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**Consumer Intentions to Use the Female Condom  
in a Population To Which it has been Mass-marketed**

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## Abstract

**Objective:** This article examines intentions to use the female condom among men and women in Lusaka, Zambia. The female condom had been mass-marketed in Lusaka for about a year when this study was conducted.

**Methods:** A social marketing program distributed female condoms, which were sold in more than 300 retail outlets in Lusaka. Through a subsidy, the female condoms were sold at a price comparable to that of the subsidized male condom (also distributed by the social marketing project). This study uses data from a representative sample of consumers at outlets that sell/distribute the female condom to determine the correlates of consumer intentions to use the female and the male condom.

**Results:** About 40% of sexually experienced respondents at retail outlets that sell the female condom intend to use it. In comparison, 72% of respondents intend to use the male condom. Younger respondents are more interested in using the female condom than older respondents. Both men and women report similar intentions to use the female condom. Unmarried respondents who have regular partners are more likely to use the female condom than others. The relationships between intentions to use the female condom and socio-demographic variables are similar to the relationships between socio-demographic variables and intentions to use the male condom.

Of consumers who used both the male and the female condom in the last year, 58% report an intention to use the female condom and 90% report an intention to use the male condom. Ever-users of the female condom who do not intend to use the female condom in the future cite difficulties with its insertion, dislike for the method and a preference for the male condom as the main reasons for future non-use of the female condom.

**Conclusions:** These findings show that there are substantial barriers to adoption of the female condom in Lusaka, where the female condom has been mass-marketed. More intensive counseling/education about the female condom, especially about insertion, is likely to be extremely important in sustaining women's intentions to use the method and in motivating them to use it. Mass-marketing programs such as the one in Zambia could benefit by having peer education/ promotion sessions (currently being conducted in public settings such as supermarkets, pharmacies, bars and nightclubs) supplemented by counseling sessions in more intimate settings.

## **Introduction**

The female condom is a new and effective HIV prevention method that has recently become available in several developing countries. Although numerous studies have been conducted to determine its acceptability, no previous study has used population-based data to examine the intention to use the female condom among ever-users and non-users (Young, 1997; Cecil et al., 1998). Two types of studies have usually been conducted. In the first type of study, participants are asked about their spontaneous opinion of the female condom after they are shown this method and its use is explained to them. In the second, the use of the female condom is explained to study participants who are given the female condom for their personal use and asked about their opinion of the female condom on their return visit (Ford and Mathie, 1993; Gollub et al., 1995; Young, 1997; Sinipisut et al., 1998; El-Bassel et al., 1998; Witte et al., 1998; Cecil et al., 1998). Because these studies have used non-representative samples, their results cannot be generalized to the larger population. Moreover, because of the lack of mass-availability of the female condom until relatively recently, acceptability research has not been conducted in contexts where consumers have had the opportunity to try the method on their own. Mass-availability (accompanied by advertising) of a contraceptive method increases a population's familiarity with it, which in turn may influence consumer intentions to use the method.

This study uses data from a sample survey to examine the factors associated with intentions to use the female condom among men and women in Lusaka, Zambia. The female condom had been on the commercial market in Lusaka for about a year when this survey was conducted. Social marketing was used to promote the female condom, to educate consumers about the method and distribute it through a variety of commercial outlets. Because contraceptive intentions are good predictors of subsequent contraceptive use (Curtis and Westoff, 1996), findings from this study may indicate the extent to which the female condom will be used in the future. It will also enable an investigation of reasons for not wanting to use the female condom, especially among ever-users.

This study is unique for three reasons: it was conducted after the female condom had been widely available in Lusaka for a year; the sample size is relatively large compared to previous studies of the female condom; random selection procedures were used in selecting respondents. Studies with these strengths are considered necessary to build up knowledge on this subject (Witte et al., 1999).

### **Price, Promotion and Availability of the Female Condom in Lusaka**

Social marketing of male condoms is a key strategy for global HIV prevention (Cohen et al., 1999a). Its four organizing principles (Product, Promotion, Price, and Place) stem from the idea that people will adopt healthy behaviors when a product (or behavior) with clearly defined health benefits that make its use preferable over alternatives is promoted effectively. The cost to the consumer of adopting a new product can be lowered through reducing barriers such as high price and limited availability and by making the product attractive through advertising and promotion (Kotler and Roberto, 1989; Lamprey and Price, 1998)

In Zambia, Population Services International (PSI) and the Society for Family Health (SFH) started social marketing the female condom in October 1997. The female condom was marketed under the brand name *care* and positioned as a disease *and* pregnancy prevention method. Women were the primary target group for the campaign. However, because men control decisions about condom use in Zambia (Agha, 1998), advertising messages were inclusive of men. For example, one radio spot described use of the female condom in a warm relationship between a single woman and a loving man (Chilufya Mwaba, personal communication 1999).

Multiple media were used to promote the product: point of sale materials at retail outlets, posters, magazines and radio advertisements. Female peer-educators played an important role in educating consumers about the method and its use. They held educational sessions at pharmacies, drugstores, clinics, market places, workplaces, bars, nightclubs, professional group meetings and colleges. During these sessions (many of which lasted several hours), men and women were informed about how to insert and use *care*.

Because the price of condoms can be a barrier to their use (Cohen et al., 1999b), the price of *care* was kept low. Through a subsidy, the price of *care* was kept almost as low as that of the male condom, *Maximum*, which is also subsidized by the social marketing project. Compared to three *Maximum* condoms for 200 Kwacha, two *care* condoms could be purchased for K250 (approximately K1300 were equivalent to U.S. \$1 in October 1997).

A total of 307 retail commercial outlets, consisting of supermarkets, pharmacies, drug stores, medical centers, bars, nightclubs and other (hotels, hair salons, other clubs and workplaces) sold *care* between October 1997 and October 1998. Cumulative sales of *care* reached 40,900 by October 1998. Since the limited availability of condoms is a major barrier to their use (Cohen et al, 1999a), this study was restricted to outlets where the female condom was available during 1997/1998.

### **Data and Methods**

This study uses data from an exit survey of customers at retail outlets that sell the female condom. To get a representative sample of consumers at retail outlets it is advantageous to draw a sample with probability of selection proportional to the volume of consumers at different outlets types (i.e., the equivalent of sampling with probability of selection proportional to population size in household-based surveys).

To assess the volume and distribution of the consumer population at outlet types that sold the female condom, a pilot survey was conducted in November 1998. Outlets included supermarkets, pharmacies, drug stores, medical centers, bars and nightclubs. Over a six-day period, interviewers were stationed at outlets which were randomly selected from a list of outlets (stratified by type) that had sold the female condom in the last 3 months (excluding government and NGO outlets that distributed the female condom). All consumers leaving these outlets were contacted and their age, level education, knowledge of the female condom and ever-use of the female and the male condom in the last 12

months were recorded. Of those contacted, only 9.7% refused to participate in the screening survey. The pilot survey found that pharmacies accounted for 24% of all consumers, supermarkets for 22%, bars for 16%, nightclubs for 13%, drug stores for 9%, medical centers for 7% and other outlet types for 10%.

To ensure that the study sample was proportional to the volume of consumers at different outlets, the time allotted for interviewing was distributed in proportion to the volume of consumers at different outlet types. In other words, interviewers were stationed for a longer period of time at high volume outlets than at low volume outlets.

For the main study, fieldwork was conducted in five-hour shifts (8 am to 1 pm, 1 pm to 6 pm and 6 pm to 11 pm). The available resources permitted 450 five-hour shifts to be conducted, which were allocated to the different outlet types. While it was important to include government and NGO outlets that were distributing the female condom, the distribution of consumers between private sector outlets and government/NGO outlets was not known. Therefore, based on our best estimate, ten percent of all shifts (or 45 shifts) were allocated to government and NGO outlets. The remaining 405 shifts (or 90% of all shifts) were allocated to different outlet types in accordance with the results from the pilot survey described above.

The specific outlets at which fieldwork was to be carried out were selected from a list of 154 retail outlets to which SFH had sold female condoms between April and October 1998. After stratification by outlet type, 52 outlets were randomly selected from this list. In addition, eight government/NGO outlets that were known to distribute the female condom were selected.

To ensure that we would obtain a sufficiently large sample of female condom users, it was decided to over-sample female condom users. Specifically, it was planned to obtain a sample of 500 consumers who had ever-used the female condom, a separate sample of 500 consumers who had ever-used the male condom, and 500 non-users of condoms.

Based on data from the pilot survey, it was estimated that this would require allocating 300 interview-shifts to interviews with female condom users and 150 interview-shifts to interviews with male condom users and non-users. Accordingly, during the first phase of the fieldwork, interviewers screened for female condom use and administered a detailed questionnaire to ever-users of the female condom. In the second phase, interviewers screened consumers for male condom use and administered a detailed questionnaire (similar to the one for female condom users) to ever-users of the male condom. During the second phase, interviews were also conducted with non-users of either type of condom. The final sample included 423 completed interviews with consumers who had ever-used the female condom, 630 interviews with consumers who had ever-used the male condom and 536 interviews with non-users of condoms.

Since users of the female condoms were over-sampled, the analysis was conducted using weighted data. Weights were calculated using data from the screening questionnaire. Separate weights were created for male and female consumers at each outlet type. For example, screening data showed that among men at drug stores, ever-use of the female condom was 11% and ever-use of the male condom was 56%. Among women at drug stores, ever-use of the female condom was 10% and ever-use of the male condom was 54%. The screening data also showed that 53% of consumers at drug stores were men while 47% were women. Weights were designed to adjust the sample to match the distribution of the consumer population at each outlet type (this was obtained from the screening survey) both in terms of gender and in terms of use of male and female condoms. The adjustment for respondent refusal did not make any difference to the findings of the study and the final weights did not include an adjustment for refusal.

#### *The questionnaires and variables*

The questionnaires used for the study include sections on demographic characteristics, and on knowledge, discussion and use of the female and the male condom with different partners (marital, regular or casual). The dependent variables of interest for this analysis are: knowledge of the female condom, discussion of the female condom and ever-use of female and the male condom in the last 12 months. According to our definition, an ever-

user of the female condom may also have used the male condom in the last 12 months and vice versa.

Independent variables include age, sex, marital status and education. To measure socio-economic status we used the Amenities and Possession Index (API index) developed by Demographic and Health Surveys (Kishor and Netizel, 1996). This is a poverty-wealth indicator based on household access to basic amenities and consumer durables such as drinking water, toilet facilities, electricity and four consumer durables (radio, television, refrigerator and car).

### *Sample characteristics*

The distribution of the sample is shown in Table 1. About 10% of the sample is aged 15-19 and 57% of the sample consists of 20-29 year old respondents. By comparison, 28% of the household population of Lusaka is 15-19 and 37% is 20-29 (Agha, 1997). Since this survey is representative of 15-49 year old consumers at retail outlets rather than the 15-49 year old household population of Lusaka, this difference was expected: young people are less likely than older people to have cash income and, therefore, less likely to purchase products at retail outlets.

Slightly more than half the sample (54%) consists of men. That nearly half of consumers at retail outlets are women is noteworthy because it is believed that retail purchases are generally made by men. About 51% of the respondents are married, 38% have had a regular partner in the last 12 months, 9% did not have a regular partner in the last 12 months and 2% have never had sex.

Compared to the household population of Lusaka, respondents in this sample are more educated: 51% have between eight and twelve years of schooling and 35% have more than 12 years of schooling. By comparison, 48% of 15-49 year old men and women in Lusaka have between eight and twelve years of schooling and only 9% have more than 12 years of schooling (Agha, 1997). These findings are consistent with the knowledge that consumers at retail outlets have a higher socio-economic status than respondents

found through household surveys. The API index shows that 3.9% of the sample have low SES, 61.1% medium SES, 10% medium-hi SES, and the remaining 25% have a high SES.

About 87% of respondents have heard of the female condom. A high level of awareness of the female condom was expected, since the survey was conducted at female condom outlets (promoters had conducted educational activities at female condom outlets). Nearly 23% of sexually experienced respondents have discussed use of the female condom with a partner in the last year.

The majority of sexually experienced respondents have used a condom in the last year. About 52% of respondents have used either the male or the female condom (but not both) and about 11% have used both types of condoms. (Of those who had used either the male or the female condom, 97% had used the male condom and 3% had used the female condom).

Table 1 about here

## **Results**

### *Intention to use the female and the male condom*

The percentage of sexually experienced respondents who intend to use the female condom is shown in Table 2. Overall, 40% of sexually experienced respondents intend to use the female condom. The intention to use the female condom declines with age: 47% of 15-19 year olds, 43% of 20-24 year olds, 35% of 30-34 year olds and 26% of 40-49 year olds report that they intend to use the female condom. By comparison, 72% of sexually experienced respondents intend to use the male condom. There is almost no variation in the intention to use the male condom among 15-34 year olds (about 75%). However, there is a decline in the intention to use the male condom after age 35: about 60% of 35-39 year olds and 39% of 40-49 year olds intend to use the male condom.

Men and women have similar intentions to use the female condom: 43% of men and 37% of women report that they intend to use the method in the future. There is a somewhat

larger gender differential in the intention to use the male condom: 79% of men and 65% of women report their intent to use the male condom.

Consistent with a greater desire to use the female condom among younger respondents, those with fewer children are more interested in using the female condom. About 47% of women without children compared with 30% of women with four or more children intend to use the female condom. Respondents with fewer children are also more interested in using the male condom: 84% of respondents with no children and 50% of respondents with four or more children intend to use the male condom.

Partnership status influences the intention to use the female condom. Respondents who have had a regular partner in the last year are more likely to intend using the female condom than respondents who are married and respondents who have not had a regular partner: about 47% of respondents with a regular partner, compared to 36% of others intend to use the female condom. The intention to use the male condom also varies similarly by marital status: respondents with a regular partner are the ones who are most likely to intend using the male condom.

The intention to use the female condom does not vary systematically by education. In contrast, the intention to use the male condom increases with education: 62% of respondents with 1-7 years of schooling, 73% of respondents with 8-12 years of schooling and 76% with 13 or more years of schooling intend to use the male condom. Consistent with the lack of an effect of education this variable, the intention to use the female condom does not vary by socio-economic status. There is also no systematic effect of socio-economic status on the intention to use the male condom.

Discussion of the female condom with a partner is associated with a respondent's intention to use it. About 55% of those who discussed the method in the last year intend to use it, compared to 36% of those who did not discuss it.

Experience with condom use is an important determinant of the intention to use the female condom. Only 29% of non-users intend to use the female condom in the future. In contrast, 44% of respondents who used either the male or the female condom in the last year and 58% of respondents who used both methods intend to use it. It is noteworthy that a substantial proportion of users of both the male and the female condom are either unwilling to use the female condom (30%) or are undecided (12%) about it (not shown). Moreover, the vast majority of users of both methods (90%) intend to use the male condom. This suggests that a large proportion of female condom users have not had a positive experience with the method or that they are satisfied with the male condom. Reasons for non-use of the female condom are discussed in the next section.

Table 2 about here

#### *Reasons for non-use of the female condom*

The reasons for non-use of a method are important because they reflect the types of perceived or actual problems that consumers encounter. Respondents who did not intend to use the female condom were asked about their reasons for not wanting to use this method. Respondents gave a lack of need (23%), a dislike for the method (20%) and a preference for the male condom (16%) as the main reasons for not wanting to use the female condom (not shown). Additional reasons included difficulties with method insertion (7%), partner dislike of the method (8%) and cost (6%).

Past-users' reasons for non-use of the female condom were also analyzed. Figure 1 shows ever-users' reasons for not wanting to use the female condom. Among female ever-users of the female condom, the main reasons for not intending to use this method were difficulties with method insertion (27%), not liking the method (27%), partner not liking the method (14%), their preference for the male condom (9%) or their preference for another family planning method (9%). Male ever-users of the female condom gave preference for the male condom (30%), their dislike for the female condom (24%), difficulty with inserting the female condom (12%) and partner dislike for the method (9%) as the main reasons for not intending to use this method. A relatively small

proportion (5%) of ever-users cited cost as a reason for not wanting to use the female condom (not shown).

## **Conclusions**

The female condom had been mass-marketed in Lusaka for just over a year when this study was conducted. Since retail outlets were sites for educational activities related to the female condom, most respondents (87%) at female condom outlets had heard of the method. About 40% of sexually experienced respondents intend to use the female condom in the future. In comparison, about 72% of sexually experienced respondents intend to use the male condom.

Although the intention to use the female condom is lower than the intention to use the male condom (which has been mass-marketed since December 1992), the relationships between independent variables and intentions to use either type of condom are similar. Younger respondents are more willing to use the method than older respondents. Compared to married respondents or to respondents with no regular partner, those with regular partners are also more likely to intend using the female condom. There is no consistent pattern of variation in the intention to use the female condom by education or by socio-economic status.

The experience of having used a condom is a strong predictor of future intentions to use the female condom. About 58% of respondents who have used both the female and the male condom intend to use the female condom.

Among female ever-users of the female condom, the main reasons for not wanting to use the female condom are difficulty in inserting the method (27%), not liking the method (27%), their partner not liking the method (14%) and preference for the male condom (9%). Among male ever-users of the female condom, the main reasons for not wanting to use the method include preference for the male condom (30%), not liking the female condom (24%), difficulty inserting the method (12%) and partner not liking it (9%).

These findings reflect substantial barriers to use of female condom and suggest ways of making female condom mass-marketing programs more effective. It is possible that difficulties with method insertion are, in part, due to limited information about method use being provided by peer-educators to consumers. Mass-marketing programs such as the one in Zambia could benefit by having peer education/ promotion sessions (currently being conducted in public settings such as supermarkets, pharmacies, bars and nightclubs) supplemented by counseling sessions in more intimate settings. It is likely that women will become better users of the female condom if provided with intensive education about the female condom (particularly about its insertion) by trained family planning providers. Planners of female condom mass-marketing programs should consider supplementing mass-marketing efforts with the services of trained family planning counselors.

Several studies have shown that consumer comfort with use of the female condom increases with use (Young, 1997). An environment in which women can seek counseling concerning use of the female condom, and one in which women are encouraged to use the female condom until they become comfortable with it is likely to be important in increasing women's motivation to use this method in the future.

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Table 1  
Percentage distribution of the sample population

	<b>% distribution (n=1589)</b>
<b>Age</b>	
15-19	9.5
20-24	29.8
25-29	27.8
30-34	19.4
35-39	7.3
40-49	6.2
<b>Gender</b>	
Female	46.4
Male	53.6
<b>Marital Status</b>	
Married	51.2
Unmarried, regular partner in last year	38.1
Unmarried, no regular partner	8.5
Virgin	2.2
<b>Education (in years)</b>	
None	0.0
1-7	14.1
8-12	50.8
13 and higher	35.1
<b>API index</b>	
Low	3.9
Medium	61.1
Medium hi	10.3
High	24.7
<b>Ever heard of the female condom</b>	
No	12.9
Yes	87.1
<b>Discussed use of female condom with any partner in the last year*</b>	
No	77.3
Yes	22.7
<b>Use of condoms in last year*</b>	
Did not use any condom	37.5
Used either male or female condom** (but not both)	51.7
Used both male and female condom	10.7
<b>Total</b>	<b>100.0</b>

\* Limited to sexually experienced respondents (n=1553)

\*\* 97% of those who had used either method had used the male condom, 3% had used the female condom

Table 2  
 Percentage of sexually experienced respondents who intend to use the female condom  
 and percentage who intend to use the male condom

	<b>% who intend to use the female condom</b>	<b>% who intend to use the male condom</b>	<b>n of cases</b>
<b>Age</b>			
15-19	47.4	73.7	137
20-24	42.9	76.4	457
25-29	42.2	76.6	436
30-34	35.3	75.1	309
35-39	38.5	59.5	117
40-49	25.8	38.8	97
<b>Gender</b>			
Female	37.1	64.8	720
Male	42.8	78.7	834
<b>Number of children</b>			
Zero	46.7	84.0	456
One	43.0	77.9	435
Two	36.2	69.6	298
Three	34.0	57.4	162
Four or more	29.7	49.8	202
<b>Marital Status</b>			
Married	35.6	64.1	814
Unmarried, regular partner in last year	47.2	83.2	606
Unmarried, no regular partner	35.8	73.1	134
<b>Education (in years)</b>			
1-7	37.8	62.2	225
8-12	43.3	72.8	790
13 and higher	36.4	75.8	538
<b>API index</b>			
Low	38.7	62.3	62
Medium	39.6	72.4	952
Medium hi	40.6	66.7	155
High	41.6	75.8	385
<b>Discussed use of the female condom with any partner in the last year</b>			
No	35.9	-	-
Yes	54.5	-	-
<b>Use of condoms in last year</b>			
Did not use any condoms	29.4	49.4	583
Used either male or female condom* (but not both)	44.2	85.2	803
Used both male and female condom	58.4	89.8	166
<b>Total</b>	<b>40.1</b>	<b>72.3</b>	<b>1553</b>

\*97% of those who had used either method had used the male condom and 3% had used the female condom

**Figure 1. Percentage of male and female ever-users of the female condom who do not intend to use the method in the future, by reasons for non-use**

