

Trust, Caution, and Condom Use With Regular Partners: An Evaluation of the Trusted Partner Campaign Targeting Youth in Four Countries

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ABSTRACT

Research suggests that youth do not use condoms because they trust their partner. This article describes the Trusted Partner regional behavior change communication campaign and uses data from Lesotho, Mozambique, Uganda, and Zambia to evaluate the impact of the campaign. Cross-sectional surveys of youth aged 15 to 24 were conducted in each country before and after the campaign. The surveys measured elements related to trust and condom use with a regular partner. Multivariate logistic regressions were used to investigate the determinants of condom use and whether exposure to the campaign was associated with condom use. The evaluation of the campaign showed mixed results. The percent of youth recalling the campaign varied among countries: 32% in urban Lesotho, 54% in urban Mozambique, 16% in Uganda, and 39% in urban Zambia. In all 4 countries, sexual caution with a partner had a positive relationship with condom use. However, exposure to the campaign was only associated with condom use in Mozambique. These results from Mozambique indicate that more intense exposure may be necessary to achieve impact. Regional campaigns appear to be a cost-effective way to reach large numbers of youth, but more detailed measures of exposure should be pursued to improve program evaluations.

Introduction

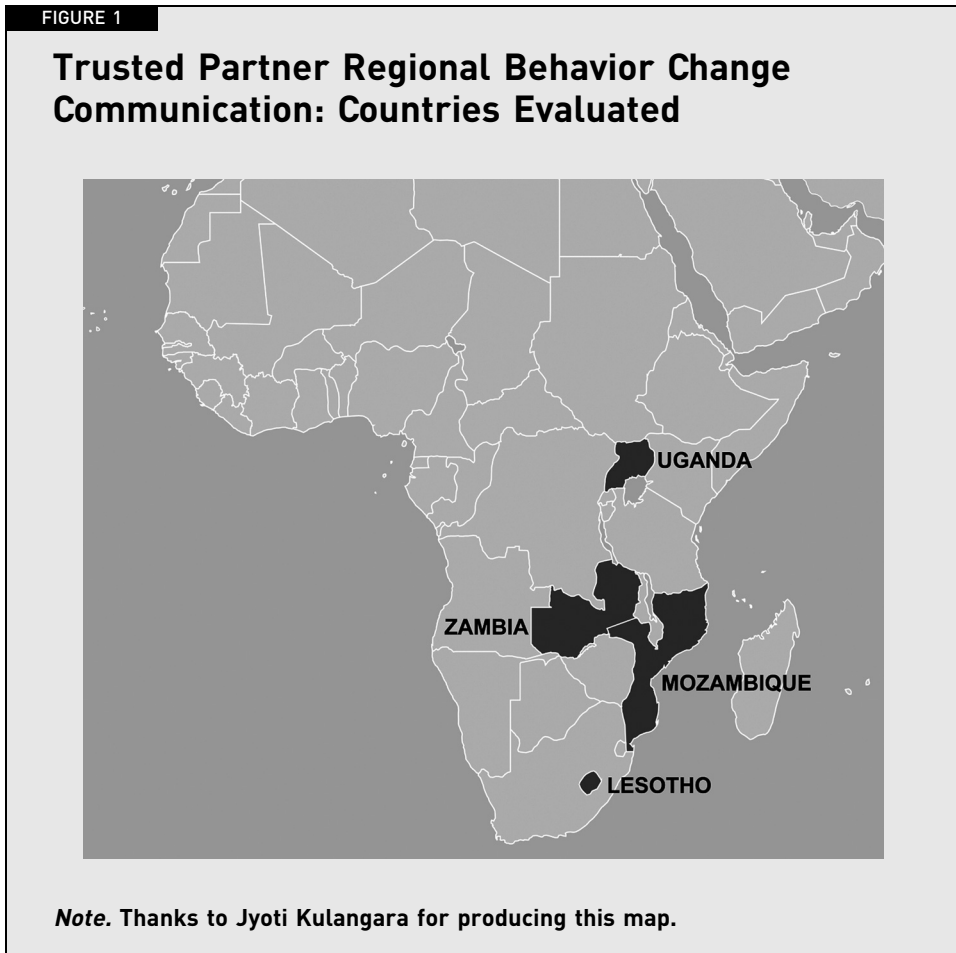
The majority of HIV transmission in sub-Saharan Africa is through heterosexual contact (UNAIDS, 2004). As a cure has yet to be discovered, prevention, particularly among young adults, remains the key to reversing the HIV epidemic. Trust in one's partner is commonly cited as the reason for not using condoms in developed and developing countries (Agha, Kusanthan, Longfield, Klein, & Berman, 2002; Chimbiri, 2007; Holland, Ramazanoglu, Scott, Sharpe, & Thomson, 1991, 1992; Lear, 1995; MacPhail & Campbell, 2001; Plichta, Weisman, Nathanson, Ensminger, & Robinson, 1992; Plummer et al., 2006; Tavory & Swidler, 2009; Waldby, Kippax, & Crawford, 1993). Analysis of the reasons youth in eight countries in sub-Saharan Africa (Angola, Cameroon, Eritrea, Kenya, Mozambique, Rwanda, Zambia, Zimbabwe) report not using condoms showed that trust was the most common reason for not using condoms with a regular partner (Agha et al., 2002). Based on this research, formative focus group discussions were conducted in urban areas of Eritrea, Tanzania, Zambia, and Zimbabwe to explore what youth mean when they say they do not use condoms because they trust their partner.

Analysis of the focus group discussions showed that although youth may initially use condoms with a partner, they stop condom use once they believe they can trust their partner (Longfield, Klein, & Berman, 2002). Participants in the focus group discussion often referred to an individual's general characteristics – such as level of responsibility, church attendance, or dress – in determining the extent to which they could trust their partners. This generalized, interpersonal trust in a partner appears to reduce the feelings of risk associated with unprotected sex. Furthermore, in the absence of discussing sexual histories, young adults enter into relationships assuming that both are HIV negative. Couples feel less at risk because they trust their partner and believe that their partner would not knowingly infect them with HIV (Klein & Coombes, 2005).

Trust in a sexual partner is conceptualized here as having three parts: generalized interpersonal trust in the partner, sexual caution with the partner, and sexual assurances from the partner. It may appear that as interpersonal trust increases, one's level of sexual caution in the relationship (preference for using condoms) also decreases. However, sexual caution need not necessarily imply a lack of trust. One can trust that a partner is a good person with good intentions yet prefer to be cautious and use condoms because of the high rate of HIV in the area. Data from Dar es Salaam, Tanzania, show that greater feelings of caution in a relationship are associated with higher rates of consistent condom use (Klein & Coombes, 2005). Youth with lower levels of caution were twice as likely to report

that they did not use condoms because they trust their partners as those with higher levels of caution.

The Trusted Partner Regional Behavior Change Communication (BCC) campaign targets youth and was designed to increase condom use among “trusted” partners. The campaign was implemented by Population Services International (PSI) through the AIDSMark Project with funding from the United States Agency for International Development (USAID). The concept of a regional campaign is predicated on the idea that there are common behavioral barriers to HIV prevention in a region. Rather than designing individual country programs to address common issues, BCC campaign development is centralized, thus providing for universal campaign messages and consistent high-quality materials that are cost-effective for participating countries. This article reviews



the impact of the campaign in four of the countries that aired the Trusted Partner BCC: Lesotho, Mozambique, Uganda, and Zambia (Figure 1). We analyze two waves of cross-sectional data for each country to determine the reach of the Trusted Partner campaign and to assess the effect of the campaign on caution and on condom use with a regular, nonmarital partner among youth.

Background

Across sub-Saharan Africa there has been a range of successes and setbacks in fighting the HIV epidemic. For example, there have been declines in HIV prevalence in Uganda from an estimated 13% in the early 1990s to around 4% in 2003 (UNAIDS, 2004). Alternatively, estimated prevalence has reached and remained at higher levels in Lesotho, Mozambique, and Zambia. In 2007, the estimated HIV prevalence in Mozambique was 12.5% (UNAIDS/WHO, 2008). In 2004, the estimated HIV prevalence in Lesotho was 19% for males and 26% for females. In Zambia there have been no differences in the estimated HIV prevalence from the 2001–2002 survey and the 2007 survey; with an estimated 12% of males and 16% of females HIV positive (Central Statistical Office, Ministry of Health, Tropical Diseases Research Centre, University of Zambia, & Macro, 2009).

The causes for the variations in national and subnational levels and trends in HIV prevalence are of great interest to governments and AIDS prevention programs yet there is little consensus. The past successes in Uganda are believed to result more from changed sexual behavior outside stable unions than from increases in condom use within stable unions (Kamya et al., 1997; Stoneburner & Low-Beer, 2004). However, the conditions of the epidemic in Uganda, as elsewhere, are constantly changing. Given the historically low levels of condom use in Uganda (Kamya et al., 1997), increases in condom use in stable unions as well as in casual relationships may also contribute to further reversing Uganda's epidemic.

The Demographic and Health Surveys (DHS) conducted in Mozambique (2003), Uganda (2000–2001), and Zambia (2001–2002) timed closest to the fieldwork for this research show that awareness of HIV/AIDS among youth is nearly universal (ORC Macro, 2006). The rate of reported condom use in last sex with a non-marital, non-cohabiting partner varies substantially across the countries in this evaluation (ORC Macro, 2006): 62% for males and 44% for females in Uganda (2000/2001 DHS) 42% for males and 33% for females in Zambia (2001/2002 DHS), 50% for males and 56% for females in Lesotho (Ministry of Health and Social Welfare, Bureau of Statistics, & ORC Macro, 2005) and 33% for males and 29% for females in Mozambique (2003 DHS).

While the structural barriers to condom use include insufficient supply, access, or affordability of condoms (Foss, Watts, Vickerman, & Heise, 2004) other barriers to condom use, such as an individual's personal attributes, may influence whether an individual uses a condom. One may not use a condom if one is too shy to purchase condoms, has low condom use self-efficacy, has little knowledge of condoms, perceives weak social support for use, or feels unable to negotiate condom use with his partner (see, for example: Adih & Alexander, 1999; Bond & Dover, 1997; Bracher, Santow, & Watkins, 2004; Longfield, Glick, Waithaka, & Berman, 2004; Luke, 2003; MacPhail & Campbell, 2001; Meekers & Klein, 2002; Meekers, Silva, & Klein, 2005; Plummer et al., 2006; Sunmola, 2005). Further, condom use is consistently higher with casual partners than with regular partners or spouses. Condoms are often associated with mistrust and infidelity (Agha et al., 2002; Chimbiri, 2007; Plummer et al., 2006; Tavory & Swidler, 2009), a notion possibly reinforced by AIDS prevention messages that suggest individuals either be faithful or use condoms. The purpose of this campaign was to remove trust from being a barrier to condom use.

The Trusted Partner Campaign

The Trusted Partner campaign was PSI's first regional BCC endeavor. Regional campaigns are predicated on the notion that there may be shared barriers to behavior change among a target group in a region. As "trust" is commonly cited as a central reason for not using condoms in sub-Saharan Africa (Agha et al., 2002; Chimbiri, 2007; MacPhail & Campbell, 2001; Plummer et al., 2006; Tavory & Swidler, 2009), a campaign addressing trust as a barrier to condom use meets this condition. Nonetheless, Lesotho, Mozambique, Uganda, and Zambia are vastly different countries (United Nations Development Programme, 2009). Lesotho is a small country, surrounded by South Africa, with a population of 2 million inhabitants. Life expectancy in Lesotho is 44.9 years and the total fertility rate is 3.4 children per woman. Both the literacy rate (82.2%) and per capita GDP (\$1,541) are higher in Lesotho than the other three countries in the study. Mozambique, with a population of 21.9 million, has the lowest per capita GDP (\$802) and lowest literacy rate (44.4%) of the four countries. Life expectancy in Mozambique is 47.8 and the total fertility rate is 5.1 children per woman. Uganda has the largest population of the four countries, with 30.6 million inhabitants. Life expectancy in Uganda is 51.9 and the total fertility rate is 6.4 children per woman. The adult literacy rate in Uganda is 73.6 per 100 and the per capita GDP is \$1,059. Zambia has 12.3 million residents, a life expectancy of 44.5 and a total fertility rate of 5.9 children per woman. The adult literacy rate

in Zambia is 70.6 per 100 and the per capita GDP in Zambia is \$1,358. PSI operates condom social marketing programs in all four countries. In each country, PSI markets and sells branded condoms through traditional and nontraditional outlets at heavily subsidized prices.

Regional campaigns provide great financial advantages to participating programs, as the cost of mass media campaign development can vary greatly and be burdensome, especially on smaller programs. Both large and small programs benefited from reduced costs by participating in the regional Trusted Partner campaign. The campaign was first produced for the East and Southern Africa region. The cost of this production, including the formative research, creative development, production, and adaptation for 11 countries in the region, totaled approximately \$450,000. This averaged to about \$40,000 per country initially included in the BCC, plus the additional costs of recording voiceovers in local languages for the radio and TV spots. Large PSI country programs saw reductions in cost; smaller programs, where such resources as professional recording studios and advertising agencies may be scarce, were able to access a high-quality media campaign that they would not have otherwise had the capacity to develop.

The creative brief for the Trusted Partner campaign was based on findings from the formative research conducted in urban areas of Eritrea, Tanzania, Zambia, and Zimbabwe discussed above: youth often do not use condoms because they trust their partner. The Trusted Partner campaign focused on altering misconceptions that result in a heightened sense of trust. Each of the spots focuses on profiling youth who, based on the analysis of the formative focus group discussions, would be deemed as responsible and trustworthy. At the end of the spot, the viewer is shown that each “trustworthy” person is HIV-positive. The “Park” spot shows a young couple who are in love spending time together in a park (see the front cover of this issue of *Social Marketing Quarterly* for an example of a billboard). The voiceover first tells the viewer that he trusts her because she did not have sex with him immediately and that she trusts him because he has said that he loves her. Ultimately, however, the viewer is informed that they are both HIV-positive and that they will never know who infected the other. In the “Church Girl” spot, a young woman is shown in church singing with the choir. Again, the voiceover first informs the viewer that she is a good student, is involved with the church, and makes her family proud before ultimately revealing that she is HIV-positive. In the “Working Man” spot, before informing the viewer that the young man is HIV-positive, the voiceover says that he works hard, takes life and relationships seriously, and any woman would perceive him to be a reliable, trustworthy partner. Finally, in the “School Girl” spot, a young woman is shown at school and the viewer is told that she is a good student,

responsible, studying to be a kindergarten teacher, and HIV-positive. In addition to the four television spots, the Trusted Partner campaign also consisted of five radio spots and supporting printed materials in poster and billboard format.

The Trusted Partner materials were pretested prior to being finalized and distributed to countries for the local recording of voiceovers. Each country program pretested the radio spots, TV spots, and posters. The pretest consisted of a series of four focus group discussions with the target audience (males and females ages 15–19 and 20–24) in which the spots and posters were presented. A moderator facilitated the group to determine anything negative related to the campaign materials, whether the target audience understood the overall message, to identify how the target audience felt about the campaign, and to identify anything about the campaign that prevented the message from being understood. No major changes were made to the campaign based on the pretests. Minor changes (e.g., names of the characters in the ads) that were made to individual scripts were done on a country-by-country basis and affected voice-overs rather than the visual campaign components (see Appendix). Programs could choose among the radio and television spots developed and opt to air the number of spots for which the program could afford air-time or which were felt to be the most relevant. Finally, some programs chose to slightly alter the tagline that was developed for the Trusted Partner campaign: “Anybody can catch HIV. Everybody can prevent it.”

While initially designed for countries in East and Southern Africa, the campaign was ultimately aired in nearly 20 African countries. Not all programs that used the Trusted Partner campaign conducted baseline and follow-up surveys; reasons for this included limited research resources and differences in the timing of the campaign vis-à-vis ongoing surveys. This article presents results from the four countries that conducted baseline and follow-up evaluations of the campaign: Lesotho, Mozambique, Uganda, and Zambia.

Lesotho

The Trusted Partner campaign was launched in Lesotho in January 2003 (see Appendix). Radio spots were primarily aired in Sesotho, the lingua franca of Lesotho, although a fifth of the spots were aired in English. The spots aired on four local radio stations starting in January 2003. Between January and April of that year the frequency of the radio spots was more intense than in subsequent months. The four television commercials were aired, exclusively in Sesotho, from January 2003 through May 2005. During the Valentine month, only the “couple” spot was used. The four corresponding billboards were printed in English and placed in two main cities (Maseru and Maputsoe), while posters in Sesotho were

distributed throughout the country; posters were most commonly displayed in schools, government institutions, hospitals, and clinics. The tagline in Lesotho was “*Anybody can catch HIV. Everybody can prevent it. Wait: Abstain from sex or use a condom every time.*”

Mozambique

The campaign aired in Mozambique between June and November 2004 (see Appendix). All TV and radio spots and all posters were produced in Portuguese. The Mozambique program opted to run three television spots, two radio spots, one billboard design, and one poster design. The television commercials aired approximately 300 times during peak viewing times on the major television stations in Mozambique throughout the duration of the campaign. The radio spots aired approximately 1,000 times and five billboards were placed in high traffic areas in Maputo. Posters were distributed through a variety of channels, including as an insert in the major national newspaper *Notícias*. The tagline used in the campaign was “*Qualquer pessoa pode apanhar HIV-SIDA. Pensa direito*” (Anybody can catch HIV/AIDS. Think Right).

Uganda

In Uganda, the campaign ran from December 2003 to October 2004 (see Appendix). The radio spots aired a total of 3,864 times and the television spots a total of 220 times. On average, 330 radio and 20 television spots were aired each month. In addition, the local radio station would occasionally run the radio ads during breaks when there was nothing else to air. It is unknown how many times these “bonus” spots were run. The campaign consisted of four television spots and four radio spots. Billboards were not incorporated into Uganda’s campaign, but posters were distributed nationally. Besides English, the television spots, radio scripts, and posters were translated into Luganda and other local languages (such as Runyankole-Rukiga, Runyoro-Rutoro) to cover Western Uganda. The tagline was “*Anybody can catch HIV. Everybody can prevent it.*”

Zambia

The Zambia program ran the campaign for five months between August and December 2004 (see Appendix). The Trusted Partner materials were produced in English, Nyanja, and Bemba. English and Bemba translations were used for all media channels, but no billboards were produced in Nyanja. All the television and radio spots were used. The campaign ran on national radio and television stations as well as on community radio stations daily for the first three weeks

of the campaign, then three days per week for the remaining months. Averages of three to four spots were run on a given day. Spots were run on a rotation so that the ads that aired one day were different from the ads aired the next day. The billboards were placed nationwide in colleges and universities for nine months beginning August 2004. The tagline used in Zambia's campaign was "*Anybody can catch HIV everybody can prevent it. Which one are you?*"

Data and Methods

The data used in this analysis stem from ongoing cross-sectional PSI TRaC (Tracking Results Consistently) surveys. The TRaC surveys are administered in person, through face-to-face interviews. Similar to the design of the other multinational surveys, such as the Demographic and Health Surveys, PSI's TRaC surveys have a core questionnaire that includes information on a range of reproductive health topics including HIV risk behavior and condom use as well as a smaller number of supplemental questions that are locally relevant. Common additions to the core TRaC questionnaire include measurements of the country-specific campaign recall and misperceptions about HIV. These household-based surveys were each representative surveys, yet the geographic scope of each survey varied (see Appendix. For survey details of the PSI TRaC surveys see Chapman & Coombes, 2003. For a review of measures used in PSI program evaluations, see Patel, 2004. For details of the Mozambique survey, see Smith, 2005; for details of the Multi-Round Survey of Zambian Youth see Agha, Hutchinson, & Kusanthan, 2006; for details of the Uganda survey, see PSI, 2004. For details on the sampling strategies used see Capo-Chichi & Chapman, 2004). The data from Lesotho, Mozambique, and Zambia are representative of urban areas, with the Lesotho surveys having been conducted in the two main cities, Maseru and Maputsoe; the Mozambique surveys conducted in Maputo; and the Zambia surveys conducted in Lusaka. The Uganda surveys were drawn from the nationally representative Uganda Tracking Surveys.

Other factors, such as the age groups sampled and whether married respondents were included, also differed by country. As the target age group for the campaign was those aged 15 to 24, our analysis was restricted to these groups. Further, as trust within nonmarital relationships was the focus of the campaign, the analyses reported in this article are restricted to unmarried respondents who were sexually active with a current regular partner.

In Lesotho, only unmarried youth in relationships were interviewed with a total of 654 youth interviewed in the first round and 548 interviewed in the second round. In Mozambique, a total of 697 respondents were interviewed in the first round and 705 respondents were interviewed in the second round. Analysis was

first restricted to respondents who had no missing values for variables of interest ($n = 1392$). Subsequently, analysis was restricted to respondents who are sexually active with a current, nonmarital partner. The restricted sample includes a total of 467 respondents, 240 from the first round, and 220 from the second round. In Uganda, the trusted partner module was administered to all 2680 respondents aged 15 to 24 years. While married/cohabiting respondents were administered the trusted partner module, for the analysis to be comparable, married respondents and those respondents without a current sexual partner were excluded from the analysis, leaving 658 unmarried, noncohabiting respondents with a current partner (313 from wave one, 345 from wave two). In Zambia, the multiround survey of Zambian youth includes 4,800 respondents aged 13 to 24, half in each wave. A total of 587 youth interviewed were excluded from the analysis because they were under 15 years of age, 808 were excluded because they were married, 1313 were excluded because they were not sexually experienced, and 1104 were excluded because they were not currently in a relationship.

The baseline and follow-up surveys were approximately a year apart in three of the four countries. However, the time between the baseline and follow-up surveys differed slightly in each country as did the timing of the follow-up survey relative to the launch of the campaign. In Lesotho, the baseline survey was conducted in 2003 and the follow-up in 2004. In Uganda, the baseline was included in the tracking survey of December 2003 and the follow-up was in the survey conducted from December 2004 to January 2005. The Zambia surveys used in this analysis are two rounds of the multiround survey of Zambian youth; the baseline was in December 2003 and the follow-up was in December 2004. In Mozambique there was a shorter period between baseline and follow-up surveys with the baseline fielded in June 2004 and the follow-up fielded in December 2004.

Development of the “Trust” scales

The measures of trust used in the survey were adapted from a scale developed by Larzalere and Huston (1980). The trust module of the questionnaires contained both the original scale and an adapted version of the scale referring to sexual relations (Klein & Coombes, 2005). Additional items were included based on the formative focus group discussions on trust and its connection to condom use. Consistent with our a priori hypotheses, this analysis and past research confirmed the presence of three elements in the trust module: caution, sexual assurances, and interpersonal trust (Klein & Coombes, 2005). Sexual caution refers to a behavioral preference to protect oneself or to feelings of vulnerability in a relationship in terms of one's sexual health (Table 1). Sexual assurances involve

TABLE 1

Multicountry Scale Items and Reliability Scores (Alpha)

	LESOTHO	MOZAMBIQUE	UGANDA	ZAMBIA
<i>Interpersonal Trust</i>	0.73	0.76	0.85	0.86
My partner generally looks out for my best interests				
My partner can be counted on to help me				
My partner treats me fairly				
I feel I can trust my partner				
If my partner couldn't meet with me as planned, I would believe his/her excuse				
If I ask my partner to do something, he/she will make sure to do it				
<i>Caution</i>	0.75	0.73	0.68	0.81
When/if I have sex with my partner, it's best to be cautious to avoid HIV/AIDS				
I should be careful to avoid HIV/AIDS when/if I have sex with my partner				
Thinking about my partner's past sexual behavior makes me concerned about HIV				
It is better for me to be cautious and use condoms than assume that I am safe when/if I have unprotected sex with my partner				
I'm afraid of getting AIDS from my partner				
I sometimes worry that my partner may have AIDS.				
<i>Received Assurances</i>	0.86	0.73	n.a. ^a	0.81
My partner is honest with me about his/her past sexual behavior				
My partner is open with me about his/her past sexual behavior				
My partner is open with me about his/her past number of sexual partners.				

Note. ^aThe assurances scale items were not asked in the follow-up survey in Uganda.

discussions of HIV testing and behavioral expectations. Interpersonal trust refers to expectations that a partner will behave benignly. While sexual assurances and interpersonal trust are not expected to influence condom use, formative research suggests that greater caution leads to more consistent condom use.

Factor analysis was first conducted for each individual country. For each factor – trust, caution, and sexual assurances – specific items that did not load highly on the hypothesized factor were dropped. In the interest of creating the most parsimonious measure for each of these factors, applicable across all countries implementing the Trusted Partner campaign, items with weaker factor loadings were dropped to reach an alpha of approximately 0.7 (O’Connell, Yang, Astatke, & Lipovsek, 2006). However, quantitative measures did not solely govern this process: items deemed to be of qualitative importance to the measurement of the factor were retained. Also, once the analysis of each individual country was completed, items included in the scales for sexual caution, sexual assurances, and interpersonal trust were compared for these four countries and also compared with previous analyses of data from Tanzania and Zimbabwe (Klein & Coombes, 2005). This comparison allowed us to create multicountry, parsimonious measures for sexual caution, sexual assurances, and interpersonal trust. Items that loaded for four or more countries for sexual caution, four or more countries for sexual assurances, and three or more countries for interpersonal trust were included in the scales used for this evaluation. All scales showed high levels of reliability in all four countries (Table 1).

Measures of program exposure

Recall was measured slightly differently in the four surveys, and the categorization of exposure used in this article reflects this variation. In Lesotho, respondents were asked to recall how many different advertisements they have seen or heard that contained the slogan: “Anybody can catch HIV. Everybody can prevent it”; they were then categorized as having had either “no exposure” (recalling no spots), “low exposure” (recalling one spot), or “high exposure” (recalling two or more spots). The Mozambique categorization was similar: exposure was measured based on the number of different Trusted Partner spots respondents recalled when asked about “the personalities in the campaigns about HIV/AIDS.” It should be remembered that, in using this categorization, it is possible that respondents classified as having “no” exposure may actually have been exposed but simply could not recall specific campaign elements. In Uganda and Zambia, exposure was measured simply as “exposed” or “not exposed.” In Uganda, the respondents were shown the storyboards for the four spots when they were asked about exposure; in Zambia, respondents were not given visual aids.

Analytic methods

To examine whether those exposed to the campaign differed in their reported levels of sexual caution with their regular partner, we used analysis of variance and tested for significant differences in sexual caution by level of exposure after controlling for those sociodemographic variables found to be significant in the regression analysis. To standardize the exposure measures across countries, each sample was divided into three exposure categories: baseline sample, follow-up sample with no exposure, and follow-up sample reporting any exposure to the campaign.

Next we used logistic regressions to assess the determinants of consistent condom use with a regular partner. The regressions were weighted for Mozambique and Uganda, the two surveys for which the data were not self-weighted. The results of the regressions are presented as odds ratios. Our first model included measures of trust (sexual caution, sexual assurances, and interpersonal trust), measures of exposure as a series of dichotomous variables with the baseline survey as the reference group for all four countries and controls for sociodemographic characteristics (sex, age [20–24, reference is aged 15–19], education [secondary or higher, reference is less than secondary], socioeconomic status [an index was created using principal components analysis of common household possessions; the sample was then divided into quartiles [reference is low, medium-low, medium-high, and high], and residence [rural, reference is urban]).

Our second model added all available variables related to opportunity, availability, and motivation for condom use. This second model varied greatly depending on the design of each country's questionnaire. While model 1 allowed for cross-country comparison of the results, model 2 allowed us to assess to what extent the results from model 1 held when other indicators of condom use were included. Finally, we tested for interactions between exposure and sociodemographic characteristics; where interactions were significant they are presented. Testing for interactions allowed us to explore whether the effect of exposure to the program varied by sociodemographic characteristics.

Sample characteristics

Lesotho

Reported consistent condom use increased in Lesotho from 56.4% in the baseline to 66.9% in the follow-up (Table 2, $p < .01$). Although there were no differences between the baseline and follow-up surveys in terms of the sex, education, and socioeconomic status of the respondents, there were more respondents aged 20 to 24 (62.4% vs. 52.6%, $p < .01$) in the baseline survey, as well as more students (56.6% vs. 47.3%, $p < .01$).

TABLE 2

Background Characteristics of Respondents in Each Survey in Lesotho, Mozambique, Uganda, and Zambia

	LESOTHO		MOZAMBIQUE		UGANDA		ZAMBIA	
	BASELINE (N = 654)	FOLLOW-UP (N = 548)	BASELINE (N = 244)	FOLLOW-UP (N = 223)	BASELINE (N = 313)	FOLLOW-UP (N = 345)	BASELINE (N = 527)	FOLLOW-UP (N = 461)
Consistent condom use	56.4	66.9**	38.69	48.92*	59.60	61.19	30.17	34.92
Exposure to Campaign								
None	-	68.06	-	46.47	-	84.05	-	60.74
Low	-	22.45	-	25.96	-	-	-	-
High	-	9.49	-	27.57	-	15.95	-	39.26
Caution (mean)	2.08	2.04	2.60	2.79*	2.85	2.75	2.76	2.77
Assurances (mean)	2.04	2.13	3.59	3.20**	-	-	3.01	2.88
Interpersonal trust (mean)	1.54	1.60	3.50	3.44	3.28	3.44**	3.30	3.15
Sex								
Female	51.7	52.9	42.98	45.87	35.67	46.72	37.00	38.18
Male	48.3	47.1	57.02	54.13	64.33	53.28*	63.00	61.82
Age								
15-19	37.6	47.4	43.62	44.27	54.52	48.53	50.09	47.51
20-24	62.4	52.6**	56.38	55.73	45.48	51.47	49.91	52.49

(Continued)

TABLE 2

Continued

	LESOTHO		MOZAMBIQUE		UGANDA		ZAMBIA	
	BASELINE (N = 654)	FOLLOW-UP (N = 548)	BASELINE (N = 244)	FOLLOW-UP (N = 223)	BASELINE (N = 313)	FOLLOW-UP (N = 345)	BASELINE (N = 527)	FOLLOW-UP (N = 461)
Education								
Low/none	16.5	19.9	27.29	30.89	31.00	31.08	66.22	66.81
High	83.5	80.1	72.71	69.11	69.00	68.96	33.78	33.19
Student								
No	43.4	52.7	-	-	-	-	-	-
Yes	56.6	47.3**	-	-	-	-	-	-
SES								
Low	28.3	31.8	26.77	22.89	21.17	34.17	21.82	27.11
Medium low	20.2	22.1	25.59	26.16	24.40	27.66	27.89	23.21
Medium high	25.5	23.4	23.12	26.29	30.44	21.97	25.43	24.30
High	26.0	22.8	24.52	24.66	23.99	16.21**	24.86	25.38
Urban status								
Rural	-	-	-	-	18.14	20.12	-	-
Urban	-	-	-	-	81.86	79.88	-	-

Note. Mozambique and Uganda percentages based on weighted counts.

Chi square significant at * $p < .05$; ** $p < .01$.

Mozambique

Reported consistent condom use increased in Mozambique from 38.7% in the baseline to 48.9% in the follow-up (Table 2, $p < .05$). Additionally, the mean sexual caution score increased ($p < .05$) and the mean score for sexual assurances decreased ($p < .01$). There were no differences between the baseline and follow-up surveys in terms of the sex, age, education, and socioeconomic status of the respondents.

Uganda

There were no differences between the baseline and follow-up in Uganda in terms of age, education, condom use, or level of sexual caution of the respondents (Table 2). There was an increase in the level of interpersonal trust reported by the respondents ($p < .01$). There were fewer males and fewer respondents of high socioeconomic status in the follow-up survey ($p < .01$ for both).

Zambia

There were no differences between the baseline and follow-up in Zambia on any of the variables included in this analysis (Table 2).

Results**Recall of the Trusted Partner campaign**

The reach of the campaign varied greatly across the four countries. In Uganda, 16% recalled the campaign (Table 2). A substantial proportion of respondents recalled the program in Mozambique, with 26% of respondents recalling one spot and 28% recalling two or three spots. The Lesotho and Zambia campaigns reached about one-third of respondents (32% and 39%, respectively). In both Zambia and Uganda, females were more likely to recall the campaign than males, though the difference was not statistically significant in Uganda (not shown). In all countries, those with higher education and higher socioeconomic status were substantially more likely to report exposure to the campaign (not shown). In Uganda, the only survey with a rural sample, urban residents were much more likely to recall the campaign than their rural counterparts (not shown).

Differences in sexual caution by exposure to the Trusted Partner campaign

The results of the analysis of variance are shown in Table 3 controlling for the sociodemographic variables. Only the Mozambique study showed an increased trend in sexual caution between baseline and follow-up; the mean score at the follow-up survey for those not exposed to the campaign was 2.99 vs. 2.79 at

TABLE 3

Adjusted Means of Scale Measuring Caution by Exposure to the Trusted Partner Campaign in Lesotho, Mozambique, Uganda, and Zambia

	LESOTHO			MOZAMBIQUE			UGANDA			ZAMBIA		
	ADJ. MEAN	S.E.	(N)	ADJ. MEAN	S.E.	(N)	ADJ. MEAN	S.E.	(N)	ADJ. MEAN	S.E.	(N)
Baseline	2.08	0.03	(654)	2.79	0.05	(240)	2.86	0.04	(313)	2.76	0.03	(527)
Follow-up, no exposure	2.02	0.04	(359)	2.99**	0.06	(172)	2.76	0.05	(267)	2.78	0.04	(337)
Follow-up, exposed to campaign	2.09	0.05	(171)	2.89	0.11	(48)	2.67	0.09	(78)	2.75	0.07	(124)

Note. Means are adjusted by significant sociodemographic determinants of caution. S.E. = standard error. * $p < .05$; ** $p < .01$.

baseline ($p < .01$). However, the Trusted Partner campaign was not associated with increases in sexual caution.

Influence of program exposure, trust, caution, and assurances on consistently using a condom

Lesotho

In Table 4, of the three trust scales, only sexual caution had a relationship with consistent condom use, albeit in the opposite direction than that predicted. Those with no exposure to the campaign at follow-up and those with low exposure were significantly more likely to report consistent condom use than the baseline respondents. The addition of variables measuring positive condom attitudes and risk perception in model 2 does not substantially change the relationships found in model 1. We found no significant interactions between exposure and any of the sociodemographic variables.

Mozambique

Respondents in Mozambique with higher levels of sexual caution had an increased likelihood of consistently using condoms with their regular partner (odds ratio [OR] = 1.56, $p < .01$). Youth with high levels of exposure to the campaign were over three times more likely to report consistent condom use with

TABLE 4

Multivariate Logistic Regression Models of the Influence of Program Exposure, Trust, Caution, and Assurances and Sociodemographic Variables on Consistently Using a Condom in Lesotho, Mozambique, Uganda, and Zambia

	LESOTHO				MOZAMBIQUE				UGANDA				ZAMBIA				
	MODEL 1		MODEL 2		MODEL 1		MODEL 2		MODEL 1		MODEL 2		MODEL 1		MODEL 2		
	OR	OR	OR	OR	OR	OR	OR	OR	OR	OR	OR	OR	OR	OR	OR	OR	
ODDS RATIO (OR)																	
Caution	0.70**	0.65**	1.56**	1.44	1.44	2.16**	2.14**	2.14**	1.47**	1.47**	1.47**	1.47**	1.47**	1.47**	1.47**	1.45**	1.45**
Assurances	0.90	0.91	1.14	1.06	1.06	n.a.	n.a.	n.a.	0.91	0.91	0.91	0.91	0.91	0.91	0.93	0.93	0.93
Interpersonal trust	0.86	0.85	0.81	0.67	0.67	1.16	0.96	0.96	0.99	0.99	0.99	0.99	0.99	0.99	0.94	0.94	0.94
Exposure																	
Baseline (reference)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Follow-up: None	1.68**	1.63**	0.99	1.00	1.00	1.15	1.45	1.45	1.31	1.31	1.31	1.31	1.31	1.31	1.37	1.37	1.37
Follow-up: Low exposure	1.96**	1.94**	2.00	2.06	2.06	1.18	1.48	1.48	1.19	1.19	1.19	1.19	1.19	1.19	1.23	1.23	1.23
Follow-up: High exposure	1.78	1.60	3.18**	2.78**	2.78**												
Sociodemographic Controls																	
Sex																	
Female (reference)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Male	0.87	0.89	0.89	1.14	1.14	1.01	0.96	0.96	0.68**	0.68**	0.68**	0.68**	0.68**	0.68**	0.65**	0.65**	0.65**

(Continued)

TABLE 4

Continued

	LESOTHO		MOZAMBIQUE		UGANDA		ZAMBIA	
	MODEL 1	MODEL 2	MODEL 1	MODEL 2	MODEL 1	MODEL 2	MODEL 1	MODEL 2
	ODDS RATIO (OR)	OR	OR	OR	OR	OR	OR	OR
Age								
15-19 (reference)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
20-24	1.02	1.05	0.63*	0.68	0.89	0.91	0.89	0.86
Student								
No (reference)	1.00	1.00	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Yes	1.47*	1.51**	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Education								
Less than secondary (reference)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Higher education	1.10	0.96	1.58	1.17	2.58**	2.78**	1.74**	1.77**
SES								
Low SES (reference)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Med-low SES	1.20	1.27	0.72	0.58	0.55	0.55	1.38**	1.35**

Med-high SES	1.56*	1.65**	1.09	1.16	0.86	0.94	1.57	1.58
High SES	1.56*	1.44	2.91**	2.68**	1.30	1.32	1.64	1.66
Residence								
Urban	n.a.	n.a.	n.a.	n.a.	1.00	1.00	n.a.	n.a.
Rural	n.a.	n.a.	n.a.	n.a.	0.89	0.90	n.a.	n.a.
HIV and Condom Controls								
Multiple partners in past year								
No (reference)	n.a.	n.a.	1.00	n.a.	n.a.	n.a.	n.a.	n.a.
Yes				0.53*				
Condom attitude		1.71**	n.a.	n.a.	n.a.	n.a.		1.51**
Condom access		n.a.	0.94					n.a.
Risk perception		0.82	0.82			0.47**		n.a.
Condom support		n.a.	n.a.	n.a.		1.73**		0.98
Knowledge		n.a.	n.a.	n.a.		1.06		1.13
Motivation for use		n.a.	2.75**			n.a.		n.a.

* $p < .05$; ** $p < .01$.

their regular partners than individuals interviewed in the baseline survey ($p < .01$). There was no difference in condom use between those interviewed in the baseline survey and those with no exposure to the campaign or those with low exposure to the campaign.

When we add the variables measuring positive condom attitudes and risk perception in model 2, the relationship between caution and condom use was no longer significant (from 0.45, $p < .01$ to 0.36, $p = .051$) and the magnitude of the relationship between high campaign recall and condom use decreased slightly in magnitude (from 1.16, $p < .01$ to 1.02, $p < .01$). We again found no significant interactions between exposure and any of the sociodemographic variables.

Uganda

Youth in Uganda with higher levels of sexual caution were more likely to report consistent condom use (OR = 2.16, $p < .01$). Ugandan youth with no exposure at follow-up and those with exposure did not report significantly different levels of condom use than those interviewed prior to the campaign. There were no differences in consistent condom use by interpersonal trust, sex, age, or locale and no clear differences by socioeconomic status.

The addition of indicators of knowledge, perceived support for condom use, and HIV risk perception in model 2 did not substantially change the relationships between the variables found in model 1. However, we found an interaction between locale and our measures of program exposure (Table 5), controlling for other variables in the model. To facilitate interpretation, we have calculated the odds ratios for consistent condom use for the combinations of locale, exposure, and the interaction between locale and exposure. Whereas there was not a significant difference in the likelihood of reporting consistent condom use in rural areas when comparing those with no exposure to the baseline or when comparing those exposed to the campaign to the baseline, there was a significant difference in urban areas. Individuals in urban areas who were not exposed to the campaign were more likely to report consistent condom use than were individuals at baseline (OR = 3.75, $p < .01$), as were individuals who were exposed to the Trusted Partner campaign (OR = 3.82, $p < .01$). However, there was no difference in consistent condom use in urban areas between those exposed and those not exposed to the campaign.

Zambia

In model 1, consistent condom use varied by level of sexual caution and survey round in Lusaka, Zambia. Those with higher levels of sexual caution were more

TABLE 5

Multivariate Logistic Regression Models of the Determinants of Consistent Condom Use: Interactions in Uganda and Zambia

	ODDS RATIOS	
	UGANDA	ZAMBIA
Caution	2.17**	1.48**
Assurances	n.a.	0.94
Interpersonal trust	0.97	0.94
Exposure		
Baseline (reference)	1.00	1.00
Follow-up: no exposure	3.75**	1.47
Follow-up: exposed	3.82**	1.99**
Interaction terms		
Rural* no exposure	0.33	
Rural* exposed	0.24**	
Interaction terms		
Male* no exposure		0.88
Male* exposed		0.40**

Note. * $p < .05$; ** $p < .01$.

The Uganda model controls for sex, age, education, socioeconomic status, risk perception, condom support, and knowledge.

The Zambia model controls for sex, age, education, socioeconomic status, residence, condom attitude, condom support, and knowledge.

likely to consistently use condoms ($OR = 1.47, p < .01$). Both those respondents not exposed to the campaign and those respondents exposed to the campaign were not significantly more likely to report consistent condom use than those surveyed at baseline. After adding indicators of respondents' knowledge, perceived support for condom use, and condom attitudes to our previous model, we found no changes in the magnitude of the relationship between consistent use and sexual caution.

We found an interaction between sex and program exposure (Table 5). To facilitate interpretation, we have calculated the odds ratios for consistent condom use for the combinations of sex, exposure, and the interaction between sex and exposure. While females who were exposed to the program were twice as likely to report consistent condom use ($OR = 2.01, p < .05$) compared with women

in the baseline, males who were exposed to the Trusted Partner campaign were no more likely to report consistent condom use than males at baseline. This suggests that the influence of the program on consistent condom use varied by the sex of the respondent.

Discussion and Implications for Social Marketing

The Trusted Partner campaign was PSI's first regional campaign. The campaign aimed to increase condom use by altering misconceptions that result in a lessened sense of sexual caution. This analysis shows mixed results for the campaign. Both the Lesotho and Mozambique studies showed a positive upward trend in condom use with regular partners, as did the Zambia study for females. The results also show that the significant positive trend in condom use in Mozambique is associated with the Trusted Partner campaign.

Exposure to the Trusted Partner campaign was not associated with higher levels of sexual caution. We suggest three possible reasons for this. First, it is possible that sexual caution is a risk perception that is negotiated at the couple level rather than the individual level. That is, each individual in the relationship influences the other individual's perceived need for sexual caution in the relationship. If this is the case, then exposure to the Trusted Partner campaign at the couple level is likely to have a greater effect than exposure to the campaign at the individual level. For example, a male partner who has not been exposed to the campaign may still have a change in his level of sexual caution if his female partner has been exposed and initiates conversations about AIDS prevention. Similarly, a female exposed to the Trusted Partner campaign who is in a relationship with a male who has *also* been exposed to the campaign will likely have a greater change in sexual caution than a female exposed to the campaign whose partner has not been exposed. Future studies of trust, sexual caution, and protective behavior would benefit from collecting couple-level data to assess the role of one's partner's perceptions and one's partner's exposure to prevention campaigns.

Second, the data indicate that more intense exposure may have been necessary to bring about behavior changes. For Mozambique youth and for Zambian females, the positive upward trend in condom use with regular partners was significantly associated with exposure to the Trusted Partner campaign. We found that intensity of exposure to the campaign was associated with higher condom use in Mozambique, indicating that higher levels of exposure may be necessary to achieve behavior change.

Finally, the association between condoms and a lack of trust is widely cited in the literature on condom use. The goal of the campaign was to motivate youth to

use condoms in relationships where they trust their partners by showing youth that trustworthy and otherwise-good people can also be HIV-positive. However, as trust is cited as a reason for not using condoms with such frequency and across a variety of geographic locations, one mass media behavior change campaign is unlikely to fully convince youth that trustworthy and otherwise good people are truly capable of being HIV-positive. A variety of approaches, including interpersonal communications, are likely to be necessary to tackle such a complex barrier to condom use.

The analysis showed mixed results for the campaign in the four countries studied. Various factors that cannot be controlled with the existing data may confound the results. One key factor is that the multiplicity of HIV/AIDS campaigns and programs during the same time period were not measured in the surveys, nor were events, such as prominent spokespersons' endorsements of condom brands, captured.

Further, data limitations constrain our analysis. First, our analyses are plagued by small sample sizes. To detect a 5% change in condom use as a significant difference requires a sample size of 2,700 respondents, which was over two times the sample size in each country. As such, a lack of statistical significance may be due to the small size of our samples.

Second, our measure of recall was inconsistent across the four locations. In Lesotho and Mozambique, respondents were asked to recall the specific Trusted Partner spots and were then categorized as having had no exposure, low exposure, or high exposure. In comparison, the measures from Uganda and Zambia did not capture the level of exposure, rather simply any level of recall versus no recall. Future research would benefit from consistent measures of recall across all countries participating in a regional campaign, ideally with detailed measures of spontaneous recall as well as prompted recall with visual materials from the campaign.

Third, the surveys used to evaluate the Trusted Partner Campaign were added to ongoing annual tracking surveys. This allowed for the programs to evaluate the effectiveness of the campaign with little additional cost compared with the costs of conducting stand-alone evaluations. However, this compromised our ability to consistently time the airing of the Trusted Partner campaign and the follow-up evaluation (see Appendix). In Lesotho the follow-up survey measured recall a year into the still ongoing campaign. In Mozambique the follow-up survey measured recall immediately after the end of a six-month campaign. In Uganda the follow-up survey was conducted about 1 month after the end of the 11-month campaign. In Zambia, recall was measured immediately after the five-month campaign ended.

Future research on the effectiveness of regional behavior change communications should aim to standardize the duration of the campaigns, the taglines, the timing of the follow-up evaluation, and the measurement of recall to make a clearer assessment of how well a regional campaign works in specific countries. Finally, we do not have enough information on the frequency with which the campaigns were aired to make assessments about the role of the intensity of the media campaigns on behavior change or how this might vary across countries.

The intended target of the Trusted Partner regional BCC was young adults aged 15 to 24. With the exception of Uganda, the campaign targeted urban young adults. In each country the survey was conducted in the same geographic locale as was targeted by the campaign. However, within each locale, certain groups of youth may have had greater exposure to the campaign. Analyses not presented here showed that respondents of higher socioeconomic status and with higher levels of education were more likely to report recall of the Trusted Partner campaign. The campaign is likely to have been accessible through more media for these individuals as TV ownership is not universal and although many of the spots were translated into the local languages, some spots were also run in English or Portuguese.

Nevertheless, the results show a significant positive trend in condom use in Lesotho and Mozambique. In Zambia, the difference in condom use between the baseline and follow-up is not significant, but the difference is in the desired direction. The results from Mozambique also indicate that higher or more intense exposure may be necessary to achieve impact. This regional campaign was a cost-effective way to reach large numbers of youth, and further research with more consistent measures of exposure should be pursued.

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Campaign Location, Survey Dates, Campaign Dates, Intensity, Languages, and Taglines

INTERVENTION LOCATION	BASELINE SURVEY	CAMPAIGN DATES	INTENSITY	LANGUAGES	FOLLOW-UP SURVEY
Lesotho	Maseru and Maputsoe, 2003	Jan. 2003–May 2005			Maseru and Maputsoe, 2004
Radio			4 local stations, intensely January–April 2003	80% Sesotho, 20% English	
TV			4 spots In February only the “couple spot” aired	100% Sesotho	
Billboard			4–Maseru and Maputsoe only	100% English	
Posters			Displayed nationally, commonly in schools, government institutions, hospitals, and clinics	100% Sesotho	
Tagline			“ <i>Anybody can catch HIV. Everybody can prevent it. Wait: Abstain from sex or use a condom every time.</i> ”		
Mozambique	Maputo, June 2004	June–Nov. 2004			Maputo, Dec. 2004
Radio			2 spots; aired approximately 1,000 times	Portuguese	

TV	3 spots; approximately 300 times during peak viewing times on the major TV stations	Portuguese
Billboard	1 design placed on 5 billboards in high-traffic areas	Portuguese
Posters	1 design; a variety of channels, including as an insert in the national newspaper	Portuguese
Tagline	"Anybody can catch HIV/AIDS. Think Right"	
Uganda	Dec. 2003	Dec. 2003-Oct. 2004
		English, Luganda, and other local languages
Radio	4 spots; 3,864 times; average 330 times each month, plus unknown quantity of additional airings when stations would otherwise have had dead air	
TV	4 spots; 220 times; average 20 times each month	
Billboard	None	
Posters	Distributed nationally	
Tagline	"Anybody can catch HIV. Everybody can prevent it."	
(Continued)		

Continued

INTERVENTION LOCATION	BASELINE SURVEY	CAMPAIGN DATES	INTENSITY	LANGUAGES	FOLLOW-UP SURVEY
Zambia	Lusaka, Dec. 2003	Aug.-Dec. 2004			Lusaka, Dec. 2004
Radio	4 spots; national stations and community radio daily for the first 3 weeks, and subsequently 3 days per week; 1 spot ran per day, 3-4 times a day. The spot aired rotated each day				
TV	4 spots; national stations daily for the first 3 weeks and subsequently 3 days per week; 1 spot ran per day, 3-4 times a day. The spot aired rotated each day				
Billboard	Nationwide in colleges and universities for nine months				
Posters	Nationwide in colleges and universities for nine months				
Tagline	<p>.. <i>Anybody can catch HIV</i> <i>everybody can prevent it.</i> <i>Which one are you?'</i></p>				