Four years of the FIGO postpartum intrauterine device initiative in Sri Lanka: Pilot initiative to national policy

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Abstract
Objective: To analyze the difficulties and challenges arising from introduction of postpartum intrauterine device (PPIUD) services into the Sri Lankan health system.

Methods: Phase I of a FIGO PPIUD initiative was implemented in 2013 in six hospitals; phase II began in 12 hospitals in 2015. During this period, 915 Medical Officers were trained in PPIUD insertion and 5370 personnel were trained in PPIUD counseling. Women were followed up at 4–6 weeks after insertion.

Results: A total of 184 433 women (62.4% of hospital deliveries) were interviewed about PPIUD as a method of contraception. Of those interviewed, 116 159 (63.0%) received counseling on PPIUD and 11 339 (6.1%) consented to PPIUD insertion. Of consenting women, 9346 (82.4%) had a PPIUD inserted. There were no significant complications reported at insertion. Expulsion rates were 2.9% and removal rates were 4.1%.

Conclusion: PPIUD as a method of contraception was successfully introduced into the participating hospitals. Given the success of this pilot intervention and the safety profile demonstrated, PPIUD was added to the national family planning program in 2017.

KEYWORDS
Advocacy; FIGO initiative; National policy; Postpartum intrauterine device; PPIUD; Sri Lanka

1 | BACKGROUND

Sri Lanka was the first country selected to implement the FIGO postpartum intrauterine device (PPIUD) initiative on account of its robust maternity care delivery system, relatively good health indicators in the region, and a committed national obstetrics and gynecology society experienced in implementing similar projects.

Sri Lanka’s success story in developing a health system at low cost that delivers both institutional and domiciliary services is well documented.1 At present, Sri Lanka provides free health care, including family planning services, through a strong health delivery system with 9.3 physicians and 37 hospital beds per 10 000 population (2013).2

In 2017, 79.4% of Sri Lankan women registered in government prenatal clinics before 8 weeks of pregnancy and attended 6.4 visits on average.3 Prenatal care is provided through shared care, with domiciliary care given by Public Health Midwives (PHMs), whose contribution—particularly in rural areas—has been well documented.4 All mothers (99.9%) deliver in a health facility, with 88% delivering in state hospitals with comprehensive emergency obstetric care under specialist obstetricians.5

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PHMs provide counseling on family planning covering all choices during home visits and at clinics. They also issue oral contraceptive tablets, condoms, and facilitate women who need other contraceptive services, such as insertion of interval IUDs, implants, and depo medroxyprogesterone acetate (DMPA) injections. Postpartum contraceptive methods, such as postpartum sterilization, are provided by national hospitals manned by specialist obstetricians. Provision of postpartum contraception services is not optimal and this is reflected in the significant percentage of unmet need for postpartum contraception noted in the maternal mortality surveillance statistics. Strengthening postpartum contraceptive services in Sri Lanka’s health system was therefore an important requirement.

Family planning activities in Sri Lanka began in the 1950s by the Family Planning Association of Sri Lanka (FPASL) and were later institutionalized in 1958. Postpartum contraceptive services such as postpartum sterilizations and depot medroxyprogesterone acetate injections were included in the 10-year national plan of 1965 and were integrated with the maternal and child health program of the Ministry of Health in 1975. The Family Health Bureau was established in 1968 as a branch of the Ministry of Health to provide a well-organized service in maternity and child care. Public Health Midwives (PHMs) were appointed and given dedicated areas to ensure that all pregnant women in their areas were registered and maternity and postpartum care was provided. The State currently funds 99% of the family planning program.

Table 1 shows the percentage distribution of married women by family planning method. Sixty-two percent of married women in Sri Lanka currently use contraception. There is 51.3% prevalence of modern methods in women aged 15–49 years, with 10.1% accepting an IUD out of the choices available. The unmet need for family planning depicted in the Maternal Death Surveillance response analysis was 7.1% in 2013 and 6.22% in 2016.

PPIUD has been used in Sri Lanka as a contraceptive method since 1969, but by the mid-1970s its use had waned, until it was reintroduced through the FIGO initiative as an effective and safe method of family planning.

The Sri Lanka College of Obstetricians and Gynaecologists (SLCOG) has been in existence for over 50 years. It plays an advisory role to the government and considers capacity building of healthcare providers as a key function. The aim of the FIGO initiative in Sri Lanka was to introduce PPIUD services to women delivering vaginally or by cesarean in selected hospitals by capacitating care providers in counseling and delivery of services to eventually integrate PPIUD services into State health services. The present paper analyzes the difficulties and challenges encountered and the methods adopted to overcome these challenges to successfully integrate PPIUD into the national family planning program.

## TABLE 1  Current use of contraception in Sri Lanka—ever married women.

| Contraceptive method            | %  |
|---------------------------------|----|
| Any method                      | 61.7 |
| Any modern method               | 51.3 |
| Female sterilization            | 13.8 |
| Male sterilization              | 0.0  |
| Pill                            | 8.1  |
| IUD                             | 10.1 |
| Injectable                      | 8.1  |
| Implants                        | 4.4  |
| Male condom                     | 6.7  |
| Female condom                   | 0.0  |
| Emergency contraception         | 0.1  |
| Lactational amenorrhea method   | 0.0  |
| Any traditional method          | 10.4 |
| Rhythm                          | 6.8  |
| Withdrawal                      | 3.6  |
| Not currently using             | 38.3 |
| Total                           | 100.0 |

Source: Department of Census and Statistics.11

2  | MATERIALS AND METHODS

### 2.1  Implementation of PPIUD in 18 facilities

The project was implemented in two phases: phase I, involving six hospitals began in 2013; and phase II with 12 hospitals began in 2015. Hospitals were selected based on number of deliveries and other criteria covering implementation issues. The hospitals ranged from teaching hospitals to general hospitals, each with two or more specialist obstetricians.

Existing PHMs were trained to provide counseling on family planning methods, including PPIUD, in their existing counseling package. Training on insertion of PPIUDs was given to Medical Officers who were staff members of the Ministry of Health in the respective health institutions.

Training of PHMs, senior PHMs, and Medical Officers on counseling was done via 1-day regional workshops conducted by Master Trainers from the SLCOG in collaboration with staff of the Family Health Bureau. Training of Medical Officers on insertion was also done via 1-day workshops conducted by the Master Trainers from the SLCOG. As a follow-up to the initial training, a second refresher training program was conducted 6 months later by the same trainers to refresh knowledge.

Information, education, and communication (IEC) materials such as brochures, handouts, and posters were developed and distributed, along with TV screens displaying videos on family planning and PPIUD that were distributed to participating hospitals.

Following counseling, written informed consent was obtained from women in the peripheral prenatal clinics or in the hospital. Medical Officers working in the labor room or operating theater inserted PPIUDs following vaginal or cesarean delivery in women who had provided consent. These women were then requested to attend the hospital after 4–6 weeks to ensure that the PPIUD was in place and no complications had arisen.
The project employed Data Collection Officers (DCOs) to conduct face-to-face interviews and collect information from women admitted for delivery at the intervention hospitals. DCOs were selected via interviews conducted by the Facility Coordinators (obstetricians and gynecologists in charge of each hospital involved in the initiative and were preferably graduates with a workable knowledge of information technology. The selected DCOs were given comprehensive training by PPIUD team members of SLCOG on the project web-based cloud application data entry portal.

A Data Safety and Monitoring Board (DSMB), with five members completely independent of the project, was appointed at the start of the initiative. The DSMB monitored clinical adverse events associated with the implementation of the PPIUD intervention and met on a biannual basis.

2.2 | Nationalization

With a view to seeking nationalization, a review of the initiative was undertaken by SLCOG in 2016. A brief but focused opinion poll was conducted with the consultants implementing the PPIUD project in their hospitals since they had first-hand experience of the use of PPIUD. Seventy-four consultants were contacted via email and subsequently over the phone, and responses from 37 consultants were recorded. The results of the initiative review were used to help decide whether to move forward with seeking nationalization at country level.

3 | RESULTS

During the project period from May 2014 until September 2017, 295 596 women delivered in the participating hospitals and 184 433 women were interviewed after delivery (62.4%).

DCOs were able to interview 62% of delivered women cumulatively up until September 2017. Initially in 2014, the percentage of women interviewed was 8.8%. A gradual increase occurred over the years and in September 2017 it had reached 81% (Table 2).

The total number of staff trained in insertion and counseling is given in Table 3. The majority of women who did not accept PPIUD had decided on another contraceptive method (58%), as shown in Table 4. Reasons why PPIUD was not inserted are shown in Table 5. A total of 32 women (0.34%) out of 9346 reported having complications at the time of insertion (Table 6).

Follow-up information for women who received a PPIUD was obtained in 34% of insertion cases. Table 7 outlines the complication rates. Of the patients attending for follow-up, 10 patients complained of significant vaginal discharge, however puerperal sepsis was not confirmed in any case.

Table 8 shows the results of the poll of consultants involved in the initiative. Results revealed that 91.2% of obstetricians believed that PPIUD was a good method to be offered at national level, 89.1% felt

### TABLE 2 Project statistics by year.

| Indicator | 2014 | 2015 | 2016 | 2017* |
|-----------|------|------|------|-------|
| % of women interviewed | 8.8  | 56.8 | 70.2 | 81.6  |
| % of women counseled on PPIUD | 67.5 | 47.1 | 66.8 | 70.1  |
| % of PPIUD insertions (out of interviewed women) | 4.7  | 2.6  | 3.8  | 2.7   |

*Up until September.

### TABLE 3 Number of providers trained in insertion or counseling.

| Area of training | No. |
|------------------|-----|
| Medical Officers (providers) trained to perform PPIUD insertion | 915 |
| Field Staff trained in PPIUD counseling only | 5370 |

### TABLE 4 Reasons given by the women for not choosing PPIUD as a contraceptive method.

| Reason                                      | No. (%) |
|---------------------------------------------|---------|
| Decided on another method                    | 59 809  | (58.2) |
| Unaware of PPIUD                            | 13 154  | (12.8) |
| Could not discuss with husband/family        | 13 155  | (12.8) |
| Partner/family objection                     | 5036    | (4.9)  |
| Not sure whether to have the IUD            | 1542    | (1.5)  |
| Religious objection                         | 822     | (0.8)  |
| No need because husband/partner is away     | 2877    | (2.8)  |
| Did not require a family planning method     | 5036    | (4.9)  |
| Other                                       | 1335    | (1.3)  |
| Total number of reasons                     | 102 706 |

*Multiple answers were given by the respondents.

### TABLE 5 Reasons why the PPIUD was not inserted.

| Reason                                      | No. (%) |
|---------------------------------------------|---------|
| Contraindications identified at the time of delivery | 127   | (39.9) |
| Mother deciding to withdraw consent         | 63      | (19.8) |
| Technical problems at the time of insertion | 40     | (12.6) |
| Unavailability of IUD at the time of delivery | 49    | (15.4) |
| Other                                       | 39      | (12.3) |
| Total number of reasons                     | 318     |

*Multiple answers were possible.

### TABLE 6 Complications at PPIUD insertion.

| Complication      | No. (%) |
|-------------------|---------|
| Pain at insertion | 4 (12.5) |
| Bleeding          | 10 (31.3) |
| Perforation       | 0 (0)   |
| Unspecified       | 18 (56.2) |
| Total             | 32 (100) |
that specialist hospitals were the appropriate site to provide PPIUD, and 83.2% felt that SLCOG was the best agency to conduct training programs in PPIUD.

Following this, SLCOG strongly recommended to the Ministry of Health that PPIUD should be included in the national family planning program. The recommendations ratified by SLCOG were accepted by the Ministry and a circular was issued on strengthening postpartum family planning services on March 3, 2017.\textsuperscript{13}

4 | DISCUSSION

PPIUD as a family planning method had to be tried and tested in Sri Lanka before being ratified by the government and successfully incorporated into the national family planning program.

A number of challenges were encountered during introduction of PPIUD services. Despite the high prevalence of contraception and positive attitudes toward family planning built over the years among the public, emerging fundamentalist views may have influenced some of the care providers and care seekers. These became clear particularly when the initiative spread into regions further away from the capital city and the influence of national society members. Politics and a belief that family planning was being introduced to limit the size of certain ethnic groups meant that clinicians became reluctant to participate despite their clinical understanding of the benefits of birth spacing and expanding choices in family planning. Inaccurate and adverse publicity from the media caused lasting damaging effects among the population and clinicians providing counselling and insertion services. Earlier and appropriate sensitization of relevant stakeholders and the public on PPIUDs prior to, and while the project moved forward, may have helped prevent the politicization and adverse publicity. Although IEC materials were created, there was some delay in their distribution and in making the videos available in prenatal clinics. Greater attention given to adapting IEC materials to reflect local sensitivities and in the national languages before the initiative commenced may have alleviated some of these challenges.

Lack of awareness and misconceptions about PPIUD in the early stages of implementation led to apathy and an indifferent attitude even among members of the national society. Ensuring transparency so that SLCOG members were aware of operational aspects of the project through traditional communication methods became a challenge. Sensitization of all stakeholders, especially society members, prior to starting the project was essential to achieve consensus and cooperation. Establishment of a steering committee was instrumental in obtaining wider acceptance and guidance when controversies arose. It also became clear that membership of this committee should include a wider group of stakeholders, such as ministry officials working in relevant reproductive health committees, to ensure more effective collaboration.

Bottlenecks in delivery of goods and services, common in most health systems, led to unavailability of IUDs. It was imperative that those working in hospital supply systems were on board so that IUDs were supplied in sufficient quantity to maternity units. Prior to the initiative, these were supplied to outpatient family planning clinics only.

Once the initiative had begun and interview rates were above 70%, counselling rates were 66.8% in 2016 increasing to and 70.1% in 2017, whereas insertion rates were 3.8% and 2.2% for 2016 and 2017, respectively. These low rates were likely due to the reluctance of the population to take up a new method when more established methods such as postpartum sterilization and postpartum implants were freely available in the Sri Lankan health system. Postpartum implants have recently become a popular method of postpartum contraception because they do not require an internal examination and a woman can feel the device in her arm at any time and hence be reassured that she

### TABLE 7 Follow-up information from 2014 to September 2017.

| Follow-up                                      | No. (%) |
|------------------------------------------------|---------|
| Total PPIUD insertions                         | 6844    |
| No. of women attending 4–6 wk follow-up       | 2328 (34.0) |
| Spontaneous expulsion\textsuperscript{a}       | 68 (2.9) |
| Removal for medical reason                     | 29 (1.2) |
| Removal at woman’s request                     | 60 (2.6) |

\textsuperscript{a}82% of the women who had an expulsion had the IUD re-inserted.

### TABLE 8 Views of SLCOG members involved in the PPIUD project implementation (n=37).

| Opinion requested on                                                                 | Response   | No. (%) |
|--------------------------------------------------------------------------------------|------------|---------|
| Q1 With your experience of implementing the pilot project, do you consider PPIUD (immediately after delivery) as a good method to be offered in the MoH family planning package? | Agree      | 34 (91.9) |
|                                                                                     | Disagree   | 3 (8.1)  |
| Q2 Have you observed any complications/infections/perforations among your patients? | Yes        | 4 (10.9)  |
|                                                                                     | Never      | 17 (45.9) |
|                                                                                     | Very few   | 16 (43.2) |
| Q3 Do you consider specialist obstetric units in specialist hospitals to be the appropriate site to provide PPIUD (immediately after delivery) | Agree      | 33 (89.1) |
|                                                                                     | Disagree   | 4 (10.9)  |
| Q4 Do you consider SLCOG to be the best agency to conduct training programs on PPIUD and family planning counselling with hospital coordinators as trainers | Agree      | 31 (83.7) |
|                                                                                     | Other agencies e.g. FHB/MoH/Medical schools | 6 (16.3)  |

Abbreviations: FHB, Family Health Bureau; MoH, Ministry of Health.
has a contraceptive method in place. This is an important factor in Sri Lanka, where termination of pregnancy is not a legal option. The low follow-up rate of 34% was a concern. It is difficult to motivate women to attend follow-up clinics, especially after delivery when they do not have any problems. Therefore, it can be assumed that women who did not attend did not have any complications.

Collaboration with the Ministry of Health and its directorates was crucial from the start for implementation and subsequent successful nationalization of this initiative. The government's Family Health Bureau was involved from the outset in the planning, design, and implementation of the initiative over the 4-year period. The importance of this cannot be understated when discussing the successes of the initiative and ease of adoption into the government family planning program.

Close monitoring and evaluation of the project as it was running was imperative. This was not possible through SLCOG members, who worked on the initiative on a voluntary basis, but required a dedicated professional specializing in monitoring and evaluation. This allowed the steering committee and SLCOG members involved to react to any difficulties arising at an implementation level and also provided information on complications to the Data Safety Monitoring Board.

Although PPIUD has been adopted into the national family planning program, the next stage is implementing this change on a national level. SLCOG plans to support the Ministry of Health in providing PPIUD services at a national level via a Training of Trainers course for key providers, provision of training material, supporting changes in curricula of medical undergraduates and health providers to include PPIUD, and supporting the establishment of a national training center.

5 | CONCLUSION

PPIUD is an important contraceptive method introduced into Sri Lankan health services, especially given that unmet need for postpartum contraception was recognized as an important cause of maternal deaths and the reality of clandestine abortion services. FIGO, the Family Health Bureau, and SLCOG jointly collaborated in introducing the pilot project to determine the acceptability of this method among Sri Lankan women. Analysis of the results showed that this was acceptable among women, especially given the low complication rate recorded with insertions. This, along with the advantages of reversibility and that it is nonhormonal, allowed PPIUD to be successfully integrated into the national family planning program in Sri Lanka.

AUTHOR CONTRIBUTIONS

All authors contributed to various elements of planning and coordination of the project, writing the manuscript, and reviewing the final version.

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CONFLICTS OF INTEREST

The authors have no conflicts of interest to declare.

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