



Assessment of the self and individual (SAIN) learning approach in Eastern and Western regions, Ghana, four months after training AMTSL clinical instructors

November 2009



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Prevention of Postpartum Hemorrhage Initiative (POPPHI)

November 2009

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Acronyms

| | |
|--------|--|
| AMTSL | active management of the third stage of labor |
| CCT | controlled cord traction |
| DPL | drug procurement list |
| EDL | essential drug list |
| GHS | Ghana Health Services |
| HLD | high-level disinfection |
| ICM | International Confederation of Midwives |
| IM | intramuscular |
| IP | infection prevention |
| IU | international unit |
| IV | intravenous |
| LSS | life-saving skills |
| mcg | micrograms |
| MOH | Ministry of Health |
| N/A | Not applicable |
| POPPHI | Prevention of Postpartum Hemorrhage Initiative |
| PPH | postpartum hemorrhage |
| SAIN | on-site and individual learning approach |
| USAID | United States Agency for International Development |
| WHO | World Health Organization |

Executive summary

This report describes an assessment of clinical instructors' and learners' experience with the self and individual (SAIN) learning approach and its impact on the practice of AMTSL in five facilities where the approach was introduced in July, 2009. The SAIN learning approach is a blended learning methodology that had previously been used in Ghana for in-service training activities in life-saving skills (LSS). The innovation with the SAIN learning approach is the training of facility-based clinical instructors (CIs) who guide providers working on-site and off-site through the learning materials. For the purpose of this report, CIs for this intervention will be called AMTSL (active management of the third stage of labor) CIs.

With assistance from the USAID project POPPHI, the Ghana Health Services (GHS) implemented the SAIN learning strategy in seven hospitals in the Eastern and Western Regions-Takoradi, Kwesimintsim, Tarkwa, and Sefwi-Wiawso Hospitals in the Western Region; Koforidua, Assessewaa, and Oda Hospitals in the Eastern Region. There were a total of twelve AMTSL CIs trained, four physicians and eight nurse-midwives. At the time of the assessment, only ten AMSTL CIs were still working in the designated facilities. Three facilities have a team of a physician and nurse-midwife AMTSL CI, and four facilities have only a nurse-midwife working as an AMTSL CI.

The assessment team used interviews, a checklist to observe providers applying AMTSL, and a facility audit. The tools were used to evaluate several areas: coverage and documentation of AMTSL; storage and stockage of uterotonic drugs; feasibility and acceptability of the SAIN learning approach for in-service training activities in the Ghanaian context; and competence of providers trained using this approach.

Coverage and documentation of AMTSL

- Coverage of AMTSL was high in all facilities, even those where all of the providers on-site had not completed the course.
- Facilities had added additional columns to delivery logs to document AMTSL, estimated blood loss, and uterotonic administration.
- Providers are writing out administration of a uterotonic drug, application of controlled cord traction (CCT) and countertraction, and uterine massage in the client's chart.
- Anecdotally, rates of retained placenta and postpartum hemorrhage (PPH) are lower than before beginning training activities.

Competence of providers trained using the SAIN learning approach

- Providers assessed on obstetric models and with real cases safely performed the three components of AMTSL.
- In some cases, providers are still immediately clamping the cord.
- Monitoring the woman and newborn, and educating the woman/mother in the immediate postpartum are areas that still need strengthening.

Storage and stockage of uterotonic drugs

- All facilities had adequate stocks of oxytocin and ergometrine, with no stock-outs during the months of July, August, and September 2009.
- Oxytocin and ergometrine were correctly stored in all of the pharmacies.

- All of the maternity units had a refrigerator that was unlocked and stocks of oxytocin, ergometrine, and misoprostol.
- Oxytocin 10IU is the uterotonic being used consistently for AMTSL.
- Only two facilities had a notebook to follow movement of oxytocin in the delivery room.

Feasibility and acceptability of the SAIN learning approach for in-service training activities in the Ghanaian context

- A large number of providers were trained in a relatively short period of time and at less cost than group-based training.
- Providers and AMTSL CIs were extremely motivated. They noted the difficulty of combining work duties with learning activities but were able to overcome it to complete the course.
- The strategy was easier to implement when there was a doctor/midwife team of CIs and when the nurse-midwife CI was the in-charge for the labor ward.
- Some of the providers and AMTSL CIs interviewed felt that the amount of money provided for lunch was an obstacle for completing learning materials.
- All of the providers interviewed appreciated the learning materials and the subject matter. Only one provider interviewed said she would prefer the group-based approach.
- The majority (7/7) of AMTSL CIs and (9/10) providers interviewed would undertake the training in the same way again.
- All facility managers and regional health managers interviewed said they would undertake the training again in the same way and recommend it to other facilities and regions.

Introduction

Maternal Mortality continues to be a major health problem for health care providers and policy makers. In Ghana the current maternal mortality ratio is estimated at 451/100,000 live births. Globally, complications during pregnancy and childbirth are the most significant causes of death among women of reproductive health age. Less than one percent of these deaths occur in more developed countries, showing that the large majority of these deaths can be prevented if there are sufficient resources and health services available.

Most maternal deaths in Ghana are attributable to direct causes. Direct maternal deaths follow complications of pregnancy and childbirth, or are caused by any interventions, omissions, incorrect treatment or events that result from these complications. The five major direct causes are hemorrhage, infection, eclampsia, obstructed labor, and unsafe abortion. The levels of maternal mortality depend on whether these complications are dealt with adequately and in a timely manner.¹

More than half of these maternal deaths occurring globally do so in the first 24 hours after childbirth, and most of these deaths are due to PPH^{2,3}. PPH or excessive bleeding after childbirth is the single most important direct cause of maternal deaths in developing countries. Postpartum bleeding can kill even a healthy woman within two hours, if unattended. It is the quickest of maternal killers. Even if a woman survives a PPH, she could be severely anemic and suffer chronic health problems.

Fortunately, research shows that using simple, low-cost interventions can help avoid most of these tragic outcomes. Current evidence indicates active management of the third stage of labor (AMTSL)—including administration of uterotonic drugs, controlled cord traction, and fundal massage after delivery of the placenta—can reduce the incidence of postpartum hemorrhage by up to 60 percent in situations where:

- National guidelines support the use of AMTSL.
- Health workers receive training in using AMTSL and administering uterotonic drugs.
- Injection safety is ensured.
- Necessary resources (uterotonic drugs and cold chain for storage of uterotonic drugs; equipment, supplies, and consumables for infection prevention and injection safety) are available⁴.

Skilled care during pregnancy, childbirth and the immediate postpartum period, by health professionals with appropriate skills has been recognized as the key ingredient to reduce maternal mortality. It is in this context that a course on prevention of PPH, including application of AMTSL, was organized in the Eastern and Western Regions in Ghana. Participants were selected from the two Regions on the basis of high maternal deaths. Two districts each were selected from the two regions. Participants were mainly Midwives and Medical Doctors with obstetrics background.

In order to rapidly scale-up activities, a blended learning approach was used to train providers on-site and individually. The blended learning approach uses AMTSL CIs to assist learners and combines a self-paced learning (SPL) component for the didactic portion combined with a clinical practicum for the clinical portion. This learning approach has been designed to address challenges encountered with traditional group-based training techniques, including the problem of having providers absent from the facility, as well as the significant challenge

of sustainability: establishing an effective approach to preparing providers to offer AMTSL services consistent with performance expectations and service standards. The goal of this strategy is to efficiently and effectively train the maximum number of providers to apply AMTSL to standard.

The blended learning approach combines:

- **Self-directed learning:** Print-based modules are adapted for self-paced learning; a strong learner support system is put into place to ensure effective facilitation and support for each learner; learners are encouraged to work in teams.
- **Clinical practicum:** Sufficient opportunities are provided for learners to **practice**, receive feedback, and become competent in AMTSL skills; AMTSL clinical instructors at each clinical site are trained to provide and correct knowledge assessment questionnaires, do demonstrations of AMTSL on an obstetric manikin, evaluate learners with a checklist on manikins and in the clinical area, and follow learners going through their clinical practicum.
- **Follow-up and supportive supervision:** Post-training follow-up and supervisory visits are planned to ensure providers' application and retention of skills on the job.

The intervention was implemented using a phased approach:

1. AMTSL CIs were trained by Master Trainers in a five-day group-based training workshop from June 22 through 26, 2009. The contents of the workshop was divided into three components namely:
 - a. Knowledge update, which focused on the following topics:
 - Review of the third stage of labor and evidence for use of AMSTL
 - Causes and prevention of postpartum Hemorrhage
 - Uterotonic drugs
 - AMSTL
 - Quality Assurance
 - b. Clinical update which gave future AMTSL CIs the opportunity to practice new knowledge and skills in the clinical area
 - c. Training to be AMTSL CIs which focused on the following topics:
 - Blended learning approach
 - Mastery learning approach
 - Using competency-based assessment tools
 - Developing clinical skills
 - Managing clinical practice
2. AMTSL CIs returned to their worksites and were given a time to assimilate newly acquired knowledge and skills. The Master Trainers visited them at their sites between 2-6 weeks after training to assess if they were proficient in AMTSL and that the site was prepared to begin guiding on-site learners through the materials.
3. Master Trainers distributed learning materials to the AMTSL CIs and providers on-site were guided through the materials.

4. Once all providers on site are trained, the AMTSL CIs will begin training providers in peripheral sites.

At the time of the assessment, none of the facilities had begun training providers in peripheral sites, though two facilities had developed action plans to do so.

Training costs, including post-training follow-up visits by Master Trainers, were assured by the POPPHI project. Apart from these costs, health facilities were responsible for:

- Photocopying knowledge assessment tools.
- Caring for the obstetric manikin.
- Maintaining the standard cold chain prior to distribution of oxytocin, ergometrine, and misoprostol to the delivery room.
- Maintaining standard equipment for infection-prevention practices.
- Purchasing supplies and consumables for infection prevention and AMTSL.
- Ensuring the availability of GHS-approved and -required registers, notebooks, and forms, as well as correct documentation in them.
- Documenting movement of oxytocin to the facility and within the facility.
- Posting job aids for AMTSL, wall charts for tracking learners' progress, and wall charts for tracking PPH cases and AMTSL coverage.

Assessment methods

An assessment was conducted from October 28 to November 3 by the GHS and the POPPHI project using tools developed by the POPPHI project. This period was chosen because information on the learning approach was desired prior to closure of the POPPHI project in November, 2009. Data were collected at five of the seven facilities that currently have AMTSL CIs working in them. Observations of the providers, audits of the facility and interviews were conducted. Table 1 summarizes data collection methods.

Table 1. Data collection methods, data sources, and sample sizes

| Data collection method | Data sources and sample sizes |
|------------------------|--|
| Facility audit | Delivery registers, partographs, AMTSL CIs, facility managers, pharmacy managers |
| Interviews | Regional Directors (2) |
| | Managers of health care facilities (3) |
| | Master Trainers (3) |
| | AMTSL CIs (7) |
| | Providers (11) |
| Provider observations | Providers <ul style="list-style-type: none"> • Cases (2) • Obstetric manikin (9) |

Facility audits

The environment was observed using a facility audit tool to evaluate availability and storage of uterotonic drugs, documentation and coverage of AMTSL, posting of job aids, and posting and use of wall charts. Data were collected from:

- Delivery registers on the number of vaginal births; number of vaginal births with AMTSL; number of cases of PPH; number of episiotomies.
- Oxytocin registers, where available, on follow-up of oxytocin movement.
- Observation of stores and storage of available uterotonic drugs, posting of job aids and wall charts.
- Interviews with AMTSL CIs on number of skilled birth attendants (SBAs) in the facility and completing the course, and pharmacy managers on price and procurement of uterotonic drugs.

Interviews

Assessors interviewed regional directors, health facility managers, Master Trainers, AMTSL CIs and providers. Individuals were interviewed to document experience with the learning approach and recommendations for adapting and strengthening it. In all two Regional Health Directors, three Master Trainers, seven AMTSL CIs, ten providers, and three Facility Managers were interviewed. Table 2 summarizes what percentage of each of these categories was actually interviewed.

Table 2. People interviewed by type of interview

| | RHMT | | Master Trainers | | AMTSL CIs | | Providers completed the course | | Facility Managers | |
|--|------------|----------------|-----------------|----------------|-----------|----------------|--------------------------------|----------------|-------------------|----------------|
| | Total | No interviewed | Total | No interviewed | Total | No interviewed | Total | No interviewed | Total | No interviewed |
| Koforidua | 1 | 1 | 4 | 3 | 1 | 1 | 12 | 2 | 1 | 1 |
| Assessewaa | | | | | 1* | 1 | 2 | 2 | 1 | 1 |
| Oda | 2 | 2 | | | 15 | 2 | 1 | 1 | | |
| Kwesimintsim | 1 | 1 | | | 2 | 2 | 30 | 2 | 1 | 0 |
| Takoradi | | | | | 1 | 1 | 12 | 2 | 1 | 0 |
| Tarkwa | | | | | 3 | 0 | 10 | 0 | 1 | 0 |
| Sefwi-Wiawso | | | | | 2 | 0 | 0 | 0 | 1 | 0 |
| Total | 2 | 2 | 4 | 3 | 12 | 7 | 81 | 10 | 7 | 3 |
| % of total interviewed / observed | 100 | | 75 | | 58 | | 13.6 | | 42.9 | |

*Two AMTSL CIs were trained, but the Physician CI has since moved to Accra.

Observations

Providers who completed the learning course were observed using a checklist to evaluate application and documentation of AMTSL, and monitoring during the first 30 minutes postpartum. A total of eleven midwives were observed, which represents 13.6% (11/81) of all midwives who completed the AMTSL course at the facilities. Table 3 provides an overview of all midwives in each facility.

Table 3. Number of provider observations per facility

| Facility Name | Number of providers observed (n) | Number of midwives at the facility | Number of midwives working in labor ward | Number of midwives at the facility who completed the course | Number of midwives at the facility going through the course |
|---------------------------------------|----------------------------------|------------------------------------|--|---|---|
| Koforidua | 3 | 54 | 14 | 12 | 2 |
| Assessewaa | 2 | 7 | 7 | 3 | 2 |
| Oda | 2 | 15 | 8 | 15 | 0 |
| Kwesimintsim | 2 | 30 | 12 | 29 | 1 |
| Takoradi | 2 | 12 | 8 | 12 | 0 |
| Tarkwa | 0 | 22 | 8 | 10 | 0 |
| Sefwi-Wiawso | 0 | 9 | 6 | 0 | 6 |
| Total | 11 | 149 | 63 | 81 | 11 |
| % of trained midwives observed | | | | 13.6% | |

It impossible to know if the providers observed were representative of all providers in the facilities. However, this fact does not in any way decrease the project personnel's great interest in the information gained from these observations.

Sampling

Because of logistical and time constraints, a convenience sample of facilities and providers was used. Facilities most proximate to Accra were chosen. Providers present at the health care facility at the time of data collection were interviewed and observed.

Data Collection

Interviewers / observers were nurse-midwives and obstetrician/gynecologists. Interviewers / observers were trained for data collection in one day by the lead data collector. Data collection tools consisted of the three types previously mentioned: five interview forms for AMTSL CIs, providers, facility managers, Regional Directors, and Master Trainers; observation tool to assess providers; and a facility audit tool.

Each team of data collectors had one supervisor whose role was to support the interviewers in accomplishing the data collection and to review forms to check for completeness and accuracy. Interview forms were to be collected and reviewed by the supervisor on a continuous basis as interviews were completed, with any remaining forms collected at the end of the last day of interviewing.

Data Handling

Assessment data were entered and analyzed with EpiInfo¹, version 3.5. Answers for open-ended questions were grouped into categories to facilitate data entry.

In most cases, simple frequencies were calculated for all of the variables. In some cases, frequencies were stratified by type of provider, region, facility, etc.

¹ Epi Info™ is a public domain software package designed for the global community of public health practitioners and researchers. It provides for easy form and database construction, data entry, and analysis with epidemiologic statistics, maps, and graphs.

Results

Major findings from interviews and observations are presented below.

Coverage and documentation of AMTSL

Application of AMTSL requires the presence of a trained skilled birth attendant (SBA), a uterotonic drug, cold chain for storage of injectable uterotonic drugs in the pharmacy or facility store room, and equipment and supplies for injection safety and infection prevention. Providers were guided through the blended learning materials for AMTSL by the facility AMTSL CI(s). None of the sites was provided with uterotonic drugs, cold chain equipment, or any equipment and supplies for injection safety and infection prevention prior to the introduction of the blended learning materials.

The delivery register in each facility had been modified with the addition of columns to note administration of uterotonics and AMTSL. Estimated blood loss was already being documented in the delivery register. The partograph does not have a printed area for checking off uterotonic administration, CCT, and uterine massage, but providers were documenting these components in long-hand on the partograph and/or the client's record.

Data on AMTSL coverage and number of PPH cases were taken for the month of September from the delivery register and are displayed in Table 4. By report there is 100% coverage of AMTSL; when observing the delivery register, only 91-100% was actually recorded. In most cases when AMTSL was not checked, oxytocin was documented, indicating that there is most likely 100% coverage but not 100% documentation. This high level of coverage was even found in facilities where not all of the staff has completed training. This indicates that there is transfer of skills from one provider to another. In some facilities, CIs demonstrated the procedures to providers who then began practicing before going through the theoretical portion of the course. One AMTSL CI felt that going through the course in this way made the theoretical portion more interesting and provided the learners with the evidence and the reasoning for how they were practicing, thus reinforcing proper practice.

A PPH case was defined as estimated blood loss (EBL) of more than 500 mL as recorded in the delivery register or charting of "PPH" in the delivery register. The inaccuracy of visually estimating blood loss is well documented, so the data from the register may or may not be accurate. However, providers noted that anecdotally there is a decrease in cases of PPH and retained placenta, and reduced need of uterotonic drugs for management of PPH since providers are consistently practicing AMTSL. This finding would be consistent with studies on efficacy of AMTSL in reducing PPH.

Table 4. Number of vaginal births with AMTSL and PPH during the month of September 2009

| Facility Name | Number of vaginal births | Number / Percentage of vaginal births with AMTSL | | Number / Percentage of vaginal births with PPH | | Number/ Percentage of PPH cases when AMTSL was applied | | Number/ Percentage of PPH cases with induction or augmentation | |
|---------------|--------------------------|--|-----|--|-----|--|-----|--|------|
| | | No | % | No | % | No | % | No | % |
| Koforidua | 293 | 293 | 100 | 4 | 1.4 | 4 | 100 | 0 | 0 |
| Assessewaa | 46 | 44 | 96 | 6 | 13 | 6 | 100 | 2 | 33.3 |

| | | Number / Percentage of vaginal births with AMTSL | | Number / Percentage of vaginal births with PPH | | Number/ Percentage of PPH cases when AMTSL was applied | | Number/ Percentage of PPH cases with induction or augmentation | |
|--------------|------------|--|-------------|--|------------|--|------------|--|-----------|
| | | | | | | | | | |
| Oda | 156* | 156 | 100 | 5 | 3.2 | 5 | 100 | 0 | 0 |
| Kwesimintsim | 79 | 72 | 91 | 3 | 3.8 | 3 | 100 | 1 | 33.3 |
| Takoradi | 70 | 68 | 97 | 2 | 2.9 | 2 | 100 | 1 | 50 |
| Total | 644 | 633 | 98.3 | 20 | 3.1 | 20 | 100 | 4 | 25 |

*AMTSL only recorded for <1 month, uterotonic administration equals AMTSL

There were no cases of ruptured uterus, ruptured cord, or inverted uterus during the month of September, 2009, and by report, there have not been any cases of ruptured uterus related to inappropriate oxytocin use since training activities began.

Although not part of the assessment tool, additional information on numbers of episiotomies was gathered at the same time. As seen in Table 5, the percentage of episiotomies was less than 15 in most facilities, which most likely means that episiotomy is not routinely done. Only one facility had a percentage rate of greater than 15, and this was explained by the facility manager as a coding issue. Insurance companies would apparently not reimburse for suture if the woman had not received an episiotomy, thus midwives were putting episiotomy in the delivery register even if one was not performed but the woman had torn and required suture for repair.

Table 5. Number of episiotomies during the month of September 2009

| Facility Name | Number of vaginal births | Number of episiotomies | % of vaginal births with episiotomy |
|---------------|--------------------------|------------------------|-------------------------------------|
| Koforidua | 293 | 44 | 15 |
| Assessewaa | 46 | 10 | 21.7 |
| Oda | 156 | 18 | 11.5 |
| Kwesimintsim | 79 | 5 | 6.3 |
| Takoradi | 70 | 9 | 12.9 |
| Total | 644 | 86 | 13.4 |

Storage and stockage of uterotonic drugs

In all five of the health facilities visited, oxytocin and ergometrine are on the drug procurement list (DPL) and are procured from the regional stores. Misoprostol was routinely procured in four of the five facilities visited. In the one facility in which misoprostol was not procured by the pharmacy, the maternity unit purchased an initial supply that is replenished by writing prescriptions to clients to whom the medication was administered.

The assessment team found supplies of oxytocin 10 IU/mL ampoules, ergometrine 0.5 mg/1 mL ampoules, and misoprostol 200 mcg tablets available during their visit to the facilities. At present, oxytocin is the uterotonic drug of choice for AMTSL, and ergometrine and misoprostol are used for PPH management. In all five facilities visited, AMTSL CIs returned from their training and advocated at the facility level for adequate stores of misoprostol for management of PPH.

The manufacturer's recommendation for storage of oxytocin was located in three of the five facilities, for ergometrine in three of the five facilities, and for misoprostol in five of the five facilities. The manufacturer's recommendations for oxytocin storage temperature was either in a cool place and away from the light or 2-8°C and away from light; for ergometrine storage temperature was 2-8°C; and for misoprostol storage temperature was room temperature and away from light.

At the time of visits to all of the facilities, oxytocin and ergometrine were stored in the refrigerator in the pharmacy. All five of the facilities stored oxytocin and ergometrine in an unlocked refrigerator in the maternity unit. Four of the five maternity units only kept a limited number of ampoules on a tray in the delivery room for use in case of emergency. One of the maternities had more than 10 ampoules of oxytocin and ergometrine on a tray, outside the refrigerator, but covered with a dark cloth. All of the facilities kept misoprostol at room temperature. The tablets are presented in blisters which protects them from the light.

There were adequate stocks of oxytocin, ergometrine, and misoprostol in all of the facilities at the time of visit. The estimate for the quantity of medicines to be procured is based on past consumption quantities for four of the facilities. Only one facility ordered a standard stock of oxytocin and ergometrine. None of the facilities had had a stock-out in the previous three months and pharmacists and in-charges all said that they could not remember when the last stock-out of uterotonic drugs was.

Two of the facilities had a notebook to record movement of oxytocin in the maternity. In both cases, use of oxytocin was directly linked to the delivery logbook. In one case, the number of ampoules recorded was superior to the number that should have been used either for AMTSL or management of PPH. None of the other facilities felt the need for this type of notebook.

None of the facilities had a notebook to track misoprostol and ergometrine use.

The purchase price of uterotonics for the health facilities varied from one facility to another, even within the same Region, though they all reportedly bought their medications from the regional stores. Misoprostol is the most expensive uterotonic. The cost of oxytocin (10 IU/ml) and ergometrine (0.5 mg/ml) ranged from 0.12-0.25* Ghana cedis (GHC) and GHC 0.16-0.30 per ampoule respectively while misoprostol (200 mcg) cost ranged from GHC 0.50-0.85 per tablet. Oxytocin and ergometrine were sold at an average cost of GHC 0.20 and GHC 0.30 per ampoule to the patient. Misoprostol was the most expensive at GHC 1.00.

Of all eleven providers observed, all used oxytocin 10 IU by intramuscular injection.

Feasibility and acceptability of the SAIN learning approach for in-service training activities in the Ghanaian context

AMSTL

Participants, AMTSL CIs, and facility managers were unanimous in their opinion that the training in AMSTL was important for their work and were proud to report a reduction in the number of cases of post-partum hemorrhage and retained placenta. Additionally, two AMTSL CIs indicated that generalizing skin-to-skin contact had decreased the need for baby warmers.

* 1USD=1.40 Ghana cedis

“We have fewer cases of post-partum hemorrhage and less need for uterotonic drugs for managing it.” Sr Catherine Cobbinah, AMTSL CI, Takoradi Hospital

I would recommend this program to a friend or colleague because “it has reduced PPH drastically and monitoring the immediate postpartum reduces the number of hospital days. And the babies too we detect problems early.” Sr Faustina Okyere, AMTSL CI, Koforidua Hospital

Self-paced learning modules

The learning documents were considered as one of the highlights of the training program with all sessions covered by the learners and all sessions considered useful. Only one learner (1/10 -10 %) found that the number of exercises associated with the sessions was excessive and one learner (10%) found them to be insufficient in number. Four learners (40%) felt that the time estimates for the self-paced portion of the materials were not realistic at all, three learners (30%) felt they were very realistic, and three learners (30%) felt they were somewhat realistic.

Most learners, however, found that working independently and/or finding the time to read and do exercises was difficult, and four of the seven AMTSL CIs interviewed found combining work and guiding learners through the materials was difficult.

Most learners did their reading outside of the workplace, often in the evenings and on days off, and AMTSL CIs interviewed stated that they had to come in on off days or work extra hours in order to support learners.

Learner support

Learners and AMTSL CIs agreed that having a learning partner helped participants complete the AMTSL training course. The following is a list of how the learning partner contributed to successful completion of the course:

- Having discussions
- Doing exercises together
- Assessing each others’ practical skills
- Administering the uterotonic drug during delivery while the other performed the other components of AMTSL
- Reminding the partner about missed steps
- Providing guidance when an error was committed
- Assisting with the baby.

Some learners and AMTSL CIs said that learning pairs would assist each other when first applying AMTSL on a woman, if the AMTSL CI was not available. The presence of the learning partner gave them confidence to apply AMTSL and is most likely safer than having the midwife try this on her own.

Most (7/70%) of the learners felt that they had gotten all of the help they needed from the AMTSL CI. One of the learners said that she did not receive information she sought on uterotonic drugs and two of the learners said that her lunch was not provided. Four of the AMTSL CIs also brought up the issue of lunches for learners, and two AMTSL CIs brought

up the issue of per diem payment for AMTSL CIs. Mechanisms for providing on-site learners with lunch for one day of clinical were not clearly defined and only 5 Ghana cedis were budgeted for this. It is surprising that not more of the learners and AMTSL CIs mentioned this problem and this is a strong statement on the dedication and availability of the AMTSL CIs. Certainly the large number of providers could never have been trained if it were not for this dedication.

Learners have a very positive attitude about continued support and feedback from the AMTSL CI and felt that this would ensure that they stay competent. Because all of the providers interviewed completed the course on-site, the AMTSL CI was present at the facility during their duty hours and did not need to make off-site post-training visits.

Demonstrations

Learners all felt that the demonstrations with mannequins were very useful for preparing them for doing AMSTL with clients. Learners found that practicing AMSTL on the mannequin was like working with a real client and most said that working with real cases was easy after the mannequin.

Eight learners (80%) felt that enough time was programmed for the demonstrations and nine (90%) of learners felt that everything needed was available when demonstrations were performed. AMTSL skills appear to have been standardized as all ten of the learners interviewed reported that AMTSL CIs followed the learning guide when demonstrating AMTSL and immediate postpartum care. One learner felt that having the AMTSL CI demonstrate on a woman would be helpful in addition to the demonstration on an obstetric manikin.

At least two of the facilities began training activities with demonstrations and return demonstrations immediately after the AMTSL CIs returned to their worksite after their training. This would explain the high coverage of AMSTL even when all of the providers had not completed the course. Providers completed the theoretical portion of the course after the practical part and, by AMTSL CI report, going through the materials in this way reinforced the practice by providing an evidence-base.

Clinical practice

Clinical practice was considered very effective by six (60%) learners and effective by four (40%) learners for the mastery of post-partum hemorrhage prevention procedures, but three of the learners (30%) felt that insufficient time was set aside for it. Eight of the learners (80%) felt that time spent in the clinical practicum was very useful, while two learners (20%) felt it was only somewhat useful. Many learners did not practice AMSTL under the supervision of the AMTSL CI during the allotted time, but depended upon their learning partner to assist them the first time they performed AMTSL on a real case. Although the training protocol calls for CIs to be present the first time a learner performs AMTSL on a patient, CIs felt that this use of learning partners was appropriate and no problems were reported.

Five (50%) of the learners strongly agreed, three learners (30%) agreed, and one learner (10%) disagreed that the number of cases they had during clinical practice was adequate to achieve competence. All learners expressed that they were very confident to apply AMSTL when they had completed the course.

Overall acceptability

When asked if they would undertake the training again, nine of the ten learners, and all AMTSL CIs, Master Trainers, health facility managers, and Regional Directors said that they would undertake the training as it is again. The one learner who said that she would not undertake the training as it is again said it was too stressful trying to study between work, and she preferred group-based to self-paced learning.

All learners, AMTSL CIs, Master Trainers, health facility managers, and Regional Directors said that they but would also recommend the AMTSL blended learning program to other learners, facilities, and regions (see Table 6).

Table 6. Persons who would recommend the program

| Category of personnel | No / % who would undertake the training again | | No / % who would recommend it to others | |
|-----------------------|---|-----|---|-----|
| | No | % | No | % |
| Learners | 9 | 90 | 10 | 100 |
| AMTSL CIs | 7 | 100 | 7 | 100 |
| Master Trainers | 3 | 100 | 3 | 100 |
| Facility managers | 3 | 100 | 3 | 100 |
| Regional Directors | 2 | 100 | 2 | 100 |

Six of the learners (60%) said that no changes were needed to make the program more acceptable, and the following suggestions were offered by the remaining four learners to improve the program:

- Set time aside from work for reading and demonstrations.
- Increase the amount of time allotted for getting through the materials.
- Have smaller numbers of people in the group-based portions of the training.
- Have classroom instead of self-paced learning.

Three of the AMTSL CIs did not feel any changes to the program were needed. The remaining four gave the following suggestions:

- Make the course a one-week residential course.
- Provide funds for CIs and snacks/lunch for learners.
- Develop a mechanism to keep regular contact with the trainers.
- Make the course a one or two-week continuous, intensive course.
- Developing a time frame to get all of the staff together for the practice to roll out.

Learners, AMTSL CIs, Master Trainers, health facility managers, and Regional Directors were unanimous in saying that the program was a success because PPH cases have been reduced which makes work for all staff easier and improves job satisfaction. Additionally, respondents cited the evidence-based, practical nature, reality-based, and results-oriented nature of the course to be reasons for the success. Some respondents noted that retained placenta cases were reduced after initiating the course and providers were more confident about managing PPH.

Obstacles

Six of the learners indicated they did not encounter any obstacles while going through the course, the remaining four learners mentioned trying to study during working hours, combining night duty with training, and using off-days to study as obstacles to completing the course. Only one learner indicated having difficulty understanding the subject matter.

Only one AMTSL CI indicated they did not encounter any obstacles while guiding learners through the course. Some of the obstacles encountered included:

- Non-availability of lunch for learners and AMTSL CIs (2).
- Need for certificates (1).
- Working and training at the same time (6).
- Resistance from staff (1).
- Coming in on off-duty days or working overtime to work with learners (1).
- Inadequate number of training materials (1).

Although not all of the learners and AMTSL CIs brought up the question of per diem or T&T, this theme is underlying. The remarkable thing is that this did not hinder either learners or AMTSL CIs from going through the materials.

Retention of trained personnel is a problem. Of twelve AMTSL CIs trained, only ten are still on the job. The most successful facilities, where all of the providers on-site have been trained, either had teams of CIs or the remaining midwife CI was the in-charge. Careful selection of the person to become the AMTSL CI is therefore essential.

The transfer of trained providers is also a problem though AMTSL CIs have said that the blended learning approach facilitates training of newly transferred providers.

An additional problem for CIs and learners was that of finding ways to combine regular duties with either studying or guiding learners through the course. In cases where there was only one CI, the entire burden of the program was on their shoulders. Where there were two CIs, the AMTSL CI respondents said they could depend upon their co-CI to assist them.

Wall charts for monitoring PPH and AMTSL as well as for tracking learners were not posted in any of the facilities. One AMTSL CI said that using the wall chart would assist with tracking learners, but she herself was not using it. It may be that the usefulness of these tools was either not well explained or not well understood or it may be that the records that CIs maintain are sufficient.

Cost

There are major cost differences between the two types of training, group-based or blended learning (SAIN). Table 7 outlines how costs may differ. Financial costs will be considerably higher for group-based, particularly when providers can be trained on-site. With the SAIN approach the greatest difficulties participants report with the blended learning approach are combining studying with work duties, and ensuring that an AMTSL CI is available when the learner first begins applying AMTSL on a client.

Table 7. Differences in cost between group-based and blended learning approaches

| Group-based training | Mixed learning |
|--|--|
| Training | |
| Accommodation: 4 nights | Accommodation: 0 -1 night for off-site learners |
| Travel & Transport: x1 for off-site learners | Travel & Transport: x2 for off-site learners; None for on-site learners |
| Meals / Snacks / Water (facilitators / learners): 4 days | Meals / Snacks / Water (clinical instructors / learners): 1 day for on-site; 2 days for off-site learners |
| Vehicle for local running: 4 days | No expenses |
| Support staff (2) – 5 days | No expenses |
| Facilitators' (2) honorarium – 4 days | CI Honorarium: per person trained (honorarium calculated by dividing the honorarium for all facilitators during a 4-day group-based divided by the number of learners ^u) |
| Training coordinator – 4 days | Training coordinator Honorarium: per person trained |
| LCD rental – 4 days | No expenses |
| Conference hall – 4 days | No expenses |
| Training materials | Training materials (cost about 25 -30% more than group-based materials) |
| Obstetric models – 2-4 / Region | Obstetric models – 1 / Clinical site |
| Stationery, flip charts, markers, tape | No expenses |
| Local communication | Communication (CI-Coordinator-Learners) |
| Post-training visits | |
| Post-training visit to participants by regionally located facilitators | Post-training visit to learners by on-site CI or district-based CI |
| Other non-financial costs | |
| Time away from facility during training activities | Trying to combine work and studying |
| | AMTSL CIs may not be available for all shifts |

Additional benefits of the blended learning approach that are difficult to cost are: Ownership of the process by AMTSL CIs and facilities; immediate application of skills and transfer of training to the worksite; and more participatory training. On the down side, there is additional need for increased support / encouragement of learners as they go through the self-paced portion of the materials.

Competence of providers trained using the SAIN learning approach.

Definition of correct AMSTL use

The components of AMTSL promoted by GHS include the following—

1. Administration of 10 IU of oxytocin (the medicine of choice) via intramuscular route (IM) within one minute following the delivery of the fetus and after ruling out the presence of a second twin. In cases where oxytocin is not available, 0.2 mg of ergometrine IM or 600 mcg of misoprostol po is recommended.
 - Correct mode of administration—Oxytocin should be administered IIM. If labor has been induced or augmented, then oxytocin administration via IM injection,

^u For example: If there were 2 regional facilitators (35 GHC/day) at a group -based 4-day training for 10 participants, the price per participant equals: (35 Ghana cedis x 2 Regional Facilitators X 4 days) /10 participants = 28 Ghana cedis/partici pant

intravenous drip, or intravenous push are all considered correct. Ergometrine should be administered IM. Misoprostol should be administered by mouth.

- Correct dose—10 IU of oxytocin or 0.5 mg of ergometrine or 600 mcg misoprostol.
- Correct stage of labor—the uterotonic medication should be administered after the delivery of the baby and before the delivery of the placenta.
- Correct timing—the uterotonic medication should be given within one minute following the delivery of the baby and after ruling out the presence of a second twin.

2. CCT with countertraction to the uterus.

- CCT would be considered correctly done only if countertraction was applied at the same time.

3. Immediate uterine massage following delivery of the placenta and palpation of the uterus to assess the need for continued massage every 15 minutes over the next 2 hours.

For this assessment, we consider the criteria for correct use of AMTSL to include all three elements of the GHS recommendation for AMTSL.

Use of AMTSL

Job aids for AMTSL were posted in 3 of the 5 facilities visited. A total of eleven providers were observed, of which nine were observed on an obstetric model. Eight of the providers practiced all of the components to standard. The three providers that did not practice to standard either administered the uterotonic more than 1 minute after birth of the baby or clamped and cut the cord less than 2-3 minutes after birth of the baby. Only one provider gave the uterotonic more than 1 minute after birth AND clamped the cord less than 2-3 minutes after birth. While the number of providers observed was small and the number of real cases a small minority of those observed, Table 7 clearly shows that providers are, by and large, practicing AMTSL to standard following training using the blended learning approach. This type of learning approach made it possible to train all of the providers to standard, which in turn means that the norm for practice will be the recommended standard.

Table 8. Practice of AMTSL

| Component | No | % | Comments |
|---|----|------|---|
| Uterotonic administered after birth of the baby and before delivery of the placenta | 11 | 100 | All providers used oxytocin 10IU IM. |
| Presence of second twin ruled out | 11 | 100 | |
| Uterotonic administered within 1 minute after birth | 7 | 63.6 | 4 administered in >1 minute but <2 minutes after delivery of the baby |
| Cord clamped within 2-3 minutes or after cessation of cord pulsations | 8 | 72.7 | 3 clamped in <1 minute after birth |
| CCT performed with countertraction | 11 | 100 | |
| Uterus massaged after delivery of placenta | 11 | 100 | |
| Placenta examined | 11 | 100 | |
| Birth canal examined | 11 | 100 | |
| Woman taught to massage her uterus | 11 | 100 | |
| Uterus and vaginal bleeding monitored at least two times in the first 30 minutes | 11 | 100 | |

| Component | No | % | Comments |
|--------------------------------------|----|------|---|
| Practiced all components to standard | 8 | 72.7 | 1 provider gave the uterotonic more than 1 minute after birth and clamped the cord before 2-3 minutes |

Figure 1, below, shows the above table graphically.

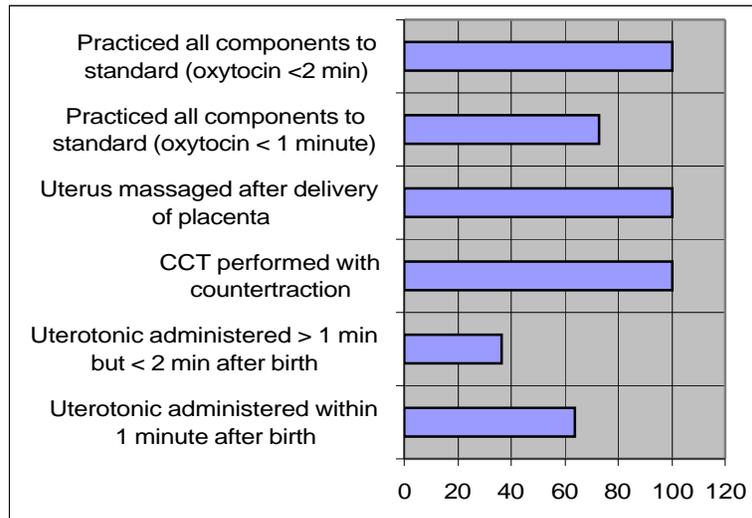


Figure 1. Percentage of providers practicing selected components to standard.

None of the learners massaged the uterus while waiting for delivery of the placenta, performed CCT without countertraction, or performed CCT without administration of a uterotonic drug.

Immediate newborn care

All of the learners immediately dried the baby after birth and assessed respiration; nine of the eleven learners put the baby in skin-to-skin contact with the mother. Nine of the learners (81.8%) checked the baby's temperature, respiration, and color at least twice during the first 30 minutes postpartum; while only eight (72.7%) checked the cord for bleeding. While all babies and their mothers were kept together most of the time, babies were taken to a warming table for about 10-15 minutes, usually during the first two hours after birth, to be weighed and have measurements taken. Only one learner (9.1%) informed the mother about danger signs in her newborn during the immediate postpartum period.

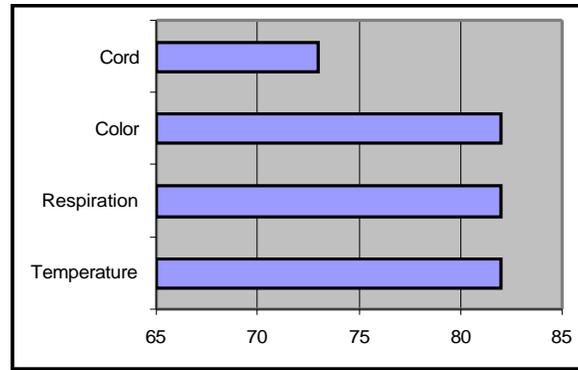


Figure 2. Percentage of providers who monitored selected parameters of the newborn to standard.

Infection prevention

All of the facilities had running water (either from a tap or from a Veronika bucket), soap (usually bar soap), clean cloths to dry hands with, a bucket with decontamination solution, and a sharps container in the delivery room. The biggest challenge is with hand washing, and this is certainly consistent with provider practice around the world.

Table 9. Infection Prevention practices*

| IP Practice | No | % |
|--|----|------|
| Wore a clean plastic or rubber apron | 9 | 81.8 |
| Wore rubber boots or closed shoes | 7 | 63.6 |
| Wore a face shield or eye goggles and mask | 4 | 26.3 |
| Provider washed and dried hands before putting on gloves | 8 | 72.7 |
| Wore sterile surgical gloves on both hands | 11 | 100 |
| Perineum cleansed with an antiseptic solution* | 2 | 18.2 |
| Provider appropriately disposed of the placenta | 11 | 100 |
| All instruments put in a decontamination solution after use | 11 | 100 |
| All sharps immediately disposed of in a sharps container box | 10 | 90.9 |
| Provider washed and dried hands after taking off gloves | 4 | 26.3 |

Other areas of care

Six of the learners (54.5%) asked for permission to put the baby in skin-to-skin contact after birth while only two (18.2%) asked for permission to apply AMTSL. This may be because skin-to-skin contact immediately after birth is new and some women who had not been informed about it were rejecting the practice. Providers seem to consider AMTSL to be an evidence-based practice that clearly benefits the woman and therefore does not require permission.

Only one learner (9.1%) observed asked the woman what position she would like to give birth in, and all eleven of the women gave birth in supine lithotomy, nine with stirrups and two without stirrups. Ten of the learners (90.9%) informed the woman about the uterotonic

* Most providers cleaned the perineum with water or soap and water.

injection before administering it and nine (81.8%) provided emotional support to the woman. (See Figure 3.)

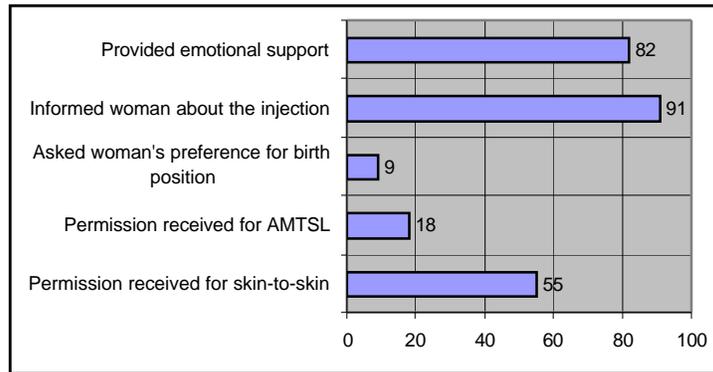


Figure 3. Percentage of providers who practiced selected elements of care.

Discussion

Major findings of the assessment include:

Coverage and documentation of AMTSL

- Coverage of AMTSL was high in all facilities, between 91 and 100% of all vaginal births, even those where all of the providers on-site had not completed the course.
- Additional columns were added to delivery logs to document AMTSL and uterotonic administration. Estimated blood loss was already being documented when AMTSL activities were begun.
- There is no place to record AMTSL on the partograph, but providers are writing out administration of a uterotonic drug, application of controlled cord traction (CCT) and countertraction, and uterine massage in the client's chart.
- Anecdotally, rates of retained placenta and postpartum hemorrhage (PPH) are lower than before beginning training activities. PPH was not tracked prior to the intervention, so this is difficult to ascertain. Cases of PPH were between 1.4 and 13% of vaginal births for the month of September, 2009, in the facilities visited.
- There have been no cases of uterine rupture, cord rupture, or uterine inversion related to the mis-use of uterotonic drugs or the practice of AMTSL since training activities have begun.

Competence of providers trained using the SAIN learning approach

- Providers assessed on obstetric models and with real cases were found to competently and safely apply AMTSL.
- All providers safely performed the three components of AMTSL and put the baby in skin-to-skin contact with the mother. There were no harmful practices noted, including CCT without uterotonic drug administration or countertraction.
- Areas of AMTSL practice needing strengthening include timing of the uterotonic drug, that is within 1 minute of delivery of the baby, and consistently delaying cord clamping to 2-3 minutes after birth.
- Monitoring and educating the woman in the immediate postpartum are areas that still need strengthening.

Storage and stockage of uterotonic drugs

- All facilities had adequate stocks of oxytocin and ergometrine, with no stock-outs during the months of July, August, and September.
- Oxytocin and ergometrine were correctly stored in all of the pharmacies. All of the maternity units had a refrigerator that was unlocked. All of the delivery rooms had a stock of oxytocin, ergometrine and misoprostol in the delivery room. Oxytocin is the uterotonic of choice for AMTSL.
- Two facilities had a notebook to follow movement of oxytocin in the delivery room.
- Only one facility did not have misoprostol in the pharmacy – in this facility, the maternity unit bought a store of misoprostol that is replaced by clients after the product was administered to them. Misoprostol is used for PPH management and not prevention, as adequate stores of oxytocin are always available.
- Hospitals bill either the health insurance company or the GHS for uterotonic drugs used during labor and childbirth. Women are not directly billed for these products, except in

the facility where women are given a prescription to replace misoprostol administered to them.

- A large number of providers were trained in a relatively short period of time and at a relatively cheaper cost than group-based training. All providers on-site have completed the learning materials in all but one facility.

Feasibility and acceptability of the SAIN learning approach for in-service training activities in the Ghanaian context

- Of a total of sixty-one midwives working on the labor ward, forty-nine have completed the course, and eight are still going through the course. In all, eighty-one providers have completed the course in less than three months (materials were distributed in August/September). In some facilities, a decision was taken to train all midwives in the facility because they all eventually rotate to the labor ward. In these cases, the facilities took the initiative to photocopy the materials themselves.
- Two midwives in one of the facilities had not completed the course because they were either sick or on leave. The facilities where either none of the midwives has completed the course or only two has completed the course both have junior midwives working as AMTSL CIs and neither has a physician working as a CI.
- The strategy was easier to implement when there was a team (doctor / midwife) of CIs and when the nurse-midwife CI was the in-charge for the labor ward.
- In one facility, where only two providers have completed training and two are currently going through the materials, both the AMTSL CI and the providers interviewed were dissatisfied with remuneration provided for lunch.
- Providers and AMTSL CIs both noted the difficulty of combining work duties and the self-paced approach. In spite of these difficulties, the majority of providers on-site have completed the learning materials.
- Most learners did their reading outside of the workplace, often in the evenings and on days off, and AMTSL CIs interviewed stated that they had to come in on off days or work extra hours in order to support learners.
- Learners greatly appreciated the support provided by learning partners and AMTSL CIs, and AMTSL CIs appreciated the support provided by the Master Trainers.
- All of the providers interviewed appreciated the learning materials and the subject matter. Only one provider interviewed said she would prefer the group-based approach.
- All AMTSL Trainers and CIs and the majority of providers interviewed (9/10) providers interviewed would undertake the training in the same way again.
- All facility managers and regional health managers interviewed said they would undertake the training again in the same way and recommend it to other facilities and regions.
- Learners, AMTSL CIs, Master Trainers, health facility managers, and Regional Directors were unanimous in saying that the program was a success because PPH cases have been reduced which makes work for all staff easier and improves job satisfaction. Additionally, respondents cited the evidence-base, practical nature, reality-base, and results-oriented nature of the course to be reasons for the success.

Significance

The blended learning approach to train skilled birth attendants to apply AMTSL was successful at making learners competent in AMTSL; was acceptable to learners, ATMSL CIs, AMTSL Trainers, Facility Managers, and Regional Managers; and was feasible in the Ghanaian context. Given the cost savings as well as the ability to train large numbers of providers without emptying out the facilities, this learning approach would be useful for scaling up AMTSL on a national scale and should also be considered for other learning needs, including management of PIH, etc.

When comparing findings of the national AMTSL survey conducted in 2007 with findings in the facilities visited, there is a remarkable improvement in uterotonic stockage and storage, and AMTSL practice⁵ (see Table 10).

Table 10. Comparison of findings in 2008 National Survey and facilities surveyed

| | AMTSL Survey | Current assessment |
|--|------------------------------------|--------------------|
| Days out of stock over last 3 months | | |
| Oxytocin | 0 days: 95.8% 3 days: 4.2% | 0 days: 100% |
| Ergometrine | 0 days: 100% | 0 days: 100% |
| Misoprostol | 0 days: 50% Not applicable: 50% | 0 days: 100% |
| Mode of uterotonic administration | | |
| Oxytocin users by IM | 74.7% | 100% |
| Oxytocin users (labor induction / augmentation) | 1.5% | 0% |
| Ergometrine users by IM | 6.1% | 0% |
| Incorrect administration | 17.8% | 0% |
| Uterotonic dose | | |
| Correct dose(10 IU for oxytocin users) | 71.2% | 100% |
| 0.5 mg for ergometrine users | 12.3% | 0% |
| Incorrect dose | 16.6% | 0% |
| Stage of administration | | |
| Correct stage (after delivery of baby) | 66.9% | 100% |
| Incorrect stage | 33.1% | 0% |
| Time of administration | | |
| Correct time (<=1 minute after delivery of fetus) | 19.9% | 63.6% |
| Correct time (1–3 minutes after delivery of fetus) | 45.2% | 36.4% |
| Incorrect time | 34.9% | 0% |

The national study on the practice of AMTSL also identified potentially harmful practices such as the application of fundal pressure during delivery of placenta (21 percent), performing uterine massage while awaiting delivery of the placenta (22 percent) and application of traction without counter pressure (10 percent). None of these potentially harmful practices were observed during this assessment.

While the AMTSL CIs and learners were motivated and willing to complete learning activities without remuneration, mechanisms should have been put in place to remunerate CIs per learner trained and provide meal expenses for 1 day for on-site learners and for 2 days for off-site learners. Ensuring remuneration per learner trained, though minimal, would provide motivation for CIs to guide learners through the process, and would serve as a motivation for learners going through the materials.

Although the main components of AMTSL were safely and competently performed, AMTSL CIs still need to find ways to remind providers about other aspects of care, including provision of emotional support, keeping the woman informed, informing women /mothers about and asking permission for medical interventions, and monitoring during the immediate postpartum period.

Limitations

The biggest limitation of the assessment was the use of a convenience sample rather than a randomized sample.

An additional limitation was that interviewers/observers used facility registers to gather all data on number of births, AMTSL, EBL, and PPH. Collecting data from these sources holds the inherent risk of incomplete or inconsistent reporting.

Many aspects of care are extremely difficult to assess on an obstetric model but the providers' mentioning or forgetting elements of care can give some indication as to whether they understand the recommended standards.

Although these limitations should be kept in mind when reviewing the data and conclusions, we think the results give a reasonably accurate portrayal of the realities of using the SAIN learning approach for training AMTSL in Ghana.

Recommendations

It is recommended that this learning approach be scaled-up nationally. The Eastern and Western Regional Trainers and AMTSL CIs have the technical expertise to revise existing materials, develop a plan for scale-up, train additional CIs, and guide the process. Trying to fund these activities on a national scale would be prohibitive. Instead, facilities, districts, and regions could each fund their portion of the activities to complete financial expenditures at each level.

The same model should be used: 1) Train Regional Master Trainers, 2) Regional Master Trainers train district-/facility-level CIs, 3) Facility-level CIs train on-site staff, 4) Facility level CIs and staff at the clinical site guide providers from peripheral facilities. Further attempts to utilize the model will greatly benefit from an in-depth study of how AMTSL CIs and learners effectively combined working and studying to successfully complete the learning materials.

The choice of Regional Trainers and AMSTL CIs is critical to the success of the program. Wherever possible: 1) AMTSL Trainers and CIs should always be teams of a midwife and physician (where possible this should be an obstetrician/gynecologist) and 2) The midwife CI should either be the in-charge of the labor ward or at least a senior midwife.

Mechanisms for remuneration of CIs and provision of T&T and meal expenses should be clear from the outset of the program, and funds need to be provided to the facilities in a

timely manner. A careful system of accounting will need to be set up to monitor use of the funds.

Certificates should be issued by the CIs and signed by the District Director of Health and the AMTSL CI. Each time a certificate is awarded, the Training Coordinator should be informed and the CIs remunerated.

Practice areas that need strengthening should be addressed at the facility level and with timely feedback provided to the providers by the AMTSL CIs. Job aids for the correct practice of AMTSL and monitoring in the immediate postpartum period should be made available to the facilities and displayed in the delivery rooms.

Appendix 1: Data collection tools

FORM 1: AMTSL Clinical Instructor

GHS / USAID/ POPPHI
Ghana SAIN Qualitative Evaluation
In Eastern and Western Regions
2009

INTERVIEW QUESTIONNAIRE FOR AMTSL Clinical INSTRUCTORS

ID Number: _____\

Identification:

(Insert code below)

Region: 1=Eastern 2=Western

_____\

Region

District: _____

_____\

District

Name of site: _____

Category of personnel (Tick (ü) one):

1=Physician (MD) c 2=Midwife c 3=Nurse c

_____\

4=Other (specify) c : _____

category of personnel

DATE OF ASSESSMENT: _____

NAME OF ASSESSOR: _____ SIGNATURE OF ASSESSOR: _____

NAME OF SUPERVISOR: _____ SIGNATURE OF SUPERVISOR: _____

| | | | |
|-------|---|--|--|
| 1.1.1 | Were you trained in AMTSL Skills before being trained as an AMTSL Clinical Instructor? <div style="text-align: right;"> Yes=1 No=2 DON'T KNOW -98 </div> | | |
| 1.1.2 | Do you think you have the necessary knowledge and skills to train and supervise service providers in PPH prevention activities? <div style="text-align: right;"> Yes=1 No=2 Don't know -98 No response=99 </div> | | |

| | | | |
|-------|---|--|------------------------------------|
| a | If No, which additional knowledge and skills do you think you need to be able to train and supervise service providers in PPH prevention activities? | | |
| 1.1.3 | What function(s) do you actually perform as an AMTSL Clinical Instructor? Don't prompt; Circle the number of the choice as appropriate. Assisting with learning activities and comprehension=1 Giving and correcting knowledge assessment tools=2 Giving demonstrations=3 Evaluating providers on mannequins=4 Providing clinical coaching=5 Evaluating providers in the clinical area=6 Providing post -training follow -up=7 Other, specify=8 None of the above=99 | | |
| 1.1.4 | Have you been told your roles and responsibilities as an AMTSL Clinical Instructor? Yes=1 No=2 Don't know -98 | | |
| 1.1.5 | Do you have a copy of written roles and responsibilities? Yes=1 No=2 Don't know -98 | | If Yes è Q1.2.1 If No è Q1.1.5a |
| a | If NO, how do you know what your job duties are? Don't prompt; Circle the number of the choice as appropriate. From training=1 From my supervisor=2 From other, specify=3 No response=99 Not applicable=89 | | |
| 1.2.1 | Did you ever receive a post -training follow -up visit by an AMTSL trainer? Yes=1 No=2 Don't know -98 | | If No è Q1.3.1 |
| a | If YES, how many times: _____ | | |
| b | From whom? (indicate name, rank and designation of supervisor) | | |
| 1.2.2 | Did your AMTSL trainer ever make any recommendations to improve your performance? Yes=1 No=2 Don't know -98 | | If No è Q1.3.1 |
| a | If YES ask respondent to state some examples of recommendations made: | | |

| | | | |
|-------|--|--|----------------------------|
| 1.3.1 | Do you have a written action plan for training and post - training follow -up functions? Yes=1 No=2 Don't know -98 | | If YES, ask to see a copy. |
| 1.3.2 | What materials, tools, resources, and equipment do you actually/currently use to do your job as an AMTSL Clinical Instructor? Do not prompt. Record all mentioned. For each item provided, ask from whom and where obtained. Vehicle=1 Fuel=2 Materials for demonstrations (mannequin, checklists, etc)=3 Training Materials=4 Per diem=5 Report-writing tools (computer, typewriter, secretarial services, place to work, etc.)=6 Clinical equipment for training activities=7 Others? (Specify) : =8 No response=98 | | |
| 1.3.3 | Do you receive these items on time to do your work as an AMTSL Clinical Instructor? Yes=1 No=2 Don't know -98 | | If Yes → Q1.3.4 |
| a | If no, what are the reasons? | | |
| b | When these items you need are unavailable, what do you do? | | |
| 1.3.4 | How many providers have you guided through the mixed/blended learning approach in AMTSL? | | |
| 1.3.5 | Please describe challenges with keeping track of providers' progress getting through the self - paced portion of the curriculum. | | |
| 1.3.6 | Please describe successes with keeping track of providers' progress getting through the self - paced portion of the curriculum. | | |
| 1.3.7 | What aspects of the tools to keep track of learners' progress did you find helpful? | | |
| 1.3.8 | What would make keeping track of learners' progress easier? | | |
| 1.3.9 | Is there additional information about learners that you think we should keep track of in future programmes? (Please explain your response.) Yes=1 No=2 Don't know -98 | | No response=99 |

| | | |
|-------|---|--|
| a | If Yes, describe | |
| 1.4.1 | For how many service providers have you conducted a post -training visit since your training as an AMTSL Clinical Instructor? | |
| 1.4.2 | Please list all tools or documents which you used during the post -training visit. Do not prompt. Learner notebook=1 AMTSL checklist=2 Monitoring in the immediate pp period checklist=3 Others (specify)=4 No response=98 | |
| 1.5.1 | How do you combine your usual work with your AMTSL Clinical Instructor activities? | |
| a | If you have any problems combining these jobs, who helps you? | |
| b | If you have to leave your regular work to perform your AMTSL Clinical Instructor functions, what procedure do you go through? | |
| 1.5.2 | Would you undertake this training the same way again if asked to? Yes=1 No=2 Don't know -98 No response=99 | |
| a | Please explain your answer. | |
| 1.5.3 | What are some of the things you would change about the course? | |
| 1.5.4 | What obstacles did you encounter and how did you deal with them? | |
| 1.5.5 | What are the successes in this Self -Paced Learning programme that you would like to report on? | |
| 1.5.6 | What specific characteristics of this program would make you to want to recommend it to a friend or colleague? | |
| 1.5.7 | What specific characteristics of this program would discourage you from recommending it to a friend or colleague? | |

Ask respondent if he/she has questions or suggestions.

Thank respondent and politely end interview.

FORM 2: PROVIDERS

ID Number: _____\

Identification:

(Insert code below)

Region: 1=Eastern 2=Western

_____\

region

District: _____

_____\

district

Name of site: _____

Name of respondent: _____ Current position: _____

Category of personnel (Tick (ü) one):

1=Physician (MD) c 2=Midwife c 3=Nurse c

_____\

4=Other (specify) c : _____

category of personnel

Date of Assessment: _____

Name of Assessor: _____ Signature of Assessor: _____

Name of Supervisor: _____ Signature of Supervisor: _____

| | | | |
|--------|---|--|--|
| 2.1.1 | <p>How did you get to know about the Self-Paced Learning program for the first time?</p> <p>Clinical instructor: 1 Matron: 2 In-charge: 3 Facility manager: 4 Other (specify): 99</p> | | |
| 2.1.2. | <p>How well would you say you were prepared for Self - Paced Learning? Prompt the respondent for one of the responses below.</p> <p>Very well: 1 Well: 2 Not well: 3 Not prepared: 4 No response: 99</p> | | |
| 2.1.3 | <p>What additional/different things do you think could have been done to improve your introduction to Self -Paced Learning?</p> | | |
| 2.2.1 | <p>Which sessions of the training program would you say were appropriate for your learning needs?</p> <p>Third stage of labor and evidence for using AMTSL : 1 Prevention of postpartum hemorrhage: 2 Uterotonic drugs : 3 AMTSL: 4 Quality assurance, including interpretation and use of maternal and newborn data: 5 None: 7 No response: 99</p> | | |
| 2.2.2. | <p>Which sessions of the training program would you say were not appropriate for your learning needs?</p> <p>Third stage of labor and evidence for using AMTSL : 1 Prevention of postpartum hemorrhage: 2 Uterotonic drugs : 3 AMTSL: 4 Quality assurance, including interpretation and use of maternal and newborn data: 5 None: 7 No response: 99</p> | | |
| 2.2.3 | <p>How realistic were the time estimates for the Self -Paced Learning sessions compared to the actual time you spent?</p> <p>Very realistic: 1 Somewhat realistic: 2 Not realistic at all: 3 No opinion: 99</p> | | |
| 2.2.4 | <p>What is your comment on the number of learning activities (self -assessments, case studies, etc.) per session you had to do whilst going through each Self - Paced Learning session? Prompt the respondent for one of the responses below.</p> <p>Number sufficient: 1 Number insufficient: 2 Number excessive: 3 No opinion: 99</p> | | |

| | | | |
|--------|--|--|--|
| 2.3.1. | In what ways did your learning partner contribute to your successful completion of the Self - Paced Learning units? | | |
| 2.3.2 | <p>What do you consider as helpful support you obtained from the AMTSL Clinical Instructors during the training? Don't prompt; Tick (P) as appropriate.</p> <p>Assisting with learning activities and comprehension=1 Giving and correcting knowledge assessment tools=2 Giving demonstrations=3 Evaluating providers on mannequins=4 Providing clinical coaching=5 Evaluating providers in the clinical area=6 Providing post -training follow -up=7 Other, specify=8 None of the above=99</p> | | |
| 2.3.3 | What other kind(s) of help did you feel you n eeded from the AMTSL Clinical Instructors but which you did not get? | | |
| 2.4.1 | <p>Were demonstrations performed by the AMTSL Clinical Instructor effective in preparing you for clinical practice? Prompt the respondent for one of the responses below.</p> <p>Very effective: 1 Effective: 2 Not effective: 3 No opinion: 99</p> | | |
| 2.4.2. | <p>What is your opinion on the length of time allotted for demonstrations? Prompt the respondent for one of the responses below.</p> <p>Very sufficient : 1 Sufficient : 2 Not sufficient : 3 No opinion: 99</p> | | |
| 2.4.3 | <p>In your experience, did AMTSL Clinical Instructors follow the learning guides when doing demonstrations?</p> <p>Yes=1 No=2 Don't know=98 No response=99</p> | | |
| 2.4.4. | <p>What comments do you have about availability and adequacy of items needed for demonstration s? Prompt the respondent for one of the responses below.</p> <p>Everything available : 1 Most things available : 2 Essential items were not available : 3 No opinion: 99</p> | | |
| 2.4.5. | What changes do you think will make the demonstrations more suitable for preparing yo u for clinical practice? | | |

| | | | |
|--|--|--|--|
| 2.5.1 | <p>How effective was the clinical practicum in helping you become competent in AMTSL? Prompt the respondent for one of the responses below.</p> <p>Very effective : 1 Effective: 2 Not effective: 3 No opinion: 99</p> | | |
| 2.5.2. | <p>What is your opinion on the length of time allotted for the clinical practicum? Prompt the respondent for one of the responses below.</p> <p>Very sufficient : 1 Sufficient: 2 Not sufficient : 3 No opinion: 99</p> | | |
| 2.5.3. | <p>How useful would you say was the time you spent in the clinical practicum? Prompt the respondent for one of the responses below.</p> <p>Very useful : 1 Somewhat useful : 2 Not useful : 3 No opinion: 99</p> | | |
| 2.5.4. | <p>Do you feel that the number of cases that you had during the clinical practice was adequate to make you competent? Prompt the respondent for one of the responses below.</p> <p>Strongly agree : 1 Agree: 2 Disagree: 3 Strongly disagree: 4 No opinion: 99</p> | | |
| 2.5.5. | <p>What did you feel about your capacity to practice what you learnt once back on the job? Prompt the respondent for one of the responses below.</p> <p>Very confident to apply AMTSL when I returned to my worksite: 1 Somewhat confident to apply AMTSL when I returned to my worksite: 2 Not confident to apply AMTSL when I returned to my worksite: 3 No opinion: 99</p> | | |
| 2.5.6. | <p>What comments do you have about availability and adequacy of items needed for clinical practice? Prompt the respondent for one of the responses below.</p> <p>Everything available : 1 Most things available : 2 Essential items were not available : 3 No opinion: 99</p> | | |
| NOTE: Only ask questions 2.6.1 -2.6.3 to off-site learners | | | |

| | | | |
|--------|---|--|----------------------|
| 2.6.1 | How would you describe provisions made for your travelling and accommodation during the Self -Paced Learning? Prompt the respondent for one of the responses below. Very sufficient : 1 Sufficient: 2 Not sufficient : 3 No opinion: 99 Not applicable: 89 | | |
| 2.6.2. | What can you say about logistics and funds needed for the training? Prompt the respondent for one of the responses below. Very sufficient : 1 Sufficient: 2 Not sufficient : 3 No opinion: 99 Not applicable: 89 | | |
| 2.6.3. | What travel difficulties did you face and how did you cope with them? | | |
| 2.7.1 | Did you ever receive a post -training visit by the AMTSL CI after completing your training course? Yes=1 No=2 Don't know=98 No response=99 | | è If no go to Q2.8.1 |
| 2.7.2 | How many times has your AMTSL Clinical Instructor visited you since completing your training activities? | | |
| 2.7.3 | Which service areas was your AMTSL Clinical Instructor supervisor interested in during the last visit? My skills - AMTSL: 1 My skills – Monitoring in the immediate postpartum period: 2 Infection prevention practices: 3 Confidentiality and privacy of clients: 4 Client-Provider Interaction: 5 Documenting AMTSL in the delivery register: 6 Documenting AMTSL on the par tograph: 7 Completing the wall chart: 8 No response: 99 | | |
| 2.7.4 | Did the AMTSL Clinical Instructor ever give you information on how you were performing? Yes=1 No=2 Don't know=98 No response=99 | | If no, go to Q2.8.1 |
| 2.7.5 | Please rate your level of satisfaction with the information you were given. Prompt the respondent for one of the responses below. Very satisfied=1 Satisfied=2 Not satisfied=3 Highly not satisfied=4 No opinion=99 | | |

| | | | |
|-------|---|--|--|
| a | Please explain your rating. | | |
| 2.7.6 | In general how would you rate your satisfaction with the last post-training follow-up visit? Prompt the respondent for one of the responses below. Very satisfied=1 Satisfied=2 Not satisfied=3 Highly not satisfied=4 No opinion=99 | | |
| a | Please explain your rating. | | |
| 2.7.7 | Do you ever let your AMTSL Clinical Instructor know your level of satisfaction with how he/she was performing in helping you? Yes=1 No=2 Don't know=98 No response=99 | | |
| a | Please give reasons for your answer | | |
| 2.8.1 | Would you undertake this training the same way again if asked to? Yes=1 No=2 Don't know=98 No response=99 | | |
| a | Please explain your answer. | | |
| 2.8.2 | Would you recommend this programme to potential learners? Yes=1 No=2 Don't know=98 No response=99 | | |
| a | Please explain your answer. | | |
| 2.8.3 | What are some of the things you would change about the course? | | |
| 2.8.4 | What obstacles did you encounter and how did you deal with them? | | |
| 2.8.5 | What are the successes in this Self -Paced Learning programme that you would like to report on? | | |

Ask respondent if he/she has questions or suggestions.

Thank respondent and politely end interview.

FORM 3: INTERVIEW WITH HEALTH FACILITY MANAGERS

GHS / USAID/ POPPHI
Ghana SAIN Qualitative Evaluation
In Eastern and Western Regions
2009

ID Number: _____\

Identification: (Insert code below)

Region: 1=Eastern 2=Western _____\

region

District: _____ _____\

district

Name of site: _____

Current position: _____

Category of personnel (Tick (ü) one):

1=Physician (MD) c 2=Midwife c 3=Nurse c _____\

4=Other (specify) c : _____ category of personnel

Date of Assessment: _____

Name of Assessor: _____ Signature of Assessor: _____

Name of Supervisor: _____ Signature of Supervisor: _____

| | |
|-------|---|
| 3.1.1 | Have you ever heard about AMTSL clinical instructors? Yes=1 No=2 Don't know=98 No response=99 |
| | If yes, continue with the interview. |
| | If no, explain what AMTSL clinical instructors are, and close the interview. |

| | | | |
|-------|--|--|--|
| 3.2.1 | Did you clearly understand this learning approach when it was first implemented? Yes=1 No=2 Don't know=98 No response=99 | | |
| 3.2.2 | Would you like to participate in this programme again? Yes=1 No=2 Don't know=98 No response=99 | | |
| 3.2.3 | What would you change? | | |
| 3.2.4 | What would you keep? | | |
| 3.2.5 | What obstacles did you encounter and how did you deal with them? | | |
| 3.2.6 | What successes would you report? | | |
| 3.2.7 | What benefits and/or negative outcomes resulted from hosting the blended learning approach in your facility? | | |
| 3.2.8 | Would you be willing to host the blended learning approach in your facility again? | | |
| 3.2.9 | What changes would you recommend before agreeing to do it again? | | |

Ask respondent if he/she has questions.

Thank respondent and politely end interview.

Form 4: AMTSL CI Trainers / Supervisors

GHS / USAID/ POPPHI
Ghana SAIN Qualitative Evaluation
In Eastern and Western Regions
2009

| | | | |
|-------|--|--|------------------|
| 4.1.1 | Did you clearly understand the expectations for your role in this learning approach? Yes=1 No=2 Don't know=98 No response=99 | | |
| 4.1.2 | Did you feel adequately prepared for your role in this learning approach? Yes=1 No=2 Don't know=98 No response=99 | | |
| a | If No, please explain what could have been done to improve your preparation. | | |
| 4.1.3 | Did you feel supported by other Trainers Yes=1 No=2 Don't know=98 No response=99 | | |
| 4.1.4 | Did you feel supported by the Regional Directorate? Yes=1 No=2 Don't know=98 No response=99 | | |
| 4.1.5 | Did you feel supported by USAID partners? Yes=1 No=2 Don't know=98 No response=99 | | |
| 4.2.1 | What were your observations about learners' active participation and enthusiasm? | | |
| 4.2.2 | What were your observations about AMTSL CIs' active participation and enthusiasm? | | |
| 4.2.3 | What were your observations about active participation and enthusiasm of hospital staff? | | |
| 4.2.4 | Have you noticed any changes (positive or negative) at facilities that you would attribute to the SAIN approach? Yes=1 No=2 Don't know=98 No response=99 | | Please describe: |

| | | | |
|-------|---|--|--------------------------|
| 4.3.1 | Please describe challenges with keeping track of providers' progress going through the self-paced portion of the curriculum. | | |
| 4.3.2 | What were the successes of keeping track of learner progress? | | |
| 4.3.3 | What aspects of the tools to keep track of learners appeared to be helpful for the AMTSL CIs? | | |
| 4.3.4 | What would make keeping track of learners easier? | | |
| 4.3.5 | Is there additional information about learners that you think we should track in future programs? Yes=1 No=2 Don't know=98 No response=99 | | If yes, please describe: |
| 4.4.1 | Were you able to collect data and monitor coverage rates for AMTSL? Yes=1 No=2 Don't know=98 No response=99 | | |
| 4.4.2 | What obstacles did you encounter with collecting monitoring data and how did you deal with them? | | |
| 4.4.3 | What successes would you report about collecting monitoring data? | | |
| 4.5.1 | Would you like to participate in this programme again? Yes=1 No=2 Don't know=98 No response=99 | | |
| 4.5.2 | What would you change? | | |
| 4.5.3 | What would you keep? | | |
| 4.5.4 | What obstacles did you encounter and how did you deal with them? | | |

| | | | |
|-------|--|--|--|
| | | | |
| 4.5.4 | What successes would you report? | | |
| 4.5.5 | What do you think learners, CIs, and/or other member of the DHMT or RHMT would like us to know about this programme that they might not tell us? | | |
| 4.5.6 | Would you recommend this programme to potential learners? Yes=1 No=2 Don't know=98 No response=99 | | |
| 4.5.7 | Would you recommend this programme to potential AMTSL CIs? Yes=1 No=2 Don't know=98 No response=99 | | |
| 4.5.8 | Would you recommend this programme to district and regional directorates for health? Yes=1 No=2 Don't know=98 No response=99 | | |

ASK RESPONDENT IF HE/SHE HAS QUESTIONS.

THANK RESPONDENT AND POLITELY END INTERVIEW.

Form 5: RHMT / DHMT

GHS / USAID/ POPPHI
Ghana SAIN Qualitative Evaluation
In Eastern and Western Regions
2009

ID Number: _____\

Identification:

(Insert code below)

Region: 1=Eastern 2=Western

_____\
region

Current position: _____

Category of personnel (Tick (ü) one):

1=Physician (MD) c 2=Midwife c 3=Nurse c

_____\

4=Other (specify) c : _____

category of personnel

Date of Assessment: _____

Name of Assessor: _____ Signature of Assessor: _____

Name of Supervisor: _____ Signature of Supervisor: _____

| | |
|-------|--|
| 5.1.1 | Have you ever heard about the blended learning approach to scale -up AMTSL in your region / district? <p style="text-align: right;">Yes=1 No=2 Don't know=98 No response=99</p> |
| | If yes, continue with the interview. |
| | If no, explain what AMTSL clinical instructors are, and close the interview. |

| | | | |
|--------|--|--|--|
| 5.1.1 | Did you clearly understand this learning approach when it was first implemented? Yes=1 No=2 Don't know=98 No response=99 | | |
| 5.1.2 | Were you able to monitor coverage rates for AMTSL? Yes=1 No=2 Don't know=98 No response=99 | | |
| 5.1.3 | What challenges did you encounter when trying to get data on AMTSL coverage? | | |
| 5.1.4 | What successes would you report about collecting monitoring data? | | |
| 5.1.5 | Would you like to participate in this programme again? Yes=1 No=2 Don't know=98 No response=99 | | |
| 5.1.6 | What would you change? | | |
| 5.1.7 | What would you keep? | | |
| 5.1.8 | What obstacles did you encounter? | | |
| 5.1.9 | What successes would you report? | | |
| 5.1.10 | What benefits and/or negative outcomes resulted from hosting the blended learning approach in your region? | | |
| 5.1.11 | Would you be willing to host the blended learning approach in your region again? | | |
| 5.1.12 | What changes would you recommend before agreeing to do it again? | | |

Ask respondent if he/she has questions.
Thank respondent and politely end interview.

OBSERVATION
Management of third stage of labor

For the provider:

We will observe you using a checklist as you conduct the delivery and monitor the woman and newborn after childbirth. The purpose of the observation is to evaluate you and all providers who completed the AMTSL course. This observation is private and confidential. Your name will not appear on any documents relating to this evaluation. Do you have any questions? Do you agree to allow me to observe you?

I certify that I read the above text to the provider and she/he willingly allowed me to observe her/him using the checklist.

Observation 1

Signed by the observer _____ Date _____

Observation 2

Signed by the observer _____ Date _____

Observation 3

Signed by the observer _____ Date _____

Observation 4

Signed by the observer _____ Date _____

Observation 5

Signed by the observer _____ Date _____

For the client:

The observer should instruct the provider to ask the client if she will agree to have an observer in the delivery room. The provider should make it clear that the client has the right to refuse the presence of the observer and that her refusal will have no effect on care provided to her. The observer should stay outside of the delivery room until the provider calls the observer indicating that the client has given an oral consent.

I certify that the client was informed about and gave her voluntary and informed consent to my presence in the delivery room to observe the provider.

Observation 1

Signed by the observer _____ Date _____

Observation 2

Signed by the observer _____ Date _____

Observation 3

Signed by the observer _____ Date _____

Observation 4

Signed by the observer _____ Date _____

Observation 5

Signed by the observer _____ Date _____

| # | Question | Response | Observation | | | | |
|-----|---|---|-------------|---|---|---|---|
| | | | 1 | 2 | 3 | 4 | 5 |
| 100 | Region | Eastern.....1 Western.....2 | | | | | |
| 101 | Name of observer | Write the observer code | | | | | |
| 102 | Provider code | | | | | | |
| 103 | Date of observation | Write DD/MM/YR | | | | | |
| 104 | Identification code for Health Facility | Write the facility ID code | | | | | |
| 105 | Qualification of birth attendant: | Obstetrician.....1 Other physician.....2 Advanced Midwife.....3 Midwife.....4 Other (specify).....5 | | | | | |
| 106 | Date the course was completed | Less than 2 weeks previously.....1 2-4 weeks previously.....2 >4 weeks previously.....3 Not applicable.....98 | | | | | |
| 107 | Is there more than one person present at the delivery? | Yes.....1 No.....2 | | | | | |
| 108 | Age of woman (in years) | Record age in years | | | | | |
| 110 | Gravidity | Record gravidity | | | | | |
| 111 | Parity | Record parity | | | | | |
| 112 | How was labor started? | Spontaneous.....1 (è Go to question 114) Induced.....2 | | | | | |
| 113 | If labor was induced, what was the reason given? | Post-dates.....1 IUFD.....2 Maternal illness.....3 Elective.....4 Other (specify).....5 N/A.....99 | | | | | |
| 114 | Was the labor augmented? | Yes.....1 No.....2 (è Go to question 200) | | | | | |
| 115 | If labor was augmented, review the partograph. Why was labor augmented? | Unsatisfactory progress of labor due to hypotonic uterine contractions.....1 Failed induction.....2 Other (specify).....3 No clear obstetric or foetal indications.....4 N/A.....99 | | | | | |
| 116 | If labor was augmented, what drug was used for induction or augmentation? | Oxytocin.....1 Misoprostol.....2 Other (specify).....8 | | | | | |
| 117 | If labor was augmented, who prescribed the regimen for augmentation? | Obstetrician.....1 Other MD.....2 Midwife.....3 Other (specify).....8 | | | | | |

| # | Question | Response | Observation | | | | |
|-----|---|---|-------------|---|---|---|---|
| | | | 1 | 2 | 3 | 4 | 5 |
| 200 | Were all needed equipment and instruments available, clean, sterile / HLD, and in good working order? | Yes..... 1 No..... 2 | | | | | |
| 201 | Was the delivery room free from draughts from open windows and doors, or from fans? | Yes..... 1 No..... 2 | | | | | |
| 202 | Were supplies needed to keep the newborn baby warm available? | Yes..... 1 No..... 2 | | | | | |
| 203 | Were all surfaces the woman and baby came in contact with clean, warm, and dry? | Yes..... 1 No..... 2 | | | | | |
| 204 | Was the room well lit? | Yes..... 1 No..... 2 | | | | | |
| 205 | Was infant feeding choice verified? | Yes..... 1 No..... 2 | | | | | |
| 206 | Was the uterotonic drug prepared as soon as the woman's cervix was completely dilated? | Yes..... 1 No..... 2 | | | | | |
| 207 | Was the woman's bladder empty when second stage began? | Yes..... 1 No..... 2 | | | | | |
| 208 | Was permission obtained to apply AMTSL? | Yes..... 1 No..... 2 | | | | | |
| 209 | Was permission obtained to place the newborn on the mother's abdomen and chest immediately after birth? | Yes..... 1 No..... 2 | | | | | |
| 210 | Was the woman allowed to assume the position of her choice during second stage? | Yes..... 1 No..... 2 | | | | | |
| 211 | What position did the woman give birth in? | Sitting..... 1 Squatting..... 2 Semi-sitting..... 3 Side-lying..... 4 Hands and knees..... 5 Supine without stirrups..... 6 Supine with stirrups..... 7 Other (specify)..... 8 | | | | | |
| 212 | Were the woman and her support person told what was going to be done and encouraged to ask questions? | Yes..... 1 No..... 2 | | | | | |
| 213 | Was emotional support and reassurance provided on a continual basis? | Yes..... 1 No..... 2 | | | | | |
| 214 | Did the provider wear a clean plastic or rubber apron? | Yes..... 1 No..... 2 | | | | | |

| # | Question | Response | Observation | | | | |
|-----|---|--|-------------|---|---|---|---|
| | | | 1 | 2 | 3 | 4 | 5 |
| 215 | Were rubber boots or closed shoes worn? | Yes..... 1 No..... 2 | | | | | |
| 216 | Were a face shield or eye goggles and mask worn? | Yes..... 1 No..... 2 | | | | | |
| 217 | Did the provider wash hands thoroughly with soap and water for at least 10-15 seconds, and dry them with a clean, dry cloth (or air dry)? | Yes..... 1 No..... 2 | | | | | |
| 218 | Were sterile surgical gloves worn on both hands? | Yes..... 1 No..... 2 | | | | | |
| 219 | Was the perineum cleansed with an antiseptic solution? | Yes..... 1 No..... 2 | | | | | |
| 220 | Was an episiotomy performed? | Yes..... 1 (è Go to question 221) No..... 2 (è Go to question 222) | | | | | |
| 221 | Why was an episiotomy performed? | History of 3 rd or 4 th degree tear..... 1 Instrumental delivery..... 2 Maternal distress..... 3 Foetal distress..... 4 Other (specify)..... 8 | | | | | |
| 222 | Was there a nuchal cord? | Yes..... 1 (è Go to question 223) No..... 2 (è Go to question 225) | | | | | |
| 223 | If there was a nuchal cord, was it tight or loose? | Tight..... 1 Loose..... 2 Unknown..... 8 | | | | | |
| 224 | If there was a nuchal cord, how was it managed? | Slackened the cord to allow the shoulders to pass through..... 1 Clamped and cut the cord..... 2 Unknown..... 8 | | | | | |
| 225 | Was restitution and external rotation of the head allowed to occur spontaneously? | Yes..... 1 No..... 2 | | | | | |
| 226 | Was the time of delivery noted? | Yes..... 1 No..... 2 | | | | | |
| 227 | Was the mother informed of the time of delivery and sex of the baby? | Yes..... 1 No..... 2 | | | | | |

| # | Question | Response | Observation | | | | |
|-----|--|--|-------------|---|---|---|---|
| | | | 1 | 2 | 3 | 4 | 5 |
| 300 | Time of the delivery of the baby (use 24 hr clock) | Record time of delivery of the baby | | | | | |
| 301 | Was the baby immediately dried? | Yes..... 1 No..... 2 | | | | | |
| 302 | Was the baby put in skin -to-skin contact on the mother's abdomen and covered with a clean, dry cloth? | Yes..... 1 No..... 2 | | | | | |
| 303 | Did the baby breathe or cry immediately after birth? | Yes..... 1 (è Go to question 305) No..... 2 | | | | | |
| 304 | Were resuscitation measures commenced if the baby was not breathing or crying at birth? | Yes..... 1 No..... 2 | | | | | |
| 305 | Did the provider explain the baby's condition to the mother? | Yes..... 1 No..... 2 | | | | | |
| 306 | Was the presence of an undiagnosed twin verified? | Yes..... 1 No..... 2 | | | | | |
| 307 | Was any uterotonic (oxytocin, ergometrine, prostaglandins) given to the mother during or after delivery of the baby (i.e., not for induction or augmentation)? | Yes..... 1 No..... 2 (è Go to question 323) | | | | | |
| 308 | If yes, at what time was the uterotonic given? | Record time the uterotonic was administered | | | | | |
| 309 | If yes, timing of administration: | During del. of the baby..... 1 After del. of the baby but before del. of placenta..... 2 During del. of the placenta..... 3 After del. of the placenta..... 4 | | | | | |
| 310 | If yes, did the provider explain what was being done? | Yes..... 1 No..... 2 | | | | | |
| 311 | Was oxytocin (non-combination) given to the mother during or after delivery of the baby? | Yes..... 1 (è Go to question 312) No..... 2 (è Go to question 314) | | | | | |
| 312 | If yes, how many international units? | Record the number of international units | | | | | |
| 313 | If yes, by what route? | IM..... 1 IV push/IV injection..... 2 IV drip..... 3 IV drip+IM..... 4 | | | | | |
| 314 | Was ergometrine (or other noncombination ergot preparation) given to the mother during or after delivery of the baby? | Yes..... 1 (è Go to question 315) No..... 2 (è Go to question 317) | | | | | |
| 315 | If yes, total dose? | Record the number of milligrams administered | | | | | |

| # | Question | Response | Observation | | | | |
|-----|---|--|-------------|---|---|---|---|
| | | | 1 | 2 | 3 | 4 | 5 |
| 316 | If yes, by what route? | IM..... 1 IV push/IV injection.....2 IV drip.....3 IV drip+IM.....4 | | | | | |
| 317 | Was an oxytocin -ergometrine combination (such as Syntometrine) given to the mother during or after delivery of the baby? | Yes..... 1 (è Go to question 318) No..... 2(è Go to question 320) | | | | | |
| 318 | If yes, total dose? | Record the number of millilitres administered | | | | | |
| 319 | If yes, by what route? | IM..... 1 IV push/IV injection.....2 IV drip.....3 IV drip+IM.....4 | | | | | |
| 320 | Was misoprostol (or prostaglandin) given to the mother during or after delivery of the baby? | Yes..... 1 (è Go to question 320) No..... 2(è Go to question 323) | | | | | |
| 321 | If yes, total dose? | Record the dose administered | | | | | |
| 322 | If yes, by what route? | PO.....1 Sub-lingual.....2 Rectal.....3 Vaginal.....4 IM.....5 Other (specify).....8 | | | | | |
| 323 | Was the birth singleton or multiple? | Singleton..... 1 Multiple.....2 | | | | | |
| 324 | Time the cord was clamped (use 24 hr clock or indicate < 1 minute) | Record time the cord was clamped Less than 1 min01 | | | | | |
| 325 | How did the provider decide when to cut the cord? | Waited for cord pulsations to cease..... 1 Waited until 2 -3 minutes after administration of the uterotonic drug.....2 Other (specify).....8 | | | | | |
| 326 | Was the baby put in skin -to-skin contact on the mother's chest and covered with a clean, dry cloth? | Yes..... 1 No..... 2 | | | | | |
| 327 | While awaiting the placenta, was fundal pressure applied to deliver the placenta? | Yes..... 1 No..... 2 | | | | | |
| 328 | While awaiting the placenta, was uterine massage performed? | Yes..... 1 No..... 2 | | | | | |
| 329 | While awaiting the placenta, was traction applied to the cord? | Yes..... 1 No..... 2 | | | | | |
| 330 | While applying traction to the cord, was the uterus supported or pushed upward? | Yes..... 1 No..... 2 | | | | | |

| # | Question | Response | Observation | | | | |
|-----|--|--|-------------|---|---|---|---|
| | | | 1 | 2 | 3 | 4 | 5 |
| 331 | Was there a manual removal of the placenta? | Yes..... 1 No..... 2 | | | | | |
| 332 | Time of the delivery of the placenta? | Record time the placenta was delivered | | | | | |
| 333 | Was uterine massage performed immediately following the delivery of the placenta? | Yes..... 1 No..... 2 | | | | | |
| 334 | Was the placenta examined carefully? | Yes..... 1 No..... 2 | | | | | |
| 335 | Was the birth canal gently examined? | Yes..... 1 No..... 2 | | | | | |
| 336 | Did the provider explain to the woman how to massage her own uterus? | Yes..... 1 No..... 2 | | | | | |
| 337 | Did the provider appropriately dispose of the placenta? | Yes..... 1 No..... 2 | | | | | |
| 338 | Were all instruments put in a decontamination solution after use? | Yes..... 1 No..... 2 | | | | | |
| 339 | Were all sharps immediately disposed of in a sharps container box ? | Yes..... 1 No..... 2 | | | | | |
| 340 | Did the provider wash hands for at least 10-15 seconds after removing gloves? | Yes..... 1 No..... 2 | | | | | |
| 400 | Was the uterus palpated and vaginal bleeding evaluated at least two times in the 30 minutes following delivery of the placenta ? | Yes..... 1 No..... 2 | | | | | |
| 401 | Were the maternal BP and pulse evaluated at least two times in the 30 minutes following delivery of the placenta? | Yes..... 1 No..... 2 | | | | | |
| 402 | Were the baby's temperature, colour, and respirations checked at least two times in the 30 minutes following delivery of the placenta? | Yes..... 1 No..... 2 | | | | | |
| 403 | If the baby's feet were cold, was axillary temperature checked? | Yes..... 1 No..... 2 Not applicable.....88 | | | | | |
| 404 | Was the baby's cord evaluated at least two times in the 30 minutes following delivery of the placenta? | Yes..... 1 No..... 2 | | | | | |
| 405 | Were the woman and newborn kept together at all times in the 30 minutes following delivery of the placenta? | Yes..... 1 No..... 2 | | | | | |
| 406 | Was the woman informed of danger signs in herself? | Yes..... 1 No..... 2 | | | | | |

| # | Question | Response | Observation | | | | |
|-----|--|-------------------------|-------------|---|---|---|---|
| | | | 1 | 2 | 3 | 4 | 5 |
| 407 | Was the mother informed of danger signs in the newborn? | Yes..... 1 No..... 2 | | | | | |
| 408 | Was the woman encouraged to keep her bladder empty? | Yes..... 1 No..... 2 | | | | | |
| 409 | Did the provider facilitate exclusive breastfeeding or formula feeding during the first hour after childbirth? | Yes..... 1 No..... 2 | | | | | |
| 410 | Was the woman encouraged to eat, drink and rest? | Yes..... 1 No..... 2 | | | | | |
| 411 | Was the woman reminded how the uterus should feel and how she can massage it herself? | Yes..... 1 No..... 2 | | | | | |
| 501 | Was there a record on the partograph that active management was carried out? | Yes..... 1 No..... 2 | | | | | |
| 502 | Was the estimated blood loss recorded? | Yes..... 1 No..... 2 | | | | | |
| 503 | Was postpartum blood loss more than 500 mL? | Yes..... 1 No..... 2 | | | | | |
| 504 | If postpartum blood loss was more than 500 mL, was treatment completely recorded? | Yes..... 1 No..... 2 | | | | | |
| 505 | Was there a record in the delivery register that active management was carried out? | Yes..... 1 No..... 2 | | | | | |

Ask if the woman or provider have any questions.

Thank the woman. Thank the provider.

Facility level questionnaire
Management of the third stage of labor

Please complete the questions below based on reviewing the necessary documents. In some cases, it may be necessary to interview professionals. If responses are coded, circle the appropriate code; otherwise write in your response.

| Q# | QUESTION | RESPONSES | | Skip to |
|----------------------------------|--|---|--|------------------|
| 100 | Region | Eastern.....1 Western.....2 | | |
| 101 | District | | | |
| 102 | Identification code for Health Facility | Write the facility ID code | | |
| 103 | Name of observer | Write the observer code | | |
| 104 | Date of observation | Write DD/MM/YR | | |
| 105 | Name and title of persons interviewed | | | |
| Facility level statistics | | | | |
| 201 | Total number of providers attending births at the facility. | <input type="text"/> <input type="text"/> <input type="text"/> No of Birth attendants | | |
| 202 | Total number of providers having completed an update on AMTSL. | <input type="text"/> <input type="text"/> <input type="text"/> No of Birth attendants | | |
| 203 | No of vaginal births in previous year (2008). This will probably require reviewing annual report for facility. | <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> No of vaginal births | | |
| 204 | No of vaginal births in the previous month (will probably require reviewing the labor and delivery logbook) | <input type="text"/> <input type="text"/> <input type="text"/> No of vaginal births | | |
| 205 | No of vaginal births in the previous month with AMTSL (will probably require reviewing the labor and delivery logbook) | <input type="text"/> <input type="text"/> <input type="text"/> No of vaginal births with AMTSL | | |
| 206 | No of primary PPH cases following vaginal births in previous year (2008). This will probably require reviewing annual report for facility. | <input type="text"/> <input type="text"/> <input type="text"/> No of vaginal births with primary PPH | | |
| 207 | No of primary PPH cases following vaginal births in previous month. This will probably require reviewing the labor and delivery logbook. | <input type="text"/> <input type="text"/> <input type="text"/> No of vaginal births with primary PPH | | |
| 208 | No of primary PPH cases following vaginal births in women who received AMTSL in the previous month. This will probably require reviewing the labor and delivery logbook. | <input type="text"/> <input type="text"/> <input type="text"/> No of vaginal births with primary PPH / AMTSL | | |
| Documentation | | | | |
| 301 | Is there a place to document AMTSL in the delivery register? | Yes.....1 No.....2 | | If No, go to 303 |
| 302 | Which of the following components are documented in the delivery register? | Administration of a uterotonic drug.....1 CCT.....2 Uterine massage.....3 AMTSL.....4 Other (specify).....5 | | |
| 303 | Is there a place to document AMTSL on the partograph? | Yes.....1 No.....2 | | If No, go to 305 |
| 304 | Which of the following components are documented on the partograph? | Administration of a uterotonic drug.....1 CCT.....2 Uterine massage.....3 AMTSL.....4 Other (specify).....5 | | |

| Q# | QUESTION | RESPONSES | Skip to | | | | | | | | | | | | | | | | | | | | |
|------------------------------|--|---|------------------|--|--|--|--|----|--|--|-----|--|--|--|--|--|--|----|--|--|-----|--|--|
| 305 | Is there a notebook or stock card to document movement of uterotonic drugs in the delivery room? | Yes.....1 No.....2 | If No, go to 401 | | | | | | | | | | | | | | | | | | | | |
| 306 | Is the notebook or stock card to document movement of uterotonic drugs in the delivery room linked to the partograph, patient's chart or delivery log? | Yes.....1 No.....2 | | | | | | | | | | | | | | | | | | | | | |
| Wall charts | | | | | | | | | | | | | | | | | | | | | | | |
| 401 | Is there a job aid for AMTSL posted in the delivery room? | Yes.....1 No.....2 | | | | | | | | | | | | | | | | | | | | | |
| 402 | Is the wall chart for tracking AMTSL coverage posted and up-to-date? | Yes.....1 No.....2 | | | | | | | | | | | | | | | | | | | | | |
| 403 | Is the wall chart for tracking learners posted and up-to-date? | Yes.....1 No.....2 | | | | | | | | | | | | | | | | | | | | | |
| Drug procurement list | | | | | | | | | | | | | | | | | | | | | | | |
| 501 | Is there a Drug Procurement List available that is used this facility? | Yes.....1 No.....2 | If No, go to 503 | | | | | | | | | | | | | | | | | | | | |
| 502 | Which of the following drugs are on this list? | Oxytocin.....1 Ergometrine.....2 Syntometrine.....3 Misoprostol.....4 Other prostaglandins.....5 | | | | | | | | | | | | | | | | | | | | | |
| 503 | Do families buy the syringe needed for administering the uterotonic drug themselves? | Yes.....1 No.....2 Yes only when there is a stock-out of syringes.....3 | | | | | | | | | | | | | | | | | | | | | |
| 504 | Do families buy the uterotonic drug needed for birth themselves? | Yes.....1 No.....2 Yes only when there is a stock-out of drugs.....3 | | | | | | | | | | | | | | | | | | | | | |
| 505 | Is there a pharmacy or a drug supply management unit on site? | Yes.....1 No.....2 | | | | | | | | | | | | | | | | | | | | | |
| 506 | Where are syringes and drugs obtained? (If a commercial pharmacy, provide name and location) | Government stores.....1 Commercial pharmacy.....2 Other (specify)7 | | | | | | | | | | | | | | | | | | | | | |
| 507 | What is the distance in kilometers from the health facility to the nearest pharmacy or pharmaceutical depot/chemical sellers? (Round the answer to the nearest Km) | <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr></table> KM | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | |
| 508 | What are the hours that the nearest pharmacy/pharmaceutical depot/chemical seller is open? Use the 24 hour clock. | <p style="text-align: center;">Time open</p> <table border="1" style="margin: auto; text-align: center;"> <tr> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px; background-color: black;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> </tr> <tr> <td colspan="2">HR</td> <td></td> <td colspan="2">MIN</td> </tr> </table> <p style="text-align: center;">Time closed</p> <table border="1" style="margin: auto; text-align: center;"> <tr> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px; background-color: black;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> </tr> <tr> <td colspan="2">HR</td> <td></td> <td colspan="2">MIN</td> </tr> </table> | | | | | | HR | | | MIN | | | | | | | HR | | | MIN | | |
| | | | | | | | | | | | | | | | | | | | | | | | |
| HR | | | MIN | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | |
| HR | | | MIN | | | | | | | | | | | | | | | | | | | | |
| 509 | How are drugs and supplies obtained when the pharmacy or drug supply management unit is locked? | Enough drugs/supplies are set aside each evening.....1 Families search for other commercial pharmacies.....2 Wait until working hours.....3 Other: specify.....8 | | | | | | | | | | | | | | | | | | | | | |

Please provide answers to the following questions either by your own direct observation or by interviewing the Chief Pharmacist or other professional responsible for drug storage. Ask each numbered question about each drug before continuing on to the following numbered question.

| Drug | Oxytocin | Ergometrine | Syntometrine | Misoprostol | Other Prostaglandin (Specify) |
|--|---|---|---|--|--|
| 601: Is this drug routinely procured by this pharmacy? | Yes.....1 No.....2 | Yes.....1 No.....2 | Yes.....1 No.....2 | Yes.....1 No.....2 | Yes.....1 No.....2 |
| 602: Is the drug available at time of visit? | Yes.....1 No.....2 | Yes.....1 No.....2 | Yes.....1 No.....2 | Yes.....1 No.....2 | Yes.....1 No.....2 |
| How was information obtained? | Your observation.....1 Pharmacist's/ Other's report.....2 | Your observation.....1 Pharmacist's/ Other's report.....2 | Your observation.....1 Pharmacist's/ Other's report.....2 | Your observation.....1 Pharmacist's/ Other's report.....2 | Your observation.....1 Pharmacist's/ Other's report.....2 |
| 603: Amount of drug available at visit? | <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> No of ampoules | <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> No of ampoules | <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> No of ampoules | <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> No of tablets | <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> No of ampoules / tablets |
| How was information obtained? | Your observation.....1 Pharmacist's/ Other's report.....2 | Your observation.....1 Pharmacist's/ Other's report.....2 | Your observation.....1 Pharmacist's/ Other's report.....2 | Your observation.....1 Pharmacist's/ Other's report.....2 | Your observation.....1 Pharmacist's/ Other's report.....2 |
| 604: Total No of ampoules / tablets consumed in last 3 months: | <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> No of ampoules | <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> No of ampoules | <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> No of ampoules | <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> No of tablets | <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> No of ampoules / tablets |
| 605: # Days Out of Stock over Last 3 Months? | DAYS <input type="text"/> <input type="text"/> | DAYS <input type="text"/> <input type="text"/> | DAYS <input type="text"/> <input type="text"/> | DAYS <input type="text"/> <input type="text"/> | DAYS <input type="text"/> <input type="text"/> |

| Drug | Oxytocin | Ergometrine | Syntometrine | Misoprostol | Other Prostaglandin (Specify) |
|---|--|--|--|--|---|
| 606: Reasons for stock-out (Use codes shown below. List a maximum of three reasons.) | <input type="checkbox"/> REASON 1 <input type="checkbox"/> REASON 2 <input type="checkbox"/> REASON 3 | <input type="checkbox"/> REASON 1 <input type="checkbox"/> REASON 2 <input type="checkbox"/> REASON 3 | <input type="checkbox"/> REASON 1 <input type="checkbox"/> REASON 2 <input type="checkbox"/> REASON 3 | <input type="checkbox"/> REASON 1 <input type="checkbox"/> REASON 2 <input type="checkbox"/> REASON 3 | <input type="checkbox"/> REASON 1 <input type="checkbox"/> REASON 2 <input type="checkbox"/> REASON 3 |
| CODES FOR 306: Reasons for Stock -out: 1 Could not pick up supply from supplier 2 Supplier sent less than the amount ordered 3 Supply delayed 4 Consumption was greater than expected 5 Order request was incorrect 6 Order was not requested on time 7 Other | | | | | |
| Instructions for the rest of the questionnaire: | If oxytocin is not available at time of visit (see #302), leave the rest of this column blank, and continue asking questions about ergometrine | If ergometrine is not available at time of visit (see #302), leave the rest of this column blank, and continue asking questions about Syntometrine | If Syntometrine is not available at time of visit (see #302), leave the rest of this column blank, and continue asking questions about misoprostol | If misoprostol is not available at time of visit (see #302), leave the rest of this column blank, and continue asking questions about other prostaglandins | If other prostaglandin is not available at time of visit (see #302), leave the rest of this column blank, and skip to question #308 |

| Drug | Oxytocin | Ergometrine | Syntometrine | Misoprostol | Other Prostaglandin (Specify) |
|--|--|---|---|---|---|
| 607: Unit and strength of drug. | 5 IU/ampoule1 10 IU/ampoule.....2 20 IU/vial.....3 Other (Specify) _____7 | 0.2 mg/mL1 0.25 mg/mL2 0.4 mg/mL3 0.5 mg/mL.....4 Other (Specify) _____7 | 1 mL.....1 Other (Specify) _____7 | 200 µg.....1 600 µg.....2 800 µg.....3 1000 µg.....4 Other (Specify) _____7 | Specify unit and strength: _____7 |
| How information was obtained? | Your observation.....1 Pharmacist's/ Other's report.....2 | Your observation.....1 Pharmacist's/ Other's report.....2 | Your observation.....1 Pharmacist's/ Other's report.....2 | Your observation.....1 Pharmacist's/ Other's report.....2 | Your observation.....1 Pharmacist's/ Other's report.....2 |
| 608: Form of drug | Ampoules..... 1 Other (Specify) _____8 | Ampoules..... 1 Other (Specify) _____8 | Ampoules..... 1 Other (Specify) _____8 | Tablets..... 1 Other (Specify) _____8 | Ampoules..... 1 Other (Specify) _____8 |
| How was information obtained? | Your observation.....1 Pharmacist's/ Other's report.....2 | Your observation.....1 Pharmacist's/ Other's report.....2 | Your observation.....1 Pharmacist's/ Other's report.....2 | Your observation.....1 Pharmacist's/ Other's report.....2 | Your observation.....1 Pharmacist's/ Other's report.....2 |
| 609: Required storage temperature as recommended by the manufacturer? | 2-8°C..... 1 < 15°C.....2 15-25°C....3 Room temp.....4 Not located.....5 Other (specify): _____8 | 2-8°C.....1 < 15°C.....2 15-25°C....3 Room temp.....4 Not located.....5 Other (specify): _____8 |
| How was information obtained? | Your observation.....1 Pharmacist's/ Other's report.....2 | Your observation.....1 Pharmacist's/ Other's report.....2 | Your observation.....1 Pharmacist's/ Other's report.....2 | Your observation.....1 Pharmacist's/ Other's report.....2 | Your observation.....1 Pharmacist's/ Other's report.....2 |

| Drug | Oxytocin | Ergometrine | Syntometrine | Misoprostol | Other Prostaglandin (Specify) |
|--|--|--|--|--|--|
| 610: Required storage conditions re: lighting as recommended by the manufacturer? | Not stated.....1 Store away from light.....2 Not located.....5 Other (specify): _____8 |
| How was information obtained? | Your observation.....1 Pharmacist's/ Other's report.....2 |
| 611: Describe the temperature at which each drug is stored in the pharmacy: | 2-8°C.....1 < 15°C.....2 15-25°C.....3 Room temp.....4 Not located.....5 Other (specify): _____8 |
| How was information obtained? | Your observation.....1 Pharmacist's/ Other's report.....2 |
| 612: Describe the light conditions in which each drug is stored in the pharmacy: | Kept in dark.....1 In daylight, away from direct sun.....2 In direct sun.....3 Other (specify) _____8 | Kept in dark.....1 In daylight, away from direct sun.....2 In direct sun.....3 Other (specify) _____8 | Kept in dark.....1 In daylight, away from direct sun.....2 In direct sun.....3 Other (specify) _____8 | Kept in dark.....1 In daylight, away from direct sun.....2 In direct sun.....3 Other (specify) _____8 | Kept in dark.....1 In daylight, away from direct sun.....2 In direct sun.....3 Other (specify) _____8 |
| How was information obtained? | Your observation.....1 Pharmacist's/ Other's report.....2 |

| Drug | Oxytocin | Ergometrine | Syntometrine | Misoprostol | Other Prostaglandin (Specify) |
|--|--|--|--|--|--|
| 613: How is the quantity of drug to order determined? | Based on consumption.....1 Standard quantity (determined by central level).....2 Standard quantity (perpetual need).....3 Other (specify).....8 | Based on consumption.....1 Standard quantity (determined by central level).....2 Standard quantity (perpetual need).....3 Other (specify).....8 | Based on consumption.....1 Standard quantity (determined by central level).....2 Standard quantity (perpetual need).....3 Other (specify).....8 | Based on consumption.....1 Standard quantity (determined by central level).....2 Standard quantity (perpetual need).....3 Other (specify).....8 | Based on consumption.....1 Standard quantity (determined by central level).....2 Standard quantity (perpetual need).....3 Other (specify).....8 |
| 614: Purchase price (per ampoule / tablet for the facility: [local currency]) | _____Ghana Cedis / _____IU ampoule | _____Ghana Cedis / _____mg ampoule | _____Ghana Cedis / _____mL ampoule | _____Ghana Cedis / _____mcg tablet | _____Ghana Cedis / _____ |
| 615: Purchase price per ampoule / tablet for the patient? | _____Ghana Cedis / _____IU ampoule | _____Ghana Cedis / _____mg ampoule | _____Ghana Cedis / _____mL ampoule | _____Ghana Cedis / _____mcg tablet | _____Ghana Cedis / _____ |

Endnotes

¹ Reduction of maternal mortality: a joint WHO/UNFPA/UNICEF/World Bank Statement. Geneva, World Health Organization, 1999.

² AbouZahr C. Antepartum and postpartum hemorrhage. In: Murray CJL, Lopez AD, eds. Health dimensions of sex and reproduction: the global burden of sexually transmitted diseases, HIV, maternal conditions, perinatal disorders, and congenital anomalies. Cambridge, MA, Harvard School of Public Health on behalf of the World Health Organization and the World Bank, 1998 (Global Burden of Disease and Injury Series, No. III):165–189.

³ AbouZahr C. Global burden of maternal death and disability. In: Rodeck C, ed. Reducing maternal death and disability in pregnancy. Oxford, Oxford University Press, 2003:1–11.

⁴ From USAID's *Call to Action: USAID's Postpartum Haemorrhage Prevention Special Initiative*. October, 2002.

⁵ Rational Pharmaceutical Management (RPM) Plus Program. 2008. *Active Management of the Third Stage of Labor in Health Care Facilities: Results of a National Study in Ghana, 2007*. Submitted to the U.S. Agency for International Development by RPM Plus. Arlington, VA: Management Sciences for Health.