This chapter examines the conditions under which mass media health campaigns achieve the greatest impact on the public. It is based on a distillation of a large body of scientific research and theory from the mass communication, social psychology, and public health fields. While the thrust of the review is empirical, several of the issues addressed have implications of a philosophical nature that may raise some new questions as well as answering some. Most of the philosophical issues relate to the concern that mass communication messages primarily seek to change individuals, when many public health problems are more appropriately viewed as properties of larger social and political systems rather than individuals (see Wallack, Chapters 2 and 11). This conundrum should be kept in mind as the practical generalizations about individual-level campaign effects are presented.

**WHAT IS A CAMPAIGN?**

There are numerous definitions of campaigns (Rogers & Storey, 1987), often building on standard dictionary definitions that refer to a...
series of operations in a war. Applied to public health, communication campaigns can be defined as an integrated series of communication activities, using multiple operations and channels, aimed at populations or target audiences, usually of long duration, with a clear purpose.

An integrated set of activities ideally implies preplanning and organization. In practice, some campaigns that are not extensively preplanned and well coordinated may nevertheless turn out to be well integrated; for example, the antismoking movement has successfully combined campaign efforts from disparate quarters. Nevertheless, many campaigns have failed because of a lack of preplanning and coordination. Clearly, it is advantageous to carefully formulate a plan and to arrange cooperation among various agencies and groups conducting campaigns in specific health domains.

Use of multiple operations and channels suggests that a campaign may consist of more than mass communication activities, such as grassroots organizing, activism and confrontation, legislative testimony, and community organization. This chapter is restricted to mass media campaigns, stressing television, while acknowledging the important role of supplemental activities (Lazarsfeld & Merton, 1948).

While the whole population of a country may be targeted, the concept of large target audiences typically means specific, well-defined subgroups such as youth, pregnant women, or Mexican-Americans.

Long duration implies that years, rather than months or weeks, are required to achieve maximum effects. Most wars continue for a period of several years, and a sustained effort is needed for warlike health campaigns against smoking, cancer, and drugs.

Purposeful means that the campaign should follow a strategic plan with clear and measurable objectives. Communication campaigns aim to bring about change by influencing either the opinions and behaviors of individuals or, less often, the marketing behavior of corporate heads or the legislative decisions of congressional representatives.

These characteristics of campaigns incorporate all components of definitions proposed by various communication scholars (Atkin, 1981; Paisley, 1981; Rogers & Storey, 1987; Solomon, 1982). These characteristics also define campaigns to market products. Yet, there are distinct differences between commercial advertising and public health campaigns as they are normally designed.

PUBLIC HEALTH CAMPAIGNS VERSUS PRODUCT MARKETING CAMPAIGNS

While there are many similarities, campaigns promoting products differ from health campaigns on the following dimensions (adapted from McCron & Budd, 1981):

- **Type of change expected.** Many health campaigns aim to change fundamental behaviors, whereas most product advertising aims to mobilize an existing predisposition, as in switching brands. Of course, some advertising does seek to create new markets.
- **Amount of change expected.** Health campaigns aim to change a large proportion of the population, and often in large ways. Product advertising campaigns are usually satisfied with small shifts in market share.
- **Time frame** of promised benefits. Health campaigns usually ask their target audience to wait for delayed statistical probabilities, such as reduced likelihood of eventual illness or a few additional years of life. Product advertisers promise immediate certainty and satisfaction.
- **Presentation of the product.** Advertisers can dress up their product in an exaggerated fashion, for a certain amount of deception (e.g., imagery advertising associating social success with buying a particular brand of Scotch) seems to be acceptable to audiences. On the other hand, health campaigners avoid overselling the benefits of a behavior or treatment and the ease of their acquisition.
- **Available budgets.** Commercial advertisers often have massive budgets, while health campaigners usually operate on relatively minuscule monetary resources.
- **Trustworthiness. People** often distrust commercial advertising, even though they may be affected by it. Health campaigns cannot allow distrust to develop, although there appears to be some skepticism of government-sponsored health messages.
- **Level of evaluation.** Advertisers stress formative market research conducted before a campaign. Many health campaigns still ignore evaluation; when research is performed, it tends to be summative evaluation carried out after the campaign.

So, while the defining attributes of health campaigning and product marketing may be the same, the expectations and conditions differ markedly. Indeed, advertising meets the basic defining characteristics of a campaign more closely than do most public health campaigns.
order to attain greater effectiveness, health campaigners must also strive to meet these defining characteristics. Moreover, public health campaigns also need to meet even more basic conditions, as outlined in the remaining sections of this chapter.

NECESSARY CONDITIONS FOR EFFECTIVE CAMPAIGNS

A short sequence of steps, simple to spell out but difficult to accomplish in practice, must be followed for public health campaigns to be maximally effective. The seven steps are (1) develop and use high-quality messages, sources, and channels; (2) disseminate to the target audience; (3) gain and keep the attention of the audience; (4) encourage favorable interpersonal communication about the issue; (5) cause changes in behaviors of individuals, along with awareness, knowledge, opinions, attitudes, feelings, normative beliefs, intentions, or skills; (6) cause broader societal changes; (7) obtain knowledge of effects through summative evaluation. In the following sections, we will describe and examine the significance of each condition, noting both the conventional wisdom and contrary views.

Use High-Quality Messages, Sources, and Channels

The message (e.g., “eat less saturated fat”) and its source (e.g., the American Heart Association), and the channel used to distribute it (e.g., television) must be acceptable to the target audience and effective at influencing them. Only influential messages from believable sources will change people or society, regardless of how many people are reached on how many occasions.

On the other hand, some believe that the message is irrelevant because the overall social system/environment is a much larger determinant of individual attitudes and behaviors than is a single campaign. From this perspective, what matters is simply that people hear that alternative viewpoints exist. While there may be some truth to this point, particularly if having an alternative view leads to policy debate (see interpersonal communication, below), planned campaigns can increase the probability that such interpersonal communication will be supportive of public health and that some individuals will possibly be helped in making immediate improvements in their health behavior.

Determinants of achieving high-quality messages, sources, and channels fall into three major areas: needs assessment, application of theory, and formative research.

Needs assessment. In order to develop better messages, the campaign planner should gain more knowledge about the problem they are addressing, the target audience, and the relevant social issues.

Campaigners must know as much as they possibly can about the problem that their campaign will address—in particular if having an alternative (see interpersonal communication, below). Planned campaigns can increase the probability that such interpersonal communication will be supportive of public health and that some individuals will possibly be helped in making immediate improvements in their health behavior.

Without such information, they are unable to effectively address the issue. Campaign planners must know their target audience: the salience of the issue to them, their involvement in it, and where they are cognitively, affectively, and behaviorally (Bauer, 1964; Flay & Cook, 1981,1989; Cartwright, 1949).

In addition, planners must know the relevant societal conditions surrounding the issue and social attitudes toward it, including the awareness level of politicians, the media, the population, special interest groups, minorities, and their likely acceptance/support of a campaign. For example, almost any antismoking campaign might be more effective with adults today than an anti-alcohol campaign because of the stronger norms against smoking.


Formative research. The development of ideas and concepts for a campaign should be informed by needs assessment, often included as part of formative research. Concepts and preproduction messages should be pretested with samples of the target audience before final production. Special care is needed to avoid unintended effects or unintended meaning—e.g., the “smoking fetus” PSA, intended to motivate pregnant women to quit smoking, aroused the ire of pro-choice advocates regarding abortion because it portrayed a fetus as a fully formed human being. Formative research will often lead to changes in message content or form (Flay, 1987; Flay, Kessell, & Uhls, 1989; Palmer, 1981; Worden et al., 1989).
Disseminate the Messages Well

To be effective, a message must reach the target audience, be repeatedly frequently (up to certain limits) and consistently but with some novelty, for long periods of time (duration). Product advertising often meets all of these conditions, but health campaigns rarely do. The North Karelia and Stanford Heart Disease Prevention projects (Maccoby & Solomon, 1981; McAlister, Puska, & Salonen, 1982) are planned campaigns that were effective due to extensive dissemination of messages.

It is worth remembering, however, that good dissemination will be wasted on poor messages. Also, dissemination will increase "spontaneously," through opinion leaders and interpersonal discussion, if the message is "good."

There are five important mediators of effective message dissemination: media gatekeepers, political and social support, financial support, target audience characteristics, and message characteristics.

Media gatekeepers. People and corporations in control of media channels determine what can be aired or printed, the amount and type of coverage, and its timeliness and duration. Campaign planners should know their media gatekeepers' interests and potential conflicts of interest. They must also remember the agenda-setting functions of the media (Gandy, 1982; McCombs & Shaw, 1972). They might consider how news on the campaign topic is handled by the proposed channel, and whether news writer feel compelled to obtain an opposing point of view or not (and if so, whether this works to the advantage or disadvantage of the campaign). The type of message developed for telecast will certainly be different in cases where a countermessage can be expected, than in cases where the message will be delivered unchallenged.

Another consideration is whether conflicting interests lead to censorship; certain magazines may be restricted in what smoking or drinking stories they will carry because of their cigarettes or alcohol advertisers (see Wallack, Chapters 2 and 11; Moyer, Chapter 3; Kaidman, Chapter 4; and reviews and analyses by Minkler, Wallack, and Madden, 1987, Warner, 1985, and Warlen, Sheridan, Meister, & Mosher, 1981).

Finally, there is the issue of conflicting interests possibly kading to a lack of credibility. For example, is the Advertising Council a credible agency to sponsor an alcohol reduction campaign? Arguments may be made in either direction on this issue, but the important factor is what the target audience believes.

Political and social support. The more support a campaign has from other sources, the easier it will be to get a new message disseminated. Opposition to the campaign message position makes the task more difficult. Therefore, supplementing an ongoing campaign (e.g., anti-smoking, drug abuse prevention, or AIDS education) might be more easily achieved, up to certain limits, than starting a campaign on a new issue. Entering a controversial area, such as pregnancy prevention, might be more difficult.

Financial support. Extensive financial support may help remove political and social barriers, though it does not guarantee it. Financial support will also enable the purchase of desirable time, rather than relying on donations of undesirable time (e.g., Bauman, Brown, Fisher, Padgett, & Sweeney, 1989; Worden et al., 1989).

Target audience characteristics. Is the target audience of interest to the chosen media channel? Does the target audience use the chosen channel? When exposure is voluntary, the best predictor of whether or not the target audience will be exposed to the message or campaign is their normal, everyday media-use habits.

An there knowledge and health gaps where those most in need are least likely to be reached or are less likely to comprehend the message, or to act on it? Campaign planners should try to reduce such gaps by segmenting the target audience and making extra efforts to reach those most in need with appropriately tailored messages.

Will the message appeal to the target audience? Will it attract new viewers, listeners, or readers to the channel, or at least not turn loyal audiences away? Since most U.S. media are funded by advertisers rather than directly supported by the audiences, such audience responses may be important.

Can the target audience be "captured" in some way? An example would be by requiring viewing of a televised series as homework for a coordinated school-based program (Flay et al., 1987, 1988). Campaign planners might think about the use of "penny media" (e.g., posters, flyers, leaflets) in other situations where audiences can be captured.

Message characteristics. The content of the message and the quality of its production will be considered by media gatekeepers. The content cannot be too controversial for most gatekeepers, nor be seen as possibly evoking other controversial issues (e.g., again, the ill-fated "smoking fetus" PSA). The message must appear to gatekeepers to appeal to regular audiences. Large programs or series must not only appeal to but
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Hopefully also increase the audience. Production quality must be similar to other material used by the chosen channel.

Attract the Attention of the Target Audience

The third major requirement for a successful campaign is that the target audience must be exposed to the message (that is, to see, hear, or read the message), attend to it, process it, and remember it. This is a generalization that may be challenged. Indeed, mere exposure may sometimes be sufficient to cause attitude and behavior change without knowledge change or even much awareness (see order of effects below for more on these alternative points of view).

Gaining the attention of the target audience depends on the characteristics of the receivers, the message, and the channel; attention is also determined by the match between messages and audience, and by the level and type of interpersonal communication stimulated by the message.

Target audience characteristics. Education level, salience of the issue, involvement in the issue, and access to the media channels used are all important. Demographic variables, commonly the only audience characteristics considered, are helpful in selecting the broad channel, such as radio for adolescents. However, a more detailed profile is necessary to select placement or time. Campaign planners must anticipate possibly selective exposure and perception, as individuals may choose to ignore or derogate the message, the source, or the channel. Strategists might attempt to "capture" the audience instead.

Planners should also consider the changing values of the target group. For example, during the last decade, Americans have become less concerned with security and self-fulfillment and more concerned with a sense of accomplishment and with warm relationships with others (Kahle, Poulous, & Sukhdial, 1988). Product marketers must keep track of shifts in values; health campaigners must do the same.

Message characteristics. Messages may be rational or emotional, educational or persuasive, action-oriented or not, one-sided or two-sided, fear-eliciting or not, etc. (see McGuire, 1985, for a detailed review of these considerations). It is generally believed that informational messages are better than emotional ones, though eliciting empathy is almost always desirable. Use of fear is good for many health issues, as long as the audience is given a constructive way of reducing the fear. Action messages are usually good in that they get the audience closer to the desired behavior. There may be some cases, however, where action messages seem less credible than purely informational ones. For instance, in Beltrami's (1988) analysis of perceived believability of health warning labels on cigarette packages, he found that specifying the consequences of smoking led to stronger believability than suggesting risk-reducing behaviors.

Messages need to be simple, without being reductionistic. The most profound and complex events and issues can be communicated simply and concisely once they are understood. It is possible that public health professionals have become overinvested in individual life-style factors in disease and mortality reduction due to a lack of adequate understanding of social and economic forces. It is often productive to disturb the cognitive equilibrium of the target audience, thus provoking thought. This is an anti-narcotizing principle.

Morley and Walker (1987) found that novelty, importance, and plausibility must go together—that dropping one of these three attributes significantly reduces the power of the message. Pierce, Dwyer, Fmpc. Chapman, Chamberlain, and Burke (1986), in a study of smoking cessation, found that health belief content by itself was not effective, and that social influence content by itself was counterproductive, but that both together were powerful.

Channel characteristics. Campaign messages must appear in channels used by the target audience, at the times or in the shows that they watch or listen to. Knowing that pregnant smokers watch television a great deal is not sufficient; planners need to know what and when they watch.

March of target audience and message positions. Cartwright's (1949) concept of canalization suggests the strategy of moving the target audience only a small step at a time. Audiences must see any advocated action as meeting an existing goal. For example, televised "quit smoking" clinics probably would not have been effective in the 1950s, because not enough people knew about the dangers of smoking or were motivated to quit. Today, the emphasis should be on behavior change programs, with only enough awareness and motivation programs to keep the issue on people's minds and to keep them informed (and to reach "confirmed smokers" who might need special motivational attention).

Interpersonal communication. The more people discuss the issue, the more likely they are to attend to the message. Conversely, the more the campaigns can get people to pay attention to the messages, the more
likely those people are to engage in future interpersonal discussion about the issue.

**Encourage Interpersonal Communication**

The fourth major requirement for a meaningful campaign is to increase favorable discussion about the issue. This can be particularly useful if it leads to debate of policy alternatives. The point is that more people talk about (and therefore also think about) an issue, the greater the chances of change. Of course, unfavorable discussion may sometimes lead to greater commitment to prior positions. To avoid this, campaign planners need to monitor public attitudes and modify their approach and messages accordingly.

The probability of favorable interpersonal communication depends on the target audience, message, source, and channel characteristics, and the level of attention paid to the message by the target audience.

**Target audience characteristics.** Two aspects of audience predispositions are relevant: involvement in the issue and readiness for change. More involved audience members, especially those contemplating change, are more likely to discuss the issue with others. The campaign, or some messages, may need to focus on increasing involvement or motivating people to contemplate change. In the field of smoking cessation, the work of Prochaska and DiClemente (1983) provides a frame of reference for developing messages for smokers at various levels of readiness for change. The Stanford Three Community Researchers (Maccoby & Solomon, 1981; McAlister, Puska, Salonen, 1982) were also sensitive to this issue. They used Cartwright’s (1949) levels of change model as the guiding framework.

The involvement of opinion leaders is another important factor. Research on the diffusion of innovations (Rogers & Shoemaker, 1971) suggests that enlisting respected leaders in the campaign cause and having them involved in interpersonal interactions with groups of the target audience will be helpful. Campaign implementers might also set up supplementary face-to-face viewing and discussion groups, or even clinics for weight loss.

**Message, source, channel characteristics.** Five promising strategies can improve the interpersonal communication climate: increasing salience, promoting debate, monopolizing the issue, supplementing the media messages, and using the media to supplement other efforts.

If the campaign issue is not salient to members of the target audience, salience should be increased by appealing to the audience’s needs and values. Level of controversy of the campaign issue is also important; it may be possible to make the issue, or some aspect of it, controversial enough to promote debate about policy alternatives. This may be especially useful if the social trends are moving in the right direction. Controversy can backfire, however, if it motivates media gatekeepers to reject a campaign, as discussed above.

Attempting to monopolize the issue is unlikely for most health issues. Indeed, many health messages are contradicted or amended by the opposite viewpoint presented editorially or by advertising. But breaking an existing near-monopoly may be almost as useful, for it leads to a more balanced presentation of information to target audiences. This is one reason the FCC-mandated antismoking counteradvertising of 1968-1970 was effective (Warner, 1981; Flay, 1987b, 1987c). Community, school, worksite, or clinic components might supplement media activities. Campaign planners might also attempt to increase social support for the issue and individuals who attempt change. For example, in the smoking area, adding written material to accompany a television program has been found to double effectiveness and adding discussion groups triples it (Flay, 1987b, 1987c). The mass media can also be used to supplement other efforts on those issues where the media arc not the driving force of a campaign, by complementing ongoing interventions of government, industry, schools, and other agencies (Flay, 1986a).

**Attention to the message.** Just as the target audience must pay attention to a campaign message if they arc to be changed by it, maximizing audience attention is also important in generating interpersonal communication. People who attend to the message are more likely to discuss the issue with others. Conversely, involving people in discussion will increase the likelihood of their attending to future messages.

**Cause Individual Change**

To be judged effective, a mass communications campaign has to change the awareness, knowledge, opinions, attitudes, feelings, normative beliefs, intentions, skills, or behaviors, and ultimately the health, of the target audience. An alternative view is that campaigns can only change knowledge, not attitudes, and certainly not behaviors. Another
alternative view is that it is inappropriate or even unethical to focus campaigns on changing individuals. Under either of these alternative assumptions, the major objective should be to change society or the system. There is little to both points of view, and campaign planners need to work from both perspectives.

Whether a campaign succeeds in changing individuals depends on audience characteristics, their attention to the message, interpersonal communication, and the level of broader social change. This section also examines the conditions necessary for behavioral changes, different orders of effects, and the maintenance of changes.

Audience characteristics. Campaign planners should know as much as possible about their target audience. Everything above being equal, certain people will be more readily changed than others. This may be because of personality differences, availability of behavioral alternatives, availability of other resources, or other priorities. Campaign planners should initially target those who are most ready for change, but they also need to target motivational messages to those less ready for change.

Attention. Those who attend to the message are more likely to change in the intended direction than those who do not attend to the message. Campaign planners need to maximize attention to these messages. However, self-selection may still operate, such that individuals who are most ready for change may be the first ones, or the only ones, to attend to the message (Zillmann & Bryant, 1985).

Interpersonal communication. Two groups usually discuss issues: those ready for change and those who are committed to their position and wish to convert others to it. By targeting the former group, campaign messages can encourage discussion between these two groups.

Societal change. The more society changes, the more individuals will change. Thus, even campaigns targeted at individual change should attempt to modify the social environment or influence social policy in ways that encourage and reinforce the desired changes once individuals make them. Smoking cessation, for example, is more likely to be sustained if individuals receive support from their spouses or friends: appropriate change in worksite policy may be even more supportive.

What effects can mass media really bring about? Without doubt, 
- Wishes are raised and knowledge increased by mass communications campaigns. Attitude change and motivation to act differently are harder to cocomplicate. Substantial behavior change is even more difficult, but not impossible. Social learning theory (Bandura, 1977, 1986) and the health belief model (Becker, 1974), among other theories, suggest that behavior change can be produced by the following:

1. Demonstrate or model the desired behavior.
2. Present the behavior as effective, in achieving desirable objectives, particularly immediate ones such as feeling and looking better.
3. Present the behavior as pertinent to real-life circumstances, rather than in the abstract. H therefore the incentive or value of a particular level of freedom from risk.
4. Instill the belief that a particular action or pattern of behavior will precede or ameliorate a specific risk. Nurture the motive to avoid harm or improve well-being in the longer term.
5. Present the behavior as enjoying the approval and support of the community.
6. Mobilize public support for the desired changes.
7. Provide specific guidance for the self-management of behavior change.
8. Provide specific guidance for the self-management of relapses by recycling and trying.
9. Encourage the development of interpersonal social support for change attempts and changed behavior.
10. Provide the infrastructure to support change attempts and changed behavior, encouraging the use of existing infrastructures, or encouraging proactive behavior by the target audience to apply pressure on government or other responsible agencies to provide such infrastructures.
11. Encourage activism against any part of the social system that tends to undermine the desired behavioral changes.

It should be noted that many of these suggestions are consistent not only with basic behavior change theory, but also with increasing attention, interpersonal communication, social support, and reinforcement of change.

Order of effects. Then are several potential hierarchies of effects for ordering change (Ray, 1973). The most common order, in terms of how professionals usually conceive of the effects of their media messages, is cognitive-affective-conative (behavioral), called the learning hierarchy. In other words, knowledge is changed first; then attitudes, and lastly, behaviors (i.e., K-A-B). Although this sequence is usual only for salient issues in which the target audience is highly involved and where the choices are clear-cut and very different, such conditions are common for health issues. However, where salience and involvement is
initially low, the campaigner may need to work on increasing it before attempting to change K-A-B.

Another common order is the low involvement hierarchy, where people are not involved in the issue and there are minimal differences between alternatives. Most purchasing decisions are of this type, so much product advertising follows this model. The order is cognitive (awareness of a new brand), conative (trial behavior), affective (like or dislike the new product). This order is less often relevant for health issues.

A third common order is the dissonance-attribution hierarchy, conative-affective-cognitive. When people are involved in the issue, but the alternatives are almost indistinguishable, they may try something, decide that they like it (attitude), and then selectively attend to information that supports their decision. Alternatively, if people can be forced into a new behavior (e.g., by legislation such as in forced integration), or otherwise "bribed" or tricked into trying something (e.g., by the use of free gifts for visiting a time-share vacation resort), they may decide that they like it and then find the information to support their position. A positive affective reaction to an emotional or associative message might lead to the same chain of effects.

Maintenance of effects. This requires consideration of reinforcements, social support, and systemic support, all of which have been discussed above.

Cause Social Change

The long-term maintenance of individual-level effects and the ultimate effectiveness of a campaign requires parallel changes in society. Ultimate effects on health status (morbidity and mortality) require behavior changes by the bulk of the target population, not just the 5% to 10% of the population that can be influenced most easily by media campaigns. Thus, a complete campaign must consist of more than mass communications. The media should be supplemented by community and government involvement and changes (Rogers & Storey, 1987). Alternatively, the appropriate target individuals for a campaign might sometimes be politicians, so they can start to change the system concurrently with a subsequent campaign targeted to populations.

Whether the target of change is health behavior or voting behavior, ultimately the level of societal change depends on both the kind and amount of individual change and the degree of interpersonal communication.

Individual effects. The accumulation of individuals who have changed leads to changes in social norms which, in turn, lead to societal changes, and can lead to systemic changes.

Interpersonal communication. A campaign targeted to individuals can lead to social changes if enough of those individuals discuss it with others—especially with politicians and other opinion leaders in a position to bring about changes.

Obtain Knowledge of Campaign Effects

A final requirement for campaign effectiveness is accumulation of knowledge about effects and impact. Public health, media, government, and private agency employees should know what has worked, for whom, under what conditions. While such knowledge may not influence the success of an already implemented campaign, it will influence the nature and effectiveness of future campaigns. Future campaigns can be improved only if planners know what worked and why (Flay, 1987b, 1987c). Lack of such knowledge will lead to repeating old mistakes.

An alternative view to this position is that the only important thing is to care about people and to try something. Under this view, evaluation and research are a waste of resources that should be put into public education (the point of view of some voluntary health agencies). Of course, the rebuttal to this alternative view is that with sufficient evaluation, it might be discovered that campaigns are not "doing good" after all, so there is a need to do something different to meet societal goals.

Two mediators of knowledge of effects are the desire to know and the quality level of summative evaluation.

Desire to know. Obviously, without the desire to know, no attempt, or inadequate attempts, will be made to determine the effects of campaigns. Those who subscribe to the "we care and are doing something practical" view might find it against their interests to know. Would the Advertising Council want to know if their anti-alcohol campaign was ineffective in all respects but attaining good public relations for them?

Those who subscribe to the "it's a waste of resources" point of view probably believe-perhaps mistakenly—that they know how to design a campaign and thus do not need to "waste" resources finding out. It
might also be against their best interests to find out, for public education is believed to be a good public relations that leads to greater contributions for basic research.

**Summative evaluation.** Only high-quality summative evaluation can inform campaigners about the effects of a particular campaign. Three broad models of evaluation of single studies and synthesis approach are common (play & Cook, 1981). The advertising model focuses on the beginning of the presumed causal chain; it is usually limited to assessing total audience size and recall and recognition of the message. The impact monitoring model focuses near the end of the presumed causal chain, using archival data. The use of per capita consumption of tobacco to determine the effects of counteradvertising and publicity is probably the best example of this approach. It is valuable for assessing effects of campaigns of long duration, but not for assessing the effects of normal campaigns or specific components of long ones. The experimental model attempts a more comprehensive assessment of effects from different levels of the presumed causal chain, and it also attempts to control for alternative explanations for any observed effects. It is the model most favored by scholars but the one most difficult to implement in the real world. However, the Stanford Heart Disease Prevention Project is a prime example of the approach for long and multifaceted campaigns, and there is a significant number of examples for shorter, more focused programs (Play, 1981).

In the long term, synthesis (or meta-analysis) of results from all types of evaluations will be most informative. That is, no single study is definitive for the field, though it may often have to be considered as definitive for a particular issue at a particular time and location. However, no synthesis of value is possible without large numbers of methodologically superior single studies.

**CONCLUSIONS: IMPLICATIONS FOR CAMPAIGN DESIGN**

In conclusion, seven implications for campaign design can be drawn from this exploration of theory and practice:

1. It is desirable to meet every one of the conditions discussed; indeed, most of them are necessary. Because few campaigns have met most of these conditions, few campaigns have been of proven effectiveness.

(2) One clear implication is the need for more research at the front end of campaign design, particularly needs assessment and formative research. Producers of tobacco devote substantial resources to marketing research. In contrast, health campaigners tend to concentrate on evaluating the result, if they conduct any evaluation at all. Health campaigners need to place far greater emphasis on marketing research if they are ever to be successful. Theories and research from social psychology (information processing, attitude change and persuasion, consistency theories), other areas of psychology (social learning theory), public health (the Health Belief Model), sociology and communications research (agenda setting, uses and gratifications, the diffusion and adoption of innovations, the knowledge gap, etc.), and findings from evaluations of past campaigns all provide a firm basis for campaign planning, especially when taken together. The need is for greater focus on the production end of campaign development, including needs assessment, the use of focus groups, concept testing, and other phases of formative research (Play, 1987a).

3. Planners should pay greater attention to dissemination. Some potentially effective messages have failed to get exposure and reach their target audience because of failures at this stage. Many potentially effective campaigns have failed because of the common reliance on free PSA space or time, and the resulting lack of control over channel and time placement. Public health agencies and advocates need to make greater use of public relations (Klein & Danzig, 1985), mutter advocacy (see Wallack, Chapter 11), and other creative approaches to obtaining exposure (DeJong & Winsten, 1989).

4. Audience attention, acceptance, and change can be maximized by careful work at all of the earlier steps in production. Successful intervention requires communication that can (8) inform the individual about the potential risks and benefits, particularly those that are immediate and of high probability (and, therefore, most salient), (b) inform the individual of the opportunity to act, (c) provide realistic guidelines for action, and (d) demonstrate that taking action is feasible and will result in the desired outcome. This needs to take place in the context of the audience's current position or development, with carefully planned phases designed to assess changes and build upon them.

5. Campaign designers should also maximize favorable interpersonal communication about the campaign issue, particularly among members of the target audience. Interpersonal communication about effective messages can contribute to the sense among the public at large that the community supports their position. Targeting other persons important to the target audience (e.g., parents and teachers of adolescents) can help
generate discussion. Public debate can lead to important changes in political agenda and even important policy changes in support of the campaign.

6) Planners should always aim for both individual and societal level changes, rather than confining themselves to one, level or the other. Effective public health education aims directly at both the individual and the norms and values in the individual's social milieu that support the behavior (Leventhal & Cleary, 1980; Lichtenstein & Mermelstein, 1984). Of course, this requires careful implementation of a long-term strategic plan featuring distinct phases (multicomponent), each with realistic, specific, and measurable objectives (Flay, Kessler, & Utts, 1989; DeJong & Winsten, in press).

7) Some type of summative evaluation should always be conducted so the public health community can learn to do better in the future. Though the current state-of-the-art suggests an emphasis on the need for formative research even more than the need for summative evaluation, it must be stressed that all levels of evaluation and research are necessary in the grander view of things (Flay, 1986b).

If all this sounds like a lot, that's because it is! DeJong and Winsten (1989) provide an equally long and complex set of recommendations for the use of mass media for drug abuse prevention. It is pertinent to recall Paisley's (1981) paraphrase of Winston Churchill: "Mass communication campaigns seem like a noisy and inefficient way to achieve social change—until you consider the alternatives" (p. 40). Current knowledge now gives us the potential to make campaigns much more efficient, if no less noisy!
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CAMPAIGN MEDIATORS, PROCESSES AND EFFECTS

NEEDS ASSESSMENT
APPLICATION OF THEORY
FORMATIVE RESEARCH
SOCIAL, POLITICAL &
FINANCIAL SUPPORT
MEDIA GATEKEEPERS

TARGET AUDIENCE
CHARACTERISTICS

DESIRE TO KNOW
SUMMATIVE EVALUATION

MESSAGE CHANNEL SOURCE

DESEMINATION

ATTENTION

INTERPERSONAL COMMUNICATION

INDIVIDUAL CHANGE

SOCIAL IMPACT

KNOWLEDGE OF EFFECTS