SOCIAL MARKETING RESEARCH SERIES

PSI

Belize (2007): HIV/AIDS TRaC Study Evaluating Condom Use among Tourism Industry Employees in Cayo

First Round

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Research and Metrics
Population Services International
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Summary

Background and Research Objectives This Social Marketing Research Series (SMRS) report presents findings of the first wave of the TRaC survey for Belize tourist industry workers. TRaC surveys provide actionable evidence for social marketing decision making as well as helping to measure the impact of various project interventions and activities. The survey, which was disseminated in 2007, serves as a tool to inform programming by routinely collecting data from cross-sections of populations at risk for HIV and other adverse health outcomes. This survey aimed to 1) monitor the levels and trends evident in key behavior, risk, OAM (opportunity, ability, and motivation) constructs, and exposure to PASMO's activities among Belizean tourist industry workers over time, and 2) enable segmentation analysis to determine which OAM and population characteristics have the greatest influence on a person's decision to use condoms.

Description of Intervention The Pan-American Social Marketing Organization (PASMO) is a non-profit non-governmental organization (NGO) that specializes in social marketing of AIDS prevention and family planning products and services. PASMO has been operating in Belize since 1999. PASMO is implementing an 18-month program targeting migrants and tourist industry workers in Corozal, Orange Walk, and Cayo, Belize. The purpose of the program is to promote safer sexual behavior among this population through interpersonal communications (discussion groups and outreach) and mass media activities while using a high coverage social marketing (SM) strategy to increase access to and availability of condoms, measured through improvements in perceived product availability and brand appeal. The program aims to not only increase condom use among tourist industry workers, but to also increase their ability and motivation to adopt key safer behaviors. Indicators and targets include: increases in knowledge, perceived threat of HIV, positive outcome expectations for condom use, social support for condom use, and an internal locus of control for condom use.

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Methodology This baseline study consisted of a representative sample of the target population living in priority program areas drawn in 2007. Multi-stage cluster sampling recruited 500 tourist industry workers who had had sex in the last year and were between the ages of 18-49. The study sample was distributed proportionally across three study cities (Cayo, Orange Walk, Corozal) according to the number of workers in hotels in each city. A structured questionnaire was used to collect data on concepts that are relevant for identifying determinants of behavior, monitoring logframe indicators, and assessing program impact. Data was collected on condom use at last sex with regular, occasional, and tourist partners. Due to a low number of tourist industry workers reporting sex with tourists, this analysis for segmentation and monitoring examines industry workers and whether or not they used a condom at last sex with tourist or occasional partners. Logistic regression was used to identify significant determinants of condom use at last sex versus not using a condom at last sex. UNIANOVAS were run to obtain proportions and simple frequency percentages were run for the monitoring analysis.

Results and Programmatic Recommendations After eliminating 20 people who had not been sexually active in the past 12 months or were over our sample age limit, the total sample size was reduced to 480 tourist industry workers. A tabulation of our dependent variable, condom use at last sex with either an occasional partner or a tourist partner, revealed 56 people in the 'yes' category. Of these, 55 lived in one city, Cayo. Due to a lack of people using a condom at last sex in the other two cities, we filtered the results and thus this study only observes tourist industry workers in Cayo, Belize. Simple frequencies showed that only 9.5% of tourist industry workers had received money for sex with tourists in the past 12 months. Among workers who had sex with a tourist partner, two-thirds had used a condom at last sex, although consistent condom use in the last 30 days is low at 9.3%. Between 65-75% of tourist industry workers have correct knowledge about HIV transmission and how to prevent obtaining HIV/AIDS. Tourist industry workers reported a bias against male homosexuals but are more likely to state that people living with AIDS should have the same rights as the general population. Workers overwhelmingly agree that it is important to know your HIV status and seek medical treatment for STIs.

Of the 391 tourist industry workers in Cayo, 13.3% used a condom at last sex with a tourist or occasional partner. Those who used a condom were more likely to believe that sex with tourists rather than locals is more exciting than workers who did not use a condom. Those who used a condom were also more likely to believe that having sex with tourists is easier than having sex with locals. They were more likely to receive money for sex from tourists, and condom users were also more likely to have a higher income than condom non-users.

While knowledge about the transmission of HIV/AIDS among tourist industry workers is high, ranging from 65-75%, knowledge can be improved. A low proportion of tourist industry workers believed that the use of water-based lubricants reduces the risk of HIV transmission, and many believed they were not at risk of acquiring HIV/AIDS. The monitoring of exposure showed that dissemination of PASMO mass media messages is low and needs to be improved; only 7.5% of respondents had seen at least two PASMO mass media messages in the last 12 months, and only 18.1% had participated in at least one PASMO IPC activity in the last 12 months.

Monitoring Table

Trends in behaviors and OAM determinants of condom use among Tourist Industry Workers in Cayo, Belize 2007

Risk: Sexually Active Tourist Industry Workers aged 18-49 who have worked in the tourism industry for at least one year

INDICATORS	September2007 (N=391)
RISK	%
Received money for sex with tourists	9.5
BEHAVIOR	
^Condom use at last sex with tourist[1]	66.9
^Consistent condom use in last 30 days with tourist[2]	10.1
^Sought medical treatment for last STI episode[3]	44.8
ABILITY	
Knowledge	
^Condom use prevents the transmission of HIV/AIDS	74.5
^Partner reduction prevents the transmission of HIV/AIDS	64.7
^Abstinence prevents the transmission of HIV/AIDS	67.0
^Mutual fidelity prevents the transmission of HIV/AIDS	70.5
Self-Efficacy	Mean
^I can convince any partner to use condoms	3.0
MOTIVATION	
Outcome Expectations	
^The use of water-based lubricant along with condoms reduces the risk of HIV transmission	2.3
Threat	
Susceptibility	
^I'm at risk of acquiring AIDS	2.1
Beliefs	
Having sex with tourists is fun	2.3
^I would allow a friend to stay in their house knowing that he is gay	2.3
^I think that a person living with AIDS has the same rights as the general population for accessing public places	2.9
Having sex with tourists is easier than having it with local partners	2.2
Attitudes	
^It's important to know your HIV status	3.5
^It's necessary to seek medical treatment for STIs	3.4
EXPOSURE	%
^Has seen at least two PASMO mass media messages in last 12 months	7.5
^Has participated in at least one PASMO IPC in last 12 months	18.1

^ Donor indicator

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[1] Among those who had sex with a tourist partner in last 30 days, N=72

[2] Among those who had sex with a tourist partner in last 30 days, N=72

[3] Among those who experienced an STI, N=110

Scale values range from 1 to 4: "1=totally disagree, 2=disagree, 3=agree, 4=totally agree"

Monitoring Analysis
Trends in behaviors and OAM determinants of condom use at last sex with occasional or tourist partners among tourist industry workers in Cayo Belize, 2007

The preceding monitoring dashboard table presents trends in behavior and factors that are significantly associated with condom use at last sex in segmentation analysis, as well as longframe indicators of interest to donors and for PSI internal monitoring. This section includes baseline findings from PSI/Belize's 2007 TRaC Survey among tourist industry workers in Cayo. The table was prepared in accordance with PSI's behavior change framework, PERForM, (see appendix). Although the monitoring table is meant to present frequencies for opportunity, ability, and motivation (OAM) factors, donors were presently not interested in opportunity factors, and no such factors were found significant in the segmentation analysis.

Behavior

Fifteen percent of tourist industry workers had sex with a tourist within 30 days of the survey (not shown). The majority of respondents who had sex with a tourist partner in the last 30 days used a condom at last sex (66.9%). However, just one in 10 consistently used condoms with such partners. 9.5% of all tourist industry workers have received money for sex with tourists.

Ability

Ability refers to whether or not an individual has the skills or proficiencies needed to perform the promoted behavior. For example, if a person does not know that condoms help prevent HIV transmission, this may inhibit his or her preventative behavior. In some cases, ability can be visibly demonstrated and thus measured objectively. Two ability factors, knowledge and self-efficacy, are shown as they are donor indicators.

A clear majority of respondents have knowledge about the transmission of HIV/AIDS; 74.5% agreed that condom use prevents transmission of HIV/AIDS. Fewer agreed that partner reduction also prevents transmission (64.7%), as does abstinence (67.0%) and fidelity (70.5%). This suggests that while PASMO should promote continued condom use, other ways to reduce transmission should be communicated more clearly and often.

Self-efficacy measured whether or not a respondent felt they could convince a partner to use a condom. This indicator was scored as a mean, where a higher value is indicative of greater self-efficacy and lower values (on a scale of 1-4) mean lower self-efficacy. The overall mean was

rather high at 3.0. This means that many tourist industry workers feel they can convince any partner to use condoms.

Motivation

Motivation pertains to an individual's desire to perform a promoted behavior. In this case, the promoted behavior is using condoms. Motivation can only be measured subjectively, based on responses elicited from the individual. Unlike ability, motivation cannot be visibly demonstrated, making it the most difficult aspect to change among the population. Beliefs, attitudes, threat, and outcome expectations are all motivation factors that were either significantly related to condom use or were indicators of interest to donors.

Beliefs are perceptions about a promoted behavior, which addresses myths and misconceptions. Respondents were asked to state their opinion on a variety of topics such as whether having sex with tourists is more fun or easier than having sex with locals, and whether they would allow gay friends to stay in their homes or if people living with HIV/AIDS should have the same rights as the general population. These indicators all scored a mean similar to the scale used for self-efficacy. Overall, respondents scored just below the mean of 2.5 on all belief indicators, with the exception of many tending to agree that people living with AIDS should have the same rights as the general population.

On the other hand, there is a widespread perception that it is important to know one's HIV status and one should seek medical treatment for STIs. The mean scores for each attitude indicator were 3.5 and 3.4 respectively, indicating most either agree or strongly agree with such statements. While many respondents agree it is important to know one's HIV status, far fewer believe there are at risk of acquiring AIDS, a threat indicator. Threat is defined as one's perceived risk of experiencing a dangerous or harmful event that exists in the surrounding environment. The results in the monitoring table suggest that the respondents believe, on the one hand, people should get tested for HIV because it is important to know their status. However, people might not be getting tested because they do not believe they are at risk of acquiring HIV.

Outcome expectations refer to an individual's perceptions of what could happen if he or she adopts the promoted behavior. In this study, respondents are mixed on whether using water-based lubricant along with condoms reduces the risk of HIV transmission. A mean of 2.3 is just below the average score, meaning people tend to slightly disagree with that statement.

Finally, exposure measures the number of times or number of respondents who have visibly seen a PASMO-promoted channel through radio or television or billboard, or participated in an activity hosted by PASMO. The monitoring results suggest that few tourist industry workers have participated in such events or seen or heard such promotional messages; only 7.5% have seen at least two PASMO mass media messages in the past 12 months, and only 18.1% have participated in at least one PASMO IPC (inter-personal communication) in the last 12 months.

Segmentation Table

Determinants of condom use among tourist industry workers in Cayo, Belize 2007

Risk: Tourist industry workers aged 18-49 who have had sex with a tourist in the last year

Behavior: Condom use at last sex with a tourist or occasional partner

Q Nb.	INDICATORS	Used Condom (N=52) 13.3%	Did not Use Condom (N=339) 86.7%	OR	Sig.
	OPPORTUNITY	Mean	Mean		
	Social Norms				
43c	Sex with tourists is more exciting	2.7	2.2	2.4	***
	MOTIVATION				
	Locus of Control				
50m	Having sex with tourists is easier than having sex with locals	2.6	2.2	2.9	***
	POPULATION CHARACTERISTICS	%	%		
9	Monthly income of 601 Belizean dollars or more (vs. monthly income less than 601 Belizean dollars)	83.1	62.3	4.2	**
11	Received money for sex with tourists	26.8	4.4	6.5	***

*:p<.05; **:p<.01; ***:p<.000

Hosmer-Lemeshow goodness-of-fit: χ^2 (df=7) = 12.044, p<0.099
Omnibus goodness-of-fit: χ^2(df=4) = 104.420, p<0.000
Cox & Snell R^2=0.234

Scale values range from 1 to 4: "1=totally disagree, 2=disagree, 3=agree, 4=totally agree"

Segmentation Analysis

Determinants of condom use at last sex with tourist or occasional partners among tourist industry workers in Cayo Belize, 2007

Logistic regression analysis revealed only four significant predictors of condom use at last sex, and only three of those significant predictors are not related to population characteristics. The risk group are tourist industry workers aged 18-49 who have had sex with a tourist or occasional partner in the last year. The behavior is condom use at least sex with either a tourist partner or an occasional partner. While initially we wanted only to do an analysis on tourism industry workers who had had sex with a tourist in the last year, too few met this criterion. By analyzing practices with both tourist and occasional partners, some significant results could be found. First, condom users were 2.4 times more likely to agree that sex with tourists is more exciting than sex with locals. They were 2.9 times more likely to agree that having sex with tourists is easier than having sex with locals. Therefore, people who are having sex with tourist workers tend to be using condoms with tourist and occasional partners.

One possibility which would explain why condom users utilize condoms is that they are able to afford condoms. Condom users reported a much higher average income compared to non-condom users. Condom users were more then 4 times likely to earn more than 600 Belizian dollars per month compared to condom non-users. Similarly, condom users were six and a half times more likely to receive money for sex with tourists. At the same time, condom users are likely to also think that having sex with tourists is fun and exciting.

Conclusions

1. One in ten Belize tourism industry workers have received money for having sex with tourists, and a third of them did not use a condom during last sexual intercourse with a tourist while 10% always used condom over the last month.

2. Two-thirds of the sexually active tourism industry workers know of HIV/AIDS prevention methods (condom use, abstinence, mutual fidelity and partner reduction).

3. Most of the tourism industry workers agree that is necessary to know their HIV/AIDS status, and consult medical assistance for an STI treatment.

4. Almost half of the tourism workers believe that the use of water based lubricant along with the condom reduces the risk of HIV transmission.

5. Under half of the tourism industry workers perceive they are at risk of acquiring HIV/AIDS.

6. Among tourism industry workers who have sex with tourists or occasional partners, healthy behaviors are more likely between the ones who believe that having sex with tourists is more exciting, being 2.4 times more likely to the use of condom. The same situation is for the workers who think that the sex with tourists is easier because they are 2.9 more likely to use condom.

7. The tourism industry workers with higher economical resources who have sex with tourists or occasional partners are more likely to use condoms because 83% of them used condoms during they're last sexual act in comparison to 62.3 % (p= .01) with lower economical resources.

8. The media exposure and PASMO IPC activities have only reached 2 out of 10 workers, who reported had participated in at least one activity. Only one in 10 workers has seen at least two PASMO mass media advertisement messages.

Programmatic Recommendations

1. Emphasize in the eduation activities the importance of condom use in any relationship type, with tourists or any type of partners.

2. Reinforce within the eduation programs the prevention strategy (ABC) to improve the knowledge of the forms of HIV prevention.

3. Promote the voluntary centers for tests and counseling (VCT), and improve worker knowledge about the places were they can be diagnosed.

4. Increase the promotion on the centers were the workers can assist in the diagnosis and treatment of STIs.

5. Reinforce the importance that water-based lubricant use along with the condom helps prevent HIV/AIDS transmission.

6. Intensify mass media messages and education activities that promote the increased risk perception of acquiring HIV among the workers of the tourist industry population.

7. Focus the education activities on the workers of lower economical resources because they are less likely to use condoms.

8. Intensify the personal activities and the massive media messages, which can represent a useful strategy to increase the risk perception, the knowledge of prevention methods (ABC) and the use of water-based lubricants as a HIV/AIDS prevention method.

Population Characteristics

POPULATION CHARACTERISTICS	2007
Age	
18-26	50.8
27-49	49.2
Level of education	
Primary	34.8
Secondary and more	65.2
Marital Status	
Never-Married	42.1
Ever Married	57.9
Income	
600 Belizean Dollars or Less	34.0
More than 600 Belizean Dollars	66.0
N	480

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Methodology

Sampling and participants: The study population for this tracking survey is sexually active tourist industry workers: in Cayo, Orange Walk and Corozal aged 18-49 who have more than one year working for this industry. We targeted 500 tourist industry workers but found some respondents were not sexually active in the last year or fell out of the targeted age range. Filtering these respondents out of the survey, our total sample size was 480. For the purposes of this analysis where the dependent variable was condom use at last sex with an occasional or tourist partner, we found that of the 56 respondents who had used a condom at last sex with either partner, 55 of them were located in Cayo. With a lack of observations in Orange Walk and Corozal, this report is limited to results from Cayo.

A representative sample of this target population living in priority program areas was drawn. Sample size calculations were made for all purpose level logical framework indicators. This study design called for a multi-stage cluster sampling approach. In total 500 tourist industry workers were recruited. The study sample was distributed proportionally across three study cities (Cayo, Orange Walk and Corozal) according to the number of workers in hotels in each city. Information from National Tourism Institute was used to estimate the universe of hotels and workers. An exhaustive list of hotels and their number of employees was generated for each of the three study cities. Hotels were selected probability proportional to size (PPS). PASMO asked managers of selected hotels for permission to conduct the study in their facility. If permission was denied, the selected hotel was replaced with another hotel from a "cushion" list of clusters (sampling without replacement). Ten respondents were selected randomly from a list of employees working at each hotel. If an employee was unavailable to pariticpate in the interview, a replacement was randomly selected from the same list.

Survey Instrument(s): A structured questionnaire was used to collect data on concepts in PERForM that are relevant for identifying determinants of behavior, monitoring logframe indicators and assessing program impact. This questionnaire included modules in the following areas: population characteristics, OAM determinants of behavior including output level logframe indicators, behavior as specified by purpose level logframe indicators, and exposure PASMO interventions. This questionnaire was eight pages long.

A new questionnaire had been developed for this study based on PSI's standard HIV/AIDS questionnaire and PASMO questionnaires used throughout Central America for other groups at high risk for HIV/AIDS (MSM, FSW, and youth). The determinants measured in this model questionnaire are based on the PSI Behavior Change Framework and a literature review of quantitative and/or qualitative studies. Input from country program researchers and programmers was used to modify scaled questions and other context specific questions. If additional determinants not currently covered in the model questionnaire were discovered during formative research or suggested by program or research staff, multi-item scales were developed to measure these items.

The PASMO questionnaire was pre-tested in Belize City, using about 25 cognitive interviews with members of the target group who will not participate in the larger study. The pre-test was used to gather information on the following points: ease or difficulty of statement, comprehension, confidence in response, level of discomfort and social desirability.

The PASMO questionnaire was revised based on findings from the pre-testing activities described above. Modifications to question structure and language were made accordingly.

Analytic Technique: A segmentation table was produced based on multiple logistic regression analyses. Explanatory variables (i.e., OAM perceptions, demographic characteristics) which significantly contribute to the explanation of the variance in the behavior of interest (i.e., condom use at last sex) were identified. Odds ratio of involvement in the behavior of interest were reported for each significant explanatory variable. Analysis of variance (ANOVA) was employed to estimate the adjusted means or proportions of each explanatory variable by the behavior of interest. Each explanatory variable was assessed in ANOVA with the behavior of interest serving as the group variable and other significant explanatory variables serving as covariates.

The monitoring table tracked trends in behavior, OAM indicators, and project exposure. It portrayed frequencies of indicators for 2007 figures for the baseline TRaC in 2007 will be simple percentages. All analysis was performed using SPSS software.

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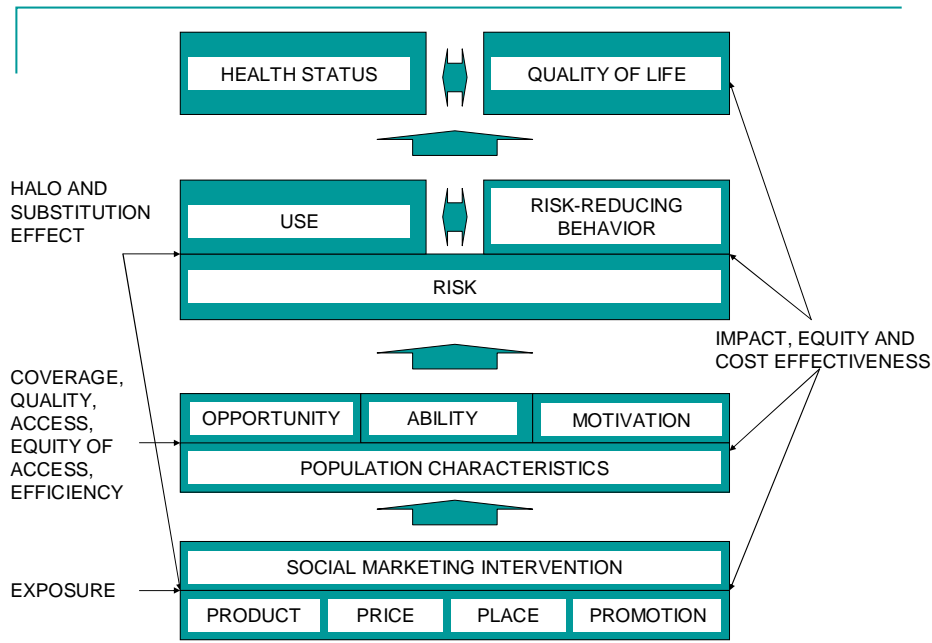
This study design is guided by PSI's PERForM framework. PERForM describes the social marketing research process, identifies key concepts important for designing and evaluating social marketing interventions and mirrors the four levels and concepts in the logical framework.

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

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

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