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## Acceptability and promotion strategies for LNG-IUS in Ghana: A public health assessment

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# **Acceptability and promotion strategies for LNG-IUS in Ghana: A Public Health Assessment**

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## List of Acronyms

FGD	Focus Group Discussion
FP	Family Planning
GDHS	Ghana Demographic And Health Survey
GHS	Ghana Health Service
GRMA	Ghana Registered Midwives Association
HRU	Health Research Unit
ICA	International Contraceptive Access
ICC/CS	Interagency Committee on Contraceptive Security
IEC	Information, Education and Communication
IUD	Intra-Uterine contraceptive Device
JSS	Junior Secondary School
LNG-IUS	Levonorgestrel-releasing Intrauterine System
MSI	Marie Stopes International
NFP	Natural Family Planning
NHIS	National Health Insurance Scheme
NGO	Non-Governmental Organization
PPAG	Planned Parenthood Association of Ghana
RCH	Reproductive and Child Health
STD	Sexually Transmitted Disease
STI	Sexually Transmitted Infections
WHO	World Health Organization

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## Acknowledgements

This study was jointly undertaken by the Ghana Health Service, the Population Council and EngenderHealth, with technical and material support from the ICA Foundation and Bayer Schering Pharma. The study team acknowledges with gratitude the generous donation of LNG-IUS devices from the International Contraceptive Access (ICA) Foundation. We would also like to appreciate the substantial contribution of Bayer Schering Pharma. In particular, we are grateful to Mr. Clement Owusu-Addo of Bayer Schering Pharma (Ghana), Dr. March Herman of Bayer Schering Pharma and Dr. Francis X.O. Odawa of the University of Nairobi and Bayer Schering Pharma for assisting with the registration of the product in Ghana, providing the necessary IEC materials for the training of providers and serving as facilitators for the training workshop. The training would not have been possible without the invaluable support of seasoned facilitators like Mrs Mary Damson, Victoria Davies, Perfect Pearl Bleboo and Dr. Patrick Frimpong. We also wish to acknowledge the invaluable technical support received from Ms. Eunice Adjei (EngenderHealth), Ms. Patience Darko (EngenderHealth) and Deborah Weiss (Population Council) during the training of the providers.

We also acknowledge the immense assistance received from the management and staff of the study and practical training sites (i.e., Marie Stopes International (Ghana), PPAG, Kaneshie Polyclinic, Ridge General Hospital, Mamprobi Polyclinic, Maamobi Polyclinic, La General Hospital, Korle Bu Teaching Hospital, Komfo Anokye Teaching Hospital, Maternal and Child Health Hospital, Tafo Hospital for the significant role they played in the implementation of the study. We especially thank the providers for their assistance in coordinating interview appointments with clients and FGD participants. Without their patience in these coordination efforts and continuous reminders to clients, the data gathering process would not have been smooth. We are also very grateful to the Health Research Unit for their thorough review of the research protocol and instruments and also for their very useful comments.

Our sincere gratitude also goes to the data collection teams and the data entry staff who worked tirelessly to provide the required information for this report. This study would not have been possible without the co-operation of the District Directors of Health who are responsible for the facilities where the study was conducted as well as the family planning clients who travelled away from the comfort of their homes to the facilities just to participate in the study.

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Finally, we wish to acknowledge the support of both technical and administrative staff of the three collaborating organizations (Population Council, EngenderHealth and the Ghana Health Service for working diligently towards the successful planning and implementation of the intervention and data collection activities. Our gratitude especially goes to Ms. Victoria Okine and Mrs. Celestine Quist of the Population Council, for working hard to ensure that all the needs of the data collection team were promptly taken care of and to Ms. Sandra Gyampoh for the administrative support.



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## Executive Summary

In response to the concerns and fears of clients' about the side effects of the IUD, the commonly known reversible, long term method in Ghana, and to curb the shift from long term to short term methods, the Reproductive and Child Health (RCH) unit of the Family Health Division of the Ghana Health Service – an agency of the Ministry of Health decided to expand women's contraceptive method choices by introducing the Levonorgestrel-releasing Intrauterine System (LNG-IUS), a hormonal IUD, into the contraceptive method mix. The LNG-IUS is a uterine contraceptive that provides effective long term protection up to a period of five years. The system works by releasing 20µg of Levonorgestrel into the womb every 24 hours. Even though the product has been certified as safe and effective and duly registered for use in the country, it was necessary to ensure that it satisfies client's needs and meets provider expectations.

In line with this, the Population Council, in collaboration with the Reproductive and Child Health Unit of the Family Health Division of the Ghana Health Service and Engender-Health, implemented an intervention to evaluate the acceptability of the LNG-IUS among family planning clients in selected health facilities in Ghana and to explore effective ways of scaling it up throughout the country. The main objectives of the study were to evaluate client knowledge and acceptability of the product, provider training and competence, product affordability and accessibility. The study also explored promotion and sustainability strategies that would enhance the integration of the product into the family planning method mix.

The study involved a total of six health facilities, namely Tafo Hospital, Maternal and Child Health Hospital and Komfo Anokye Teaching Hospital in the Ashanti region and Korle-Bu Teaching Hospital, Maamobi Polyclinic and La General Hospital in the Greater Accra region. These clinics were selected from the regions with the highest IUD acceptor rates in Ghana (i.e. – Greater Accra and Ashanti regions). The intervention began by identifying providers who were already providing IUD services in the selected clinics and giving them four days of intensive training on LNG-IUS-related information as well as insertion and removal skills in November 2008. The training was followed immediately by the provision and monitoring of LNG-IUS services at the clinic site.

In July 2009, data were collected for the evaluation through in-depth interviews with LNG-IUS acceptors and providers, and focus group discussions with other FP clients after seeking their informed consent. In each selected facility, in-depth interviews were held

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separately with all the LNG-IUS providers and LNG acceptors who consented to be interviewed. Following this, two separate focus group discussions (FGD) were held with groups of 6-8 acceptors of other FP methods to find out their own knowledge and perceptions about LNG-IUS. One of the FGD groups consisted of women aged less than 30 years and the other comprised those aged 30 years and above.

The results indicate that the product is universally accepted by women who had had the product inserted. More than 90 percent of LNG-IUS clients expressed satisfaction with the colour, shape, size and overall packaging of the product. The overall mean satisfaction score was very high, with four out of five women expressing satisfaction with the product. Providers and non-LNG-IUS users also had similar views. Both users and providers were quite knowledgeable about the product. In addition, providers had the skills to insert and remove the product, although a few were unsure of their competence. Non-users, on the other hand, mostly did not know about the existence of the product and those who had heard about the product were not adequately informed about it. Almost a third (28%) of LNG-IUS acceptors were new acceptors of contraception. The rest had mostly switched from the injectable, IUD, pill and natural family planning method.

The choice of LNG-IUS over other methods was mainly attributed to one's ability to have unprotected sex without worrying about getting pregnant. Headaches (32%), irregular bleeding (31%), amenorrhoea (28%), dizziness (25%) and prolonged bleeding (18%) were reported by clients as the known side effects of the product. Actual side effects experienced after the insertion of the product were not very different from those mentioned above and include headaches (15.5%), spotting (11.3%) irregular menstruation (9.9%), prolonged bleeding (7.0%), vaginal discharge (7.0%), amenorrhoea (5.6%) and dizziness (4.2%). While the three most important attractions of the LNG-IUS were cited as pregnancy prevention (38%), lack of worry about getting pregnant during intercourse (19.7%) and adequate spacing and care of children (16.9%), the three disincentives for the adoption of LNG-IUS were the experience of irregular bleeding, amenorrhoea and the discomfort created by the thread attached to the device.

The client interviews further revealed that the mean cost per LNG-IUS insertion was GH¢2.70. This amount was reported to be affordable to all but three clients. In terms of product accessibility, 96 percent of clients had the freedom to choose the method they wanted to use after counseling, suggesting that the possibility of encountering barriers instituted by providers themselves was quite low. Nevertheless, short term unavailability of the device was reported by two clients. This could create a potential barrier to care if no action is taken to guard against future occurrences.

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Branding, mass media campaigns, printed materials, community-level education and use of satisfied clients were recommended by clients as the main strategies that can help to promote the utilization of the LNG-IUS. On the other hand, strategies that were recommended to ensure constant supply of the product and sustain LNG-IUS service provision include asking clients to pay more for insertion and removal (recommended client charges ranged from GH¢2.00 to GH¢20.00) as opposed to the real market price of US\$40. They also urged government, NGOs, donor agencies and other local groups to provide funds that could be used to subsidize the cost of the product.

Finally, even though the introduction of the product substantially increased the uptake of Norigynon and slightly reduced the utilization of the IUD, Lo Femenal and male and female condoms within the first two months of the intervention, the mix of family planning methods adopted by clients was considerably improved. Overall, LNG-IUS users accounted for 0.6 percent of all the FP acceptors who were registered with the six facilities between December 2008 and May 2009. Scaling up the intervention is thus likely to have a positive impact on the uptake of long term methods and consequently on the contraceptive method mix.

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## Background

The Intra Uterine Device (IUD) is a safe and reversible method, which requires little effort on the part of the user once inserted and offers 10 years of protection against pregnancy. In spite of these advantages, the use of the IUD in relation to other contraceptive methods in Ghana has either stagnated or declined. Between 1988 and 2003, the use of the IUD in Ghana declined by 77.5% from 4.0% in 1988 to 2.8% in 1998 and to 0.9% in 2003 among women aged 15-49, despite the relatively high awareness of the method. Among factors highlighted for this trend by a FRONTIERS assessment<sup>6</sup> was the absence of choice in the IUD method. Up until now, the Copper T380A, a non-hormonal brand, is the only type of IUD procured and distributed by the National Family Planning programme in Ghana. However, some clients have suspected and/or associated this brand with abnormal discharge. Yet to others, the side effect of excessive bleeding and weight loss associated with the use of the IUD has been a real disincentive. In this context, the use of the injectable has thrived among current users and seems to be the method of choice among non-users. The shifting of client preference away from the IUD to other modern hormonal methods such as the injectable, which coincidentally has the side effect of amenorrhoea and weight gain, justifies the need to introduce a hormonal IUD into the Ghana method mix.

During the period 2005 to 2006, the Ghana Health Service, together with the FRONTIERS Program of the Population Council, tested an intervention to reposition the IUD in the method mix but the need to allay women's fears about the known side effects of the IUD still remained. Consequently, the International Contraceptive Access (ICA) Foundation, Bayer Schering Africa, FRONTIERS/Population Council, EngenderHealth and the Reproductive and Child Health Unit of the Ghana Health Service (GHS) have had several discussions about introducing an additional variety of IUD called the Levonorgestrel Intrauterine System (LNG-IUS) to cater for women who have been discouraged from using the IUD either because of excessive blood loss or for other reasons.

The LNG-IUS is a T-shaped plastic contraceptive device which steadily releases 20 µg of levonorgestrel each day into the uterus<sup>7</sup>. This progestogen-only method of contraception provides effective, reversible and long-term protection of up to five years against pregnancy, with a failure rate of less than 1 per cent. Pregnancy is prevented primarily through suppression of the growth of the lining of uterus (endometrium). The device is also called the hormonal IUD and is marketed under the brand name, Mirena. Like the IUD, the LNG-IUS has a relatively simple and safe insertion procedure. A specially trained health care

<sup>6</sup> Gyapong et al (2003) An Assessment of Trends in the Use of the IUD in Ghana. FRONTIERS, Population Council, DC

<sup>7</sup> Johns Hopkins Bloomberg School of Public Health, Center for Communication Programs and World Health Organization (2007). Family Planning: A Global Handbook for Providers, pp 157-164.

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provider can insert it into a woman's uterus through her vagina and cervix. Other advantages include the reduction of menstrual blood loss by over 90%. It is thus a suitable option for menorrhagic women. The device has also proven to be an effective alternative to surgical interventions such as endometrial resection, ablation, and hysterectomy while preserving fertility. In other words, once the device is withdrawn there is rapid return to ovulation. These advantages make the device very valuable especially for women who desire to use non-permanent long term cost-effective contraceptive methods but are prevented from using the IUD because of the excessive blood loss associated with it. Known side effects include changes in bleeding patterns (lighter bleeding and fewer days of bleeding, infrequent bleeding, irregular bleeding, no monthly bleeding, prolonged bleeding), acne, headaches, nausea, weight gain, dizziness, breast tenderness, mood changes and ovarian cysts.

With support from the RCH unit of the GHS, Bayer Schering registered the LNG-IUS with the Ghana Food and Drugs Board in January 2007. However, as with any new product, there is the need to assess how clients view it before it is introduced nationwide. Recognizing the benefits of the LNG-IUS vis-à-vis its inaccessibility to clients due to the high cost associated with it<sup>8</sup>, the RCH unit of the GHS requested for and obtained a donation of 1,000 LNG-IUS devices from the ICA Foundation to make this assessment feasible and for continued service delivery after the assessment. It must be noted that the planned introduction of the LNG-IUS in Ghana was first debated at the meetings of the Interagency Committee on Contraceptive Security (ICC/CS) and acceptance of the product was based on the premise that the ICA Foundation would donate the product for some time while the country works on a financial sustainability plan for contraceptives in general, while advocating for coverage of selected family planning commodities by the National Health Insurance Scheme (NHIS). In November 2008, the Population Council, in collaboration with the RCH unit and EngenderHealth, undertook an assessment to investigate the product's acceptability among clients and to document the best strategy that can be used to introduce the product.

## Study Goal

The main goal of this project was to contribute to the expansion of contraceptive choices through the introduction of LNG-IUS in Ghana. The specific objectives were as follows:

<sup>8</sup> The product costs approximately US\$250 in Europe but the public sector price in developing countries is US\$40.

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## Specific Objectives

- To determine clients' awareness and knowledge of LNG-IUS;
- To determine client's acceptability of LNG-IUS;
- To assess providers' acceptability of LNG-IUS;
- To determine the affordability of the product;
- To assess providers' capability and willingness to insert and remove the LNG-IUS;
- To investigate whether any additional training is required to deliver LNG-IUS services;
- To investigate the criteria used for providing LNG-IUS services to clients;
- To identify barriers that may influence the provision of LNG-IUS as a contraceptive option; and
- To determine the best options for marketing the product

## Study Methodology

The study used a post intervention design to: a) document clients' and providers' general knowledge and assessment of the LNG-IUS and b) elicit recommendations regarding the best marketing strategies for introducing the product. In this assessment, the LNG-IUS was provided to clients as one of the contraceptive options in six facilities in the Greater Accra and Ashanti regions where IUD acceptor rate is known to be high. The study facilities were Tafo Hospital, Maternal and Child Health Hospital and Komfo Anokye Teaching Hospital in the Ashanti region and Mamprobi Polyclinic, La General Hospital and the Korle-Bu Teaching Hospital in Greater Accra region. The RCH unit of the Family Health Division of the GHS was mainly responsible for implementing the intervention, with technical and material support from the Population Council, EngenderHealth, Bayer Schering and the ICA Foundation. To ensure that all the 12 service providers in the selected facilities had the required training and competence to offer the service, they were given four days' intensive training on LNG-IUS information update and insertion and removal skills by experienced trainers from the GHS, EngenderHealth and Bayer Schering Pharma and given the mandate to offer these services. Ten providers from three government and two private sector practical training sites – (Planned Parenthood Association of Ghana (PPAG) and the Ghana branch of Marie Stopes International (MSI)) also took part in the training, making a total of 22 providers. Each of the training participants had received instruction on IUD insertion and removal skills and had had previous practical experience in inserting and removing the IUD. The first day of training involved both oral presentations on the LNG-IUS and practical demonstrations with dummies, complemented by various IEC materials provided by Bayer Schering Pharma. The remaining three days were used for clinical practice at the five training sites. Prior to the training, caseloads were built at five practical training sites

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to aid the training. In all, 42 clients had insertions done across the five practical training sites. This implies an average of two insertions per provider.

Following the training in November 2008, the LNG-IUS was made available to clients as one of the contraceptive methods in each of these six selected health facilities. The intervention was monitored using a monitoring check list until July 2009 after which a post-intervention evaluation was carried out. The data for the evaluation was based on in-depth interviews with all LNG-IUS users and providers who consented to be interviewed from each of the six selected facilities and on focus group discussions held with 6-8 family planning clients who were not LNG-IUS users. In each facility, two focus group discussion sessions were held; one FGD group comprised women who were aged less than 30 years while the other group was be made up of women who were 30 years and above. Splitting the women into two categories was necessary for capturing varying values, needs and expectations. Again, the selection of the FGD clients included a fair mix of both old and new users of contraception who have had contact with the facility since the introduction of the LNG-IUS.

A client in-depth interview guide, a provider questionnaire and a focus group discussion guide were used to obtain the needed information. Owing to heavy down pours during the data collection period, the focused group discussion involving those aged 30 years and over scheduled at the La General Hospital could not come on. Consequently, 11 out of the 12 scheduled FGDs were successfully conducted. Similarly, some participants slated for the in-depth interviews at some of the facilities (mostly at the La General Hospital) did not show up, resulting in a total of 71 completed in-depth interviews.

## **Content of Study Tools**

Based on the specific objectives, FGD and in-depth interview guides were used to gather the following information on knowledge, acceptability, affordability, product utilization and promotion and provider training and competence relating to LNG-IUS:

### *Knowledge*

What do family planning clients and providers know about the LNG-IUS?

What do clients and providers perceive as the benefits and disadvantages of the product?

### *Acceptability*

Is the packaging appropriate for the target group?

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Are clients satisfied with the product in terms of its potential benefits?  
Did clients complain of any complications after insertion of the product?  
Did clients have any other concerns about the product after insertion?  
What have been the clients' general experiences with the product?  
Will they recommend it to others?  
What are providers' perceptions about the method?  
Is the product acceptable as a secondary-level method to the IUD by clients?  
How do clients see LNG-IUS as a treatment for painful and heavy menstruation?

#### *Affordability*

How much are clients willing to pay for the LNG-IUS if some mark up margin is to be introduced to ensure sustained stock replacement?  
Will clients prefer a branded form if they had the choice?  
How much are clients willing to pay for the branded form?

#### *Product Accessibility*

Which types of clients are able to access the product?  
What criteria do providers use in determining potential clients for the service?  
What barriers do clients face in accessing LNG-IUS?  
Do clients receive appropriate counseling and guidance to make an informed choice or is the decision to use LNG-IUS left to the provider?  
Were the messages given to clients clearly understood?

#### *Provider competence and training*

Is the LNG-IUS easy to insert?  
Do providers find the insertion and removal time consuming?  
Did providers receive any training before being asked to insert and remove LNG-IUS?  
Do providers feel they require additional training in order to provide LNG-IUS to clients?  
What are these specific provider training needs?

#### *Product Promotion and Utilization*

Is the approach used in providing LNG-IUS to clients successful in improving the contraceptive method mix in Ghana?  
Does the introduction of the LNG-IUS have any adverse effect on the utilization of IUD and other contraceptive methods?  
How can LNG-IUS be positioned as an alternative to hysterectomy?  
How can LNG-IUS be promoted as a treatment for painful and heavy menstruation?  
How will people decide to be satisfied clients?



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### *Program Sustainability*

Will there be any added value in branding the product?

How can one design a self-sustainable LNG-IUS program for Ghana?

The evaluation is mainly qualitative in its presentation with limited quantitative analysis using percentages, means, ratios, rating scores and simple cross tabulations. The rating scores represented the quantitative assessment of the product's acceptability; issues considered were actual experiences following the insertion of the product, overall assessment of product, and willingness to recommend the product to others. The qualitative assessment of the product's acceptability, on the other hand, was based on the client's own description of what they knew about the product and what they liked or disliked about the product including the type of symptoms experienced, reaction of partners, if any, difficulties faced since the product was inserted and general concerns. These data were complemented with information obtained from the focus group discussions with other FP clients. The assessment was conducted during the 7<sup>th</sup> month following the introduction of the LNG-IUS to clients.

## **Study Findings**

### **Client Characteristics**

A total of 71 LNG-IUS clients were interviewed; 39 (55%) were from the Ashanti region and 32 (45%) were from the Greater Accra region (Table 1). In terms of place of residence, only 2.8 percent reported that they were currently resident in a village. The rest (97.2%) lived in urban communities.

The overall mean age was 31.4 years, with those interviewed in the Greater Accra region being slightly older than those in the Ashanti region (32.2 years versus 30.8 years). Only few (5.6%) of the respondents had no formal education. Two out of five (40.8%) respondents had received secondary or higher education while the rest had received education up to the primary or Junior Secondary School (JSS)/Middle School level. Most of the women (83.1%) were married while a substantial proportion (12.7%) was living in consensual union.

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Approximately 95 percent were Christians, with 10 percent professing the Catholic faith and 85 percent of them belonging to other Christian faiths. Akans made up about two-thirds of the group (67.6%) while the rest were distributed among the Ga-Dangme's, Ewes, Guans and other ethnic origins. In terms of occupation, they were mostly engaged in sales (38.0%), professional, technical and clerical occupations (19.7%) and service occupations (15.5%). The rest were either not working, homemakers or were engaged in production, or agricultural/manual work. These findings show that acceptors of the product were a mixed group.

**Table 1: Distribution of study sample by background characteristics**

<b>Characteristic</b>	<b>Percent</b>	<b>Number</b>
<b>Location of interview</b>		
Komfo Anokye Teaching Hospital	25.4	18
Korle-Bu Teaching Hospital	9.9	7
La General Hospital	25.4	18
Maternal and Child Health Hospital	25.4	18
Maamobi Polyclinic	5.6	4
Tafo Hospital	8.5	6
<b>Region</b>		
Greater Accra	45.1	32
Ashanti	54.9	39
<b>Place of residence</b>		
Town	97.2	69
Village	2.8	2
<b>Age group</b>		
Less than 30	43.7	31
30-34	25.4	18
35+	31.0	22
<b>Educational attainment</b>		
None	5.6	4
Primary	9.9	7
JSS/Middle	43.7	31
Secondary/SSS/Tech/Vocational	23.9	17
Higher	16.9	12
<b>Marital status</b>		
Married	83.1	59
Living together	12.7	9
Never married/Widowed	4.2	3
<b>Religion</b>		
Catholic	9.9	7
Other Christian	84.5	60
Muslim	5.6	4
<b>Ethnicity</b>		
Akan	67.6	48
Ga/Dangme	9.9	7
Ewe	8.5	6
Guan	4.2	3
Other	9.9	7
<b>Occupation</b>		
Professional/Technical/Clerical	19.7	14
Sales	38.0	27
Service	15.5	11
Production	9.9	7
Agricultural/Manual	4.2	3
Homemaker	8.5	6
Unemployed	4.2	3
Total	100.0	71

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## Clients' Fertility Experiences

Even though the women had experienced an average of 4.5 pregnancies, the mean number of children ever born was 3.0, with an average of 2.9 children still alive. This suggests that an average of 1.5 pregnancies had been lost per woman either through miscarriages, abortions, or still births.

**Table 2: Mean number of pregnancies, live births and living children**

Variable	Mean	Minimum	Maximum	Std. Deviation	Number
Pregnancies	4.5	1	12	2.329	71
Live births	3.0	1	7	1.373	71
Living children	2.9	1	6	1.287	71

## Knowledge of contraception among LNG-IUS Clients

Clients were asked to mention the various ways a couple can use to delay or avoid pregnancy since this knowledge is important in guiding one to reach a decision whether to use or not to use a method. The responses given indicate that they were fairly knowledgeable about existing contraceptive methods. All the women were able to mention at least one modern method of contraception. The most common methods mentioned were the LNG-IUS (95.8%), the pill (90.1%) and the injectable (83.1%). It is worth noting that only three out of five (59.2%) respondents mentioned the IUD, which is supposed to be the reference point for providing information on the LNG-IUS.

**Table 3: Knowledge of contraceptive methods among LNG-IUS clients**

<b>Contraceptive Method</b>	<b>Percent of Women (N=71)</b>
<b>Any method</b>	100.0
<b>Any modern method</b>	100.0
<b>Modern methods</b>	
IUD	59.2
LNG-IUS	95.8
Norplant	54.9
Jadelle	39.4
Tubal Ligation	9.9
Vasectomy	7.0
Pill	90.1
Injectable	83.1
Male Condom	46.5
Female Condom	43.7
Other (Foaming tablet/Patch)	5.6
<b>Traditional methods</b>	
Natural Family Planning	12.7
Withdrawal	4.2
Herbs	1.4

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## Contraceptive method used before switching to LNG-IUS

Respondents were asked about the methods they were using before switching to LNG-IUS. Almost a third (28%) responded that they were first time users of contraception. However, over half had either switched from the injectable (24%), the IUD (17%) or the pill (15.5) while about 11 percent had replaced the traditional methods they were using with the LNG-IUS (Table 4).

**Table 4: Previous methods used before switching to LNG-IUS**

Contraceptive Method	Percent of Women (N=71)
None	28.2
IUD	16.9
Injectable	23.9
Pill	15.5
Male Condom	5.6
Spermicides	1.4
Natural Family Planning	8.5
Withdrawal	1.4
Herbs	1.4

While 30 percent respondents could not assign any specific reason for choosing the LNG-IUS, about 34 percent opted for the device because of complications or side effects experienced with a previous method (Table 5). Problems cited included weight gain, amenorrhoea, irregular menstruation, shaking eyelids, loss of weight, nausea, abdominal pain and dizziness.

**Table 5: Reasons for choosing the LNG-IUS**

<b>Reasons</b>	<b>Percent of Women (N=51)</b>
Complications from previous method	33.8
High possibility of failure associated with previous method because of forgetfulness	8.5
Failure of previous method	7.0
Effectiveness period of 5 years (not too long, not too short)	4.2
Assurance of return of ovulation/fertility/would like to have children later	5.6
It has the advantage of treating fibroid	2.8
Recommended by others (friends, sister, nurse	4.2
The facility had no IUD so opted for LNG-IUS	1.4
Just needed a break after ten years of using the IUD Did not have time for regular follow-up visits to the facility	1.4
to receive previous method (injectable)	1.4
No specific reason	29.6
Total	99.9

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The following were some of the concerns expressed by the respondents:

*"The complications I experienced with the previous methods were too many for me" (A 30 year old petty trader and former pill, injectable, IUD and Norplant user).*

*"Whilst on the pill, I always felt dizzy, had stomach pains and my period was not regular" (28 year old used cloth seller, Kumasi).*

*"I was bleeding excessively and heavily for over 40 days before it stopped. I was then advised by my sister to switch to LNG-IUS because she believed it will reduce the heavy blood flow" (35 year old trader and former injectable user, Kumasi).*

*"I was always suffering from nausea and therefore couldn't eat certain kinds of foods whilst using the injectable. I was also putting on weight whilst on the injectable." (35 year old Provisions Seller, Accra)*

Some of the responses given indicate the varying effects of contraceptive methods on different individuals. For example, one respondent's experience with the injectable was directly opposite what we find above when she says:

*"The injection made me grow lean and I did not menstruate for a year" (25 year old trader, Kumasi).*

Other reasons given for switching to the LNG-IUS were the perceived advantages of the LNG-IUS, the experience of abortions because of unwanted pregnancies resulting from the failure of a previous method (particularly, the calendar method) and the fear of the possible failure of the previous method because of respondents' inability to consistently adhere to the prescribed protocol. Some respondents had this to say:

*"I always forget to take the pills. Also, the Natural Family Planning method and the condom failed and I got pregnant"(36 year old Teacher and former pill and NFP user, Accra).*

*"Because with the pills, if you forget to take it, you will get pregnant but with the LNG-IUS, you are safe and there is no taking of pills (A 32 year old vegetable seller, Kumasi).*

*"Because I did not have time to come over for the injection and I kept missing my reporting time." (29 year old Teacher and former injectable user, Accra)*

Others switched methods because of the perceived advantages of the LNG-IUS over oth-



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ers:

*"I got to know during counseling on FP methods that the LNG-IUS is good in the treatment of fibroids. That is why I tried it instead of using the Norplant (43 year old second hand clothes seller and former Norplant user, Accra).*

Same clients indicated that they were tired of using the same method consistently:

*"I just needed a break after the long period (10 years) of using the IUD. Later the nurse introduced the LNG-IUS to me and because of the benefits of treating fibroid, I decided to use it" (45 year old Land Economist, Accra).*

Satisfied users also appeared to serve as effective agents of change as indicated by these LNG-IUS clients:

*"My sister testified about it and convinced me to also have the LNG-IUS inserted" (A 28 year old Jewellery Seller and former NFP user).*

*"An Auntie spoke so well about it to convince me" (26 year old Hairdresser and former pill user, Kumasi).*

### **Counseling on family planning methods during consultation**

Besides clients' own perceptions about the various family planning methods, the final decision to use a specific method depends on the quality of counseling received. Clients would feel more comfortable opting for a method that meets their needs and for which they have received clear and accurate information. Clients were asked about the family planning methods that were mentioned during consultation. Table 6 indicates that providers focused mainly on the LNG-IUS, injectable, pill and the IUD during the family planning counseling sessions. Other methods that featured fairly prominently in the discussions include the Norplant, Jadelle and the male and female condoms. It is worth noting that in one particular case, the client was immediately given what she had asked for without any counseling whatsoever:

*"Nothing was discussed. The LNG-IUS was inserted right away" (A 28 year old Jewellery seller and former NFP user, Kumasi).*

Such omissions on the part of providers could lead to unnecessary fears and the spread of false information that may not even be associated with the use of the device.

**Table 6: Contraceptive methods discussed during consultation**

<b>Contraceptive Method</b>	<b>Percent (N=71)</b>
IUD	73.2
LNG-IUS	94.4
Norplant	57.7
Jadelle	46.5
Tubal Ligation	14.1
Vasectomy	7.0
Pill	78.9
Injectable	80.3
Male Condom	36.6
Female Condom	42.3
Spermicides (Foaming tablets/Patch)	5.6
Natural Family Planning	4.2
Nothing was discussed; method was inserted right away	1.4

Prior to the counseling session, 39 (55%) of the LNG-IUS clients had already made up their minds about the method they wanted to use. The preferred contraceptive options were IUD (12), injectable (9), LNG-IUS (6), Norplant (6), Pill (2), tubal ligation (2), Jadelle (1), natural family planning (1) and spermicides (1). However, about 94 percent of the clients indicated that during the consultation process they were given the opportunity to ask questions while 95.8 percent were given the option to choose a preferred method. The rest either had a method chosen for them by the provider or had their minds already made up about a specific method because they knew what they wanted even before they got to the facility.

### **Client's perceptions about the LNG-IUS**

The benefits of the product, how it works, its side effects, who qualifies to use it and the ideal time for insertion, are important indicators that guide a client to make an independent decision about the type of contraceptive method to use. These attributes also help her to decide whether or not to discontinue the use of a method or to recommend it to others.

During the in-depth interviews, the LNG-IUS clients were asked to mention their perceived advantages of the product. The idea was to get a sense of what clients know about the product, including its mode of operation, benefits and disadvantages. For each of the questions posed, the respondent had the option of providing more than one response.

## Major benefits

Among the key potential benefits mentioned was the prevention of pregnancy after unprotected sex (85%), the prevention of unwanted pregnancy through birth spacing or the product's long term protection against pregnancy (37%), the reduced menstrual flow associated with the product (11%) and the inconvenience of the previous method's adherence protocol (5.6%). Even though there is no evidence that LNG-IUS significantly increases body weight (Yela et al, 2006), a few clients perceived weight gain as one of the benefits of the product.

**Table 7: Client's perceptions about the major benefits/advantages of LNG-IUS**

<b>Advantages</b>	<b>Percent (N=71)</b>
Prevents pregnancy after having unprotected sex/No fear after unprotected sex	84.5
It helps space child births and prevents unwanted pregnancy	21.1
It can protect against pregnancy for a period of five years/It is a long term contraceptive	15.5
It reduces heavy menstrual flow	11.3
It is a reversible contraceptive method	7.0
It helps to reduce painful menstruation	7.0
One does not have to worry about taking any pills	5.6
It prevents abortions	2.8
It prevents infections (STIs)	2.8
It prevents fibroids	2.8
I have time to do work	2.8
It is very comfortable/I don't feel the device	2.8
Weight gain	2.8
Nobody can see a cut on one's body as in the case of Norplant	1.4
It increases blood level	1.4

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## Other benefits

Other benefits cited by clients include the peace of mind to focus on one's work as a result of the lengthening of inter-birth intervals (31%) and the other benefit of treating gynaecological disorders (14.1%). The prevention of pregnancy after unprotected sex and the long term protection provided by the product was again re-iterated here (see Table 8).

**Table 8: Other benefits of LNG-IUS**

Other benefits	Percent (N=71)
One has peace of mind to work because it helps space child birth	31.0
It treats a variety of gynaecological disorders including	
menorrhagia and anaemia	14.1
I don't worry about having sex	4.2
It is effective for a long period since it has less failure rate	2.8
It give me good health	2.8
It protects the uterus from infection	2.8
I can regain enough strength	1.4
It reduces heavy bleeding and so reduces menstrual flow	1.4
It is convenient since I do not have to worry about taking pills	1.4
It protects the uterus from infection	1.4

## Mode of action

Clients' knowledge was sought not only of the benefits of the product but on how the system works to prevent pregnancy, its side effects, who qualifies to use it and when it should be inserted. Majority of the clients were able to provide information on the product's main mode of action, that is the prevention of sperm and ovum transport (56%) and ovum implantation (8.5) as a result of the changes in the uterine cavity. However, a few had wrong perceptions such as inhibiting ovulation (11.3%) and blocking the opening of the womb (9.9%). About one in four clients had no idea about the product's mode of action (Table 8).

**Table 9: Mechanism of action of LNG-IUS**

<b>Mechanism</b>	<b>Percent (N=71)</b>
It changes the environment inside the uterus and makes it difficult for the sperm to move	56.3
It inhibits ovulation	11.3
It suppresses the growth of the lining of the uterus	8.5
It alters the woman's normal hormonal system	2.8
It blocks the opening of the womb and stops sperms from entering it; it also kills the sperm	9.9
Don't Know	23.9

When asked how long the product is effective for, only one client could not provide an accurate answer. While 70 clients indicated 5 years, one responded that the product is effective for 10 years or up until one gets pregnant. These responses suggest that education about the LNG-IUS in the study facilities was quite good.

### **Side effects and complications**

Clients were asked about some of the side effects associated with LNG-IUS. The major side effects which clients knew about were headache (32%), irregular bleeding (31%), amenorrhoea (28%), dizziness (25%) and prolonged bleeding (18%). There appear to be a number of reported experiences that have not been captured in the literature as being associated with the use of the LNG- IUS (Table 10a). These unanticipated effects include increased heart beat/palpitations with profuse sweating, vaginal discharge, sores in the vagina, waist pains, back pains, pains in the thigh, stomach aches, diarrhoea, weight loss, heavy menstrual flow and fatigue. What is not clear is whether these reported side effects were not influenced by clients' own experiences with the LNG IUS.

**Table 10a: Known side effects associated with LNG-IUS**

<b>Side effects</b>	<b>Percent (N=71)</b>
Headache	32.4
Irregular bleeding	31.0
Amenorrhoea (no monthly bleeding)	28.2
Dizziness	25.4
Prolonged bleeding	18.3
Lower abdominal pain/cramps	15.5
Weight gain	11.3
Increased heart beat and palpitations, with a lot of sweat	9.9
Itchy discharge	9.9
Nausea	7.0
Lighter bleeding	5.6
Spotting	7.0
Mood changes	5.6
Waist and back pains/ pain in the thigh	4.2
Fewer days of bleeding	2.8
Breast tenderness/pain	2.8
Easily gets tired	1.4
Stomachaches and diarrhoea	2.8
Changes in menstrual patterns/menstrual delay	1.4
Heavy menstrual flow	1.4
Weight loss	1.4
Sores in the vagina	1.4
No side effect	1.4
Numbness in palms and some parts of the body	1.4
It can inhibit pregnancy after 15 years of use	1.4

In terms of their knowledge about the rare complications associated with the use of the product, clients mainly mentioned heart burns/palpitations (2.8%), heavy bleeding (2.8%), destruction of the endometrium (2.8%) and weight loss (2.8%) as shown in Table 10b.

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**Table 10b: Complications associated with LNG-IUS**

<b>Complications</b>	<b>Percent (N=71)</b>
Destruction of the lining of the uterus	2.8
Heart burns/Palpitations	2.8
Heavy bleeding	2.8
Weight loss	2.8
Yellowish discharge	1.4
Cancer of the vagina	1.4
Abdominal pains	1.4
Bodily pains	1.4

### **Satisfaction with the consultation process**

Twelve out of the 71 clients indicated that the provider gave them insufficient information during the first consultation process. Asked what kind of additional information they would have wanted, eight indicated that they needed more clarification about the side effects and benefits of the LNG-IUS while one client needed clarification about the hormonal changes that occur when the LNG-IUS is inserted. Others wanted to know if they could deliver again after using the product or whether using enema would expel the product. These uncertainties have the potential of discouraging clients from using the product.

### **Product acceptability**

In assessing the product's acceptability, clients were asked whether the packaging of the product was appropriate, whether they were satisfied with the potential benefits of the product, whether they had experienced any side effects or complications with the product after insertion and what their general concerns were with the product. As indicated in Table 11, nine out of ten clients were satisfied with the shape, colour and size of the product and 97 percent of the clients expressed satisfaction with the overall packaging of the product.

**Table 11: Satisfaction with the packaging of LNG-IUS**

<b>Product characteristic</b>	<b>Satisfied</b>	<b>Dissatisfied</b>	<b>Undecided</b>	<b>Total (N=71)</b>
Shape of device	90.1	4.2	5.6	100.0
Colour	93.0	1.4	5.6	100.0
Size	91.5	7.0	1.4	100.0
Overall packaging	97.2	0.0	2.8	100.0

On the other hand, 71.8 percent indicated having experienced some complications/side effects since they started using the product (Table 12). The main complications/side effects experienced were headaches (15.5%), spotting (11.3%) irregular menstruation (9.9%), prolonged bleeding (7.0%), vaginal discharge (7.0%), amenorrhoea (5.6%) and dizziness (4.2%).

**Table 12: Side effects experienced after LNG-IUS insertion**

<b>Side effects experienced</b>	<b>Percent (N=71)</b>
Headache	15.5
Spotting	11.3
Irregular menstruation	9.9
Prolonged bleeding	7.0
Vaginal discharge	7.0
Amenorrhoea	5.6
Dizziness	4.2
Lower abdominal pains	2.8
Mood changes	2.8
Backache	1.4
Weight gain	1.4
Palpitations	1.4
Stomach ache	1.4



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Other concerns expressed include the fear of product failure, change in menstrual pattern, mode of insertion and complaints by partners as indicated in the following statements:

*“A friend of mine got pregnant even when she had the LNG-IUS inserted” (A 35 year old Fruit Juice producer, Kumasi).*

*“I was told that I would have normal menstruation but it is not like that. I bleed just a little” (A 27 year old Orange Seller, Kumasi).*

*“The number of days of menstruation has reduced. I now menstruate for 3 days; I used to be 7 days” (A 23 year old Seamstress, Kumasi)*

*“My concern is that the irregular bleeding will affect me in the future” (A 25 year old hairdresser, Accra)*

*“I think that the LNG-IUS should be fitted on other parts of the body (e.g., the upper arm just like the Norplant) so that we do not get infections like white (A 33 year old Dress-maker, Kumasi).*

*“My husband complains that he feels the thread during intercourse” (A 32 year old Secretary, Accra)*

In trying to get their general impressions about the product, clients were further asked to mention three things they liked about the product and three things they disliked. The responses indicate that the three most important attractions of the LNG-IUS were the fact that it prevents pregnancy (38%), one does not worry about getting pregnant during intercourse (19.7%) and the opportunity it provides for adequate spacing and care of children (16.9%). On the other hand, the experience of irregular bleeding and amenorrhoea as well as the discomfort created by the thread attached to the device were the most common concerns mentioned. When asked about the use of the product as treatment for painful menstruation, 39.4 percent responded that it was effective while 54 percent said they were not sure. With respect to its effectiveness as treatment for heavy menstruation, 39.4 percent said it was effective, 7 percent said no and the rest indicated that they had no idea.

Despite the concerns expressed about the LNG-IUS, about 86 percent of the clients re-

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ported that they were personally satisfied with it as a contraceptive method and were willing to act as satisfied clients for the product. Nine out of ten (90.1%) clients further indicated that they were willing to recommend it to friends and relatives. Inclusion of other indicators of satisfaction (such as satisfaction with the physical qualities of the product, actual experiences of discomfort, pain, and side effects following the insertion of the product, overall assessment of product, and willingness to recommend it to others) gave an overall median client satisfaction rating score of 12 out of a maximum of 15 points, with a minimum score of 5. A value of 15 represents complete satisfaction with the product while 0 represents complete dissatisfaction. The median score of 12 thus suggests that the overall level of satisfaction with the product is quite high, around 80 percent.

Reasons for being dissatisfied with the product mostly stemmed from unwanted side effects:

*“It has created a lot of problems for me – headache, irregular menstrual patterns, heavy bleeding and lower abdominal pains” (A 39 year old beverage seller, Kumasi)*

*“I have developed amenorrhoea now but I want to see my period every month” (A 43 year old provisions seller, Kumasi)*

*“The LNG-IUS removed by itself from the uterus after continuous bleeding (A 25 year old woman from Accra)*

Overall, the intervention monitoring revealed that 8 clients had their devices removed. Three of the removals were as a result of heavy and prolonged bleeding, two were removed because clients were not happy that they were spotting or experiencing amenorrhoea, another two were removed because the husband was feeling the thread and in the case of one client, the device was expelled. Considering that 138 insertions were conducted over the entire intervention period, the 8 represent a premature removal rate of 5.8 percent.

The providers' assessment of the product indicates that only one of the 12 was dissatisfied with the physical qualities of the product and suggested that it was not appropriate for the women who report to that clinic. Her view is that *“It looks huge and scares the clients”*. When asked to mention three things they liked about the product, most providers indicated that it is easy and less time consuming to insert; clients were satisfied because of minimal complications/side effects; and because the product is effective for five years. With regard to the dislikes, providers felt that the thread is too long; they were also not happy with the

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spotting and prolonged bleeding experienced by some of the clients. However, all 12 providers were generally satisfied with the product for the following reasons:

*“It is easier to load and insert”*

*“It treats many gynaecological disorders”*

*“Client is satisfied; there are no complications”*

*“Because of its duration”*

All the providers also indicated that their clients were satisfied with the product as a family planning method because as some of them put it *“They do not come with complications and they are still using it”*.

### **Product affordability**

Almost all (97.2%) clients reported that they had paid for the insertion of the LNG-IUS. The amounts charged ranged from GH¢1.00 to GH¢6.00, with a mean of GH¢2.70 which at the time of the study was equivalent to US\$2.70. This amount was found to be affordable by all but 3 clients who felt that the product was too costly. When asked how much they would be willing to pay for the product in the future, the responses ranged from GH¢0.00 to GH¢40.00. The modal amount clients were willing to pay was GH¢5.00 and the mean was GH¢5.62. This amount is more than double the average amount which clients were made to pay towards the insertion of the product, suggesting the high value clients attach to the LNG-IUS as a contraceptive method.

### **Product accessibility**

In terms of product accessibility, the Ghana Health Service decided *a priori* that the product should be promoted as part of the family planning method options so no barriers were expected to hinder access to the device. However, when asked whether the LNG-IUS is easily available at the FP clinic, two clients gave a negative response. Even though this number is very low, availability of the device at the facility level may perhaps pose a limitation to the use of the method. A possible explanation may be the temporary shortage experienced in a few of the facilities as a result of administrative lapses in getting the product down to the facility-level. Also, in addition to the content of the counseling session, it is important that clients make their own informed choices. When clients were asked whether they were given the opportunity to choose a method on their own, 68 out of 71 (95.8%) indicated that they were given the option to select a contraceptive method of their choice. Only one of the remaining three had the LNG-IUS forced on her:

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*“Because my sister was the provider, she only suggested the LNG-IUS without giving me the chance to choose other options since she had tried it and it is effective” (A 28 year old Jewellery Seller, Kumasi).*

Of the other two clients, one had already made up her mind about using the LNG-IUS even before she got to the facility while the other reported that she had asked the provider to choose an appropriate method for her.

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## Provider competence and training

Of the 12 providers interviewed in the study facility, 6 were trained as nurses and 6 were trained as midwives. All 12 providers indicated that they had been trained to provide IUD services and had had an average of 11.2 years experience providing such services. Surprisingly, 2 out of the 12 reported that they had not received any formal training on LNG-IUS service provision neither did they participate in the training workshop organized by the GHS, Population Council, EngenderHealth and Bayer Schering Pharma in November 2008. Some of the providers went on leave soon after the training and had to be replaced. The important thing, though, is that these replacements had adequate experience in IUD service provision and hence what they would be lacking are the LNG-IUS information updates. If their knowledge on the LNG-IUS is poor, it would be reflected in the type of information they are likely to impart to clients. This notwithstanding, all 12 providers indicated that they knew about the product.

When asked to rate their knowledge of LNG-IUS, six of the providers indicated that they had very good knowledge about the product, while five said they had fair knowledge about it. One provider did not respond to the question. All 12 providers were able to give accurate responses on how the product acts to prevent pregnancy, when it should be inserted and how long it is effective for. However, there were a few misconceptions about the product. For example, on who does not qualify to use LNG-IUS, two out of the 12 providers reported that a woman who has never delivered cannot use device. Two others indicated that women with high blood pressure or heart disease cannot use the method. This is clearly the providers' own perceptions and biases and can serve as barriers to women with high blood pressure and other heart problems and young unmarried and nulliparous women who would like to use the method. Also, because of the possibility of developing ovarian cysts through the use of LNG-IUS, one provider believed that a client may develop cancer if she opts for the LNG-IUS. The major benefits of the product that were cited by the providers were in line with what is reported in the literature. However, one provider added that having the device inserted increases libido.

When providers were asked to assess the time it takes to complete the insertion process, all 12 of them indicated that the LNG-IUS is easy to insert and neither found the process too time consuming. According to them, the insertion process takes between 1 and 5 minutes, with an average of 2.6 minutes. A few who had had the chance to remove the product also found it easy and non-time consuming. However, 6 of the providers indicated that they needed additional training on insertion and removal skills so that they would not cause any harm to the client since there are differences between the insertion and removal procedures for this product and those of the IUD.

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## Product promotion and utilization

The major promotion strategies recommended by clients include product branding, mass media advertisement and other advertizing campaigns such as floats and printed materials, community level education and use of satisfied clients. For example, 74.3% would prefer to have the product branded with the following reasons:

*It gives the product an identity.*

*Any good product should have a name.*

*It will be more attractive to clients.*

*It can be differentiated from the IUD.*

*People will get to know this is a new device.*

*It will encourage more people to use it and it can easily be recommended to others.*

*It will be of high quality which will make it easily identifiable and prestigious to use.*

When asked how much they were willing to pay for the branded form, clients recommended an average of Gh¢6.25, with actual reported figures ranging from GH¢0.50 to GH¢20.00.

The use of advertisement on radio, TV, churches, mosque and through house-to-house and community health programmes and posters was also recommended. Clients further suggested that they should be well satisfied in order to testify about the product. Other channels of advertisement suggested include organized floats and printing of product on T-shirts, caps, books, and pens. This recommendation was later elaborated by an FGD participant when she suggested that:

*“T’ shirts should be designed with the benefits of the product written on them. These should be worn by nurses and satisfied users of the method....” (An FGD participant, 30 years and over, Accra).*

The LNG-IUS clients were also of the view that there should be intensive education from community to community and at weighing sessions, hospitals and clinics, in addition to the consultation sessions held at family planning clinics.

The study further tried to assess whether the introduction of the LNG-IUS has had any effect on the utilization of the IUD and other contraceptive methods through provider interviews and examination of facility-level data. Providers were first asked to give their own opinion on regarding the possible effect of the LNG-IUS on the IUD and other contraceptive methods. Only 3 out of the 12 providers felt that the utilization of the IUD may be adversely affected. Two providers thought that some women preferred the LNG-IUS because

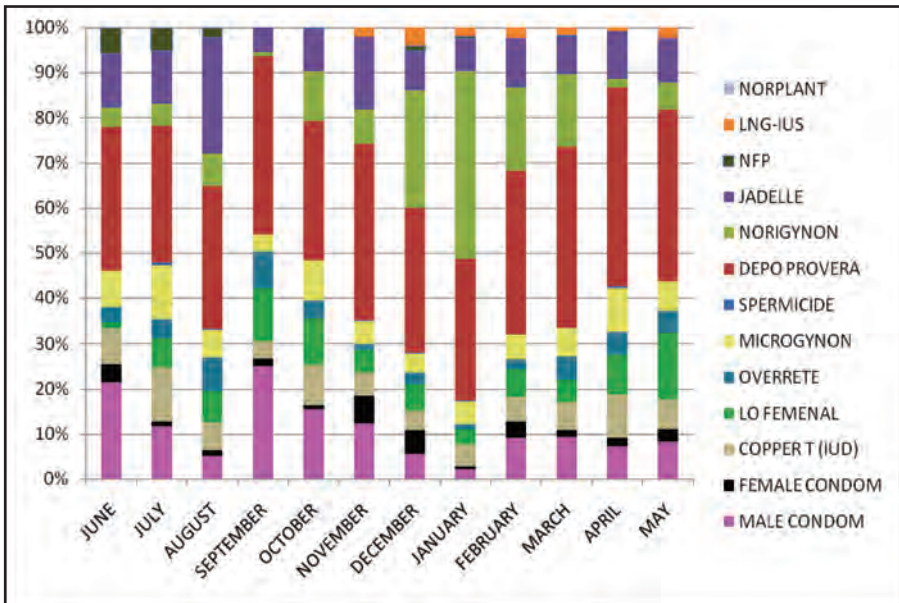
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it lasts for 5 years compared to the IUD which is effective for 10 years while one was of the view that “... *the two work differently and each has its own benefits*”. In terms of the product’s effect on other methods, only one provider expressed the fear that its utilization may adversely be affected “*because clients are allowed to make a choice*”.

To confirm the providers’ views, the interviewing team was asked to compile monthly data on family planning acceptors from each facility over a 12 month period (June 2008 to May 2009). Figure 1 below suggests that while new acceptors of Norigynon increased substantially within the first two months of the intervention period, the proportion of new family planning clients who opted for Depo Provera did not vary much over time. The increase in the uptake of Norigynon may probably be explained by the fact that it may have been used by providers to serve as an interim method for prospective LNG-IUS users. For example, it is recommended that where the possibility of pregnancy cannot be ruled based on history, examination or pregnancy testing, insertion of an LNG-IUS should be delayed until the next menstrual period. In the meantime, the client is encouraged to choose another method. Similarly, a woman is encouraged to use another contraceptive method if she has had a postabortal or postpartum endometritis.

The proportion of new IUD acceptors, on the other hand, fluctuated, dropping to from 9.7 percent in October 2008 to 4.5 percent in December 2008 and then picking up again until it reached 9.4 percent in April 2009 and then later dropping further to 6.9 percent in May 2009. Similar observations were made for all other methods (especially female and male condoms and Lo Femenal). It is worth noting that the LNG-IUS is effective 7 days after insertion (Association of Reproductive Health Professionals, 2009). Thus, it is recommended that backup methods such as condoms are used to reduce the risk of pregnancy. However, the trends observed in male and female condom acceptors suggest that these methods did not serve as backup methods. On the other hand, the LNG-IUS registered a new acceptor rate of 2.2 percent in November 2008, increased to 4.1 percent in December 2008 and thereafter hovered around 2.0 percent for most part of the remaining period. This trend is an indication that providers may have focused too much attention on the LNG-IUS during the first two months of its introduction to the disadvantage of other methods. Nevertheless, the graph reveals that the intervention does appear to have improved the contraceptive method mix.

**Figure 1: Percent distribution of acceptors by month and type method, June 2008 - May 2009**



On how the product should be introduced as an alternative to hysterectomy, most of the providers indicated that they would counsel clients on the effectiveness of the product in treating heavy and painful menstruation and other gynaecological disorders. On the other hand, 3 providers believed that LNG-IUS can never serve as an alternative to hysterectomy owing to the fact that it is a reversible method. This goes to buttress the point that providers need to be given further training on the LNG-IUS to ensure that they pass on accurate information to clients.

In order to have an idea of how much awareness has been created among other family planning clients, the FGD participants were asked to indicate which family planning methods they knew of. Methods mentioned include the 5-year and 10-year IUD, pills, injectables, vasectomy, implants (Jadelle and Norplant), male and female condoms. Members of only two FGD groups were aware that the 5-year IUD was being offered in their facilities:



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*“I have heard about the new family planning method. I have been told it stops bleeding and cramping but I do not have any other details” (FGD participant 30 years or older, Kumasi).*

*“I have heard about it but I don’t know anything about it” (FGD participant 30 years or older, Accra).*

The possible reason for this observation is that most of the FGD participants were old FP users and as such may not have had the opportunity to do a follow-up visit to the clinic within the intervention period. However, when a sample of the product was shown to the participants, these were some of the statements used to describe its physical characteristics:

*“It’s nice”; “It’s T-shaped”; “It’s nice and just like the regular IUD”; “It is shaped like the womb”; “It is small so you will not feel it after it has been inserted”; “It is neatly sealed so it wouldn’t give you problems when you use it”; “It is transparent so you can see through the package”; “It is red and green in colour and it’s nice” (FGD participants 30 years or older, Accra)*

Other participants had different opinions: *“Its red and green colour should be changed to green and white because it would be difficult to see it when it is inserted if it’s red” (FGD participant, 30 years and above, Accra)*

*“The red is too bright” (FGD participant below 30 years, Kumasi)*

In commenting on the shape, one FGD participant from Kumasi also had this to say: *“It’s scary!”*

Yet another indicated that *“It is okay but I prefer that it is shaped like the female condom (FGD participant aged less than 30 years, Accra)*

## **Program sustainability**

Even though the LNG-IUS has several potential benefits, it is quite an expensive product. The current batch of devices was a donation from the ICA Foundation. Over the entire intervention period, a total of 138 clients had the product inserted in the six study facilities. However, if the short service provision period in the month of November is excluded, the number of clients who received the product within six months of its introduction (i.e., from

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December 2008 to May 2009) in just six facilities drops to 120. This translates into 0.6 percent of the 19,570 FP acceptors who were registered with the six facilities during the period. If the provision of services is to be scaled up nationally, it would mean that the country would require approximately 7,900 devices over a five year period or 1,580 devices per year, assuming that the 1,317,755 FP acceptors recorded nationally in 2007 would be maintained and that the percentage of future LNG-IUS adopters would match the recorded acceptor level of 0.6 percent. Thus, even within the next five years, the government would have to find ways of paying for the importation of 580 additional devices per year beyond the 1,000 pledged annually by the ICA Foundation to ensure the sustainability of the program.

Clients were thus asked to recommend strategies that could be used to sustain the provision of the service. The suggestions indicate that the clients must be made to pay more for inserting and removing the LNG-IUS to ensure constant supply of the product. Client charges recommended by the clients ranged from GH¢2.00 to GH¢20.00. In addition, clients further recommended that government and non-governmental agencies (NGOs) should provide additional funds to the FP program to cater for the extra devices required and to help to subsidize the cost of the product.

Providers, on the other hand, felt that clients should be made to pay an average of GH¢2.62 per insertion or removal. The responses ranged between GH¢0.50 and GH¢5.00. Intensification of educational campaigns in churches, at hospitals and among women's groups or associations by providers with support from satisfied clients was also suggested. In addition, government, NGOs and donor agencies were urged to provide subsidies to sustain the program. The FGD participants had similar suggestions but added that funds should be solicited from churches for the purchase of more family planning products. Other FGD participants felt that since delivery services are free, the government should make family planning services free while others were of the view that the NHIS should cover it.

## **Summary and Conclusions**

The general objective of this study was to investigate the acceptability of the LNG-IUS and to document promotion strategies for its use in Ghana. Focus group discussions and in-depth interviews conducted among clients and providers suggest that the product is widely acceptable to both clients and providers in terms of its physical characteristics and potential benefits despite reported complications and side effects such as changes in menstrual patterns, headaches, dizziness and vaginal discharge by some clients. The vaginal discharge experienced by clients calls for more stringent hygienic practices by both

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providers and clients. In addition, clients need to be monitored for a longer period to assess their long term experiences with the product.

Overall, LNG-IUS client satisfaction score on average accounted for 80 percent of the maximum expected score, suggesting that they were highly satisfied with the product. Non-LNG-IUS users also found the product's physical characteristics largely acceptable. In terms of service provision, clients were largely satisfied with the services received. For example, about 96 percent of them were given the option to choose a preferred method after the counseling session. On the other hand, a few felt that more information about the product should have been given to them during the counseling process. Indeed, the fact that only two out of the 11 FGD groups had some knowledge about the LNG-IUS suggest that education among non users is generally poor. More effort should thus be made to intensify education about the new product to enhance its uptake. There is need for providers to also pay attention to the content of the family planning consultation process to ensure that clients are given comprehensive information about all available methods. This means that a second look ought to be taken at the content of the counseling manual which places emphasis on the client's preferred method during counseling. A few LNG-IUS clients complained about the short term unavailability of the device at the facility level. Program managers should make an effort to maintain constant supply of the device at the facility to encourage its continuous uptake and to reduce the frustrations of clients who desire to use it.

With the exception of two providers who had received no refresher training on the product, all providers had the requisite knowledge and skills to offer the service to clients and were highly satisfied with both the physical and clinical qualities of the product. A number of them also gave positive comments about the ease with which the product can be inserted and removed. A few, however, harboured certain misconceptions and biases about the product and were unwilling to provide the device to women with hypertension and other heart diseases as well as women who have never had children. Such biases need to be addressed through continuous information updates about the product's mode of action, advantages and disadvantages.

The introduction of the product appears to have improved the mix of methods adopted by clients. Among the acceptors who were registered at the six facilities between December 2008 and May 2009, 0.6 percent were users of LNG-IUS. Thus, while the uptake of Depo Provera was not significantly affected by the introduction of LNG-IUS, the proportion of new acceptors of Norigynon increased substantially during the first two months of introducing the product. Additionally, the uptake of the IUD, Lo Femenal and male and female

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condoms decreased over the same period but picked up later, indicating that the providers may have had biased attention towards the LNG-IUS during the first few months of the intervention. Following this initial alteration in the pattern of contraceptive uptake, it was observed that the introduction of LNG-IUS does improve the mix of contraceptive methods adopted by new clients.

With respect to the strategies that may be used to effectively promote the product, providers and clients alike suggested branding, mass media campaigns and community-level education (aided by satisfied clients and other printed materials) as the main strategies for promoting the product. In terms of program sustainability, an estimated 580 devices are required annually for the next five years to supplement the donation pledged by the ICA Foundation. Generally, the LNG-IUS clients found the current average charge of GH¢2.70 per insertion affordable. However, in order to ensure sustainability of the service, clients were willing to pay an average of GH¢5.62 for the generic form of the device. This is about twice what the providers recommended. Even though this is far below the public sector price of US\$40, it indicates the relatively high value the users themselves attach to the product. For the branded form, clients were prepared to pay on average GH¢6.25. Other suggested sources of funding included soliciting financial assistance from government, key donors and non-government organizations and launching appeal for funds in local churches. It is believed that if clients themselves are convinced of the value of such desirable services and are willing to pay for it, a little support from other sources can help generate the required funds to sustain the program. Furthermore, if doctors and private sector providers are trained to offer the device to clients with gynaecological problems, demand for the product for the treatment of these problems may rise and this will, in turn, improve income generation and consequently the sustainability of the service.

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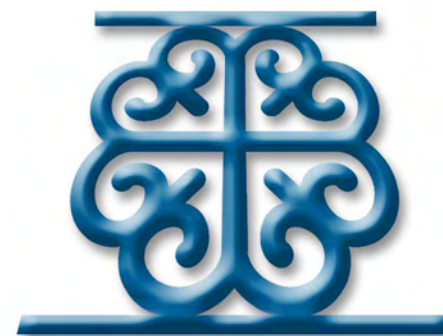
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# ACCEPTABILITY AND PROMOTION STRATEGIES FOR LNG-IUS IN GHANA:




## **A Public Health Assessment**



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December 2009