I. INTRODUCTION The Mayer Hashi II (MH-II) project, which operated from October 2013 to December 2019, sought to increase the use of long-acting reversible contraceptives (LARCs) and permanent methods (PMs) in Bangladesh. Funded by the United States Agency for International Development (USAID), EngenderHealth implemented the project in collaboration with the Ministry of Health and Family Welfare’s Directorate General of Family Planning (DGFP) and Directorate General of Health Services. Other implementing partners included the Meridian Group International, Avenir Health, and the Population Council. MH-II interventions built the capacity of public and private organizations to provide LARCs and PMs by training service providers, ensuring quality service delivery, and improving management information systems. Through these activities, MH-II helped improve three basic components of the national family planning system: human resources for health, service delivery, and health information.

MH-II conducted skills building activities related to the delivery of injectables, LARCs, and PMs and the provision of informed counseling in the public, nongovernmental, and private sectors in order to improve the quantity and quality of human resources available to offer family planning services. The project introduced and standardized training curricula (including trainer manuals and participant handbooks), created pools of centralized trainers and institutional trainers, conducted trainings, and established training centers.

To ensure clinical quality, MH-II adapted the family planning compliance and quality monitoring checklist from EngenderHealth’s Ensuring Clinical Quality Framework. Using the standard checklist, MH-II conducted monitoring visits to assess the quality of family planning counseling, infection prevention, and clinical compliance. MH-II then provided coaching support to improve provider competencies.

To strengthen the health information management systems of the DGFP, MH-II introduced a data quality assessment—an auditing process to assess accuracy, completeness, and consistency in recordkeeping—which sough to improve quality of data collection, processing, and reporting.
II. IMPROVING AVAILABILITY AND QUALITY OF HUMAN RESOURCES

Planning and Development of the Training Program

For planning and designing training programs, MH-II used the guidelines provided in EngenderHealth’s Training Toolkit. This toolkit outlines a series of preparatory activities that must be performed in advance of a training event including: (1) trainer selection, (2) participant selection, (3) training curricula and materials development, (4) timeline preparation, (5) training session preparation, (6) training site selection and preparation, (7) logistical arrangements required, (8) training follow-up planning, and (9) training evaluation. Introducing a new training course and introducing a course in a new setting required additional planning and longer preparation times than organizing an ongoing training course.

Conducting Trainings

MH-II conducted basic and refresher trainings in various clinical family planning methods, including injectables, LARCs, and PMs as well as postpartum family planning; these trainings were held centrally, regionally, or on-site, as appropriate. MH-II conducted trainings on LARCs and PMs at the DGFP’s national training institute, the training center of the Obstetrical and Gynecological Society of Bangladesh, and the DGFPs regional training centers.

MH-II implemented different modalities for organizing and conducting training, including centralized training and on-site training. When participants came from different facilities, MH-II held the training in central or regional-level training centers (this included basic or refresher trainings on LARC and PM services). When all the training participants were from the same facility or neighboring facilities, MH-II organized on-site or facility-based training (this included trainings on postpartum intrauterine device). For centralized trainings, most of the trainers were from the training venue. For on-site trainings, two or three MH-II trainers conducted the training with the support from local-level trainers.

The training duration varied, depending on the content; basic trainings lasted from 2 to 21 days and refresher trainings lasted from 1 to 6 days. Clinical trainings included routine trainings (basic and refresher trainings) as well as trainings on new technologies and approaches and other issues related to clinical family planning service delivery.

Institutionalizing Family Planning Training at the Local Level: The Skills Lab Approach

Skills labs are specially equipped practice rooms that function as training facilities and offer medical students, physicians, and other medical staff a safe environment for practicing clinical skills prior to real life application. From October 2017 to September 2018, MH-II assisted the DGFP in introducing skills labs in three districts (Comilla, Khulna, and Sylhet) and in organizing and conducting all clinical trainings.

MH-II first submitted a detailed protocol on the skills lab initiative, which described guidelines for (1) establishing and operating the lab, (2) standardizing trainings, (3) utilizing the lab for conducting trainings and trainee follow-up activities, and (4) monitoring and certifying trainees.

Step 1: Development of Facilities

Each skills lab consists of two facilities; in consultation with the DGFP, MH-II equipped the following facilities to serve as the skills lab:

• The DGFP’s regional training centers served as the didactic and demonstration facilities

1 To address the gaps and needs for family planning services, MH-II awarded the Obstetrical and Gynecological Society of Bangladesh a subaward to establish a reproductive health and family planning training center on its premise, which started functioning in October 2014.
The DGFP's district-level service delivery centers (mother and child welfare centers) served as the facility for skills practice using a simulation models and actual clients.

To help establish the skills labs, the project conducted needs assessments in each of the six facilities (i.e., the three regional training centers and three mother and child welfare centers) in the target districts, supplied necessary equipment and logistics to those six facilities, and supported any required renovations.

**SKILLS LAB:**
**A Comprehensive Family Planning Training Center at the Local Level**

As a result of MH-II support, the DGFP began operating skills labs at the local level. Each skills lab offers:

- A pool of skilled local trainers
- Updated training curricula, standard guidelines and checklists, and reference materials
- Supplies and logistics required for the didactic sessions and skills practice
- Simulated practice capabilities, through the availability of dummies/models and other training equipment
- Access to clinical facilities for real-life practice delivering family planning methods, rights-based counseling, and infection prevention

**Step 2: Development of Trainers**

MH-II had worked with the DGFP to revise, update, and standardize training materials. In consultation with the DGFP, MH-II identified trainers for the three skills labs and conducted training-of-trainers workshops. MH-II trained 40 local trainers on:

1. Clinical skills standardization;
2. Rights-based family planning counseling;
3. LARC and PM services, including postpartum family planning;
4. Training skills standardization;
5. Facilitative supervision.

Following the training-of-trainers workshops, MH-II provided technical assistance to develop training plans; next, the trained trainers began conducting trainings at the skills labs.

**III. ADDRESSING QUALITY GAPS IN SERVICE DELIVERY**

Since the 1980s, the DGFP has used its 10 regional clinical supervision teams to monitor the quality of services delivered through government health facilities. However, the DGFP does not have the capacity to conduct structured, routine quality assurance visits at upazila-level facilities across all 64 districts. To ensure service delivery quality and informed choice and voluntarism in LARC and PM services, MH-II employed seven teams, comprising of one quality assurance and family planning compliance (QA&FPC) officer and one logistics officer each. The QA&FPC officers and logistics officers are part of broader MH-II quality assurance (QA) teams, which include representatives from the DGFP and partner organizations. The DGFP representatives included regional supervisors and district-level clinical supervisors.

The QA teams used MH-II’s standard checklist to assess the quality in family planning service delivery at public, private, and nongovernmental facilities. The checklist contains 117 indicators and is divided into six categories to facilitate monitoring activities:

1. An assessment of the facility and emergency preparedness
2. A family planning compliance assessment
3. Reviews of client record
4. Observations of provider’s counseling skills
5. An assessment of common tasks related to the provision of clinical family planning services, including infection prevention
6. An assessment of provider’s method-specific technical skills

**Steps of QA and Family Planning Compliance Monitoring**

The QA teams visited the facilities and used the checklist to assess quality and compliance status of those facilities.

**Step 1: Pre-Visit**

The QA team scheduled the date and time for the visit strategically to ensure the visit coincided with days where there would be a certain number of clients, such as during family planning camps. Then, the team informed the facility management about the purpose of the visit and requested the records needed to inform observations during the visit and the presence of all staff involved in client care (e.g., physicians, physician-assistants, nurses, nurse-assistants, cleaners, receptionists, and administrators). The team emphasized the need to arrange for the observation of clinical procedures and surgical cases as well as counseling sessions.
Step 2: The Visit
At the outset of the visit, the QA team assessed the facility’s emergency preparedness protocols and the adequacy of its infrastructure, including examination room(s), procedure room(s), and instrument processing area(s). The QA team also assessed the availability of necessary equipment, instruments, supplies, and medications and contraceptives. The QA team observed counseling sessions and clinical procedures. Regarding service provision, the team determined whether (1) the clients’ needs were fulfilled, (2) commodities and trainings were available to the service providers, (3) services were delivered efficiently, (4) the providers had the required skills, (5) infection prevention steps were followed, (6) laboratory procedures were properly followed, (7) counseling was administered properly and family planning compliance requirements were followed, and (8) proper space was available for service delivery. They also assessed adherence to requirements regarding informed choice and voluntarism. When necessary, MH-II's QA teams coached service providers on LARC and PM services. The QA team also reviewed commodity management and storage practices; conducted random audits of medical, counseling, and laboratory records; and observed data recording and recordkeeping. These teams conducted follow-up visits with the facilities within three months of the first visit, as needed.

Step 3: Debriefing
After completing the facility assessment and quality monitoring, the QA team met with the facility manager, service providers, and DGFP’s program managers to share key findings and recommendations. Following this debriefing, this group jointly developed an action plan to respond to identified problems; this plan defined possible solutions, established timeframes (deadlines) for actions, and clarified points of responsibility. The facility manager was responsible for overseeing implementation of the action plan.

Step 4: Reporting and Follow-Up
After returning from the visit, the QA&FPC officers shared the summary findings from the visit with regional- and district-level DGFP managers. They also circulated a copy of the completed checklist and the summary report to the facility within seven days of the visit. There were two types of follow-up after the visit, based on the types of the gaps identified.

- The QA&FPC officers conducted in-person follow-up visits to the facility within three months to assess progress made with regard to implementation of the action plan.
- For specific issues, the QA&FPC officers followed up via telephone and maintained a log recording salient details from these calls.
comprising DGFP representatives and MH-II staff—to conduct documentation reviews, cross checks, and data tracing and verifications in order to improve data quality. This team conducted DQA visits at selected facilities and offices of DGFP managers to review service statistics, recordkeeping, and reporting. MH-II engaged the DGFP's national and district managers to observe different data aggregation levels.

**Step 1: Site Selection**

The DQA team selected the districts to visit based on their performance in providing LARCs and PMs. The team considered any noticeable anomaly in high or low service volume as a selection criterion. After selecting the target districts, the DQA team worked with DGFP officials in those districts to select the individual facilities to visit. These facilities included upazila family planning officer offices, mother and child welfare centers, union health and family welfare centers and rural dispensaries, 12 private clinics and hospitals, and 22 public hospitals.

The QA teams identified gaps in service delivery and recommended corrective measures to improve service quality. MH-II compared the data from the first visit with that of the follow-up visits to ensure that corrective actions recommended were implemented. Data obtained during the first visits showed that, on an average, 76.2% of the facilities complied with the QA and family planning compliance requirements and recommendations. At the end of the follow-up visits, the average rate of compliance increased to 86.6%.

**Step 2: The Visit**

During the visit, the DQA team verified the service statistics of LARCs and PMs, by comparing data collected with data available from other sources, such as the national MIS, the deputy director of family planning’s office, the upazila family planning officer’s office, and service registers. The DQA covered all levels of the health system, including the district, upazila, union health and family welfare centers, and nongovernmental clinics.

**IV. STRENGTHENING THE DATA MANAGEMENT SYSTEM**

MH-II introduced a data quality assessment (DQA) into the DGFP’s management information system (MIS). A DQA is an auditing process through which the quality of the reported data is assessed and the data management system is strengthened. MH-II formed a DQA team—comprising DGFP representatives and MH-II staff—to conduct documentation reviews, cross checks, and data tracing and verifications in order to improve data quality. This team conducted DQA visits at selected facilities and offices of DGFP managers to review service statistics, recordkeeping, and reporting. MH-II engaged the DGFP’s national and district managers to observe different data aggregation levels.

**Achievements: Improved Quality in Service Provision**

Between October 2013 and September 2018, MH-II’s QA teams conducted 1,139 monitoring visits at 734 health facilities across 64 districts. This includes first-time and follow-up visits. Specifically, MH-II QA teams visited 313 upazila health complexes, 59 mother and child welfare centers, 60 nongovernmental clinics, 268 union health and family welfare centers and rural dispensaries, 12 private clinics and hospitals, and 22 public hospitals.

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improve data management. MH-II prepared detailed DQA visit reports and shared findings with the DGFP’s central office. Based on the findings presented, the DGFP’s central office instructed the relevant field staff on the corrective measures either in the form of reports or through circulars as appropriate.

Achievements: Improved Data Management and Reporting
MH-II found that most data issues were related to transcription or calculation errors and duplicative LARC and PM reporting. Further, the DQA teams found that most errors were due to a lack of understanding by the staff who prepared reports. As needed, MH-II conducted follow-up DQA visits to verify whether the recommendations from the previous visits had been implemented. These follow-up visits revealed that nearly all recommendations had been implemented.

The DGFP’s MIS unit effectively used DQAs to: (1) assess the quality of DGFP service statistics and check the accuracy of information, completeness of reporting, and consistency; (2) identify gaps and limitations in data collection and compilation, recordkeeping, and reporting; and (3) provide recommendations to strengthen the system in order to ensure accurate information for reporting indicators.

Step 3: Client Audit
The DQA team randomly selected a sample of LARC and PM clients from the facility records and visited their residences to confirm whether or not they had obtained the methods as indicated in the facility records. The clients provided permission for follow-up visits in the consent forms that they signed at the time of adopting the method.

Step 4: Debriefing and Reporting
The DQA team conducted debriefing sessions with DGFP’s facility managers and upazila- and district-level managers. The debriefings with the DGFP staff at the upazila- and district-levels provided an opportunity to update their knowledge on data management and reporting systems. Similarly, by participating in the DQA, DGFP MIS staff members gained direct knowledge of recordkeeping in the field and exchanged views with management staff on how to improve data management. MH-II prepared detailed DQA visit reports and shared findings with the DGFP’s central office. Based on the findings presented, the DGFP’s central office instructed the relevant field staff on the corrective measures either in the form of reports or through circulars as appropriate.

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V. MH-II’S OVERALL ACHIEVEMENTS

MH-II’s systems strengthening efforts resulted in the provision of methods to 8,986,858 family planning clients between October 2013 and September 2018. Of the clients who adopted a method, 73.4% chose an injectable while the remaining 26.6% chose a LARC or PM (12.6% implant, 8.1% intrauterine device, 3.3% female sterilization, and 2.6% male sterilization). By providing these methods, the project generated 14,785,584 couple years of protection (CYPs). The LARC and PM adopters constituted 88.9% of CYPs, while the injectable adopters accounted for the remaining 11.1%.

MH-II GENERATED CYPS BY METHOD

<table>
<thead>
<tr>
<th>Method</th>
<th>CYPs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Injectables</td>
<td>1,648,806</td>
</tr>
<tr>
<td>Implants</td>
<td>2,889,822</td>
</tr>
<tr>
<td>Intrauterine devices</td>
<td>3,358,107</td>
</tr>
<tr>
<td>Female sterilizations</td>
<td>3,901,647</td>
</tr>
<tr>
<td>Male sterilizations</td>
<td>2,987,202</td>
</tr>
<tr>
<td><strong>Total CYPs</strong></td>
<td>14,785,584</td>
</tr>
</tbody>
</table>

Analysis using the “Impact 2” model, which estimates the health impacts of MH II’s service provision, reveals MH-II’s substantial contribution to preventing unwanted pregnancies and pregnancy terminations. The family planning methods adopted during the project period resulted in a lifetime impact of preventing 6,979,869 unwanted pregnancies and 4,243,831 abortions. In addition, the project supported the prevention of 3,746 maternal deaths.

VI. CONCLUSION

MH-II’s efforts to develop the capacity of public and private sector providers who deliver injectable, LARC, and PM services was critical to improving the availability of trained family planning service providers at all levels of care. MH-II strengthened skills by delivering follow-up support to trainees and providing on-site trainings and the refresher trainings. As a result of MH-II’s capacity building efforts, DGFP service delivery points in all 64 districts in Bangladesh now either have a trained LARC and PM provider on-site or are able to use trained providers from nearby DGFP facilities, from Directorate General of Health Services facilities, or from the private sector to offer LARC and PM services.

MH-II succeeded in supporting skills transfer by developing a pool of central-level trainers, establishing a comprehensive family planning training center in the private sector, and establishing sustainable skills labs at regional clinical training centers in three target districts. MH-II transformed the DGFP’s regional clinical training centers into skills labs that are now staffed with trained trainers and equipped with the instruments and simulation models needed for providers to practice new family planning skills, and strengthened district-level facilities where providers can practice skills with actual
enabled national, district, and upazila managers to identify data quality challenges and address discrepancies. In 2017, the DGFP included DQAs for all 64 districts in its Operational Plan under the Health, Population, and Nutrition Sector Development Program 2017-22. Further, the DGFP conducted DQAs in 18 districts as of June 2018 and will conduct DQAs in 8 additional districts from July 2018 to June 2019 period.

The Way Forward

Future initiatives to strengthen the DGFP’s training programs need to focus on institutionalizing web-based platforms for planning, organizing, and evaluating all types of trainings. It is important to establish an institutional approach for tracking training outcomes, including trainee retention, and provider competence. Further, the DGFP’s district office should be capacitated to design and implement independent, need-based trainings.

To enhance service delivery quality, introducing online quality assurance metrics on service preparedness and infection prevention would enable real time access to central- and local-level DGFP managers and service providers who can help address gaps in service delivery at specific facilities. In addition, the DGFP needs to develop the capacity of district-based quality improvement teams to use digital platforms for facility-based/on-site service quality monitoring and off-site virtual supervision—both of which are critical to improving provider capabilities and ensuring informed decision making.

Integrating the DQA approach at all levels of reporting in the DGFP system can improve data management and strengthen the overall health information management system. The next step would be to automate data collection, management, and reporting at all levels.


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Mayer Hashi-II project at EngenderHealth Bangladesh. Concord Royal Court (5th Floor), House-40, Road-16 (New), Dhanmondi R/A, Dhaka-1209, Bangladesh. http://www.engenderhealth.org