



Improving Partograph Use in Uganda through Coaching and Mentoring

WHAT IS FISTULA?

Obstetric fistula is a childbirth injury, usually occurring when a woman is in labor too long or when delivery is obstructed, and she has no access to a cesarean section. She endures internal injuries that leave her incontinent, trickling urine and sometimes feces through her vagina.

Fistula Care works to prevent fistula from occurring, treats and cares for women with fistula, and assists in their rehabilitation and reintegration. For more information about fistula and the Fistula Care project, visit www.fistulacare.org.

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Introduction and Background

Uganda is making progress in improving maternal health: The maternal mortality ratio has declined by 47% over the past 20 years, from 600 maternal deaths per 100,000 live births in 1990 to 438 per 100,000 in 2011 (UBOS & ICF International, 2012; WHO et al., 2012). However, this rate is still unacceptably high, and Uganda will need to make significant improvements to achieve its Millennium Development Goal 5 target of 131 deaths per 100,000 live births by 2015 (Uganda Ministry of Finance, Planning, and Economic Development, 2010).

Obstructed labor is a major cause of maternal and newborn morbidity and mortality in developing countries such as Uganda. It can lead to postpartum hemorrhage, infection, and fetal death, as well as obstetric fistula. The risk of experiencing these birth-related injuries or death increases in low-resource settings with limited health services.

The partograph—a preprinted form on which labor observations are recorded—is a low-tech, inexpensive tool designed to monitor labor and prevent obstructed labor. It provides a graphic overview of the progress of labor and records information about the condition of the mother and the child. The partograph (also called the partogram) acts as an early warning system; it can alert care providers to deviations from normal progress and indicate when a woman requires emergency intervention, such as referral to a higher-level facility, labor augmentation, or cesarean section.

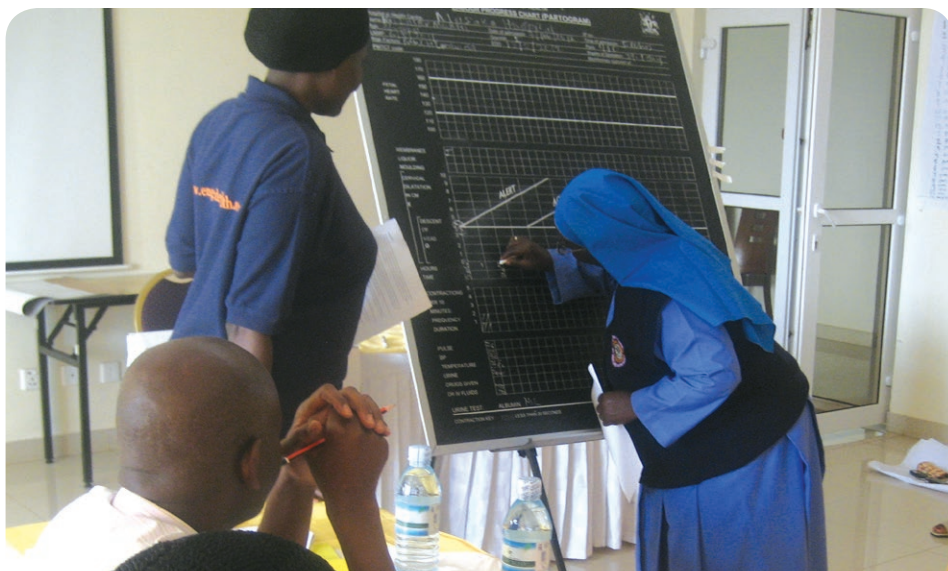
The World Health Organization (WHO) recommends partograph use (1994). However, in many low-resource settings, including Uganda, the tool is underutilized, and many health care providers do not know how to use it properly (Levin & Kabagema, 2011).

Fistula Care promotes correct and consistent use of the partograph as one of its key fistula prevention interventions. Since 2010, Fistula Care has collaborated with the Reproductive Health Department of the Ugandan Ministry of Health (MOH) to strengthen partograph use. This brief describes the challenges and achievements of developing and implementing a new approach to support partograph use at five facilities across three districts.

Partograph Training: Coaching and Mentoring

Initial Data Collection and Planning

In 2008, the Uganda MOH, with support from Fistula Care, trained service providers in emergency obstetric care (EmOC), including the partograph, at 12 health service sites, ranging from health centers to district hospitals. Follow-up visits to these sites revealed that staff were not using the partograph



Health workers practice plotting observations using the partograph board at Kitovu Hospital.

well and were not applying the skills and knowledge acquired during training. A new training approach was needed.

To better understand barriers to partograph use, the MOH and Fistula Care conducted a baseline situation analysis at these 12 health care facilities in 2011. Facility staff and the district health management team (DHMT) identified six main barriers to partograph use:

- Lack of essential supplies and equipment in maternity units, such as partograph forms, blood pressure machines, or watches and clocks with which to record maternal and fetal heart rates
- Failure of health care managers, including senior staff at maternity units, to recognize the partograph's value or support its use
- Lack of ongoing supervision and clinical audits
- High staff turnover at maternity units, resulting in the loss of valuable skills and training investments
- Differences in the versions of the partograph used at various facilities

- Minimal partograph training from nursing and midwifery preservice education

In response, the MOH, in partnership with Fistula Care, decided to implement a coaching and mentoring training approach to improve partograph use. Through coaching, an individual with knowledge, skills, and competency in a particular area helps others to develop that skill set through on-site training and ongoing supportive monitoring and feedback. A mentoring approach utilizes ongoing, long-term relationships between the “experts” and the “trainees,” building on shared experience. Coaching and mentoring take place in the trainees’ workplace environment and are strengthened through trust and respect.

The MOH and Fistula Care decided to use a whole-site training approach (Bradley et al., 1998; EngenderHealth, 2001) because of its perceived advantages over other methods, based on experience and a literature review conducted by Fistula Care staff. Whole-site training meets the learning needs of all staff at a health care delivery site, builds capacity at

the entire site, promotes teamwork, and encourages facility leadership and supportive supervision. By bringing all site staff together in a communal effort to improve performance and quality of care, it enables those who are trained to share their knowledge and skills with others who may be new to the site. It also can engender a critical mass to lobby for more resources and provide a forum for discussion of common problems, which can catalyze a range of quality improvement initiatives.

Thus far, only the partograph skills training and coaching component of the approach have been comprehensively implemented. Selected facilities will implement the mentoring component of the approach, using “fistula champions”—individuals identified by district supervisors as the most enthusiastic and successful in implementing partograph use after training.

In addition to piloting a new training approach, the MOH's Reproductive Health Division initiated a process to review existing national guidelines on partograph use. Fistula Care identified and shared a number of gaps with the MOH, which made revisions (Uganda MOH Reproductive Health Division, 2010) to ensure that they were in line with current WHO recommendations.¹

Site Selection

In a series of planning meetings, the MOH and Fistula Care decided to pilot the approach over a one-year period at five health care facilities in Masaka, Kasese, and Kalungu districts. The coaching and mentoring approach entails an intense level of resources; thus, a small number of facilities were chosen for the pilot. The criteria for site selection included the maternity caseload, management's commitment to the process and outcomes, and the desire to have a balance of public- and private-sector sites.

¹ A revised draft has been completed and is being used nationwide. The World Bank and WHO are gathering resources with which to print and disseminate the revised guidelines.

The facilities chosen were Kitovu, Kagando, and Bwera hospitals and two Health Centre III facilities²: Kalungu and Karambi. Kitovu Hospital and Kagando Hospital are private not-for-profit hospitals led by the Catholic and Anglican churches, respectively. Bwera Hospital and Kalungu and Karambi health centers are public-sector facilities.

Buy-In and Participation

Uganda has a decentralized health system, so obtaining buy-in from district leaders was critical to the success of the intervention. Fistula Care held orientation meetings for district leaders of the three selected districts and for the DHMTs, to highlight the value of partograph use in improving clinical decision making and the overall quality of EmOC.

During these orientation meetings, district teams developed preliminary action plans to improve partograph use; they also decided how best to allocate sufficient resources and how to integrate plans into existing safe motherhood strategies. District safe motherhood supervisors³ were given the responsibility of ensuring partograph availability and of working with facility supervisors to monitor partograph use at the selected sites.

Data Collection

As part of the baseline situation analysis conducted at the 12 sites where EmOC training had taken place, a partograph assessment tool developed by Fistula Care was utilized to assess the correctness and completeness of partograph plotting. This tool was also used to collect data immediately prior to training and during follow-up visits one month, three months, and six months



Health workers review and score partographs using the partograph review tool during on-site coaching and mentoring training at Hoima Hospital.

following training. A facility focal person reviewed each partograph on file and computed the scores.

The initial scoring scheme for the assessment tool required that every component of the partograph be correctly completed for the record to be considered “correct.” However, this grading system made it difficult to measure gradual changes in partograph performance. In December 2011, the grading system was modified to provide a more nuanced picture of how the sites were performing. Each partograph component was assigned a numerical value,⁴ the values were totaled for each partograph on file, and a percentage score was calculated. Scores were rated as follows: 100%, “excellent”; 80–99%, “very good”; 50–79%, “good”; and less than 50%, “poor.” This modified scoring system made it possible to see if site scores were

improving over time and whether the percentage of client files containing partographs increased over time. Unfortunately, this change in scoring occurred prior to the three-month or six-month follow-up visits at most intervention sites, which meant that scores collected before training and during earlier follow-up visits were in a different format, impeding the ability to monitor overall trends for the intervention.

The scores for each site were not intended to serve as evaluation indicators for the intervention. Data were collected over time to allow for meaningful supportive supervision at the sites, to show when progress occurred, and to reveal which problems persisted, to incorporate them into action plans. As data were collected and analyzed, sites received feedback through supportive supervision visits.

² Health Centre III facilities provide basic preventive and curative care; they also supervise lower-level community and health centers. Health Centre III facilities provide laboratory services and maternity care; they refer clients to higher-level facilities when needed.

³ District safe motherhood supervisors are typically senior nursing officers, midwives, high-ranking officials, or assistants to the district health office who coordinate district activities related to family planning and to antenatal, obstetric, postnatal, and postabortion care. Partograph review is part of their job description, but it was not taking place regularly at the time of the pilot intervention. The position reports to the district health officer.

⁴ In the modified scoring system, all components of the partograph were given equal weight. Each numerical value indicated whether a particular component was complete (2), partially correct (1), or missing (0). For certain components, the scorer could indicate “not applicable” (n/a) if the component was not relevant to a client’s case.

Two major challenges to data collection included limited access to patient records and inconsistent scheduling of site visits.

Implementation at Health Facilities

Each facility held an initial one-day orientation meeting, attended by maternity unit staff and senior leaders, to discuss findings from the baseline situation analysis and introduce the coaching and mentoring approach. At this meeting, facility staff developed an action plan to address their site's challenges. Fistula Care and the MOH arranged for the purchase of items such as partograph forms, teaching posters, blood pressure machines, delivery kits, and clocks for the labor ward. Following the orientation and prior to the training, a facility focal person reviewed each partograph on file and computed the sites' score using the partograph assessment tool.

After each orientation, an MOH trainer conducted a three-day training that included classroom-based theoretical sessions, partograph plotting practice, exercises in interpretation of findings, and clinical mentoring on the labor ward. The course heavily emphasized skills practice in the maternity ward, rather than just theoretical knowledge. Trainers often stayed late into the evening to ensure that each trainee practiced skills on an adequate caseload. Pretests and posttests assessed changes in providers' knowledge and attitudes immediately before and after training.

The training was attended by maternity unit staff, primarily midwives, as well as nursing staff working in the antenatal, family planning, and postnatal departments. Because of heavy workloads, few doctors participated. Enabling all staff to attend the training was a major logistical challenge. To ensure that

services were not disrupted, several trainers were active at each site, and training sessions were staggered. A total of 76 service providers were trained across the five facilities.

District supervisors and Fistula Care staff visited each facility three times over a six-month follow-up period to review progress and address challenges. This process emphasized collaboration between supervisors, Fistula Care, and site staff and included shared review of partograph records for accuracy and completeness, as well as feedback to individual providers on their performance. To share and reflect on the experience, a final two-day wrap-up meeting was held for all participants at each facility.

Results

The pilot facilities have shown some significant improvements in both service delivery practices and partograph use:

- Partograph forms have become routinely available at all facilities.
- Using partograph teaching boards, service providers are regularly refreshing their skills through continuing medical education (CME) sessions, and the partograph has been integrated into the orientation of new staff.
- At one facility, a service provider has been designated for each shift as the person responsible for ensuring partograph availability, completion, and proper

documentation; this person is also responsible for CME. Other facilities have begun to adopt this model.

- When referring laboring women for emergency care, several facilities now regularly include partographs in patient notes.
- Partographs are increasingly being used for clinical audit, to review the management of complicated cases and maternal deaths.
- Sites have changed how they store records, ensuring that maternity records are housed separately from other hospital records as per Ugandan regulations,⁵ to improve access.

During follow-up discussions, providers noted several ways in which correct and consistent partograph use has improved care for women. These include:

- Minimizing unnecessary vaginal examinations
- Providing a clear framework for staff handover of laboring women
- Improving teamwork
- Promoting a sense of shared responsibility with senior leadership for the quality of maternity care

Service providers reported increased interaction with and feedback from their supervisors. The intervention also motivated service providers to advocate for essential equipment like clocks and blood pressure machines. Some have even purchased their

"We used to work as individuals; you come, do your work, and go. With the partograph, you have to communicate with clients as well as your colleagues. We also have an opportunity to communicate with our supervisors."

—Hospital midwife

⁵ Most facilities at the district level use paper records, creating a large volume of records that are difficult to easily identify by service type.

own watches, demonstrating their commitment to the importance of correct partograph use.

At the district level, action plans developed during the intervention are being implemented. In all three districts, primary health care budgets now include funds for supplying partographs, including photocopier cartridges. Sites that received partograph training now ask other facilities to include a partograph with each referral, creating a ripple effect to referring facilities. The coaching and mentoring approach has also been utilized more broadly; in Kalungu, the district health office is using the approach at other health facilities, with the Kalungu facility as a model.

At the national level, positive results of the pilot intervention helped create a supportive environment for revitalizing partograph use to improve the quality of labor monitoring and management. The Ministry of Education plans to institutionalize partograph training as part of preservice education for midwives.

The MOH, with assistance from Fistula Care, is distributing copies of the modified version of the WHO partograph and corresponding teaching boards to their district-supported facilities and other stakeholders. The MOH's Reproductive Health Division will oversee the distribution of partographs and teaching boards to all health facilities in Uganda, with support from the World Bank and Fistula Care. The MOH has reviewed and updated guidelines on partograph use, *The Partograph in Uganda: A Practical Guide for Health Care Workers*, to align national strategy with WHO standards (Uganda MOH Reproductive Health Division, 2010). Dissemination is planned with support from the World Bank and WHO.

“Doctors...have limited knowledge on the partograph, so when an important decision has to be made, they say ‘keep monitoring,’ and this affects quality of care.”

—Training participant

Discussion and Next Steps

Many challenges of implementing this intervention are systemic and endemic to health care systems in developing countries, representing fundamental resource issues that the intervention could not and was not intended to address.

Did the Intervention Improve Partograph Use?

The intervention's impact on consistent and complete use of the partograph is unclear. Among the five participating sites, some showed short-term improvements, while at others rates of complete and consistent partograph use declined. Challenges included:

- Overworked staff, staff shortages and high attrition rates
- Absence of supervisory staff
- Inadequate supplies

While impact on actual partograph use at sites varied, there appeared to be increased acknowledgment of its importance across the board. Data collection is ongoing as the sites move from the coaching/training component of the intervention to the mentoring component.

Human Resources

Chronic human resource shortages and high staff turnover were the greatest challenges to effective implementation of this intervention; they are among the greatest barriers



A partograph champion demonstrates listening to the fetal heart to colleagues at Hoima Hospital.

to quality service provision in health systems overall.

- Eleven of 12 facilities in the initial situation analysis had fewer than half of the required number of service providers, in addition to high attrition.
- The intervention site with the poorest outcomes lost all trained staff, either through resignation or transfer, within four months of training.
- Doctors, usually the senior clinicians in charge of maternity units and responsible for making lifesaving medical decisions regarding referral and cesarean section, often did not attend the trainings, inhibiting whole-site changes in attitudes and behavior.

To address these challenges, continuous training of new staff was implemented during follow-up visits and facility CME.

Lack of Adequate Supplies, Equipment, and Infrastructure

Prior to the intervention, facilities:

- Lacked wall clocks, blood pressure machines, stethoscopes, paper for partograph duplication, and even examination space

- Had inadequate supplies of gloves, soap, bleach, plastic sheets, gauze, sutures, catheters, and cotton
- Experienced frequent stock-outs of essential medicines like vitamin K, tetracycline, oxytocin, misoprostol, and magnesium sulfate.

While district leaders have made efforts to improve access to the necessary supplies and equipment, the sustainability of these improvements will depend on the ongoing commitment of district and facility leadership.

Facility and District Leadership

Correct and consistent use of the partograph requires leadership within the health system as a whole and at individual facilities. Factors identified as contributing to success in the pilot included:

- Commitment and stability of top leaders
- Advocacy of supervisors for the intervention
- Ongoing supervisory support for the intervention
- Support of senior clinicians

Senior clinicians' lack of involvement in the training could prove a

continuing barrier to improving partograph use; because of the hierarchical structure and power dynamics of most health care settings, their support is crucial. Doctors have been specifically “targeted” during the mentoring stage of the approach to ensure their participation.

Though district safe motherhood supervisors attended all orientations and trainings, attrition over time negatively impacted the level of supervision provided. To address this issue, future interventions will:

- Focus more attention on supervisors for sustainable support
- Provide more frequent updates from district supervisors to facility leaders on the progress of the intervention and action plans
- Present partograph data at the district level

Data Management

At most facilities, data management is still a challenge. Many of the pilot facilities:

- Lacked secure rooms or spaces in which to keep records
- Did not keep records in an orderly fashion for easy retrieval
- Lacked skilled staff to effectively manage data
- Did not have administrative support for improving data management
- Neither analyzed nor used data to inform service delivery

Fistula Care is currently working with the district health management information system and designated staff at facilities to improve data storage and use of data for decision making. Use of the partograph needs to be clearly linked to clinical protocols for treatment and referral. Plotting data will not achieve meaningful changes in outcomes without appropriate decision making and actions taken to address the findings.



A national trainer reviews completed partographs with facility staff during follow-up visit at Kalungu Health Centre III.

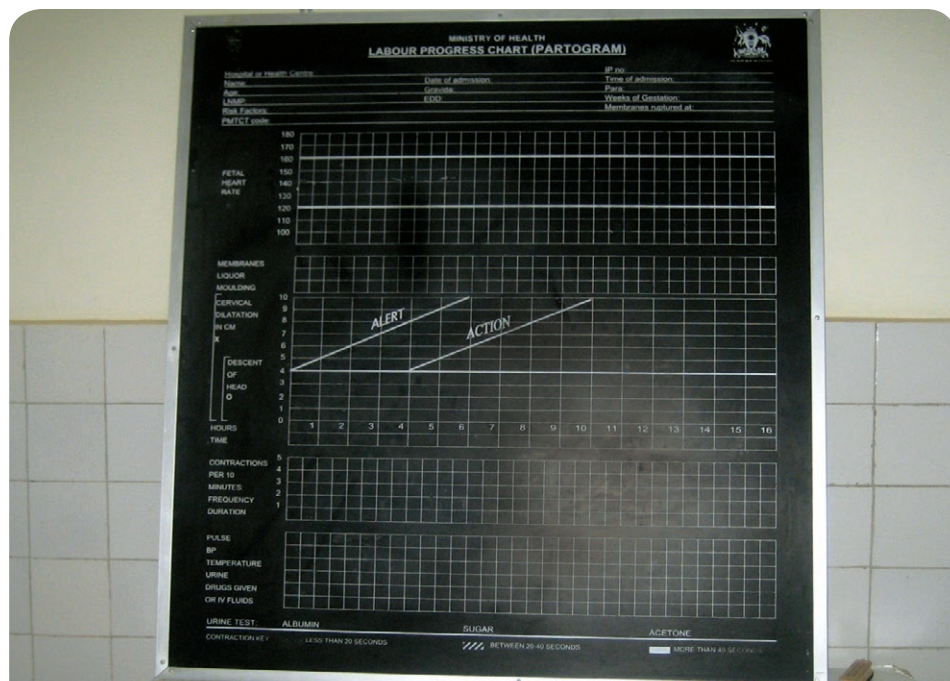
Involvement of Stakeholders

Involvement of stakeholders at all levels during planning, implementation, monitoring, and evaluation contributed to an enabling environment for the intervention. As a result, district and facility staff continued to support and supervise partograph use and to ensure its availability at sites.

The Coaching and Mentoring Methodology

The initial stages of this intervention focused on coaching, with the mentoring relationship to be developed and continued over a longer time period. As a next step, partograph champions will be identified through work with facility supervisors. Those who have been most successful in using the partograph after training will be selected as mentors and paired with trainees at the sites. District supervisors, with technical assistance from Fistula Care, will develop a tool to identify areas that need improvement and will assess and monitor progress. Coaches and mentors will use this tool and partograph monitoring data collected from the sites. District supervisors will oversee the work of the partograph champions. Trainings for district and facility supervisors will strengthen their supervision skills, based on the challenges identified before and during the intervention.

In an effort to create partner linkages, Fistula Care met with STRIDES for Family Health, a maternal health project funded by the U.S. Agency for International Development, to identify common



The partograph board is a job aid used to teach how to plot different parameters on the partograph.

areas for linkages, including partograph usage. STRIDES has used the existing Fistula Care partograph monitoring tool to provide technical support to Bwera Hospital on strengthening partograph use and will use the tools at its supported sites.

Conclusion

The objective of this intervention was to revitalize interest in and use of the partograph as a tool for monitoring labor and improving maternal health outcomes in Uganda, from the national level down to the facility level. Through the intervention, it was clear that endemic problems in the health care system are impediments to improving partograph use. However, several factors contributed to improvements, including identifying

focal point persons, involving stakeholders throughout the process, and using coaching and ongoing supportive supervision to address challenges. Close collaboration between leaders from the MOH, districts, and facilities ensured continued support and momentum in moving forward.

Important next steps for this work in Uganda include:

- Identifying fistula champions to provide ongoing mentoring of site-level staff
- Addressing infrastructure issues, including supplies and site-level record storage
- Planning for scale-up of this approach, with an experimental design to properly evaluate impact and resource requirements

UGANDA



UGANDA

Uganda has an estimated population of 34.5 million; the total fertility rate is 6.4 lifetime births per woman, one of the highest in the world (PRB, 2011). Three out of 10 married women use some type of contraception (UBOS & ICF International, 2012). Almost all pregnant women receive at least one antenatal care visit from a skilled provider, yet only 57% of pregnant women deliver in a health care facility (UBOS & ICF International, 2012).

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