

TRaC: Tracking Results Continuously

First Round HIV/STI Prevalence and Behavioral Tracking Survey

among Male-to-Female Transgenders

in Vientiane Capital and Savannakhet, Lao PDR

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First Round HIV/STI Prevalence and Behavioral Tracking Survey among Male-to-Female Transgenders in Vientiane Capital and Savannakhet,

Lao PDR

PSI Research Division

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Acronyms

AIDS Acquired Immune Deficiency Syndrome

BCC Behavior Change Communications

CHAS Center for HIV/AIDS and STIs

CPS Comprehensive Package of Services

CT Counseling and Testing

DiC Drop in Center

FSW Female Sex Worker

HIV Human Immunodeficiency Virus

IPC Interpersonal Communications

MSM Men who have Sex with Men

MtF TG Male to Female Transgender

OAM Opportunity, Ability, Motivation

PSI Population Services International

RDS Respondent Driven Sampling

STI Sexually Transmitted Infection

TRaC Tracking Results Continuously

USAID United States Agency for International Development

Executive Summary

In March 2010, PSI Laos, in collaboration with the Lao Center for HIV/AIDS and STIs (CHAS) and in support of the National HIV/AIDS Program, conducted a survey of male to female Transgenders (MtF TG) in Vientiane Capital and Savannakhet Province. A total of 450 MtF TGs participated in this survey; including 320 in Vientiane Capital and 130 in Savannakhet. Behavioral and disease (HIV/STI) level data was collected to monitor the impact of PSI interventions on key target behaviors among TGs.

Key Findings

1. Compared with regional estimates of HIV prevalence among MSM, rates of HIV among Lao MtF TG were relatively low.

Among 450 TGs surveyed, 4.2% tested positive for HIV. Comparatively, higher levels of HIV have been recorded among MSM in neighboring countries, including 29% in Myanmar, 5% in Indonesia, between 7% and 18% in parts of southern India, and 31% in Bangkok, Thailand.¹

2. STI rates among MtF TGs are high.

Among 450 TGs surveyed, 12% were infected with Gonorrhea, 32% were infected with Chlamydia Trachomatis and 6.2% were found to have Neisseria Gonorrhea/Chlamydia trachomatis co-infection. This is high compared with the only other HIV risk group in Laos – female sex workers (FSWs) – for whom STI rates are known. The 2008 data showed that 17.5% of FSWs tested positive for Chlamydia, and 6.5% tested positive for Gonorrhea².

3. Almost half of MtF Transgenders reported having multiple sexual partners in the past month.

47% of TGs surveyed reported engaging in multiple sexual partnerships in the past month. 14% of TGs reported having sex with regular and casual partners concurrently, 12% reported having sex with regular and commercial partners concurrently and 10% reported having sex with commercial and casual partners concurrently. 11% of MtF TGs reported having sex with regular, casual and commercial partners concurrently.³

4. Despite high frequency of multiple sexual partnerships, condom use with regular partners is low.

Only 54.8% of anal sex acts occurring between a TG and regular partner in the last month were protected by a condom.

5. Consistent condom and water-based lubricant use among MtF TG with all partner types is low.

¹ Joint United Nations Programme on HIV/AIDS (UNAIDS). *Global report: UNAIDS report on the global AIDS epidemic 2010*. Web, Apr. 2011, www.unaids.org/globalreport/documents/20101123 GlobalReport full en.pdf

² Lao PDR, Second Generation Surveillance, CHAS, 2008

³ See page 9 for complete definitions of partner types.

45.9% of anal sex acts occurring with regular partners in the last month were consistently protected by condoms and lubricant. 57.8% of anal sex acts occurring with commercial partners (where the TG pays the partner) and 61.1% of anal sex acts occurring with commercial partners (where the partner pays the TG) in the last month were consistently protected by condoms and lubricant. 48% of anal sex acts occurring with casual partners in the last month were protected by condoms and lubricant.

6. Increased exposure to PSI's *New Friends (Peuan Mai)* program activities is associated with improved healthy behaviors among MtF TG.

Behavioral data collected during this survey reveals that Lao TGs with more exposure to PSI program activities have higher rates of condom and lubricant use, STI screening and HIV testing compared with TGs with lower levels of exposure.

30.2% of respondents with 1-5 contacts with PSI's IPC team or DiC reported consistent use of condoms and lubricant. 43.6% of respondents with 6-10 contacts with PSI's IPC team or DiC reported consistent use of both products. 53.6% of respondents with 11 or more contacts with PSI's IPC team or DiC reported consistent use of both products. Only the proportion of consistent joint use of condoms and water-based lubricant among respondents with the highest level exposure to the program (11 or more contacts) is significantly higher than those with low-level exposure to the program (1-5 contacts) at p<0.05.

15.2% of TGs who reported 1-5 contacts with IPC or DiC activities and 25.7% of TGs who reported 6-10 contacts also reported having had an STI screening in the last 12 months. 42.7% of TGs who reported 11 or more contacts with IPC or DiC activities reported having had an STI screening in the last 12 months. The increase in exposure from 1-5 contacts and 11+ contact is statistically significant at p<0.001 and the increase in exposure from 6-10 contacts and 11+ contacts is statistically significant at p<0.01.

The more exposure respondents had to the program, the more HIV-test seeking behaviors improved among TGs. The increase in exposure from 1-5 contacts to 6-10 contacts is statistically significant at p<0.05; the increase in exposure from 1-5 contacts to 11+ contacts is statistically significant at p<0.001 and the increase in exposure from 6-10 contacts to 11+ contacts is statistically significant at p<0.001.

Background

HIV/AIDS in Lao PDR is concentrated among the most-at risk populations. Prevalence of HIV/AIDS in the general population is low, with an adult prevalence of 0.2 percent. However, among high risk groups including men who have sex with men (MSM), transgenders (TG) and female service women (FSW), HIV prevalence is substantially higher⁴.

In Lao PDR, men who have sex with men face the highest burden of HIV. In Vientiane Capital, 5.6% of MSM were found to be HIV positive in 2007. This relatively high prevalence of HIV among MSM, coupled with an increase in key risk factors such as multiple sexual partnerships, high rates of STIs and low condom use, threaten to expand and accelerate the HIV epidemic in Laos.⁵

With support from USAID and The Global Fund to fight AIDS, Tuberculosis and Malaria, and in partnership with the Lao PDR Ministry of Health and Center for HIV/AIDS and STIs (CHAS), PSI Laos implements the *New Friends* (*Peuan Mai*) program. Through the *New Friends* program, PSI delivers a comprehensive package of services (CPS) to measurably reduce HIV/STIs and promote healthy sexual behaviors between TGs and partners. This CPS focuses on intensive peer outreach activities to promote behavior change and ensured access to health products and services for HIV/STI prevention and STI treatment through social marketing of condoms, water-based lubricant, and STI treatment kits.

At the time this study was conducted, PSI employed 9 outreach workers and 160 peer educators to facilitate targeted BCC and IPC activities and promote use of related health commodities. PSI Drop-in Centers (in Vientiane Capital, Savannakhet and Luang Prabang) provided Counseling and aTesting (CT) services including free HIV rapid testing, referral to fully-subsidized STI treatment (for Gonorrhea & Chlamydia) at 4 private sector clinics and referral to HIV care and treatment. PSI distributed fully subsidized, pre-packaged STI treatment kits at designated private sector clinics and social marketed male condoms and lubricant at pharmacies, entertainment spots, and guesthouses throughout the country.

PSI also conducted safe sex education and condom demonstration activities to reach potential male clients of TGs; in particular, men who have sex with men or TGs and their sex partners who often patronize service women. The program promotes consistent use of joint condom and water-based lubricant for anal sex with all sexual partners, with a special focus on sex acts among regular partners (i.e. boyfriends) and commercial partners (where the TG pays the partner for sex), as previous studies have shown condom use to be less common among these groups.

To broaden the reach of PSI's promotional activities, PSI developed an SMS messaging network to promote HIV testing and STI treatment at Drop-in Centers and private sector clinics. Each month, Lao TG

⁴ UNGASS Country Progress Report, Lao PDR, 2010

⁵ USAID (2010, September), *Lao PDR HIV/AIDS Health Profile*. Retrieved from: http://www.usaid.gov/our_work/global_health/aids/Countries/asia/laos_profile.pdf

and partners received periodic text messages referring them to nearby testing and treatment sites through cell phone SMS messages.

In addition to services discussed above, to meet the specific HIV and STI prevention needs of target groups, PSI Laos created tailored HIV/STI prevention products (i.e. condoms with sachets of flavored lubricant and pre-packaged STI treatment kits to treat anal Gonorrhea and Chlamydia) specifically tailored to this target group.

Research Objectives

The survey has five objectives:

- 1. Establish baseline prevalence of HIV and anal Gonorrhea and Chlamydia among Lao TGs;
- 2. Establish baseline indicators of condom and water-based lubricant use and other targeted behaviors;
- 3. Identify and describe segments of TG populations in terms of consistent condom and water-based lubricant use in the past month, with four partner types: regular partners, casual partners, and commercial partners (where TG pays partner and where partner pays TG);
- 4. Identify Opportunity, Ability, and Motivation (OAM) determinants of joint condom and water-based lubricant use with all sexual partners;
- 5. Correlate changes in behavior with respondents' exposure levels to PSI activities.

Methodology

Study Sites

This TRaC survey was conducted in Vientiane Capital and Savannakhet Province to monitor disease and behavior change among TGs. This survey was conducted to serve as a representative sample of the larger program area at the request of the Center for HIV/AIDS and STIs (CHAS) to avoid overlap with a MOH survey of HIV/STI prevalence among MSM in Luang Prabang.

In 2004 and 2006, PSI Laos conducted behavioral surveys among TG in Savannakhet, Luang Prabang and Vientiane Capital. These surveys addressed similar behavioral issues as the 2010 survey, however, in the most recent survey PSI Laos added new indicators to monitor changes in HIV/STI disease levels and specified behavioral indicators to monitor the most critical behaviors related to HIV/STI transmission among the target group, including joint use of condoms and water-based lubricant.

Due to the change of location and inclusion of new indicators that were not measured in the first two TRaC surveys, results from the 2010 survey are considered baseline results. A second round TRaC survey will take place in November 2011 to measure changes in TG behaviors and HIV/STI rates among Lao TGs.

Inclusion Criteria

Due to the heterogeneity of the TG population in Laos, as well as the difficulty of accessing TGs who work in a variety of venues and serve different clientele, Respondent Driven Sampling (RDS) was used to recruit respondents.

Inclusion criteria to determine participant eligibility are shown below. To partake in this study, a respondent had to:

- Be male-to-female transgender (MtF TG). MtF TGs are individuals born male, but identify a female. This includes both pre and post-gender re-assignment surgery individuals, MtF TGs who live and dress as females, and MtF TG who live and dress as males;
- Be a Lao citizen aged 15-35 years;
- Have engaged in sexual intercourse in the past 6 months;
- Be a resident of and/or working in Vientiane Capital or Savannakhet for at least 1 month;
- Participate in three stages of this survey, including a behavioral questionnaire, an HIV test, and anal STI testing;
- Provide verbal consent and voluntary agreement to participate;
- Have an authentic and valid RDS coupon.

Sampling Technique

A sample size of 450 was established as the minimum number of respondents required. Data was analyzed in SPSS using multivariate techniques. Respondents were recruited using respondent driven sampling. The total number of seeds recruited in two provinces is 9 seeds including 5 seeds in Vientiane Capital & 4 seeds in Savannakhet province.

All participants were given three coupons and asked to only recruit further participants by passing coupons on to people in their social network who met the inclusion criteria. Participants were asked to go to a *New Friends* Drop in Center for interview and testing. All participants were screened to ensure that they met the study inclusion criteria.

All participants completed an interview by structured questionnaire. Each activity was administered on a voluntary basis; those who opted not to participate were not included in the survey.

⁶ For more details about the methodology and data collection, please contact the Saysana Phanalasy at sphanalasy@psilaos.org for a copy of the study design document.

Laboratory Procedures

All biological samples collected in Vientiane Capital were sent to the laboratory on a daily basis. All biological samples collected in Savannakhet province were kept in a temperature regulated cool box at the provincial hospital and were sent to the laboratory in Vientiane Capital every two to three days.

Following completion of the questionnaire, respondents were required to provide a blood sample to test for HIV and a self-administered anal swab to test for Gonorrhea and Chlamydia. Tests were conducted using Polymerase Chain Reaction (PCR). Venous blood was drawn and tested with Determine HIV®. All specimens that tested positive with Determine HIV were re-tested using Unigold®; if different results presented, ELISA was conducted to provide final confirmation of results. All blood samples were analyzed at the Center of Laboratory and Epidemiology (CLE) in Vientiane Capital, Laos. All anal swab samples were analyzed at the Centre Christophe Merieux Lao (CCML) laboratory in Vientiane Capital, Laos.

Compensation for Participants

Each participant received US5.80 (equivalent to 50,000 Lao kip) for responding to the TRaC questionnaire and providing a blood sample for HIV testing and a rectal sample for STI testing. The participant received an additional US2.40 (equivalent to 20,000 Lao kip) for each person that she successfully referred to participate in the study.

Ethical Approval

The study was approved by the Laos National Ethics Committee for Health Research.

Partner Types

Behavioral indicators in this survey monitored sex-related risk behaviors with four partner types. For the purpose of this survey, partner types were defined as follows:

- **Regular Partners** include a spouse, boyfriend, or a partner to whom the TG is emotionally committed; there is no payment required to have sex with this partner.
- **Commercial partners (TG pays partner)** include partners to whom the TG is not emotionally committed; payment by the TG to the partner is required to have sex.
- **Commercial partners (partner pays TG)** include clients of the TG to whom the TG is not emotionally committed; TGs receive payment from this partner to have sex.
- **Casual partners** include partners to whom TG are not emotionally committed with whom nothing is paid to have sex.

Limitations

The study has four main limitations.

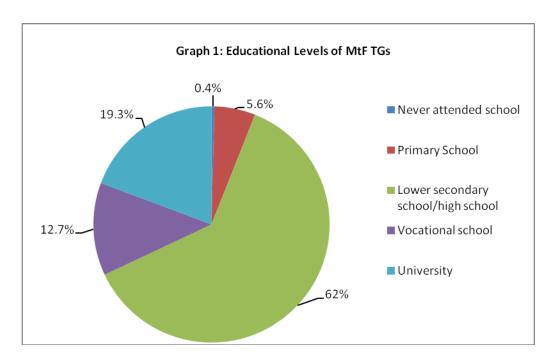
- 1. Because study participants were recruited using respondent driven sampling (RDS), it was not possible to estimate a response rate for this study, i.e. we do not know how many potential participants that met the inclusion criteria were approached by participants but refused to participate.
- 2. Although RDS was used to recruit participants, sufficient data was not collected to allow for RDSAT software to be used to adjust for the non-random nature of recruitment.
- 3. All behaviors are self-reported and rely upon the recall and honesty of participants.
- 4. Segmentation analyses to establish the determinants of consistent use of condoms and water-based lubricant for anal sex in the last month between TGs and casual partners, commercial partners (TG pays partner) and commercial partners (partner pays TG) were not conducted due to insufficient sample sizes of TGs who reported having sex with these three partner types.

Profile of TG Survey Participants

The majority of participants (87.1%) were less than 25 years old, with a mean age of 21 years. The remaining 18.4% were between the age of 26 and 35 years old. The average reported monthly income was 968,573 LAK (approximately 121 USD), with a range of 50,000 LAK (approximately 6.25 USD) to 8,000,000 LAK (approximately 1,000 USD).

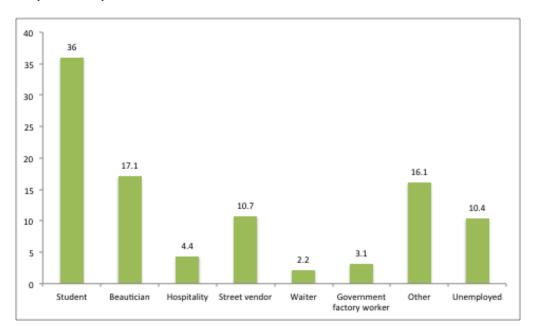
Almost all TGs (99.1%) reported being single, only 0.9% (n=4) reported being married.

99.6% of TGs reported completing at least one level of education (Figure 1). 62% reported secondary school or high school. 12.7% attended vocational school and 19.3% attended university.



A variety of occupations were held by survey participants. The majority (36%) of participants were students, followed by 17.1% who worked in beauty salons. 10.7% of TGs in the survey were street vendors and 10.4% were unemployed. Additional occupations included employment in hospitality (4.4%), government factory workers (3.1%) and private company employees (3.6%).

Graph 2: Occupations of MtFTG

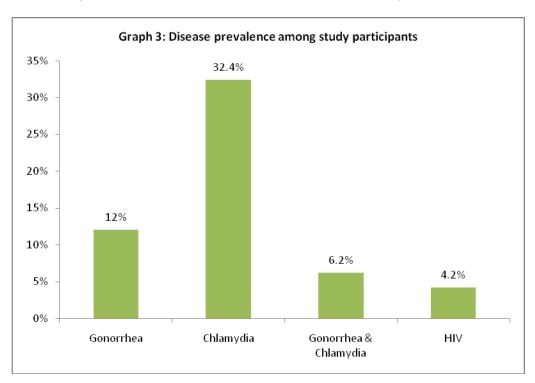


Findings

Monitoring Analysis

HIV/STI Prevalence among MtF TG

4.2% of respondents tested positive for HIV, 12% were infected with Gonorrhea, 32.4% were infected with Chlamydia, and 6.2% were found to have Gonorrhea/Chlamydia co-infection.⁷

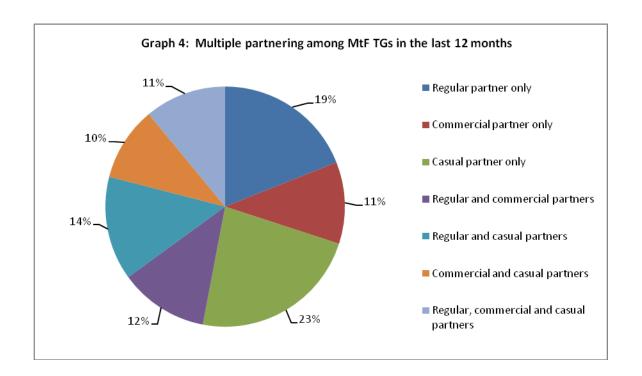


Sex-Related Risk Behaviors

Multiple Partnering

47% of respondents report sex with more than one partner type in the past 12 months, the highest proportion (14%) reporting both regular and casual partners. 44% of respondents reported having had sex with commercial partners in the past 12 months. 37% of respondents reported having had sex with at least one other partner type, in addition to their regular partners.

⁷ It is important to note that HIV prevalence among TG participants in this survey is likely an underestimate as people who are HIV positive and know their status are probably less likely to participate in a study of this nature.



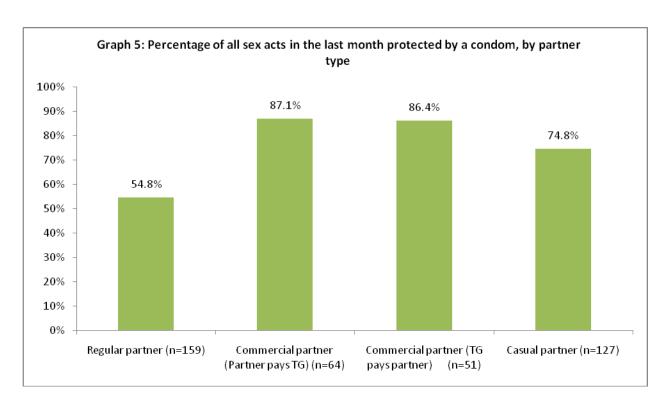
Average number of sex acts and proportion protected by a condom in the last month

11% of respondents reported having anal sex with a commercial partner (TG pays partner) in the last 1 month. Among these respondents, the average number of sex acts over that time period was four. 86.4% of sex acts with commercial partners (TG pays partner) in the last 1 month were protected by a condom.

14% of respondents reported having anal sex with the commercial partner (partner pays TG) in the last 1 month. Among these, the average number of sex acts over that time period was five. 87.1% of sex acts with commercial partner (partner pays TG) in the last 1 month were protected by a condom.

28% of respondents reported having anal sex with the casual partner in the last 1 month. Among these, the average number of sex acts over that time period was four. 74.8% of sex acts with casual partners in the last 1 month were protected by a condom.

35% of respondents reported having anal sex with a regular partner in the last 1 month. Among these respondents, the average number of sex acts over that time period was five. 54.8% of sex acts with regular partners in the last 1 month were protected by a condom.

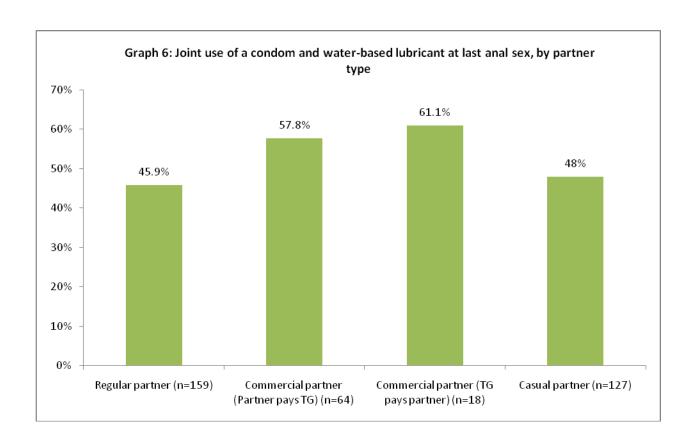


Condom use at last sex

82.6% of TG reported using a condom at last sex with the commercial partners (TG pays partner); 86.4% reported using a condom with commercial partners (partner pays TG) and 74.6% reported using a condom with casual partners.

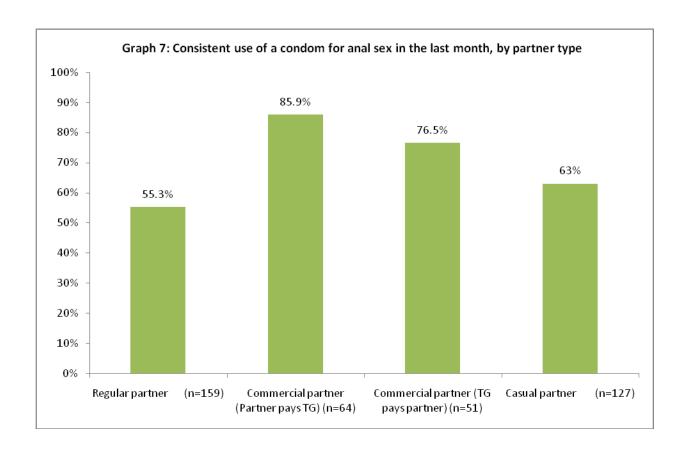
Joint condom and water-based lubricant use at last sex

Reported joint use of condom and water-based lubricant at last sex with all partner types was low. 50.2% of TG reported using both products with regular partners; 59.2% reported using both products with commercial partners (partner pays TG); 68.5% reported using both products with commercial partners (TG pays partner) and 55.6% reported using both products with casual partners.



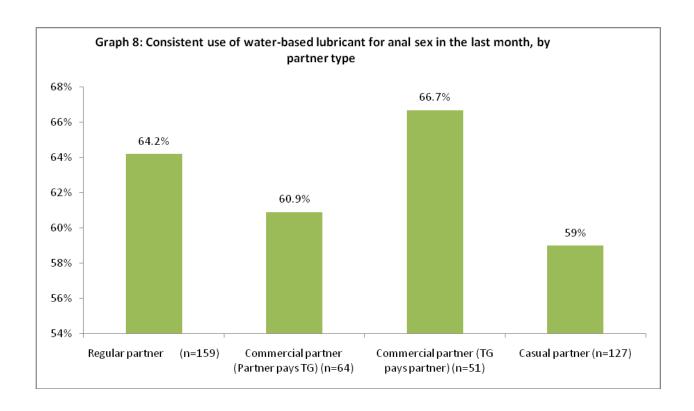
Consistent condom use for anal sex in the last month

Consistent use of condoms for anal sex in the last month varied by partner type. Consistent condom use was highest with commercial partners where the respondent was paid for sex (85.9%) and lowest with regular partners (55.3%).



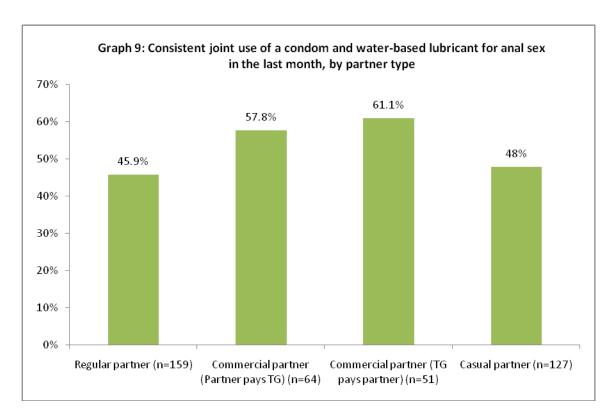
Consistent use of water-based lubricant for anal sex in the last month, by partner type

Consistent use of water-based lubricant in the past 1 month was highest with commercial partners where the respondent was the paying partner (66.7%). Consistent lubricant use was lowest with casual partners (59%).



Consistent joint use of a condom and water-based lubricant in the last month

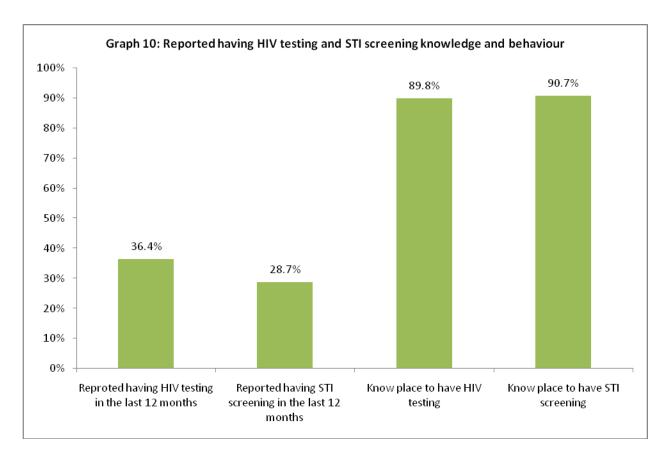
A low proportion of respondents reported consistent use of condoms and water-based lubricant for anal sex in the last month. The majority (61.1%) of consistent condom and water-based lubricant use occurred during sex with commercial partners (TG pays partner). Even fewer TGs reported consistent condom and water-based lubricant use with commercial partners (partner pays TG) (57.8%) and less than half (48%) reported consistent use of both products with casual partners in the last month. Consistent condom and water-based lubricant use with regular partners was the lowest, with 45.9% of TGs reporting consistently using both products during anal sex.



STI screening and HIV test-seeking behaviour

An overwhelming majority of respondents reported knowledge of testing site locations for HIV tests (89.8%). Despite high levels of knowledge reported by survey participants, only 36.4% of TGs reported having had an HIV test in the last 12 months. Among those who had taken an HIV test in the last 12 months, 73.2% knew their status.

90.7% of respondents reported knowledge of STI screening sites. Only 28.7% of respondents reported being screened for STIs in the last 12 months.



:: Opportunity:

:: Availability: An investigation of TGs perceptions on availability of condoms revealed that, on an agreement scale of 1-4, the mean score for level of agreement with the statement "Number One Deluxe Plus⁸ (the condom brand distributed by PSI through social marketing) is available when needed" was high (3.69). ⁹

:: Ability:

:: Knowledge: Questions assessing knowledge revealed high levels of agreement with statements accurately describing best practices for correct condom use and importance of condom use during all sex acts. In particular, the mean score for level of agreement that knowledge that "using water-based lubricants with a condom reduced condom breakage" was high at 3.67. A high level of agreement with statements identifying TG feeling confident in their ability to use a condom correctly when having sex was also high with a mean score of 3.45. High levels of agreement with the statement "everyone is more likely to contract STI/HIV if they do not use a condom every sex act likely indicates high knowledge around STI/HIV contraction through their responses. The mean score for level of agreement with this statement was 3.84.

-

⁸ Number One Deluxe Plus contains three condoms and two sachet of water-based lubricant

⁹ A four point scale was used for OAM questions. Indicators for this scale include: 4 = Strongly Agree, 3= Slightly Agree, 2= Slightly Disagree, 1=Strongly Disagree

:: Self Efficacy: The mean score for level of agreement with the statement "intend to use a condom every sex act with regular partners" was 3.44, while the mean score for "intend to use a condom at every sex act with commercial partners (TG pays partner) was 3.61.

:: Motivation:

:: Attitude: Findings indicated that agreement with the statement "believe[s] it is necessary to use condoms with your commercial partners (partner pays TG) even if you trust him" was high, with a mean score of 3.55; the number of TGs who agreed with the intention to use condoms at every sex act with commercial partners (partner pays TG) was high, with a mean score of 3.67.

:: Beliefs: An assessment of respondents' beliefs regarding HIV/STI transmission indicated that TGs held accurate beliefs around prevention of STI/HIV. On average, responses by TG indicated a high level agreement that STI/HIV can be transmitted from a trusted regular partner (mean score for level of agreement, 3.4). Regarding use of protection, average levels of agreement that use of water-based lubricant during sex still requires a condom to prevent disease transmission and that a condom and water-based lubricant should be used together during anal sex to prevent STI/HIV were also high (3.5 and 3.65 respectively). The mean score of level of agreement that TGs believe that it is very important to use condoms with regular partners to prevent STI/HIV was 3.68.

:: Intention: The mean score for level of agreement that TGs are much more likely to use a condom with water-based lubricant if it is easily available during sex was 3.5. This high level of agreement indicates that increased convenience and ease of access to water-based lubricant may increase rates of joint usage during sex.

:: Threats: The mean score for level of agreement with the statement "concerned about getting HIV/AIDS" was 3.22, while the mean score for statement "concerning about the risk of getting STI" was 3.05 and the mean score for statement "concerning about the risk of getting HIV" was 3.08.

Monitoring Table 1: Opportunity, Ability and Motivation

Indicators	
	Mean
Availability	N=450
Number One Deluxe Plus is available when needed	3.69
Knowledge	
Using water-based lubricants with a condom reduced condom breakage	3.67
Feeling confident in their ability to use a condom correctly when having sex	3.45
Everyone is more likely to contract STI/HIV if they do not use a condom every sex act	3.84
Self-efficacy	
Intend to use a condom every sex act with regular partners	3.44
Intend to use a condom at every sex act with commercial partners (TG pays partner)	3.61
Attitude	
It is necessary to use condoms with your commercial partners (partner pays TG) even if you	3.55
trust him	
Intention to use condoms at every sex act with commercial partners (partner pays TG)	3.67
Belief	
STI/HIV can be transmitted from a trusted regular partner	3.4
Use of water-based lubricant during sex still requires a condom to prevent disease	3.5
transmission	
A condom and water-based lubricant should be used together during anal sex to prevent	3.65
STI/HIV	2.60
It is very important to use condoms with regular partners to prevent STI/HIV	3.68
Intention	
Much more likely to use a condom with water-based lubricant if it is easily available during sex	3.5
Threats	
Concerned about getting HIV/AIDS	3.22
Concerned about the risk of getting STI	3.05
Concerned about the risk of getting HIV	3.08

Condom/STI Kit Purchasing and STI-related Symptoms

65.8% of total respondents reported buying a condom in the past. Of those, 86.5% reported buying a condom at the pharmacy. 55.6% of total respondents reported had easily access to 1 Stop Kit when needed.

When asked about history of drug use, 13.6% of respondents reported having ever used a drug (Ya-ba).

This survey also explored history of STI-related symptoms among the target group. 2.9% of respondents reported having had abnormal urethral discharge (i.e. abnormal color, odor, etc.) in the past 12 months. Among those, 53.8% had received treatment for this symptom (abnormal urethral discharge). 9.3% reported having had a urethral sore or ulcer in the past 12 months; among those, 21.4% had received treatment for this symptom (urethral sore or ulcer).

Monitoring Table 2: Condom/STI Kit Purchasing and STI-related Symptoms

Indicators	March 2010 %	
Condom		
Bought a condom in the past (N=450)	65.8	
Bought a condom at the pharmacy (N=296)	86.5	
Had access to 1 Stop Kit when needed (N=450)	55.6	
Ever Used Drug		
Ever used a drug (Ya-Ba) in the past (N=450)	13.6	
STI related-symptoms		
Had abnormal urethral discharge (Colour, smell etc not as usual) in the past 12 months (N=450)	2.9	
Had been treated for urethral discharge (Color, smell etc not as usual) (N=13)	53.8	
Had urethral sore or ulcer in the past 12 months (N=450)	9.3	
Had been treated for urethral sore or ulcer (N=42)	21.4	

Segmentation Analysis

Segmentation analyses are conducted to identify the main determinants of a specific behavior.¹⁰ For the purposes of this study, the segmentation analysis focused on identifying determinants of consistent joint condom and water-based lubricant use by TGs during anal sex with regular partners, identified in accordance with PSI's behavior change framework as Opportunity, Ability and Motivation (OAM) factors (see Annex 2). The purpose of this analysis was to identify factors or traits that differentiate TGs who report consistent use of both products during anal sex from TGs who do not.

In accordance with PSI's behavior change framework, the following groups of factors were assessed:¹¹

¹⁰ Segmentation tables are produced through three analysis procedures in SPSS: i) Exploratory Factor Analysis to identify scaled constructs and Reliability testing (Cronbach's Alpha) to establish reliability of scales; ii) Logistic regression is conducted to identify variables that are significantly associated with the behavior in question; iii) UNIANOVA is conducted to identify the estimated values for each factor identified as a significant determinant.

¹¹ PSI Delta Marketing Training, Behavior Change Framework (See Annex 2).

- **Opportunity:** Institutional or structural factors that influence an individual's opportunity to use condoms and water-based lubricant during anal sex with regular partners. These factors are beyond the control of the individual. Opportunity-related factors include availability, social norms, brand appeal, brand attributes and quality of care.
- Ability: Factors associated with an individual's ability to use condoms and water-based lubricant during anal sex with regular partners. These factors are within individual control and include knowledge, self-efficacy and social support.
- Motivation: Factors that influence an individual's desire to use condoms and water-based lubricant during anal sex with regular partners. Examples of motivation-related factors include intention, attitude, belief, threat and locus of control.

These 'OAM' variables are captured through a series of scaled statements, using a 4-point Likert scale. The variables presented here are ones that have a strong relationship with the behavior(s) in question. Estimates of variable values are given for those performing the behavior and those not. The tables divide (or segment) along these lines.

Odds Ratios (OR) for each variable are also given in the tables. The Odds Ratio indicates the strength of the relationship that each variable has with the behavior. Where OR=1, the variable has no influence on the behavior. The items in the final model are those which are significant predictors of the behavior.

The study found the following indicators to be the most relevant statistically significant factors associated with higher rates of consistent joint condom and water-based lubricant use with regular partners among TGs.

Availability

The strongest determinant of whether or not TGs used both products during anal sex was the individual's perceived availability of water-based lubricant. A proportion of TGs surveyed reported being much more likely to use a condom during sex if water-based lubricant was available. These TGs are 3 times more likely to consistently use both condoms and water-based lubricant than those who do not report increased likelihood to use condoms if lubricant is available (OR: 3).

Intention

TGs who reported they intend to use water-based lubricant during every sex act with regular partners are 2 times more likely to report consistent use of condoms and water-based lubricant

than those who do not intend to use both products at every sex act with regular partners (OR: 2).

Belief

The belief that condom use is critical to prevent transmission of HIV/STIs among TG was a strong behavioral determinant as well. TGs who believe that it is very important to use condoms with regular partners to prevent HIV/STIs are almost 3 times more likely to report consistent use of condoms and water-based lubricant than those who do not believe it is very important to use condoms with regular partners to prevent STI/HIV (OR: 2.87)

Segmentation Table 1: Determinants of consistent joint use of a condom and water-based lubricant for anal sex with regular partners in the last 1 month

Indicators	condom & v lubricant for a regular partne	oint use of a vater-based anal sex with a er in the last 1 nth No (n=86) 54.1%	OR	Sig.
ABILITY	Means	Means		
Intend to use water based lubricant at every sex act with regular partners	3.54	3.17	2	*
Much more likely to use condom if water based lubricant available when having sex	3.67	3.27	3	*
MOTIVATION	Means	Means		
Beliefs Believe it is very important to use condoms with regular partners to prevent STI/HIV	3.83	3.54	2.87	**
Threats				
Perceived risk of HIV/STI (scaled construct with three items):				
i) Concerned about getting HIV/AIDSii) Considers self at risk of getting STIiii) Considers self at risk of getting HIV	2.91	3.25	0.4	**

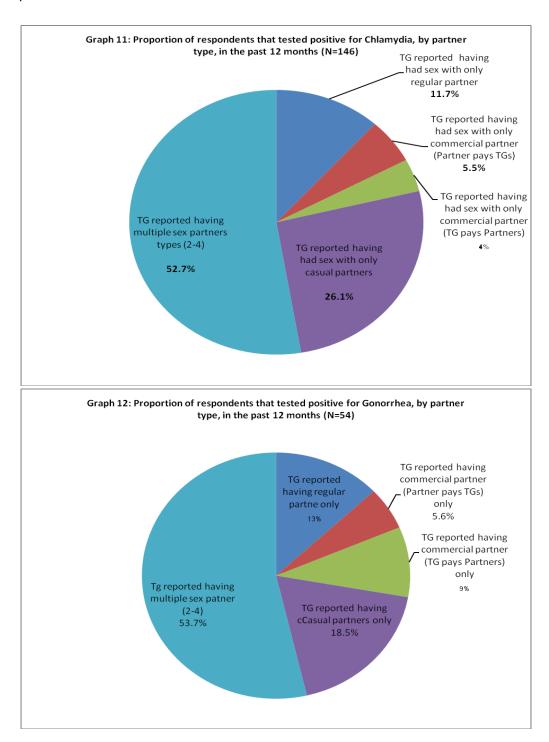
Note: Indicators were measured using a 4 point Likert scale where 1=Strongly disagree; 2=Disagree; 3=Agree; 4=Strongly agree.

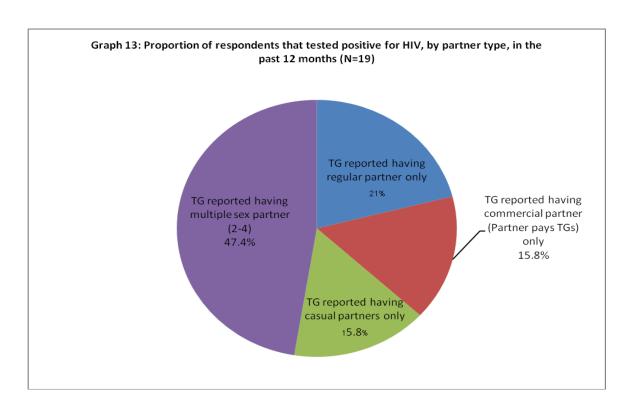
^{*&}lt;.05 p-value

^{**&}lt;.01 p-value

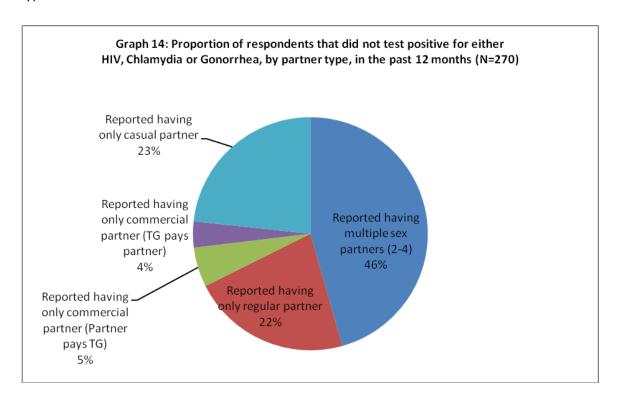
Proportion of respondents that tested positive for Chlamydia, Gonorrhea and HIV, by partner type, in the past 12 months

Proportion of respondents that tested positive Chlamydia, Gonorrhea and HIV by partner type, in the past 12 months





MtF TGs that tested positive for Chlamydia, Gonorrhea or HIV were more likely to have multiple partner types.



A comparison of findings from Graph 11,12,13 and Graph 14 reveals that among TGs who tested positive for Chlamydia, Gonorrhea and/or HIV, sex with multiple partner types was slightly more than among those who tested negative for all three diseases (52% among those who tested positive for Chlamydia, 53% among those who tested positive for Gonorrhea and 47% among those who tested positive for HIV, compared with 46% among those who did not test positive for either HIV, Chlamydia or Gonorrhea).

Evaluation Analysis

The evaluation analysis divides participants' responses by level of exposure to PSI interventions related to behavior change and significant OAM factors, identified in the Segmentation Analysis above, to show the impact of these interventions on behavior and behavioral determinants. Analysis conducted shows that Lao Transgenders with greater exposure to PSI's *New Friends* project displayed higher rates of condom and lubricant use, STI screening and HIV testing compared with TGs with lower exposure levels.

Program impact on consistent joint use a condoms and water-based lubricant with regular partners in the last month

The number of respondents who report consistent joint use of condoms and water-based lubricant increases as exposure to PSI program activities increases. 30.2% of respondents with 1-5 contacts with IPC or DiC reported consistent use of both products. 43.6% of respondents with 6-10 contacts with IPC or DiC reported consistent use of both products. 53.6% of respondents with 11 or more contacts with IPC or DiC reported consistent use of both products.

No significant difference was identified between respondents with 1-5 contacts and those with 6-10 contacts and between respondents with 6-10 contacts and those with 11 or more contacts. However, the proportion of consistent joint use of condoms and water-based lubricant among respondents with the highest level exposure to the program (11 or more contacts) is significantly higher than those with low-level exposure to the program (1-5 contacts). The increase in exposure from 1-5 contacts and 11 or more contacts is statistically significant at p<0.05 (See graph 15).

Exposure to PSI Activities

93% of respondents reported having met with a PSI *New Friends* peer educator at least once in the last 12 months. 88% of respondents had visited the *New Friends* DiC at least once. Out of those who had ever visited the DiC, 97.2% reported having seen at least one demonstration of correct condom and water-based lubricant use at the Drop-in Center.

Findings related directly to PSI program exposure were categorized into three groups, by level of exposure, including: 1-5 contacts with interpersonal communication activities or the *New Friends* Dropin Center , 6-10 contacts with interpersonal communication activities or the *New Friends* Drop-in Center and 11 or more contacts with interpersonal communication activities or the *New Friends* (*Peuan Mai*) Drop-in Center.

¹² UNIANOVA was used to conduct the evaluation analysis.

26.4% of respondents reported having 1-5 contacts with IPC activities or DiC, 34% reported having 6-10 contacts with IPC activities or DiC, and 39.6% reported having 11 or more contacts with IPC activities or DiC.

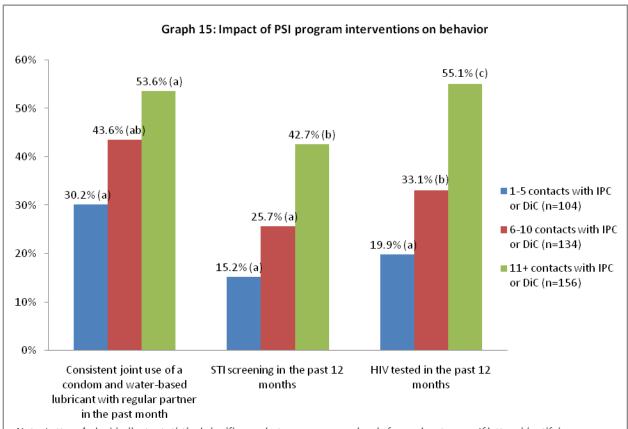
Program impact on STI screening in the last 12 months

15.2% of TGs who reported 1-5 contacts with IPC or DiC activities and 25.7% of TGs who reported 6-10 contacts also reported having had an STI screening in the last 12 months. 42.7% of TGs who reported 11 or more contacts with IPC or DiC activities reported having had an STI screening in the last 12 months.

Comparisons between respondents with high-level exposure to the program and those with medium-level exposure to the program indicate a higher proportion of TGs who had an STI screening in the last 12 months among those with high program exposure. The increase in exposure from 1-5 contacts and 11+ contact is statistically significant at p<0.001 and the increase in exposure from 6-10 contacts and 11+ contacts is statistically significant at p<0.01 (see graph 15).

HIV tested in the last 12 months

Exposure to PSI's program activities correlates with higher rates of having had an HIV test in the past 12 months. 19.9% of TG who reported 1-5 contacts with IPC or DiC activities and 31.1% of TG who reported 6-10 contacts also reported having an HIV test in the last 12 months. 55.1% of TG who reported 11 or more contacts with IPC or DiC activities reported having an HIV test in the last 12 months. The increase in exposure from 1-5 contacts to 6-10 contacts is statistically significant at p<0.05; the increase in exposure from 1-5 contacts to 11+ contacts is statistically significant at p<0.001 and the increase in exposure from 6-10 contacts to 11+ contacts is statistically significant at p<0.001 (see graph 15).



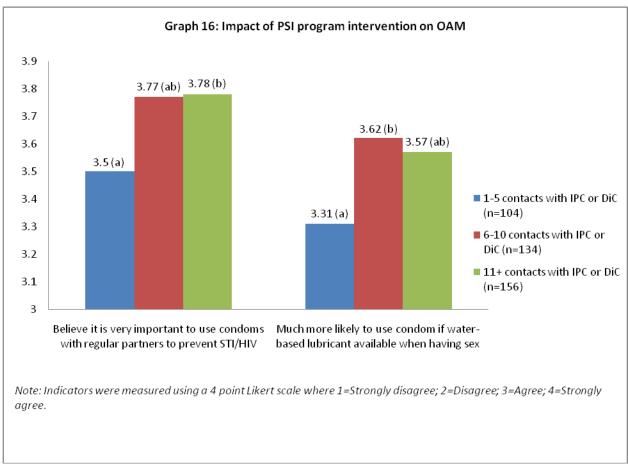
Note: Letters (a,b,c) indicate statistical significance between exposure levels for each category. If letters identifying exposure levels are the same, then they are not statistically different. If the letters are different, there is a statistical difference between those exposure levels.

Belief

Increasing exposure to PSI's program activities is associated with stronger agreement with the statement "it is very important to use condom with regular partners to prevent HIV/STI". As seen in the graph below, 11 or more contacts with PSI's program activities is associated with the strongest belief in the importance of using condoms with regular partners to prevent HIV/STI. The increase from 1-5 contacts to 11+ contacts is statistically significant at p<0.05.

Intention

The increase in exposure between respondents who agreed with the statement "I am much more likely to use a condom if water-based lubricant is available when having sex" with the 1-5 contacts and those with 6-10 contacts is significantly different at p<0.05. No significant difference was identified between respondents with 1-5 contacts and those with 11 or more contacts and between respondents with 6-10 contacts and those with 11 or more contacts.



Note: Letters (a,b,c) indicate statistical significance between exposure levels for each category. If letters identifying exposure levels are the same, then they are not statistically different. If the letters are different, there is a statistically significant difference between exposure levels (p<.05)

Programmatic Recommendations

Focus on increasing joint condom and water-based lubricant use with regular partners and commercial partners of Lao MSM/TG

Findings showed that joint condom and water-based lubricant use with regular partners and commercial partner (where the TG pays the partner) is low. The study also identified the main determinants of consistent joint use of condom and water-based lubricant. PSI and other programs should:

 Improve BCC messages related to joint condom and water-based lubricant use during anal sex with all partner types. Current key messages, including the message that condom use is critical to preventing HIV/STI transmission, have been effective in encouraging behavior change among TGs with highest exposure levels. However, usage rates are still too low. Key messages should be targeted and focused and include a recommended action for target audiences.

2. Ensure that water-based lubricant is available in non-traditional and traditional outlets, including pharmacies, guesthouses, hotels, sundry shops and other sales outlets. PSI and other programs should mobilize various distribution channels and methods (including both free distribution and sales at subsidized prices) to ensure availability and accessibility of water-based lubricant for populations at high risk of HIV/STIs in Laos.

Improve promotion of HIV testing and STI screening

While findings indicated that most TG respondents were aware of nearby HIV/STI testing sites, a large proportion still failed to seek out HIV/STIs tests. A subsequent focus group discussion was held among the TGs to investigate reasons why some TGs are not getting tested. Participants indicated that the HIV/STI testing site at the New Friends Drop-in Center could be made to appear more welcoming to the target group as a safe space for accessing testing and counselling services. PSI should improve the decor and facilities of the DiC, including the testing counselling and testing rooms, to ensure TGs and their partners feel welcomed and encouraged to come there for HIV and STI testing and counseling.

Plan program activities to increase exposure to PSI's Behavior Change Communications for the target group

Findings indicated that with increased exposure to PSI activities, TG were more likely to consistently use both condoms and water-based lubricant and seek out HIV testing and STI screening. For planning purposes, PSI should structure future outreach activities to maximize the number of TG and partners who receive at least 10 contacts per year with PSI's IPC and/or DiC activities.

Findings indicated that with increased exposure to PSI activities, TG were more likely to consistently use both condoms and water-based lubricant and seek out HIV testing and STI screening. For planning purposes, PSI should structure future outreach activities to maximize the number of TG and partners who receive at least 10 contacts per year with PSI's IPC and/or DiC activities.

Further explore patterns and frequencies of multiple concurrent partnerships among TG and partners

Findings indicated that almost half (47%) of MtF Transgenders reported having multiple sexual partners of different types in the past 12 months. Concurrent partnerships among individuals with multiple partners is a known risk factor for rapidly expanding an epidemic.¹³ In depth exploration of the role of multiple concurrent partnerships among TG was not included in this survey. Most research to date regarding the role of multiple concurrent partnerships has been

¹³ UNAIDS. Combination Prevention in Eastern and Southern Africa: Focus on Multiple Concurrent Partnerships. Retrieved from:

in done in countries with generalized HIV epidemics. While Laos still has a concentrated epidemic, the high rate of multiple partnering among Lao TGs raises concerns that this behavior may be helping to spread HIV more rapidly among TGs and their sex partners. Future surveys should further explore the nature, prevalence, and potential impact of multiple concurrent sexual partnerships on the HIV epidemic in Laos.

ANNEXES:

Annex 1: Survey Team for Male to Female Transgender in Vientiane Capital & Savannakhet province in 2010

Advisors:

Dr. Chansy Phimphachan Director of CHAS

Robert Gray PSI Asia Regional Advisor

International Advisor:

Gary Mundy SE Asia Regional Researcher/PSI

Survey Leader:

Saysana Phanalasy PSI Laos Research Manager

Field Leader:

Viengvaly Phommanivong PSI Laos Researcher

Central supervisor:

Dr. Khetmala Banchonphanit Acting Chief of Surveillance Unit

Coordinator in Vientiane Capital:

Dr. Phoupasong Somphou PCCA from Vientiane Capital

Field Monitor and coordinator:

Dr. Khanti Thongkham Technical staff from Surveillance Unit

Coupon Manager:

Ms. Southaphone Chittaphong Technical staff from Surveillance Unit

Medical Doctor:

Dr. Khetsaphone Yativong

Ms. Napha Phouangdaoheaung

Director of PCCA from Savannakhet Province

Deputy of PCCA from Savannakhet Province

Interviewers:

Mr. Vilaseuth Phachansitthi PSI Laos MSM Outreach Worker

Mr. Souliyan Silivongsa Interviewer
Mr. Sitpakone Laungammat Interviewer
Mr. Phounsavath Bounsaiyo Interviewer
Mr. Phetmany Sivongsa Interviewer

Mr. Vongphachan Temmala PSI Laos MSM Outreach Worker

Mr. Sengtavanh Sengdala Interviewer
Mr. Amphay Thibphavong Interviewer
Mr. Vilasad Khovin Interviewer

Screeners:

Mr. Siath Thammavong Mr. Phomma Phoumivong

Laboratory Technicians:

Dr. Vimatha Xaysiththydeth
Dr. Virasack Somoulay
Dr. Sinakhone Sayadeth
Ms. Phonesanith Keopilalay
Ms. Somneuk Keokhounying
Ms. Phouthone Saiyamoukhoun

Ms. Phanmany Sengvichit

PSI Laos MSM Outreach Worker PSI Laos MSM Outreach Worker

Technical Staff from CLE
Technical Staff from CLE
Technical Staff from CLE
Technical Staff at Sisattanak district hospital
Laboratory staff from Savannakhet hospital
Laboratory staff from Savannakhet hospital

Laboratory staff from Savannakhet hospital

Annex 2: Questionnaire, including informed consent script



Male-to-Female Transgender Tracking Survey in

Vientiane Capital and Savannakhet

Introduction: "My name is_____. I'm an interviewer from the health organization aiming to ask you about sexual behaviors. Have you been interviewed for this study in the last 3 months?"

IF THE RESPONDENT HAS BEEN INTERVIEWED BEFORE, DO NOT INTERVIEW AGAIN. Tell them you cannot interview them a second time, thank them, and end the interview.

IF THE RESPONDENT HAS **NOT** BEEN INTERVIEWED BEFORE, continue:

Purpose of the Study

You are being asked to be in a research study of Behavioral Tracking Survey among Male-to-Female Transgenders in Vientiane Capital and Savannakhet, Lao PDR, because you are a male-to-female transgender who meet the criteria:

- Individuals who were born male, but now identify themselves as female
- Includes MtF TG who live and dress as female (long hair transgender), but due to social stigma, also MtF TG
 who are living as men (short hair transgender)
- Includes both pre and post-gender re-assignment surgery individuals.
- Be Lao citizen aged 15-35 years
- Have engaged in sexual intercourse in the past 6 months even it is not commercial sex
- Be resident and/or working in Vientiane Capital or Savannakhet for at least 2 weeks
- Have authentic and valid coupon

Study Procedures

If you take part in this study you will be asked to:

- Answer the questions that the interviewer will ask you, following a questionnaire that is identical for all participants
- The questions will be on your knowledge, beliefs, and behavior including sexual behaviors
- Provide a blood sample for HIV testing AND rectal sample for STI testing
- The questionnaire will take around 30-45 minutes to answer.

Benefits

The possible benefits to you for taking part in this study are *i.e.* getting new information about HIV, opportunity for getting VCT in New Friend Center etc.

Risks There are no known risks at this time to participation in this study.

Compensation

For taking part in this research study, you will be paid for your time and inconvenience. You will receive 5.8\$ (or equivalent to 50,000 kip) for answering a TRaC questionnaire and provide a blood sample for HIV testing and rectal sample for STI testing. You will be paid on the same day once you have been interviewed and tested for HIV/STI.

Later, we will give you three sets of coupons for the person that you know. Each coupon has three parts. You will receive three coupons in total. We will keep the first section. You keep the second section for claiming money when the person has come in to interview. You should give the last section to your friend; ask her to call the phone number on the coupon for an appointment, and to bring it with her when she comes to interview. The characteristics of the person whom you will bring will be explained after you finished an interview with us. You will receive 2.4\$ (or equivalent to 20,000 kip) for each person that you refer. You will be paid once a referred person has been interviewed and been tested for HIV and STI (like you did). We will call you to get money if a process is done successfully as mentioned earlier.

Confidentiality

You will be identified in the research records by a code number (code number is from the first letter of your family name, first two letter of your district you were born, birth date etc). No one will know your name, where you live. Once we have finished contacting you for the study, the code number will be destroyed. Only authorized research staff will have access to the files with your code number (no your name neither family name appear).

Voluntary Participation Withdrawal

Taking part in this study is voluntary. You may choose not to take part in this study, or if you decide to take part you can change your mind later and withdraw from the study. You are free to not answer any questions or withdraw at any time. Your decision will not change any present or future access to services through the organizations involved in this study or any other organizations where you might receive services.

Questions

If you have any questions about this study now or in the future or if you have questions or concerns about your rights as a research participant you may contact Viengvaly Phommanyvong at 021 35 34 08-11

Participation

(Verbal consent) By completing the *questionnaire* and providing a blood sample for HIV testing and rectal sample for STI testing for GC, you are agreeing to participate in this study.

Section 0: SURVEY LOGISTICS, SCREENING QUESTIONS

No	Questions and filters	Responses	Skip to
Q001	Questionnaire ID number	[]	
E001	Interviewer code		
E002	Date of interview	Day []/Month[]/2010	
E003	Location	Vientiane 1 Savannakhet 2	
E004	Coupon number		
E005	Who refer you to this survey?	Friend 1 Owner of shop 2 Sister 3 Brother 4 Friend's friend 5 Other (specify) 6	

No	Questions and filters	Responses	Skip to

Q101	How old were you on your last birthday?	Age []		<15 or >35 →End Interview
E006	Have you had sexual	Yes	1	0→End Interview
	intercourse (anal or oral	No	0	
	penetration) during the past 6			
	months?			

Section 1: POPULATION CHARACTERISTICS

No	Questions and filters	Responses		Skip to
E101	Where is your hometown?	province		
E102	What type of geographic area are you from?	Urban	1	
		Rural	2	
Q106	To what ethnic group do you belong?	Lao Loum	1	
		Lao Soung Lao Theung	2	
Q103	What is your education level?	Never studied	1	
		Primary school	2	
		Lower secondary school/High school Vocational school	3 4	
		University	5	
		Higher than university	6	
		This it chair aniversity	Ů	
E103	What is your marital status?	Single	1	
		Married	2	
Q107	What is your average monthly income?		Kip	
E104	What is your average monthly expense including money you send home (If any)?		_ Kip	
B105	Which assets are there in your household? ***Multiple responses are possible***	Yes	No	
	Read answers if she is not able to answer	Car 1	0	
		Motor bike 2	0	
		Bike 3	0	
		Fridge 4	0	
		TV 5	0	
		Radio 6	0	
		VCD player 7	0	
		Washing machine 8	0	

Q108	What is your occupation?	Student	1	
		Beauty salon	2	
		Hospitality (restaurant/hotel)	3	
		Volunteer	4	
		Unemployed	5	
		Other	6	

Section 2: SEXUAL HISTORY

"The next section asks about your sexual partners.

Now I would like to describe four different types of your sexual partners that we will discuss in the upcoming questions:

The first type of sexual partner we will discuss is **regular partners** include a spouse, boyfriend, or a partner to whom the transgenders are emotionally committed; there is no payment to have sex with this partner. In Lao language is "fan".

The second type of sexual partner is a **commercial partner (when the TG pays the partner for sex)**. Commercial partners (i.e. TG pays partner) include partners to whom TGs are not emotionally committed and TGs have to pay money to this partner in order to have sex with. In Lao language is "Phou Bao".

The third type of sexual partner is a **commercial partner (when the partner pays the TG for sex)**. Commercial partners (i.e. partner **pays** TG) include client who pays TG money in order to have sex with, TGs are not emotionally committed with this partner. In Lao language is "Kek".

The fourth type of sexual partner is a **casual partner**. Casual partners are non-regular partner nor commercial partners (TG pays partners) nor commercial partner (i.e. partner pays TG). Casual partners are whom you meet by contingent occasion. Casual partners include partners to whom TG are not emotionally committed and there is nothing paid to have sex with this partner. In Lao language is "phou bao bung earn".

[Interviewer to ask if the respondent if she has any questions regarding these different types of partners that have been described. Interviewer to clarify the different partner types as needed.

No.	Question and filtres	Responses	Codes	Skip to
E201	In the past 12 months, how many partners have you had sex with (any sex type i.e. anal, oral)?		[_] people	
E202	Among them, how many arepartners?	Regular partners: Commercial partners (TG pays partners)	[] people[] people	If 0 person \rightarrow skip E203-E221 If 0 person \rightarrow skip E222-E241
		Commercial partners (partner pays TG)	[] people	If 0 person \rightarrow skip E242-E261 If 0 person \rightarrow skip E262-E275

	Casual partners	

First, we	e will discuss your sexual activities with regu	llar partners.		
No	Questions and filters	Responses	Codes	Skip Questions
E203	In the pastmonth, did you have ORAL sex with your all regular partner? ***Interviewer only records first response in earliest time frame***	1 month 3 months 6 months 12 months	Yes: 1 No: 0 Yes: 1 No: 0 Yes: 1 No: 0 Yes: 1 No: 0	If 0→ E207
E204	In the past month, how many ORAL sex acts did you have with all your regular partners? ***Interviewer firstly asks about "in the last 1 month", if there is no any partner in the last 1 month then to, ask about "in the last 3 months", keep asking until a respondent has an answer of partner numbers*** ***Interviewer only records first response in earliest time frame***	1 month 3 months 6 months 12 months	[_]sex acts [_]sex acts [_]sex acts [_]sex acts	
E205	You said you hadsex acts with your regular partner in the pastmonth, how many times did you use condoms when you had ORAL sex?	1 month 3 months 6 months 12 months	[] times [] times [] times [_] times	If 0 → E207
E206	You said you used a condom times when you had ORAL sex with your all regular partners. Among these condoms, how many of them were of Number One brands (show all Number One brands)?	[_ _ _]%		
E207	In the pastmonth, did you have ANAL sex with your all regular partners? ***Interviewer only records first response in earliest time frame***	1 month 3 months 6 months 12 months	Yes: 1 No: 0 Yes: 1 No: 0 Yes: 1 No: 0 Yes: 1 No: 0	If 0 → E216
E208	Thinking about the pastmonth, how many ANAL sex acts did you have with all your regular partners? ***Interviewer firstly asks about "in the last 1 month", if there is no any partner in the last 1 month then to, ask about "in the last 3 months", keep asking until a respondent has an answer of partner numbers***	1 month 3 months 6 months 12 months	[_]sex acts [_]sex acts [_]sex acts [_]sex acts	

	Interviewer only records first response in earliest time frame			
E209	You said you hadsex acts with your regular partner in the pastmonth, how many times did you use water based lubricant when you had ANAL sex with your all regular partners? ***Interviewer only records first response in earliest time frame***	1 month 3 months 6 months 12 months	[] times [] times [] times [] times	
E210	You said you hadsex acts with your regular partner in the pastmonth, how many times did you use condom when you had ANAL sex with your all regular partners?	1 month 3 months 6 months 12 months	[] times [] times [] times [] times	If $0 \rightarrow E212$
E211	You said you used a condom times when you had ANAL sex with your regular partner. Among these condoms, how many of them were of these Number One brands (show all Number One brands)?	[_ _ _]%		
E212	You said you used Number One condom % of the time when you had ANAL sex with your regular partner. Among these Number One condoms, how many of them were of these Number One Deluxe Plus (2 sachets of condom and 2 sachets of water based lubricant)? ***Show NODP***	[_ _ _] %		
E213	You said you hadsex acts, of those how many sex acts that you were a giving partner?	[] sex acts		
E214	You said you hadsex acts, of those how many sex acts that you were a receiving partner?	[] sex acts		
E215	The last time you had anal sex with your regular partner; did you use a water-based lubricant with a condom?	Yes, used a water based lubricant with condom Lubricant used without condom Only condom, no lubricant used Did not use condom nor lubricant	1 2 3 4	

"The following statements are about your beliefs, attitudes, knowledge etc on condom and water based lubricant use and STI/HIV focusing on only your regular partners or fan. For each of the statements please indicate whether you agree or disagree. If you agree, I would then like to ask you if you strongly agree with the statement or only slightly agree. If you disagree, I would like to ask you if you strongly disagree with the statement or only slightly disagree."

No	Questions and filters						
		Disagree	Agree	Strongly Disagree	Slightly Disagree	Slightly Agree	Strongly Agree
		1	2	1	2	3	4
E216	Believe it is very important to use condoms with regular partners to prevent STI/HIV	0	1	1	2	3	4

E217	Believes it is necessary to use condoms with your regular partners even if you trust him	0	1	1	2	3	4
E218	Believes you can get STI/HIV from trusted regular partners	0	1	1	2	3	4
E219	Intend to use condom every sex act with regular partners	0	1	1	2	3	4
E220	Intend to use water based lubricant every sex act with regular partners	0	1	1	2	3	4
E221	Much more likely to use condom if water- based lubricant available when having sex	0	1	1	2	3	4

No	Questions and filters	Responses	Skip Questions	
E222	In the pastmonth, did you have ORAL sex with your all commercial partners (TG pays partner)? ***Interviewer only records first response in earliest time frame***	1 month 3 months 6 months 12 months	Yes: 1 No: 0 Yes: 1 No: 0 Yes: 1 No: 0 Yes: 1 No: 0	If 0 → E226
E223	In the pastmonth, how many ORAL sex acts did you have with all your	1 month	[]sex acts	
	commercial partners (TG pays partner)?	3 months	[]sex acts	
	***Interviewer firstly asks about "in the	6 months	[]sex acts	
	last 1 month", if there is no any partner in the last 1 month then to, ask about "in the last 3 months", keep asking until a respondent has an answer of partner numbers***	12 months	[]sex acts	
	Interviewer only records first response in earliest time frame			
E224	You aid you hassex acts with	1 month	[] times	If 0 → E226
	commercial partner in the pastmonth, how many times did you use condoms	3 months	[] times	
	when you had ORAL sex with your commercial partners (TG pays partner)?	6 months	[] times [
	***Interviewer checks an answer from	12 months	[] unies	
	E224, and then use a time frame from the answer of E224 to ask in this question***			
E225	You said you used a condom times when you had ORAL sex with your commercial partners (TG pays partner). Among these condoms, how many of	[_ _ _]%		

E226	In the pastmonth, did you have ANAL	1 month	Yes: 1 No: 0	If $0 \rightarrow E235$
	sex with your commercial partners (TG	3 months	Yes: 1 No: 0	
	pays partner)?	6 months	Yes: 1 No: 0	
	***Interviewer only records first	12 months	Yes: 1 No: 0	
	response in earliest time frame***			
E227	Thinking about the pastmonth, how	1 month	[]sex acts	
	many ANAL sex acts did you have with	3 months	[]sex acts	
	all your commercial partners (TG pays	6 months	[]sex acts	
	partner)?	12 months	[]sex acts	
	***Interviewer only records first	12 11011113	[
	response in earliest time frame***			
	response in curiest time frame			
E228	You said you hadsex acts with	1 month	[] times	
L220	commercial partner in the	3 months	[
			[
	pastmonth, how many times did you	6 months		
	use water based lubricant when you had	12 months	[] times	
	ANAL sex with your all commercial			
	partners (TG pays partner)?			
	***Interviewer only records first			
	response in earliest time frame***			
E229	You said you hadsex acts with	1 month	[] times	
	commercial partner in the pastmonth,	3 months	[] times	
	how many times did you use condoms	6 months	[] times	
	when you had ANAL sex with your all	12 months	[] times	
	commercial partners (TG pays partner)?			
E230	You said you used a condom times			
	when you had ANAL sex with your	[]%		
	commercial partners (TG pays partner).	<u></u>		
	Among these condoms, how many of			
	them were of these <i>Number One</i> brands			
	(show all <i>Number One</i> brands)?			
E231	You said you used Number One condom			
LZ31				
	% of the time when you had ANAL			
	sex with commercial partners (TG pays	f 1 ₀ /		
	partner). Among these Number One	[_ _ _] %		
	condoms, how many of them were of			
	these Number One Deluxe Plus (2			
	sachets of condom and 2 sachets of			
	water based lubricant)?			
	Show NODP			
E232	You said you hadsex acts, of those	[] sex acts		
	how many sex acts that you were a			
	giving partner?			
E233	You said you hadsex acts, of those	[] sex acts		
	how many sex acts that you were a	::		
	receiving partner?			
Q306	The last time you had anal sex with your	Yes	1	
-,	commercial partners (TG pays partner),	No	0	
	did you use a condom?		_	
E234	The last time you had anal sex with your	Yes, used a water based lubricant	1	
L234	commercial partners (TG pays partner),	with condom	1	
	did you use a water-based lubricant with	Lubricant used without condom	2	
	and you use a water based lubilicall Willi	Labricant used Without Collabili		

a condom?	Only condom, no	3	
	lubricant used		
	Did not use condom nor lubricant	4	

"The following statements are about your beliefs, attitudes, knowledge etc on condom and water based lubricant use and STI/HIV focusing on only commercial partners (TG pays partner) or phoubao. For each of the statements please indicate whether you agree or disagree. If you agree, I would then like to ask you if you strongly agree with the statement or only slightly agree. If you disagree, I would like to ask you if you strongly disagree with the statement or only slightly disagree."

No	Questions and filters						
		Disagree	Agree	Strongly Disagree	Slightly Disagree	Slightly Agree	Strongly Agree
		1	2	1	2	3	4
E235	You're always able to insist on condom use with commercial partners (TG pays partner) in the last 6 months	0	1	1	2	3	4
E236	You are the one who proposes condom use to a commercial partners (TG pays partner)	0	1	1	2	3	4
E237	Believe it is very important to use condoms with commercial partners (TG pays partner) to prevent STI/HIV	0	1	1	2	3	4
E238	Believes it is a need to use condoms with your commercial partners (TG pays partner) even you trust him	0	1	1	2	3	4
E239	Believes you can get STI/HIV from a trusted commercial partners (TG pays partner)	0	1	1	2	3	4
E240	Intend to use condom every sex act with commercial partners (TG pays partner)	0	1	1	2	3	4
E241	Intend to use water based lubricant every sex act with commercial partners (TG pays partner)	0	1	1	2	3	4

Now, we	Now, we will discuss about your sexual activities with commercial partners (partner pays TG).							
E242	In the pastmonth, did you have ORAL sex with your commercial partners (partner pays TG)? ***Interviewer only records first response in earliest time frame***	1 month 3 months 6 months 12 months	Yes: 1 No: 0 Yes: 1 No: 0 Yes: 1 No: 0 Yes: 1 No: 0	If $0 \rightarrow E246$				
E243	In the pastmonth, how many ORAL sex acts did you have with <u>all</u> your commercial partners (partner pays TG)? ***Interviewer firstly asks about "in the last 1 month", if there is no any partner in the last 1 month then to, ask about "in the last 3 months", keep asking until a respondent has an answer of partner numbers*** ***Interviewer only records first response in earliest time frame***	1 month 3 months 6 months 12 months	[_ _ _]sex acts [_ _ _]sex acts [_ _ _]sex acts [_ _ _]sex acts					

You said you hadsex acts in the past					
Condoms when you had ORAL sex with your commercial partners (partner pays TG)?	E244	You said you hadsex acts in the past	1 month	[]times	If $0 \rightarrow E246$
Condoms when you had ORAL sex with your commercial partners (partner pays TG)?		month, how many times did you use	3 months	[]times	
Total partners (partner pays TG)			6 months	[] Itimes	
E245 You said you used a condomtimes when you had ORAL sex with your commercial partners (partner pays TG). Among these condoms, how many of them were of Number One brands? E346 E346 E346 In the pastmonth, did you have ANAL sex with your commercial partners (partner pays TG)? ***Interviewer only records first response in earliest time frame*** E347 Thinking about the pastmonth, how many ANAL sex acts did you have with all your commercial partners (partner pays TG)? ***Interviewer only records first response in earliest time frame*** E348 E348 E348 You said you hadsex acts in the past month, how many ANAL sex with your commercial partners (partner pays TG)? ***Interviewer only records first response in earliest time frame*** E349 You said you hadsex acts in the past month, how many times did you use water based lubricant when you had ANAL sex with your commercial partners (partner pays TG)? ***Interviewer only records first response in earliest time frame*** E349 You said you had ANAL sex with your commercial partners (partner pays TG)? ***Interviewer only records first response in earliest time frame*** E349 You said you used a condomtime of the time when you had ANAL sex with your commercial partners (partner pays TG)? ***Interviewer only records first response in earliest time frame*** E349 You said you used a condomtime of the time when you had ANAL sex with your commercial partners (partner pays TG)? ***Interviewer only records first response in earliest time frame*** E350 You said you used a condomtime of the time when you had ANAL sex with your commercial partners (partner pays TG). Among these condoms, how many of them were of theme were of theme when you had ANAL sex with your commercial partners (partner pays TG). Among these Number One condoms, how many of them were of theme were of these Number One condoms, how many of theme were of these Number One condoms, how many of theme were of these Number One condoms, how many of theme were of these Nu		· ·			
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sachets of condom and 2 sachets of		-			
water based lubricant)?					
		water based lubricant)?			

	Show NODP			
E252	You said you hadsex acts, of those how many sex acts that you were a giving partner?	[_ _ _] sex acts		
E253	You said you hadsex acts, of those how many sex acts that you were a receiving partner?	[_ _ _] sex acts		
E254	The last time you had anal sex with your commercial partners (partner pays TG), did you use a condom?	Yes No	1 0	
E255	The last time you had anal sex with your commercial partners (partner pays TG), did you use a water-based lubricant with a condom?	Yes, used a water based lubricant with condom Lubricant used without condom Only condom, no lubricant used Did not use condom nor lubricant	1 2 3 4	
E256	How often did you insist on condom use with all your commercial partners (partner pays TG) in the past 1 month?	Every time Sometimes Never	1 2 3	

"The following statements are about your beliefs, attitudes, knowledge etc on condom and water based lubricant use and STI/HIV focusing on only commercial partners (partner pays TG) or kek. For each of the statements please indicate whether you agree or disagree. If you agree, I would then like to ask you if you strongly agree with the statement or only slightly agree. If you disagree, I would like to ask you if you strongly disagree with the statement or only slightly disagree."

No	Questions and filters						
		Disagree	Agree	Strongly Disagree	Slightly Disagree	Slightly Agree	Strongly Agree
		1	2	1	2	3	4
E257	Believe it is very important to use condoms with commercial partners (partner pays TG) to prevent STI/HIV	0	1	1	2	3	4
E258	Believes it is a need to use condoms with your commercial partners (partner pays TG) even you trust him	0	1	1	2	3	4
E259	Believes you can get STI/HIV from a trusted commercial partner (partner pays TG) did you intend to add "trusted" here?	0	1	1	2	3	4
E260	Intend to use condom every sex act with commercial partners (partner pays TG)	0	1	1	2	3	4
E261	Intend to use water based lubricant every sex act with commercial partners (partner pays TG)	0	1	1	2	3	4

Last, we are discussing about your sexual activities with casual partners						
No	Questions and filters	Responses	Skip Questions			
E262	In the pastmonth, did you have ORAL	1 month		If $0 \rightarrow E266$		
	sex with your casual partner?	3 months				

Interviewer only records first response in earliest time frame E263 In the pastmonth, how many ORAL sex acts did you have with all your casual partner? ***Interviewer firstly asks about "in the last 1 month", if there is no any partner in the last 3 months", keep asking until a respondent has an answer of partner numbers*** Sex acts 1 month	
E263 In the pastmonth, how many ORAL sex acts did you have with all your casual partner? ***Interviewer firstly asks about "in the last 1 month", if there is no any partner in the last 1 month then to, ask about "in the last 3 months", keep asking until a respondent has an answer of partner numbers*** In the pastmonth, how many ORAL and month the last sex acts and months are spondent has an answer of partner numbers***	
sex acts did you have with <u>all</u> your casual partner? ***Interviewer firstly asks about "in the last 1 month", if there is no any partner in the last 1 month then to, ask about "in the last 3 months", keep asking until a respondent has an answer of partner numbers*** 3 months [_ _ _]sex acts [_ _ _]sex acts [_ _ _]sex acts [_ _ _]sex acts	
sex acts did you have with <u>all</u> your casual partner? ***Interviewer firstly asks about "in the last 1 month", if there is no any partner in the last 1 month then to, ask about "in the last 3 months", keep asking until a respondent has an answer of partner numbers*** 3 months [_ _ _]sex acts [_ _ _]sex acts [_ _ _]sex acts [_ _ _]sex acts	
casual partner? ***Interviewer firstly asks about "in the last 1 month", if there is no any partner in the last 1 month then to, ask about "in the last 3 months", keep asking until a respondent has an answer of partner numbers***	
Interviewer firstly asks about "in the last 1 month", if there is no any partner in the last 1 month then to, ask about "in the last 3 months", keep asking until a respondent has an answer of partner numbers	
last 1 month", if there is no any partner in the last 1 month then to, ask about "in the last 3 months", keep asking until a respondent has an answer of partner numbers***	
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in the last 1 month then to, ask about "in the last 3 months", keep asking until a respondent has an answer of partner numbers***	
"in the last 3 months", keep asking until a respondent has an answer of partner numbers***	
a respondent has an answer of partner numbers***	
numbers***	
***Interviewer only records first	
response in earliest time frame***	
E264 In the pastmonth, how many times 1 month [] times	
, , , , , , , , , , , , , , , , , , , ,	
, , , , , , , , , , , , , , , , , , ,	
ORAL sex with your casual partner? 6 months _ _ times	
12 months []times	
E265 You said you used a condom times	
when you had ORAL sex with your	
casual partner. Among these condoms, [] %	
how many of them were of <i>Number One</i>	
brands (show all <i>Number One</i> brands)?	
E266 In the past month, did you have ANAL 1 month Yes: 1 No: 0 If 0 –	→ E301
sex with your casual partner? 3 months Yes: 1 No: 0	
***Interviewer only records first 6 months Yes: 1 No: 0	
response in earliest time frame*** 12 months Yes: 1 No: 0	
E267 Thinking about the pastmonth, how 1 month []sex acts	
many ANAL sex acts did you have with 3 months []sex acts	
all your casual partners? 6 months []sex acts	
***Interviewer only records first 12 months []sex acts	
response in earliest time frame***	
E268 In the pastmonth, how often did you 1 month [_]times	
use water based lubricant when you had 3 months [_ _ _]times	
ANAL sex with your casual partner? 6 months []times	
***Interviewer only records first 12 months [_ _ _]times	
response in earliest time frame***	
E269 In the pastmonth, how many times 1 month [_ _]times	
did you use condoms when you had 3 months [_ _ _]times	
ANAL sex with your casual partner? 6 months [_ _ _]times	
***Interviewer only records first 12 months [_ _ _]times	
response in earliest time frame***	
E270 You said you used a condom times	
when you had ANAL sex with your [_ _ _] %	
casual partner. Among these condoms,	
how many of them were of these	
Number One brands (show all Number	
One brands)?	
E271 You said you used Number One condom	
% of the time when you had ANAL	
sex with casual partner. Among these	
Number One condoms, how many of [] %	

	them were of these Number One Deluxe Plus (2 sachets of condom and 2 sachets of water based lubricant)? ***Show NODP***			
E272	You said you hadsex acts, of those how many sex acts that you were a giving partner?	[_] sex acts		
E273	You said you hadsex acts, of those how many sex acts that you were a receiving partner?	[_] sex acts		
E274	The last time you had anal sex with your casual partner, did you use a condom?	Yes No	1 0	
E275	The last time you had anal sex with your casual partner; did you use a waterbased lubricant with a condom?	Yes, used a water based lubricant with condom Lubricant used without condom Only condom, no lubricant used Did not use condom nor lubricant	1 2 3 4	

Section 3: CONDOMS: "These questions will ask about condoms.

No	Questions and filters	Responses		Skip to	
E301	Did you buy any Number One condom in the last month? *** Show pictures of all Number One condom brands***	Yes No Don't remember what brand I bought	1 0 77		
E302	What characteristics of condoms do you prefer? ***Multiple responses are possible***	With water based lubricant Scented Dotted	Yes 1 2 3	No 0 0 0	
E303	Did you ever buy a condom?	Yes No	1 0		If no skip to E305
E304	If so, where did you buy condom at last time?	Pharmacy Beer shop Bar/Disco/Nightclub Guesthouse/Hotel Peer educator Other (specify)	1 2 3 4 5 6		
E305	The last time you had sex, which condom brand did you use?	Number One Other brand (not Number One) Don't remember	1 2 77		If $1 \rightarrow E306$, If $2 \rightarrow E307$, If $77 \rightarrow Q232$
E306	If Number One, which type of Number One did you use?	Number One Deluxe Number One Deluxe Plus Number One.Com Number One Strawberry Number One Rose	1 2 3 4 5		

E307	If you used another brand, which brand (s) did you use? (write in)	Durex Duo Romax One touch Other (specify) Don't remember	1 2 3 4 5 77	
Q232	Are NODP affordable to you?	Yes No	1 0	
E308	How many times did you receive free condom? ***record 0 if she never got a free condom***	times		
E309	Did you carry a condom with you when travelling?	Yes No	1 0	
E310	Have you ever bought 1 Stop kit	Yes No	1 0	
E311	Do you have easy access to 1 Stop Kit whenever you need?	Yes No	1 0	
E312	How much are you willing to pay for 1 Stop Kit?	Kip/kit		
B003	How confident are you that you can use a condom correctly?	Very confident Somewhat confident Not confident Don't know	1 2 3 88	
B053	Have you ever discussed about HIV/STI with someone you know?	Yes No	1 0	
E313	Have you ever used a drug (Ya Ba)?	Yes No	1 0	

"The following statements are about your beliefs, attitudes, knowledge etc on condom and water based lubricant use and STI/HIV. I would like you to think of your feelings generally and not focus on a specific partner type. For each of the statements please indicate whether you agree or disagree. If you agree, I would then like to ask you if you strongly agree with the statement or only slightly agree. If you disagree, I would like to ask you if you strongly disagree with the statement or only slightly disagree.

No	Questions and filters						
		Disagree	Agree	Strongly Disagree	Slightly Disagree	Slightly Agree	Strongly Agree
		1	2	1	2	3	4
E314	Perceives Number One Deluxe Plus are available when needed	0	1	1	2	3	4
E315	Considers different brands of condoms have different level of quality	0	1	1	2	3	4
E316	Perceives NODP to be high quality	0	1	1	2	3	4
E317	Friends think it is normal to use condoms	0	1	1	2	3	4
E318	Condom are necessary to use for anal sex	0	1	1	2	3	4
E319	Water based lubricant are necessary to use for anal sex	0	1	1	2	3	4

1						1	
E322	Everyone is more likely to contract STI/HIV if they don't use a condom every sex act	0	1	1	2	3	4
E323	Buying a condom is not embarrassing	0	1	1	2	3	4
E324	Having an STI can increase the likelihood of contracting HIV	0	1	1	2	3	4
E325	Have only one wife one husband can prevent from HIV	0	1	1	2	3	4
E326	Sharing meals with infected HIV persons do not transmit HIV	0	1	1	2	3	4
E327	Mosquito do not transmit HIV	0	1	1	2	3	4
E328	HIV infected pregnant women can transmit HIV to her baby	0	1	1	2	3	4
E329	Knows that a healthy looking person can still be infected with HIV/STI	0	1	1	2	3	4
E330	Knows that using water-based lubricants with a condom reduces condom breakage	0	1	1	2	3	4
E332	Feels very confident to use a condom correctly	0	1	1	2	3	4
E333	Your friends always discuss about STI/HIV	0	1	1	2	3	4
E334	Your friends have encouraged you to use condom and lubricant every time you have anal sex	0	1	1	2	3	4
E335	Condoms are effective to protect against STI/HIV	0	1	1	2	3	4
E336	Using water-based lubricant with a condom makes sex more comfortable	0	1	1	2	3	4
E337	Using water-based lubricant with a condom reduces the chance of STI/HIV transmission	0	1	1	2	3	4
E338	It is very important to protect yourself from STI/HIV	0	1	1	2	3	4
E339	Believes that condom and water based lubricant should be used together when having anal sex to prevent STI/HIV	0	1	1	2	3	4
E340	Believes that if uses water-based lubricant, a person still must use a condom	0	1	1	2	3	4
E341	Has control over whether you get HIV/STI	0	1	1	2	3	4
E342	Condom use is your decision	0	1	1	2	3	4
E343	The last time you had sex, you proposed condom use	0	1	1	2	3	4
E344	You think that your friends may judge you negatively if you carry/use condoms	0	1	1	2	3	4
E345	Concerned about getting HIV/AIDS	0	1	1	2	3	4
E346	You are at risk of getting STI	0	1	1	2	3	4
E347	You are at risk of getting HIV	0	1	1	2	3	4
E348	If you use a condom when having sex you are less likely to get STI/HIV	0	1	1	2	3	4

Section 4: STIs"The next questions are about diseases that can be transmitted through sexual intercourse."

No	Questions and filters	Responses			Skip to
E401	Can you describe any symptoms of STIs in biological		Yes	No	
	men?	Genital discharge	1	0	
		Burning pain on urination	1	0	
	*** Multiple responses are possible.***	Genital ulcers/sores/warts	1	0	
	Do not read answers	Swellings/redness in groin area	1	0	
		Frequent/urgent need to urinate	1	0	
		Abnormal red spots on genitals	1	0	
		Other (specify)	1	0	
		Don't know	88	0	
E402	Have you had suspected yourself having an STI in the past 12 months?	Yes No	1 0		If 0→E404
E403	If yes, how many different times did you have	times			
	symptoms in the past 12 months?				
E404	Have you been tested for an STI in the past 12 months?	Yes	1		If 0→ E408
	, i	No	0		
E405	If yes, did you have an STI?	Yes	1		If 0→E408
		No	0		
E406	If you had an STI, where were you treated for the STI?		Yes	No	
	Multiple responses are possible	Clinic	1	0	
		Hospital	1	0	
		Pharmacy	1	0	
		Self-treatment	1	0	
		Other (specify)	1	0	
E407	What treatment did you receive for the STI?	1STOP		1	
		Other (specify)		2	
		Don't know/remember			
E408	During the past 12 months, have you had an abnormal	Yes	1		If $0 \rightarrow E413$
	urethral discharge (color, smell, property etc. not as	No	0		
	usual)?				
E409	If yes, how many episodes did you have during the past	episodes			
	12 months?				
E410	Have you ever been treated for urethral discharge?		Yes	1	If 0→ E413
	,		No	0	
E411	If yes, where were you treated for urethral discharge?		Yes	No	
	Multiple responses are possible	Clinic	1	0	
		Hospital	2	0	
		Pharmacist	3	0	
		Self-treated	4	0	
		Other (specify)	5	0	
E412	What treatment did you receive for urethral discharge?	1	Stop Kit		1
	,	Other (specify)			2
]			
E413	During the past 12 months, have you had a urethral	Yes	1		If 0→Q604
	sore or ulcer?	No	0		
E414	If yes, how many episodes did you have in the past 12 months?	episodes			
E/15		Vac	1		
E415	Have you ever been treated for a urethral sore or ulcer?	Yes No	1 0		
E416	What treatment did you receive for a urethral sore or	1 STOP Kit		1	
	ulcer?	Other (specify)		2	
	How concerned are you about getting an STI/HIV?		ncerned	1	

		Somewhat concerned	2	
		Not concerned at all	3	
E417	Are you circumcised?	Yes	1	
		No	0	
E418	Have you ever had an HIV test in the past 12 months?	Yes	1	
		No	0	
E419	Have you ever known your HIV status? (you don't need	Yes	1	
	to tell me your HIV status)	No	0	
E420	Have you ever received STI/HIV counseling?	Yes	1	
		No	0	
E421	Do you know the HIV testing place?	Yes	1	
		No	0	
E421	Do you know the STI testing place?	Yes	1	
		No	0	

Section 5: EXPOSURE TO INTERVENTIONS

"The following section asks questions about how you get your health information." $\,$

No.	Questions and filters	Coding categories	Codes	Notes
E501	***Show pictures of <i>Number One</i> and	Yes	1	
	New Friends logos***	No	0	If \rightarrow E505
	Have you ever met with a <i>Number</i>			
	One/New Friends peer educator?			
E502	When was the first time you met with	During the last 3 months	1	
	the Number One/New Friends peer	During the last 4 to 6 months	2	
	educator?	During the last 7 to 12 months	3	
		Before the last 12 months	4	
E503	When was the last time you met with	During the last 3 months	1	
	the Number One/New Friends peer	During the last 4 to 6 months	2	
	educator?	During the last 7 to 12 months	3	
		Before the last 12 months	4	
E504	How many times have you had a			
	discussion with a Number One/New	[] times		
	Friends peer educator in the past 12			
	months?			
E505	Have you ever visited the New Friends	Yes	1	If 0,2. Go to E510
	drop-in center?	No	0	
		No drop-in center nearby	2	
E506	How many times you have visited a	times		
	New Friend drop in center in the past			
	3 months?			
E507	Why have you visited the New Friends		Yes No	
	drop-in center?	Use the computer	1 0	
		Come to see friends	1 0	
		Play game	1 0	
		Receive information	1 0	
		Receive free condoms	1 0	
		HIV Test	1 0	
		Check for STIs	1 0	
		Treatment for STIs	1 0	
		Other	1 0	
E508	Have you ever participated in a	Yes	1	

	discussion about condom, lube, or STI treatment at the New Friends Drop-in Center?	No	0	
E509	Have you ever seen a demonstration of how to correctly use condoms and lube at the New Friends Drop-in Center?	Yes No	1 0	
E510	***Show all pictures*** Have you ever? ***Read answers aloud*** ***Multiple responses are possible***	Seen Number One (PSI) ad. On TV Heard of Number One (PSI) ad. On radio Seen Number One (PSI) billboard Seen Number One (PSI) poster Read Number One (PSI) brochure Seen Number One advertisement in newspaper or magazine	Yes No 1 0 2 0 3 0 4 0 5 0 6 0	
E511	Besides PSI and New Friend, did you participate or talk with other org.?	Yes No	1 0	If 0, end interview
E512	Can you name any other NGO program that you've participated in or talked with?			
E513	How often did you meet with that NGO/talk to one of their counselors/participate in their activities?	Seldom (only once, at least 3 months ago) Not very often (only a few times, at least 3 months ago) Somewhat often (Once a month) Very often (2 times per month) Other	1 2 3 4 5	

That is all the questions I have for you. Now, I would like to ask you to have blood tested for HIV and provide rectal sample for STI testing with our doctor

Once the participant finished a TRaC interview and provides blood sample for HIV and rectal sample for STI testing, interviewer gives a respondent 50,000 kip

I would like more people to come to interview. Would it be possible for you to refer someone to us? I would like you to recommend THREE more people. I will pay you 2.4\$ (or 20,000 kip) for each person you refer who completes an interview and test for HIV/STI, and each person you refer to us will receive 5.8\$ (or 50,000 kip) for participating in the interview and testing for HIV/STI."

I will give you three sets of coupons for the person that you know. Each coupon has three parts. You will receive three coupons in total. We will keep the first section. You keep the second section for claiming money when the person has come in to interview. You should give the last section to your friend; ask her to call the phone number on the coupon for an appointment, and to bring it with her when she comes to interview. This project will only continue for a limited time, so it would be best if you could refer your friend to us as soon as possible, in the next 1-2 days."

"Your friend should have all of the following characteristics:

- 1. Be a male-to-female transgender as described in criteria below:
 - Individuals who were born male, but now identify themselves as female
 - Includes MtF TG who live and dress as female (long hair transgender), but due to social stigma, also MtF TG who are living as men (short hair transgender)
 - Includes both pre and post-gender re-assignment surgery individuals.

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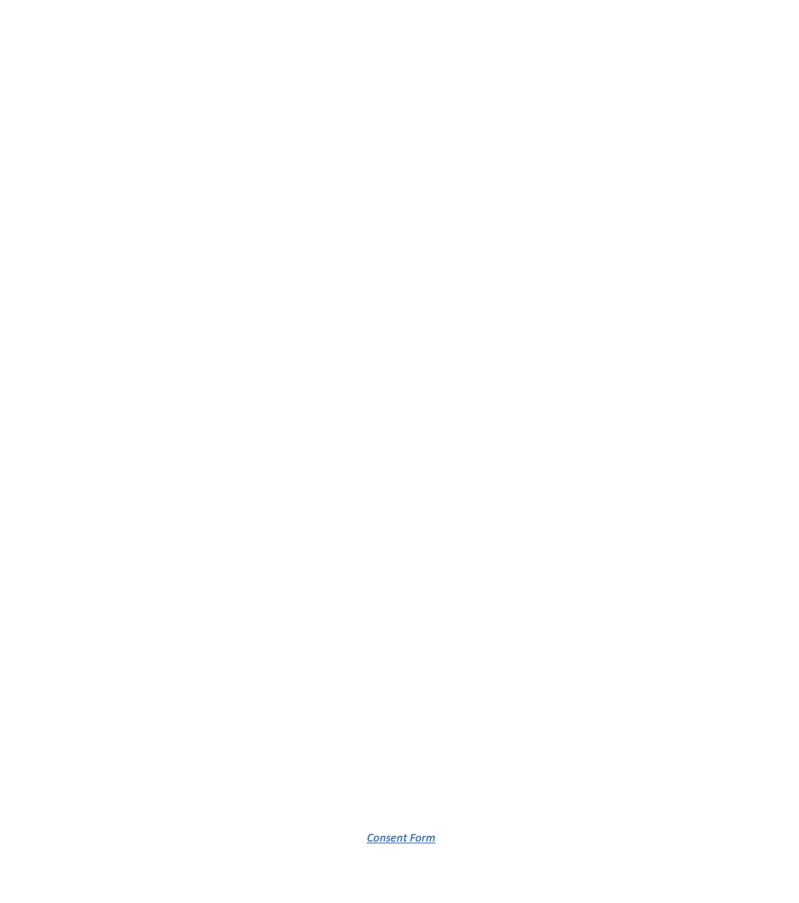
- 2. Be aged 15-35 years
- 3. Have engaged in sexual intercourse in the past 6 months even it is not commercial sex
- 4. Be resident and/or working in Vientiane Capital or Savannakhet for at least 2 weeks
- 5. Participate in three stages of survey including: answering a TG TRaC questionnaire, have a test for rectal STI and have a test for HIV.
- 6. Verbal consent and voluntary way to participate

"Other information:

- The person you refer to us should have all the characteristics mentioned above, and must complete the interview and tested for HIV and STI with us in order for you to receive money for the referral.
- You will receive 2.4\$ (or 20,000 kip) for each person that you refer.
- If the person you refer completes the interview and tested for HIV and STI, she will receive 5.8\$ (or 50,000 kip) for finishing the interview and testing for rectal STI and HIV.
- The maximum number of people you can refer is three.
- The person who you refer must bring the coupon with them during the day they interview.
- This project is limited time, so please refer your friends soon in the next 1-2 days
- To get money, please call the contact number listed on your coupon/or staff will contact you.

Record the coupon numbers below and give three coupons to the interviewee

"Thank you very much for taking the time to help with this important research. I appreciate your participation."



Title of study: First Round HIV/STI Prevalence and Behavioral Tracking Survey among Male-to-Female Transgenders in Vientiane Capital and Savannakhet, Lao PDR

The consent form is used to certify that you are voluntary to participate in our study. We suggest you to listen to this consent form that i will be reading. If there is anything that you do not understand, do not hesitate to ask me to clarify the information and I will take time to explan.

We will provide you the name and telephone number of a PSI staff member who the subject may contact with any pertinent questions about the research, about the health topics discussed, or to whom the subject may issue a complaint.

The purposes of this study are:

- 1. Establishes baseline prevalence of HIV and anal Gonorrhea and Chlamydia;
- Establishes baseline indicators of condom and water-based lubricant use and other targeted behaviors;
- 3. Identifies and describes segments of TG populations in terms of consistent use of joint condoms and water-based lubricant in the past month, with four partner types: regular partners, casual partners, and commercial partners (TG pays partner and partner pays TG);
- 4. Identifies Opportunity, Ability, and Motivation (OAM) determinants of joint condom and water-based lubricant use with all sexual partners;

If you are volunteer to participate in study:

- 1. You are required to provide a blood sample collected through arm flexible prick to test for HIV and a self-administered anal swab to test for Gonorrhea and Chlamydia Tests.
- 2. You will be interviewed with the structured questionnaire which would take you about 30-45 minutes. We will ask you about the population characteristics information, sexual history, and sexual behavior over the past months, condom use behavior, knowledge about HIV/STI and other.
- 3. You can refuse to answer individual questions or desist from the interview. If it may cause discomfort, you can stop answer any questions at any time because this is up to your voluntary.
- 4. All information, tested results will be kept confidentially with PSI.
- 5. Participation is anonymous and that individual responses will be not be linked to identifying information. No personal identifying information will be collected, i.e. photographs, name or initials, address, birth date, etc.
- 6. After you finished, you will be given three coupons, then you can give to your friends/person you know to join this survey as you did.
- 7. The interview and testing were conducted in the *New Friend* Drop in Centers in the province we meet you.

If you understood what I said above, I want would like to ask you if you are agreed to participate in the study or not. Once you said "agreed" verbally, we accept that you are our participant.

The interviewer sign to certify that the consent from was read and the individual is agreed to join the study

Name of interviewer:	
Signature:	
Date:	

Annex 3: PSI BCC Framework

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

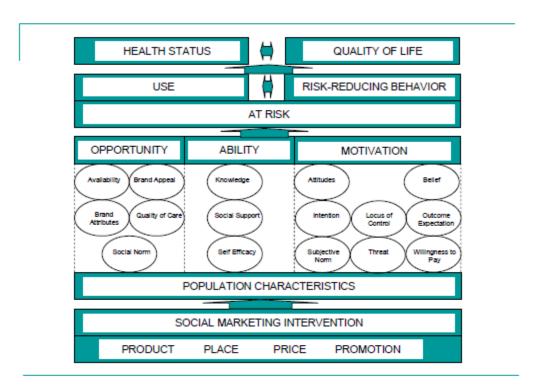
The top level consists of the goal of social marketing for any health promotion intervention, namely improved health status and, for interventions relating to coping with sickness or disability, quality of life.

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

The third level consists of the determinants in PSI's Behavior Change Framework categorized in terms of opportunity, ability and motivation, given population characteristics such as age and sex. Opportunity, ability and motivation characteristics are mutable whereas population characteristics are not.

The fourth level consists of the characteristics of the social marketing intervention: the four Ps.

PERForM and Proposed Behavioral Determinants



Behavior Change Framework

The PSI Behavior Change Framework is embedded within the third level of PERForM and categorizes mutable determinants of behavior into three groups: opportunity, ability and motivation. The 16 behavioral determinants known as "bubbles" are the most widely used for project and marketing plan decision-making within PSI and for designing segmentation, monitoring and evaluation studies. The bubbles are generic to all behaviors promoted by PSI across HIV/AIDS, reproductive health, family planning, maternal and child health, including malaria prevention and treatment. Definitions of opportunity, ability, and motivation are based in the disciplines of consumer behavior, marketing, advertising, public health, social psychology, and economics. Specifically, OAM can be defined as follows:

- Opportunity is institutional or structural factors that influence an individual's chance to carry out a promoted behavior.
- Ability is an individual's skills or proficiencies needed to carry out a promoted behavior.
- Motivation is an individual's arousal or desire to carry out a promoted behavior.

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Opportunity-based PERForM indicators, such as social norms, are measured in individual surveys, while some other opportunity-based PERForM measures, namely coverage, quality, equity of access, and efficiency, are measured at an aggregate level. Ability and motivation factors are measured at the individual level as they are unique to each person.

Project TRaC proposes a survey method for collecting data on the behaviors and determinants Outlined in the Behavior Change Framework.