The Skilled Care Initiative

TECHNICAL BRIEF

June 2005

STRENGTHENING PROVIDER COMPETENCIES AND PERFORMANCE IN SKILLED CARE

Skilled care at delivery has been identified as one of the key interventions for reducing maternal mortality and improving neonatal outcomes. Ensuring that all women have access to skilled care is particularly critical because most obstetric complications are difficult to predict, and any woman can suddenly, without warning, develop a life-threatening emergency.

Through the Skilled Care Initiative (SCI), Family Care International (FCI), with funding from the Bill and Melinda Gates Foundation, has been developing and testing a model for improving women's access to skilled care during pregnancy, childbirth, and the postpartum period (see box). A key component of this initiative has been ensuring that maternity care providers are equipped with the cognitive, clinical, and interpersonal competencies needed to provide skilled care.

SAVING WOMEN'S LIVES: THE SKILLED CARE INITIATIVE (SCI)

The Skilled Care Initiative aims to ensure that all women have access to high-quality, skilled care so that pregnancy-related problems can be detected and treated before they become fatal. The Initiative is working in selected districts in Burkina Faso, Kenya, and Tanzania to:

- **strengthen** government commitment and policies to increase skilled care during childbirth,
- **improve** provider performance through training and supervisory support for midwives and other skilled health professionals,
- **provide** essential equipment and supplies along with inputs to strengthen routine maintenance and resupply,
- **reinforce** linkages for referral, and
- **increase** utilisation of services by supporting behaviour change interventions in the community.

TRAINING AND SKILLS DEFICITS

The four districts where the Skilled Care Initiative is underway are remote, rural areas where health personnel are in short supply and the government has difficulty meeting norms for staffing, refresher training, and supervisory support for providers. The World Health Organization recommends that maternity care providers receive refresher training or updates in midwifery every three to five years. In the three project countries, provider interviews revealed that on average, maternity care providers had been in service for 11 years since completing their basic training, and 36% had never received any refresher training in midwifery in that time.

Not only did maternity care providers have few training opportunities, but baseline studies of the quality and availability of maternal health care highlighted critical gaps in their clinical and interpersonal skills. For example, only 30% of maternity care providers reported that they had used a partograph within the three-month period prior to the study. Similarly, the majority of providers in project districts could not name all appropriate steps for diagnosing and managing potentially lethal obstetric complications such as pre-eclampsia/eclampsia, postpartum haemorrhage, or postpartum sepsis.

To address these gaps and ensure that maternity care providers are equipped to provide skilled care during pregnancy, delivery, and the postpartum period, FCI has undertaken intensive efforts to train providers and improve their performance. This brief reviews FCI's interventions to upgrade skills and improve provider performance in Kenya, Tanzania, and Burkina

SKILLS COVERED THROUGH TRAINING

- Antenatal assessment and management
- Use of the partograph to monitor labour
- Active management of the 3rd stage of labour
- Infection prevention
- Starting IV fluid in peripheral vein
- Administration of parenteral antibiotics
- Episiotomy cutting and repair
- Laceration repair
- Management of prolonged labour
- Management of haemorrhage (APH and PPH)
- Administration of parenteral anticonvulsants
- Administration of parenteral oxytocics
- Manual removal of placenta
- Bimanual compression of the uterus
- Inspection with a vaginal speculum
- Newborn resuscitation
- Adult resuscitation/management of shock
- Management of persistent occiput posterior position
- Management of cord prolapse
- Management of uterine atony
- Management of shoulder dystocia
- Breech delivery

Faso through in-service training, coupled with the development of provider reference tools and improvements in the quality and frequency of supervision.

UPDATING OBSTETRIC CARE KNOWLEDGE AND SKILLS

In-service training has constituted a major thrust of FCI's Skilled Care Initiative. Training has focussed on equipping public and (to a lesser extent) private sector providers with the skills to provide high-quality routine obstetric care and to recognise and manage (or refer as appropriate) obstetric complications and emergencies. As noted above, many providers in the project sites had not received any midwifery updates or refresher training since beginning practice. In addition, many providers had never been trained in some of the core competencies required for managing obstetric complications, as these procedures traditionally were viewed as the purview of physicians alone.

To address the broad range of knowledge and performance gaps identified and to bring provider practices into alignment with current standards, FCI opted for a strategy of comprehensive refresher training—covering both routine and emergency obstetric care—as opposed to selective updates. In each country, training curriculums on essential obstetric care (EOC) and life-saving skills (LSS)[1] that were available or under development were found to be suitable for addressing the majority of knowledge and skills gaps among providers (see box, left). However, FCI developed additional modules to address other crucial areas where provider skills were found to be deficient. These new modules, which were designed to dovetail with the LSS curriculum, included:

- **Caring, compassionate treatment of clients:** FCI's baseline research found that providers' treatment of clients was a serious concern among community members and a major barrier to access. This was particularly true in Kenya, where community members described maternity care providers as cruel and neglectful, as well as verbally and even physically abusive to women in labour. In response to these findings, FCI developed a multi-part training module that guides providers in assessing the "caring" dimensions of the care provided to maternity clients. Providers used these observations to modify their daily practices so as to better accomodate maternity clients' preferences, while upholding clinical standards. The module emphasizes the benefits of compassionate care for both clients and providers.
- **Individualised birth preparedness counselling:** Another critical gap identified by FCI's baseline research was that antenatal clients received little information and counselling about how to prepare for delivery. Few women were told their expected date of delivery, let alone what preparations should be made or how much money should be set aside. To address this gap, FCI developed a training module that helps providers recognise the importance of birth preparedness, and identify the specific topics and questions that should be explored with each client to ensure that she can adequately prepare for delivery. In Kenya and Tanzania, FCI

[1] In Kenya and Tanzania, the national life-saving skills training curriculums have been adapted from the American College of Nurse-Midwives' Life-Saving Skills (LSS) Curriculum, which covers a full range of obstetric care skills, from routine antenatal, delivery, and postpartum care to the recognition and management of obstetric complications. The LSS curriculum is designed for a hands-on, practical training, and it is especially focussed on strengthening providers' problem-solving skills. In Burkina Faso, the Ministry of Health had recently collaborated with the Maternal and Neonatal Health programme to produce a set of training modules in Essential Obstetric and Newborn Care and these modules were adapted for use.

developed simple pregnancy calculators (gestational wheels) to aid providers in calculating due dates while reminding them of birth preparedness messages. Similarly, in Burkina Faso, FCI printed a quick-reference card to remind providers of key aspects of birth preparedness to cover during antenatal consultations.

- **Adolescent maternity care:** Adolescent pregnancy is common in the SCI settings. Whether married or unmarried, adolescents pose unique challenges to care providers because of a range of social, emotional, and physiological factors. As few providers had received any training related to the special needs of adolescent clients, FCI developed a short training module to help providers understand the particular medical risks facing pregnant adolescents, as well as the barriers they face in accessing maternity care. In addition, the module was designed to strengthen providers' skills in counselling adolescent clients and heighten their attention to the particular emotional needs and concerns of these clients.

In each country, maternity care providers were trained through two-to-four-week residential training workshops. Hands-on in nature, the practical training was held at hospitals with sufficient maternity caseloads to ensure that trainees would have the opportunity to manage delivery cases on a daily basis and to observe and manage a range of obstetric complications. In designating training sites, FCI selected hospitals that had at least one to two deliveries per day per training participant, and each training session was kept small (12 to 15 participants each) to ensure that each trainee would get sufficient hands-on practice.

Health providers practice suturing episiotomies during LSS training.

To maximise providers' skills acquisition, classroom lectures were kept to a minimum, and trainees spent the majority of their time working in pairs at the practicum sites—i.e., the MCH unit, maternity, and gynaecology wards of the hospital. During practicum sessions, trainers were on hand to supervise and guide trainees in practicing new skills and problem-solving approaches. In Kenya and Tanzania, classroom sessions were scheduled in the mornings, and providers spent all afternoon and evening in the wards, often working until midnight. Each morning session began with a review of the cases that had been encountered during the previous day's practicum sessions so that all participants could learn from the experiences gained. In Burkina Faso, where the practicum hospital site was located in another part of the country, participants completed the classroom portion of training in their home district before starting the practicum (see box, right).

The obstetric care training was very positively evaluated by participants and has produced demonstrable improvements in provider performance and confidence. That is not to say that there were not challenges. Some of the challenges encountered include:

TRAINING APPROACH IN BURKINA FASO

In Burkina Faso, neither the district nor the regional hospital offered adequate facilities and caseload to host the EOC training. By far the most suitable facility was a national teaching hospital in Bobo Dioulasso, some nine hours away from the project district. As it would have been costly and impractical to relocate participants and trainers alike to Bobo for the entire four weeks of training, FCI and the district management team agreed that the knowledge/theory portion of training (two weeks) would be organised within the district, where classroom space and accommodations were readily available. The clinical practicum took place in Bobo immediately afterwards. While this arrangement did not allow for daily integration of course information with clinical experience in the wards, it offered substantial cost savings and allowed approximately twice as many providers to participate in the knowledge updates as could have done so had the entire training been held in Bobo.

- **Gaining enough exposure to obstetric complications**: Obstetric complications being relatively rare, not all types of complications will arise during a two-to-three-week period at most regional or provincial hospitals. While national-level referral hospitals have the highest caseload for maximising exposure to complications, the choice of a distant, urban facility as a training site presents its own challenges, including higher transport and lodging costs, as in Burkina Faso.
- **Ensuring appropriate selection of training participants:** As FCI is working in close collaboration with the Ministry of Health in all three countries, the selection of training participants is generally made by district health managers. Although FCI outlined specific criteria for selecting training participants—e.g., providers who are currently practicing midwifery and who will actively apply the training content upon their return to their workstations—some training participants sent for training have not met these criteria, which presents challenges for the trainees and trainers alike.
- **Updating providers whose knowledge and skills are significantly out of date:** Given the length of time many providers have been in service without refresher or update training—particularly those working at mid- and lower-level facilities, which have low obstetric caseloads—extensive knowledge and skills updates are required. It can be challenging to devote enough time to obstetric complications when basic knowledge and core midwifery skills are weak, and/or when trainees differ greatly from one another in their knowledge and skill level.

District health managers review partographs during a supervisory visit to a facility.

- **Training staff from small, remote workstations:** It is difficult for staff from remote, under-staffed facilities to participate in training opportunities that take them away from their worksites. Often such sites are staffed by only one or two clinical providers. If a staff member is away for training, the facility will have difficulty offering services and may even have to close. At the same time, it is crucial that peripheral sites be staffed by skilled providers able to manage the full range of obstetric complications, since these facilities are the community's primary source of care.

In all, FCI has trained more than 250 maternity care providers in life-saving EOC skills in the three programme countries. In addition, separate training sessions in postabortion care (PAC) have been held for about 70 providers to enable them to appropriately treat women presenting with abortion complications. In Burkina Faso, 54 providers have also been trained in improved infection prevention practices for maternity care and other services. Also in Burkina Faso, in an effort to strengthen the interpersonal and humanistic dimensions of care, 60 providers participated in training in interpersonal communication and counselling skills using a curriculum developed by FCI.

REINFORCING TRAINING CONTENT THROUGH REFERENCE MATERIALS AND JOB AIDS

In view of the fact that obstetric complications are relatively rare events and new skills can quickly erode if not used regularly, FCI developed a set of reference materials and memory aids to help health care providers apply and retain training content upon their return to their workstations.

Because experience has shown that providers retain training content better when they regularly reflect on the contents of the training and assess their progress in applying the new skills, FCI developed a **self-assessment tool focussed on life-saving obstetric care skills**. The tool, developed for use in Kenya and Tanzania, covers obstetric complications management, as well as other elements of care, such as car-

ing, compassionate treatment of clients and infection prevention. For each topic, there are specific learning objectives, self-assessment questions, and questions for reflection, which encourage users to recall the training content, assess the extent to which they are applying new skills, and identify specific questions for further clarification during future supervisory visits. The tool also encourages users to identify specific goals for practices or behaviours they wish to improve.

Another factor that limits the benefits of training investments is that trained staff frequently do not update colleagues at their worksites on new skills and practices. To assist trained staff in transferring newly gained knowledge and skills to peers, supervisors, and support staff at their facilities, FCI developed a **worksite presentation package**. Focussed on antenatal care, emergency preparedness, infection prevention, care for women in labour, and record-keeping, the presentation package summarises key points that should be shared with colleagues and suggests participatory exercises for engaging staff in a discussion about maternity care issues.

Finally, FCI prepared a variety of **clinical flowcharts on obstetric complications** to serve as a quick reference for providers. In Burkina Faso, FCI and the Ministry of Health developed 18 clinical flowcharts and 21 provider reference cards on clinical procedures and protocols. Piloted initially in the SCI district, these tools proved so practical that the MOH has extended their use to the rest of the surrounding region and expects to disseminate them nationally. In Tanzania, flowcharts prepared by FCI have been integrated into the national obstetric job aid currently under development by the Ministry of Health. In Kenya, these same flowcharts were printed on poster-sized paper and posted in labour and delivery rooms. Of all the reference materials developed, it appears the clinical flowcharts have been the most consistently and actively used by providers. For example, even before FCI had produced the poster-sized versions for Kenya, some providers had copied the draft versions distributed during training onto newsprint and posted them on the labour room walls.

TRAINEE FOLLOW-UP TOOLS

- Service Provider Questionnaire to explore trainees' experience and progress in applying the training content upon their return to their workstations.
- Knowledge Post-Test to monitor the retention of knowledge related to the training.
- Skills Application Checklist to assess the extent to which trainees have practiced the core competencies and skills covered during training.
- Skills Observation Checklist to guide supervisors in evaluating trainees' skills through direct observation of providers' interaction with clients.
- Follow-up Summary to review areas where trainees are performing well and identify strategies for addressing observed gaps and deficiencies.

For the other provider reference tools, it has been difficult to gauge their use. During follow-up visits to trained staff, trainers found that most providers were keeping these resources at their homes, and few were willing to keep them at the facility for broader use.[2] Although most providers gave positive feedback on the usefulness of the tools, it was not possible to assess the extent to which they had actually completed the self-assessment exercises or used the tools for continuous learning.

PROVIDING FOLLOW-UP SUPPORT AND SUPERVISION

To continue dispensing quality care, trained providers need ongoing support in the form of supervisory and problem-solving visits; such follow-up support is particularly critical for those working in difficult and isolated rural conditions. In all SCI districts, FCI conducted follow-up visits to trained maternity care providers to clarify outstanding questions, to help them resolve problems implementing the training content at their workstations, and to provide individualised on-the-job training. Most providers received these visits within the first three to six months after training, and were followed up at six-to-nine-month intervals thereafter.

The aim of the follow-up visits, always conducted in tandem with a member of the District Health Management Team, was to help trainees identify and solve problems applying the training content at their

[2] FCI supplied additional copies of the tools to facilities, but these copies were often misplaced or appropriated by staff and were rarely found on subsequent visits.

workstations, while at the same time gauging the extent to which skills are being used and assessing provider competence. FCI developed a set of follow-up tools to help structure the follow-up visits in Kenya and Tanzania (see box, previous page).

Two strategies were used in conducting the follow-up visits. In Tanzania, where the project district is vast in size and distances between facilities are great, the schedule for follow-up visits was shared with trainees in advance. Similarly, in Burkina Faso the supervisory visits took place according to a schedule that was communicated in advance to participating facilities. This strategy helped ensure that trainees would be found on duty at the time of the visit. In Tanzania, however, advance knowledge of the visits led staff to make unusual efforts to ensure that their facility was spotlessly clean, organised and well-ordered—to the point of disrupting normal service delivery.[3] In Kenya, the visits were generally unannounced; although this approach often required multiple trips to a facility to follow up with all trainees, it enabled trainers and supervisors to observe staff following their routine practices and to more easily identify areas where knowledge and skills remained weak or where facility management and maintenance were poor.[4]

THE QUARTERLY MIDWIVES' FORUM: A PEER-TO-PEER APPROACH TO IMPROVING KNOWLEDGE AND PERFORMANCE

In Burkina Faso, auxiliary midwives are the frontline providers of maternity care. After their EOC training, FCI invited them to participate in an innovative peer-to-peer approach to promote continued learning and exchange. Every three months, the auxiliary midwives come together for a day-long update and discussion forum. For each forum, the midwives elect two themes to cover which can be either knowledge areas or skills they want to reinforce. Two participants prepare a presentation for the others which is followed by questions and discussion. The FCI representative (a male midwife formerly on the faculty of the National Public Health School), also contributes his expertise and may bring a pelvic model or other teaching aid with which the group will practice. Recent topics have included use of the partograph and techniques for active management of the third stage of labour. Highly positive feedback from the midwives has confirmed that this is a practical, empowering, congenial, and cost-effective means for providers to update knowledge and refine skills.

In all SCI districts, it proved difficult in practice to evaluate providers' competence, particularly in the areas of routine delivery care and the management of complications. It is not possible to schedule visits to coincide with deliveries, which makes it difficult to gauge the extent to which providers are adhering to recommended practices. Observing the management of complications is even more problematic since these are relatively rare occurrences. On the other hand, it is feasible to observe client–provider interactions and routine counselling of antenatal and postnatal clients—though difficult to gauge the extent to which observed behaviours are reflective of providers' normal treatment of clients.

During the initial rounds of follow-up visits in Kenya and Tanzania, the post-test from training was re-administered, and providers' scores were compared to their earlier scores (re-testing was not done in Burkina Faso). Although providers generally performed satisfactorily on the follow-up post-test, this tool primarily assessed theoretical knowledge, as opposed to clinical or interpersonal skills. In addition, at most sites, administering the post-test was extremely time-consuming; though the text included only 30 multiple choice questions, providers often needed an hour or more to complete it. At sites where the client load was heavy or where there were no other staff available to attend to clients while supervisors met with the trainees, it proved disruptive to administer the post-test. Ultimately, the use of this tool was discontinued, as it was less effective than other tools in identifying areas for on-the-job training and guidance.

[3] At one site in Tanzania, for example, the follow-up team found that clients had been asked to leave the facility before the team arrived.

[4] Interestingly, trained providers in Kenya consistently commented that unannounced follow-up visits were actually preferable because the trainers then "find us as we are" and can help them address poor practices.

KEY FINDINGS AND LESSONS LEARNED

FCI's provider training investments are yielding important benefits and have clearly improved access to skilled care for the women in the project districts. In Tanzania, for example, delivery caseloads at some facilities have increased as much as 200% since the project was launched. In Burkina Faso, where rates of institutional delivery were even lower at baseline, some health centres have seen six-fold increases in their monthly caseload.[5] These women are now benefitting from care of considerably higher quality than they would have received in those same sites before the project's interventions.

Although obstetric complications are relatively infrequent, the majority of providers have been able to actively practice many of the skills covered during training. Almost all trained staff have practiced the routine components of maternity care such as antenatal consultations, individualised birth preparedness counselling, maternal postnatal care, use of the partograph, and active management of the third stage of labour. Generally, staff at higher-level facilities—hospitals and large health centres—have managed a larger range and number of obstetric complications. Nevertheless, follow-up visits confirmed that staff from mid- and lower-level facilities also need—and are applying—these skills. In Kenya, for example, more than half of the trained providers at health centres and dispensaries had successfully managed cases of retained placenta, haemorrhage, and incomplete abortion without needing to refer. These findings underscore the importance of making basic essential obstetric care available at mid- and lower-level facilities.

Among key challenges observed and lessons learned are the following:

- **Changing routine practices and skills is often more challenging than enabling providers to manage obstetric emergencies:** In Kenya, it has proved very difficult to motivate providers to routinely use the partograph during labour. Despite considerable attention given to the partograph during training (both in the classroom and during practicum rotations), many trainees do not use it upon their return to their workstation, arguing that it is too time-consuming and difficult to use when facilities are too short-staffed to monitor maternity clients at 30-minute intervals as recommended. Although staffing shortages at some of the project sites are indeed severe, it is clear that new strategies for promoting partograph use should be tested, with a particular emphasis on demonstrating that the partograph improves quality and saves time by helping providers interpret labour progress more efficiently. In Burkina Faso, on the other hand, correct and routine partograph use has increased substantially.
- **Strengthening interpersonal skills and client–provider interactions needs continuous reinforcement and training approaches that involve all staff at a facility:** Although trainees in both Kenya and Tanzania were enthusiastic about the compassionate care training module[6], some staff have had difficulty sustaining new approaches to client care and counselling, particularly when colleagues in their facilities are not sensitised about these issues.[7] To address this challenge, FCI has tried to heighten attention to compassionate care through other facility-level interventions, such as quality improvement exercises. However, it is clear that changing client–provider interactions requires sustained support and reinforcement.
- **Trained staff often encounter challenges in updating co-workers and colleagues on knowledge and skills covered during training:** Follow-up with trained staff has shown that some meet with resistance from co-workers when they try to share material from EOC training. In settings where training opportunities tend to be viewed as rewards, some staff are resentful of those who were selected for training. These staff are often unwilling to learn from their colleagues about new infection prevention practices, use of the partograph, or managing various obstetric complications.
- **High staff turnover, particularly at district hospitals, limits the benefits of training investments.** In Kenya especially, there is considerable turnover among hospital staff, who are rotated among different departments on a quarterly basis because of severe staffing shortages. As a result, at any one time, only a minority of staff in the maternity ward have been trained in EOC, despite the fact that more than 20 have been trained over the course of the project. Although discussions have been held with hospital adminis-

[5] Health centres that previously registered five to seven deliveries per month are now attending 25–35.

[6] Interestingly, when this training module was used in Kenya, maternity clients at the training site began complaining when the LSS trainees went off duty and their care was turned over to the regular hospital staff. Clients said that the trainees treated them so much better than the usual staff that they did not want the trainee nurses to leave.

[7] Introduction of compassionate care elements to providers in Burkina Faso was started only in early 2005 so it is too soon to assess changes.

trators to try to minimise the out-rotation of trained staff, the maternity is regarded as a difficult place to work, and many of the nurses themselves request to be transferred to different departments.

- **Assessing and appraising the acquisition of skills in the area of obstetric care remains difficult.** As noted earlier, it is extremely challenging and time-consuming to gauge provider competence in providing routine and emergency obstetric care. Some skills can be assessed via demonstration on pelvic models or childbirth simulators—a strategy FCI has not yet used. Training and deploying obstetric mystery clients might be an effective way to assess providers' adoption of certain elements of quality maternity care—areas such as caring, compassionate treatment; focussed antenatal care; individualised birth preparedness counselling; etc.—but it would be expensive and probably ineffective in evaluating clinical practices. In light of the challenges of evaluating provider performance and skills, it is critical to ensure that maternity records are complete and well kept. For example, individual client records, along with facility service delivery statistics, can provide key information on the quality of care provided and the extent to which trained providers are able to successfully manage obstetric cases that they previously referred. Therefore, it is important to couple provider training initiatives with efforts to strengthen facility record-keeping and ensure that data on the management and/or referral of obstetric complications is routinely recorded, along with maternal and newborn outcomes and case fatality rates.

While interventions to strengthen the performance of maternity care providers are a crucial component of a skilled care strategy, they must be coupled with a range of complementary interventions to strengthen the health system. To provide skilled care, trained providers must have the equipment, supplies, and drugs needed to provide high-quality care and manage obstetric complications, and they must be supported by a sound infrastructure, a strong policy and regulatory framework, and a functioning referral system.

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