DOI: 10.1002/ijgo.12598

SUPPLEMENT ARTICLE



Planning and implementation of a FIGO postpartum intrauterine device initiative in six countries

Linda de Caestecker^{1,*} | Laura Banks² | Eliza Bell² | Maya Sethi² | Sabaratnam Arulkumaran^{2,3}

*Correspondence

Linda de Caestecker, NHS Greater Glasgow and Clyde, Gartnavel Royal Hospital, Glasgow, UK.

Email: linda.decaestecker@ggc.scot.nhs.uk

Funding Information

FIGO initiative funded by anonymous donors.

Abstract

Objective: To describe the process of planning and implementing a program of counselling and delivery of postpartum intrauterine devices (PPIUD) in 48 hospitals across six countries in Africa and Asia.

Methods: The process of planning the FIGO PPIUD initiative, selection of countries and hospitals, model of implementation, and lessons for the future are described.

Results: Country-level and hospital-based leadership were essential and training-thetrainer models were successful. There was a need for consistency of competency standards allowing for national variations. As the project progressed, additional steps were necessary for steady implementation of the initiative, specifically: establishment of a project steering committee and a data safety monitoring committee, audits of structure and process, and regular feedback of each center's performance to stimulate maintenance and enhancement of activities. Postnatal follow-up was challenging in many countries with fragmented maternity systems.

Conclusion: The importance of professional leadership and commitment backed by robust data for monitoring and feedback are essential for success.

KEYWORDS

Counselling; Family planning; FIGO initiative; Implementation; LMICs; Postpartum intrauterine device: PPIUD

1 | INTRODUCTION

It has been estimated that 214 million women of reproductive age in low-income regions want to avoid pregnancy but are not using a modern contraceptive method. Despite many countries achieving increasing rates of institutional deliveries, the proportion of postnatal women leaving facilities without having received a contraceptive method or having had a discussion about a reliable contraceptive plan remains high.² Moreover, in some countries women delivering in health facilities rarely return after delivery for contraceptive services; thus; the immediate postpartum period presents an ideal opportunity to serve

these women with a much-needed service.³ The postpartum period is also an especially vulnerable time for women to have unintended pregnancies and conception at this time presents increased challenges to the mother and fetus.⁴ A reliable contraceptive method enables a woman to space her pregnancies and plan her family, which allows more time to look after the family. A pregnancy-free interval also provides time for a woman to be more economically productive, increasing the income of the family and, in turn, the community. In addition, birth spacing helps to improve the health of the mother and her baby,⁵ and it is well documented that effective contraception can improve maternal health and, as a consequence, reduce maternal mortality.^{6,7}

This is an open access article under the terms of the Creative Commons Attribution License, which permits use, distribution and reproduction in any medium, provided the original work is properly cited.

© 2018 The Authors. International Journal of Gynecology & Obstetrics published by John Wiley & Sons Ltd on behalf of International Federation of Gynecology and Obstetrics.

¹NHS Greater Glasgow and Clyde, Gartnavel Royal Hospital, Glasgow, UK

²International Federation of Gynecology and Obstetrics, London, UK

³St George's, University of London, London, UK

Long-acting, reversible, low-cost contraceptive methods, such as the intrauterine device (IUD), can be very effective in facilitating birth spacing, particularly in low- and middle-income countries where women do not visit health facilities regularly. A major advantage of an IUD is that it can be inserted immediately after the placenta is delivered after normal or operative vaginal or abdominal delivery, or within 48 hours of delivery, providing immediate postpartum protection from unintended pregnancies. Postpartum IUD insertion (PPIUD) is advantageous because it does not interfere with breastfeeding and is associated with less discomfort, lower risk of perforation of the uterus (attributed to ease of insertion via an open cervix and the thick postpartum myometrium), and fewer adverse effects compared with interval IUD insertion.⁸

The International Federation of Gynecology and Obstetrics (FIGO) is committed to addressing the high maternal mortality rates in low-resource countries and supporting women to make informed decisions about the contraceptive methods available.

To this end, various national societies and, through them, their governments were approached to participate in a FIGO initiative to provide long-acting reliable contraceptives to ease the challenges of unmet need for contraception and to reduce maternal mortality by contraception. However, there was some skepticism over the use of PPIUD from some sides because expulsion rates were reported to be low in some studies, but high in others. Scrutiny of these studies revealed that low expulsion rates were associated with use of long (33 cm) curved Kelly forceps, which place the IUD at the fundus, whereas those with high expulsion rates showed different methods of insertion. FIGO wanted to establish that low expulsion rates could be achieved with proper training and long curved Kelly forceps. A research proposal was sent to anonymous donors, who granted funding for Phase 1 in six hospitals in Sri Lanka. After sufficient experience in Phase 1 with low expulsion rates, Phase 2 began in six hospitals in each of six countries and an additional 12 hospitals in Sri Lanka. Funding was obtained for Phase 2 from the anonymous donors.

The aim of the FIGO PPIUD initiative was to address the gap in the continuum of maternal health care and to provide for the postpartum contraceptive needs of women by increasing the capacity of healthcare

professionals to offer PPIUDs by training community midwives, health workers, doctors, and delivery unit staff, as appropriate, in counselling and insertion of PPIUD. It links well to the United Nations' Sustainable Development Goals (SDGs), particularly goals 3.1 and 3.7, and their aim to reduce maternal mortality and increase access to sexual and reproductive healthcare services.^{9,10}

2 | MATERIALS AND METHODS

Phase 1 of the PPIUD initiative commenced in July 2013 in six facilities in Sri Lanka. After sufficient experience in implementing Phase 1 and with the background knowledge that there were advantages of PPIUD with minimal complications, the initiative was expanded to five additional countries: India, Kenya, Tanzania, Nepal, and Bangladesh, and 12 additional facilities in Sri Lanka from January 2015. The six countries were identified based on their level of unmet need, and the presence of a stable and supportive government for whom postpartum family planning was a strategic priority with a commitment and ability to provide IUDs. The commitment of the national society of obstetrics and gynecology and previous experience of project implementation with FIGO or the potential to develop the required capacity were also criteria for selection of the participating countries.

Influencing factors for the choice of participating facilities within the countries included: facilities where PPIUD services were not already being provided; large teaching hospitals were preferred on the understanding that they would be able to impact medical and nursing curricula; ability to conduct the necessary providers' trainings; access to the biggest pool of interns/trainee providers; widest reaching impact in terms of juniors rotating out and taking the practice with them; and reaching the largest number of women with deliveries of approximately 5000 per year (Table 1). An expanded table providing more data on the facilities for the selection process is given as Supporting Information Table S1.

FIGO operates its projects via national professional societies or colleges. This model was adopted for the PPIUD initiative as a tried and tested method of implementation that facilitated ownership

TABLE 1 Baseline data collection for facility selection.

Country	No. of units	Average no. of deliveries per unit per year	Cesarean delivery rate, %	Total no. of providers ^a				Supply of	
				Senior doctors	Junior doctors	Nurses/ Midwives	SBAs	IUDs by government?	Evaluated by HSPH?
Sri Lanka	18	6859	64	527	2123	1682	0	Yes	Yes—1 y (6/18 facilities)
Kenya	6	5810	48	53	256	229	0	Yes	
India	6	5862	63	366	601	336	0	Yes	
Tanzania	6	9139	54	452	612	276	0	Yes	Yes-1 y
Nepal	6	8746	46	59	223	268	72	Yes	Yes-1 y
Bangladesh	6	7112	105	387	369	105	0	Yes	

Abbreviations: SBAs, skilled birth attendants; IUDs, intrauterine devices; HSPH, Harvard School of Public Health.

^aDoes not include community providers linked to the facility.

and leadership by obstetricians and gynecologists in each selected country. Working closely with these national societies, FIGO developed country-specific budgets to support tailored implementation models. Prior to actual implementation, it was difficult to anticipate how much customization would be required for each country. The initial proposal therefore endeavored to have enough flexibility to respond to the realities of local implementation and changing circumstances. For example, in Kenya, the recently decentralized health system impacted significantly on the focus of advocacy and the key stakeholders and decision makers, which required an adaptive and agile model. In Sri Lanka, the importance of engaging all heads of units owing to the multiple labor ward system only revealed itself as the initiative progressed. Issues such as these had not been fully anticipated until the initiative was being implemented and local circumstances were fully appreciated.

Several structures were set up to facilitate implementation. FIGO set up a dedicated project management team to provide ongoing support and guidance to the national societies to implement the program. Coordinators were identified in each facility and offered an honorarium for their efforts. The national societies were requested to formulate national steering groups to provide clinical and technical guidance. This was to overcome the difference of views brought about by any change in officers of national societies, and to have the participation of government officials to bring about sustainability to the initiative after the FIGO project comes to an end. The countries were encouraged to establish Data Safety Monitoring Committees to oversee the information used for monitoring and evaluation. This ensured that any issues such as perforation, infection, or expulsion were investigated and followed up by professionals.

The initiative was planned to be integrated with maternity services in the participating facilities, which differed from the traditional service model of separate family planning services in these countries. 12,13 The initiative aimed to provide prenatal counselling on all aspects of contraception with a focus on postpartum family planning. Within the menu of methods of contraception, there was a special emphasis on the advantages of PPIUD as a safe, effective, and reversible long-acting method.¹⁴ The program aimed to provide PPIUD after vaginal or cesarean deliveries in women who consented. Specific consent forms were designed in the local language for this purpose and a purple sticker was placed on the case notes to identify consenting women so that provision of PPIUD was not missed once they had delivered in the hospital. Women who had not been counselled prenatally could be counselled in early labor or postnatal to ensure insertion within 48 hours, prior to discharge. The plan was to encourage existing staff to counsel women in order to facilitate sustainability. However, this option was not considered possible in India, who chose to employ dedicated counselors; facilities in other countries asked nursing staff or counsellors on other subjects to include PPIUD counselling. As counselling and uptake rates remained low in Bangladesh and Nepal, dedicated counsellors were employed in June 2015 and July 2016, respectively. The remaining countries continued to utilize the existing health system to contribute to counselling efforts.

Data collection officers were employed by the project in all countries to collect data on every women delivering in the participating facilities for monitoring and evaluation purposes. Information on counselling, consent, PPIUD, and follow-up was collected. Data were collected on tablets using the CommCare platform and database (Dimagi, Cambridge, MA, USA), which proved an effective and efficient method of data collection.

It was imperative that the FIGO PPIUD initiative should be properly evaluated to assess acceptability, cost-effectiveness, and outcomes. The Harvard School of Public Health has been involved in evaluating the initiative in three of the six participating countries, and aim to measure the impact of prenatal counselling and service interventions as well as the success of institutionalization of the intervention. This consisted of a year of data collection on all women delivering in the participating facilities, as well as 6-week, 6-month, and 18-month follow-up on a selection of women, regardless of their PPIUD status. It also consisted of provider surveys, in-depth interviews of women, and hospital checklists. The results of this research will be the subject of separate papers that will be published separately.

The initiative took a training-the-trainer approach for counselling and insertion, with a group of Master Trainers identified and trained in each country—often by experienced Master Trainers from other countries, namely Sri Lanka and India. They then cascaded training in all 48 participating teaching hospitals across the six countries. All providers eligible to insert PPIUDs were to receive training across the course of the initiative, with refresher training offered on a needs basis and training of newly rotated-in providers conducted regularly. In the countries where there are cohorts of service providers who are not expected to insert PPIUDs, separate counselling-only training was conducted.

Counselling training used standard training methods such as the GATHER model. ¹⁵ Information on the advantages of PPIUD was presented and opportunities were given for prospective counsellors to openly state their views of the methods and address any prejudices. The training sessions included role play with case scenarios of women with a variety of needs. Leaflets, posters, flipcharts, and videos in local languages supplemented the counselling done by providers and counsellors to provide visual aids for the women and their families.

For the insertion training, participants used Laerdal's Mama-U models (Laerdal, Stavanger, Norway). 16 These represent a postpartum uterus after birth, are portable, and are used as table top models for training in postpartum IUD insertion (Fig. 1). The method taught used the long-handled 33 cm curved Kelly forceps to ensure that the IUD reaches the top of the fundus in the still enlarged postpartum uterus as opposed to 24 cm tissue or sponge forceps that do not reach the fundus and therefore may lead to more expulsions (Fig. 2).¹⁷ Insertion after cesarean delivery—a much simpler process of inserting the IUD at the fundus by hand or tissue forceps under direct vision-was included in the theoretical training. Training on insertion was undertaken in a classroom situation using the appropriate equipment before clinicians were able to insert PPIUDs on patients under supervision. Trainees were expected to be able to insert at least five consecutive IUDs in the correct position of the model at the end of the formal training. More recently, the Nepal



FIGURE 1 Table-top Mama U model reproduced courtesy of Laerdal corporation, Norway. [Colour figure can be viewed at wileyonlinelibrary.com]

Society of Obstetricians and Gynaecologists, in partnership with Nepal's National Health Training Centre, developed and instituted an "on-the-job" training model. This reduces absenteeism to routine clinical work associated with group-based training. The integrated learning on the job allows trainees more time to learn and practice. This is currently being tested in their six institutions with monitoring of training outcomes.

Studies have suggested that IUD performance, including expulsion rates, varies by clinical experience. 14 The accreditation of competency

in PPIUD insertion was variable across the countries at the start of implementation. Some countries required a number of insertions on live patients under supervision before competency was confirmed, while others were deemed competent following the aforementioned five insertions using the Mama-U model.

To standardize training across the six country sites, agreement was reached on a consistent set of minimum training standards and competencies to which all countries were expected to adhere. These minimum standards were based on a comparison of available national training packages in the participating countries to ensure that they did not contradict national processes. They included the length and content of training and the number of successful insertions on models and supervised insertions on live patients. For competency to be confirmed, each trainee is now required to complete a minimum of three successful peer-assessed insertions on a Mama-U model (with at least one observed by the course trainer), two successful supervised live insertions, and three successful unsupervised live insertions.

3 | RESULTS

3.1 | Training

The training-the-trainer model worked well and is the main option available for roll-out at scale. The Master Trainers from other countries were able to bring their experience to the training and to learn from other systems, resulting in important cross-country learning and sharing of experience. Experienced providers valued training on how to teach the method and ensure proficiency over and above their own ability to undertake the procedure. Mama-U models were placed in







FIGURE 2 (A) Tissue forceps (24 cm, left) compared with long Kelly forceps (33 cm) used for fundal placement of the intrauterine device (IUD) in the postpartum uterus; (B) Insertion of the IUD with tissue forceps reaches the isthmic region of the uterus; (C) Insertion with long, curved Kelly forceps to place the IUD at the fundus. [Colour figure can be viewed at wileyonlinelibrary.com]

facility skills laboratories in the hospitals. When trainings were not being conducted, it provided opportunities for providers to continue to practice or to update their skills if there was a time lag from training to delivery on patients. It proved essential for FIGO to provide the equipment needed for training: Mama-Us, IUDs, and Kelly forceps. In many hospitals, the purchase of Kelly forceps by the project was equally essential to implementation, as there was no mainstream budget for this equipment. The practice of PPIUD insertion was successfully integrated into mainstream practice in operating theatres, but it proved more difficult in short-staffed, busy labor wards; however, there are good examples of where it was achieved in hospitals with committed clinical champions.

3.2 | Counselling

Counselling for postpartum family planning inclusive of PPIUD was undertaken in a variety of ways. Prenatal and postnatal counselling was undertaken by dedicated counsellors for PPIUD, family planning staff, or midwives who understood the value of PPIUD. It has proven uncommon for doctors to provide in-depth family planning counselling. Healthcare systems varied by country, but in most countries there were community health visitors or similar professional groups whose role in counselling and promoting the method in the community and with pregnant women was helpful. Kenya in particular had success in supporting Community Health Volunteers (CHVs) to undertake counselling, contributing to the national CHV training program to incorporate postpartum family planning counselling. In India and Nepal, dedicated counsellors are able to counsel women on the postnatal wards who had not been counselled prenatally. They managed to speak to women sensitively even in the midst of busy, noisy wards. This may seem far from ideal, but it ensured that women had a chance to ask for more information or think about this safe, effective method of contraception at a convenient time. Dedicated counsellors funded by the project were effective in increasing the number of women consenting to PPIUD, but are not necessarily a sustainable model. In Bangladesh and Nepal, it was considered important to prove that the use of counsellors was a cost-effective way to increase the uptake of PPIUD in the anticipation that there would be sustainable governmental funding if this was the case. Other countries believed it was preferable to use existing staff and structures to change practice and culture around PPIUD to ensure sustainability; for example, in Tanzania and Kenya midwives have successfully incorporated prenatal family planning counselling into their roles.

3.3 | Challenges

There were number of challenges to implementation, some that could be overcome, whereas others had to be actively managed. It was difficult to ensure consistency in training across six countries with a variety of national standards and requirements. The central FIGO team and/or the country teams attended many of the trainings to ensure quality and consistency, which required substantial

capacity. Trainings were evaluated by surveys of attendees and before and after assessments of knowledge and attitudes. In individual facilities it proved essential that the project leads (usually a senior obstetrician and/or senior nurse) were proactive in organizing training and in ensuring quality and standards. This varied based on the individual commitment of the leads. This emphasizes the importance of recruiting these leads carefully and supporting and challenging them in order to change practice over the long term. In some countries or regions where the participating facilities were based, IUDs were not a popular method of contraception or were relatively unfamiliar. For example, in Bangladesh, PPIUD services had been offered previously but insertion was done using the shorter sponge forceps, which led to high expulsion rates and consequently a negative perception of PPIUD. Furthermore, in all countries there were myths surrounding IUDs, such as that they could migrate around the body to the heart or brain. Women would often initially consent to the procedure but would change their minds following discussion with their husbands or mothers-in-law. Ideally, initiatives to deliver PPIUD should be accompanied and linked to community development programs to raise awareness of the method, dispel myths, and demonstrate its safety, as well as sensitizing communities on the importance of postpartum contraceptive plans. These programs have to be aimed wider than pregnant women and include their families and the wider community.

Working through the professional societies gave credibility and infrastructure to the delivery of the initiative. However, it also brought with it the politics of professional organizations that had to be understood and respected to gain the advantages of the professional society approval and leadership. For example, in some countries the societies wished that the society President would be the country lead for the initiative. When Presidents changed annually this meant a loss of expertise and consistency, yet insisting on another model would have resulted in loss of support from the society. These tensions had to be actively managed.

In planning which facilities were included in the initiative, it proved impossible to define a geographic catchment for the hospitals. Women travelled from all over the country to teaching hospitals in the major cities. Many women did not attend the teaching hospital for their prenatal care, either having very little care or accessing it at local clinics. Other women attended the teaching hospital for prenatal care but delivered elsewhere. It was not uncommon for a woman to move to her mother's home toward the end of her pregnancy and therefore deliver in a different hospital from that in which she received her prenatal care. This resulted in problems with counselling women about postpartum family planning prenatally as women would be counselled but deliver somewhere with no offer of PPIUD. This had the potential to reduce the credibility of the counselling, where a service was advised but not offered, and also meant that no data could be collected on these women delivering elsewhere. For others their first encounter with the teaching hospital and counselling on PPIUD was in early labor, giving them limited time to ask questions, consult with family members, and make a decision. Furthermore, as most of the participating facilities were

teaching hospitals, many women were referred because they were high risk or had complications. These women had the potential to accrue major benefit from effective contraception, but the need for rapid lifesaving interventions was rightly prioritized over the insertion of an IUD.

3.4 | Follow-up

In normal practice in many areas most women do not attend for follow-up visits at the teaching hospital and in the majority of countries only a small proportion of women attend for any postnatal follow-up at all. 18 This emphasizes the need to deliver effective postpartum contraception at one of the few times that a woman is in contact with services. However, lack of postnatal follow-up also reduces the opportunity to find out if the IUD is still in place and whether the woman is happy with it. As the initiative progressed it was possible to collect information on women attending peripheral clinics for follow-up, but it is inevitable that many women who had a PPIUD inserted were not followed up or were missed. As stated above, the risk of women being counselled and consenting to PPIUD and then not being able to access the method in a different facility reduces the credibility of the counselling. Equally, if women attended their postnatal check at a facility where PPIUD is not offered, they were at times given the wrong advice on minor symptoms or adverse effects, sometimes leading to the unnecessary removal of the IUD during follow-up. Nevertheless, once inserted the PPIUD is not dissimilar to an interval IUD and the majority of healthcare providers across all six countries will have training in IUD guidance and removal, and thus all women are able to access normal family planning services at any time to get advice or to have the PPIUD removed.

Despite these challenges, the initiative has been able to follow up approximately half of the women either in person or by phone. One issue was the number of women who returned for follow-up with missing threads. In countries such as Sri Lanka, with easy access to free ultrasound scanning, this was simple to resolve. In most other countries, there was limited access to ultrasound scanning or women themselves had to pay for it. Dissemination of information on the use of thread retrievers was therefore undertaken during implementation of the initiative. The importance of the information and advice to women on what symptoms or adverse effects to expect within the first weeks of insertion, as well as ensuring confidence of those performing postnatal checks to reassure women, has proven crucial in supporting continuation of the method.

3.5 | Data collection

High levels of data collection were obtained, with an average of 75% of women delivering in a participating facility being interviewed about their experience of counselling, consent, and PPIUD. The use of handheld tablets facilitated data collection on large numbers of women before discharge. Regular reports and dashboards were produced on levels of counselling, consent, uptake of PPIUD,

complications, and satisfaction of women. However, although the database chosen was simple and straightforward for the collection of data, it proved cumbersome and limited for the analysis of the data. Moving forward it is imperative that both ease of collection and analysis are considered in choosing a data collection system. Data must be available for real time use to manage and support trained staff who are not delivering, to undertake continuous improvement, reduce complications or missed opportunities, and to encourage staff. Many of those leading the initiative in the facilities were not experienced in analyzing and interpreting data and required support from the local central teams. Training in this component of implementation and evaluation is essential for success of initiatives such as this. Outcomes measured included numbers interviewed, numbers who had knowledge of postpartum contraception and of PPIUD in particular, numbers consenting to PPIUD, and numbers inserted, and complication rates of expulsions, removals, and infections. These were vital in establishing PPIUD as a useful method of postpartum contraception in the six countries. These outcomes are discussed in another article in this Supplement by Makins et al. 19 We also instituted an audit of structure and process at regular intervals using fixed proformas to ensure that the institutions met all the requirements to carry out high-quality counselling and insertion services. These proformas are shown in Tables 2 and 3.

4 | DISCUSSION

A great deal of learning has been achieved from this PPIUD initiative that would be useful for similar programs The major strength of implementation in teaching hospitals with well-trained staff and the best facilities in a country has to be balanced with the need to link with the community to raise awareness and confidence in the method among recipients, and to deliver PPIUD services in peripheral units where many women receive their prenatal care.

As many other similar developments have shown, there are incomparable benefits to having strong committed local clinical leadership and buy-in,²⁰ both medical and nursing, and also strong managerial support in a hospital. Task-sharing is also noted to be imperative to the success of the initiative, especially in busy hospitals where doctors and nurses play an important role in a patient's journey. Without these, any initiative is doomed to fail. These factors are essential but not sufficient on their own. The clinical and managerial champions require the time, influence, and data to encourage, challenge, and support their colleagues to change their practice. Modest payments were offered to lead clinicians in each unit. Providing a monetary incentive to such champions is reasonable given that they are often working additional hours to support the initiative. Conversely, it can be seen as a disincentive to others who feel that they are being asked to do extra work for which the champions are receiving payment. On balance, it is not a sustainable strategy to pay agents of change. A sustainable change of practice requires a belief in, and support for the intervention far more than additional payment. It was clear that the initiative worked best in

TABLE 2 Proforma used for audit of structure.

Audit of structure

Human resources

Is the counselling done by doctors?

Is the counselling done by midwives/nurses?

Is the counselling done by PPIUD counsellors?

Leaflets

Do they have leaflets covering all PPFP?

Does it cover PPIUD?

Are the leaflets in all the appropriate languages? Which language?

Are the leaflets approved by the government?

Flipcharts

Do they have flip charts with illustrations and reading material?

Do flip charts cover all forms of PPFP?

Do flip charts cover PPIUD?

Posters

Do they have posters in prenatal care services, wards (prenatal and postnatal) informing of PPFP?

Do they have posters in prenatal care services, wards (prenatal and postnatal) informing on PPIUD?

Video

Do they have a TV with video being played in an appropriate language?

Does it cover the importance of birth spacing?

Does it cover all forms of PPFP?

Does it cover PPIUD?

Consent

Do they have an appropriate consent form with advantages, disadvantages, risks, and adverse effects?

Is it in their language? If so which language?

Insertion

Human resources

Who is doing the insertion? Are they government staff?

IUD

Does the hospital have adequate supplies in the hospital?

Does the hospital have adequate supplies in the labor room?

Does the hospital have adequate supplies in the operating theatre?

PPIUD kit

Does the hospital have assembled PPIUD kits? If so, how many?

Does the PPIUD kit have: Kelly forceps, sponge forceps, kidney dish/gulley pot, and speculum?

If no PPIUD kit, does the facility have a supply of Kelly forceps in the labor room?

What is the turnaround for sterilization in days?

Follow-up

Where is it done?

Do they have a PPIUD follow-up pack? If so, how many?

Does the follow-up pack have speculum, uterine sound, artery forceps, thread retriever?

(Continues)

TABLE 2 (Continued)

Can they refer for an ultrasound in the event of unknown location of the IUCD?

Is there a fee incurred for an ultrasound scan? If so, how much?

Can they refer for an X-ray in the event of unknown location of the IUCD?

Is there a fee incurred for an X-ray. If so, how much?

TABLE 3 Profoma used for audit of process.

Audit of process

Coverage

Do we have a map demonstrating the flow of patients from peripheral units to referral hospitals in the initiative?

How many peripheral units are there which do prenatal care and refer to our facilities?

How many of these do we cover in terms of training in counselling?

What % of women delivering in our facilities have had prenatal care in that hospital or in a clinic that we cover?

What % of women counselled in our facilities delivered elsewhere?

Training in counselling

Who is trained in counselling?

Is it done routinely by the facilities or is it instigated by the PPIUD country team?

Who does the training? Is the government involved?

Are there lectures and small group discussion or just one or the other?

Are there practical sessions?

Is a certificate given?

Is it part of continuing medical education (CME)?

Training in insertion

Is training instigated by the initiative or by the facility itself?

Who does the training? Is the government involved?

Is it part of CME?

Have all eligible staff been trained?

Data

Do they have adequate tablets?

Do they have a register of women delivered in each unit?

Do they have a register of women who were interviewed?

Do they have a register of counselled women?

Do they have a register of women who had insertions?

Do they have a register of women who had follow-up?

When the initiative leaves, what data will be available from the national health service?

Sustainability

Has PPIUD been accepted as a viable method family planning in the country?

Is it part of normal medical training?

Is it part of normal nursing/midwifery training?

Is it part of normal training clinical officers/other relevant cadres of health professionals?

Will the government accept PPIUD insertion by nonmedical staff?

those facilities where the clinical leads believed it was a positive intervention and so embraced it from the start.

It has to be acknowledged that in resource-strapped systems with high-volume activity and staff shortages, any additional workload is challenging. Any new initiative has to be designed in a way that makes it easy for busy staff to implement, including simple, supportive documentation, easy access to appropriate equipment, and genuine belief in and support for the intervention. Experience from this initiative suggested that in smaller facilities with cohesive teams, changing practice and making PPIUD part of normal business was more straightforward than in the larger teaching hospitals. This emphasizes the importance of working with individual teams using the bottom-up as well as the top-down approach.

5 | CONCLUSION

Planning and implementing an initiative that required a change in clinical practice in six countries would always be challenging, but this initiative showed that working through national societies has major benefits in ensuring links to local systems and clinical support. Effective implementation requires strong country leadership and belief and commitment from clinicians for the change in practice. Audit of structure, process, and outcome at regular intervals based on good quality data is a prerequisite for successful implementation. These provide feedback to clinicians to identify problems, and enable provision of additional training or support to individual providers, counsellors, or facilities as early as possible; they also help us to learn from and celebrate success and make the case for popularizing this useful public health intervention.

AUTHOR CONTRIBUTIONS

LdC and LB wrote the manuscript with help from EB, MS, and SA. SA planned the initiative and directed implementation with the FIGO PPIUD team. All authors reviewed the manuscript before submission. LB and MS worked on the project while they were employed by FIGO.

ACKNOWLEDGMENTS

We wish to acknowledge the past and present members of the PPIUD team at FIGO headquarters and each country team that has worked hard to make this initiative possible. We would like to thank the six national societies SLCOG (Sri Lanka College of Obstetricians and Gynaecologists), OGSB (Obstetrical and Gynecological Society of Bangladesh), NESOG (Nepal Society of Obstetricians and Gynaecologists), KOGS (Kenya Obstetrical and Gynaecological Society), AGOTA (Association of Gynaecologists and Obstetricians of Tanzania), FOGSI (Federation of Obstetric and Gynecological Societies of India), as well as AVNI Health Foundation for their commitment and hard work in implementing this initiative. We would like to thank the governments of the six countries for their

support and involvement in the initiative. Finally, we would also like to thank our anonymous donors for their generous grant and continued support.

CONFLICTS OF INTEREST

The authors have no conflicts of interest to declare.

REFERENCES

- Adding it up: Investing in Contraception and Maternal Newborn Health, 2017. Guttmacher Institute. 2017. https://www.guttmacher.org/fact-sheet/adding-it-up-contraception-mnh-2017. Accessed June 19, 2018.
- Long-term reversible contraception. Twelve years of experience with TCu380A and TCu220C. Contraception. 1997;56:341–352.
- Singh S, Darroch JE. Adding It Up: Costs and Benefits of Contraception Services Estimates for 2012. Washington, DC: Guttmacher Institute and United National Population Fund (UNFPA); 2012.
- Shulman JJ, Merritt CG. Postpartum contraception: Subsequent pregnancy, delivery, and abortion rates. Fertil Steril. 1976;27:97–103.
- Rutstein SO. Effects of preceding birth intervals on neonatal, infant and under-five years mortality and nutritional status in developing countries: Evidence from the demographic and health surveys. Int J Gynecol Obstet. 2005;89(Suppl.1):S7–S24.
- Ahmed S, Li Q, Liu L, Tsui AO. Maternal deaths adverted by contraceptive use: An analysis of 172 countries. *Lancet*. 2012;380:111–125.
- Arulkumaran S, Hediger V, Manzoor A, May J. Saving Mothers' Lives: Transforming Strategy into Action. 2012. Report of the Maternal Health Working Group. https://www.imperial.ac.uk/media/imperial-college/institute-of-global-health-innovation/public/Motherslives.pdf. Accessed June 19, 2018.
- Eluwa GIE, Atamewalen R, Odogwu K, Ahonsi B. Success providing postpartum intrauterine devices in private-sector health care facilities in Nigeria: Factors associated with Uptake. Glob Health Sci Pract. 2016;4:276–283.
- United Nations Development Programme. Sustainable Development Goals. http://www.undp.org/content/undp/en/home/sustainable-development-goals.html. Accessed June 19, 2018.
- Starbird E, Norton M, Marcus R. Investing in family planning: Key to achieving the sustainable development goals. Glob Health Sci Pract. 2016:4:191–210.
- Kenya Ministry of Health. Transforming Health: Accelerating Attainment of Universal Health Coverage. Kenya Health Sector Strategic and Investment Plan (Khsspi), July 2013-June 2017. Nairobi: Kenya Ministry of Health: 2014
- Castodoh R, Sivin I, Reyes P, Alers J, Chapple M, Russell J. The international postpartum family planning program: Eight years of experience. Rep Popul Fam Plann. 1975;18:1–53.
- Karra M, Canning D, Foster S, et al. Location and content of counselling and acceptance of postpartum IUD in Sri Lanka. Reprod Health. 2017;14:42.
- Lopez LM, Bernholc A, Hubacher D, Stuart G, Van Vliet HA. Immediate postpartum insertion of intrauterine devices. *Cochrane Database Syst Rev.* 2015;(6):CD003036.
- 15. World Health Organization. Counselling for Maternal and Newborn Health Care: A Handbook for Building Skills. Geneva: WHO; 2013.
- Laerdal [website]. Mama-U Postpartum Uterus Trainer. https://laerdalglobalhealth.com/products/mama-u/. Accessed May 15, 2018.
- 17. USAID, Access. Postpartum Intrauterine Contraceptive Device (PPIUD) Services: A Reference Manual for Providers. Baltimore: Jhpeigo; 2010.
- Singh A, Padmadas SS, Mishra US, Pallikadavath S, Johnson FA, Matthews Z. Socio-economic inequalities in the use of postnatal care in India. PLoS ONE. 2012;7:e37037.

- 19. Makins A, Taghinejadi N, Sethi M, Machiyama K, Munganyizi P, Odongo E, et al. FIGO postpartum intrauterine device initiative: Complication rates across six countries. *Int J Gynecol Obstet*. 2018;143(Suppl.1):20–27.
- Mountford J, Webb C. When clinicians lead. McKinsey Quarterly. 2009. https://www.mckinsey.com/industries/healthcare-systems-and-services/our-insights/when-clinicians-lead. Accessed June 19, 2018.

SUPPORTING INFORMATION

Additional supporting information may be found online in the Supporting Information section at the end of the article.

Table S1. Detailed version of Table 1.