SOCIAL MARKETING RESEARCH SERIES

Belize (2007): HIV/AIDS TRaC Study Evaluating Condom Use among Garifunas in Cayo, Stann Creek, and Toledo

First Round

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Belize City, Belize
December, 2007

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PSI Research and Metrics
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Table of Contents

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Executive Summary

Acknowledgements We would like to thank the donors, KfW, CARICOM and Options for their funding support for this report. We also want to acknowledge CID Gallup for their collection of data and fieldwork, as well as data processing. We thank Kim Longfield of PSI/Washington Research and Metrics for her technical assistance on this report, as well as Jorge Rivas Sierra and Giovanni Melendez (both of PSI/Guatemala), and Clare Barrington (PSI Research Consultant). Justin Buszin (PSI Research Consultant) is the author of this report.

Background and Research Objectives This Social Marketing Research Series (SMRS) report presents findings of the first wave of the TRaC survey for Belize Garifunas. 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 Garifunas over time, and 2) enable segmentation analysis to determine which OAM and population characteristics have the greatest influence on a person's decision to consistently use condoms with occasional partners.

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 program targeting Garifunas in Cayo, Stann Creek, and Toledo, Belize. The purpose of the program is to promote safer sexual behavior 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 Garifunas, but to also increase their ability and motivation to adopt key safer behaviors.

Methodology This baseline study consisted of a representative sample of the target population living in priority program areas drawn in 2007. A multi-stage cluster sampling approach was employed. In total 500 Garífunas were recruited. The study sample was distributed proportionally across the three study cities (Cayo, Stann Creek and Toledo) according to population size. The 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 to PASMO interventions. The PASMO questionnaire was pre-tested in Belize City, using about 25 cognitive interviews with members of the target group who did not participate in the larger study. Odds ratio of involvement in the behavior of interest are reported for each significant explanatory variable. Analysis of variance (ANOVA) is employed to estimate the adjusted means or proportions of each explanatory variable by the behavior of interest. Each explanatory variable is assessed in ANOVA with the behavior of interest serving as the group variable and other significant explanatory variables serving as covariates.

Results and Programmatic Recommendations: After eliminating people who were over the age of 49 or lived in Belize City, which was outside the study area, a total sample size of 491 Garifunas was used. A tabulation of the original dependent variable, condom use at last sex with an occasional partner, revealed that almost every person said they had used a condom at last sex. Therefore, the dependent variable was changed to consistent condom use with an occasional partner in the last 30 days. For segmentation purposes, this limited our sample to Garifunas who had been with an occasional partner in the last 30 days (N=191). Just more than half of the sample was consistent condom users. Simple frequencies show that Garifunas had, on average, 3.5 occasional partners in the last 12 months. Garifunas tend to know that condom use and partner reduction prevents the transmission of HIV/AIDS but are less knowledgeable about mutual fidelity reducing the transmission. While they largely agree that it is important to know one's HIV status and seek medical treatment for STIs, Garifunas tend to not be confident that they can use condoms correctly or are at risk of acquiring AIDS. Few Garifunas have participated in PASMO IPC in the past 12 months but almost two-thirds have seen at least two PSMO mass media messages in the last 12 months. The segmentation table revealed that few items differentiate users from non-users. Consistent condom users were more likely to think that AIDS was as big of a problem as the media suggests, have children, and have fewer occasional partners in the last 12 months.

PSI/Belize and PASMO have done well at promoting mass media messages and the ideas that condom use and partner reduction prevent the transmission of HIV/AIDS. However, social norms about mutual fidelity persist. Furthermore, exposure to IPC continues to be low and the belief that one is at risk of acquiring AIDS is very low. Mass media messages need to more clearly communicate the ties between mutual fidelity and risk of acquiring AIDS.

Monitoring Table: Trends in behaviors and OAM determinants of condom use among Garífunas in Stann Creek, Cayo, and Toledo, Belize 2007
Risk: Sexually Active GARÍFUNAS aged 15-49 who have had more than one sexual partner in the last year

INDICATORS	September 2007 (N=491)
RISK	Mean
Mean number of occasional partners in last 12 months	3.5
BEHAVIOR	%
Consistent condom use in last 30 days with occasional partner[1]	51.3
^Consistent condom use in last 30 days with any partner	12.8
^Sought medical treatment for last STI episode[2]	82.8
^Participated in PASMO activities[3]	12.3
ABILITY	% or Mean
Knowledge	
^Condom use prevents the transmission of HIV/AIDS[3]	98.5
^Partner reduction prevents the transmission of HIV/AIDS	93.2
^Abstinence prevents the transmission of HIV/AIDS	86.5
^Mutual fidelity prevents the transmission of HIV/AIDS	75.9
Self-Efficacy	
^I can convince any partner to use condoms	3.33
I'm confident that I can use condoms correctly	2.46
MOTIVATION	Mean
Threat *-Severity*	
AIDS is not as big of a problem as the media suggests (R)	3.73
Threat *-Susceptibility*	
^I'm at risk of acquiring AIDS	1.76
Beliefs	
^Garífunas who think that a person living with AIDS has the same rights as the general population for accessing public places	67.5
Attitudes	
^It's important to know your HIV status	3.77
^It's necessary to seek medical treatment for STIs	3.80
EXPOSURE	%
^Has seen at least two PASMO mass media messages in last 12 months[4]	64.3
^Has participated in at least one PASMO IPC in last 12 months[3]	12.3

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

[1] Among those who have had an occasional partner, N=191
[2] Among those who had an STI in the last 12 months, N=209
[3] N=474
[4] N=406

Monitoring Analysis: Trends in behaviors and OAM determinants of condom use among Garífunas who had more than one sexual partner in the last year in Stann Creek, Cayo, and Toledo, Belize 2007

The preceding monitoring dashboard table presents trends in behavior and factors that are significantly associated with consistent condom use with occasional partners in the segmentation analysis, as well as logframe indicators of interest to donors and for PSI internal monitoring. 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), no opportunities factors were found to be significant in the segmentation analysis, and donors did not express interest in seeing these tabulations.

Behavior

Just over half of the Garifunas who had an occasional partner in the last 30 days consistently used a condom with that partner during the same period. However, consistent condom use with any partner, including regular partners (non-marital partners who are quite common among this population), was far lower at 12.8%. Over eighty-five percent of Garifunas had multiple sex partners in the last thirty days, and this number is over ninety percent for over the past year. Three-quarters of the Garifunas who had an STI episode in the last year sought medical treatment for the STI although only 12% participated in a PASMO activity in the last 12 months.

Ability

Nearly all Garifunas properly stated that condom use prevents the transmission of HIV/AIDs. Over 90% said that partner reduction does the same and slightly fewer expressed similar knowledge about abstinence (86.5%). However, only three-quarters of Garifunas knew that mutual fidelity prevents the transmission of HIV/AIDS. This may not be surprising given the lack of mutual fidelity among this population. While Garifunas expressed confidence that they could convince their partners to use condoms, they were less confident that they could use condoms correctly.

Motivation

Garifunas tend to agree that AIDS is as big of a problem as the media suggests (3.73 on a range of 1-4 with 4 being most strongly agree). At the same time, and most troubling of all indicators, they do not feel they are at risk of acquiring AIDS (1.76 on a scale of 1-4). The low perceived susceptibility to the threat of AIDS may explain low levels of consistent condom with all partners. Only two-thirds of Garifunas agrees that people living with AIDS have the same rights

as the general population. There may be general discomfort towards people with AIDS and this discomfort may feed the fact that Garifunas do not think they are at risk. Interestingly though, most Garifunas agree that it is important to know your HIV status (3.77) and seek medical treatment for STIs (3.80), suggesting a level of comfort in discussing STIs with medical practitioners rather than simply ignoring the problem.

Exposure

PASMO has successfully saturated mass media markets with ads about condom use; nearly two-thirds of Garifunas had seen at least two PASMO mass media messages in the last 12 months. However, only 12% had participated in at least one PASMO IPC (inter-personal communication) in the last 12 months. PASMO IPC is typically the most intense and effective exposure levels that help promote consistent condom use.

Segmentation Table

Determinants of condom use among Garífunas in Stann Creek, Cayo, and Toledo, Belize 2007
Risk: Sexually active GARÍFUNAS aged 15-49 who have had one or more occasional partners in the last year
Behavior: Consistent Condom Use with an Occasional Partner in last 30 days

INDICATORS	Consistent Condom Use (N=191)		OR	Sig.
	Always Use a Condom (N=98) 51.3%	Did Not Always Use a Condom (N=93) 48.7%		
MOTIVATION	Mean	Mean		
Outcome Expectations				
Threat-Severity				
AIDS is not as big of a problem as the media suggests (R)	3.37	3.61	.61	*
POPULATION CHARACTERISTICS				
Has children (Versus has No Children)	.35	.20	2.65	*
RISK				
Mean number of occasional partners in last 12 months	6.14	8.79	.81	***

*:p<.05; **:p<.01; ***:p<.001

Hosmer-Lemeshow goodness-of-fit: χ^2 (df=8) = 12.98, p<0.112
Omnibus goodness-of-fit: χ^2 (df=3) = 35.145, p<0.001
Cox & Snell R^2=0.17

Threat scale values range from 1 to 4: "1=totally disagree, 2=disagree, 3=agree, 4=totally disagree"
CHILD and is a dichotomous 0-1 variable

Segmentation Analysis: Trends in behaviors and OAM determinants of consistent condom use among Garífunas who had at least one occasional partner in the last year in Stann Creek, Cayo, and Toledo, Belize 2007

The segmentation table measures the independent variables that differentiate those who always used a condom with an occasional partner in the last 30 days (users) with those who did not (non-users). In this sample, roughly half fall in each category. Only three independent variables were found to statistically significantly differentiate users from non-users. Consistent condom users had nearly 20% fewer partners than inconsistent users. This is problematic given that those who do not use a condom are practicing a riskier act and they are doing so with more partners. Inconsistent condoms users had an average of 8.79 partners in the last 30 days while consistent users had an average of 6.14 partners. It is important to note that these mean numbers are still quite high given the 30-day period.

Users were 2.65 times more likely to have children than non-users, with roughly a third of users having children (.35 on a 0-1 scale) and a fifth of non-users having children. Interestingly, users were less likely to agree that AIDS is as big of a problem as the media suggests. This is a reverse-coded item, meaning that the question was phrased such that people who agreed with the statement (AIDS is not as big a problem as the media suggests) do not reflect a positive outcome. All reverse-coded statements were constructed so that all items on the 1-4 scale meant that scores closer to 4 represented more positive outcomes. As such, Garifunas who used a condom at last sex were less likely to disagree that AIDS is as big a problem as the media suggests, but both groups believe AIDS is as big a problem as the media suggests.

Programmatic Recommendations

1. To keep as part of the themes in mass media and IPC activities the partner reduction discussions, due to the high number of occasional partners reported as well the inconsistent condom use.
2. To reinforce the consistent condom use, as part of the effectiveness in prevention measures, to incorporate as part of the discussions the topics of confidence with partners as the cause of inconsistent condom use.
3. To increase the coverage of IPC activities with Garífuna communities.
4. To discuss with women and men, the meanings to be faithful and the risks behind the different conceptions to have multiple partners.
5. To increase through demonstrations and other techniques, the skills for a correct condom use.
6. To increase the risk perception among Garífuna population, as the only one factor included in segmentation table that can be addressed in prevention activities, this topic must be part of all the interventions.
7. To keep and increase the frequency and diversity of mass media messages targeted to Garífuna population.

Population Characteristics

POPULATION CHARACTERISTICS	2007 (Percentages)
Age	
15-25	53.5
26-49	46.5
Level of education	
Primary or less	27.7
Secondary and more	72.3
Marital Status	
Single	62.2
Married	37.8
Monthly Income[5]	
900 Belizean Dollars or Less	53.7
More than 900 Belizean Dollars	46.3
City	
Stann Creek	51.4
Toledo	35.5
Cayo	13.1
Sex	
Male	68.8
Female	31.2
Religiosity[6]	
Not Religious	15.7
Somewhat or Highly Religious	84.3
Has Children	46.9
Circumcised[7]	17.1
Mean Number of Economic Dependents[8]	2.01
N	535

[5] N=328
[6] N=444
[7] N=368
[8] N=407

Methodology

Sampling and participants: The study population for this tracking survey is sexually active Garifunas in Cayo, Stann Creek, and Toledo aged 18-49. We targeted 500 Garifunas but found some respondents were not located in the three targeted cities or just outside of the targeted age range. This left us with a total sample size of 491. For the purposes of this analysis where the dependent variable was consistent condom use with an occasional partner in the last 30 days, roughly half were consistent users.

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. The study sample was distributed proportionally across the three study cities according to the number of Garifunas in each city.

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.

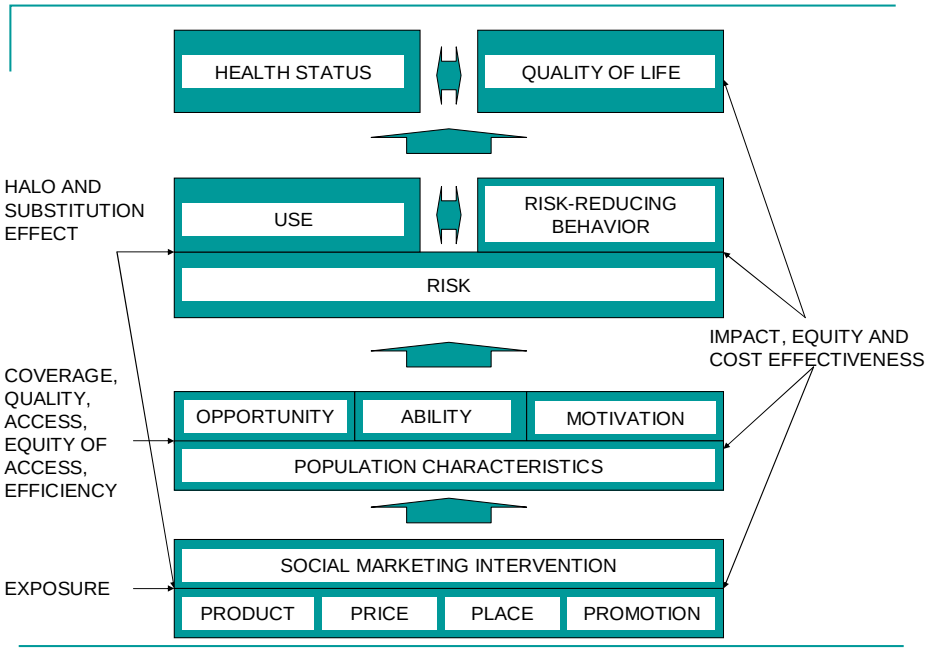
The PASMO questionnaire was pre-tested in Belize City, using about 25 cognitive interviews with members of the target group who will not participate in the larger study. The pre-test was used to gather information on the following points: ease or difficulty of statement,

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.