
# COMMUNICATIONS SUPPORT FOR HEALTH (CSH) PROGRAMME

## *SAFE LOVE* OUTCOME EVALUATION REPORT

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# Executive Summary

The *Safe Love* campaign was a three-year comprehensive HIV prevention behaviour change communication (BCC) initiative that was implemented between June 2011 and June 2014. The overall goal of the campaign was to contribute towards the reduction of new HIV infections in Zambia by addressing key drivers of transmission, mainly, low and inconsistent condom use, multiple concurrent partnerships (MCP) and low uptake of prevention of mother-to-child transmission (PMTCT) services. The campaign also included messages on uptake of voluntary medical male circumcision (VMMC) to help reduce HIV transmission.

An outcome evaluation of the *Safe Love* campaign was conducted to achieve the following:

1. Determine what percentages of the target audience were exposed to the campaign overall and its specific components, and determine whether exposure varied by urban and rural areas of residence and by sex;
2. Assess the effects of the campaign on the target audience's behaviours related to condom use, MCP, HIV testing, and VMMC, as well as on the target audience's knowledge, beliefs/attitudes, self-efficacy, interpersonal communication (IPC), perceived social norms, and intentions, and determine if the effects differed by area of residence, sex, and level of recall.

## Methodology

The evaluation used a one-group post-test-only evaluation design with propensity score matching (PSM). A representative household survey of the nine districts (Kabwe, Kafue, Kapiri Mposhi, Kawambwa, Luanshya, Lusaka, Mansa, Mkushi, and Samfya) where all components of the campaign were implemented was conducted. A total of 4,114 men and women aged 15–49 completed the survey. Communications Support for Health Programme (CSH) collaborated with the University of Zambia's Institute for Economic and Social Research (INESOR) to implement the survey, which took place between June 6 and August 22, 2014. Weighted descriptive analysis was conducted for the socio-demographic characteristics and exposure findings, and PSM was conducted to determine the campaign effects.

## Socio-Demographic Characteristics

Fifty-two percent of the survey respondents were female, 55 percent were under the age of 25, and 72 percent were from urban areas. Seventy-five percent had a secondary level of education or higher, 73 percent were Protestant, and 27 percent were Catholic. Half of the respondents had never been married, and 72 percent had been in a relationship in the six months before the survey. Urban respondents were wealthier than rural respondents. Seventy-five percent of respondents' households owned a radio, 65 percent owned a television, 80 percent owned a mobile phone, and 11 percent had Internet access; media household ownership/access was lower in rural areas.

## Exposure Findings

The *Safe Love* campaign reached the majority of the people in the nine districts: 87 percent of all respondents were exposed to at least one component of the campaign, with greater exposure in urban areas (93 percent) compared to rural areas (71 percent). Exposure to the campaign was mainly through the radio and printed materials (69 percent), followed by television (52 percent). The campaign components that the respondents were least exposed to were mobile text messages (13 percent amongst males), community activities (6 percent), and Internet platforms (4 percent). Exposure amongst respondents with household ownership of media devices was higher: 75 percent reported

exposure to any of the radio programmes amongst those whose households owned a radio, 69 percent reported exposure to any of the television programmes amongst those whose household owned a television and 20 percent reported exposure to any of the Internet platforms amongst those whose household had Internet access. As with overall exposure, urban respondents had greater exposure to the specific campaign components compared to rural respondents. Females and males showed similar levels of exposure to the campaign overall and individual campaign components.

### Campaign Effects' Findings

In relation to condom use, the campaign had positive effects on all four behaviour outcomes examined, as follows: (1) There was a 6 percentage point increase in acquiring a condom in the past six months amongst all respondents, primarily from urban areas, who were able to recall spontaneously any campaign elements, with higher levels of recall resulting in a 14 percentage point increase; (2) there was a 6 percentage point increase in using a condom at last sex with any partner amongst all respondents, primarily from urban areas, who were able to recall any campaign elements, with higher levels of recall resulting in a 9.5 percentage point increase; (3) consistent condom use in the past four weeks with any partner increased by 7 percentage points amongst females, primarily from urban areas, who were able to recall any campaign elements, and by 12.5 percentage points amongst those with higher levels of recall; and (4) consistent condom use in the past six months increased by 8 percentage points amongst urban respondents who were able to recall any campaign elements and by 13 percentage points amongst those with higher levels of recall. The campaign also had significant effects on most of the condom use intermediate outcomes examined. Though most effects were found amongst both men and women, most occurred only in urban areas.

No campaign effects were detected on MCP-related behaviours or intention. Effects were found on all other intermediate outcomes examined, and most occurred in both areas of residence. For some outcomes, the effects differed by sex; for example, the knowledge of females increased amongst those who were able to recall any campaign elements, while communication of males with their partners and friends improved.

In terms of HIV testing, most of the campaign effects found were amongst respondents from rural areas, irrespective of sex. The campaign had an effect on one of the behaviour outcomes examined amongst rural respondents with higher levels of recall: There was a 22.5 percentage point increase in partners getting tested for HIV in the past six months. Effects amongst this same group of respondents were also found for the three IPC outcomes examined, all related to communication with partners about HIV testing and knowing each other's status. Effects in rural areas only were also found for the intention to get an HIV test in the next six months amongst respondents who had not been tested in the past six months, and two perceived social norms outcomes (though in the opposite direction that was expected). Effects on some of the knowledge and beliefs/attitudes outcomes were found in both areas of residence. No effects were found on the self-efficacy outcomes.

For VMMC, campaign effects on the behaviour outcomes examined were inconclusive due to insufficient sample sizes or power to detect effects. However, the campaign had a strong effect on uncircumcised males' intention to get circumcised in the next six months: There was an 18 percentage point increase in the intention amongst males who were able to recall any campaign elements, with higher levels of recall resulting in a 21 percentage point increase. In general, the campaign had strong effects on all intermediate outcomes examined across most of the five groups (all respondents, females, males, urban, and rural) and recall level comparisons.

Overall, across the four campaign topic areas, higher levels of spontaneous recall resulted in greater campaign effects. For a few outcomes, only higher levels of recall resulted in significant effects, indicating a threshold for campaign effects.

## Conclusion

The outcome evaluation of the *Safe Love* campaign found that the campaign reached the majority of people aged 15–49 in the nine districts surveyed and had an effect on increasing key HIV preventive behaviours—in particular, the acquisition and use of condoms in urban areas and HIV testing amongst partners in rural areas. In addition, the campaign also had an effect on changing many important intermediate factors that often precede changes in behaviours, including an increase in intention outcomes (in particular, the intention of respondents from rural areas to get tested for HIV and males' intention to get circumcised), which is a strong indication of people's readiness to practise specific behaviours. Due to the extremely low numbers of respondents who had been exposed to any of the community activities, most of the effects found are likely due to mass media, but a type of mass media that engaged the target audience in the lives of characters and situations, encouraging the audience to think about their own lives and choices, and to talk with others. Overall, the outcome evaluation, which used rigorous statistical analysis to determine campaign effects, adds evidence to the BCC literature of the importance of communication campaigns to change HIV preventive behaviours and intermediate outcomes, and also provides practical lessons learned and recommendations for future programming in Zambia and beyond.

## Acknowledgements

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Kevin Chilemu and John Manda (CSH) directed and managed the evaluation in-country; reviewed the evaluation plan, questionnaire, and drafts of the final report; provided support to the training of interviewers and supervisors; and supervised data collection.

The evaluation survey was implemented by the University of Zambia's Institute of Economic and Social Research (INESOR), led by Joseph Simbaya and his team: Dr. Mushiba Nyamazana, Nkenda Sachingogu, and Humphrey Fumpa. This survey would not have been possible without the commitment and logistical support of all team members, including the interviewers, supervisors, drivers, and local administrators. Thanks to the Central Statistics Office (CSO) for providing the cartographic maps of the sampled areas, participating in the training of interviewers, and providing technical guidance on the sampling.

Samantha Herrera and Dr. Ana Claudia Franca-Koh (ICF International) led the development of the evaluation plan and questionnaire, conducted the majority of the analysis, and served as lead authors for the report. Ms. Herrera also provided support in the training of interviewers and implementation of the evaluation methodology. Other colleagues from ICF International assisted with the evaluation (in alphabetical order): Marcela Aguilar (management support and review), Ramu Bishwakarma (propensity score matching), Dr. Trevor Croft (wealth index analysis), Dr. Mahmoud Elkasabi (sampling, power calculations, and weight variable), Tajrina Hai (data cleaning), Lwendo Moonzwe (data collection quality control checklist), Dr. Gheda Temsah (propensity score matching and review), Kirsten Unfried (questionnaire development, data cleaning and analysis, and write-up of findings), Nicole Vincent (questionnaire development), Dr. Wenjuan Wang (propensity score matching and review), Alisha Weisser (development of tables), and Jennifer Yourkavitch (write-up of findings).

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Dr. Mai Do (Tulane University) was the external reviewer of the evaluation and provided input to the evaluation plan, questionnaire, data analysis, and final draft of the report.

Acknowledgement is also due to the members of the Government of the Republic of Zambia (GRZ)–led *Safe Love* evaluation steering committee, who provided guidance and oversight throughout the evaluation process, including reviewing and approving the evaluation plan, questionnaire, and final draft of the report. The committee comprises (in alphabetical order by organisation): Collins Mutanga and Victor Peleka (CSH), Edmond Mwakalombe (Ministry of Community Development and Maternal and Child Health), Patrick Amanzi (Ministry of Health), Harold Witola (National AIDS Council), and April Peetz (USAID). Thanks also to a number of additional reviewers who provided input during different phases of the evaluation development and execution: Moges Gebremedhin (Chemonics), Florence Mulenga (CSH), Linda Nonde (CSH), Peggy Ochandarena (Chemonics), and Andrew Tuttle (Chemonics). Timothy Chiyende (CSH) and Phanuel Mandevu (CSH) also provided invaluable procurement support.

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# I. Introduction

## 1.1. HIV/AIDS Context in Zambia

While HIV prevalence has been on the decline in Zambia since around 2001, the country still has one of the highest prevalence rates in the world at around 12.5 percent (UNAIDS, 2012). The predominant modes of HIV transmission in Zambia are through heterosexual contact and mother-to-child transmission (MTCT) (Central Statistics Office [CSO] et al., 2010). According to modelled data, 71 percent of new infections are a result of sex with non-regular partners, including being the non-regular partner or having one, or having a partner who has one or more sexual partners (MOH, 2009). Small-scale qualitative studies also suggest that the prevalence of adults engaging in multiple concurrent sexual partnerships is high in Zambia (FHI, 2010; UNAIDS et al., 2010; Underwood et al., 2006. This occurrence is coupled with overall low condom use. For example, as of 2009, amongst adults aged 15–49 years who were sexually active within the past 12 months, only 12.2 percent reported using a condom with their most recent sexual partner (CSO et al., 2010). Thus, while the country has been experiencing an overall decline in HIV prevalence over the past decade, it is evident that HIV continues to be a huge burden in the country, and efforts to reduce concurrent partnerships, reduce MTCT, and improve overall condom use are needed. Furthermore, coupled with these efforts to address the key drivers of HIV transmission is the push to promote the uptake of voluntary medical male circumcision (VMMC) services, to further help reduce the spread of HIV infection.

## 1.2. Background on the *Safe Love* Campaign

To address the key drivers of HIV in Zambia, the United States Agency for International Development (USAID)–funded Communications Support for Health (CSH) project, in collaboration with the Government of the Republic of Zambia (GRZ) through the Ministry of Health (MOH), the Ministry of Community Development Mother and Child Health (MCDMCH), and the National HIV/AIDS/STI/TB Council (NAC), launched the *Safe Love* campaign in June 2011 (http://safelovezambia.org). The *Safe Love* campaign was a three-year comprehensive HIV prevention behaviour change communication (BCC) initiative that ran through June 2014. The overall goal of the campaign was to contribute towards the reduction of new HIV infections in Zambia by addressing key drivers of transmission, mainly, low and inconsistent condom use, multiple concurrent partnerships (MCP) and low uptake of prevention of mother-to-child transmission (PMTCT) services. The campaign also included messages on uptake of VMMC to help reduce HIV transmission. The campaign focused on promoting the following key behavioural messages for condom use, MCP, HIV testing, and VMMC: Use condoms for every sexual act, reduce the number of sexual partners you have, have only one sexual partner at a time, be faithful to your partner, know your HIV status and that of your partner, get tested for HIV during antenatal care services, and go for VMMC.

The primary target audience for the campaign comprised men and women between the ages of 15 and 49, while the secondary audiences included peer networks and family members. The campaign included interventions targeted at the national, subnational, and community levels. Campaign components included television and radio advertisements or spots, a radio drama series called *Life at the Turnoff*, a television drama series called *Love Games*, interpersonal communication community activities (e.g., small-group and one-on-one discussions, radio listening clubs), social media outlets (e.g., campaign website, Facebook, Twitter), and outdoor and small mass media (e.g., billboards, posters, fliers). While certain campaign interventions, including the radio and television programmes, were implemented more broadly, all interventions, including the community activities, were implemented in nine specific districts across four provinces in Zambia: Kabwe, Kafue, Kapiri Mposhi, Kawambwa, Luanshya, Lusaka, Mansa, Mkushi, and Samfya. The messages of the campaign were tailored to the communication channel

being used. It is important to note that mass media messages did not focus on abstinence; however, while not the main message, abstinence was a part of the messages that were promoted at the community level through interpersonal communication community activities. Table 1.1 below summarises the different campaign mass media interventions, including locations of implementation, duration, and frequency.

**Table 1.1. *Safe Love* Campaign Mass Media Intervention Implementation**

| Mass Media Product | Description of Product | Dissemination Channel | Frequency of Airing | Duration of Coverage | Location of Coverage |
|---|---|---|---|---|---|
| Radio advertisements/ spots | Seventeen advertisements/spots covering condom use, MCP and HIV testing/PMTCT; aired in English only. | Radio Maranatha, K-FM Zambia Limited, Mkushi Community Radio Station, Yatsani Radio, Power FM, Sun FM, Radio Phoenix, 5FM Happy Hour | One advert per day on each radio station | Jul 2013–Sep 2013; Jan 2014–Apr 2014 | Radio station coverage in evaluation districts: Kabwe, Kafue, Luanshya, Lusaka, Mansa, Mkushi, and Samfya<br><br>Also aired in nine other districts in the country. |
| Radio drama series *Life at the Turnoff* | A 26-episode drama series that covers messages on condom use, MCP and HIV testing/PMTCT; in evaluation districts, the series was aired in English, Bemba, and Nyanja. | Radio Maranatha, K-FM Zambia Limited, Mkushi Community Radio Station, Yatsani Radio, Radio Yangeni, Power FM, Hot FM, Radio Phoenix, 5FM Happy Hour | One episode aired twice per week on each radio station | Jul 2013–Sep 2013; Jan 2014–May 2014 | Radio station coverage in evaluation districts: Kabwe, Kafue, Luanshya, Lusaka, Mansa, Mkushi, and Samfya<br><br>Also aired in 16 other districts in the country. |
| Radio call-in show on VMMC | A monthly call-in show that discussed different topics around VMMC; aired in the locally appropriate language for its area of coverage. | Radio Maranatha, K-FM Zambia Limited, Mkushi Community Radio Station, Yatsani Radio, Ichengelo Radio Station | One new show aired per month; one show aired per week for a month | Jul 2013–Sep 2013; Dec 2013–May 2014 | Radio station coverage in evaluation districts: Kabwe, Kafue, Luanshya, Lusaka, Mansa, Mkushi, and Samfya<br><br>Also aired in eight other districts in the country. |

| Mass Media Product | Description of Product | Dissemination Channel | Frequency of Airing | Duration of Coverage | Location of Coverage |
|---|---|---|---|---|---|
| Television advertisements/ spots | Seventeen advertisements/spots covering condom use, MCP and HIV testing/PMTCT; aired in English only. | ZNBC TV Station, Muvi TV Station | One advert aired twice per day (the airing cycled through the 17 advertisements) | Mar 2014–Apr 2014 (only aired for a total of 35 days during these two months) | National coverage that included the nine evaluation districts |
| Television drama series *Love Games* | A 26-episode TV drama series that covered messages on condom use, MCP, HIV testing/PMTCT, and VMMC; aired in English only. | ZNBC TV Station 1, Muvi TV Station, Africa Magic, Chipata TV Station, and Northwestern TV Station | One episode aired per week; one episode aired twice per week; one episode aired three times per week | Jul 2013–Dec 2013<br><br>Jan 2014–May 2014<br><br>May 2014–Oct 2014 | National coverage that included the nine evaluation districts |
| Television after-show *Love Games Live* | A short discussion programme, led by a host, that aired immediately after *Love Games* to discuss the main messages from the aired episode. | ZNBC TV Station 1 | One episode aired per week | Jul 2013–Oct 2013; Jan 2014–Jun 2014 | National coverage that included the nine evaluation districts |
| *Safe Love* campaign website | Internet site that described the campaign and provided updates on *Love Games* TV drama, www.SafeLovezambia.org. | Internet | N/A | Jul 2013–present | National coverage that includes the nine evaluation districts |
| *Love Games* Facebook website | Facebook website page that promoted the TV drama *Love Games* and discussion around the show, www.facebook.com/pages/Love-Games/515693371803881 | Internet | N/A | Jul 2013–present | National coverage that includes the nine evaluation districts |
| *Safe Love* Twitter website | *Safe Love* campaign Twitter account and website, Twitter #safelovezambia | Internet | N/A | Jul 2013–present | National coverage that includes the nine evaluation districts |

## 1.3. Background on *Safe Love* Outcome Evaluation

Due to the large investment of resources in the *Safe Love* campaign and the importance of improving and scaling up HIV prevention efforts in Zambia, an outcome evaluation was carried out at the end of the campaign. The main aim of the evaluation was to assess the effects of the campaign on the target audience's behaviours related to four topic areas: condom use, MCP, HIV testing, and VMMC. Additionally, this evaluation assessed the effects of the campaign on the target audience's knowledge,

beliefs/attitudes, self-efficacy, interpersonal communication (IPC), perceived social norms, and intentions for each of the above-mentioned topic areas.

A number of well-known and accepted BCC-related theories were used to inform the design of both the campaign and the evaluation (Table 1.2). For the evaluation, the theories helped inform the types of intermediate and behaviour outcomes to be measured. It is also important to note that the theories explain that behaviour change is generally preceded by changes in different intermediate outcomes discussed above (also known as intervening influences or precursors to behaviour change). Thus, if changes are found in the intermediate outcomes, but not in behaviours, evidence of some effect of the campaign is provided. The messages of the *Safe Love* campaign specifically also informed which intermediate outcomes to examine in the evaluation, as well as the specific topics and questions under each type of outcome.

**Table 1.2. Theories That Guided the Development and Evaluation of the *Safe Love* Campaign**

| Theory | Premise | Corresponding Outcomes |
|---|---|---|
| Ideation Framework (Kincaid, 2000) | Communication affects behaviour through skills, ideation (cognitive, emotional, and social factors), environmental support and constraint, and intentions. People are more likely to behave in a certain way when they have sufficient knowledge about the behaviour and consequences, have a positive attitude towards the behaviour, have talked to others about the behaviour, and feel right about practising the behaviour. | • Knowledge<br>• Beliefs and attitudes<br>• Self-efficacy<br>• Social norms<br>• IPC<br>• Behavioural intent<br>• Behaviours |
| Steps to Behaviour Change (Piotrow et al., 1997) | Behaviour change is a process, with individuals moving through intermediate steps before they change their behaviours. Steps include increased knowledge, approval, intention, practice, and advocacy. | • Knowledge<br>• Beliefs and attitudes<br>• Behavioural intent<br>• Behaviours |
| Transtheoretical Model: Stages of Change (Prochaska & DiClemente, 1992) | Behaviour change occurs as a progression through a series of five stages: pre-contemplation, contemplation, preparation, action, and maintenance. This theory claims that behaviour change is a process that occurs over time; however, though the change can occur in a linear fashion, a nonlinear progression through the stages is more common. | • Knowledge<br>• Beliefs and attitudes<br>• Self-efficacy<br>• Social norms<br>• IPC<br>• Behavioural intent<br>• Behaviours |
| PSI Behavior Change Framework "Bubbles" (Chapman & Patel, 2004) | Behaviour change is only possible when one has the opportunity to act, the ability to act and the motivation to act. Within these three broad categories, there are a number of key determinants. Each can be positive or negative and measured to determine which are most critical to any given behaviour change. | • Knowledge<br>• Beliefs and attitudes<br>• Self-efficacy<br>• Social norms<br>• Behavioural intent<br>• Behaviours |

The effects of the campaign were assessed for the target audience as a whole, by area of residence (urban and rural), and for males and females separately. Differences by area of residence and sex were examined because campaign implementation varied by urban and rural areas (primarily due to differences in media access). Furthermore, it was expected that the effects would vary by sex, since men's and women's sexual behaviours and their knowledge, beliefs/attitudes, self-efficacy, IPC,

perceived social norms, and intentions in Zambia are different and, therefore, may be influenced or changed in a different manner by the campaign.

The overall evaluation questions for the study were as follows:

1. What percentage of the target audience was exposed to the *Safe Love* campaign and its different components? Did exposure vary by area of residence (urban/rural) and between males and females?
2. Did the *Safe Love* campaign have an effect on the target audience's behaviours related to condom use, MCP, HIV testing, and VMMC as well as their knowledge, beliefs/attitudes, self-efficacy, IPC, perceived social norms, and intentions? Did the effects differ by sex and area of residence (urban/rural)? Were individuals who had higher levels of campaign recall more likely to have the desired outcomes compared to those with lower levels of recall?

# II. Methodology

## 2.1. Study Design

The evaluation used a one-group post-test-only evaluation design with propensity score matching (PSM) to assess the effect of the campaign on the target audience's behaviours and knowledge, beliefs/attitudes, self-efficacy, IPC, perceived social norms, and intentions related to condom use, MCP, HIV testing and VMMC. As described by Bertrand et al (2012) in the context of communication campaigns, PSM "is used to create a control group (not exposed to the campaign) that is statistically equivalent to the treatment group (exposed to the campaign) on all measurable socio demographic and other relevant factors. It yields the 'net effect' of the programme, after removing the effects of pre-intervention differences between those likely to see or hear a campaign versus those not exposed to it (selection bias)." This was the best study design for this evaluation for two main reasons: (1) the *Safe Love* campaign was launched in 2011 and a baseline was not conducted, therefore eliminating the possibility of implementing a pre-and post-test design, and (2) several of the *Safe Love* campaign components, specifically the mass media programmes, were implemented at the national level, so it would not have been possible to randomly select a control group for the study.

This post-test-only study also examined respondents' overall level of exposure to the campaign and their exposure to the various components of the campaign. It was carried out using a representative household survey of the nine districts where all elements of the campaign had been implemented.

## 2.2. Sampling Methodology

The evaluation survey was conducted in the nine districts where all the main components of the *Safe Love* campaign had been implemented: Kabwe, Kafue, Kapiri Mposhi, Kawambwa, Luanshya, Lusaka, Mansa, Mkushi, and Samfya. The survey sampled a total of 5,920 residential households across the nine districts. In all the sampled households, all women and men between the ages of 15 and 49 who stayed in the households the night before the survey were considered eligible for the individual interview. Participants who met the criteria but had participated in a different survey in the past six months were excluded from the study to ensure that no overburden was placed upon respondents. One eligible man or woman was randomly selected and interviewed in every household.

The sampling frame for the evaluation survey was based on the 2010 Census of Population and Housing of the Republic of Zambia (CPH). In total, there were 16 sampling strata, which comprised the urban and rural areas across the nine districts (note that only Kabwe and Lusaka have urban areas). Samples were selected independently in every stratum by a two-stage selection process.

In the first selection stage, 120 enumeration areas (EAs [or clusters]) were selected using probability proportional to the EA size.[1] In all the selected EAs, a household listing operation was conducted. The resulting list of households then served as the sampling frame for the selection of households in the second stage. In the second stage, a fixed number of 40 and 50 households were selected in the urban and rural clusters, respectively, by equal probability systematic sampling. In each selected household, one woman or man aged 15–49 years was randomly selected and interviewed. In each cluster, half of the selected households were assigned to be women interviews and the other half to be men interviews.

[1] Of the 120 EAs selected, nine had to be replaced due to an insufficient number of households in the selected clusters. The nine EAs replaced were in the following districts: Kapiri Mposhi (4), Samfya (3), Kawambwa (1), and Mkushi (1). The replacement EAs were selected using probability proportional to EA size.

The interviews were conducted only in the selected households. No replacements and no changes of the pre-selected households were allowed to prevent bias. In the event that an eligible person in the household was not at home to participate in the interview, the interviewer made up to at least three attempts to return to the household to conduct the interview.

Upon completion of data collection in the 120 selected EAs, it was determined that an additional 15 clusters in Lusaka would need to be sampled to achieve a sufficient sample size for carrying out the analysis amongst urban respondents. The need for sampling additional clusters was due to low response rates received in the initially selected 43 EAs in Lusaka district.

The sample allocation of clusters and households by district and by place of residence can be found in Table 2.1. The sample was purposely allocated between the urban and rural areas to guarantee a minimum sample size for carrying out PSM. Within the urban and rural areas, the sample was allocated based on proportional allocation with slight adjustment in order to ensure that each stratum had at least two clusters. In total, there were 83 urban clusters and 52 rural clusters in the sample.

For the selected sample, allocations were calculated based on the results from the 2007 *Zambia Demographic and Health Survey*, where there were 1.14 and 0.81 women aged 15–49 per household in urban and rural areas, respectively, and 1.11 and 0.77 men aged 15–49 per household in urban and rural areas, respectively. The sample allocations were also calculated taking into consideration the expected household and individual response rates.[2]

**Table 2.1. Sample Allocation of Clusters and Households by District and Place of Residence**

| Province | District | Allocation of Clusters | | | Allocation of Households | | |
|---|---|---|---|---|---|---|---|
| | | Urban | Rural | Total | Urban | Rural | Total |
| Lusaka | Lusaka* | 58 | 0 | 58 | 2,320 | 0 | 2,320 |
| | Kafue | 3 | 8 | 11 | 120 | 400 | 520 |
| Central | Mkushi | 2 | 7 | 9 | 80 | 350 | 430 |
| | Kabwe | 8 | 0 | 8 | 320 | 0 | 320 |
| | Kapiri Mposhi | 2 | 10 | 12 | 80 | 500 | 580 |
| Luapula | Mansa | 2 | 9 | 11 | 80 | 450 | 530 |
| | Kawambwa | 2 | 6 | 8 | 80 | 300 | 380 |
| | Samfya | 2 | 10 | 12 | 80 | 500 | 580 |
| Copperbelt | Luanshya | 4 | 2 | 6 | 160 | 100 | 260 |
| **Total** | | **83** | **52** | **135** | **3,320** | **2,600** | **5,920** |

*Initially in Lusaka, a total of 43 clusters were sampled. An additional 15 were sampled upon initial completion of data collection due to the low response rate, for a total of 58 clusters.

The total number of completed women and men interviews upon completion of data collection was 4,114, for an overall response rate of 69.5 percent. The number of completed interviews by district, place of residence, and sex is summarised in Table 2.2 below. The respondent response rates by district, place of residence and sex are provided in the Annexes of the report (Section 8.1, Tables 8.1.1, 8.1.2, and 8.1.3). Overall, the response rate was lowest in Lusaka (60.4 percent) and highest in Kawambwa (84.5 percent).

[2] From the 2007 *Zambia Demographic and Health Survey*, the following response rates were used: household response rates were 93 percent and 88 percent in urban and rural areas, respectively; women response rates were 95.7 percent and 97 percent in urban and rural areas, respectively; and men response rates were 87.8 percent and 93.6 percent in urban and rural areas, respectively.

**Table 2.2. Summary of Completed Women and Men Interviews by District and Place of Residence**

| Province | District | Completed Number of Interviews of Women 15–49 | | | Completed Number of Interviews of Men 15–49 | | | Completed Number of Interviews of Men and Women 15–49 | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Urban | Rural | Total | Urban | Rural | Total | Urban | Rural | Total |
| Lusaka | Lusaka | 689 | 0 | 689 | 713 | 0 | 749 | 1,402 | 0 | 1,514 |
| | Kafue | 33 | 135 | 168 | 55 | 153 | 179 | 88 | 288 | 370 |
| Central | Mkushi | 31 | 120 | 151 | 32 | 131 | 146 | 63 | 251 | 303 |
| | Kabwe | 126 | 0 | 126 | 140 | 0 | 139 | 266 | 0 | 281 |
| | Kapiri Mposhi | 25 | 168 | 193 | 26 | 177 | 194 | 51 | 345 | 402 |
| Luapula | Mansa | 35 | 181 | 216 | 38 | 174 | 178 | 73 | 355 | 369 |
| | Kawamb-wa | 35 | 138 | 173 | 37 | 111 | 130 | 72 | 249 | 269 |
| | Samfya | 36 | 155 | 191 | 33 | 175 | 194 | 69 | 330 | 402 |
| Copper-belt | Luanshya | 63 | 39 | 102 | 68 | 42 | 102 | 131 | 81 | 207 |
| **Total** | | **1,073** | **936** | **2,009** | **1,147** | **963** | **2,011** | **2,215** | **1,899** | **4,114** |

## 2.3. Study Instruments

The study used a household member listing form to assess participants' eligibility to participate in the study. An information sheet outlining the purpose of the study and the benefits and risks of participating in the study was provided to each eligible participant. Written consent[3] was obtained from all participants, including parental written consent for minors (participants aged 15–17 years), prior to administering the survey questionnaire.

The main study instrument was a survey questionnaire that included nine sections. The first section included the household listing form, which, as described above, was used to assess household members' eligibility to participate in the study. The second and third sections of the questionnaire captured information on the respondent's socio-demographic characteristics (e.g., sex, age, education level, current relationship status, province, place of residence, literacy), access to media, frequency of exposure to media, and additional household questions to develop a wealth index (e.g., ownership of consumer goods, dwelling characteristics, type of drinking source).

Sections four through eight of the questionnaire included questions related to measuring participant knowledge, beliefs/attitudes, self-efficacy, social norms, IPC, intentions, and behaviours related to condom use, MCP, HIV testing and VMMC. The last section of the questionnaire included a series of questions to assess the participant's exposure to the various components of the campaign, including exposure to the mass media programmes (radio and television), small media (e.g., print materials), the campaign Internet sites, text messages, and interpersonal communication community activities (e.g., small-group counselling through the *Safe Love* Clubs, outreach activities). Questions from this section

[3] The evaluation was approved by one of the local Zambian Research Ethics boards and the ICF International Institutional Review Board (IRB), and was submitted for review and approval by the MOH of GRZ and NAC.

were used to develop the indices of recall to the different campaign topic areas, ranging from no recall to high levels of recall (refer to Section 4.2 for more details on how the recall indices were developed).

The questionnaire was translated into Bemba and Nyanja, in addition to English. The translation was checked during the training of interviewers and during the pilot-testing of the questionnaire.

## 2.4. Data Collection

CSH worked in close collaboration with the University of Zambia's Institute for Economic and Social Research (INESOR) in Zambia to conduct the data collection for the evaluation. Data collection took place from June 6 to August 22, 2014. A team of 30 interviewers, four supervisors, and two quality control supervisors (from CSH) led the data collection, making up eight teams. Prior to data collection, a week-long training was held for the interviewers and supervisors. The training covered the roles and responsibilities of interviewers and supervisors, procedures for selecting households and respondents, interviewing skills, procedures for getting written consent from respondents and completing the household listing form, an orientation to the questionnaire, and ethical guidelines for protecting human subjects; the training also included time to practise and receive feedback on how to conduct the survey. The interviewers and supervisors also reviewed the questionnaire and the translations and made necessary revisions. Additionally, the training included a one-day pilot-testing of the questionnaire (in English, Bemba, and Nyanja) in Lusaka. During the pilot-test, interviewers and supervisors practised conducting the household listing in the clusters and conducting at least one interview. The results from the pilot-test were used to make minor revisions to the questionnaire.

Interviewers were recruited based on their competence in quantitative data collection and competence in Bemba and Nyanja. During interviewer training, all questions were discussed and recommendations made on how best to translate them into the local language. Revisions to the translations were also made after the pilot-testing of the questionnaire.

Due to the sensitive nature of the questions, interviewers were required to be the same sex as the respondent being interviewed. In addition, issues of confidentiality were addressed in the training, and interviewers were not allowed to conduct interviews in selected clusters that they were familiar with or interview anyone they knew.

## 2.5. Data Quality Procedures

Supervisors observed at least one interview per interviewer each day and conducted at least one to two re-interviews per cluster for quality control. The supervisor also conducted spot checks to ensure that the correct households were visited and was required to review all completed questionnaires before leaving a selected cluster.

## 2.6. Data Management

Various data quality checks were conducted, including checking the questionnaire for internal consistency, filter/skip errors, appropriate coding for nonresponse or missing values, values that fell out of range, and other logical checks. A team of eight data entry clerks, overseen by a data entry supervisor and the principal investigator, entered the data using Epi Data software. All questionnaires were double entered and then compared during a data validation process. Results for data validation queries were then reviewed and any errors corrected. The validation process was repeated until no errors were found. Upon completion of the data entry process, the data entry supervisor further reviewed and cleaned the data. The data were exported to Stata for analysis.

## 2.7. Data Analysis

Data were analysed using Stata12. Descriptive analysis (frequency and cross-tabulations) was carried out for the socio-demographic characteristics of the respondents and for the exposure findings. The sampling weight was used in the descriptive analysis, to account for the sampling design and produce representative results.

A wealth quintile index was calculated based on data from the household's ownership of consumer goods, dwelling characteristics, type of drinking water source, toilet facilities, and other characteristics that are related to a household's socio-economic status. To construct the index, principal component analysis was used. The sample was divided into quintiles from one (lowest) to five (highest).[4] This index was used as a control variable in the propensity score matching.

### 2.7.1 PSM

PSM was used to assess whether the campaign had an effect on the behavioural and intermediate outcomes related to condom use, MCP, HIV testing, and VMMC (refer to Annex 8.6 to see the full list of outcomes for each topic area). PSM was conducted for the sample as a whole, by area of residence (urban/rural), and sex. PSM was also conducted by three levels of recall, to determine whether higher levels of campaign recall resulted in greater effects. The following five general steps were implemented to conduct PSM:

#### Step 1: Development of recall variables

In the first step, separate indices of recall were developed for each of the four topic areas of the *Safe Love* campaign. For condom use, MCP, and HIV testing, the following process was implemented: All spontaneous[5] recall variables that pertained to general *Safe Love* campaign recall questions (e.g., spontaneous recall of the *Safe Love* slogan or recall of character names from specific programmes, such as *Love Games*) and spontaneous recall variables that were specific to a particular topic (e.g., spontaneous recall of "partner reduction" as a topic from the campaign in general or from a specific programme for the MCP index) were added together to form an index of recall specific to that topic area. The value of the index reflected the number of times the respondent spontaneously recalled a general or specific component of the campaign. For the VMMC index specifically, since male circumcision messages were mainly included in specific campaign components, in particular the VMMC radio call-in show, the VMMC text messages, and the Safe Love Clubs interpersonal communication activities, most of the spontaneous recall variables included in the index were related to those three components. In addition, two other spontaneous recall variables were included in the VMMC recall index: If the respondents spontaneously recalled "male circumcision" after they were asked what they remembered hearing or seeing in the last 12 months from the *Safe Love* campaign in general and from the radio announcements (since it is possible that some of the radio announcements included messages on VMMC).

Table 2.3 provides summarising statistical information for the indices created per campaign topic area for all respondents and the distribution of the three recall groups created based on each of the indices. The recall groups were created by dividing each index into three groups: no spontaneous recall, low spontaneous recall, and high spontaneous recall (low and high spontaneous recalls were a split at the

[4] Refer to the 2007 *Zambia Demographic and Health Survey* for a detailed description of how the wealth index was calculated. The same variables for the report were used for constructing the wealth index for this evaluation.
[5] Only spontaneous recall variables were used to create the indices of exposure because if respondents were able to recall things spontaneously from the campaign, then it is more likely that they were truly exposed and influenced by the campaign. Including prompted recall could dilute effects.

median amongst those respondents who had any spontaneous recall). Once the three recall groups were determined, three separate recall variables were created to be used in PSM: (1) no spontaneous recall and any spontaneous recall (a combination of the low and high groups), (2) no spontaneous recall and low levels of spontaneous recall, and (3) no spontaneous recall and high levels of spontaneous recall. This same process was followed to create individual recall indices for each of the four subgroups (females, males, urban, and rural) and the corresponding recall variables for each of the four campaign topics.

**Table 2.3. Summary Statistics of the Indices and Recall Groups Created for All Respondents, for Each Campaign Topic Area**

| Summary Statistics | Campaign Topics | | | |
|---|---|---|---|---|
| | Condom Use | MCP | HIV Testing | VMMC |
| Number of spontaneous recall variables included in the recall index | 60 | 69 | 68 | 23 |
| Index alpha reliability coefficient | 0.82 | 0.85 | 0.84 | 0.59^ |
| Index range | 0–23 | 0–29 | 0–31 | 0–10 |
| Index median (full index) | 1 | 1 | 1 | 0 |
| Index median (excluding no spontaneous recall) | 3 | 3 | 3 | 2 |
| Index mean | 2 | 2.4 | 2.1 | 0.8 |
| Index standard deviation | 3.2 | 3.8 | 3.5 | 1.3 |
| Percentage distribution of the three recall groups based on the index | 1. No spontaneous recall: 49%<br>2. Low spontaneous recall: 30%<br>3. High spontaneous recall: 21% | 1. No spontaneous recall: 48%<br>2. Low spontaneous recall: 28%<br>3. High spontaneous recall: 25% | 1. No spontaneous recall: 49%<br>2. Low spontaneous recall: 30%<br>3. High spontaneous recall: 21% | 1. No spontaneous recall: 65%<br>2. Low spontaneous recall: 24%<br>3. High spontaneous recall: 11% |

^The alpha reliability coefficient for the VMMC index was not as high as for the other indices. However, the variables included in the index made theoretical sense and, when included in PSM, resulted in matches of high quality.

**Participation in *Safe Love* community activities and levels of recall**

Since only 5.5 percent of respondents recalled participating in any of the community activities (either the Safe Love Clubs or outreach conducted by the Safe Love Club members), there was not enough sample size (unweighted number = 185) to create a separate category to determine the effect of exposure to community activities in particular. However, Table 2.4 shows that amongst the respondents who participated in any *Safe Love* community activity, most of them had high levels of recall for condom use (72 percent), MCP (73 percent), and HIV testing (67 percent). For VMMC, 51 percent had a high level of recall.

**Table 2.4. Percentage of Respondents Who Participated in Any Community Activity by the Four Campaign Topic Areas and Recall Levels**

| | Condom Use Levels of Recall | | | MCP Levels of Recall | | | HIV Testing Levels of Recall | | | VMMC Levels of Recall | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | No | Low | High | No | Low | High | No | Low | High | No | Low | High |
| **Participated in any community activity** | 4.3 | 23.2 | 72.4 | 1.6 | 25.4 | 73.0 | 4.3 | 28.7 | 67.0 | 6.0 | 43.2 | 50.8 |

### Step 2: Development of the outcome variables

Based on the evaluation plan of the *Safe Love* evaluation, 103 outcomes were created across all four topics as follows: 30 for condom use, 24 for MCP, 23 for HIV testing and 26 for VMMC (refer to Annex 8.6 for a full list of all the outcomes examined in the evaluation). For each topic area, the outcomes included both behaviour and intermediate (knowledge, attitudes, self-efficacy, social norms, IPC, and intentions) outcomes. Except for one MCP behaviour outcome (average number of sexual partners in the past six months), all variables were created as binary variables with value options of 0 and 1.

### Step 3: Unmatched comparisons between the recall variables and outcomes

Once the recall variables for each of the four topics and all the outcomes were created, unmatched two-group mean comparison tests were conducted to determine which outcomes, by the five groups (all respondents, females, males, urban, and rural) and the three levels of recall were candidates for PSM. Only unmatched differences that had a p-value below 0.10 were analysed further using PSM. Out of all the 103 outcomes, only nine (two MCP outcomes, three HIV testing outcomes, and four VMMC outcomes) did not meet the criterion for any of the five groups and were therefore not analysed using PSM.

### Step 4: Estimating the propensity score

A total of 253 propensity score models were estimated for all of the 94 outcomes that were analysed using PSM. Table 2.5 shows the different samples per topic area for which propensity score models were estimated. For most samples, 15 different models were estimated, since there were three different recall comparisons made for each of the five groups (all respondents, females, males, urban, and rural). For three of the condom use samples, one HIV testing and one VMMC sample, fewer than 15 models were required, since some comparisons in the unmatched results regarding those samples did not have a p-value below 0.10 and were therefore not analysed further with PSM.

**Table 2.5. Number of Propensity Score Models Estimated, by Different Samples Across the Four Campaign Topic Areas**

| Samples for Which Propensity Score Models Were Estimated per Campaign Topic Area | Number of Propensity Score Models Estimated |
|---|---|
| **Condom use samples** | |
| Full sample (N = 4,114) | 15 |
| Respondents who had a relationship in the past 6 months (N = 3,002) | 15 |
| All respondents except for those who did not intend to have regular sexual partner(s) in the next 6 months (N = 3,199) | 15 |
| All respondents except for those who did not intend to have non-regular sexual partner(s) in the next 6 months (N = 1,907) | 15 |
| Respondents who had sex in the last 6 months (N = 2,611) | 15 |
| Respondents who had sex with a regular partner(s) in the last 6 months (N =1,999) | 15 |
| Respondents who had sex with non-regular partner(s) in the last 6 months (N = 719) | 8 |
| Respondents who had sex in the 4 weeks (N = 2,258) | 15 |
| Respondents who had sex with a regular partner(s) in the last 4 weeks (N = 1,839) | 13 |
| Respondents who had sex with non-regular partner(s) in the last 4 weeks (N = 506) | 8 |

| | |
|---|---|
| **MCP samples** | |
| Full sample (N = 4,114) | 15 |
| Respondents who had a relationship in the past 6 months (N = 3,002) | 15 |
| **HIV testing samples** | |
| Full sample (N = 4,114) | 15 |
| Respondents who had a relationship in the past 6 months (N = 3,002) | 15 |
| Respondents who had not been tested in the in the past 6 months (N = 2,362) | 11 |
| **VMMC samples** | |
| Full sample (N = 4,114) | 15 |
| All respondents except for males who were circumcised (N = 353) | 15 |
| Males who were not circumcised (N = 1,528) | 15 |
| All males except for those that had been circumcised 7 months or longer ago (N = 1,598) | 3 |
| **Total number of propensity score models estimated for all four topics** | **253** |

The propensity score models were estimated using the pscore command in Stata 12. The propensity score was estimated using a logistic regression, and the common support restriction, which ensures that every treatment case is matched to a control case with regard to observed variables, was imposed to improve the quality of matching. The following 12 covariates were included in the estimation of the propensity score models for all respondents: sex, area of residence, province, age, wealth, level of education, religion, relationship/marital status, employment status, distance to nearest health facility, frequency of media use,[6] and recall of other HIV campaigns.[7] For the models estimated for the subgroups (females, males, urban, and rural), the same covariates were included, except for sex in the female and male models and area of residence in the urban or rural models. The estimation of the propensity score for female-specific models of the HIV testing outcomes included one additional covariate: whether a woman was pregnant or had a baby in the six months before the survey, since if she had been pregnant or had a baby, it is likely she would have received HIV test-related information from a source other than the campaign. The covariates included were chosen based on the types of variables that are generally included in multivariate models examining the effect of communication programmes in the literature.

## Step 5: Estimating campaign effects using different types of matching algorithms and assessing the quality of matching

For each propensity score model estimated, the average campaign effect was estimated on specific outcomes using Stata 12's psmatch2 command. The following three types of matching algorithms were run: (1) kernel matching, (2) nearest neighbor with and without replacements, and (3) radius matching (with three caliper options: 0.01, 0.001, and 0.0001).

Each of the different matching results was examined to determine which approach produced the best-quality matching using the pstest command. The quality was assessed based on several model parameters, including the mean and median of absolute biases of covariates, pseudo-R2, and standard likelihood ratio test X2, and the two-sample t-test. Pre-and post-matching comparisons of the means of absolute bias for individual covariates were also conducted in assessing the quality of the matching. In particular, we looked for matching results where the mean absolute bias was less than 5 percent (the

[6] Frequency of media use was an index variable that combined the frequency of use of four types of media: television, radio, Internet, and newspaper.

[7] Recall of other HIV campaigns was a combined variable for those who spontaneously recalled other HIV campaigns and who participated in other community activities.

threshold for decent quality matches recommended by Rosenbaum and Rubin, 1983), not statistically significant and that retained as many of the cases.

## 2.8. External Reviewer

Since the evaluation was led by ICF International, one of the partners of the CSH consortium, an external reviewer was hired[8] to ensure transparency and quality control throughout the evaluation. The reviewer reviewed, provided feedback, and gave final approval for each of the following key steps and documents in the evaluation: the evaluation plan; the questionnaire; the interviewer and supervisor training materials; the analysis plan, code, and results; and the draft and final reports.

[8] The external reviewer from Tulane University had a consultancy agreement with Chemonics.

# III. Socio-Demographic Characteristics of the Sample

Tables 3.1–3.4 illustrate the socio-demographic characteristics of the sample. The distribution of the sample by district and area residence and sex is summarised in Table 3.1. More than half of all the respondents lived in Lusaka (54 percent), including nearly three-quarters of urban respondents (74 percent). The smallest percentage of urban respondents came from Mkushi and Samfya (both <1 percent). Both Samfya and Kapiri Mposhi contributed more than 20 percent of rural respondents, while Kabwe and Lusaka contributed none. Outside of Lusaka, Mansa contributed the largest percentage of respondents (9 percent), and Luanshya contributed the smallest (4 percent). Each district had a nearly equal distribution of male and female respondents.

**Table 3.1. District Distribution Percentages, by Area of Residence and Sex**

| District | Urban | | | Rural | | | All | | |
|---|---|---|---|---|---|---|---|---|---|
| | Males | Females | All | Males | Females | All | Males | Females | All |
| Lusaka | 72.8 | 75.9 | 74.4 | 0.0 | 0.0 | 0.0 | 52.1 | 55.0 | 53.6 |
| Mansa | 5.4 | 4.3 | 4.8 | 17.2 | 19.3 | 18.3 | 8.7 | 8.4 | 8.5 |
| Kapiri Mposhi | 1.8 | 1.7 | 1.8 | 22.0 | 22.3 | 22.1 | 7.5 | 7.4 | 7.4 |
| Samfya | 0.9 | 0.9 | 0.9 | 22.6 | 18.1 | 20.3 | 7.1 | 5.6 | 6.3 |
| Kafue | 5.1 | 3.0 | 4.0 | 12.1 | 10.7 | 11.4 | 7.1 | 5.1 | 6.1 |
| Kawambwa | 1.8 | 2.3 | 2.1 | 10.2 | 14.8 | 12.5 | 4.2 | 5.7 | 5.0 |
| Kabwe | 7.2 | 6.5 | 6.8 | 0.0 | 0.0 | 0.0 | 5.1 | 4.7 | 4.9 |
| Mkushi | 0.5 | 0.5 | 0.5 | 14.1 | 13.1 | 13.6 | 4.4 | 3.9 | 4.1 |
| Luanshya | 4.6 | 5.1 | 4.9 | 1.8 | 1.9 | 1.8 | 3.8 | 4.2 | 4.0 |
| **Weighted number** | 1,428 | 1,539 | 2,968 | 564 | 582 | 1,146 | 1,993 | 2,121 | 4,114 |

Table 3.2 shows the distribution of age, education, and wealth percentages of the respondents, by area of residence and sex. Most respondents were under age 25 (53 percent), with nearly equal percentages in urban and rural areas and across males and females. Two exceptions were respondents under age 20, who were made up of slightly more males than females (28 percent versus 23 percent), and respondents aged 30–34, who were made up of slightly more females than males (14 percent versus 10 percent). Only 7 percent of urban respondents and 14 percent of rural respondents were over 40 years of age, with similar percentages of males and females.

Nearly 75 percent of urban respondents had a secondary level of education or higher, versus only 45 percent of rural respondents. A greater percentage of males than females had secondary education or higher (76 percent versus 58 percent). Overall, only 5 percent of respondents had no education, corresponding to 10 percent of rural participants, 4 percent of urban participants, 3 percent of males, and 7 percent of females.

An equal distribution of respondents fell into the five wealth quintiles, which ranged from the poorest to the least poor. The majority of rural residents fell within the lowest and second-to-lowest wealth quintiles (88 percent), while only 3 percent of urban residents fell within the lowest wealth quintile and were more evenly distributed across the other four wealth quintiles. The distribution across the wealth quintiles was similar for male and female respondents.

Most respondents were of the Protestant faith (>70 percent), with similar percentages across area of residence and sex. About one-quarter of respondents were Catholic. A slightly greater percentage of women were Protestant than men (75 percent versus 70 percent), and a slightly greater percentage of men were Catholic than women (29 percent versus 24 percent). Nearly 43 percent of respondents were

Bemba, with a greater percentage of rural than urban residents (59 percent versus 37 percent) and men than women residents (45 percent versus 41 percent) affiliating with that tribe. One-quarter of respondents cited "other" as their tribe, with a greater percentage of women than men doing so (29 percent versus 21 percent). The Luvale Tribe had the smallest percentage of affiliates in this sample (1.2 percent).

**Table 3.2. Age, Education, and Wealth Distribution Percentages, by Area of Residence and Sex**

| | Respondents | | | | |
|---|---|---|---|---|---|
| | Urban | Rural | Males | Females | All |
| **Age categories** | | | | | |
| 15–19 | 26.5 | 22.8 | 28.3 | 22.9 | 25.5 |
| 20–24 | 28.6 | 23.8 | 27.7 | 26.8 | 27.2 |
| 25–29 | 18.8 | 16.1 | 18.3 | 17.8 | 18.0 |
| 30–34 | 11.4 | 13.6 | 9.9 | 13.9 | 12.0 |
| 35–39 | 7.5 | 9.6 | 6.3 | 9.7 | 8.1 |
| 40–44 | 5.0 | 9.1 | 6.6 | 5.8 | 6.2 |
| 45–49 | 2.2 | 5.1 | 2.9 | 3.1 | 3.0 |
| | | | | | |
| **Highest level of education** | | | | | |
| No education | 3.6 | 10.2 | 3.3 | 7.4 | 5.4 |
| Primary | 21.9 | 43.9 | 21.3 | 34.4 | 28.1 |
| Secondary | 59.9 | 40.1 | 59.1 | 50.5 | 54.6 |
| Higher | 14.6 | 5.0 | 16.4 | 7.7 | 11.9 |
| | | | | | |
| **Wealth quintiles** | | | | | |
| Lowest | 3.2 | 62.0 | 20.0 | 19.2 | 19.6 |
| Second | 17.9 | 25.8 | 17.0 | 23.1 | 20.1 |
| Middle | 24.5 | 7.4 | 20.6 | 19.0 | 19.8 |
| Fourth | 26.7 | 3.5 | 18.8 | 21.5 | 20.2 |
| Highest | 27.8 | 1.3 | 23.7 | 17.2 | 20.3 |
| | | | | | |
| **Religion** | | | | | |
| Catholic | 26.9 | 25.2 | 28.6 | 24.4 | 26.5 |
| Protestant | 72.1 | 74.2 | 70.1 | 75.2 | 72.7 |
| Other | 0.6 | 0.2 | 0.8 | 0.3 | 0.3 |
| No religion | 0.3 | 0.4 | 0 | 0.6 | 0.3 |
| | | | | | |
| **Tribe** | | | | | |
| Bemba | 36.9 | 58.6 | 45.1 | 40.9 | 42.9 |
| Nyanja | 18.4 | 6.0 | 18.2 | 11.9 | 15.0 |
| Tonga | 10.2 | 5.6 | 8.3 | 9.5 | 8.9 |
| Lozi | 4.9 | 1.5 | 3.7 | 4.2 | 4.0 |
| Luvale | 1.5 | 5.8 | 0.8 | 1.7 | 1.2 |
| Kaonde | 2.1 | 1.0 | 1.9 | 1.7 | 1.8 |
| Lunda | 1.6 | 6.7 | 1.2 | 1.4 | 1.3 |
| Other | 24.5 | 26.0 | 20.8 | 28.7 | 24.9 |
| **Weighted number** | 2,968 | 1,146 | 1,993 | 2,121 | 4,114 |

Table 3.3 shows the distribution of the percentages of respondents in different categories of marital and relationship status, by area of residence and sex. Half of all respondents were never married, with a greater percentage of urban than rural residents (55 percent versus 37 percent) and males than females (64 percent versus 37 percent) reporting never having been married. A greater percentage of

rural than urban residents were married or living as married (56 percent versus 39 percent), and a greater percentage of females than males were married or living as married (54 percent versus 33 percent). Most respondents are currently in a relationship (68 percent), with a greater percentage of females than males (72 percent versus 63 percent) and rural than urban residents (72 percent versus 66 percent). Only 4 percent of respondents reported having been in a relationship in the past six months. Nearly 30 percent of respondents were not in a current relationship or in a relationship in the past six months, with a slightly greater percentage of urban than rural residents (30 percent versus 25 percent), and males than females (32 percent versus 25 percent).

**Table 3.3. Marital and Relationship Status Distribution Percentages, by Area of Residence and Sex**

| | Respondents | | | | |
|---|---|---|---|---|---|
| | **Urban** | **Rural** | **Males** | **Females** | **All** |
| **Marital status** | | | | | |
| Married or living with a man/ woman as if married | 39.1 | 55.5 | 32.6 | 54.1 | 43.7 |
| Never married | 55.0 | 37.2 | 64.2 | 36.8 | 50.0 |
| Widowed | 2.4 | 2.0 | 0.5 | 3.9 | 2.3 |
| Divorced | 2.1 | 4.3 | 1.5 | 3.8 | 2.7 |
| Separated | 1.5 | 1.1 | 1.3 | 1.4 | 1.4 |
| | | | | | |
| **Relationship status** | | | | | |
| Currently in a relationship | 65.7 | 72.4 | 62.5 | 72.3 | 67.6 |
| In a relationship in past six months | 4.5 | 2.8 | 5.3 | 2.8 | 4.0 |
| Not in a relationship in past six months | 29.9 | 24.8 | 32.2 | 24.9 | 28.5 |
| **Weighted number** | 2,968 | 1,146 | 1,993 | 2,121 | 4,114 |

Table 3.4 shows respondents' household media ownership and use, by area of residence and sex. Overall, 75 percent of respondents' households owned a radio, with a greater percentage of urban than rural residents (80 percent versus 62 percent) and males than females (80 percent versus 71 percent) reporting ownership. Nearly 60 percent of respondents listened to a radio every day or almost every day, with a nearly equal percentage of urban and rural residents (59 percent) and a greater percentage of males than females (62 percent versus 55 percent). Nearly one-quarter of respondents reported listening to a radio less than once a week or not at all, with larger percentages of rural than urban residents (30 percent versus 22 percent) and females than males (29 percent versus 20 percent).

About 65 percent of respondents reported that their household owned a television, with greater percentages of urban than rural residents (77 percent versus 32 percent) and males than females (68 percent versus 61 percent) reporting ownership. Altogether, 63 percent of respondents reported watching television every day or almost every day, with a greater percentage of urban than rural residents (78 percent versus 29 percent) and males than females (66 percent versus 60 percent) reporting that frequency. Nearly 30 percent of respondents watched television less than once a week or not at all, with a greater percentage of rural than urban residents (62 percent versus 15 percent) and females than males (35 percent versus 25 percent) reporting that.

Only 10 percent of respondents in the sample had the Internet in their household, with a greater percentage of urban than rural residents (13 percent versus 3 percent) and a nearly equal percentage of males and females (about 10 percent) reporting having it. Frequency of Internet use overall was low. Only 17 percent of respondents reported daily or almost daily Internet use, with a greater percentage of

urban than rural (23 percent versus 5 percent) and males than females (23 percent versus 12 percent). Most respondents reported not using the Internet at all (>70 percent), with a greater percentage of rural than urban (91 percent versus 62 percent) and females than males respondents (80 percent versus 60 percent). In contrast, most households owned a mobile phone (80 percent), with a greater percentage of urban than rural (87 percent versus 62 percent) and males than females (84 percent versus 76 percent) reporting ownership.

Overall, 30 percent of respondents read a newspaper or magazine every day or almost every day, with a greater percentage of urban than rural residents (32 percent versus 25 percent) and nearly equal percentages of males and females (30 percent). About half of all respondents reported reading a newspaper or magazine less than once a week or not at all, with a greater percentage of rural than urban (66 percent versus 45 percent) and a nearly equal percentage of males and females (about 50 percent).

**Table 3.4. Media Ownership and Use Distribution Percentages, by Area of Residence and Sex**

| | Respondents | | | | |
|---|---|---|---|---|---|
| | **Urban** | **Rural** | **Males** | **Females** | **All** |
| **Household Radio Ownership** | 80.4 | 62.1 | 79.8 | 71.1 | 75.3 |
| | | | | | |
| **Frequency of radio listenership*** | | | | | |
| Every day | 35.2 | 30.5 | 33.9 | 33.9 | 33.9 |
| Almost every day | 24.1 | 28.0 | 28.8 | 21.8 | 25.2 |
| At least once a week | 18.3 | 11.0 | 16.8 | 15.8 | 16.2 |
| Less than once a week | 8.1 | 7.8 | 9.9 | 6.2 | 8.0 |
| Not at all | 14.3 | 22.8 | 10.6 | 22.4 | 16.7 |
| | | | | | |
| **Household Television Ownership** | 77.0 | 31.9 | 67.9 | 61.3 | 64.5 |
| | | | | | |
| **Frequency of Television viewership*** | | | | | |
| Every day | 58.3 | 14.5 | 45.3 | 46.8 | 46.0 |
| Almost every day | 17.9 | 14.8 | 21.1 | 13.2 | 17.0 |
| At least once a week | 6.9 | 7.3 | 8.5 | 5.5 | 7.0 |
| Less than once a week | 3.1 | 8.8 | 7.2 | 2.4 | 4.7 |
| Not at all | 13.8 | 54.7 | 17.9 | 32.1 | 25.2 |
| | | | | | |
| **Household has Internet Access** | 13.4 | 3.1 | 12.0 | 9.2 | 10.5 |
| | | | | | |
| **Frequency of Internet use*** | | | | | |
| Every day | 12.6 | 2.4 | 11.9 | 7.7 | 9.7 |
| Almost every day | 10.0 | 2.6 | 11.8 | 4.3 | 7.9 |
| At least once a week | 9.0 | 1.7 | 9.4 | 4.7 | 6.9 |
| Less than once a week | 6.4 | 2.1 | 7.0 | 3.5 | 5.2 |
| Not at all | 62.1 | 91.2 | 59.9 | 79.9 | 70.2 |
| | | | | | |
| **Household Mobile Phone Ownership** | 86.8 | 62.0 | 84.1 | 76.0 | 79.9 |
| | | | | | |
| **Frequency of newspaper/magazine readership** | | | | | |
| Every day | 13.0 | 7.3 | 10.6 | 12.1 | 11.4 |
| Almost every day | 19.3 | 17.2 | 19.3 | 18.2 | 18.7 |
| At least once a week | 22.6 | 9.4 | 20.6 | 17.4 | 19.0 |
| Less than once a week | 16.6 | 12.1 | 18.9 | 12.0 | 15.4 |
| Not at all | 28.5 | 54.1 | 30.6 | 40.3 | 35.6 |
| **Weighted number** | 2,968 | 1,146 | 1,993 | 2,121 | 4,114 |

*The frequency of media use percentages presented were calculated for all respondents, irrespective of household media ownership.

# IV. Findings

## 4.1. Exposure to the *Safe Love* Campaign[9]

### 4.1.1 Overall Exposure to the *Safe Love* Campaign

Table 4.1.1 shows the percentage of respondents who reported being exposed to specific components of the *Safe Love* campaign, by area of residence and sex. About 87 percent of respondents were exposed to at least one component of the *Safe Love* campaign,[10] with more urban than rural residents (93 percent versus 71 percent) and a nearly equal percentage of males and females (about 87 percent) reporting exposure to at least one component. Most respondents were exposed to the campaign through the radio or print materials (just under 70 percent), followed by television (52 percent). For each communication channel, a greater percentage of urban than rural residents reported exposure (76 percent versus 52 percent, 76 percent versus 50 percent, and 64 percent versus 22 percent, respectively, for radio, print material, and television). Percentages of males and females reporting exposure to those components were generally equal for radio (70 percent) and television (50 percent), and were slightly higher for females (72 percent) than males for print materials (66 percent). Exposure to text messages (13 percent amongst males), community activities (6 percent), and Internet platforms (4 percent) was generally infrequent.

Amongst respondents with household ownership of a specific media, 75 percent of respondents from households that owned a radio reported exposure to a radio-based campaign component, with a greater percentage of urban than rural residents (79 percent versus 64 percent) and a nearly equal percentage of males and females (about 75 percent) reporting exposure. Sixty-nine percent of respondents from households that owned a television reported exposure to at least one of the campaign television programmes, with a greater percentage of urban than rural residents (72 percent versus 47 percent) and a nearly equal percentage of males and females (about 69 percent). Twenty percent of households with Internet access reported exposure to that campaign component, with a greater percentage of urban than rural residents (21 percent versus 8 percent) and a nearly equal percentage of males and females (about 20 percent). Thirteen percent of male respondents from households that owned a mobile phone reported exposure to the VMMC text messages, with a greater percentage of urban than rural residents reporting receiving a VMMC text message (15 percent versus 8 percent).

**Table 4.1.1. Percentage Exposed to Any Specific Component of the *Safe Love* Campaign and to at Least One Component, by Area of Residence and Sex**

| | Respondents With Specific Media Ownership* | | | | | All Respondents | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Urban | Rural | Males | Females | All | Urban | Rural | Males | Females | All |
| **Exposure to any specific campaign component** | | | | | | | | | | |
| **Any radio** | 78.8 | 64.0 | 72.6 | 78.4 | 75.4 | 76.2 | 51.9 | 70.7 | 68.2 | 69.4 |
| **Any television** | 72.2 | 46.7 | 68.1 | 69.3 | 68.7 | 63.7 | 22.2 | 55.3 | 49.1 | 52.1 |
| **Any Internet platform** | 21.2 | 7.9** | 19.0** | 21.5** | 20.1 | 5.2 | 1.0** | 4.2 | 3.9 | 4.1 |
| **Any mobile text messages** | 15.1 | 7.7 | 13.4 | | 13.4 | 15.3 | 6.7 | 12.8 | | 12.8 |

[9] All findings in this section are weighted percentages and are presented disaggregated by place of residence and sex; age disaggregated findings can be found in Annex 8.2.

[10] Exposure to at least one *Safe Love* campaign component included respondents who reported being exposed to at least one of the following components: logo, slogan, one of the four main *Safe Love* campaign print materials (excluding the male circumcision–specific print materials), radio programme, television programme, Internet website, mobile message, or any interpersonal communication activity.

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Any print material*** ** | | | | | | 76.4 | 50.2 | 66.2 | 71.8 | 69.1 |
| **Any community activity** | | | | | | 6.3 | 3.5 | 4.3 | 6.7 | 5.5 |
| **Exposure to at least one component of the *Safe Love* campaign**** ** | | | | | | 93.0 | 70.9 | 87.1 | 86.6 | 86.8 |
| **Weighted number** | | | | | | 2,968 | 1,146 | 1,993 | 2,121 | 4,114 |

*Media ownership is defined as those whose household owns the relevant media (e.g., radio, television, the Internet, mobile phone). For example, for exposure to any radio component, the findings are for respondents whose household owns a radio.
**Number of respondents is less than 50.
***Findings are shown for exposure to at least one of the four main *Safe Love* campaign print products. This excludes exposure to the two male circumcision print products, since they were used by other programmes.
****Findings are shown for all respondents only and not for respondents with specific media access, as the indicator presented is for more than one media/channel.

### 4.1.2 Exposure to the *Safe Love* Campaign Slogan, Logos, and Printed Materials

The respondents who recalled specific aspects of the campaign, including the campaign slogan, logos, and print materials, by area of residence and sex, are summarised in Table 4.1.2 below. Overall, 36 percent of respondents were able to spontaneously complete the campaign slogan "Think, Talk…" with "Act," with a greater percentage of urban than rural residents (44 percent versus 16 percent) and males than females (39 percent versus 33 percent) completing it.

As to specific campaign logos, about 65 percent of respondents recalled the main logo, and the same percentage recalled the male circumcision logo. Greater percentages of urban than rural residents recalled each logo (76 percent versus 40 percent for the main logo and 77 percent versus 37 percent for the male circumcision logo), and a slightly greater percentage of males than females recalled the main and male circumcision logos (68 percent versus 64 percent and 68 percent versus 63 percent, respectively).

The male circumcision poster was the printed material that had the greatest recall from respondents (63 percent), with a greater percentage of urban than rural respondents (73 percent versus 37 percent) and a nearly equal percentage of males and females (about 62 percent) recalling it. The male circumcision flip chart garnered nearly the same percentage of recall as the poster (61 percent), with a greater percentage of urban than rural residents (70 percent versus 37 percent) and a nearly equal percentage of males and females (about 60 percent) recalling it. Though CSH made the two male circumcision products, exposure to them was likely highest due to other HIV prevention implementing partners in Zambia also using the same print materials in their programmes.

Similar percentages of respondents recalled the PMTCT print product, the "Are you a Safe Lover" checklist, and the condom use print product (about 47 percent), with greater percentages of urban than rural residents recalling them (52 percent versus 36 percent, 53 percent versus 26 percent, and 55 percent versus 33 percent, respectively). Greater percentages of females than males recalled the PMTCT print product and the checklist (51 percent versus 44 percent and 49 percent versus 42 percent, respectively), but a nearly equal percentage recalled the condom use print product (about 48 percent).

The "Be a Safe Lover" print product garnered the least recall, with only 33 percent of respondents overall.

**Table 4.1.2. Percentage of Respondents Who Spontaneously Completed the Campaign's Slogan, Who Recalled Seeing Different Campaign Logos, and Who Reported Seeing Different Printed Materials, by Area of Residence and Sex**

| | All Respondents | | | | |
|---|---|---|---|---|---|
| | Urban | Rural | Males | Females | All |
| **Spontaneously completed the campaign's slogan: "Think, Talk, …" with "Act"** | 44.1 | 15.7 | 38.9 | 33.3 | 36.0 |
| | | | | | |
| **Recalled specific logos** | | | | | |
| ***Safe Love* campaign's main logo** | 75.9 | 39.7 | 67.9 | 63.8 | 65.8 |
| ***Safe Love* campaign's male circumcision logo** | 76.5 | 37.1 | 68.2 | 63.1 | 65.5 |
| | | | | | |
| **Recalled printed materials** | | | | | |
| **Male circumcision poster** | 72.5 | 36.6 | 62.2 | 62.7 | 62.5 |
| **Male circumcision flip chart** | 70.3 | 37.1 | 62.5 | 59.7 | 61.1 |
| **Condom use print product** | 54.5 | 32.9 | 48.2 | 48.8 | 48.5 |
| **PMTCT print product** | 52.3 | 35.9 | 44.2 | 51.1 | 47.7 |
| **"Are you a Safe Lover" checklist** | 53.0 | 25.6 | 41.9 | 48.7 | 45.4 |
| **"Be a Safe Lover" print product** | 37.9 | 21.3 | 32.0 | 34.4 | 33.2 |
| **Weighted number** | 2,968 | 1,146 | 1,993 | 2,121 | 4,114 |

### 4.1.3 Exposure to Radio Programmes

Table 4.1.3 shows the percentage of respondents who were exposed to the different *Safe Love* radio programmes in the past 12 months, by area of residence and sex. Overall, 63 percent of respondents recalled hearing the radio advertisements, 35 percent recalled listening to a radio call-in show on male circumcision, and 19 percent reported listening to the radio drama series *Life at the Turnoff*. Greater percentages of urban than rural residents reported hearing the radio advertisements and the call-in show (71 percent versus 43 percent and 39 percent versus 24 percent, respectively) and a nearly even percentage of urban and rural residents listened to *Life at the Turnoff* (about 18 percent). Nearly equal percentages of males and females recalled listening to each item, about 63 percent for radio advertisements, about 35 percent for the call-in show on male circumcision, and about 19 percent for *Life at the Turnoff*. Respondents from households that owned a radio had slightly higher percentages of listenership for all three items, but similar distributions in terms of greater percentages of urban than rural residents hearing radio advertisements and the call-in show, and about equal percentages of males and females listening to all three.

**Table 4.1.3. Percentage Exposed to Different Radio Programmes in the Past 12 Months, by Area of Residence and Sex, for Respondents From Households That Owned a Radio and All Respondents**

| | Respondents From Households That Owned a Radio | | | | | All Respondents | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Urban | Rural | Males | Females | All | Urban | Rural | Males | Females | All |
| **Recalled hearing radio advertisements** | 73.8 | 53.9 | 67.0 | 71.5 | 69.2 | 71.1 | 43.1 | 64.6 | 62.1 | 63.3 |
| | | | | | | | | | | |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Recalled listening to *Life at the Turnoff*** | 20.1 | 23.8 | 21.5 | 21.1 | 21.3 | 18.8 | 18.3 | 20.1 | 17.3 | 18.7 |
| | | | | | | | | | | |
| **Recalled listening to a radio call-in show on male circumcision** | 40.4 | 31.6 | 37.8 | 38.9 | 38.4 | 38.6 | 24.2 | 36.0 | 33.3 | 34.6 |
| **Weighted number** | 2,386 | 712 | 1,590 | 1,508 | 3,098 | 2,968 | 1,146 | 1,993 | 2,121 | 4,114 |

### 4.1.4 Exposure to Television Programmes

The respondents exposed to different television programmes in the past 12 months, by area of residence and sex, are presented in Table 4.1.4. Overall, 42 percent of respondents recalled seeing any of the television advertisements, 39 percent recalled watching the television drama series *Love Games*, and 11 percent recalled watching the *Love Games* after-show, with a greater percentage of urban than rural respondents recalling each item (51 percent versus 17 percent, 49 percent versus 13 percent, and 13 percent versus 3 percent, respectively). A nearly equal percentage of males and females watched *Love Games* and the accompanying after-show (about 39 percent and 10 percent, respectively), while a slightly greater percentage of males than females saw the television advertisements (45 percent versus 39 percent). Amongst respondents whose household owned at television, the overall percentages increased, maintaining similar distributions between urban and rural residents and between males and females, although the difference in percentages between urban and rural respondents was not as great.

**Table 4.1.4. Percentage Exposed to Different Television Programmes in the Past 12 Months, by Area of Residence and Sex, for Respondents From Households That Owned a Television and All Respondents**

| | **Respondents From Households That Owned a Television** | | | | | **All Respondents** | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | **Urban** | **Rural** | **Males** | **Females** | **All** | **Urban** | **Rural** | **Males** | **Females** | **All** |
| **Recalled seeing any of the television advertisements** | 58.7 | 36.1 | 55.1 | 56.1 | 55.6 | 51.4 | 17.1 | 45.0 | 39.0 | 41.9 |
| | | | | | | | | | | |
| **Recalled watching *Love Games*** | 56.7 | 30.2 | 50.6 | 55.6 | 53.1 | 49.0 | 13.1 | 39.1 | 38.9 | 39.0 |
| | | | | | | | | | | |
| **Recalled watching the *Love Games* after-show** | 15.6 | 8.1 | 14.1 | 15.1 | 14.6 | 13.2 | 3.3 | 10.8 | 10.1 | 10.5 |
| **Weighted Number** | 2,286 | 366 | 1,352 | 1,300 | 2,652 | 2,968 | 1,146 | 1,993 | 2,121 | 4,114 |

### 4.1.5 Exposure to *Safe Love* Internet Platforms

Table 4.1.5 shows the percentage of respondents who reported visiting the different *Safe Love* websites in the past 12 months, by area of residence and sex. Overall, 3 percent of respondents visited the *Love*

*Games* Facebook website and only 1 percent visited the campaign website or Twitter website, with a greater percentage of urban than rural residents and approximately equal percentages of males and females visiting each one. Overall, greater percentages of respondents with household Internet access visited the three sites, with greater percentages of urban than rural residents (17 percent versus 3 percent, 7 percent versus 5 percent, and 8 percent versus 0 percent, respectively) and equal or greater percentages of females than males (17 percent versus 14percent, 6 percent versus 8 percent, and 11 percent versus 4 percent, respectively) visiting the sites.

**Table 4.1.5. Percentage Exposed to Different *Safe Love* Internet Websites in the Past 12 Months, by Area of Residence and Sex, for Respondents From Households With Internet Access and All Respondents**

| Recalled visiting … | Respondents From Households With Internet Access | | | | | All Respondents | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Urban | Rural | Males | Females | All | Urban | Rural | Males | Females | All |
| ***Love Games* Facebook website** | 17.0* | 2.5* | 14.4* | 17.4* | 15.8* | 4.5 | 0.7* | 3.5 | 3.3* | 3.4 |
| ***Safe Love* campaign website** | 7.2* | 5.4* | 7.6* | 6.4* | 7.1* | 1.3* | 0.4* | 1.2* | 0.8* | 1.0* |
| **Twitter website** | 7.9* | 0 | 4.0* | 11.1* | 7.2* | 1.5* | 0.3* | 0.7* | 0.2* | 1.1* |
| **Weighted number** | 398 | 36 | 239 | 195 | 434 | 2,968 | 1,146 | 1,993 | 2,121 | 4,114 |

***** Number of respondents is less than 50.

### 4.1.6 Exposure to Community Activities—*Safe Love* Clubs and Outreach

Table 4.1.6 shows the percentage of respondents who participated in a *Safe Love* Club in the past 12 months and who ever talked with a *Safe Love* Club member about HIV prevention, by area of residence and sex. Only about 3 percent of respondents participated in a *Safe Love* Club, with a greater percentage of urban than rural residents (4 percent versus 2 percent) and a nearly equal percentage of males and females (about 3 percent) reporting participation. Only 2 percent of respondents ever talked with a *Safe Love* Club member about HIV prevention in the past 12 months, with roughly that same percentage of urban and rural, and of males and females, reporting they had talked with a member.[11]

**Table 4.1.6. Percentage of Respondents Who Participated in a *Safe Love* Club in the Past 12 Months and Who Had Ever Talked With a *Safe Love* Club Member About HIV Prevention, by Area of Residence and Sex**

| | All Respondents | | | | |
|---|---|---|---|---|---|
| | Urban | Rural | Males | Females | All |
| **Participated in a *Safe Love* Club in the past 12 months** | 3.9 | 1.6* | 2.5* | 3.9 | 3.2 |
| | | | | | |
| **Had ever talked with a *Safe Love* Club member about HIV prevention in the past 12 months** | 2.5* | 1.9* | 1.7* | 2.9* | 2.3 |
| **Weighted number** | 2,968 | 1,146 | 1,993 | 2,121 | 4,114 |

*Number of respondents is less than 50.

[11] It is important to note that participation in a Safe Love Club and outreach conducted by the Safe Love Club members were limited to only some communities within the nine evaluation districts; thus the percentages exposed to the campaign through this channel were expected to be low.

### 4.1.7 Exposure to Mobile Text Messages

Table 4.1.7 shows male respondents who reported having received a text message about male circumcision in the last 12 months, by area of residence. Overall, 13 percent of male respondents recalled receiving a text message, with a greater percentage of urban than rural men reporting it (15 percent versus 7 percent). A similar percentage of men from households that own a mobile phone reported receiving a text message, with a similar distribution amongst urban and rural respondents.

**Table 4.1.7. Percentage of Male Respondents Who Recalled Receiving a Text Message About Male Circumcision in the Last 12 Months, by Area of Residence, for Male Respondents From Households That Own a Mobile Phone and All Male Respondents**

| | Male Respondents From Households That Own a Mobile Phone | | | All Male Respondents | | |
|---|---|---|---|---|---|---|
| | Urban | Rural | All | Urban | Rural | All |
| **Recalled receiving a text message about male circumcision** | 15.1 | 7.7 | 13.4 | 15.3 | 6.7 | 12.8 |
| **Weighted number** | 1,291 | 384 | 1,675 | 564 | 1,428 | 1,993 |

## 4.2 PSM Findings

Based on the results of the PSM conducted, the *Safe Love* campaign effects for each of the four topic areas of the campaign are presented below. For each topic area, the effects on the behaviour outcomes are presented first, followed by the effects on the intermediate outcomes. Results highlighted in yellow and with an asterisk indicate statistically significant net effect in the outcome due to the campaign.

### 4.2.1 Campaign Effects on Condom Use Outcomes

#### 4.2.1.1 Campaign Effects on Condom Use Behaviour Outcomes

To assess if the *Safe Love* campaign had an effect on condom use–related behaviours, four outcomes were examined: respondent purchased or obtained condoms in the last six months, condom use at last sexual encounter, consistent condom use with sexual partner(s) in the last four weeks, and consistent condom use with sexual partner(s) in the last six months. For the last three outcomes, the results are presented for all sexual partners and then disaggregated by partner type, whether it was with a regular sexual partner(s) or non-regular sexual partner(s) (Table 4.2.1).

The campaign had an effect on purchasing or obtaining condoms in the last six months before the survey amongst all respondents, females, males, and urban residents. No effect was found for rural residents. Recall level was particularly important for changing this behaviour, with much greater effect observed for those with higher levels of recall (comparison 3) across all respondents, males, females, and urban residents. The greatest effect was found amongst females and urban residents with higher levels of campaign recall (14 and 12 percentage points, respectively).

For condom use at last sexual encounter, the campaign had an effect amongst all respondents and urban groups. The effect was greatest amongst respondents with higher levels of recall (comparison 3): a 9.5 percentage point increase amongst all respondents and a 12 percentage point increase amongst urban respondents. When looking at condom use at last sexual encounter with a regular partner or non-regular partner, no significant effects were found.

For the third behavioural outcome, consistent condom use with sexual partner(s) in the last four weeks, an effect was found amongst all respondents, females, and urban residents. Since no effect was found amongst males and those from the rural group, it is likely that the effect found amongst all respondents and urban groups is a result of the effects on the females in those groups. In general, recall level was found to be important for changing this behaviour. For example, for females with higher levels of recall (comparison 3), there was a 12.5 percentage point increase in consistent condom use in the last four weeks with their sexual partner(s), compared to a 5 percentage point increase for those with lower levels of recall (comparison 2). When looking at consistent condom use in the last four weeks by partner type (regular partner[s] and non-regular partner[s]), a significant effect was found only amongst all respondents. There was a 7 percentage point increase in condom use with regular partners amongst respondents with higher levels of recall (comparison 3) and a 5 percentage point increase amongst those with lower levels of recall (comparison 2). For non-regular partner(s), a large effect was found amongst respondents with higher levels of recall only (comparison 3): a 21 percentage point effect compared to the matched no recall group.

For the last behavioural outcome, consistent condom use with sexual partner(s) in the last six months, the campaign demonstrated an effect amongst all respondents, males, and urban residents. Similar to consistent condom use with sexual partner(s) in the last four weeks, recall level was important for changing this behaviour. This was particularly the case for urban residents, with a 13 percentage point effect observed compared to the matched no recall group (comparison 3). When looking at consistent

condom use in the last six months with regular partner, the only significant effect observed was amongst females with higher levels of campaign recall (comparison 3): a 7 percentage point increase in condom use.

**Table 4.2.1. *Safe Love* Campaign Effects on Condom Use: Behaviour Outcomes**

| BEHAVIOUR OUTCOMES | Matched Results: Comparison 1 | | | | Matched Results: Comparison 2 | | | | Matched Results: Comparison 3 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | No recall | Any recall | Net change due to campaign | Number of cases in the match | No recall | Low recall | Net change due to campaign | Number of cases in the match | No recall | High recall | Net change due to campaign | Number of cases in the match |
| **1. Purchased or obtained condoms in the last 6 months** | **ALL RESPONDENTS** | | | | | | | | | | | |
| | 30.29 | 36.53 | 6.24* | 4,086 | 30.34 | 36.10 | 5.76* | 3,238 | 23.52 | 37.80 | 14.28* | 2,590 |
| | **FEMALES** | | | | | | | | | | | |
| | 14.42 | 20.97 | 6.55* | 1,982 | 15.18 | 19.88 | 4.70 | 1,565 | 7.82 | 21.57 | 13.75* | 1,154 |
| | **MALES** | | | | | | | | | | | |
| | 42.32 | 49.38 | 7.06* | 2,094 | 43.16 | 46.15 | 2.94 | 1,528 | 42.84 | 52.61 | 9.77* | 1,511 |
| | **URBAN** | | | | | | | | | | | |
| | 25.60 | 35.97 | 10.37* | 2,211 | 26.69 | 35.64 | 8.95* | 1,512 | 24.08 | 36.19 | 12.11* | 1,445 |
| | **RURAL** | | | | | | | | | | | |
| | 39.87 | 37.58 | -2.29 | 1,874 | 36.31 | 35.51 | -0.80 | 1,645 | 40.72 | 41.60 | 0.88 | 1,512 |
| **CONDOM USE AT LAST SEX IN THE LAST 6 MONTHS** | | | | | | | | | | | | |
| **2a. Used a condom at last sexual encounter in the last 6 months** | **ALL RESPONDENTS** | | | | | | | | | | | |
| | 25.50 | 31.48 | 5.97* | 2,585 | 26.90 | 28.93 | 2.03 | 2,116 | 25.27 | 34.81 | 9.54* | 1,844 |
| | **FEMALES** | | | | | | | | | | | |
| | 19.41 | 19.54 | 0.13 | 1,011 | 17.83 | 18.67 | 0.85 | 1,080 | 21.37 | 26.00 | 4.63 | 850 |
| | **MALES** | | | | | | | | | | | |
| | 30.42 | 38.21 | 7.79 | 1,238 | 31.74 | 33.24 | 1.50 | 945 | 37.37 | 43.93 | 6.57 | 907 |
| | **URBAN** | | | | | | | | | | | |
| | 28.28 | 34.18 | 5.91 | 1,249 | 29.58 | 31.94 | 2.36 | 897 | 24.52 | 36.72 | 12.20* | 819 |
| | **RURAL** | | | | | | | | | | | |
| | 22.15 | 25.25 | 3.11 | 1,283 | 18.51 | 22.49 | 3.98 | 1,136 | 27.38 | 28.94 | 1.57 | 1,039 |
| **2b. Used a condom at last sexual encounter with regular partner in the last 6 months** | **ALL RESPONDENTS** | | | | | | | | | | | |
| | 18.68 | 21.66 | 2.98 | 1,987 | 18.60 | 20.83 | 2.23 | 1,671 | 18.43 | 22.86 | 4.42 | 1,428 |
| | **FEMALES** | | | | | | | | | | | |
| | 14.68 | 17.17 | 2.50 | 1,161 | | | | | 15.01 | 23.30 | 8.28 | 872 |
| | **MALES** | | | | | | | | | | | |
| | 19.79 | 26.21 | 6.42 | 809 | 18.59 | 27.40 | 8.81^ | 635 | 20.12 | 25.29 | 5.17 | 585 |
| | **URBAN** | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | **RURAL** | | | | | | | | | | | |
| | 16.71 | 21.00 | 4.29 | 1,075 | 17.05 | 22.64 | 5.59 | 857 | 17.05 | 22.64 | 5.59 | 857 |
| **2c. Used a condom at last sexual encounter with non-regular partner in the last 6 months** | **ALL RESPONDENTS** | | | | | | | | | | | |
| | 65.71 | 69.64 | 3.93 | 672 | 64.15 | 66.13 | 1.98 | 528 | 69.69 | 75.00 | 8.43 | 436 |
| | **FEMALES** | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | **MALES** | | | | | | | | | | | |
| | 72.66 | 71.73 | -0.93 | 560 | | | | | 75.14 | 78.40 | 3.26 | 393 |
| | **URBAN** | | | | | | | | | | | |
| | 70.00 | 75.28 | 5.28 | 387 | 65.13 | 72.30 | 7.17 | 264 | 73.64 | 78.33 | 4.69 | 236 |
| | **RURAL** | | | | | | | | | | | |
| | | | | | | | | | | | | |
| **CONSISTENT CONDOM USE IN THE LAST 4 WEEKS** | | | | | | | | | | | | |
| **3a. Used condoms consistently with sexual** | **ALL RESPONDENTS** | | | | | | | | | | | |
| | 12.22 | 18.26 | 6.03* | 2,250 | 12.04 | 15.51 | 3.48 | 1,833 | 13.24 | 20.11 | 6.86* | 1,550 |
| | **FEMALES** | | | | | | | | | | | |
| | 3.75 | 10.72 | 6.97* | 1,152 | 4.34 | 9.80 | 5.46* | 971 | 2.56 | 15.10 | 12.54* | 859 |
| | **MALES** | | | | | | | | | | | |
| | 19.26 | 22.92 | 3.66 | 1,069 | 17.23 | 17.27 | 0.04 | 793 | 20.52 | 29.26 | 8.74 | 785 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **partner(s) in the last 4 weeks** | **URBAN** | | | | | | | | | | | |
| | 12.16 | 20.15 | 7.99* | 1,066 | 12.20 | 18.11 | 5.91 | 761 | 12.25 | 22.41 | 10.15* | 690 |
| | **RURAL** | | | | | | | | | | | |
| | 12.94 | 11.18 | -1.76 | 1,113 | 9.43 | 10.36 | 0.93 | 984 | 13.23 | 12.50 | -0.74 | 903 |
| **3b. Used condoms consistently with regular sexual partner(s) in the last 4 weeks** | **ALL RESPONDENTS** | | | | | | | | | | | |
| | 2.66 | 8.15 | 5.49* | 1,837 | 3.46 | 8.30 | 4.84* | 1,533 | 0.69 | 7.61 | 6.92* | 1,315 |
| | **FEMALES** | | | | | | | | | | | |
| | 3.10 | 7.69 | 4.59 | 1,066 | 3.29 | 6.32 | 3.03 | 906 | 2.48 | 8.98 | 6.50 | 804 |
| | **MALES** | | | | | | | | | | | |
| | 1.82 | 8.10 | 6.28^ | 746 | 2.56 | 10.42 | 7.86^ | 580 | | | | |
| | **URBAN** | | | | | | | | | | | |
| | 4.03 | 7.26 | 3.23 | 812 | | | | | 2.71 | 9.17 | 6.46 | 548 |
| | **RURAL** | | | | | | | | | | | |
| | 3.81 | 7.45 | 3.64 | 952 | 3.86 | 7.27 | 3.42 | 862 | 2.46 | 4.08 | 1.62 | 795 |
| **3c. Used condoms consistently with non-regular sexual partner(s) in the last 4 weeks** | **ALL RESPONDENTS** | | | | | | | | | | | |
| | 30.92 | 40.29 | 9.37 | 475 | 31.02 | 35.56 | 4.56 | 360 | 26.95 | 48.18 | 21.23* | 307 |
| | **FEMALES** | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | **MALES** | | | | | | | | | | | |
| | 34.60 | 40.43 | 5.83 | 397 | | | | | 32.30 | 46.07 | 13.07 | 256 |
| | **URBAN** | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | **RURAL** | | | | | | | | | | | |
| | | | | | | | | | | | | |
| **CONSISTENT CONDOM USE IN THE LAST 6 MONTHS** | | | | | | | | | | | | |
| **4a. Used condoms consistently with all partners in the last 6 months** | **ALL RESPONDENTS** | | | | | | | | | | | |
| | 12.95 | 18.65 | 5.71* | 2,585 | 14.31 | 16.23 | 1.92 | 2,116 | 13.55 | 22.15 | 8.60* | 1,826 |
| | **FEMALES** | | | | | | | | | | | |
| | 8.25 | 8.81 | 0.56 | 1,011 | 5.27 | 8.43 | 3.16 | 1,080 | 5.86 | 13.00 | 7.14 | 850 |
| | **MALES** | | | | | | | | | | | |
| | 16.83 | 23.74 | 6.91* | 1,238 | 18.45 | 20.12 | 1.66 | 945 | 20.05 | 28.85 | 8.80* | 907 |
| | **URBAN** | | | | | | | | | | | |
| | 13.24 | 21.17 | 7.93* | 1,249 | 14.88 | 19.21 | 4.34 | 897 | 10.7 | 23.73 | 13.00* | 819 |
| | **RURAL** | | | | | | | | | | | |
| | 10.01 | 13.13 | 3.12 | 1,283 | 9.12 | 12.85 | 3.73 | 1,136 | 15.20 | 13.82 | -1.39 | 1,039 |
| **4b. Used condoms consistently with regular partner(s) in the last 6 months** | **ALL RESPONDENTS** | | | | | | | | | | | |
| | 3.06 | 7.26 | 4.20^ | 1,987 | 3.42 | 7.42 | 4.01^ | 1,671 | 2.65 | 6.98 | 4.34 | 1,428 |
| | **FEMALES** | | | | | | | | | | | |
| | 3.62 | 7.61 | 3.99 | 1,161 | 4.32 | 6.19 | 1.87 | 992 | 3.54 | 10.80 | 7.26* | 872 |
| | **MALES** | | | | | | | | | | | |
| | 1.38 | 6.62 | 5.23^ | 809 | 1.66 | 9.13 | 7.47^ | 635 | | | | |
| | **URBAN** | | | | | | | | | | | |
| | 2.86 | 7.59 | 4.73^ | 890 | 2.71 | 7.29 | 5.21^ | 666 | 1.59 | 6.84 | 5.25 | 596 |
| | **RURAL** | | | | | | | | | | | |
| | 3.87 | 6.90 | 3.02 | 1,075 | 3.03 | 6.80 | 3.77 | 962 | 3.54 | 5.66 | 2.12 | 857 |
| **4c. Used condoms consistently with non-regular sexual partner(s) in the last 6 months** | **ALL RESPONDENTS** | | | | | | | | | | | |
| | 35.02 | 40.82 | 5.79 | 672 | 33.21 | 37.90 | 4.69 | 528 | 35.51 | 46.79 | 11.29 | 436 |
| | **FEMALES** | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | **MALES** | | | | | | | | | | | |
| | 38.49 | 42.86 | 4.37 | 560 | | | | | 38.51 | 48.77 | 10.26 | 393 |
| | **URBAN** | | | | | | | | | | | |
| | 38.52 | 47.60 | 9.08^^ | 387 | 35.35 | 44.59 | 9.24^^ | 264 | 38.45 | 50.00 | 11.55^^ | 236 |
| | **RURAL** | | | | | | | | | | | |
| | | | | | | | | | | | | |

*Significant result, p <0.05. Grey areas mean unmatched results did not have a p-value below 0.10, and so PSM was not conducted. Results that do not have an asterisk (*) were not significant below 0.05 after PSM was conducted. ^Inconclusive significant result because other comparisons within the same group were not significant as would be expected if there was a true campaign effect. ^^The lack of a significant result may be due to the smaller sample size, which could have resulted in insufficient power to determine an effect of this magnitude.

### 4.2.1.2 Campaign Effects on Condom Use Knowledge Outcomes

Out of the three condom use–related knowledge outcomes, the campaign had a significant positive effect only on the knowledge of where to obtain condoms (Table 4.2.2, second outcome). Specifically, an effect ranging between 6 and 8 percentage points was observed for all respondents, males, and urban residents. There was no effect on knowledge of where to obtain condoms amongst females or rural residents. No effects were found on the other two outcomes (the first and third) related to the knowledge of condom use.

**Table 4.2.2. *Safe Love* Campaign Effects on Condom Use: Knowledge Outcomes**

| KNOWLEDGE OUTCOMES | Matched Results: Comparison 1 | | | | Matched Results: Comparison 2 | | | | Matched Results: Comparison 3 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | No recall | Any recall | Net change due to campaign | Number of cases in the match | No recall | Low recall | Net change due to campaign | Number of cases in the match | No recall | High recall | Net change due to campaign | Number of cases in the match |
| 1. Spontaneously mentioned condom use as a protective behaviour against HIV | ALL RESPONDENTS | | | | | | | | | | | |
| | 77.69 | 80.27 | 2.58 | 4,086 | 76.20 | 79.35 | 3.15 | 3,238 | 78.58 | 82.13 | 3.55 | 2,590 |
| | FEMALES | | | | | | | | | | | |
| | 69.66 | 75.27 | 5.61 | 1,982 | 71.55 | 73.10 | 1.55 | 1,565 | 69.79 | 78.43 | 8.64 | 1,154 |
| | MALES | | | | | | | | | | | |
| | 80.48 | 84.18 | 3.70 | 2,094 | 80.44 | 83.22 | 2.77 | 1,528 | 82.01 | 84.86 | 2.86 | 1,511 |
| | URBAN | | | | | | | | | | | |
| | 78.23 | 81.02 | 2.79 | 2,211 | 77.52 | 80.16 | 2.64 | 1,512 | 78.16 | 81.97 | 3.82 | 1,445 |
| | RURAL | | | | | | | | | | | |
| | 77.56 | 78.76 | 1.19 | 1,874 | 77.32 | 77.81 | 0.49 | 1,645 | 76.33 | 80.80 | 4.47 | 1,512 |
| 2. Knew where to get condoms | ALL RESPONDENTS | | | | | | | | | | | |
| | 89.81 | 96.68 | 6.87* | 4,086 | 89.49 | 96.67 | 7.17* | 3,238 | 88.56 | 96.05 | 7.49* | 2,590 |
| | FEMALES | | | | | | | | | | | |
| | 87.34 | 95.05 | 7.72^ | 1,982 | 86.57 | 94.35 | 7.78^ | 1,565 | 88.20 | 94.12 | 5.92 | 1,154 |
| | MALES | | | | | | | | | | | |
| | 91.40 | 97.98 | 6.58* | 2,094 | 91.96 | 98.08 | 6.12* | 1,528 | 91.90 | 97.83 | 5.94* | 1,511 |
| | URBAN | | | | | | | | | | | |
| | 88.84 | 96.18 | 7.34* | 2,211 | 87.95 | 96.08 | 8.13* | 1,512 | 89.46 | 96.28 | 6.82* | 1,445 |
| | RURAL | | | | | | | | | | | |
| | 92.70 | 97.88 | 5.17^ | 1,874 | 91.99 | 97.65 | 5.66^ | 1,645 | 93.36 | 98.40 | 5.04 | 1,512 |
| 3.Knew how to correctly use a condom | ALL RESPONDENTS | | | | | | | | | | | |
| | 67.93 | 70.21 | 2.28 | 4,086 | 67.77 | 69.11 | 1.34 | 3,238 | 71.52 | 70.10 | -1.42 | 2,590 |
| | FEMALES | | | | | | | | | | | |
| | 43.42 | 51.94 | 8.51* | 1,982 | 42.44 | 49.90 | 7.46^ | 1,565 | 46.01 | 47.06 | 1.05 | 1,154 |
| | MALES | | | | | | | | | | | |
| | 85.92 | 85.06 | -0.09 | 2,094 | 84.44 | 83.57 | -0.87 | 1,528 | 87.39 | 86.49 | -0.90 | 1,511 |
| | URBAN | | | | | | | | | | | |
| | 68.13 | 71.26 | 3.13 | 2,211 | 67.99 | 71.02 | 3.03 | 1,512 | 68.54 | 71.53 | 2.99 | 1,445 |
| | RURAL | | | | | | | | | | | |
| | 64.64 | 67.48 | 2.85 | 1,874 | 64.99 | 66.06 | 1.07 | 1,645 | 63.42 | 70.00 | 6.57 | 1,512 |

*Significant result, p <0.05. Grey areas mean unmatched results did not have a p-value below 0.10, and so PSM was not conducted. Results that do not have an asterisk (*) were not significant below 0.05 after PSM was conducted.
^Inconclusive significant result because other comparisons within the same group were not significant as would be expected if there was a true campaign effect.

### 4.2.1.3 Campaign Effects on Condom Use Beliefs/Attitudes Outcomes

In examining the campaign effects on beliefs/attitudes towards condom use, the analysis shows significant effects on all five outcomes (Table 4.2.3). In terms of the first attitude outcome, the campaign had an effect on whether respondents agreed with the statement "condoms should be used every time

you have sex with your with regular partner" amongst all respondents and males. Since no effect was found amongst females, it is likely that the effects found amongst all respondents are a result of the effects on the males in that group. A greater effect was associated with higher levels of level. For example, for males with lower levels of recall (comparison 2), there was 7 percentage point increase in males agreeing that condoms should be used consistently with regular partners, while for males with higher levels of recall (comparison 3), the effect was 12 percentage points.

For the next three attitude outcomes, meanwhile, the campaign had an effect on whether respondents agreed or disagreed with the statements amongst all respondents, females, and those living in urban areas. Since no effect was found amongst males or amongst those living in rural areas, it is likely that the effects found amongst all respondents are a result of the effects on females living in urban areas. Higher levels of recall resulted in a greater effect on whether respondents disagreed with the statements "If a woman asks her husband/partner to use a condom it implies that she does not trust him" and "If a man asks his wife/partner to use a condom it implies that he not trust her" (the third and fourth attitude outcomes, respectively). For example, for both statements, amongst all respondents, those with higher levels of recall (comparison 3) showed an 11 to 12 percentage point increase when compared to the matched no recall group, whereas those with lower levels of recall (comparison 2) showed only a 7 percentage point increase. However, higher levels of recall did not have a greater effect on whether respondents agreed with the statement "Condoms should be used every time you have sex with a casual partner" (the second attitude outcome).

For the last attitude outcome, the campaign had an effect on whether respondents disagreed with the statement "Condoms reduce sexual pleasure" only amongst females with any or lower levels of recall to the campaign. Any level of recall (comparison 1) resulted in a 13 percentage point increase amongst females, and lower levels recall (comparison 2) resulted in an 8 percentage point increase. Higher levels of recall to the campaign (comparison 3) resulted in an 11 percentage point increase compared to the matched no recall group, but the small sample size may have resulted in insufficient power to determine a significant effect of this magnitude.

**Table 4.2.3. *Safe Love* Campaign Effects on Condom Use: Beliefs/Attitudes Outcomes**

| BELIEFS/ ATTITUDES OUTCOMES | Matched Results: Comparison 1 | | | | Matched Results: Comparison 2 | | | | Matched Results: Comparison 3 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | No recall | Any recall | Net change due to campaign | Number of cases in the match | No recall | Low recall | Net change due to campaign | Number of cases in the match | No recall | High recall | Net change due to campaign | Number of cases in the match |
| **1. Agreed with the statement "Condoms should be used every time you have sex with your regular partner"** | **ALL RESPONDENTS** | | | | | | | | | | | |
| | 47.56 | 54.28 | 6.72* | 4,086 | 46.01 | 53.41 | 7.41* | 3,238 | 44.04 | 57.04 | 13.01* | 2,590 |
| | **FEMALES** | | | | | | | | | | | |
| | 57.58 | 61.29 | 3.71 | 1,982 | 55.92 | 61.79 | 5.87 | 1,565 | 57.68 | 68.63 | 10.94 | 1,154 |
| | **MALES** | | | | | | | | | | | |
| | 38.45 | 48.51 | 10.06* | 2.094 | 39.42 | 45.98 | 6.56* | 1,528 | 39.63 | 51.53 | 11.91* | 1,511 |
| | **URBAN** | | | | | | | | | | | |
| | 46.07 | 54.61 | 8.53^ | 2,211 | 45.87 | 55.22 | 9.34^ | 1,512 | 48.12 | 53.79 | 5.67 | 1,445 |
| | **RURAL** | | | | | | | | | | | |
| | 50.16 | 52.61 | 2.46 | 1,874 | 48.28 | 50.39 | 2.11 | 1,645 | 49.51 | 56.40 | 6.89 | 1,512 |
| **2. Agreed with the statement "Condoms should be used every time you have sex with a casual partner"** | **ALL RESPONDENTS** | | | | | | | | | | | |
| | 88.64 | 94.85 | 6.21* | 4,086 | 88.84 | 94.23 | 5.39* | 3,238 | 88.81 | 94.33 | 5.51* | 2,590 |
| | **FEMALES** | | | | | | | | | | | |
| | 83.75 | 93.01 | 9.26* | 1,982 | 84.12 | 91.42 | 7.30* | 1,565 | 82.55 | 93.14 | 10.59^^ | 1,154 |
| | **MALES** | | | | | | | | | | | |
| | 91.40 | 96.22 | 4.82^ | 2,094 | 91.71 | 96.50 | 4.80^ | 1,528 | 91.85 | 95.86 | 4.00 | 1,511 |
| | **URBAN** | | | | | | | | | | | |
| | 87.58 | 95.22 | 7.64* | 2,211 | 87.41 | 94.39 | 6.97* | 1,512 | 88.67 | 96.14 | 7.47* | 1,445 |
| | **RURAL** | | | | | | | | | | | |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 90.31 | 94.12 | 3.81 | 1,874 | 89.77 | 94.52 | 4.75^ | 1,645 | 91.25 | 93.20 | 1.95 | 1,512 |
| **3. Disagreed with the statement "If a woman asks her husband/partner to use a condom it implies that she does not trust him"** | **ALL RESPONDENTS** | | | | | | | | | | | |
| | 48.61 | 57.65 | 9.04* | 4,086 | 47.28 | 53.82 | 6.54* | 3,238 | 48.84 | 60.14 | 11.30* | 2,590 |
| | **FEMALES** | | | | | | | | | | | |
| | 49.92 | 65.27 | 15.35* | 1,982 | 50.09 | 62.96 | 12.87* | 1,565 | 51.54 | 61.76 | 10.22^^ | 1,154 |
| | **MALES** | | | | | | | | | | | |
| | 48.13 | 51.49 | 3.36 | 2,094 | 46.27 | 47.38 | 1.11 | 1,528 | 49.35 | 55.68 | 6.32 | 1,511 |
| | **URBAN** | | | | | | | | | | | |
| | 46.31 | 58.77 | 12.46* | 2,211 | 46.04 | 54.05 | 8.01* | 1,512 | 46.01 | 63.81 | 17.80* | 1,445 |
| | **RURAL** | | | | | | | | | | | |
| | 52.57 | 55.07 | 2.49 | 1,874 | | | | | 54.28 | 59.60 | 5.32 | 1,512 |
| **4. Disagreed with the statement "If a man asks his wife/partner to use a condom it implies that he does not trust her"** | **ALL RESPONDENTS** | | | | | | | | | | | |
| | 50.40 | 59.05 | 8.65* | 4,086 | 49.08 | 55.69 | 6.61* | 3,238 | 49.69 | 61.51 | 11.82* | 2,590 |
| | **FEMALES** | | | | | | | | | | | |
| | 51.54 | 64.84 | 13.30* | 1,982 | 50.76 | 61.99 | 11.23* | 1,565 | 51.43 | 61.76 | 10.33^^ | 1,154 |
| | **MALES** | | | | | | | | | | | |
| | 48.82 | 54.48 | 4.66 | 2,094 | 48.32 | 50.87 | 2.55 | 1,528 | 51.06 | 58.02 | 6.96 | 1,511 |
| | **URBAN** | | | | | | | | | | | |
| | 48.13 | 60.20 | 12.08* | 2,211 | 47.56 | 56.14 | 8.58* | 1,512 | 48.59 | 64.52 | 15.93* | 1,445 |
| | **RURAL** | | | | | | | | | | | |
| | 53.79 | 56.53 | 2.75 | 1,874 | | | | | 56.03 | 59.60 | 3.57 | 1,512 |
| **5. Disagreed with the statement "Condoms reduce sexual pleasure"** | **ALL RESPONDENTS** | | | | | | | | | | | |
| | 31.53 | 40.13 | 8.61^ | 4,086 | 30.67 | 40.00 | 9.33^ | 3,238 | 33.46 | 39.18 | 5.72 | 2,590 |
| | **FEMALES** | | | | | | | | | | | |
| | 30.99 | 43.55 | 12.56* | 1,982 | 31.81 | 39.96 | 8.15* | 1,565 | 37.32 | 48.04 | 10.72^^ | 1,154 |
| | **MALES** | | | | | | | | | | | |
| | 30.55 | 37.61 | 7.06^ | 2,094 | 28.28 | 41.26 | 12.98^ | 1,528 | 30.87 | 33.51 | 2.65 | 1,511 |
| | **URBAN** | | | | | | | | | | | |
| | 31.12 | 41.02 | 9.91^ | 2,211 | 31.69 | 42.56 | 10.87^ | 1,512 | 31.32 | 39.34 | 8.02 | 1,445 |
| | **RURAL** | | | | | | | | | | | |
| | 31.27 | 38.24 | 6.97^ | 1,874 | 29.37 | 36.03 | 6.66^ | 1,645 | 35.19 | 43.60 | 8.41 | 1,512 |

*Significant result, p <0.05. Grey areas mean unmatched results did not have a p-value below 0.10, and so PSM was not conducted. Results that do not have an asterisk (*) were not significant below 0.05 after PSM was conducted. ^Inconclusive significant result because other comparisons within the same group were not significant as would be expected if there was a true campaign effect. ^^The lack of a significant result may be due to the smaller sample size, which could have resulted in insufficient power to determine an effect of this magnitude.

#### 4.2.1.4 Campaign Effects on Condom Use Self-Efficacy Outcomes

While the campaign had an effect on all four of the self-efficacy outcomes related to condom use (Table 4.2.4), its effect on respondents' self-efficacy in purchasing condoms (third outcome) was found amongst all groups, except for those in rural areas. Since no effect was found amongst those in rural areas, it is likely that the effects found amongst all respondents, males and females are a result of the effects on the respondents in urban areas in those groups. Amongst all respondents and females, higher levels of recall were associated with larger effects. For example, amongst females, higher levels of recall (comparison 3), resulted with a 19 percentage point increase in self-efficacy related to condom purchases in comparison to the matched no recall group, whereas amongst females lower levels of recall (comparison 2), resulted in a 6 percentage point increase.

The campaign also resulted in great self-efficacy in correct use of condoms amongst those living in urban areas. In urban areas, any level of recall resulted in a 6 percentage point increase, and lower and higher levels of recall resulted in 5 and 8 percentage point increases, respectively. For the third self-efficacy outcome, the campaign resulted in greater agreement with the statement "I am comfortable carrying condoms if I want to" amongst females and those living in urban areas. Amongst females, lower

levels of recall were not effective; any level of recall (comparison 1) and higher levels of recall (comparison 3) resulted in 9 and 22 percentage point increases, respectively. For the final self-efficacy outcome, agreement with the statement "I could ask my spouse/partner to use a condom if I want him/her to," the campaign only had an effect amongst females. Higher levels of recall resulted in a 12.5 percentage point increase in women agreeing with this statement compared to the matched no recall group, while females with lower levels of recall had a 6 percentage point increase. Thus, the greater the level of recall, the greater the effect was.

**Table 4.2.4. *Safe Love* Campaign Effects on Condom Use: Self-Efficacy Outcomes**

| SELF-EFFICACY OUTCOMES | Matched Results: Comparison 1 | | | | Matched Results: Comparison 2 | | | | Matched Results: Comparison 3 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | No recall | Any recall | Net change due to campaign | Number of cases in the match | No recall | Low recall | Net change due to campaign | Number of cases in the match | No recall | High recall | Net change due to campaign | Number of cases in the match |
| **1. Agreed with the statement "I can use a condom correctly"** | **ALL RESPONDENTS** | | | | | | | | | | | |
| | 80.24 | 84.79 | 4.56^ | 4,086 | 79.60 | 84.07 | 4.47^ | 3,238 | 80.10 | 84.54 | 4.44 | 2,590 |
| | **FEMALES** | | | | | | | | | | | |
| | 72.30 | 79.25 | 6.96 | 1,982 | 73.00 | 77.39 | 4.39 | 1,565 | 76.06 | 81.37 | 5.31 | 1,154 |
| | **MALES** | | | | | | | | | | | |
| | 85.44 | 89.46 | 4.01 | 2,094 | 84.37 | 89.16 | 4.79^ | 1,528 | 85.55 | 89.55 | 4.00 | 1,511 |
| | **URBAN** | | | | | | | | | | | |
| | 78.51 | 84.71 | 6.20* | 2,211 | 78.82 | 83.68 | 4.86* | 1,512 | 78.04 | 85.69 | 7.66* | 1,445 |
| | **RURAL** | | | | | | | | | | | |
| | 82.69 | 85.29 | 2.60 | 1,874 | 82.64 | 84.86 | 2.22 | 1,645 | 82.76 | 86.40 | 3.64 | 1,512 |
| **2. Agreed with the statement "I can purchase a condom if I want to"** | **ALL RESPONDENTS** | | | | | | | | | | | |
| | 75.96 | 83.40 | 7.44* | 4,086 | 76.13 | 83.41 | 7.28* | 3,238 | 70.58 | 82.30 | 11.72* | 2,590 |
| | **FEMALES** | | | | | | | | | | | |
| | 65.37 | 75.48 | 10.11* | 1,982 | 66.64 | 72.90 | 6.27* | 1,565 | 53.64 | 72.55 | 18.91* | 1,154 |
| | **MALES** | | | | | | | | | | | |
| | 82.94 | 89.89 | 6.95* | 2,094 | 82.97 | 90.56 | 7.59* | 1,528 | 83.03 | 89.37 | 6.34* | 1,511 |
| | **URBAN** | | | | | | | | | | | |
| | 74.26 | 82.80 | 8.54* | 2,211 | 75.48 | 83.02 | 7.54* | 1,512 | 72.92 | 82.55 | 9.63* | 1,445 |
| | **RURAL** | | | | | | | | | | | |
| | 80.91 | 84.80 | 3.89 | 1,874 | 79.21 | 83.55 | 4.34 | 1,645 | 79.66 | 86.80 | 7.14 | 1,512 |
| **3. Agreed with the statement "I am comfortable carrying condoms if I want to"** | **ALL RESPONDENTS** | | | | | | | | | | | |
| | 66.68 | 71.17 | 4.49 | 4,086 | 68.28 | 72.60 | 4.32^ | 3,238 | | | | |
| | **FEMALES** | | | | | | | | | | | |
| | 55.55 | 64.95 | 9.39* | 1,982 | 58.37 | 63.35 | 4.99 | 1,565 | 44.11 | 65.69 | 21.58* | 1,154 |
| | **MALES** | | | | | | | | | | | |
| | | | | | 75.27 | 79.90 | 4.62 | 1,528 | | | | |
| | **URBAN** | | | | | | | | | | | |
| | 61.90 | 69.01 | 7.11* | 2,211 | 64.46 | 70.10 | 5.64* | 1,512 | 58.38 | 67.67 | 9.29* | 1,445 |
| | **RURAL** | | | | | | | | | | | |
| | 77.26 | 75.98 | -1.28 | 1,874 | 76.48 | 78.07 | 1.59 | 1,645 | 76.07 | 74.00 | -2.01 | 1,512 |
| **4. Agreed with statement "I could ask my spouse/ partner to use a condom if I want him/her to"** | **ALL RESPONDENTS** | | | | | | | | | | | |
| | 86.62 | 88.75 | 2.13 | 2,586 | 85.37 | 86.40 | 19.72 | 2,372 | 86.00 | 92.19 | 6.19 | 1,859 |
| | **FEMALES** | | | | | | | | | | | |
| | 79.41 | 89.24 | 9.83* | 1,497 | 80.30 | 86.42 | 6.12* | 1,209 | 80.19 | 92.70 | 12.51* | 1061 |
| | **MALES** | | | | | | | | | | | |
| | 89.65 | 87.73 | -1.92 | 1,462 | | | | | 90.51 | 88.51 | -2.00 | 1,030 |
| | **URBAN** | | | | | | | | | | | |
| | 82.62 | 89.65 | 7.03 | 1,206 | 84.39 | 86.59 | 2.20 | 1,042 | 84.69 | 91.73 | 7.04 | 774 |
| | **RURAL** | | | | | | | | | | | |
| | 88.50 | 87.60 | -0.90 | 1,431 | 87.69 | 86.51 | -1.19 | 1,242 | 82.58 | 87.21 | 4.63 | 1,041 |

*Significant result, p <0.05. Grey areas mean unmatched results did not have a p-value below 0.10, and so PSM was not conducted. Results that do not have an asterisk (*) were not significant below 0.05 after PSM was conducted.

^Inconclusive significant result because other comparisons within the same group were not significant as would be expected if there was a true campaign effect.

### 4.2.1.5 Campaign Effects on Condom Use Social Norms Outcomes

Table 4.2.5 shows that the campaign had an effect on two of the three social norms outcomes; no effect was seen on the second social norm outcome, whether respondents disagreed with the statement "People in my community believe condoms should not be used with regular partners, including spouses."

However, the campaign did have an effect on whether respondents agreed with the statement "People in my community believe condoms should be used with a causal partner" (the first social norm outcome) amongst all respondents and males. Since no effect was found amongst females, it is likely that the effects found amongst all respondents are a result of the effects on the males in that group. Amongst all respondents, those with lower levels of recall to the campaign showed a 6.5 percentage point increase and those with higher levels of recall showed an 8 percentage point increase compared to the matched no recall group. However, there was no difference between the recall levels amongst males; both the lower and the higher levels showed a 13 percentage point increase.

For the third social norm outcome, the campaign had an effect on whether respondents agreed with the statement "People in my community believe condoms protects one from getting HIV" amongst all respondents, males, and those living in urban areas. Since no effect was seen amongst females or amongst those living in rural areas, it is likely that the effects found amongst all respondents and in urban areas are a result of the effects on the males in those group. Effects amongst all respondents and amongst those living in urban areas were greater for those with higher levels of recall (comparison 3), 11 percentage points, compared to lower levels of recall.

**Table 4.2.5. *Safe Love* Campaign Effects on Condom Use: Social Norms Outcomes**

| SOCIAL NORMS OUTCOMES | Matched Results: Comparison 1 | | | | Matched Results: Comparison 2 | | | | Matched Results: Comparison 3 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | No recall | Any recall | Net change due to campaign | Number of cases in the match | No recall | Low recall | Net change due to campaign | Number of cases in the match | No recall | High recall | Net change due to campaign | Number of cases in the match |
| **1. Agreed with the statement "People in my community believe condoms should be used with a causal partner"** | **ALL RESPONDENTS** | | | | | | | | | | | |
| | 61.46 | 69.06 | 7.60* | 4,086 | 62.38 | 68.86 | 6.48* | 3,238 | 61.79 | 69.59 | 7.80* | 2,590 |
| | **FEMALES** | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | **MALES** | | | | | | | | | | | |
| | 58.91 | 71.00 | 12.09* | 2,094 | 59.19 | 72.38 | 13.18* | 1,528 | 56.64 | 69.91 | 13.27* | 1,511 |
| | **URBAN** | | | | | | | | | | | |
| | 59.86 | 69.15 | 9.29^ | 2,211 | 60.59 | 68.93 | 8.33^ | 1,512 | 61.70 | 69.53 | 7.83 | 1,445 |
| | **RURAL** | | | | | | | | | | | |
| | 66.82 | 69.28 | 2.46 | 1,874 | 69.02 | 69.71 | 0.70 | 1,645 | | | | |
| **2. Disagreed with the statement "People in my community believe condoms should not be used with** | **ALL RESPONDENTS** | | | | | | | | | | | |
| | 29.87 | 32.77 | 2.90 | 4,086 | 29.75 | 34.31 | 4.55^ | 3238 | | | | |
| | **FEMALES** | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | **MALES** | | | | | | | | | | | |
| | 30.81 | 35.06 | 4.24 | 2,094 | 30.97 | 37.76 | 6.79^ | 1,528 | 29.99 | 32.43 | 2.44 | 1,511 |
| | **URBAN** | | | | | | | | | | | |
| | 25.57 | 31.40 | 5.83^ | 2,211 | 26.00 | 33.42 | 7.42^ | 1,512 | 25.76 | 29.04 | 3.28 | 1,445 |
| | **RURAL** | | | | | | | | | | | |
| | 37.41 | 36.44 | -0.97 | 1,874 | 38.31 | 36.29 | -2.02 | 1,645 | 39.34 | 36.80 | -2.54 | 1,512 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **their regular partners, including spouses"** | | | | | | | | | | | | |
| **3. Agreed with the statement "People in my community believe condoms protects one from getting HIV"** | **ALL RESPONDENTS** | | | | | | | | | | | |
| | 80.58 | 88.93 | 8.35* | 4,086 | 82.27 | 88.70 | 6.43* | 3,328 | 77.86 | 88.66 | 10.80* | 2,590 |
| | **FEMALES** | | | | | | | | | | | |
| | 81.80 | 87.85 | 6.05^ | 1,982 | | | | | 85.00 | 89.22 | 4.21 | 1,154 |
| | **MALES** | | | | | | | | | | | |
| | 80.06 | 89.39 | 9.57* | 2,094 | 81.07 | 92.31 | 11.23* | 1,528 | 76.67 | 86.67 | 10.00* | 1,511 |
| | **URBAN** | | | | | | | | | | | |
| | 76.87 | 87.30 | 10.43* | 2,211 | 77.58 | 86.68 | 9.10* | 1,512 | 76.81 | 87.98 | 11.17* | 1,445 |
| | **RURAL** | | | | | | | | | | | |
| | 91.98 | 92.48 | 0.50 | 1,874 | 90.88 | 92.43 | 1.55 | 1,645 | 89.58 | 92.40 | 2.82 | 1,512 |

*Significant result, p <0.05. Grey areas mean unmatched results did not have a p-value below 0.10, and so PSM was not conducted. Results that do not have an asterisk (*) were not significant below 0.05 after PSM was conducted.
^Inconclusive significant result because other comparisons within the same group were not significant as would be expected if there was a true campaign effect.

#### 4.2.1.6 Campaign Effects on Condom Use IPC Outcomes

Table 4.2.6 shows that the *Safe Love* campaign had an effect on all three IPC outcomes examined. In terms of the first IPC outcome, the campaign was effective in increasing communication with partners about condom use amongst all five groups (all respondents, males, females, those living in urban areas, and those living in rural areas). Recall level was particularly important in changing this communication amongst males and those living in urban areas, since lower levels of recall (comparison 2) did not have an effect while higher levels of recall (comparison 3) resulted in 17 and 21 percentage point increases amongst males and those living in urban areas, respectively. Amongst all respondents and females, all comparisons showed significant differences, but the higher the level of recall, the greater the effect was. In rural areas, only the lower levels of recall (comparison 2) had an effect: an 11 percentage point increase; however, the lack of effect in the high recall group may be due to the small sample size, which may have resulted in insufficient power to determine an effect of this magnitude.

In relation to the second IPC outcome, the campaign also had an effect on negotiating condom use[12] with partners amongst all five groups. Amongst males, only higher levels of exposure had an effect (comparisons 3). Amongst both the urban and the rural groups, there was no effect for those with lower levels of recall (comparison 2). Amongst all respondents, higher levels of recall resulted in larger effects. For example, amongst females with higher levels of recall (comparison 3), there was a 19 percentage point increase in this communication, while lower levels of recall (comparison 2) resulted in a 6 percentage point increase.

For the third IPC outcome, the campaign resulted in higher communication with friends about condom use in the six months before the survey amongst all respondents, males, females, and those in urban areas. Since no effect was found amongst those in rural areas, it is likely that the effects found amongst all respondents, males, and females are a result of the effects on those in urban areas. With the exception of men, greater campaign recall produced larger increases in communication with friends about condom use. Higher levels of recall (comparison 3) resulted in a 17 percentage point increase

[12] Negotiating condom use is different from talking about condom use because it implies that partners actually discussed whether or not to use condoms as opposed to only talking about condom use in general.

amongst women communicating with friends about condom use in comparison to the matched no recall group; for females with lower levels of recall (comparison 2), the effect was 7 percentage points.

**Table 4.2.6. *Safe Love* Campaign Effects on Condom Use: IPC Outcomes**

| IPC OUTCOMES | Matched Results: Comparison 1 | | | | Matched Results: Comparison 2 | | | | Matched Results: Comparison 3 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | No recall | Any recall | Net change due to campaign | Number of cases in the match | No recall | Low recall | Net change due to campaign | Number of cases in the match | No recall | High recall | Net change due to campaign | Number of cases in the match |
| **1. Talked about condom use with sexual partner in the last 6 months** | **ALL RESPONDENTS** | | | | | | | | | | | |
| | 43.22 | 56.77 | 13.55* | 2,585 | 41.81 | 52.23 | 10.41* | 2,116 | 43.54 | 64.77 | 21.22* | 1,826 |
| | **FEMALES** | | | | | | | | | | | |
| | 29.40 | 40.23 | 10.83* | 1,011 | 30.89 | 39.46 | 8.57* | 1,080 | 26.00 | 41.03 | 15.02* | 828 |
| | **MALES** | | | | | | | | | | | |
| | 57.37 | 66.67 | 9.30 | 1,022 | 53.22 | 59.48 | 6.26 | 945 | 57.03 | 73.77 | 16.74* | 907 |
| | **URBAN** | | | | | | | | | | | |
| | 46.26 | 59.31 | 13.05* | 1,249 | 47.45 | 53.24 | 5.79 | 897 | 42.71 | 63.39 | 20.68* | 577 |
| | **RURAL** | | | | | | | | | | | |
| | 38.26 | 49.24 | 10.98* | 1,283 | 37.83 | 48.68 | 10.84* | 1,152 | 46.13 | 53.95 | 7.82^^ | 1,039 |
| **2. Negotiated condom use with a partner in the last 6 months** | **ALL RESPONDENTS** | | | | | | | | | | | |
| | 41.38 | 51.99 | 10.61* | 2,585 | 39.81 | 46.20 | 6.40* | 2,116 | 42.29 | 61.60 | 19.31* | 1,826 |
| | **FEMALES** | | | | | | | | | | | |
| | 28.89 | 40.61 | 11.72* | 1,011 | 30.84 | 38.55 | 7.71* | 1,080 | 23.45 | 42.31 | 18.86* | 828 |
| | **MALES** | | | | | | | | | | | |
| | 54.17 | 58.81 | 4.64 | 1,022 | 48.31 | 48.40 | 0.09 | 945 | 51.79 | 67.54 | 15.75* | 907 |
| | **URBAN** | | | | | | | | | | | |
| | 45.21 | 54.85 | 9.63* | 1,249 | 45.48 | 47.92 | 2.43 | 897 | 42.92 | 62.50 | 19.58* | 577 |
| | **RURAL** | | | | | | | | | | | |
| | 33.28 | 42.93 | 9.65* | 1,283 | 33.10 | 41.13 | 8.03 | 1,152 | 38.27 | 50.66 | 12.23* | 1,039 |
| **3. Talked about condom use with friends in the last 6 months** | **ALL RESPONDENTS** | | | | | | | | | | | |
| | 42.32 | 48.41 | 6.08* | 4,086 | 40.30 | 48.21 | 7.91* | 3,238 | 36.71 | 48.97 | 12.26* | 2,590 |
| | **FEMALES** | | | | | | | | | | | |
| | 33.23 | 41.83 | 8.59* | 1,982 | 35.01 | 42.30 | 7.29* | 1,565 | 29.97 | 47.06 | 17.09* | 1,154 |
| | **MALES** | | | | | | | | | | | |
| | 47.14 | 54.39 | 7.25* | 2,094 | 46.16 | 52.45 | 6.29* | 1,528 | 49.88 | 55.68 | 5.80* | 1,511 |
| | **URBAN** | | | | | | | | | | | |
| | 38.24 | 47.44 | 9.20* | 2,211 | 38.40 | 45.82 | 7.42* | 1,512 | 38.31 | 49.07 | 10.76* | 1,445 |
| | **RURAL** | | | | | | | | | | | |
| | 44.67 | 51.63 | 6.96^ | 1,874 | 44.21 | 52.22 | 8.01^ | 1,645 | 45.65 | 50.80 | 5.15 | 1,512 |

*Significant result, p <0.05. Grey areas mean unmatched results did not have a p-value below 0.10, and so PSM was not conducted. Results that do not have an asterisk (*) were not significant below 0.05 after PSM was conducted. ^Inconclusive significant result because other comparisons within the same group were not significant as would be expected if there was a true campaign effect. ^^The lack of a significant result may be due to the smaller sample size, which could have resulted in insufficient power to determine an effect of this magnitude.

### 4.2.1.7 Campaign Effects on Condom Use Intention Outcomes

To determine if the *Safe Love* campaign had an effect on condom use–related intentions, two outcomes were examined: Whether respondents intended to use condoms with regular sexual partners (outcome 1) and with non-regular sexual partners (outcome 2) in the next six months. Table 4.2.7 shows significant effects were found for the intention to use condoms consistently with regular sexual partner(s) amongst only all respondents and those living in urban areas. Amongst the latter, any level of recall to the campaign resulted in an 8 percentage point increase compared to the no recall comparison group. There was also an 8 percentage point difference between those with higher levels of recall and

the matched no recall group, but the small sample size may have resulted in insufficient power to determine a significant effect of this magnitude. Amongst all respondents with higher levels of recall (comparison 3), there was a 9 percentage point increase in the intention to use condoms consistently with regular partner(s). Amongst all respondents with lower levels of recall (comparison 2), the effect was 5 percentage points.

**Table 4.2.7. *Safe Love* Campaign Effects on Condom Use: Intention Outcomes**

| INTENTION OUTCOMES | Matched Results: Comparison 1 | | | | Matched Results: Comparison 2 | | | | Matched Results: Comparison 3 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | No recall | Any recall | Net change due to campaign | Number of cases in the match | No recall | Low recall | Net change due to campaign | Number of cases in the match | No recall | High recall | Net change due to campaign | Number of cases in the match |
| **1. Intended to use condoms consistently with regular sexual partner(s) in the next 6 months** | **ALL RESPONDENTS** | | | | | | | | | | | |
| | 49.26 | 55.31 | 6.05* | 3,180 | 48.48 | 53.54 | 5.06* | 2,534 | 49.07 | 57.74 | 8.67* | 2,151 |
| | **FEMALES** | | | | | | | | | | | |
| | 37.11 | 48.86 | 11.75^ | 1,221 | 39.03 | 50.12 | 11.09^ | 1,253 | 42.86 | 424.94 | 2.08 | 1,073 |
| | **MALES** | | | | | | | | | | | |
| | 55.49 | 60.16 | 4.66 | 1,596 | 53.27 | 53.29 | 0.05 | 1,161 | 58.18 | 67.28 | 9.10 | 1,139 |
| | **URBAN** | | | | | | | | | | | |
| | 47.39 | 55.63 | 8.24* | 1,240 | 49.75 | 55.21 | 5.46 | 1,135 | 51.98 | 60.00 | 8.02^^ | 980 |
| | **RURAL** | | | | | | | | | | | |
| | 47.23 | 51.24 | 4.02 | 1,524 | 46.69 | 48.68 | 1.99 | 1,303 | 48.91 | 56.18 | 7.23 | 1,179 |
| **2. Intended to use condoms consistently with casual sexual partners in the next 6 months** | **ALL RESPONDENTS** | | | | | | | | | | | |
| | 76.01 | 80.27 | 4.25 | 1,900 | 74.23 | 79.57 | 5.35 | 1,507 | 76.23 | 81.94 | 5.71 | 1,211 |
| | **FEMALES** | | | | | | | | | | | |
| | 51.66 | 60.43 | 8.77 | 667 | 51.07 | 57.21 | 6.15 | 542 | 49.73 | 62.22 | 12.50 | 431 |
| | **MALES** | | | | | | | | | | | |
| | 88.93 | 90.77 | 1.84 | 1,171 | 87.77 | 88.53 | 0.76 | 850 | 90.19 | 93.71 | 3.52 | 828 |
| | **URBAN** | | | | | | | | | | | |
| | 70.43 | 78.57 | 8.14 | 934 | 72.37 | 77.78 | 5.41 | 682 | 72.01 | 80.21 | 8.20 | 587 |
| | **RURAL** | | | | | | | | | | | |
| | 78.42 | 81.64 | 3.22 | 852 | 75.88 | 78.38 | 2.50 | 732 | 79.01 | 86.17 | 7.16 | 641 |

*Significant result, p <0.05. Grey areas mean unmatched results did not have a p-value below 0.10, and so PSM was not conducted. Results that do not have an asterisk (*) were not significant below 0.05 after PSM was conducted. ^Inconclusive significant result because other comparisons within the same group were not significant as would be expected if there was a true campaign effect. ^^The lack of a significant result may be due to the smaller sample size, which could have resulted in insufficient power to determine an effect of this magnitude.

## 4.2.2 Campaign Effects on MCP Outcomes

### 4.2.2.1 Campaign Effects on MCP Behaviour Outcomes

To determine if the *Safe Love* campaign had an effect on MCP-related behaviours, four outcomes were examined. Table 4.2.8 shows that none of the matched results were statistically significant. The data did not detect any campaign effects on MCP behaviour outcomes.

**Table 4.2.8. *Safe Love* Campaign Effects on MCP: Behaviour Outcomes**

| BEHAVIOUR OUTCOMES | Matched Results: Comparison 1 | | | | Matched Results: Comparison 2 | | | | Matched Results: Comparison 3 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | No recall | Any recall | Net change due to campaign | Number of cases in the match | No recall | Low recall | Net change due to campaign | Number of cases in the match | No recall | High recall | Net change due to campaign | Number of cases in the match |
| | **ALL RESPONDENTS** | | | | | | | | | | | |
| | 5.55 | 6.58 | 1.03 | 4,082 | 6.24 | 7.79 | 1.55 | 3,084 | | | | |
| | **FEMALES** | | | | | | | | | | | |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **1. Had two or more partners in the past 6 months** | | | | | | | | | | | | |
| | **MALES** | | | | | | | | | | | |
| | | | | | 10.49 | 12.84 | 2.35 | 1,595 | | | | |
| | **URBAN** | | | | | | | | | | | |
| | 4.50 | 6.13 | 1.63 | 2,166 | 4.56 | 6.24 | 1.68 | 1,546 | | | | |
| | **RURAL** | | | | | | | | | | | |
| | 8.60 | 7.79 | -0.81 | 1,897 | 8.88 | 9.36 | 0.48 | 1,584 | | | | |
| **2. Average number of partners in the past 6 months** | **ALL RESPONDENTS** | | | | | | | | | | | |
| | 0.68 | 0.69 | 0.006 | 4,082 | | | | | 0.64 | 0.64 | 0.002 | 2,846 |
| | **FEMALES** | | | | | | | | | | | |
| | 0.62 | 0.63 | 0.008 | 1,950 | 0.66 | 0.67 | 0.005 | 1,580 | 0.52 | 0.55 | 0.03 | 1,405 |
| | **MALES** | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | **URBAN** | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | **RURAL** | | | | | | | | | | | |
| | | | | | 0.84 | 0.83 | -.009 | 1,584 | | | | |
| **3. Concurrency point prevalence at 6 months before the survey** | **ALL RESPONDENTS** | | | | | | | | | | | |
| | | | | | 2.55 | 3.10 | 0.55 | 3,084 | | | | |
| | **FEMALES** | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | **MALES** | | | | | | | | | | | |
| | | | | | 4.59 | 5.74 | 1.15 | 1,595 | | | | |
| | **URBAN** | | | | | | | | | | | |
| | 1.61 | 2.34 | 0.73 | 2,166 | 1.33 | 2.16 | 0.83 | 1,546 | 0.93 | 2.30 | 1.37 | 1,322 |
| | **RURAL** | | | | | | | | | | | |
| | | | | | 4.42 | 4.68 | 0.25 | 1,584 | | | | |
| **4. Concurrency cumulative prevalence in the past 6 months** | **ALL RESPONDENTS** | | | | | | | | | | | |
| | 4.33 | 5.41 | 1.08 | 4,082 | 4.78 | 6.29 | 1.50 | 3,084 | | | | |
| | **FEMALES** | | | | | | | | | | | |
| | | | | | | | | | 0.21 | 1.04 | 0.84 | 1,405 |
| | **MALES** | | | | | | | | | | | |
| | | | | | 8.28 | 10.73 | 2.44 | 1,595 | | | | |
| | **URBAN** | | | | | | | | | | | |
| | 3.32 | 4.89 | 1.57 | 2,166 | 3.28 | 4.68 | 1.40 | 1,546 | 1.61 | 4.76 | 3.15 | 1,322 |
| | **RURAL** | | | | | | | | | | | |
| | | | | | 7.64 | 7.60 | -0.033 | 1,584 | | | | |

Grey areas mean unmatched results did not have a p-value below 0.10, and so PSM was not conducted. Results that do not have an asterisk (*) were not significant below 0.05 after PSM was conducted.\

#### 4.2.2.2 Campaign Effects on MCP Knowledge Outcomes

Table 4.2.9 shows that the *Safe Love* campaign had an effect on all three MCP knowledge outcomes examined. In terms of the first knowledge outcome, whether respondents spontaneously mentioned partner reduction as a protective behaviour against HIV, the campaign had an effect on females and respondents from rural areas with higher levels of recall (comparison 3). Specifically, there was a 19 percentage point increase in this specific knowledge amongst females due to higher levels of recall compared to the matched no recall group. Since no effect was found amongst males, the 10.5 percentage point effect found amongst rural respondents with higher levels of recall are likely due to the effect on the females in the rural areas.

With regard to the second knowledge outcome, the campaign was effective in improving respondents' knowledge of the higher risk of HIV infection from having MCPs; this effect is evident amongst all respondents, females, and those from urban areas. Since no effect was found amongst males, it is likely that the effects found amongst all respondents and those in urban areas are a result of the effects on the females in those groups. In general, across the three groups, any level of recall (comparison 1) or low

levels of recall (comparison 2) had an effect, but higher levels of recall (comparison 3) resulted in greater effects. For example, all of the females exposed to the campaign (comparison 1) or those with low levels of recall (comparison 2) had a 6 percentage point increase in their knowledge compared to the matched no recall groups. However, amongst those females with higher levels of recall (comparison 3), the effect was even greater: a 10 percentage point increase.

For the third knowledge outcome, whether respondents knew that women having sexual relationships with men 10 years or older are at a higher risk of getting infected with HIV, the campaign had an effect on this outcome amongst all respondents, females, and those from urban areas. Since no effect was found amongst males, it is likely that the effects found amongst all respondents and those in urban areas are a result of the effects on the females in those groups. Higher levels of recall (comparison 3), in particular, resulted in the greatest effect. For example, amongst the females, there was a 16 percentage point increase in this knowledge due to high levels of recall compared to a 7 percentage point effect amongst females with low levels of recall.

In general, the effects found on the three knowledge outcomes indicate that the *Safe Love* campaign was particularly effective in improving knowledge amongst females, with higher levels of recall resulting in greater effects.

**Table 4.2.9. *Safe Love* Campaign Effects on MCP: Knowledge Outcomes**

| KNOWLEDGE OUTCOMES | Matched Results: Comparison 1 | | | | Matched Results: Comparison 2 | | | | Matched Results: Comparison 3 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | No recall | Any recall | Net change due to campaign | Number of cases in the match | No recall | Low recall | Net change due to campaign | Number of cases in the match | No recall | High recall | Net change due to campaign | Number of cases in the match |
| **1. Spontaneously mentioned partner reduction as a protective behaviour against HIV** | **ALL RESPONDENTS** | | | | | | | | | | | |
| | | | | | | | | | 33.47 | 38.95 | 5.78 | 2,846 |
| | **FEMALES** | | | | | | | | | | | |
| | | | | | | | | | 19.81 | 38.90 | 19.10* | 1,405 |
| | **MALES** | | | | | | | | | | | |
| | | | | | | | | | 37.10 | 39.88 | 2.78 | 1,422 |
| | **URBAN** | | | | | | | | | | | |
| | | | | | | | | | 30.81 | 39.08 | 8.27 | 1,322 |
| | **RURAL** | | | | | | | | | | | |
| | | | | | | | | | 30.81 | 41.26 | 10.45* | 1,523 |
| **2. Knew that there's a higher risk of HIV infection from having MCPs** | **ALL RESPONDENTS** | | | | | | | | | | | |
| | 88.61 | 93.09 | 4.48* | 4,082 | 88.11 | 92.38 | 4.26* | 3,084 | 87.18 | 93.71 | 6.54* | 2,846 |
| | **FEMALES** | | | | | | | | | | | |
| | 86.10 | 91.92 | 5.82* | 1,950 | 84.90 | 90.86 | 5.96* | 1,580 | 83.44 | 93.73 | 10.29* | 1,405 |
| | **MALES** | | | | | | | | | | | |
| | 91.42 | 93.96 | 2.54 | 2,092 | 90.78 | 93.81 | 3.02 | 1,595 | 90.34 | 94.27 | 3.94 | 1,422 |
| | **URBAN** | | | | | | | | | | | |
| | 86.77 | 92.98 | 6.21* | 2,166 | 87.89 | 92.56 | 4.67* | 1,546 | 84.64 | 93.60 | 8.95* | 1,322 |
| | **RURAL** | | | | | | | | | | | |
| | 89.63 | 92.98 | 3.35 | 1,897 | 87.77 | 91.23 | 3.46 | 1,584 | 90.74 | 94.41 | 3.67 | 1,523 |
| **3. Knew that women having sexual relationships with men 10 years or older are at a higher risk of getting infected with HIV** | **ALL RESPONDENTS** | | | | | | | | | | | |
| | 64.98 | 72.36 | 7.37* | 4,082 | 65.20 | 68.64 | 3.44 | 3,084 | 62.45 | 76.65 | 14.09* | 2,846 |
| | **FEMALES** | | | | | | | | | | | |
| | 63.59 | 72.63 | 9.04* | 1,950 | 61.73 | 69.00 | 7.26* | 1,580 | 62.17 | 78.33 | 16.16* | 1,405 |
| | **MALES** | | | | | | | | | | | |
| | 68.73 | 71.79 | 3.05 | 2,092 | 68.30 | 69.64 | 1.33 | 1,595 | 67.29 | 74.64 | 7.35 | 1,422 |
| | **URBAN** | | | | | | | | | | | |
| | 63.34 | 72.20 | 8.85* | 2,166 | 62.80 | 68.67 | 5.87 | 1,546 | 62.41 | 76.68 | 14.28* | 1,322 |
| | **RURAL** | | | | | | | | | | | |
| | 70.51 | 72.37 | 1.86 | 1,897 | 67.08 | 67.84 | 7.52 | 1,584 | 73.38 | 76.92 | 3.54 | 1,523 |

*Significant result, p <0.05. Grey areas mean unmatched results did not have a p-value below 0.10, and so PSM was not conducted. Results that do not have an asterisk (*) were not significant below 0.05 after PSM was conducted.

#### 4.2.2.3 Campaign Effects on MCP Beliefs/Attitudes Outcomes

Table 4.2.10 shows that the campaign had an effect on four of the five MCP-related beliefs/attitudes outcomes examined. Amongst all respondents and female groups, the campaign was effective in increasing the percentage of respondents disagreeing with the statement "For men, having more than one sexual partner at a time demonstrates he is a real man" (first outcome). Since no effect was found amongst males, it is likely that the effects found amongst all respondents are a result of the effects on the females in that group. In general, the higher the level of recall, the greater was the effect. For example, amongst females with higher levels of recall (comparison 3), there was a 9 percentage point increase in females disagreeing with the attitude statement in comparison to the matched no recall group. For females with lower levels of recall (comparison 2), the effect was 6 percentage points. In terms of the third attitude outcome, the campaign had an effect on whether males disagreed with the statement "It is fine for a woman to have more than one sexual partner at a time." Any level of recall to the campaign (comparison 1) resulted in a 7 percentage point increase in males disagreeing with the statement, and for those with higher levels of recall (comparison 3), there was an 11.5 percentage point effect.

The campaign also resulted with an increase in the percentage of males and rural respondents agreeing with the belief that "I believe having one partner at a time is important" (fourth outcome). Since no effect was found amongst females, it is likely that the effects found in the rural group are a result of the effects on the males in the rural areas. In general, any level of recall (comparison 1), as well as both lower and higher levels of recall (comparisons 2 and 3) had an effect on more males believing that having one partner at a time is important. Higher levels of recall had a greater effect (10 percentage points) compared to those with lower levels of recall (7 percentage points). With regard to the fifth attitude outcome, the campaign also had an effect on males believing that "Having more than one partner puts me at a greater risk of HIV." In addition, the greater the level of recall, the larger was the effect. Specifically, the campaign increased this attitude amongst males by 8 percentage points for those with lower levels of recall (comparison 2) and 14 percentage points for those with higher levels of recall (comparison 3).

In general, the campaign had an effect on changing the attitudes of males in three out of the five attitude outcomes examined. The attitudes of females were changed only for the first attitude outcome. Overall, higher levels of recall to the campaign resulted in greater effects.

**Table 4.2.10. *Safe Love* Campaign Effects on MCP: Beliefs/Attitudes Outcomes**

| BELIEFS/ ATTITUDES OUTCOMES | Matched Results: Comparison 1 | | | | Matched Results: Comparison 2 | | | | Matched Results: Comparison 3 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | No recall | Any recall | Net change due to campaign | Number of cases in the match | No recall | Low recall | Net change due to campaign | Number of cases in the match | No recall | High recall | Net change due to campaign | Number of cases in the match |
| **1. Disagreed with the statement "For men, having more than one sexual** | **ALL RESPONDENTS** | | | | | | | | | | | |
| | 86.30 | 90.17 | 3.87* | 4,082 | 86.31 | 89.64 | 3.33* | 3,084 | 83.51 | 90.57 | 7.06* | 2,846 |
| | **FEMALES** | | | | | | | | | | | |
| | 86.57 | 91.81 | 5.24* | 1,950 | 86.22 | 91.94 | 5.71* | 1,580 | 83.04 | 91.91 | 8.86* | 1,405 |
| | **MALES** | | | | | | | | | | | |
| | 86.75 | 88.70 | 1.95 | 2,092 | 86.44 | 87.92 | 1.47 | 1,595 | 85.81 | 89.37 | 3.56 | 1,422 |
| | **URBAN** | | | | | | | | | | | |
| | 84.47 | 88.99 | 4.52 | 2,166 | 85.19 | 89.20 | 4.01 | 1,546 | | | | |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **partner at a time demonstrates he is a real man"** | **RURAL** | | | | | | | | | | | |
| | 88.99 | 92.37 | 3.38 | 1,897 | 87.16 | 90.64 | 3.48 | 1,584 | 88.53 | 94.06 | 5.52 | 1,523 |
| **2. Strongly disagreed with the statement "It is fine for a man to have more than one sexual partner at a time"** | **ALL RESPONDENTS** | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | **FEMALES** | | | | | | | | | | | |
| | 62.88 | 60.13 | -2.75 | 1,950 | 60.13 | 51.43 | -8.69 | | | | | |
| | **MALES** | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | **URBAN** | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | **RURAL** | | | | | | | | | | | |
| | 59.62 | 61.83 | 2.21 | 1,897 | | | | | 62.94 | 63.99 | 1.04 | 1,523 |
| **3. Strongly disagreed with the statement "It is fine for a woman to have more than one sexual partner at a time"** | **ALL RESPONDENTS** | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | **FEMALES** | | | | | | | | | | | |
| | | | | | 64.78 | 56.99 | -7.79^ | 1,580 | | | | |
| | **MALES** | | | | | | | | | | | |
| | 64.21 | 71.44 | 7.23* | 2,092 | | | | | 62.54 | 74.03 | 11.49* | 1,422 |
| | **URBAN** | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | **RURAL** | | | | | | | | | | | |
| | | | | | | | | | | | | |
| **4. Strongly agreed with the statement "I believe having one partner at a time is important"** | **ALL RESPONDENTS** | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | **FEMALES** | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | **MALES** | | | | | | | | | | | |
| | 52.42 | 62.90 | 10.48* | 2,092 | 55.73 | 62.54 | 6.80* | 1,595 | 53.71 | 63.60 | 9.89* | 1,422 |
| | **URBAN** | | | | | | | | | | | |
| | 50.76 | 56.30 | 5.54 | 2,166 | 52.41 | 57.14 | 4.74 | 1,546 | | | | |
| | **RURAL** | | | | | | | | | | | |
| | 57.13 | 64.89 | 7.75* | 1,897 | | | | | 55.79 | 67.48 | 11.69* | 1,523 |
| **5. Strongly agreed with the statement "Having more than one partner puts me at greater risk for HIV"** | **ALL RESPONDENTS** | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | **FEMALES** | | | | | | | | | | | |
| | 57.25 | 54.53 | -2.73 | 1,950 | 60.00 | 53.41 | -6.60 | 1,580 | | | | |
| | **MALES** | | | | | | | | | | | |
| | 53.99 | 66.70 | 12.71* | 2,092 | 57.60 | 65.86 | 8.26* | 1,595 | 53.76 | 68.10 | 14.33* | 1,422 |
| | **URBAN** | | | | | | | | | | | |
| | | | | | | | | | 54.67 | 60.43 | 5.76 | 1,322 |
| | **RURAL** | | | | | | | | | | | |
| | | | | | | | | | | | | |

*Significant result, p <0.05. Grey areas mean unmatched results did not have a p-value below 0.10, and so PSM was not conducted. Results that do not have an asterisk (*) were not significant below 0.05 after PSM was conducted.
^Inconclusive significant result because other comparisons within the same group were not significant as would be expected if there was a true campaign effect.

### 4.2.2.4 Campaign Effects on MCP Self-Efficacy Outcomes

Table 4.2.11 shows that the campaign had an effect on two of the three self-efficacy outcomes examined. In terms of the first self-efficacy outcome, the campaign had an effect on whether respondents strongly

agreed with the statement "I feel confident in my ability to discuss my sexual needs with my partner" amongst all respondents and those from urban areas, specifically. Since no effect was found in the rural group, it is likely that the effects found in the all respondents group are a result of the effects on the urban group. In general, higher levels of recall resulted in greater effects. For example, for urban respondents, there was an 11 percentage point increase in respondents with lower levels of recall (comparison 2) agreeing with the statement, while for those with higher levels of recall (comparison 3), there was a 20 percentage point effect. For the second self-efficacy outcome, effect was found only amongst all respondents with higher levels of recall (comparison 3): a 7 percentage point increase in respondents strongly agreeing with the statement "I could have only one sexual partner for a long time."

**Table 4.2.11. *Safe Love* Campaign Effects on MCP: Self-Efficacy Outcomes**

| SELF-EFFICACY OUTCOMES | Matched Results: Comparison 1 | | | | Matched Results: Comparison 2 | | | | Matched Results: Comparison 3 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | No recall | Any recall | Net change due to campaign | Number of cases in the match | No recall | Low recall | Net change due to campaign | Number of cases in the match | No recall | High recall | Net change due to campaign | Number of cases in the match |
| **1. Strongly agreed with the statement "I feel confident in my ability to discuss my sexual needs with my partner"** | **ALL RESPONDENTS** | | | | | | | | | | | |
| | 35.05 | 42.30 | 7.24* | 2,931 | 33.97 | 41.14 | 7.17* | 2,266 | 30.73 | 43.63 | 12.90* | 2,131 |
| | **FEMALES** | | | | | | | | | | | |
| | 30.76 | 33.46 | 2.70 | 1,331 | | | | | 22.93 | 36.51 | 13.58 | 1,054 |
| | **MALES** | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | **URBAN** | | | | | | | | | | | |
| | 29.45 | 41.64 | 12.19* | 1,404 | 31.43 | 42.71 | 11.28* | 1,079 | 19.47 | 39.12 | 19.65* | 898 |
| | **RURAL** | | | | | | | | | | | |
| | 47.29 | 44.38 | -2.91 | 1,452 | | | | | 43.91 | 48.43 | 4.53 | 1,159 |
| **2. Strongly agreed with the statement "I could have only one sexual partner for a long time"** | **ALL RESPONDENTS** | | | | | | | | | | | |
| | | | | | | | | | 55.31 | 62.63 | 7.32* | 2,846 |
| | **FEMALES** | | | | | | | | | | | |
| | | | | | | | | | 54.99 | 63.71 | 8.72 | 1,405 |
| | **MALES** | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | **URBAN** | | | | | | | | | | | |
| | | | | | | | | | 57.86 | 62.07 | 4.21 | 1,322 |
| | **RURAL** | | | | | | | | | | | |
| | | | | | | | | | | | | |
| **3. Strongly agreed with the statement "I could talk with my partner about whether he/she has other sexual partners"** | **ALL RESPONDENTS** | | | | | | | | | | | |
| | 43.83 | 42.43 | -1.40 | 2,931 | 39.99 | 40.67 | 0.68 | 2,266 | 44.29 | 45.04 | 0.75 | 2,131 |
| | **FEMALES** | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | **MALES** | | | | | | | | | | | |
| | 38.59 | 42.91 | 4.32 | 1,469 | 64.68 | 70.75 | 6.07 | 1,105 | 38.53 | 45.97 | 7.43 | 995 |
| | **URBAN** | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | **RURAL** | | | | | | | | | | | |
| | 38.52 | 42.64 | 4.12 | 1,452 | | | | | 39.46 | 47.98 | 8.52 | 1,159 |

*Significant result, p <0.05. Grey areas mean unmatched results did not have a p-value below 0.10, and so PSM was not conducted. Results that do not have an asterisk (*) were not significant below 0.05 after PSM was conducted.

### 4.2.2.5 Campaign Effects on MCP Social Norms Outcomes

Of the five outcomes of MCP social norms examined, four qualified for PSM (that is, four outcomes had unmatched results with a p-value below 0.10). Table 4.2.12 shows that the campaign had an effect on only one outcome, whether respondents agreed with the statement "In my community, most women I know only have sex with one partner" (third outcome in the table). As a result of higher levels of campaign recall, there was an 8 percentage point decrease in males agreeing with this statement.

**Table 4.2.12. *Safe Love* Campaign Effects on MCP: Social Norms Outcomes**

| SOCIAL NORMS OUTCOMES | Matched Results: Comparison 1 | | | | Matched Results: Comparison 2 | | | | Matched Results: Comparison 3 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | No recall | Any recall | Net change due to campaign | Number of cases in the match | No recall | Low recall | Net change due to campaign | Number of cases in the match | No recall | High recall | Net change due to campaign | Number of cases in the match |
| **1. Disagreed with the statement "In my community, it is acceptable for men to have more than one sexual partner at a time"** | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| **ALL RESPONDENTS** | | | | | 78.97 | 83.97 | 5.00^ | 3,084 | | | | |
| **FEMALES** | | | | | | | | | 80.88 | 82.77 | 1.88 | 1,405 |
| **MALES** | 74.18 | 81.28 | 7.10^ | 2,092 | 75.86 | 83.08 | 7.22* | 1,595 | | | | |
| **URBAN** | 76.41 | 81.00 | 4.60 | 2,166 | 76.09 | 81.75 | 5.66^ | 1,546 | | | | |
| **RURAL** | | | | | | | | | | | | |
| **2. Agreed with the statement "In my community, most men I know only have sex with one partner"** | | | | | | | | | | | | |
| **ALL RESPONDENTS** | 18.27 | 18.81 | 0.53 | 4,082 | | | | | 17.35 | 16.39 | -0.96 | 2,846 |
| **FEMALES** | 21.20 | 22.63 | 1.43 | 1,950 | | | | | 19.17 | 19.84 | 0.68 | 1,405 |
| **MALES** | 18.41 | 16.05 | -2.36 | 2,092 | | | | | 16.76 | 12.07 | 4.70 | 1,422 |
| **URBAN** | | | | | | | | | 13.32 | 15.76 | 2.45 | 1,322 |
| **RURAL** | | | | | | | | | | | | |
| **3. Agreed with the statement "In my community, most women I know only have sex with one partner"** | | | | | | | | | | | | |
| **ALL RESPONDENTS** | 24.08 | 22.90 | -1.19 | 4,082 | 25.47 | 24.62 | -0.85 | 3,084 | 22.96 | 21.32 | -1.63 | 2,846 |
| **FEMALES** | 28.99 | 29.42 | 0.43 | 1,950 | | | | | 29.80 | 26.89 | -2.90 | 1,405 |
| **MALES** | 21.24 | 17.95 | -3.29 | 2,092 | | | | | 22.19 | 14.52 | -7.67* | 1,422 |
| **URBAN** | | | | | | | | | 22.00 | 19.70 | -2.29 | 1,322 |
| **RURAL** | 29.35 | 26.11 | 3.24 | 1,897 | | | | | 27.98 | 24.48 | -3.50 | 1,523 |
| **4. Agreed with the statement "In my community, people believe that having multiple** | | | | | | | | | | | | |
| **ALL RESPONDENTS** | | | | | 83.96 | 87.95 | 3.40* | 3,084 | | | | |
| **FEMALES** | | | | | | | | | | | | |
| **MALES** | 80.80 | 86.19 | 5.40^ | 2,092 | 83.15 | 87.76 | 4.62^ | 1,595 | | | | |
| **URBAN** | 80.10 | 86.17 | 6.07^ | 2,166 | 80.29 | 85.83 | 5.54^ | 1,546 | 82.77 | 86.70 | 3.93 | 1,322 |
| **RURAL** | | | | | | | | | | | | |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **partners increases their risk of HIV"** | | | | | | | | | | | | |

*Significant result, p <0.05. Grey areas mean unmatched results did not have a p-value below 0.10, and so PSM was not conducted. Results that do not have an asterisk (*) were not significant below 0.05 after PSM was conducted.
^Inconclusive significant result because other comparisons within the same group were not significant as would be expected if there was a true campaign effect.

#### 4.2.2.6 Campaign Effects on MCP IPC Outcomes

Results on MCP IPC indicate that the *Safe Love* campaign had an effect on all three IPC outcomes (Table 4.2.13). The campaign has increased partner communication on the importance of faithfulness amongst males and rural groups (first outcome). Since no effect was found amongst females, it is likely that the effect found in the rural group is a result of the effects on the males in the rural group. The level of recall was particularly important in changing this communication, since lower levels of recall (comparison 2) did not have an effect while higher levels of recall (comparison 3) resulted in a 14 percentage point increase amongst males. In rural areas, only the higher levels of recall (comparison 3) had an effect: 12 percentage point increase.

The campaign was also effective in increasing partner communication on the increased risk of HIV transmission due to MCP (second outcome), which was observed amongst all respondents, males, and those in urban and rural areas. Since no effect was found amongst females, it is likely that the effects found amongst the all respondents, urban, and rural groups are a result of the effects on the males in those groups. In general, the higher the level of recall, the greater was the effect. For example, amongst males with higher levels of recall (comparison 3), there was a 16 percentage point increase in this communication in comparison to the matched no recall group. For males with lower levels of recall (comparison 2), the effect was 11 percentage points.

For the third IPC outcome, the campaign resulted in higher communication with friends about MCPs increasing the risk of HIV transmission amongst all respondents, males, and those in urban and rural areas. Since no effect was found amongst females, it is likely that the effects found amongst the all respondents, urban, and rural groups are a result of the effects on the males in those groups. In general, the higher the level of recall, the greater was the effect. For example, amongst males with higher levels of recall (comparison 3), there was a 17 percentage point increase in this communication in comparison to the matched no recall group. For males with lower levels of recall (comparison 2), the effect was 13.5 percentage points.

In general, the effects found on the three IPC outcomes indicate that the *Safe Love* campaign was particularly effective in increasing IPC amongst men, with higher levels of recall resulting in greater effects.

**Table 4.2.13. *Safe Love* Campaign Effects on MCP: IPC Outcomes**

| IPC OUTCOMES | Matched Results: Comparison 1 | | | | Matched Results: Comparison 2 | | | | Matched Results: Comparison 3 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | No recall | Any recall | Net change due to campaign | Number of cases in the match | No recall | Low recall | Net change due to campaign | Number of cases in the match | No recall | High recall | Net change due to campaign | Number of cases in the match |
| **1. Talked with partner** | **ALL RESPONDENTS** | | | | | | | | | | | |
| | 69.32 | 73.71 | 4.39 | 2,931 | 68.13 | 72.06 | 3.93 | 2,266 | 69.10 | 76.06 | 6.97 | 2,131 |
| | **FEMALES** | | | | | | | | | | | |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **about being faithful in the last 6 months** | | | | | | | | | | | | |
| | **MALES** | | | | | | | | | | | |
| | 64.30 | 73.76 | 9.46* | 1,469 | 64.68 | 70.75 | 6.07 | 1,105 | 64.33 | 78.23 | 13.89* | 995 |
| | **URBAN** | | | | | | | | | | | |
| | 68.65 | 73.11 | 4.47 | 1,404 | | | | | 63.88 | 75.31 | 11.42^^ | 898 |
| | **RURAL** | | | | | | | | | | | |
| | 67.58 | 74.42 | 6.84 | 1,452 | | | | | 69.59 | 81.61 | 12.02* | 1,159 |
| **2. Talked with partner about MCPs increasing the risk of HIV transmission in the last 6 months** | **ALL RESPONDENTS** | | | | | | | | | | | |
| | 67.01 | 74.30 | 7.29* | 2,931 | 67.21 | 72.89 | 5.68* | 2,266 | 62.87 | 76.06 | 13.19* | 2,131 |
| | **FEMALES** | | | | | | | | | | | |
| | 70.95 | 73.91 | 2.97 | 1,331 | 71.53 | 73.22 | 1.69 | 1,222 | 75.29 | 74.21 | -1.08 | 1,054 |
| | **MALES** | | | | | | | | | | | |
| | 61.89 | 74.82 | 12.94* | 1,469 | 62.96 | 73.65 | 10.69* | 1,105 | 60.51 | 76.88 | 16.37* | 995 |
| | **URBAN** | | | | | | | | | | | |
| | 64.46 | 74.10 | 9.64* | 1,404 | 63.70 | 75.08 | 11.38* | 1,079 | 62.58 | 73.84 | 11.26^^ | 898 |
| | **RURAL** | | | | | | | | | | | |
| | 67.32 | 74.03 | 6.71 | 1,452 | | | | | 71.72 | 82.06 | 10.34* | 1,159 |
| **3. Discussed with friends about MCPs increasing the risk of HIV transmission in the last 6 months** | **ALL RESPONDENTS** | | | | | | | | | | | |
| | 53.81 | 65.21 | 11.40* | 4,082 | 53.12 | 63.06 | 9.95* | 3,084 | 50.15 | 67.68 | 17.52* | 2,846 |
| | **FEMALES** | | | | | | | | | | | |
| | 55.59 | 61.53 | 5.94 | 1,950 | 56.75 | 59.50 | 2.75 | 1,580 | 53.39 | 63.97 | 10.57 | 1,405 |
| | **MALES** | | | | | | | | | | | |
| | 52.00 | 68.25 | 16.25* | 2,092 | 52.80 | 66.31 | 13.51* | 1,595 | 53.43 | 70.55 | 17.12* | 1,422 |
| | **URBAN** | | | | | | | | | | | |
| | 50.03 | 62.77 | 12.74* | 2,166 | 50.00 | 62.79 | 12.81* | 1,546 | 51.02 | 63.22 | 12.20* | 1,322 |
| | **RURAL** | | | | | | | | | | | |
| | 60.86 | 69.77 | 8.92* | 1,897 | 58.94 | 65.79 | 6.85* | 1,584 | 60.86 | 73.08 | 12.22* | 1,523 |

*Significant result, p <0.05. Grey areas mean unmatched results did not have a p-value below 0.10, and so PSM was not conducted. Results that do not have an asterisk (*) were not significant below 0.05 after PSM was conducted. ^^The lack of a significant result may be due to the smaller sample size, which could have resulted in insufficient power to determine an effect of this magnitude.

#### 4.2.2.7 Campaign Effects on MCP Intention Outcomes

The MCP intention outcome, whether respondents intended to have none or one sexual partner in the next 6 months, was not significantly different at the 0.1 level in the unmatched comparisons with the three recall comparison groups. Therefore, further matching analysis was not conducted.

### 4.2.3 Campaign Effects on HIV Testing Outcomes

#### 4.2.3.1 Campaign Effects on HIV Testing Behaviour Outcomes

To determine if the *Safe Love* campaign had an effect on HIV testing–related behaviour outcomes, four behaviour outcomes were examined, but only two qualified for PSM (that is, two of the outcomes had unmatched results with a p-value below 0.10; these were whether females who had been pregnant or had a baby in the six months before the survey had been tested for HIV and received the results, and whether their partner had been tested and received the results). Table 4.2.14 shows that, while the campaign did not show significant effect on respondents' HIV testing behaviour, it had an effect on their partners' uptake of HIV testing within the past six months. Higher levels of recall (comparison 3) resulted in a 22.5 percentage point increase in partner HIV testing, in the rural areas.

**Table 4.2.14. *Safe Love* Campaign Effects on HIV Testing: Behaviour Outcomes**

| BEHAVIOUR OUTCOMES | Matched Results: Comparison 1 | | | | Matched Results: Comparison 2 | | | | Matched Results: Comparison 3 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | No recall | Any recall | Net change due to campaign | Number of cases in the match | No recall | Low recall | Net change due to campaign | Number of cases in the match | No recall | High recall | Net change due to campaign | Number of cases in the match |
| **1. Got tested for HIV and received result in the past 6 months** | **ALL RESPONDENTS** | | | | | | | | | | | |
| | 45.25 | 46.36 | 1.11 | 4,095 | 43.76 | 45.15 | 1.40 | 3,260 | 45.84 | 47.94 | 2.10 | 2,884 |
| | **FEMALES** | | | | | | | | | | | |
| | 50.63 | 51.75 | 1.12 | 1,967 | 51.65 | 50.87 | 0.78 | 1,539 | 46.70 | 51.62 | 4.91 | 1,456 |
| | **MALES** | | | | | | | | | | | |
| | 38.17 | 41.36 | 3.19 | 2,097 | 37.66 | 40.97 | 3.31 | 1,568 | 41.23 | 41.94 | 0.71 | 1,524 |
| | **URBAN** | | | | | | | | | | | |
| | 43.63 | 44.23 | 0.60 | 2,197 | | | | | 43.09 | 45.75 | 2.66 | 1,439 |
| | **RURAL** | | | | | | | | | | | |
| | 47.79 | 51.03 | 3.24 | 1,894 | 45.27 | 47.49 | 2.22 | 1,644 | 51.42 | 56.22 | 4.81 | 1,514 |
| **2. Partner got tested and received result within the past 6 months** | **ALL RESPONDENTS** | | | | | | | | | | | |
| | 56.87 | 61.2 | 4.33 | 2,989 | 54.13 | 58.18 | 4.05 | 2,388 | 58.64 | 65.51 | 6.87 | 2,092 |
| | **FEMALES** | | | | | | | | | | | |
| | 55.70 | 61.79 | 6.09 | 1,473 | 55.68 | 59.69 | 4.01 | 1,188 | 56.78 | 65.31 | 8.53 | 1,123 |
| | **MALES** | | | | | | | | | | | |
| | 55.98 | 60.08 | 4.09 | 1,480 | 55.03 | 57.93 | 2.90 | 1,102 | 59.22 | 61.71 | 2.49 | 1,036 |
| | **URBAN** | | | | | | | | | | | |
| | 57.76 | 60.50 | 2.74 | 1,533 | 56.76 | 58.76 | 1.99 | 1,064 | 59.49 | 63.15 | 3.66 | 997 |
| | **RURAL** | | | | | | | | | | | |
| | 59.27 | 62.45 | 3.18 | 1,452 | 58.51 | 57.14 | -1.36 | 1,262 | 49.53 | 71.98 | 22.45* | 1,132 |

*Significant result, p <0.05. Grey areas mean unmatched results did not have a p-value below 0.10, and so PSM was not conducted. Results that do not have an asterisk (*) were not significant below 0.05 after PSM was conducted.

### 4.2.3.2 Campaign Effects on HIV Testing Knowledge Outcomes

To establish the effect of the *Safe Love* campaign on HIV testing–related knowledge, two knowledge outcomes were examined. Table 4.2.15 shows that the campaign was effective in improving knowledge of mother-to-child-transmission (MTCT) preventative drugs amongst all five groups. In addition, the results show that higher levels of campaign recall (comparison 3) had a greater effect on the respondents' knowledge. For example, for both males and females, there was a 15 percentage point increase in the respondents knowing that there are drugs to prevent MTCT, compared to an 8 percentage point effect amongst those with lower levels of recall (comparison 2). However, no significant effect was found on participants' knowledge of where to get HIV testing.

**Table 4.2.15. *Safe Love* Campaign Effects on HIV Testing: Knowledge Outcomes**

| KNOWLEDGE OUTCOMES | Matched Results: Comparison 1 | | | | Matched Results: Comparison 2 | | | | Matched Results: Comparison 3 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | No recall | Any recall | Net change due to campaign | Number of cases in the match | No recall | Low recall | Net change due to campaign | Number of cases in the match | No recall | High recall | Net change due to campaign | Number of cases in the match |
| **1. Knew where to get tested for HIV** | **ALL RESPONDENTS** | | | | | | | | | | | |
| | 96.67 | 98.16 | 1.49 | 4,095 | 96.24 | 97.72 | 1.48 | 3,260 | 97.53 | 98.82 | 1.30 | 2,884 |
| | **FEMALES** | | | | | | | | | | | |
| | 96.70 | 98.52 | 1.81 | 1,967 | 96.20 | 98.45 | 1.30 | 1,539 | 97.30 | 98.61 | 1.31 | 1,456 |
| | **MALES** | | | | | | | | | | | |
| | 96.27 | 97.89 | 1.62 | 2,097 | 96.03 | 96.78 | 0.75 | 1,568 | 96.36 | 99.03 | 2.67 | 1,524 |
| | **URBAN** | | | | | | | | | | | |
| | 96.58 | 98.25 | 1.67 | 2,197 | 95.98 | 97.91 | 1.92 | 1,532 | 97.56 | 98.66 | 1.10 | 1,439 |
| | **RURAL** | | | | | | | | | | | |
| | 96.54 | 97.93 | 1.39 | 1,894 | 96.61 | 97.10 | 0.48 | 1,644 | 96.95 | 99.20 | 2.25 | 1,514 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **2. Knew that there are drugs to prevent MTCT** | **ALL RESPONDENTS** | | | | | | | | | | | |
| | 57.35 | 67.84 | 10.50* | 4,095 | 55.33 | 63.08 | 7.76* | 3,260 | 60.37 | 75.21 | 14.84* | 2,884 |
| | **FEMALES** | | | | | | | | | | | |
| | 66.54 | 76.67 | 10.13* | 1,967 | 66.44 | 74.56 | 8.12* | 1,539 | 64.61 | 79.40 | 14.78* | 1,456 |
| | **MALES** | | | | | | | | | | | |
| | 47.70 | 59.83 | 12.13* | 2,097 | 45.73 | 53.85 | 8.11* | 1,568 | 50.34 | 65.24 | 14.91* | 1,524 |
| | **URBAN** | | | | | | | | | | | |
| | 58.86 | 69.28 | 10.42* | 2,197 | 57.17 | 64.53 | 7.35* | 1,532 | 59.48 | 75.41 | 15.93* | 1,439 |
| | **RURAL** | | | | | | | | | | | |
| | 56.64 | 64.39 | 7.75* | 1,894 | 53.20 | 58.58 | 5.38 | 1,644 | 60.82 | 73.09 | 12.27* | 1,514 |

*Significant result, p <0.05. Grey areas mean unmatched results did not have a p-value below 0.10, and so PSM was not conducted. Results that do not have an asterisk (*) were not significant below 0.05 after PSM was conducted.

#### 4.2.3.3 Campaign Effects on HIV Testing Beliefs/Attitudes Outcomes

Table 4.2.16 shows that the *Safe Love* campaign had an effect on three of the six beliefs/attitudes outcomes examined. There was no effect on whether respondents agreed with the following statements: "Women who are pregnant should get tested for HIV"; "Knowing your HIV status is important"; and "Knowing your partner's HIV status is important." However, for the first attitude outcome (agreement with the statement "I do not need to know the HIV status of a sexual partner before engaging in a sexual relationship with him/her"), there was an effect amongst females and those living in urban areas. Since no effect was found amongst males, it is likely that the effects found amongst urban respondents are a result of the effects on the females in that group. Amongst females, greater levels of campaign recall produced bigger effects: Those with lower levels of recall showed a 7 percentage point increase, while those with higher levels of recall showed an 11 percentage point increase compared to the matched no recall groups. Amongst those living in urban areas, the effects were similar between the lower and higher levels of recall groups.

For the fifth attitude outcome, the campaign had an effect on agreement with the statement "Couples should be tested for HIV together before having sexual intercourse" only amongst females with any level of recall (9 percentage point increase) or lower levels of recall (8 percentage point increase). Although there was a 9 percentage point increase amongst females with higher levels of recall, the results may not have been significant due to the small sample size.

For the last attitude outcome, the campaign had an effect on agreement with the statement "If I were HIV positive, there would still be hope for my future" amongst all groups except males. The greatest effects were found in rural areas, where there was an overall increase of 10 percentage points in this attitude due to the campaign. For the other groups, the effects ranged between 7 and 9 percentage points.

**Table 4.2.16. *Safe Love* Campaign Effects on HIV Testing: Beliefs/Attitudes Outcomes**

| BELIEFS/ ATTITUDES OUTCOMES | Matched Results: Comparison 1 | | | | Matched Results: Comparison 2 | | | | Matched Results: Comparison 3 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | No recall | Any recall | Net change due to campaign | Number of cases in the match | No recall | Low recall | Net change due to campaign | Number of cases in the match | No recall | High recall | Net change due to campaign | Number of cases in the match |
| **1. Disagreed with the statement "I do not need to know the HIV status of** | **ALL RESPONDENTS** | | | | | | | | | | | |
| | 79.34 | 83.95 | 4.61^ | 4,095 | 78.35 | 84.03 | 5.68^ | 3,260 | 78.16 | 83.90 | 5.74 | 2,884 |
| | **FEMALES** | | | | | | | | | | | |
| | 75.86 | 83.46 | 7.59* | 1,967 | 75.23 | 81.94 | 6.72* | 1,539 | 74.28 | 85.19 | 10.90* | 1,456 |
| | **MALES** | | | | | | | | | | | |
| | 80.45 | 84.38 | 3.92 | 2,097 | 79.81 | 84.97 | 5.16^ | 1,568 | 81.96 | 83.88 | 1.93 | 1,524 |
| | **URBAN** | | | | | | | | | | | |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **a sexual partner before engaging in a sexual relationship with him/her"** | 78.32 | 84.60 | 6.28* | 2,197 | 77.33 | 84.95 | 7.62* | 1,532 | 77.12 | 84.35 | 7.23* | 1,439 |
| | **RURAL** | | | | | | | | | | | |
| | 80.08 | 82.67 | 2.59 | 1,894 | 79.26 | 81.79 | 2.54 | 1,646 | 79.64 | 83.53 | 3.89 | 1,514 |
| **2. Strongly agreed with the statement "Women who are pregnant should get tested for HIV"** | **ALL RESPONDENTS** | | | | | | | | | | | |
| | | | | | 51.01 | 56.07 | 5.06^ | 3,260 | | | | |
| | **FEMALES** | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | **MALES** | | | | | | | | | | | |
| | 52.70 | 59.38 | 6.67^ | 2,097 | 54.16 | 60.64 | 6.48^ | 1,568 | 54.03 | 58.83 | 4.80 | 1,524 |
| | **URBAN** | | | | | | | | | | | |
| | | | | | 49.67 | 53.40 | 3.73 | 1,532 | | | | |
| | **RURAL** | | | | | | | | | | | |
| | 58.31 | 60.25 | 1.94 | 1,894 | 56.48 | 60.16 | 3.68 | 1,644 | | | | |
| **3. Strongly agreed with the statement "Knowing your HIV status is important"** | **ALL RESPONDENTS** | | | | | | | | | | | |
| | 59.45 | 63.72 | 4.27 | 4,095 | 59.50 | 64.06 | 4.56^ | 3,260 | 59.37 | 63.10 | 3.73 | 2,884 |
| | **FEMALES** | | | | | | | | | | | |
| | | | | | | | | | 57.45 | 62.96 | 5.51 | 1,456 |
| | **MALES** | | | | | | | | | | | |
| | 62.49 | 66.08 | 3.59 | 2,097 | 63.92 | 67.62 | 3.70 | 1,568 | | | | |
| | **URBAN** | | | | | | | | | | | |
| | 55.40 | 62.56 | 7.16^ | 2,197 | 54.77 | 62.83 | 8.06^ | 1,532 | 55.82 | 62.15 | 6.33 | 1,439 |
| | **RURAL** | | | | | | | | | | | |
| | | | | | | | | | | | | |
| **4. Strongly agreed with the statement "Knowing your partner's HIV status is important"** | **ALL RESPONDENTS** | | | | | | | | | | | |
| | 55.93 | 60.18 | 4.33 | 4,095 | 56.22 | 60.39 | 4.17 | 3,260 | 55.75 | 60.05 | 4.30 | 2,884 |
| | **FEMALES** | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | **MALES** | | | | | | | | | | | |
| | 57.85 | 64.98 | 7.13^ | 2,097 | 58.23 | 66.01 | 7.78^ | 1,568 | 62.58 | 63.88 | 1.31 | 1,524 |
| | **URBAN** | | | | | | | | | | | |
| | 53.39 | 59.13 | 5.74 | 2,197 | 53.10 | 58.77 | 5.67 | 1,532 | 53.83 | 59.17 | 5.44 | 1,439 |
| | **RURAL** | | | | | | | | | | | |
| | 62.42 | 62.96 | 0.53 | 1,894 | | | | | | | | |
| **5. Strongly agreed with the statement "Couples should be tested for HIV together before having sexual intercourse"** | **ALL RESPONDENTS** | | | | | | | | | | | |
| | 41.28 | 48.69 | 7.41^ | 4,095 | 42.25 | 49.31 | 7.05^ | 3,260 | 41.48 | 47.47 | 5.99 | 2,884 |
| | **FEMALES** | | | | | | | | | | | |
| | 37.67 | 46.45 | 8.78* | 1,967 | 38.04 | 46.21 | 8.17* | 1,539 | 38.14 | 47.22 | 9.09^^ | 1,456 |
| | **MALES** | | | | | | | | | | | |
| | 46.35 | 50.00 | 3.65 | 2,097 | 46.03 | 51.52 | 5.49 | 1,568 | 47.35 | 48.93 | 1.58 | 1,524 |
| | **URBAN** | | | | | | | | | | | |
| | 38.72 | 48.22 | 9.50^ | 2,197 | 38.86 | 49.87 | 11.01^ | 1,532 | 39.15 | 46.20 | 7.05 | 1,439 |
| | **RURAL** | | | | | | | | | | | |
| | 50.68 | 49.44 | -1.24 | 1,894 | 48.09 | 48.02 | -0.06 | 1,644 | 53.13 | 51.41 | -1.72 | 1,514 |
| **6. Agreed with the statement "If I were HIV positive, there would still be hope for my future"** | **ALL RESPONDENTS** | | | | | | | | | | | |
| | 74.35 | 81.91 | 7.57* | 4,095 | 71.65 | 80.68 | 9.03* | 3,260 | 74.81 | 84.25 | 9.44* | 2,884 |
| | **FEMALES** | | | | | | | | | | | |
| | 77.15 | 84.85 | 7.69* | 1,967 | 75.33 | 83.11 | 7.78* | 1,539 | 79.76 | 86.81 | 7.46^^ | 1,456 |
| | **MALES** | | | | | | | | | | | |
| | 71.01 | 79.32 | 8.31^ | 2,097 | 69.77 | 79.43 | 9.66^ | 1,568 | 72.05 | 79.03 | 6.97 | 1,524 |
| | **URBAN** | | | | | | | | | | | |
| | 75.65 | 82.51 | 6.87* | 2,197 | 74.88 | 81.54 | 6.66* | 1,532 | 76.52 | 83.76 | 7.24^^ | 1,439 |
| | **RURAL** | | | | | | | | | | | |
| | 70.52 | 80.60 | 10.08* | 1,894 | 68.60 | 78.10 | 9.50* | 1,644 | 72.90 | 84.34 | 11.43* | 1,514 |

*Significant result, p <0.05. Grey areas mean unmatched results did not have a p-value below 0.10, and so PSM was not conducted. Results that do not have an asterisk (*) were not significant below 0.05 after PSM was conducted. ^Inconclusive significant result because other comparisons within the same group were not significant as would be expected if there was a true campaign effect. ^^The lack of a significant result may be due to the smaller sample size, which could have resulted in insufficient power to determine an effect of this magnitude.

### 4.2.3.4 Campaign Effects on HIV Testing Self-Efficacy Outcomes

To assess if the *Safe Love* campaign had an effect on HIV testing–related self-efficacy, two outcomes were examined. Table 4.2.17 shows that none of the matched results were statistically significant. The data did not detect campaign effect on HIV testing self-efficacy outcomes.

**Table 4.2.17. *Safe Love* Campaign Effects on HIV Testing: Self-Efficacy Outcomes**

| SELF-EFFICACY OUTCOMES | Matched Results: Comparison 1 | | | | Matched Results: Comparison 2 | | | | Matched Results: Comparison 3 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | No recall | Any recall | Net change due to campaign | Number of cases in the match | No recall | Low recall | Net change due to campaign | Number of cases in the match | No recall | High recall | Net change due to campaign | Number of cases in the match |
| **1. Strongly agreed with the statement "I could talk with my partner about getting an HIV test if I wanted to"** | **ALL RESPONDENTS** | | | | | | | | | | | |
| | 49.52 | 48.87 | -0.66 | 2,989 | 49.09 | 48.61 | -0.48 | 2,388 | 46.60 | 49.59 | 2.99 | 2,092 |
| | **FEMALES** | | | | | | | | | | | |
| | 38.49 | 45.67 | 7.18 | 1,473 | | | | | 37.56 | 47.50 | 9.94 | 1,123 |
| | **MALES** | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | **URBAN** | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | **RURAL** | | | | | | | | | | | |
| | 53.50 | 52.21 | -1.29 | 1,452 | | | | | 54.09 | 57.69 | 3.60 | 1,132 |
| **2. Strongly agreed with the statement "I could get an HIV test if I wanted to"** | **ALL RESPONDENTS** | | | | | | | | | | | |
| | 54.77 | 57.81 | 3.03 | 4,095 | 55.54 | 58.19 | 2.65 | 3,260 | | | | |
| | **FEMALES** | | | | | | | | | | | |
| | | | | | | | | | 56.93 | 62.04 | 5.11 | 1,456 |
| | **MALES** | | | | | | | | | | | |
| | 55.00 | 57.81 | 2.81 | 2,097 | 55.87 | 61.36 | 5.49 | 1,568 | | | | |
| | **URBAN** | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | **RURAL** | | | | | | | | | | | |
| | 62.72 | 62.96 | 0.23 | 1,894 | 59.79 | 61.48 | 1.69 | 1,644 | 65.06 | 64.66 | -0.40 | 1,514 |

Grey areas mean unmatched results did not have a p-value below 0.10, and so PSM was not conducted. Results that do not have an asterisk (*) were not significant below 0.05 after PSM was conducted.

### 4.2.3.5 Campaign Effects on HIV Testing Social Norms Outcomes

Five social norms outcomes were examined, but one did not qualify for PSM (whether respondents disagreed with the statement "In my community, most couples keep their HIV status a secret from one another"). Table 4.2.18 shows that out of four outcomes that were analysed further with PSM, the campaign had an effect on two—but only amongst those living in rural areas. There was a 10 percentage point decrease in disagreement with the statement "People in my community fear getting tested for HIV" (social norm outcome 1) amongst those with higher levels of recall living in rural areas compared to the matched no recall group (comparison 3). For the last social norm outcome, there was a

10 percentage point decrease in agreement with the statement "In my community, most people who have sexual intercourse get tested for HIV" compared to the matched no recall group, regardless of recall level.

**Table 4.2.18. *Safe Love* Campaign Effects on HIV Testing: Social Norms Outcomes**

| SOCIAL NORMS OUTCOMES | Matched Results: Comparison 1 | | | | Matched Results: Comparison 2 | | | | Matched Results: Comparison 3 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | No recall | Any recall | Net change due to campaign | Number of cases in the match | No recall | Low recall | Net change due to campaign | Number of cases in the match | No recall | High recall | Net change due to campaign | Number of cases in the match |
| **1. Disagreed with the statement "People in my community fear getting tested for HIV"** | **ALL RESPONDENTS** | | | | | | | | | | | |
| | 18.30 | 17.07 | -1.23 | 4,095 | | | | | 18.18 | 15.86 | -2.32 | 2,884 |
| | **FEMALES** | | | | | | | | | | | |
| | | | | | | | | | 19.76 | 17.59 | -2.17 | 1,456 |
| | **MALES** | | | | | | | | | | | |
| | | | | | | | | | 17.51 | 14.17 | -3.33 | 1,524 |
| | **URBAN** | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | **RURAL** | | | | | | | | | | | |
| | 23.75 | 17.49 | -6.26* | 1,894 | | | | | 24.51 | 14.46 | -10.05* | 1,514 |
| **2. Disagreed with statement "Women who are pregnant fear going to antenatal care because they will find out their HIV status"** | **ALL RESPONDENTS** | | | | | | | | | | | |
| | | | | | | | | | 38.80 | 37.49 | -1.32 | 2,884 |
| | **FEMALES** | | | | | | | | | | | |
| | | | | | | | | | 44.67 | 36.57 | -8.09 | 1,456 |
| | **MALES** | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | **URBAN** | | | | | | | | | | | |
| | | | | | 38.58 | 42.15 | 3.57 | 1,532 | | | | |
| | **RURAL** | | | | | | | | | | | |
| | 42.93 | 37.04 | -5.89 | 1,894 | 42.91 | 36.41 | -6.49 | 1,644 | 41.60 | 37.75 | 3.85 | 1,514 |
| **3. Agreed with the statement "People in my community believe it is important to get an HIV test to know your HIV status"** | **ALL RESPONDENTS** | | | | | | | | | | | |
| | | | | | | | | | 70.37 | 68.98 | -1.39 | 2,884 |
| | **FEMALES** | | | | | | | | | | | |
| | 76.48 | 74.87 | -1.61 | 1,967 | | | | | 77.50 | 71.76 | -5.74 | 1,456 |
| | **MALES** | | | | | | | | | | | |
| | | | | | 69.23 | 77.10 | 7.88^ | 1,568 | | | | |
| | **URBAN** | | | | | | | | | | | |
| | | | | | 45.00 | 49.74 | 4.74 | 1,532 | | | | |
| | **RURAL** | | | | | | | | | | | |
| | | | | | | | | | | | | |
| **4. Agreed with the statement "In my community, most people who have sexual intercourse get tested for HIV"** | **ALL RESPONDENTS** | | | | | | | | | | | |
| | 24.46 | 22.07 | -2.40 | 4,095 | | | | | 23.11 | 18.57 | -4.54 | 2,884 |
| | **FEMALES** | | | | | | | | | | | |
| | 30.68 | 28.95 | -1.73 | 1,967 | | | | | 28.37 | 25.0 | -3.37 | 1,468 |
| | **MALES** | | | | | | | | | | | |
| | 17.07 | 16.64 | -0.43 | 2,097 | | | | | 16.88 | 14.17 | -2.71 | 1,524 |
| | **URBAN** | | | | | | | | | | | |
| | | | | | | | | | 21.72 | 24.87 | 3.15 | 1,532 |
| | **RURAL** | | | | | | | | | | | |
| | 31.85 | 22.42 | -9.43* | 1,894 | 32.10 | 22.43 | -9.67* | 1,644 | 32.31 | 22.49 | -9.82* | 1,514 |

*Significant result, p <0.05. Grey areas mean unmatched results did not have a p-value below 0.10, and so PSM was not conducted. Results that do not have an asterisk (*) were not significant below 0.05 after PSM was conducted.

### 4.2.3.6 Campaign Effects on HIV Testing IPC Outcomes

Table 4.2.19 shows that the campaign had an effect on all three IPC outcomes examined—but only amongst those living in rural areas who had higher levels of recall. Thus recall level was particularly important in changing this type of communication, since lower levels of recall (comparison 2) did not have an effect. Higher levels of recall amongst those living in rural areas resulted in a 22 percentage point increase in both talking to partners about getting tested for HIV and knowing their partner's HIV status and a 16 percentage point increase in disclosing their HIV status to their partner compared to the matched no recall groups.

**Table 4.2.19. *Safe Love* Campaign Effects on HIV Testing: IPC Outcomes**

| IPC OUTCOMES | Matched Results: Comparison 1 | | | | Matched Results: Comparison 2 | | | | Matched Results: Comparison 3 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | No recall | Any recall | Net change due to campaign | Number of cases in the match | No recall | Low recall | Net change due to campaign | Number of cases in the match | No recall | High recall | Net change due to campaign | Number of cases in the match |
| 1. Talked with partner about getting tested for HIV in the last 6 months | ALL RESPONDENTS | | | | | | | | | | | |
| | 66.17 | 64.87 | -1.31 | 2,989 | 61.64 | 63.74 | 2.09 | 2,388 | 70.39 | 66.50 | -3.89 | 2,092 |
| | FEMALES | | | | | | | | | | | |
| | 71.27 | 67.16 | -4.11 | 1,473 | 63.34 | 67.44 | 4.11 | 1,188 | 70.81 | 67.50 | -3.31 | 1,123 |
| | MALES | | | | | | | | | | | |
| | 63.10 | 62.47 | -0.64 | 1,480 | 59.63 | 60.58 | 0.94 | 1,102 | 66.44 | 64.29 | -2.15 | 1,036 |
| | URBAN | | | | | | | | | | | |
| | 67.60 | 65.20 | -2.40 | 1,533 | 64.32 | 65.16 | 0.84 | 1,064 | 69.65 | 65.95 | -3.70 | 1,013 |
| | RURAL | | | | | | | | | | | |
| | 61.81 | 64.06 | 2.25 | 1,452 | 60.71 | 59.42 | -1.29 | 1,262 | 50.12 | 71.98 | 21.86* | 1,132 |
| 2. Knew their partner's HIV status | ALL RESPONDENTS | | | | | | | | | | | |
| | 55.56 | 58.93 | 3.38 | 2,989 | 52.66 | 55.62 | 2.96 | 2,388 | 57.80 | 63.35 | 5.55 | 2,092 |
| | FEMALES | | | | | | | | | | | |
| | 53.70 | 59.70 | 6.00 | 1,473 | 53.83 | 57.62 | 3.79 | 1,188 | 55.58 | 63.13 | 7.55 | 1,123 |
| | MALES | | | | | | | | | | | |
| | 55.22 | 57.56 | 2.24 | 1,480 | 53.98 | 54.81 | 0.83 | 1,102 | 58.64 | 60.00 | 1.36 | 1,036 |
| | URBAN | | | | | | | | | | | |
| | 56.77 | 58.20 | 1.42 | 1,533 | 55.52 | 56.31 | 0.79 | 1,064 | 58.68 | 60.99 | 2.32 | 1,013 |
| | RURAL | | | | | | | | | | | |
| | 58.08 | 60.04 | 1.96 | 1,452 | | | | | 48.51 | 70.33 | 21.82* | 1,132 |
| 3. Disclosed HIV status to partner | ALL RESPONDENTS | | | | | | | | | | | |
| | 60.83 | 65.07 | 4.24 | 2,989 | 57.30 | 62.74 | 5.44 | 2,388 | 62.30 | 68.33 | 6.02 | 2,092 |
| | FEMALES | | | | | | | | | | | |
| | 67.66 | 74.78 | 7.12 | 1,473 | 53.83 | 57.62 | 3.79 | 1,188 | 65.40 | 75.94 | 10.54 | 1,123 |
| | MALES | | | | | | | | | | | |
| | 54.06 | 56.42 | 2.36 | 1,480 | 53.03 | 55.05 | 2.01 | 1,102 | 57.53 | 56.57 | -0.96 | 1,036 |
| | URBAN | | | | | | | | | | | |
| | 61.48 | 64.30 | 2.82 | 1,533 | 60.01 | 62.71 | 2.70 | 1,064 | 64.38 | 66.81 | 2.43 | 1,013 |
| | RURAL | | | | | | | | | | | |
| | 63.47 | 66.47 | 3.00 | 1,452 | | | | | 58.92 | 75.27 | 16.36* | 1,132 |

*Significant result, p <0.05. Grey areas mean unmatched results did not have a p-value below 0.10, and so PSM was not conducted. Results that do not have an asterisk (*) were not significant below 0.05 after PSM was conducted.

### 4.2.3.7 Campaign Effects on HIV Testing Intention Outcomes

To establish if the *Safe Love* campaign had an effect on HIV testing–related intention, one outcome was examined amongst two samples: intention to have an HIV test in the next six months amongst the full sample and amongst respondents who had not been tested in the previous six months. Table 4.2.20 shows that none of the matched results were statistically significant for the full sample, but that

amongst those from rural areas who had not been tested in the previous six months, there was a 9.8 percentage point increase in their intention to get tested in the next six months due to the campaign. Lower and higher levels of recall were not significant, possibly due to the smaller sample sizes to detect an effect.

**Table 4.2.20. *Safe Love* Campaign Effects on HIV Testing: Intention Outcomes**

| INTENTION OUTCOME | Matched Results: Comparison 1 | | | | Matched Results: Comparison 2 | | | | Matched Results: Comparison 3 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | No recall | Any recall | Net change due to campaign | Number of cases in the match | No recall | Low recall | Net change due to campaign | Number of cases in the match | No recall | High recall | Net change due to campaign | Number of cases in the match |
| **1. Intended to get an HIV test in the next 6 months (full sample)** | **ALL RESPONDENTS** | | | | | | | | | | | |
| | 71.25 | 74.68 | 3.43 | 4,095 | 75.63 | 72.35 | 3.28 | 3,260 | 72.88 | 73.33 | 0.45 | 2,884 |
| | **FEMALES** | | | | | | | | | | | |
| | 76.71 | 81.23 | 4.52 | 1,967 | 76.18 | 81.36 | 5.18 | 1,539 | 76.84 | 81.48 | 4.64 | 1,456 |
| | **MALES** | | | | | | | | | | | |
| | 67.38 | 68.93 | 1.55 | 2,097 | 67.56 | 71.74 | 4.18 | 1,568 | | | | |
| | **URBAN** | | | | | | | | | | | |
| | 69.47 | 71.31 | 1.84 | 2,197 | | | | | 71.34 | 71.98 | 0.64 | 1,439 |
| | **RURAL** | | | | | | | | | | | |
| | 77.71 | 81.88 | 4.16 | 1,894 | 77.32 | 82.59 | 5.27 | 1,644 | 79.05 | 81.12 | 2.08 | 1,514 |
| **2. Intended to get an HIV test in the next 6 months (not tested in the past 6 months)** | **ALL RESPONDENTS** | | | | | | | | | | | |
| | 61.96 | 64.98 | 3.02 | 2,310 | 61.16 | 66.57 | 5.41 | 1,915 | 62.11 | 62.72 | 0.61 | 1,642 |
| | **FEMALES** | | | | | | | | | | | |
| | 69.64 | 72.02 | 2.37 | 998 | 69.24 | 72.29 | 3.05 | 809 | 69.29 | 71.13 | 1.84 | 659 |
| | **MALES** | | | | | | | | | | | |
| | 56.74 | 60.54 | 3.80 | 1,314 | 59.71 | 65.05 | 5.33 | 1,012 | | | | |
| | **URBAN** | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | **RURAL** | | | | | | | | | | | |
| | 63.61 | 73.43 | 9.83* | 1,059 | 66.53 | 75.28 | 8.75 | 966 | 61.18 | 75.56 | 14.37^^ | 828 |

*Significant result, p <0.05. Grey areas mean unmatched results did not have a p-value below 0.10, and so PSM was not conducted. Results that do not have an asterisk (*) were not significant below 0.05 after PSM was conducted. ^^The lack of a significant result may be due to the smaller sample size, which could have resulted in insufficient power to determine an effect of this magnitude.

### 4.2.4 Campaign Effects on VMMC Outcomes

The VMMC components of the *Safe Love* campaign followed the Stages of Change theory (Prochaska & DiClemente, 1992). As a result, the VMMC outcomes were grouped by the five stages of the theory (pre-contemplation, contemplation, preparation, action, and maintenance) as opposed to the order of the intermediate factors presented for the other three campaign topics (knowledge, beliefs/attitudes, self-efficacy, social norms, IPC, and intentions). However, due to the particular importance of behaviour outcomes (and to be consistent in following the order of other campaign topics where the effects on the behaviour outcomes were presented first), the results regarding the VMMC behaviour outcomes will also be presented first. The intermediate outcomes will then follow, which are presented according to the five stages of the theory.

#### 4.2.4.1 Campaign Effects on VMMC Behaviour Outcomes

To determine if the *Safe Love* campaign had an effect on VMMC-related behaviours, four behaviour outcomes were examined. Two of them fell under the action stage of the theory: Whether males had been circumcised in the last six months by a health professional, and whether males had been circumcised in the last six months to prevent HIV. The other two behaviour outcomes fell under the

maintenance stage of the theory: Whether males who were circumcised in the last six months had abstained from sex after undergoing circumcision for at least six weeks, and whether they had used a condom at first sex after undergoing male circumcision in the past six months. Only the first behaviour outcome (whether circumcised by a health professional in the last six months) qualified for PSM; all the unmatched results of the other three outcomes did not have a p-value below 0.10. In addition, the two behaviour outcomes that fell under the maintenance stage also did not have a large enough number of respondents for further analyses, irrespective of their p-value results, since only 70 males reported being circumcised in the six months before the survey.

Table 4.2.21 shows that for the first behaviour outcome of whether males were circumcised by a health professional in the last six months, none of the matched results were statistically significant. The data did not detect an effect on VMMC behaviour outcomes. However, this could be due to the insufficient sample sizes to examine all outcomes and the lack of statistical power to detect effects for a behaviour with such low prevalence.

**Table 4.2.21. *Safe Love* Campaign Effects on VMMC: Behaviour Outcome**

| BEHAVIOUR OUTCOME | Matched Results: Comparison 1 | | | | Matched Results: Comparison 2 | | | | Matched Results: Comparison 3 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | No recall | Any recall | Net change due to campaign | Number of cases in the match | No recall | Low recall | Net change due to campaign | Number of cases in the match | No recall | High recall | Net change due to campaign | Number of cases in the match |
| **1. Was circumcised in the last 6 months by a health professional** | **MALES** | | | | | | | | | | | |
| | 4.09 | 4.78 | 0.69 | 1,581 | | | | | 3.99 | 6.99 | 3.00 | 1,159 |
| | **URBAN MALES** | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | **RURAL MALES** | | | | | | | | | | | |
| | | | | | | | | | 2.96 | 4.69 | 1.73 | 667 |

Grey areas mean unmatched results did not have a p-value below 0.10, and so PSM was not conducted. Results that do not have an asterisk (*) were not significant below 0.05 after PSM was conducted.

### 4.2.4.2 Campaign Effects on VMMC Pre-Contemplation Outcomes

Table 4.2.22 shows that the campaign had an effect on all three pre-contemplation outcomes examined. In terms of the first pre-contemplation outcome, the campaign had an effect on knowledge of male circumcision amongst all respondents, females, and those living in both urban and rural areas. Since no effect was found amongst males, it is likely that the effect found amongst all respondents and amongst the urban and rural groups is a result of the effects on the females in those groups. Recall level was particularly important amongst those living in urban areas, since lower levels of recall (comparison 2) did not have an effect while higher levels of recall (comparison 3) resulted in a 7 percentage point increase. In rural areas, both lower and higher levels of recall yielded a 7 percentage point increase. Meanwhile, amongst all respondents and females, the higher the level of recall, the greater was the effect. For the females, for example, there was a 10 percentage point increase in this knowledge for those with higher levels of recall (comparison 3) compared to a 5 percentage point increase amongst those with lower levels of recall (comparison 1).

For the second pre-contemplation indicator, the campaign had an effect on knowledge of the benefits of male circumcision amongst all groups regardless of recall level. Higher levels of recall resulted in greater effects amongst all respondents and those living in rural areas. For example, amongst all respondents with lower levels of recall to the campaign, there was an 8 percentage point increase

compared to the matched no recall group (comparison 2), while there was a 10 percentage point increase amongst those with higher levels of campaign recall (comparison 3).

For the last pre-contemplation indicator, the campaign had an effect on knowledge that male circumcision reduces the risk of HIV amongst all groups. In general, the greater the level of recall, the greater the effect was. Recall level was particularly important amongst females and those living in urban areas, since lower levels of recall (comparison 2) did not have an effect, while higher levels of recall (comparison 3) resulted in percentage point increases of 11 and 12, respectively. At lower levels of recall, the 4 percentage point increase amongst all respondents is likely due to effects on males living in rural areas. However, at higher levels of recall, both living environments and both sexes contributed to the 13 percentage point increase amongst all respondents.

**Table 4.2.22. *Safe Love* Campaign Effects on VMMC: Pre-Contemplation Outcomes**

| PRE-CONTEMPLATION OUTCOMES | Matched Results: Comparison 1 | | | | Matched Results: Comparison 2 | | | | Matched Results: Comparison 3 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | No recall | Any recall | Net change due to campaign | Number of cases in the match | No recall | Low recall | Net change due to campaign | Number of cases in the match | No recall | High recall | Net change due to campaign | Number of cases in the match |
| **1. Knew what male circumcision is** | **ALL RESPONDENTS** | | | | | | | | | | | |
| | 84.07 | 89.04 | 4.97* | 4,112 | 83.81 | 87.95 | 4.14* | 3,683 | 84.95 | 91.61 | 6.66* | 3,108 |
| | **FEMALES** | | | | | | | | | | | |
| | 78.55 | 83.89 | 5.33* | 2,005 | 76.71 | 81.89 | 5.18* | 1,806 | 78.64 | 88.38 | 9.74* | 1,601 |
| | **MALES** | | | | | | | | | | | |
| | 88.33 | 92.86 | 4.52^ | 2,102 | 87.37 | 92.29 | 4.93^ | 1,873 | 90.46 | 94.30 | 3.84 | 1,504 |
| | **URBAN** | | | | | | | | | | | |
| | 85.94 | 88.82 | 2.88 | 2,215 | 85.00 | 86.86 | 1.86 | 1,912 | 86.10 | 92.71 | 6.61* | 1,597 |
| | **RURAL** | | | | | | | | | | | |
| | 82.35 | 89.48 | 7.13* | 1,899 | 81.01 | 87.93 | 6.92* | 1,608 | 83.67 | 90.72 | 7.05* | 1,659 |
| **2. Knew the benefits of male circumcision** | **ALL RESPONDENTS** | | | | | | | | | | | |
| | 84.04 | 92.95 | 8.91* | 4,112 | 83.23 | 91.63 | 8.40* | 3,683 | 86.38 | 96.04 | 9.66* | 3,108 |
| | **FEMALES** | | | | | | | | | | | |
| | 85.40 | 92.52 | 7.13* | 2,005 | 83.15 | 91.32 | 8.17* | 1,806 | 86.65 | 95.45 | 8.80* | 1,601 |
| | **MALES** | | | | | | | | | | | |
| | 83.62 | 93.22 | 9.60* | 2,102 | 82.13 | 91.96 | 9.83* | 1,873 | 87.27 | 96.49 | 9.22* | 1,504 |
| | **URBAN** | | | | | | | | | | | |
| | 88.80 | 93.86 | 5.06* | 2,215 | 87.54 | 92.12 | 4.58* | 1,912 | 89.90 | 97.35 | 7.45* | 1,597 |
| | **RURAL** | | | | | | | | | | | |
| | 77.60 | 91.40 | 13.80* | 1,899 | 74.51 | 87.93 | 13.42* | 1,608 | 78.65 | 94.16 | 15.51* | 1,659 |
| **3. Knew that male circumcision reduces the risk of HIV** | **ALL RESPONDENTS** | | | | | | | | | | | |
| | 66.87 | 73.55 | 6.68* | 4,112 | 66.33 | 70.02 | 3.69* | 3,683 | 68.42 | 81.59 | 13.17* | 3,108 |
| | **FEMALES** | | | | | | | | | | | |
| | 71.24 | 73.92 | 2.68 | 2,005 | | | | | 73.74 | 84.85 | 11.11* | 1,601 |
| | **MALES** | | | | | | | | | | | |
| | 62.65 | 73.49 | 10.84* | 2,102 | 61.66 | 71.19 | 9.53* | 1,873 | 65.47 | 79.39 | 13.92* | 1,504 |
| | **URBAN** | | | | | | | | | | | |
| | 71.45 | 74.67 | 3.21 | 2,215 | | | | | 71.24 | 82.78 | 11.54* | 1,597 |
| | **RURAL** | | | | | | | | | | | |
| | 61.86 | 71.51 | 9.65* | 1,899 | 56.95 | 66.38 | 9.42* | 1,608 | 63.30 | 75.60 | 12.30* | 1,659 |

*Significant result, p <0.05. Grey areas mean unmatched results did not have a p-value below 0.10, and so PSM was not conducted. Results that do not have an asterisk (*) were not significant below 0.05 after PSM was conducted.
^Inconclusive significant result because other comparisons within the same group were not significant as would be expected if there was a true campaign effect.

#### 4.2.4.3 Campaign Effects on VMMC Contemplation Outcomes

Table 4.2.23 shows that the campaign had an effect on all 12 contemplation outcomes examined, across multiple groups. In terms of the first contemplation outcome, whether respondents knew where to get circumcised, the campaign had an effect on all groups. The largest net change due to the campaign was seen in the rural group, with all recall levels resulting in an effect between 12 and 13 percentage points compared to the matched no recall groups. Amongst those living in urban areas, the effect was only amongst those with higher levels of recall (5.5 percentage points).

For the second contemplation outcome, whether males had considered getting circumcised, the campaign had an effect on both urban and rural male respondents. Specifically, there were a 19 percentage point increase amongst males due to higher levels of recall (comparison 3) and a 15 percentage point increase amongst males due to lower levels of recall (comparison 2). The greatest effect was amongst rural males with higher levels of recall: 22 percentage points.

With regard to the third contemplation outcome, the campaign was effective in increasing knowledge that a man should wait at least six weeks to have sexual intercourse after being circumcised amongst all groups. Significant campaign effects were observed amongst all respondents and males irrespective of recall levels, with higher recall resulting in greater effects. For females and respondents from urban areas, only those with higher levels of recall (comparison 3) experienced an effect, resulting in a percentage point increase of 12.5 and 10, respectively. Respondents from rural areas with higher levels of recall experienced the greatest effect: a 20 percentage point change.

For the fourth contemplation outcome, whether respondents believed that circumcision was a simple procedure, the campaign had an effect on all groups regardless of recall level. The largest effects were observed amongst males; the campaign resulted in an 11 percentage point increase compared to the matched no recall groups across all recall levels.

With regard to the fifth contemplation outcome, the campaign had an effect on whether respondents disagreed with the belief that "Being circumcised reduces a man's sexual pleasure" amongst all groups except for females. In general, across all respondents, males, and those living in urban areas, any level of recall (comparison 1) or low levels of recall (comparison 2) had an effect, but higher levels of recall (comparison 3) resulted in greater effect. For example, amongst men, any recall (comparison 1) and lower levels of recall (comparison 2) resulted in a 14 and 13 percentage point increase, respectively, in the belief compared to the matched no recall groups. However, amongst those males with higher levels of recall (comparison 3), the effect was even greater: a 17.5 percentage point increase. Since no effect was found amongst females, the effects found amongst all respondents as well as those in urban and rural areas are likely due to the effect on the males.

For the sixth contemplation outcome, the campaign had an effect on whether respondents believed that getting circumcised at a health facility is safer than by a traditional circumciser amongst all groups except for those living in urban areas. Amongst all respondents and females, the effects were similar across the three comparisons, while amongst males and in rural areas, the effect was slightly lower amongst those with higher levels of recall than amongst those with lower levels of recall. For example, amongst males, the effect due to higher levels of recall was 5 percentage points, and the effect due to lower levels of recall was 9 percentage points, when compared to the matched no recall groups.

With regard to the seventh contemplation outcome, amongst all respondents, males, and those from rural areas, the campaign was effective in increasing the belief that circumcision helps people reduce

their risk of HIV risk regardless of the recall level. Amongst women and in urban areas, higher levels of recall produced similar results. Since no effect was found amongst females and those from urban areas due to lower levels of recall, it is likely that the effects found amongst all respondents are a result of the effects on the males from rural areas at lower levels of recall. In general, the higher the level of recall, the greater the effect was across all groups. For example, while there was no effect amongst females due to lower levels of recall, the effect due to higher levels of recall was 9 percentage points.

For the eighth contemplation outcome, whether respondents disagreed with the belief that "A circumcised man does not need to use condoms," the campaign had an effect on this outcome amongst all groups across all three comparisons except for amongst those from rural areas with lower levels of recall. In all five groups, higher levels of recall (comparison 3) resulted in the greatest effect. For example, amongst all respondents, there was a 13 percentage point increase in this belief due to higher levels of recall compared to a 9 percentage point effect amongst all respondents with lower levels of recall.

With regard to the ninth contemplation outcome, the campaign had an effect on whether respondents disagreed with the statement "Men in my community prefer to get circumcised from a traditional circumciser" amongst all respondents, females, and those from urban areas. Amongst females, higher levels of recall (comparison 3) was particularly effective (9 percentage points), since lower levels of recall (comparison 2) did not result in a significant effect. Amongst all respondents and those from urban areas, the effects ranged between 5 and 7 percentage points, irrespective of recall level.

For the 10th contemplation outcome, whether respondents agreed with the statement "People in my community believe it is beneficial for a man to get circumcised," the campaign had an effect on this outcome amongst all groups except for males. The effects were seen across all three comparisons in each of the four groups, but higher levels of recall resulted in greater effects amongst females only (12 percentage points compared to 6 percentage points amongst those with lower levels of recall).

With regard to the 11th contemplation outcome, the campaign had an effect on whether respondents agreed with the statement "people in my community believe that it is safe to get circumcised at a health facility" amongst all groups across all comparisons except for females (no effect was found for those with lower levels of recall). Amongst all respondents, for example, the campaign increased the perceived social norm between 9 and 11 percentage points across the different recall levels.

For the last contemplation outcome, whether respondents agreed with the statement "Women in my community prefer a partner who is circumcised," the campaign had an effect on this outcome amongst all respondents, males, and those from both areas of residence. In urban areas, however, there was no effect amongst those with lower levels of recall (comparison 1). Higher levels of recall resulted in greater effects amongst males (16 percentage points) compared to those with lower levels of recall (7 percentage points). In rural areas, the overall effect of the campaign was between 11 and 12 percentage points, irrespective of recall level.

**Table 4.2.23. *Safe Love* Campaign Effects on VMMC: Contemplation Outcomes**

| CONTEMPLATION OUTCOMES | Matched Results: Comparison 1 | | | | Matched Results: Comparison 2 | | | | Matched Results: Comparison 3 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | No recall | Any recall | Net change due to campaign | Number of cases in the match | No recall | Low recall | Net change due to campaign | Number of cases in the match | No recall | High recall | Net change due to campaign | Number of cases in the match |
| | ALL RESPONDENTS | | | | | | | | | | | |
| | 84.29 | 91.00 | 6.71* | 4,112 | 83.42 | 89.44 | 6.02* | 3,683 | 86.41 | 94.64 | 8.23* | 3,108 |
| | FEMALES | | | | | | | | | | | |
| | 87.22 | 94.35 | 7.13* | 2,005 | 85.95 | 92.56 | 6.60* | 1,806 | 89.75 | 97.98 | 8.23* | 1,601 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **1. Knew where to get circumcised** | **MALES** | | | | | | | | | | | |
| | 81.59 | 88.62 | 7.03* | 2,102 | 80.28 | 87.27 | 6.99* | 1,873 | 84.38 | 91.67 | 7.28* | 1,504 |
| | **URBAN** | | | | | | | | | | | |
| | 88.84 | 91.34 | 2.49 | 2,215 | 87.39 | 89.33 | 1.94 | 1,912 | 89.91 | 95.36 | 5.46* | 1,597 |
| | **RURAL** | | | | | | | | | | | |
| | 77.20 | 90.44 | 13.24* | 1,899 | 76.49 | 89.22 | 12.73* | 1,608 | 79.46 | 91.41 | 11.95* | 1,659 |
| **2. Considered getting circumcised** | **MALES** | | | | | | | | | | | |
| | 45.47 | 60.97 | 15.49* | 1,516 | 43.88 | 58.58 | 14.69* | 1,386 | 48.92 | 67.94 | 19.02* | 1,109 |
| | **URBAN MALES** | | | | | | | | | | | |
| | 50.81 | 63.61 | 12.80* | 753 | 49.76 | 62.83 | 13.07 | 674 | 51.46 | 67.47 | 16.01* | 500 |
| | **RURAL MALES** | | | | | | | | | | | |
| | 37.67 | 57.14 | 19.47* | 761 | 34.82 | 53.59 | 18.77* | 711 | 46.32 | 68.08 | 21.76* | 567 |
| **3. Knew that a man should wait at least six weeks to have sexual intercourse again after being circumcised** | **ALL RESPONDENTS** | | | | | | | | | | | |
| | 39.65 | 47.03 | 7.38* | 4,112 | 38.17 | 42.83 | 4.66* | 3,683 | 42.77 | 56.64 | 13.88* | 3,108 |
| | **FEMALES** | | | | | | | | | | | |
| | 32.77 | 35.88 | 3.11 | 2,005 | 30.14 | 31.51 | 1.37 | 1,806 | 33.44 | 45.96 | 12.52* | 1,601 |
| | **MALES** | | | | | | | | | | | |
| | 44.85 | 54.84 | 9.99* | 2,102 | 42.61 | 50.59 | 7.98* | 1,873 | 49.20 | 66.23 | 17.03* | 1,504 |
| | **URBAN** | | | | | | | | | | | |
| | 46.31 | 49.67 | 3.36 | 2,215 | 44.18 | 45.81 | 1.63 | 1,912 | 47.56 | 57.62 | 10.06* | 1,597 |
| | **RURAL** | | | | | | | | | | | |
| | 29.24 | 42.45 | 13.21* | 1,899 | 29.47 | 34.05 | 4.58 | 1,608 | 29.35 | 49.14 | 19.79* | 1,659 |
| **4. Agreed with the statement "I believe circumcision is a simple procedure"** | **ALL RESPONDENTS** | | | | | | | | | | | |
| | 60.27 | 69.64 | 9.37* | 4,112 | 59.88 | 69.32 | 9.44* | 3,683 | 61.20 | 70.16 | 8.96* | 3,108 |
| | **FEMALES** | | | | | | | | | | | |
| | 67.07 | 76.08 | 9.01* | 2,005 | 66.56 | 76.43 | 9.87* | 1,806 | 67.57 | 75.25 | 7.68* | 1,601 |
| | **MALES** | | | | | | | | | | | |
| | 53.99 | 64.77 | 10.78* | 2,102 | 53.03 | 64.15 | 11.12* | 1,873 | 56.08 | 66.67 | 10.59* | 1,504 |
| | **URBAN** | | | | | | | | | | | |
| | 63.89 | 71.60 | 7.71* | 2,215 | 63.07 | 70.93 | 7.86* | 1,912 | 64.25 | 72.85 | 8.60* | 1,597 |
| | **RURAL** | | | | | | | | | | | |
| | 56.18 | 65.96 | 9.78* | 1,899 | 55.16 | 66.38 | 11.22* | 1,608 | 56.93 | 65.64 | 8.71* | 1,659 |
| **5. Disagreed with the statement "Being circumcised reduces a man's sexual pleasure"** | **ALL RESPONDENTS** | | | | | | | | | | | |
| | 47.38 | 58.97 | 11.58* | 4,112 | 47.11 | 57.17 | 10.06* | 3,683 | 49.00 | 63.40 | 14.40* | 3,108 |
| | **FEMALES** | | | | | | | | | | | |
| | 46.69 | 55.15 | 8.46^ | 2,005 | 44.56 | 54.59 | 10.03^ | 1,806 | 49.43 | 56.56 | 7.13 | 1,601 |
| | **MALES** | | | | | | | | | | | |
| | 47.63 | 61.62 | 13.99* | 2,102 | 46.34 | 58.96 | 12.62* | 1,873 | 50.91 | 68.42 | 17.51* | 1,504 |
| | **URBAN** | | | | | | | | | | | |
| | 49.56 | 58.44 | 8.88* | 2,215 | 47.95 | 55.83 | 7.88* | 1,912 | 50.46 | 63.57 | 13.11* | 1,597 |
| | **RURAL** | | | | | | | | | | | |
| | 45.45 | 60.04 | 14.58* | 1,899 | 42.37 | 58.62 | 16.25* | 1,608 | 46.52 | 61.17 | 14.65* | 1,659 |
| **6. Agreed with the statement "It is safer for a man to get circumcised at a health facility than by a traditional circumciser"** | **ALL RESPONDENTS** | | | | | | | | | | | |
| | 86.91 | 93.93 | 7.02* | 4,112 | 86.52 | 93.73 | 7.21* | 3,683 | 88.22 | 94.41 | 6.19* | 3,108 |
| | **FEMALES** | | | | | | | | | | | |
| | 89.09 | 94.52 | 5.43* | 2,005 | 87.95 | 94.04 | 6.09* | 1,806 | 89.76 | 95.96 | 6.20* | 1,601 |
| | **MALES** | | | | | | | | | | | |
| | 85.40 | 93.46 | 8.06* | 2,102 | 84.34 | 93.63 | 9.29* | 1,873 | 87.81 | 92.98 | 5.17* | 1,504 |
| | **URBAN** | | | | | | | | | | | |
| | 90.61 | 94.08 | 3.47^ | 2,215 | 89.66 | 93.76 | 4.10^ | 1,912 | 91.40 | 94.70 | 3.30 | 1,597 |
| | **RURAL** | | | | | | | | | | | |
| | 81.56 | 93.69 | 12.13* | 1,899 | 81.06 | 93.53 | 12.47* | 1,608 | 82.65 | 93.81 | 11.16* | 1,659 |
| **7. Agreed with the statement "Circumcision helps people** | **ALL RESPONDENTS** | | | | | | | | | | | |
| | 67.94 | 74.46 | 6.51* | 4,112 | 67.41 | 72.41 | 5.00* | 3,638 | 69.00 | 79.25 | 10.25* | 3,108 |
| | **FEMALES** | | | | | | | | | | | |
| | 73.26 | 76.08 | 2.82 | 2,005 | 70.89 | 72.70 | 1.81 | 1,806 | 74.07 | 83.33 | 9.26* | 1,601 |
| | **MALES** | | | | | | | | | | | |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **reduce their risk of HIV"** | 63.31 | 73.49 | 10.18* | 2,102 | 62.56 | 72.53 | 9.97* | 1,873 | 65.90 | 75.88 | 11.43* | 1,504 |
| | **URBAN** | | | | | | | | | | | |
| | 72.77 | 76.54 | 3.76 | 2,215 | 71.78 | 75.04 | 3.26 | 1,912 | 72.51 | 79.47 | 6.96* | 1,597 |
| | **RURAL** | | | | | | | | | | | |
| | 61.73 | 70.75 | 9.01* | 1,899 | 58.74 | 66.81 | 8.07* | 1,608 | 62.67 | 73.88 | 11.22* | 1,659 |
| **8. Disagreed with the statement "A circumcised man does not need to use condoms"** | **ALL RESPONDENTS** | | | | | | | | | | | |
| | 68.69 | 78.92 | 10.23* | 4,112 | 67.94 | 76.99 | 9.05* | 3,638 | 70.75 | 83.45 | 12.70* | 3,108 |
| | **FEMALES** | | | | | | | | | | | |
| | 60.75 | 71.10 | 10.35* | 2,005 | 59.77 | 69.23 | 9.46* | 1,806 | 63.43 | 75.76 | 12.33* | 1,601 |
| | **MALES** | | | | | | | | | | | |
| | 74.00 | 84.62 | 10.62* | 2,102 | 72.18 | 82.58 | 10.40* | 1,873 | 78.49 | 89.91 | 11.43* | 1,504 |
| | **URBAN** | | | | | | | | | | | |
| | 72.59 | 82.02 | 9.43* | 2,215 | 71.66 | 79.97 | 8.31* | 1,912 | 73.38 | 86.42 | 13.04* | 1,597 |
| | **RURAL** | | | | | | | | | | | |
| | 63.55 | 73.61 | 10.06* | 1,899 | 61.14 | 67.67 | 6.53 | 1,608 | 66.23 | 78.35 | 12.12* | 1,659 |
| **9. Disagreed with the statement "Men in my community prefer to get circumcised from a traditional circumciser"** | **ALL RESPONDENTS** | | | | | | | | | | | |
| | 75.26 | 82.41 | 7.15* | 4,112 | 75.27 | 82.37 | 7.10* | 3,638 | 76.01 | 82.51 | 6.50* | 3,108 |
| | **FEMALES** | | | | | | | | | | | |
| | 74.77 | 79.73 | 4.96* | 2,005 | 73.17 | 77.67 | 4.49 | 1,806 | 73.85 | 82.83 | 8.98* | 1,601 |
| | **MALES** | | | | | | | | | | | |
| | 75.18 | 84.50 | 9.32^ | 2,102 | 74.26 | 85.43 | 11.17^ | 1,873 | 77.34 | 82.02 | 4.67 | 1,504 |
| | **URBAN** | | | | | | | | | | | |
| | 76.59 | 82.02 | 5.43* | 2,215 | 75.73 | 81.44 | 5.71* | 1,912 | 76.69 | 83.11 | 6.42* | 1,597 |
| | **RURAL** | | | | | | | | | | | |
| | 76.05 | 83.17 | 7.16^ | 1,899 | 74.80 | 84.91 | 10.11^ | 1,608 | 76.31 | 81.79 | 5.47 | 1,659 |
| **10. Agreed with the statement "People in my community believe it is beneficial for a man to get circumcised"** | **ALL RESPONDENTS** | | | | | | | | | | | |
| | 74.47 | 82.97 | 8.50* | 4,112 | 74.18 | 82.67 | 8.49* | 3,638 | 74.97 | 83.68 | 8.71* | 3,108 |
| | **FEMALES** | | | | | | | | | | | |
| | 73.94 | 80.40 | 6.46* | 2,005 | 71.98 | 78.41 | 6.43* | 1,806 | 72.67 | 84.34 | 11.67* | 1,601 |
| | **MALES** | | | | | | | | | | | |
| | 75.14 | 84.87 | 9.27^ | 2,102 | 73.83 | 85.26 | 11.42^ | 1,873 | 77.82 | 83.33 | 5.51 | 1,504 |
| | **URBAN** | | | | | | | | | | | |
| | 77.54 | 84.87 | 7.33* | 2,215 | 76.85 | 84.40 | 7.56* | 1,912 | 77.19 | 85.76 | 8.57* | 1,597 |
| | **RURAL** | | | | | | | | | | | |
| | 71.77 | 79.54 | 7.77* | 1,899 | 71.00 | 81.03 | 10.03* | 1,608 | 69.39 | 78.35 | 8.96* | 1,659 |
| **11. Agreed with the statement "People in my community believe that it is safe to get circumcised at a health facility"** | **ALL RESPONDENTS** | | | | | | | | | | | |
| | 81.64 | 91.35 | 9.71* | 4,112 | 81.22 | 90.24 | 9.02* | 3,638 | 82.72 | 93.94 | 11.22* | 3,108 |
| | **FEMALES** | | | | | | | | | | | |
| | 84.01 | 89.53 | 5.52* | 2,005 | 82.95 | 87.10 | 4.15 | 1,806 | 83.81 | 94.44 | 10.63* | 1,601 |
| | **MALES** | | | | | | | | | | | |
| | 79.96 | 92.61 | 12.65* | 2,102 | 78.65 | 92.29 | 13.65* | 1,873 | 82.48 | 93.42 | 10.94* | 1,504 |
| | **URBAN** | | | | | | | | | | | |
| | 84.44 | 92.32 | 7.89* | 2,215 | 83.40 | 91.63 | 8.12* | 1,912 | 84.90 | 93.71 | 8.81* | 1,597 |
| | **RURAL** | | | | | | | | | | | |
| | 79.87 | 89.67 | 9.80* | 1,899 | 77.67 | 88.79 | 11.12* | 1,608 | 81.17 | 90.38 | 9.21* | 1,659 |
| **12. Agreed with the statement "The women in my community prefer a partner who is circumcised"** | **ALL RESPONDENTS** | | | | | | | | | | | |
| | 25.12 | 32.66 | 7.54* | 4,112 | 24.82 | 31.37 | 6.55* | 3,638 | 25.93 | 35.66 | 9.74* | 3,108 |
| | **FEMALES** | | | | | | | | | | | |
| | 27.17 | 32.39 | 5.22^ | 2,005 | 26.35 | 33.25 | 6.90^ | 1,806 | | | | |
| | **MALES** | | | | | | | | | | | |
| | 23.33 | 32.81 | 9.48* | 2,102 | 22.69 | 29.82 | 7.12* | 1,873 | 24.61 | 40.80 | 16.18* | 1,504 |
| | **URBAN** | | | | | | | | | | | |
| | 25.88 | 30.59 | 4.71* | 2,215 | 24.80 | 28.41 | 3.61 | 1,912 | 26.18 | 35.10 | 8.92* | 1,597 |
| | **RURAL** | | | | | | | | | | | |
| | 24.67 | 36.14 | 11.46* | 1,899 | 23.77 | 35.78 | 12.01* | 1,608 | 24.78 | 36.43 | 11.65* | 1,659 |

*Significant result, p <0.05. Grey areas mean unmatched results did not have a p-value below 0.10, and so PSM was not conducted. Results that do not have an asterisk (*) were not significant below 0.05 after PSM was conducted.

^Inconclusive significant result because other comparisons within the same group were not significant as would be expected if there was a true campaign effect.

#### 4.2.4.4 Campaign Effects on VMMC Preparation Outcomes

To establish if the *Safe Love* campaign had an effect on VMMC-related preparation, six outcomes were examined. Table 4.2.24 that shows the campaign had an effect on all six outcomes across all groups and all three recall comparisons with only two exceptions. The first exception was that the campaign had no effect on confidence amongst males from rural areas to get circumcised at a health clinic (outcome 3). The campaign did, however, have an effect on urban males and male respondents overall. All males and urban males had 18 and 13 percentage point increases, respectively, compared to the matched no recall groups. The second exception was that the campaign had no effect on whether males from urban areas set up an appointment to get circumcised (outcome 6). There was, however, a 3 percentage point increase amongst all male respondents and a 5 percentage point increase amongst male respondents from rural areas due to lower levels of recall. No significant effects were seen amongst groups with higher levels of recall, but this may be due to the smaller sample sizes, which could have resulted in insufficient power to detect an effect.

The campaign had an effect on all groups across all three recall comparisons for the other four preparation outcomes: Whether respondents sought information on male circumcision, whether respondents felt confident that they could get information on male circumcision, whether respondents talked with people about male circumcision, and whether uncircumcised males intended to be circumcised in the next six months. The largest effects due to higher levels of recall (comparison 3) were seen for seeking information and talking to people about male circumcision (outcomes 1 and 4). For example, amongst males with higher levels of recall, there was a 21 percentage point increase in seeking information on male circumcision when compared to the matched no recall group. At lower levels of recall (comparison 2), the percentage point increase was 11 percent. The effects of the campaign on males' intention to get circumcised in the next six months was large: 18 percentage points amongst those with lower levels of recall and 21 percentage points amongst those with higher levels of recall.

**Table 4.2.24. *Safe Love* Campaign Effects on VMMC: Preparation Outcomes**

| PREPARATION OUTCOMES | Matched Results: Comparison 1 | | | | Matched Results: Comparison 2 | | | | Matched Results: Comparison 3 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | No recall | Any recall | Net change due to campaign | Number of cases in the match | No recall | Low recall | Net change due to campaign | Number of cases in the match | No recall | High recall | Net change due to campaign | Number of cases in the match |
| 1. Sought information on male circumcision | ALL RESPONDENTS | | | | | | | | | | | |
| | 38.81 | 51.43 | 12.62* | 3,534 | 37.91 | 48.61 | 10.69* | 3,206 | 41.18 | 58.48 | 17.31* | 2,711 |
| | FEMALES | | | | | | | | | | | |
| | 35.17 | 47.85 | 12.68* | 2,009 | 34.15 | 45.57 | 11.42* | 1,809 | 35.74 | 52.02 | 16.28* | 1,601 |
| | MALES | | | | | | | | | | | |
| | 42.27 | 55.31 | 13.04* | 1,524 | 39.77 | 50.85 | 11.08* | 1,395 | 47.34 | 68.46 | 21.11* | 1,111 |
| | URBAN | | | | | | | | | | | |
| | 43.00 | 51.66 | 8.65* | 1,830 | 41.86 | 47.97 | 6.11* | 1,598 | 43.79 | 59.48 | 15.70* | 1,338 |
| | RURAL | | | | | | | | | | | |
| | 34.43 | 50.59 | 16.16* | 1,702 | 32.86 | 50.25 | 17.39* | 1,476 | 35.50 | 50.88 | 15.38* | 1,494 |
| 2. Agreed with the statement "I could get | ALL RESPONDENTS | | | | | | | | | | | |
| | 88.02 | 95.67 | 7.65* | 4,112 | 87.56 | 95.12 | 7.56* | 3,683 | 89.23 | 96.97 | 7.74* | 3,108 |
| | FEMALES | | | | | | | | | | | |
| | 86.99 | 93.02 | 6.03* | 2,005 | 85.61 | 91.56 | 5.95* | 1,806 | 88.74 | 95.96 | 7.22* | 1,601 |
| | MALES | | | | | | | | | | | |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **information on male circumcision if I wanted to"** | 89.31 | 97.58 | 8.27* | 2,102 | 88.51 | 97.49 | 8.98* | 1,873 | 90.92 | 97.81 | 6.88* | 1,504 |
| | **URBAN** | | | | | | | | | | | |
| | 91.00 | 95.83 | 4.84* | 2,215 | 90.19 | 95.57 | 5.38* | 1,912 | 91.75 | 96.36 | 4.61* | 1,597 |
| | **RURAL** | | | | | | | | | | | |
| | 83.75 | 95.41 | 11.66* | 1,899 | 82.73 | 93.97 | 11.23* | 1,608 | 84.84 | 96.56 | 11.72* | 1,659 |
| **3. Agreed with the statement "I am confident I could get circumcised at a health clinic"** | **MALES** | | | | | | | | | | | |
| | 62.69 | 79.93 | 17.24* | 1,516 | 61.27 | 78.43 | 17.16* | 1,386 | 66.24 | 83.97 | 17.73* | 1,109 |
| | **URBAN MALES** | | | | | | | | | | | |
| | 67.88 | 80.66 | 12.77* | 753 | 67.18 | 80.09 | 12.90* | 674 | 70.14 | 83.13 | 12.99* | 500 |
| | **RURAL MALES** | | | | | | | | | | | |
| | 55.86 | 79.22 | 23.36^ | 761 | 51.70 | 77.35 | 25.65^ | 711 | 70.66 | 85.11 | 14.44 | 567 |
| **4. Talked with different people about male circumcision, including: partner, friends, family and/or health worker** | **ALL RESPONDENTS** | | | | | | | | | | | |
| | 34.56 | 52.69 | 18.12* | 4,112 | 33.85 | 49.30 | 15.45* | 3,638 | 36.70 | 60.84 | 24.13* | 3,108 |
| | **FEMALES** | | | | | | | | | | | |
| | 25.18 | 41.69 | 16.51* | 2,005 | 22.76 | 37.47 | 14.71* | 1,806 | 28.13 | 51.01 | 22.88* | 1,601 |
| | **MALES** | | | | | | | | | | | |
| | 40.81 | 60.53 | 19.72* | 2,102 | 38.98 | 57.12 | 18.14* | 1,873 | 45.65 | 68.86 | 23.21* | 1,504 |
| | **URBAN** | | | | | | | | | | | |
| | 36.06 | 54.28 | 18.22* | 2,215 | 34.13 | 50.90 | 16.77* | 1,912 | 36.37 | 61.26 | 24.89* | 1,597 |
| | **RURAL** | | | | | | | | | | | |
| | 35.48 | 50.10 | 14.62* | 1,899 | 33.16 | 43.97 | 10.81* | 1,608 | 38.07 | 54.98 | 16.92* | 1,659 |
| **5. Intended to be circumcised in the next 6 months** | **MALES** | | | | | | | | | | | |
| | 37.91 | 56.13 | 18.22* | 1,516 | 36.70 | 54.17 | 17.46* | 1,386 | 39.97 | 61.07 | 21.10* | 1,109 |
| | **URBAN MALES** | | | | | | | | | | | |
| | 39.33 | 54.10 | 14.77* | 753 | 38.86 | 53.09 | 14.23* | 674 | 39.07 | 57.83 | 18.76* | 500 |
| | **RURAL MALES** | | | | | | | | | | | |
| | 34.42 | 58.87 | 24.45* | 761 | 31.11 | 55.80 | 24.69* | 711 | 48.43 | 68.08 | 19.65* | 567 |
| **6. Set up appointment to get circumcised** | **MALES** | | | | | | | | | | | |
| | 3.41 | 6.88 | 3.46* | 1,516 | 3.31 | 6.62 | 3.31* | 1,386 | 3.44 | 8.40 | 4.96^^ | 1,109 |
| | **URBAN MALES** | | | | | | | | | | | |
| | 1.56 | 4.26 | 2.70^ | 753 | 1.59 | 4.42 | 2.83 | 674 | | | | |
| | **RURAL MALES** | | | | | | | | | | | |
| | 5.50 | 10.39 | 4.89* | 761 | 4.44 | 9.39 | 4.96* | 711 | 8.32 | 14.89 | 6.57^^ | 567 |

*Significant result, p <0.05. Grey areas mean unmatched results did not have a p-value below 0.10, and so PSM was not conducted. Results that do not have an asterisk (*) were not significant below 0.05 after PSM was conducted. ^Inconclusive significant result because other comparisons within the same group were not significant as would be expected if there was a true campaign effect. ^^The lack of a significant result may be due to the smaller sample size, which could have resulted in insufficient power to determine an effect of this magnitude.

### 4.2.4.5 Campaign Effects on VMMC Maintenance Outcomes

To determine if the *Safe Love* campaign had an effect on VMMC-related maintenance, three outcomes were examined. Two of them were behaviour outcomes and, as explained earlier in Section 4.2.4.1, did not qualify for PSM, since they had a p-value below 0.10 and had insufficient sizes. Table 4.2.25 shows that the campaign had an effect on one maintenance outcome, whether respondents encouraged friends or family to get circumcised across all groups and all three recall comparisons. In general, across the three groups, higher levels of recall (comparison 3) resulted in greater effects. For example, amongst females any recall (comparison 1) resulted in a 17 percentage point increase and low recall had a 14 percentage point increase compared to the matched no recall groups. However, amongst those females, higher levels of recall (comparison 3), yielded even greater effect: a 23 percentage point increase.

**Table 4.2.2.5. *Safe Love* Campaign Effects on VMMC: Maintenance Outcome**

| MAINTENANCE OUTCOMES | Matched Results: Comparison 1 | | | | Matched Results: Comparison 2 | | | | Matched Results: Comparison 3 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | No recall | Any recall | Net change due to campaign | Number of cases in the match | No recall | Low recall | Net change due to campaign | Number of cases in the match | No recall | High recall | Net change due to campaign | Number of cases in the match |
| 1. Encouraged friends or family to get circumcised | **ALL RESPONDENTS** | | | | | | | | | | | |
| | 30.49 | 47.24 | 16.75* | 4,112 | 29.75 | 43.73 | 13.98* | 3,638 | 32.71 | 55.94 | 23.23* | 3,108 |
| | **FEMALES** | | | | | | | | | | | |
| | 30.44 | 47.18 | 16.73* | 2,005 | 28.95 | 42.93 | 13.98* | 1,806 | 33.64 | 56.57 | 22.93* | 1,601 |
| | **MALES** | | | | | | | | | | | |
| | 30.91 | 46.97 | 16.06* | 2,102 | 29.60 | 44.05 | 14.45* | 1,873 | 34.40 | 55.26 | 20.86* | 1,504 |
| | **URBAN** | | | | | | | | | | | |
| | 32.23 | 47.92 | 15.68* | 2,215 | 30.42 | 44.17 | 13.75* | 1,912 | 33.02 | 55.63 | 22.61* | 1,597 |
| | **RURAL** | | | | | | | | | | | |
| | 29.69 | 46.27 | 16.58* | 1,899 | 28.15 | 41.38 | 13.22* | 1,608 | 32.49 | 50.17 | 17.68* | 1,659 |

*Significant result, p <0.05. Grey areas mean unmatched results did not have a p-value below 0.10, and so PSM analysis was not conducted.

# V. Summary of Findings

## 5.1. Exposure to the *Safe Love* Campaign

Overall, exposure to the *Safe Love* campaign was high, with 87 percent of all respondents exposed to at least one component of the campaign; greater exposure was found amongst respondents from urban areas (93 percent) compared to rural areas (71 percent). Most respondents were exposed to the campaign through the radio or printed materials (69 percent), followed by television (52 percent). As with overall exposure, a greater percentage of urban respondents were exposed to each of the six communication channels compared to those from rural areas. Exposure of males and females to the different communication channels was mostly similar. The communication channels that had less overall exposure were text messages (13 percent, amongst males only), community activities (6 percent), and the Internet (4 percent). Exposure amongst respondents with household ownership of a specific media was higher than amongst all respondents; for example, 75 percent of respondents from households that owned a radio reported exposure to any of the radio campaign components, and 69 percent of those from households that owned a television had been exposed to at least one of the campaign's television programmes. Similarly, 20 percent of those from households with Internet access reported exposure to that campaign component.

In terms of exposure to specific campaign components, the male circumcision poster and flip chart were the printed materials that had the greatest recall from respondents (both were just over 60 percent); this was likely due to other HIV prevention implementing partners in Zambia also using the same print materials in their programmes. The condom use print product, the PMTCT print product, and the "Are you a Safe Lover" checklist were all recalled by about 47 percent of respondents. The "Be a Safe Lover" print product was the least recalled, at 33 percent. In general, greater percentages of urban respondents recalled the print products compared to those from rural areas. Females also recalled some print products more than males.

Regarding the radio programmes, the radio advertisements were the most recalled (63 percent amongst all respondents and 69 percent amongst those from households that owned a radio), followed by the VMMC radio call-in show (35 percent and 38 percent, respectively), and, lastly, the radio drama series *Life at the Turnoff* (19 percent and 21 percent, respectively). Respondents from urban areas recalled the radio advertisements and the VMMC call-in show more than those from rural areas, but a nearly even percentage of respondents from both areas recalled listening to *Life at the Turnoff*. Similar exposure was found for males and females for each of the three radio components.

The television programmes that had the greatest recall were the television advertisements (42 percent amongst all respondents and 56 percent amongst those from households that owned a television), followed closely by *Love Games* (39 percent and 53 percent, respectively). The *Love Games* after-show was recalled by 11 percent of all respondents and by 15 percent of respondents whose household owned a television. Urban respondents recalled each of the three programmes more than rural respondents, while a slightly greater percentage of males recalled the television advertisements compared to females.

The Internet platform that had been visited the most was the *Love Games* Facebook website (3 percent of all respondents and 16 percent amongst respondents whose household had Internet access), followed by the Twitter website (1 percent and 11 percent, respectively) and the *Safe Love* campaign website (1 percent and 6 percent, respectively). In general, respondents from urban areas recalled the different Internet platforms more than those from rural areas, with mostly similar percentages between females and males.

The percentage of respondents who had participated in a *Safe Love* Club was 3 percent; participation was greater amongst urban residents than rural residents (4 percent versus 2 percent) and similar for both males and females. Two percent of respondents reported ever talking with a *Safe Love* Club member about HIV prevention, with similar percentages found by area of residence and sex. It is not surprising that the percentages of exposure to the *Safe Love* community activities were low, since the clubs and outreach activities were limited to only some communities within the nine evaluation districts.

## 5.2. Effects of the *Safe Love* Campaign

The findings of the PSM conducted reveal that the *Safe Love* campaign had an effect on a multitude of outcomes across the four campaign topic areas. The next paragraphs summarise the effects found for each of the topic areas.

For condom use, campaign effects were found on all behaviour and intermediate outcomes examined. The campaign improved all four behaviour outcomes as follows: (1) increasing the acquisition of condoms amongst all respondents (6 percentage points), primarily in urban areas (10 percentage points); (2) increasing condom use at last sexual encounter amongst all respondents (6 percentage points), particularly amongst those from urban areas with higher levels of recall (12 percentage points); (3) increasing consistent condom use with any partner in the last four weeks amongst all respondents (6 percentage points), primarily amongst females (7 percentage points) and in urban areas (8 percentage points)—including effects of consistent condom use with both regular and non-regular partner(s) amongst all respondents with higher levels of recall (7 and 21 percentage points, respectively); (4) increasing consistent condom use with any partner in the last six months amongst all respondents (6 percentage points), primarily amongst males (7 percentage points) and in urban areas (8 percentage points), and amongst females with higher levels of recall with regular partners (7 percentage points). Regarding the intermediate condom use outcomes, the campaign had an effect on the following: one knowledge outcome (improving the knowledge of where to obtain condoms amongst males in urban areas); five beliefs/attitudes outcomes (increasing the desired attitudes amongst males in one outcome and amongst females in four outcomes, with greater effects in urban areas only for three outcomes); four self-efficacy outcomes (increasing self-efficacy amongst females in two outcomes and for both sexes in one—as well as in urban areas only for three outcomes); two social norms outcomes (increasing the perceived social norms amongst males in both outcomes and in urban areas specifically for one outcome); three IPC outcomes (increasing communication of both females and males, with stronger effects observed in urban areas compared to rural areas); and one intention outcome (increasing the intention to use condoms consistently with regular partners amongst all respondents and those from urban areas). Higher levels of recall resulted in greater effects for many of the condom use outcomes compared to lower levels of recall; however, for some outcomes, only higher levels of recall resulted in significant effects.

For MCP, no campaign effects were detected on any of the four behaviour outcomes or the one intention outcome examined. However, the campaign had an effect on the following intermediate MCP outcomes: three knowledge outcomes (improving the knowledge of females in particular in both rural and urban areas); four beliefs/attitudes outcomes (increasing desired attitudes amongst females in one outcome and amongst males in three—with a greater change amongst males in rural areas in particular for one of the outcomes); two-self-efficacy outcomes (increasing self-efficacy amongst all respondents for both outcomes, with a greater increase in urban areas specifically for one of them); one social norms outcome (decreasing a perceived social norm amongst males only; although the effect was in the opposite direction of what was expected—see Section VI for more details on unexpected results); and three IPC outcomes (increasing communication of men in particular with their partners and friends—

amongst males from rural areas only for two of the outcomes and in both areas of residence in one outcome). For most of the MCP outcomes for which an effect was found, higher levels of recall resulted in greater effects.

For HIV testing, the campaign had an effect on one of the four behaviour outcomes examined; in particular, partners' uptake of HIV testing in rural areas only amongst those with higher levels of recall (22 percentage points). In terms of the intermediate outcomes, the campaign had an effect on the following: one knowledge outcome (improving the knowledge of MTCT preventative drugs amongst both sexes in both areas of residence); three beliefs/attitudes outcomes (increasing the desired attitudes amongst females only in all three outcomes—one in urban areas specifically and another in rural areas); two social norms outcomes (decreasing the perceived social norms in rural areas only; although the effects were in the opposite direction of what was expected—see Section VI for more details on unexpected results); three IPC outcomes (increasing communication in rural areas only amongst respondents with higher levels of exposure) and one intention outcome (increasing the intention of rural respondents to have an HIV test in the next six months). No campaign effects were detected on the self-efficacy outcomes. For the effects observed for HIV testing, higher levels of recall generally resulted in greater effects.

For VMMC, no campaign effects were detected on any of the four behaviour outcomes examined; however, since all of the four outcomes had either an insufficient sample size or power to detect an effect, the effect of the campaign on VMMC behaviours is inconclusive. Regarding the intermediate outcomes, grouped by the five stages of the Stages of Change theory, the campaign had an effect on the following: all three pre-contemplation outcomes (improving the knowledge of both sexes in two outcomes and of females only in one outcome, and in both areas of residence for all three outcomes); all twelve pre-contemplation outcomes, including two knowledge outcomes (improving the knowledge of both sexes in both areas of residence), one "consideration" outcome (increasing whether males from both areas of residence had ever considered getting circumcised), five beliefs/attitudes outcomes (increasing the desired attitudes of both sexes in four outcomes and of males in one outcome, as well as in both areas of residence for four outcomes and in rural areas in one outcome), and four social norms outcomes (increasing the perceived social norms of both sexes in one outcome, of females in two and of males in one, as well as in both areas of residence in three outcomes and in urban areas in one outcome); all six preparation outcomes, including one "seeking information" outcome (increasing seeking of male circumcision information by both sexes in both areas of residence), two self-efficacy outcomes (increasing self-efficacy of both sexes in one outcome in both areas of residence and of males in urban areas in the other outcome), one IPC outcome (increasing communication about male circumcision by both sexes in both areas of residence), one intention outcome (increasing intention to get circumcised amongst males in both areas of residence), and an "appointment set-up" outcome (increasing the number of circumcision appointments set up by males in rural areas); and one maintenance outcome (increasing whether respondents encouraged friends or family to get circumcised amongst both sexes and areas of residence). Greater effects were found for higher levels of recall for most of the VMMC outcomes.

# VI. Discussion

The findings of this evaluation provide evidence that the *Safe Love* campaign reached the majority of people aged 15–49 in the nine districts surveyed, and had an effect on changing key HIV preventive behaviours, most notably the following: increasing the acquisition and use of condoms in urban areas and HIV testing amongst partners in rural areas. In addition, the campaign also had an effect on changing many important intermediate factors that often precede changes in behaviours, including an increase in intention outcomes (in particular, the intention of respondents from rural areas to get tested for HIV and males' intention to get circumcised), which is a strong indication of people's readiness to practice specific behaviours. The evidence of the campaign's effects was further supported by the fact that, for the majority of the effects found, higher levels of campaign recall resulted in greater effects. For some outcomes, only higher levels of recall resulted in significant effects (for example, condom use at last sexual encounter amongst urban respondents and partners' HIV testing amongst rural respondents). This suggests that there is a recall threshold before some outcomes are changed. Given the extremely low numbers of respondents who had been exposed to any of the community activities of the campaign, most of the effects found are likely due to mass media, but a particular kind of mass media that characterized the *Safe Love* campaign: one that encouraged the audience to engage deeply with characters and situations; reflect on their own lives; and discuss what they had seen or heard with their partners, family, and peers.

### Condom use

It is interesting to note that the effects found on all the condom use behaviour outcomes and the majority of the intermediate outcomes (with the exception of two IPC outcomes[13]) only occurred in urban areas. Even though there were people in rural areas who also had high levels of campaign recall, their condom-use-related behaviours did not change due to the campaign. This may be because in urban areas there is greater and easier access to condoms compared to rural areas. Also, people's ability to purchase condoms is probably lower in rural areas due to lower overall levels of wealth compared to urban areas. Another possible explanation may be that rural couples had lower risk perception of acquiring HIV compared to those from urban areas. So, even though the campaign led to more couples in both urban and rural areas talking and negotiating condom use, those from rural areas may have chosen not to use condoms because they thought they did not need to or they had limited access to condoms. Lastly, it is possible that the television drama series *Love Games* resonated more with urban respondents since it focused on the lives of characters primarily residing in Lusaka.

### HIV testing

In the case of HIV testing behaviours and some of the intermediate outcomes, most of the effects occurred in rural areas only and included the following: HIV testing amongst partners, communication with partners about getting tested, respondents knowing their partners' HIV status, respondents disclosing their HIV status to their partners, and respondents' intention to get an HIV test in the next six months (amongst those who had not been tested in the previous six months). It is interesting to note that except for the last intention outcome, most of the outcomes affected were related to the respondents' partners, which is in line with the campaign's messaging around HIV testing. That is, the campaign did not explicitly focus on increasing HIV testing, but rather focused on messages around the importance of partner communication about HIV testing and making sure that couples knew each other's HIV status. Since the level of communication between partners increased dramatically in rural

[13] The two condom use IPC outcomes that the campaign had an effect on in rural areas were the following: (1) talked about condom use with sexual partner in the last six months, and (2) negotiated condom use with a partner in the last six months.

areas amongst those with higher recall levels (between 16 and 22 percentage points across the three outcomes examined), it also resulted in an increase in partners getting tested. Also, the HIV testing messaging may only have been effective in rural areas because the radio drama series *Life at the Turnoff* (which had stronger HIV testing messages than the other campaign components and was complemented by radio discussion groups only in rural areas) was set in a rural village and therefore resonated more with rural couples.

### Voluntary Medical Male Circumcision

Though the effects of the campaign on VMMC behaviours were inconclusive, it was the only campaign topic that had effects on all the intermediate outcomes examined, across most of the five groups (all respondents, females, males, and respondents in urban and rural areas) and the three recall level comparisons. In addition, strong effects were found on the intermediate outcomes most closely linked to males getting circumcised, including the following: intention of males to get circumcised in the next six months and in setting up appointments to get circumcised. Perhaps the strong effects found across most of the VMMC outcomes are because this is a relatively new topic in Zambia, for which there has not been as much messaging as other HIV prevention topics. In addition, circumcision is not a continuous behaviour, as are behaviours associated with the other topics (condom use, MCP and HIV testing), which are burdened by complex relationship issues (for example, trust and communication) that are ever-changing. Lastly, it is important to mention that because male circumcision is not widely or consistently available in Zambia, the VMMC communication strategy of the campaign did not actually aim to increase male circumcision, but rather increase the intentions of men to get circumcised, which the campaign was highly effective at doing (a 21 percentage point increase amongst all uncircumcised males). Therefore, it is plausible that as VMMC services are improved and become more continuously available, there will also be an effect on male circumcision if the effective VMMC messaging through *Safe Love* or similar initiatives continues.

### Multiple Concurrent Partnerships

Effects on MCP behaviours were not detected (either on number of sexual partners or prevalence of concurrency), and the intermediate outcomes were not as strongly affected compared to VMMC, for example. This suggests that it was more difficult for the campaign to have an effect on the MCP outcomes, or that more time to see greater effects is necessary. This may be a reflection of the complexity of changing MCPs or the fact that the few people who did have MCPs were less open to messages that might evoke change and therefore might require a different approach than messages targeted to the general population. Also, it is interesting to observe that like other surveys, the prevalence of multiple sexual partnerships was low; for example, the evaluation survey found that two percent of females and eighteen percent of males in the nine districts had two or more partners in the past 12 months (nationally, the 2013–2014 *Zambia Demographic and Health Survey* found this to be 1.7 percent of females and 15.7 percent of males). Despite surveys in general finding low levels of multiple sexual partnerships, the perception of this occurring in Zambia seems to be much higher than the reality. For example, only 21 percent of respondents agreed with the statement, “In my community, most men I know only have sex with one partner”; similarly, only 26 percent agreed with the statement, “In my community, most women I know only have sex with one partner.” These results indicate that most people believe that the majority of men and women have sex with more than one partner, when it appears that they actually do not. Therefore, either people are not reporting the number of their sexual partners accurately in large surveys, despite assurances of confidentiality and anonymity of information, or the extent of multiple sexual partnerships amongst the general public is indeed not as large as perceived. Perhaps MCPs are only relevant for specific populations, and if this is the case, communication campaigns should target their MCP messages accordingly to have greater impact.

### Unexpected results

There were a few unexpected effects found on three social norms outcomes that are worth mentioning. For one of the MCP social norms outcomes, regarding whether respondents agreed with the statement, "In my community, most women I know only have sex with one partner," higher levels of recall resulted in an 8 percentage point *decrease* in males agreeing with the statement. Similarly, for HIV testing, two social norms outcomes changed negatively: there was a 10 percentage point *decrease* amongst respondents from rural areas with higher levels of recall *disagreeing* with the statement, "People in my community fear getting tested for HIV" and a 10 percentage point *decrease* amongst respondents from rural areas agreeing with the statement, "In my community, most people who have sexual intercourse get tested for HIV." These unexpected results may be because that instead of the campaign changing the particular social norms emphasized by the statements, it increased respondents' awareness of the reality of the social norms noted.

### Mass media effects and further analyses

Though it was not surprising that the percentage of respondents who participated in any of the *Safe Love* community activities was low (5.5 percent of all respondents) since these activities only took place in specific communities in the nine districts surveyed, the final number of respondents who participated was not sufficient to determine if participation in community activities had different effects compared to the mass media components. However, as noted earlier, because so few respondents participated in community activities, it is safe to say that the campaign effects found are primarily a result of the mass media components; in particular the television and radio drama series for condom use, MCP and HIV testing, and the radio call-in show that used traditional leaders in the case of VMMC. However, to be confident of this conclusion, further data analysis could be conducted to examine the effects of the mass media components of the *Safe Love* campaign only by adding participation in any of the community activities as a covariate, or control variable, in new propensity score models.

The results of a successful evaluation inevitably lead to further questions that can only be answered by further analyses. The rich dataset of the outcome evaluation is amenable to additional analyses to answer many worthwhile questions to better understand the HIV preventive behaviours in Zambia and further inform future programming. For example, it would be interesting to find out if the campaign had different effects on youth (15–24 year olds) compared to adults (25–49 year olds). Also, it would be important to examine the relationships between the different HIV preventive behaviours; for example, for those who had more than one sexual partner in the past six months, including concurrent partnerships, what were the characteristics of their condom use and HIV testing behaviours? For those men who intended to get circumcised, how was their condom use and what was their number of partners?

In addition, more analyses could be conducted with the intermediate outcomes. For example, the effects of the campaign on the intermediate outcomes were examined in the evaluation individually, but some of the intermediate outcomes could be combined into a composite index for each of the four campaign topic areas, to measure a common underlying concept that may result in better measures and a different understanding of the campaign's effects. Further, the evaluation only examined direct campaign effects, but further analyses could also examine indirect campaign effects; that is, how the campaign may have indirectly had an effect on the behaviour outcomes through some of the intermediate outcomes.

## Limitations

For some of the behaviours that had low prevalence (for example, the MCP and VMMC behavioural outcomes) and for outcomes that reduced the sample into much smaller sub-samples (for example, condom use with non-regular partners), some effects might have not been detected as a result of insufficient power due to inadequate sample sizes. Also, the survey may not have detected all campaign effects because more time was still necessary for further changes to occur in some of the outcomes.

As with any survey, biases may have been included in the evaluation that are not possible to measure or account for. Due to the sensitive nature of the questions asked in the study, depending on whether respondents truly believed that their answers were confidential, respondents could have responded with what they believed to be the socially desirable answer, rather than the answer that best reflected their true behaviours (social desirability bias). This bias could have led to respondents over-reporting desirable behaviours, such as condom use, or underreporting risky behaviours, such as MCP. However, the fact that the level of reported multiple sexual partnerships was relatively similar to the most recent *Demographic and Health Survey*, as noted earlier (despite the two surveys not being directly comparable since the evaluation survey focused on nine specific districts that were primarily urban, and the *Demographic and Health Survey* was a national sample), provides confidence in the results of the survey. Social desirability bias may also have affected the campaign exposure findings, which used prompted (or aided) recall questions. However, prompted recall was necessary to determine exposure, because if exposure was solely based on spontaneous recall, people who had been exposed to the campaign but could not spontaneously recall any specific identifier (such as the name of the campaign at the time of the interview) would have been left out.

Biases may also have been introduced by the low response rate in Lusaka district (60 percent) that resulted in the need to sample additional clusters (that were not part of the original sampling frame) in order to get the required sample size. Also, the overall response rates of the evaluation survey, at 68 percent for females and 71 percent for males, were lower compared to those of the most recent *Demographic and Health Survey* (96 percent for females and 91 percent for males). The lower response rates raise the questions of whether the respondents who did not complete the survey (referred to as "non-respondents" hereafter) were different from those who did, and if so, how would the results have been different if they were included? Perhaps the non-respondents were less likely to have been exposed to the campaign, since they were away from their households during the day and early evening (the interviewers visited households until 7 p.m.), which may have reduced the percentage of those exposed to the campaign if they had been included. Although not directly comparable to the most recent *Demographic and Health Survey*,[14] when compared to a national sample, the sample distribution of the evaluation survey was younger (56 percent of males and 50 percent of females were aged 15–24, compared to 42 percent and 40 percent, respectively), more educated (76 percent of males and 56 percent of females had secondary or higher level of education, compared to 57 percent and 45 percent, respectively), and more likely to have never been married (64 percent of males and 37 percent of females, compared to 44 percent and 28 percent, respectively). It is possible that the campaign effects would have been different if the non-respondents had been included, but the PSM controlled for several key socio-demographic characteristics, including age, education level, and relationship/marital status.

[14] As of the time of the writing of this report, only the preliminary results of the *Zambia Demographic and Health Survey*, 2013–2014 are available. The *Demographic and Health Survey* dataset is not available for further analysis, which would be necessary to adequately compare the sample distributions of the two surveys.

## Lessons learned and recommendations

As the findings of this evaluation are processed and discussed amongst the HIV prevention community in Zambia, many lessons learned and practical implications for future programming will surface. For now, some of the initial lessons learned and recommendations are as follows:

1) **Behaviour change communication (BCC) is a critical component of HIV prevention.** The outcome evaluation of the *Safe Love* campaign, which used rigorous statistical analysis to determine the effects, adds evidence to the BCC literature of the importance and power of communication campaigns to change HIV behaviours and intermediate outcomes.

2) **Mass media can have large effects on HIV preventive outcomes, including behaviours, but quality and type are critical.** Because the effects seen from the outcome evaluation were largely observed without factoring in interpersonal communication activities, the findings of the evaluation suggest that continued investment in mass media communications is a critical component of HIV prevention. However, the mass media used in the *Safe Love* campaign went beyond just exposing the target audience to health messages. Instead, it focused on engaging the target audience in the lives of characters and situations, encouraging the audience to think about their own lives and choices, and to talk with others. The fact that higher levels of recall resulted in greater effects for most of the outcomes examined supports this, since it shows that when mass media can get its target audience to engage with the programmes— to really pay attention so that they can spontaneously recall several components—greater effects are achieved.

3) **It is important for mass media to reflect the target population's reality to maximize campaign effects.** The findings of the HIV testing campaign's effects suggest that the *Life at the Turnoff* radio drama was particularly effective, as it was the campaign component that had the most HIV testing messages. Since the drama was set in a rural village and the effects were found only amongst rural respondents, the findings suggest that the ability of respondents to identify with the characters and setting of the drama was an important factor.

4) **BCC campaigns should be better linked to services promoted by the campaign.** Future campaigns should be better linked to programmes that ensure the availability of commodities and services. The condom use and VMMC findings suggest that access to specific promoted products and services is important.

5) **MCP messaging may be more appropriate for a more segmented target audience.** Future campaigns should target and segment their audience and specifically use risk factors more than demography to create such segments, in particular in relation to MCP messaging, where such targeting is not a prevalent practice.

6) **Future communications programming should match the epidemiological data on behavioural and disease prevalence.** As the HIV epidemic changes and becomes less generalized, the approach to prevention needs to also become less generalized and more specific.

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# VIII. Annexes

## 8.1. Survey Respondent Response Rates

### Table 8.1.1. Female Response Rates by District and Place of Residence

| District | Sampled and Actual Completed Number of Interviews of Women 15–49 | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Sampled Urban | Completed Urban | Response Rate (%) | Sampled Rural | Completed Rural | Response Rate (%) | Total Sampled | Total Completed | Overall Response Rate (%) |
| **Lusaka** | 1,160 | 689 | 59.4 | 0 | 0 | n/a | 1,160 | 689 | 59.4 |
| **Kafue** | 60 | 33 | 55.0 | 200 | 135 | 67.5 | 260 | 168 | 64.6 |
| **Mkushi** | 40 | 31 | 77.5 | 175 | 120 | 68.6 | 215 | 151 | 70.2 |
| **Kabwe** | 160 | 126 | 78.8 | 0 | 0 | n/a | 160 | 126 | 78.8 |
| **Kapiri Mposhi** | 40 | 25 | 62.5 | 250 | 168 | 67.2 | 290 | 193 | 66.6 |
| **Mansa** | 40 | 35 | 87.5 | 225 | 181 | 80.4 | 265 | 216 | 81.5 |
| **Kawambwa** | 40 | 35 | 87.5 | 150 | 138 | 92.0 | 190 | 173 | 91.1 |
| **Samfya** | 40 | 36 | 90.0 | 250 | 155 | 62.0 | 290 | 191 | 65.9 |
| **Luanshya** | 80 | 63 | 78.8 | 50 | 39 | 78.0 | 130 | 102 | 78.5 |
| **Total** | **1,660** | **1,073** | **64.6** | **1,300** | **936** | **72.0** | **2,960** | **2,009** | **67.9** |

### Table 8.1.2. Male Response Rates by District and Place of Residence

| District | Sampled and Actual Completed Number of Interviews of Men 15–49 | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Sampled Urban | Completed Urban | Response Rate (%) | Sampled Rural | Completed Rural | Response Rate (%) | Total Sampled | Total Completed | Overall Response Rate (%) |
| **Lusaka** | 1,160 | 713 | 61.5 | 0 | 0 | n/a | 1,160 | 713 | 61.5 |
| **Kafue** | 60 | 55 | 91.7 | 200 | 153 | 76.5 | 260 | 208 | 80.0 |
| **Mkushi** | 40 | 32 | 80.0 | 175 | 131 | 74.9 | 215 | 163 | 75.8 |
| **Kabwe** | 160 | 140 | 87.5 | 0 | 0 | n/a | 160 | 140 | 87.5 |
| **Kapiri Mposhi** | 40 | 26 | 65.0 | 250 | 177 | 70.8 | 290 | 203 | 70.0 |
| **Mansa** | 40 | 38 | 95.0 | 225 | 174 | 77.3 | 265 | 212 | 80.0 |
| **Kawambwa** | 40 | 37 | 92.5 | 150 | 111 | 74.0 | 190 | 148 | 77.9 |
| **Samfya** | 40 | 33 | 82.5 | 250 | 175 | 70.0 | 290 | 208 | 71.7 |
| **Luanshya** | 80 | 68 | 85.0 | 50 | 42 | 84.0 | 130 | 110 | 84.6 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Total** | **1,660** | **1,142** | **68.8** | **1,300** | **963** | **74.1** | **2,960** | **2,105** | **71.1** |

### Table 8.1.3. Overall Response Rates by District and Place of Residence

| District | Sampled and Actual Completed Number of Interviews all Respondents 15-49 | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Sampled Urban | Completed Urban | Response Rate (%) | Sampled Rural | Completed Rural | Response Rate (%) | Total Sampled | Total Completed | Overall Response Rate (%) |
| **Lusaka** | 2,320 | 1,402 | 60.4 | 0 | 0 | n/a | 2,320 | 1,402 | 60.4 |
| **Kafue** | 120 | 88 | 73.3 | 400 | 288 | 72.0 | 520 | 376 | 72.3 |
| **Mkushi** | 80 | 63 | 78.8 | 350 | 251 | 71.7 | 430 | 314 | 73.0 |
| **Kabwe** | 320 | 266 | 83.1 | 0 | 0 | n/a | 320 | 266 | 83.1 |
| **Kapiri Mposhi** | 80 | 51 | 63.8 | 500 | 345 | 69.0 | 580 | 396 | 68.3 |
| **Mansa** | 80 | 73 | 91.3 | 450 | 355 | 78.9 | 530 | 428 | 80.8 |
| **Kawambwa** | 80 | 72 | 90.0 | 300 | 249 | 83.0 | 380 | 321 | 84.5 |
| **Samfya** | 80 | 69 | 86.3 | 500 | 330 | 66.0 | 580 | 399 | 68.8 |
| **Luanshya** | 160 | 131 | 81.9 | 100 | 81 | 81.0 | 260 | 212 | 81.5 |
| **Total** | **3,320** | **2,215** | **66.7** | **2,600** | **1,899** | **73.0** | **5,920** | **4,114** | **69.5** |

## 8.2. Exposure to Campaign Components by Different Age Groups[15]

**Table 8.2.1. Percentage of Respondents Exposed to Any Specific Component of the *Safe Love* Campaign and to at Least One Component, by Age Group**

| | Respondents With Specific Media Ownership* | | | All Respondents | | |
|---|---|---|---|---|---|---|
| | Youth | Adults | All | Youth | Adults | All |
| **Exposure to any specific campaign component** | | | | | | |
| **Any radio** | 74.8 | 76.0 | 75.4 | 69.6 | 69.2 | 69.4 |
| **Any television** | 72.2 | 64.4 | 68.7 | 56.9 | 46.7 | 52.1 |
| **Any Internet platform** | 23.4** | 15.4** | 20.1 | 5.3 | 2.7** | 4.1 |
| **Any mobile text messages (men only)** | 14.7 | 11.6 | 13.4 | 14.0 | 11.4 | 12.8 |
| **Any print material*** ** | | | | 69.8 | 68.3 | 69.1 |
| **Any community activity** | | | | 7.1 | 3.8 | 5.5 |
| **Exposure to at least one component of the *Safe Love* campaign**** ** | | | | 88.1 | 85.3 | 86.8 |
| **Weighted number** | | | | 2,169 | 1,945 | 4,114 |

*Media ownership is defined as those whose household owns the relevant media (e.g., radio, television, the Internet, mobile phone). For example, for exposure to any radio component, the findings are for respondents whose household owns a radio.
**Number of respondents is less than 50.
***Findings are shown for exposure to at least one of the four main *Safe Love* campaign print products. This excludes exposure to the two male circumcision print products, since they were used by other programmes.
****Findings are shown for all respondents only and not for respondents with specific media access, as the indicator presented is for more than one media/channel.

**Table 8.2.2. Percentage of Respondents Who Spontaneously Completed the Campaign's Slogan, Who Recalled Seeing Different Campaign Logos, and Who Reported Seeing Different Printed Materials, by Age Group**

| | All Respondents | | |
|---|---|---|---|
| | Youth | Adults | All |
| **Spontaneously completed the campaign's slogan: "Think. Talk, … " with "Act"** | 38.5 | 33.2 | 36.0 |
| **Missing** | 2.6 | 2.8 | 2.7 |
| | | | |
| **Recalled specific logos** | | | |
| ***Safe Love* campaign's main logo** | 69.8 | 61.4 | 65.8 |
| ***Safe Love* campaign's male circumcision logo** | 69.3 | 61.3 | 65.5 |
| | | | |
| **Recalled printed materials** | | | |

[15] Note the findings are presented by age group, for youth aged 15–24 years old and adults aged 25–49 years old.

| | All Respondents | | |
|---|---|---|---|
| | Youth | Adults | All |
| **PMTCT print product** | 45.0 | 50.8 | 47.7 |
| **Are you a Safe Lover checklist** | 45.8 | 44.9 | 45.4 |
| **Condom use print product** | 49.3 | 47.7 | 48.5 |
| **Be a Safe Lover print product** | 31.2 | 35.5 | 33.2 |
| **Male circumcision poster** | 63.5 | 61.3 | 62.5 |
| **Male circumcision flip chart** | 62.2 | 59.8 | 61.1 |
| **Weighted number** | 2,169 | 1,945 | 4,114 |

**Table 8.2.3. Exposure to Different Radio Programmes in the Past 12 Months, by Age Group, for Respondents From Households That Own a Radio and All Respondents**

| | Respondents From Households That Own a Radio | | | All Respondents | | |
|---|---|---|---|---|---|---|
| | Youth | Adults | All | Youth | Adults | All |
| **Recalled hearing radio advertisements** | 69.1 | 69.3 | 69.2 | 63.7 | 62.8 | 63.3 |
| | | | | | | |
| **Recalled listening to *Life at the Turnoff*** | 17.7 | 25.3 | 21.3 | 16.4 | 21.2 | 18.7 |
| | | | | | | |
| **Recalled listening to a radio call-in show on male circumcision** | 35.6 | 41.4 | 38.4 | 32.5 | 36.9 | 34.6 |
| **Weighted number** | 1,627 | 1,471 | 3,098 | 2,169 | 1,945 | 4,114 |

**Table 8.2.4. Exposure to Different Television Programmes in the Past 12 Months, by Age Group, for Respondents From Households That Owned a Television and All Respondents**

| | Respondents From Households That Owned a Television | | | All Respondents | | |
|---|---|---|---|---|---|---|
| | Youth | Adults | All | Youth | Adults | All |
| **Recalled seeing any of the television advertisements** | 58.5 | 52.0 | 55.6 | 46.0 | 37.3 | 41.9 |
| | | | | | | |
| **Recalled watching *Love Games*** | 57.0 | 48.2 | 53.1 | 43.6 | 33.9 | 39.0 |
| | | | | | | |
| **Recalled watching the *Love Games* after-show** | 15.6 | 13.3 | 14.6 | 11.7 | 9.1 | 10.5 |
| **Weighted number** | 1,452 | 1,200 | 2,652 | 2,169 | 1,945 | 4,114 |

**Table 8.2.5. Exposure to Different *Safe Love* Internet Websites in the Past 12 Months, by Age Group, for Respondents With Household Internet Access and All Respondents**

| | Respondents From Households With Internet Access | | | All Respondents | | |
|---|---|---|---|---|---|---|
| **Recalled visiting …** | **Youth** | **Adults** | **All** | **Youth** | **Adults** | **All** |
| ***Love Games* Facebook website** | 17.8* | 12.8* | 15.8* | 4.3 | 2.4* | 3.4 |
| ***Safe Love* campaign website** | 7.8* | 6.0* | 7.1* | 1.3* | 0.7* | 1.0* |
| **Twitter website** | 8.7* | 5.1* | 7.2* | 1.5* | 0.7* | 1.1* |
| **Weighted number** | 256 | 178 | 434 | 2,169 | 1,945 | 4,114 |

*Number of respondents is less than 50.

**Table 8.2.6. Percentage of Respondents Who Participated in a *Safe Love* Club in the Past 12 Months and Who Had Ever Talked With a *Safe Love* Club Member About HIV Prevention, by Age Group**

| | All Respondents | | |
|---|---|---|---|
| | **Youth** | **Adults** | **All** |
| **Participated in a *Safe Love* Club in the past 12 months** | 4.4 | 1.8* | 3.2 |
| | | | |
| **Had ever talked with a *Safe Love* Club member about HIV prevention in the past 12 months** | 2.7* | 1.9* | 2.3 |
| **Weighted number** | 2,169 | 1,945 | 4,114 |

*Number of respondents is less than 50.

**Table 8.2.7. Percentage of Male Respondents Who Recalled Receiving a Text Message About Male Circumcision in the Past 12 Months, by Age Group, for Male Respondents From Households That Own a Mobile Phone and All Male Respondents**

| | Male Respondents From Households That Own a Mobile Phone* | | | All Male Respondents* | | |
|---|---|---|---|---|---|---|
| | **Youth** | **Adults** | **All** | **Youth** | **Adults** | **All** |
| **Recalled receiving a text message about male circumcision** | 14.7 | 11.6 | 13.4 | 14.0 | 11.4 | 12.8 |
| **Weighted number** | 952 | 723 | 1,675 | 1,115 | 877 | 1,993 |

*Missing 32 respondents for those with access to a mobile phone and 45 for all male respondents.

## 8.3. Frequency of Exposure and Communication Findings

**Table 8.3.1. Frequency of Listening to Specific Radio Programmes and Communicating About the Programmes in the Past 12 Months, Amongst Respondents Who Recalled Hearing a Particular Programme, by Area of Residence, Sex, and Age Group**

| | Respondents Who Recalled Hearing the Particular Radio Programme | | | | | | |
|---|---|---|---|---|---|---|---|
| | Urban | Rural | Males | Females | Youth | Adults | All |
| **Frequency of listening to any of the radio advertisements in the past 12 months** | | | | | | | |
| **Rarely (1–2 times)** | 25.6 | 30.6 | 25.0 | 28.1 | 25.8 | 27.5 | 26.6 |
| **Sometimes (3–5 times)** | 33.4 | 25.9 | 29.5 | 34.3 | 31.4 | 32.5 | 31.9 |
| **Often (6 or more times, daily, or weekly)** | 22.2 | 18.5 | 23.6 | 19.3 | 21.0 | 22.0 | 21.5 |
| **Don't recall** | 4.5* | 4.6 | 6.3 | 2.8* | 5.5 | 3.5* | 4.5 |
| **Missing** | 14.4 | 20.4 | 15.5 | 15.5 | 16.4 | 14.5 | 15.5 |
| **Weighted number** | 2,110 | 494 | 1,288 | 1,316 | 1,382 | 1,222 | 2,604 |
| **Frequency of listening to *Life at the Turnoff* in the past 12 months** | | | | | | | |
| **Rarely (1–2 episodes)** | 52.1 | 54.2 | 56.3 | 48.6 | 57.6 | 48.4 | 52.6 |
| **Sometimes (3–5 episodes)** | 33.5 | 27.1 | 30.6 | 33.0 | 27.7 | 35.2 | 31.7 |
| **Often (6 or more episodes, once per week)** | 7.7* | 9.6* | 6.3* | 10.3* | 5.5* | 10.5* | 8.2 |
| **Don't recall** | 6.8* | 9.1* | 6.9* | 10.3* | 9.2* | 5.9* | 7.4* |
| | | | | | | | |
| **Had ever talked with anyone about *Life at the Turnoff* in the past 12 months** | 28.8 | 30.8 | 33.5 | 24.9 | 31.5 | 27.5 | 29.4 |
| **Weighted number** | 558 | 210 | 401 | 367 | 355 | 413 | 768 |
| **Frequency of listening to a radio call-in show on male circumcision in the past 12 months** | | | | | | | |
| **Rarely (1–2 times)** | 45.3 | 46.5 | 43.0 | 48.1 | 45.9 | 45.2 | 45.5 |
| **Sometimes (3–5 times)** | 35.5 | 32.9 | 34.2 | 35.8 | 33.7 | 36.3 | 35.0 |
| **Often (6 or more times, once per week)** | 12.4 | 18.2 | 17.4 | 9.6 | 12.6 | 14.5 | 13.5 |
| **Don't recall** | 4.4* | 1.0* | 2.9* | 4.6* | 3.3* | 4.2* | 3.7* |
| **Missing** | 2.4* | 1.5* | 2.5* | 1.9* | 2.6* | 1.8* | 2.2* |
| | | | | | | | |
| **Had ever talked with anyone about the call-in show in the past 12 months** | 38.2 | 45.1 | 42.3 | 36.8 | 36.8 | 42.3 | 39.6 |
| **Weighted number** | 1,146 | 277 | 717 | 706 | 705 | 718 | 1,423 |

*Number of respondents is less than 50.

**Table 8.3.2. Frequency of Seeing Specific Television Programmes and Communicating About the Programmes in the Past 12 Months, Amongst Respondents Who Recalled Seeing the Particular Programme, by Area of Residence, Sex, and Age Group**

| | Respondents Who Recalled Seeing the Particular Television Programme | | | | | | |
|---|---|---|---|---|---|---|---|
| | Urban | Rural | Males | Females | Youth | Adults | All |
| **Frequency of seeing any of the television advertisements in the past 12 months** | | | | | | | |
| **Rarely (1–2 times)** | 27.9 | 41.1 | 29.9 | 28.8 | 29.8 | 28.7 | 29.4 |
| **Sometimes (3–5 times)** | 38.0 | 30.0 | 35.0 | 39.4 | 40.1 | 34.9 | 37.1 |
| **Often (6 or more times, daily, or weekly)** | 25.1 | 17.8 | 23.6 | 25.0 | 25.0 | 23.8 | 24.3 |
| **Don't recall** | 4.6* | 4.0* | 7.1 | 1.7* | 5.9 | 2.6* | 4.5 |
| **Missing** | 4.5* | 7.1 | 4.5* | 5.1* | 5.7 | 3.6* | 4.8 |
| **Weighted number** | 197 | 1,526 | 896 | 827 | 998 | 725 | 1,723 |
| **Frequency of watching *Love Games* in the past 12 months** | | | | | | | |
| **Rarely (1–2 times)** | 35.2 | 44.2 | 38.2 | 34.0 | 36.4 | 35.5 | 36.0 |
| **Sometimes (3–5 times)** | 43.2 | 37.1 | 39.1 | 46.0 | 42.7 | 42.7 | 42.7 |
| **Often (6 or more times, once per week)** | 18.0 | 14.7* | 18.2 | 17.3 | 17.5 | 18.1 | 17.7 |
| **Don't recall** | 3.5* | 4.1* | 4.5* | 2.7* | 3.5* | 3.7* | 3.6* |
| | | | | | | | |
| **Had ever talked with anyone about *Love Games* in the past 12 months** | 43.3 | 42.1 | 45.1 | 41.4 | 43.8 | 42.4 | 43.2 |
| **Missing** | 2.4* | 3.6* | 3.0* | 2.1* | 2.0* | 3.3* | 2.5* |
| **Weighted number** | 1,454 | 150 | 780 | 824 | 946 | 658 | 1,604 |
| **Frequency of watching the *Love Games* after-show in the past 12 months** | | | | | | | |
| **Rarely (1–2 times)** | 25.6 | 41.9* | 26.1 | 27.9* | 28.8 | 24.4* | 27.0 |
| **Sometimes (3–5 times)** | 50.6 | 25.9* | 39.3 | 57.6 | 49.2 | 47.2 | 48.4 |
| **Often (6 or more times, once per week)** | 19.6 | 26.3* | 27.6* | 12.8* | 17.5* | 24.0* | 20.2 |
| **Don't recall** | 4.3* | 5.9* | 7.0* | 1.8* | 4.5* | 4.4* | 4.4* |
| **Weighted number** | 393 | 38 | 215 | 216 | 253 | 178 | 431 |

*Number of respondents is less than 50.

**Table 8.3.3. Frequency of Participation in a *Safe Love* Club and Communication With Community Members in the Past 12 Months, Amongst Respondents Who Participated in the Club, by Area of Residence, Sex, and Age Group**

| | Respondents Who Participated in a *Safe Love* Club* | | | | | | |
|---|---|---|---|---|---|---|---|
| | Urban | Rural | Males | Females | Youth | Adults | All |
| **Frequency of participation in the *Safe Love* Club or meetings in the past 12 months** | | | | | | | |
| **Rarely (1–2 times)** | 23.4 | 40.2 | 34.6 | 20.1 | 22.6 | 33.7 | 25.7 |
| **Sometimes (3–5 times)** | 22.2 | 18.7 | 18.3 | 23.8 | 18.1 | 31.2 | 21.7 |
| **Often (6 or more times, bimonthly)** | 27.2 | 7.6 | 17.1 | 29.1 | 28.8 | 13.0 | 24.5 |
| **Missing** | 27.3 | 33.5 | 30.0 | 27.0 | 30.4 | 22.0 | 28.1 |
| | | | | | | | |
| **Had ever talked with anyone in community about HIV prevention as a result of their participation** | 74.3 | 68.7 | 70.0 | 75.7 | 70.6 | 81.4 | 73.5 |

| | Respondents Who Participated in a *Safe Love* Club* | | | | | | |
|---|---|---|---|---|---|---|---|
| | Urban | Rural | Males | Females | Youth | Adults | All |
| | | | | | | | |
| **Number of community members with whom they talked …** | | | | | | | |
| **1–3** | 20.7 | 18.8 | 20.2 | 20.6 | 25.2 | 7.8 | 20.5 |
| **4–6** | 5.4 | 21.8 | 8.8 | 6.9 | 5.1 | 14.2 | 7.6 |
| **7–9** | 2.5 | 2.3 | 3.0 | 2.1 | 1.6 | 4.7 | 2.4 |
| **10+** | 45.8 | 25.8 | 38.1 | 46.1 | 38.7 | 54.7 | 43.0 |
| **Missing** | 25.7 | 31.3 | 30.0 | 24.3 | 29.4 | 18.6 | 26.5 |
| **Weighted number** | 114 | 18 | 50 | 82 | 96 | 36 | 132 |

*The number of respondents for all findings presented in the table is less than 50, with the exception of the percentage of all respondents who reported having ever talked with anyone in their community about HIV prevention as a result of their participation in a *Safe Love* Club.

**Table 8.3.4. Percentage of Respondents Who Had Ever Talked With a *Safe Love* Club Member About HIV Prevention in the Past 12 Months and Frequency of Communication, Amongst Respondents Who Had Not Participated in a *Safe Love* Club, by Area of Residence, Sex, and Age Group**

| | Respondents Who Did Not Participate in a *Safe Love* Club* | | | | | | |
|---|---|---|---|---|---|---|---|
| | Urban | Rural | Males | Females | Youth | Adults | All |
| **Frequency of communication with a *Safe Love* Club member about HIV prevention** | | | | | | | |
| **Once** | 58.7 | 31.3 | 43.3 | 57.6 | 60.8 | 39.5 | 52.4 |
| **2–3 times** | 22.7 | 59.1 | 32.2 | 30.3 | 22.9 | 43.6 | 31.0 |
| **4 or more times** | 4.6 | 9.6 | 11.0 | 2.8 | 4.8 | 7.2 | 5.8 |
| **Don't recall** | 9.4 | 0.0 | 13.6 | 3.7 | 9.8 | 3.3 | 7.2 |
| **Missing** | 4.7 | 0.0 | 0.0 | 5.6 | 1.7 | 6.5 | 3.6 |
| **Weighted number** | 74 | 22 | 35 | 61 | 59 | 38 | 97 |

*The number of respondents for all findings presented in the table is less than 50.

## 8.4. Spontaneous Exposure Findings

The findings presented in this section refer to respondents who were able to spontaneously recall specific topics/messages or content from specific campaign components. Thus, the findings are presented only for those who reported being exposed to the relevant campaign component and not for all respondents.

**Table 8.4.1. Percentage of Respondents Who Spontaneously Recalled Specific Words, Messages, or Programmes, Amongst Respondents Who Recalled Hearing or Seeing Anything From the *Safe Love* Campaign,[16] by Area of Residence, Sex, and Age Group**

| Spontaneously recalled specific words, messages, topics, or programmes | Respondents Who Recalled Hearing or Seeing Anything From the *Safe Love* Campaign | | | | | | |
|---|---|---|---|---|---|---|---|
| | Urban | Rural | Males | Females | Youth | Adults | All |
| **Use condoms for every sexual encounter** | 32.0 | 22.8 | 34.5 | 26.5 | 29.1 | 32.6 | 30.7 |
| **Reduce sexual partners to one at a time** | 22.7 | 17.8 | 22.2 | 21.7 | 19.7 | 24.8 | 22.0 |
| **Get tested/know your HIV status** | 20.8 | 16.9 | 18.7 | 21.8 | 18.8 | 21.9 | 20.2 |
| ***Safe Love*** | 21.6 | 11.4 | 17.9 | 22.5 | 21.6 | 18.3 | 20.1 |
| ***Love Games*** | 17.8 | 6.3* | 15.1 | 17.2 | 16.2 | 16.1 | 16.1 |
| **Increased HIV risk with having multiple partners** | 14.3 | 11.8 | 14.2 | 13.7 | 14.1 | 13.8 | 14.0 |
| **Think, Talk, Act** | 11.5 | 3.3* | 6.8 | 14.2 | 9.8 | 11.0 | 10.4 |
| **Do you know your HIV status?** | 10.0 | 8.2* | 10.2 | 9.2 | 8.9 | 10.7 | 9.7 |
| **Are you a *Safe Lover*?** | 9.7 | 3.4* | 7.6 | 10.0 | 6.9* | 11.2 | 8.8 |
| **Risk of HIV** | 7.8 | 8.8* | 9.9 | 5.9* | 7.9 | 8.0 | 7.9 |
| **Have you thought about HIV?** | 8.1 | 4.0* | 5.6* | 9.5 | 7.9 | 6.9* | 7.5 |
| **Sexual networks and associated HIV risk** | 7.2 | 4.3* | 7.1 | 6.4* | 5.6* | 8.3 | 6.8 |
| **VMMC** | 3.6* | 5.6* | 6.0 | 1.6* | 4.7* | 2.8* | 3.9 |
| **HIV counselling** | 3.1* | 4.1* | 2.5* | 4.1* | 2.9* | 3.8* | 3.3* |
| **How to ensure that a child is born HIV-free from an HIV-positive mother (PMTCT)** | 2.4* | 4.2* | 2.1* | 3.2* | 1.6* | 4.0* | 2.6* |
| **Healthy sexual relationships** | 2.0* | 3.6* | 2.6* | 1.8* | 1.6* | 3.1* | 2.2* |
| **PMTCT services** | 1.5* | 3.5* | 2.0* | 1.5* | 1.5* | 2.1* | 1.8* |
| **Sang programme tune/jingle** | 1.2* | 0.5* | 1.5* | 0.7* | 0.7* | 1.6* | 1.1* |
| **Negotiating condom use in marriage** | 1.1* | 1.4* | 1.4* | 0.9* | 1.1* | 1.1* | 1.1* |
| ***Life at the Turnoff*** | 0.7* | 1.0* | 0.6* | 0.9* | 0.3* | 1.3* | 0.8* |
| **Weighted number** | 1,484 | 247 | 889 | 842 | 966 | 765 | 1,731 |

*Number of respondents is less than 50.

[16] Respondents were first asked about whether they had heard of or seen anything from the *Safe Love* campaign, and then asked to spontaneously report what specific words, messages, or programmes they could remember from the campaign. Findings in Table 8.4.1. are thus based on only those who reported having heard of or seen anything from the *Safe Love* campaign.

**Table 8.4.2. Percentage of Respondents Who Spontaneously Recalled Specific Topics, Messages, or Words From the Radio Advertisements, Amongst Respondents Who Recalled Hearing, by Area of Residence, Sex, and Age Group**

| Spontaneously recalled specific topics, messages, or words | Respondents Who Recalled Hearing the Radio Adverts | | | | | | |
|---|---|---|---|---|---|---|---|
| | Urban | Rural | Males | Females | Youth | Adults | All |
| Use condoms for every sexual encounter | 33.3 | 23.7 | 33.1 | 29.9 | 31.8 | 31.0 | 31.5 |
| Get tested/know your HIV status | 31.1 | 19.6 | 25.7 | 32.0 | 27.6 | 30.4 | 28.9 |
| Increased HIV risk with having multiple partners | 28.7 | 15.9 | 27.1 | 25.5 | 25.9 | 26.7 | 26.3 |
| Reduce sexual partners to one at a time | 25.2 | 15.8 | 23.4 | 23.4 | 22.9 | 24.0 | 23.4 |
| Risk of HIV | 13.4 | 14.9 | 14.7 | 12.6 | 12.9 | 14.5 | 13.6 |
| How to ensure that a child is born HIV-free from an HIV-positive mother (PMTCT) | 4.5 | 5.2* | 3.3* | 5.9 | 3.7* | 5.7 | 4.6 |
| Steps on how to ensure correct condom use | 4.6 | 3.7* | 4.5 | 4.4* | 4.4 | 4.5* | 4.4 |
| VMMC | 4.4 | 3.4* | 7.4 | 1.1* | 5.1 | 3.1* | 4.2 |
| Weighted number | 2,210 | 494 | 1,288 | 1,316 | 1,382 | 1,222 | 2,604 |

*Number of respondents is less than 50.

**Table 8.4.3. Percentage of Respondents Who Spontaneously Recalled Specific Content From *Life at the Turnoff*: Names of Characters, What Happened to Bashi Chimbala, and Specific Topics or Messages, Amongst Respondents Who Recalled Listening, by Area of Residence, Sex, and Age Group**

| | Respondents Who Recalled Listening to *Life at the Turnoff* | | | | | | |
|---|---|---|---|---|---|---|---|
| | Urban | Rural | Males | Females | Youth | Adults | All |
| **Spontaneously recalled names of characters** | | | | | | | |
| Bashi Chimbala | 17.7 | 12.1* | 14.1 | 18.3 | 15.1 | 17.0 | 16.1 |
| Bashi Luka | 10.4* | 5.9* | 6.5* | 12.0* | 9.9* | 8.5* | 9.2 |
| Bani Faidesi | 6.0* | 3.8* | 3.6* | 7.3* | 6.2* | 4.7* | 5.4* |
| Isaac | 4.7* | 3.1* | 3.4* | 5.3* | 5.2* | 3.5* | 4.3* |
| Pastor Ackson | 3.3* | 2.9* | 2.4* | 4.0* | 3.2* | 3.2* | 3.2* |
| Mai Elder | 3.4* | 1.7* | 3.7* | 2.1* | 3.5* | 2.5* | 2.9* |
| Teacher Lambi | 3.1* | 1.4* | 3.0* | 2.3* | 3.0* | 2.4* | 2.7* |
| Bashi Rebecca | 2.7* | 2.3* | 1.3* | 4.1* | 1.4* | 3.6* | 2.6* |
| | | | | | | | |
| **Spontaneously recalled what happened to Bashi Chimbala** | | | | | | | |
| That he returned from hospital and openly shared his positive HIV status | 13.5 | 17.1 | 14.8 | 14.2 | 15.4 | 13.7 | 14.5 |
| | | | | | | | |
| **Spontaneously recalled hearing topics or messages** | | | | | | | |
| Reduce sexual partners to one at a time | 26.2 | 13.6* | 23.7 | 21.8 | 21.3 | 24.1 | 22.8 |
| Get tested/know your HIV status | 24.6 | 17.9 | 22.6 | 22.9 | 23.2 | 22.4 | 22.8 |
| Increased HIV risk with having multiple partners | 24.7 | 16.8 | 26.1 | 18.7 | 20.9 | 24.0 | 22.6 |

| | Respondents Who Recalled Listening to *Life at the Turnoff* | | | | | | |
|---|---|---|---|---|---|---|---|
| | Urban | Rural | Males | Females | Youth | Adults | All |
| **Use condoms for every sexual encounter** | 17.9 | 11.1* | 16.4 | 15.7 | 16.9 | 15.3 | 16.1 |
| **Risk of HIV** | 13.1 | 13.6* | 16.9 | 9.2* | 10.3* | 15.7 | 13.2 |
| **Sexual network and associated risks** | 6.1* | 4.6* | 7.9* | 3.2* | 5.4* | 5.9* | 5.7* |
| **HIV counselling** | 5.5* | 4.6* | 4.1* | 6.6* | 5.4* | 5.2* | 5.3* |
| **Healthy sexual relationships** | 2.8* | 4.8* | 2.8* | 3.9* | 3.7* | 3.1* | 3.6* |
| **How to prevent HIV transmission from mother to unborn baby (PMTCT)** | 3.9* | 1.8* | 3.1* | 3.6* | 1.0* | 5.3* | 3.3* |
| **Negotiating condom use in marriage** | 2.4* | 0.6* | 1.7* | 2.2* | 2.7* | 1.2* | 1.9* |
| **VMMC** | 0.9* | 1.6* | 1.6* | 0.5* | 1.3* | 0.9* | 1.1* |
| **PMTCT services** | 0.4* | 1.1* | 0.3* | 0.9* | 0.6* | 0.6* | 0.6* |
| **Weighted number** | 558 | 210 | 401 | 367 | 355 | 413 | 768 |

*Number of respondents is less than 50.

**Table 8.4.4. Percentage of Respondents Who Spontaneously Recalled Specific Topics or Messages From the Radio Call-in Show on Male Circumcision, Amongst Respondents Who Recalled Listening, by Area of Residence, Sex, and Age Group**

| Spontaneously recalled specific topics or messages from the call-in show | Respondents Who Recalled Listening to a Call-in Show on Male Circumcision | | | | | | |
|---|---|---|---|---|---|---|---|
| | Urban | Rural | Males | Females | Youth | Adults | All |
| **Go for male circumcision** | 65.3 | 65.0 | 63.8 | 66.6 | 64.5 | 66.0 | 65.2 |
| **Where to get circumcised** | 34.1 | 22.2 | 18.7 | 45.2 | 26.7 | 36.8 | 31.8 |
| **Circumcision reduces risk of sexually transmitted infection** | 25.6 | 28.4 | 29.6 | 22.7 | 24.0 | 28.4 | 26.2 |
| **Circumcision reduces risk of HIV infection** | 22.5 | 20.2 | 19.4 | 24.7 | 21.8 | 22.3 | 22.0 |
| **Safety of medical male circumcision** | 18.6 | 16.6 | 19.0 | 17.4 | 15.2 | 21.2 | 18.2 |
| **Circumcision reduces risk of cervical cancer** | 16.1 | 7.4* | 16.2 | 12.7 | 14.2 | 14.6 | 14.4 |
| **Condom use after circumcision** | 4.6* | 1.5* | 5.4* | 2.5* | 3.7* | 4.3* | 4.0 |
| **Potential risks of circumcision** | 3.4* | 3.0* | 3.4* | 3.3* | 3.4* | 3.2* | 3.3* |
| **Benefits of male circumcision** | 3.0* | 2.6* | 4.3* | 1.6* | 3.2* | 2.7* | 3.0* |
| **Abstain from sex after circumcision** | 2.7* | 1.8* | 3.1* | 2.0* | 2.8* | 2.3* | 2.5* |
| **Weighted number** | 1,146 | 277 | 717 | 706 | 705 | 718 | 1,423 |

*Number of respondents is less than 50.

**Table 8.4.5. Percentage of Respondents Who Spontaneously Recalled Specific Topics or Messages From the Television Advertisements, Amongst Respondents Who Recalled Seeing, by Area of Residence, Sex, and Age Group**

| Spontaneously recalled specific topics or messages | Respondents Who Recalled Seeing Any of the Television Advertisements | | | | | | |
|---|---|---|---|---|---|---|---|
| | Urban | Rural | Males | Females | Youth | Adults | All |
| Use condoms for every sexual encounter | 39.0 | 21.1 | 38.3 | 35.5 | 35.0 | 39.7 | 37.0 |
| Increased HIV risk with having multiple partners | 32.1 | 23.0 | 28.9 | 33.3 | 28.9 | 33.9 | 31.0 |
| Get tested/know your HIV status | 30.8 | 16.2 | 24.9 | 33.7 | 26.0 | 33.4 | 29.1 |
| Reduce sexual partners to one at a time | 28.8 | 16.3 | 23.9 | 31.1 | 24.7 | 31.1 | 27.4 |
| Risk of HIV | 12.1 | 6.6* | 12.5 | 10.2 | 9.1 | 14.7 | 11.4 |
| Steps on how to ensure correct condom use | 9.4 | 4.0* | 8.5 | 9.1 | 9.7 | 7.5 | 8.8 |
| VMMC | 8.3 | 8.4* | 13.3 | 2.9* | 9.0 | 7.4* | 8.3 |
| How to ensure that a child is born HIV-free from an HIV-positive mother (PMTCT) | 4.3* | 2.0* | 2.0* | 6.3* | 3.9* | 4.3* | 4.1* |
| Weighted number | 1,526 | 197 | 896 | 827 | 998 | 725 | 1,723 |

*Number of respondents is less than 50.

**Table 8.4.6. Percentage of Respondents Who Spontaneously Recalled Specific Content From *Love Games* and the *Love Games* After-Show, Amongst Respondents Who Recalled Watching, by Area of Residence, Sex, and Age Group**

| | Respondents Who Recalled Watching *Love Games* | | | | | | |
|---|---|---|---|---|---|---|---|
| | Urban | Rural | Males | Females | Youth | Adults | All |
| **Spontaneously recalled names of characters** | | | | | | | |
| Mimi | 27.6 | 22.1* | 12.0 | 41.3 | 27.6 | 26.2 | 27.1 |
| Tasheni | 24.9 | 16.9 | 16.9 | 30.9 | 23.3 | 25.2 | 24.1 |
| Carol | 17.3 | 9.4* | 10.0 | 22.8 | 16.0 | 17.4 | 16.6 |
| Charlie | 14.4 | 11.2* | 11.5 | 16.6 | 14.5 | 13.7 | 14.1 |
| Womba | 11.3 | 9.8* | 7.0 | 15.1 | 10.6 | 11.9 | 11.1 |
| David | 8.0 | 1.9* | 5.9* | 8.9* | 8.7 | 5.6* | 7.5 |
| Chiluflya | 6.5 | 1.4* | 6.2* | 6.0* | 7.7* | 3.8* | 6.1 |
| Judge Boaz Chanda | 5.4 | 3.3* | 4.0* | 6.4* | 3.7* | 7.5* | 5.2 |
| Tamara | 5.2 | 3.9* | 2.3* | 7.8* | 5.6* | 4.4* | 5.1 |
| Weighted number | 1,454 | 150 | 780 | 824 | 946 | 658 | 1,604 |
| **Spontaneously recalled to whom Charlie was engaged** | | | | | | | |
| Carol | 25.5 | 15.9* | 20.8 | 28.3 | 23.8 | 25.9 | 24.6 |
| Weighted number | 1,454 | 150 | 780 | 824 | 946 | 658 | 1,604 |
| **Spontaneously recalled specific topics or messages from *Love Games*** | | | | | | | |
| Increased HIV risk with having multiple partners | 42.5 | 33.7 | 39.7 | 43.7 | 39.3 | 45.1 | 41.7 |
| Reduce sexual partners to one at a time | 33.8 | 27.8 | 33.6 | 33.0 | 32.0 | 35.1 | 33.3 |
| Get tested/know your HIV status | 31.0 | 21.7 | 26.3 | 33.7 | 28.7 | 32.1 | 30.1 |
| Use condoms for every sexual encounter | 29.8 | 23.7 | 33.6 | 25.1 | 28.7 | 30.0 | 29.2 |
| Risk of HIV | 15.0 | 10.5* | 15.4 | 13.8 | 14.2 | 15.1 | 14.6 |

| | Respondents Who Recalled Watching *Love Games* | | | | | | |
|---|---|---|---|---|---|---|---|
| | Urban | Rural | Males | Females | Youth | Adults | All |
| **Healthy sexual relationships** | 14.8 | 9.1* | 14.4 | 14.2 | 12.1 | 17.5 | 14.3 |
| **How to ensure that a child is born HIV-free from an HIV-positive mother (PMTCT)** | 10.3 | 5.6* | 5.4* | 14.0 | 7.1 | 13.8 | 9.8 |
| **Consequences of choices we make** | 7.3 | 3.0* | 4.4* | 9.2 | 6.1* | 8.0* | 6.9 |
| **VMMC** | 1.3* | 0.7* | 2.2* | 0.4* | 1.6* | 0.8* | 1.3* |
| **Be faithful** | 0.9* | 0.7* | 0.9* | 0.9* | 0.8* | 1.0* | 0.9* |
| **Weighted number** | 1,454 | 150 | 780 | 824 | 946 | 658 | 1,604 |
| **Spontaneously recalled names of presenters of the *Love Games* after-show**** | | | | | | | |
| **Chi** | 38.5 | 14.0* | 38.7 | 34.1 | 35.9 | 37.0 | 36.4 |
| **Lulu** | 21.7 | 14.6* | 22.8* | 19.3* | 23.4* | 17.7* | 21.1 |
| **Kazya** | 19.1 | 6.6* | 7.8* | 28.4* | 18.2* | 17.7* | 18.0 |
| **Weighted number** | 393 | 38 | 216 | 215 | 253 | 178 | 431 |

*Number of respondents is less than 50.
**For respondents who recalled watching the *Love Games* after-show.

**Table 8.4.7. Percentage of Respondents Who Spontaneously Recalled Specific Topics or Messages From the *Safe Love* Club or Meetings in the Past 12 Months, Amongst Respondents Who Participated, by Area of Residence, Sex, and Age Group**

| Spontaneously recalled specific topics or messages from the *Safe Love* Club or meetings | Respondents Who Participated in a *Safe Love* Club or Meetings | | | | | | |
|---|---|---|---|---|---|---|---|
| | Urban | Rural | Males | Females | Youth | Adults | All |
| **Get tested/know your HIV status** | 38.2 | 30.0 | 27.7 | 42.9 | 37.2 | 36.7 | 37.1 |
| **Reduce sexual partners to one at a time** | 33.9 | 55.5 | 27.7 | 42.5 | 29.2 | 57.4 | 36.9 |
| **Use condoms for every sexual encounter** | 36.5 | 37.5 | 45.3 | 31.3 | 30.5 | 53.1 | 36.6 |
| **Increased HIV risk with having multiple partners** | 33.2 | 21.7 | 24.0 | 36.3 | 32.9 | 28.3 | 31.6 |
| **Risk of HIV** | 27.4 | 6.7 | 19.7 | 27.5 | 27.5 | 16.6 | 24.5 |
| **Benefits of male circumcision** | 9.8 | 13.9 | 12.0 | 9.4 | 7.8 | 17.3 | 10.4 |
| **How to ensure that a child is born HIV-free from an HIV-positive mother (PMTCT)** | 9.0 | 3.2 | 4.1 | 10.8 | 7.1 | 11.3 | 8.2 |
| **How to get a male circumcision site** | 5.1 | 7.2 | 2.3 | 7.3 | 6.0 | 4.0 | 5.4 |
| **Weighted number** | 114 | 18 | 50 | 82 | 96 | 36 | 132 |

Note: The number of respondents for all findings presented in the table is less than 50.

**Table 8.4.8. Percentage of Respondents Who Spontaneously Recalled Specific Topics or Messages From Their Conversation With a *Safe Love* Club Member in the Past 12 Months, Amongst Respondents Who Had Not Participated, by Area of Residence, Sex, and Age Group**

| Spontaneously recalled specific topics or messages from conversation with a *Safe Love* Club member | Respondents Who Had Not Participated in a *Safe Love* Club or Meetings | | | | | | |
|---|---|---|---|---|---|---|---|
| | Urban | Rural | Males | Females | Youth | Adults | All |
| **Get tested/know your HIV status** | 38.1 | 53.7 | 24.0 | 51.6 | 29.4 | 60.5 | 41.6 |

| Spontaneously recalled specific topics or messages from conversation with a *Safe Love* Club member | Respondents Who Had Not Participated in a *Safe Love* Club or Meetings | | | | | | |
|---|---|---|---|---|---|---|---|
| | Urban | Rural | Males | Females | Youth | Adults | All |
| Increased HIV risk with having multiple partners | 48.8 | 16.5 | 33.7 | 45.8 | 50.6 | 27.3 | 41.4 |
| Use condoms for every sexual encounter | 30.2 | 48.2 | 34.2 | 34.4 | 27.3 | 45.1 | 34.3 |
| Reduce sexual partners to one at a time | 23.2 | 30.6 | 30.6 | 21.6 | 29.0 | 18.4 | 24.9 |
| Risk of HIV | 16.5 | 20.9 | 28.7 | 11.2 | 20.0 | 13.5 | 17.5 |
| Male circumcision | 11.2 | 22.1 | 12.0 | 14.6 | 14.4 | 12.6 | 13.7 |
| Cross-generational sexual relationships | 9.0 | 5.2 | 0.0 | 12.8 | 11.5 | 3.0 | 8.2 |
| How to ensure that a child is born HIV-free from an HIV-positive mother (PMTCT) | 4.2 | 10.9 | 11.7 | 2.3 | 6.8 | 3.9 | 5.7 |
| Weighted number | 74 | 22 | 35 | 61 | 58 | 38 | 96 |

Note: The number of respondents for all findings presented in the table is less than 50.

**Table 8.4.9. Percentage of Male Respondents Who Spontaneously Recalled Specific Topics or Messages From Text Messages About Male Circumcision in the Past 12 Months, Amongst Respondents Who Recalled Receiving Text Messages, by Area of Residence and Age Group**

| Spontaneously recalled specific topics or messages from text messages about male circumcision** | Respondents Who Recalled Receiving Text Messages About Male Circumcision | | | | |
|---|---|---|---|---|---|
| | Urban | Rural | Youth | Adults | All |
| Go for male circumcision | 74.3 | 69.4* | 70.9 | 77.7 | 73.6 |
| Safety of medical male circumcision | 10.7* | 10.4* | 9.1* | 13.2* | 10.7* |
| Weighted number | 218 | 38 | 156 | 100 | 256 |

*Number of respondents is less than 50.

**Findings are available only for two specific topics or messages from the text messages due to data entry errors.

## 8.5. Exposure to Other HIV Campaigns' Findings

**Table 8.5.1. Percentage of Respondents Who Recalled Hearing or Seeing a Programme or Campaign on HIV Prevention Other Than the *Safe Love* Campaign, Who Recalled Hearing or Seeing Anything From the *Brothers for Life* Campaign, and Who Had Participated in Other Community Activities on HIV Prevention in the Past 12 Months, by Area of Residence, Sex, and Age Group**

| | All Respondents | | | | | | |
|---|---|---|---|---|---|---|---|
| | Urban | Rural | Males | Females | Youth | Adults | All |
| **Recalled hearing or seeing a programme or campaign on HIV prevention other than the *Safe Love* campaign** | 29.9 | 18.9 | 30.2 | 23.6 | 25.4 | 28.3 | 26.8 |
| | | | | | | | |
| **Recalled hearing or seeing anything from the *Brothers for Life* campaign** | 29.3 | 7.9 | 27.7 | 19.3 | 25.0 | 21.5 | 23.3 |
| | | | | | | | |
| **Participated in other community activities on HIV prevention** | 13.5 | 15.0 | 14.8 | 13.1 | 13.1 | 14.9 | 13.9 |
| **Weighted number** | 2,968 | 1,146 | 1,993 | 2,121 | 2,169 | 1,945 | 4,114 |

## 8.6. List of Outcomes by the Four Campaign Topic Areas

**Table 8.6.1. List of Condom Use Outcomes Examined for Campaign Effects**

| Condom Use Outcomes |
|---|
| **Knowledge** |
| 1. Knew that condom use is a protective behaviour against HIV |
| 2. Knew where to get condoms |
| 3. Knew how to correctly use a condom |
| **Beliefs/attitudes** |
| 4. Agreed with the statement "Condoms should be used every time you have sex with your regular partner" |
| 5. Agreed with the statement "Condoms should be used every time you have sex with a casual partner" |
| 6. Disagreed with the statement "If a woman asks her husband/partner to use a condom it implies that she does not trust him" |
| 7. Disagreed with the statement "If a man asks his wife/partner to use a condom it implies that he does not trust her" |
| 8. Disagreed with the statement "Condoms reduce sexual pleasure" |
| **Self-efficacy** |
| 9. Agreed with the statement "I can use a condom correctly" |
| 10. Agreed with the statement "I can purchase a condom if I want to" |
| 11. Agreed with the statement "I am comfortable carrying condoms if I want to" |
| 12. Agreed with the statement "I could ask my spouse/partner to use a condom if I want him/her to" |
| **Social norms** |
| 13. Agreed with the statement "People in my community believe condoms should be used with a causal (non-regular) partner" |
| 14. Disagreed with the statement "People in my community believe condoms should not be used with their regular partners, including spouses" |
| 15. Agreed with statement "People in my community believe condoms protects one from getting HIV" |
| **IPC** |
| 16. Talked about condom use with sexual partner in the last 6 months |
| 17. Negotiated condom use with a partner in the last 6 months |
| 18. Talked about condom use with friends in the last 6 months |
| **Intention** |
| 19. Intended to use condoms consistently with regular sexual partner(s) in the next 6 months |
| 20. Intended to use condoms consistently with casual sexual partners in the next 6 months |
| **Behaviours** |
| 21. Purchased or obtained condoms in the last 6 months |
| 22. Used a condom at last sexual encounter in the last 6 months |
| 23. Used a condom at last sexual encounter with a regular partner in the last 6 months |
| 24. Used a condom at last sexual encounter with a non-regular partner in the last 6 months |
| 25. Used condoms consistently with last sexual partner in the last 4 weeks |
| 26. Used condoms consistently with last regular partner in the last 4 weeks |
| 27. Used condoms consistently with last non-regular partner in the last 4 weeks |
| 28. Used condoms consistently with all partners in the last 6 months |
| 29. Used condoms consistently with all regular partner(s) in the last 6 months |
| 30. Used condoms consistently with all non-regular partner(s) in the last 6 months |

**Table 8.6.2. List of MCP Outcomes Examined for Campaign Effects**

| MCP Outcomes |
|---|
| **Knowledge** |
| 1. Spontaneously mentioned partner reduction as a protective behaviour against HIV |
| 2. Knew that there's a higher risk of HIV infection from having MCPs |
| 3. Knew that women having sexual relationships with men 10 years or older are at a higher risk of getting infected with HIV |
| **Beliefs/attitudes** |
| 4. Disagreed with the statement "For men, having more than one sexual partner at a time demonstrates he is a real man" |
| 5. Strongly disagreed with the statement "It is fine for a man to have more than one sexual partner at a time" |
| 6. Strongly disagreed with the statement "It is fine for a woman to have more than one sexual partner at a time" |
| 7. Strongly agreed with the statement "I believe having one partner at a time is important" |
| 8. Strongly agreed with the statement "Having more than one partner puts me at greater risk for HIV" |
| **Self-efficacy** |
| 9. Strongly agreed with the statement "I feel confident in my ability to discuss my sexual needs with my partner" |
| 10. Strongly agreed with the statement "I could have only one sexual partner for a long time" |
| 11. Strongly agreed with the statement "I could talk with my partner about whether he/she has other sexual partners" |
| **Social norms** |
| 12. Disagreed with the statement "In my community, it is acceptable for men to have more than one sexual partner at a time" |
| 13. Disagreed with the statement "In my community, it is acceptable for women to have more than one sexual partner at a time" |
| 14. Agreed with the statement "In my community, most men I know only have sex with one partner" |
| 15. Agreed with the statement "In my community, most women I know only have sex with one partner" |
| 16. Agreed with the statement "In my community, people believe that having multiple partners increases their risk of HIV" |
| **IPC** |
| 17. Talked with partner about being faithful in the last 6 months |
| 18. Talked with partner about MCPs increasing the risk of HIV transmission in the last 6 months |
| 19. Discussed with friends about MCPs increasing the risk of HIV transmission in the last 6 months |
| **Intention** |
| 20. Intended to have none or one sexual partner in the next 6 months |
| **Behaviours** |
| 21. Had two or more partners in the past 6 months |
| 22. Average number of partners in the past 6 months |
| 23. Concurrency point prevalence at 6 months before the survey |
| 24. Concurrency cumulative prevalence in the past 6 months |

**Table 8.6.3. List of HIV Testing Outcomes Examined for Campaign Effects**

| HIV Testing Outcomes |
|---|
| **Knowledge** |
| 1. Knew where to get tested for HIV |
| 2. Knew that there are drugs to prevent MTCT |
| **Beliefs/attitudes** |
| 3. Disagreed with the statement "I do not need to know the HIV status of a sexual partner before engaging in a sexual relationship with him/her" |
| 4. Strongly agreed with the statement "Women who are pregnant should get tested for HIV" |
| 5. Strongly agreed with the statement "Knowing your HIV status is important" |
| 6. Strongly agreed with the statement "Knowing your partner's HIV status is important" |
| 7. Strongly agreed with the statement "Couples should be tested for HIV together before having sexual intercourse" |
| 8. Agreed with the statement "If I were HIV positive, there would still be hope for my future" |
| **Self-efficacy** |
| 9. Strongly agreed with the statement "I could talk with my partner about getting an HIV test if I wanted to" |
| 10. Strongly agreed with the statement "I could get an HIV test if I wanted to" |
| **Social norms** |
| 11. Disagreed with the statement "People in my community fear getting tested for HIV" |
| 12. Disagreed with the statement "Women who are pregnant fear going to antenatal care because they will find out their HIV status" |
| 13. Disagreed with the statement "In my community, most couples keep their HIV status a secret from one another" |
| 14. Agreed with the statement "People in my community believe it is important to get an HIV test to know your HIV status" |
| 15. Agreed with the statement "In my community, most people who have sexual intercourse get tested for HIV" |
| **IPC** |
| 16. Talked with partner about getting tested for HIV in the last 6 months |
| 17. Knew their partner's HIV status |
| 18. Disclosed HIV status to partner |
| **Intention** |
| 19. Intended to get an HIV test in the next 6 months: amongst all respondents and those who had not been tested in the past 6 months |
| **Behaviours** |
| 20. Got tested for HIV and received result in the past 6 months |
| 21. Partner got tested and received result within the past 6 months |
| 22. Got tested for HIV during current/last pregnancy and received the results |
| 23. Partner got tested for HIV during pregnancy in the past 6 months |

**Table 8.6.4. List of VMMC for Campaign Effects**

| VMMC Outcomes |
|---|
| **Pre-contemplation**<br>*Includes knowledge outcomes |
| 1. Knew what male circumcision is |
| 2. Knew the benefits of male circumcision |
| 3. Knew that male circumcision reduces the risk of HIV |
| **Contemplation**<br>*Includes knowledge, beliefs/attitudes, and social norm outcomes |
| 4. Knew where to get circumcised |
| 5. Considered getting circumcised (males only) |
| 6. Knew that a man should wait at least six weeks to have sexual intercourse again after being circumcised |
| 7. Agreed with the statement "I believe circumcision is a simple procedure" |
| 8. Disagreed with the statement "Being circumcised reduces a man's sexual pleasure" |
| 9. Agreed with the statement "It is safer for a man to get circumcised at a health facility than by a traditional circumciser" |
| 10. Agreed with the statement "Circumcision helps people reduce their risk of HIV" |
| 11. Disagreed with the statement "A circumcised man does not need to use condoms" |
| 12. Disagreed with the statement "Men in my community prefer to get circumcised from a traditional circumciser" |
| 13. Agreed with the statement "People in my community believe it is beneficial for a man to get circumcised" |
| 14. Agreed with the statement "People in my community believe that it is safe to get circumcised at a health facility" |
| 15. Agreed with the statement "The women in my community prefer a partner who is circumcised" |
| **Preparation**<br>*Includes beliefs/attitudes, self-efficacy, IPC, and intention outcomes |
| 16. Sought information on male circumcision |
| 17. Agreed with the statement "I could get information on male circumcision if I wanted to" |
| 18. Agreed with the statement "I am confident I could get circumcised at a health clinic" (males only) |
| 19. Talked with different people about male circumcision, including: partner, friends, family, and health worker |
| 20. Intended to be circumcised in the next 6 months (males only) |
| 21. Set up appointment to get circumcised (males only) |
| **Action**<br>*Includes behavioural outcomes |
| 22. Was circumcised in the last 6 months by a health professional (males only) |
| 23. Was circumcised in the last 6 months to prevent HIV |
| **Maintenance**<br>*Includes IPC and behavioural outcomes |
| 24. Abstained from sex after undergoing male circumcision for at least six weeks |
| 25. Used condoms during sex after undergoing male circumcision |
| 26. Encouraged friends or family to get circumcised |

*The VMMC component of the *Safe Love* campaign followed the Stages of Change theory; therefore, the outcomes for this component are listed by the different stages of the theory. The intermediate and behavioural outcomes (i.e., knowledge, beliefs/attitudes, self-efficacy, social norms, IPC, intentions, and behaviours) fit within the framework and have been indicated accordingly within each of the stages of the theory. In a few instances, additional outcomes are included that do not fit within the same intermediate outcome categories.