The introduction of subcutaneous DMPA (DMPA-SC, brand name Sayana® Press) promises to expand women’s access to family planning options by increasing opportunities for lower-level health workers and even clients themselves to administer injectable contraceptives. Insights from the first introductions can help inform new country experiences and transitions, whether small pilots or scaled delivery. This section discusses results and lessons learned during introduction pilots in four countries and provides recommendations to guide future efforts by ministries of health and implementing partners related to training and supervision.

**TRAINING AND SUPERVISION ENSURE QUALITY IN SERVICE DELIVERY**

Training of health providers and follow-up supervision and support are at the heart of any product introduction process. These activities contributed to successful introductions in the DMPA-SC* pilot countries. The quality of training and supervision strongly influence whether and how a product or innovation reaches users. Effective training and supervision require sufficient planning, committed personnel, and financial resources—all of which are integral to a program’s success. Efforts to train providers who will teach women to self-inject are just beginning in a few countries, but many of the same high-level issues will apply.

During the pilot introductions, PATH and partners trained more than 7,500 individuals in the administration of DMPA-SC and DMPA-IM (generic name for the intramuscular form of depot medroxyprogesterone acetate). The cadre of providers trained and the approach to training were unique to each country setting, but in all cases they reinforced the philosophy of informed choice and a client’s right to select the family planning method that best meets her needs.

Based on the diverse approaches taken to implementing provider training across the pilot settings, PATH and partners reaped significant learning about various aspects of training and supervision—including how to
effectively begin offering a new method in the context of informed choice.

ASSESSING TRAINING NEEDS

In most settings, PATH and partners conducted training needs assessments to inform training strategies and plans. PATH worked with MOHs and NGO partners to determine which providers needed training on what topics, their level of education, their background, and the family planning training they had previously received. Skilled family planning providers only needed training in DMPA-SC and an injectable contraception refresher. Lower cadres of workers, such as Uganda’s community health workers (Village Health Team (VHT) members), needed comprehensive training on informed choice counseling and all available family planning methods.

The training needs assessments were thorough and informative, but flexibility in implementation was helpful as new needs were identified during or after trainings. For example, as the pilot introduction began in Uganda, community-based distribution (CBD) of injectables was an approved national policy. PATH expected that many VHTs would already have strong family planning experience and know how to administer DMPA-IM. As VHT trainings started, however, PATH found that many new VHTs had no experience providing any contraception at all. This necessitated taking more time during the training to ensure that all VHTs were fully equipped to provide high-quality services and a range of methods—including oral contraceptives and male and female condoms, as well as both intramuscular and subcutaneous injections. In Senegal, after training was thought to be complete, the introduction team discovered that there was a cadre of family planning counselors at many facilities who were clients’ first points of contact but who did not know about DMPA-SC. PATH, the MOH, and regional teams organized a second round of trainings to ensure that these counselors would include DMPA-SC in the method mix during initial family planning counseling sessions with clients.

Factors to consider when planning to train providers.

During the pilot introduction planning process, PATH worked closely with the Ministry of Health (MOH) in each country to conduct a needs assessment and strategize the best approach for provider training. The assessment identified the following:

• Which entities would fund training.
• Which entity would lead training (provide trainers)—whether the MOH or nongovernmental organizations (NGOs).
• The number and type(s) of providers to be trained and at what level, and how much family planning training these providers had already received.
• Training approaches and timelines.
• Procurement of adequate product and supplies for training/injection practice.
• The topics that provider training would cover.
• The process for and timing of adapting DMPA-SC training materials to the local context and integrating them into existing family planning training curricula.
TRAINING DRIVES INTRODUCTION RESULTS

Introduction or scale-up strategies, including the delivery channels and types of providers being trained, will drive training strategies—which will, in turn, drive results. For example, the MOHs in Burkina Faso and Senegal implemented an efficient training approach that worked well for introducing DMPA-SC at all levels of the health system and in relatively large geographies. The governments organized centralized trainings for national master trainers, then regional trainings-of-trainers, followed by a simultaneous cascade approach to train district providers in each pilot introduction region. In Burkina Faso and Senegal, all trainings of providers with prior injection experience covered the administration of DMPA-IM and DMPA-SC, lasted for two days, and included theory, practice on injection models, and a practicum. NGOs trained their own providers. This approach enabled the training of a large number of health workers in the shortest time possible, and product use began to increase in these two countries relatively quickly after trainings began (see Senegal graph).

By contrast, training in Uganda was led by NGOs and involved a district-by-district approach spanning nearly 30 districts. Uganda’s introduction was exclusively through community health workers (CHWs), and their training was longer (seven days) and conducted in less-centralized locations (see text box on training CHWs). Uganda trained the largest number of individuals to administer DMPA-SC—2,100 VHTs—over about an eight-month period. Consumption increased gradually as trainings rolled out over a longer period of time (see Uganda graph).

INTRODUCTION TIP

Work with existing regional or district MOH trainers to increase cost-effectiveness and sustainability of training.

INTRODUCTION TIP

A cascade training approach necessitates strong master trainers with a thorough understanding of DMPA-SC.
Cumulative number of providers trained and total number of DMPA-SC units administered, by month—Uganda

Tips for training community health workers.

Introducing DMPA-SC presents many countries with the opportunity to strengthen and expand CBD of contraception. When training at the community level, country teams learned that the need for more comprehensive and extensive training for CHWs may require more resources or a more gradual approach to training. In addition, because CHWs are often dispersed in remote locations, considerable travel time for both trainers and CHWs is required. Different approaches included:

• **Taking the time needed for comprehension and mastery.** The MOHs in both Niger and Senegal called for a four-day DMPA-SC training for community health agents, including two days of theory and two days of practicum. In Uganda, VHTs received a seven-day comprehensive family planning training with four days of theory and three days of practicum.

• **Spreading out trainings to minimize confusion and time away from service delivery.** Senegal conducted trainings on DMPA-IM and DMPA-SC in two discrete sessions separated by two months to avoid confusion concerning the two types of injection techniques.

• **Maximizing convenience for CHWs.** PATH also found in Uganda and other settings that on-site/residential training helped trainees concentrate and perform better than when they commuted daily from their homes to a training site. Additional costs to cover accommodation and per diems for trainees were offset by efficiency and time savings (e.g., ability to begin the day earlier and avoid lateness/absences).

CHWs, such as VHTs in Uganda and facility-based outreach workers in Burkina Faso, who are experienced in conducting immunization campaigns and administering vaccines adapted to administering Sayana Press very quickly. This cadre can move to different areas in the community and can be supported at minimal cost, such as by allocating transport fees.
Countries introducing DMPA-SC can choose to train providers on just the one method, or on contraception more broadly. For example, new product introduction can provide programs with the opportunity to revisit and update their overall family planning training curriculum as well as offer refresher trainings for existing cadres of health workers. This depends on the time and resources available, as well as the country context. There may be trade-offs to consider: a more comprehensive training requires more time and funds, but reinforces informed choice by strengthening provider counseling for all contraceptive methods.

When the MOH introduced DMPA-SC in Uganda, the PATH-developed training materials (see text box) were adapted and integrated into the existing ten-day MOH family planning training for VHTs. The ten-day training curriculum was then revised, condensed to seven days, and enhanced with a module on youth-friendly services. Burkina Faso, Niger, and Senegal adapted the PATH DMPA-SC training materials to the country context and simply trained existing cadres of health workers on the new method only. In Senegal and Burkina Faso, partners integrated DMPA-SC training into the national family planning training curriculum only after the pilot phase was completed and the MOH decided to scale up DMPA-SC nationally.

Regardless of whether the training was narrow or broad, PATH and partners emphasized that DMPA-SC is intended to expand the range of methods available to women and should be offered as one new option in the context of informed choice. DMPA-SC is not intended to replace or supersede other family planning methods. In most pilot settings, DMPA-SC was offered side by side with DMPA-IM. In the case of Niger, DMPA-SC was the only form of injectable contraceptive available at health posts, but providers were trained to administer DMPA-IM as a back-up method in case of DMPA-SC stockouts.

Some health workers may be inclined to promote or have a bias toward DMPA-SC over other options for various reasons, such as their excitement about a new product or a misunderstanding that they should specifically promote DMPA-SC. In addition, lower-skilled health workers, such as CHWs, may be more comfortable...
Injection technique generally takes practice and supervision to master, both during training and the practicum. During injection practice on prosthetic models, participants’ injection technique was evaluated using an observation checklist to determine competency (see example, next page). Participants were encouraged to practice as many times as necessary to master the technique and gain confidence in their skill. After successful completion of theoretical training and injection practice, participants engaged in field practicum. Practicum requirements varied by country context, depending on the type of providers being trained, the contraceptive methods covered, and specific training objectives (see text box).

**Posttraining evaluation: How good is good enough?**

Generally, only trainees who passed the DMPA-SC theoretical exam would go on to practice administering the method and then take the practicum. The initial recommended passing score on the posttraining evaluation was 80 percent or higher. In practice, however, not all trainees attained 80 percent or better on the posttraining evaluation. As a result, countries adapted their own minimum passing requirements according to the provider cadre and local context. In Uganda, for example, some trainees who demonstrated promise as VHT members did not achieve a minimum score of 80 percent. PATH instead evaluated the extent to which VHT members improved their score from baseline. Any VHT members struggling with content were given the opportunity to move to practice, but were supervised more closely during the practicum.
### Checklist for Sayana® Press Injection Practice

Trainers and trainees can use this checklist during injection practice on nonhuman models. Trainers can also use it when evaluating whether a trainee can give a Sayana® Press (generic: subcutaneous DMPA) injection according to the performance standards. At the end of the training lesson, each trainee must demonstrate to the trainer that they can competently administer a Sayana Press injection.

<table>
<thead>
<tr>
<th>Steps</th>
<th>Observations</th>
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<tbody>
<tr>
<td>1. Places safety box and cotton swabs (optional) within arm’s reach.</td>
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<tr>
<td>2. Washes hands (during the training, this step may be stated aloud or mimicked rather than actual handwashing).</td>
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<tr>
<td>3. Selects the injection site (and cleans if needed).</td>
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<tr>
<td>4. Opens the Uniject® injection system pouch by tearing the notch.</td>
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<tr>
<td>5. Checks the expiration date and makes sure the DMPA is at room temperature.</td>
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<tr>
<td>6. Holds the Uniject by the port while mixing.</td>
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<tr>
<td>7. Mixes the DMPA by shaking it vigorously for 30 seconds.</td>
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<tr>
<td>8. Checks to make sure the DMPA is mixed and there is no damage to the Uniject.</td>
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<tr>
<td>9. Holds the Uniject with the needle pointing upward during activation.</td>
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<tr>
<td>10. Holds the Uniject by the port while activating.</td>
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<tr>
<td>11. Pushes the needle shield and port together to fully activate the Uniject for use.</td>
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<tr>
<td>12. Pinches the “skin” of the model to form a tent.</td>
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<tr>
<td>13. Holds the port of the Uniject while inserting the needle.</td>
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<tr>
<td>14. Inserts the needle into the tent of “skin” between the thumb and forefinger.</td>
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<tr>
<td>15. Inserts the needle at a downward angle.</td>
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<tr>
<td>16. Inserts the needle completely so that the port is in full contact with the injection model.</td>
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<tr>
<td>17. Moves fingers from the port to the reservoir while still pinching the skin.</td>
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</tr>
<tr>
<td>18. Squeezes the reservoir slowly to inject the contraceptive—taking about 5–7 seconds.</td>
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<tr>
<td>19. Removes the Uniject from the injection model.</td>
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<tr>
<td>20. Releases the fingers used to pinch the skin and create the tent.</td>
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</tr>
<tr>
<td>21. Places the used Uniject immediately into a safety box without replacing the needle shield.</td>
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### Key

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<tr>
<td>√</td>
<td>Satisfactory</td>
</tr>
<tr>
<td>U</td>
<td>Unsatisfactory (attempted but not to standard)</td>
</tr>
<tr>
<td>NA</td>
<td>Not applicable (e.g., handwashing, cleaning site)</td>
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Sayana Press is a registered trademark of Pfizer Inc. Uniject is a trademark of BD.
Injection technique: Practice makes for excellence.

During the practicum phase, training participants generally administer injectable contraception under the supervision of a qualified provider to clients who have selected that method through informed choice counseling. Participants’ injection technique is again evaluated using the same observational checklist, with supervisors helping them to master their technique. During the pilots, the number of supervised practicum injections required before providers were certified to inject independently varied by country. In Uganda, a minimum of five successful injections of both DMPA-SC and DMPA-IM were required during practicums. In other countries, and in trainings for qualified providers with previous injection experience, a smaller number of successful client injections was required.

In the case of Uganda’s VHTs, participants had to master their technique on an injection model before moving on to the practicum. To complete their practicum, VHTs were stationed at health facilities—where under the supervision of a trained provider (usually a nurse or midwife), they were required to lead a community health talk, provide general family planning counseling to clients, and correctly administer five injections each of DMPA-SC and DMPA-IM, following the observational checklist, before they were certified to offer family planning in their community.

When training was first initiated in Burkina Faso, the number of participants in each district training session was too high (at an average of 30). As a result, many of them were unable to practice a sufficient number of injections during the practicum phase because it was difficult to mobilize enough clients to enable trainees to gain practical experience administering DMPA-SC. Other countries encountered similar challenges in matching trainees’ needs to master injection technique with client volume.

INTRODUCTION TIP

Plan practicum sessions during times of high client volume at facilities to ensure that trainees can gain sufficient injection experience in the allotted time frame.
TRAINING PROVIDERS TO COLLECT DATA

Because this was a pilot project, PATH trained all providers to complete monitoring data collection forms that were collected and entered into a centralized database to track results (see Section 10: Monitoring and evaluation). The quality of program monitoring data depended on the quality of provider training on data collection as well as posttraining supervision. In all settings, it proved most effective to train health workers in collection and management of monitoring data at the same time as training on counseling and administration of DMPA-SC (specifically Sayana Press). Data collection was a discrete training module.

To ensure good data quality, it was necessary to devote adequate time to this topic to allow for theory, as well as time for providers to practice using the monitoring tools through role-playing. When training participants are swept up in the excitement of learning to administer a new product, monitoring can fall to the wayside. Furthermore, training curricula are often designed with monitoring modules toward the end, so any delays in the training schedule can potentially impinge on the time allocated to cover monitoring. Investments by PATH and partners in training providers to become familiar with filling in monitoring forms—especially CHWs who did not have extensive experience with these forms—increased the project’s ability to obtain high-quality data in a timely manner.

INTRODUCTION TIP

Devote sufficient time during initial provider training to cover the collection and management of monitoring data to ensure these topics are not overlooked.

SELF-INJECTION: TRAINING PROVIDERS TO BE TRAINERS

DMPA-SC injections are mainly available from trained providers at present, but self-injection of the DMPA-SC product Sayana Press is under regulatory, policy, and programmatic consideration in an increasing number of countries. PATH’s self-injection research to date indicates that thorough training of
providers and clients will enable women to self-inject correctly and remember their reinjection dates using reminder tools. All self-injection research and pilots to date are specific to the DMPA-SC product, Sayana Press.

To train health providers to counsel and train their clients in DMPA-SC self-injection, PATH developed a training module for providers. This lesson takes approximately two hours to facilitate and includes a presentation, participant role-playing, and hands-on practice using a highly visual client instruction booklet (see image). The client self-injection booklet is designed to be used by women as a visual and written memory aid when injecting at home. It is available in English, French, and several national languages spoken in Senegal and Uganda. The booklet is available online at sites.path.org/rh/recent-reproductive-health-projects/sayanapress/home-and-self-injection-with-sayana-press/. It is part of PATH’s DMPA-SC training curriculum, designed for adaptation and integration into family planning provider training programs.

In PATH’s self-injection operational feasibility studies in Uganda and Senegal, about 98 percent of women felt that the one-on-one training with practice on a model adequately prepared them to self-inject independently. During the feasibility studies, study nurses trained women using the instruction booklet, evaluated clients’ competence using the checklist during practice injections, and then supervised self-injection. On average, women practiced about three times before self-injecting for the first time. In Uganda, for example, the nurses later followed up with clients to determine whether they could demonstrate correct self-injection technique three months later, and whether they self-injected independently within one week of their scheduled reinjection date. In Uganda, 96 percent of women used the booklet to assist with their independent self-injections and 88 percent demonstrated competent injection technique three months post training. A total of 95 percent injected on time, remembering their reinjection date using calendar and reminder tools given to them by the provider.

PATH’s current self-injection training module is modeled on this approach. It instructs providers to meet individually with each client to orient her on how to administer an injection and calculate her reinjection date, using the booklet and a calendar. More research and evaluation activities are under way to assess whether it will be feasible to streamline approaches to self-injection and still achieve the key outcomes of injection competence, acceptability, and accessibility for most women.

Excerpt from illustrated client self-injection booklet

**STEP 7:** Gently pinch the skin at the injection site.
- This creates a “tent” for inserting the needle.

**STEP 8:** Insert the needle at a downward angle
- Continue to hold the device by the port and insert the needle straight into the skin at a downward angle.
- The port should touch the skin completely to ensure the needle is inserted at the correct depth.
Correct Sayana Press injection technique entails a few crucial steps.

PATH’s experience with training across multiple country settings shows that providers and clients with varying levels of education and literacy can be trained to successfully administer the DMPA-SC product Sayana Press. Although the length of training varies based on the trainees’ experience and proficiency, there are five critical injection steps that must be executed for successful administration:

1. Select an appropriate injection site and clean if needed.
2. Mix the liquid by shaking the device vigorously (about 30 seconds).
3. Push the needle cap and port together to activate the device.
4. Pinch the “skin” at the injection site to form a tent.
5. Squeeze the reservoir slowly to inject—taking about 5 to 7 seconds.

Steps that have been shown in research to be most prone to error are mixing the solution, activating the device, and pressing the reservoir slowly. All of these steps should be emphasized and practiced during training sessions for all providers and users. For more information, visit sites.path.org/rh/?p=436#training.

THE VALUE OF SUPERVISION AFTER TRAINING

During the pilot introductions, not surprisingly, posttraining supervision was as important as initial provider training to ensure high-quality service delivery. In particular, supportive supervision approaches that emphasize teamwork, two-way communication, and skill-building ensured informed choice in counseling and good injection technique, corrected misunderstandings, and supported providers in capturing service-delivery data and managing stock. Regular and hands-on supervision was particularly important to provide support in settings like Uganda, where many CHWs were offering injectables (and contraception) for the first time. Key learnings from the pilots on supervision included:

- Look for efficient approaches to provider supervision, which can be costly. In Uganda and Senegal, PATH staff linked supervision visits with the collection of monitoring data. This strategy conserved resources by allowing staff to both pick up data regularly and follow up with providers.

In Burkina Faso and Niger, MOH staff integrated DMPA-SC into the existing
system of periodic supervision from the region to district and from the districts to facilities. DMPA-SC coordinators in both countries periodically joined supervision visits to help reinforce lessons learned from the project.

The need for frequent supervision decreases over time. Regular supervision was especially important in the early phase of the pilot effort while dedicated resources were available to solidify provider knowledge and skills. PATH found that it was ideal to start with more intensive joint supervision schedules and then scale back, gradually transitioning to a sustainable system led by the MOH.

- Check whether providers are offering women informed choice among a wide range of products. During supervision visits, PATH found that many providers tend to prefer DMPA-SC because of its ease of use, so it was important during post-training supervision visits to emphasize that they should promote the full range of methods. Provider bias can affect the method mix being offered to clients. This can sometimes be detected by reviewing monitoring data and examining trends of product uptake, or simply by speaking with providers during supervision visits and reviewing their patient registers. Early on during introduction in Burkina Faso, for example, supervisors found by reviewing data and talking with providers that some incorrectly believed that DMPA-SC was being introduced to replace DMPA-IM. Other providers were not including DMPA-SC in their counseling because they thought it would only be available for a short time during the “pilot” approach to the introduction.

- Include supervisors themselves in initial training. To provide on-the-job training to health workers, supervisors themselves must be well informed and well trained. Most countries elected to invite supervisors to one day of the provider training so that they were informed and could assist in filling out monitoring forms, respond to technical questions such as the reinjection window, and review the status of product stock during site visits. Active involvement of the family planning focal persons (e.g., Uganda) or the reproductive health regional coordinators (e.g., Senegal) during training enabled them to provide continuous supportive supervision for CHWs.

In Uganda, for example, PATH staff met with both supervisors (focal persons) and CHWs during visits to reinforce the relationship between the supervisors and supervisees and to facilitate collaborative problem-solving.

**INTRODUCTION TIP**

Encourage and support strong linkages between CHWs and health facilities to foster effective communication and collaboration and a team approach to task-sharing between providers at fixed facilities and in communities.
Beyond a project’s life cycle, the long-term capacity of a government to provide ongoing supervision is often unknown. This is particularly true in a setting such as Uganda, where the government is considering changing the community health program to include a smaller number of paid health extension workers instead of volunteer CHWs. It is unclear how such evolutions will affect the trajectory of product introduction and mainstreaming.

### RECOMMENDATIONS: TRAINING AND SUPERVISING PROVIDERS

1. **Start by assessing who needs training on what topics throughout the family planning delivery system.** Do not overlook key players such as supervisors or outreach workers who might be women’s first point of contact with the system—even if they cannot administer injections.

2. **For quick product uptake and rollout, implement a simultaneous training cascade.** This approach requires strong master trainers who are highly familiar with the product. Using a country’s existing government trainers will increase sustainability.

3. **Design training for community health workers to meet their needs.** CHWs in most settings are fully capable of administering DMPA-SC in the context of informed choice. Ensure the curriculum covers all family planning content that is unfamiliar to them and meets them where they are in terms of literacy, knowledge, and geography (to the extent possible).

4. **Informed choice is always a priority in training and supervision, no matter what.** Emphasizing that DMPA-SC is one option among many is especially important to counteract providers’ (often well-intentioned) excitement about a new product. DMPA-SC will not be the right option for all, or even many, women. Address informed choice especially if your training only covers DMPA-SC or injectable administration.

5. **Design your curriculum to suit your context.** Adapt PATH’s field-tested curriculum as needed, considering whether it should cover DMPA-SC or family planning comprehensively; also, consider the data you are expecting providers to collect.

6. **Invest in high-quality supervision.** Supervision can help ensure that competencies transferred during group trainings are thoroughly mastered by each individual and that s/he can transfer them to the workplace. Plan for clear expectations about who will conduct supervision, how often, and using what approaches. Consider combining supervision with other activities or integrating it into existing systems.
RESOURCES

GATHER Guide to Counseling. Available at www.k4health.org/sites/default/files/j48.pdf. The GATHER model of family planning counseling has been successfully used for nearly two decades, and is based on the elements described in this seminal publication that includes tips, illustrations, techniques, technical information, and charts.

Training for Mid-Level Managers (MLM). Module 4: Supportive Supervision. Available at www.who.int/immunization/documents/MLM_module4.pdf. This resource is part of a World Health Organization series of modules on immunization training. Supportive supervision involves supervisors and health workers working together to solve problems and improve performance. The module outlines key steps and practical implementation strategies.

The Balanced Counseling Strategy Plus: A Toolkit for Family Planning Service Providers Working in High HIV/STI Prevalence Settings. Available at www.popcouncil.org/research/the-balanced-counseling-strategy-plus-a-toolkit-for-family-planning-service. This toolkit is comprised of a trainer’s manual, user’s guide, counseling cards, and other clinical-based resources that provide information and materials that health care providers need to offer high-quality family planning counseling to clients living in areas with high rates of HIV and sexually transmitted infections.