

Mass Media Interventions to Stimulate and Promote Smoking Cessation

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February 7, 2007

Background

Comprehensive tobacco control programs are necessary in order to reduce tobacco use significantly across populations, so although this paper will focus on the role that mass media campaigns and other marketing elements play, it is important to note that these interventions are most successful within the context of a comprehensive tobacco control program, combining tobacco tax increases, restrictions on smoking in public places, limits on youth access to tobacco products, bans on advertising and other promotions, smoking cessation services and products, tobacco counter-advertising, and efforts to increase information about the harmful consequences of tobacco use. These interventions work synergistically to create an environment that discourages and de-normalizes tobacco use and motivates and supports smokers to quit.

A growing number of tobacco control programs around the world have conducted smoking cessation-focused mass media campaigns as part of their comprehensive efforts to reduce tobacco use, with some of these campaigns in the field for many years. These campaigns seek to build knowledge about the negative consequences of tobacco use and the resources available to aid in quitting, change attitudes and beliefs regarding tobacco use and readiness to quit, and change tobacco-related behaviors. Evaluations of these cessation campaign efforts and evaluations of the overall tobacco control programs have indicated that cessation campaigns can indeed build knowledge, change key beliefs and attitudes, increase calls to quit lines, and contribute (along with other tobacco control program elements) to overall decreases in tobacco consumption and increases in cessation among smokers.

In addition to paid mass media campaigns, other marketing interventions have been used to improve the results of smoking cessation campaigns, such as “earned” media or news coverage, public relations, grassroots efforts, communication with health care professionals, and posters, brochures, and other collateral material. Fewer of these interventions have been evaluated than paid mass media campaigns, so there is an opportunity to learn more about their results.

November 2021: NICE guidelines PH10 (February 2008) and PH14 (July 2008) have been updated and replaced by NG209. The recommendations labelled [2008] or [2008, amended 2021] in the updated guideline were based on these evidence reviews. See www.nice.org.uk/guidance/NG209 for all the current recommendations and evidence reviews.

Previous reviews relevant to this topic include the following:

- In 2006, the Institute for Global Tobacco Control at Johns Hopkins Bloomberg School of Public Health conducted a literature review on behalf of the Global Dialogue for Effective Stop Smoking Campaigns focused on lessons learned from stop smoking campaigns internationally. Global Dialogue separately conducted a review and synthesis of unpublished or “gray” literature on the same topic, and created a document drawing conclusions from both reviews called “Overview of Evidence-Based Recommendations Based on Lessons Learned from International Literature Review and Unpublished Campaign Results” (Global Dialogue for Effective Stop Smoking Campaigns, 2006; Lanigan et al, 2006).
- In 2001, the U.S. Guide to Community Preventive Services reviewed the published literature on tobacco counter-marketing (media-based efforts to counter pro-tobacco influences and increase pro-health messages and influences) and, based on its rules of evidence, strongly recommended the use of mass media campaigns, both to reduce initiation and to increase cessation of tobacco use (The Guide to Community Preventive Services, 2003).
- In 2001, CDC and WHO released a review conducted to summarize lessons learned from smoking cessation media campaigns around the world. The report provided conclusions and recommendations about targeting, message content and tone, media presence and campaign measurement. Countries included in the analysis were Australia, Canada, France, Iceland, New Zealand, Philippines, Poland, Singapore, United Kingdom, and U.S. (Schar and Gutierrez, 2001).
- The 2000 U.S. Surgeon General’s Report, Reducing Tobacco Use, summarized the current evidence of the effectiveness of counter-marketing as part of a multi-faceted tobacco control program including educational, clinical, regulatory, economic, and social approaches (U.S. Department of Health and Human Services, 2000).
- In 1998, the UK Department of Health issued a white paper called Smoking Kills that established the need for a comprehensive tobacco control program, including a significant mass media campaign to shift attitudes and change behaviour (Secretary for Health, 1998).

Methodology

The author synthesized data from published and unpublished or “gray” literature spanning the last ten years (1996-2006) to emphasize the most timely smoking cessation campaign lessons learned and experiences. Unpublished literature has been included because many key lessons learned from tobacco control programs have not yet been

published. Note that only one of the Cochrane reviews has been included in this document (Hey and Perera, 2006) because 1) the content of the other reviews falls primarily outside the scope of this paper, for example, the Cochrane review of youth tobacco use prevention interventions, and 2) analysis of several Cochrane reviews was included in the systematic review conducted for NICE in 2006 by the Cancer Care Research Centre, Centre for Social Marketing, University of Stirling and others (Cancer Care Research Centre, 2006).

Some limitations must be acknowledged in drawing conclusions about what works most effectively in smoking cessation campaigns. Because the various elements of comprehensive tobacco control programs, and even of comprehensive counter-marketing campaigns themselves, work synergistically to change key attitudes and behaviours, it is extremely difficult to isolate the impact of individual elements. The ways in which campaign researchers have tried to isolate the specific impact of mass media interventions will be addressed in more detail in the measurement section (#2), however it's important to recognize that measurements of individual program components are imperfect, particularly when trying to attribute changes in smoking prevalence to program components. In addition some measures can potentially be misleading. For example, changes in cigarette consumption can be measured before and after a campaign is executed via cigarette sales, however use of this measure alone does not take into account the possibility that smokers are compensating, or breathing in more toxins with each breath of their fewer cigarettes, even if they've been convinced to cut down the overall number of cigarettes they smoke. Further, measuring overall changes in consumption does not help distinguish between established smokers reducing the number of cigarettes they smoke and reducing uptake among non-smokers.

Overall Conclusions

The more countries, provinces and states conduct stop smoking campaigns and evaluate them the more we can learn about effective strategies for motivating smokers to try to quit. In recent years a number of countries, such as Australia, New Zealand, UK, US and Canada, conducted extensive research and evaluation of their campaigns and we are benefiting not only from their individual lessons learned but from the conclusions we can draw when we analyze their results together and look for patterns/trends. Unfortunately, we still lack sufficient data from developing countries and from many non-English-speaking countries. It's important to seek lessons learned from all parts of the world, particularly related to cultural and other differences that impact communication.

Based on the existing evidence, some of the major conclusions we can draw about smoking cessation campaigns are the following:

- In order to generate significant changes in smoking prevalence, campaigns must be part of comprehensive tobacco control programs whose various elements work synergistically to de-normalize tobacco use and support smokers in quitting and remaining smoke-free.

- While the most effective smoking cessation services are often delivered through mass media channels, the most effective materials will be developed through health professionals or can be used by mass media. Whether campaign effectiveness is measured through building knowledge, changing attitudes and beliefs, and changing behaviors when ads are aired and the number of quitline calls. Because lean quitline staff need to manage the call volume, many programs are seeking ways to generate a more consistent stream of calls, versus the spikes that occur when television ads are aired. Despite these efforts, limited numbers of smokers take advantage of available quitting resources, so more research needs to be done on how to attract more smokers to do so.
- Campaigns should also employ a variety of interventions and vehicles to ensure the broadest exposure of the messages to the target audiences and the synergy of the elements working together to create a pervasive environment supportive of quitting.
- “Why to quit” ads are often graphic or emotional, realistically showing how emotionally and/or physically painful the consequences of tobacco use can be for smokers and their loved ones. These ads typically elicit strong negative emotions that prompt smokers to want to quit immediately rather than delay their attempt until the New Year or another distant date.
- “How to quit” ads are hopeful and supportive, providing information about available resources to aid smokers in their quit attempts. They can include quitline numbers, role plays of what to expect when one calls a quitline, personal stories of smokers who quit, or other helpful information.
- Both “how to quit” and “why to quit” messages and visuals can be applied effectively to cigarette pack warnings as well. These pack warnings are another type of under-utilized marketing tool that countries can use to influence smokers to try to quit.
- The media presence or placement of the ads and other communications pieces is as important as the messages themselves. An ad with an effective message strategy executed clearly and persuasively may still not affect change if it is not aired/placed enough times or in the right environments. Effective media placement ensures that ads are seen/heard enough that they help change beliefs, attitudes and ideally behaviors.

- While paid mass media campaigns can produce significant results, many countries cannot afford to conduct them. However, mass media can still be used effectively to build awareness of tobacco-control issues and promote smoking cessation if program managers focus on generating news media coverage. News coverage, sometimes called ‘earned media’ since you earn the placements rather than pay for them through relationships with journalists and clear, timely communication, can generate community conversation around the issues, work toward norm changes, and publicize key stop smoking resources available to smokers and their families.
- Special focus should be placed on priority audiences, such as pregnant smokers (due to the risks of maternal smoking on children) and smokers of low socio-economic status (due to their very high rates of smoking). Tailored ads may or may not be more effective than general population advertisements, so audience research should be conducted to determine the optimal strategies and executions.

Key Questions Posed by NICE

1. What Are the Goals of the Various Interventions?

The overall, long-term goal of most smoking cessation *programs* is to reduce smoking prevalence, or at least reduce cigarette consumption. The more measurable and specific goal for smoking cessation *campaigns* is to motivate smokers to try to quit. Some campaigns have more specific goals, such as to prompt smokers to call a quitline, or to motivate pregnant smokers to refrain from smoking while pregnant. In addition, some campaigns designed with a goal of reducing exposure to secondhand smoke will also achieve the goal of motivating smokers to quit.

In terms of specific goals of the various smoking cessation campaign interventions, mass media are used to build overall awareness of the issue, build relevant knowledge, change attitudes and beliefs and lead to behavior change. Typically there are not individual goals for the various mass media vehicles, such as print, radio, outdoor and television; however, tactically some vehicles are better at telling emotional stories (TV followed by radio), some vehicles are better at building frequency of exposure (outdoor and radio), and some vehicles are better at explaining complicated subjects (print). Because of the differences between vehicles, typically campaigns will combine them to leverage the strengths of each one.

Other non-mass-media marketing elements are included in stop smoking campaigns when there is an interest in having higher-quality interactions with the target audience. In some cases, give-aways such as t-shirts, key chains, bibs, or other items are included at a higher cost per thousand audience members reached than mass media because the items are

thought to be a significant factor in smoking cessation. The impact of the advertising is not clear, but it is possible that the quality of the advertising could be a factor in the success of the campaign. The quality of the advertising is a factor in the success of the campaign. The quality of the advertising is a factor in the success of the campaign. The quality of the advertising is a factor in the success of the campaign.

Findings from process evaluation can be used to help diagnose what went wrong if outcome evaluation indicates little or no campaign impact, or they can be used to optimize future campaign execution. Earned media, or news media coverage, often has the same overall goal as does paid advertising, in that it can build awareness of the issue, build knowledge and sometimes change attitudes or behaviors. Often, however, earned media is used to change the overall environmental norms related to tobacco. Earned media is also used tactically to target messages to policy makers and other key decision makers who are typically avid readers/viewers/listeners of news programming.

Finally, short-term quitting competitions and other events are sometimes conducted with the goal of increasing cessation rates, but in most cases their impact on overall prevalence or consumption is difficult to measure due to the small numbers of smokers who participate. Instead, the primary goal of these events should initially be to generate news coverage and other publicity of the event in order to raise the issue among the public. If planners seek to increase cessation rates significantly, it's unlikely that the event alone will be able to achieve this—it must be combined with other elements such as strong local activists seeking/promoting local media coverage and grassroots efforts to provide cessation support in the community (Owen and Youdan, 2006).

2. Does each intervention achieve its goal(s)? How do the interventions measure success?

Although campaign managers around the world measure the effectiveness of their campaigns in different ways, there are several types of research and evaluation that can and should be used throughout the campaign development and implementation process, to optimize the likelihood that the campaign will meet its goal(s):

1. Formative Research is typically qualitative and is done to glean insights about the target audience and their relation to smoking/tobacco that will help inform development of the strategies for the campaign.
2. Formative Evaluation is sometimes qualitative, sometimes quantitative or quasi-quantitative, and is conducted to determine whether draft or rough versions of marketing pieces are likely to communicate and influence as intended. Doing this research helps ensure that ineffective ads/materials are not fielded, and leads to optimizations and finalization of the campaign materials.

4. Outcome Evaluation is often quantitative, but sometimes quasi-quantitative, and assesses whether the campaign achieved or made progress toward its goals over time (via a pre and one or more post surveys). It measures whether the target audience increased their awareness of the issue or gained key knowledge, and whether they changed attitudes or behaviors as desired. Findings from outcome evaluation inform future campaign development and refinement. They also help determine the strengths and weaknesses of the communications campaign. For example, if the ads built awareness and knowledge but did not lead to attitude changes, perhaps they weren't persuasive enough. Or if the ads changed attitudes but not behaviors, perhaps more time is needed to see behavior changes. If changes in behavior don't occur more than six months after changes in attitudes, perhaps the "offer" or what the campaign is asking them to do isn't compelling enough.

All of the major programs across the globe with smoking cessation campaigns (Australia, Canada, France, Norway, New Zealand, UK, US) use some combination of these types of research, and all use similar outcome evaluation tools. Also important to note is that virtually all smoking cessation programs use calls to their quitlines as a key measure of their campaigns' success. While it is an excellent short-term measure, it is not perfect because it doesn't fairly assess the complete impact of the ads. Department of Health England found that although some of their ads didn't prompt high levels of quitline calls, the ads did change important attitudes and beliefs related to tobacco use (J. Webb, personal communication, April 2006; BMRB, 2004). US/California found the same with some of their ads, particularly ads about the dangers of secondhand smoke and about industry deceptive practices, but also some ads about health consequences of tobacco use, such as the "Debi" testimonial ad (C. Stevens, personal communication, May 2006). Furthermore, although evidence suggests only 1-5% of smokers typically call a quitline (J. Webb, A. Feltracco, L. Bailey, personal communication, June 2006), many smokers who are moved by ads try quitting on their own (McAlister et al, 2004; C. Stevens, personal communication, May 2006).

In terms of how various elements of campaigns are measured, typically the impact of major mass media ads (TV, print, radio, outdoor) is measured through cross-sectional tracking studies. Typically the surveys are conducted over the phone or in-person (malls or other public sites), however some programs have recently been using online surveys and are satisfied with the method (A. Mowery, C. Stevens, personal communication, April-May 2006). Sometimes campaign tracking surveys contain questions about other campaign elements such as events, give-aways, and news reports, but penetration of these collateral elements is often not significant enough to be detected in quasi-quantitative or quantitative surveys. Often process measures are used instead, to at least determine the number of people reached by these efforts. For more in-depth understanding of the impact that news media efforts may make, tracking and analyzing news media coverage is recommended. Media analyses can determine not just how many news articles were

written/aired and how many people were reached but also the quality of the news stories, the slant, the accuracy, the placement and length of the stories, and other important aspects of the delivery.

In terms of whether campaigns meet their goals, there are not enough studies done to make this assessment in all cases, but in general, the countries and U.S. states that have made a long-term commitment to smoking cessation campaigns have achieved impressive results. One study found that the US/California anti-tobacco media campaign caused a reduction in cigarette sales of 232 million packs over approximately two years, a 10-13% decline in consumption (Hu et al, 1995). Another study found that the US/Massachusetts tobacco control program, with its significant public education campaign and high cigarette taxes, contributed to a 31% decline in tobacco consumption over 4 years, more than triple the rate of decline observed in the balance of the U.S. (Abt Associates, 1997). When these and other studies were synthesized in the Guide to Community Preventive Services, the authors concluded that public education campaigns led to a median decrease of 15 packs of cigarettes per capita per year (The Guide to Community Preventive Services, 2003). Furthermore, Australia's National Tobacco Campaign was estimated to reduce adult smoking prevalence by approximately 1.5 percentage points (Australia's National Tobacco Campaign Evaluation Report, Volume I, 1999).

More specific evidence supporting the effectiveness of smoking cessation mass media campaigns at motivating smokers to try to quit includes the following:

- A recent study found that anti-smoking TV advertisements were the most frequently mentioned source of help among recent quitters in U.S./Massachusetts. Television advertising reached many more smokers, and thus, it's not surprising that more people claimed it helped them to quit (30.5%) than any of the other methods, including nicotine replacement therapy (NRT), professional help, self-help, prescription, program, website and quitline (Biener et al, 2006).
- Similarly, in 2004 in England, advertising surpassed GP, friends and family and pack warnings as the trigger that more smokers and recent quitters said prompted them to give up smoking (BMRB, 2004).
- In Australia, sixty percent of recent quitters surveyed reported that the National Tobacco Campaign advertising made them more likely to remain tobacco free (Australia's National Tobacco Campaign Evaluation Report, Volume II, 2000).
- The United Kingdom Health Education Authority reported that more than two-fifths of all calls made to the Helpline each of three years were received during the three months in which the public education advertising campaign was aired. About sixty percent of the callers claimed advertising as the source of Helpline awareness (Owen and Lafferty, 1999).

- Similarly, in the U.S., mass media campaigns have been used very effectively to direct people to quitlines. Several countries and U.S. states have documented a clear correlation between the times when ads are aired and when people call their quitlines (Wilson, 2005; Erbas, 2006; Miller et al, 2003; A. Mowery, C. Stevens, personal communications, 2006).
- A recent U.S. study found that the quit rate among adult smokers increased by about ten percent for each 5000 GRPs (gross rating points, a measure of the combination of reach and frequency of the ad exposures) of state anti-tobacco advertising they were exposed to over two years (about two additional ad exposures per person per month) (Hyland et al, 2005).
- An Australian study found an increased frequency of negative thoughts about smoking and an increase in quitting related thoughts and actions in the four weeks following the introduction of the National Tobacco Campaign campaign. There was also evidence of sustained increase in cessation activity for a month following onset of the campaign (Borland, 2003).
- In US/New York, smokers who were aware of state stop smoking mass media messages were significantly more likely to be planning to quit than smokers who were not aware of these media messages (Farrelly et al, 2006).

3. What is the optimal content for a smoking cessation campaign?

Stop smoking campaigns internationally have used a variety of message themes, including industry deceptive practices, dangers of secondhand smoke, serious negative health consequences of smoking, and negative impacts of smoking on loved ones. Specific advertisements have employed a variety of executional approaches, varying the tone, the setting, the choice of actors versus “real people,” etc. Regardless of the approach, it seems that the ads proven most successful at changing key attitudes and behaviors are those that make an emotional connection with the target audiences. Ads need to resonate with smokers in order for them to believe and internalize them. Among the message and executional approaches employed to date, a few stand out based on positive campaign data regarding their impact.

“Why to Quit” Messages

The ads that, to date, have most effectively motivated smokers to want to quit are generally those that credibly and emotionally illustrate the serious negative physical and/or emotional consequences of smoking, either to the smoker or to loved ones. These “why to quit” ads give smokers compelling reasons to want to quit, and typically contain either graphic health effects visuals or moving testimonials (personal stories) about smokers and/or their loved ones who have been negatively impacted by the consequences of smoking. These hard-hitting ads elicit negative emotions (anger, loss, sadness, guilt, fear) that prompt smokers to make a quit attempt now (Wakefield et al, 2003; Wilson et al, 2005; Hutchinson et al, 2005; Biener et al, 2000). A recent study by West and Sohal found that unplanned quit attempts in the UK were more successful than planned ones

and proposed that even small “triggers” can motivate smokers to try to quit immediately. They recommended that campaign planners create motivational tension, triggering smokers to change their orientation to smoking, and provide access to quitting services and products (West and Sohal, 2006).

One notable exception is the John Cleese campaign conducted in England in the 1990s. The ad executions were all humorous (albeit dark humor, in many cases), and the messages ranged from reasons to quit to assistance and support in quitting. One theory regarding why the humorous “why to quit” messages motivated some smokers to want to quit is that John Cleese was an extremely credible, persuasive, empathetic figure, as evidenced by verbatim comments from qualitative research on the ads. As one female ex-smoker said about the ads “They’re all good—mainly because of John Cleese. You trust him. It’s not some government guy—he’s sincere...He’s got a way of speaking to you that makes you listen; not a command—he talks to you.” These sentiments are echoed by a male smoker who said, “I like John Cleese. For me he can do no wrong...He appeals to a very broad range of people, from very young to quite old...he can get away with being as outrageous as he likes and people will find him funny.” Despite the humorous tone of the ads, people took the messages seriously. One female smoker said, “I like it [‘Morgue’] even though it upset me because it said I was murdering my children. This made it even more effective.” Other respondents felt that John Cleese could really empathize with their situation: “The good thing is that seeing him tells you you’re not going through this all alone” (Grey et al, 2000).

“How to Quit” Messages

Another type of ad that has motivated smokers to actively try to quit (through calling a quitline, participating in a quitting program, or trying to quit on their own) is a positive approach about how to successfully quit. These “how to quit” ads typically include uplifting testimonials of smokers who have quit, promotion of available quitting resources, or reasons why quitting with help is more effective than quitting alone. The messages give smokers hope that, while quitting smoking is difficult, they can succeed.

Many countries have had recent positive experiences with this type of advertising. For example, Australia found that pairing a “how to quit” ad with a “why to quit” ad increased calls to the quitline versus airing of the “why to quit” ad alone (Carroll and Rock, 2003). While Hastings and MacFadyen do not agree with the use of fear-based messages like those found in some “why to quit” ads, they do believe in the importance of positive, relationship-building messages for smokers: “We know that smoking is emotionally involving and that quitting is a hard, often drawn out process. It cries for relationship building that, at the very least, will make quitters feel better about themselves” (Hastings and MacFayden, 2002).



Every cigarette
we smoke makes
fatty deposits
stick in
our arteries.

WFF help you give up before you stick up completely. WFF.org.uk



**I did it,
you can too.**

"First I convinced myself by saying over and over 'I can quit.' Then I quit for 1 day, then another, then another... You know what?— it worked!"

Call 667-8393 smokersline.ca

Canada Yukon

Secondhand Smoke Messages

Within the realm of “why to quit” messages, it’s important to note that certain types of secondhand smoke messages can motivate smokers to smoke less or try to quit. Messages about the negative effects of one’s smoking on loved ones can cause smokers to reconsider smoking as only a “personal decision.” These messages provide some smokers with rationale for “why to quit” – they decide to quit in order to protect their family members or friends. Other smokers respond to messages about the harm of secondhand smoke in public places by trying to quit because they believe it is no longer worth it to keep smoking when so many people around them are troubled by it and there are increasingly fewer places where smoking is permitted (MPAAT, 2002; The California Smoker’s Helpline, 2000; Schar and Gutierrez, 2001).

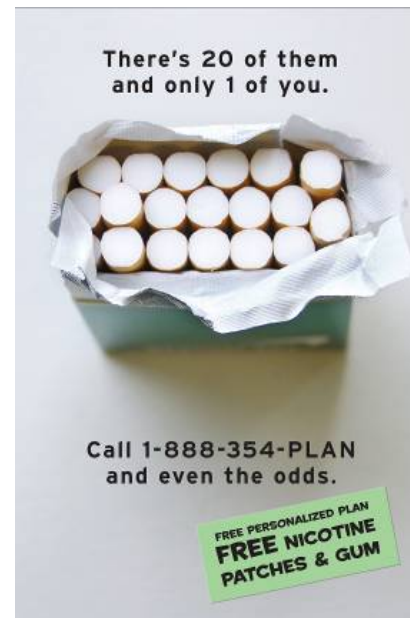
He has his
daddy's eyes
and his
momma's lungs.

Secondhand Smoke Kills.

While other messages, such as those addressing industry deceptive practices and ingredients found in cigarettes may be effective at motivating smokers to quit, there are not studies to date that draw this conclusion. Thus, there exists a need to further evaluate campaigns on these topics with specific measures to determine their impact on motivation to quit and actions toward quitting.

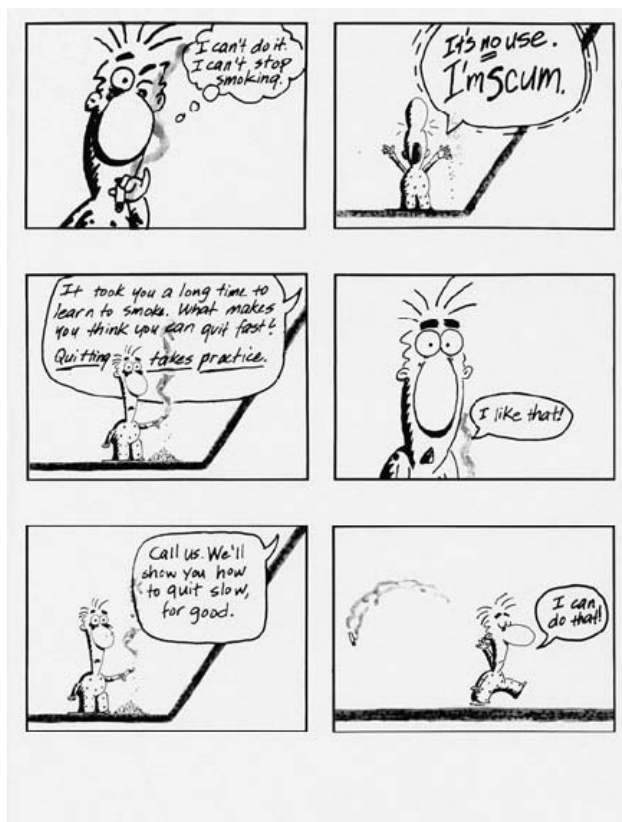
“Quitting with Help” Messages

Within “how to quit” ads, some sub-messages should be considered. One is that quitting *with help* increases smokers’ likelihood of success. Many smokers aren’t aware that they are significantly more likely to quit with help. U.S./Minnesota Partnership for Action Against Tobacco (MPAAT) motivated smokers to call their quitline by stating in their ads that smokers are up to seven times more likely to quit with help. MPAAT offered a customized Quitplan that often recommended a combination of various cessation products and services. (A. Mowery, personal communication, April 2006). New South Wales, Australia recently doubled calls to their quitline by stating in their ads that smokers are twice as likely to quit if they use the callback service offered (T. Cotter, personal communication, May 2006).



“Quitting as a Journey” Messages

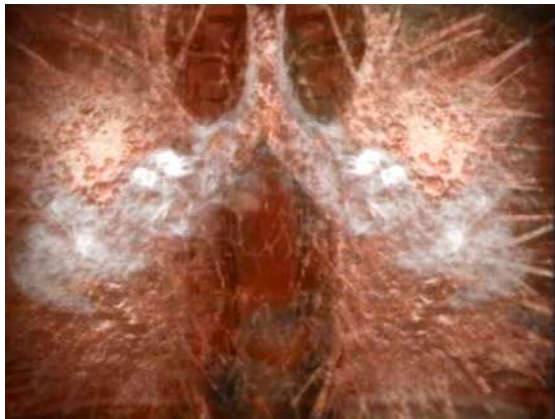
Another important “how to quit” message” is that quitting is a journey, not necessarily one event, and that it is all right if one does not succeed the first time. US/California and other states have had success with an ad called “Quitting Takes Practice,” which acknowledges that it might take more than one attempt before a smoker successfully quits and that it is normal/okay to require several quit attempts before succeeding (C. Stevens, personal communication, April 2006; CDC Media Campaign Resource Center, 2006). Recent qualitative research in New Zealand confirmed that smokers want to know that quitting may be a long-term process (The Quit Group, 2005). As part of this message, the spectrum of quitting resources can be emphasized based on what is available locally. Smokers often state that they cannot quit because they’ve tried one product or approach, without realizing that it may be a matter of trying another approach in order to succeed, or trying the same product but using it correctly, or simply trying the same approach in a different frame of mind. One size doesn’t fit all in quitting – smokers need to know about, and be encouraged to take advantage of, the quitting resources available to them.



The Roles of Negative and Positive Tones

The overall debate about whether a positive or negative tone will be most effective in motivating smokers to quit is a valid and valuable one. This author's conclusion is that both tones can play a role, however ads eliciting negative emotions are typically more appropriate for "why to quit" messages, and ads eliciting positive emotions are typically more appropriate for "how to quit" ads. Ads that elicit negative emotions seem to have a greater immediate impact on smokers, jarring them enough to make them want to take steps to stop quitting immediately, whereas ads that elicit positive emotions are typically less memorable. The exception seems to be one type of positive ad—one that embraces smokers and gives them hope about being able to quit. This type of ad has worked as well, or almost as well, as ads that elicit negative emotions, in terms of motivating smokers to try to quit. For example, in Australia, ads encouraging smokers to call the helpline that visualized the positive, supportive assistance provided by the telephone counselors prompted many smokers to call (Carroll and Rock, 2003). Similarly in US/Utah, New Zealand, and Canada/Yukon, positive testimonials motivated many smokers to call, presumably because they felt that if people they related to could quit, then they could too (Dibble, 2005; Wilson, 2005; Aasman, 2005).

The ideal solution may be to combine both types of messages in a stop smoking campaign. Australia, New Zealand, Norway, US/California and US/Massachusetts have had great success using a combination of these messages (Carroll and Rock, 2003; Wilson et al, 2005; C. Stevens, personal communication, April 2006; Biener et al, 2006; Norwegian Directorate for Health and Social Affairs, 2003).



Interestingly, the point about combining “why to quit” and “how to quit” messages was one of the key insights from the 2001 WHO/CDC paper *Smoking Cessation Media Campaigns from Around the World: Recommendations from Lessons Learned* (Schar and Gutierrez, 2001) and was again a major conclusion from the Global Dialogue for Effective Stop Smoking Campaigns literature review in 2006 (Lanigan et al, 2006). Countries continue to have success with this strategy.

Respectful, Nonjudgmental Tone

Regardless of whether a positive or negative tone is chosen for a particular ad, the tone should also be nonjudgmental, empathetic and respectful of smokers. Ads can certainly be respectful even if they are hard-hitting and graphic. Ads can also be nonjudgmental and empathetic even if they expose the harms of smoking to smokers and their loved ones. Smokers do not need to like the ads, but they do need to perceive them as objective and credible in order to accept them. Qualitative research has confirmed many times the importance to smokers that messages recognize their difficulty in quitting and not speak

to them with disdain or disparage them (Schar and Gutierrez, 2001; Gupta and Dwyer, 2001; Grey et al, 2000).

FEATURED SUCCESS STORIES

 **Dinah Bradford**
did it after smoking
for 15 years

 **Kent Shepherd**
did it after smoking
for 24 years

 **Michelle Johnson**
did it 3 years ago

[Read more success stories](#)

Shannon McQuaid



MICHELLE JOHNSON

My two sons really helped me to quit. Every time we were in the car and I'd light a cigarette, I'd get nagging from the back seat. They'd say things like, "You're killing yourself and you're killing us." It's pretty sad when your eight-year-old son is telling you what you should already know.

But finally I did it, and now I feel great—plain and simple. But in addition to the health benefits, there's that great sense of accomplishment you get when you've done something so important.

I've never felt better.

NAME IS MICHELLE JOHNSON, I
IT 3 YEARS AGO.



Application of Messages to “Earned” and Paid Campaigns

These lessons learned about “why to quit” and “how to quit” messages apply to paid *and* earned media campaigns (or press coverage). Whether reading a newspaper article, watching a television ad or listening to a radio health-related program, people remember and respond to both graphic, credible images and real stories that elicit emotions. The point about real stories is consistent with the recent popularity of reality TV shows in many countries, and the data from the 2006 Annual Edelman Trust Barometer, which found that among people surveyed across 4 continents (11 countries), the spokesperson they would find most credible is ‘a person like yourself or a peer’ (2006 Annual Edelman Trust Barometer, 2006).

Application of Messages to a Variety of Media Vehicles

These messages also apply to a *variety* of paid media/marketing vehicles. Australia had success with graphic health consequences images in TV, print, and radio ads. New Zealand and the UK had positive experience with testimonials in TV ads, cinema ads, radio ads and press stories, and the UK had good experience with graphic ads in TV, cinema, outdoor and radio. Several U.S. states have used testimonials and graphic images in TV, print and radio ads as well.

Similar messaging principles can be applied to cigarette pack warnings, another ‘marketing tool’ for motivating smokers to quit or smoke less. Recent studies in Brazil, Canada, and a variety of European countries indicated that hard-hitting “why to quit” visuals and messages combined with on-pack promotion of available resources such as quitlines and Web sites motivated smokers to want to quit or smoke less (Cavalcante et al, 2006; Hammond et al, 2004; Hammond et al, 2003; Devlin et al, 2005). Brazil found that in the month immediately following the first graphic pack warnings with the quitline number, calls to the quitline tripled and continued increasing in the months following (Valerio, 2006). Furthermore, a recent study that compared cigarette pack warnings in four countries (U.S., Canada, United Kingdom and Australia) concluded that warnings which are graphic, larger, and more comprehensive in content are more effective in communicating the health risks of smoking, as measured by adult smokers’ knowledge of those risks in various countries with varying executions of pack warnings (Hammond et al, 2006).



SMOKING CAUSES MOUTH AND THROAT CANCER Health Authority Warning	DON'T LET CHILDREN BREATHE YOUR SMOKE Health Authority Warning
 <p data-bbox="821 270 917 329">Quitline 131 848</p> <p data-bbox="533 418 646 433">MOUTH CANCER</p>	 <p data-bbox="1241 270 1337 329">Quitline 131 848</p>
<p data-bbox="533 448 905 557">Smoking is the major cause of cancers affecting the mouth and throat. These cancers can result in extensive surgery, problems in eating and swallowing, speech problems and permanent disfigurement.</p> <p data-bbox="533 566 898 632">You CAN quit smoking. Call Quitline 131 848, talk to your doctor or pharmacist, or visit www.quitnow.info.au</p>	<p data-bbox="953 448 1325 557">Children exposed to passive smoking experience more serious illnesses such as pneumonia, middle ear infections and asthma attacks. Babies exposed to passive smoking are at a greater risk of SIDS (Sudden Infant Death Syndrome).</p> <p data-bbox="953 566 1325 632">You CAN quit smoking. Call Quitline 131 848, talk to your doctor or pharmacist, or visit www.quitnow.info.au</p>

Importance of Clear, High Quality Advertising Executions

Finally, lessons learned indicate that the execution, or how ads and materials are developed, can be as important as the messages themselves because it affects how the audience perceives and takes in the materials. First, messages must be communicated clearly, without distracting or confusing executional elements. Experience from the United Kingdom and US/Massachusetts indicated that despite compelling message strategies based on audience research, the ad executions of the “Break Free” and “Smoke Free Generation” campaigns were found by smokers to be confusing, cluttered and easy to ignore (Schar and Gutierrez, 2001; Grey et al, 2000).

Second, the target audience must be able to understand and internalize the information. In most developed countries, smokers are disproportionately of lower socio-economic levels, and consequently, a significant percentage of them read at levels well below their ages. For example, in the U.S. over 40% of adults read at basic literacy level or below, and those with lower literacy are disproportionately smokers (National Assessment of Literacy, 2003; CDC MMWR, 2005). Likewise, in Great Britain in 1998, 45% of male unskilled manual workers and 33% of female unskilled manual workers were smokers, versus just 15% and 14% respectively of male and female professionals (Grey et al, 2000). This means that materials must be straightforward, simple and clear.

Third, production value of the ads must be in line with other commercial messages in the media market in one’s country, in order to “compete” with the tobacco industry’s and other companies’ messages and to have enough professionalism to be perceived as credible by the target audience. One possible exception to this may be the production value acceptable for testimonials ads, although this hasn’t yet been proven with data. Viewers may perceive a lower production value to be acceptable for this type of ad because footage that is grainy and not “slick” may be perceived as more credible—may in fact, look more like a typical documentary.

Branding and Sponsorship of Campaigns

As emphasized earlier in this section, the credibility and persuasiveness of ads are extremely important. Whether or not to brand a campaign and how to communicate the organizational sponsorship of the campaign are key strategic decisions that must be made thoughtfully. Although there are few data regarding branding and sponsorship related to smoking cessation, the evidence from the “truth” campaign in US/Florida indicates that if done well, a brand can encapsulate the essence of the campaign and can communicate positively and effectively with the target audience (Niederdeppe et al, 2004; Zucker et al, 2000). Campaign planners can choose to develop a brand unique to the campaign or smoking cessation effort, or they can choose not to. There are no data suggesting that one choice is better than the other. Similarly, while ads in most countries must be tagged with the sponsors’ names and logos, the prominence of those names and logos may be determined based on whether or not campaign planners believe that emphasizing them will contribute to reaching the campaigns’ goals. If the sponsoring organizations’ logos will add credibility and persuasiveness to the specific messages of the ads, they should be prominently displayed, however if the organizations are not credible on the ads’ topics, the logos should typically be downplayed/minimized in size. In the case of a recent campaign in England, the Department of Health made the decision to give funds to the British Heart Foundation and Cancer Research UK to develop and deliver messages about heart disease and risks of smoking light cigarettes because those organizations were deemed more credible than the health department on those specific topics (Hutchinson et al, 2004).

Applicability of Smoking Cessation Ads from One Country to Another

Effective ads from one country, province or state should be considered for re-application to other geographic areas because of the positive past experience in doing so. Some campaign managers believe they cannot re-apply ads from other locations because the local insights, motivations, or attitudes are different. However, experience has shown that many ads that were proven effective in one location have been applied with similar success in other locations. Ads from Australia’s “Every cigarette is doing you damage” campaign have been used in New Zealand, Poland, Singapore, Norway, Iceland, and US/Massachusetts, with positive results wherever the campaigns were measured (Schar and Gutierrez, 2001). Various ads from US/California have been re-applied in US/Minnesota, US/Oregon and several other states, US/Minnesota ads have been aired in several states, and an ad from Canada was recently aired in US/Minnesota. Furthermore, recently, a combination of Australian and US/Massachusetts ads shown in US/New York City caused a tripling of calls to the quitline (S. Perl, personal communication, June 2006). Re-applying proven ads saves time and valuable development and research funds. Exceptions to feasible re-application include when the target audience speaks a different language than the actors in the original ads; in some cases this obstacle can be overcome with voice-overs in the local language.

Another strategy for saving time and costs has been to re-apply the concept of an ad but to reproduce it in-country so that it is culturally and linguistically appropriate. Two recent examples are the US/California “Echo” ad re-produced in New South Wales, Australia and the US/Massachusetts set of “Careful” ads about the toxins in secondhand

smoke re-produced in the United Kingdom. While the UK ads haven't been aired long enough to have seen their impact, the Australian "Echo" ad was very successful at generating recognition (up to 93%), generating a significant increase in quitline calls (up to fourfold increase versus period before an after campaign), and causing smokers to want to quit (16% a lot or a little more likely to stop, and 56% a lot or a little more likely to think about quitting) (Cotter, 2006).

4. What types of interventions should be used in smoking cessation campaigns?

Television Advertising a Key Driver in Campaigns

Paid advertising has the ability to reach high percentages of the population. Most of cessation campaign effectiveness data are based on paid TV advertising in particular, both because TV advertising is the element most often measured and because its impact tends to be significant enough to make a visible impact in market research. A few recent studies have suggested that television advertising may have greater impact on motivation to quit than any other smoking cessation interventions. One U.S./Massachusetts study found that among recent quitters, more found TV advertising helpful than any other quitting aid, including Nicotine Replacement Therapy, professional help, self-help, prescription, program, website and quitline (Biener, 2006). The greater impact of television advertising is partially explained by its high penetration. Department of Health England found that TV advertising surpassed even health professionals' advice and friends and family as the biggest 'trigger' to quit attempts (BMRB, 2004). Furthermore, one Australian study found that smokers had an increased frequency of negative thoughts about smoking and an increase in quitting-related thoughts and actions following onset of the National Tobacco Campaign (NTC) consisting of 3 television advertisements (Borland, 2003), and another Australian study found that 60% of recent quitters reported the NTC made them more likely to remain tobacco free (Australia's National Tobacco Campaign Report, 2000).

When ads with a quitline tag are aired/placed, people will call. In fact, when TV ads are aired, people typically call immediately, causing significant spikes in number of calls to the quitline. That has been confirmed in programs in many countries and states (Wilson et al, 2005; Erbas et al, 2006; Schar and Gutierrez, 2001, Owen and Lafferty, 1999). Calls to quitlines should not be the only measure of the effectiveness of advertising, but does provide one short-term measure of the impact of TV advertising.

Contribution of Other Media Vehicles and Synergy Between Vehicles

Radio, print and outdoor likely contribute to the effectiveness of the overall campaign but are not often measured individually and when they are, sometimes do not make enough of an impact to be visible in research. Some other campaign elements show much promise, such as collateral materials (non-mass-media marketing elements) and earned media which is typically under-utilized. New and innovative communications and marketing vehicles such as found on the Internet (not just websites but blogs, chat rooms, banner ads, etc.) and those emerging through other technologies, such as text messaging, should be considered and experimented with. The author was not able to find any relevant articles or data on the impact of these vehicles on promotion of smoking

cessation, so it's clear that much more research and evaluation must be done, given their increasing use by the private sector and the general public.

Many programs cannot afford paid TV advertising and, thus, must employ less costly communications vehicles. For example, the North American Quitline Consortium found in 2005 that only two quitline programs in Canada were able to afford TV advertisements (North American Quitline Consortium, 2005); thus, other vehicles such as news media coverage, physicians' and dentists' referrals, word-of-mouth, Web sites, and radio and print ads should be considered (European Network of Quitlines, 2005; North American Quitline Consortium, 2005).

Recently England found that smokers who recalled several campaign elements (not just TV ads but also posters, giveaways, and news articles) were more likely to have changed desired attitudes and behaviors (BMRB, 2004; BMRB, 2006). It's possible that synergy between campaign elements may be what drives better results, rather than the impact of collateral materials alone, since dramatically more smokers cite TV advertising as the main prompt for their quitting attempts than cite brochures, posters, or other collateral materials (BMRB, 2006). If collateral materials were used alone in the campaign, their impact may not be sufficient to produce significant changes in attitudes and behaviors.

Contribution of News Media Coverage

One example of the direct impact of news media stories on quitting attempts is related to U.S. newscaster Peter Jennings' death from lung cancer, around which time there was significant news media coverage that linked his death to smoking. Calls to the American Cancer Society's quitline more than doubled the week following coverage of his death, from 1055 to 2333 calls, and call volume remained high the following week as well at 1600 calls (American Cancer Society, 2006). This addresses the need to take advantage of timely opportunities to promote smoking cessation. News media coverage can help raise issues related to smoking, either directly or indirectly, but tobacco control program managers must be ready to piggyback off those news media stories in a very timely manner, for example by ensuring that the quitlines are adequately staffed, promoting quitlines or other cessation services through a variety of vehicles, etc.

Another way that earned media coverage can be used to contribute to smoking cessation efforts is by increasing the reach and impact of a mass media campaign's messages. In Australia, for example, the national tobacco [control] campaign was launched with a press conference attended by major national news media. When they covered the campaign's launch as a news story, they typically ran the ads or described them, thus amplifying the exposure of the ads to the public (Hill and Carroll, 2003).

Role of Quit and Win Competitions and Other Short-Term Events

Many tobacco control program staff, particularly in countries where funds are very limited, are attracted to the low cost and feasibility of Quit & Win contests and similar short-term cessation events. These events can be conducted with few funds and can produce attractive sustained quit rates at the individual level, but they do not produce the population impact that other policy and mass media interventions can produce (Hey and

Perera, 2005; Korhonen et al, 2000; Hahn et al, 2005; Civljack et al, 2005; O'Connor et al, 2006; Pourshams et al, 2000; Rooney et al, 2005; Sun et al, 2000). In the author's opinion, such short-term events should typically be used tactically to gain news media coverage and build overall awareness of the need for cessation and the interest smokers have in quitting.

One notable exception may be events that have significant awareness and momentum because they have become well established in their countries and have strong support from local activists and providers of cessation services. For example, No Smoking Day in the UK maintained about 70% or greater awareness, year after year for over 20 years, gained very significant free media coverage that increased over time, caused a four-fold increase in the number of calls to national smokers' helplines, caused one in seven UK smokers to quit or reduce their consumption on that day, and caused an estimated 85,000 smokers to give up for at least three months (Owen and Youdan, 2006).

Promotion of Quitlines and Related Need for Quitline Management

As mentioned above, paid smoking cessation advertising can very effectively lead to quitline calls. The downside is that sometimes the resulting demand for quitline assistance is so high that quitline staff become overwhelmed. Thus, quitline mass-media promotion and quitline staffing must be well coordinated. For example, US/California only places ads during hours when the quitline is operational to limit the number of smokers who call and can't talk to a quitline counselor immediately (C. Stevens, personal communication, May 2006). England did an analysis of the time periods during which the most people called the quitline in order to determine operating hours for the quitline staff (Owen and Lafferty, 1999). Managing the staffing to handle quitline calls can be extremely challenging but is also very important in order to service the needs of smokers, not frustrate them with busy signals or being placed on hold, and bring them into the quitting process when they are most motivated to quit (CDC, 2004; California Department of Health Services, 2000).

Strategies for Managing Quitline Demand

Often quitline programs must scale back advertising in order to not overwhelm quitline operators. More smokers would likely call if advertising was maintained at a higher level, but quitline staffing budgets frequently limit staff's ability to handle large numbers of calls (North American Quitline Consortium, 2005). Various approaches have been used to better match quitline staffing capacity with calls to quitlines. For example, US/California alternates tags on its ads in Los Angeles and the rest of state one week the Los Angeles tag is for the quitline and the tag for the remainder of California is for the Web site; the next week the tags are reversed. The quitline doesn't have the capacity to handle calls from both Los Angeles, with its huge population, and from the rest of the state (C. Stevens, personal communication, May 2006). Similarly, in the past, US/California aired advertising only in a few media markets in the state during each part of the year to ensure that the volume of quitline calls was manageable and to keep the ads fresh, rather than over-used in each market (The California Smokers' Helpline, 2000). Another strategy many programs have used to manage limited budgets is flighting, in which ads are on the air only during certain periods of the year (North American Quitline

Consortium, 2005). For example, ads may be run for 3 weeks then taken off the air for a month. Or ads may be run only during high priority time periods, such as around New Year's, No Smoking Day and World No Tobacco Day.

Communication with Quitline Staff about Quitline Promotions

Another strategy used by quitline programs to align quitline calls with adequate quitline staffing is to ensure that quitline staff stay abreast of all quitline promotions (planned and unplanned). Not only must the advertising placement plan and advertising proofs be shared with quitline staff, but any quitline-related publicity must be shared as well, such as articles in local media or events where give-aways with the quitline number are distributed. Doing so helps ensure that quitline staff are prepared for the increases in calls that they are likely to experience as a result of the promotional activities. Furthermore, alerting them to the promotions helps the staff gather better data about the impact of the promotional activities (CDC, 2004).

Relationship Building with Those Who Can Refer Smokers to Quitlines

Finally, some programs are trying to move from mass media promotion of quitlines to relationship building with health care professionals, employers and insurers that leads to a steady stream of referrals to the quitline and resulting quitline calls without the huge peaks and valleys in calls that mass media promotion can cause. In US/California, the vast majority of callers to quitlines said that advertising prompted them to call; however, over time the prompts to call the quitline became more diverse with less than half of all quitline calls being prompted by advertising, the remainder being prompted by health professionals' referrals, events, and other non-mass-media promotional efforts (C. Stevens, personal communication, 2004). Likewise, US/Arizona's program over time relied less on mass media promotion and more on referral systems, including a very successful fax referral system used by healthcare professionals (North American Quitline Consortium, 2005).

Building Comfort with Quitlines

Assuming that programs have the staffing to manage the resulting demand, promotional efforts need to build comfort with quitlines, so smokers will be more likely to call. Many smokers are intimidated by the idea of calling a quitline (Hill and Carroll, 2003). Some believe they will be judged or scolded, others that their privacy will be invaded, and others that they may be harassed by follow-up calls. Still other smokers don't believe that the operators will be helpful, and others avoid offers of "counseling" because that word connotes psychological problems. Several programs have had success with ads that model the quitline process – showing smokers that operators can be helpful, patient, nonjudgmental, noninvasive and supportive (Carroll and Rock, 2003; Schar and Gutierrez, 2001; Grey et al, 2000; T. Cotter, personal communication, June 2006).

Media Presence as Key Campaign Consideration

One of the key considerations in developing a quitline intervention campaign is the level of advertising exposure, or media presence, which can significantly impact campaign results. Experiences in several countries

confirm that having a sufficient budget for paid advertising placement is critical. New Zealand found that 15% higher quitline registration occurred during months when the campaign's media presence was over 480 TARPs (Target Audience Rating Points, a measure of combined reach and frequency) (Wilson, 2005). US/Texas found a greater reduction in prevalence in areas where there had been a higher media campaign presence (McAlister et al, 2004). US/Minnesota found that the more exposure people had to the media campaign, the more that beliefs, attitudes, and behaviors changed in desired directions (MPAAT, 2002).

Importance of Sufficient Media Presence

For some perspective on media levels, programs with positive results in England, New Zealand, Australia, and U.S./Minnesota try to maintain a presence of 400-600 TARPs/GRPs per four weeks during the periods when their campaigns are on-air. Weeks on air vary greatly and are based on budget and periods of time when smokers are most motivated to quit (J. Webb, H. Glasgow, T. Miano, T. Cotter, J. Thompson, personal communications, June 2006). One U.S. study found that youth audience exposure to state-sponsored anti-tobacco ads of once per month was enough to affect attitudes and behaviors (Emery et al, 2005), however, it's unknown whether the threshold for adults would be similar.

While general guidelines can be suggested, each campaign is different and each marketing environment is different. Typically introductory campaigns require higher media weight than ongoing campaigns (Schar and Gutierrez, 2006). In addition, some types of ads may require higher or lower media weight to make an impact. For example, US/Massachusetts found that the very emotional, hard-hitting ads in the *Pam Laffin* and *Rick Stoddard* testimonials series had reached saturation point (very high awareness and audience complaints that they had seen the ads too much) just 7-11 weeks after first being aired, while ads from the *Smoke Free Generation* campaign produced very low recall despite sufficient media weight (Schar and Gutierrez, 2001). Similarly, England's *Break Free* ads were aired at significantly higher media weights than their *Testimonials* ads, yet the latter campaign's recall was significantly higher than that of the *Break Free* campaign (Grey et al, 2000). It's important to note, however, that these findings may reflect more the relative quality of various ads, rather than the needed media weight by ad type.

Importance of Sustained Media Presence

Significant media presence must be sustained over time in order to have a positive impact. One U.S. study found that more exposure to government sponsored anti-tobacco ads increased the likelihood of quitting—over two years, for every 5,000 GRPs/TARPs, the cessation rate rose by 10%. This equates to just two extra exposures (200 extra GRPs) per month, sustained over time (Hyland et al, 2005). England's Health Education Authority found that while increased media weight did not make a difference in the short term, it did lead to better results after 18 months of the campaign (McVey and Stapleton, 2000). In an Australian study, the success of the campaign was attributed in great part to the fact that it was sustained over time (Erbas, 2006). Furthermore, Levy and Friend conclude in their assessment of U.S. campaigns that "sustained media interventions of sufficient magnitude and duration directed at all smokers have the potential to

substantially reduce the numbers of smokers and premature deaths, with the effects growing over time” (Levy and Friend, 2001).

Strategies for Optimizing Impact of Ad Placements

Specific media placements and unique vehicles can impact campaign results in significant ways. More research needs to be done to determine results for different media placements and to gauge effectiveness based on more than just calls to quitlines, but following are some examples of programs’ media placements that effectively generated quitline calls. In Australia Monday-Wednesday placements led to more quitline calls than other days (Erbas et al, 2006), and placements in lower involvement programs, such as light entertainment, cultural/informative, and reality shows, led to more quitline calls than placements in higher involvement programs, such as dramas, documentaries, and movies (Carroll and Rock, 2003). In another Australian study, viewers found stop smoking ads more credible when they were placed in reality or game shows than in comedy shows (Durkin and Wakefield, 2005). In England, quitline volumes were consistently highest during the week versus weekends, regardless of the advertising schedule, and on weekdays highest during early mornings and late afternoons versus other time periods (Grey et al, 2000). In US/Oregon, daytime placements were more cost efficient (\$/quitline call) than evening or radio placements (Mosbaek, 2002). US/Minnesota found that Internet banner ads were more cost-efficient than TV placements (A. Mowery, personal communication, April 2006). Finally, US/California found that Direct Response TV was more cost-efficient than Spot TV (C. Stevens, personal communication, May 2006).

5. What are the Economic Implications of Mass Media Interventions?

Using the mass media effectively is typically quite expensive but can have enormous impact as well. In the U.S. Centers for Disease Control and Prevention’s 1999 Best Practices for Tobacco Control document, they recommended per capita spending of US \$1-\$3 per year in order to conduct an effective campaign (CDC, 1999). This range was based on the spending levels of 4 states where the tobacco counter-marketing campaigns had been successful at changing key attitudes and behaviors (California, Massachusetts, Arizona, and Florida), and “per capita” refers to the whole population, not just smokers. This level of spending is consistent with that recommended in a 2001 study in which a computer simulation model based on successful U.S. campaigns predicted that US\$3 per capita would yield optimal smoking prevalence reductions over time (Levy and Friend, 2001). If England were to adopt these spending guidelines, the minimum spending for a comprehensive tobacco counter-marketing campaign would be US\$50 million, or approximately £25 million. In fact, based on the West Yorkshire Smoking and Health trial during the 1990s in the UK, an estimated £15 to £20 million per annum were recommended for the mass media campaign to achieve a 1% reduction in smoking prevalence (Grey et al, 2000), generally in line with the above guidelines when inflation is taken into account.

However, the larger the population, the more likely that there will be “economies of scale” that will allow for efficient media buying, the most costly item in most campaign

budgets. For example, US/California, with a population of about 36 million residents has been able to significantly reduce cigarette consumption over time while dedicating an average of only about US\$.75 per capita to its campaign each year, while US/Arizona and US/Massachusetts with populations of about 6 million residents each spent more than US\$3 per capita in order to achieve significant results.

For perspective, US/CDC's Best Practices document also recommended general spending levels for other components of comprehensive tobacco control programs, and the mass media campaign/public education component comprised 15-20% of the total recommended budget (CDC, 1999).

Another way to determine necessary spending for a smoking cessation mass media campaign is to consider what level of media presence is expected to be required to make significant changes in beliefs, attitudes and behaviors. While there is no formula for determining this, many media planning experts consider 400 average 4-week GRPs (gross rating points) or TARPs (targeted rating points) to be the minimum level of presence necessary for an introductory campaign, and 200 average 4-week GRPs/TARPs to be necessary for an ongoing campaign over the course of a year (Schar et al, 2006). The Gross Rating Points or Targeted Rating Points are comprised of Reach (percentage of the target population potentially exposed to the message) times Frequency (the number of times during a specified period that the target population is potentially exposed to the message). For example, often in the U.S., a reach level of 75-80% is achieved, and then frequency is maximized up to the budget maximum. Assuming an 80% reach, then a minimum of 5 frequency each 4 weeks would be desired for an introductory campaign, and a minimum of 2.5 frequency each 4 weeks would be desired for an ongoing campaign.

As mentioned earlier, programs with positive results in England, New Zealand, Australia and U.S./Minnesota try to maintain a presence of 400-600 TARPs per four weeks during the periods when their campaigns are on-air. This is a level of presence that they believe will effectively change attitudes and behaviors, so although they cannot afford to achieve this level of presence throughout the year, they use "flights" of advertising, or specific time periods in which advertising presence does reach the desired level. At other times during the year, no advertising is run, so the average 4-week TARPs are likely in the range of 250-300 for the year. For perspective on the amount of their total smoking cessation campaign budget that is spent on media placement, campaign managers estimate that paid media placements comprise 60-80% of the total budget (T. Cotter, A. Guy, J. Webb, personal communications, 2006). The total budgets include media placement, research & evaluation, events, non-mass-media marketing elements, quitlines and websites, but do not include free or discounted nicotine replacement therapy (where offered) or other programmatic elements.

In terms of cost-effectiveness of smoking cessation mass media campaigns, there are very few studies that have done calculations of the cost per quality-adjusted life year (QALY) saved, but a few that have been published suggest mass media campaigns and other marketing efforts can be extremely cost effective versus other healthcare interventions,

and perhaps even versus other tobacco control interventions. One study calculated a cost of US\$151-328 per QALY saved for a Scottish smoking cessation campaign that included mass media, quitline, and information booklet (Ratcliffe, 1997). Another analysis of various smoking cessation interventions found the cost per QALY saved for No Smoking Day to be just £26, or £40 when discounted (Parrott and Godfrey, 2004). Given the threshold of £20,000-30,000 considered by NICE to determine cost-effectiveness of healthcare interventions, these stop smoking campaign interventions would certainly be considered cost-effective, or even cost-saving, when averted healthcare costs are taken into account. Another study (Secker-Walker, 1997) calculated a cost of US\$333 per QALY saved for a U.S. youth tobacco use prevention mass media campaign combined with a school smoking prevention program versus the school program alone, based on a 4-year study conducted in New York, Vermont and Montana. This campaign, too, would certainly be considered cost-effective against the U.S. benchmark of US\$50,000 - \$100,000 used by the U.S. Guides to Community Preventive Services to determine cost-effectiveness of healthcare interventions (A Purchaser's Guide to Clinical Preventive Services, 2005). For perspective, tobacco dependence treatment interventions range in cost per QALY saved from about US\$300 to US\$10,000 (Croghan et al, 1997; Solberg, 2006; Parrot and Godfrey, 2004; Godfrey, 2005).

In terms of cost per quitter, two known studies investigated this. The Scottish study mentioned above (Ratcliffe, 1997) included a calculation of cost per quitter, which was US\$298-655 for the smoking cessation program that included mass media, a quitline and an information booklet. A study from the Netherlands (Mudde, 1996) calculated a cost per quitter of US\$796-\$1593 for a smoking cessation program that included mass media, quitline self-help materials, and a 9-session group cessation program.

6. What Interventions Have Been Used to Motivate Pregnant and Disadvantaged Smokers to Quit?

Not all smokers react to messages in the same way, and thus, message strategies and executional approaches should always be tested with members of significant specific populations, to ensure that they are communicating clearly and persuasively. Sometimes separate strategic or executional approaches are required to meet the needs of specific populations versus the general population, particularly when languages are different. However when language is not an issue, in many cases effective general audience materials can work equally well with specific populations.

Unfortunately, very few published studies and just a handful of unpublished data sources have addressed the specific impact of mass media smoking cessation interventions on pregnant smokers, socio-economically disadvantaged smokers and other specific populations. Below are the few examples of findings and lessons learned about campaigns for specific populations.

Pregnant Smokers

US/Massachusetts found specific ads about the dangers of smoking while pregnant to be effective in contributing to reduced smoking rates among pregnant women. Smoking

rates among pregnant women declined at a rate higher than any other US state following the campaign, from 25% of new mothers reporting smoking in 1990 to 13% in 1996 (Independent Evaluation of the Massachusetts Tobacco Control Program, Fifth Annual Report). US/Arizona also saw some positive results from the second phase of their campaign (detailed below). Of the pregnant/postpartum women surveyed who recalled the smoking cessation campaign, 37% had decided to quit smoking and an additional 44% decided to cut down on smoking (Evaluation of the TEPP Media Campaign Report No. 1, 1998 from Schar and Gutierrez, 2001).

However, both US/Arizona and France cautioned that cessation messages must be carefully crafted in order to support pregnant smokers during the challenging time of being pregnant and trying to quit smoking. In Arizona, an early campaign ad made pregnant smokers experience guilt and the disapproval of others. Rather than calling the quitline or attempting to quit, they hid their smoking habit out of shame. Later, a new ad was created that included an empowering, positive message, letting women know that others were available to support them, and when aired it generated a significant increase in the number of female callers to the quitline who identified themselves as pregnant smokers (Powers et al 2000 from Schar and Gutierrez, 2001).

Findings from six U.S. focus groups conducted to glean insights for a national smoking cessation campaign also indicated that sensitive communication is particularly important with pregnant smokers who already feel embarrassed to be smoking while pregnant. In the six discussion groups among pregnant smokers, primarily of low socio-economic status, campaign concepts received well included the following elements: 1) showing women at visibly different stages of pregnancy; 2) ensuring that the featured women seemed real; and 3) maintaining an encouraging and hopeful tone throughout the campaign and emphasizing empowerment and positive reasons to quit smoking (Haviland et al, 2004). Focus group participants also suggested that the ads focus on only one medical consequence of maternal smoking each, to increase comprehension, and requested offering real help and feasible action steps accessible to each woman seeing the ads, such as having a single number they could call for help. Most did not have trusting relationships with doctors so did not respond well to advertising text such as “talk to your doctor.”

In further qualitative research, pregnant women were asked to respond to various facts about medical consequences of maternal smoking. They felt most motivated to quit when maternal smoking was linked to crib death and miscarriage. They were also motivated to quit by messages about disabilities and asthma. However, the link between low birth weight or premature babies did not motivate them to quit because some of them saw a potential benefit in having a smaller baby (easier to deliver, less weight gain during pregnancy) and some did not understand the long-term health and cognitive consequences of children being born underweight. In these focus groups, the pregnant women also emphasized the need for smoking cessation services to be available and understand their unique needs, and they confirmed that mass media messages alone wouldn't be enough to help them to successfully quit (Haviland et al, 2004).

As a result of the focus groups and other audience research, the American Legacy Foundation developed materials for a national stop smoking campaign for pregnant women called Great Start. It sought to be positive, honest and supportive, and to help women take control of their pregnancies by quitting smoking. Campaign materials included television ads, a science-based smoking cessation protocol for telephone counselors, and patient education materials (booklets, posters, video and Website) and were tested and refined with the target audience. In the campaign's first year, it generated almost 12,000 calls to the Great Start quitline (approximately 2.5% of pregnant smokers), and about three fourths of callers said they were calling in response to the television ads. Campaign researchers concluded that pregnant women were motivated to quit and would respond to a program developed specifically for them (Haviland et al, 2004).

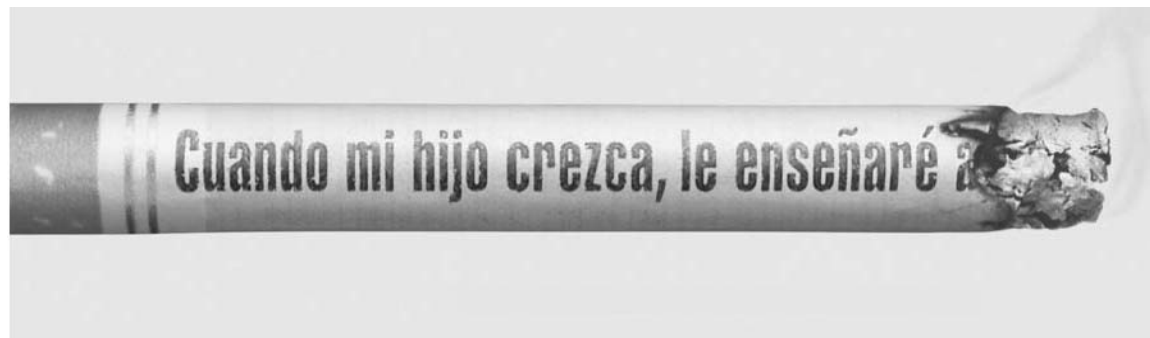
An interesting contrast to this approach is the approach taken by US/California. Their tobacco control media campaign manager believes that most pregnant women in California do quit smoking during pregnancy, however many return to smoking after giving birth. Thus, she feels that general population messages about the negatives of smoking and the benefits of quitting to oneself and one's family, the cessation services and other support that is available, and the way that the tobacco companies deceive and manipulate people are more important in order to motivate smoking women to try to quit once their pregnancies are over. In particular, she believes that general population messages about the negative impact of secondhand smoke on children are compelling to pregnant women. For these reasons, US/California does not implement separate interventions for pregnant women but instead hopes that they will be influenced by the general messages of the campaign (C. Stevens, personal communication, January 2007).

Smokers of Specific Racial/Ethnic Backgrounds

While not all smokers of specific minority racial/ethnic backgrounds are "disadvantaged," many happen to be of lower socio-economic status, and thus may be "disadvantaged" both socio-economically and sometimes because they do not speak the majority language. Furthermore, in many developed countries, immigrant and indigenous populations tend to have higher smoking rates and a lower understanding of the negative health risks of smoking. In such cases, advertisements that take into account cultural norms and affirm cultural identity can be beneficial to effectively communicating with these populations. This was shown in an effective campaign targeting the indigenous people of New Zealand (Wilson et al, 2005) that used Maori testimonials emphasizing protecting one's health and one's family by quitting smoking.

Advertisements that are culturally or linguistically relevant can make smokers believe that the messages are directed specifically at them and reduce the likelihood that they ignore the messages. If a Hispanic smoker sees an ad in Spanish, with culturally relevant details, she is much more likely to pay attention to, and internalize, the message than if the ad is designed for the general English-speaking population. Or if a Muslim smoker sees an ad that references the importance of a non-smoking lifestyle in his religion, he will be more likely to heed the message than if the ad focuses on smoking as a detriment to his social life. Australia, US/California, US/Arizona and US/Massachusetts all had

success with ads developed for specific racial/ethnic populations in non-majority languages (The California Smokers Helpline, 2000, Australia's National Tobacco Campaign, 1999; S. Heck, personal communication, 1998). In addition, US/New York recently aired US/Massachusetts' Spanish language testimonials eliciting high levels of calls to their quitline (Farrelly, 2006).



Photographer: Curtis Johnson

Quit UK, too, has significant experience targeting specific populations, including maintaining quitlines in nine languages and a pregnancy quitline. Their strategy is to combine mass media with more personal forms of communication (such as quitline counselors, SMS messaging, and one-on-one attention at clinics), but in all cases, communications are tailored to the individual needs of the specific populations, including unique efforts such as Smoke-Free Ramadan and Smoke-Free Indian restaurants (Sehmi (1), 2005). Results indicate that 12% of participants in one of Quit UK's programs remained tobacco-free after 3 months, and another 9% remained tobacco-free after 6 months (Gilbert and Sutton, 2003). In addition, proactive individualized counseling and tailored materials and support increased the likelihood of quitting 25-30% (Sehmi (2), 2005). Quit UK also used diverse ethnically specific media vehicles opportunistically. In addition to some paid placements, staff met with media owners to discuss the need to include tobacco-related health programming. This led to phone-in shows (i.e., "ask an expert"), a "you and your health" weekly spot, tips/pointers about quitting, and other tobacco-related news stories on radio and television. Finally, Quit UK promoted smoking cessation and cessation services through some influential non-mass-media channels: thought leaders in the target audiences' communities, for example imams in the Muslim community (Sehmi (1), 2005).



Using a Fax Referral System to Link Disadvantaged Smokers with Quitline Services

As mentioned earlier, one strategy for linking smokers to quitline services has been a fax referral service in which a healthcare or other type of professional asks smokers if they would be comfortable being called by a quitline counselor to get help in quitting. In one pilot program in US/Arizona, poor, rural smokers were targeted by working with community nutrition workers (CNWs) from the Special Supplemental Nutrition Program for Women, Infants and Children (WIC). The CNWs asked smokers permission to fax their contact information to quitline staff so that a quitline counselor could proactively contact each interested smoker. This resulted in a significant increase in referrals to the quitline and US/Arizona concluded that it was a very successful strategy for marketing its smoking cessation services statewide (North American Quitline Consortium, 2005).

Use of Testimonials to Effectively Communicate with Specific Populations

As mentioned earlier, programs in several countries have had success using testimonial ads, some that communicate hard-hitting “why to quit” messages (Mosbaek, 2002; Biener et al, 2006; J. Webb personal communication, June 2006; Hutchinson et al, 2004; Schar and Gutierrez, 2001) and some that communicate supportive, hopeful “how to quit” messages (Glasgow, 2005; Aasman, 2005, Dibble, 2005). Qualitative research and anecdotal evidence suggests that one reason audiences are receptive to the ads is because they can relate to the people in the ads. This is consistent with data from the 2006 Annual Edelman Trust Barometer, which found that among people surveyed across 4 continents (11 countries), the spokesperson they would find most credible is ‘a person like yourself or a peer.’ The testimonial format should be considered for cost-efficiently reaching and influencing specific populations who want to see people like themselves in ads. The documentary style of testimonials doesn’t require the high production quality of other styles of ads, allowing for production budgets to go further in order to produce ads tailored to a variety of specific populations.



Materials for Smokers of Lower Socio-Economic and Education Status

Unfortunately there is a dearth of evidence about the kinds of materials that effectively motivate smokers of low socio-economic levels to quit. US/California found that when they recently asked prospective advertising agencies to include ideas for reaching low-SES smokers in their proposals for the tobacco control account, not one agency developed insightful campaign ideas. It is likely that most advertising agencies do not spend significant resources on researching low-SES consumers because they do not see them as a priority, given their lower ability to spend in the marketplace. While US/California is currently experimenting with tailored advertising strategies and executions, they have found that low-SES smokers disproportionately call the helpline versus smokers of higher income, so they are somewhat encouraged that the general population campaign is reaching them and influencing significant numbers to try to quit (C. Stevens, personal communication, January 2007).

In a set of focus groups among low-income males in US/Utah, the participants responded well to straightforward, realistic, and factual information presented in a way that gained their attention. Although the ads they reviewed related to protecting children from secondhand smoke, they appreciated the direct presentation of the health risks suggesting that their reactions to health risk smoking cessation messages would be similar (Murphy-Hoefer, 2000).

Materials should be developed in such a way that they communicate effectively with all smokers, including those of lower socio-economic and lower education status. In most developed countries, people with low education are more likely to be smokers than those with higher levels of education. For example, in the U.S. in 2003, 40% of adults with a GED (high school equivalent) were smokers, 34% of adults with a 9-11th grade education were smokers, and only 8% of adults with graduate degrees were smokers (CDC MMWR, 2005). In Great Britain in 1998 approximately 40% of male and 33% semi-skilled and unskilled manual workers were smokers versus about 15% of professionals and 20% of employers/managers (Grey et al, 2000). Thus, messages must be simple and clear. Sometimes in order to attract people's attention, campaign managers and their agencies develop messages that are clever or include metaphors or allusions that many target audience members don't understand, and thus the messages are not internalized by the target audiences.

Overall, it is recommended that campaigns use the same message strategies and executional approaches that have been proven successful in various countries to reach specific populations, but tailor them as needed to meet language needs. Overall learnings suggest that apart from the language issue, strong ads tend to work well with all populations. For example, although New Zealand ads specifically developed for Maori people, including cultural references and representatives of the Maori population, motivated significant numbers of Maori smokers to call the quitline, the Australian “Every Cigarette is Doing You Damage” ads with their graphic health consequences motivated even more Maori smokers to call the quitline when aired in New Zealand (Wilson et al, 2005). Thus, campaign managers should look first to proven ads, advertising strategies and executional approaches and then should expose their specific populations to them to see if the same ones can communicate effectively with the specific population groups. The key is for audiences to find the messages and how they are presented as credible, relevant, and persuasive.



7. What Unintended Adverse or Positive Outcomes Have Resulted from Smoking Cessation Campaigns?

Adult Smoking Cessation Advertisements Can Positively Influence Youth

Some adult-directed advertisements have had the positive unintended outcome of changing youth attitudes or even behaviors related to smoking. In particular, some graphic or emotional health consequences ads have been shown to influence youth to want to quit or not begin smoking for the same reasons that they influence adults: youth see the serious negative consequences of smoking on smokers and/or their family members and conclude that they'd never want to experience those situations or impose the negative consequences on their loved ones. Even though messages were not targeted specifically to them and pictured adults rather than youth, adolescent respondents in Australia, the UK, Poland, US/Massachusetts and US/California reported equal or higher awareness of testimonials and graphic consequences campaigns compared to adults. They also reported learning new information, identifying with the ad messages, changing key attitudes, and, in some cases, changing their smoking behaviors (White, Tan, Wakefield and Hill, 2003; Biener et al, 2000; BMRB Social Research, 2002; California Department of Health Services, 2002; Hassard, 2000, Przewozniak, 2002). The importance of this learning is that it can make campaign planning more efficient: strong ads are likely to

efficiently influence both adult and youth audiences, thus not requiring that separate ads be developed for youth audiences.



Visualizing Smoking in Campaign Materials Can be Detrimental

While most tobacco control advocates find smoking repulsive and view images of people smoking as disgusting, smokers and former smokers often view images of smoking as seductive and tempting. Thus, serious consideration should be given to whether or not to include images of people smoking in campaign materials because doing so may make smokers actually want to smoke more, not less (Earle, 2000). Another risk of such images is that they may normalize smoking, or make it appear more prevalent than it is, particularly if the images show attractive people smoking in social settings. For these reasons, campaign planners in US/Massachusetts made the decision in 2003 not to continue showing people smoking in advertisements (G. Connolly, personal communication, 2003). Still, there may be situations in which showing smoking is appropriate: for example, the Australian “Every Cigarette is Doing You Damage” ads begin with smokers lighting up but then quickly move to the inside of the smokers’ bodies where destruction is taking place, or the UK ads where attractive people are smoking in a social setting but the cigarettes quickly begin dripping fat. In these cases, the positive images of smoking are countered dramatically with images that capture the very negative consequences of smoking, and these ads resulted in significant knowledge and attitude changes among viewers (Australia’s National Tobacco Campaign Evaluation Report, 1999; Hutchinson et al, 2005).

Wording Choices Can Hinder Persuasive Communication

When US/California developed initial smoking cessation advertising for smokers who spoke Asian languages, the ads resulted in very few calls to the Asian language quitlines. Advertising agency representatives met with the Asian language quitline staff to learn more about the clients they served and concluded that mentioning available “counseling” was not an offer that many Asian Americans, especially male, would respond to. In the Asian communities, counseling was considered a mental health service, and such was taboo. Instead the wording of the ad was changed to offer “help” and “information” which Asians were comfortable with, rather than the perceived psychologically-oriented counseling. When the revised ads aired, significantly more Asians called the Helpline (The California Smokers’ Helpline, 2000).

Unintended Positive Outcomes of Secondhand Smoke Campaigns

Since unintended outcomes of smoking cessation have been detailed above, it’s also important to note that secondhand smoke campaigns can have unintended positive outcomes on smoking cessation as well. In particular, in several cases campaigns to reduce exposure to secondhand smoke have caused smokers to re-think their smoking behaviors and cut down their smoking or quit all together. For example, a secondhand smoke campaign in the UK called “Smoking Kids” resulted in the following attitude changes among smoking parents:

- 38% said the ads made them think they should give up now
- 29% said the ads made them more determined to give up smoking

- 17% said the ads made them more likely to call the NHS smoking helpline or use the website

In addition, when asked about their behavior, 26% of respondents said they cut down on their smoking, 19% stopped smoking around kids, 15% restricted smoking in the house, and 8% discussed the topic with their GPs (BMRB, 2003).

When a US/California testimonial ad about a man whose wife died from breathing his cigarette smoke was tagged with the quitline number, it generated more calls from smokers than any previous cessation-focused ad (The California Smoker's Helpline, 2000).

Similarly, the more exposure that smokers had to a US/Minnesota secondhand smoke campaign, the more likely they were to call the quitline, and to try to smoke less or quit (MPAAT, 2002).



Sources

- 2006 Edelman Annual Trust Barometer, accessed January 2007 at http://www.edelman.com/image/insights/content/FullSupplement_final.pdf
- Aasman A., presentation "Yukon Smoking Cessation Media Campaign," Global Dialogue conference, 2005. Accessed December 2006 at www.stopsmokingcampaigns.org (registration required for access).
- Abt Associates, Inc., An Independent Evaluation of the Massachusetts Tobacco Control Program; Fourth Annual Report: Summary, January 1994 to June 1997.
- American Cancer Society. Chart of Quitline calls by week. Provided via e-mail message by F. Rahman, June 2006.
- A Purchaser's Guide to Clinical Preventive Services: Moving Science into Coverage. US Centers for Disease Control and Prevention and National Business Group Health. 2005. Part 1: page 30. Accessed January 2007 at www.businessgrouphealth.org/prevention/purchasers/
- Australia's National Tobacco Campaign, Evaluation Report Volume I. Commonwealth of Australia, Department of Health and Aged Care. 1999. Accessed July 2006 at www.quitnow.info.au.
- Australia's National Tobacco Campaign, Evaluation Report Volume II. Commonwealth of Australia, Department of Health and Aged Care. 2000. Accessed July 2006 at www.quitnow.info.au.
- Biener L, Harris JE, Hamilton W. Impact of the Massachusetts Tobacco Control Programme: population based trend analysis. *British Medical Journal* 2000; 321: 351-4.
- Biener L., McCallum-Keeler, G., Nyman A. Adults' response to Massachusetts anti-tobacco television advertisements: impact of viewer and advertisement characteristics. *Tobacco Control* 2000.
- Biener L. et al. Impact of smoking cessation aids and mass media among recent quitters. *Am J Prev Med* 2006; 30(3):217-224.
- BMRB Social Research, COI Communications, Department of Health. Tobacco education campaign evaluation, young people and pregnant smokers. London, England, 2002.
- BMRB Tobacco Education Campaign Tracking Study. Commissioned by Department of Health, England, 2004.
- BMRB Tracking Report. Commissioned by Department of Health, England. March 2006.
- BMRB Tracking Report. Commissioned by Department of Health, England. February 2004.
- Borland R., Balmford J. Understanding how mass media campaigns impact on smokers. *Tobacco Control* 2003;12(Suppl II):ii45-ii52.
- California Department of Health Services, A Model for Change: The California Experience in Tobacco Control, 1998. Accessed January 2007 at <http://www.dhs.ca.gov/tobacco/html/publications.htm>
- California Department of Health Services. California tobacco control update. California Department of Health Services, Sacramento, CA; 2002.
- Cancer Care Research Centre, and Centre for Social Marketing, University of Stirling, Alliance for Self Care Research, University of Abertay, Centre for Reviews and Dissemination, University of York. A Review of the Effectiveness of Mass Media Interventions Which Both Encourage Quit Attempts and Reinforce Current and Recent Attempts to Quit Smoking. September 2006 (DRAFT).
- Carroll T., Rock B. Generating Quitline calls in Australia's National Tobacco Control Campaign: effects of television advertisement execution and program placement. *Tobacco Control* 2003;12 (Suppl II):ii40-ii44.
- Cavalcante T, Carvalho A, Vianna C, Cavalcanti E, Mendes F, Oliveira V, Goldfarb L, Reis A. Health Warnings in Brazil: A Study Points Out the Most Impacting Images. National Cancer Institute, Brazil Ministry of Health, 2006.
- CDC Media Campaign Resource Center, www.cdc.gov/tobacco/mcrc, search for "Quitting Takes Practice 2002;" accessed January 2007.
- Centers for Disease Control and Prevention. Cigarette Smoking Among Adults—United States, 2004. *MMWR* 2005; 54: 1122. Accessed October 2006 at www.cdc.gov/mmwr/PDF/wk/mm5444.pdf.
- Centers for Disease Control and Prevention. *Best Practices for Comprehensive Tobacco Control, August 1999*. Atlanta, GA: U.S. Department of Health and Human Services, CDC, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, August 1999. Accessed June 2006 at www.cdc.gov/tobacco (search for "best practices").

- Centers for Disease Control and Prevention. *Telephone Quitlines: A Resource for Development, Implementation and Evaluation*. Atlanta, GA: U.S. Department of Health and Human Services, CDC, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2004, pp. 39-40; pp. 76-77 Accessed January 2007 at http://apps.nccdc.cdc.gov/osh_pub_catalog/ (publication # 099-7949).
- Civljak M., Ulovec, Z., Soldo D., Posavec, M., Oreskovic, S. Why Choose Lent for a 'Smoke Out Day'? Changing Smoking Behavior in Croatia. *Croatia Medical Journal*, 2005;46(1):132-136.
- Croghan et al. Cost Effectiveness of Treating Nicotine Dependence: the Mayo Clinic Experience. *Mayo Clin Proc* 1997; 72: 917-924
- Devlin E. et al. Targeting smokers via tobacco product labeling: opportunities and challenges for Pan European health promotion. *Health Promotion International*, 2005; 6(3):27-39.
- Dibble L., presentation "I Did It! Utah Anti-Tobacco Campaign, Global Dialogue conference, 2005; Accessed January 2007 at www.stopsmokingcampaigns.org (registration required for access).
- Durkin S. and Wakefield, M. Responses to the 'Bubblewrap Emphysema' campaign. Centre for Behavioural Research in Cancer, Cancer Control Research Institute, The Cancer Council Victoria, CBRC Research Paper Series No. 19, March 2006. Accessed January 2007 at <http://www.cancervic.org.au/cbrc-papers/rps19-2006.pdf>
- Earle R. *The Art of Cause Marketing: How to use advertising to change personal behavior and public policy*. McGraw-Hill. 2000.
- Emery S. et al. Televised State-Sponsored Antitobacco Advertising and Youth Smoking Beliefs and Behavior in the United States, 1999-2000. *Archives of Pediatric Adolescent Medicine* 2005;159:639-645.
- Erbas B. et al. Investigating the relation between placement of Quit antismoking advertisements and number of telephone calls to Quitline: a semiparametric modeling approach. *Journal of Epidemiological Community Health* 2006;60:180-182.
- European Network of Quitlines. *Guide to Best Practices*. 2005. Accessed January 2007 at <http://www.enqonline.org>
- Farrelly M., Nonnemaker J., Engelen M., Pais J. *Smoking Cessation in New York State*. New York State Department of Health. August 2006.
- Gilbert H., Sutton S. Telephone helplines: are they a useful public health intervention for smoking cessation? Institute of Public Health, Cambridge, England. 2003.
- Glasgow H., presentation "Targeting Maori in New Zealand," Global Dialogue conference, 2005. Accessed January 2007 at www.stopsmokingcampaigns.org (registration required for access).
- Global Dialogue for Effective Stop Smoking Campaigns. *Summary of Evidence-Based Recommendations from International Literature Review and Unpublished Data Synthesis*. July 2006. Accessed January 2007 at www.stopsmokingcampaigns.org .
- Godfrey, C. Lessons Learned from the English Smoking Treatment Services. *Addiction*. 2005.
- Grey A, Owen L, Bolling K. *A Breath of Fresh Air: Tackling Smoking Through the Media*. Health Education Authority. London, England. 2000.
- Gupta R, Dwyer JM. Focus groups with smokers to develop a smoke-free home campaign. *American Journal of Health Behavior* 2001; 25(6):564-71.
- Hahn E., Rayens, M.K., Warnick, T., Chirila, C., Rasnake, R., Paul, T., Christie, D. A Controlled Trial of a Quit and Win Contest. *American Journal of Health Promotion*, November/December 2005, Vol. 20, No. 2.
- Hammond D, Fong GT, McNeill, A, Borland R and Cummings KM. Effectiveness of cigarette warning labels in informing smokers about the risks of smoking: findings from the International Tobacco Control (ITC) Four Country Survey. *Tobacco Control* 2006;15(suppl_3):iii19-iii25.
- Hammond D, Fong G, McDonald P, Brown S, Cameron R. Graphic Canadian cigarette warning labels and adverse outcomes: evidence from Canadian smokers. *American Journal of Public Health* 2004; 94(8):1442-1445.
- Hammond D, Fong G, McDonald P, Brown K. Impact of the graphic Canadian warning labels on adult smoking behavior. *Tobacco Control* 2003; 12(4):391-395.
- Hassard K, ed. Australia's national tobacco campaign, evaluation report. Volume 2. Canberra: Commonwealth Department of Health and Aged Care; 2000.
- Hastings G., MacFadyen L. The limitations of fear messages. *Tobacco Control* 2002;11:73-75.

- Haviland et al. Giving infants a Great Start: Launching a national smoking cessation program for pregnant women. *Nicotine & Tobacco Research*, Volume 6, Supplement 2, April 2004.
- Hey K., Perera R. Quit and Win contests for smoking cessation (Review). *The Cochrane Database of Systematic Reviews* 2005.
- Hill D., Carroll T. Australia's National Tobacco Campaign. *Tobacco Control*. 2003;12(Suppl II):ii9-ii14.
- Hutchinson C. et al. Tobacco Control: WARNING: advertising can seriously improve your health: How the integration of advertisers made advertising more powerful than word of mouth. Institute of Advertising Practitioners, Gold IPA Effectiveness Award. 2004.
- Hu T., Sung H.Y., Keeler T.E. Reducing cigarette consumption in California: Tobacco Taxes vs an Anti-Smoking Media Campaign. *Am J Public Health*, 85:1218-22, 1995.
- Hyland A., Wakefield M., Higbee C., Szczypka G., Cummings K. M. Anti-tobacco television advertising and indicators of smoking cessation in adults: a cohort study. *Health Education Research*, 2005.
- Korhonen T., McAlister A., Laaksonen M., Laatikainen T., Puska P. "International Quit and Win 1996: Standardized Evaluation in Selected Campaign Countries." *Preventive Medicine* 31, 742-752 (2000).
- Lanigan A., Wipfli H., Stillman F., Gutierrez K. *International Review of Published Literature Related to Stop Smoking Campaigns*. November 2006. Accessed January 2007 at www.stopsmokingcampaigns.org (registration required for access).
- Levy D. and Friend K. A Computer Simulation Model of Mass Media Interventions Directed at Tobacco Use. *Preventive Medicine* 32, 284-294 (2001).
- McAlister A., Morrison T., Hu S. Meshack A. Media and Community Campaign Effects on Adult Tobacco Use in Texas. *Journal of Health Communication*, Volume 9: 95-109, 2004.
- McVey D., Stapleton J. Can anti-smoking television advertising affect smoking behaviour? Controlled trial of the Health Education Authority for England's anti-smoking TV campaign. *Tobacco Control* 2000;9:273-282.
- Miller C.L., Wakefield, M., Roberts L. Uptake and effectiveness of the Australian telephone Quitline service in the context of a mass media campaign. *Tobacco Control* 2003;12(Suppl II):ii53-ii58.
- Mosbaek C. The Association between Advertising and Calls to the Oregon Tobacco Quitline. Thesis presented to Department of Public Health and Preventive Medicine and Oregon Health & Science University School of Medicine, 2002.
- MPAAT, Evaluation of the 2001-2002 MPAAT Media Campaign: Executive Summary. 2002.
- Mudde A.N., de Vries H., Strecher V.J. Cost effectiveness of smoking cessation modalities: comparing apples with oranges? *Preventive Medicine*. 1996;25:708-16.
- Murphy-Hoefer R. Results of a SHS Media Campaign with Blue Collar Males report. Utah Department of Health. 2000.
- National Assessment of Literacy. 2003. Accessed January 2007 at <http://nces.ed.gov/NAAL/index.asp?file=KeyFindings/Demographics/Overall.asp&PageId=16#1>.
- Niederdeppe J, Farrelly MC, Haviland ML. Confirming "truth": more evidence of a successful tobacco countermarketing campaign in Florida. *American Journal of Public Health* 2004 Feb;94(2):255-7.
- North American Quitline Consortium (NAQC). *Quitline Operations: A Practical Guide to Promising Approaches*. Phoenix, AZ: North American Quitline Consortium, 2005. Accessed January 2007 at <http://www.naquitline.org/index.asp?dbid=3&dbsection=operations>
- Norwegian Directorate for Health and Social Affairs. "Every Cigarette is Doing You Damage" 2003 New Year's Campaign. Campaign Summary document.
- O'Connor R., Fix B., Celestino P., Carlin-Menter S., Hyland A., Cummings K.M. Financial Incentives to Promote Smoking Cessation: Evidence from 11 Quit and Win Contests. *Journal of Public Health Management Practice*, 2006, 12(1), 44-51.
- Owen L., Lafferty G. Quitline: An audit of the national helpline for smokers 1995-1998. Health Education Authority. 1999.
- Owen L., Youdan B. 22 years on: the impact and relevance of the UK No Smoking Day. *Tobacco Control*. 2006;15:19-25.
- Parrot S., Godfrey C. ABC of smoking cessation. *British Medical Journal*. 2004; 328(7445):947.
- Pourshams A, Mohammadifard N, Asgary S, Golshadi I, Sarraf-zadegan N. Evaluation of the International "Quit and Win" Contest in 1998 in Isfahan, Iran." Isfahan Cardiovascular Research Center, 2000.

- Przewozniak K. et al. presentation "Effects of antismoking advertising campaign in Poland." 11th World Conference on Tobacco or Health, August 2000. Abstracts, Vol. 3, p. 744.
- Ratcliffe J., Cairns J., Platt S. Cost effectiveness of mass media-led anti-smoking campaign in Scotland. *Tobacco Control* 1997;6:104-10.
- Rooney B, Silha P, Gloyd J, Kreutz R. Quit and Win Smoking Cessation Contest for Wisconsin College Students. *Wisconsin Medical Journal*, 2005; Volume 104, No. 4.
- Schar E., Gutierrez K. *Smoking Cessation Media Campaigns from Around the World: Recommendations from Lessons Learned*. Centers for Disease Control and Prevention and World Health Organization European Tobacco-Free Initiative, 2001. Accessed May 2006 at <http://www.euro.who.int/document/e74523.pdf>
- Schar E., Gutierrez K., Murphy-Hoefer R., Nelson D. *Tobacco Use Prevention Media Campaigns: Lessons Learned from Youth in Nine Countries*. Atlanta: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health. 2006. Accessed January 2007 at http://www.cdc.gov/tobacco/youth/youth_lessonslearned.htm.
- Secker-Walker R.H., Worden J.K., Holland R.R., Flynn B.S., Detsky A.S. A mass media programme to prevent smoking among adolescents: costs and cost effectiveness. *Tobacco Control* 1997;6:207-12.
- Secretary for Health, Secretaries of State for Scotland, Wales, and Northern Ireland. *Smoking Kills: A White Paper*. London, England. December 1998.
- Sehmi K (1). Presentation, "Collateral Support During Asian Quitlines and Ramadan Campaigns." Global Dialogue conference, November 2005. Accessed January 2007 at www.stopsmokingcampaigns.org (registration required for access).
- Sehmi K (2). Presentation, "Quit UK-Wide Cessation Services: A Comprehensive Approach." Global Dialogue conference, November 2005. Accessed January 2007 at www.stopsmokingcampaigns.org (registration required for access).
- Solberg, L.I. Repeated tobacco use screening and intervention in clinical practice: health impact and cost effectiveness. *American Journal of Preventive Medicine*. 2006.
- Sun S, Korhonen T, Uutela A, Korhonen H, Puska P, Jun Y, Chonghua Y, Zeyu G, Yonghao W, Wenqing X. International Quit and Win 1996: comparative evaluation study in China and Finland. *Tobacco Control* 2000 ;9 :303-309.
- The California Smoker's Helpline: A Case Study, California Department of Health Services, Tobacco Control Section, May 2000. Accessed June 2006 at <http://www.dhs.ca.gov/tobacco/html/publications.htm>.
- The Guide to Community-Preventive Services. The Effectiveness of Mass Media Campaigns to Reduce Initiation of Tobacco Use and to Increase Cessation. January 3, 2003. Accessed January 2007 at <http://www.thecommunityguide.org/tobacco/tobac-int-mass-media.pdf>
- The Quit Group, Quitting Motivations and Barriers: Qualitative Research. August 2005. Wellington, New Zealand.
- U.S. Department of Health and Human Services. *Reducing Tobacco Use: A Report of the Surgeon General*. Atlanta, Georgia. U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Centers for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health. 2000. Accessed January 2007 at http://www.cdc.gov/tobacco/sgr/sgr_2000/index.htm.
- Valerio M. Quitline in Brazil factsheet provided via e-mail May 2006.
- Wakefield M. et al. Recall and response of smokers and recent quitters to the Australian National Tobacco Control Campaign. *Tobacco Control*. 2003;12 (Suppl II): ii23-29.
- West R., Sohal T. 'Catastrophic' pathways to smoking cessation: findings from national survey. *British Medical Journal*. 2006.
- White V, Tan N, Wakefield M, Hill D. Do adult focused anti-smoking campaigns have an impact on adolescents? The case of the Australian National Tobacco Campaign. *Tobacco Control* 2003;12(suppl II):ii23-ii29.
- Wilson N. et al. The effectiveness of television advertising campaigns on generating calls to a national Quitline by Maori. *Tobacco Control*. 2005;14:284-286.
- Zucker D, Hopkins RS, Sly DF, Urich J, Kershaw JM, Solari S. Florida's "truth" campaign: a counter-marketing anti-tobacco media campaign. *Journal of Public Health Management Practice* 2000;6(3):1-6.