

CHAPTER 2

Effective Mass Media Strategies for Drug Abuse Prevention Campaigns

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INTRODUCTION

Mass communication holds substantial promise as a tool for reaching and persuading people to adopt new and healthier lifestyles. This has long been recognized by those interested in prevention of drug abuse and in other unhealthy behaviors (Flay & Sobel, 1983; Rogers & Storey, 1987; Schilling & McAlister, 1990; Wallack, 1989). Prevention efforts, such as the National Institute on Drug Abuse's "Cocaine: The Big Lie" campaign and the Partnership for a Drug-Free America anti-drug campaign, have heavily relied on the promise. It is also reflected in the launching in 1998 of a historic \$2 billion, 5-year, media-based campaign directed at reducing illicit drug use among 9- to 18-year-olds. This campaign, directed by the Office of National Drug Control Policy (ONDCP), has many facets but relies primarily on televised anti-drug public service ads (PSAs) and is by far the largest federally funded drug abuse prevention effort in history.

This strong dependence on the mass media in prevention efforts is not unusual—the mass media are the primary or leading components in a variety of public health campaigns and frequently are the only component (Backer, Rogers, & Sopory, 1992; Flay, 1987; Rice & Atkin, 1989). As Bauman et al. (1991) note, "This is the most common and practical application of mass media in public health and, unlike multiple-component approaches, is capable of ready distribution on a

national level” (p. 602). At the very least, as Romer (1994) observes, “mass-media communication campaigns to alter risky behavior are seen increasingly as a critical adjunct to school-based programs and community-wide interventions” (p. 1073). To what extent is this widespread faith in the power of the media justified?

Although the early history of mass-media campaigns, particularly those involving health, was largely one of failure (Flay & Sobel, 1983; Rogers & Storey, 1987), the promise of reaching large audiences has led to continued efforts, a sharpening of design methodologies, and more realistic campaign expectations. These more sophisticated efforts, combined with more powerful evaluation methodologies, provide evidence that media health campaigns can be effective in changing beliefs, attitudes, intentions, and even behaviors, when properly designed (Backer, 1990; Perloff, 1993; Rogers & Storey, 1987).

Design elements that have contributed to successful campaigns include sophisticated audience segmentation and targeting, the use of formative research in message creation, the development of professional-quality messages that compete effectively with product ads and other features of the communication environment for the attention of the audience, the use of appropriate channels of communication, and the incorporation of more sophisticated theories of persuasion in campaign design (Backer, 1990; Perloff, 1993; Rogers & Storey, 1987). More rigorous techniques of formative, process, and summative evaluation, coupled with more powerful statistical tools, have detected a variety of campaign effects. Such research generally shows that coupling media with other kinds of interventions is more successful than either media or nonmedia efforts alone (Flora, Maibach, & Maccoby, 1989; Rogers & Storey, 1987). There is growing evidence, however, that, when used correctly, media alone can have significant positive impacts on health-related attitudes, beliefs, and behaviors (Beck et al., 1990; Flay, 1987; Flora, Maccoby, & Farquhar, 1989; Zastowny et al., 1993).

So much research has been compiled on successful public health campaigns, either media-only or media supplemented by other channels, that a series of generalizations on the most effective ways to use the media has disseminated widely through the literature for use by communication practitioners (see Backer et al., 1992; Flay, 1987; Flay & Sobel, 1983; Perloff, 1993; Rogers & Storey, 1987). This chapter highlights three of the most important principles—ones that we have found to be highly useful in our own approach to media interventions.

1. Design a campaign that will achieve widespread, frequent, and prolonged exposure to a message.

In traditional advertising terms this means that the media campaign messages must have high reach (the proportion of target audience members exposed to a message at least once) and frequency (the average number of exposures per audience member reached). These goals are much easier to state than to achieve. To accomplish them means that campaign practitioners must develop messages that can elicit high levels of attention from the target audience and disseminate the message through media channels actually used by audience members. It also means that (1) sufficient financial resources must be available to purchase adequate amounts of time or space in desired media vehicles (such as TV and radio, newspapers, magazines), or (2) considerable salesmanship and marketing skill must be used to persuade media gatekeepers to donate these precious resources in times or locations that are likely to be seen by the target audiences, or (3) a combination of both purchased and donated time and/or space should be used. More campaigns are turning to option 3, with an emphasis on purchasing, to achieve campaign goals. These include successful anti-smoking initiatives in California and Massachusetts (Hu, Sung, & Keeler, 1995; Siegel & Biener, 2000) and the ONDCP antidrug campaign. Still, paid media schedules in health campaigns are in the minority, and more research is needed to compare the effectiveness of paid versus donated schedules (Murry, Stam, & Lastovicka, 1996). One recent field experiment

investigating this found no difference in effectiveness; however, the donated campaign in this study emulated the paid campaign closely, something that is rare in practice (Murry et al., 1996). The targeting advantages of paid campaigns ordinarily are substantial, so we would expect the trend toward paid media schedules to continue.

2. Use audience segmentation strategies to target messages to at-risk audiences.

This is the cornerstone of the social marketing approach. Segmentation or targeting can lead to much more efficient and effective dissemination of campaign messages to those most in need of prevention information. While demographic data can provide a rudimentary beginning, any targeting scheme should also be based on psychographic variables (such as attitudes, values, beliefs, and personality characteristics) linked both to the behavior of interest (marijuana or other substance use) and to the communication channels and message styles most preferred by target audience members (Backer et al., 1992; Slater, 1996).

3. Use formative research throughout the audience segmentation, message design, and channel selection phases.

Such research, both qualitative and quantitative, is essential in determining the relevant needs, beliefs, behaviors, and attitudes of the target audience; in designing messages to attract the attention of and persuade audience members; and in determining the media channels and vehicles most used by the audience (Atkin & Freimuth, 1989; Backer et al., 1992; Rogers & Storey, 1987). The research should involve careful pretesting of prevention message ideas at the concept stage, the "storyboard" or "rough-cut" stages, and the final production stage. Ideally, this testing should be done with members of the target audience, media professionals, and behavioral scientists knowledgeable in both the behavior of interest and theory-based approaches to message design.

Despite encouraging growth in the use of these and other principles, many important questions remain. A number of techniques have been found to be successful, for example, but little is known about the process by which media messages begin to change attitudes and behaviors. What are the causal lag periods involved? Are there more effective ways of designing and placing prevention messages? What amounts of expensive media time and space are needed to bring about the desired change? And one of the most important and vexing questions concerns the effectiveness of different channels in the media mix. Many public communications campaigns, in an effort to maximize effects, have used a variety of media simultaneously, including television, radio, newspapers, magazines, and billboards, as well as nonmedia interventions. This makes it difficult to evaluate the separate contributions of these different channels on observed changes in outcome variables.

EFFECTS OF TELEVISED PUBLIC SERVICE ADS

The effects of television are of particular interest to those involved in drug abuse prevention because of this medium's ability to reach a variety of populations, including adolescents (Klein et al., 1993; Romer, 1994). Television is by far the most widely used means of disseminating prevention messages, usually in the form of PSAs (Backer, 1990). Understanding television's potential effects on at-risk populations, whether when used alone or in conjunction with institutional or other media channels, is vital to campaign designers; so the confounding of television's effects with those of other channels in many otherwise well-designed campaigns is unfortunate. Studies involving the use of televised anti-drug PSAs alone, on the other hand, generally suffer from mistakes in

campaign execution, including violating two of the principles discussed previously: (1) lack of widespread, frequent, and prolonged exposure to messages—in several campaigns, PSAs were aired outside prime time and/or on noncommercial stations, and then only infrequently; and (2) lack of appropriate segmentation or targeting—many anti-drug PSA campaigns have been directed at nonidentifiable audience segments (Flay & Sobel, 1983).

Evaluations of such campaigns tell us little about the potential persuasive effects of well-executed PSA campaigns that use more recently developed and proven techniques. Many of these campaigns, too, have had the limited, and perhaps appropriate, primary objective of increasing knowledge levels or raising the salience of a health-related issue and have not been directly concerned with changing attitudes or behaviors. In addition, when campaigns have been correctly designed and carried out, they are not always evaluated correctly. PSA recall and campaign-issue salience have been the primary measures of effectiveness in many campaigns (especially informational ones). Simple cross-sectional post-test surveys have been used frequently. Longitudinal or panel studies often have involved simple pre- and post-test designs that fail to account for pre- and postcampaign trends in criterion variables. When such longitudinal trends, which yield potentially valuable information about change processes, have been reported, the data usually have been subjected to “eyeball” inspection rather than to appropriate statistical tests of intervention effectiveness, such as time-series analysis (Beck et al., 1990; Hammond, Freimuth, & Morrison, 1987; Krishnamurthi, Narayan, & Raj, 1986; Murry, Stam, & Lastovicka, 1993; Pierce et al., 1986, 1992; Ross & Scott, 1993; Shelley et al., 1991).

Another problem is the failure of most studies of PSA effectiveness to use control communities that are free of confounds from other mass-media efforts. A major exception is a well-controlled, 4-year longitudinal study on the prevention of cigarette smoking in adolescents that compared the impact of mass-media-plus-school interventions in two communities versus school-only interventions in two matched communities (Flynn et al., 1992, 1995). The media intervention, which took the form of four approximately 6-month-long campaigns spaced over 4 years, used a combination of television and radio spots in purchased and donated time in popular teen programming to ensure high saturation. There were significant reductions (which increased annually) in reported smoking, with related effects on smoking attitudes and beliefs, in the media-plus-school compared to the school-only communities. These reductions could be attributed directly to the addition of the PSA components, although it was not possible to distinguish between the effects of television and radio.

Despite this research, it is still an open question whether televised anti-drug PSA campaigns using more advanced principles of campaign design can go beyond well-designed and acknowledged informational or agenda-setting effects to produce significant changes in drug-related attitudes, beliefs, and ultimately behaviors. Reviews concluding that televised PSAs have effects only on knowledge or awareness are based primarily on evaluation of either information-only campaigns, campaigns that were not designed to isolate the effects of televised PSAs, or campaigns that contained flaws in execution or evaluation (Gantz, Fitzmaurice, & Yoo, 1990).

Research on the large, long-term, and well-designed Partnership for a Drug-Free America television campaign (supported by more than \$3 billion in donated air time and print space since 1987) provides some evidence of such effects (Black, 1991; Zastowny et al., 1993). Published evaluations of this campaign, however, have been criticized for being based on a series of annual cross-sectional samples that used a controversial mall-intercept design for several years. No satisfactory control population exists for this national campaign. Complicating the assessment of the campaign's effects is the fact that a number of drugs (such as marijuana, cocaine, and amphetamines) were already exhibiting downward trends in use prior to the start of the campaign in 1987. Other history and maturational factors, such as media coverage of drugs, are also uncontrolled in the evaluations.

Still, areas receiving greater partnership PSA saturation have shown much larger changes in annual cross-sectional surveys (compared to less-saturated areas) in drug-related attitudes, beliefs, reported use of a variety of illicit drugs, and intentions to use such drugs (Black, 1991; Block, Morwitz, & Sen, 1996). While these latter findings should be interpreted cautiously because of their cross-sectional nature, they provide the strongest nonlaboratory evidence available that the mass media (at least televised PSAs) can successfully discourage the use of illicit drugs.

WHAT WORKS AND WHY

Despite limited empirical evidence on the effectiveness of the mass media in preventing use of illicit drugs, practitioners can take heart (and guidance) from the much larger body of research literature dealing with the impact of media-based interventions on health-related behaviors in general (Perloff, 1993; Rogers & Storey, 1987) and on the use of licit substances, such as cigarettes (Burns, 1994; Flay, 1987; Flynn et al., 1995; Hu et al., 1995; Siegel & Biener, 2000). This more general literature, as noted earlier, provides ample evidence that well-planned media campaigns can influence a wide variety of health-related attitudes, norms, and behaviors. These studies also address an issue on which the sparse media drug abuse prevention literature (with the exception of the *SENTAR* approach discussed in the following) is largely silent—what kinds of campaign strategies, persuasive arguments, and other message characteristics work best and why? We have already discussed three important principles for campaign design that have emerged from the public communications campaign literature. We should add, however, one very important empirical finding from this literature—that theory-based media interventions have been much more likely to be successful. Ample evidence exists of successful campaigns that used such guiding frameworks as social learning theory, diffusion of innovations, the theory of reasoned action, the health belief model, the elaboration likelihood model, and protection motivation theory (Flora et al., 1989; Maibach & Parrott, 1995; McAlister et al., 1989; Petty, Baker, & Gleicher, 1991; Rogers, 1995; Rosenstock, 1990; Schilling & McAlister, 1990; Zimmerman & Vernberg, 1994). Other theoretical perspectives, such as peer cluster theory (Oetting & Beauvais, 1987), can be drawn from school- or community-based prevention efforts.

While principles from a number of these theories have been applied, at least implicitly, in drug abuse prevention media campaigns, there has been no systematic evaluation of their relative (or combined) efficacy in such interventions. Still, their success in other health contexts strongly suggests that they can be applied effectively to drug abuse prevention. Schilling and McAlister (1990) offer a number of cogent and detailed suggestions for applying several of the more widely used theories to anti-drug campaigns. The strategic communication plan developed by Porter Novelli for the ONDCP media drug abuse prevention campaign relies heavily on principles derived from social learning theory, peer-cluster theory, and the theory of reasoned action, as well as on empirical findings from a host of media and nonmedia interventions. Evaluation of the campaign's impact will, in effect, be the first major evaluation of the explicit application of these theories in a media-based illicit-drug-abuse prevention campaign.

A SENSATION-SEEKING APPROACH TO DRUG ABUSE PREVENTION

Another theoretical approach represented in the ONDCP campaign's strategic communications plan is one we have been developing over the past 15 years at the University of Kentucky with the support of a series of grants from the National Institute on Drug Abuse. This approach is,



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