1 BACKGROUND

The first HIV case in Ghana was officially reported in 1986, which was followed by the establishment of the National AIDS/STI Control Programme (NACP) as part of the Ghana Health Service (GHS) in 1987 in order to coordinate HIV & AIDS related interventions including prevention and treatment. In 2000, the Ghana AIDS Commission (GAC) was formed under the office of the President as the national coordinating body of the national response for HIV & AIDS in a cross-sectoral manner. GAC, as the highest policy making body on HIV & AIDS, leads the coordination of the programmes and activities undertaken by all stakeholders through advocacy, joint planning, research, monitoring and evaluation towards comprehensive prevention and total control of the disease.

According to the HIV Sentinel Survey reports, the estimated national prevalence in Ghana was 1.9% in 2010 and the latest available data shows 1.3% in 2013, which has remained comparatively low in Sub-Saharan Africa. However, the prevalence among those aged 20 to 24 and 45 to 49 went up from 2008 to 2009. During the same period, all regions but the Eastern Region, which showed the highest prevalence in the country, marked an increase in the incidents of HIV & AIDS. Such situations required supports for maintaining low prevalence in Ghana.

Currently, the Government of Ghana (GoG) strengthens its efforts in prevention of mother-to-child transmission of HIV (PMTCT) so as to tackle the only way for children under 5 to acquire the virus, namely, the vertical transmission from HIV positive mothers. The Government also sees PMTCT as a key in attaining the Millennium Development Goals (MDGs) 4 (reduce child mortality), 5 (improve maternal health), and 6 (combat HIV & AIDS, malaria and other diseases). Recognizing the significance, the Ministry of Health (MOH), GAC and GHS with support from the development partners (DPs) such as UNICEF, WHO, and UNAIDS, published the "PMTCT Scale-up Plan 2011 – 2015," in order to accelerate the efforts to achieve the national goal of virtual elimination of mother-to-child transmission of HIV (eMTCT) by 2015, which was set in the "National HIV & AIDS Strategic Plan 2011 – 2015."

As part of the effort, in increasing accessibility of quality comprehensive PMTCT services, GoG was facing the following challenges:

1) Lack of variety in IEC materials on PMTCT;
2) Existing IEC materials underused;
3) Lack of user-friendly manuals that assist efficient and quality PMTCT services; and
4) Inadequate supervisions.

Against this background, GoG requested the Government of Japan in 2009 for supporting the implementation of the "Project for Strengthening Operational Capacity of Prevention of Mother-To-Child Transmission of HIV (PMTCT)." The Project has been implemented in collaboration with NACP and Greater Accra Regional Health Directorate (RHD) as counterpart agencies from February 2012 to March 2015 targeting the Greater Accra Region (GAR). The Project purpose is to strengthen the administrative system of providing PMTCT-Information, Education, and Communication (IEC) services in the Region.

a) Project Duration: February 2012 – March 2015

b) Target Area: GAR

c) Target Group:

(1) Direct Beneficiaries: Approximately 200 health personnel engaged in PMTCT

(2) Indirect Beneficiaries: Approximately 140,000 women receiving ante- and postnatal care services and their children

d) Overall Goal: The quality of PMTCT service delivery is enhanced in Ghana.

e) Project Purpose: The administrative system of providing PMTCT-Information, Education, and Communication (IEC) services are strengthened in GAR.

f) Outputs:

(1) The capacity of supervisors at each level in the Greater Accra Region is enhanced regarding supervision of PMTCT service provision.

(2) PMTCT-IEC services are effectively conducted by using PMTCT-IEC materials.

(3) Capacity of PMTCT counsellors in terms of PMTCT-IEC service delivery is further enhanced in target health facilities.

g) Implementing Partners:

<Japanese> Japanese Organization for International Cooperation in Family Planning (JOICFP) and Japan Anti-Tuberculosis Association (JATA)

<Ghanaian> GHS (NACP, Family Health Division (FHD), RHD), MOH and GAC

2 PROJECT ACTIVITIES

All the planned activities were completed including those added and modified based on the agreements among the stakeholders to meet the requests by the counterpart agencies (C/P). (Please refer to the Annex 8) for detailed progress of each activity.)

2.1 BASELINE SURVEY (JUNE – AUGUST 2012)

The survey collected information including: a) current PMTCT administrative system, b) capacity of supportive supervision, c) capacity of PMTCT service delivery, d) existing relevant IEC materials, e) needs in the PMTCT-IEC materials development, and f) baseline data for indicators on the original Project Design Matrix (PDM ver. 00) and other relevant data to set additional indicators. The survey outcomes were verified by the stakeholders such as NACP, RHD, GAC, and FHD and subsequently approved by the Joint Coordinating Committee (JCC) at its 1st meeting in July 2012. The final survey report was officially submitted to JICA in August 2012.

2.2 JCC MEETINGS

The Project held the total of five JCC meetings throughout the Project period as outlined below: twice each in the Japanese Fiscal Year (JFY) 2012 and 2013 and once in JFY 2014.

2.2.1 1ST JCC MEETING (6TH JULY 2012)

The baseline survey outcomes were shared and the Plan of Operations (PO) for JFY 2012 de-

veloped based on the survey results was approved. The members also discussed the severe shortage of health personnel to provide PMTCT services, as revealed in the survey, and made a strong recommendation to JICA to consider training approximately 200 healthcare providers to be engaged in PMTCT in GAR. Based on the suggestion made by the Project Director, it was approved by the chairperson that FHD was officially added as a JCC member considering its significant role both in PMTCT service delivery and in IEC materials development and production though it was positioned as an observer of JCC meetings in the Record of Discussions (R/D) signed on 9th November 2011 between GoG and JICA.

2.2.2 2ND JCC MEETING (28TH JANUARY 2013)

The Project progress and PO for JFY 2013 were shared and approved. The outcomes of the Project Consultation Mission dispatched by the JICA Headquarters were also discussed and the revision of PDM was approved as the PDM ver. 01. In connection with the PDM revision, the Minutes of Meeting (M/M) was signed among MOH, GHS, GAC and JICA at the end of the meeting.

2.2.3 3RD JCC MEETING (11TH JULY 2013)

The Project progress was discussed and the contents of the PMTCT-IEC materials to be developed were approved. Regarding the plan of work for the rest of the JFY 2013, NACP requested for support to revise the national PMTCT guidelines based on the new WHO recommendations on Anti-Retroviral Therapy (ART) as part of the exit strategy for sustainability of the Project's impacts. JICA later approved the request based on the proposal officially submitted by NACP, which included the following two additional activities.

(1) The organization of a workshop to revise the national PMTCT guidelines and training manuals in line with the new WHO recommendations
(2) The organization of the training of trainers (TOT) for 120 trainers from all the ten regions of Ghana and two teaching hospitals

2.2.4 4TH JCC MEETING (13TH FEBRUARY 2014)

The Project progress in JFY 2013 and PO for JFY 2014 were discussed and approved. The final version of the PMTCT-IEC materials newly developed under the Project was also officially approved towards the nationwide utilization by GHS.

2.2.5 5TH JCC MEETING (21ST NOVEMBER 2014)

The Project progress, the terminal evaluation outcomes and sustainability plans at the central and regional levels were shared and approved at the meeting. The evaluation conducted by a joint team of NACP, RHD and JICA concluded that the prospect of the Project purpose to be achieved by the end of the Project period was high. The M/M to this effect was later signed among MOH, GHS, GAC and JICA. The sustainability plans outlined concrete activities to sustain the Project gains and further improvement of the PMTCT service quality as part of the GHS routine work as well as confirmed the continuous and effective use of the materials and tools developed under the Project, beyond the Project period.

2.3 SHARING OF PROJECT PROGRESS AT EXISTING HIV-RELATED MEETINGS

The Project outlines and progress were widely shared and possible technical collaborations were discussed with the Ghanaian stakeholders and DPs at the existing meetings listed below.

- PMTCT Stakeholders Meeting (2 times: September 2012, May 2013)
- Technical Working Group (TWG) meetings on Communication (11 times: May & August 2012, February, May, July & August 2013, February, May, August, October & December 2014)
- Greater Accra Regional Health Management Team (RHMT) monthly meetings (4 times: July & October 2013, February & November 2014)
- District/ Sub-Metro Health Management Team quarterly meetings (Ashiedu Keteke Sub-Metro & Ada East District) (3 times: July 2013, January & November 2014)
- UN Technical Team Meeting on PMTCT (5 times: August, September & November 2012, February & April 2013)

The Project stayed in close coordination and collaboration with the Focus Region Health Project (FRHP) supported by USAID, which had the component of strengthening PMTCT service deliveries in GAR, till its end in February 2014. With UNICEF, which supports the strengthening of PMTCT service deliveries, UNAIDS, which supervises and coordinates HIV & AIDS programmes of UN agencies, and USAID, which supported RHD in GAR under FRHP, the Project deliverables were shared and discussions on possible cooperation were made towards the national scale-up of the materials and tools developed under the Project.

2.4 PROJECT CONSULTATION MISSION (JANUARY 2013)

While the Project has generally been making progress as planned, the Project considered modifications in its activities in accordance with the changes in the situation in Ghana. In this regard, the Project Consultation Mission studied and analysed the Project progress and achievements and changes in the situation in Ghana relevant to the Project, confirmed the challenges and ways forward towards the successful implementation of the Project, checked appropriateness of the PDM ver. 00, and proposed necessary amendments to it. The proposed revisions of PDM were agreed among the stakeholders at the 2nd JCC meeting, with which the PDM ver. 01 was officially approved as what the Project has to follow. The points of revisions are listed below. The framework of the Project itself remains intact.

1) Based on the actual situation in Ghana, the changes already agreed between the Ghanaian C/P and the Japanese experts were reflected as they were. For example, “refinement of existing IEC materials” was changed to “development of IEC materials” as the Project needed not to refine the flipchart developed by the USAID-supported Behaviour Change Support Project (BCSP).
2) Indicators on data management under the Output 3 were added.
3) Field testing of the developed IEC materials was decided to be conducted not only in GAR as the Project’s target area but also in 2 other regions considering the scale-up to other regions as aimed at in the Project’s overall goal (activity 2-3).

2.5 END-LINE SURVEY (JUNE – AUGUST 2014)

With the aim to evaluate the achievements of the Project, the survey collected information including: a) end-line data for indicators on the PDM ver. 01 and PMTCT service statistics using the same study design as the baseline survey conducted in 2012 for comparison. It also carried out a number of in-depth interviews with wide range of Project stakeholders from the midwives working on the ground to the Project Director and JCC chairperson, so as to gather qualitative data to appreciate the relevance, efficiency, effectiveness, impact, and sustainability of the Project. The preliminary survey outcomes were verified by the stakeholders such as NACP, RHD, GAC, and FHD and subsequently put together as the final survey report, which was utilized in the Terminal Evaluation undertaken in November 2014. The final survey report was officially submitted to JICA in September 2014.

2.6 TERMINAL EVALUATION (NOVEMBER 2014)

The joint terminal evaluation team, comprised of members from JICA, NACP and RHD, reviewed and analysed the achievements of the Project and made suggestions to Ghanaian stakeholders towards ensuring sustainability. The evaluation was conducted utilising the end-line survey results compiled in August 2014 and supplementary qualitative information through additional interviews with major stakeholders. It concluded that the Project successfully strengthened the administrative system for providing PMTCT-IEC services in GAR and that it created a solid foundation for further continuation and scale-up of quality PMTCT-IEC services in Ghana. The team prepared the joint terminal evaluation report, which was officially approved at the 5th JCC meeting by signing M/M among MOH, GHS, GAC and JICA.

2.7 PROJECT OUTCOMES DISSEMINATION MEETING (25TH NOVEMBER 2014)

With the purpose of establishing foundation towards nationwide up-scaling of the Project gains, the meeting widely disseminated the end-line survey results, terminal evaluation outcomes, sustainability plans and materials and tools developed under the Project. With the participation of approximately 130 people from the Project priority facilities, Project stakeholders at the national, regional and district levels, RHMT staff of all the ten regions, DPs, NGOs, media, etc., the Project strategy and model were promoted. Different media houses covered the meeting with interviews with the major partners of the Project (2 newspapers, 1 national news agency, 5 TV stations). (Please refer to the Annex 15) for the copies of news articles.)

2.8 STRENGTHENING SUPPORTIVE SUPERVISION ON PMTCT

Five workshops were organised on supportive supervision focusing on PMTCT during the Project period, targeting HIV & AIDS supervisors and representatives from health directorates at the regional, district/ metropolitan, and sub-metro levels as compiled in the table below. Each workshop was composed of 1) 1-day orientation, 2) 3-day field practices, and 3) 1-day review workshop. During the field practices, JICA experts also accompanied some of the groups to provide on-site coaching.

	Timing	Participants	Contents
1[1]	Oct. 2012	HIV & AIDS supervisors at the regional, district/ metropolitan, and sub-metro levels (26 participants)	・Points to check for supportive supervisions ・Development, use, and review of supervisory checklist ・Field practice (peer reviews)
2	Jul. 2013	HIV & AIDS supervisors and representatives from health directorates at the regional, district/ metropolitan, and sub-metro levels (38 participants)	・Effective monitoring ・Field practice (peer reviews) ・Review of supervisory checklist
3	Oct. 2013	HIV & AIDS supervisors and representatives from health directorates at the regional, district/ metropolitan, and sub-metro levels (31 participants)	・Effective use of supervisory checklist ・Field practice (peer reviews)
4	Jan. 2014	HIV & AIDS supervisors and representatives from health directorates at the regional, district/ metropolitan, and sub-metro levels (43 participants)	・Effective supportive supervision ・Practice through role-playing ・Field practice ・Review of supervisory checklist 2013 version
5	Jun. 2014	HIV & AIDS supervisors and representatives from health directorates at the regional, district/ metropolitan, and sub-metro levels (45 participants)	・Sustainability planning ・Field practice (use of supervisory checklist final version)

In order to standardise items to supervise and reduce oversights, 250 copies were printed as "2013 version" in October 2013, and distributed to all the supervisors in GAR as well as NACP. The A-4 sized checklist with duplicate carbon copy enables supervisors to leave the outcomes of the supervisions to the supervised healthcare providers while keeping a copy so that they can follow-up and trace any changes during the next supervisory visit. At each workshop, the checklist's contents were reviewed repeatedly and the comments were reflected to develop the final version in March 2014. A thousand copies were printed for the final version and used during the 5th workshop in June 2014. In response to the request by NACP to introduce it to other regions, 1200 copies were reprinted in December 2014.

2.9 PMTCT PRACTICAL HANDBOOK DEVELOPMENT

For the purpose of developing a portable quick reference on PMTCT service for health staff engaged in PMTCT service delivery and HIV & AIDS supervisors, the PMTCT Handbook Development Task Team was formed with NACP, RHD, FHD, etc. in September 2012. The first draft version developed by the Team was reviewed at a regional workshop in October 2012 by 39 HIV & AIDS super-

[1] The 1st workshop was organized in collaboration with the USAID-supported FRHP with the orientation and field practice financed by FRHP.

visors and coordinators at the regional, district/metro, and sub-metro levels in GAR. The "Field Test Version" (A5-sized, 71-page booklet) was completed in February 2013 and used by the selected 29 counsellors working in the PMTCT services at all the Project priority facilities in GAR for a month. Their feedbacks were shared through the 10 monitoring visits carried out by the regional, district and sub-metro supervisors and reflected to complete the "1st edition" of the Handbook (A5-sized, 74-page booklet) in July 2013. A thousand copies of the "1st edition" were printed and delivered to NACP in August 2013 and distributed to all the PMTCT facilities (162 facilities) and health directorates at the regional and district/metro/sub-metro levels (22 directorates) in GAR as well as the relevant government offices (GHS and GAC) and DPs (UNICEF, USAID, etc.), in September 2013. The "1st Edition" has been used in various Project activities such as PMTCT training, supportive supervision workshops, PMTCT site visits training, etc. Through the on-site coaching of supportive supervision and data management by the JICA experts, the effectiveness and efficiency of the Handbook in actual services have been confirmed. Other regions also requested the Project to distribute the Handbook. In accordance with the revised national PMTCT guidelines that adopted the Option B+, the new WHO recommendation, the handbook was also revised in November 2014 as the "final edition." Seven thousand copies of the "final edition" were printed and delivered to NACP in December 2014 for nationwide use in 2015 upon the commencement of the Option B+ implementation.

2.10 PMTCT-IEC MATERIALS DEVELOPMENT

The refinement of the PMTCT flipchart developed by the USAID-supported BCSP was found to be almost completed before the initiation of the Project though it was originally planned as a Project's component. The Project and its C/P, therefore, agreed to newly develop PMTCT-IEC materials to complement the flipchart. Based on the information gathered through the reviews of different PMTCT related documents, existing PMTCT-IEC materials, utilization of those materials, and PMTCT-IEC activities already carried out in facilities, the following three kinds of PMTCT-IEC materials entitled "Mama's Determination" were developed.

1) A **video drama**, which can be shown in waiting rooms of Ante-Natal Care (ANC) and/or Antiretroviral Therapy (ART) services with the aim to facilitate the understanding by mothers on benefits of seeking PMTCT services (34 min., Twi sound/ English subtitle)
2) A **photo drama book** that tells the same story of the above-mentioned video drama through photos with minimum texts (not require electricity or audio-visual equipment) (A4 size, 34 pages)
3) An **interactive card** which facilitates communication between mothers and healthcare providers (handy size, two-folded, four different colour schemes)

Throughout the production process, a joint production team was composed of GHS (NACP and FHD) and GAC together with Japanese experts and production skills and techniques were transferred on-the-job basis from the Japanese experts to their counterparts.

Prior to the actual production, as part of the technical transfer programme, a 3-day workshop was held in February 2013 for creating message options, with 30 participants consisting of PMTCT

counsellors of the Project priority facilities, HIV & AIDS supervisors at the regional and district/ sub-metro levels and staff from the Health Promotion Unit of GAR RHD (HPU), NACP, FHD, the Health Promotion Department of GHS (HPD), and GAC. The messages options compiled at the workshop were utilized in the actual materials development. The workshop made the materials development process participatory by involving the target users (health care staff), which is expected not only to make the materials more user-friendly and relevant but also to make their ownership of the developed materials stronger, which will then lead to more effective use of the materials on the ground. The workshop also provided intensive technical transfer on logical message creation skills to effectively promote desired behaviour changes.

In the 2nd year of the Project, the joint team carried out shooting on location, post-production, design and layout, printing, etc., during the period of August – October 2013. This was followed by field testing from November to December 2013 using the test version (120 DVDs of the video drama, 2,000 copies of the photo drama book, and 50,000 copies of the interactive cards) in the northern belt (Northern Region), middle belt (Ashanti Region), and southern belt (GAR) so as to find out whether the contents were acceptable to different areas towards the nationwide dissemination of the materials by GHS. The feedbacks were collected through questionnaires from the health service providers, observation of the use, and interviews with clients, which were analysed in January 2014 and utilized for finalization. With the objective of accelerating nationwide dissemination of the developed materials, on 22nd July 2014, the "Mama's Determination" Dissemination Meeting was held in Accra with 113 participants from GoG, all the ten regions, UN, NGOs, and media houses, where the final materials (1,350 DVDs of the video drama, 8,000 copies of the photo drama book, and 340,000 copies of the interactive cards) were distributed to the regional health directorates of all the regions and other relevant agencies. GHS officially committed for continuous effective use of the materials at the meeting, which was covered by 2 TV stations and 3 newspapers. (Please refer to the Annex 28) for the copies of news articles.)

As part of the follow-up activities, monitoring of the use of the materials was conducted at 10 Project priority facilities jointly by HPU of GAR and the Japanese expert in August 2014. It confirmed that the materials were well-utilized effectively on the ground. They also carried out on-site coaching to the health service providers by introducing different ways of making the best use of the materials. This joint activity also strengthened the capacity of HPU including monitoring methods using the checklist and reporting of outcomes.

The involvement of the Ghanaian partners in the entire production process effectively increased the ownership of the Ghanaian stakeholders for the materials, which leads to sustainable effective utilization. The skills and techniques transferred from the Japanese experts for culturally sensitive IEC tools development, such as the message options creation and episodes-based scenario development and important points of attention in shooting and postproduction, are expected to contribute to the development of more effective educational materials in the country. In response to the demands heard from quite a large number of people during the field testing, GHS has been considering modification of the video drama with different dialects in the future. The Project organised the editable

final video data in such a way as to facilitate the localisation of languages with the techniques of the Ghanaian partners.

2.11 PMTCT TRAINING

This activity was proposed to be added at the 1st JCC meeting held in July 2012 based on the baseline survey result of severe shortage of health personnel trained in PMTCT service delivery and later approved by JICA. The Project supported the training as shown in the table below targeting different cadres of healthcare providers who were already or expected to be engaged in PMTCT service delivery in GAR. The total of 227 counsellors was newly trained while 118 counsellors received refresher training under the Project. Including other training, the Project contributed to the capacity enhancement for 474 health staff in total, which, according to the RHD, sufficiently covers those who needed such training in the region.

	Title	Timing	Participants	Objectives
JFY 2012				
1	PMTCT Fresh Training	Nov. & Dec. 2012 (6 days x 4 times)	108 healthcare providers who were never trained in PMTCT	To understand and become able to practice comprehensive PMTCT services
2	PMTCT Sites Visit Training	Jan. 2013 (2 days)	10 healthcare providers engaged in PMTCT services in Ashiedu Keteke Sub-metro	To improve the quality of their PMTCT service delivery through observations of PMTCT services at Ridge Hospital and La General Hospital and discussions with PMTCT counsellors of the visited facilities
JFY 2013				
3	PMTCT Fresh Training	Jun., Sept. & Oct. 2013 (6 days x 4 times)	119 healthcare providers who were never trained in PMTCT	To understand and become able to practice comprehensive PMTCT services
4	PMTCT Sites Visit Training	Oct. 2013 (2 days)	14 healthcare providers engaged in PMTCT services in Ada East and Ada West districts	To improve the quality of their PMTCT service delivery through observations of PMTCT services at Tema Polyclinic and discussions with PMTCT counsellors of the visited facilities
5	Exchange Visits Training	Jan. 2014 (3 days)	13 healthcare providers engaged in PMTCT services in Ashiedu Keteke Sub-metro, Ada East	To improve the quality of their PMTCT service delivery by mutual learning through peer review of PMTCT services at

			and Ada West districts	Ussher Polyclinic, Jamestown Maternity Home, and Princess Marie Louise Children's Hospital in Ashiedu Keteke, District Hospital in Ada East, and Sege Health Centre in Ada West
JFY 2014				
6	ART Orientation	Jun. 2014 (2 days x 2 times)	45 prescribers who were never trained in PMTCT	To understand ART and become able to prescribe ARVs
7	PMTCT Orientation	Jun. 2014 (1 day x 2 times)	47 healthcare providers who were never trained in PMTCT	To understand PMTCT service flow and contribute to smooth service provisions
8	PMTCT Refresher Training (Early Infant Diagnosis: EID)	Jul. 2014 (2 days x 4 times)	118 healthcare providers who were trained and engaged in PMTCT services	To understand and become able to practice EID

2.12 SUPPORT FOR THE TRANSITION TO OPTION B+

In response to the request by NACP during the 3rd JCC meeting in July 2013, this support was approved as additional Project activities by JICA, considering that it was necessary for the activity 1-3 in PDM version 01 (*To conduct trainings in line with the National PMTCT Guidelines for health personnel engaged in PMTCT services (Midwives, Nurses, Pharmacists, Laboratory Technicians, Doctors, etc.) in the Greater Accra Region*) and ultimately accelerate the country's efforts towards the achievement of the national goal of eMTCT. In January 2014, a three-day workshop was organized in collaboration with NACP with the aim to revise the national PMTCT guidelines and training manuals to adopt "Option B+" based on the new WHO recommendations on ART. In total 16 members of the National Technical Working Group on ART/PMTCT worked in groups for the revisions. The outputs of the workshop were pre-tested through the four batches of training of trainers (TOT) carried out in February 2014 with the participation of 108 trainers from all the ten regions and one teaching hospital (Korle-Bu). Based on the recommendation made during the 5th JCC meeting in November 2014 that the new national PMTCT guidelines be distributed nationwide through NACP in preparation for the implementation of the Option B+ to be commenced in 2015, five thousand copies of the new guidelines were printed in December 2014.

2.13 SOP ON FACILITY-LEVEL DATA MANAGEMENT

The Standard Operation Procedure (SOP) of facility-level data management on PMTCT was drafted in the 1st year of the Project period, which was simplified and incorporated as part of the PMTCT Handbook "1st edition" by the PMTCT Handbook Development Task Team under the Output 1. It was further revised in accordance with the new national PMTCT guidelines and integrated into the

PMTCT Handbook "Final edition."

2.14 FOLLOW-UP OF TRAINING ON FACILITY-LEVEL DATA MANAGEMENT

On-site coaching on facility-level data management was held by Japanese experts ten times in total throughout the Project period (August & November 2012, August & November 2013, February, May, June, July, August & November 2014) at the four selected facilities for data management improvement[2]. It focused on the Project's output indicators, namely 1) completeness in filling the PMTCT register; 2) consistency between the data in the register and those reported in the monthly reports; and 3) timeliness in submitting the monthly reports. The experts visited the facilities jointly with the supervisors in charge of the areas and provided advice. The above-mentioned indicators 1) and 3) have largely achieved the 95% targets set in the PDM while the indicator 2), though generally being improved, has still seen ups and downs, which requires continuous close monitoring and coaching. The findings of the monitoring by the Japanese experts were shared with NACP and HIV & AIDS supervisors at the regional, district/ sub-metro levels for further sustainable improvement.

2.15 PROJECT PR

The Project's progress was widely made known both in Ghana and Japan through the media listed below.

- Project's website on the JICA Home Page
- Homepages of JOICFP and JATA
- TV stations, newspapers, and news agency in Ghana
- PMTCT Stakeholders Meeting (September 2012, May 2013)
- TWG meetings on Communication (May & August 2012, February, May, July & August 2013, February, May, August, October & December 2014)
- UN Technical Team Meeting on PMTCT (5 times: August, September & November 2012, February & April 2013)
- The Home Page of the JICA Ghana Office
- "Mama's Determination" Dissemination Meeting (July 2014)
- Project Outcomes Dissemination Meeting (November 2014)

3 CHALLENGES & LESSONS LEARNT IN PROJECT IMPLEMENTATION

The following challenges and lessons learnt were identified in the Project implementation.

- As the Project components are relevant to different agencies at the central and decentralized levels, smooth project operation requires understanding of roles played by respective agencies and involvement of all the agencies by properly positioning each one in the project implementation structure from the onset of the project. For the Project, as FHD was initially not an official member of JCC in spite of its critical role in PMTCT service delivery from the viewpoint of integration with maternal,

[2] Jamestown Maternity Home, Ada Health Centre, Kasseh Health Centre, and Sege Health Centre

new-born, and child health (MNCH), it was necessary to change the JCC membership to incorporate them after the Project implementation started. This strengthened the sustainability and scale-up aspects of the Project as well as its smoother implementation.

- Working both with the central and decentralized levels turned out to benefit the Project by sharing the experiences at different levels towards consolidation of a model. For instance, since the PMTCT supervisory checklist, though originated from the felt needs of the regional and district/ sub-metro HIV & AIDS coordinators working on the ground in GAR, was developed in consultation with NACP, is now utilized in other regions through NACP. Latest information obtained through activities at the central level was utilized to make the regional level activities more up-to-date. The Project could eventually secure strong commitments by GoG towards both the sustained implementation of activities in GAR and national scaling-up of the model.

- Provision of opportunities for healthcare providers working on the ground to visit other health facilities and observe their services is effective for them to learn and become motivated for improvement of their own services. The PMTCT Sites Visit Training and Exchange Visits Training gave the participants from different PMTCT facilities opportunities of mutual learning and friendly competitions for the deliveries of better quality PMTCT services. They also contributed to consolidating horizontal network among the facilities through those engaged in PMTCT services, which then came to further comprehensive PMTCT service delivery system through smoother referrals and closer follow-up of clients.

- In order to boost confidence in and ownership of the project towards smooth operation and reinforcing sustainability and scale-up beyond the project period, it is critical to take time for coordination and frequent communication among all the stakeholders. Flexibility is also as vital so as to respect the independence of partners. The Project experienced some difficulties in coordinating activities between the Japanese experts and Ghanaian C/Ps during the project implementation. The Ghanaian C/Ps had to attend to many competing demands from various development partners while the Japanese experts had time constraints to complete their assigned tasks within their allocated periods to be dispatched to Ghana.

- Projects need to take in consideration of the national goals/ policies in its activities (e.g. the revision of the PMTCT guidelines based on the new WHO recommendations launched in 2013 and its subsequent activities in case of the Project) as well as the time management of the project progress (e.g. eMTCT goal by 2015).

- Activities should be designed in such a way as to clearly demonstrate to the C/Ps benefits of JICA technical cooperation scheme in addition to persistent efforts to gain a sufficient understanding on the scheme during the project formulation process, for its operation procedures are quite different from bilateral cooperation schemes of other DPs with which the C/Ps are likely to be more familiar. In the Project, the message options creation workshop served as one of the triggers for the C/Ps to see and feel the benefits by learning in a participatory manner technical know-how of culturally sen-

sitive productions established through years' experience of the Japanese experts.

4 ACHIEVEMENT OF PROJECT PURPOSE

The terminal evaluation conducted in November 2014 concluded that the prospect of the Project purpose of "strengthening of the administrative system of providing PMTCT-IEC services in the Greater Accra Region" was high. This conclusion was derived from the attainment of all the three outputs and two of the four Project purpose indicators for which meaningful data were available. The achievement of each indicator on the PDM ver. 01 is shown on the tables below.

4.1 OUTPUT 1: ENHANCEMENT OF SUPERVISORS' CAPACITY

All the two indicators were achieved as follows.

Indicators	Achievements
1. Facilitative supervision for target health facilities by RHD is conducted by utilizing the checklist compiled under the Project by March 2014.	・ The checklist is highly appreciated by its users (supervisors) for its thoroughness and user-friendliness. ・ It has been utilized in PMTCT supportive supervision. (It was used in the field practices as part of the supportive supervision workshops organised 5 times under the Project.)
2. 70 % of health personnel answer at the end-line survey that feedbacks given by supervisors are more practical than those before the implementation of the Project.	・ According to the end-line survey results, 71% of the respondents who had received supportive supervision in the last two years answered that feedbacks given by supervisors were more practical than those before the implementation of the Project. ・ In the same survey, 91% of the respondents answered that the quality of PMTCT services was improved by supportive supervision.

4.2 OUTPUT 2: EFFECTIVE IMPLEMENTATION OF PMTCT-IEC SERVICES

All the three indicators were achieved as follows.

Indicators	Achievements
1. PMTCT-IEC materials, developed by the Project, are approved by the GHS by March 2014.	・ All the three materials developed under the Project were officially approved by GHS at the 4th JCC meeting held in February 2014.
2. PMTCT-IEC services are conducted utilizing the developed materials at the target health facilities by March 2014.	・ PMTCT-IEC services started to be conducted utilizing the test version of the developed materials at the target health facilities in November 2013.
3. Developed materials are introduced to other health facilities in the Greater Accra Region by August 2014.	・ The final materials dispatched to RHD in July 2014 were introduced to other PMTCT facilities in GAR through RHD in August 2014.

4.3 OUTPUT 3: ENHANCEMENT OF PMTCT COUNSELLORS' CAPACITY

All the four indicators were largely achieved as follows.

Indicators	Achievements
1. 90% of health personnel trained under the Project in line with the national PMTCT guidelines achieved the pass line of post-tests.	・ 98% of the trainees of PMTCT fresh training achieved the pass line of the post-test (70%). (66% achieved the pass line for the pre-test.)
2. All 4-selected target facilities submit monthly return forms in time for the last 3 months prior to the end-line survey.	・ All the four facilities submitted monthly return forms in time for the last three months prior to the end-line survey (Apr. – Jun. 2014).
3. More than 95% of PMTCT register items are appropriately filled at the selected health facilities for the last 3 months prior to the end-line survey.	・ All the key items of the PMTCT register (name, age, maturity, HIV test results, etc.) were completely filled (100%) at all the four facilities for the last three months prior to the end-line survey (Apr. – Jun. 2014).
4. More than 95% consistency between the numbers registered and those reported is attained in PMTCT related data for the last 3 months prior to the end-line survey.	・ Within the period of April – June 2014 (three months prior to the end-line survey), all but April and May at Kasseh, May at Ada attained more than 95% consistency between the number registered and those reported. The irregular supply of syphilis test kits was the major cause of inconsistency.

4.4 PROJECT PURPOSE: STRENGTHENING OF ADMINISTRATIVE SYSTEM OF PROVIDING PMTCT-IEC SERVICES IN GAR

Out of all the two indicators, those that can be assessed the level of attainments with the available data were achieved as follows.

Indicators	Achievements
1. PMTCT practical handbook and IEC materials developed under the Project are endorsed by GHS (NACP/FHD).	・ Both PMTCT practical handbook and IEC materials developed under the Project were endorsed by GHS, thus GHS logo is printed on all of them.
2. Projected national target values of PMTCT goals on the final year of the Project are achieved at the target health facilities (i.e. % pregnant woman attending ANC counselled and tested for HIV; % HIV-infected pregnant women who receive ARVs for PMTCT; and % HIV exposed infants on ARVs prophylaxis for	・ The performance of the Project priority facilities is shown in the table below per national target. The data of the indicators 2) and 3) could not be analysed specifically for the priority facilities since these are either referral centres and therefore reported over 100% at both the baseline and the end-line or do not provide ART service.

PMTCT).

PMTCT Service Indicators	Baseline (2011)	End-line (2013)	Target (2015) 2/
1) % pregnant woman attending ANC counselled and tested for HIV			
GAR	88%	88%	95%
Priority Facilities 1/	**77%**	**99%**	
2) % HIV-infected pregnant women who receive ARVs for PMTCT			
GAR	52%	71%	90%
Priority Facilities 1/	**NA**	**NA**	
3) % HIV exposed infants on ARVs prophylaxis for PMTCT			
GAR	31%	38%	90%
Priority Facilities 1/	**NA**	**NA**	

1/ Ridge Hospital, Jamestown Maternity Home, Ada Health Centre, Kasseh Health Centre, Sege Health Centre

2/ Prevention of Mother-to-Child Transmission of HIV in Ghana: Scale-up Plan 2011-2015, p.19-20

5 RECOMMENDATIONS TOWARDS ACHIEVEMENT OF OVERALL GOAL

The following recommendations are considered to be necessary to achieve the overall goal of "the quality of PMTCT service delivery is enhanced in Ghana," within three to five years after project completion.

5.1 STRENGTHENING OF INTERVENTIONS FOR HIV-EXPOSED CHILDREN

As shown in the above table under 4.4, the ARV coverage of HIV-exposed infants is significantly low, which falls far short of the national target to be achieved by the end of this year. The percentage of HIV-exposed infants who were screened using DNA-PCR is approximately 30%, which is also far lower than the national target. These figures reveal that Ghana requires the government's full commitment to strengthen the follow-up of HIV-exposed infants. This is now a major shared concern among the stakeholders at the central level and GoG seems likely to intensify its effort in close collaboration with DPs towards rapid improvement in the coverage of PMTCT services for HIV-exposed children.

5.2 MAKING GAR AS MODEL REGION IN SCALE-UP

The Project worked intensively in GAR on capacity enhancement in PMTCT supportive supervision, service delivery, and facility-level data management for supervisors and health service providers engaged in PMTCT services on the ground. The health directorate staffs at regional, district/ metro and sub-metro levels also accumulated experiences in implementation and management of activities through working hand-in-hand with the Japanese experts. As already committed by RHD at the Project Outcomes Dissemination Meeting held in November 2014, GAR, as a PMTCT model region, should make the best use of the human resources strengthened through the Project for technical transfers and experiences sharing to improve quality of PMTCT services in other regions too. It is also recommendable for the GHS headquarters, through NACP and FHD, to encourage other regions to adapt the GAR regional sustainability plan.

5.3 STRENGTHENING OF MONITORING

Regular monitoring at different levels could contribute to the consolidation and further enhancement of the Project gains. Considering the general shortage of monitoring budget in the national HIV control programme, it should require more collaboration with other programmes such as integration/ joint monitoring with tuberculosis (TB) control and MNCH so as to manage with small budget as well as higher non-monetary motivation of supervisors. Importance will be much increased in cross-programmatic coordination at the national level as well.

5.4 NATIONWIDE ROLLOUT OF PMTCT-IEC MATERIALS

The field test outcomes and reactions received at the dissemination meeting of the PMTCT-IEC materials showed that the materials are widely well accepted and highly appreciated by both users (healthcare providers) and targets (pregnant and nursing mothers). For the quantity of the materials distributed to the nine regions apart from GAR as the Project target region was limited, reproduction is essential for nationwide utilization. As requested by various people, the sound of the video drama should be modified to different local dialects in order to benefit more people. Thanks to the favourable reputation, some DPs as well as the national stakeholders show interests in wider usages of the materials.

5.5 STRENGTHENING OF LOGISTICS MANAGEMENT

The occasional shortages of commodities necessary to provide comprehensive PMTCT services such as rapid test kits, reagents and ARVs negatively affected the PMTCT service statistics as part of the Project outcomes to a certain extent. GHS is expected to enhance its logistics management capacity so as to avoid such shortages in the country.