Formative Research on
Female Condom Promotion in Central America

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Acronym List

AIDS	Acquired Immune Deficiency Syndrome
ARD	Applied Research Division (FHI group)
BBR	Behavioral and Biomedical Research (FHI group)
BCC	Behavior Change Communication
CRTU	Contraceptive & Reproductive Health Technologies Research and Utilization Program (FHI cooperative agreement)
DHS	Demographic and Health Survey
DMPA	Depot Medroxyprogesterone Acetate (Depo-Provera) injectable contraceptive
FC	Female Condom
FG	Focus Group
FHI	Family Health International
FP	Family Planning
FSW	Female Sex Worker
HIV	Human Immunodeficiency Virus
HSR	Health Services Research (FHI group)
IEC	Information, Education, and Communication
IRB	Institutional Review Board
IUD	Intrauterine Device
KAP	Knowledge, Attitudes, and Practices Survey
Mercaplan	Market Research and Consulting Central America
MC	Male Condom
M&E	Monitoring and Evaluation
MOH	Ministry of Health
MSM	Men who have Sex with Men
NGO	Nongovernmental Organization
PASMO	Pan American Social Marketing Organization
PHSC	Protection of Human Subjects Committee (FHI's IRB)
PQC	Product Quality and Compliance (FHI group)
PSI	Population Services International
RETC	Research Ethics Training Curriculum
SES	Socio-Economic Status
SIs	Structured Interviews
SOs	Structured Observations
STD	Sexually Transmitted Disease
STI	Sexually Transmitted Infection
VCT	Voluntary Counseling and Testing
WTP	Willingness to Pay

Table of Contents

List of Tables

Executive Summary

The HIV/AIDS epidemic in Central America is concentrated among female sex workers (FSWs) and men who have sex with men (MSM). In February 2006, the ABT Team, comprising Abt Associates, Population Services International (PSI), and Family Health International (FHI), was awarded a regional task order entitled "Central American Condom Availability in Private Sector High-Risk Outlets," targeting vulnerable populations in six countries in Central America. Approximately 100,000 female condoms (FCs) were made available for free distribution to FSWs as part of the task order.

Distribution of FCs has met with varying degrees of success in El Salvador and Nicaragua, but neither program has conducted research with FSWs to ascertain how to market the FC to FSWs. Marketing research can inform the development of messages to encourage behavior change -- in this case, encouraging FSWs to use female condoms when they do not use male condoms (MCs). To aid development of social marketing messages used in programs to distribute female condoms at no cost to FSWs, FHI conducted formative research with FSWs in San Salvador and San Miguel, El Salvador, and in Managua, Nicaragua, from September 2007 to February 2008.

The study had the following six objectives:

- To identify factors that could facilitate FC use in situations where MCs cannot be used (e.g., with particular sexual partners)
- To identify barriers to FC use and how women can overcome them
- To solicit FSWs' opinions on the kinds of support, educational materials, and communication channels that may encourage them (and their peers) to use FCs
- To identify FSWs' preferences for "high-risk outlets" for FC distribution
- To describe how the FC is being promoted by behavior change communication (BCC) health educators, including main messages delivered, in order to improve FC promotion
- To describe the willingness of FSWs to pay for the FC

The research used qualitative and quantitative methods. Qualitative methods consisted of two rounds of semi-structured focus groups (FGs) with FSWs, during which training and supplies were provided for the FC. Quantitative methods consisted of structured interviews (SIs) with FSWs and structured observations of health educators using a checklist. The purpose of having FSWs participate in three separate data collection efforts (two FGs and one SI) was to get an in-depth and timely perspective on their attitudes and actual experiences with the FC. Mercaplan, Market Research and Consulting Central America, was responsible for field work.

This paper provides basic results from SIs (presented in the tables and text) and addresses the six objectives based on FG data (presented in the text and illustrated with transcript excerpts). The data analysis compares women across the three sites (San Salvador, San Miguel, and Managua) because program managers will find this most useful. But the major focus of the analysis is on the potential for FC use by partner type (new clients, regular clients, and non-paying partners).

The research confirms that sex workers in El Salvador and Nicaragua are an appropriate target population for social marketing efforts to encourage use of the FC. Objectively, they are at above average HIV risk. They also perceive themselves as being at risk of HIV infection and other sexually

transmitted infections, but many believe that they have control over this risk. They report that they do not always use MCs, especially with non-paying partners. Women perceived a role for the FC in filling this condom gap.

Between the first round of FGs and the SIs, women used 12 FCs on average. This was impressive given that the FC was usually perceived as a strange new device and had a learning curve for inserting it, positioning it comfortably, and removing it. Most were positive about using the FC and were willing to introduce it to paying partners but were less willing to introduce it to non-paying partners. Women reported that they used several strategies to persuade their "first try" partners to use the FC. These included: she would use the FC or not have intercourse; she got the FC at a health meeting; the FC was an alternate method to hormonal contraceptives; the FC prevented STIs and pregnancy; she was sick; or the FC was more comfortable than a MC.

Women perceived these advantages of the FC over MCs: greater comfort for both partners than the MC, its lubrication, its better smell, its strength, greater protection of the vaginal area, the ability to insert it in advance of sex, use during menstruation, its acceptability to some men who dislike MCs, and the potential for greater income if they do not lose clients unwilling to use MCs. Disadvantages reported included its strange appearance, its large size, physical discomfort if it was inserted improperly, the rings, challenges in inserting it, potential for intimate partner resistance or violence, and difficulty in concealing the larger package.

One key barrier identified was women's (and men's) lack of exposure to the FC. If people do not know about the FC, where to get it, or how to use it, they will not request them. Few women and men were thought to have used a FC. Because of unfamiliarity, women said, men may fear that it is unsafe, or they may refuse to use it out of ignorance or insecurity. To overcome this barrier, women recommended that more information be provided to both women and men. Another key barrier is that the mechanics of using the FC are not self-evident. Learning to insert the FC is challenging and takes time. Women may give up before they feel comfortable using the FC. To overcome this barrier, training women to use the FC should be an essential part of any campaign. Organizations that traditionally work with FSWs should be sought out to educate women on the female condom. Women should be encouraged to practice inserting it on their own before using it during intercourse and to use it frequently enough to give it a chance before deciding whether they want to continue it as a method. Women were creative in articulating arguments for how a paying partner would benefit from using the FC but were often stymied when it came to non-paying partners. General lack of exposure to the FC by both women and men was mentioned as a barrier in all sites. People said they had not heard of the FC; they had heard of it but not seen it; or possibly, they had seen it but not used it.

This research suggests that FCs can make a contribution to HIV protection, particularly for those at high risk of HIV and for those who dislike MCs. We would forecast favorable campaign results for FC use if provisions are made for instructing women on their use and if supplies are easily available at no cost. FG discussions suggest that FC use might be more acceptable to male clients if it is portrayed as a pregnancy prevention method. FSWs also suggested that promotional efforts be targeted toward men as well to help overcome resistance to FC use and to increase its acceptability. This paper makes recommendations for promoting FCs, providing access and training, encouraging FSWs to use the FC when they cannot use MCs, and strategies and messages for women to use to negotiate FC use with clients and non-paying partners.

1. Introduction

The HIV/AIDS epidemic in Central America is concentrated among female sex workers (FSWs) and men who have sex with men (MSM). Although behavior change communication (BCC) campaigns with groups at higher risk for HIV infection have reported some success, members of these groups continue to have multiple partners and sporadic male condom (MC) use, especially with trusted or regular partners. Innovative prevention efforts are needed to contain the HIV/AIDS epidemic in the region. The female condom (FC) could play a role in such efforts.

In February 2006, the ABT Team, comprising Abt Associates, Population Services International (PSI) and Family Health International (FHI), was awarded a regional task order entitled "Central American Condom Availability in Private Sector High-Risk Outlets," targeting vulnerable populations in Guatemala, El Salvador, Nicaragua, Costa Rica, Panama, and Belize. Although the main focus of the award was on increasing availability of MCs, approximately 100,000 female condoms were made available for free distribution to FSWs. To inform development of social marketing messages used in programs to distribute female condoms at no cost to FSWs, Family Health International conducted formative research with FSWs at three sites from September 2007 to February 2008.

1.1 Study Sites

The research was conducted in San Salvador and San Miguel, El Salvador, and in Managua, Nicaragua. These sites were recommended by program managers of the PSI affiliate in Central America, the Pan American Social Marketing Organization (PASMO). PASMO country directors selected El Salvador and Nicaragua based on the history of previous FC distribution and responses to distribution in those countries among similar FSW populations. A previous supply of FCs was successfully distributed in El Salvador, whereas a supply remained largely unused in Nicaragua. PASMO suggested that understanding the successful promotion and uptake of the FC in El Salvador might be instructive for the design of FC promotion strategies in Nicaragua and other countries in the region. Research findings of this study are specific to El Salvador and Nicaragua, but the results are potentially applicable for message development in nearby countries among similar FSW populations.

1.2 Study Rationale and Background

1.2.1 Potential role for FCs to decrease the condom gap among FSWs in study sites

Female condoms purchased and distributed by the U.S. government cost much more to manufacture than male condoms. In 2007, USAID purchased female condoms for $.59 apiece versus $.0325 for male condoms, a ratio of more than 18 to 1. Consequently, FC promotion and distribution makes the most sense when higher risk individuals are using MCs inconsistently or when they cannot use MCs at all. Increasing the availability of the FC has the potential to assist FSWs with increasing the number of protected sex acts, thereby helping them to prevent HIV infection or transmission.

Data from recent knowledge, attitudes, and practices (KAP) surveys (PASMO, 2004a) with 300 FSWs in San Salvador, El Salvador, and Managua, Nicaragua, suggest that consistent MC use is problematic among FSWs, particularly among non-paying partners. In El Salvador, FSWs reported consistent MC use in the past seven days with 87% of new clients and 85% of regular clients, with no notable differences between ambulatory and fixed-site FSWs. However, only 15% of fixed-site

and 9% of ambulatory sex workers reported consistent MC use with non-paying partners in the past 12 months (PASMO, 2004a). Note that in this study, "non-paying partners" include spouses, steady boyfriends, and shorter-term relationships.

Similar results for MC use with clients were found in Managua, Nicaragua, with 85% of FSWs reporting consistent MC use with new clients and regular clients who pay for sex. However, consistent condom use with new clients was much higher among fixed-site sex workers than ambulatory ones (92% vs. 73%). Finally, only 10% of fixed-site and ambulatory FSWs in Managua reported consistent MC use with non-paying partners (PASMO, 2004b).

In both countries, the most common reasons for not using MCs consistently with non-paying partners were that the male partner refused; they trusted their male partner; or they simply did not think to use one.

These data suggest a "condom gap," much greater with non-paying partners than with clients, and identify a potential role or niche for the FC. FSWs may be able to use the FC to fill the condom gap and increase their overall number of protected sex acts.

1.2.2 FC distribution efforts: Nicaragua

FC distribution by PASMO/Nicaragua has been problematic. In 2005, only 300 FCs were distributed to FSWs. Programmatic factors that may have influenced this low distribution include a larger product portfolio for the organization (two different MCs and, in the near future, oral contraceptives); intensive mass media efforts for other products (non-existent in El Salvador); and few BCC staff (only two health promoters). In 2004 and 2005, PASMO/Nicaragua distributed FCs to FSWs in Managua and Leon. However, according to program staff, FSWs did not find the FC acceptable. PASMO attributed the poor acceptability to the fact that the sex workers they were working with were older (and possibly less willing to try something new), cultural taboos about touching the vagina, and the fact that many of the FSWs were from rural areas. Currently, the PASMO program has about 9,000 FCs that will expire in 2009. The plan for distributing FCs is to gain insights from this research and leverage existing relationships with different NGOs, including the Peace Corps, women's groups, and NGOs that work with FSWs, as well as United Nations' agencies.

1.2.3 FC distribution efforts: El Salvador

In 2002, Flor de Piedra, an NGO that works to support FSWs, conducted a small qualitative study on FC use among FSWs in San Salvador, El Salvador (Pintín, 2004). Forty-seven FSWs were recruited at heath centers, given 21 FCs to use, and interviewed later. This study reported that only 36% of the FSWs used three or more of the FCs given to them; 20% reported insertion problems; and 27% reported that the FC was uncomfortable. Interestingly, even with these problems, 91% said they would recommend the FC to others.

Since 1998, PASMO/El Salvador has received several shipments of FCs for free distribution among FSWs. The most recent distribution took place from 2003 to 2005. Through the work of eight PASMO heath educators, almost 12,000 FCs were distributed to FSWs during this period. The distribution was primarily via BCC efforts with FSWs, mainly consisting of one-on-one sessions in the geographical areas where they work. In October 2005, the program ran out of FCs.

There appears to be demand for FCs among FWSs in El Salvador. PASMO staff report that FSWs still ask for FCs and want to know when they will become available. Once the FC becomes available,

health promoters will resume free distribution. The more successful distribution of FCs in El Salvador suggests that we should examine more closely how the BCC team has promoted the FC and what information they give to sex workers about FCs.

1.2.4 Role of market research in FC promotion

Distribution efforts of FCs have had varying degrees of success in El Salvador and Nicaragua, but neither program has conducted research with FSWs to ascertain how to market the FC to FSWs. Marketing research can inform the development of messages to encourage behavior change -- in this case, encouraging FSWs to use female condoms when they do not use male condoms. One aspect of message development is identifying how a new product is perceived by the target audience (Weinreich, 2008). This is referred to as product positioning and involves identifying the circumstances under which the target audience would consider using a product. Product positioning can be based upon a product attribute (e.g., it is soft), product benefit (e.g., one doesn't need to negotiate with a partner), user image (e.g., it is appropriate for women who want to stay healthy), circumstances under which the product can be used (e.g., when male partners refuse to use MCs), or use category (e.g., to prevent HIV/STIs or pregnancy).

The market segmentation approach of marketing research explores the ability and willingness of different consumer segments to pay for a product. This entails categorizing consumers by socio-economic status (SES) and product outlets as well as identifying what consumer groups are willing to pay for the product. Although the most immediate concern of the Abt Team's research study was to help promote free FC distribution in the study sites, we collected information on willingness-to-pay to inform program planners on the feasibility of selling FCs to FSWs at some future date.

1.3 Study Objectives

The overall goal of the study was to inform the development of messages and strategies for promoting FC use among FSWs in Central America. The study had the following six objectives:

- To identify factors that could encourage FC use in situations where MCs cannot be used (e.g., with particular sexual partners)
- To identify barriers to FC use and how women can overcome them
- To solicit FSWs' opinions on the kinds of support, educational materials, and communication channels that may encourage them (and their peers) to use FCs
- To identify FSWs preferences for "high-risk outlets" for FC distribution
- To describe how the FC is being promoted by BCC health educators, including the main messages delivered, in order to improve promotion of the FC
- To describe the willingness of FSWs to pay for the FC

2. Research Methods

The research used qualitative and quantitative methods. Qualitative methods consisted of two rounds of semi-structured FGs with female sex workers (FSWs), during which training and supplies were provided for the female condom. Quantitative methods consisted of structured interviews (SIs) with FSWs and structured observations of health educators using a checklist. The purpose of having FSWs participate in three separate data collection efforts (two FGs and one SI) and try the FC was to get an in-depth and timely perspective on their attitudes and experiences with FCs.

Mercaplan, Market Research and Consulting Central America, was responsible for field work. The firm, with 65 full-time staff, has offices in Honduras, Nicaragua, Guatemala, and El Salvador. Its goal is to help clients (NGOs, commercial companies, international organizations) solve marketing problems and discover new opportunities through quantitative and qualitative research.

2.1 Study Participants

There were two types of study participants. The first consisted of FSWs working in three urban centers of San Miguel and San Salvador, El Salvador, and Managua, Nicaragua. FSWs who worked in fixed-site settings such as brothels or clubs and "ambulatory" FSWs not affiliated with a specific establishment were included in the study. To be eligible for participation, women had to meet the following criteria:

- 18 years or older (legal age of consent in El Salvador and Nicaragua)
- Self-identified as a sex worker
- Willing to try the FC
- Verbally committed to attending two FG sessions
- Verbally committed to an individual interview
- Planning to stay in the area during the two months of the study

The second type of participant consisted of BCC educators who regularly worked with FSWs in the study sites. These health educators were PASMO employees.

2.2 Recruitment of FSW Study Participants

Purposive recruitment was conducted to identify and invite FSWs to participate in the study. Recruitment was conducted at "hot zone" locations previously identified in an assessment by PASMO staff. "Hot zones" were defined by PASMO as areas where casual sexual encounters between FSWs and clients often occur and which are potential areas for HIV transmission. Prior to the study, PASMO categorized the sites into three socioeconomic (SES) zones, based on living conditions of the residents: A was the highest SES, B was the middle, and C was the lowest. In each of the three cities, women were selected from A, B and C zones. Women from the C zone were further categorized as fixed-site (brothel based) or ambulatory (street-based) since it was thought that messages and distribution channels effective for promoting FCs might differ for these two types of FSWs in the C zone. **The fixed-site women from the C zone are referred to in this report as**

group C and the **C-zone ambulatory women** are referred to as **group D.** Therefore, there were four SES categories of FSW participant for each site.

Locations where commercial sex takes place, including establishments and street areas, were identified for each zone. Because such locations are frequently subject to change caused by police raids and the opening and closing of establishments, the PASMO assessment had to be updated by PASMO staff before study initiation. The business establishments and street areas from which women were recruited were purposively selected. It was not possible to do random selection of establishments because of their state of flux.

PASMO staff introduced the female data collectors from Mercaplan to the people in the recruitment areas, including establishment owners and FSWs, but they were not involved in final selection of establishments for recruitment or in participant selection. The number of recruitment locations required for research staff to recruit a sufficient number of participants for each SES group varied according to the number of FSWs at each location when research staff visited and their interest in participating in the study.

Study staff reported numerous challenges when recruiting for both the FGs and the SIs. The main barriers encountered were with SES groups A and B, in which the women tended to be uninterested in the study, especially when they learned how much time it would take. In El Salvador, staff reported difficulties with recruitment because of restrictions placed on FSWs' time by business owners. Another challenge was recruiting groups C and D in Managua, which required entering into areas where safety was a concern. Often staff had to travel on foot because taxis would not enter into certain neighborhoods. In addition, staff reported encountering violent reactions from FSWs in these groups when they were approached for the study. Challenges to recruiting for the SIs included difficulty persuading women to participate, difficulty contacting women, and arriving for the SI only to find that the participants were not there or were with clients. Participants also moved or changed phone numbers frequently.

We anticipated that some FSWs might not want to participate and that there would be some loss-to-follow-up, given the vulnerability and mobility of this population. Thus, 64 FSWs were to be contacted in each of the three sites, while the targeted sample size for study participants was 48 FSWs per site. This study required a commitment of time and effort on the part of the study participants, given that they were asked to participate in two FGs and one structured interview (SI) and were given FCs to try.

The achieved FSW sample sizes were somewhat lower than the targeted sample sizes. In San Miguel, 43 FSWs participated in the first round of FGs (FG 1), 37 participated in the SI, and 31 in the second round (FG 2). In San Salvador, 40 FSWs participants in FG 1, 36 in a SI, and 25 in FG 2. In Managua, 32 FSWs participated in FG 1, 23 participated in a SI, and 25 in FG 2. Appendix A gives a breakdown of participants by site and SES group**.** The focus groups varied in size from 3 to 12 participants. Each FG was homogeneous by group (i.e., a FG had women from groups A, B, C, or D); FGs did not mix women from different zones.

2.3 Data Collection

2.3.1 Focus Groups 1

Twelve FGs were conducted in round one. On average, there were 10 participants per group. In these FGs, participants were asked to describe their current knowledge of the FC, their first

impressions of the FC, and their past experiences using the FC (if any). The FG facilitator then gave a demonstration on proper use of the FC using an anatomical model. After the FC demonstration, women were asked to share their thoughts about the circumstances during which they thought they would be most likely to use the FC; the potential advantages and disadvantages of the FC; the possibility of using the FC in situations where the MC cannot be used; and ways they might negotiate using the FC with different types of partners. At the end of the first FG, participants were given 21 FCs and were told that they were free to use them with their partner(s) under circumstances of their choice.

2.3.2 Structured Interviews (SIs)

Two to four weeks after the first FGs, women met with the FG moderator individually for a structured interview (SI). Ninety five SIs were conducted. The questionnaire collected information on age, marital status, years of education, income, sources of income, current contraceptive practices, number and types of partners, and length of time involved in sex work. Questions were also asked about participants' knowledge of and risk perceptions of STIs and HIV and their perceptions about the extent of protection against STI, HIV, and pregnancy provided by both male and female condoms.

To assess the acceptability of the FC, participants were asked about their experiences using the sample condoms distributed during the first FG, including the level of ease or difficulty of inserting and removing the FC; the circumstances in which they chose to use the FC for the first time; how many of the 21 condoms they had used; the ways in which they introduced the FC to different types of partners; and their partners' reactions to the FC.

Participants also had the opportunity to ask additional questions about the FC in an open-ended format and receive a refresher session in proper use. Women received an additional supply of FCs -- the same number they had reported having used since the first FG session.

2.3.3 Focus Groups 2

Four to five weeks after the SI, a second round of FGs was conducted to discuss participants' experiences using the FC. In the second round, 11 FGs were conducted. (Note: One FG in San Salvador, zone A, was not conducted). Because of attrition, the second-round FGs were a bit smaller (7 per group) than the first-round FGs. The second FG asked about participants' overall impressions of the FC, their experiences using the FC with different types of partners, facilitators of and barriers to use, and suggestions for encouraging use. At the end of the second FG, women received 21 additional FCs.

2.3.4 Observations of health educators

The purpose of observing health educators was to describe the messages being communicated to FSWs about condoms, including the FC. Structured observations consisted of accompanying the health educators to each zone as they promoted and distributed the FC and using a checklist of 39 potential topics to document the content of the health education. One BCC health educator per site who was familiar with FCs was nominated by PASMO program managers for structured observation of their efforts to promote condom use. Six educators were observed as they facilitated a total of 12 education sessions. (Appendix B and C)

2.4 Protection of Study Participants

Prior to the training of study staff, human subjects research approvals were obtained from the FHI Protection of Human Subjects Committee (PHSC), the Abt IRB, and each study country's Ministry of Health. Because FSWs are a vulnerable population, confidentiality was of utmost importance. The following measures were taken to protect participant confidentiality and well-being:

1. Study staff training emphasized the importance of maintaining confidentiality. Procedures for maintaining confidentiality were reviewed.
2. All study staff were trained in research ethics using the FHI Research Ethics Training Curriculum.
3. FSWs were not asked to provide their names to participate in the study. Names did not appear on any study documents.
4. Pseudonyms such as Rain, Topaz, and Fire were chosen by the moderator or the participants for use during FGs. Participant numbers were used for the questionnaires. A log of the pseudonyms and participant numbers was kept in a limited access computer file. Transcripts contained only participant numbers.
5. Oral, not written, consent was obtained from FSWs for data collection activities.
6. Data collection was conducted in a private setting.
7. Tape-recordings of FGs were destroyed once the study was completed.
8. Study staff signed a statement of dispersal for participant incentives rather than obtaining participant signatures.

2.5 Training Data Collectors

Data collectors were female and experienced in data collection. A one-week training was held in April 2007 in San Pedro Sula, Honduras, where the headquarters of Mercaplan were located. During staff training, data collection methods were reviewed and training in study instruments and informed consent procedures was conducted. Given the vulnerability of the study participants, special attention was given to ethical considerations, including potential social harms that could result from a breach of confidentiality. Because the data collectors were not trained health educators, local PASMO staff trained them in how to instruct women in the use of the FC, using FC samples and an anatomical model.

2.6 Data Management and Analysis

FGs were conducted in Spanish, tape-recorded, transcribed by study staff into electronic files, and sent to FHI. SI questionnaires were completed by hand, transcribed by study staff into Epi Info Version 6.04d DOS software files, and sent electronically to FHI. Hardcopies were expedited to FHI for coding of open-ended questions by FHI analysts. Notes on observation of health educators were recorded on-site by hand, entered into electronic files, and sent electronically to FHI.

Data analysis took place at FHI. FG transcripts were analyzed using qualitative coding methods. The qualitative data analysis software was QSR NVivo 7.0. Transcripts were coded according to question, research objective, and emergent themes. SI questionnaires were analyzed quantitatively using SAS 9.1 for Windows software. Responses to open-ended questions were coded using a

spreadsheet and then entered into the database for analysis. The results of the observations of health educators were analyzed by hand because of the small sample size (N=12).

2.7 Limitations of the Study

The results are restricted to three cities in El Salvador and Nicaragua. The sample sizes were somewhat lower than we had targeted. In this demanding study, there was some attrition in sample sizes across the three data collection activities. There could be some bias in the SI sample if women who did not try the FC were less likely to participate in the SIs. In the data analysis, sample sizes in some cells are small in some cross-tabulations. Given the small sample sizes, we did not compute significance levels.

Because we had only data points for FC use from the SI, we are not able to say whether the FC was substituted for the MC for some sex acts.

The second round FG for San Miguel for zone A was not conducted.

Regarding the observations of health educators, we were able to observe only a single health educator in Managua, rather than the two sought. PASMO identified the health educators to be observed; we do not know what criteria were used except that the health educators had to be familiar with FCs.

On the plus side, most of the participants tried the FC and were able to articulate their perceptions and experiences. Even with these limitations, the study succeeded in recruiting samples of FSWs from three zones in two countries and achieved the six study objectives.

3. Results

A. Basic Results

In this section, we provide basic results from SIs (presented in the tables) and quotations from the FGs. In section B, we address the six objectives. The data analysis compares women across the three **sites** (San Salvador, San Miguel, and Managua), because program managers will find this most useful. Difference by SES are denoted in the text only when they were different from the analysis stratified by site. But the major focus is on potential FC use by **partner type** (new clients, regular clients, and non-paying partners).

3.1 Socio-demographic Characteristics

Participants had similar demographic characteristics across the three study sites (Table 1). Their mean age across sites was 28, the mean number of children was 2.8, and the mean number of years of education was 7.4. Women in San Miguel had a somewhat higher educational level. Women in socioeconomic group A (highest SES) were the youngest, with a mean age of 23, while ambulatory sex workers in the lowest SES group had the highest mean age at 32 (data not shown).

Table 1: Socio-demographic information by site

	San Salvador, El Salvador	San Miguel, El Salvador	Managua, Nicaragua	Total
Mean age	27	28	29	28
Mean number children	2.5	3.1	2.9	2.8
Mean years education	6.8	8.4	6.5	7.4
Mean age when started sex work	21	21	20	21
N	36	37	22	95

The mean age for starting sex work was 21 across the sites (Table 2). About one-third of all women had forms of employment other than sex work. However, women in San Miguel were the least likely to have other forms of employment. Women in San Miguel reported earning more money than women in other sites and were more likely to report having other jobs.

Table 2: Work history by site

	San Salvador, El Salvador	San Miguel, El Salvador	Managua, Nicaragua	Total
Mean age when started sex work	21	21	20	21
Age range when started sex work	12 – 30	14-40	12-37	12 -40
Women having other forms of work	11	15	5	31
Median monthly income USD[A]	$309	$507	$200	$360
Income range USD	$100 – $1,100	$100-$1,500	$28-$499	$28 -$1,500
N	36	37	22	95

[A=]Includes all forms of income

Contraceptive use among these study participants was high. Women in Managua had the lowest rate for use of a contraceptive method (17/22) while contraceptive use to prevent pregnancy was almost universal in the El Salvador samples (Table 3). Almost a third (11/34) of women in San Salvador reported that they had been sterilized. About one-quarter of women reported using the male and female condom to prevent pregnancy. Sterilization was also common in San Miguel, but not in Managua.

Table 3: Current contraceptive use

	San Salvador, El Salvador	San Miguel, El Salvador	Managua, Nicaragua	Total
Number of women currently using a method to prevent pregnancy:	34	37	17	88
Total	36	37	22	95
Number currently using:				
Female sterilization only	11	6	3	20
Sterilization and MC	3	4	0	7
Sterilization, MC and FC	2	3	0	5
Injectables only	0	4	2	6
Injectables and MC	0	0	2	2
Injectables, MC, and FC	7	3	1	11
Pills and MC	0	1	1	2
Pills, MC, and FC	1	1	3	5
MC only	1	3	2	6
MC and FC	8	10	2	20
Natural method and FC	0	1	0	1
Missing information	1	1	1	3
Total	34	37	17	88

Knowledge of STIs and HIV was also high, with only one study participant reporting that she had not heard of STIs and HIV (data not shown). Most women in the two El Salvador sites reported that they were very worried about contracting HIV but thought it was completely within their control to protect themselves from becoming infected with HIV (Table 4). Fewer women in Managua held these beliefs, with about three-quarters of participants (16/22) very worried about HIV infection and only half (12/22) believing that STI protection was completely within their control.

Table 4: HIV risk perception by site

	San Salvador, El Salvador	San Miguel, El Salvador	Managua, Nicaragua	Total
Number worried about getting HIV:				
Very worried	35	35	16	86
A little worried	1	2	4	7
Not worried	0	0	2	2
Total	36	37	22	95
Number who perceive having control preventing HIV infection:				
Completely within control	33	30	12	75
Partially within control	3	5	10	18
Completely outside control	0	2	0	2
Total	36	37	22	95

3.2 Women's "First Try" of the FC and Partner Type

Nearly all participants in the SIs reported inserting at least one FC between their first FG and their SI about 2 to 4 weeks later. (Note: Women who did not try the FC may have been less likely to participate in the SI.) During this interval, participants used an average of 12 of the 21 female condoms they received at the end of the first FG session (Table 5). Approximately 1,140 female condoms were used during this time (data not shown).

About one-third (28/94) tried it alone for practice the first time they inserted it. In the FG data, most women said that a woman should practice first on her own, to get accustomed to inserting and removing it.

Women in the FGs reported needing a range of 2 to 10 times of practice inserting the FC before they felt comfortable using it with a partner.

Compared with women from the other sites, women from Managua were more likely to report that they found FC insertion difficult (Table 5). Nearly all participants said that once they had gotten used to it, the FC was easy to insert and comfortable to use.

Across all sites, women reported using the FC at some point with both regular and new clients (Table 5). Also at each site, about half of women reported using a FC for the first time with a regular client and about half reported using it for the first time with a new client.

Regarding this issue, the FG data partially contradicted SI data. In the FGs, women said that a woman should try using the FC during intercourse for the first time with a partner with whom she has trust, like a frequent client or a non-paying partner. In practice, according to the SIs, first use was often with a new or regular client rather than a non-paying partner.

Table 5: First use of female condom by site

	San Salvador, El Salvador	San Miguel, El Salvador	Managua, Nicaragua	Total
Mean number of FCs used between first FG and SI:	12	10	14	12
Total	36	37	22	95
Ease of FC insertion:				
Difficult	15	12	12	39
Easy	17	22	9	48
Neither difficult or easy	3	3	1	7
Total	35	37	22	94
Of those who found it difficult to insert, insertion got easier with practice:	15	10	11	36
Total	15	12	12	39
Circumstances under which FC was first used[A]:				
Alone (not associated with sex)	9	13	6	28
New client	9	9	4	22
Regular client	10	11	9	30
Non-paying partner	3	11	3	17
Total	35	37	22	94
First *person* tried FC with:				
New client	18	9	7	34
Regular client	13	14	11	38
Non-paying partner	4	12	4	20
Other non-paying partner	0	2	0	2
Total	35	37	22	94

[A] = Multiple responses allowed.

Only one woman reported complete refusal on the part of her "first try" partner. However, nine women reported that they had to overcome resistance by their "first try" partner. Five of the nine women reporting partner resistance were from San Miguel. Women reported that men resisted initially for a variety of reasons: he had never used one; he worried about whether it was safe; he did not want to try it; it is not the same as a MC; they already use a hormonal method of birth control; he thought it would hurt; he was concerned about the level of protection it provided; he said he was allergic to the FC; he did not like it; it was too big, and he thought he would have to put it on *himself* (data not shown).

Women reported they used several strategies to persuade their "first try" partners to use the FC. These strategies included: she would use the FC or not have intercourse; she got the FC at a health meeting; the FC was an alternate method to hormonal contraceptives; the FC prevented STIs and pregnancy; she was sick; or the FC was more comfortable than a MC.

3.3 Problems Encountered with the Female Condom

Table 6 indicates the problems women experienced with FCs. The most common problem was that the FC disappeared inside the vagina (29/95) followed by misdirection (24/95). More women in Managua experienced slippage (6/22) than in San Salvador and San Miguel (2/36 and 2/37). We did not measure how often these problems occurred.

Table 6: Problems experienced with the female condom

Number of women reporting problem:	San Salvador, El Salvador	San Miguel, El Salvador	Managua, Nicaragua	Total
FC completely pushed in vagina	12	9	8	29
Misdirection (penis inserted between FC and vagina wall)	9	10	5	24
Slippage (FC slipped out and needed to be reinserted).	2	2	6	10
Breakage	0	0	1	1
Spillage	0	1	2	3
Total	36	37	22	95

3.4 Condom Use by Partner Type

In both the FGs and SIs, women were asked to discuss and report on MC and FC use with different types of partners. We wanted to learn if there were opportunities for the women to use the FC when MC use was not feasible, ultimately decreasing the risk of HIV/STI transmission by decreasing the number of unprotected sex acts. Partners included new and regular clients and non-paying partners such as boyfriends or spouses.

The SI asked women about the number of sex acts they had had with new clients, regular clients, and non-paying partners in the preceding seven days and how many of those sex acts were protected by MC use, FC use, or were unprotected. We distinguished between new clients and regular clients to see if there were any differences in condom use and negotiation.

To improve recall, we asked about sex acts over the past seven days (Table 7) and at the last sex act (Table 8). Over the past seven days, women had had the most sex acts with regular clients and the least with non-paying partners (Table 7). As has been documented in other studies, the largest proportion of unprotected sex acts was among non-paying partners. Only slightly more than half

(97/176) of sex acts with non-paying partners were unprotected, in contrast with 44/731 of sex acts with regular partners and 74/612 with new clients. Across all three partner types (new clients, regular clients, and non-paying partners), about one-third of all sex acts were protected using the FC. The highest proportion of FC use was found among regular clients of women from San Salvador (70/198) and among non-paying partners among women from Managua (26/93). Although we cannot say whether the FC mainly substituted for MC use, a significant number of sex acts were protected by the FC in this study. For non-paying partners, the FC (51/176) was more likely to be used than the MC (28/176) in the past 7 days.

Table 7: Sexual activity over past 7 days by partner type and condom use

	San Salvador, El Salvador	San Miguel, El Salvador	Managua, Nicaragua	Total
Number of women with new clients in past 7 days	32	27	22	81
N	36	37	22	95
Number of protected sex acts with new clients[A]:				
# sex acts unprotected	22	13	39	74
# sex acts protected by FC	**72**	**53**	**58**	**183**
# sex acts protected by MC	122	108	125	355
N	216	174	222	612
Number of women with regular clients in past 7 days	36	33	22	91
N	36	37	22	95
Number of protected sex acts with regular partners[B]:				
# sex acts unprotected	20	19	5	44
# sex acts protected by FC	**121**	**69**	**70**	**260**
# sex acts protected by MC	137	167	123	427
N	278	255	198	731
Number of women with non-paying partners in past 7 days	12	17	18	47
N	36	37	22	95

Number of protected sex acts with non-paying partner(s) [C]:				
# sex acts unprotected	23	53	21	97
# sex acts protected by FC	**7**	**26**	**18**	**51**
# sex acts protected by MC	11	14	3	28
N	41	93	42	176

[A=]Five women reporting inconsistent MC and FC use were excluded.
[B=]Six women reporting inconsistent MC and FC use were excluded.
[C=]Five women reporting conflicting numbers of sex acts were excluded.

As shown in Table 8, across sites among women who reported that they had had sex with a new or regular client within the past 7 days, slightly more than one-half used a MC and slightly less than on-half used a FC. The last time women had had sex with a non-paying partner within the past 7 days, only 9 women used a MC and 2 women used a FC. One woman reported using both male and female condoms simultaneously with a new client; three reported simultaneous use with regular clients; and one reported simultaneous use with a non-paying partner. Regardless of partner type, women were more than twice as likely as men to be the person who suggested the type of condom that was used.

Table 8: Among women reporting sex in the past 7 days with new clients, regular clients or non-paying partners, condom use during last sex act by site

	San Salvador, El Salvador	San Miguel, El Salvador	Managua, Nicaragua	Total
Condom use during last sex act with a new client				
MC	16	15	12	43
FC	16	12	9	37
Both at same time	0	0	1	1
N	32	27	22	81
Who suggested using this type of condom?				
Woman	21	15	17	53
Client	9	11	5	25
Joint decision	2	1	0	3
N	32	27	22	81

Condom use during last sex act with a regular client				
MC	19	19	10	48
FC	16	12	10	38
Both at same time	0	1	2	3
Neither/don't know/no response	1	1	0	2
N	36	33	22	91
Who suggested using this type of condom?				
Woman	20	26	18	64
Client	15	7	4	26
Joint decision	1	0	0	1
N	36	33	22	91
Condom use during last sex act with a non-paying partner[A]				
MC	2	5	2	9
FC	2	7	3	2
Both at same time	0	0	1	1
No condom	8	6	11	25
No response	0	0	1	1
N	12	18	18	48
Who suggested using this type of condom? [A]				
Woman	2	7	4	13
Partner	2	2	2	6
Joint decision	0	2	0	2
N	4	11	6	21

3.5 Women and Partner Preferences for Condom Type

Women's Preferences. Using the FC involves a learning curve. In addition to needing time to practice inserting and removing the FC before feeling skilled enough to use it with a partner, women said that it takes time to decide whether they like the FC. When asked how long it would take for a woman to decide whether she liked the FC, answers ranged from 3 to 30 uses. The majority reported 3 to 10 uses. After trying the FC for the two to four weeks between the first FG and the SI, slightly more than half (52/94) of the women across sites said they preferred the FC over the MC generally. An additional small number (11/94) said that it depends on the type of partner.

Women were asked: "After trying the FC, which do you like better?" and which type of condom they preferred with new clients, regular clients, and non-paying partners. Results are shown in Table 9.

Table 9: Women's preferences regarding types of condoms

Condom preference after using the female condom	San Salvador, El Salvador	San Miguel, El Salvador	Managua, Nicaragua	Total
Prefer MC	10	10	1	21
Prefer FC	20	18	14	52
Depends on type of partner	3	5	3	11
Depends on circumstances	0	1	4	5
Other	2	3	0	5
N	35[A]	37	22	94
Condom preference with <u>new clients after using the female condom</u>				
Prefer MC	11	17	6	34
Prefer FC	22	18	11	51
Depends on circumstances	1	2	4	7
Don't know	1	0	1	2
N	35	37	22	94
Condom preference with <u>regular clients after using the female condom</u>				
Prefer MC	11	8	5	24
Prefer FC	23	27	9	59
Depends on circumstances	1	2	7	10
Don't know	0	0	1	1
N	35	37	22	94
Condom preference with <u>non-paying partners after using the female condom</u>				
Prefer MC	5	9	4	18
Prefer FC	4	13	11	28
Depends on circumstances	2	0	5	7
Don't know	23	11	0	34
No response	0	1	2	3
N	34	34	22	90

[A=]Data missing from one respondent

Over half of women preferred the FC over the MC with both new and regular clients, but other women said their preference with regular clients depended on the circumstances. Women were reluctant to express a preference for the MC or FC with regards to their non-paying partners.

Women's perceptions of men's preferences. Women were also asked about their perceptions of men's condom preferences. Women in San Salvador and Managua reported thinking that new and regular clients preferred the FC, whereas in San Miguel more women thought both types of clients preferred the MC. Some women thought clients had no preference. Women were divided across sites about which condom they thought their non-paying partner preferred (Table 10).

Table 10: Women's perceptions of men's condom preferences

	San Salvador, El Salvador	San Miguel, El Salvador	Managua, Nicaragua	Total
New clients:				
MC	8	18	6	32
FC	13	4	8	25
No preference	7	3	7	17
Refuses to use condoms	1	1	0	2
Don't know/no response	3	1	1	5
N	32	27	22	81
Regular clients:				
MC	10	17	3	30
FC	19	14	7	40
No preference	4	1	11	16
Refuses to use condom	1	0	0	1
Don't know/no response	2	1	1	4
N	36	33	22	91
Non-paying partners:				
MC	4	5	3	12
FC	2	7	4	13
No preference	0	2	4	6
Refuses to use a condom	1	1	6	8
Don't know	5	1	1	7
No response	0	1	0	1
N	12	17	18	47

B. Results by Objectives

3.6 Facilitators of Use

Objective 1: **To identify factors that could facilitate FC use in situations where MCs cannot be used (e.g., with particular sexual partners)**

To identify facilitators of FC use, especially in situations where women are unable to use the MC, women were asked to describe any positive perceptions of FC attributes, circumstances in which they thought the FC could be used, and with which types of partners.

3.6.1 Positive attributes of the FC

One positive attribute women described was the large **size** of the FC. It was said to accommodate all penis sizes, thereby reducing the risk of condom breakage and slippage. The size makes it good to use with men who are, or who say they are, too big for the MC or who feel that the MC is too tight. It was also appropriate for men with smaller penises, who women said have trouble fitting into the MC. They also mentioned that the size of the FC makes it possible to use when the man is not erect, which is not possible with the MC.

Another positive attribute women cited was the **comfort** of the FC for both women and men because of its lubrication and design. Some women described the amount of lubrication as making the FC less irritating than the MC. Women complained of getting urinary tract infections and irritations like burning and scraping because of the dryness of the MC.

Other benefits of the amount of lubrication are that it makes the FC **less likely to break** and women do **not need to purchase extra lubricant**.

> *It doesn't irritate you. When you have a dry vagina, the [male] condom breaks or it scratches you and you have to use lubricant. With this one, you don't have to. (FG 2: Managua C)*

Some women reported that it felt **like** they were **not using a condom at all,** both **to them and to their partners**. Women perceived that their partners would or did find the FC more comfortable than the MC.

> *Because now they will not feel so suffocated. Because they will feel more freedom. They won't feel so enclosed. (FG 1: San Salvador B)*

> *I have a regular client and three times we have used [it] and he said that he likes it because it doesn't bother him at all. (FG 2: San Salvador B)*

Women appreciated the design feature of **being able to insert the FC ahead of time**. This enabled them to ensure that they are protected with men who will not use MCs.

> *Also, we can put it in ahead of time. For example, if a client arrives and we already know that he doesn't like to use a condom, we can go to the bathroom a half hour ahead of time and put it on. (FG 1: San Miguel D)*

Smell was another attribute some women appreciated about the FC compared with the MC.

Women also had positive perceptions of the material of the FC. They said it appears **strong and thick**, making it less likely to break than the MC. This made women feel more **secure**. Women described the design of the FC as offering **greater protection than the MC** because it covers the

outer part of the vagina and labia. They described feeling better protected because they do not have direct physical contact with their partner.

> *It is very important to protect the exterior vagina and if it is covered, there is no risk of infection or burning.… It's better than the male condom. (FG 2: San Miguel D)*

They also said they thought the FC provided **better protection against STIs and pregnancy** than the MC.

3.6.2 Circumstances and partners for FC use

When asked to describe situations amenable to FC use, women said it **could be used when partners do not like to use or will not use a MC**. Women reported FCs were successfully used when the MC was refused particularly among new clients. However, more than half of the women reported using a FC when the MC was refused with both regular clients and non-paying partners in the past seven days (Table 11).

Table 11. Among women who used the FC within the past 7 days, number of women who report FC use when partner refused MC by partner type and site

	San Salvador, El Salvador	San Miguel, El Salvador	Managua, Nicaragua	Total
New client:	17	17	11	45
N	22	20	13	55
Regular client:	20	11	10	41
N	25	19	16	60
Non-paying partner:	2	5	6	13
N	5	8	8	21

This phenomenon of a paying partner being willing to use a FC but not a MC was reinforced in the FGs:

> *For me, a client passed by who told me that he wanted to do it without anything. I told him that I had a female condom. I used it and he liked it. (FG 2: San Salvador B)*

This is one of the most significant results of the study, supported by SIs and FGs: **some men who will not use a MC are willing for their partner to use a FC, suggesting that the FC is offering unique protection.**

The FC made it possible for women to **simultaneously protect themselves and accommodate men** who do not like to use or refuse to use a MC.

> *If there are clients who don't want to use the male condom now we can protect ourselves with the female condom. And it feels good because there are clients who say that they don't feel anything. (FG 2: San Miguel A)*

Women said that when clients would not use the MC, the FC had the advantage of enabling them to **sustain revenues**. If a client refused to use the MC, they could still protect themselves without losing the client.

> *It's better because we don't lose work if a man doesn't bring a male condom. With the female condom, we have an advantage--we don't lose work. (FG 2: San Miguel D)*

Some women said that they could use the FC in such circumstances openly, whereas others said that they could **use it discreetly without telling the client**.

> *If they don't want to use the male condom, we offer to use ours. This way I don't lose work and let him get away. (FG 1: San Miguel B)*

> *In my case, I didn't mention it to the client. He didn't see it and he gave me $20…. He thought I wasn't using anything. (FG 2: San Salvador B)*

Women said that using the FC discreetly could allow them to **earn or charge the higher, no-condom prices** because clients may not detect that women are using the FC.

> *I like the FC more because there are clients who tell you that they will give you more money if you don't use the male condom. So I keep this one ready. Sometimes to not let the client get away, you agree, and if you have the female condom, you can go to the bathroom and put it in and the client thinks they are not using a condom. But because you are wearing it there is no risk that he can give you an infection. There is no problem. (FG 2: San Miguel D)*

Also related to revenues, women discussed menstruation as a situation in which they could use the FC (but not the MC) because it would **conceal menstrual blood**. Most women reported that although they preferred not to work while menstruating, they often needed to do so because of financial emergencies.

For non-paying partners, despite the fact that many women reported that they do not use a barrier method, several women talked about the **need to protect themselves** from STIs with those partners. They were uncertain whether non-paying partners were monogamous.

> *The problem is that if he gives you AIDS, your life is over in that moment...I have known so many men who swear that they don't have any other women besides her. But it is a lie. They always have two or three more…Then they come home and use the wife or woman that he has in the house. This is why you should always use a condom. Men are always unfaithful. You should use a condom. (FG 1: San Miguel A)*

3.7 Barriers to FC Use

Objective 2: To identify barriers to FC use and how women can overcome them

Barriers to FC use included negative perceptions of the FC's attributes, particular circumstances including types of partners, and access issues.

3.7.1 Negative attributes of the FC

Women had some negative perceptions of the FC's attributes. Many women had negative initial reactions to the **appearance of the FC**.

> *It looks horrible…what is this thing for? (FG 1: Managua A)*

Women also reacted negatively to the FC's **large size**.

> *I got scared and I said, "This strange thing is so big. How will I use it?" (FG 1: San Miguel B)*

Related to size was the issue of the **difficulty of concealing the large package**.

> *For me it seems like everything is okay. The only thing is that the package is large and my mom doesn't know the kind of work that I do. So how will I hide them? (FG 1: San Miguel C)*

> *The package is very large… It won't fit into[a] client's pockets (FG 2: San Salvador D).*

Women also had negative initial reactions to **the internal ring.** After trying it, many women found the ring caused **physical discomfort**. This included during insertion of the FC, while it was inside, and when they were taking it out.

> *No, I didn't like it because when it was time to take it out, the inside ring hurt me. (FG 1: San Salvador D)*

> *The internal ring is what bothered me. At first and up to the fifth time. I said to myself, "When will this stop hurting me?" I felt a lot of discomfort. (FG 2: Managua A)*

Some women reported experiencing discomfort, especially at first. Women also noted physical symptoms as barriers to use, including bleeding, burning, and allergies.

> *After I took it out, I bled. I only used it once because it hurt me inside. (FG 2: San Miguel C)*

Women reported that the design of the FC made it **difficult to learn to use, including insertion and removal.** Before trying the FC, several women said they thought it would be hard (or impossible) to insert.

> *It looks difficult to insert because of this thing [the ring]. (FG 1: San Salvador B)*

After trying the FC, many women said that it was, in fact, difficult to learn to insert and use.

> *I spent about an hour. I didn't leave the bathroom. (FG 2: Managua A)*

> *Out of curiosity, I tried it myself and I put it in backwards. I didn't know how to put it in. (FG 1: San Miguel D)*

> *It bothers you the first time. It's complicated because one doesn't know and they don't explain how to put it in--what stays inside and what stays outside. The first time it is really hard to insert the part that stays inside. (FG 1: San Salvador B)*

Women said that it would be **hard** to learn **to use without instruction**. Women said that this barrier could be overcome if more training was offered and if women had greater explanation of how to use it.

3.7.2 Access barriers

Access barriers included **availability** and **price** of the FC, as well as **access to information** about the FC. Women said the FC was widely available and recommended that it be sold and distributed more widely in the same places where MCs are available.

> *They need to sell it in accessible places like the male condom, in the pharmacy. (FG 2: Managua D)*

The price of the FC was also cited as prohibitive, especially when compared with the less expensive MC. Women recommended that the price be lowered or that the FC be given away.

Is it going to be expensive? The price is very important. (FG 1: Managua D)

Loss of an opportunity to earn more money by having sex without a condom was also suggested as a barrier to FC use. Some clients offer more money to have sex without a condom.

They say that the men don't want to use it. They say, "I'll give you $20 without a condom." (FG 1: San Salvador B)

General **lack of exposure to the FC** by both women and men was mentioned as a barrier in all sites. People said they had not heard of the FC; they had heard of it but not seen it; or possibly, they had seen it but not used it. Few people, including women themselves and the general public, were thought to have used a FC. Clients' lack of exposure, knowledge, and awareness of the FC was reported in the FGs. Because of unfamiliarity, women said, men may fear that it is unsafe, or they may refuse to use it out of ignorance or insecurity. To overcome this barrier, women recommended that more information be provided to both women and men.

If there were more awareness, for the public—for men and for women—so that it wasn't such a taboo. (FG 2: Managua A)

You should give the "charlas" to the men. Because the majority of men don't know about the female condom…they don't believe in it. It scares them. (FG 2: San Salvador D)

3.7.3 Circumstances and partner barriers

When asked to describe the **physical circumstances** in which it would it be **difficult to use a FC**, women said difficulties would arise when they were in a hurry, in public, in parks, in a car, in the dark, in the water, and when under the influence of alcohol.

Circumstances in which **partners reacted negatively** to the FC were also discussed as a barrier, including potential or actual negative reactions. Some partners were reported not to like the FC, including the ring and the texture.

Men's **machismo** was also discussed as a reason men might refuse to use the FC.

Some men won't accept penetration with this condom. Here in Nicaragua, the men are too macho (FG 1: Managua A)

Barriers and solutions specific to different types of partners were also discussed. Women feared they might **lose the client if he does not like it**. Many women noted experiences with clients who had negative reactions the first time they saw it.

A client ran away from me when he saw it. (FG 2: Managua D)

When you take out the package, they get scared. They just say, "You're going to use this?" (FG 2: Managua D)

Potential or actual **mistrust** on the part of clients regarding women's motive for using the FC was also described. Some women expressed concern that clients will think a woman has an STI if she wants to use the FC.

He said, "Are you sick? If you are sick, we will use it." (FG 1: Managua C)

Some clients said they were used to the MC and **might not want to try something new**.

3.7.4 How women can reduce barriers

When asked how a woman might introduce a FC with clients**,** participants generated a wide range of creative possibilities. Women had a much harder time coming up with ways of persuading non-paying partners to use a FC. Ways of persuading a **new client** included:

> *[I would say] "Look, I have a condom. But I don't want you to feel uncomfortable, my love. Don't worry. You will be protected, and I will too. We are getting to know each other and you will not be so uncomfortable. You will feel liberated. If it is okay with you, we will try it." If he accepts, great. (FG 2: Managua A)*
>
> *Explain it to him because there are many clients who don't like using the male condom. You have to explain it to them to see if they want to use ours. (FG 2: San Miguel C)*
>
> *Tell him that it is better protection. It won't feel as tight as the male condom. (FG 2: San Salvador B)*
>
> *I would tell him that my gynecologist gave it to me. (FG 2: Managua A)*
>
> *I would tell him that they are expensive. That I'm spending money on you. (FG 2: Managua A)*
>
> *Tell him to try it and that it's like he's not using anything. (FG 2: San Salvador B)*
>
> *[Tell him] that it is more comfortable. (FG 2: San Salvador C)*

When asked what a woman should do if a new client refuses to use the FC, participants suggested:

> *I would try to convince him, tell him that he will not feel suffocated. That this one will not squeeze the penis. That trained people gave me this. That he shouldn't be scared. (FG 2: Managua A)*
>
> *I would tell him that we will try it the first time. If he doesn't like it, then we won't continue using it. (FG 2: Managua D)*
>
> *Okay honey, we are going to try it. And if we are in the middle of having relations and you don't like it, then we'll use the other one. The important thing is that you start to become familiar with it. (FG2: Managua D)*
>
> *Tell him that you will use it because it is protection for you and for me. One has to try to convince them, to educate them. (FG 2: San Miguel C)*
>
> *Start to explain it to him. [Tell him] not to be scared. Teach him how to put it on. (FG 2: San Salvador D)*

When asked how they would advise a peer to introduce the FC with a **regular client**, answers were similar to the suggestions given when working with new clients.

> *Tell him it is for preventing STIs. That they use it. That it is not bad to try it. (FG 2: Managua A)*
>
> *Insist and insist. Don't give up. Always continue. (FG 2: Managua A)*
>
> *[Tell him] "You will avoid the fatigue of putting on a condom." (FG 2: Managua A)*
>
> *With regular clients it is easier because you already have a certain amount of trust. You can joke and joke and when you are finished, you have convinced them. (FG 2: Managua B)*

When asked what she should do if the regular client refuses, participants suggested:

Oh well. Resign yourself and put on the male condom. As long as you are using protection. (FG 2: Managua A)

Tell him that I am going to put it on me, not him. (FG 2: Managua B)

To overcome the barrier of a client's negative initial reaction, women suggested emphasizing the appeal of experimentation.

"You have always had [sexual] relations with me. But now for the first time, we are going to try it with this." (FG 2: Managua C)

Focusing on STI protection was also mentioned as a strategy.

"You don't know where I've been, and I don't know where you've been. So, it's better that we use a condom." (FG 2: Managua C)

Other women suggested focusing on pregnancy prevention rather than on sexually transmitted infections when introducing the FC to partners.

Tell him, "I have female condoms and I don't use pills. So if you accept, I'm going to put this on." (FG 2: Managua C)

With **non-paying partners** (boyfriends or husbands), women said FC use would be difficult because they do not usually use a barrier method.

[It will be difficult to use] with one's husband because he knows that you are his wife and they don't like to use it. (FG 1: San Salvador C)

Women noted that suggesting the FC might inspire mistrust in their partners and indicate distrust of their partners.

It will seem strange because they will say after having so much trust, why would you want to use it? (FG 2: San Miguel C)

They will think that it is offensive. They will say that if they had anything, if they were sick, they would say something. (FG 2: Managua B)

The partner may think that she has an STI or has been with another person.

They will think that we are sick. (FG 2: Managua C)

I gave two to a [female] friend and it went badly. She had a fight with her husband. The ignorant man thought that maybe she was seeing another person. (FG 2: Managua B)

Women said that introducing the FC to non-paying partners would be difficult because of men's machismo. Because men are not accustomed to using a barrier method, women said, it would be difficult to persuade them to use it. Some men will refuse out of "machismo."

Men are macho, especially with the women in their homes. More than anything, men are not going to want to put this on. (FG 2: Managua D)

An important factor prohibiting women's introduction of the FC to non-paying partners is that it would disclose that women were doing sex work. Women in several FGs said that their non-paying partner did not know she did sex work.

At home, they don't use condoms because they think that she doesn't leave the house. (FG 2: Managua C)

Because if they don't know where you work, they won't understand why you have it. (FG 2: San Salvador D)

When describing their experiences suggesting the FC to their non-paying partner, two women reported **intimate partner violence.**

It went badly. He hit me. It was a disaster. (FG 2: Managua B)

The first time that I used it, he hit me because he had never seen one. He said he wanted to know what disgusting thing had I taken it from. After he hit me, we used it and he told me, 'This is good." He hit me because he didn't know that the female condom existed. (FG 2: San Miguel C)

To overcome the barrier of a non-paying partner's potential mistrust when they introduce the FC to him, women suggested emphasizing the appeal of trying something new and focusing on experimenting and the desire to try it out of curiosity.

That is a new option, that we should try it, that they gave it to me and I want to try it with you. (FG 2: Managua B)

I will tell him that I'm curious; I asked that he help me and that we try it. If we don't like it, we move on. (FG 2 San Miguel D)

Other women suggested focusing on pregnancy prevention rather than on STIs when introducing the FC to non-paying partners.

[Tell him] where you can find it. That it prevents pregnancy. (FG 2: Managua A)

With non-paying partners who are aware that women do sex work, women suggested introducing the FC as something they wanted to practice before trying with clients.

If the boyfriend knows about the work that she does, she can tell him that she wants to practice on him so she can use it with clients. (FG 2: San Salvador D)

When asked what to do if her non-paying partner refused to use the FC, women's responses ranged from it being impossible to convince them, refusing to have sex with the husband until he agreed to use it, and educating him about the FC.

An important insight from the FGs is that women believe that a family planning rationale for FC use may be more effective than an HIV one.

3.8 Promoting the FC

Objective 3. To solicit FSWs' opinions on the kinds of support, educational materials, and communication channels that may encourage them (and their peers) to use FCs

Women were asked about how their peers could best learn to use the FC, including modes of instruction, what training should be provided and by whom, where training should take place, and what materials would help women learn to use the FC. Women were given an illustrated instructional brochure written in Spanish that was provided by the Female Condom Company, the manufacturer.

In the FGs, some women said it was possible to learn independently by following the **illustrations on the package**. But most reported that the illustrations did not give enough information for a woman to learn to use the FC on her own.

When asked in the SIs if the **illustrated brochure** was sufficient for a woman to learn to use the FC, almost all women in San Salvador (34/36), most women in San Miguel (31/37), and over three-fourths in Managua (17/22), said "Yes." In the FGs, some women said that it might be difficult for women with low literacy to learn from the illustrated brochure alone and that a brochure with clear, numbered illustrations would be essential for women who cannot read. Other women, including women self-described as having low literacy, said they could, in fact, learn by using the brochure.

When asked in the SIs how they viewed the adequacy of instructional **videos**, most women in San Salvador reported that instructional videos only or instructional videos with education (33/36) would suffice. In San Miguel 19 out of 37 women and in Managua 16 out of 22 women answered that instructional videos only would suffice, while 13 out of 37 women and 14 out of 22 recommended instructional videos with education.

Many women stated in the FGs that although it was possible to learn from a brochure, they would prefer or benefit additionally from **instructor-led training** and it would be best if the instructor were a woman. The majority of women in the FGs recommended a demonstration using an anatomical model or informal education session (*charla*) as the ideal training. The recommended number of training sessions ranged from one to five. Possible instructors included gynecologists, pharmacists, and health educators. Organizations they listed that might provide instruction included TESIS, PASMO, Funda SIDA, Flor de Piedra, Pro Familia, the Ministry of Health, and health centers and hospitals. The preference for training was confirmed in the SIs: Most women in San Salvador and just over half in San Miguel and Managua responded that it would be possible for them to learn how to use the FC from an instructional brochure plus training.

Women in the FGs listed a wide variety of locations for training, including supermarkets, health centers, hospitals, night schools, places where women do sex work, factories, beauty salons, discos, hotels, motels, massage parlors, and pharmacies. Across sites, women in the highest SES group reported a lower preference than the other groups for individual and group training sessions at clinics and NGOs. Additionally, some women expressed fear of discrimination or stigma if they were to go to a training session at an NGO generally or if the NGO session included women not involved in sex work.

> *I wouldn't go. I don't know…it makes me ashamed. (FG 2: Managua C)*
>
> *If it was a group of sex workers, yes. If they are going to mix the groups, then no. Because there is discrimination. (FG 2: San Miguel A)*
>
> *No, because they already know what type of people we are. And we feel discrimination and on the other hand, other people just go and turn on us and discriminate against us. (FG 2: San Miguel D)*

Women in all groups and sites also expressed a preference for training to take place at their places of employment in order to avoid missing work and for convenience. This was confirmed in the SIs.

Women were also asked about how the FC should be promoted to their peers. Some women said that instruction or *charlas* that discuss sexual health could incorporate FC instruction and promotion. Several women mentioned peer educators and television as a good way to provide instruction and promote the FC. One group in Managua recommended a marketing campaign with television

advertisements and billboards, similar to the campaign for the MC brand "Vive." Most women expressed that the FC should be promoted widely so that it is as familiar as the MC.

Although the FGs asked how to promote the FC to other sex workers, women in several groups mentioned that FCs should also be promoted to housewives, whom they saw as at higher risk for HIV than sex workers. Some women also related that some of their clients had been so pleased with their FC experience that they asked for some to use with their wives.

> *It is like the women where we work say, we are the ones who take care of ourselves. But the women in the homes, they don't think that their husbands are pigs. But the women who get AIDS are the housewives, not us. (FG 2: Managua C)*

3.9 FC Distribution Outlets

Objective 4. To identify FSWs preferences for "high-risk outlets" for FC distribution

Women were asked where they would prefer to obtain the FC. Responses varied by site. In the FGs in Managua, women listed pharmacies, supermarkets, motels, night clubs, gas stations, bodegas, an establishment called "On the Run," massage centers, health centers, places where they sell MCs, and "everywhere possible." In the FGs, women from San Salvador mentioned pharmacies, gas stations, motels, stores, supermarkets, health centers, and places where they work.

In the SIs, women reported a preference for pharmacies, clinics and hospitals, and other venues comprising primarily places of employment. Pharmacy distribution was particularly important for women from Managua, whereas clinic and hospital distribution were more important for women from San Miguel and San Salvador. Only women from San Salvador mentioned bars/clubs and hotels as important distribution points for FCs. The reasons were that it would be "easier, more convenient" and that "they are free" (data not shown).

Table 12. Among women who would like to use the FC after their current supply ends, where they would like to obtain them by site (n=88) [A]

	San Salvador, El Salvador	San Miguel, El Salvador	Managua, Nicaragua	Total
Pharmacy	12	13	15	40
Clinic	20	23	2	45
Hospital	16	19	0	35
Bars/clubs	15	12	0	27
Hotels	14	10	1	25
NGO	4	2	2	8
Other	10	6	10	26
Don't know	0	0	2	2
No response	1	0	1	2

[A=]Multiple responses possible

3.10 Current FC Promotion

Objective 5. To describe how the FC is being promoted by BCC health educators, including the main messages delivered, in order to improve promotion of the FC

Structured observations of 6 BCC health educators during their efforts to promote condom use during 12 education sessions indicated that a considerable amount of additional information needs to be provided to women if they are going to use FCs successfully. The results for the three sites for the 39 items in the checklist appear in Appendix C. The checklist indicated whether a health worker mentioned each topic during an educational session. Topics included general information about STI/HIV and pregnancy risk, contraceptive methods, counseling and testing information for STIs/HIV, and counseling about topics pertaining to the use of both male and female condoms. We will review the results for the three sites separately.

3.10.1 Observations of health education sessions

Managua, Nicaragua

In Managua, all four observations were conducted with the **same** health outreach worker. The four observation sites included one bar and three brothels. In the observed educational sessions, there was plenty of room for improvement because 15 of the 39 topics were only mentioned in one of the four sessions.

The majority of counseling sessions observed provided information about the woman's risk for STI/HIV; the basic facts of HIV and AIDS; referred the woman to places where she could get a contraceptive method; discussed double method use (using a condom along with another method) to prevent pregnancy and STIs/HIV; and discussed or made a referral to a STI testing and treatment site. During FC counseling sessions, the majority (three out of four) of education sessions successfully discussed ways to negotiate FC use with a partner; discussed the benefits of FC use; mentioned that a new FC must be used for each sex act; mentioned that lubricants can be used with the FC; mentioned that the FC can reduce risk of STIs and HIV infection; and offered women a MC.

However, in only one of four observations did the educator discuss using contraceptive methods (not including the condom) to prevent pregnancy; recommend getting tested for HIV; or make a referral to a VCT site. The health worker discussed the risk of pregnancy in half of the observations. When counseling on the topic of MC use, in only one of four of the observed health education sessions was the woman asked if she is always able to use a MC with different types of clients (new and regular) and non-paying partners. In only one of four sessions on the FC did the health educator mention that the FC is made of polyurethane and not latex; encourage women to practice inserting the FC before using it with a partner; mention that the woman would be able to feel the inner ring if it was not inserted correctly; mention that the FC can make sex more enjoyable because it heats up during sex; mention that the FC can be inserted up to 8 hours before having sex; ask if the woman had any questions about the FC; or offer the woman a FC.

San Miguel, El Salvador

In San Miguel, two health outreach workers were observed for a total of four observations. Observation sites included one street location, one nightclub, and two brothels. Nearly all health education sessions in San Miguel mentioned each educational item on the list of 39 being evaluated.

The items not mentioned at all were that the FC can make sex enjoyable because it heats up during sex and that the FC can be inserted up to 8 hours before having sex.

San Salvador, El Salvador

In San Salvador, three outreach workers were observed for four observations. Observations sites included one street location, one beauty salon, and two brothels. As with San Miguel, the majority of the observed health education sessions in San Salvador mentioned each of the 39 educational items. The only item that was not mentioned in the majority of sessions was that the FC can be inserted up to 8 hours before having sex.

3.11 Willingness to Pay for FCs

Objective 6: To describe the willingness of FSWs to pay for the FC

In the SIs, women were asked whether they would consider buying FCs if no-cost distribution were discontinued, and nearly all participants responded that they would. However, in the FGs, women expressed concern over the potential cost of the FC versus what they earn. Some women reported that they currently purchase their own male condoms, while others said their clients were responsible for buying them. Several women mentioned that adopting the FC would not be feasible unless FCs had the same price as MCs. The possibility of charging the higher no-condom prices when using a FC was mentioned as potentially offsetting the cost of the FCs.

4. Discussion

Here we discuss how the research results answer key questions involved in designing an effective campaign to increase FC uptake. Specific recommendations for the campaign are summarized in the concluding section of the report.

The research findings confirm that sex workers in El Salvador and Nicaragua are an appropriate target population for social marketing efforts to encourage adoption of the FC. Objectively, they are at above average HIV risk. They also perceive themselves as being at risk of becoming infected with HIV and other sexually transmitted infections but believe that they have control over this risk. They report that they do not always use MCs, especially with non-paying partners. Women perceived a role for the FC in increasing their total number of protected sex acts. Most were positive about using the FC and were willing to introduce it to paying partners. In addition, over half of the women regardless of partner type who had sex in the last seven days were able to use the FC when the MC was refused suggesting a role for FC use with all partners.

The goal of the campaign will be to increase the total number of protected sex acts rather than replace MC use. The study design could not directly address the issue of substitution of the FC for the MC because there were no baseline data before the introduction of the FC or longer term follow-up data. However, some substitution may be expected because most women expressed a preference for the FC over the MC. It was clear that some women were considering FCs as an additional option available to them to use in a variety of situations, rather than uniquely for use with partners with whom they did not use MCs.

Based on the research, we would forecast favorable campaign results for FC uptake if provisions are made for instructing women on their use and if supplies are easily available. The research suggests that a campaign should focus on helping women fill the condom protection gap with free FCs.

The purpose of the social marketing campaign should be to encourage women (and men) to increase the total number of protected sex acts by making FC use seem more attractive to women than having unprotected sex. An effective marketing strategy should appeal to what women appreciate as the key benefits of the FC as identified in the FGs and SIs. It should also maximize their perceptions of the costs of unprotected sex, and minimize both what women perceive as the costs of using FCs and the benefits of unprotected sex.

The **key benefit of using FCs** for the campaign to emphasize is that they may be used when MCs cannot be used with clients, thereby enabling women to sustain revenues. Other important benefits are that sex work itself is less troublesome because the size and design of the FC accommodates all penis sizes and states of erection; FCs allow women to be prepared because they can be inserted in advance; they can sometimes be used without men's awareness; they give women some control over their risks; they are physically more comfortable for many women than MCs; they require no extra lubricant; they can be used during menstruation; and they are less constricting for many men which may make them more appealing to men who refuse the MC. Women also generally feel more secure and better protected against STIs with the FC than the MC.

The **key cost to emphasize of not using any type of condom** with clients and non-paying partners is potential exposure to the risks of becoming infected with HIV and other STIs.

The **key costs of using FCs** were associated with awkwardness of introducing the FC for the first time with clients and non-paying partners. Women were concerned that clients might think they have an STI or HIV and that the strange appearance of the FCs will scare clients away. Women worried that suggesting the FC would cause non-paying partners to suspect that women were having an affair; that it could disclose a woman's professional activities to men who did not know about her sex work; and it might be perceived as an indication of women's mistrust of her partner. Any of these concerns by men could provoke men's resistance or even intimate partner violence. A reduction in earnings due to the potential high price of FCs is also a potential cost, but it was not relevant in this formative research because the FCs were free.

The perceived **key benefit to women of having unprotected sex** with clients is that clients pay more. Sustaining revenues by having unprotected sex with men who refuse to use MCs is perceived by women as better than losing the client and revenues entirely. For non-paying partners, the key benefit of unprotected sex is that it expresses trust of the partner and is in accord with cultural and behavioral norms in which women and men in affective relationships do not use MCs.

Within resource constraints, an **FC distribution campaign** could be structured to overcome at least some of the barriers to FC use identified in the research. However, some barriers, such as skills and access, can be addressed more easily than others, such as product attributes or gender norms.

One key barrier that is possible to address is that the mechanics of using the FC are not self-evident. Learning to insert the FC is challenging and takes time. Women may give up before they feel comfortable using the FC. Training women how to use the FC is an essential part of any campaign. Women should be encouraged to practice inserting it on their own before using it during intercourse and to use it frequently enough to give it a chance before deciding to abandon it as a method. Also, partnering with organizations that ongoing activities with FSWs might be a way to educate women about FC use.

Stigma can be a barrier to women's ability to use FCs by exposing them to social or physical harm. A campaign should provide access to a supply of FCs and training in FC use where stigma is less likely to be an issue.

Another relevant potential barrier is that men typically do not like to use MCs. Women may fear that this will make men less amenable to using FCs as well. As part of the campaign's training activities, women should learn negotiation skills that include how to highlight ways the FC is distinctive from the MC and why men may like it better than the MC. This is likely to be a better strategy for clients than for non-paying partners, because of the influence of gender and cultural norms on women's non-use of MCs with non-paying partners. Women may also have more motivation to negotiate FC use with clients who refuse to use MCs because it could safely increase their revenues.

Women's (and men's) lack of exposure to the FC is also a barrier. If people do not know about it, where to get it, or how to use it, they will not request the FC. Exposure to the FC and to education about the FC must be increased. Men's lack of exposure to the FC means that women must not only suggest FC use to men, but they must also take the initiative to educate men about the FC. Women's responsibility would be less if the campaign targets informational messages to men as well as women. Men's *machismo,* particularly in affective relationships, may cause some men to react negatively to women's suggestions that any type of condom is necessary. Negotiation messages may help to mitigate some men's negative reactions, including intimate partner violence. But aiming for a radical shift in gender norms is clearly beyond the scope of a FC campaign.

5. Recommendations

Our recommendations for social marketing of the FC in El Salvador and Nicaragua draw on the results of the formative research, whose key finding is that sex workers appreciate FCs and would use them instead of having unprotected sex, with several prerequisites: women need to have awareness of and knowledge about the FC; the skills to use the FC; the negotiation skills to persuade their partners; and safe and convenient access to a supply of FCs. Successful use also depends on a positive male partner reaction. Social marketing programs can address all of these prerequisites.

5.1 Access to FCs

To make access to FCs convenient for FSWs, the distribution outlet recommended in Managua, Nicaragua, is pharmacies.

To make access to FCs convenient for FSWs in San Miguel and San Salvador, the recommended distribution outlets include health clinics and hospitals, pharmacies, bars/clubs, and hotels.

5.2 Price

FCs should be free to FSWs as originally planned. This research suggests that price will be a deterrent to uptake if free distribution is discontinued. Nonetheless, if it becomes necessary to charge for FCs, a subsidized price equal to the price of the MC would probably be feasible for this population.

5.3 Supply

Women should be provided with a sufficient number of FCs to allow them to practice insertion and removal, independent of sexual intercourse, at least two times, as well as enough to try to become

accustomed to it during sex before deciding if they like it. A reasonable number of FCs to be distributed would be 10.

5.4 Promotion

Efforts to promote FSWs' awareness of and knowledge about the FC should occur in the following contexts:

- Educational sessions in the workplace, focusing on the FC
- Incorporation of the FC as a topic of discussion in educational sessions about reproductive and other health issues, also in the workplace

Health educators need to convey key information on FC use, which may require additional training. Promotional efforts could be delivered by:

- PASMO health educators
- Peer educators

Health educators should solicit support for FSW's use of FCs from:

- FSWs interested in serving as peer educators
- Pharmacists where FCs are sold or distributed
- Employees in charge of FC distribution at clinics and hospitals
- Proprietors of bars and motels frequented by FSWs

5.5 Learning How to Use/Feel Comfortable with the FC

Women need to acquire the mechanical skills to use the FC effectively through training sessions and practice. Training should be interactive and consist of informal verbal instruction (c*harla*) paired with both of the following:

- Print material such as the illustrated guide with pictures, words, and sequential numbers for women with low literacy (e.g., the brochure provided by Female Condom Company)
- Demonstration with an anatomical model, such as the one available from the Female Condom Company. These models were provided for PASMO health educators as part of the study and remain property of PASMO.

Training should be conducted by:

- Health educators
- Peer educators
- Gynecologists
- Pharmacists
- Educators from organizations (including TESIS, PASMO, Funda SIDA, Flor de Piedra, and Pro Familia), the Ministry of Health, health centers, and hospitals

As indicated by the observations, health educators also need additional training to be able to communicate the key messages about FCs. The minimum key messages should be standardized. Health educators in Managua may benefit from professional development activities with health educators from El Salvador.

Educational sessions should take place in women's workplaces. For reasons of stigma, it is preferable that training not be conducted in health centers. Training for sex workers should be restricted to sex workers.

Training deserves special emphasis in Managua, as only about half of study participants believed that it was in their control to protect themselves. They also had many fewer STI diagnoses, suggesting less contact with health clinics and educators.

5.6 Motivators and Messages

To successfully increase FC uptake among FSWs before the supply of donated FCs expires, as well as to encourage women to increase their total number of protected sex acts, FC social marketing should emphasize positive reasons for using the FC and the costs of unprotected sex. We found that motivations for FC use with clients and with non-paying partners were distinct.

Motivators for **FC use among FSWs generally**:

- With the FC, you may still be able to protect yourself from STIs in situations where men refuse to use a MC.
- The FC is a method of protection that women can control. A man's penis size and erection have no effect on whether you can use it.
- With the FC, you can feel secure about being protected from STIs AND pregnancy. It is strong and rarely breaks. It covers the inside and outside of the vagina.
- Most women find FCs to be very comfortable and non-irritating because FCs are well lubricated.

Messages for **first-time FC users** include:

- Practice inserting and removing the FC independently until you feel comfortable.
- After practicing on your own, you should try using the FC during intercourse with a partner you trust (whether a non-paying partner or a regular client).
- The rings look strange, but most women can't feel them after they practice using the FC a few times.
- The FC may look like a large plastic bag, but its large size is what makes it comfortable for both women and men.

Messages to promote **FC use with clients** include:

- You can be prepared by inserting the FC ahead of time.
- You may not have to turn away clients who refuse to use a MC. You may be able to earn more money safely.
- You may be able to use the FC discreetly.
- You can still earn money when you are menstruating if you have to continue working.

Messages to promote **FC use with non-paying partners** include:

- It is impossible to know if your boyfriend or spouse has other sexual partners so it is important to protect yourself.
- To reduce a negative reaction by a boyfriend or spouse, you can emphasize that the FC is a method of contraception (rather than emphasizing STI/HIV protection).

Messages should be delivered through the channels described in section 3.8. Preferred outlets for messages and FCs are described in section 3.9.

5.7 Negotiation Skills

The following messages should be part of training in negotiation skills:

- When you try the FC for the first time with a sex partner, do so with a partner you trust.
- If you choose to try it for the first time with a client you trust, the suggestions women gave in section 3.7.4 on **how to persuade men to try the FC** may be useful.

5.8 Recommendations for Campaigns

With currently available technologies, HIV prevention requires a balanced strategy of abstinence (A), reducing numbers of partners (Be faithful), and condoms (C). For sex workers, condoms are the main means of protection. Women need assistance to increase their ability to use condoms.

As noted earlier, FCs cost 18 times more than MCs. Thus, the first priority is to promote MCs and not encourage people to switch from MCs to FCs. Instead, the goal is to cover unprotected sex acts. We believe that FCs can make a contribution to HIV protection, particularly for those at high risk of HIV and for those who dislike MCs. This paper makes a number of recommendations for how to reach female sex workers to promote FCs.

But sex workers are not the only women at above average HIV risk. Female partners of men with multiple partners (including bisexual men), women with multiple partners but not involved in commercial sex work, and women who use injection drugs (or whose partners do) might also benefit from information on and access to FCs. Men also need to be made aware of FCs.

For these reasons, campaigns could be aimed at a somewhat broader target population. We recommend widespread advertising on billboards, radio, and television to increase awareness and demand, including among men and women not involved in sex work. Further research is needed to determine messages and distribution outlets appropriate for marketing the FC to men and other women at risk of HIV.

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Appendix A

Number of FSW Study Participants by Site, Zone and Data Collection Method

SAN SALVADOR, EL SALVADOR			
SES GROUP	**FG1**	**FG2**	**# STRUCTURED INTERVIEWS**
A	7	0	7
B	11	9	12
C	12	8	11
D	10	8	10
TOTAL #	**40**	**25**	**40**
SAN MIGUEL, EL SALVADOR			
A	10	6	9
B	9	5	9
C	12	9	12
D	12	11	11
TOTAL #	**43**	**31**	**41**
MANAGUA, NICARAGUA			
A	5	3	5
B	9	7	9
C	8	5	8
D	10	10	10
TOTAL #	**32**	**25**	**32**

Appendix B Number of Health Educators Structured Observations (by site)

Site	# of Health Workers	# of Observations
San Salvador, El Salvador	3	4
San Miguel, El Salvador	2	4
Managua, Nicaragua	1	4
Total	6	12

Appendix C Results Using Observation Checklist (by site)

	Topics mentioned during counseling sessions	MANAGUA		SAN MIGUEL		SAN SALVADOR	
	BCC Worker/Health Educator:	**NO**	**YES**	**NO**	**YES**	**NO**	**YES**
1	Discussed the woman's risk for STI/HIV	1	3	0	4	0	4
2	Discussed the woman's risk for becoming pregnant	2	2	0	4	1	3
3	Discussed the basic facts of HIV and AIDS (HIV is the virus that causes AIDS. There is no cure for AIDS.)	1	3	0	4	0	4
4	Discussed using contraceptives (not including condoms) to prevent pregnancy	3	1	0	4	0	4
5	Referred woman to places where she could get a contraceptive method (not including condoms)	1	3	1	3	0	4
6	Discussed double method use (using a condom along with another method) to prevent STI/HIV and pregnancy	1	3	0	4	1	3
7	Discussed being tested and treated for STIs or made referral to STI testing site	0	4	0	4	0	4
8	Made referral to STI testing site	1	3	0	4	0	4
9	Discussed getting tested for HIV	3	1	0	4	0	4
10	Made referral to VCT site	3	1	0	4	0	4
	MALE CONDOM USE	**NO**	**YES**	**NO**	**YES**	**NO**	**YES**
11	Asked if woman is **always** able to use MCs with new clients	3	1	0	4	0	3*
12	Asked if woman is **always** able to use MCs ***consistently*** with regular clients	3	1	0	4	0	3*
13	Asked if woman is **always** able to use MCs with non-paying partners such as boyfriends and husbands	3	1	0	4	0	3*
14	Stated FC is an alternative when MCs are not used	2	2	0	4	0	3*
15	Discussed ways to negotiate FC with partner	1	3	0	4	0	3*

16	Discussed benefits of FC use	1	3	0	4	0	3*
17	Mentioned that FC can be used secretly (without partner knowledge)	2	2	0	4	0	3*
18	Mentioned that FC can be used when partner under the influence of drugs or alcohol	3	1	0	4	0	3*
	FEMALE CONDOM INFORMATION	**NO**	**YES**	**NO**	**YES**	**NO**	**YES**
19	Mentioned that FC is made of polyurethane and not latex	3	1	0	3*	0	4
20	Mentioned that FC is thin but really strong	2	2	0	4	0	4
21	Mentioned that FC comes in one size only and fits all women	2	2	0	4	0	4
22	Encouraged woman to practice inserting the FC before using it with a partner	3	1	0	4	0	4
23	Explained that after practice many women find the FC easy to insert	2	2	0	4	0	4
24	Mentioned that inner ring of the FC goes above pubic bone	2	2	0	4	0	4
25	Mentioned that woman can feel inner ring if FC is not inserted correctly	3	1	0	4	0	4
26	Mentioned that FC is not inserted correctly if pain or discomfort is felt	2	1 *	0	4	0	4
27	Mentioned that outer ring remains outside the vagina	2	2	0	4	0	4
28	Mentioned that penis goes into the FC	2	2	0	4	0	4
29	Mentioned that woman must use a new FC for each sex act	1	3	0	4	0	4
30	Mentioned that lubricants can be used with FC	0	3 *	0	4	0	4
31	Mentioned that FCs can make sex enjoyable b/c it heats up during use	3	1	4	0	2	2
32	Mentioned that FCs can be inserted up to 8 hours before having sex	3	1	4	0	3	1
33	Mentioned that FCs can prevent pregnancy if always used	2	2	0	4	1	3
34	Mentioned that FCs can reduce risk of STIs and HIV infections if always used	1	3	0	4	0	4
35	Asked if woman had questions about FCs	3	1	0	4	0	4
36	Offered woman FCs	3	1	0	4	0	4
37	Offered woman MCs	1	3	0	4	0	4
38	Woman accepted FCs	3	1	0	4	0	4
39	Woman accepted MCs	2	2	0	4	0	4