

# The Contribution of Drug Shops to Family Planning Uptake in Four Districts in Uganda

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## EXECUTIVE SUMMARY

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Contraceptive use is low in Uganda. Only 23% of currently married women use a modern method, but unmet need among that group is 34.3% (20.8% for spacing and 13.5% for limiting). Among the reasons for low use of contraception are barriers to access, stock out of family planning supplies, and shortage of trained health staff. These problems are more acute in rural areas where health facilities tend to be few and far between.

Private sector drug shops are more readily found in rural areas and often serve as the first stop for health care services for many hard-to-reach populations. In Uganda, oral contraceptive pills and condoms are provided legally by drug shop operators (DSOs) who generally have some medical training (Stanback et al., 2011). However, DSOs are also known to stock and provide the more popular method, injectable contraceptives, illegally.

The PROGRESS (Program Research for Strengthening Services) project, a five-year USAID-funded project implemented by FHI 360 carried out an enhanced evaluation of family planning provision by drug shops. PROGRESS assessed the contribution by drug shops to family planning service provision in Bugiri, Luwero, Nakasongola and Mayuge districts of Uganda, with the goal of determining the contribution of drug shops to family planning service provision in the four districts. The drug shop operators in these districts were trained in safe provision of family planning, including depo provera; and received support supervision by the USAID-funded STRIDES for Family Health project implemented by MSH. The target population consisted of all men and women who received family planning services from the sampled drug shops in the four districts. Questions were also asked of the DSOs in these sites to determine their socio-demographic characteristics and academic qualifications

### *Drug Shop Operator Characteristics*

Seventy six percent of the fifty four drug shop operators interviewed were female and their mean age was 37 years. Most had a medical background, the majority being nursing assistants; and most had completed senior 4 level of education.

### *Drug Shop Family Planning Client Characteristics*

Over 90% of the clients were female. Most of the participants were of reproductive age with a mean age of 28.8 (range 13-52). The clients had a mean number of 3.4 children and most desired a baby in future. Eighty-two percent of the respondents were married or cohabiting and over two-thirds were salaried employees (or “worked for money”). However, over 60% of clients were classified as being of low or very low socio-economic status.

A tenth of all clients were new to family planning and seventy-nine percent were using Depo Provera as their preferred contraceptive method. A third of clients had made a method switch from a previous family planning method, mostly from pills to Depo Provera. Just under half of the DSO clients had received their last method from elsewhere and were considered to have switched providers. Of these, the majority were switching from a government clinic / health center. The most cited reason for switching methods and providers was because of side effects and the convenient location of the drug shop, respectively.

### Characteristics of DSO FP Services

DSO client knowledge of DMPA related information was high, reflecting good quality FP counseling by DSOs. All clients reported that the DSOs treated them respectfully and client satisfaction with the way their particular DSO provided the FP method was almost universal. Seventy-four percent of DMPA users were very satisfied with receiving DMPA from the DSO and over 95% would recommend the DSO to a friend for FP services, reflecting the overall high level of satisfaction with DMPA services from DSOs.

### Market Share

Data from selected subcounties show that in spite of wide variations between districts, overall clinics, VHTs and drug shops deliver an equivalent proportion of CYPs to the community, with drug shops leading marginally.

In conclusion, the analysis suggests that drug shops are a good source of FP methods including DMPA. They are also a preferred source, and clients are highly satisfied with drug shop FP services. Therefore, to further increase FP access to underserved populations, drug shops should be included in the network of community-based FP providers for all methods, including DMPA.

## ACRONYMS

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<b>CBD</b>	Community Based Distribution
<b>CYPs</b>	Couple Years of Protection
<b>DMPA</b>	Depot Medroxy Progesterone Acetate
<b>DSO</b>	Drug Shop Operator
<b>FP</b>	Family Planning
<b>HIV/AIDS</b>	Human Immuno Deficiency Virus / Acquired Immune Deficiency Syndrome
<b>HMIS</b>	Health Management Information System
<b>MSH</b>	Management Sciences for Health
<b>PROGRESS</b>	Programmatic Research for Strengthening Services
<b>SES</b>	Socio Economic Status
<b>UBOS</b>	Uganda Bureau of Statistics
<b>USAID</b>	United States Agency for International Development

## I. INTRODUCTION

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### 1.1 BACKGROUND

Contraceptive use is low in Uganda. Only 23% of currently married women use a modern method, but unmet need among that group is 34.3% (20.8% for spacing and 13.5% for limiting). Uganda also has one of the fastest rates of population growth at 3.2% per year and a high fertility rate of 6.2 children per woman (UBOS, 2011). Among the reasons for low use of contraception are barriers to access, stock out of family planning supplies, and shortage of trained health staff. These problems are more acute in rural areas where health facilities tend to be few and far between. Not surprisingly, women in rural areas have almost twice as many children as women in urban areas.

Private sector drug shops are more readily found in rural areas and often serve as the first stop for health care services for many hard-to-reach populations. The involvement of private sector drug shops is important in efforts to increase family planning at the community level--not only because of their greater presence and patronage in underserved areas, but as a private enterprise, they are a sustainable source for contraceptive methods and less likely than public sector health facilities to suffer from commodity stock-outs. In Uganda, oral contraceptive pills and condoms are provided legally by drug shop operators (DSOs) who generally have some medical training (Stanback et al., 2011). However, DSOs are also known to stock and provide the more popular method, injectable contraceptives, illegally. An assessment of the situation, which was conducted between November 2007 and January 2008 showed that up to 85% of DSOs currently sell Depo Provera (DMPA) and needed training on injection skills and the delivery of family planning services in general (Stanback et al., 2011). A subsequent pilot study designed to train DSOs to provide DMPA in Nakaseke, Luwero and Nakasongola suggested that they were capable of safely administering the injectable, but that their general knowledge of family planning methods and ability to counsel clients could be improved (Chin-Quee, 2010).

The project, STRIDES for Family Planning: Improving Access, Delivery and Demand (henceforth referred to as STRIDES) is a community-based intervention supported by the USAID-funded STRIDES for Family Health project that offers innovative strategies to reach the goal of increased uptake of contraception in Uganda. Among its mandates is a focus on increasing public and private sector service delivery points at community level. As such, private drug shops were included in efforts to expand the method mix of available contraceptives in four districts: Bugiri, Mayuge, Nakasongola, and Luwero. As of September 2011, 139 drug shops in these four districts had been identified and recruited to provide family planning products and services. Under the auspices of STRIDES, drug shop operators affiliated with these establishments were trained to counsel clients and administer DMPA injections with Ministry of Health approval.

The number and type of family planning clients served by DSOs are not included in Uganda's Health Management Information System (HMIS). Thus, district service statistics report data on family planning use from clinics and community health workers only. The STRIDES project has addressed this gap by developing instruments and training DSOs to record and track family planning clients (oral contraceptive pill, condom, DMPA users) who patronize their

establishments. Referrals made from and to drug shops are also documented. Thus, in addition to promoting collaboration between the private and public sectors, these data will provide a more accurate and comprehensive picture of contraceptive use in the project districts.

The PROGRESS (Program Research for Strengthening Services) project, a five-year USAID-funded project awarded to FHI(now FHI 360) in 2008 carried out an enhanced evaluation of family planning provision by drug shops. PROGRESS' mandate to improve access to family planning among the underserved is consistent with STRIDES' efforts to increase service delivery points in the community. As such, PROGRESS assessed the contribution by drug shops to family planning service provision in four districts in Uganda. Service statistics collected from project DSOs were used to determine the proportion of DSO clients who are new to family planning and to DMPA use. Interviews with family planning clients of DSOs were conducted to determine their acceptance of and satisfaction with DSO-provided family planning services. By including client feedback, this evaluation built on results from the pilot study conducted in Nakaseke, Luwero, and Nakasongola in 2009 that assessed knowledge, attitudes, and practice via interviews with DSOs only. Ultimately, the findings from this M&E activity will help to improve private sector provision of family planning services and rectify shortcomings identified in the provision of FP services by DSOs.

## **1.2 GOAL AND OBJECTIVES**

The goal of this activity was to determine the contribution of drug shops to family planning service provision in the four STRIDES districts. Specific objectives are:

- To estimate the proportion of DSO family planning clients who are:
  - new to family planning
  - new to DMPA use
- To estimate the market share of family planning method uptake of all methods provided by drug shops in the four project districts
- To determine:
  - among all clients the level of client satisfaction, family planning use, quality of care, counseling, and intention to continue with drug shop operator provision of family planning services
  - among DMPA clients their knowledge of DMPA use
- To document reasons for switching methods and service points among clients who did so.

## II METHODOLOGY

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### 2.1 TARGET POPULATION

The evaluation was conducted among drug shops in Bugiri, Luwero, Nakasongola and Mayuge districts. The target population consisted of all men and women who received family planning services from the sampled drug shops. Questions were also asked of the DSOs in these sites to determine their socio-demographic characteristics and academic qualifications

### 2.2 SAMPLING PROCEDURES

Fifty-four DSOs were randomly selected from the list of eligible DSOs. Those who agreed to be part of the M&E activity were asked to collect contact information from interested FP clients over a six-week period in order to obtain the desired sample size of FP clients. The period of recruitment was uniform across DSOs, so the DSO with a higher volume of FP clients recruited more clients for the survey, leading to a self-weighted sample. Recruitment continued for two months. DSOs kept track of refusals to assess if the response rate dropped substantially (below 85%) and determine potential biases in the sample.

DSOs asked all FP clients if they would be interested in being interviewed about their family planning use. The client did not have to be purchasing or inquiring about an FP method on the day the DSO recruited the client; the individual, male or female, could also be recruited if s/he was a known FP client of the DSO. If the client agreed, the DSO recorded his/her name and a mobile number at which s/he could be reached and then passed this contact information on to FHI 360 M&E staff<sup>1</sup>.

All clients recruited by the DSOs were interviewed resulting in a sample of 585 clients. With this sample size, we were able to estimate the rate of client satisfaction with a 95% confidence interval within 5% precision.

### 2.3 SURVEY INSTRUMENT

A structured questionnaire was developed and reviewed by the technical teams at FHI 360. Questions were translated into Luganda and Lusoga by qualified translators, and then back-translated into English to verify accuracy. The instrument was pre-tested in Nakaseke District and changes were made as needed.

Survey questions were structured around the following themes.

- Socio-demographic characteristics
- Family planning use including sources of FP methods
- Fertility intentions
- Client satisfaction

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<sup>1</sup> Most drug shop clients have mobile phones and drug shops tend to have only one operator—reducing the type of biases that would be associated with divergent client characteristics and multiple DSOs per site.

For DMPA clients, additional themes explored were:

- User experiences from the DSO
- Client knowledge on DMPA
- Continuation of DMPA use

## 2.4 TRAINING

Interviewers were recruited from the pool of interviewers at the FHI 360 Uganda office. During the ten-day training period, the survey personnel (32 interviewers, eight field supervisors, one study coordinator, eight data entry clerks, one data supervisor, and the Principal Investigator) and representatives from FHI 360 reviewed the M&E plan, the questionnaires, and received training on the FHI 360 research ethics curriculum. The training also included practicing the informed consent process and questionnaire administration, (both in small groups and in pairs), and role-play with mock participants. After each practical session, feedback sessions were conducted around issues arising during the practice. These were discussed and resolved.

## 2.5 SURVEY IMPLEMENTATION, DATA COLLECTION AND FIELD MONITORING

### *Service statistics review*

M&E staff at FHI 360 Uganda collected service statistics from the 139 participating DSOs in the STRIDES project on condom, oral contraceptive pill and DMPA uptake (new and continuing users) for the period September 2010 to October 2011. Information already collected from DSOs was compiled and entered into Excel spreadsheets for analysis. The proportion of clients who were new to family planning and to DMPA use were recorded. These data were aggregated and have no identifiers associated with individual FP clients.

### *Drug shop operators market share for family planning methods*

In three of the four STRIDES districts, all sub counties that have drug shops were selected<sup>2</sup>. FP use data from the drug shops in those sub counties were assembled from September 2010 to October 2011. To calculate DSO market share, CYPs delivered by drug shops was computed as a proportion of all CYPs in subcounties that had participating DSOs. Thus, the total number of CYPs from drug shops was divided by the total number of CYPs from all sources (drug shops, private/public clinics, and community health workers, if applicable). Data from clinics and community health workers, which are combined in the HMIS was obtained from district offices and from FHI 360 project records.

Data quality and quantity had an impact on the market share analysis. HMIS records did not always have data from clinics; and in some cases, DSO data were aggregated by district. Also, in some months (September 2010 – March 2011) VHTs in some districts were not active, yielding no data. Thus, the computation of market share involves only the three months (April, May and June 2011), for which complete data from all sources were available.

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<sup>2</sup> The computation of market share was based on three out of four districts because the DSO data from Nakasongola was not disaggregated by sub county

### ***Interviews with DSO family planning clients***

In order to obtain information on client satisfaction and on method switching, trained M&E staff interviewed a sample of FP clients from 135 of the participating 139 drug shops in the STRIDES districts.<sup>3</sup> The clients were identified and recruited with the assistance of drug shop operators. M&E staff contacted selected FP clients to verify that they were willing to be interviewed and arranged a convenient time and place for the interview. Before any interviews were administered, M&E staff obtained informed consent from every potential participant. Interviews were conducted in the local language—Luganda in Nakasongola and Luwero; Lusoga in Bugiri and Mayuge.

### ***Socio Economic Status (SES)***

SES was calculated using household possessions, land ownership and animal ownership. Points were assigned for ownership of assets. Below is a breakdown of points assigned to response options.

<b>Household Asset</b>	<b>Points Assigned</b>
Radio	0.25
Television set	0.25
Bicycle	0.5
Motorcycle	1.5
Telephone	0.25
★ Telephones >1	0
Land	1 (1 acre=1.5; ½ acre=1; ¼ acre = 0.5)
★ More than 1 acre	2
Animal/bird	1
★ cow	1.75
★ pig	1
★ goat	0.5
<b>TOTAL</b>	<b>10</b>

Client SES was scored and categorized as follows:

<b>Score</b>	<b>SES</b>
<b>0.0 - 2.59</b>	Extremely low socioeconomic status
<b>2.6 - 5.19</b>	Low socioeconomic status
<b>5.2 - 7.79</b>	Average socioeconomic status
<b>7.8 - 10</b>	High socioeconomic status

The points were determined based on a community assessment performed at the study sites. Community members were asked to rank the items according to value. Extra points were awarded to items if the market value was considered high or if the item has the potential to generate income. For example a motorcycle, in most parts of Uganda, is used for income generation by transporting people. A cow is more valuable than a pig in the long term but a pig

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<sup>3</sup> Four drug shops in Luwero were eliminated from consideration, because they are close to Village Health Teams that may adversely affect FP uptake in those drug shops.

can be valuable in generating quick income. Land is considered as wealth because of its market value and most people use it for farming, the produce from which is sold.

## **2.6 DATA PROCESSING AND ANALYSIS**

Service statistics on family planning uptake are routinely collected from DSOs participating in the STRIDES project and maintained in Excel spreadsheets. These data were used to calculate the proportion of drug shop clients that are new to FP and DMPA use.

In parishes selected to provide estimates of DSO market share, information collected from drug shops and clinics on FP uptake was maintained in Excel spreadsheets. Thus, spreadsheets documented family planning method uptake by clients of drug shops, clinics, and CBD agents (if applicable) in each parish. The total number of FP clients of DSOs is presented as a proportion of all FP clients in the STRIDES districts.

Family planning client interview data were handled by FHI 360 M&E staff only. Information gathered by interviewers was entered and managed in Epi Data, version 3.1. Electronic data were stored on password-protected computers and raw data were kept in a dedicated locked drawer or file cabinet at the FHI 360 Uganda office. M&E staff in Uganda performed frequencies and cross tabulations to describe the sample of DSO-based family planning clientele and to provide information on client satisfaction and other variables of interest.

Limited bivariate analyses were conducted to assess whether satisfaction, quality of care and counseling, knowledge of DMPA use, and method/service point switching may be associated with DSO characteristics and settings.

## **2.7 ETHICAL APPROVAL**

With the exception of client interviews, the data used for this M&E activity was being routinely collected by drug shops participating in the STRIDES project and by the district health authorities. Written informed consent was obtained from all DSO-based FP clients to maintain confidentiality. The consent form was translated into Luganda and Lusoga. Every effort was made to protect participant confidentiality. Participants were assigned unique identification numbers. No names appeared on the questionnaires. Moreover, all FHI 360 M&E staff underwent ethics training and were certified before being sent into the field to conduct interviews.

### III RESULTS

#### 3.1 BACKGROUND CHARACTERISTICS.

##### *DSO characteristics*

Fifty-four drug shop operators were interviewed. Seventy-six percent of them were female and their mean age was 37 years. Nakasongola district had the largest proportion of male DSOs (42%) and Luwero DSOs had the highest mean age, at 41 years.

The majority of DSOs (92%) have a medical background, with most of these (59%) being nursing assistants, followed by enrolled nurse (13%) and double / registered nurse (7%)<sup>4</sup>. Two percent had no qualifications whatsoever and another 2% had a diploma in counseling.

The majority (72%) had attained O'level (senior 4) education. Fifteen percent had completed A'Level (senior 6) and 2% held a BA degree. Only 4% had lower than O'level qualifications.

**Table 1: Drug Shop Operator Characteristics by District**

	BUGIRI (N= 16)	MAYUGE (N=14)	LUWERO (N=12)	NAKASONGOLA (N=12)
	%	%	%	%
<b>Sex</b>				
Female	81	79	83	58
Male	19	21	17	42
<b>Mean age (yrs)</b>	36	35	41	37
<b>Qualifications</b>				
None	6	0	0	0
Medical Assistant	0	0	0	8
Lab Assistant	0	7	8	0
Double/Registered nurse	6	7	8	0
Registered comprehensive nurse	0	0	0	8
Enrolled nurse/nurse /Enrolled midwife/midwife	13	7	8	25
Enrolled/comprehensive nurse	0	0	25	0
Theater Assistant	6	0	0	0
Nursing Assistant	69	79	33	50
Diploma Counseling/Cooperatives	0	0	8	8
Refused to provide / Missing	0	0	8	0
<b>Education</b>				

<sup>4</sup> In Uganda, an enrolled nurse is one who has undergone 2.5 years of basic nurse training after O' level/ Senior 4 education while a double / registered nurse is one who has had 3 years' training with specialization in nursing, midwifery, pediatrics or psychiatry in a three-year course following completion of high school / A 'Levels. O'level (Senior 4) education is equivalent to the American High School Diploma A'Levels are similar to the American Advanced Placements, the equivalent of the first year of America's four year bachelor degrees

	BUGIRI (N= 16)	MAYUGE (N=14)	LUWERO (N=12)	NAKASONGOLA (N=12)
Degree (BA)	0	7	0	0
Post-Secondary	0	0	8	0
A Level/Senior 6	0	0	25	42
Senior 5	0	7	0	0
O Level/Senior 4	100	79	58	42
Senior 3	0	7	0	8
Refused to provide/ missing	0	0	8	8

### ***Socio Demographic Characteristics of Clients***

Most of the clients interviewed (30.9%) were from Bugiri district. Luwero contributed the least proportion of clients (19.2%). Mayuge constituted 28.7% of the sample and Nakasongola, 21.2%

Over 90% of the clients were female. Most of the participants were of reproductive age with a mean age of 28.8 (range 13-52). The clients had a mean number of 3.4 children (range 0 – 13), and over 70% of the respondents desired a baby in future.

More than half of the respondents were married (66.5%) while 15.7% were cohabiting, 10.3 % were single and 7.5% were separated, divorced or widowed. Only 25% had attained secondary education or beyond and 31% had not attended any formal schooling (6.5% did not attend school and 24.8% had kindergarten as their highest level of education).

The majority of respondents (77.9%) were employed (worked for money). Over forty percent (44.3%) ran small-scale businesses (e.g., retail shops, food market stalls, second-hand clothing stores and other types of retail business); and 24.1% practiced farming. Despite being involved in income generating activities, over 60% were categorized as low or very low socioeconomic status and only 8.4% were categorized as having a high socioeconomic status.

**Table 2: Drug Shop Family Planning Client Characteristics**

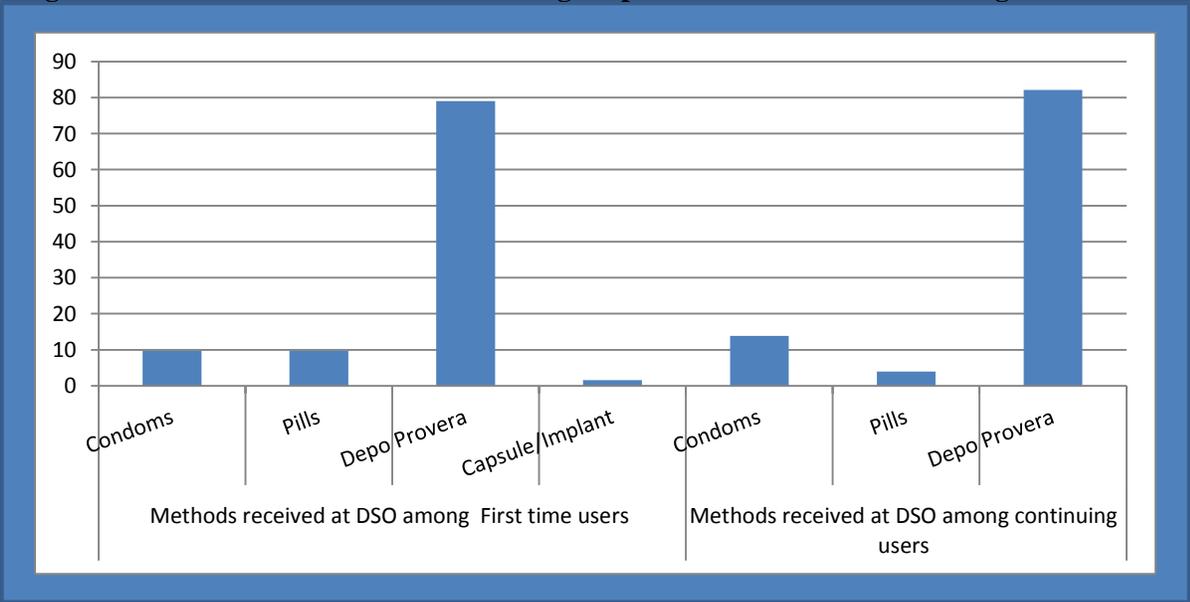
Characteristics	% (N=585)
<b>Client Demographics</b>	
<b>Gender</b>	
Female	90.1
<b>Mean age (n=584)</b>	28.8 (13-52)
<b>Marital Status</b>	
Single	10.3
Married	66.5
Unmarried, living together	15.7
Separated/Divorced/ Widowed	7.5
<b>Mean number of children (n=584)</b>	3.4 (0-13)
<b>Highest Education Level Completed</b>	
Did not attend school	6.5
Kindergarten / Nursery school	24.8
Primary	43.1
Secondary or Higher	25.4
Missing	0.2
<b>Work for money</b>	77.9

Characteristics	% (N=585)
<i>Missing</i>	7.0
<b>Type of work</b>	
Farming	24.1
Running a shop/stall/business	44.3
Housewife	12.0
Other	12.6
<i>Missing</i>	7.0
<b>Social Economic Status</b>	
Very low SES	30.3
Low SES	29.9
Average SES	31.4
High SES	8.4
<b>Fertility intentions and Family Planning use</b>	
Desire a baby in the future	70.6
<b>Method received at DSO</b>	
Condoms	10.9
Oral Contraceptive Pills	10.2
Depo Provera	78.6
Capsule/Implant <sup>1</sup>	< 1%
<b>FP use</b>	
First time user	10.6
Used FP in the past - same method as current	60.3
Used FP in the past – different method from current	29.1
<i>1 1 Client reported having received a capsule/implant from the DSO</i>	

**3.2 USE OF FP SERVICES AT DRUG SHOPS**

Seventy-nine percent of all the respondents were using Depo Provera as their preferred contraceptive method. Combined oral contraceptives and condoms were preferred by an equivalent proportion of clients at 10.2% and 10.9%, respectively. The trend was similar among first-time clients, with 79% choosing Depo Provera, and condoms and pills each with 9.7% of first-time users. Just over a tenth (10.6%) of all drug shop clients were new to FP, with 8.4% initiating DMPA use as their first ever FP method of choice.

**Figure 1: Client method choice at drug shops for first time and continuing users**



### ***Method Switching***

A total of 170 respondents (29%) had made a method switch from a previous family planning method. The biggest number of switchers was from pills to Depo Provera, 61.2%, followed by those who switched from Depo Provera to pills at 21.8%, from condoms to Depo Provera at 5.9% and from pills to condoms at 3.5%.

### ***Provider Switching***

Fifty-two percent of clients had either received their last FP method from the same DSO or were first-time users. The rest (47.3%) had received their last method from elsewhere and were considered to have switched providers<sup>5</sup>. Of these the majority (68%) were switching from a government clinic / health center.

### ***Reasons for Switching***

FP clients were asked to give reasons for switching either methods or providers. The most cited reason for switching methods was because of side effects (41%). An additional 24% mentioned either excessive or prolonged bleeding, which is also a side effect of some methods. Other reasons cited included method unavailability affecting adherence (18%) and couple preference (14%).

The most cited reason for switching from other facilities to the DSO was the convenient location of the drug shop (43%), while 12% mentioned that there was less waiting time at a drug shop. Other reasons mentioned with almost equal frequency were flexible hours of operation / better service (11%) and less stock outs (10%) at the drug shop.

### ***Client Knowledge of DMPA***

Drug shop DMPA clients were asked questions to gauge their knowledge about proper use of DMPA. Correct recall of DMPA-related information is an indication of the quality of counseling on DMPA received by the client from the DSO.

Almost 93% knew the period for which DMPA provides protection against pregnancy. Very severe bleeding was the most cited reason (63.5%) for a woman using DMPA to go back to a clinic, followed by severe headache (28.3%) and pain / edema (21.5%). Only 13% of clients did not know of any reason for a DMPA user to urgently visit a health clinic.

Knowledge that DMPA does not protect against HIV / AIDS and STIs was high at 70.6%, even though only 17.2% of clients mentioned that a DSO had given them this information, and 23.9% were offered condoms in addition to Depo Provera.

Client knowledge of DMPA was not related to DSO medical qualifications, education level or gender although a larger proportion of clients of female (69.3%) than male DSOs (23.8%) knew for how long DMPA provides protection against pregnancy.

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<sup>5</sup> 0.6% of clients did not provide a response

### 3.1 QUALITY OF CARE AND CLIENT SATISFACTION

#### *Quality of Care*

We assessed quality of care from the clients' point of view by the friendliness of the DSO; the privacy offered by the DSO; affordability of services; and the clients' perception of being treated with respect. Clients were also asked if they would continue going back to the DSO for services.

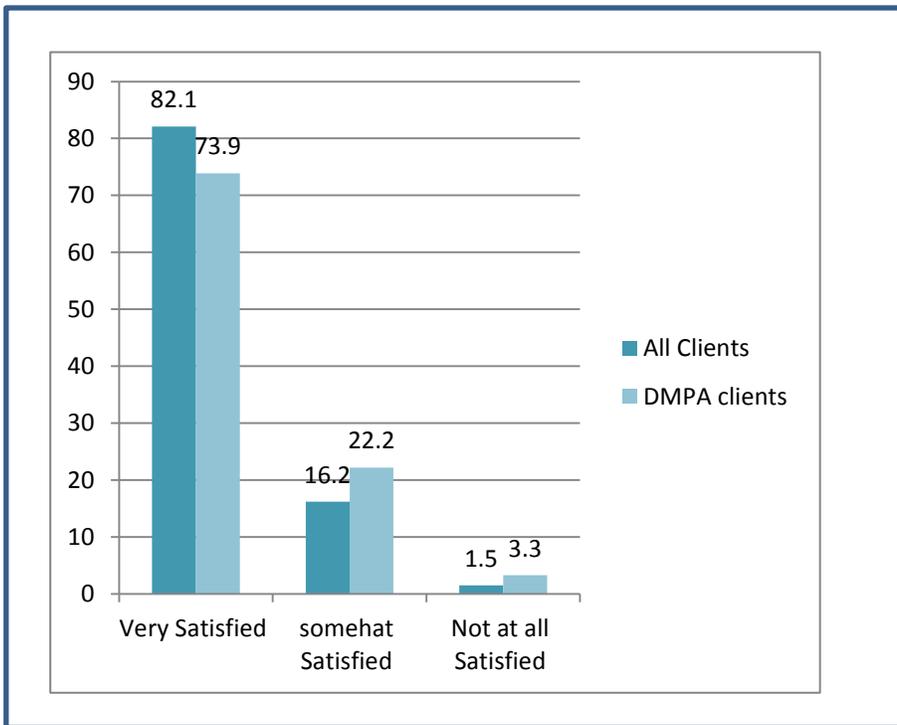
All clients (100%) reported that the DSOs treated them respectfully and 93.3% trusted the DSO to maintain privacy. Similarly, the majority (89.1%) reported being treated in a friendly way and three-quarters (75.6%) felt that FP services from the DSO were offered at affordable prices.

Client satisfaction with services was positively correlated with DSO education level and gender of the DSO. Satisfaction with FP services was significantly higher with DSOs of s3/s4 education level (77.3%) than with degree (4.1%) or s5/6 qualifications (17.3%). Additionally, satisfaction was higher with female DSOs (74.1%) than with male (24.4%). Female DSOs were significantly more likely than male to discuss side effects of the FP methods (48.2% vs. 13.5%;  $p=0.0362$ ). It is worth noting, however, that there were many more female than male DSOs in the sample.

#### *Client Satisfaction*

Client satisfaction with the way one's DSO provided the FP method was almost universal at 99%. Reasons for non-satisfaction were not analyzed because the sample was too small. Clients

**Figure 2: Satisfaction with FP services at drug shops**



were also asked if they were generally satisfied with FP services from DSOs and

82.1% stated that they were very much satisfied. A tiny proportion (1.5%) reported that they were not satisfied at all. Ninety-four percent stated that they would continue to go to the same DSO for FP services.

Over three-quarters (78.6%) of all DSO clients were receiving DMPA. Seventy-four percent of these were very satisfied with receiving DMPA from the DSO, 91.5% intended to get the next injection from the DSO and 95.9% would recommend the DSO to a friend for FP services, reflecting the overall high

level of satisfaction with DMPA services from DSOs. Of the DMPA clients who were not 'very much satisfied', 22.2% were somewhat satisfied and 3.3% were not at all satisfied, while of

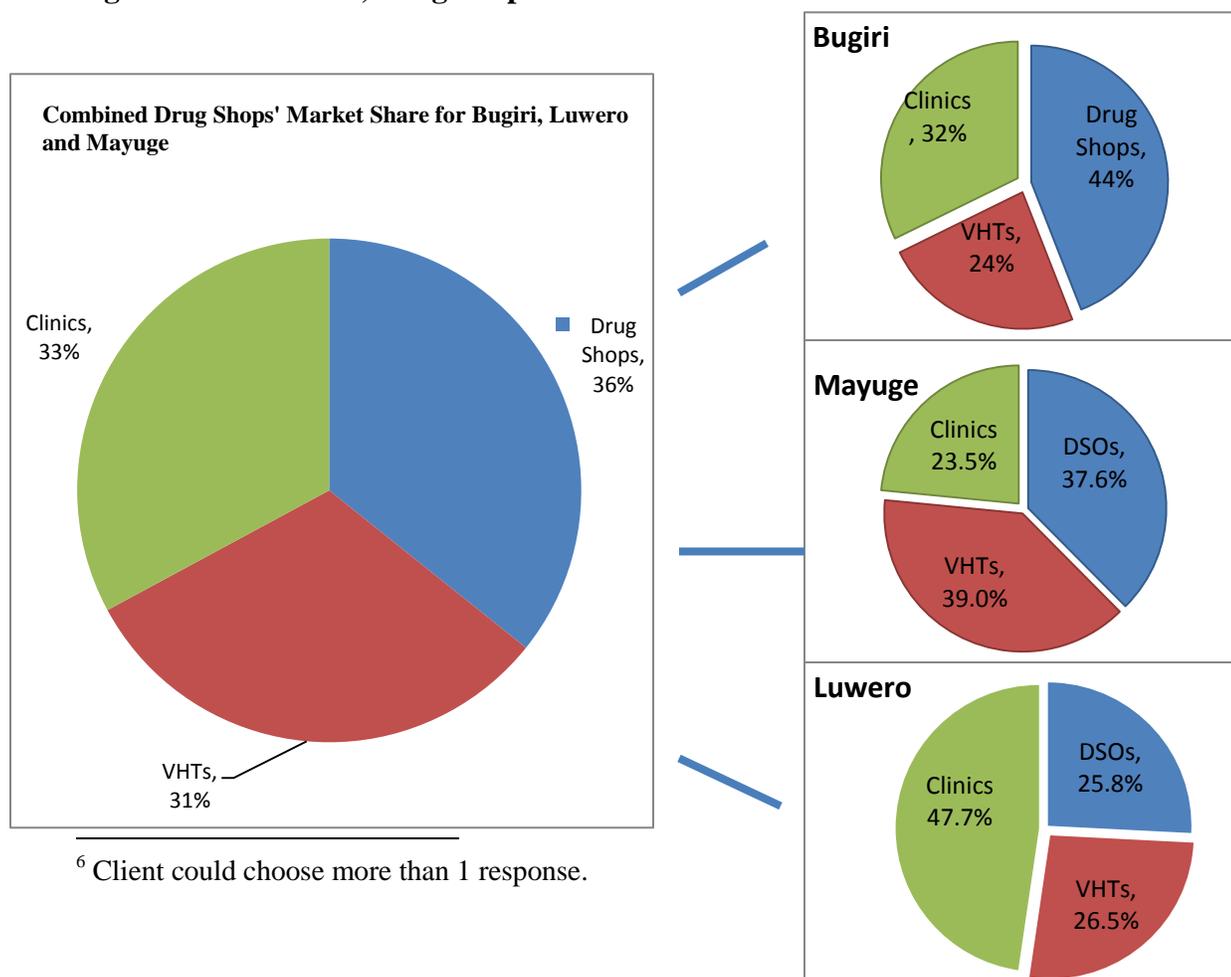
those who wouldn't recommend a friend to the DSO, the most cited reason was cost (35.3%), followed by a lack of confidence in the ability and knowledge of the DSO (23.5%).

Ninety-two percent of all DSO DMPA clients intended to get another injection. Among these, almost all (97.6%) mentioned the DSO as the location for their next injection. Of those who did not want to go to the DSO, half cited money as the major barrier, 30% were dissatisfied with the method / side effects, 30% wanted to get pregnant and another 30% wanted a long-acting method<sup>6</sup>

### 3.2 DRUG SHOPS MARKET SHARE

Data from selected subcounties in Bugiri, Mayuge, and Luwero for April thru June 2011 show that overall, clinics, VHTs and drug shops deliver an equivalent proportion of CYPs to the community, with drug shops leading marginally at 36%, followed by clinics (33%) and VHTs (31%). Variations exist within districts, with DSOs in Bugiri enjoying the largest market share in that district (44%) and DSOs in Luwero having the least market share (25.8%). This variation is not explainable by rural/urban differences, as Mayuge is the least urbanized, but has a higher DSO market share than Luwero. However, health clinics in Luwero have the largest FP market share and DSOs in Luwero the least. It would thus appear that the market share for drug shops depends on factors that may be specific to different districts, including the ability of the district clinics to meet client FP needs.

**Figure 3: Clinics, Drug Shops and VHTs market share of CYPs in 3 districts**



<sup>6</sup> Client could choose more than 1 response.

## IV SUMMARY AND CONCLUSIONS

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Fifty-four drug shop operators and 585 of their clients were interviewed. The majority of DSOs were found to have a medical background, but mainly as nursing assistants. Most DSO FP clients are females who are employed, though they were classified as having a low or very low socio economic status.

Reflecting national trends, DMPA is the most preferred method by DSO clients; both for first-time and continuing FP clients; and method switching from other methods to DMPA at drug shops is also high. Client switching from government health clinics to DSOs is high mainly as a result of convenient locations, short waiting time and fewer stock-outs at the drug shops. The analysis found that overall, DSOs enjoy a slightly higher share of the FP client market than static government clinics or VHTs.

The quality of the DSO counseling is good, based on a high-level of correct client recall of DMPA-related information. Correct client recall of DMPA-related information was uniform across medical and non-medical DSOs, suggesting that DSO counseling ability is independent of background qualifications. Clients revealed a very high level of satisfaction with FP services at drug shops, including DMPA provision. Cost of services was a hindrance to some clients, who mentioned that they either wouldn't refer a friend to a DSO for FP services or return to the DSO for their next contraceptive injection for lack of funds.

In conclusion, the analysis suggests that drug shops are a good source of FP methods including DMPA. They are a preferred source, based on their market share and the rate of client switching from government clinics to DSOs. These private sector providers offer good counseling and clients are highly satisfied with drug shop FP services. Therefore, to further increase FP access to underserved populations, drug shops should be included in the network of community-based FP providers for all methods, including DMPA.

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**Objective 1:****Table 1.1 Distribution of study participants by district**

Districts	% (N= 585)
Bugiri	30.9
Mayuge	28.7
Luwero	19.2
Nakasongola	21.2
<b>Total</b>	100

**Table 1.2 DSO FP Clients who are New to FP and/or New to DMPA**

Characteristics	% (N= 585)
New to family planning and DMPA	8.4
New to family planning with a method other than DMPA	2.2
Switched to DMPA from another FP method	20.7
Current and past use of DMPA	49.6
Switched method to another FP method other than DMPA	8.4
Current and past user of same FP method other than DMPA	10.8
<b>Total</b>	100

**Objective 3:****Table 3.1: Fertility intentions and Family Planning use cont'd**

Characteristics	%
<b>Methods received at DSO among First time users</b>	<b>(N= 62)</b>
Condoms	9.7
Pills	9.7
Depo Provera	79.0
Capsule/Implant	1.6
<b>Methods received at DSO among continuing users</b>	<b>(N=353)</b>
Condoms	13.9
Pills	4.0
Depo Provera	82.1
<b>Method Switching</b>	<b>(N=170)</b>
Switched from Pills to Depo	61.2
Switched from Depo to Pills	21.8
Switched from Condoms to Depo	5.9
Switched from Pills to Condoms	3.5
Switched from Implant to Depo	1.8
Switched from Depo to Condoms	1.8
Switched from Standard Days Method to Depo	1.2
Switched from Condoms to Pills	0.6
Switched from IUD to Depo	0.6
Switched from Implant to Pills	0.6
Switched from Folk remedies/herbs to Depo	0.6
Switched from Pills to another kind of pill	0.6

Objective 4

**Table 4.1: Reason for switching Methods**

<b>Clients who reported switching a method</b>	<b>% (N=585)</b>
<b>Reasons for switching method *</b>	<b>% (N= 170)</b>
Side Effects	41
Logistics /Adherence	18
Couples Discussion /Preference	14
Excessive Bleeding/Prolonged Bleeding	24
Other	12
* Doesn't add up to 100% because client could choose more than 1 response.	
<b>Reason for switching to DSO</b>	
<b>Characteristic</b>	<b>% (N=585)</b>
<b>Location where received last FP method</b>	
First time user - DSO	10.6
Clinic/Health Center	31.1
Pharmacist/ Chemist	0.3
From same DSO	41.5
Other source for FP methods	14.6
Other	1.3
<i>Missing</i>	0.6
<b>Reason for switching to Drug Shop operator from a clinic/ health center/ pharmacy*</b>	
<b>% (N=184)</b>	
Less wait time	12
Flexible hours of operation/ better service/ better cost	11
Convenient location	43
Less stock outs	10
Other	10
Missing	22
*Doesn't add up to 100% because client could choose more than 1 response.	

**Table 4.2: DSO Service characteristics**

<b>Characteristic</b>	<b>% (N=585)</b>
<b>Reason for first visit to DSO</b>	
Obtain Family Planning	45.1
Buy medicines for self	24.4
Obtain Treatment from the DSO	20.3
Consult the DSO	5.3
Buy medicine for someone else	2.7
Make general purchase	0.5
Other	1.4
<i>Missing</i>	0.2
<b>FP method discussed with DSO</b>	
Client already selected method	61.7
Client and DSO discussed FP methods	34.7
Other	0.5
<i>Missing</i>	3.1
<b>DSO discussed side effects/advantages/warning signs/disadvantages of method</b>	
Side effects of method	61.7
Advantages of method	56.1
Warning signs of method	54.7
Disadvantages of method	37.1
<b>Methods discussed with DSO among those who discussed FP options*</b>	<b>% (N=206)</b>

Characteristic	% (N=585)
Pills	79.6
Injection	61.7
Implants	42.7
Condoms	33.0
Foaming Tablets	25.7
IUD	16.0
Male / Female Sterilization	5.3
Standard Days Method / LAM	4.4
Withdrawal	1.9
Other	2.9

<sup>1</sup> Doesn't add up to 100% because client could choose more than 1 response.

**Table 4.3: Quality of care and Client satisfaction:**

Characteristic	% (N=585)
<b>Friendliness of DSO</b>	
Talked in a unfriendly way	2.2
Talked in a friendly way	89.1
Didn't talk to client much	8.7
<b>DSO treated client with respect</b>	100
<b>DSO privacy</b>	
Trust the DSO will protect privacy	93.3
Think DSO will share information	1.2
Don't know	5.3
<i>Missing</i>	0.2
<b>Feel FP services are affordable at DSO<sup>1</sup></b>	75.6
<i>Missing</i>	2.7
<b>Will continue to go to DSO for FP services</b>	94.0
<i>Missing</i>	0.5

<sup>1</sup>Note from the field: many of those who said no or missing received services for free

**Table 4.4: Client satisfaction**

Characteristic	% (N=585)	95% Confidence Interval
<b>Satisfied with way DSO provided method</b>	99.0	(98.0, 99.9)
<b>Generally satisfied with DSO FP services</b>		
Very much satisfied	82.1	(76.9, 87.2)
Somewhat satisfied	16.2	(11.3, 21.2)
Not at all satisfied	1.5	(0.5, 2.6)

**Table 4.5: DMPA Clients' experiences**

Characteristics	% DMPA Clients (N=460)
<b>Injection location</b>	
Buttock /Hip	6.3
Upper arm	93.5
<i>Missing</i>	0.2
<b>Problem at site of injection</b>	24.8
Drug shop helped resolve problem (N=114) <sup>1</sup>	35.1
<b>DSO asked if client was menstruating before giving Depo</b>	77.8
<i>Missing</i>	0.2

Characteristics	% DMPA Clients (N=460)
<b>Side effects since Depo was administered at DSO<sup>2</sup></b>	
None	20.6
Bleeding Irregularities <sup>3</sup>	58.9
Headache	18.7
Weight gain/ Mood Swings	5.4
Nausea/dizziness/general malaise	15
Pain / Breast tenderness	22.2
Loss of weight/appetite	3.2
Loss of Libido	3.7
Other	7.4
<b>Satisfied with Depo as FP method</b>	
Very much satisfied	73.9
Somewhat satisfied	22.2
Not at all satisfied	3.3
Missing	0.6
<b>Always go to same DSO for Depo</b>	
Missing	0.2
<sup>1</sup> Notes from the field: many did not go back to get the problem resolved <sup>2</sup> Doesn't add up to 100% because client could choose more than 1 response. <sup>3</sup> Bleeding irregularities include: Irregular bleeding, heavy bleeding, spotting, amenorrhea.	

**Table 4.6 Reasons for recommending and not recommending DSO to friend, among those who always go to the same DSO for Depo**

Characteristic	% DMPA Clients (N=414)
<b>Would recommend DSO to friend for Depo</b>	
Yes	95.9
No	3.4
Unsure	0.7
<b>Reasons for recommending (Yes)<sup>1</sup></b>	
Provides Advice/ counseling	18
Good service/ easy to talk to/friendly	64
Trustworthy / confidential	16
Affordable / gives credit	13
Provide effective method/ Good health outcomes/ safe/ hygienic	18
Convenient location / flexible hours	4
(Only) place person knows	5
Other	1
<b>Reasons for NOT recommending (No /Unsure)</b>	
Side effects	11.8
Doesn't provide testing <sup>2</sup>	11.8
Cost	35.3
Doesn't want to share/talk about FP use with others	17.6
Not confident in the ability and knowledge of the DSO	23.5
<sup>1</sup> Doesn't add up to 100% because client could choose more than 1 response. <sup>2</sup> Client didn't specify what type of testing	

**Table 4.7: Continuation of DMPA**

Characteristic	% DMPA Clients (N=460)
<b>Intend to get another DMPA Injection</b>	
Yes	91.5
No	6.5
Unsure	1.3
<i>Missing</i>	0.7
<b>Location for next injection among those who intend to get another DMPA Injection</b>	<b>N=427</b>
DSO	97.6
Clinic Provider	1.2
Other	1.2
<b>Reason for not wanting it at a DSO <sup>1</sup></b>	<b>N=10</b>
Prefer to go to clinic	20
Don't have the money	50
Dissatisfied with method/side effect	10
Other	10
1 Doesn't add up to 100% because client could choose more than 1 response.	

**Table 4.8: Reason for not wanting another DMPA injection, among those who don't intend to get another injection**

Characteristic	% DMPA Client (N=460)
<b>Don't intend to get another DMPA injection</b>	6.5
<b>Reasons for not wanting another DMPA Injection <sup>1</sup></b>	<b>N=30</b>
Dissatisfied with method / Side effects	30.0
Wants to get pregnant	30.0
Wants a long acting method	30.0
Fear of infertility	7.0
Other	7.0
1 Doesn't add up to 100% because client could choose more than 1 response.	

**Table 4.9: Knowledge of DMPA among DMPA users**

Characteristic	%DMPA Client (N=460)
<b>Knows DMPA provides protection for 3 months</b>	92.8
Don't Know	4.6
Other response	2.4
<i>Missing</i>	0.2
<b>How many weeks late you can be without ruling out pregnancy</b>	
1 week	15.6
2 weeks	6.3
3 weeks	1.3
4 weeks	4.1
5 weeks or more	8.0
Immediately	7.4
Don't Know	52.6
Other	4.4
<i>Missing</i>	0.2
<b>Health problems a woman using DMPA should go to a clinic for<sup>1</sup></b>	
Severe headache	28.3

Very heavy bleeding	63.5
Pregnancy / Suspected Pregnancy	12.8
Chest Pain	4.3
Irregular bleeding	6.5
Pain/Edema	21.5
Weight changes (loss/gain)	4.6
Loss of Libido	5.2
Nausea/Dizziness	12.2
Other	4.1
Don't know	12.6
<b>Knows DMPA doesn't protect against STI's and AIDS</b>	70.6
<i>Missing</i>	0.2
<b>Drug shop operator mentioned that DMPA protects against STI and AIDS</b>	17.2
<i>Missing</i>	1.1
<b>Drug shop operator offered you condoms in addition to DMPA</b>	23.9
<i>Missing</i>	0.2
<sup>1</sup> Doesn't add up to 100% because client could choose more than 1 response.	

**Table 4.10 DSO Characteristics overall**

	<b>% DSO N=54</b>
<b>Sex</b>	
Female	76
<b>Mean age</b>	37 yrs
<b>Qualifications</b>	
None	2
Medical Assistant	2
Lab Assistant	4
Double/Registered nurse	5
Registered comprehensive nurse	2
Enrolled nurse/nurse /Enrolled midwife/midwife	13
Enrolled/comprehensive nurse	5
Theater Assistant	2
Nursing Assistant	59
Diploma/ Counseling/Cooperatives	4
Refused to provide / Missing	2
<b>Education</b>	
Degree (BA)	2
Post-Secondary	2
A Level/Senior 6	15
Senior 5	2
O Level/Senior 4	72
Senior/Senior3	4
Refused to provide/ Missing	4

**Limited bivariate analysis with DSO characteristics**

<b>Education</b>				
	<b>Degree/post secondary</b>	<b>Senior 3/ Senior 4</b>	<b>Senior 5/6</b>	<b>P value</b>
<b>How DSO talked to you</b>				
Talked in an unfriendly way	.	2.3	.	
Talked in a friendly way	4.0	68.2	16.9	

Didn't talk to me much at all	0.5	7.4	0.7	
<b>Satisfaction with way DSO provide method</b>				
Satisfied	4.5	77.2	17.6	
Not Satisfied/Unsure	.	0.7	.	
<b>Satisfaction with FP services received at DSO *</b>				0.0010***
Satisfied/somewhat satisfied	4.1	77.3	17.3	
Not at all satisfied	0.4	0.5	0.4	
<b>DSO discussed side effects</b>	2.2	48.7	10.8	0.5723
<b>DSO discussed advantages</b>	2.2	43.9	10.4	0.7041
<b>DSO discussed disadvantages</b>	1.3	27.5	8.8	0.2563
<b>DSO discussed warning signs</b>	2.0	40.8	11.5	0.1472
<b>Would continue to go to DSO for FP</b>	4.2	73.1	17.0	0.6806
DMPA clients				
<b>Knowledge of how long Depo provides protection against pregnancy</b>	5.1	70.4	17.3	0.6331
* The significant association between education and satisfaction with FP services received at the DSO is due to more senior 3 or 4 education levels and being satisfied/ somewhat satisfied				
<b>Qualifications</b>				
	<b>Medical training</b>	<b>Other Training</b>		<b>P value</b>
<b>How DSO talked to you</b>				0.6358
Talked in an unfriendly way	0.7	1.6		
Talked in a friendly way	27.2	61.7		
Didn't talk to me much at all	1.92	6.9		
<b>Satisfaction with way DSO provide method</b>				0.5294
Satisfied	29.6	70.1		
Not Satisfied/Unsure	0.2	0.2		
Satisfaction with FP services received at DSO				0.6612
Satisfied/somewhat satisfied	29.2	69.4		
Not at all satisfied	0.5	0.9		
DSO discussed side effects	19.2	42.5		0.5090
DSO discussed advantages	18.3	38.3		0.2870
DSO discussed disadvantages	13.4	24.7		0.2619
DSO discussed warning signs	17.5	37.4		0.4741
Would continue to go to DSO for FP	28.4	66.0		0.4063
<b>Depo clients</b>				
Knowledge of how long Depo provides protection against pregnancy	27.0	66.0		0.1180
<b>Sex</b>				
	<b>Female</b>	<b>Male</b>		<b>P value</b>
<b>How DSO talked to you</b>				
Talked in an unfriendly way	2.2	.		
Talked in a friendly way	67.0	22.1		
Didn't talk to me much at all	6.0	2.7		
<b>Satisfaction with way DSO provide method</b>				0.7236
Satisfied	74.7	24.7		
Not Satisfied/Unsure	0.3	0.2		
<b>Satisfaction with FP services received at DSO</b>				0.5375

Satisfied/somewhat satisfied	74.1	24.4	
Not at all satisfied	1.0	0.5	
DSO discussed side effects	48.2	13.5	0.0362***
DSO discussed advantages	42.9	13.2	0.4753
DSO discussed disadvantages	28.4	8.7	0.7493
DSO discussed warning signs	42.1	12.7	0.4734
Would continue to go to DSO for FP	70.8	23.7	0.7431
<b>DMPA clients</b>			
Knowledge of how long Depo provides protection against pregnancy	69.3	23.8	0.1531