Socio-demographic and selected Social Cognitive Theory constructs associated with consistent condom use among sexually active 18-34 year olds in Botswana in 2010

Kutlo Thathana
Student Number: 501566

Supervisors:

Sara Nieuwoudt

Dr Iris Halldorsdottir

A research report submitted to the School of Public Health, University of the Witwatersrand in partial fulfilment of the requirements for the degree of Master of Public Health.

September 2014

DECLARATION

I, Kutlo Thathana, declare that this research report is my original work. It is submitted in partial fulfilment of the requirements for the degree of Master of Public Health, in the field of Social and Behaviour Change Communication, in the University of the Witwatersrand, Johannesburg. It has not been submitted before for any degree or examination to this or any other university.

12 September 2014

ABSTRACT

Introduction: SCT is an interpersonal theory that explains human behaviour as a three-way relationship between personal factors, environmental factors and their behavioural factors (Bandura, 1989). The theory identifies self-efficacy and outcome expectations as part of the five key determinants of behaviour. Condom use still remains one of the most popular forms of HIV prevention, however its effectiveness depends on whether it is used consistently or not. The overall aim of the study was to determine whether condom self-efficacy and outcome expectations are associated with consistent condom use among sexually active 18-34 year olds in Botswana in 2010.

Materials and Methods: The study design was a quantitative secondary analysis of nationally-representative cross-sectional survey collected by the PSI Botswana's Condom Social Marketing TRaC: Tracking Results Continuously, 2010 survey (herein, TRaC). The study population for TRaC was men and women aged 18-34 years old in Botswana who reported being sexually active in the past 12 months and were not practicing abstinence when recruited in 2010. The sample size was 1299 which was randomly selected from 96 enumeration areas (EAs).

Results: Self-efficacy to use condoms was positively associated with consistent condom use, while overall condom self-efficacy and self-efficacy to negotiate condom use were not associated with consistent condom use. Social outcome expectations and pleasure outcome expectation were also associated with consistent condom use, although overall outcome expectations and those related to health were not associated with consistent condom use. Males significantly reported significantly lower expectations of pleasure than females. That said, female were significantly less likely to use condoms consistently and some aspects of their self-efficacy and outcome expectations were worse than males, which also was reflected in measures of socio-demographic disadvantage.

Conclusions: Overall the study showed that a high percentage of 18-34 year olds in Botswana in 2010 used condoms consistently regardless of their socio-demographic profile or the sexual partner type. Also, encouragingly, a high percentage of 18-34 year olds in Botswana had either moderate or positive condom self-efficacy as well as positive output expectations of condom use. The two constructs of SCT were inconsistent in predicting consistent condom use, which suggests that measures for the constructs must be refined and supplemented with additional explanatory variables. Some constructs can assist health communication practitioners. For instance, the findings suggest that messages the support the notion that sex can be pleasurable with a condom should be targeted towards both sexes, rather than primarily focusing on the health benefits. The lack of self-efficacy to use condoms also needs to be addressed, as well as the need for more messages that portray social support for condom use. Beyond SCT, the findings indicate, there needs to be further research on the specific gender differences in condom use patterns and condom promotion campaigns should produce gender-sensitive messaging.

ACKNOWLEDGEMENTS

I would like to express my gratitude to my supervisors, Sara Nieuwoudt and Dr Iris Halldorsdottir for the useful comments, remarks and engagement through the learning process of this master thesis. Furthermore I would like to thank PSI Botswana for granting me permission to use their data. Finally my greatest gratitude to the Soul City Institute for Health & Development Communication, for awarding me with the fellowship for a Masters in Public Health in the field of Social and Behaviour Change Communication.

TABLE OF CONTENTS

List of Tables

ABBREVIATIONS/ACRONYMS

AIDS Acquired Immunodeficiency Syndrome

EAs Enumeration Areas

HIV Human Immunodeficiency Virus

PSI Population Services International

SCT Social Cognitive Theory

TRaC Tracking Results Continuously

USAID United States Agency for International Development

CHAPTER 1 INTRODUCTION, AIMS AND OBJECTIVES, AND LITERATURE REVIEW

The following chapter provides background information on HIV and condom use in Botswana, research conducted on promoting consistent condom use, and how Social Cognitive Theory has been used in the context of condom use. It also is comprised of a literature review on condom use in sub-Saharan Africa and an outline of the study's aim and objectives.

1.1. Introduction

- **HIV and Condom Use in Botswana**

Botswana's HIV prevalence and incidence rates are alarmingly high at 17.6% and 2.9% respectively (Central Statistics Office Botswana, 2009). According to USAID's estimates, the Botswana adult HIV prevalence is 24.8%, the highest in the world (USAID, 2010). HIV transmission in Southern Africa occurs largely through sex and most predominantly among heterosexual couples (Hearst and Chen, 2004). Reasons identified for such high HIV prevalence and incidence rates include high population mobility between the rural and urban areas, income inequality, high rates of migrant labour in the mining industry, (McIntyre et al., 2009), and the lack of control women have over their sexual lives due to financial dependency on their male partners (Shannon et al., 2012).

The effectiveness of condoms as a prevention method for HIV and other sexually transmitted diseases has been reported throughout the world (Lagarde et al., 2001a). According to the Botswana Central Statistics Office "81.1% of women and men aged 15-49 who have had sexual intercourse with more than one partner in the last 12 months reported the use of a condom during last sexual intercourse" (2009, p. 24). However the effectiveness of condom use as a HIV prevention method greatly depends on whether they are used consistently or not (Hearst and Chen, 2004). Consistent condom use has been defined as the use of condoms in every sex act (Bankole et al., 2007), which still remains a great challenge in sub-Saharan Africa (Jama Shai et al., 2010).

Interventions to promote condom use, specifically consistent condom use, are one of the earliest health interventions in the HIV and AIDS sector (HEALD, 2006).

- **Promoting consistent condom use**

Condom social marketing is more than just about making condoms accessible, but also effectively delivering messages on correct and consistent condom use (Chapman et al., 2012, Hearst and Chen, 2004), through global health organisations such as Population Services International (PSI). PSI was established in 1970 as a family planning organisation and developed its first HIV prevention and condom project in 1988 (PSI Washington, 2010). Recent studies in Africa prove that in order for condom usage to increase, there needs to be an increase in demand for condoms rather than an increase in availability (Siegler et al., 2012).

In order to establish the effectiveness of the condom social marketing interventions, PSI Botswana uses a research tool termed Tracking Results Continuously (TRaC). TRaC is a research survey that assists them in monitoring and evaluating social marketing interventions as well as audience segmentation (Goradia,

2010). Within their condom TRaC research, self-efficacy and outcome expectations are included as potential determinants of consistent condom use.

- **Social Cognitive Theory and condom use**

According to Bartholomew and Mullen (2011), theory provides the foundation for behaviour change research as it defines determinants of the behaviour (2011, p. 21). One key theory in health promotion is the Social Cognitive Theory (SCT), which was previously known as the Social Leaning Theory (Glanz et al, 2008). SCT is an interpersonal theory that explains human behaviour as a three-way relationship between personal factors, environmental factors and their behavioural factors (Bandura, 1989). SCT has several constructs that can be grouped into five categories:

(1) ***Psychological determinants of behaviour*,** include three constructs, namely Self-efficacy, Outcome expectations and Outcome expectancies.

Self-efficacy is a person's confidence that they can engage in a behaviour, including consideration of their motivation and social environment (Bandura, 1990). According to Bandura, self-efficacy is important mainly because, "*people choose what challenges to undertake, how much effort to expend in the endeavour, how long to persevere in the face of obstacles and failures, and whether failures are motivating or demoralizing"* (2001, p. 10).
Beyond self-efficacy to use condoms, having the self-efficacy to negotiate condom use is important, as it implies that one has the ability to enforce the use of condoms regardless of their social environment (Wingood and DiClemente, 2000, p. 553).

Outcome expectations, according to Bandura, are effective stimulus for ones behaviour as, people tend to adopt behaviours that they believe will result in valuable outcomes, over the behaviours that are likely to result in negative or outcomes they deem as personally invaluable (2001, p. 7). Outcome expectations can be in the form of physical outcomes, social reactions and self-evaluative reactions (Bandura, 2004). Bandura describes these three forms of outcome expectations as follows:

> "Physical outcomes include the pleasurable and aversive effects of the behavior and the accompanying material losses and benefits. Behavior is also partly regulated by the social reactions it evokes. The social approval and disapproval the behavior produces in one's interpersonal relationships is the second major class of outcomes. The third set of outcomes concerns the positive and negative self-evaluative reactions to one's health behavior and health status. People adopt personal standards and regulate their behavior by their self-evaluative reactions. They do things that give them self-satisfaction and self-worth and refrain from behaving in ways that breed self-dissatisfaction." (2004, p. 144)

Outcome expectancies are "the value a person places on a particular outcome"(Glanz et al., 2002, p. 172). For instance, if a person expects that wearing a condom will result in less pleasure, outcome expectancies will describe how much value the person places on pleasure during sex to predict whether he or she would use a condom.

(2) ***Observational learning,*** posits that behaviour can be modelled, with viewers learning through observation (Fryling et al., 2011). Observation learning is described to occur through acquisition and

performance (Fryling et al., 2011). In terms of condom use, a man may acquire the knowledge to put on a condom after watching a person a demonstrate how to put a condom.

(3) ***Environmental determinants of behaviour*** stipulate that one's behaviour is influenced by external and physical factors, including incentive motivation and facilitation (Rogers et al., 2004). An external factor determining condom use could be the physical availability of condoms. Incentive motivation for condom use could be getting to have sex with a partner who insists on condom use, while education on how to use condoms is an example of facilitation.

(4) ***Self-regulation*** presumes that people act in accordance to their personal self-influence which is based on self-monitoring, goal-setting, societal feedback and support, self-reward, and self- instruction (Glanz et al., 2008). An example is a person who emphasises on the use of condoms with all sexual partners as taking personal responsibility against the spread of sexual transmitted infections.

(5) ***Moral disengagemen***t as a determinate of negative behaviour based on euphemistic labelling, dehumanization and attribution of blame, diffusion and displacement of responsibility, and perceived moral justification. (Glanz et al, 2008). In the context of not using a condom, this might be displayed by blaming the partner for not using the condom, for example.

As determinants of health behaviour, the key constructs of SCT can be categorised in five concepts; (i) the knowledge to adopt a health behaviour and advantages and disadvantages of the adopted health behaviour, (ii) perceived self-efficacy to adopt the health behaviour, (iii) outcome expectations of adopting a health behaviour, (iv) goals set by an individual including the steps to achieve them, and finally (v) the perceived facilitators and social impediments to achieving the desired health behaviour (Bandura, 2004).

This study explored two psychological determinants that operate at the level of the individual, namely condom use self-efficacy and outcome expectations of condom use.

1.2. Study Aim and Objectives

The overall aim of the study was to determine whether condom self-efficacy and outcome expectations are associated with consistent condom use among sexually active 18-34 year olds in Botswana in 2010.

Objectives

1. **To describe socio-demographic characteristics of sexually active 18-34 year olds in Botswana in 2010, by sex.**
2. **To describe condom self-efficacy (negotiation and use) and outcome expectations of using condoms among sexually active 18-34 year olds in Botswana in 2010, by sex.**
3. **To describe consistent condom use among sexually active 18-34 year olds in Botswana in 2010, by sex and partner type.**
4. **To determine the association between consistent condom use among sexually active 18-34 year olds in Botswana in 2010 and their;**
    i. **Socio-demographic characteristics,**

ii. **Condom self-efficacy, and**
iii. **Outcome expectations of using condoms.**

1.3. Literature Review

The literature review includes studies conducted not only in Botswana but sub-Saharan Africa. The literature focuses on correct and consistent condom use, socio-demographic characteristics of condom users' and condom use self-efficacy and outcome expectations. In addition, the literature review was extended to include literature on general use of condoms, regardless of whether it is consistent or not.

1.3.1 Consistent condom use

There is a high rate of knowledge on HIV prevention and the benefits of consistent condom use in Botswana, but while many identify condoms as a HIV prevention method, many still do not use them (Stephens et al., 2012). Various reasons have been identified for inconsistent use of condoms including alcohol or drug use, transactional sex and domestic violence (McIntyre et al., 2009).

- **Condom users' socio-demographic characteristics**

The socio-demographic characteristics of populations with high HIV burden have been associated with similar socio-demographic characteristics of non-consistent condom users (Kraft et al., 2009). Socio-demographic characteristics such as education, age, sex, income status, and residence have been identified to have an effect on the use of condoms (Dintwa, 2010, Kraft et al., 2009, Agha et al., 2002).

The relationship between condom use and education has not been as clearly defined as one would presume. While some literature place higher education as a predictor of high condom use, other studies state the direct opposite. According to Hargreaves and colleagues, before 1996 in most sub-Saharan countries risky sexual behaviour was more prominent amongst those with higher education, than those less educated (Hargreaves et al., 2012). Even though Hargreaves and colleagues (2012) state there has been shift in the relationship between the level of education and condom use, Mantell and colleagues report that higher education may not have an impact on consistent condom use, as reported in a study conducted in tertiary institutions in Durban (Mantell et al., 2011). A study conducted at the University of Botswana had similar results, where the prevalence of non-consistent and incorrect condom use was high amongst the students, even though there was a high HIV prevention knowledge (Stephens et al., 2012).

However, there are other studies that state that formal education has been identified to have a positive association with condom use amongst "sexually risky adults" (Baker et al., 2010). Ayiga and Letamo also found that those with a secondary or tertiary education have higher rates of condom use at last sex than those with low or no formal education (Ayiga and Letamo, 2012). The claim is further supported by Siegler and company, who also established a positive association between higher education and willingness to use condoms (Siegler et al., 2012). The relationship between higher education and higher levels of consistent condom use has been based on the premise of accessibility to condoms and health education (Mantell et al., 2011).

In sub-Saharan Africa, education has been viewed largely as an output or proxy of economic status (Hargreaves et al., 2012). Thus, whether a higher socio-economic status or wealth contributes to high or low condom use is debatable. McIntyre and colleagues highlight the notion that low condom use is a

direct link to low income as "conventional wisdom" (McIntyre et al., 2009, p.303). However, the 2004 survey they conducted in Malawi and other African countries found that higher rates of condom use were associated with lower socio-economic status (McIntyre et al., 2009). The finding is further supported by a study by Fox, who found that "wealthier individuals within countries in sub-Saharan Africa (SSA), are at heightened risk for HIV infection" (Fox, 2010, p. 17).

Ray and Sinha, however argue that wealth increases the likelihood of higher condom use based on their findings that wealth has a positive effect on one's knowledge and information on HIV prevention (Ray and Sinha, 2011). Their findings are supported by PSI's report on condom social marketing that found populations with higher social economic status at a lesser risk of HIV as they practice safer sexual behaviour than their poorer counterparts (Chapman et al., 2012).

The argument that socioeconomic status has a direct effect on condom usage has also been linked to the gender imbalance between males and females; and the reasons why women are less likely to use condoms. Women who have low economic power have been noted to have less power and control over the sexual lives due to economic dependence (McIntyre et al., 2009, Jama Shai et al., 2010).

In several studies women reportedly have a lower condom usage rate than their male counterparts (Kraft et al., 2009, Jama Shai et al., 2010, McIntyre et al., 2009). According to the South African National 2002 Youth Survey, only 29% of women used condoms consistently (Jama Shai et al., 2010). Women have reportedly been less likely to use condoms than their male counterparts due to factors such as domestic violence, low education attainment, economic dependence, and even simple economical enrichment (Bull et al., 2008, Fox, 2010, Agha et al., 2002, Dintwa, 2010). Amongst women, married women reportedly use condoms less than their unmarried counterparts (Langen, 2005).

Age is also a factor in predicting condom use. Studies consistently identify men and women over the age of 30 as using condoms less than those who are younger (Bankole et al., 2009, Essien et al., 2010, Lagarde et al., 2001b, Ayiga and Letamo, 2012). However others suggest that those that are older are more likely to use condoms (Siegler et al., 2012), which is consistent with PSI Botswana's interventions and the TRaC survey 2010, which targets 18 to 34 year old.

Limited literature actually looks at the factors that influence people from a certain residential area use condoms more than another. However, urban residents reportedly use condoms more than rural residents (Maharaj and Cleland, 2005, Bankole et al., 2009). This could possibly be attributed to the income and education levels of people within the residential areas, but studies that address this have not been conducted in Botswana.

1.3.2 Condom Use Self-efficacy and Outcome expectations

The Social Cognitive Theory (SCT) constructs of self-efficacy and outcome expectations have been used in studies within sub-Saharan Africa to either explain or predict condom use behaviours (Hendriksen et al., 2007, Sayles et al., 2006, Burnett et al., 2011, Siegler et al., 2012).

- **Condom Self-efficacy**

According to Hendriksen and colleagues, "several studies focusing on condom self-efficacy in particular have shown that self-efficacy is the strongest predictor of condom-use intentions" (2007, p. 1246). Low self-efficacy to use and negotiate condom usage is associated with lack of trust of one's partner by both men and women (Sayles et al., 2006).

In a study that tested the effectiveness of a program named HealthWise, which aimed at increasing condom self-efficacy in South Africa, self-efficacy to use a condom was prescribed as an important predictor of one's ability to negotiate condom use (Coffman et al., 2011). The HealthWise study defined condom use self-efficacy as not only the belief in the ability to use but to also to obtain a condom (Coffman et al., 2011). It was highlighted that an individual's high self-efficacy to use a condom is associated with them feeling comfortable in buying a condom and asking a partner to use a condom (Coffman et al., 2011).

Though many studies have found a positive association between self-efficacy to use a condom and condom usage, there are studies that show that the correlation is dependent on certain factors. In one study, those that had no prior sexual experience were associated with the intention to use condoms while those that had prior sexual experience reported no association between self-efficacy to use condoms and their intention to use condoms (Rijsdijk et al., 2012).

In the context of this theoretical construct, one's financial dependency on another person has been identified with lower condom self-efficacy, as it limits their ability to enforce condom usage or negotiate condom usage due to the fear that they will lose their income source (Agha et al., 2002, Sayles et al., 2006, Langen, 2005). This is an issue faced by women more than men due to societal gender-power imbalances (Agha et al., 2002, Sayles et al., 2006, Langen, 2005).

Self-efficacy to use condoms in general has been identified as a necessity, but whether high or low, on its own it cannot be attributed to condom consistency

- **Outcome expectations of condom use**

Outcome expectations of condom use have been identified to influence self-efficacy to use condoms. (Sayles et al., 2006). One's belief that insisting on the use of condoms will be likely interpreted as sign of lack of trust by their partner is a common negative outcome expectation of condom use within sub-Saharan Africa (Maharaj and Cleland, 2005). Increases in condom use intention have been associated with positive outcome expectations of using condoms (Gabler et al., 2004). An interesting finding related to outcome expectations is that women who know of their husband's infidelity avoid insisting on the use of condoms within their marriages out of fear that their husband will accuse them of being disrespectful or of being unfaithful (Versteeg and Murray, 2008, Langen, 2005) any of these women further fear that this will result in violence or complete sexual rejection (Langen, 2005, Wechsberg et al., 2010).

1.4. Statement of the Problem

Numerous interventions promote the use of condoms as a HIV prevention method in Botswana. While condom use is high (Central Statistics Office, 2009), their use is inconsistent, which reduces the effectiveness of the behaviour (Kalichman et al., 2007). Though several studies have investigated consistent condom use in Botswana (Kalichman et al., 2007, Weiser et al., 2007, Weiser et al., 2006b,

Weiser et al., 2006a), few studies have investigated the relationship between consistent condom use and the theoretical constructs that are believed to guide behaviour (Burnett et al., 2011).

1.5. Justification for the study

There is a great need for more scientific research to be done in Botswana in order to develop more effective HIV prevention interventions. The promotion of consistent condom use may be enhanced through a clearer understanding of the determinants of consistent condom use. Previous studies conducted in South Africa, which is not unlike Botswana, have identified condom self-efficacy and outcome expectations as important determinants of condom use (Coffman et al., 2011, Hendriksen et al., 2007, Sayles et al., 2006).

Though PSI Botswana's TRaC survey monitors and evaluates the consistent use of condoms and includes measures of self-efficacy and outcome expectations, the organisation does not exclusively report the measure of association between these constructs within the Social Cognitive Theory. By measuring the strength of association, within the Social Cognitive Theory, this study will help better understand how the Social Cognitive Theory can be used in promoting condom consistent condom use in Botswana in social and behaviour change communication interventions.

CHAPTER 2 METHODOLOGY

The study design was a quantitative secondary analysis of cross-sectional data collected by the PSI Botswana's Condom Social Marketing TRaC: Tracking Results Continuously, 2010 survey (herein, TRaC) (See Annex A). The study population for TRaC was men and women aged 18-34 years old in Botswana who reported being sexually active in the past 12 months and were not practicing abstinence when recruited in 2010.

The PSI TRaC survey selected the survey sample by using a two-stage cluster sampling approach. The sample frame was constructed from a list of enumeration areas (EAs) provided by the Botswana Central Statistics Office. A total of 96 EAs were randomly selected from this list, with the probability of being selected proportional to EA size. In each EA a sample of 6 to 16 households, depending on the EA size, was randomly selected. From each household a list of eligible participants was generated and a randomized selection tool (KISH chart) was used to select a participant. The KISH chart is a technique used to select one interview-survey participant randomly from those that fit the selection criteria from a household within an EA (Laurie, 2013). Substitutions were chosen from the pre-selected households only.

The final sample size included 1289 participants, while the TRaC survey had a total sample size of 1299. The difference in sample size is due to missing Age data, which was required for inclusion in secondary analysis.

2.1. Measurement and Data Sources

This was a secondary data analysis of the TRaC database. The TRaC survey used a structured questionnaire to collect data (See Annex A). The questionnaire was divided into two sections made up of self-administered and administered sections that participants answered as one questionnaire. The 61-page questionnaire consisted of questions on socio-demographic characteristics such as sex, age and location; as well as questions on their sexual behaviour and condom use history in the past 12 months (PSI Botswana, 2010). For the secondary data analysis the following study variables were extracted from the primary dataset according to the relevant objectives.

Objective 1: Socio-demographic characteristics

- ***Sex (categorical):*** *Male or female*
- ***Age (categorical):*** *Four categories; from* ***18-21***, ***22-25***, ***26-30 and 31-34***
- ***Educational Attainment (categorical):*** *Five categories; from* ***Never been to school***, ***Primary***, ***Junior Secondary***, ***Senior Secondary*** *and* ***Tertiary***
- ***Relationship Status (categorical):*** *Three categories; from* ***Single and not in a relationship***, ***Single and in a relationship***, *to* ***Married***.
- ***Monthly Income (categorical):*** *Three categories; These were categorised from the original nine categories, which were all in Botswana Pula; 0 to 1 500, 1 501 to 3 000, 3 001 to 5 000, 5 001 to 7 500, 7 501 to 10 000, 10 001 to 15 000, 15 001 to 20 000, 20 001 to 30 000, and 30 001 and above into* ***Low income (0 to 1 500), Middle income (1 501 to 20 000)***, *and* ***High income (20 001 and above)***
- ***Location (categorical):*** *Nine categories; from* ***South-East***, ***Kgatleng***, ***Central***, ***Kweneng***, ***Kgalagadi***, ***North- West***, ***Southern Ghanzi***, ***North-East Barolong***, *and* ***Ngwaketse- West***.
- ***Employment Status (categorical):*** *Three categories;* ***Unemployed***, ***Student*** *and* ***Employed***.

Objective 2:

- ***Condom self-efficacy***

This construct was measured by a new four-item scale with a reliability score of 0.64. The new scale was created from a three-item ***condom negotiation self-efficacy sub-scale*** *as* well as another item addressing ***self-efficacy to use condoms***, which was included due to theoretical importance. The condom negotiation self-efficacy sub-scale had a reliability score 0.72 and consisted of questions that considered the participant's ability to talk to a partner about using a condom before they became too aroused (question CD6), talk to every new partner about the importance of using condoms (question CD7), and the ability to enforce condom use with new sex partners if they want to use a condom (question CD8). All three questions were measured with a 4-point Likert scale of 1 (strongly disagree) to 4 (strongly agree). The self-efficacy to use condoms (questions C11) was recoded from an original 6-point Likert scale of 1 (very difficult) to 6 (very easy) to a 4-point Likert scale to enable alignment with the condom negotiation scale. To do this, 'Agree' and 'Somewhat Agree' were collapsed into an 'Agree' category and the same was done for 'Disagree' and 'Somewhat Disagree', with the 'Strongly Agree/Disagree' responses remaining as originally coded.

Condom self-efficacy was measured as a 4-item scale, with separate analysis for the condom negotiation 3-item subscale and the single item condom use self-efficacy. As both scales were highly skewed, the results were categorised into 'low self-efficacy', which accounted for any scores below the scale midpoint, 'moderate self-efficacy', which included any scores between 51-75% of the possible range, and finally 'high self-efficacy' which included all scale scores of 76% of the scale range or higher.

- ***Outcome expectations***

Seven items from TRaC were used to describe outcome expectations relating to condom use. TRaC measured three health outcome expectations (questions CD26, CD27 and CD17), all framed positively, that using a condom consistently would reduce HIV and STI risks. This Health Outcome Expectation sub-scale had a reliability of 0.61, which was retained given the study interest in condom use for HIV prevention. There were another five items related to social reactions to condom use, of which one was not considered because more than 10% of the study sample had not responded. This left four items (questions CD28, CD29, CD31 and CD32) related to the response of the girlfriend/boyfriend, parents, siblings and best friend. This Social Outcome Expectation sub-scale had a reliability of 0.83. Finally, there was an additional pleasure outcome evaluation item, framed negatively, that having sex with a condom results in less pleasure (question CD16). These were all measured on a 4-point scale of 1 (strongly disagree) to 4 (strongly agree). The full 8-item Outcome Expectation scale had a reliability score of 0.76. For later analysis, continuous responses were recoded into respondents having either negative, mixed or positive outcome expectations relating to condom use.

As described for the condom self-efficacy scale and sub-scales, a similar process was followed for the outcome expectations scale and two sub-scales given their skewed nature. The same logic to develop the categories of 'negative outcome expectations', 'mixed outcome expectations' and 'positive outcome expectations' with the possible range midpoint and lower, 51-75% and 76% and above used as category cut-off points.

Objective 3: Consistent condom use (by partner type)

A dichotomous variable was created to assign respondents as either consistent or inconsistent condom users. The 2010 TRaC survey asked respondents to report on condom use behaviour for a series of partners defined by most recent, second most recent and third most recent. Each of these partners was subsequently identified by the type of relationship: spouse, regular partner, casual sex partner, once off or commercial sex worker.

For this study, reported condom use behaviour with the three most recent partners over a 12 month period (question CP1) was analysed. Each partner was categorised according to their partner type. Having had sex at least once in the past 12 months was an inclusion criterion for TRaC (See item S1 on questionnaire), so reporting on condom use with at least one partner was expected. Any given respondent could have had up to three measures (one per partner) related to this outcome variable.

For each **type** of partner reported during this period, three items were used to determine consistent condom use. Each was scored 1 for consistent condom use and 0 for inconsistent condom use. The first item (question CP10) asks if a condom was used at last sex with the partner, then a second (recoded) item was used to determine how many out of the total rounds of sex condoms were used. The second item was created by subtracting (question CP12) the total number of rounds the respondent stated using a condom from the total number of rounds of sex (question CP11); if the total was 0 or a negative number then the respondent was scored a 1 for consistent condom use; otherwise, they were reported as using condoms inconsistently. The third item (question CP13) was whether the condom was used for the entire sex act. If all three items agree that a condom was used at last sex, for every round of sex and was worn during the entire sex act, the respondent was assigned as a consistent condom user through a score of 3 out of 3. Any other score was considered as inconsistent condom use. This was calculated for each type of partner being either married, regular partner, casual sex partner, once off or commercial sex worker.

Objective 4: Association

Measures of association between consistent condom use among sexually active 18-34 year olds in Botswana and their socio-demographic characteristics, condom self-efficacy, and outcome expectations of using condoms, were measured according to the most recent partner, regardless of their partner type.

2.2. Data Processing Methods and Data Analysis

The data were extracted and cleaned in accordance to each study objective. New variables were recoded from existing variables either by adding existing variables together or extracting from existing TRaC variables. All data were recoded as described in 2.1 and analysed using the Statistical Package for the Social Sciences (SPSS) version 19.

The variables within Objective 1 are all nominal (categorical) except age, which was analysed both as a continuous as well as a categorical variable. As a continuous variable, age was normally distributed and assessed using histograms with the mean and standard deviation reported. As the literature review suggested that there are differences in condom use between those above age 30 and those who are younger (Essien et al., 2010, Bankole et al., 2009, Lagarde et al., 2001b, Ayiga and Letamo, 2012). Those older than 30 constituted one group, with those 30 and younger split into three similar size age bands. All

categorical socio-demographic characteristics were described using proportions and also analysed according to sex.

Objective 2 theoretical constructs were tabulated according to age and sex, and measured using scales that were checked for reliability by calculating the Cronbach's Alpha (α), as reported earlier. Theoretical scales that had a Cronbach's Alpha between 0.60 and 0.70 were maintained due to theoretical importance, but noted as study limitations. Objective 3, consistent condom use (a dichotomous variable) was tabulated according to sex and age, while Objective 4 measured the association between the categorical independent variables (socio-demographics, condom self-efficacy and outcome expectations) and dependent variable (consistent condom usage) through a Pearson's chi-square 2-tailed significance test or the Fisher's Exact test when cell size counts were less than five.

2.3. Ethical Considerations

Permission to use the data for secondary analyses was granted in writing by the PSI Botswana Executive Director (Annex B). PSI Botswana is referenced as owners of the primary data. The TRaC study was granted ethical approval by the PSI Research Ethics Board; reference number PPME-13/18/1 Vol. VI (251), protocol number HRDC 00564, Health Research and Development Division, Ministry of Health. All data were treated with confidentiality, consistent with the initial TRaC study methodology that took into consideration ethical principles, which included respect of persons. All data were stored and analysed within PSI Botswana premises under the supervision of a PSI research officer. The secondary analysis was granted by the University of Witwatersrand Human Research Ethics Committee (Medical); clearance certificate M111157 (Annex C).

CHAPTER 3 RESULTS

The following chapter describes the results according to each of the objectives.

3.1. Socio demographic characteristics of sexually active Batswana age 18-34

Table 1 describes the socio-demographic breakdown for the whole sample as well as by sex, based on the TRaC Study's nationally representative sample within the age group 18 to 34. As all variables were categorical and all cell sizes were larger than five, statistically significant differences by sex were tested using the Pearson's chi-square test of association.

Table 1 Socio-demographic characteristics, total and by sex

Socio-demographic Characteristics	Total, % (n)	Female, % (n)	Male, % (n)	P-value
Sex	**1289**	**50.6 (652)**	**49.4 (637)**	**-**
Age	**1289**	**50.6 (652)**	**49.4 (637)**	**0.092**
18-21	17.9 (231)	17.3 (113)	18.5 (118)	
22-25	27.9 (359)	25.8(168)	30.0 (191)	
26-30	35.8 (461)	36.0 (235)	35.5 (226)	
31-34	18.5 (238)	16.0 (102)	20.9 (136)	
Educational Attainment	**1288**	**50.6 (652)**	**49.4 (636)**	**0.027**
Never been to school	2.0 (26)	1.4 (9)	2.7 (17)	
Primary	8.6 (111)	7.4 (48)	9.9 (63)	
Junior Secondary	43.3 (558)	47.2 (308)	39.3 (250)	
Senior Secondary	27.9 (359)	26.8 (175)	28.9 (184)	
Tertiary	18.2 (234)	17.2 (112)	19.2 (122)	
Relationship Status	**1288**	**50.6 (652)**	**49.4 (636)**	**<0.001**
Single and not in a relationship	13 (167)	7.5 (49)	18.6 (118)	
Single and in a relationship	81.5 (1050)	85.3 (556)	77.7 (494)	
Married	5.5 (71)	7.2 (47)	3.8 (24)	
Monthly Income	**1068**	**51.4 (549)**	**48.6 (519)**	**<0.001**
Low income	56.7 (606)	65.4 (359)	47.6 (247)	
Middle income	41.9 (447)	33.3 (183)	50.9 (264)	
High income	1.4 (15)	1.3 (7)	1.5 (8)	
Location	**1289**	**50.6 (652)**	**49.4 (637)**	**1.000**
South-East	19.9 (256)	19.8 (129)	19.9 (127)	
Kgatleng	6.1 (79)	6.6 (43)	5.7 (36)	
Central	29.5 (380)	29.1 (190)	29.8 (190)	
Kweneng	12.7 (164)	12.6 (82)	12.9 (82)	
Kgalagadi	2.5 (32)	2.3 (15)	2.7 (17)	
North-West	6.8 (88)	7.1 (46)	6.6 (42)	
Southern	4.7 (61)	4.6 (30)	4.9 (30)	
Ghanzi	2.2 (28)	2.1 (14)	2.2 (14)	
North-East	9.5 (122)	9.4 (61)	9.6 (61)	
Barolong	2.6 (33)	2.6 (17)	2.5 (16)	
Ngwaketse- West	3.6 (46)	3.8 (25)	3.3 (21)	
Employment Status	**1135**	**52.6 (597)**	**47.4 (538)**	**<0.001**
Unemployed	56.4 (640)	65.5 (391)	46.3 (249)	
Student	12.2 (138)	10.2 (61)	14.3 (77)	
Employed	31.5 (357)	24.3 (145)	39.4 (212)	

The total 1289 study sample consisted of 50.6% sexually active females and 49.4% sexually active males, whose age range was between 18 and 34, with no significant difference of age distribution between the sexes (p=0.092). A majority of the sample had a Junior Secondary School certificate (43.3%) or higher (46.1%). However, educational attainment differed significantly by gender, with significantly more males reporting completion of senior secondary and tertiary education (p=0.027). The proportion that reported being unemployed (56.4%) closely mirrored those reporting a low income status (56.7%). Again, this differed significantly by sex, with females much more likely than males to report being low income (65.4%) and unemployed (65.5%) (p<0.001). The majority of the study sample consisted of people reporting that they were single and in a relationship (81.5%). Males were significantly more likely than females to report being single and not in a relationship (18.6% vs. 7.5%, p<0.001). The majority (29.5%) were from the Central district, with no significant difference between the sexes in terms of residence (p=1.000).

3.2. Social Cognitive Theory constructs of Condom self-efficacy and outcome expectations

Table 2 summarises the categorical data for the theoretical constructs of condom self-efficacy and outcome expectations for the entire sample as well as by sex. Condom self-efficacy is presented as the aggregate scale as well as the condom negotiation self-efficacy sub-scale and the self-efficacy to use condoms item. Similarly, condom use outcome expectations is presented as the aggregate scale as well as its two sub-scales and the single item about pleasure. Statistically significant differences by sex were tested using the Pearson's chi-square test of association or the Fisher's Exact test when cell size counts were less than five.

A total of 77.2% of the sample reported high condom self-efficacy, with 68.7% reporting high condom negotiation self- efficacy and slightly lower condom use self-efficacy (57.6%). However, low condom self-efficacy was rare (1.8%). While there was no significant difference between female and male condom negotiation self-efficacy (p=0.848), females were significantly more likely than males to report low condom use self-efficacy (p<0.001) as well as moderate self-efficacy for the overall condom self-efficacy scale (p=0.001).

The overwhelming majority (84.1%) of the sample reported having positive condom use outcome expectations, with no significant difference by sex (p=0.236). A review of the sub-scales presents a more nuanced understanding of outcome expectations. Like the overall scale, the majority (71.9%) reported having positive health outcome expectations about condoms' ability to prevent HIV or STIs, with no difference by sex (p=0.666). Positive social outcome expectations were also high (75.6%), however these differed by sex, with males (80.4%) significantly more likely than females (70.8%) to report positive social outcome expectations (p<0.001). Overall positive pleasure outcome expectations were much lower than the other sub-scales, with only 46.9% of the sample expressing a strongly positive expectation. In this case, females (51.3%) were significantly more likely than males (42.4%) to fall into this category (p=0.005).

Table 2 Social Cognitive Theory constructs predicting condom use, Total and by Sex

Social Cognitive Theory constructs	Total (n)	Sex		Statistical significance (p-value)
		Male, % (n)	Female, % (n)	
Condom self-efficacy	**1196**	**n=1196**		**0.001**
Low condom self-efficacy %	1.8 (21)	1.7 (10)	1.9 (4)	
Moderate condom self-efficacy %	21.1 (252)	16.9 (102)	25.3 (150)	
High condom self-efficacy %	77.2 (923)	81.5 (492)	72.8 (431)	
Condom negotiation self-efficacy	**1214**	**n=1214**		**0.848**
Low negotiation self-efficacy %	3.5 (43)	3.8 (23)	3.3 (20)	
Moderate negotiation self-efficacy %	27.8 (337)	27.2 (166)	28.3 (171)	
High negotiation self-efficacy %	68.7 (834)	69.0 (421)	68.4 (413)	
Self-efficacy to use condom	**1269**	**n=1269**		**<0.001**
Low condom use self-efficacy %	3.2 (40)	1.3 (8)	5.0 (32)	
Moderate condom use self-efficacy	39.2 (498)	25.7 (162)	36.1 (341)	
High condom use self-efficacy %	57.6 (731)	73.0 (460)	61.9 (631)	
Condom Use Outcome Expectations	**1178**	**n=1178**		**0.236**
Negative Expectations %	0.3 (4)	0.3 (2)	0.3 (2)	
Mixed Expectations %	15.5 (183)	13.7 (80)	17.3 (103)	
Positive Expectations %	84.1 (991)	85.9 (501)	82.4 (490)	
Health Outcome Expectations	**1254**	**n=1254**		**0.666**
Negative Expectations %	1.4 (18)	1.6 (10)	1.3 (8)	
Mixed Expectations %	26.7 (335)	27.6 (172)	25.8 (163)	
Positive Expectations %	71.9 (901)	70.8 (441)	72.9 (460)	
Social Outcome Expectations	**1212**	**n=1212**		**<0.001**
Negative Expectations %	0.9 (11)	1.2 (7)	0.7 (4)	
Mixed Expectations %	23.5 (285)	18.4 (111)	28.6 (174)	
Positive Expectations %	75.6 (916)	80.4 (485)	70.8 (431)	
Pleasure Outcome Expectations	**1253**	**n=1253**		**0.005**
Negative Expectations %	21.5 (270)	22.6 (140)	20.5 (130)	
Mixed Expectations %	31.5 (395)	35.0 (217)	28.1 (178)	
Positive Expectations %	46.9(588)	42.4 (263)	51.3 (325)	

3.3. Consistent condom use with most recent partners (by partner type)

Table 3 summarises consistent condom use with the most recent partner according to the relevant partner type, whether they were a spouse, regular partner, casual sex partner, once-off or commercial sex worker. Of the total sample, 83.9% reported consistent condom use with their most recent partner. This differed significantly by sex, with 79.7% of females and 87.3% of males reporting consistent condom use respectively, when the type of partner was not considered ($p<0.001$). Out of the total sample size reporting sex by their most recent partner (n=1140), 79.9% reported that their most recent sexual partner had been a regular partner, with whom 83.6% reported that they used condoms consistently. This differed by sex, with significantly more males (87.1%) reporting consistent condom use than females (80.5%) ($p=0.005$). Of female respondents, 100.0% reportedly used condoms consistently with a once-off partner as their most recent partner, while none of the female respondents reported having a commercial sex worker as their most recent partner. On the other hand 100.0% of the male respondents whose most recent sexual partner was a commercial sex worker reported using condoms consistently.

Table 3 Percent Consistent Condom Use with Most Recent Partner, Total and by Sex

Condom Consistency with most recent partner type	Total % (n)	Female % (n)	Male % (n)	Statistical significance(p-value)
Any Partner Type (n=1140)	**83.6 (953)**	79.7 (439)	87.3 (514)	**<0.001**
Spouse (n=64)	**67.2 (43)**	68.4 (26)	65.4 (17)	**0.799**
Regular Partner (n=911)	**83.6 (762)**	80.5 (389)	87.1 (373)	**0.005**
Casual Sex Partner (n=127)	**89 (113)**	77.8 (21)	92.0 (92)	**0.036**
Once Off Partner (n=35)	**91.4 (32)**	100.0 (3)	90.6 (29)	**0.579**
Commercial Sex Worker (n=3)	**100.0 (3)**	n/a	100.0 (3)	***

Table 4 summarises the results of consistent condom use with the second most recent partner according to the relevant partner type, whether they were a spouse, regular partner, casual sex partner, once-off or commercial sex worker. Of the total sample size, 47.6% reported that their second most recent sexual partner had been a regular partner, of whom 87.5% reported that they used condoms consistently. This differed by sex even though not significantly, as more males (88.6%) reported consistent condom use than females (86.7%) (p=0.609). Overall, 87.5% females and 88.6% males reporting consistent condom use respectively with the second most recent partner. Of the males that had a casual partner as their second most recent partner, 87.4% of males reported using condoms consistently. Three of the respondents had a commercial worker as their second most recent partner, with 100.0% (2) of the male respondents and 100.0% (n=1) of the female respondents using condom consistently.

Table 4 Consistent Condom Use with Second Most Recent Partner, Total and by Sex

Condom Consistency with 2nd most recent partner type	Total (n)	Female % (n)	Male % (n)	Statistical significance (p-value)
Any Partner Type (n=672)	**88.1 (592)**	87.5(280)	88.6 (312)	**0.650**
Spouse (n=8)	**80.0 (4)**	80.0 (4)	0.0 (0)	***
Regular Partner (n=320)	**87.5 (280)**	86.7 (156)	88.6 (124)	**0.609**
Casual Sex Partner (n=277)	**87.7 (243)**	88.1 (111)	87.4 (132)	**0.864**
Once Off (n=67)	**92.5 (62)**	100.0 (8)	91.5 (54)	**0.392**
Commercial Sex Worker (n=3)	**100 (3)**	100.0 (1)	100.0 (2)	***

Table 5 summarises the results of the consistent condom use with the third most recent partner according to the relevant partner type, whether they were a spouse, regular partner, casual sex partner, once-off or commercial sex worker. Of the total sample size, 42.2% reported that their third most recent sexual partner had been a regular partner, of whom 87.8% reported that they used condoms consistently. This differed by sex even though not significantly, as more males (84.3%) reported consistent condom use than females (76.9%) (p=0.343). Most (84.8%) of the total sample size for the third most recent partner reported consistent condom users. None of male respondents reported a commercial sex worker as their third most recent partner. The only respondent who reported that their third most recent partner was a commercial sex worker was a female.

Table 5 Consistent Condom Use with Third Most Recent Partner, Total and by Sex

Condom Consistency with 3rd most recent partner type	Total (n)	Female % (n)	Male % (n)	Statistical significance (p-value)
Any Partner Type (n=244)	**84.8 (207)**	80.8(80)	87.6 (127)	**0.147**
Spouse (n=3)	**33.3 (1)**	**33.3 (1)**	0 (0)	***
Regular Partner (n=103)	**87.8 (83)**	76.9 (40)	84.3 (43)	**0.343**
Casual Sex Partner (n=91)	**86.8 (79)**	88.9 (32)	85.5 (47)	**0.636**
Once Off (n=46)	**93.5 (43)**	85.7 (6)	94.9 (37)	**0.366**
Commercial Sex Worker (n=1)	**100 (1)**	100.0 (1)	0 (0)	***

3.4. Association between consistent condom use and socio-demographic characteristics, condom self-efficacy, and outcome expectations.

Table 6 summarises the results of tests of association between socio-demographic characteristics and consistent condom use according to the most recent partner regardless of partner type. Of the total sample, 83.5% were consistent condom users, with 78.8% of the female respondents reportedly using condoms consistently which was significantly lower ($p < 0.001$) in comparison to the 87.1% males that reported using condoms consistently. There was no statistical significance between condom consistency and age, educational attainment, monthly income, residence or employment status. Within the age category, 83.5% of the total sample reported using condoms consistently. Out of the total sample that reported their educational attainment, 83.7% reportedly used condoms consistently. Out of the total sample that reported their monthly income, 83.5% reportedly used condoms consistently. Looking at residence, 83.6% reportedly used condoms consistently. There was a statistical significance ($p=0.006$) between relationship status and consistent condom use. Those who were married reported significantly lower levels of consistent condom use (67.3%) than those that were single and in a relationship (84.6%), 84.6% or single and not in a relationship (82.4%).

Table 6 Association between consistent condom use and socio-demographic characteristics

Socio-demographic Variables	Total % (n)	Consistent condom use % (n)	p-value
Sex	**1144**	**83.5 (955)**	**<0.001**
Female	48.3 (553)	78.8 (439)	
Male	51.7 (591)	87.1 (516)	
Age category	**1144**	**83.5 (955)**	**0.931**
18-21	18.5 (212)	82.5 (175)	
22-25	28.1 (3210	83.2 (267)	
26-30	35.5 (406)	83.5 (339)	
31-34	17.9 (205)	84.9 (174)	
Educational Attainment	**1151**	**83.7 (963)**	**0.782**
Never been to school	1.8 (21)	81.0 (17)	
Primary	8.4 (97)	84.5 (82)	
Junior Secondary	44.5 (512)	83.4 (427)	
Senior Secondary	28.0 (322)	82.3 (265)	
Tertiary	17.3 (199)	86.4 (172)	
Relationship Status	**1151**	**83.6 (962)**	**0.006**
Single and not in a relationship	13.3 (153)	82.4 (126)	
Single and in a relationship	82.5 (949)	84.6 (803)	
Married	4.3 (49)	67.3 (33)	
Monthly Income	**951**	**83.5 (794)**	**0.268**
Low income	57.2 (544)	81.8 (445)	
Middle income	41.3 (393)	85.8 (337)	
High income	1.5 (14)	85.7 (12)	
Residence	**1152**	**83.6 (963)**	**0.828**
South-East	19.4 (224)	83.5 (187)	
Kgatleng	6.0 (69)	81.3 (56)	
Central	29.9 (344)	85.8 (295)	
Kweneng	12.8 (147)	80.3 (118)	
Kgalagadi	2.8 (32)	87.5(28)	
North-West	7.2 (83)	85.5(71)	
Southern	62. 7 (52)	80.8 (42)	
Ghanzi	2.1 (24)	83.3 (20)	
North-East	9.6 (111)	85.6 (95)	
Barolong	2.4 (28)	78.6 (22)	
Ngwaketse-West	3.3 (38)	76.3 (29)	
Employment Status	**1011**	**83.0 (839)**	**0.903**
Unemployed	57.1 (577)	83.4 (481)	
Student	12.5 (126)	81.7 (103)	
Employed	30.5 (308)	82.8 (255)	

Table 7 summarises the results of tests of association between Social Cognitive Theory constructs with consistent condom use according to the most recent partner, regardless of partner type. For the overall condom self-efficacy scale, there was not a significant difference noted for those with high self-efficacy using condoms consistently (78.9%) or not using condoms consistently (74.3%) (p=0.333). A similar pattern was found for respondents who reported high condom negotiation self-efficacy, with no statistically significant difference between consistent condom users (69.8%) and inconsistent condom

users (65%). However, those with high condom use self-efficacy were significantly more likely to report consistent condom use 61.9% than those who did not use condoms consistently (48.9%) (p=0.002).

Positive outcome expectations to use condoms were reported by 85.6% of those who reported using condoms consistently, which was not significantly different (p = 0.112) from those who reportedly had either negative or mixed condom use outcome expectation and reportedly used condoms consistently. No significant difference (p=0.758) was also reported between negative, mixed or positive health outcome expectations. There was however a significant difference between those that reportedly had negative, mixed or positive social (p=0.050) or pleasure (p= 0.002) outcome expectations. With 77.3% of those that reportedly had positive social outcome expectations also reported using condoms consistently; and 49.5% of those that reportedly had positive pleasure outcome expectations also reported using condoms consistently.

Table 7 Social Cognitive Theory constructs associations with reported consistent condom use

Social Cognitive Theory constructs	**Consistent condom use**		**Statistical significance(p-value)**
	No, % (n)	**Yes, % (n)**	
Condom self-efficacy (4-item scale)	**n=1069**		**0.333**
Low condom self-efficacy	1.1 (2)	1.5 (13)	
Moderate condom self-efficacy	24.6 (43)	19.7 (176)	
High condom self-efficacy	74.3 (130)	78.9 (705)	
Condom negotiation self-efficacy (Sub-scale)	**n=1080**		**0.136**
Low condom negotiation self-efficacy	1.7 (3)	3.3 (30)	
Moderate condom negotiation self-efficacy	33.3 (59)	26.9 (243)	
High condom negotiation self-efficacy	65.0 (115)	69.8 (631)	
Self-efficacy to use condom (1-item)	**n=1131**		**0.002**
Low condom use self-efficacy	4.3 (8)	2.0 (19)	
Moderate condom use self-efficacy	46.8 (87)	36.1 (341)	
High condom use self-efficacy	48.9 (91)	61.9 (585)	
Condom Use Outcome Expectations (8-item scale)	**n=1054**		**0.112**
Negative Expectations	0.6 (1)	0.2 (2)	
Mixed Expectations	19.9 (34)	14.2 (125)	
Positive Expectations	79.5 (136)	85.6 (756)	
Health Outcome Expectations (Sub-scale)	**n=1120**		**0.758**
Negative Expectations	1.1 (2)	1.4 (13)	
Mixed Expectations	29.5 (54)	27.0 (253)	
Positive Expectations	69.4 (127)	71.6 (671)	
Social Outcome Expectations (Sub-scale)	**n=1083**		**0.050**
Negative Expectations	0.6 (1)	0.9 (8)	
Mixed Expectations	30.3 (53)	21.8 (198)	
Positive Expectations	69.1 (121)	77.3 (702)	
Pleasure Outcome Expectations (1-item)	**n=1119**		**0.002**
Negative Expectations	29.0 (54)	17.9 (167)	
Mixed Expectations	30.6 (57)	32.6 (304)	
Positive Expectations	40.3 (75)	49.5 (462)	

CHAPTER 4 DISCUSSION AND LIMITATIONS

The study aimed to determine whether condom self-efficacy and outcome expectations are associated with consistent condom use among sexually active 18-34 year olds in Botswana in 2010. The following chapter discusses the results that are outlined in Chapter 3, in reference to the study aim, objectives and literature review.

Both condom self-efficacy and outcome expectations were analysed as constructs within the Social Cognitive theory which according to (Bandura, 2004), states that people that have high self-efficacy to do something are likely to also have positive outcome expectancy of their behaviour and, in turn engage in the behaviour. In accordance with the theory, the study hypothesised that sexually active 18-34 year olds in Botswana in 2010, who had higher condom self-efficacy would use condoms more consistently than those with lower condom self-efficacy. Similarly, those with more positive outcome expectations of using condoms should be more likely to use condoms consistently.

The study showed that both the overall condom self-efficacy and outcome expectations, as constructs of the Social Cognitive theory, were not associated with consistent condom use among 18-34 year olds in Botswana using condoms consistently. However, analysis of some of these construct sub-scales did determine some noteworthy patterns, which will be discussed. The limitations of the findings also will be discussed later in the chapter.

4.1. Socio-demographic characteristics of sexually active Batswana aged 18-34 by sex

With a few exceptions, the study sample seemed to reflect national demographics. The majority of the study sample was from the Central district, which in accordance with the 2011 Botswana Population and Housing Census (Statistics Botswana, 2011), has the highest population. According to the same census there are more females then males in Botswana, which was again reflected in the study sample of 50.6% females and 49.4% males. Though there was no significant difference between males and females in regards to the educational attainment, more males (19.2%) than females (17.2%) reportedly had tertiary education. This was not in accordance to the Education Report drawn from 2009/10 Botswana Core Welfare Indicators Survey (Statistics Botswana, 2013), that reports more females then males attaining their tertiary education. In terms of employment rates, the study results reported 56.4% of the study sample as unemployed while the Botswana Core Welfare Indicators Survey 2009/10, estimates that 17.2% of the labour force aged 19 years and above were unemployed in 2009/10 (Statistics Botswana, 2013). The Botswana Core Welfare Indicators Survey 2009/10 also states that 39.5% of females aged between 15 and 34 years have never attended school in comparison to their 60.5% male counterparts. This proportion corresponds with the findings of the study with 1.4% of female sample had reportedly never been to school in comparison to the 2.7% male counterparts.

The study demographic patterns were consistent with explanations for sex disparities. According to Wingood and DiClemente (2000)), the segregation of societal roles between males and females create favourable opportunities for males to obtain higher social economic benefits such as, higher educational attainment, income and employment status over females. With a significant difference between the 28.9% males that reported a senior secondary educational attainment in comparison to their 26.8% female counterparts and the 19.2% males that reported a tertiary education educational attainment respectively in comparison to their 17.2% female counterparts the study showed high educational

attainment was achieved more by males. There was also a high percentage variance between males' and females' reported monthly income, as 47.6% of the males were reportedly of low income status in comparison to the 65.4% of females who reported a low income.

4.2. Social Cognitive Theory constructs predicting condom use, overall and by sex

Social Cognitive Theory constructs, self-efficacy and outcome expectations have been identified by several studies as predictors of condom use (Gabler et al., 2004, Sayles et al., 2006, Hendriksen et al., 2007, Coffman et al., 2011). In order to analyse whether there is an association between the constructs and condom use it was first important to measure the levels of condom self-efficacy and output expectations of the entire sample.

Similar to other studies (Bogale et al., 2010, Coffman et al., 2011), the total study sample reported high condom self-efficacy scores (77.2%). A significantly higher percentage of males (73.0%) reported high condom use self-efficacy than the 61.9% female counter parts. Literature has identified low condom use self-efficacy by females attributed to their lack of economic independence (Agha et al., 2002, Sayles et al., 2006, Langen, 2005). Although this was not directly explored, with such a significantly higher proportion of the female sample reportedly of low income status and unemployed, this is a plausible explanation of this study finding. So, while high, condom use self-efficacy remains something that should continue to be considered in condom promotion in Botswana.

Previous studies have also placed women as the lesser sex in regards to condom negotiation self-efficacy, for reasons including fear of being accused of unfaithfulness (Dintwa, 2010). However, the study results showed that there was no significant difference between the 69.0% males and the 68.4% females that reported high condom negotiation self-efficacy. This places a question as to whether male condom negotiation self-efficacy has not been given the attention that it requires. Alternatively, these findings may suggest that past efforts to address this among women has closed the gender gap. Whichever interpretation is most compelling, condom negotiation self-efficacy also appears to be a theme that should be targeted at both sexes.

In terms of output expectations of condom use, the study incorporated measures linked to two of the three forms of outcome expectations as defined by Bandura (2004), namely physical outcomes (health and pleasure) and social outcomes. Even though they were not statistically significant overall, positive condom use outcome expectations results were at a high of 84.1%, which was consistent with other studies that reported positive condom use expectations (Kanekar, 2009). Out of the three sub- scales that made up the overall condom use outcome expectations, positive pleasure outcome expectations (46.9%) were not as considerably high as the other two. This resonates with other studies that have identified that using condoms results in a perceived lack of sexual pleasure, while health outcome expectations whether it be using condoms to prevent HIV or pregnancy, is a high motivation for condom use (Bauman et al., 2007, Gabler et al., 2004, Kanekar, 2009). The high percentage of positive social outcome expectations were in accordance with literature that identifies social expectations as less of barrier to condom use, due to condom social marketing campaign that encourage the use of condoms as social norm (Agha et al., 2002, Siegler et al., 2012).

Positive pleasure outcome expectations were not only lower than other outcome expectations sub-scales but there was a significantly lower proportion of males (42.4%) that reported having positive pleasure

outcome expectations than females. This is also consistent with the literature that identifies men to be more likely to identify pleasure as a barrier to condom use than women (Versteeg and Murray, 2008). Social marketers may wish to draw on these findings to target messages to males that focus on how sex with condoms can be pleasurable.

The study also found that there was a significant difference in the percentage of males and females who reportedly had positive social outcome expectations. Literature has found that women may expect a negative response from their partner (Langen, 2005, Wechsberg et al., 2010). This may, in part, explain the significantly lower percentage of females (70.8%) who reported having positive social outcome expectations of using condoms compared to males (80.4%). In accordance to the study results, other studies have shown that social support for condoms use especially towards women has proven to increase consistent condom use (Adedimeji et al., 2009). By incorporating social outcome expectations in social marketing campaigns, consistent use of condoms in Botswana may increase.

4.3. Consistent condom use by partner type

The study sample reported consistent condom use regardless of partner type and with 83.6% being their most recent, 88.1% second most recent, and 84.8% third most recent. This was consistent with the 2009 Botswana AIDS Impact Survey III (BIAS III), which reported condom use at last sex as being 81.1% (Central Statistics Office Botswana, 2009). Though it cannot be attributed to a specific campaign that promotes consistent condom use, the results are encouraging and show that these campaigns are producing positive results.

Though there is a broad body of literature that has explored correlation of condom use by partner type they do not explore sexual partner succession (Westercamp et al., 2010, Kapadia et al., 2011). In terms of partner type, the study results were consistent with other studies that found condom use was more consistent with commercial sex workers then with spouses (Westcamp et al., 2010). There was a statistically significant difference between the sexes, with fewer females (79.7%) than males (87.3%) reportedly using condoms consistently with their most recent partner, regardless of the partner type. A similar significant difference was noted with those reporting that their most recent sexual partner was a regular partner. Though the literature does not explore consistent condom use by females on the basis of whether the partner is the most recent or second most recent and so forth, it does identify factors such as domestic violence, low education attainment, economic dependence, and even simple economical enrichment as reasons for low consistent condom use by women (Bull et al., 2008, Fox, 2010, Agha et al., 2002, Dintwa, 2010). Some of these characteristics were more prevalent among the female members of this study and could explain this difference.

4.4. Socio demographic characteristics of sexually active Batswana aged 18-34 and consistent condom usage

Condom use has been identified to be associated with socio-demographic aspects including age, sex, education, marital status, income status, education and residence (Agha et al., 2002, Dintwa, 2010, Kraft et al., 2009). However within the study, age, educational attainment, monthly income and residence proved to have no association with consistent condom use. In terms of age, the literature review consistently found that people older than 30 years were less likely to use condoms (Essien et al., 2010,

Bankole et al., 2009, Lagarde et al., 2001b, Ayiga and Letamo, 2012). While age was found to be insignificant for this study, given the broader literature on this subject, it would be premature for someone in communication to disregard age-related factors in condom use promotion. Association between low income status and consistent condom use has also been viewed as debatable, with some surveys proving an association (McIntyre et al., 2009), while others finding an association between high income status and inconsistent condom use (Fox, 2010). The lack of an association in this study may, in fact, reflect different risk pathways that are associated with both high- and low-income status, cancelling each-other out.

Males reportedly used condoms more consistently then females. Wingood and DiClemente (2000) further argue that income status impacts gender roles and disadvantage women in terms of their negotiating power in sexual relationships. As noted in the literature review, for instance, economic dependence on a sexual partner has been associated with lower condom use (Agha et al., 2002, Sayles et al., 2006, Langen, 2005).

What was also in accordance with the literature, was that married people are identified to most likely not to use condoms in comparison to those that are single (Langen, 2005). The study showed a significant difference between consistent condom use and no consistent condom use, amongst those that were single and not in a relationship, single and in a relationship and those that were married. According to de Walque and Kline (2009), throughout the world the percentage of married couples that use condoms is low.

Ultimately the research results highlight the limitations that socio demographic characteristics offer in explaining low condom use, and the need to further explore fundamental aspects about each demographic group that may influence consistent condom use. However the results provide further evidence as to the importance of creating condom marketing campaigns that target both sexes and are created to address the different sexual relationships.

4.5. Social Cognitive Theory Constructs and Consistent Condom Use

Social Cognitive Theory identifies self-efficacy and outcome expectations as two of the five key determinants of behaviour (Bartholomew and Mullen, 2011). In order to test out the theory of whether positive outcome expectations and high self-efficacy were associated with consistent condom use, both outcome expectations as well as condom self-efficacy were cross tabulated against consistent use of condoms. The study results contradicted literature that identified high condom self-efficacy to be associated with condom use (Coffman et al., 2011) as respondents with consistent and inconsistent condom use had similarly high condom self-efficacy scores. A possible explanation is differences in the way that self-efficacy was measured. The Coffman et al. (2011) study included items related to obtaining condoms. For this study, the condom self-efficacy scale was made up condom negotiation self-efficacy and self-efficacy to use condoms, a hypothesis is that a person will have low condom self-efficacy if they have either low self-efficacy to negotiate condoms or low self-efficacy to use condoms. In fact, condom negotiation self-efficacy was not statistically associated with consistent condom use, whereas self-efficacy to use a condom was statistically significant in a manner consistent with Social Cognitive Theory (SCT). This suggests that other barriers to condom use, e.g. self-efficacy to obtain condoms, might have been at play.

Condom use outcome expectations proved to be more complex to interpret than condom self-efficacy. As stated in the results, neither the overall condom use outcome expectations scale nor the health outcome expectations subscale were significantly associated with higher levels of consistent condom use. Similar to the other research that has found that though people are knowledgeable on the health benefits of condom use they still do not use them consistently (Gabler et al., 2004), the fact that health expectations were largely positive suggests that people are not questioning the health benefits of using condoms, but rather have other reason for not using condoms consistently. For health communicators, this is important to note, as many health promotion campaigns focus messages on health.

However, both the social and pleasure outcome expectations were statistically significant in the expected direction. Social outcome expectations as identified by Bandura (2004, p. 144), are the "social approval or disapprovals the behaviour produces in one's interpersonal relationships." Out of the total sample that reported positive social outcome expectations of using condoms, 77.3% of them reported using condoms consistently. Maharaj and Cleland (2005), identify a common negative social outcome expectation in sub-Saharan Africa as the belief that insisting on using condoms will be interpreted as a sign of luck of trust. According to Van Rossem and Meekers (2011), youth are more inclined to use condoms based on what they believe their family's social perceptions of using condoms are, rather than their peers' perceptions.

Physical outcome expectations, is identified by Bandura (2004,p. 144), as "pleasurable and aversive effects of the behaviour and the accompanying material losses and benefits." Those who had higher pleasure outcome expectations were more likely to use condoms in this study. This reinforces other literature outside of the theory that have shown that the belief that condoms ruin spontaneity, naturalness, sexual sensations and even dilutes the significance of marriage is associated with lower condom use (Versteeg and Murray, 2008). For this study, pleasure was explored through a single item that measured whether the respondents believed that condom use reduced sexual pleasure. With less than half of the sample reporting positive pleasure outcome expectations and using condom - consistently, there seems to be scope for communication campaigns to address this more explicitly moving forward.

The positive association between condom use and social outcome expectations as well as pleasure outcome expectations provides a new view of condom use barriers that implies that condom social marketing campaigns in Botswana need to focus on these two variables in order to maximise their desired outcome, although some adjustment to the indicators may be warranted. In terms of pleasure outcome expectations, as several studies suggest a potential solution to curb the negative belief that condoms reduce sexual pleasure is to have condom social marketing campaigns focus on the sexual benefits that condoms provide (Newby et al., 2013, Randolph et al., 2007, Tran et al., 2013).

4.6. Limitations

As the study involved secondary data analysis, a limitation was missing data. The original sample size was 1299, however the variables of interest had missing data, meaning that the sample size was reduced for some of the analysis. Nevertheless, in the majority of cases, the samples remained large enough to conduct tests of association. As the data were cross-sectional, the findings cannot be used to determine causality. It should also be noted that the study population only reflected a sub-set of men and women aged 18-34, excluding those who were abstinent or not sexually active.

As a secondary data analysis there was no control over the questionnaire design, as the questionnaire was designed in accordance to the TRaC survey objective, thus the conceptualisation of questions for that study limited the types of responses that could be explored in this secondary analysis. For example, the literature review identified a number of other constructs within the Social Cognitive Theory that were not covered by TRaC questionnaire, such as self-evaluation outcome expectations, outcome expectancies, observational learning, environmental determinants of behaviour, self-regulation and moral disengagement. Ideas of how future questionnaires may be strengthened are included in the study recommendations in Chapter 6. The original sampling design was applied inconsistently, with some EAs being underrepresented and others being overrepresented, impacting on the generalizability.

For this study, analysis was only carried out through tests of association. The application of logistic regression analysis would provide additional insight on this topic, but was beyond the scope of the MPH and skill-set of the researcher.

CHAPTER 5 CONCLUSIONS AND RECOMMENDATIONS

The study showed that a high percentage of 18-34 year olds in Botswana in 2010 used condoms consistently, regardless of their social demographics or the sexual partner type. A high percentage of 18-34 year olds in Botswana also had either moderate or positive condom self-efficacy as well as positive output expectations to use condoms consistently. The promotion of condom use in Botswana within the health sector has been focused on the health and social benefits while shying away from pleasure outcome expectations, which the study suggest may be more significant than health outcome expectations (as well as less positive than other forms of outcome expectations). Though condom negotiation self-efficacy was proven not to be a significant predictor of consistent condom use, the self-efficacy to use condoms was shown as a better predictor, which suggests that communication efforts should focus on this particular type of self-efficacy, especially for females, as the study and literature identify females to have lower self-efficacy to use condoms than their male counterparts.

It should be noted that even those that had either low self-efficacy or negative output expectations still reported using condoms consistently, which makes it plausible that other factors such as gender power imbalances, socioeconomic barriers, or even sexual partner succession which have been identified by other researchers such as Ayiga and Letamo (2012), are better predictors of consistent condom use. Though a lot of literature tends to focus on gender power imbalances through the traditional view of a woman being the lesser empowered of the two, the study did show that men did have low condom self-efficacy and negative outcome expectations which should be explored further.

With regards to the use of theory to design interventions, this study suggests that the two constructs measured from Social Cognitive Theory should not be simple grouped up as either just condom self-efficacy or outcome expectations of using condoms. As the study proved that there were certain variables that made up each construct that were statistically associated with condom use, while there were those that were not. Therefore different or more precise operationalization of constructs may assist in gaining insight into predictors or barriers to consistent condom use. It would be unfair to criticise the value of the overall theory, as four of the key dimensions of SCT were not measured in the questionnaire. However, the findings also suggest that the inclusion of measures beyond SCT, e.g. gender and power, may also be justified when collecting data to inform condom promotion or social marketing campaigns.

5.1. Recommendations

It has been argued that the key to successful Social and Behaviour Change Communication is a theoretical base (Bartholomew and Mullen, 2011). However, a clear knowledge and understanding of not only the association between the constructs and the behaviour but the causality is necessary to design an effective program or campaign. Without a clear understanding of all the factors, there will always be conflicting measures and results. In terms of promoting consistent condom use and SCT, this study suggests that how key constructs are measured, e.g. outcome expectations, may miss important nuances when aggregated and that it is critical to measure each specific outcome expectation construct. If well designed, they may edify the promotion of consistent condom use in Botswana.

Specific recommendations on how the study findings may guide future condom use promotion in Botswana include:

- Condom use among married people needs to be addressed, which can only be done with a clearer understanding as to the reason why spouses are not using condoms.
- Regular partners need to be targeted, but with more focus on females.
- Promoting self-efficacy to use condoms needs to be continued, as one cannot use or enforce condom use if they do not believe they can use it.
- There should be a greater focus on promoting sex with condoms as being pleasurable for both sexes.
- There is a need to create social support for condom use that does not focus on just the peers but even family members.

Further research is also required in regards to condom use by relationship status and why people are not using condoms with certain sexual partners; as well as the specific barriers to condom use that relate to males and females. A deeper analysis of the role of sex and the Social Cognitive Theory constructs in association with consistent condom use by sex would be beneficial. This could be done by developing a logistic regression model using these study findings. For those significant findings, an exploration of the causal pathways between condom self-efficacy and outcome expectations on using condoms consistently needs to be identified. However, this would require prospective data to be collected. Qualitative studies to explain significant and non-significant outcomes could further enrich an intervention design process.

REFERENCES

ADEDIMEJI, A. A., HEARD, N. J., ODUTOLU, O. & OMOLOLU, F. O. 2009. Social factors, social support and condom use behavior among young urban slum inhabitants in southwest Nigeria.

AGHA, S., KUSANTHAN, T., LONGFIELD, K., KLEIN, M. & BERMAN, J. 2002. Reasons for non-use of condoms in eight countries in sub-Saharan Africa. PSI.

AYIGA, N. & LETAMO, G. 2012. Impact of male circumcision on HIV risk compensation through the impediment of condom use in Botswana. *African Health Sciences,* 11**,** 550-559.

BAKER, D. P., LEON, J. & COLLINS, J. M. 2010. Facts, attitudes, and health reasoning about HIV and AIDS: explaining the education effect on condom use among adults in sub-Saharan Africa. *AIDS and Behavior,* 11**,** 1-9.

BANDURA, A. 1989. Social cognitive theory. *In:* VASTA, R. (ed.) *Annals of child development.* Greenwich, CT: Jai Press.

BANDURA, A. 1990. Perceived self-efficacy in the exercise of control over AIDS infection. *Evaluation and Program Planning,* 13**,** 9-17.

BANDURA, A. 2001. Social Cognitive Theory: An Agentic Perspective. *Annual Review of Psychology,* 52**,** 1-26.

BANDURA, A. 2004. Health Promotion by Social Cognitive Means. *Health Education & Behavior,* 31**,** 143-164.

BANKOLE, A., AHMED, F. H., NEEMA, S., OUEDRAOGO, C. & KONYANI, S. 2007. Knowledge of correct condom use and consistency of use among adolescents in four countries in Sub-Saharan Africa. *African journal of reproductive health,* 11**,** 197.

BANKOLE, A., SINGH, S., HUSSAIN, R. & OESTREICHER, G. 2009. Condom Use for Preventing STI/HIV and Unintended Pregnancy Among Young Men in Sub-Saharan Africa. *American Journal of Men's Health,* 3**,** 60-78.

BARTHOLOMEW, L. K. & MULLEN, P. D. 2011. Five roles for using theory and evidence in the design and testing of behavior change interventions. *Journal of Public Health Dentistry,* 71**,** S20-S33.

BAUMAN, L. J., KARASZ, A. & HAMILTON, A. 2007. Understanding Failure of Condom Use Intention Among Adolescents. *Journal of Adolescent Research,* 22**,** 248-274.

BOGALE, G. W., BOER, H. & SEYDEL, E. R. 2010. Condom use among low-literate, rural females in Ethiopia: the role of vulnerability to HIV infection, condom attitude, and self-efficacy. *AIDS Care,* 22**,** 851-857.

BULL, S. S., POSNER, S. F., ORTIZ, C., BEATY, B., BENTON, K., LIN, L., PALS, S. L. & EVANS, T. 2008. POWER for Reproductive Health: Results from a Social Marketing Campaign Promoting Female and Male Condoms. *Journal of Adolescent Health,* 43**,** 71-78.

BURNETT, S. M., WEAVER, M. R., MODY-PAN, P. N., REYNOLDS THOMAS, L. A. & MAR, C. M. 2011. Evaluation of an Intervention to Increase Human Immunodeficiency Virus Testing Among Youth in Manzini, Swaziland: A Randomized Control Trial. *Journal of Adolescent Health,* 48**,** 507-513.

CENTRAL STATISTICS OFFICE, B. 2009. Botswana AIDS Impact Survey III (BIAS III). Gaborone: Central Statistics Office Botswana.

CENTRAL STATISTICS OFFICE BOTSWANA 2009. Botswana AIDS Impact Survey III (BIAS III). Gaborone: Central Statistics Office Botswana.

CHAPMAN, S., JAFA, K., LONGFIELD, K., VIELOT, N., BUSZIN, J., NGAMKITPAIBOON, L. & KAYS, M. 2012. Condom social marketing in sub-Saharan Africa and the Total Market Approach. *Sexual health,* 9**,** 44.

COFFMAN, D., SMITH, E., FLISHER, A. & CALDWELL, L. 2011. Effects of HealthWise South Africa on Condom Use Self-efficacy. *Prevention Science,* 12**,** 162-172.

DINTWA, K. F. 2010. Factors Associated With Nonuse of Condom for Sexually Active Botswana Women. *Health Care for Women International,* 31**,** 37-52.

ESSIEN, E. J., MGBERE, O., MONJOK, E., EKONG, E., ABUGHOSH, S. & HOLSTAD, M. M. 2010. Predictors of frequency of condom use and attitudes among sexually active female military personnel in Nigeria. *HIV/AIDS-Research and Palliative Care. 2010b,* 2**,** 77–88.

FOX, A. M. 2010. The social determinants of HIV serostatus in sub-Saharan Africa: an inverse relationship between poverty and HIV? *Public Health Reports,* 125**,** 16.

FRYLING, M. J., JOHNSTON, C. & HAYES, L. J. 2011. Understanding Observational Learning: An Interbehavioral Approach. *The Analysis of Verbal Behavior,* 27**,** 191-203.

GABLER, J., KROPP, F., SILVERA, D. H. & LAVACK, A. M. 2004. The Role of Attitudes and Self-Efficacy in Predicting Condom Use and Purchase Intentions. *Health Marketing Quarterly,* 21**,** 63-78.

GLANZ, K., RIMER, B. K. & LEWIS, F. M. 2002. *Health behavior and health education: Theory, research, and practice*, Jossey-Bass.

GLANZ, K., RIMER, B. K. & LEWIS, F. M. 2008. *Health behavior and health education: Theory, research, and practice,* San Francisco, Jossey-Bass.

GORADIA, S. 2010. *Tracking Results Continuously (TRaC)* [Online]. Washington D.C: Population Services International. Available: http://www.kix.psi.org/pages/viewpage.action?pageId=57019487 [Accessed 24 May 2011 2011].

HARGREAVES, J. R., SLAYMAKER, E., FEARON, E. & HOWE, L. D. 2012. *Changes over time in sexual behaviour among young people with different levels of educational attainment in Tanzania*.

HEALD, S. 2006. ABSTAIN OR DIE: THE DEVELOPMENT OF HIV/AIDS POLICY IN BOTSWANA. *Journal of Biosocial Science,* 38**,** 29-41.

HEARST, N. & CHEN, S. 2004. Condom Promotion for AIDS Prevention in the Developing World: Is It Working? *Studies in Family Planning,* 35**,** 39-47.

HENDRIKSEN, E. S., PETTIFOR, A., LEE, S. J., COATES, T. J. & REES, H. V. 2007. Predictors of condom use among young adults in South Africa: the Reproductive Health and HIV Research Unit National Youth Survey. *American Journal of Public Health,* 97**,** 1241-1248.

JAMA SHAI, N., JEWKES, R., LEVIN, J., DUNKLE, K. & NDUNA, M. 2010. Factors associated with consistent condom use among rural young women in South Africa. *AIDS Care,* 22**,** 1379-1385.

KALICHMAN, S. C., NTSEANE, D., NTHOMANG, K., SEGWABE, M., PHORANO, O. & SIMBAYI, L. C. 2007. Recent multiple sexual partners and HIV transmission risks among people living with HIV/AIDS in Botswana. *Sex Transm Infect,* 83**,** 371-5.

KANEKAR, A. S. 2009. *Testing the Efficacy of a brief Social Cognitive Theory based safer sex intervention among African-American College students.* University of Cincinnati.

KAPADIA, F., LATKA, M. H., WU, Y., STRATHDEE, S. A., MACKESY-AMITI, M. E., HUDSON, S. M., THIEDE, H. & GARFEIN, R. S. 2011. Longitudinal Determinants of Consistent Condom Use by Partner Type Among Young Injection Drug Users: The Role of Personal and Partner Characteristics. *AIDS and Behavior,* 15**,** 1309-1318.

KRAFT, J. M., GALAVOTTI, C., CARTER, M., JAMIESON, D. J., BUSANG, L., FLEMING, D. & KILMARX, P. H. 2009. Use of Dual Protection in Botswana. *Studies in Family Planning,* 40**,** 319-328.

LAGARDE, E., AUVERT, B., CHEGE, J., SUKWA, T., GLYNN, J. R., WEISS, H. A., AKAM, E., LAOUROU, M., CARAËL, M. & BUVÉ, A. 2001a. Condom use and its association with HIV/sexually transmitted diseases in four urban communities of sub-Saharan Africa. *AIDS,* 15.

LAGARDE, E., CARAËL, M., GLYNN, J. R., KANHONOU, L., ABEGA, S.-C., KAHINDO, M., MUSONDA, R., AUVERT, B., BUVÉ, A. & CITIES, F. T. S. G. O. T. H. O. H. E. I. A. 2001b. Educational level is associated with condom use within non-spousal partnerships in four cities of sub-Saharan Africa. *AIDS,* 15**,** 1399-1408.

LANGEN, T. T. 2005. Gender power imbalance on women's capacity to negotiate self-protection against HIV/AIDS in Botswana and South Africa. *Afr Health Sci,* 5**,** 188-97.

MAHARAJ, P. & CLELAND, J. 2005. Risk perception and condom use among married or cohabiting couples in KwaZulu-Natal, South Africa. *International Family Planning Perspectives,* 31**,** 24-29.

MANTELL, J. E., SMIT, J. A., BEKSINSKA, M., SCORGIE, F., MILFORD, C., BALCH, E., MABUDE, Z., SMITH, E., ADAMS-SKINNER, J., EXNER, T. M., HOFFMAN, S. & STEIN, Z. A. 2011. Everywhere you go,

everyone is saying condom, condom. But are they being used consistently? Reflections of South African male students about male and female condom use. *Health Education Research,* 26**,** 859-871.

MCINTYRE, J. A., BRUYN, G. & GRAY, G. E. 2009. Southern Africa (South Africa, Botswana, Lesotho, Malawi, Mozambique, Namibia, Swaziland, Zambia, Zimbabwe)

Public Health Aspects of HIV/AIDS in Low and Middle Income Countries. *In:* CELENTANO, D. D. & BEYRER, C. (eds.). Springer New York.

NEWBY, K. V., BROWN, K. E., FRENCH, D. P. & WALLACE, L. M. 2013. Which outcome expectancies are important in determining young adults' intentions to use condoms with casual sexual partners?: a cross-sectional study. *BMC Public Health,* 13**,** 133.

PSI BOTSWANA 2010. Safe Male Circumcision & Condom Social Marketing 2010 TRaC Study Design. *PSI Research Study Design* Gaborone: PSI Botswana.

PSI WASHINGTON. 2010. *PSI at a glance* [Online]. Available: http://www.psi.org/about-psi/psi-at-a-glance [Accessed 2013].

RANDOLPH, M. E., PINKERTON, S. D., BOGART, L. M., CECIL, H. & ABRAMSON, P. R. 2007. Sexual pleasure and condom use. *Archives of Sexual Behavior,* 36**,** 844-848.

RAY, R. & SINHA, K. 2011. Interaction between HIV Awareness, Knowledge, Safe Sex Practice and HIV Incidence: Evidence from Botswana. *Monash Economics Working Papers*.

RIJSDIJK, L. E., BOS, A. E. R., LIE, R., RUITER, R. A. C., LEERLOOIJER, J. N. & KOK, G. 2012. Correlates of Delayed Sexual Intercourse and Condom Use among Adolescents in Uganda: a cross-sectional study. *BMC Public Health,* 12**,** 817.

ROGERS, L. Q., MATEVEY, C., HOPKINS-PRICE, P., SHAH, P., DUNNINGTON, G. & COURNEYA, K. S. 2004. Exploring Social Cognitive Theory Constructs for Promoting Exercise Among Breast Cancer Patients. *Cancer Nursing,* 27**,** 462-473.

SAYLES, J. N., PETTIFOR, A., WONG, M. D., MACPHAIL, C., LEE, S. J., HENDRIKSEN, E., REES, H. V. & COATES, T. 2006. Factors associated with self-efficacy for condom use and sexual negotiation among South african youth. *J Acquir Immune Defic Syndr,* 43**,** 226-33.

SHANNON, K., LEITER, K., PHALADZE, N., HLANZE, Z., TSAI, A. C., HEISLER, M., IACOPINO, V. & WEISER, S. D. 2012. Gender Inequity Norms Are Associated with Increased Male-Perpetrated Rape and Sexual Risks for HIV Infection in Botswana and Swaziland. *PLoS ONE,* 7**,** e28739.

SIEGLER, A. J., MBWAMBO, J. K., MCCARTY, F. A. & DICLEMENTE, R. J. 2012. Condoms "contain worms" and "cause HIV" in Tanzania: Negative Condom Beliefs Scale development and implications for HIV prevention. *Social Science & Medicine,* 75**,** 1685-1691.

STATISTICS BOTSWANA 2011. 2011 Botswana Population Housing Census. Statistics Botswana.

STATISTICS BOTSWANA 2013. Education report drawn from 2009/10 Botswana Core Welfare Indicators Survey *In:* BOTSWANA, S. (ed.). Gaborone: Statistics Botswana.

STEPHENS, L. L., BACHHUBER, M. A., SELOILWE, E., GUNGQISA, N., MMELESI, M., BUSSMANN, H., MARLINK, R. G. & WESTER, C. W. 2012. HIV-Related knowledge, attitudes, and practice among educated young adults in Botswana. *Journal of AIDS and HIV Research Vol,* 4**,** 159-164.

TRAN, B. R., THOMAS, A. G., DITSELA, M., VAIDA, F., PHETOGO, R., KELAPILE, D., CHAMBERS, C., HAUBRICH, R. & SHAFFER, R. 2013. Condom use behaviours and correlates of use in the Botswana Defence Force. *International journal of STD & AIDS,* 24**,** 883-892.

USAID. 2010. HIV/AIDS Health Profile: Southern Africa. Available: http://www.usaid.gov/our_work/global_health/aids/Countries/africa/southernafrica_profile.pdf [Accessed 25 May 2011].

VAN ROSSEM, R. & MEEKERS, D. 2011. Perceived social approval and condom use with casual partners among youth in urban Cameroon. *BMC Public Health,* 11**,** 632.

VERSTEEG, M. & MURRAY, M. 2008. Condom use as part of the wider HIV prevention strategy: Experiences from communities in the North West Province, South Africa. *SAHARA J (Journal of Social Aspects of HIV/AIDS Research Alliance),* 5**,** 83-93.

WECHSBERG, W. M., LUSENO, W. K., KLINE, T. L., BROWNE, F. A. & ZULE, W. A. 2010. Preliminary Findings of an Adapted Evidence-Based Woman-Focused HIV Intervention on Condom Use and Negotiation Among At-Risk Women in Pretoria, South Africa. *Journal of Prevention & Intervention in the Community,* 38**,** 132-146.

WEISER, S. D., HEISLER, M., LEITER, K., PERCY-DE KORTE, F., TLOU, S., DEMONNER, S., PHALADZE, N., BANGSBERG, D. R. & IACOPINO, V. 2006a. Routine HIV Testing in Botswana: A Population-Based Study on Attitudes, Practices, and Human Rights Concerns. *PLoS Med,* 3**,** e261.

WEISER, S. D., LEITER, K., BANGSBERG, D. R., BUTLER, L. M., PERCY-DE KORTE, F., HLANZE, Z., PHALADZE, N., IACOPINO, V. & HEISLER, M. 2007. Food Insufficiency Is Associated with High-Risk Sexual Behavior among Women in Botswana and Swaziland. *PLoS Med,* 4**,** e260.

WEISER, S. D., LEITER, K., HEISLER, M., MCFARLAND, W., KORTE, F. P.-D., DEMONNER, S. M., TLOU, S., PHALADZE, N., IACOPINO, V. & BANGSBERG, D. R. 2006b. A Population-Based Study on Alcohol and High-Risk Sexual Behaviors in Botswana. *PLoS Med,* 3**,** e392.

WESTERCAMP, N., MATTSON, C. L., MADONIA, M., MOSES, S., AGOT, K., NDINYA-ACHOLA, J. O., OTIENO, E., OUMA, N. & BAILEY, R. C. 2010. Determinants of consistent condom use vary by partner type among young men in Kisumu, Kenya: a multi-level data analysis. *AIDS and Behavior,* 14**,** 949-959.

WINGOOD, G. M. & DICLEMENTE, R. J. 2000. Application of the Theory of Gender and Power to Examine HIV-Related Exposures, Risk Factors, and Effective Interventions for Women. *Health Education & Behavior,* 27**,** 539-565.

CSM TRaC Survey 2010 (18-34 year-old males and females)

Annex A: PSI Botswana 2010 Condom Social Marketing TRaC Questionnaire

ORIGINAL SELECTION?	Y / N	**SUBSTITUTE?**	Y / N	EA Number							QRE Number				
City / Town / Village Name			If City, Area Name				House-hold		Sampling Interval						
GPS COORDINATES	S				E										
Fieldworker		FW Age		FW Gender	Male / Female	Date Completed or Abandoned									
Field Supervisor		Quality Controller		Data Entry Clerk #1		Data Entry Clerk #2									
Date Checked		Date Checked	/ / 2010	Date Entered	/ / 2010	Date Entered	/ / 2010								
Signature		Signature		Signature		Signature									

LOCATION		
Urban	1	Miscellaneous (other notes)
Peri-Urban	2	_____
Urban village	3	_____
Rural	4	_____
Cattle Post / Lands / Settlements	5	_____
Other Rural Area	6	

INTERVIEWER	VISIT 1	VISIT 2	VISIT 3
Date:			
Time:			
Action Plan for Follow Up:			
Result:			

I, the interviewer, conducted the interview and checked if all questions were answered.

Signature: _____ Date: _____

SUPERVISOR

Household checked for quality control? Yes / No

Spot-check IN PERSON 1 Spot checked BY PHONE 2

Comments _____

_____

_____

Date checked: _____ By whom - Print _____

- Sign _____

HOUSEHOLD SELECTION STATUS

Originally selected household	1
Replacement	2
Number of Substitutes	

REASON FOR REPLACEMENT

Not available after repeated visits	1
No eligible respondent	2
Refused (explain):	
Other (specify)	

INTERVIEW STATUS

Completed interview	1
Partially completed interview	2
Reason for partial:	

CSM TRaC Survey 2010 (18-34 year-old males and females)

SPEAK TO THE HEAD OF HOUSEHOLD OR ADULT MEMBER IN HOUSEHOLD:

Good morning. My name is_____and I am working on behalf of PSI, a NGO concerned with HIV prevention.

>Dumelang. Ke bidiwa_____ ke direla mo PSI, lekalana le le ikemetseng ka nosi le le itebagantseng le ntwa kgatlhanong le mogare wa HIV.

Participation in this survey is voluntary and any answers provided will be confidential. Only the respondent can be present at the time of the interview. The interview must be conduced in a private location away from anyone who might overhear the conversation. Preliminary data concerning the respondent's demographic status and attitude towards condoms will be recorded by the interviewer, but sensitive questions about their sexual behaviours will be recorded on a ballot questionnaire that only the respondent will see. No identifying information (e.g. name, address, cell number, etc) will be recorded on this questionnaire. This data will all be sealed in an envelope and returned to a field supervisor who will keep the data safe until the team's return to the office (where the data will be kept in a secure cupboard).

>**Go tsaa karolo mo dipatlisisong tse ke boitlhophelo jwa gago ga go patelediwe, dikarabo tse o tla di fang di tsewa ele sephiri. Motsaakarolo ke ene fela a ka nnang teng ka nako ya fa go botswa dipotso. Puisano e e tshwanetse ya direlwa mo lefelong le le faphegileng kgakala le fa ope a ka utlwang sepe mo puisanong ya lona. Dikarabo tsotlhe ka motsaakaorolo le ka fa a akanyang ka teng mabapi le dikhondomo di tla kwalololwa ke yo o botsolotsang, mme dipotso tse tse di bokete tsa maitsholo a tsa tlhakanelo dikobo di tla kwalolelwa mo pampitshaneng ya di karabo e e tla a bonwang ke motsaakarolo fela. Ga gona sekao sepe (jaaka leina, aterese, mogala, jalojalo) se se tla gatisiwang mo bukaneng e. Dikarabo tsotlhe di tla tswalelwa mo enfelopong di be di busediwa ko go mookamela dipatlisiso yo o tla di bolokang go fitlhela go boelwa ko ofising (ko dikarabo di tla bolokelwang mo mabolokelong a a faphegileng).**

The procedure will all be explained in further detail to the person that qualifies for the study. I would be grateful if you would permit me to determine whether any eligible persons live at this address?

>Tsamaiso e tla tlhalosetswa ka botlalo motho yo o kgonang go tsenelela dipatlisiso tse. Ke ka itumelela thata fa o ka ntetlelela go bona gore a go na le bangwe ba ba ka tsayang karolo ba nnang mo lefelong le.

Permission granted: Yes / No

>Go leteletswe: Ee/ Nnya

Qualifying criteria: For this survey we would like to interview men and women aged 18-34 years old who ordinarily stay at this residence. We are not including guests who are staying with you. Is there anyone living here between the ages of 18-34? [If not, end interview and record result on cover page.]

>Mo ditshekatshekong tse, re rata go botsolotsa borre le bomme ba ba dingwaga tse di magareng ga 18-34 ba ba tlholegileng ba nna mo lwapeng le. Ga re akaretse baeng ba ba nnang le lona. A go nale mongwe yoo nang fa a le dingwaga dima gareng ga 18-34? (fa ba seo, emisa potsolotso o bo o kwala maduo mo tsebeng ya ntlha)

CSM TRaC Survey 2010 (18-34 year-old males and females)

Can you please tell me the names and ages of all the people in this age group living in this household, starting with the eldest...The next oldest?...[And so on until all are listed.]

Ke kopa o mpolelele maina le dingwaga tsa batho botlhe ba ba mo dingwageng tse ba ba nnang mo lelwapeng le, go simolola ka yo o motona, o mo salang morago?.... (Fela jaalo go fitlhelela botlhe ba balololwa)

	Household Members **18-34** yrs				CIRCLE LAST DIGIT OF QUESTIONNAIRE NUMBER									
Number (circle last)	Eligible Only	Coded Initials	Age	Gender	1	2	3	4	5	6	7	8	9	0
1	Eldest				1	1	1	1	1	1	1	1	1	1
2	2nd eldest				2	2	1	1	2	1	1	2	1	2
3	3rd				1	2	3	2	1	2	3	1	3	3
4	4th				3	1	2	4	1	4	3	2	1	2
5	5th				4	2	3	1	5	5	3	1	4	2
6	6th				2	5	4	6	6	3	1	4	2	6
7	7th				6	7	5	4	2	1	7	3	2	5
8	8th				7	1	4	6	5	3	2	8	1	7
9	9th				4	8	5	9	7	1	2	3	6	9
10	10th				8	10	1	6	7	5	3	9	4	2

This makes _____people between **18-34** living at this residence. Is that correct?
Se se dira palo gotlhe ya batho ba dingwaga tse 18-34 ba ba nnang fa go nna _____. A gontse jalo?

Respondent selection

1. Circle last digit of questionnaire number in top row of table where indicated
2. Tick box in column 1 (number) corresponding to last person listed
3. Follow down this column to row where you have ticked in col 2 and circle box where they meet. The number in this box represents the **person** who **you must select** to be interviewed.
4. Ask to speak to respondent as identified in grid. If the respondent identified is of a different gender to the interviewer, then ask an interviewer of the same gender to come and interview the respondent.
5. If this person is unavailable you will return later. If after three attempts, you cannot reach the selected invidual, you may substitute the household.

Proceed to consent selected participant.

SEE INFORMED CONSENT FORM.

CSM TRaC Survey 2010 (18-34 year-old males and females)

SCREENING QUESTION				
BB0	We would like your responses to a portion of this survey to be kept private, which will mean you would fill in the responses yourself. For this reasons we are asking if you can you read and write? If you cannot read and write then we will conduct the entire survey face-to-face. Can you read and write? **Re eletsa gore o arabe dipotso dingwe mo sephiring sag ago, ka jalo o tshwanetse go ikwalela dikarabo. Ka lebaka le, re eletsa go itse gore a kgona go bala le go kwala? Fa o sa itse go bala le go kwala re tla go balela dipotso re bo re go kwalela dikarabo.** **A o itse go bala le go kwala?**	No Yes No response	0 1 99	
S1	In the past 12 months, have you had sexual intercourse? **Mo dikgweding tse di 12 (lesome le bobedi) tse di fitileng, a o kile wa tlhakanela dkobo?**	No Yes No response	0 1 99	→ P1
S2	Are you currently abstaining? **A mo nakong ya gompieno o ikgaphile mo tlhakanelong dikobo (ga o tlhakanele dikobo)**	No Yes No response	0 1 99	**ALL→ END**

NOTE:

(1) Those who report SEX in the past 12 months → **Proceed**

Time at start of Interview ____:____ am / pm

(2) Those who report NO SEX in the past 12 months (whether abstaining or not) → **END**
(Give pack of condoms as a thank you for participating in the screening process)

CSM TRaC Survey 2010 (18-34 year-old males and females)

CLASSIFICATION INFORMATION			
Q no.		DISTRICT	CODES
P1		South-East	1
		Kgatleng	2
		Central-Serowe	3
		Central-Mahalapye	4
		Central-Bobonong	5
		Central-Boteti	6
		Central-Tutume	7
		Central-Other	8
		North East	9
		Southern	10
		Kweneng West	11
		Kweneng East	12
		Kgalagadi North	13
		Kgalagadi South	14
		Ghanzi	15
		Ngamiland North	16
		Ngamiland South	17
		Gaborone	18
		Francistown	19
		Lobatse	20
		Selebi Pikwe	21
		Chobe	22
		Orapa	23
		Jwaneng	24
		Sowa	25
		Barolong	26
	Q101-R	Ngwaketse West	27

POPULATION CHARACTERISTICS				
P2	Gender Q201 **Bong**	Male Female	1 2	
P3	How old were you at your last birthday? **O dingwaga di kae?** (NOTE: If respondent cannot recall, ask to see Omang or Passport.) Q202-R	Record age ☐☐ Don't know age No response	 98 99	
P4	What is the highest level of education that you have completed? **O tsene sekole go ema kae?** Q205-R	Never been to school Primary (Std 1-7) Primary (Std 1-7 w/PSLE) Junior Secondary (Form 1-3, JC or part JC) Senior Secondary (Form 4-5, w/O Level or part SS) Tertiary/Vocational College/University Other _____ Don't know No response	1 2 3 4 5 6 7 97 98 99	

P5 **Multi**	What is your religious denomination? **O wa tumelo efe?**	None	0	→ P7
		Roman Catholic	1	
		Zion Christian Church	2	
		IPCC	3	
		Lutheran	4	
		London Missionary Church / Trinity	5	
		Dutch Reformed	6	
		Methodist	7	
		Jehovah Witness	8	
		Pentecostal Church	9	
		African Independent Churches	10	
		Other Christian _____	11	
		Traditional Beliefs _____	12	
		Islam	13	
		Rastafari	14	
		Bahai	15	
		Hindu	16	
		Other _____	97	
		Don't know	98	→ P7
		No response	99	→ P7
P6	How closely do you follow the advice (or rules) of that religion? **O sala morago dikgakololo (melawana) ya tumelo eo gole kae?**	Not at all	0	
		Follow somewhat/sometimes	1	
		Strongly follow	2	
		Don't know	98	
		No response	99	
P7 **Multi**	What is your occupation? **O bereka o le eng?**	Unemployed (Stay at home wife or husband)	1	
		Unemployed (Other)	2	
		Unemployed (Student)	3	
		Self employed	4	
		Mining Industry-Manager	5	
		Mining Industry-Worker	6	
		Farming-Manager	7	
		Farming-Worker	8	
		Professional-Business	9	
		Professional-Technical	10	
		Police/Military/Security	11	
		Primary/Secondary School Teacher	12	
		Tertiary Education Teacher	13	
		Civil Servants (Government)	14	
		Domestic worker (maid, gardener)	15	
		Truckers/Transport business	16	
		General worker / Laborer	17	
		Office Worker	18	
		Retail Worker	19	
		Other _____	97	
		No response	99	

P8	What is your total monthly household income, including your personal income and other monetary or material support? **Madi a lelwapa le nnang nao otlhe fela ka kgwedi, o akaretsa methale e mengwe le dithuso tsa madi tse o nnang natso, ke bokae?** **READ OUT OPTIONS** NOTE: It might help by having respondent free list all monetary income (from self or others) and benefits (e.g. rent, cell, etc) on a piece of paper, then calculate the monetary value of each. **Go ka thusa go letla motsaakarolo go kwala madi otlhe a a tlang mo lapeng (gotswa mo go ene kgotsa go ba bangwe) le a dimpho tsotlhe (jaaka rente, cellphone, jalo jalo) mo pampiring, o bo o tlhakanya.**	No Income 0 to 1,500 1,501 to 3,000 3,001 to 5,000 5,001 to 7,500 7,501 to 10,000 10,001 to 15,000 15,001 to 20,000 20,001 to 30,000 30,001 and above Don't know No response (refusal) No response (other)	0 1 2 3 4 5 6 7 8 9 98 100 99	
P9 **Multi**	Do you or anyone in your household own any of the following items? **A wena kgotsa mongwe wa ga lona o nale sengwe sa dilo tse di latelang?** READ OUT LIST **DI BALOLOLE**	Stove Refrigerator Washing Machine Music Player (CD, MP3) Radio or Casette Player Home Computer Television Movie Player (VCR, DVD) Phone (Land Line or Cell Phone) Motorvehicle (Car, Van, Truck) Cattle Other Livestock (goats, donkeys, sheep) Farm Cattle Post House Business No response (refusal) No reponse (other)	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 100 99	
P10	What is your **marital** status? **O nyetswe/ nyetse?** Q203-R	Single and not in a relationship Single and in a relationship Engaged (to be married) Married Polygamous Separated Divorced Widowed Don't know No response	1 2 3 4 5 6 7 8 98 99	
P11 **Multi**	Do you live with a (this) spouse or another sex partner? If not, who do you live with? **A o nna le mokapelo yo o mo kaileng fa godimo (P12),** **Fa karabo e lee nnyaa, o nna le mang?**	**Living with spouse** **Living with fiancé** **Living with sex partner** Living alone Living with family (e.g. parents or aunts/uncles) Living with peers Don't know No response	1 2 3 4 5 98 99	

CSM TRaC Survey 2010 (18-34 year-old males and females)

HIV PREVENTION METHODS: KNOWN & USED & EFFECTIVENESS RANKINGS						
			Known K1	**Used K2**	**Rank K3**	
	NOTE: DO NOT READ OUT	Abtinence	1	1	_____	
		Condoms (specify: male / female)	2	2	_____	
K1	What HIV prevention methods do you **know** about?	Using more than one condom at a time	3	3	_____	
		Circumcision	4	4	_____	
Multi	**Ke metlhale efe ya go thibela mogare wa HIV e o e itseng?**	Anal sex	5	5	_____	
		Oral sex	6	6	_____	
	NOTE: NEXT 2 Qs ASK OF THOSE MENTIONED IN K1 ONLY	"Be faithful" (not specific)	7	7	_____	
		Monogamy (both faithful)	8	8	_____	
		No casual sexual partners	9	9	_____	
		Reduce partners	10	10	_____	
	OF THOSE KNOWN,	No MCPs	11	11	_____	
K2	which do you **use**?	No concurrent partners	12	12	_____	
	Ke efe ya e o e itseng e o e dirisang?	Choose partners carefully	13	13	_____	
Multi		Stick to one partner	14	14	_____	
		Getting tested before having sex	15	15	_____	
	OF THOSE **KNOWN**, RANK	Knowing partner's status	16	16	_____	
K3	In terms of preventing HIV, which is the **most effective**?	Couple's testing	17	17	_____	
	And the next most effective?	Divorce	18	18	_____	
	[And so on until all are ranked.]	Sex with a virgin	19	19	_____	
		Urinating after sex	20	20	_____	
	Mabapi le go sireletsa HIV, ke motlhale ofe yo o berekang thata?	Washing genitals after sex	21	21	_____	
		Pull out before ejaculation	22	22	_____	
	O o latelang?	Cervical cap	23	23	_____	
	[Jalo jalo, go fitlhelela yotlhe e sekasekwa]	Contraceptives (pills/injection)	24	24	_____	
		Morning after pill	25	25	_____	
		ARVs	26	26	_____	
		TDF2	27	27	_____	
		Traditional medicines	28	28	_____	
		Praying	29	29	_____	
		Believing in God	30	30	_____	
		Faith (unspecified)	31	31	_____	
		Other religious _____	97a	97a	_____	
		Use sterilized needles	32	32	_____	
		No blood transfusions	33	33	_____	
		Gloves	34	34	_____	
	NEW	Other _____	97b	97b	_____	
		Other _____	97c	97c	_____	
		Don't recall	96	96		
		Don't know	98	98		
		No response	99	99		

Knowledge			
K4 **Multi**	**Where** would you go if you needed information on HIV/AIDS? **Fa o batla kitso ka HIV, o ka ya kae?** **PROBE:** Are there any **people** you would go to if you needed information on HIV/AIDS? **A go na le batho bangwe ba o ka yang kwa go bone fa o batla kitso ka HIV/AIDS?**	**Places** VCT Centre (e.g. Tebelopele) Clinics/Hospitals Community Centre NGO Internet At church At school **People** Friend Partner Parent – mother or father or both Relative (specify _____) Teacher Religious Leader Stranger Other _____ Don't know No response	 1 2 3 4 5 6 7 8 9 10 97a 12 13 14 97b 98 99
K5	What is the average life expectancy for a man or a woman in Botswana? **O akanya gore monna kgotsa mosadi o ka tshela go fitlhela dingwaga tse kae?**	Life Expectancy -- MAN ☐☐☐ Life Expectancy -- WOMAN ☐☐☐ Don't know No response	 98 99

EXPOSURE: Messages Concerning Condom Social Marketing				
E1	Have you heard any messages concerning Lovers Plus condoms **in the past 2 years**? **A o kile wa utlwa melaetsa ya ipapatso mengwe ka ya khondomo ya Lovers Plus mo lobakeng la ngwaga tse pedi tse di fetileng?**	No Yes Don't know No response	0 1 98 99	→E2 (with prompt) →E2 (with prompt) →E2 (with prompt)

EXPOSURE: Messages Concerning Condom Social Marketing					
			NO Prompt	**WITH Prompt**	
E2 **Multi**	What messages or slogans have you heard? **Ke melaetsa efe e o utlwileng?** **Prompted: Show examples of Lovers Plus campaign materials.**	Protecting the Nation Super Safe, Super Styling Be Smart, Always Use a Condom 30,000,000 Good Decisions Use Lovers Plus, Everytime Safe. Stylish. Everytime. Go For Gold (promotion) Super Safe, Super Sensitive Other _____ Don't remember Don't know No response	1 2 3 4 5 6 7 8 97 96 98 99	1 2 3 4 5 6 7 8 97 96 98 99	 **If no recall...** →E4 →E4 →E4

CSM-E3: INSTRUCTIONS

NOTE: DO NOT READ OUT OPTIONS

"Please tell me where you have seen or heard about any of these Lovers Plus messages in the past 2 years?"
"Ke kopa gore o mpolelele gore o bone, badile kgotsa o utlwile kae melaetsa ya ipapatso ya Lovers Plus mo ngwageng tse pedi tse di fitileng?"
PROBE: Anywhere else?
A gona le ko gongwe gape?
PROBE: Have you heard anyone talking about them?
A o kile wa utlwa mongwe a bua ka tsone?
PROBE UNTIL NO MORE CAN BE RECALLED

FREQUENCY OF EXPOSURE TO ONLY LOVERS PLUS MESSAGING (THOSE SHOWN IN E2 PROMPTED) for each channel...

Rare	Some-times	Often	Very Often	Regular
Less than 1 x per month	1 x per month	3 x per week or less	More than 3 x per week	Every day

Multiple Responses Possible	CSM *** Yes	FREQUENCY Rare	Sometimes	Often	Very Often	Regularly
MASS MEDIA						
Radio	1	0	1	2	3	4
TV Advert	2	0	1	2	3	4
TV Program (specify _____)	3	0	1	2	3	4
Billboard	4	0	1	2	3	4
Newspaper	5	0	1	2	3	4
Posters	6	0	1	2	3	4
Combis	7	0	1	2	3	4
Leaflets/Brochures	8	0	1	2	3	4
EVENTS or IPC						
Promo Material	9	0	1	2	3	4
T-shirt	10	0	1	2	3	4
Events	11	0	1	2	3	4
Road show	12	0	1	2	3	4
IPC (specify) _____	13	0	1	2	3	4
Hair Salon _____	14	0	1	2	3	4
At Church _____	15	0	1	2	3	4
HEALTH FACILITY						
VCT Centre	16	0	1	2	3	4
Health Clinic	17	0	1	2	3	4
Other Facility _____	97a					
PEOPLE						
Family	18	0	1	2	3	4
Friend	19	0	1	2	3	4
Co-worker	20	0	1	2	3	4
Aquaintance	21	0	1	2	3	4
Overheard	22	0	1	2	3	4
Other person _____						
OTHER						
Other _____	97b	0	1	2	3	4
Other _____	97c	0	1	2	3	4
Don't remember where I heard/saw it	96					
Don't know	98					
No response	99					

TV SERIES				
E4	Have you ever seen Morwalela? **A o kile wa bona/lebelela drama ya Morwalela?**	No	0	→E7
		Yes	1	
		Don't know	98	→E7
		No response	99	→E7
E5	Approximately, how many episodes of **Morwalela** have you watched? **Fa o akanyetsa, o lebeletse dikarolo tsa Morwalela di le kafe?**	1	1	
		2	2	
		3	3	
		4	4	
		5	5	
		6	6	
		7	7	
	NEW	8	8	
		Don't remember	96	
		Don't know	98	
		No response	99	
E6 Multi	On what day(s) of the week was it aired on BTV? **E ne e supiwa ka labokae mo BTV?**	Sunday	1	
		Monday	2	
		Tuesday	3	
		Wednesday	4	
		Thursday	5	
		Friday	6	
		Saturday	7	
		Don't remember	96	
		Don't know	98	
		No response	99	
RADIO PROGRAMS				
E7	Have you ever listened to Switched On? **A o kile wa reetsa lenaneo la Switched On?**	No	0	→C0
		Yes	1	
		Don't know	98	→C0
		No response	99	→C0
E8	How many episodes of **Switched On** have you listened to? **Ke dikarolo di le kae tsa Switched On tse o di reeditseng?**	1	1	
		2	2	
		3	3	
		4	4	
		5	5	
		6 or more	6	
		Don't remember	96	
		Don't know	98	
		No response	99	

USAGE: Buying, Carrying and Using				
C0	Have you ever **used** a condom? **A o kile wa dirisa khondomo?**	Yes	1	
		No	0	
		No response	99	

CSM TRaC Survey 2010 (18-34 year-old males and females)

USAGE: Buying, Carrying and Using				
C1	Have you ever **bought** a condom? **A o kile wa reka khondomo?**	Yes No No response	1 0 99	 → C4
C2 **Multi**	What do you look for when buying a condom? **O lebelela eng fa o reka khondomo?** PROBE: Anything else? **A go na le sengwe gape?** PROBE UNTIL RESPONDENT CAN'T THINK OF ANYTHING ELSE. **DO NOT READ OUT**	**Basics** Price Expiry date Size of condom **Package** Package – Picture sexy Package – Picture discreet Package – Picture (specify _____) **Special Features or Qualities** Scent Flavour Colour Ribbed Studded Thinness Warming (e.g. from lubricant) Low lubrication High lubrication **Quality or Familiarity** Known Brand Quality Safety Reliability Other _____ Other _____ Don't know No response	 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 97a 97b 98 99	
C3	How often do you **BUY** condoms? **O reka dikhondomo ga kae?**	**Write Number:** (If NEVER, code as 0)	**Circle One** Per Week Per Month Per Year	
C4	How easy is it for you to **BUY** condoms, on a scale from 1 (very difficult) to 6 (very easy)? **Go motlhofo go le kae mo go wena go reka dikhondomo? Re kala ka sekale (1-6), 1 e le (go thata tota), 6 ele (go motlhofo tota)**	Very Difficult Difficult Fairly Difficult Fairly Easy Easy Very Easy	1 2 3 4 5 6	 →C6 →C6

USAGE: Buying, Carrying and Using

C5 **Multi**	What makes **BUYING** condoms difficult? **Ke eng se se dirang go reka khondomo thata?**	**Other patrons in shop/venue** People may see me buying them A man may see me buying them A woman may see me buying them Someone I know may see me buying them **How I will appear to others** As promiscuous As a prostitute As cheating on my main partner **Something unacceptable about the shop/venue...** The types of places locally available The distance of places locally available The types of people who sell condoms Where the condom is positioned in shop/venue **The Condom** The price The type I want to buy is not available (type wants _____) The package (specify _____) Other _____ Other _____ Other _____	1 2 3 4 5 6 7 8 9 10 11 12 13 14 97a 97b 97c	

C6	How often do you **CARRY** condoms? **O tsamaya o tshwere dikhondomo ga kae?/** **Go gantsi go le kae o tsamaya o tshotse dikhondomo?**	**Write Number:** (If NEVER, code as 0)	**Circle One** Per Week Per Month Per Year	

C7	How easy is it for you to **CARRY** condoms, on a scale from 1 (very difficult) to 6 (very easy)? **Go motlhofo go le kae mo go wena go tsamaya o tshwere dikhondomo, re kala ka sekale sa (1-6), 1 e le (go thata tota), 6 e le go motlhofo tota.**	Very Difficult Difficult Fairly Difficult Fairly Easy Easy Very Easy	1 2 3 4 5 6	 → C9 → C9

CSM TRaC Survey 2010 (18-34 year-old males and females)

			C8 SELF	C9 MAN	C10 WOMAN
C8 **Multi**	What makes it difficult for **YOU** to carry condoms? **Ke eng se se dirang gore o ketefalelwe ke go tsamaya o tshotse dikhondomo?**	**Negative Appearances -- regarding sex**			
		For MAN, that he likes women; For WOMAN, that she likes men	1	1	1
		As someone who "likes sex"	2	2	2
		As "looking for sex"	3	3	3
		As promiscuous / Sleeps around	4	4	4
		As a "player"	5	5	5
		As a prostitute	6	6	6
		As cheating on main partner / has MCP	7	7	7
C9 **Multi**	What do people think of a **MAN** who carries condoms? **Batho ba akanya jang ka monna yo o tsamayang a tshotse dikhondomo?**	As someone who is a "sex addict"	8	8	8
		As someone who might rape	9	9	9
		Negative Appearances – regarding his/her character			
		No self control	10	10	10
		Doesn't respect him/herself	11	11	11
C10 **Multi**	What do people think of a **WOMAN** who carries condoms? **Batho ba akanya jang ka mosadi yo o tsamayang a tshotse dikhondomo?**	**Negative Appearances – regarding the relationship**			
		That he/she doesn't trust his/her partner	12	12	12
		That he/she doesn't regard the relationship as serious	13	13	13
		Appearances – regarding health status of self or partner			
		That he/she personally has a STI	14	14	14
		That he/she personally has HIV	15	15	15
		That he/she thinks his/her Partner has a STI	16	16	16
		That he/she thinks his/her Partner has HIV	17	17	17
		Positive Appearances – regarding health / pregnancy			
		Cares about his/her health	18	18	18
		Values his/her life	19	19	19
		Values safe sex	20	20	20
		Wants to protect him/herself from STIs	21	21	21
		Wants to protect him/herself from HIV	22	22	22
		Wants to avoid pregnancy	23	23	23
		Wants to be prepared	24	24	24
		Responsible	25	25	25
		Other _____	97a	97a	97a
		Other _____	97b	97b	97b
		Other _____	97c	97c	97c

C11	How easy is it for you to **USE** a condom, on a scale from 1 (very difficult) to 6 (very easy)? **Go motlhofo go le kae mo go wena go dirisa khondomo, re kala ka sekale sa (1-6) 1 ele (go thata tota) 6 e le (go motlhofo tota)**	Very Difficult Difficult Fairly Difficult Fairly Easy Easy Very Easy	1 2 3 4 5 6	
C12	Let's imagine you're about to use a male condom. Can you describe in detail the steps you would take to make sure you are using the condom correctly? **A re akanyetse gore o batla go dirisa khondomo. A o ka tlhalosa ka botlalo dikgato tsotlhe tse o di tsayang go netefatatsa gore o dirisa khondomo sentle?** PROBE: What do you look at in the condom itself? **Ke eng se o se lebelelang mo khondomong?** PROBE: How do you put it on? **Tsenya khondomo jang?** PROBE: What do you do after ejaculation? **O dira jang fa o fetsa tlhakanelo dikobo?** PROBE: Where do you dispose of the condom? **O latlhela khondomo kae?**	**TAKE NOTES & CODE AFTER INTERVIEW** _____		

	Yes	No
Check the expiry date	1	0
Check the condom foil pack is not damaged and is intact	1	0
Carefully tear the edge of the foil pack and opened package. (Ensure that the condom is not damaged by fingernails.)	1	0
Nip the reservoir tip between fingers to release air in the tip of the condom	1	0
Put the condom on erect penis, while still holding the reservoir tip	1	0
Removed condom immediately after ejaculation	1	0
When removing the condom, held the condom at the base of the penis and carefully slipped condom off the penis to ensure that there is no spillage of the contents of the condom	1	0
Disposed of the condom in a pit latrine, dust bin or by burning. Did not flush it down the toilet.	1	0

Female Condoms				
F1	Have you ever **heard** of a female condom? **A o kile wa-utlwalela ka khondomo ya bomme?**	Yes No No response	1 0 99	→ C13
F2	Have you ever **seen** a female condom? **A o kile wa bona khondomo ya bomme?**	Yes No No response	1 0 99	
F3	Have you ever **used** a female condom? **A o kile wa dirisa khondomo ya bomme?**	Yes No No response	1 0 99	→ F6
F4	When was the last time you used a female condom? **O dirisitse khondomo ya bomme labofelo leng?**	**Write Number:**	**Circle One** Days ago Weeks ago Months ago Years ago	
F5	Approximately how many times in total have you used a female condom? **O akanya gore o ka tswa o dirisitse khondomo ya bomme makgetho a le kae?**			
F6	Are you likely to try/use a female condom in the future? **A go na le kgonagalo ya gore o lekeletse/dirise khondomo ya bomme bo nakong e tlang?**	Yes No No response	1 0 99	→ F8
F7 **Multi**	If YES, why? **Fa e le ee, ka go reng?**	Enjoyment**/ Ke ja monate fa ke e dirisa** Empowering me to make decisions on sexual matters**/ E nhusa go tsaya ditshwetso tse di maleba** To feel safe**/ Ke ne ke ikutlwa ke babalesegile** For protection/**Itshireletso** Other _____ Other _____ No response	1 2 3 4 97a 97b 99	
F8 **Multi**	If NO, why? **Fa e le Nnyaa, ka go reng?**	It's uncomfortable**/E ne e sa ntseye sentle** It was noisy during sex**/E ne e le modumo ka nako ya tlhakanelo dikobo** It makes sex boring**/E dira gore tlhakanelo dikobo e nne bosula** It's ugly**/E tebego e maswe** It is painful**/E botlhoko** It's not easily available**/Ga e bonale motlhofo** It's expensive**/Ya tura** It's difficult to use**/Ga go motlhofo go e dirisa** My partner doesn't want to use it**/Mokapelo wame ga battle go e dirisa** Other _____ No response	1 2 3 4 5 6 7 8 9 97 99	
F9	Have you ever been shown how to use a female condom? **A o kile wa bontshiwa ka fa khondomo ya bomme e dirisiwang ka teng?**	Yes No No response	1 0 99	→ C13

Female Condoms				
F10 **Multi**	If YES, by whom? **Fa ele Ee, ke mang?**	Gynaecologist/**Ngaka ya bomme**	1	
		Nurse/**Mooki**	2	
		Other Health Worker/ **Mongwe wa badiredi ba botsogo**_____	3	
		Friend/**Tsala**	4	
		Sex partner/**Mokapelo**	5	
		Other _____	97	
		No response	99	

	CONDOMS: AVAILABILITY		C13 Where OBTAINS *No prompt	C14 Where AVAILABLE *No prompt	C15 Would LIKE to *Prompted	C16 Where one can obtain FEMALE Cs *Prompted	C17 Would Feel UNCOM-FORTABLE *Prompted
C13	Where do you normally obtain condoms from?	Pharmacy/chemist	1	1	1	1	1
Multi	**Ka tlwaelo o tsaya dikhondomo kae?**	Supermarket	2	2	2	2	2
		General Dealer/Grocery Store	3	3	3	3	3
		Spaza/Tuck Shop	4	4	4	4	4
C14	Where are condoms available in your community?	Street vendor/hawker	5	5	5	5	5
Multi	**Dikhondomo di bonwa kae mo motseng wa lona?**	Garage/filling station	6	6	6	6	6
		Telephone "condotainer"	7	7	7	7	7
		Hair salon	8	8	8	8	8
		Bottle stores	9	9	9	9	9
C15	Ideally, where would you **like** condoms to be available? In other words, where would condoms be most useful given your usage patterns? Useful can be that they are nearby when you need them most, or that they are convenient to obtain given your everyday activities.	Shebeen/bar	10	10	10	10	10
Multi		Night Club/Disco	11	11	11	11	11
		Restaurant	12	12	12	12	12
		Hotel	13	13	13	13	13
	O ka eletsa dikhondomo di ka nna kae? Ke gore lefelo le e leng gore le ka dira gore o bone dikhondomo nako le nako fa o batla go di dirisa?	Public toilets	14	14	14	14	14
		Clinic/hospital	15	15	15	15	15
	[Q-B: Show (or read) respondent the list of locations and circle those respondent choses as prefered sales venues for condoms.]	Government offices/building	16	16	16	16	16
		NGO/Community organization	17	17	17	17	17
		Workplace	18	18	18	18	18
		Friend/Colleague	19	19	19	19	19
C16	Do you know where to find female condoms?	Family member	20	20	20	20	20
Multi	**A o itse ko o ka tsayang khondomo ya bomme teng?**	Partner	21	21	21	21	21
		Other _____	97b	97b	97b	97b	97b
		Other _____	97c	97c	97c	97c	97c
C17	Are there any places where you would be uncomfortable obtaining condoms?	Don't know	98	98	98	98	98
		No response	99	99	99	99	99
Multi	**A go na le mafelo mangwea eleng gore ga o kgone go ka tsaya khondomo ka tshosologo?**	Nowhere	90	90	90	90	90
	NOTE: Show List FOR THIS QUESTION						
	NOTE: If repondent says "nowhere" then still show list and confirm that his/her answer is "no" to all the options.						

C18 **Multi**	Where can you get **free** condoms? **O tsaya dikhondomo tsa mahala kae?** **NOTE: MULTIPLE RESPONSES POSSIBLE**	Nowhere	0	
		Hospital	1	
		Clinic	2	
		Chemist/Pharmacy	3	
		My Work (specify _____)	4	
		My School/University (specify _____)	5	
		NGO	6	
		Partner	7	
		Friends	8	
		Family	9	
		Other _____	97a	
		Other _____	97b	
		Don't know	98	
		No response	99	

CONDOMS: WILLINGNESS TO TRAVEL				
C19	In general, how long (in minutes) do you ORDINARILY **travel to get a condom?** **O kare o tsamaya lebaka la metsotso e e kae go bona dikhondomo?**	Less than 1 minute	0	
		1 minute	1	
		3 minutes	2	
		5 minutes	3	
		10 minutes	4	
		15 minutes	5	
		20 minutes	6	
		Between 20 and 30 minutes	7	
		Would travel more than 30 minutes	8	
		Other _____	97	
		Don't know	98	
		No response	99	
C20	Is that **walking** or **driving** or **either**? **A o bo o kgweetsa kgotsa o tsamaya ka dinao kgotsa go tshwana hela?**	Walking	1	
		Driving	2	
		Either	3	
		Other _____	97	
		Don't know	98	
		No response	99	
C21	Have you ever heard of Lovers Plus Condoms? **A o kile wa utlwa ka dikhondomo tsa Lovers Plus?** **TRANSLATE** **NOTE: If respondent has NEVER HEARD of LP, DO NOT ASK ABOUT LP FOR B3, B4 & B5.** **ELA TLHOKO: Fa motsaakarolo a ise a utlwe ka LP, O SEKA WA BOTSA DIPOTSO TSA LP TSA B3, B4 le B5.**	No	0	→See note
		Yes	1	
		Don't know	98	
		No response	99	

CSM TRaC Survey 2010 (18-34 year-old males and females)

***NOTE: For B3, B4 & B5 →** ask ONLY about 3-pk Regular Brand, 2nd choice, LP Plain & LP Coloured and Flavoured	**Regular Brand?** [NO PROMPT]	**Second Choice?** [NO PROMPT]	If (see above) **increased** by **3** pula, would you still buy?	If (see above) **decreased** by **2** pula, would you still buy?	**What is MAX willing to pay** for (see above)?	**Show All. Ever Used** any of these **other brands?**	**Show All.** Which of these **Available Nearby**?	**Show All.** Which of these would you **Like to Use**?	**Show All.** Which of these would you **NEVER use**?	**Your sex partner(s) likes and dislikes?**	**Typical Man's likes and dislikes?**	**Typical Woman's likes and dislikes?**
										(no opinion leave blank)		
	B1	**B2**	***B3**	***B4**	***B5**	**B6 (M)**	**B7 (M)**	**B8 (M)**	**B9 (M)**	**B10 (M)**	**B11 (M)**	**B12 (M)**
	Regular	**2nd Choice**	**Yes No**	**Yes No**	**MAX Price**	**Ever Used**	**Available**	**Like To**	**Never**	**Likes Dislikes**	**Likes Dislikes**	**Likes Dislikes**
1. Sure	1	1	1 0	1 0	Pula_____	1	1	1	1	1 0	1 0	1 0
2. Monate	2	2	1 0	1 0	Pula_____	2	2	2	2	1 0	1 0	1 0
3. Lifestyle	3	3	1 0	1 0	Pula_____	3	3	3	3	1 0	1 0	1 0
4. Lovers Plus Plain	4	4	1 0	1 0	Pula_____	4	4	4	4	1 0	1 0	1 0
5. Lovers Plus Coloured/Flavoured	5	5	1 0	1 0	Pula_____	5	5	5	5	1 0	1 0	1 0
6. Lovers Plus SA (sold in Spar)	6	6	1 0	1 0	Pula_____	6	6	6	6	1 0	1 0	1 0
7. Dr Lee Rocky	7	7	1 0	1 0	Pula_____	7	7	7	7	1 0	1 0	1 0
8. Contempo	8	8	1 0	1 0	Pula_____	8	8	8	8	1 0	1 0	1 0
9. Moods	9	9	1 0	1 0	Pula_____	9	9	9	9	1 0	1 0	1 0
10. Trust	10	10	1 0	1 0	Pula_____	10	10	10	10	1 0	1 0	1 0
11. Durex (Specify: Free? or Bought?	11	11	1 0	1 0	Pula_____	11	11	11	11	1 0	1 0	1 0
12. Carex (Govt Free)	12	12	1 0	1 0	Pula_____	12	12	12	12	1 0	1 0	1 0
13. Botswana Flag (Govt free)	13	13	1 0	1 0	Pula_____	13	13	13	13	1 0	1 0	1 0
14. Lorato (Govt free)	15	15	1 0	1 0	Pula_____	15	15	15	15	1 0	1 0	1 0
15. Smile (Namibia free)	15	15	1 0	1 0	Pula_____	15	15	15	15	1 0	1 0	1 0
16. Blue and Gold (USAID)	16	16	1 0	1 0	Pula_____	16	16	16	16	1 0	1 0	1 0
17. Other (free) _____	17	17	1 0	1 0	Pula_____	17	17	17	17	1 0	1 0	1 0
18. Bliss (female condom)	18	18	1 0	1 0	Pula_____	18	18	18	18	1 0	1 0	1 0
19. Care (female condom)	19	19	1 0	1 0	Pula_____	19	19	19	19	1 0	1 0	1 0
97. Other _____	97	97	1 0	1 0	Pula_____	97	97	97	97	1 0	1 0	1 0
None / Never buy condoms	000	000	000	000	000	000	000	000	000	000	000	000
Any / Any price	111	111	111	111	111	111	111	111	111	111	111	111
Don't know	99	99	99	99	99	99	99	99	99	99	99	99

BRAND ASSOCIATIONS: I will now read out a few statements. Please tell me which brand you associate with this statement:																							
	READ STATEMENT and wait for a response. **(Multi)** DO NOT PROMPT More than one brand can be associated with each statement. In this case, you can tick more than one box per row. ***Mofuta o le mongwe wa khondomo o ka amanngwa le polelwana e nngwe fela. Mo lobakeng lo, o ka kgwarela/tshwaela go feta bongwe mo moleng o le mongwe***	**Sure (1)**	**Monate (2)**	**Lifestyle (3)**	**LP Plain (4)**	**LP Coloured & Flavored (5)**	**Lovers Plus SA (6)**	**Dr Lee Rocky (7)**	**Contempo (8)**	**Moods (9)**	**Trust (10)**	**Durex: Free? Or Bought? (11)**	**Carex – Govt Free (12)**	**Botswana Flag – Govt Free (13)**	**Lorato – Govt Free (14)**	**Smile – Namibia Free (15)**	**Blue and Gold – GOVT Free (16)**	**Other Free _____(17)**	**Bliss – Female Condom (18)**	**Care – Female Condom (19)**	**Other _____(97)**	**Don't Know (98)**	**No response (99)**
BA1	If **money** were no object, I would always use these brands **Fa nkabo madi e se bothata, ke ne ka ka dirisa mofuta o.**																						
BA2	These brands are the **most reliable** **Mefuta e ke yone e ikanyegang thata**																						
BA3	These brands are the **best value** for money **Mefuta e ke yone tota, o duelela se se go itumedisang**																						
BA4	These brands are the most **fun** **Mefuta e ke yone e e kgatlhisang tota**																						
BA5	These brands are the most **sensitive** **Mefuta e ke yone e monate tota**																						
BA6	These are the brands I **USE** if **I want to impress** someone **Ke mefuta e ke ~~ka~~ e dirisang fa ke batla go itumedisa/~~kgatlha~~ mongwe**																						
BA7	If these brands were **available**, I would always use these brands **Fa nne mefuta e e le teng, ke ne ke ka e dirisa ka dinako tsotlhe**																						

BRAND ASSOCIATIONS: I will now read out a few statements. Please tell me which brand you associate with this statement:																							
	READ STATEMENT and wait for a response. **(Multi)** DO NOT PROMPT More than one brand can be associated with each statement. In this case, you can tick more than one box per row. ***Mofuta o le mongwe wa khondomo o ka amanngwa le polelwana e nngwe fela. Mo lobakeng lo, o ka kgwarela/tshwaela go feta bongwe mo moleng o le mongwe***	**Sure (1)**	**Monate (2)**	**Lifestyle (3)**	**LP Plain (4)**	**LP Coloured & Flavored (5)**	**Lovers Plus SA (6)**	**Dr Lee Rocky (7)**	**Contempo (8)**	**Moods (9)**	**Trust (10)**	**Durex: Free? Or Bought? (11)**	**Carex – Govt Free (12)**	**Botswana Flag – Govt Free (13)**	**Lorato – Govt Free (14)**	**Smile – Namibia Free (15)**	**Blue and Gold – GOVT Free (16)**	**Other Free _____(17)**	**Bliss – Female Condom (18)**	**Care – Female Condom (19)**	**Other _____(97)**	**Don't Know (98)**	**No response (99)**
BA8	I would **NOT USE** these brands, even if they were for free **Ga ke kake ka dirisa mefuta e le fa e ne e tsewa mahala**																						
BA9	These brands are the **least reliable** **Mefuta e ke yone e e sa ikanyegeng tota**																						
BA10	These brands are the **WORST value** for money **Mefuta e ga ya tshwanela go duelelwa/** **Mefuta e, ke go duelela mahala**																						
BA11	These brands are **boring** **Mefuta e gae kgatlhe (e a bora)**																						
BA12	These brands are the least **sensitive** **Mefutae ke yone e e bosula (gae na tatso)**	1		3	4		5	6	7								8						
BA13	I would **NOT** use these brands **if I want to impress** someone **Ga ke ke ka dirisa mefuta e fa ke batla go kgatlha mongwe**																						

BRAND ASSOCIATIONS: I will now read out a few statements. Please tell me which brand you associate with this statement:																							
	READ STATEMENT and wait for a response. **(Multi)** DO NOT PROMPT More than one brand can be associated with each statement. In this case, you can tick more than one box per row. ***Mofuta o le mongwe wa khondomo o ka amanngwa le polelwana e nngwe fela. Mo lobakeng lo, o ka kgwarela/tshwaela go feta bongwe mo moleng o le mongwe***	**Sure (1)**	**Monate (2)**	**Lifestyle (3)**	**LP Plain (4)**	**LP Coloured & Flavored (5)**	**Lovers Plus SA (6)**	**Dr Lee Rocky (7)**	**Contempo (8)**	**Moods (9)**	**Trust (10)**	**Durex: Free? Or Bought? (11)**	**Carex – Govt Free (12)**	**Botswana Flag – Govt Free (13)**	**Lorato – Govt Free (14)**	**Smile – Namibia Free (15)**	**Blue and Gold – GOVT Free (16)**	**Other Free _____(17)**	**Bliss – Female Condom (18)**	**Care – Female Condom (19)**	**Other _____(97)**	**Don't Know (98)**	**No response (99)**
BA14	**Fashionable people** use these brands **Batho ba ba 'fashionable' (ba ba mo dinakong) ba dirisa mefuta e.**	1		3	4		5	6	7									8						
BA15	**Succesful (or wealthy) people** use these brands **Batho ba ba atlegileng/ ba humile ba dirisa mefuta e.**	1	2	3	4		5	6	7									8						
BA16	**Unfashionable people** use these brands **Batho ba ba sa itseng 'feshene' (ba ba sa tsamaeng le dinako) ba tla a dirisa mefuta o.**																							
BA17	**Unsuccessful (or poor) people** use these brands **Batho ba ba sa atlegang kgotsa ba itsholelo e e ko tlase ba dirisa mefuta e**	1	2	3	4		5	6	7									8						
BA18	**Promiscuous people use these brands** **Batho ba ba matlhomatlho ba dirisa mefuta e**																							

Annex B: Permission Letter

psi
Botswana
Healthy lives. Measurable results.

Head Office
Unit 13 Kgale Mews, Plot 115 Gaborone
International Finance Park, Lobatse Rd
Private Bag 00465, Gaborone
Tel. (+267) 318-5029
Fax. (+267) 318-5029
e-mail info@psi.co.bw

9 June 2011

To whom it may concern

This letter confirms that Kutlo Thathana who is a Masters in Public Health Student at the Witwatersrand University has been given permission to use PSI Botswana Condom Social Marketing 2010 TRaC data for her Masters in Public Health Research Paper, on condition that she agrees to credit PSI by name under each dataset presented and in the credits/acknowledgements section of the final research paper.

Sincerely,

Richard Harrison
(Executive Director)

Francistown Office, 1st Floor, Botswana Life Building, Plot 13993/4/5, Blue Jacket Street Extension, P.O Box 11649, Francistown, Tel: (+267) 244-0507 Fax: (+267) 244-0508

Annex C: Ethics Clearnace Certificate

UNIVERSITY OF THE WITWATERSRAND, JOHANNESBURG
Division of the Deputy Registrar (Research)

HUMAN RESEARCH ETHICS COMMITTEE (MEDICAL)
R14/49 Kutlo Thathana

CLEARANCE CERTIFICATE	M111157
PROJECT	Socio-Demographic and Selected Social Cognitive Theory Constructs Associated with Consistent Condom use among Sexually Active 18-34 Year Old in Botswana 2010
INVESTIGATORS	Kutlo Thathana.
DEPARTMENT	School of Public Health
DATE CONSIDERED	25/11/2011
M1111570DECISION OF THE COMMITTEE*	Approved unconditionally

Unless otherwise specified this ethical clearance is valid for 5 years and may be renewed upon application.

DATE 25/11/2011 **CHAIRPERSON** .....
(Professor PE Cleaton-Jones)

*Guidelines for written 'informed consent' attached where applicable
cc: Supervisor : Sara Niewoudt

DECLARATION OF INVESTIGATOR(S)

To be completed in duplicate and **ONE COPY** returned to the Secretary at Room 10004, 10th Floor, Senate House, University.
I/We fully understand the conditions under which I am/we are authorized to carry out the abovementioned research and I/we guarantee to ensure compliance with these conditions. Should any departure to be contemplated from the research procedure as approved I/we undertake to resubmit the protocol to the Committee. **I agree to a completion of a yearly progress report.**
PLEASE QUOTE THE PROTOCOL NUMBER IN ALL ENQUIRIES...