

The Female Sterilization Standardization Plus Initiative: Building Capacity for Providing Minilaparotomy in Four Countries

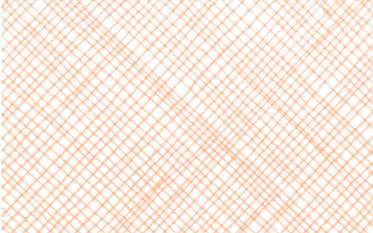
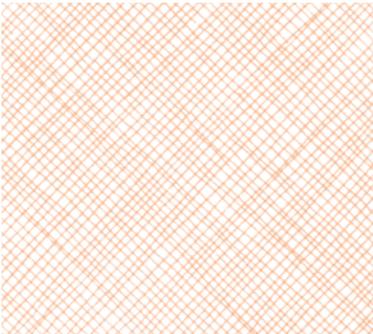
OVERVIEW/RATIONALE

Throughout Sub-Saharan Africa and many other parts of the world, a large proportion of women of reproductive age have an unmet need for family planning (FP), both to space and limit births (Westoff, 2012). Permanent methods are dramatically underused in Sub-Saharan Africa: While 19% of married women of reproductive age worldwide use female sterilization, in Sub-Saharan Africa this proportion is only 1.7% (UN, 2011).

Many countries in Sub-Saharan Africa have developed FP policies and guidelines that promote access to a full range of modern contraceptive methods, in line with the recommendations of the Programme of Action adopted at the 1994 International Conference on Population and Development (United Nations, 1995). However, both availability of and access to FP are affected by barriers such as a lack of skilled providers and poor quality of services (Jacobstein et al., 2013). In several countries, female sterilization is offered by a small number of specialized providers who often are located only at regional or district hospitals. Governments, donors, and the private sector are investing in mobile outreach services, and these services play an important role in increasing access to FP, including female sterilization, and expanding contraceptive choice. However, mobile providers of female sterilization may only visit a catchment area once a year or less (Wickstrom et al., 2013).

Further, few countries have developed and operationalized performance standards for male and female sterilization. Such standardization of female sterilization services is needed as an integral component of quality improvement. To ensure that providers perform procedures to accepted standards, they must receive training and supportive supervision in an enabling environment. Trainers and supervisors should therefore be well-versed in and comfortable with the use of state-of-the-art clinical training approaches, such as those that have been recently adopted for use in minilaparotomy clinical training. EngenderHealth recently updated its minilaparotomy curriculum to include evidence-based practices and approaches, including the adoption of up-to-date clinical training approaches as a foundation for improving performance standards and the quality of female sterilization.

It is within this context of the need to standardize clinical skills and training, improve quality, and allow access to a full range of contraceptive options to women and



couples that The RESPOND Project developed the Female Sterilization Standardization Plus (FSS+) activity. The “plus” signifies that RESPOND would provide technical support to trainers throughout the process of cascade training. RESPOND also integrated an element of South-to-South exchange into the “plus” component, working toward the goal of international cross-learning and dissemination of best practices.

OBJECTIVE

The objective of the FSS+ activity was to increase service providers’ capacity to deliver high-quality female sterilization in four countries in Africa. The activity aimed to reach its objective by standardizing the skills of minilaparotomy trainers, who would in turn train additional providers at the country level to improve service providers’ capacity to meet the reproductive intentions of women who want to use female sterilization to limit future births.

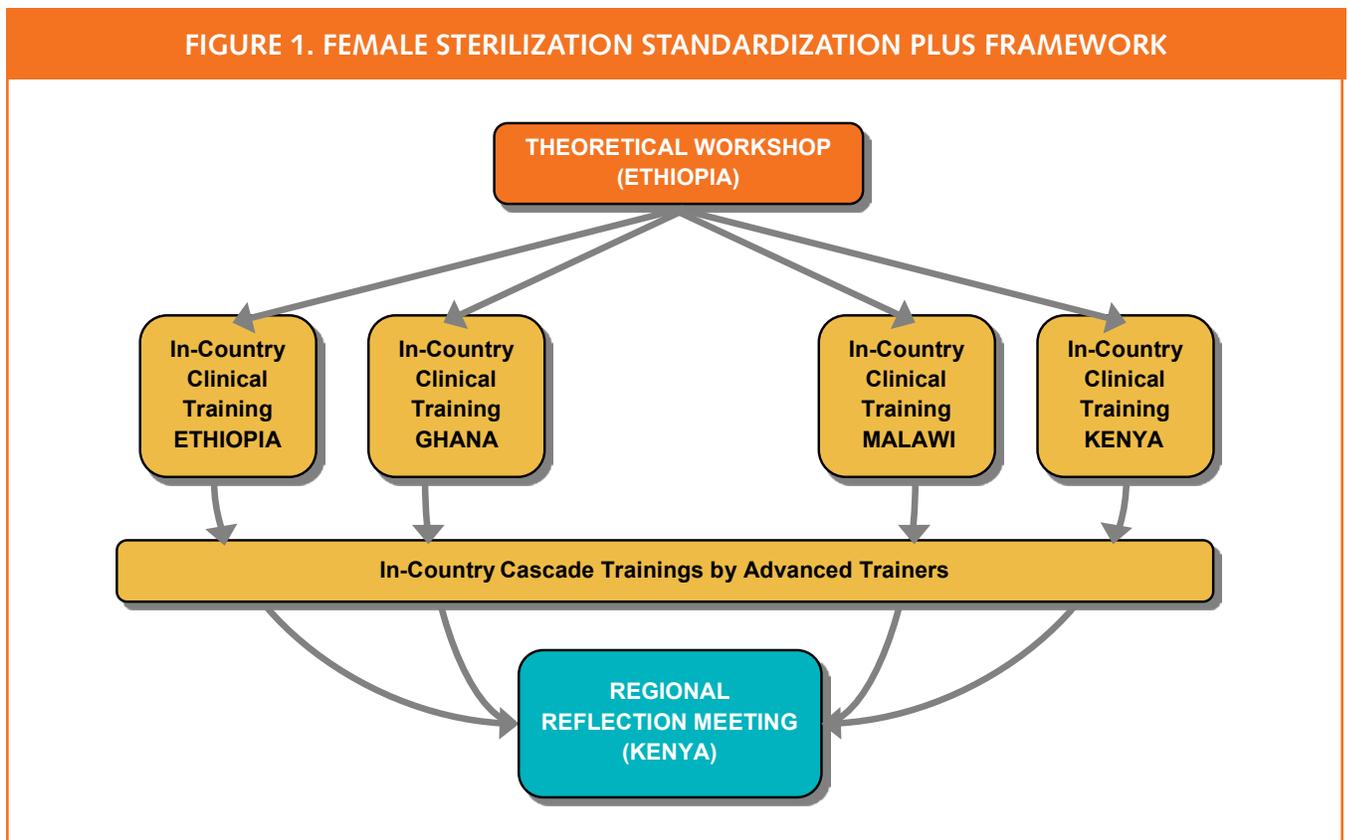
Description of the Intervention

To begin the FSS+ initiative, RESPOND selected four African countries where the ministries of health (MOHs) expressed a commitment to increasing access to long-acting and permanent methods of contraception and where development partners—including the

U.S. Agency for International Development (USAID) country mission—expressed interest in supporting the initiative. Ethiopia, Ghana, Kenya, and Malawi met these criteria; in each country, the MOH led the selection of advanced trainers in female sterilization for the first major activity of the initiative, a standardization workshop held in Ethiopia. Figure 1 illustrates the conceptual model of the initiative, beginning with a standardization workshop, moving to in-country clinical trainings in each of the four intervention countries, followed by cascade trainings in all four countries, and concluding with a regional reflection meeting in Kenya. Participants were selected in teams of two, generally a medical doctor or clinical officer with a nurse or nurse-midwife. All of the medical doctors nominated were obstetrician-gynecologists and clinical trainers by background. Similarly, all of the clinical officers or clinicians were involved in training providers at their work sites. The teams of participants were drawn from public facilities, university teaching hospitals, and nongovernmental organization health facilities.

EngenderHealth’s minilaparotomy training curriculum was pilot-tested as part of the intervention. It was used to standardize the training and clinical skills of the advanced trainers, who also learned to teach the curricu-

FIGURE 1. FEMALE STERILIZATION STANDARDIZATION PLUS FRAMEWORK



lum. Feedback from the advanced trainers was integrated into the final version of the training curriculum.

The FSS+ Initiative was implemented in four phases:

- *Phase 1:* A workshop on minilaparotomy for trainers took place in May 2012 in Addis Ababa, Ethiopia. It was facilitated by EngenderHealth senior clinical staff. The workshop gathered participants from the four countries to update their knowledge related to minilaparotomy, new medical eligibility criteria, and EngenderHealth's recommended pain management approach, as well as to practice the procedure on models and practice clinical training skills by coaching one another. The trainers were also updated on the different service delivery modalities for FP in general and for female sterilization in particular. Thus, the workshop served both to refresh the participants' theoretical knowledge and to standardize their skills as trainers. At the end of the workshop, each country team developed an action plan for cascade trainings.
- *Phase 2:* Five-day clinical skills practice events were held in each country. Trainers practiced their clinical and facilitation skills in their respective countries by providing minilaparotomy to women under the supervision of the facilitators from Phase 1. At the end of the five-day skills practice, each team of advanced trainers developed an action plan for rolling out cascade training events in their regions/institutions, building on the country action plan developed in Phase 1. Training follow-up was conducted in all four countries.
- *Phase 3:* Cascade training events were conducted to train female sterilization providers. Each country adopted a different approach, with the Malawi team conducting multiple centralized or group-based/residential trainings only, teams from Kenya focused on on-the-job training (OJT) only, and Ethiopia and Ghana teams adopting both the centralized and OJT approaches. In all instances, the OJT was semi-structured.

The training content remained similar in all countries; the only variation was in the time allocated to clinical practice. In each country, the RESPOND clinical team provided support on an ongoing basis, including conducting follow-up visits with advanced trainers to observe and support the teams as they planned and conducted the cascade trainings. Often, the follow-up visits coincided with the first

cascade training, to allow the RESPOND clinical team to assess their performance and provide coaching and support to advanced trainers during the cascade training.

- *Phase 4:* Finally, a South-to-South consultation, held in Nairobi in October 2013, allowed advanced trainers and representatives from the relevant departments of MOHs and selected partners to share experiences, lessons learned, and challenges and to plan for a continuation of capacity building among providers.

RESULTS

Result 1: An established cadre of motivated master trainer clinicians and providers in the selected countries using state-of-the-art and standardized approaches and tools for minilaparotomy

In the first two phases of FSS+, EngenderHealth's new minilaparotomy curriculum was used to standardize the clinical and training skills of 27 trainers. A pretest administered at the beginning of the Phase 1 theoretical training and a posttest administered at the end of the training measured knowledge. Trainees' clinical skills were assessed on models using a checklist. At the Phase 2 clinical workshop, trainers were observed performing the procedure and coaching and were assessed for competency by the master trainers/facilitators of Phase 1. All 27 trainers were evaluated and certified by the master trainers as competent both

"My training skills really improved, especially those for counseling. I was not previously trained in counseling because I did not usually do it as a surgeon."

—Advanced trainer, Kenya

"My training skills have definitely changed, in terms of a number of things, especially my encouragement to do proper informed consent."

—Advanced trainer, Malawi

"As a trainer, I developed my own way to overcome challenges, and I learned many ways to mentor and teach. I acquired more and more skills while I was teaching – how to use the models, etc."

—Advanced trainer, Ethiopia

TABLE 1. OUTCOMES OF PHASE 1 AND PHASE 2 CLINICAL AND TRAINING SKILLS STANDARDIZATION WORKSHOP

Country	Date(s) of Phase 2 clinical training (2012)	No. of advanced trainers standardized	No. of minilaparotomies performed during clinical training	% of trainees competent by end of training
Ethiopia	May 14–18	9*	53	100
Ghana	June 10–15	6	16	100
Kenya	July 16–20	6	9	100
Malawi	Nov. 26–30	6	18	100

to perform minilaparotomy surgery and to train others according to EngenderHealth standards (Table 1).

Result 2: A cadre of new or refreshed local service providers for female sterilization

During Phase 3 of the initiative, 142 providers were trained across the four countries. In all four countries, cascade training has continued beyond the period of this activity.

In **Ethiopia**, the overall FSS+ action plan included a combination of cascade trainings, OJT, and task shifting. Between May 2012 and June 2013, the team of advanced trainers conducted three cascade trainings. A total of 42 providers (21 teams), including 11 health officers, 10 physicians, and 21 nurses and midwives, were trained on minilaparotomy. Out of the 21 teams, 19 were assessed as competent at the end of the trainings, while two teams needed additional practice under supervision and as of June 2013 were not providing services. The three advanced training teams each also work at a training facility, allowing them to provide OJT to medical residents on an ongoing basis.

The 21 teams, plus the three advanced training teams, represented 19 different hospitals or health centers. A total of 167 women were provided with minilaparotomy during the three training events themselves, not including the services provided by newly competent providers after the training.

Part of the Ethiopian government’s overall FP strategy is to shift the provision of contraceptive methods such as female sterilization to health officers, a strategy that FSS+ advanced trainers believed to be advantageous because of the high turnover of physicians. In addition, three advanced trainers in Ethiopia work at university teaching hospitals and have implemented

OJT systems to train medical residents. Finally, advanced trainers stated that Ethiopia’s MOH has made a commitment to use the newly trained advanced trainers to train providers at eight additional hospitals in 2014 and that there is ample room for additional expansion, as Ethiopia has 21 teaching hospitals that could implement OJT for medical residents.

In **Ghana**, upon completion of the Phase 2 clinical training, the advanced training team based at Koforidua Hospital in the Eastern Region conducted OJT for their colleagues in the obstetrics and gynecology department, standardizing the skills of six providers. Then the advanced training team conducted four cascade training events, all based at Koforidua Hospital, between May 2012 and June 2013. The advanced trainers trained an additional 22 individuals—11 doctors and 11 nurses. By the end of each of the trainings, all of the providers were assessed as competent by the advanced trainers. The 11 doctor-nurse teams, plus the three training teams, came from 12 different hospitals, 10 of which are located in the Eastern Region. Through the course of the three cascade trainings, 53 women were provided with female sterilization by minilaparotomy.

Although no cascade trainings have been held to date in Cape Coast or Tamale Teaching Hospital, a new medical school has recently opened in Cape Coast, and the hospital there will receive interns beginning in 2014, giving advanced trainers the opportunity to teach minilaparotomy through preservice training and residency rotations using OJT.

In **Kenya**, advanced trainers focused on OJT rather than on centralized cascade training events. Moi Teaching and Referral Hospital in Eldoret, associated with Moi University, receives residents and postgraduate students and thus has been able to institutional-

ize OJT on an ongoing basis. While Nyeri Provincial General Hospital is not associated with a university medical school, the master training team located there has conducted OJT for interns working at the hospital to complete their medical training.

Finally, Kenyatta National Hospital in Nairobi is one of the University of Nairobi's major training sites, and medical students and postgraduate residents conduct their clinical rotations there. Prior to the implementation of FSS+, the minor theater at the FP unit had been closed down for several decades. All female sterilization procedures at Kenyatta National Hospital were therefore conducted in the main operating theater or at the theaters in the Obstetrics and Gynecology Department and thus had to compete for time and space with urgent operations, such as cesarean sections and emergency surgery. Following the Phase 2 clinical training, the training team from Kenyatta successfully advocated with hospital administrators to reopen the FP unit's minor operating theater and a second small operating theater for day cases in 2013. One theater is now dedicated to minilaparotomy and the second to minor gynecologic procedures that do not require admission. After the opening of the theaters, the trainers started conducting OJT for medical residents and nurses posted to these theaters.

A total of 20 doctors and 16 nurses had been trained in this way in the three hospitals as of June 2013, and OJT was ongoing. Following the completion of their rotations, medical residents who were trained to provide minilaparotomy were placed in seven different hospitals or health centers around the country, in addition to the three hospitals from which advanced trainers originated.

The **Malawi** strategy included public-private partnerships, involving the MOH as well as local partners. One of the training teams came from the Banja La Mstongolo (BLM, the Malawian branch of Marie Stopes International), who then collaborated with the public-sector trainers to train additional providers both in the public sector and in BLM's clinics. During three cascade trainings, 36 providers were trained—19 clinical officers and 17 nurses or nurse-midwives. Advanced trainers assessed 16 providers as competent by the end of the training events. Another 19 (12 clinical officers and seven nurses or nurse-midwives) were assessed to be performing the procedure correctly by

the end of the training, but because of a low client load during the training period, the advanced trainers did not certify the providers.

A total of 40 women received minilaparotomy over the course of the three cascade trainings. Trainees and advanced trainers represented 17 different facilities in 11 of Malawi's 28 districts, covering all three of the country's regions.

Result 3: Increased capacity to meet the reproductive intentions of women who opt to use female sterilization for limiting future births

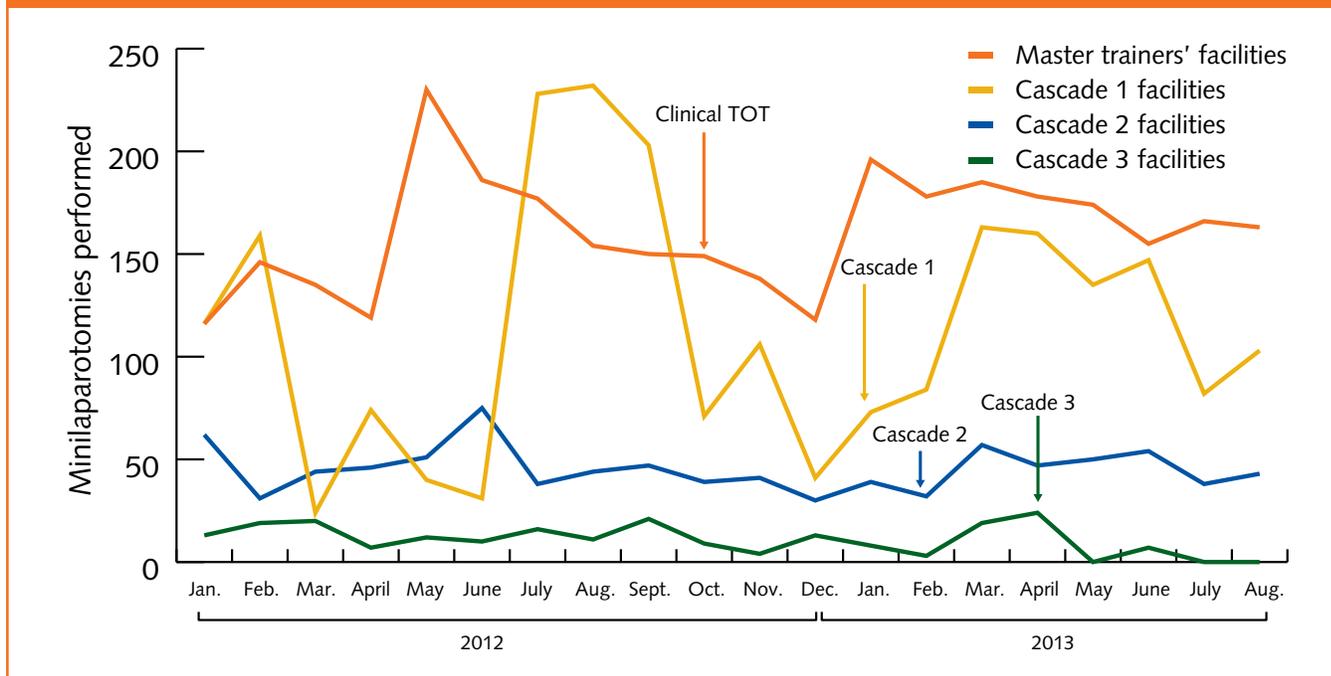
Service statistics in as many of the implementing facilities as possible were collected for the period January 2012–August 2013. At most facilities, the numbers of female sterilizations performed (including minilaparotomy and tubal occlusion during cesarean sections) fluctuated by month, with no discernible pattern. For example, Figure 2 (page 6) shows data from supported facilities in Malawi for which service statistics were obtained. The facilities are grouped and statistics summed according to which cascade training their providers participated in. The fluctuation in minilaparotomies performed in Cascade Group 1 (versus the low but relatively steady number performed in Cascade Groups 2 and 3) suggests that multiple external factors aside from the availability of trained providers influence the availability of and demand for female sterilization services. Obtaining service statistics from some facilities was not possible, particularly facilities where a trainee was placed but EngenderHealth has not worked directly.

SUCCESSES

The FSS+ initiative was successful in its main objective of standardizing the minilaparotomy technique among advanced trainers and supporting these trainers in training or refreshing new providers. In each of the four countries, additional providers of minilaparotomy were trained at facilities that can now offer the service, and in all four countries, cascade training activities have continued beyond the life of the project. This is an important step toward meeting the unmet need for limiting births among women in Sub-Saharan Africa. Highlights of the project include:

- Standardizing the clinical and training skills of 27 advanced trainers in four countries

FIGURE 2. FEMALE STERILIZATIONS PROVIDED AT FSS+-SUPPORTED FACILITIES IN MALAWI, JANUARY 2012–AUGUST 2013



- Training more than 140 providers to provide minilaparotomy
- Reopening two defunct operating theaters in Kenyatta National Hospital, Kenya, to serve minilaparotomy clients and those needing other minor procedures
- Institutionalizing OJT for postgraduate medical students and medical interns at three hospitals in Ethiopia, one in Ghana, and two in Kenya
- Garnering a commitment from the Ethiopian government to conduct cascade trainings at eight teaching hospitals around the country.

Many factors contributed to the success of the project, including:

- A high level of commitment and motivation among the advanced trainers
- Support from stakeholders such as MOHs and development partners, which created an enabling environment for activities
- An adequate number of clients for providers to attain competency under the supervision of trainers (thanks to demand creation activities conducted prior to the training events)
- Existing training systems and facilities, such as that in Koforidua Regional Hospital, Ghana

LESSONS LEARNED AND RECOMMENDATIONS

The experiences from the four implementing countries, as well as the feedback shared by FSS+ trainers and MOH representatives at the October South-to-South consultation, indicated that if replicating the approach, RESPOND or future projects should keep in mind the following:

- **Use OJT as a strategy for institutionalization:** Advanced trainers noted the potential impact of using OJT as a strategy for increasing capacity to provide clinical services such as female sterilization. OJT does not require as much dedicated funding as centralized training events, does not remove clinicians from their normal work to attend a training, and can be integrated on an ongoing basis. All of these aspects allowed advanced trainers to continue to cascade their minilaparotomy skills, even when centralized trainings were not possible. Some of the disadvantages of OJT are that it takes longer for trainees to acquire the skills and that once trainees finish their rotation at the hospital, they may be placed at distant facilities, making follow-up supervision difficult. In addition, without training materials that standardize the approach, the OJT may quickly deteriorate to

“the see one and do one approach.” Programs or health systems that plan to implement OJT should develop guidelines and a curriculum to ensure a structured and standardized approach to training, including the certification process. OJT is a valuable strategy that should be integrated into long-term plans to institutionalize minilaparotomy.

- **Plan holistically:** As in all FP programs, impact will be maximized when all elements of supply, the enabling environment, and demand (SEED) are fully met. Often, it is not feasible for every initiative to include all three elements of SEED; the FSS+ activity focused on training skills and clinical capacity to provide a service, which are components of supply. If the clinical capacity element of supply is combined with consistent provision of equipment, instruments and supplies, demand creation activities, and supportive policies and norms, then the services will likely reach more women. For such activities to be sustainable, they must take place where there is local and national commitment to expanding access to quality FP services, including long-acting and permanent methods. It is important for this and future endeavors to capitalize on clinical skills and trained providers by combining these with other elements of holistic planning and programming to increase the immediate and long-term impact.
- **Follow up with trainers and providers:** To ensure that advanced trainers and new providers offer services according to standard, trainers should conduct follow-up visits to trainees within 12 weeks of training. At these follow-up visits, trainers should use the standardized observation checklist included in the EngenderHealth minilaparotomy curriculum, to ensure that trainees are providing quality services and to support the initiation of minilaparotomy services by the newly trained provider(s). Through the FSS+ activity, trainers were encouraged to follow up with providers to ensure that they received the necessary coaching and assistance; however, the initiative was not designed to provide funding to trainers for follow-up. Training follow-up is an integral part of training—ensuring quality, increasing engagement, and helping to troubleshoot any problems.

“I was initially skeptical that [Health Officers] would be able to perform, but they were very attentive and interested to learn the skills. There is a high turnover of physicians, as many of them leave the country, so it is important to train mid-level providers as well.”

—Advanced trainer, Ethiopia

- **Prepare for training events with demand creation activities:** Clinical practice sessions and cascade training require significant numbers of clients, and demand creation activities must be synchronized with the trainings or service initiation processes. This will also ensure that trainees obtain sufficient practice under supervision during the allotted days of the training. It will also reduce the need for longer training periods that keep providers away from their workstations for extended periods of time. To make a training event successful, an appropriate number of clients should be booked for appointments ahead of time.
- **Deploy task shifting for clinical procedures:** High rates of turnover among medical professionals and an uneven distribution of high-level providers across urban and rural areas present problems for consistent and widespread accessibility of services such as female sterilization. Ethiopia’s experience with successfully shifting procedures such as minilaparotomy to health officers, as well as Malawi’s experience with training clinical officers, are important lessons for other countries faced with shortages of human resources for health. Similarly, in Ghana, a new cadre of providers were recently authorized to provide implants, which will increase access for clients and in turn will reduce physicians’ workload, potentially allowing them more time to provide services such as minilaparotomy. Where national standards permit, FP programs should capitalize on nonphysician clinicians, to allow clients maximum access to a full range of methods.
- **Carefully select trainers and participants:** Trainers should be selected carefully, in conjunction with the clinical technical assistance team. Trainers should already be skilled in female sterilization and should have a strong interest in up-

dating and standardizing their skills; they must also be committed to reproductive health and FP. Trainers should have access to the equipment, instruments, and space needed to conduct trainings and provide services. They also should play an active role in selecting participants for the training. Such an arrangement allows the trainers to plan and tailor the course to meet the needs of the selected participants.

- **Reduce cost barriers for clients:** User fees imposed on FP services have a negative impact on access to contraceptive choice. The issue of user fees affected the number of clients opting for female sterilization in some of the trainings. Programs should collaborate with existing systems of mobile outreach or special service days to offer services at low or no cost.
- **Update clinical standards for minilaparotomy and ensure clinical quality:** In some countries, performance standards for FP exist, but they need to be updated, to align with the current recommended technique for the minilaparotomy procedure. Programs should aim to update performance standards and can use RESPOND's updated minilaparotomy curriculum as a model. Programs should also dis-

seminate and operationalize such standards, as well as systematically orient supervisors on minilaparotomy procedures, techniques, and training approaches. Supervisors will then be in a position to effectively monitor and support OJT and follow-up for recently trained providers.

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