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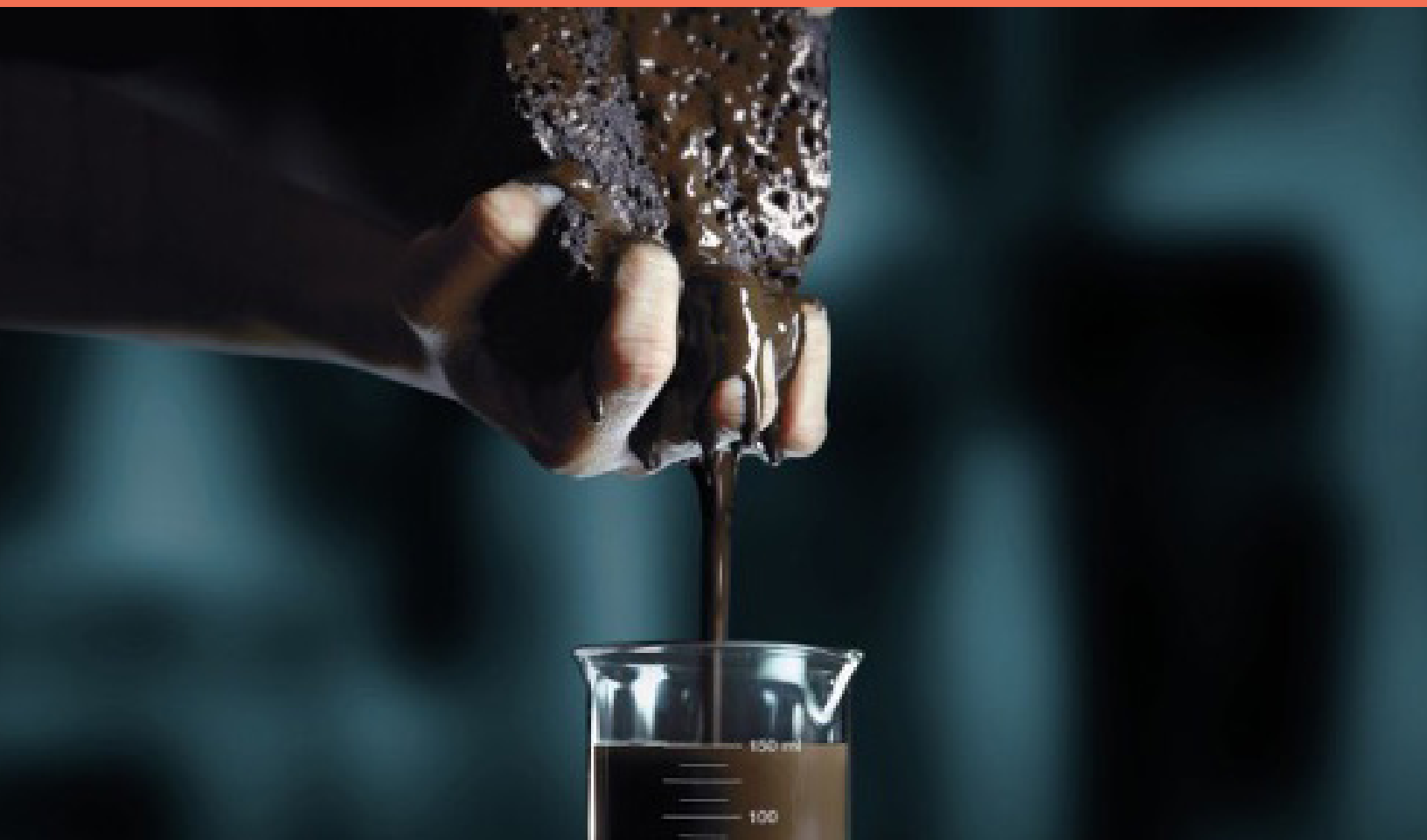
Effect of the First National Tobacco Control Mass Media Campaign in Senegal: Evaluation Paper



Acknowledgments

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Abstract

Background: Tobacco use is of growing concern in Africa. Mass media campaigns are an effective tobacco control intervention, but to date, their efficacy has not been documented in African countries. This paper assesses the effectiveness of the first national anti-smoking campaign in Senegal that aired from April 1-May 31, 2013.

Methods: Nationally representative household surveys of adults ages 18 to 55 years old were conducted prior to launch (*N* = 1,107) and immediately after the campaign's conclusion (*N* = 1,097). Campaign awareness, reactions to the campaign, and changes in smoking-related knowledge, attitudes and behaviors, were assessed using bivariate tests (chi-squares) and multivariate logistic regression analyses. Calls to a national quitline were also monitored.

Results: Of those surveyed, 63% of people recalled the campaign, primarily through television. The campaign was rated as comprehensible, relevant and as creating concern. Of campaign-aware nonsmokers, 86% resolved to not smoke, while 90% of campaign-aware smokers said the campaign made them more likely to quit. From the baseline to the post-campaign period, there was an increase in: knowledge of the serious illnesses smoking causes; anti-smoking attitudes; support for smoke-free bans; and support for government campaigns. There was also an increase in interpersonal communication about harms from tobacco use. Application of change rates to Senegal census data found an estimated 87,490 additional Senegalese smokers intended to quit within the next month. Calls to the national quitline increased six-fold during the campaign period.

Conclusion: The campaign was associated with increased commitment among nonsmokers to not smoke, greater concern about smoking and increased intentions to quit among smokers, and overall greater support for government programs, including smoking bans. The study finds that mass media campaigns can be an effective intervention for advancing tobacco control in countries in Africa.

Introduction

Tobacco consumption is of grave concern worldwide, and is becoming an increasing concern in Africa [1]. Tobacco use not only contributes to significant morbidity and mortality and is the single most preventable cause of death in the world [2], but it also worsens poverty, challenging development goals [3,4]. While smoking prevalence was historically low in Africa, many countries in the region—especially those in sub-Saharan Africa—have recently been experiencing increasing rates of tobacco use [1]. Higher rates of youth consumption, coupled with economic growth, increased purchasing power and greater cigarette affordability, suggests there is an intensifying tobacco epidemic in many African countries [1]. Between 2002 and 2030, tobacco-attributable deaths are projected to double in low- and middle-income countries, including those in sub-Saharan Africa [1]. This trend is likely to be exacerbated because of the tobacco industry's aggressive advertising and marketing of tobacco products in African countries [5]. Hence, the implementation of comprehensive tobacco control policies is critical to the health and development of African countries [6].

In sub-Saharan Africa, Senegal, in particular, has made progress on tobacco control in recent years; however, the country still experiences substantial disease and deaths from tobacco use, and can do more to counteract this tide by implementing best practices in tobacco control policy. On April 27, 2005, Senegal became a party to the WHO Framework Convention on Tobacco Control, and has since implemented several tobacco control policies, including smoke-free laws and bans on tobacco advertising, promotion and sponsorship.

In Senegal, nearly 6% of adults use tobacco products, with much higher rates among men than women (11% versus 1%) [7]. Secondhand smoke exposure also presents a challenge, particularly in occupational settings; 30% of adults who work indoors are exposed to secondhand smoke in their workplace—representing half a million adults [7]. Youth are disproportionately exposed to secondhand smoke—45% are exposed inside enclosed public spaces and 28% are exposed at home [8].

Mass media campaigns have been proven to be effective in preventing the initiation of tobacco use, promoting cessation and building public support for tobacco control policies [9,10]. In particular, campaigns that graphically depict health harms—and generate negative emotions such as fear, anger and concern—have been effective not only in educating about the harms of tobacco, but also in changing people's beliefs, increasing perceptions of personal risk and, ultimately, in affecting behaviors [9-11]. Thus, in 2013, Senegal's Ministry of Health and Social Action, with support from Vital Strategies—known as the World Lung Foundation at the time—a global public health organization that is part of the Bloomberg Initiative to Reduce Tobacco Use [12], decided to address the growing threat of tobacco by airing an evidence-based mass media campaign to discourage smoking and to build public demand for government policies.

The "Sponge" Campaign

Rigorous message testing with smokers and nonsmokers was conducted in urban and peri-urban areas of Senegal. "*Sponge,*" an advertisement originally developed in Australia but that was subsequently successfully aired in a number of other countries, including low- and middle-income countries, was chosen for adaptation and use in Senegal. It graphically portrayed the cancer-producing tar that accumulates in smok-

ers' lungs, urging smokers to quit and to call a national quitline for help doing so. The campaign aired nationally in French and Wolof from April 1 to May 31, 2013. The media plan was designed to reach at least 80% of Senegalese people with the campaign, three times a day. The total campaign budget of USD $166,638 was apportioned for message delivery via television (76% of budget), radio (10%) and outdoor billboards in Dakar (8%). Additionally, the campaign generated significant earned media coverage. It also provided ammunition and point of reference to local nongovernmental organizations that were advocating in the media for the passage of tobacco control legislation, which included a comprehensive smoke-free law.

The campaign sought to increase knowledge and change attitudes about smoking, encourage interpersonal conversations about the harms of smoking, increase quit attempts, and create support for tobacco control policies.

Methods

The impact of the campaign was primarily evaluated through nationally representative baseline and post-campaign household surveys. Secondarily, calls to the national quitline were monitored before and throughout the campaign period to assess changes in call volume.

Survey Methodology

Sampling Method and Size. An independent research agency conducted nationally representative, cross-sectional surveys of Senegalese adults ages 18 to 55 years. The baseline survey was fielded from March 23 to 30, just prior to campaign launch; the post-campaign survey, from June 3 to 11, immediately after the campaign concluded. All regions were sampled, except rural areas in Ziguinchor, which were excluded due to security concerns. The study used locally appropriate multistage stratified random sampling procedures. A Kish grid was used to select between multiple eligible respondents within a household. The final sample included 1,107 respondents in the baseline survey and 1,097 respondents in the post-campaign survey (Table 1).

Measures. Participant consent was sought before beginning the survey. The baseline and post-campaign surveys were nearly identical, except for a longer campaign recall section that was included in the post-campaign survey alone. Smoking behavior was measured by asking participants if they currently smoked or had smoked in the past, and the number of cigarettes consumed in a day. ***Campaign awareness*** was determined at two levels. First, respondents freely recalled and described all anti-smoking messages encountered in the previous two months, the channels through which they encountered them and the key messages they recalled. All those who identified recalling "Sponge" through television, radio, outdoors or mobile channels, were defined as having "category-cued" recall. Campaign recognition was measured later in the questionnaire by providing respondents with brief audio-visual cues from "Sponge" (i.e., by showing images of the ad and by reading a few sentences from the radio version) and asking respondents if they recognized the ad and all the channels through which they recalled seeing or hearing it. Campaign awareness was used to refer to all participants who recognized the campaign and had category-cued recall of it (by definition, all those with category-cued recall would have recognized the ad too). Campaign-aware respondents then rated "Sponge" with a five-point agreement scale on standard measures of ad effectiveness, including message comprehension, relevance and potential effectiveness (see Table 3). Smoking-related

knowledge and *attitudes* were measured with true-false and five-point agreement scales. Attitudes toward the tobacco industry and support for government sponsored tobacco control campaigns and smoking bans were also measured. *Behavioral intentions and smoking-related behaviors* in the two months prior to the survey were also measured; these included frequency of thoughts about the harms of smoking, interpersonal communication about the harms of smoking, attempts to quit and intentions to quit in the future. Finally, knowledge of the quitline and how to use it were also measured.

Quitline and Gross Rating Points

In addition to the survey data, data was drawn from two additional sources to determine the effectiveness of the campaign. First, the Ministry of Health monitored the number of calls to its national quitline in the two months prior to the campaign and up to the conclusion of the campaign. Second, a media monitoring company calculated the campaign's Gross Rating Points (GRPs, also referred to as Target Audience Rating Points), which is the product of the percentage of the audience exposed to an ad and the frequency of their exposure; it is a measure used by media planners to gauge the delivery of their campaign.

Data Analysis

Survey data were weighted by sex, age and urbanization, to adjust for non-response and sampling biases. Campaign effect was measured in before-after tests of participants' knowledge, attitudes and reported behaviors. T-tests were used to compare means, and chi-square tests were used to compare proportions. Additionally, knowledge, attitudes and behavioral items, were dichotomized, and logistic regression analyses were performed on the post-campaign data, to estimate the association between campaign awareness and changes in knowledge and attitudes. These models were performed for nonsmokers only since the sample size for campaign-aware smokers was small ($N<50$). Covariates included age, gender, locality, socioeconomic status and television usage. Among smokers, rates of change in quit attempts during the post-campaign period were calculated and applied to Senegal's census data to calculate any increases in the number of Senegalese people who intended to quit after the campaign. Finally, volume of calls to the national quitline was calculated in the two months prior to the launch of the "Sponge" campaign and up to its conclusion and was plotted against data on media weight (GRPs) during the duration of the campaign.

Results

Campaign Awareness

There was a significant increase in recall of anti-smoking messages from the baseline to the post-campaign period (21% vs. 63%, $p<0.05$). Category-cued recall of "Sponge" was 33% in the total post-campaign sample and was significantly higher among smokers (44%) than nonsmokers (31%). Of the total respondents, 66% accurately named the "Government" or the "Ministry of Health" as the sponsor of the advertisements. There was also a significant increase in recall of news stories on the harmful health effects of smoking (36% vs. 20%, $p<0.05$) and in support of tobacco control laws/policies (27% vs. 11%, $p<0.05$).

When presented with campaign stimuli, recognition of "Sponge" (hereafter referred to as "campaign awareness") was 63% in the total post-campaign sample. Campaign awareness was greater in urban areas, among smokers, among respondents with higher socioeconomic status and among parents of children

under age 16 (see Table 2). Of the campaign-aware respondents, 87% recognized the campaign from television, 31% from radio and 15% via outdoor billboards. The key takeaway messages that were most often recalled were that smoking causes the buildup of tar in people's lungs, smoking causes illness and smoking causes lung disease.

Message Appraisal and Self-Reported Reactions

The ad received high ratings from all campaign-aware respondents (see Table 3). Reactions were similar among smokers and nonsmokers, with the exception that campaign-aware smokers were significantly more likely than nonsmokers to say that the ad made them uncomfortable. Campaign-aware smokers reported that the ad influenced their smoking-related behaviors, which included an increased likelihood to quit and intentions to avoid exposing others to secondhand smoke (Table 3). Finally, the campaign generated interpersonal discussion: Smokers were more likely than nonsmokers to discuss the ad with others, and nonsmokers were more likely than smokers to persuade others to quit smoking.

Knowledge and Attitudes Toward Smoking

Among nonsmokers, from the baseline to the post-campaign period there was a significant increase in knowledge that smoking harms nearly every vital organ and causes heart disease and infertility (Table 4). Among smokers, from the baseline to the post-campaign period, there was a significant increase in knowledge that smoking causes serious illness. Knowledge of the harmful effects that smoking has on the lungs was already high at the baseline and there were no further changes. In the post-campaign period, campaign-awareness among nonsmokers was associated with significantly increased knowledge that smoking causes lung cancer (aware=99% vs. unaware=93%, Adj. OR=8.5, $p<0.001$) and heart disease (95% vs. 85% Adj. OR=2.6, $p<0.05$).

Smokers and nonsmokers demonstrated increased anti-tobacco attitudes from the baseline to the post-campaign period (Table 4). Smokers were significantly more likely to be worried for their health, to say that people important to them say that they should not smoke and to say that it would improve their health if they quit. Nonsmokers were significantly less likely to say that they would use a tobacco promotional item. Additionally, in the post-campaign data, campaign awareness among nonsmokers was associated with increased anti-tobacco industry attitudes, including increased agreement that tobacco advertising encourages young people to start smoking (Adj. OR=1.5, $p<0.05$); that the tobacco industry spokespersons mislead the public when they say tobacco is not addictive (Adj. OR = 1.6, $p< 0.05$); and of being significantly less likely to use a tobacco industry promotional item such as a t-shirt (Adj. OR = 0.6, $p<0.05$).

Secondhand Smoke Exposure and Government Policies

While knowledge of the harms of exposure to secondhand smoke was already high at baseline, after the campaign there was an additional increase in understanding and concern among respondents (Table 4). Nonsmokers indicated that they were significantly more likely to be annoyed at being exposed to secondhand smoke. There was a significant increase from the baseline to post-campaign period among smokers and nonsmokers in support for smoking bans in workplaces (99% vs. 97%, $p<0.05$) and restaurants (95% vs. 90%, $p<0.05$). Smokers and nonsmokers expressed significantly greater support for government run campaigns on tobacco control.

Cessation and Intentions to Quit

In the post-campaign period, a significantly greater number of smokers reported being persuaded by family members to quit smoking, when compared to the baseline (Table 5). While there was no significant change in smoking rates, there was a significant increase in the percentage of smokers who seriously considered quitting. The prevalence of smokers reporting that they would attempt to quit within the next month increased from 9% (95% CI 4%-14%) before the "Sponge" campaign began to 22% (95% CI 15%-29%) after it ended, a relative increase of 144% (adjusted odds ratio 2.977, 95% CI 1.373-6.456; $p<0.05$). Application of change rates to Senegal's census data suggested that an estimated 87,490 (95% CI 33650-141330) additional smokers in Senegal attempted to quit within the next month.

Quitline Calls

There was a significant increase in awareness of the quitline and self-reported calls to the quitline during the campaign period (Table 5). This was corroborated by data from the quitline that showed a significant increase in calls (see Figure 1a): 1,625 calls were received during the campaign period compared to the 236 calls that were received during the two months before the campaign. The volume of calls to the quitline closely mirrored the intensity of the "Sponge" television spots, peaking on April 2 and on May 31, the two most intense days of media activity (Figure 1b).

Discussion

"Sponge" was the first national tobacco control mass media campaign to air in Senegal. The campaign had significant reach: a third of Senegalese adults had top-of-mind awareness of the campaign and 63% of people recalled the campaign when prompted. The campaign communicated the intended message about the harms smoking causes to the lungs. Campaign-aware respondents reported that the message was understandable, believable and made them stop and think.

The hard-hitting nature of the advertisement generated concern and discomfort, particularly among smokers. This finding is consistent with psychological theories of behavior change [13]. When faced with unpleasant information, people experience discomfort–in this case, smokers who were directly affected by the information in "Sponge" experienced significantly greater discomfort than the average nonsmoker. To alleviate the discomfort, people may be compelled to reject the unpleasant information, but if it is also perceived as credible and relevant, then they are more likely to be encouraged to adopt an adaptive response [14]. Indeed, campaign-aware smokers and nonsmokers rated "Sponge" as not only causing discomfort, but also as being relevant. Subsequently, 70% of campaign-aware smokers reported that they were now more likely to quit. Importantly, 86% of campaign-aware nonsmokers said that it motivated them to not smoke, underscoring the manner in which hard-hitting mass media campaigns not only promote cessation, but can also help prevent the uptake of tobacco.

At baseline, population-level knowledge about tobacco harms was already high but there were a few significant improvements after the campaign, particularly in relation to the knowledge that smoking causes serious illnesses. A greater number of attitudinal shifts were observed. Consistent with the self-reported discomfort generated by "Sponge," smokers in the post-campaign period reported an increased worry about the harm that smoking may be causing their bodies and an increased belief that quitting would

improve their health, when compared to the baseline period.

Social attitudes that were increasingly unfavorable toward tobacco use were observed, particularly among nonsmokers. Smokers in the post-campaign period were more likely to report social pressure against smoking than in the pre-campaign period. Nonsmokers expressed an increased annoyance with others' smoking and greater anti-tobacco industry sentiments, including an increased belief that tobacco advertising encourages young people to start smoking.

Additionally, there was a significant increase in knowledge about the harms of secondhand smoke exposure, along with support for smoke-free bans and for government campaigns on tobacco control. These data offer insight to how tobacco control mass media campaigns may affect not only individual knowledge levels about tobacco, but also influence social norms and public support for government tobacco control policies.

The "Sponge" campaign was associated with increased interpersonal communication and thoughts about smoking and health. A significantly greater number of smokers in the post-campaign period reported being persuaded by their family members to quit, when compared to the baseline. In addition, 72% of campaign-aware smokers discussed the ad with others. Interpersonal communication is an important outcome of mass media campaigns and can play a significant role in the process toward tobacco cessation [11,15]. Hard-hitting ads like "Sponge" have been found to generate discomfort and strong emotions, which helps foster discussion and interpersonal pressure to quit. Higher levels of interpersonal pressure have been associated with increased thoughts about quitting, intentions to quit and overall likelihood of quitting [15].

Indeed, following the "Sponge" campaign, there was an increase in cessation-related thoughts and actions. Smokers in the post-campaign period was significantly more likely to think about quitting and to resolve to quit within the next month, than those in the baseline. The rate of change indicates that the campaign resulted in 87,490 more smokers intending to quit within the next one month as a result of the campaign. This was corroborated by quitline activity: not only did calls to the quitline increase during the campaign period, but they also mirrored the levels of exposure of the campaign—increasing in number during the period when the media campaign was also intensified.

One of the limitations of the study was the relatively small sample of smokers. While a trend toward increased quit attempts in the post-campaign period compared to the baseline was observed, this did not achieve statistical significance due to the small sample size. However, data from other indicators, including the increased volume of calls to the quitline, suggests that in fact the trends observed among smokers may have been meaningful. Second, it is possible that there may have been a positivity bias in participant responses as indicated by the significant increase in knowledge on issues not related to the campaign, such as the link between smoking and infertility and heart disease. Although such positivity biases in the responses of study participants in Senegal have been observed before [16], it appears unlikely in this study since such positivity was not observed across all items, particularly those pertaining to cessation. An alternate explanation for these unanticipated changes in knowledge may be found in the nature of mass media campaigns, which can have direct and indirect effects on tobacco knowledge, attitudes and behaviors [10,17]. Through generating conversations and news stories (25 news articles directly mentioned the cam-

paign), the "Sponge" campaign may have highlighted related issues in tobacco control. Third, it is possible that other unknown factors may have influenced the temporal results obtained. While it may not be possible to completely discount these alternate influences, there are several reasons that bolster the role of the campaign: first, there was triangulation and consistency in findings across multiple indicators, suggesting campaign impact. In particular, the increased worry, discomfort and concern observed in campaign-aware respondents was compatible with observed population-level increases in disapproval of smoking, interpersonal communication about smoking harms and increased intentions to quit and calls to the quitline. Finally, however, the near mirror trends between calls to the quitline and campaign activity suggests that exposure to the campaign was indeed responsible for the positive outcomes reported in this paper.

The first national tobacco control mass media campaign in Senegal, "Sponge," had significant reach and achieved many of its desired outcomes. Mass media campaigns serve to not only educate, but to also change social norms [17]. This is particularly important in countries like Senegal where smoking prevalence is relatively low and where preventing future smoking is as important as encouraging those that currently smoke to quit. "Sponge" achieved this by increasing worries about smoking, generating greater interpersonal conversation and creating greater pressures to quit. Among nonsmokers, the campaign helped foster greater anti-tobacco industry attitudes, annoyance about being exposed to others' smoking and resolve to avoid smoking. Among all survey adults, support for government tobacco control programs increased. Among smokers, intentions to quit and calls to the quitline increased during the period of the campaign. The results of this study suggest that hard-hitting national campaigns in countries in Africa can effectively secure desired public health outcomes and support government initiatives in tobacco control—and that they should be part of any national tobacco control strategy.

Authors' Contributions

Nandita Murukutla: Study and questionnaire design; oversight of evaluation field activities; design and direction of data analysis; data interpretation; literature review; writing of this paper.

Rebecca Perl: Study design; participation in data analysis plan; data interpretation; literature review; review and contribution to the writing of this paper.

Jieling Miao: Data analysis and data interpretation; preparation of tables; review and editing of this paper.

Roshan Dauharry: Oversight of fieldwork; analysis and data interpretation.

Stephen Hamill: Oversight of fieldwork; participation in data analysis plan; review and contribution to the writing of this paper.

Sandra Mullin: Study design; participation in data analysis plan; review and contribution to the writing of this paper.

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Conflicts of Interest

None of the authors have any competing financial interests. There are no other conflicts of interest.

Role of Funding Source

The impact evaluation was supported by a grant from the Bloomberg Philanthropies to World Lung Foundation. However, Bloomberg Philanthropies was not involved in any aspect of the evaluation study or the writing of this manuscript. The authors have not been paid to write this article.

Ethics Board Review

Prior to participation, the study was described to all participants and their formal consent to participate was sought. The questionnaire was administered only to respondents who agreed to participate in this research. As an ESOMAR member, ORG-Nielsen complies with the professional and ethical standards of ESOMAR International Code of Marketing and Social Research Practice.

Data Sharing

Extra data is available by emailing Nandita Murukutla at nmurukutla@vitalstrategies.org.

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Table 1. Sample demographics by weighting status and survey wave.

	Unweighted Data		Weighted Data	
	Baseline	Post-campaign	Baseline	Post-campaign
Demographics	*N*=1107	*N*=1097	*N*=1107	*N*=1097
Male	60%	61%	49%	49%
Mean Age	30	30	30	30
Urbanization				
Urban	45%	45%	43%	43%
Suburban	0%	0%	0%	0%
Rural	55%	55%	57%	57%
Socioeconomic Status				
Low	5%**	7%	5%**	7%
Medium	49%	53%**	49%	55%**
High	46%	40%	46%	38%
Smoking Status				
Smokers	14%	16%	12%	12%
Former Smoker	6%	6%	5%	7%
Nonsmokers	81%	78%	83%	81%
Number of cigarettes smoked weekly (average)	60	63	61	63
Parental Status				
Parents of children under age 16	50%	51%	49%	49%
Area				
West	34%	34%	35%	35%
Center	28%	27%	28%	28%
North	19%	19%	19%	19%
East	6%	6%	6%	7%
South	14%	14%	11%	11%

*Indicates statistically significant chi-square at p=0.05 **Indicates statistically significant chi-square at p=0.01

Table 2. Demographic characteristics of campaign aware and unaware respondents in the post-campaign survey

	Aware	Unaware
Demographics	*N*=684	*N*=413
Gender		
Male	52%	45%
Female	48%	55%*
Mean Age	30	31
Socioeconomic Status		
Low	48.5%	20.9%
Medium	49.6%	64.8%**
High	1.9%	14.3%
Smoking Status		
Smokers	14.2%	9.0%
Former Smoker	5.8%	9.2%
Nonsmokers	80.0%	81.8%*
Parental Status		
Parents of children under age 16	49.9%	55.0%*
Urbanicity		
Urban	55.8%	21.1%
Suburban	0%	0%
Rural	44.2%	78.9%**
Area		
West	45.3%*	17.9%
Center	19.4%	42.9%
North	20.2%	16.9%
East	5.1%	8.7%
South	9.9%	13.6%

Table 3. Message appraisal and self-reported reactions to the PSA as a result of campaign awareness by smoking status

Ratings of Effectiveness	Total	Smoker	Nonsmoker
Bases	*N=684*	*N=97*	*N=587*
The ad was easy to understand (% agree)	97%	94%	97%
The ad made me stop and think (% agree)	96%	92%	96%
The ad provided new information to me (% agree)	95%	91%	95%
The ad was relevant to me and my life (% agree)	87%	86%	88%
The ad made me feel uncomfortable (% agree)	51%	77%**	47%
[If a smoker] The ad made me feel concerned about the effect of my smoking on my health (% agree)	90%	90%	-
[If a smoker] Made me more likely to quit (% yes)	70%	70%	-
Say anything about the ad or discuss the ad with others (% yes)	64%	72%	63%
Tried to persuade others to quit smoking (% yes)	57%	47%	58%*

Table 4. Changes in knowledge and attitudes toward smoking among smokers and nonsmokers

	Total		Smoker		Nonsmoker	
	Pre	**Post**	**Pre**	**Post**	**Pre**	**Post**
Bases	*N=1107*	*N=1097*	*N=133*	*N=135*	*N=973*	*N=962*
Knowledge About Smoking Harms (% yes)						
Serious illness	98%	99%*	95%	99%*	99%	99%
Smoking harms every vital organ in a smoker's body	93%	95%*	88%	90%	94%	96%*
Lung diseases other than cancer	96%	97%	96%	99%	96%	97%
Lung cancer	96%	97%	93%	96%	96%	97%
Heart disease	89%	91%*	88%	90%	89%	92%*
Infertility	59%	68%**	56%	66%	60%	68%**
Stroke	66%	67%	65%	68%	66%	67%
Damage to the brain	62%	62%	59%	59%	63%	62%
Attitudes Toward Smoking (% agree)						
I am worried that smoking is damaging my health.	93%	99%*	93%	99%*	-	-
The people important to me believe that I should not smoke.	93%	99%*	93%	99%*	-	-

It would improve my health if I quit smoking.	94%	99%	94%	99%*	-	-
I am concerned for my health when someone is smoking near me.	92%	92%	64%	67%	96%	96%
Has smoking already done any harm to your body?	-	35%	-	26%	-	-
Attitudes Toward the Tobacco Industry (% agree)						
Would you ever use a tobacco promotional product (like a t-shirt)?	31%	21%	37%**	33%	30%**	20%
Tobacco advertising encourages young people to start smoking.	76%	78%	60%	70%	78%	79%
The tobacco industry spokespeople mislead the public when they say tobacco is not addictive.	57%	56%	56%	59%	57%	56%
Attitudes Toward Secondhand Smoke						
Exposure to smoke from another person's cigarette (or passive smoking) harms the health of children who breathe it.	98%*	96%	98%	94%	98%	96
Exposure to smoke from another person's cigarette (or passive smoking) causes serious illnesses in nonsmokers.	95*	92%	90%	86%	96%	93
Exposure to smoke from another person's cigarette (or passive smoking) harms every vital organ in a nonsmoker's body.	87%	84%	80%	77%	88%	85
How annoying do you find other people's smoking?	91%	94%*	50%	60%	96%	98%*
Support for government run information campaigns on smoking and health (% support)	81%	91%*	65%	76%*	83%	93%*

Table 5. Cessation and intentions to quit at baseline and post campaign

	Waves	
	Pre	Post
Base	*N=133*	*N=135*
Frequency of thoughts about smoking harms in the prior two months		
Think about the harm my smoking might be doing to people around me	89%	94%
Think about the harm my smoking might be doing to me	90%	93%
Interpersonal communication about quitting in the prior two months		
Discuss smoking and health at home	79%	82%
Anyone in the house tried to stop you from smoking	58%	73%*
Behavioral intentions and quit attempts in the prior 2 months		
Seriously consider quitting	79%	93%*
Intend to quit within the next 1 month	9%	22%*
Tried to stop smoking	39%	45%
Smoke fewer cigarettes now than 2 months ago	49%	43%
Likelihood of being able to stop permanently	94%	91%
Quitline services		
Knowledge of the quitline service	1%	14%**
Called the quitline	0%	11%

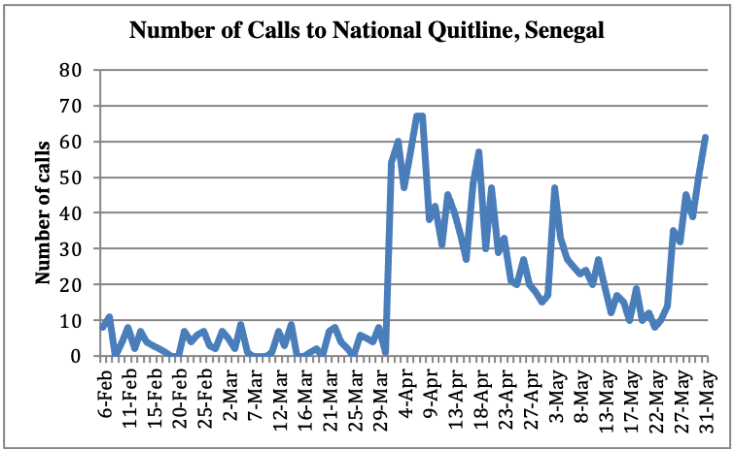

Figure 1a. Number of calls to national quitline before and after campaign

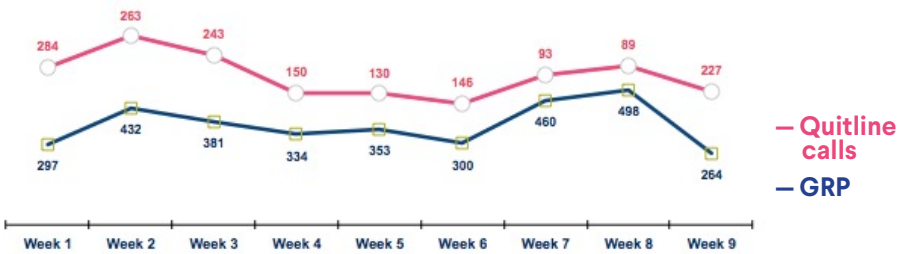

Figure 1b. Comparison of quitline calls and intensity of the television advertisements