

Maximizing the Impact of Digital Media Campaigns to Promote Smoking Cessation: A Case Study of the California Tobacco Control Program and the California Smokers' Helpline

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Abstract

Background and Purpose: Digital media (e.g., banner ads, video ads) is often used to encourage smoking cessation by increasing quitline call volume through direct promotion to smokers or indirect promotion through smoker proxies. This process evaluation study highlights the use of digital media in a proxy-targeted campaign to promote the California Smokers' Helpline to health care professionals. **Methods:** Data were collected from October 2009 to September 2012. We describe the iterative development of the campaign's digital media activities and report campaign summaries of web metrics (website visits, webinar registrations, downloads of online materials, online orders for promotional materials) and media buy (gross impressions) tracking data. **Results:** The campaign generated more than 2.7 million gross impressions from digital media sources over three campaign waves. Online orders for promotional materials increased almost 40% over the course of the campaign. **Conclusion:** A clearly defined campaign strategy ensured that there was a systematic approach in developing and implementing campaign activities. It also ensured that lessons learned from previous waves were incorporated; one lesson included the frequent rotation of new ad content to keep the target audience engaged.

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Introduction

In 2012, 81% of adults in the United States used the Internet, and 72% of those reported using the Internet to search for health information in the past year (Fox & Duggan, 2013). In 2004, an estimated 7%, or 8.4 million US Internet users reported having searched online for information about smoking cessation (Fox, 2005). In response to this widespread use and availability of the Internet, public health programs have used health-related websites to communicate health information, promote their programs, and deliver innovative behavior change interventions (Crutzen, Roosjen, & Poelman 2013; Walters, Wright, & Shegog, 2006). For example, as of March 2012, 48 of 53 state tobacco cessation

programs in US states or territories sponsored smoking cessation websites. Of these cessation sites, over 79% offered self-help tools, and over 70% offered interactive cessation counseling online (North American Quitline Consortium, 2012).

Using Digital Media Campaigns for Smoking Cessation

Use of digital advertising (emails, web pages, banner ads, text messages, interactive voice recordings, hand-held computers and digital TV) is a type of innovative promotional strategy that has an increasingly important role in the future of smoking cessation campaigns because of its advantages over traditional advertising approaches (Brendryen & Kraft, 2008). Some of the advantages are that digital media channels

are anonymous, are able to handle a virtually unlimited volume of participants, are available 24 hours per day, are available for repeat use and are able to tailor information to users' needs (Cline & Haynes, 2001). Because of these advantages, digital media has the potential to enhance the reach and cost-effectiveness of smoking cessation interventions (Strecher, 1999; Walters, Wright, & Shegog, 2006).

Innovative promotional strategies, including digital advertising and websites, are often used by State tobacco control programs (TCPs) in population-based smoking cessation interventions to increase quitline call volume by directly targeting consumers (i.e., smokers who are interested in quitting or recent quitters looking for assistance to stay abstinent). TCPs may also indirectly increase quitline call volume among smokers by targeting messages to smoker proxies (e.g., health care providers, friends or family of smokers) (Zhu, 2006; Brockman, 2012). However, when using the Internet in media campaigns, public health programs may face a variety of challenges, including limited time and resources.

While advertising delivered to users through digital media may have desirable characteristics, the Internet is also a diverse environment with a lot of competing content that can make it challenging for public health programs to know which websites will reach target populations with cessation messages (Kohl, 2013). Thus, some public health programs may struggle to increase or maintain traffic to their websites. These difficulties may potentially be compounded by the fact that many programs lack sufficient time and resources (staff or monetary) to direct and sustain visitor traffic to their websites. In addition, some programs do not identify specific target audiences for their websites or explicitly define measurable objectives. As a result, a formal evaluation of online media campaigns may not occur, and testing the efficacy of such interventions is rare (Japuntich et al., 2006). Without widespread evaluation of online health promotion or tobacco cessation interventions there is limited published research to guide the development and

implementation of new tobacco control efforts that use digital media.

The California Tobacco Control Program and the California Smokers' Helpline

The California Tobacco Control Program (CTCP) supports a free, statewide, smoking cessation telephone service known as the California Smokers' Helpline (1-800-NO-BUTTS). The California Smokers' Helpline is operated by the University of California, San Diego Moores Cancer Center and has been in service since 1992. Services provided by the Helpline include self-help materials, referrals to local programs and individual telephone counseling offered in a variety of languages (e.g., English, Spanish, Cantonese, Korean, Mandarin and Vietnamese). The Helpline also offers specialized services for teens, pregnant women, the deaf and hard of hearing, and smokeless tobacco (chew) users; as well as information for proxy callers, such as friends or family of tobacco users.

Similarly, the Helpline website offers tailored information for smokers, smokeless tobacco (chew) users, and health care professionals. The website is accessible by two separate URLs (www.NoButts.org and www.CaliforniaSmokersHelpline.org), and allows tobacco users to register for telephone counseling, view online cessation information, download fact sheets about topics such as nicotine addiction and the health benefits of quitting smoking, and access local resources for quitting smoking.

Research Purpose

This study describes the promotion efforts of a California Smokers' Helpline campaign to target health care professionals with cessation messaging. The campaign relied heavily on digital media during the three waves of the promotion. As a proxy-targeted campaign, it was expected to reach health care professionals who serve smokers to provide training and materials. Over the course of the campaign, campaign staff developed a set of lessons learned, reported below, to guide future efforts. This information may help TCPs to better understand the methods, costs and benefits of this approach.

Table 1

Strategy Summary for Each Wave of the Campaign

	2009-2010	2010-2011	2011-2012
Schedule	Oct 2009 to Jun 2010	Nov 2010 to Sept 2011	Feb 2012 to Sept 2012
Objectives	<ol style="list-style-type: none"> Increase awareness among California’s health professionals of the free services offered by the California Smokers’ Helpline Motivate health professionals to refer patients who smoke to the Helpline 	<ol style="list-style-type: none"> Increase awareness among California’s health professionals of the free services offered by the California Smokers’ Helpline Motivate health professionals to refer patients who smoke to the Helpline 	<ol style="list-style-type: none"> Increase awareness among California’s health professionals of the free services offered by the California Smokers’ Helpline Motivate health professionals to refer patients who smoke to the Helpline
Target audience	<ul style="list-style-type: none"> Physicians Nurses or nurse practitioners Physician assistants Pharmacists 	<ul style="list-style-type: none"> Physicians Nurses or nurse practitioners Physician assistants Pharmacists 	<ul style="list-style-type: none"> Physicians or psychologists Psychiatric nurses Clinical social workers Therapists or drug and alcohol counselors
Call-to-action	<ul style="list-style-type: none"> Ask, Advise, Refer to 1-800-NO-BUTTS 	<ul style="list-style-type: none"> Ask, Advise, Refer to 1-800-NO-BUTTS Order free materials 	<ul style="list-style-type: none"> Talk to patients or client about quitting Visit www.nobutts.org for training or materials Refer patients/clients to 1-800-NO-BUTTS
Media channels	<ul style="list-style-type: none"> Print Digital Direct mail Fax 	<ul style="list-style-type: none"> Print Digital Direct mail Fax 	<ul style="list-style-type: none"> Print Digital Direct mail
Evaluation criteria	<ul style="list-style-type: none"> Number of calls referred by health care providers Number of visits to health care provider subpage of www.nobutts.org 	<ul style="list-style-type: none"> Number of calls referred by health care providers Number of visits to health care provider subpage of www.nobutts.org Number of orders of Helpline promotional materials 	<ul style="list-style-type: none"> Number of calls referred by health care providers Number of orders of Helpline promotional materials Number of new contacts who download online material Number of webinar registrants

Methods

Background

With direction from CTCP, the California Smokers’ Helpline created and implemented a communications campaign each year over three waves from October 2009 to September 2012; the campaign targeted health care providers throughout California. Each wave was designed

to increase awareness of Helpline services among health care professionals and encourage them to refer patients to the Helpline. Each wave began with a clearly defined strategy that guided both the development and implementation of campaign activities. The strategies included campaign goals and objectives, target audience, offers, call-to-action, media channels and evaluation criteria (Table 1).

Target Audience

Although the long-term goal was to increase calls from smokers to the Helpline, there was a focus on proxies to reach smokers. These proxies were health care professionals who were positioned to refer smokers to the Helpline through their interactions with smokers. The first two waves focused on a general clinician audience (i.e., physicians, physician assistants, nurses and pharmacists) with the *Ask, Advise, Refer* message, based upon the Helpline's scope of work with CTCP. The focus shifted to behavioral health professionals in the third wave based on demand from Helpline constituents and on the body of evidence about the importance of treating tobacco dependence among smokers with behavioral health issues (Guydish 2011; Baca 2009; Lasser 2000).

Implementation

Once the target audiences were selected, the campaign objectives, core message, offers and call-to-action were defined. During the first two waves this information was used by the CTCP to develop ad concepts. The Helpline then worked with an advertising consultant to develop a media plan. In the third wave, the Helpline provided the campaign strategy to an advertising consultant who developed ad concepts and recommended a media plan to focus on behavioral health professionals.

With each wave, the media channels and creative content were evaluated before the launch of campaign activities. Online concept testing was conducted using an online survey among members of the target audience, including physicians, nurses, physician assistants, nurse practitioners and behavioral health professionals. Concept testing was used to gauge receptivity to potential creative concepts and to identify appropriate media channels for reaching them. During the first wave, paid online testing was administered to a group of 90 physicians and nurses in California by the California Tobacco Control Program Evaluation Unit. In the second and third wave, unpaid online testing was administered by the California Smokers Helpline Communications Department. The second wave was tested with a group of 57 physicians, nurses and physician

assistants in California while the third wave was tested with 136 behavioral health professionals nationwide. Results of analyses of these data were used to select ad concepts and media channels for each campaign. Data reported during the first and second campaigns were also used to guide the selection of ad concepts and media channels for subsequent campaign waves.

The most significant changes in campaign strategies were fueled by a general trend in marketing away from traditional media (print ads and direct mail) and toward online media such as web banner ads and e-blasts (an email message that is sent to many recipients) (Frank 2000). Accordingly, the Helpline provider campaigns increasingly relied on the use of digital media, development of compelling online content and use of more specific metrics.

In the first wave, ads were concentrated in print channels, including specialty academic journals and professional publications catering to the target audience. Ads were run in six print publications: *California Family Physician*, *California Academy of Physician Assistants News*, *California Journal of Health-Systems Pharmacists*, *The Diabetes Educator Journal*, *New England Journal of Medicine* and *NurseWeek*. In addition, direct mail was sent to 22,764 members of professional organizations, including the California Academy of Family Physicians, California Primary Care Association and California Society of Health-System Pharmacists. Mailing lists for the direct mail efforts were obtained from the California Primary Care Association and from some of the academic journals as part of the media buy. Digital ads were part of the initial campaign activities and appeared on websites, in e-blasts and e-newsletters associated with professional associations such as the California Medical Association and the California Academy of Family Physicians. In the second and third waves, digital advertising became a larger part of the media mix. The second and third waves continued to feature digital ads appearing on websites, in e-blasts and e-newsletters associated with organizations but with greater emphasis than the first wave.

Sample Measures and Data Collection

The marketing automation program utilized by the California Smokers' Helpline enabled the creation and tracking of over 50 unique landing pages (the web page that appears in response to clicking a URL link), separate from the Helpline website, for each offer of online information. These landing pages were in turn linked to specific ads associated with each media channel (i.e., print, web, email or direct mail). Each landing page included a lead submission form, or contact information form, that had to be completed by the website visitor before they were allowed to view or download information. The form captured, segmented, and stored contact information as well as traffic source (e.g. organic search, direct traffic, email marketing) for each lead that could be used for tracking and follow-up. Additional summary data such as number of visits or downloads, gross advertising impressions (the potential number of instances that an advertisement could have been viewed) and click-through-rates (the number of times a click is made on the advertisement divided by the total impressions) were analyzed. These data were provided from various internal and external sources: advertising publications (number of impressions and click-through-rates), Google Analytics™ web analytics service (website visits and traffic sources), HubSpot™ (number of downloads of free materials), Adobe Connect™ (number of webinar registrations) and the Helpline online order form (number of orders of promotional materials by behavioral health professionals, including those affiliated with mental health and chemical dependency treatment programs).

Campaign summaries were created at the end of each campaign wave that described the efforts and reported summary tracking data generated during each wave. These campaign summaries and source data were used to construct the present descriptive case study (Sandelowski, 2000) of the use of online media by the California Smokers' Helpline to target health care professionals.

Analyses

We describe data from the three campaign waves that ran from October 2009 – June 2010, November 2010 – September 2011 and February 2012 – September 2012. Process data that tracked campaign activity performance was increasingly available in the second and third waves because of improvements in tracking short-term outcomes during and immediately following each wave. Frequencies were collected on the number of impressions, downloads, website visits, webinar registrations and orders for materials in addition to digital ad click-through-rates. In addition to the online materials and webinars, print promotional materials were offered throughout each wave to health care professionals as a resource when referring smokers to the Helpline. Starting in the third wave, campaign staff began collecting information on each order to specifically track the effectiveness of each wave in generating orders, particularly from the target audience, by tracking the percent increase in orders between waves.

Results

Campaign Responsiveness to the Challenges of Digital Media

Although each campaign wave strategy was well defined, they were not rigid from one wave to the next. This was demonstrated by the evolving calls-to-action, offers, media channels and evaluation criteria that changed with each wave. For example, when implementing the first wave, staff discovered that digital media were more cost-effective than print, with a cost per impression of about \$0.07 for digital media, compared to \$0.37 for print. This led the second and third waves to focus more on digital media. In addition, metrics for digital media were easily measured by using the sources described previously; however they also posed several challenges. Staff responded to these challenges as they implemented the digital media components of the campaign, resulting in several lessons learned.

Maintaining Interest in Ad Content

With the increased emphasis on digital advertising it became more important to develop new and compelling online offers to entice viewers to click on the ads. A key challenge was that digital ad performance, measured by using click-through rates, tended to decline over time unless new ad content was used. For example, a monthly e-blast used the same digital ad during the 2010–2011 campaign. The ad initially performed above industry average click-through-rates of 0.20% to 0.30% (Public Media Interactive, 2012) with a click-through-rate of 0.35%, but the performance gradually declined during the six-month course of the campaign to a click-through-rate of 0.21%. In response, staff changed the campaign activities to include the ongoing development of new creative content (see Figure 1 for examples) and offers, such as online kits of downloadable information, live webinars and recorded webinars, to sustain the click-through-rate throughout the campaign period. For example, the click-through-rate for an e-blast that was a part of wave 3 remained strong (range 0.40% to 0.83%) when the ad content and messages were rotated monthly. Starting with wave 3 of the campaign, a series of webinars and online promotional materials about mental health and substance abuse were offered during the campaign to keep it fresh, compelling and relevant to the target audience.

Monitoring Proxy-Targeted Campaigns

One characteristic of proxy-targeted campaigns, like the one described here, is that it may take more time for campaign activities to affect the outcomes of interest. Unlike advertising directly to consumers, reaching out to health care providers to refer patients to the Helpline is indirect and may take more time before any resulting changes in call volume are realized. Furthermore, although general referral sources are tracked during Helpline caller intake, specific sources are not, making it difficult to link calls to specific campaign activities.

Because of the challenges of attributing consumer calls to specific media campaigns, short-term indicators were monitored during each campaign. These non-call volume metrics

initially focused on general measures, such as media impressions and website visits, and evolved over time to more specific measures such as the number of downloads, website visit traffic sources, digital ad click-through-rates, webinar registrations, orders for materials and other actions that could be readily measured.

The campaign’s three waves resulted in more than 2.7 million gross impressions from digital media sources (Table 2). During the wave 1 campaign, digital marketing activities were responsible for about 10% of gross advertising impressions and increased to about 80% for the wave 3 campaign. In 2011, a marketing automation program was purchased that allowed for the creation of unique landing pages with lead (or contact) capture forms for each offer of online information. In turn, these landing pages were linked to specific ads associated with each media channel (i.e., print, web, email and direct mail). This linking enabled easier and more accurate tracking of the number of new leads or contacts acquired throughout wave 3 of the campaign and better assessment of the cost-effectiveness of each media channel. With marketing automation, measurement of campaign success shifted from general tracking metrics to more specific short-term outcomes, such as the number of new contacts acquired from behavioral health professionals (n=901), representing a 33% conversion of the total 2,714 visits to the site into leads providing contact information.

Table 2

Gross Impressions by Channel for each Wave of the Campaign

	2009-2010	2010-2011	2011-2012
Channel	N	N	N
Print	559,840	974,155	40,700
Digital	84,000	1,581,880	1,059,364
Direct Mail	23,000	NA	51,632

In addition to the online materials and webinars, print promotional materials were offered throughout each campaign wave to health care professionals as a resource when referring smokers to the Helpline. Campaign staff began

collecting information on each order to track the effectiveness of each campaign in generating new orders of print materials. As shown here (Table 3), orders steadily increased after the first wave of the campaign in 2010–2011. During the ordering process, data were gathered on the type of organization represented by each individual who ordered materials, which allowed assessment of campaign response by type of health care professional.

Figure 1

Examples of Creative Themes Used in Advertisements and Materials for Behavioral Health Professionals



Tracking Data

Tracking data were also adjusted to match the new activities developed for the target audience in wave 3 of the campaign. Because the focus shifted to behavioral health care professionals in wave 3, criteria such as number of orders for promotional materials by behavioral health professionals affiliated with chemical dependency or mental health treatment programs were used as indicators of response among the targeted subgroup. This refinement in focus and corresponding adjustment in tracking data show that wave 3 of the campaign was particularly

successful in reaching its target audience (Table 3). The number of promotional material orders made by health professionals working in mental health treatment programs increased by about 84% between 2011 and 2012 and orders by those working in chemical dependence treatment programs increased about 121% during the same period. These increases are both much higher than the 13% increase during this period for health professionals from all program types. These increases would have been difficult to identify without specifically tailored metrics.

Table 3

Promotional Cessation Material Orders in Wave 3 by Behavioral Health Professionals in 2011 and 2012

Orders Placed	Mental health treatment program	Chemical dependency treatment program	All Program Types
2011	31	19	949
2012	57	42	1,068
% Increase between 2011 and 2012	84%	121%	13%

Discussion

Each campaign wave’s clearly defined strategy proved essential for establishing activities at the outset and for guiding adjustments and improvements in response to challenges during the waves. Although the overall objectives were the same, some aspects varied from wave to wave as the campaign evolved and incorporated lessons learned from previous campaign waves. Staff found that ease of ongoing monitoring is one of the benefits to using digital media and allows programs to be responsive to short-term campaign outcomes. If these metrics are readily available, the campaign components can be adjusted on the basis of which activities prove most effective.

Lessons Learned

There were seven lessons learned in regard to the heavy reliance on digital media that are consistent with recent literature on use of digital

media by public health campaigns (Burke-Garcia and Scally 2014; Goldstein et al., 2013).

First, campaign staff should develop a clear strategy that includes definitions of the target audience, goals and objectives, call-to-action, media channels, offers and evaluation criteria (Goldstein et al., 2013). Establishing clear, consistent, specific and measurable evaluation criteria (e.g., the number of downloads, website visits, webinar registrants, orders of materials and other actions that can be easily measured) is important for tracking the campaign process and informing subsequent decisions.

Second, target audiences may not prefer all media channels equally. To make the most cost-effective use of media budgets, campaign staff could research and select media channels carefully on the basis of the target audiences' preferences. This sort of formative research was used when selecting websites and electronic publications to run messaging on.

Third, frequent rotation of new ad content helps to keep the target audience engaged, especially with digital media. This highlights the need to develop and test a variety of ad content for rotation throughout the campaign.

Fourth, program staff might want to consider hiring a consultant with experience developing digital ad content and buying digital media. This might be especially helpful if program staff are not experienced with digital advertising, as it continues to evolve at a fast pace and requires a specific skill set. While hiring a consultant is an additional expense, working collaboratively with digital media experts may be more efficient than spending resources for campaign staff to gain expertise in digital media.

Fifth, digital marketing vehicles vary widely among publications, but overall they lower costs, and their ease of administration increase the desirability of digital media channels over print. However, digital media may also require more investment in developing visually-appealing and engaging educational content such as online kits, videos, podcasts, webinars and tip sheets.

Sixth, it is important to identify the appropriate metrics and data sources to measure the response to campaign activities (Goldstein et al., 2013). This step might be particularly challenging for proxy-targeted campaigns. For quitline campaigns, self-reported referral sources during quitline intake calls might be necessary to link campaigns to changes in quitline call volume. The number of consumer calls referred by specific target audiences might also be used as an evaluation measure. In the case of proxy-targeted campaigns, informative non-call volume metrics (e.g., the number of materials downloaded, print materials ordered and webinar registrations) might be necessary to measure the full impact of the campaign.

The final lesson is that it might be advantageous to purchase a marketing automation program that captures contact information, tracks many key metrics in one place and improves the ability to quantify and measure progress toward specific campaign goals. Programs with limited resources may want to consider the cost-effectiveness of investing in this type of program. If equivalent or greater resources are spent tracking key metrics using other means, such a program might be worthy of investment.

Future Implications

On the basis of these experiences, campaign staff suggested several refinements to campaign activities to be considered for future years that can be used to inform similar efforts. For example, Google Analytics™ web analytics data show that search engines were an important factor in connecting smokers to the Helpline. In response, campaign staff identified a long-term goal of redesigning the Helpline website to increase search engine optimization and improve the visitors' experiences. In addition, they are considering technical upgrades to other programs to improve data capture and the ability to quantify campaign goals. These upgrades include the development of an e-commerce website for processing orders of Helpline print promotional materials, the purchase of a new webinar program and the purchase of a customer relationship management program. Social media was not directly used in this campaign, though there may be benefits for future efforts to

include social media. The goal of these improvements is to collect and integrate additional data with the marketing automation program, which will allow better capture and follow-up with new contacts and improved assessment of the effects of advertising and promotional efforts targeted to health care providers.

Limitations

A limitation of the present study is that there were no data linking call volume to campaign activities. Consequently, while data suggest that the campaign reached its target audience, we could not directly evaluate the campaign's effectiveness in increasing calls to the California Smokers' Helpline. In addition, external factors, such as the CDC Tips National Tobacco Education Campaign that began in March 2012 (Auguston et al. 2012; McAfee et al. 2013) may have influenced increases in campaign activity during the study period (e.g., orders of materials) however we cannot determine the degree to which this may have influenced our results.. This case study is drawn from the experiences of the CTCP and Helpline media campaigns and therefore may not reflect the experiences of other state tobacco control programs. Although

the conclusions from this study may not generalize to all uses of digital advertising in similar health promotion efforts, they may help guide the planning and development of such efforts.

Conclusion

Strategic data collection and monitoring is necessary to enable programs to evaluate their activities and build upon the positive programmatic outcomes. Limited scientific literature has studied the use of new media in health promotion, highlighting the need for sharing experiences from similar campaigns to those described here. These data are necessary to construct an evidence base to advance our understanding of how best to use limited resources to maximize the positive impact of digital media health campaigns.

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