin A supplementation	deleted
	2. 70 percent of all births are recorded in the MCH RB
	3. 50 percent of pregnant women and children receive nutrition counselling at least once.
Reason: Target indicators were set in line with the national target. Two indicators were shifted to the overall goal as they are critical national targets to be achieved with as a collective effort with various other programs. Indicator 4 was deleted as the direct relation with the Project input was weak. Two additional indicators were added to evaluate the improvement of the quality of services.	

2-4 Output1

Table 41. Revision of the PDM (Indicators of Outpu1)

Before (PDM1)	Amended Version (PDM2)
1-1. Existence of MCH RB	1-1. *No change*
1-2. Existence of User Guide	1-2. *No change*
1-3. MCH RB distribution to XX percent of women and children in Ghana	1-3. MCH RB are distributed to 90% of health facilities which offers MCH services
	1-4. MCH RB are used at 80% of health facilities which offers MCH services
1-4. XX of Regional/District facilitators trained	1-5. 30 of Regional and 532 District facilitators trained and 90% of them has competency to facilitate and supervise health workers
	1-6. 300 health workers from major hospitals and other health institutions are trained and

	90% of them show their knowledge and skills on MCH RB are satisfactory
Reason: Targets were set with the M&S results and current project plan agreed at JCC meetings. Indicator 1-4 was shifted to the overall Goal "with the correct ways" as this is one of the most critical indicators for the successful implementation of MCH RB nationwide.	

2-5. Output 2

Table 42. Revision of the PDM (Indicators of Outpu2)

Before (PDM1)	Amended Version (PDM2)
2-1. Standard of training package on nutrition clinic, client-centered services and BCC developed	2-1. Guideline, training package on MCH RB and nutrition counseling services and respectful care (NCSRC) are developed
	2-2. Behaviour Change Communication (BCC) activities are conducted in selected districts
2-2. XX percent of health workers who improved skills on utilizing MCH RB	2-3. 900 health workers are trained in MCH RB and NCSRC in 11 focus districts
	2-4. 80 percent of health workers who participated in the training improve skills on filling and utilizing MCH RB correctly in 11 focus districts
2-3. XX percent of women and children retain MCH RB	2-5. 80 percent of women/caregivers can answer the date of next visit by utilizing MCH RB in 11 focus districts
	2-6. 90 percent of children have a plotting of weight recorded correctly in MCH RB in 11 focus districts
	2-7. 50 percent of children have a plotting of length/height recorded correctly in MCH RB in 11 focus districts
	2-8. Nutrition counseling table (3A) is completed for pregnant women/child (70%/70%) in 11 focus districts
	2-9. 70 percent of women report that health worker explained procedures and services they provide
	2-10. 50 percent of women/caregivers can recall recommended action by health worker
	2-11. 70 percent of pregnant women register the first ANC before 12th week of

	pregnancy
Reason: Targets were set with the M&S results and current project plan agreed at JCC meetings. New indicator was added to evaluate the effective utilization of the MCH RB by health workers or the effective utilization by mothers/care takers, as well as an impact of the Behaviour Change Communication activities.	

2-6. Output 3

Table 43. Revision of the PDM (Indicators of Output 3)

Before (PDM1)	Amended Version (PDM2)
3-1. Existence of Management Guide	No change
3-2. Existence of national Mid-term procurement plan of MCH RB	No change
3-3. XX of schools inspecting MCH RB for school enrolment	3-3. Recording section of the results of medical screening for pre-school and primary school entrants are added to MCH RB
	3-4. Existence of the national guideline which promote CoC with MCH RB
Reason: 3-3 Medical screening for the entrants of the pre-school and primary school started as a national program already and there is a need to review previous health condition with MCH RB for each child. MCH RB to be institutionalized into the national program firmly with this achievement. 3-4 New indicator was added to evaluate the institutionalization of the MCH RB in the national health system	

2-7. Activities for Output 1

Table 44. Revision of the PDM (Activities of Output 1)

Before (PDM1)	Amended Version (PDM2)
1-1. Develop MCH RB and authorize it as national standard Home-based record	1-1. no change
1-2. Conduct pilot test and evaluate results	1-2. no change
1-3. Develop procurement plan for national rollout	1-3. no change
1-4. Develop User Guide and training materials	1-4. no change
1-5. National facilitators train regional facilitators (ToT)	1-5. no change
1-6. Regional facilitators train district	1-6. Regional facilitators train district

facilitators (ToT) and conduct monitoring and follow ups in 10 regions	facilitators
1-7. Regional facilitators train health workers at regional hospitals and teaching hospitals and conduct follow ups	1-7. Conduct health worker training at selected major hospitals
1-8. Regional facilitators conduct sensitization in 10 regions	1-8. Conduct Monitoring and Supervision in 16 regions
1-9. District facilitators conduct district sensitization at six focused districts	1-9. Develop Audio-visual learning aid and explore e-learning system
1-10. District facilitators train health workers at six districts and conduct follow ups	1-10. Conduct national MCH RB review
1-11. Print and distribute MCH RB	1-11. no change
1-12. Procure equipment for MCH RB for one region	1-12. Procure equipment for MCH RB for focus districts
1-13. Conduct media campaigns of MCH RB for advocacy	1-13. BCC activities will be conducted in selected districts with outputs 2.
Reason: Activities for 10 regions were revised into 16 regions due to the additional regions established in Ghana and the Project will cover all regions. Sensitization and media campaign were shifted to the BCC activities of Output 2.	

2-8. Activities for Output 2

Table 45. Revision of the PDM (Activities of Output 2)

Before (PDM1)	Amended Version (PDM2)
	2-0 Select 11 focus districts
2-1. Conduct rapid assessment of target districts before and after the training	2-1. Conduct baseline/end line survey and situation analysis in 11 focus districts
2-2. Develop training materials on nutrition clinic, client-centered services, and BCC as standard	2-2. Develop training materials on NCSRC
2-3. Develop BCC materials for health workers and mothers	2-3. Regional and District facilitators train health workers in focus 11 districts
2-4. National facilitators train regional and district facilitators (ToT)	2-4. Regional and District facilitators conduct monitoring and supervision in focus 11 districts
2-5. District facilitators train health workers in six districts	2-5. Develop BCC messages and BCC materials in focus districts
2-6. District health workers conduct sensitization at six districts	2-6. Conduct BCC in focus districts
2-7. Health workers provide services of nutrition clinic, client-centered and BCC for	2-7. Dissemination of good practices in 11 districts

mothers	
2-8. Conduct monitoring at selected health facilities with coaching approach	2-8. shifted to 2-4
2-9. Conduct national MCH RB review at Annual Performance Review	2-9. shifted to 2-7
Reason: Baseline and end line survey will be conducted instead of the rapid assessment. Sequence of the activities was reorganized at the MCC meetings and agreed. "Nutrition clinic, client-centered services" was rephrased as "nutrition counselling services and respectful care" at the JCC meeting and agreed. Good practice at 11 districts will be shared with the site visit instead of the presentation at the annual review meeting.	

2-9. Activities for Output 3

Table 46. Revision of the PDM (Activities of Output 3)

Before (PDM1)	Amended Version (PDM2)
3-1. Appoint MCH RB focal persons at GHS and regional levels	3-1. no change
3-2. GHS promotes CoC completion rate, distribution, and retention rate of MCH RB to be monitored with District Health Information Management System II (DHIMS II)	3-2. GHS promotes M&S of MCH RB to be integrated into existing minoring system
3-3. Develop Management Guide	3-3 GHS Promotes CoC utilizing the MCH RB in their policy and regulations
3-4. Conduct seminar on MCH policy	3-4. Develop Management Guide
3-5. Support development of national Mid-term Procurement Plan of MCH RB	3-5. no change
3-6. Identify most suitable existing mechanism for stakeholder coordination	3-6. no change
3-7. GHS advocates MOH on the use of RB in all health facilities including teaching hospitals, CHAG, and private hospitals and facilities	3-7. no change
3-8. MOH and GHS promote the training on MCH RB to be integrated into the pre-service training programs for health worker	3-8. no change
3-9. Promote effective collaboration with NHIA, MoE, DAs and others to ensure sustainability	3-9. Advocated support from Private and other stakeholders for support
3-10. Participate in international/regional conferences to share experiences	3-10. no change
Reason: Seminar on MCH policy was shifted to the workshop for the development of the	

management guide and discuss how to integrate MCH RB into the policy and regulations in Ghana. Stakeholder engagement was expanded to include private sector for sustainability and impact.

Revisions of the PDM2 to PDM3

The Project agreed on the modification of the indicators of the Project purpose at the 4th JCC meeting, dated 9 June 2021. Record of Discussion was revised on 30 July 2021 and the PDM revised 9 June 2021 (PDM3) was officially approved.

3-1. Revision of the Indicators of the Project Purpose

Table 47. Revision of the PDM (Indicators of the Project Purpose)

Before (PDM2)	Amended Version (PDM3)
1. **90** percent of women utilize ANC 4 times and more, **80** percent of women receive delivery care by SBA, 88 percent of women and children utilize **2nd PNC**.	1. **80** percent of women utilize ANC 4 times and more, **65** percent of women receive delivery care by SBA, 88 percent of women and children utilize **PNC within 48 hours after delivery.**
Reason: GHS's Target for ANC 4 times and more for 2021 was set as 80, and the Project target was adjusted to the GHS's target. GHS's Target for women receive delivery care by SBA was set as 65, and the Project target was adjusted to the GHS's target. GHS's Target for PNC within 48 hours after delivery was set as 88, and "the 2nd PNC" was replaced with "PNC within 48 hours after delivery" as this is the indicator readily available in the routine health information system (DHIMS02).	

4. Others

4-1 Results of Environmental and Social Considerations (if applicable)

4-2 Results of Considerations on Gender/Peace Building/Poverty Reduction (if applicable)

The Project intended to tackle biological and socio-economic vulnerability of women and children by promoting the CoC for MNCH. Direct beneficiary of this Project was women and children. Indirect beneficiaries were midwives and nurses who provided maternal and child health services and were mainly females. The Project contributed to promote gender equity and women's empowerment in all project activities and its' impact. The Project expanded the access to MNCH and Nutrition services among women and children through the capacity building of health workers at the community and creating enabling environment by raising awareness of the entire community members through the community sensitization and SBCC activities.

Capacity building of female health workers

The Project trained health workers at all levels (national, sub-national health facilities and the community). They were mainly midwives, nurses and nutrition officers, and were female. The Project

paid special attention to the gender equity at the training. The mode of the training was mainly residential, which allowed health workers to attend the training with a full attention to the training content, without the domestic responsibilities and traveling long distance from rural areas, especially early in the morning and late in the evening. Some of the participants attended the training with their pregnancy or with their babies/children. Some of the babies and children participated in the weight/length/height measurement exercises to act as clients. The Project also took advantage of male participants to act male partners for the role plays and counseling exercises for a couple.

Women-centered respectful care with the use of MCH RB

The Project trained health workers to conduct health education and counseling to women and couples in interactive and respectful manners utilizing the MCH RB. As a result, health workers gained skills to provide health and nutrition counseling concerning women's needs, feelings, and socio-cultural background to empower women and encourage their decision-making and practices.

Capacity building of women

The Project promoted the use of MCH RB for better communication and client-centered respectful care. Health workers conducted individual counseling and respectful care utilizing MCH RB.
As a result, women's knowledge and practice for MCH and nutrition improved significantly after the introduction of MCH RB. Most women felt free to ask questions during counseling, health workers welcomed women and ensured privacy during ANC, and women were satisfied that health workers explained procedures well in both model and non-model districts. Consequently, almost all women recalled what health workers advised during counseling, knew the date of the next visit and at least five danger signs during pregnancy in both model and non-model districts. If the women were well informed, they could make decision on herself and her child about their health care practices.

Male Involvement

The Project developed MCH RB to promote better participation and support of male partners. The Pilot test results uncovered that the MCH RB improved better communication with male partners at home. This further deepened male's involvement and support for maternal and child health.
Evidence shows the involvement of the male partners in MNCH services are critical to avoid delay in decision making to seek care and treatment in lower middle-income countries. With the support of male partners, women and children tend to use all available MNCH services and their practice at home is adequate.

Created enabling environment for women and children

The Project supported 11 focus districts to conduct community SBCC activities with the participation of male and female youth leaders, which contributed to raise awareness of MNCH and Nutrition messages to all community members, including the adolescents.

Figure 18. Community sensitization activities with youth leaders

Figure 19. Male involvement in ANC

III. Results of Joint Review

1. Results of Review based on DAC Evaluation Criteria

Results of Review based on DAC Evaluation Criteria Development Assistance Committee (DAC) under OECD uses six criteria to evaluate projects: 1) Relevance, 2) Coherence, 3) Effectiveness, 4) Efficiency, 5) Impact and 6) Sustainability.

Table 48. Results of Review based on DAC Evaluation Criteria

Evaluation criteria	
Relevance	High: The relevance was high as it was in line with the global strategies, the policies of the Ghanaian and Japanese governments and responded to the urgent needs of the beneficiaries. **Meeting the needs of the health sector and beneficiaries** The national rollout of the MCH RB directly responded to the needs of Ghana's health sector as well as its beneficiaries.

	Consistency with health policies and strategies in Ghana The Government of Ghana, under the "*Ghana Shared Growth and Development Agenda II (GSGDAII) 2014-2017,*" has placed the health sector as one of its focus areas. "*Health Sector Medium Term Development Plan (HSMTDP) 2014-2017"* was established with six strategic objectives: equity, financial protection, health system strengthening, improving quality of care, strengthening of unfinished MDGs agenda and management of NCDs, for the achievement of the UHC. In Ghana, the promotion of CoC of MNCH with quality was one of the focused areas in the UHC Roadmap 2020-2030 and the Integrated Reproductive, Maternal, Newborn, Child and Adolescent Health and Nutrition Strategic Plan (2020-2025). This project was designed based on the evidence of the EMBRACE (EMBRACE: Ensure Mothers and Babies Regular Access to Care) implementation research conducted in 2012-2016 by GHS, JICA, University of Tokyo. Based on the results of the EMBRACE implementation research, the Government of Ghana decided to launch the MCH RB as a policy decision and requested technical cooperation for the national rollout of the MCH RB in Ghana. **Consistency with the global strategies of MNCH** The Project intended to promote CoC of MNCH, which was in line with the Global Strategy for Women's, Children's and Adolescents' Health 2016-2030. **Consistency with the Japanese government's global health policy** The Project was in line with the Japan's key aid policies, namely the Global Health Policy 2011-2015 (2010), the *Basic Design for Peace and Health (Global Health Cooperation)* (Sept. 2015), and "G7 Ise-Shima Vision for Global Health" (May 2016). The Project is also related to Japan's initiatives in improvement of nutrition, such as the nutrition for growth compact (2021) announced at the Tokyo Nutrition for Growth Summit 2021 hosted by the Japanese government. **Consistency with JICA's health sector strategies** The Project was in line with JICA's health sector priorities. JICA has been extending its cooperation to many countries for strengthening health systems, capacity building of the health workers, and the use of MCH handbook for promoting a comprehensive "continuum of care for maternal and child health". Strengthening Quality Continuum Care for Mothers and Children, including the Effective Use of Maternal and Child Health Handbooks" is a top priority for strengthening "prevention" as stated in "JICA's Initiative for Global Health and Medicine" launched in July 2020.
Coherence	High: **Coherence with the global policies and guidelines was high.**

The Project was designed and conducted in line with the following global strategies and guidelines.

Global Strategies for Women's, Children's and Adolescents' Health (2016-2030)
https://www.who.int/life-course/partners/global-strategy/en/

WHO recommendations on antenatal care for a positive experience (WHO 2016)
https://www.who.int/reproductivehealth/publications/maternal_perinatal_health/anc-positive-pregnancy-experience/en/

Standards for improving quality of maternal and newborn care in health facilities (2016 WHO)
https://www.who.int/publications/i/item/9789241511216

Standards for improving the quality of care for children and young adolescents in health facilities (WHO 2018)
https://www.who.int/maternal_child_adolescent/documents/quality-standards-child-adolescent/en/

Nurturing care for early childhood development: a framework for helping children survive and thrive to transform health and human potential (WHO 2018)
https://apps.who.int/iris/bitstream/handle/10665/272603/9789241514064-eng.pdf

WHO recommendations on home-based records for maternal, newborn and child health (2018)
https://apps.who.int/iris/bitstream/handle/10665/274277/9789241550352-eng.pdf?ua=1

The Project was conducted in close coordination with the National Technical Working Group (TWG) for Ghana's Quality of Care Network and published its achievements in WHO-UNICEF QoC network bulletin (2021)
Quality of Care for Maternal and Newborn Care Health Bulletin: Edition 2 | UNICEF Ghana

The Project was coherent with the national guidelines in Ghana

- GHANA'S ROADMAP FOR ATTAINING UNIVERSAL HEALTH COVERAGE 2020-2030
- Integrated Reproductive, Maternal, Newborn, Child and Adolescent Health and Nutrition Strategic Plan 2020-2025
- Ghana National Newborn Health Strategy and Action Plan 2019-2023

Coherence with other development partners

The GHS promoted coordination with the related MNCH Projects/Programs run by other partners.

- GHS integrated "the training on the effective use of MCH RB" into the Combined Course on Growth Assessment and IYCF counselling.
- WHO, UNICEF, World Bank, DFID and USAID supported GHS for the printing of the MCH RB. (See **Table 52. Procurement of MCH RB between JFY 2017 to JFY2021 by JICA and Partners.**)

	• UNICEF, funded by the Japanese government, supported GHS to train 150 health workers on effective use of MCH RB (2021). https://www.unicef.org/tokyo/news/2020/government-japan-unicef-and-government-ghana-committed-achieving-universal-health Strategic coordination of UNICEF and Japan for the national rollout of the MCH Record Book in Ghana for the improvement of maternal and child health and nutrition | Technical Cooperation Projects | JICA • Greater Accra Region, GHS, used the World Bank Funding to GHS and trained 557 health workers on effective use of MCH RB (2020) additionally. **Coherence with JICA's other projects and programs** The Project promoted the coordination with JICA's other projects in Ghana. • JICA's technical cooperation project in Ghana, Project for Strengthening Community-based Health Services focusing on the Life-Course Approach in the Upper West, Upper East, and Northern Regions (CHPS for Life Project 2017-2023), integrated the training of MCH RB in their refresher training for Community Health Officers (CHO). • Japan Overseas Cooperation Volunteers (JOCVs) in the field of MNCH and Nutrition were invited to the training program on MCH RB with their counterparts. The JOCVs supported their counterparts to use MCH RB effectively in their facilities. • JOICFP (Japanese Organization for International Cooperation in Family Planning) introduced MCH RB in their training program for community health volunteers in their JICA Partnership Program "Maternal, Newborn and Child Health Promotion in Kwahu East" (2017-2020).
Effectiveness	High The Project achieved the Project purposes and outcomes as planned. The Project was implemented from 10 April 2018, to 8 January, 2022. Despite various activity and travel restrictions due to the COVID-19 pandemic, the Project conducted training and monitoring of the use of the MCH RB on a national scale and supported institutionalization of the MCH RB into the health system in Ghana. The Project purpose was achieved except the coverage of the delivery assisted by skilled birth attendant (SD) which was 63.5% and did not achieve the expected target which was 65%. It was assumed that the delivery at the health facility decreased in 2020 and 2021 due to the movement restriction and people's anxiety of the COVID-19. Some women preferred to deliver the baby at home. Although the target was not achieved, it showed substantial improvement from 57.6% (2019) to 63.5% (2021). All indicators of Output 1, 2 and 3 were achieved. The Project achieved large and meaningful results. ・ Training for 939 facilitators and 1642 health workers nationwide and monitoring completed at over 500 medical facilities nationwide.

	(Unparalleled scale) ・ MCH RB are now utilized in all MCH facilities, including private ones. ・ Quality of Care for MNCH, in terms of recording and effective communication, significantly improved, with the use of the MCH RB. See Table 31 Achievement of the Project Purpose See Table 28,29, 30 Achievement of Output 1, Output 2 and Output 3
Efficiency	Partially moderate and partially high **Available resources were used efficiently to achieve the Project purpose.** The inputs are appropriately provided from both Japanese and Ghanian sides as planned, and all human resources and financial resource were fully utilized to conduct planned activities and generate the intended outputs and outcomes. **Operational efficiency was moderate.** Inservice training was costly, and the operational cost was high. The Project conducted Facilitators' training (ToT) for all 16 regions and downstream health worker training at 11 focus districts. Most of the trainings were conducted using a 4-day residential curriculum to avoid travel by participants (especially those from rural areas), to cover various contents, to enhance participant's learning, and to avoid delaying the national rollout of the MCH RB. The Project and JICA Ghana Office needed to prepare the public transportation rate table, the table of daily substance allowances, and transportation allowances for all the regions and districts taking into account all individual participant's travel arrangements before the training and explain them to the GHS for their approval. In some districts other than the 11 focus districts, there was a lack of funds for the downstream training which was a threat for the national rollout of the MCH RB on time. The GHS integrated the major contents of the training into the pre-service training curriculum for nurses and midwives to ensure sustainability. Operational efficiency for the future was therefore moderate. **Operational costs exceeded due to the extension of the Project period with the COVID-19 pandemic.** The final implementation cost of the Project exceeded the originally planned amount because the Project implementation period was extended due to the suspension of the dispatch of the Japanese experts to Ghana for a period of time due to the COVID-19 pandemic. The extension of the cooperation period also resulted in an increase in the cost of the experts, management costs of the local operation, and other expenses, monitoring and supervision costs, training costs, printing costs of the MCH RB, and other activity costs.
Impact	High Based upon the current progress and achievements, the overall goal is most likely achievable if the national rollout of the effective use of MCH RB

	continue for the next 3-4 years. The MCH RB with the capacity building of health workers promoted “actionable information system”, “effective communication” and “respect and preservation of dignity”, which were the components of QoC for MNCH. “Dear Mother”, which is the respectful counseling methods utilized for the introduction of the CoC and MCH RB to a woman at the registration of the pregnancy care, is practiced widely in nationwide after the Project conducted the training on the MCH RB and respectful care.
Sustainability	High Technical sustainability is high. The Project trained facilitators in all regional and all district health teams, who could continue to be active in training, monitoring and supervision. The Project also developed a package of training materials which can be used for the training and self-learning in future. GHS plans to continuously conduct health worker training and M&S at preservice and in-service training with various program budgets. GHS intends to use a package of training materials the Project produced for continuous capacity building. Financial sustainability is high. The government of Ghana gradually takes responsibility for securing the budget for the printing of the MCH RB for sustainability. In 2021, the National Health Insurance Authority (NHIA) printed 50% of MCH RB (500,000), which is the Government Budget. In 2022, NHIA plans to print 100% of MCH RB (1,000,000). GHS is also promoting regional and district health managers to look for any opportunities for printing the MCH RB or conducting training with resources available at a sub-national level. While the operational costs of the in-service training were high, the major contents of the training were integrated into the pre-service training curriculum for nurses and midwives for sustainability. Similarly, the cost of the M&S will be sustained by GHS by integrating it into the existing M&S mechanism and promoting on-site M&S at each health facility. Organizational sustainability is high. The Project produced the Management Guide. It was an administrative guideline for managers to sustain the MCH RB program. The Child Health Coordinating Committee and GHS FHD will take charge of the national coordination of the MCH RB.

2. Key Factors Affecting Implementation and Outcomes

2-1. Promoting factors contributed to the successful completion of the MCH RB Project

- Leadership and commitment of GHS at both National and Regional levels
- Leveraged existing strong PHC system linking national, regional, district, sub-district and community health in Ghana

- Aligned with Global and national policies, strategies and guidelines
  - Clear objective of the MCH RB in line with the global and national policies, strategies and guidelines
  - Clear definition of the effective use of MCH RB with the QoC indicators
  - The Project selected indicators for the M&S of the effective use of the MCH RB from two major WHO standards documents i.e., "Standards for improving quality of maternal and newborn care in health facilities", and "Standards for improving the quality of care for children and young adolescents in health facilities". The QoC standards were useful to set clear target for training, M&S and visualize the impact and achievement.
- **Government of Ghana made policy decision based on the evidence generated by the EMBRACE** (EMBRACE: Ensure Mothers and Babies Regular Access to Care) **Implementation Research**
  - EMBRACE implementation research was conducted 2012-2016 before the MCH RB Project.
  - Research evidence facilitated Gov. of Ghana to make policy decision to develop and rollout the combined MCH RB.
- **The Project followed the lessons learned and recommendations generated from JICA's previous projects.**
  - The results of the Ghana EMBRACE Implementation Research Project (2012-16) highlighted the importance of linking Maternal Health Record and Child Health Record and educating mothers on the importance to promote CoC and invented the CoC card. JICA's technical cooperation project for " Improvement of Maternal and Neonatal Health Services Utilizing CHPS system in the Upper West Region (2011-2016)" invented the PNC stamp for the Maternal Records, to improve the postpartum health checkup rates.
  - The Project used the CoC card and the idea of PNC stamp in the new combined MCH RB. The Project also used the lessons learned from the previous JICA MCH Handbook Projects in Indonesia and Palestine and designed the MCH RB with illustrations and simple messages. Additionally the Project also developed training materials and trained health workers on the use of the MCH RB, conducted M&S, and institutionalized the use of MCH RB into the national health system.
  - For the nationwide rollout of the MCH handbook, it was suggested to build partnerships with other donors who have provided significant support for maternal and child health care in Ghana. In particular, we included donor coordination activities into the project plan for institutionalization and sustainability of the MCH handbook in Output 3. At the same time, collaboration with the Japanese private sector was also encouraged from the planning of the Project. Taking these

recommendations, the Project worked on the partner coordination from the biggening of the Project through attending Partner meetings or inviting them to the Project meetings, such as JCC meetings, Annual Review Meetings, and Management Guide Workshops.

- These steps were derived from the previous JICA MCH Handbook Project in Indonesia and Palestine and were utilized in this Project.

- **Participation to the QoC network promoted the coordination with various Development Partners and private sectors and accelerated the national rollout of the MCH RB for QoC.**
  - The Project shared the plan, progress and achievements with various stakeholders at the National Technical Working Group (TWG) meetings for Ghana's QoC Network.
  - Coordination with partners such as WHO, UNICEF, WB, USAID was facilitated through the network.
  - The Project was in close coordination with the National Technical Working Group (TWG) for Ghana's Quality of Care Network and published its achievements in WHO-UNICEF QoC network bulletin (2021) Quality of Care for Maternal and Newborn Care Health Bulletin: Edition 2 | UNICEF Ghana
- **Developed training materials, certified them as national standard and integrated them into partner's projects and programs.**
  - Health worker training was conducted by other stakeholders in utilizing the facilitators and training materials that the MCH RB Project trained and produced. 557 health workers were trained by the funding of the World Bank.
  - Partners namely WHO, UNICEF, WB, USAID supported for the national rollout of the MCH RB, for production, training and monitoring and supervision as they all acknowledged the MCH RB as a tool to promote QOC of MNCH, which contributed to the impact and sustainability of the MCH RB program.
- Used M&S data for program review and visualization of the achievement.
- A lager number of counterparts and health workers at national, regional and district levels fully understood the value of the MCH RB before the Project started through JICA training programs.
  - Knowledge-Co-Creation Program
    - "Continuum of Care for Maternal, Newborn and Child Health (MNCH) and UHC",
    - "Improvement of Maternal Health",
    - "Improvement of Maternal and Child Nutrition"
  - Ghana country specific training program "Scale Up Nutrition by Public Private Partnership Approach".

- **National and sub-national leadership to promote the use of the MCH RB**
  - H.E. Samira Bawumia, the 2nd Lady of Ghana, handed over the first copies of the MCH RB to pregnant women on 2 March 2018, at the Launching ceremony of the MCH RB. The Second lady has been active in introducing the value of the MCH RB to the community.
  - Sensitization meetings were conducted in all regions in 2018. Participants included key stakeholders such as Traditional and Religious Leaders, Representatives of the Regional Coordinating Council, Health Training Institutions, Teaching and Regional Hospitals, NHIA, Births and Deaths Registry, the Media and District Directors.
- **Strategic PPP with Ajinomoto Foundation**
  - Collaboration with national and international partners, as well as the private sector, was essential to establish the nationwide use of MCH RB. The Project promoted the collaboration with various stakeholders including UN agencies, development partners and the private sector. The Ajinomoto Foundation signed a partnership to improve maternal and child nutrition, to conduct training for health workers on nutrition and the proper use of Koko Plus. Koko Plus is a nutritional supplement for children that should be added to the traditional porridge made of fermented corn (called Koko). Koko Plus is made of locally produced soybeans fortified with vitamins and an essential amino acid (Lysine) to improve the nutritional values of the food for children. JICA supported to develop a business model and a business plan for Ajinomoto's nutritional supplements in Ghana through the Preparatory Survey for Base of the Pyramid Business Promotion (2011-2014).
  - The Ajinomoto Foundation conducted nutrition training for health worker training and introduced the effective use of the MCH RB and the proper use of Koko Plus in some selected districts (2019-2021). The Project and the Ajinomoto Foundation also supported GHS to develop and submit the proposal for the nutrition education project to the PHRDG（Japan Policy and Human Resources Development Grant）of the African Development Bank. The plan included the printing 100,000 MCH RBs, training 2,400 health workers and providing height and weight scales to improve maternal and child nutrition behaviors at home and in the community. Once this proposal is accepted, this proposal will be a powerful resource for the sustainability of the MCH RB program.

Figure 20. Launching of the MCH RB by the second lady

Figure 21. Sensitization of Regional and District Leaders

2-2. Challenges (negative factors) for the Project

- The Project implementation plan delayed due to the COVID-19 outbreak as well as the security risks and movement restrictions in Northern five regions. (See **chapter 3 Evaluation on the results of the Project Risk Management)**
- High expectation/demand and time lag for printing and distribution of the MCH RB made serious shortage of the MCH RB at initial stage of the national rollout.
- High Attrition of health workers

3. Evaluation on the results of the Project Risk Management

3-1 Risk Management

The Project adjusted its plan due to the COVID-19 outbreak and the security alert in Northern five regions (Northern, Savannah, North East, Upper West, Upper East).

The first two cases of COVID-19 were confirmed on 11 March 2020 in Ghana. President Nana Akufo-Addo announced on 16 March 2020 that all public gatherings, conferences and workshops should be suspended. Therefore, the Project postponed health worker training in the Northern

Region in the second week of March, and the Project members gradually started working from home. Furthermore, the Japanese experts were requested to return to Japan in March 2020 and all of them went back to Japan by April 2020. The Project conducted activities through online communication with the support of JICA HQ and the JICA Ghana office. The Japanese experts started returning to Ghana on 12 November 2020 and resumed project activities. All the Project activities adhered to GHS risk mitigation protocol.
Starting from August 2021, the security division at JICA HQ requested the Japanese experts not to travel to Northern five Regions and the Project National Staff to register and get prior approval from the JICA HQ to travel to those areas. This movement restriction continued till the end of the Project and caused delays in the M&S activities in those areas. The GHS counterparts and the Project national staff continued M&S activities in those restricted areas.

3-2 Utilization of the lessons learned from other projects

- Health workers training on counseling skills and the use of the CoC card were effective in promoting CoC as it was proven in the EMBRACE implementation research.
- Development of the Management Guide was effective for the institutionalization of the MCH RB into the national policies as it was suggested by the successful national rollout of the MCH HB in Indonesia and Palestine.
- Stakeholder coordination was the key for the national rollout of the MCH RB as it was suggested by the MCH HB projects in Indonesia and Palestine.

4. Lessons Learnt

- In order to provide quality CoC services with MCH RB, a combination of inputs of the capacity building of health workers, the essential equipment and supplies to deliver the service, and client's better service-seeking behaviors must be in place.
- The stage of skill acquisition of health workers varies with the nature of the skills, capacity of health workers and external factors, such as availability of necessary equipment.
- Leverage existing PHC system linking national, regional, district, sub-district and community health for the national rollout of the MCH RB.
- Adjust project activities based on the results of the monitoring. Clearly identify and address quality gap, equity gap, and health system challenges through monitoring. The Project revised the training curriculum, the target participants of the training, monitoring checklist and the contents of the user guide and management guide according to the challenges observed in the course of the implementation.
- Use the monitoring results as data to visualize the progress and the achievements. The Project evaluated the impact of the use of the MCH RB with baseline-end-line survey and M&S. The M&S data from all 16 regions was a valuable source for evaluating the impact of the national

rollout of the MCH RB. Based on the impact of the MCH RB, the NHIA committed to support for the printing of the MCH RB and printed 500,000 MCH RB in 2021. The GHS is coordinating with the Birth and Death Bureau to include the "birth and fetal death registration form" in the MCH RB and to use the book for a child's birth registration and national ID. The achievements of the Project were presented to the QoC Network Technical Working Group and it was published in the WHO-UNICEF QoC Network Bulletin in Ghana (2021).
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- "Effective use of MCH RB "should be clearly defined with operational definition. The Project defined the effective use of the MCH RB with some QOC indicators: accurate recording, effective communication and respectful care.
- Training and the M&S should be decentralized for sustainability.
- The Project often faced shortages of the MCH RB as the popularity and the demands for the MCH RB was greater than expected. In Ghana, more MCH RB were needed than the number of live births because some children had not had either a child record book or a MCH handbook for two to three years prior to the start of the Project started. It is important to take demand into account when planning the printing of MCH handbooks.
- Although sustainability should be discussed from the planning stage, the Project should support the printing of a substantial number of the MCH handbook for a certain period of time until the partner government fully institutionalizes the MCH handbook and try to visualize the results of the effective use of the MCH handbook.

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

1. Prospects to achieve Overall Goal

Overall Goal: More women and children complete Continuum of Care (CoC).

Based on the current progress and achievements, the overall goal is achievable if the national rollout of the effective use of MCH RB continues for the next 3-4 years.

Table 49. Prospects to achieve Overall Goal

Target	Prospects
1. 80 percent of women and children complete CoC* checked by MCH RB * CoC: ANC 4 times and more +Delivery Assisted by SBA+ PNC	CoC completion rate before the MCH RB implementation was 76% in 2017 and 92% in the 11 focus districts in 2021. National data on the CoC completion rate in 2021 is not available. If non-model districts replicate the good practices of the 11 focus districts, this target should be achieved by 2024. The improvement in the CoC completion rate in the 11 focus districts may be due to repeated on-site coaching on respectful counseling skills and the impact of community SBCC activities. Pregnant women, family members and community members were informed about the importance of the CoC in the 11 focus districts. According to the EMBRACE implementation research,

	client-centered counseling and creating an enabling environment for women to seek CoC services were effective in promoting CoC. Therefore, the GHS should continue to build the capacity of health workers and support health workers to conduct SBCC activities with community involvement.
2. 70 percent of pregnant women and children receive nutrition counselling at least three times	Already achieved as 81% of pregnant women and children received nutrition counseling at least once in 2021 in national M&S.
3. 65 percent of women and children practice Exclusive Breastfeeding	Exclusive breastfeeding (EBF) rates improved from 43% (2019) to 67% (2021) in the model districts. It was 53% (2022) at national level. There are various initiatives to promote EBF in Ghana, yet the increase in EBF is not sufficient and the use of the MCH RB alone is not enough to promote EBF. Maternity leave, labor laws and other enabling environments are needed to increase EBF. Achieving this indicator in 2025 may not be possible due to external factors.
4. 70 percent of women and children practice Early Initiation of Breastfeeding	Early Initiation of Breastfeeding was 91% (2018), 93% (2019) and 93% (2020) in Family Health Annual Report (GHS). The target is already achieved.
5. MCH RB are used with correct ways at 80% of health facilities which offers MCH services	Recording of the MCH RB was between 83% (Birth date, birth weight) and 16% (nutrition counseling table) in national M&S. Use of the MCH RB was satisfactory in the model districts. If non-model districts replicated the good practices of the model districts, this target to be achieved by 2024. Indicators of QoC improved in the 11 focus districts where health workers received repeated on-site coaching, equipment, and community awareness-raising activities. To expand this improvement in other districts, the GHS should continue providing on-site coaching and community awareness-raising activities. Additionally, the Project produced a job-aid flipchart for health workers to fill out and use the nutrition counseling table. At the same time, the GHS plans to create a digital job aid application for nutrition counseling in collaboration with NEC, Sysmex, Ajinomoto Foundation, and WFP.

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

The FHD will coordinate and collaborate with relevant departments, divisions, partners and Metropolitan, Municipal, and District Assemblies (MMDAs) to ensure smooth implementation with the existing Child Health and Newborn Technical Working Group serving as the secretariat of the national coordination of the MCH RB program. Key issues arising from implementation will be tabled by the Secretariat through the Director Family Health to the appropriate technical committee for review and coordination. All regional and district level coordination will take place through similar existing decentralized structures of government and technical committees within the GHS and relevant MMDAs.

Management at all levels will use the Management Guide for the operation of the MCH RB program.

GHS at national, regional and district level will be responsible for the continuous capacity building of health workers with in-service and pre-reservice training and the regular M&S to ensure effective use of the MCH RB for quality of care in all service delivery points.
JICA's technical cooperation project "Quality of Care for Maternal and Newborn Health with focus on 5S-KAIZEN-TQM (2022-2027)" will support health worker's training, M&S in selected districts.

3. Recommendations

Recommendations to Ghana Side

- Ensure printing of the MCH RB with the national budget and international and private organizations' support.
- Continue training, M&S of health workers on the effective use of MCH RB.
- M&S to be integrated into on-going integrated supportive supervision program.
- Orientation to the new staff and internal M&S should be decentralized at the facility-level for sustainability.
- Upload the training materials in the GHS Website for self-learning.
- Sustain the good practices in 11 focus districts as a showcase to other domestic and international parties.

Recommendations to Japan Side

- Continuous follow-up of the MCH RB program and technical consultation to GHS through the monitoring of the progress, inviting GHS CPs to present the progress and achievement of the MCH RB program at global meetings and documentation.
- Conduct an Impact evaluation of the MCH RB Program
- Share Ghana's good practices with other countries, particularly African countries through international, regional seminars, meetings and JICA's Knowledge-co-creation trainings and networks.
  - ✓ GHS will present the achievements of the MCH RB in Ghana at 12th international conference on MCH Handbook in 2022, and Global meeting of the Network for Improving Quality of Care for Maternal, Newborn and Child Health 2023, Accra, Ghana.
  - ✓ JICA, UNICEF and WHO are preparing the Global Implementation Guide for Home-based Records which will include tools and implementation knowledge in Ghana.
  - ✓ JICA, UNICEF, WHO, Ghana and Indonesia plan to conduct a seminar on home-based record at the 7th Global Health System Research Symposium in Columbia, 2022.
  - ✓ GHS policy leader and Researchers, JICA, University of Tokyo, plans to have a seminar on the findings of the EMBRACE Implementation Research and National Rollout of the MCH RB based on the research evidence of the EMBRACE IR in Ghana at the 7th Global Symposium on Health Systems Research in 2022.

- ✓ JICA Knowledge Co-Creation Programs (Group & Region Focus) "Continuum of Care for Maternal, Newborn and Child Health (MNCH) and UHC" and "Improvement of Maternal Health" will cover Ghana's good practices with other countries.
- ✓ JICA MCH HB Projects in Angola, Gabon, Mozambique, and Sierra Leone have been in contact with the Ghana MCH RB Project and will share more of the tools and good practices in Ghana.

Recommendations to other MCH HB project

Ensure the leadership of partner country MOH

Coordination of partner organizations

- Initial investment to the production of the MCH HB and the capacity building of health workers should be supported by partner organizations before the country leadership decides to promote and sustain MCH HB program.

Develop technical and management standards and share them with Development Partners

- The Project developed the training materials and M&S tools as national standards, trained facilitators (trainers) at all regions and districts and shared them with other partners. Some regions and districts conducted Health Worker training with the support of other partners, such as World Bank, UNICEF and USAID.
- The Project developed Management guide as a reference document of rules, regulations and decision-making procedures and to run the MCH RB program with sustainability.

Visualize the impact with the relevant indicators

- Evidence of the impact of the effective use of MCH RB will support the governmental decision for the national rollout, institutionalization and sustainability of the MCH HB program. It can also attract partner organizations to work together for the national rollout.
- Challenges, lessons learnt, and good practices should be shared and discussed at the national review meetings.

Capacity building of the health workers should be provided with training, on-site coaching and Health system support.

- Health system support, such as production and allocation of enough number of health workers, provision of adequate equipment, supplies and infrastructure is a foundation to provide QoC.

Community Engagement

- Leaders and the entire members of the community should be sensitized on the importance of CoC for women and children to promote better service-seeking practices and care practices at home and at community.

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

- JICA's technical cooperation project "Quality of Care for Maternal and Newborn Health with focus

on 5S-KAIZEN-TQM (2022-2027)" in Ghana will continue health worker training, and M&S in selected districts.

- Ex-post evaluation to be conducted in 2024-2025 by GHS and JICA.

ANNEX 1: Results of the Project

(List of Dispatched Experts, List of Counterparts, List of Trainings, etc.)

Table 50. List of Japanese Expert

No.	Name		Period
1	Mr. Tadayuki Ishijima	Project Coordinator	April 2018-March 2020
2	Ms. Kayo Omachi	Project Coordinator	March 2020-January 2022
3	Ms. Mayumi Omachi	Maternal and Child Health	April 2018-November 2021
4	Ms. Kyoko Sakurai	Nutrition	April 2018-April 2021 August 2021-September 2021
5	Ms. Tomoko Saito	Community Health	May 2019-January 2022
6	Dr. Akiko Hagiwara	Chief Advisor	April 2018-December 2021 (30 month in Ghana, 15 months remote operation from Japan)

Table 51. List of Major Counterparts

No.	Name	Designation	Organization
1	Dr. Patrick K. Aboagye	Director General	GHS
2	Dr. Kofi Issah	Director, Family Health Division (FHD)	GHS
3	Dr. Isabella Sagoe-Moses	Deputy Director, Reproductive and Child Health, FHD	GHS
4	Esi Amoaful	Deputy Director, Nutrition, FHD	GHS
5	Dr. Chris Fofie	Head, Safe Motherhood FHD	GHS
6	Gladys Brew	Program Officer, Safe Motherhood FHD	GHS
7	Vivian Ofori Dankwah	Program Officer, Safe Motherhood FHD	GHS
8	Eunice Sackey	Program Officer, Safe Motherhood FHD	GHS
9	Elizabeth Cobbiah	Program Officer, Safe Motherhood FHD	GHS
10	Mutala Abdulai	Nutrition Officer, FHD,	GHS
11	Gifty Ampah	Nutrition Officer, FHD,	GHS
12	Mrs.Gyetuah Esther	Nutrition Officer, FHD,	GHS
13	Cynthia Charity Obbu	Nutrition Officer, FHD,	GHS
14	Veronica Quartey	Nutrition Officer, FHD,	GHS
15	Esther Yaa Duah	Nutrition Officer, FHD,	GHS
16	Hikimatu Abdulai	Dietician AR/RHD	GHS
17	Samuel Gbogbo	Nutrition Officer, FHD,	GHS
18	Josephine Asante	Program Officer, FHD	GHS
19	Dr. Stephen Ayisi Addo	Director, Public Health	GHS
20	Dr. Mrs. Alberta Biritwum-Nyarko	Director, PPME	GHS
21	Dr. Samuel Kaba	Director, ICD	GHS
22	Araba Kudiabor	Director, Supply, Storage, Distribution and Management	GHS
23	Dr. Margaret Chibere	Director, HRHD	GHS
24	Dr. Abraham Oduro	Director, Research and Development Division	GHS
25	Dr. Emmanuel Tinkorang	Regional Director, Ashanti Region	GHS
26	Dr. Michael Rockson Adjei	Deputy Director (Public Health) Ashanti Region	GHS
27	Vivian Araba Eshun	Regional Public Health, Ashanti Region	GHS

28	Ama Antwiwa Opuni	Chief Nursing and Midwifery Officer, Ashanti Region	GHS
29	Olivia Timpo	Regional Nutrition Officer, Ashanti Region	GHS
30	Dr. Emmanuel Odame	Ag Director, PPME,	MOH
31	Dr. Ernest Asiedu	Head, National Quality Management Unit PPME	MOH
32	Dr. Anthony Nsiah-Asare	Former Director General, GHS	GHS
33	Dr. Kwasi Yeboah-Awudzii	Former Deputy Director (Public Health) Ashanti Region	GHS
34	Dr. Abraham Hodgson	Former Director, Research and Development Division	GHS

Table 52. Procurement of MCH RB between JFY 2017 to JFY 2021 by JICA and Partners

	JICA	DFID	WB	UNICEF	NHIA	Districts	Ghana Gas
JFY2017	116,000						
JFY2018	332,000	130,000	593,000				
JFY2019	330,000						10,000
JFY2020	1,004,500					500	
JFY2021	150,000			160,000	500,000		
Total	1,932,500	130,000	593,000	160,000	500,000		10,000

Table 53. Procurement of MCH RB and training materials by JICA

	MCH RB	MCH RB Educational Purpose (for training)	User Guide	Trainer's Guide	Participant's Guide	Flip Chart
JFY2017	116,000		500			
JFY2018	332,000		11,100			
JFY2019	330,000	3600	3,500	240	1500	
JFY2020	1,004,500			190	240	1050
JFY2021	150,000	10000	15,100	1360	2800	13600
Total	1,932,500	13,600	30,200	1,790	4,540	14,650

Table 54. Presentation in international/regional conferences

Date	Conference	Place	Person Presented
12-14 Dec. 2018	11th international conference on MCH handbook	Bangkok	Dr. Akiko Hagiwara
17-21 March. 2019	29th International Pediatric Association Congress	Panama	Dr. Patrick Kuma Aboagye,
October 20-22, 2020,	The 79th annual meeting of the Japanese Society of Public Health	online	Ms. Mayumi Omachi Ms. Kyoko Sakurai
1-3 November 2020	The Joint Congress on Global Health 2020 in Osaka	online	Dr. Akiko Hagiwara Ms. Mayumi Omachi Ms. Kyoko Sakurai Ms. Tomoko Saito
18 February 2021	International MCH Handbook Webinar	online	Ms. Esi Amoaful

27-28 November 2021	The 80th Annual Conference of the Japan Association of International Health	online	Dr. Akiko Hagiwara Ms. Mayumi Omachi Ms. Kyoko Sakurai
2nd December 2021	Nutrition for Growth in Tokyo 2021 JICA/UNICEF Technical Side Event: Empowering Every Child for Healthier Future	online	Ms. Esi Amoaful
21-23 December 2021	The 80th annual meeting of the Japanese Society of Public Health	Tokyo	Ms. Mayumi Omachi Ms. Kyoko Sakurai Dr. Akiko Hagiwara

Table 55. Procurement of Equipment

	Length board	Weighing scale	Hemoglobin Analyzer	Cuvette for HB Counter	Lancet for Hemoglobin Analyzer	Multi-Function Printer
Feb 2020		50				
Mar 2020				596	1192	11
May 2020			54			
Oct. 2020	180					
Total	180	50	54	596	1192	11

Table 56. Procurement of other items

	Growth Chart	Roll-up banner*	Star Stamp	Project Brochure
Total	2400	11	5,400	16,000

* See the rollup banners and Brochure in Project HP

https://www.jica.go.jp/project/english/ghana/010/materials/index.html

ANNEX 2: List of Products Produced by the Project

Table 57. List of Products Produced by the Project

	Title of material	Types of tools	Year of publication (First)	Year of Revision (Finalized)
1	Maternal and Child Health Record Book (MCH RB)	HBR	2019	2021
2	User Guide for MCH Record Book	Training Material	2019	2021
3	Operational guidelines for improving Nutrition Counseling Services in Ghana	Training Material	2019	
4	Trainer's Guide: health worker training on MCH RB, Nutrition Counseling Services and Respectful Care	Training Material	2021	2021
5	Participants' Manual: health worker training on MCH RB, Nutrition Counseling Services and Respectful Care	Training Material	2020	2021
6	Maternal and Child Health Record Book for educational purpose	Training Material	2019	
7	Job-Aids Flipchart for Nutrition counseling services at ANC and CWC	Training Material	2020	2021
8	Audiovisual Learning Materials for health workers	Training Material	2017	

9	Combined Course on growth assessment and IYCF counseling	Training Material	2020	
10	Pre and Post test for health worker training on MCH RB, Nutrition counseling services and Respectful care	Training Material	2021	
11	A set of PowerPoint materials for training for facilitators	Training Material	2021	
12	Audio-visual learning materials for Health Workers' Self Learning	Training Material	2021	
13	National Monitoring & Supervision checklist	Monitoring tool	2018	2021
14	National Monitoring & Supervision Guide	Monitoring tool	2019	2021
15	11 districts Monitoring & Supervision checklist	Monitoring tool	2019	2021
16	11 districts Monitoring and Supervision guide	Monitoring tool	2020	2021
17	Baseline survey and situation analysis questionnaire and guide	Monitoring tool	2019	
18	Management Guide for Maternal and Child Health Record Book	Administration	2021	
19	Consolidated Report for the first National Monitoring and Supervision	Technical Report	2018	
20	Consolidated Report for the 2nd National Monitoring and Supervision	Technical Report	2018	
21	Technical brief: Testing comparative advantages of a new combined MCH Record Book to the existing separate record books	Technical Report	2019	
22	Executive Summary for Baseline Survey and Situation Analysis in Ashanti Region	Technical Report	2019	
23	Consolidated Report for Regional ToT at 10 Regions	Technical Report	2020	
24	Report on Health Worker Training in 11 Focus Districts in Ashanti Region	Technical Report	2020	
25	Major Findings of the first monitoring and supervision in 11 districts in Ashanti Region	Technical Report	2020	
26	Report on TOT for 5 new regions and 3 control districts	Technical Report	2021	
27	Major Findings of the 2nd monitoring and supervision in 4 districts in Ashanti Region	Technical Report	2021	
28	Report of the Endline survey and impact analysis in Ashanti Region	Technical Report	2021	
29	Major Findings of the third monitoring and supervision in 11 districts in Ashanti Region	Technical Report	2021	
30	Report on Health Worker Training in 3 control Districts in Ashanti Region	Technical Report	2021	
31	Report of the National Review Meeting on MCH RB	Technical Report	2021	
32	Project Brochure	PR	2018	2021
33	Project Documentary Short Movie	PR	2021	

Table 58. Link of the Major Products Produced by the Project

Project Documentary Short Movie
National Rollout of the Ghana Maternal and Child Health Record Book (external link)
MCH Record Book (Educational Purpose) 2018 *
MCH Record Book (cover pages) (PDF/463KB)
MCH Record Book (contents) (PDF/10.6MB)
* The MCH Record Book has been uploaded to the website with the watermark "Educational Purpose" in order to prevent the illegal printing and sale of the MCH RB.
Training Materials
User Guide (2021)

MCH BOOK User Guide (PDF/17.2MB)
Participants Guide (2021)
Participants Guide Cover Front (PDF/491KB)
Participants Guide - New (PDF/3.14MB)
Participants Guide Cover Back (PDF/41.0KB)
Trainers Guide (2021)
Trainers Guide Cover Front (PDF/480KB)
Trainers Guide JICA (PDF/13.9MB)
Trainers Guide Cover Back (PDF/41.0KB)
Job Aids for Nutrition Counseling Services at ANC and CWC (2021)
CWC FLIPCHART (August 26, 2021) (PDF/2.80MB)
Management Guide (2021)
Management Guide for MCH Record Book (2021) (PDF/643KB)
Project Brochure
Brochure for Maternal and Child Health Record Book in Ghana (2021) (PDF/1.02MB)
Project Logo
Maternal and Child Health Record Book Project (jica.go.jp)
Project Banners
Introduction of Ghana Maternal and Child Health Record Book Project (2018) (PDF/1.33MB)
Major results of the Pilot test for using MCH Record Book in Ghana (2018) (PDF/370KB)
Successful completion of training of 837 trainers (2018) (PDF/5.44MB)
Key Accomplishment (2018-2019) (PDF/185KB)
The first National Monitoring and Supervision (2019) (PDF/1.11MB)
Baseline/Endline Survey and Situation Analysis for the intervention of MCH RB Project in Ashanti Region (2019) (PDF/527KB)
Project logo (2018) (PDF/88.0KB)
Results of Baseline Survey and Situation Analysis (2020) (PDF/272KB)
Activities of MCH RB Project in Ashanti Region (2020) (PDF/722KB)
Establishing Nutrition Counseling Services as a part of routine Maternal and Child Health services in Ghana (2020) (PDF/1.35MB)
National Rollout of Maternal and Child Health Record Book in Ghana (2020) (PDF/1.50MB)
Project News
MCH RB Project get started! (2018-04-09)
Pilot test of the new combined MCH Record Book was conducted in Ghana (2018-04-30)
Training of District Level Trainers on the New Combined Maternal and Child Health (MCH) Record Book in all 10 regions of Ghana (2018-09-30)
The first Joint Coordination Committee meeting (2018-10-05)
Ghana and Sierra Leone Knowledge Co-Creating Seminar on MCH handbook (2019-02-28)
The first Monitoring and Supervision in 10 regions (2019-03-31)
The second Joint Coordination Committee meeting (2019-05-03)
Workshop for the development of Management Guide (2019-05-30)
Development of Operational Guidelines and Training Materials for Nutrition Counseling Services and Respectful Care (2019-09-30)

Results of Baseline Survey and Situation Analysis for the intervention of the Project in Ashanti Region (2019-09-30)
The Third Joint Coordination Committee meeting (2019-12-17)
Health Worker Training Completed in 11 Districts (2020-01-30)
The first Monitoring and Supervision in 11 districts in Ashanti Region (2020-03-01)
Strategic coordination of UNICEF and Japan for the national rollout of the MCH Record Book in Ghana for the improvement of maternal and child health and nutrition (2020-03-11)
Pre-testing of Storyboards for the Audio-Visual Learning Material (2020-03-20)
Project activities under COVID-19 pandemic (2020-08-01)
Revision of health worker training materials (2020-10-01)
The Second Training for Health Workers of Major Hospitals in Greater Accra Region. (2020-10-25)
Provision of equipment in 11 districts in Ashanti Region (2020-10-30)
Training for health workers at major hospitals in Oti region (2020-11-27)
Presenting project outputs at international conferences and academic meetings (2020-12-10)
2nd Stakeholder Workshop for the Development of the MCH RB Management Guide (2021-01-20)
Presentation on the progress of national rollout of the Ghana MCH Record Book at the International MCH Handbook Webinar Series 2021 (2021-02-18)
Orientation for the 2nd Monitoring and Supervision at four districts in Ashanti Region (2021-02-23)
The Second National Monitoring and Supervision get started in 16 regions (2021-03-04)
Handover ceremony of Ghana MCH Record Books (2021-03-15)
Workshop for the development of Social and Behavioral Change Communication (SBCC) strategies in 11 focus districts (2021-04-30)
Orientation for the Monitoring and Supervision at 7 districts in Ashanti Region (2021-05-13)
The Fourth Joint Coordination Committee meeting (2021-06-09)
The 3rd Stakeholder Workshop for the Development of the MCH RB Management Guide (2021-06-10)
Shooting for the Audio-Visual Learning Material (2021-07-05)
Data collection for the End-line survey completed in Ashanti Region (2021-09-05)
Training of trainers completed; total 939 facilitators were trained! (2021-10-11)
National Review Meeting on MCH RB Program was conducted with all 16 regional teams (2021-10-12)
The 2nd National Monitoring and Supervision completed in 16 regions (2021-10-23)
Completion of Health Worker Training in Three Control Districts in Ashanti Region: MCH RB Project trained 1642 health workers on the MCH RB in Ghana (2021-11-26)
Production of the Project Documentary Film (2021-11-30)
The Fifth Joint Coordination Committee meeting was conducted (2021-12-01)
National Dissemination Seminar was conducted with various stakeholders (2021-12-02)
Wrap-up seminar for 11 focus districts in Ashanti region (2021-12-07)

ANNEX 3: PDM (All versions of PDM)

- PDM0
- PDM1
- PDM2
- PDM3

ANNEX 4: R/D, M/M, Minutes of JCC (copy) (*)

- R/D
- 1st Amendment of R/D

- 2nd Amendment of R/D
- 3rd Amendment of R/D
- MM of JCC1
- MM of JCC2
- MM of JCC3
- MM of JCC4
- MM of JCC5

ANNEX 5: Monitoring Sheet (copy) (*)

(Remarks: ANNEX 4 and 5 are internal reference only.)

Separate Volume: Copy of Products Produced by the Project

Project Design Matrix

Project Title: Project for Improving Continuum of Care for Mothers and Children through the introduction of combined MCH Record Book

Version 0

Dated XX October 2017

Implementing Agency: Ghana Health Service (GHS)

Target Group: Pregnant Women, Mothers and Children under 5 years (1million *2*3*) 6million, Health Workers (5300), Regional and District Health Team (1000)

Period: 2017 - 2020 (3 years)

Project Site: Nationwide Focused Districts: Six districts in one region

Narrative Summary	Objectively Verifiable Indicators	Means of Verification	Important Assumption	Achievement	Remarks
Overall Goal More women and children complete Continuum of Care (CoC).	XX percent of women and children complete CoC*. * CoC: ANC4+ +SD+3 PNC	MICS 2017 DHS 2019 DHIMS			
Project Purpose More women and children utilize quality MCH services.	1. XX percent of women and children utilize MCH services (ANC4+, SD, 2nd PNC, CWC) 2. XX percent of women and children practice Early Initiation of Breastfeeding 3. XX percent of women and children practice Exclusive Breastfeeding 4. XX percent of women and children utilize Vitamin A supplementation	MICS 2017 DHS 2019 DHIMS Annual Performance Review			
Outputs 1. MCH RB is developed and rolled out to nationwide.	1-1. Existence of MCH RB 1-2. Existence of User Guide 1-3. MCH RB distribution to XX percent of women and children in Ghana 1-4. XX of Regional/District facilitators trained	1-1. Project reports 1-2. Project reports 1-3. Project reports 1-4. Project reports	Financial burden for MCH services for individual household do not increase		
2. Capacity of effective utilization of MCH RB is strengthened among health workers and mothers.	2-1. Standard of training package on nutrition clinic, client-centered services and BCC developed 2-2. XX percent of health workers who improved skills on utilizing MCH RB 2-3. XX percent of women and children retain MCH RB	2-1. Project reports 2-2. Project reports 2-3. Project reports			
3. MCH RB is institutionalized and integrated into routine services for sustainability.	3-1. Existence of Management Guide 3-2. Existence of national Mid-term procurement plan of MCH RB 3-3. XX of schools inspecting MCH RB for school enrolment	3-1. Project reports 3-2. Project reports 3-3. GHS reports			
Activities	**Inputs**		**Important Assumption**		
For project management 0-1. Collect and compile baseline/endline data 0-2. Monitor the progress of the project periodically 0-3. Share the results of monitoring with MoH and modify the project approach when necessary 0-4. Compile evaluation report reviewed by MoH	**The Japanese Side** 1. Experts(tentative): - Chief Advisor (Short-term based) - Maternal and Child Health - Nutrition - Community Health - Project Coordinator	**The Ghanaian Side** 1. Assignment of Counterparts - MOH, GHS 2. Printing and distribution cost for MCH RB	1. Midwife/CHO appropriately assigned at health facilities. 2. GHS staff allocation system for The Project is consistently maintained and employee turnover does not significantly occur.		

For Output 1 1-1. Develop MCH RB and authorize it as national standard Home based record 1-2. Conduct pilot test and evaluate results 1-3. Develop procurement plan for national rollout 1-4. Develop User Guide and training materials 1-5. National facilitators train regional facilitators (ToT) 1-6. Regional facilitators train district facilitators (ToT) and conduct monitoring and follow ups in 10 regions 1-7. Regional facilitators train health workers at regional hospitals and teaching hospitals and conduct follow ups 1-8. Regional facilitators conduct sensitization in 10 regions 1-9. District facilitators conduct district sensitization at six focused districts 1-10. District facilitators train health workers at six districts and conduct follow ups 1-11. Print and distribute MCH RB 1-12. Procure equipment for MCH RB for one region 1-13. Conduct media campaigns of MCH RB for advocacy For Output 2 2-1. Conduct rapid assessment of target districts before and after the training 2-2. Develop training materials on nutrition clinic, client-centered services and BCC as standard 2-3. Develop BCC materials for health workers and mothers 2-4. National facilitators train regional and district facilitators (ToT) 2-5. District facilitators train health workers in six districts 2-6. District health workers conduct sensitization at six districts 2-7. Health workers provide services of nutrition clinic, client-centered and BCC for mothers 2-8. Conduct monitoring at selected health facilities with coaching approach 2-9. Conduct national MCH RB review at Annual Performance Review For Output 3 3-1. Appoint MCH RB focal persons at GHS and regional levels 3-2. GHS promotes CoC completion rate, distribution and retention rate of MCH RB to be monitored with District Health Information Management System II (DHIMS II) 3-3. Develop Management Guide 3-4. Conduct seminar on MCH policy	- Other Short-term experts as required 2. Printing and distribution cost for MCH RB 3. Participation in international/regional conferences etc. 4. Machinery and Equipment: - Equipment for MCH RB training - Vehicles - Office equipment 5. Running expenses	3. Arrangement of the office spaces and utility cost for the Project offices 4. Running expenses	occur. 3. Epidemics and natural disasters does not occur unexpectedly. **Pre-Conditions** 1. The plan of introduction of MCH RB does not change. 2. Budget for printing, distribution, implementation and monitoring of MCH RB is ensured.	

3-5. Support development of national Mid-term Procurement Plan of MCH RB 3-6. Identify most suitable existing mechanism for stakeholder coordination 3-7. GHS advocates MOH on the use of RB in all health facilities including teaching hospitals, CHAG, and private hospitals and facilities 3-8. MOH and GHS promote the training on MCH RB to be integrated into the pre-service training programs for health worker 3-9. Promote effective collaboration with NHIA, MoE, DAs and others to ensure sustainability 3-10. Participate in international/regional conferences to share experiences			**<Issues and countermeasures>**	

Project Design Matrix

Project Title: Project for Improving Continuum of Care for Mothers and Children through the introduction of combined MCH Record Book

Version 1

Dated 3 September 2020

Implementing Agency: Ghana Health Service (GHS)

Target Group: Pregnant Women, Mothers and Children under 5 years (1million *2*3*) 6million, Health Workers (5300), Regional and District Health Team (1000)

Period: 2018 - 2022 (3years and 9 months)

Project Site: Nationwide Focused Districts: Six districts in one region

Narrative Summary	Objectively Verifiable Indicators	Means of Verification	Important Assumption	Achievement	Remarks
Overall Goal More women and children complete Continuum of Care (CoC).	XX percent of women and children complete CoC*. * CoC: ANC4+ +SD+3 PNC	MICS 2017 DHS 2019 DHIMS			
Project Purpose More women and children utilize quality MCH services.	1. XX percent of women and children utilize MCH services (ANC4+, SD, 2nd PNC, CWC) 2. XX percent of women and children practice Early Initiation of Breastfeeding 3. XX percent of women and children practice Exclusive Breastfeeding 4. XX percent of women and children utilize Vitamin A supplementation	MICS 2017 DHS 2019 DHIMS Annual Performance Review			
Outputs 1. MCH RB is developed and rolled out to nationwide.	1-1. Existence of MCH RB 1-2. Existence of User Guide 1-3. MCH RB distribution to XX percent of women and children in Ghana 1-4. XX of Regional/District facilitators trained	1-1. Project reports 1-2. Project reports 1-3. Project reports 1-4. Project reports	Financial burden for MCH services for individual household do not increase		
2. Capacity of effective utilization of MCH RB is strengthened among health workers and mothers.	2-1. Standard of training package on nutrition clinic, client-centered services and BCC developed 2-2. XX percent of health workers who improved skills on utilizing MCH RB 2-3. XX percent of women and children retain MCH RB	2-1. Project reports 2-2. Project reports 2-3. Project reports			
3. MCH RB is institutionalized and integrated into routine services for sustainability.	3-1. Existence of Management Guide 3-2. Existence of national Mid-term procurement plan of MCH RB 3-3. XX of schools inspecting MCH RB for school enrolment	3-1. Project reports 3-2. Project reports 3-3. GHS reports			
Activities	**Inputs**		**Important Assumption**		
For project management 0-1. Collect and compile baseline/endline data 0-2. Monitor the progress of the project periodically 0-3. Share the results of monitoring with MoH and modify the project approach when necessary 0-4. Compile evaluation report reviewed by MoH	**The Japanese Side** 1. Experts(tentative): - Chief Advisor (Short-term based) - Maternal and Child Health - Nutrition - Community Health - Project Coordinator	**The Ghanaian Side** 1. Assignment of Counterparts - MOH, GHS 2. Printing and distribution cost for MCH RB	1. Midwife/CHO appropriately assigned at health facilities. 2. GHS staff allocation system for The Project is consistently maintained and employee turnover does not significantly occur.		

For Output 1 1-1. Develop MCH RB and authorize it as national standard Home based record 1-2. Conduct pilot test and evaluate results 1-3. Develop procurement plan for national rollout 1-4. Develop User Guide and training materials 1-5. National facilitators train regional facilitators (ToT) 1-6. Regional facilitators train district facilitators (ToT) and conduct monitoring and follow ups in 10 regions 1-7. Regional facilitators train health workers at regional hospitals and teaching hospitals and conduct follow ups 1-8. Regional facilitators conduct sensitization in 10 regions 1-9. District facilitators conduct district sensitization at six focused districts 1-10. District facilitators train health workers at six districts and conduct follow ups 1-11. Print and distribute MCH RB 1-12. Procure equipment for MCH RB for one region 1-13. Conduct media campaigns of MCH RB for advocacy For Output 2 2-1. Conduct rapid assessment of target districts before and after the training 2-2. Develop training materials on nutrition clinic, client-centered services and BCC as standard 2-3. Develop BCC materials for health workers and mothers 2-4. National facilitators train regional and district facilitators (ToT) 2-5. District facilitators train health workers in six districts 2-6. District health workers conduct sensitization at six districts 2-7. Health workers provide services of nutrition clinic, client-centered and BCC for mothers 2-8. Conduct monitoring at selected health facilities with coaching approach 2-9. Conduct national MCH RB review at Annual Performance Review For Output 3 3-1. Appoint MCH RB focal persons at GHS and regional levels 3-2. GHS promotes CoC completion rate, distribution and retention rate of MCH RB to be monitored with District Health Information Management System II (DHIMS II) 3-3. Develop Management Guide 3-4. Conduct seminar on MCH policy	- Other Short-term experts as required 2. Printing and distribution cost for MCH RB 3. Participation in international/regional conferences etc. 4. Machinery and Equipment: - Equipment for MCH RB training - Vehicles - Office equipment 5. Running expenses	3. Arrangement of the office spaces and utility cost for the Project offices 4. Running expenses	occur. 3. Epidemics and natural disasters does not occur unexpectedly. **Pre-Conditions** 1. The plan of introduction of MCH RB does not change. 2. Budget for printing, distribution, implementation and monitoring of MCH RB is ensured.	

3-5. Support development of national Mid-term Procurement Plan of MCH RB 3-6. Identify most suitable existing mechanism for stakeholder coordination 3-7. GHS advocates MOH on the use of RB in all health facilities including teaching hospitals, CHAG, and private hospitals and facilities 3-8. MOH and GHS promote the training on MCH RB to be integrated into the pre-service training programs for health worker 3-9. Promote effective collaboration with NHIA, MoE, DAs and others to ensure sustainability 3-10. Participate in international/regional conferences to share experiences			**<Issues and countermeasures>**	

Project Design Matrix

Project Title: Project for Improving Continuum of Care for Mothers and Children through the introduction of combined MCH Record Book **Version 2**

Implementing Agency: Ghana Health Service (GHS) **Dated 31 July 2020**

Target Group: Pregnant Women, Mothers and Children under 2 years (1million *2*3*) 6million, Health Workers (5300), Regional and District Health Team (1000)

Period: April 2018 - JAN.2022 (3 years and 9 months)

Project Site: Nationwide, Focused Districts: 11 districts in Ashanti Region

Narrative Summary	Objectively Verifiable Indicators (ver.0)	Objectively Verifiable Indicators (ver.1)	Means of Verification	Important Assumption
Overall Goal More women and children complete Continuum of Care (CoC).	XX percent of women and children complete CoC*. * CoC: ANC4+ +SD+3 PNC	1.80 percent of women and children complete CoC* checked by MCH RB * CoC: ANC 4 times and more +Delivery Assisted by SBA+ PNC 3 times 2.70 percent of pregnant women and children receive nutrition counselling at least three times 3.65 percent of women and children practice Exclusive Breastfeeding 4.70 percent of women and children practice Early Initiation of Breastfeeding 5.MCH RB are used with correct ways at 80% of health facilities which offers MCH services	MICS DHS DHIMS Integrated SSV	
Project Purpose More women and children utilize quality MCH services.	1. XX percent of women and children utilize MCH services (ANC4+, SD, 2nd PNC, CWC) 2. XX percent of women and children practice Early Initiation of Breastfeeding 3. XX percent of women and children practice Exclusive Breastfeeding 4. XX percent of women and children utilize Vitamin A supplementation	1. 90 percent of women utilize ANC4+, 80 percent of women utilized SD, 88 percent of women and children utilize 2nd PNC. 2. 70 percent of all births are recorded in the MCH RB 3. 50 percent of pregnant women and children who receive nutrition counselling at least once.	MICS 2017 DHS 2019 DHMIS Annual Performance Review Monitoring report	COVID-19 situation will be stabilized and the Project activities will resume normal after the Japanese Experts are back in Ghana

Outputs 1. MCH RB is developed and rolled out to nationwide.	1-1. Existence of MCH RB 1-2. Existence of User Guide 1-3. MCH RB distribution to XX percent of women and children in Ghana 1-4. XX of Regional/District facilitators trained	1-1. Existence of MCH RB 1-2. Existence of User Guide 1-3. MCH RB are distributed to 90% of health facilities which offers MCH services ***1-4. MCH RB are used at 80% of health facilities which offers MCH services*** 1-5. 30 of Regional and 532 District facilitators trained and 90% of them has competency to facilitate and supervise health workers 1-6. 300 health workers from major hospitals and other health institutions are trained and 90% of them show their knowledge and skills on MCH RB are satisfactory		Financial burden for MCH services for individual household do not increase
2. Capacity of effective utilization of MCH RB is strengthened among health workers and mothers.	2-1. Standard of training package on nutrition clinic, client-centered services and BCC developed 2-2. XX percent of health workers who improved skills on utilizing MCH RB 2-3. XX percent of women and children retain MCH RB	2-1. Guideline, training package on MCH RB and NCSRC are developed 2-2. Behaviour change communication (BCC)activities are conducted in selected districts 2-3. 900 health workers are trained in MCH RB and NCSRC in 11 focus districts 2-4. 80 percent of health workers who participated in the training improve skills on filling and utilizing MCH RB correctly in 11 focus districts 2-5. 80 percent of women/caregivers can answer the date of next visit by utilizing MCH RB in 11 focus districts 2-6. 90 percent of children have a plotting of weight recorded correctly in MCH RB in 11 focus districts 2-7. 50 percent of children have a plotting of length/height recorded correctly in MCH RB in 11 focus districts 2-8. Nutrition counseling table (3A) is completed for pregnant women/child (70%/70%) in 11 focus districts 2-9. 70 percent of women report that health worker explained procedures and services they provide 2-10. 50 percent of women/caregivers can recall recommended action by health worker 2-11. 70 percent of pregnant women register the first ANC before 12th week of pregnancy	2-1. Project reports 2-2. Project reports 2-3. Project reports 2-4. Project reports 2-5. Project reports 2-6. Project reports 2-7. Project reports 2-8. Project reports 2-9. Project reports 2-10. Project reports 2-11. Project reports	

3. MCH RB is institutionalized and integrated into routine services for sustainability.	3-1. Existence of Management Guide 3-2. Existence of national Mid-term procurement plan of MCH RB 3-3. XX of schools inspecting MCH RB for school enrolment	3-1. Existence of Management Guide 3-2. Existence of national Mid-term procurement plan of MCH RB 3-3. Recording section of the results of medical screening for pre-school and primary school entrants are added to MCH RB 3-4. Existence of the national guideline which promote CoC with MCH RB	3-1. Project reports 3-2. Project reports 3-3. Project reports 3-4. Project reports	
Activities	**Inputs**			**Important Assumption**
For project management 0-1. Collect and compile baseline/end line data 0-2. Monitor the progress of the project periodically 0-3. Share the results of monitoring with MoH and modify the project approach when necessary 0-4. Compile evaluation report reviewed by MoH	**The Japanese Side** 1. Experts(tentative): - Chief Advisor (Short-term based) - Maternal and Child Health - Nutrition - Community Health - Project Coordinator - Other Short-term experts as required 2. Printing and distribution cost for MCH RB 3. Participation in international/regional conferences etc. 4. Machinery and Equipment: - Equipment for MCH RB training - Vehicles - Office equipment		**The Ghanaian Side** 1. Assignment of Counterparts - MOH, GHS 2. Printing and distribution cost for MCH RB 3. Arrangement of the office spaces and utility cost for the Project offices 4. Running expenses	1. Midwife/CHO appropriately assigned at health facilities. 2. GHS staff allocation system for The Project is consistently maintained and employee turnover does not significantly occur.

For Output 1 1-1. Develop MCH RB and authorize it as national standard Home based record 1-2. Conduct pilot test and evaluate results 1-3. Develop procurement plan for national rollout 1-4. Develop User Guide and training materials 1-5. National facilitators train regional facilitators (ToT) 1-6 Regional facilitators train district facilitators (ToT) 1-7. Conduct health worker training at selected major hospitals 1-8 Conduct Monitoring and Supervision in 16 regions 1-9 Develop Audio-visual learning aid and explore e-learning system 1-10. Conduct national MCH RB review 1-11. Print and distribute MCH RB 1-12. Procure equipment for MCH RB for focus districts For Output 2 2-0 Select 11 focus districts 2-1. Conduct baseline/end line survey and situation analysis in 11focus districts 2-2. Develop training materials on nutrition counseling services and respectful care (NCSRC) 2-3. Regional and District facilitators train health workers in focus 11 districts 2-4. Regional and District facilitators conduct monitoring and supervision in focus 11 districts 2-5. Develop BCC messages and BCC materials in focus districts	5. Running expenses			

2-6. Conduct BCC in focus districts 2-7. Dissemination of good practices in 11 districts				
				Pre-Conditions
For Output 3 3-1. Appoint MCH RB focal persons at GHS and regional levels 3-2. GHS promotes M&S of MCH RB to be ingtegrated into exisiting monirting sysytem 3-3 GHS Promotes CoC utilizing the MCH RB in their policy and regulations 3-4. Develop Management Guide 3-5. Support development of national Mid-term Procurement Plan of MCH RB 3-6. Identify most suitable existing mechanism for stakeholder coordination 3-7. GHS advocates MOH on the use of MCH RB in all health facilities including teaching hospitals, CHAG, and private hospitals and facilities 3-8. MOH and GHS promote the training on MCH RB to be integrated into the pre-service training programs for health worker 3-9. Advocated support from Private and other stakeholders for support 3-10. Participate in international/regional conferences to share experiences				1. The plan of introduction of MCH RB does not change. 2. Budget for printing, distribution, implementation and monitoring of MCH RB is ensured. **<Issues and countermeasures>**

Project Design Matrix

Project Title: Project for Improving Continuum of Care for Mothers and Children through the introduction of combined MCH Record Book **Version 3**

Implementing Agency: Ghana Health Service (GHS) **Dated 9 June 2021**

Target Group: Pregnant Women, Mothers and Children under 2 years (1million *2*3*) 6million, Health Workers (5300), Regional and District Health Team (1000)

Period: April 2018 - JAN.2022 (3 years and 9 months)

Project Site: Nationwide, Focused Districts: 11 districts in Ashanti Region

Narrative Summary	Objectively Verifiable Indicators (ver.2)	Objectively Verifiable Indicators (ver.3)	Means of Verification	Important Assumption
Overall Goal More women and children complete Continuum of Care (CoC).	1.80 percent of women and children complete CoC* checked by MCH RB * CoC: ANC 4 times and more +Delivery Assisted by SBA+ PNC 3 times 2.70 percent of pregnant women and children receive nutrition counselling at least three times 3.65 percent of women and children practice Exclusive Breastfeeding 4.70 percent of women and children practice Early Initiation of Breastfeeding 5.MCH RB are used with correct ways at 80% of health facilities which offers MCH services	1.80 percent of women and children complete CoC* checked by MCH RB * CoC: ANC 4 times and more +Delivery Assisted by SBA+ PNC 3 times 2.70 percent of pregnant women and children receive nutrition counselling at least three times 3.65 percent of women and children practice Exclusive Breastfeeding 4.70 percent of women and children practice Early Initiation of Breastfeeding 5.MCH RB are used with correct ways at 80% of health facilities which offers MCH services	MICS DHS DHIMS Integrated SSV	
Project Purpose More women and children utilize quality MCH services.	1. 90 percent of women utilize ANC4+, 80 percent of women utilized SD, 88 percent of women and children utilize 2nd PNC. 2. 70 percent of all births are recorded in the MCH RB 3. 50 percent of pregnant women and children who receive nutrition counselling at least once.	1. 80 percent of women receive ANC 4 times and more, 65 percent of women receive delivery care by SBA, 88 percent of women and children receive PNC within 48 hours after delivery. 2. 70 percent of all births are recorded in the MCH RB 3. 50 percent of pregnant women and children who receive nutrition counselling at least once.	MICS 2017 DHS 2019 DHMS Annual Performance Review Monitoring report	COVID-19 situation will be stabilized and the Project activities will resume normal after the Japanese Experts are back in Ghana

Outputs 1. MCH RB is developed and rolled out to nationwide.	1-1. Existence of MCH RB 1-2. Existence of User Guide 1-3. MCH RB are distributed to 90% of health facilities which offers MCH services ***1-4. MCH RB are used at 80% of health facilities which offers MCH services*** 1-5. 30 of Regional and 532 District facilitators trained and 90% of them has competency to facilitate and supervise health workers 1-6. 300 health workers from major hospitals and other health institutions are trained and 90% of them show their knowledge and skills on MCH RB are satisfactory	1-1. Existence of MCH RB 1-2. Existence of User Guide 1-3. MCH RB are distributed to 90% of health facilities which offers MCH services ***1-4. MCH RB are used at 80% of health facilities which offers MCH services*** 1-5. 30 of Regional and 532 District facilitators trained and 90% of them has competency to facilitate and supervise health workers 1-6. 300 health workers from major hospitals and other health institutions are trained and 90% of them show their knowledge and skills on MCH RB are satisfactory		Financial burden for MCH services for individual household do not increase
2. Capacity of effective utilization of MCH RB is strengthened among health workers and mothers.	2-1. Guideline, training package on MCH RB and NCSRC are developed 2-2. Behaviour change communication (BCC)activities are conducted in selected districts 2-3. 900 health workers are trained in MCH RB and NCSRC in 11 focus districts 2-4. 80 percent of health workers who participated in the training improve skills on filling and utilizing MCH RB correctly in 11 focus districts 2-5. 80 percent of women/caregivers can answer the date of next visit by utilizing MCH RB in 11 focus districts 2-6. 90 percent of children have a plotting of weight recorded correctly in MCH RB in 11 focus districts 2-7. 50 percent of children have a plotting of length/height recorded correctly in MCH RB in 11 focus districts 2-8. Nutrition counseling table (3A) is completed for pregnant women/child (70%/70%) in 11 focus districts 2-9. 70 percent of women report that health worker explained procedures and services they provide 2-10. 50 percent of women/caregivers can recall recommended action by health worker 2-11. 70 percent of pregnant women register the first ANC before 12th week of pregnancy	2-1. Guideline, training package on MCH RB and NCSRC are developed 2-2. Behaviour change communication (BCC)activities are conducted in selected districts 2-3. 900 health workers are trained in MCH RB and NCSRC in 11 focus districts 2-4. 80 percent of health workers who participated in the training improve skills on filling and utilizing MCH RB correctly in 11 focus districts 2-5. 80 percent of women/caregivers can answer the date of next visit by utilizing MCH RB in 11 focus districts 2-6. 90 percent of children have a plotting of weight recorded correctly in MCH RB in 11 focus districts 2-7. 50 percent of children have a plotting of length/height recorded correctly in MCH RB in 11 focus districts 2-8. Nutrition counseling table (3A) is completed for pregnant women/child (70%/70%) in 11 focus districts 2-9. 70 percent of women report that health worker explained procedures and services they provide 2-10. 50 percent of women/caregivers can recall recommended action by health worker 2-11. 70 percent of pregnant women register the first ANC before 12th week of pregnancy	2-1. Project reports 2-2. Project reports 2-3. Project reports 2-4. Project reports 2-5. Project reports 2-6. Project reports 2-7. Project reports 2-8. Project reports 2-9. Project reports 2-10. Project reports 2-11. Project reports	

3. MCH RB is institutionalized and integrated into routine services for sustainability.	3-1. Existence of Management Guide 3-2. Existence of national Mid-term procurement plan of MCH RB 3-3. Recording section of the results of medical screening for pre-school and primary school entrants are added to MCH RB 3-4. Existence of the national guideline which promote CoC with MCH RB	3-1. Existence of Management Guide 3-2. Existence of national Mid-term procurement plan of MCH RB 3-3. Recording section of the results of medical screening for pre-school and primary school entrants are added to MCH RB 3-4. Existence of the national guideline which promote CoC with MCH RB	3-1. Project reports 3-2. Project reports 3-3. Project reports 3-4. Project reports	
Activities	**Inputs**			**Important Assumption**
For project management 0-1. Collect and compile baseline/end line data 0-2. Monitor the progress of the project periodically 0-3. Share the results of monitoring with MoH and modify the project approach when necessary 0-4. Compile evaluation report reviewed by MoH	**The Japanese Side** 1. Experts(tentative): - Chief Advisor (Short-term based) - Maternal and Child Health - Nutrition - Community Health - Project Coordinator - Other Short-term experts as required 2. Printing and distribution cost for MCH RB 3. Participation in international/regional conferences etc. 4. Machinery and Equipment: - Equipment for MCH RB training - Vehicles - Office equipment		**The Ghanaian Side** 1. Assignment of Counterparts - MOH, GHS 2. Printing and distribution cost for MCH RB 3. Arrangement of the office spaces and utility cost for the Project offices 4. Running expenses	1. Midwife/CHO appropriately assigned at health facilities. 2. GHS staff allocation system for The Project is consistently maintained and employee turnover does not significantly occur.

For Output 1 1-1. Develop MCH RB and authorize it as national standard Home based record 1-2. Conduct pilot test and evaluate results 1-3. Develop procurement plan for national rollout 1-4. Develop User Guide and training materials 1-5. National facilitators train regional facilitators (ToT) 1-6 Regional facilitators train district facilitators (ToT) 1-7. Conduct health worker training at selected major hospitals 1-8 Conduct Monitoring and Supervision in 16 regions 1-9 Develop Audio-visual learning aid and explore e-learning system 1-10. Conduct national MCH RB review 1-11. Print and distribute MCH RB 1-12. Procure equipment for MCH RB for focus districts For Output 2 2-0 Select 11 focus districts 2-1. Conduct baseline/end line survey and situation analysis in 11focus districts 2-2. Develop training materials on nutrition counseling services and respectful care (NCSRC) 2-3. Regional and District facilitators train health workers in focus 11 districts 2-4. Regional and District facilitators conduct monitoring and supervision in focus 11 districts 2-5. Develop BCC messages and BCC materials in focus districts	5. Running expenses				

2-6. Conduct BCC in focus districts 2-7. Dissemination of good practices in 11 districts				
				Pre-Conditions
For Output 3 3-1. Appoint MCH RB focal persons at GHS and regional levels 3-2. GHS promotes M&S of MCH RB to be integrated into existing monitoring system 3-3 GHS Promotes CoC utilizing the MCH RB in their policy and regulations 3-4. Develop Management Guide 3-5. Support development of national Mid-term Procurement Plan of MCH RB 3-6. Identify most suitable existing mechanism for stakeholder coordination 3-7. GHS advocates MOH on the use of MCH RB in all health facilities including teaching hospitals, CHAG, and private hospitals and facilities 3-8. MOH and GHS promote the training on MCH RB to be integrated into the pre-service training programs for health worker 3-9. Advocated support from Private and other stakeholders for support 3-10. Participate in international/regional conferences to share experiences				1. The plan of introduction of MCH RB does not change. 2. Budget for printing, distribution, implementation and monitoring of MCH RB is ensured. **<Issues and countermeasures>**