



**Mozambique 2008: HIV/AIDS TRaC  
Study Among Men and Women Aged 15-  
35 in Zambezia. First Round.**

**The P S I D a s h b o a r d**

**Zambezia, Mozambique  
August 2008**

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PSI Research & Metrics  
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## Table of Contents

<b>Summary .....</b>	<b>1</b>
<u>Acknowledgements.....</u>	<i>1</i>
<u>Background &amp; Research Objectives.....</u>	<i>1</i>
<u>Description of Intervention.....</u>	<i>1</i>
<u>Methodology.....</u>	<i>1</i>
<u>Main Findings.....</u>	<i>2</i>
<u>Programmatic Recommendations .....</u>	<i>2</i>
<b>Monitoring Table .....</b>	<b>3</b>
<b>Monitoring Analysis.....</b>	<b>4</b>
<b>Segmentation Table.....</b>	<b>6</b>
<b>Segmentation Analysis .....</b>	<b>7</b>
<b>Segmentation Table.....</b>	<b>8</b>
<b>Segmentation Analysis .....</b>	<b>9</b>
<b>Programmatic Recommendations .....</b>	<b>11</b>
<b>Appendix 1: Population Characteristics</b>	
<b>Appendix 2: Methodology</b>	
<b>Appendix 3: Reliability Analysis</b>	
<b>Appendix 4: Performance Framework for Social Marketing</b>	
<b>Appendix 5: References</b>	

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## Summary

**Acknowledgements** We would like to express our gratitude to and acknowledgement of PEPFAR and USAID for funding this TRaC behavioral study and to the Ministry of Health at the national, provincial, and district levels for supporting the effort. We are also grateful to the National Bioethics Committee for Health for approving the study design and to the CNCS for providing input and technical guidance during the process.

**Background & Research Objectives** In 2004, PSI conducted the first country-wide TRaC (Tracking Results Continuously) study for Condoms, Sexually Transmitted Infections (STIs), and Prevention of Mother-to-Child Transmission (PMTCT). The current study is the second TRaC study for HIV interventions and was conducted in three provinces: Gaza, Sofala, and Zambezia. This study is intended to provide localized evidence for decision-making for social marketing of *Jeito* condoms, and help measure the impact of PSI interventions and activities.

**Description of Intervention** PSI/Mozambique supports the Ministry of Health in its efforts to reduce the rate of new HIV infections by implementing a wide range of interventions for behavior change, with an emphasis on the use of condoms, along with the reduction of sexual partners, delay of sexual debut, voluntary counseling and testing, and prevention of mother-to-child transmission. Targeting sexually active, low income populations, PSI implements three types of interventions: 1) interpersonal communication (IPC) with the use of theatre groups, community agents, and a network of peer educators; 2) Promotion of condoms and risk reducing behaviors through mass media channels; and 3) Large-scale distribution of subsidized condoms.

**Methodology** The current study is based on a cross-sectional survey conducted among male and female respondents in the city of Quelimane in the Zambezia Province. The survey used a stratified multi-stage cluster design. Results are presented in standard PSI Dashboard form.

**Main Findings** The results of this survey demonstrate that condom use at last sex with NMNC partners differs as reported by men and women. In the city of Quelimane, 67.6% of men and 53.6% of women reported using a condom at last sex with non-marital non-cohabiting (NMNC) partners and 50.3%.

Some determinants of condom use differed by men and women, while other were similar. Both men and women who used condoms were more likely to be younger, have higher self-efficacy, and have more positive attitudes towards condom use than men and women who did not use a condom. While social support was a significant determinant for both men and women, the type of social support that was associated with condom use differed by gender: as compared to non-users of the same gender, men who used condoms were more likely to have a higher value for social support from friends, while women who used condoms were more likely to perceive higher social support from the community.

**Programmatic Recommendations** Self-efficacy is highly associated with condom use with NMNC; however the directionality of this association cannot be determined with this study. While self-efficacy is an important determinant to address, program managers will have to identify what components of self-efficacy are most actionable (i.e., that it can be addressed and that there is sufficient room for improvement).

Based on the other significant determinants of condom use, other programmatic recommendations include: 1) developing gender-specific activities or messages to improve social support of condom use, 2) improve attitudes towards condom use of non-users by focusing on particular, up-market characteristics of condoms, and 3) determine strategies for introduction of condoms into marital relationships.

**Monitoring Table**

Trends in Behavioral Outcomes and Determinants for Men and Women Aged 15-35 in the City of Quelimane, Zambezia, 2008.

**Risk: Men and Women Aged 15-35**

**Behavior: Condom use at last sex with non-marital/non-cohabitating partners and multiple concurrent partners in the past month.**

INDICATORS	Men Aug/2008 N=448	Women Aug/ 2008 N=896	Sig.
<b>BEHAVIOR/USE</b>			
- Condom use at last sex with non-marital/ non cohabitating partners (among those with non-marital/non cohabitating partners)	67.6% (n=296)	53.6% (n=369)	***
- Condom use at last sex with primary sexual partner (among those who had sex in past 12 months)	50.3% (n=366)	32.5% (n=756)	***
- More than one sex partner in past 1 month (among those who had sex in past 12 months)	17.1% (n=368)	4.5% (n=759)	***
<b>OPPORTUNITY</b>			
<i>Availability</i>	3.61	3.36	***
<i>Generic Condom Appeal</i>	2.31	2.46	**
<b>ABILITY</b>			
<i>Knowledge (Index of four items)</i>	3.06	3.06	ns
<i>Community Social Support</i>	3.25	2.87	***
<i>Friend Social Support</i>	2.88	2.65	***
<i>Self-Efficacy</i>	3.42	3.27	na
<b>MOTIVATION</b>			
<i>Attitudes</i>	3.21	3.19	ns
-Condoms are agreeable to use	3.05	2.89	*
<i>Locus of Control</i>			
- I can reduce the risk of getting HIV/AIDS by always using a condom.	3.73	3.51	***
<i>Outcome Expectation</i>			
-Condoms protect against all kinds of sexually-transmitted infections	3.78	3.63	***
<b>EXPOSURE</b>			
- PSI Radio Programs	25.0%	30.8%	*
- PSI Group Discussions	2.5%	7.5%	***
- PSI Theatre Activities	14.4%	25.2%	***
- Jeito Advertisements	79.2%	80.0%	ns

\*\*\*p<.001, \*\*p<.01, \*p<.05

**Monitoring Analysis: Monitoring Dashboard Showing Trends in the Use of Condoms, Mozambique, 2008**

This “monitoring dashboard table” presents the prevalence of key behavioral outcomes and determinants of condom use for men and women. Indicators in this table are presented in the form of means or percentages. Where relevant, results of a test of differences in proportions or means are indicated. Results are presented separately for men and women because of the hypothesized and actual significant differences in behaviors and determinants of behavior by gender.

The primary behavioral outcome for this study is the use of a condom at the last sexual encounter with a non-marital or non-cohabitating (NMNC) partner. This indicator was chosen as the primary variable of interest because it is thought to be a powerful measure of the effect of condom promotion campaigns on their primary target market (Bertrand and Escudero 2002). In this study, 66% of men and 41% of women reported having a NMNC partner. Among those reporting a NMNC partner, 68% of men and 54% of women reported using a condom at last sex. Condom use at last sex with primary partners (those whom the respondent has sex with the most) was lower than condom use at last sex with NMNC partners (50% for men and 33% for women). With both types of partners, men’s reported condom use is statistically significantly higher than women’s. A significantly higher percentage of men in this study reported having more than one partner in the past month (17.1%) as compared to women (4.5%).

Determinants of condom use were collected in the form of scaled items where respondents were asked whether they strongly disagreed, disagreed, agreed, or strongly agreed with a number of items. These items were then used to create scales intended to measure a single construct. The scales presented in this table are means that range from 1 to 4. Some items have been reverse coded, so that a higher value represents a more “positive” direction.<sup>1</sup> Where items fell outside of the construct or items did not combine to measure a single construct, individual variable means are presented.

Two scaled constructs were created to measure the respondent’s opportunity to use condoms: availability and generic condom appeal. Men in this study had, on average, a higher value for the

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<sup>1</sup> Reverse coded items are presented with a (r).

scaled construct intended to measure availability (3.61 versus 3.36, out of a maximum of four). Women had higher values relating to generic condom appeal (2.46 versus 2.31, out of four), which means that they are more likely to agree with the statement such as: *“the condom brand really makes no difference to me.”*

Four scales are presented in the previous table that attempt to capture the respondent’s ability to use condoms: knowledge, community social support, friend social support, and self-efficacy. While there was no significant difference between men and women on their knowledge of HIV transmission, men did present higher mean values on the scales measuring community social support and social support from friends (men had mean scores of 3.25 and 2.88 on these scales respectively, and women had values of 2.87 and 2.65). Both men and women reported more agreement with items measuring community social support (which includes statements such as: *“people in my community are open to discussing condoms,”*) than social support from friends (which included statements such as: *“If I had sex and told my friends that I did not use a condom, they would be angry and disappointed with me.”*). On a self-efficacy scale from one to four, men had a mean value of 3.42 and women had a mean value of 3.27, but no test of significance is presented, because the scales did not contain the exact same items (see Appendix 3 for details).

Men and women surveyed in this study did not statistically differ with regards to their attitudes towards condom use, but did differ with regards to the variable *“condoms are agreeable to use”* (more men than women responded that they agreed to this statement: 3.05 versus 2.89). A single item is included in the table to capture Locus of Control: *“I can reduce the risk of HIV/AIDS by always using a condom.”* For this variable, men had an average value that was significantly greater than the average value for women (3.73 versus 3.51). Similarly, men were more likely to agree with the statement *“Condoms protect against all kinds of sexually-transmitted infections,”* (mean 3.78) as compared to women (mean: 3.63).

Over 30% of women and 25% of men reported listening to PSI radio programs. Exposure to theatre activities was somewhat lower (25% for women and 14% for men), followed by exposure to group discussions (7% of women and 2% of men). For all activities, the difference in exposure between men and women was statistically significant, with women consistently reporting greater exposure. Both men and women report very high exposure to advertisements about Jeito (80%).

**Segmentation Table**

Determinants of condom use with non-marital/non-cohabitating partners among men aged 15-35 in Zambezia, 2008.

**Risk: Men aged 15-35**

**Behavior: Condom use at last sex with non-marital/non-cohabitating partners**

INDICATORS	Used a Condom N=200 67.6%	Did not use condom N=96 32.4%	OR	Sig.
<b>ABILITY</b>				
<i>Self-Efficacy</i>	3.64	3.25	5.74	***
<i>Social Support from Friends</i>	3.02	2.76	1.58	*
<b>MOTIVATION</b>				
<i>Locus of Control</i>				
-I can reduce the risk of HIV/AIDS by always using a condom.	3.66	3.90	0.455	*
<b>POPULATION CHARACTERISTICS</b>				
<i>Age</i>	20.99	23.58	0.90	***

-\*: p<.05; \*\*: p<.01; \*\*\*: p<.001.

-OAM Determinants: values ranged from 1-4 "strongly disagree=1, Disagree=2, Agree=3, Strongly Agree=4

-Omnibus  $\chi^2$  (df=9): 121.64, p<0.001

-GOF  $\chi^2$  (df=8): 9.83, p=0.277

-Pseudo R<sup>2</sup> (Cox and Snell): 0.337

-Study design variable is PSU.

**Segmentation Analysis: Determinants Condom Use at Last Sex with NMNC Partner for Men Aged 15-35, Zambezia Province, Mozambique 2008**

In the above segmentation table, the group at risk is men with non-marital and non-cohabitating partner (n=296). A logistic regression analysis was conducted with the dependent variable measuring whether the respondent used a condom at last sex with a NMNC partner (1=yes, 0=no). Mean scores and adjusted percentages for determinants that were found to be statistically significant are shown in the table. The mean scores and percentages are adjusted for other significant factors in the final logistic regression model and for study design variables. Seven scales measuring the OAM constructs which were found to be reliable (Cronbach's alpha>0.7), were used for the segmentation analysis: availability; generic condom appeal; self-efficacy; community social support, social support from friends, attitudes and outcome expectations. Results of the reliability analysis can be found in Appendix 3. Only those scales and variables found to be significantly associated with the outcome are presented in the previous table.

In this study, a total of 66% of men reported having a non-marital non-cohabitating partner. Of those men, 67.6% reported using a condom at last sex with that type of partner. Men who used a condom with the last non-marital or non-cohabitating partner were more likely to have a high self-efficacy (average value of 3.64) as compared to men who did not use a condom (3.25). Condom users were also more likely to have increased social support from friends for condom use than non-users. Social support from friends was one of two scales created and included in the model to measure social support (i.e., the assistance that an individual give or receives). The scale is composed of items such as: "*If I had sex and told my friends that I did not use a condom, they would be angry and disappointed in me*" and "*My friends talk a lot about condom use.*"

One variable measuring the respondent's motivation to use condoms were significantly associated with using a condom at last sex with a non-marital or non-cohabitating partner: a locus of control variable "*I can reduce the risk of HIV/AIDS by always using a condom.*" The variable was negatively associated with using a condom, which means that those who used a condom had a lower mean on this variable as compared to those who didn't. This finding is in the opposite direction that we would expect—we would expect that condom users to have confidence in condoms as an HIV/AIDS risk reduction product. The only socio-demographic variable significantly associated with the outcome was age. Condom users tended to be younger than non-users.

**Segmentation Table**

Determinants of condom use with non-marital/non-cohabitating partners among women aged 15-35 in Zambezia, 2008.

**Risk: Women aged 15-35**

**Behavior: Condom use at last sex with non-marital/non-cohabitating partners**

INDICATORS	Used a Condom N=198 53.7%	Did not Use condom N=171 46.3%	OR	Sig.
<b>ABILITY</b>				
<i>Self-Efficacy</i>	3.57	3.27	4.50	***
<i>Community Social Support</i>	3.15	2.94	1.79	**
<b>MOTIVATION</b>				
<i>Attitudes</i>				
-Condoms are agreeable to use	3.30	2.91	1.50	**
<i>Outcome Expectations</i>				
-Condoms protect against all kinds of sexually-transmitted infections	3.57	3.78	.63	*
<b>POPULATION CHARACTERISTICS</b>				
<i>Age</i>	20.72	23.34	.89	***

-\*: p<.05; \*\*: p<.01; \*\*\*, p<.001.

-OAM Determinants: values ranged from 1-4 "strongly disagree=1, Disagree=2, Agree=3, Strongly Agree=4

-Omnibus  $\chi^2$  (df=9): 146.26, p<0.001

- GOF  $\chi^2$  (df=8): 9.72, p=0.285

-Pseudo R<sup>2</sup> (Cox and Snell): 0.327

-Study design variables are strata (urban/rural) and PSU.

**Segmentation Analysis: Determinants of Condom Use with NMNC partners for Women Aged 15-35, Zambezia Province, Mozambique, 2008**

A total of 41% of women reported having a non-marital or non-cohabitating partner. Among those, over fifty percent reported using a condom at last sex. To investigate the determinants of using condoms with NMNC partners among women, a logistic regression was run with this variable as the dependent variable. All the significant independent variables associated with this outcome are presented in the previous table. Mean scores and percentages of these independent variables are presented in the table, and have been adjusted for all other factors included in the model.

Women who used a condom at last sex with a NMNC partner had a higher value on the self-efficacy scale as compared to women who did not (3.57 vs. 3.27). While prevention programs focus on increasing self-efficacy, this variable is problematic in its interpretation in that a condom user may have an increased self-efficacy because of the experience gained by using condoms, or may have used condoms because she had a higher self efficacy.

Female condom users were more likely to feel an increased community social support to use condoms as compared to non-users. Community social support is a composite variable constructed of five items such as: *“I think that the majority of people in my community use condoms”* and *“In my community, it is OK to be seen buying condoms.”* This finding is interesting because social support from friends was a significant determinant of condom use for men, while social support from the community was not significant. This may signify that men are more influenced by the support from their immediate circle of friends, whereas women are more influenced by the perceived support for condom use from the broader community.

Two variables capturing motivation to use condoms were significantly associated with condom use in the final model. The first variable measuring attitudes (*“condoms are agreeable to use”*) was positively associated with condom use, meaning that those who used condoms had a higher mean value on the scaled item (3.30 out of 4) as compared to those who didn't (2.91). The second variable measuring outcome expectations (*“condoms protect against all kinds of sexually-transmitted infections”*) was negatively associated with condom use, meaning that those who used condoms actually scored lower on the scaled item than those who did not. Only one socio

demographic variable was significantly associated with condom use: age. Condom users were significantly younger than non-users.

### **Programmatic Recommendations**

Two of the primary messages promoted by PSI Mozambique's behavior change interventions are: using condoms consistently and reducing the number of sexual partnerships. In the previous nation-wide PSI HIV TRaC study, conducted in 2004, condom availability, knowledge of HIV transmission, self-efficacy, social support to use condoms, attitudes towards condom use and outcome expectations were all key determinants of men's condom use with regular and non-regular NMNC partners.

The current study, conducted in the Zambezia province, is intended to be representative of the epidemic in the northern region of the country. In this study, it is evident that self-efficacy is an important determinant for condom use with all different kinds of partners and increasing self-efficacy of non-users should be a priority among prevention programs. Though there exists a strong relationship between self-efficacy and condom use, it is important to note that this study cannot determine if it is causal relationship (i.e., whether having high self-efficacy leads to condom use or whether using condoms increases self-efficacy). Self-efficacy in this study was measured with a number of items that measure: ability to negotiate condom use, confidence in using condoms correctly, ability to purchase and carry condoms, etc. Programs managers should identify what aspects of self-efficacy are most actionable, and prioritize efforts accordingly. For example, managers can examine the current levels of each item that composes the self-efficacy scale and determine if there is "room for improvement."

In Zambezia, social support to use condoms is an important determinant of condom use for both men and women; however, the aspect of social support that is significant for each gender differs. For men, social support from friends is the key determinant, whereas for women, social support from the broader community is the key determinant. Approaches to improve social support for condom use should thus have a different focus for each gender. Men in Zambezia are influenced by direct encouragement from their friends. Women in Zambezia are influenced by feeling that condom use in the community is prevalent and that community members discuss and are accepting of condom use.

Another key determinant of condom use is attitudes towards condom use. Men and women who agree with statements like: "*condoms are agreeable to use*" and who disagree with statements

like “*condom reduce pleasure*” are more likely to use condoms. Communication programs should thus highlight the product’s up-market features.

For all condom use models, younger men and women are more likely to have used a condom at last sex.

## Population Characteristics

POPULATION CHARACTERISTICS	Men (n=448)	Women (n=896)	Sig
Age (mean)	21.8	23.7	***
Socio-Economic Status			
Lowest	10.9%	9.2%	ns
Second-Lowest	27.5%	30.2%	
Medium	18.7%	20.9%	
Second-Highest	16.1%	13.9%	
Highest	26.8%	25.8%	
Marital Status			
Single	71.4%	43.9%	***
Married	28.3%	50.9%	
Separated/Widowed/Divorced	0.3%	5.2%	
Religion			
Assembly	2.0%	2.5%	**
Catholic	60.2%	62.7%	
None	5.7%	2.0%	
Other	3.20%	32.8%	
Schooling			
None	3.3%	9.6%	***
Primary	32.4%	40.0%	
Higher	54.3%	50.3%	

## Methodology

**Sampling and participants:** The target population for this study was women and men aged 15-35. This study was conducted in the city of Quelimane in Zambezia Province. A sampling frame of urban quarters was created, with each quarter's population size by sex. Forty-five urban quarters were selected with probability proportional to size.

The north end of each quarter was located and a listing of houses in the quarter was created. A sampling interval for the number houses was created by dividing the number of houses in the sampling frame by 30 if it was an urban quarter. Houses were selected based on the sampling interval.

Once a house was selected a list of all residents was created, from which one respondent was selected randomly based on gender. In the first 10 households selected a woman was interviewed. The next five, men were interviewed, The following 10 women and then the last five men.

**Data Collection Procedure** In urban areas, bairros were approached to identify the quarters. The chiefs of the quarters work with the team to conduct the field work. Each interviewer had a badge to identify him or her as part of the survey team. Informed consent and confidentiality information was given to the respondents at the time of the survey. Interviewers were instructed to attempt to interview the selected respondent three times. If unsuccessful, no interview was conducted in that household.

**Survey Instrument(s)** The questionnaires were conducted written in Portuguese, and only seldom was the interview conducted in a local language. The instrument collected information about knowledge of HIV, number of sexual partners by partner type, condom use, exposure to PSI activities, and scaled items to measure the determinants of condom use. The questionnaire was pre-tested during interviewer training and modifications were made in skip patterns and terminology.

**Analytic Technique** For monitoring analysis, cross tabulations and paired t-tests were used to detect differences between men and women on behaviors and determinants. For segmentation analysis, correlation analysis was used to detect multi-collinearity; no variables

were dropped. To reduce the number of determinants, only those variables that were correlated with the outcome at a significance level of 0.25 or lower were retained in the analysis. The segmentation model was based on multiple logistic regression in which explanatory variables were dropped if found not to significantly contribute to explanation of the variance in the behavior of interest. Adjusted means or proportions were presented for explanatory variables which remained in the final logistic regression model, while adjusting for all other explanatory variables in the model.

## Reliability Analysis

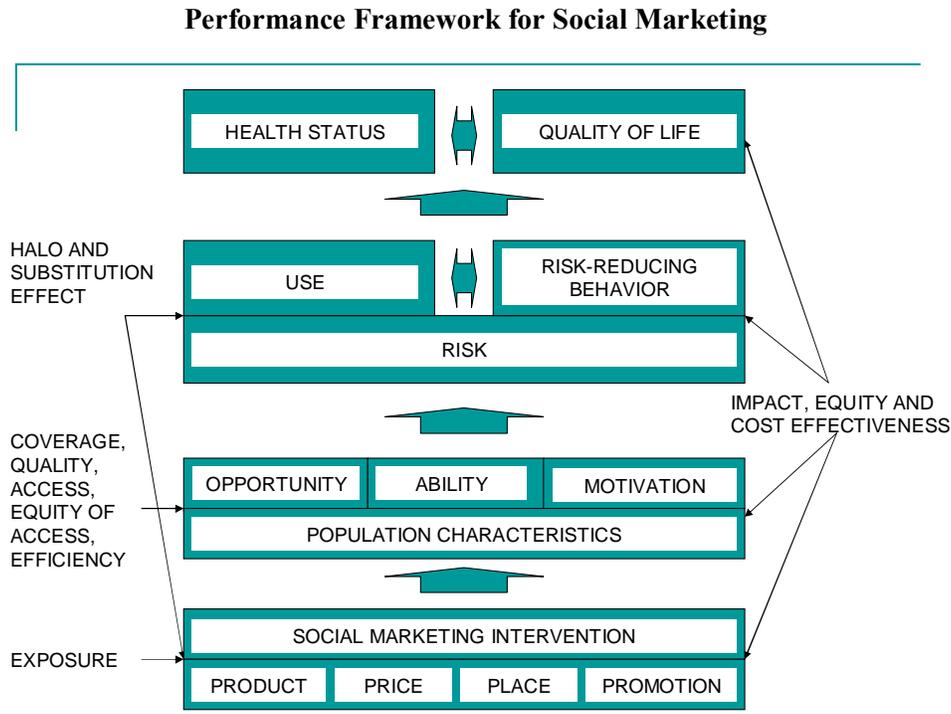
Composite Variables	Men (N=448)		Women (N=896)	
	Cronba	No. of	Cronba	No. of
	ch's	Items	ch's	Items
Alpha		Alpha		
<b>OPPORTUNITY</b>				
<i>Availability (1: strongly disagree-4: strongly agree)</i>	.73	5	.794	5
<i>Generic Condom Appeal (1: strongly disagree-4: strongly agree)</i>	.85	3	.789	3
<i>Social norms rejecting crossgenerational sex</i>	.76	5	Items didn't load onto a single factor	
<b>ABILITY</b>				
<i>Community Social Support: (1: strongly disagree-4: strongly agree)</i>	.775	5	.78	5
<i>Social Network Social Support: (1: strongly disagree-4: strongly agree)</i>	.92	6	.915	6
<i>Self-Efficacy (1: strongly disagree-4: strongly agree)</i>	.93	10	.909	11
<b>MOTIVATION</b>				
<i>Attitudes (1: strongly disagree-4: strongly agree)</i>	.65	4	.69	4
<i>Locus of Control (1: strongly disagree-4: strongly agree)</i>			Items didn't load onto a single factor	
<i>Outcome Expectation (1: strongly disagree-4: strongly agree)</i>	.72	3	Items didn't load onto a single factor	

	Means (Men)	Means (Women)
<b>Availability: (1: strongly disagree-4: strongly agree)</b>	<b>3.61</b>	<b>3.36</b>
1. Shops near here always have condoms for sale	3.61	3.24
2. I know where I can get condoms	3.81	3.61
3. Condoms are easy to get	3.60	3.32
4. It is always difficult to have a condom at the moment you need one®	3.36	3.23
5. It is difficult to find a discreet place to store condoms	3.65	3.37
<b>Social Norm: (1: strongly disagree-4: strongly agree)</b>	<b>3.09</b>	
1. It's acceptable for older men to have sex partners younger than them (who are not their wives).	3.11	
2. There is no way to stop men from having many sexual partners	2.98	
3. There is no way for young women to refuse sex with older men.	3.11	
4. It's normal for young women to receive presents from older men (not their husbands) with whom they have sex.	2.70	
5. Men need to have many sexual partners to show that they are really men.	3.56	
<b>Brand Appeal:</b>	<b>2.31</b>	<b>2.46</b>
1. Free condoms are as good as the condoms sold in shops	2.33	2.46
2. The condoms brand really makes no difference to me	2.34	2.43
3. All condoms brands are about the same	2.25	2.50
<b>Community Social Support (1: strongly disagree-4: strongly agree)</b>	<b>3.25</b>	<b>2.88</b>
1. People in my community are open to discussing condoms.	3.08	2.93
2. I think that the majority of people in my community use condoms.	2.85	2.38
3. The majority of my friends always have condoms with them.	3.19	2.65
4. In my community, it is OK to be seen buying condoms.	3.66	3.34
5. The majority of my friends can talk openly about condom use.	3.45	3.08
<b>Social Network Social Support (1: strongly disagree-4: strongly agree)</b>	<b>2.88</b>	<b>2.64</b>

## Appendix 3: Reliability Analysis

Mozambique, 2008

1.	If I had sex and told my friends that I did not use a condom, they would be angry and disappointed in me	2.67	2.30
2.	My friends talk a lot about condom use	3.14	2.93
3.	My friends encourage each other to use condoms	3.12	2.89
4.	When I think that one of my friends is going to have sex, I ask them if they have condoms	2.82	2.57
5.	If a friend of mine knew I was going to have sex, he/she would ask if I had condoms	2.69	2.52
6.	If I knew that one of my friends had had sex, I would ask if he/she used a condom	2.82	2.65
<b>Self Efficacy (1: strongly disagree-4: strongly agree)</b>		<b>3.42</b>	<b>3.27</b>
1.	I am able to talk to my partner about condom use before we get too sexually aroused	3.19	3.40
2.	I am able to talk to all of my partners about the importance of condom use even if we have already had sex	3.34	3.41
3.	When I go out, I am able to take condoms with, just in case	3.31	2.83
4.	I am able to talk to all new partners about the importance of condom use	3.36	3.40
5.	I am able to stop initiating sex to put on a condom, even if I am very excited	3.05	3.17
6.	Condoms are easy to use	3.41	3.05
7.	Using condoms when I have sexual relations shows my partner that I take care of my health	3.61	3.71
8.	I am able to buy condoms		3.32
9.	I know where to get condoms	3.81	3.64
10.	I can carry condoms with me for occasions when I decide to have sex	3.58	3.01
11.	I know how to use a condom when I have sex with someone	3.61	3.04
<b>Attitudes (1: strongly disagree-4: strongly agree)</b>		<b>3.21</b>	<b>3.19</b>
1.	Condoms reduce pleasure.	2.73	2.89
2.	The idea of using condoms doesn't work for me.	3.58	3.36
3.	Condoms are not comfortable.	3.16	3.17
4.	I would do anything to avoid using a condom.	3.36	3.32
<b>Outcome Expectations (1: strongly disagree-4: strongly agree)</b>		<b>3.69</b>	
1.	I think condoms offer excellent protection against HIV/AIDS	3.70	
2.	If I use a condom consistently, it's unlikely that I'll get infected with HIV	3.59	
3.	Condoms protect against all kinds of sexually transmitted infections	3.78	



This study design is guided by PSI's PERForM framework. PERForM describes the social marketing research process, identifies key concepts important for designing and evaluating social marketing interventions and mirrors the four levels and concepts in the logical framework.

The top level consists of the goal of social marketing for any health promotion intervention, namely improved health status and/or for interventions relating to coping with sickness or disability, quality of life.

The second level consists of the objectives of social marketing stated as product or service use on the left side and/or other risk-reducing behaviours that do not involve the use of a product or service on the right side. The adoption or maintenance of these behaviours in the presence of a given risk or need for health services is causally antecedent to improving or maintaining health and or quality of life.

The third level consists of the determinants of PSI Behaviour Change framework summarised in terms of opportunity, ability and motivation that may differ by population characteristics such as age and sex. The fourth level consists of the characteristics of the social marketing intervention.

**References**

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