

# Communication Campaigns:

## Theory, Design, Implementation, and Evaluation

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Public communication campaigns can be broadly defined as (a) purposive attempts; (b) to inform, persuade, or motivate behavior changes; (c) in a relatively well-defined and large audience; (d) generally for noncommercial benefits to the individuals and/or society at large; (e) typically within a given time period; (f) by means of organized communication activities involving mass media; and (g) often complemented by interpersonal support (adapted and expanded from Rogers & Storey, 1987).

Paisley (2001) distinguishes public service campaigns (where goals are generally supported by a broad array of stakeholders) from advocacy campaigns (where goals are controversial and challenged by significant stakeholders). Over time, some topics may shift from one type to another, such as gender equality or smoking. There are several other conceptual distinctions mentioned by Paisley (1998, 2001):

1. *Objectives or methods* (emphasizing campaigns as strategies of social control to achieve objectives, or campaigns as a genre of communication with associated methods, communication channels, and kinds of results)
2. *Strategies of change* (whether the campaign emphasizes education or providing information about how to change behaviors or attitudes, enforcement or negative consequences for not complying with accepted or desired behavior, or engineering or designing social systems to prevent unwanted behaviors or consequences)

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(2002).  
MEDIA EFFECTS:  
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THEORY AND RESEARCH  
2nd ed. (pp. 427-451).  
MAHWAH, NJ:  
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3. *Individual or collective* benefits (whether campaigns emphasize individual or social changes and outcomes)
4. *First-party and second-party* entitlement (whether campaign sources pay the direct consequences and have a primary stake in the issue or whether they are not directly affected and represent other stakeholders who may not be able to present their case)
5. *Types of stakeholders* (whether the primary campaign sponsors and actors are associations, government agencies, foundations, trade unions, corporations, mass media, and social scientists, as they all differentially affect the public agenda, funding sources, campaign design, access to media, objectives, and audiences).

Although there has been extensive research and practice in campaign theorizing, design, implementation, evaluation, and critique over the past decade since our initial summary chapter (Rice & Atkin, 1994), many current campaigns still fall far below expectations, many theoretical aspects of campaigns are still only partially understood, and many (often unexpected or uncontrollable) factors may influence the direction, implementation, and outcomes of campaigns. Only when we understand underlying general principles of communication, persuasion, and social change and the relationships among the components of a campaign can we properly design and evaluate campaign efforts. This is especially true precisely for the reasons that social science is often criticized by practitioners: Reality is too complex to identify what really causes what and what is and is not effective, especially when perceptions are based solely on experience gained in a few campaigns.

The following 10 sections summarize general campaign components according to a framework derived from both Atkin (2001) and McGuire (2001). Additional sources for campaign summaries and reviews are provided in the appendix of Rice and Atkin (2001), as well as in Backer, Rogers, and Sopory (1992), who suggested 27 generalizations about successful health communication campaigns (pp. 30–32). We should note that one campaign activity underlying all the following components is ongoing evaluation. "Evaluation is the systematic application of research procedures to understand the conceptualization, design, implementation, and utility of interventions" (Valente, 2001, p. 106). Valente proposes that a comprehensive evaluation framework includes (a) assessing needs; (b) conducting formative research to design messages; (c) designing treatments, comparisons, instruments, and monitoring methods; (d) process research; (e) summative research; and (f) sharing results with stakeholders and other researchers. Developing an evaluation plan as an initial part of the campaign forces implementers and researchers to explicitly state the desired outcomes of the campaign and how the plan

will be implemented to obtain those goals. The actual financial and time costs of evaluation are real, but are extremely valuable investments, both for the current campaign stakeholders as well as for stakeholders of subsequent campaigns.

### UNDERSTAND HISTORICAL AND POLITICAL CONTEXT

There is a rich history of American communication campaigns before the era of federal government and social science involvement (Paisley, 2001). Early examples include the pamphleteers and individual reformers in the 18th century such as Cotton Mather and public inoculations, Benjamin Franklin and abolitionism, Thomas Paine and independence, and Dorothea Dix and treatment of the mentally ill. The 19th century saw the rise of associations using legislative testimony, mass communication, confrontation, and local organizing (Bracht, 2001) to promote slavery abolition, women's suffrage, temperance unions, and wilderness preservation. In the early 20th century, muckrakers harnessed the powerful reach of inexpensive newspapers to address issues such as child labor and adulterated food products. As the century progressed, the federal government played an increasingly central role with regulations concerning commerce, food and drugs, and the environment, as well as programs providing social services after the New Deal. By midcentury, campaigners were applying social science to the development and evaluation of campaigns; initial perspectives held that mass media campaigns had no direct effect, that audiences were largely uninterested or applied selective exposure and perception, and that most effects operated indirectly through opinion leaders, whereas more recent theories suggest that well-conceived campaigns can achieve moderate success by using appropriate mixes of social change, media advocacy, philosophical emphasis on participation, audience targeting, message design, channel usage, and time frames.

Also crucial to the success of campaigns is the ability to become an important and enduring part of the public agenda and to obtain first-party entitlement for significant stakeholders (Paisley, 2001). Some topics rise and fall over time, such as energy conservation, global warming, business, endangered species, cancer, HIV/AIDS, tobacco, starvation due to famine, abortion, or civil rights. It seems that some periods are more "ideological," where issues are debated in the public agenda more extensively. One challenge in campaigns is to understand and try to shape these agenda items and to cut through the very cluttered set of public agenda items that compete for people's attention and understanding. Paisley (1998) concludes that campaigns must advise, inform, advocate, and reinforce rather than simply exhorting, because only the individual can grasp the various aspects of their social context.

## REVIEW THE REALITIES, AND UNDERSTAND THE SOCIOCULTURAL SITUATION

In undertaking campaigns, it's advisable to first review the realities (choose a significant problem for which there seems to be a cost-effective solution, and then identify available resources and determine the optimum apportionment) and to assess the campaign ethics (including direct and indirect consequences and the assumptions underlying campaign goal and audience identification).

This includes identifying the focal behaviors of the high-risk or goal audiences, their media usage patterns, social factors and institutional constraints, and what constitutes meaningful and acceptable change. It also involves identifying whether the campaign objectives are essentially creating awareness, instructing/educating, or persuading; among the "strategies of change" mentioned by Paisley, most campaigns emphasize the educational component rather than the enforcement or engineering aspects.

Part of this understanding is the philosophical foundation of the campaign. For example, the perspectives of sense-making, community, and two-way symmetric public relations campaigns have reconceptualized audience members (including publics, communities, and institutions) as peers and collaborators in the mutual and interactive development and implementation of a change effort (Bracht, 2001; Dervin & Frenette, 2001; Dozier, Grunig, & Grunig, 2001). These approaches differ from traditional campaigns by giving greater emphasis to audiences' social and cultural contexts, by replacing experts' goals with audience-derived goals, and by using audience networks as ways to generate, frame, and share messages (Dervin & Frenette, 2001).

## UNDERSTAND THE AUDIENCE

One approach to improved understanding of the audience well enough to develop appropriate campaign efforts to that audience is segmentation—identifying subaudiences. Segmentation may involve analyses of demographics, media usage patterns, lifestyle, psychographics, ZIP code, uses and gratifications, and channel accessibility. This enables allocation of campaign efforts to the audience groups that are most in need of change and most receptive to the campaign and to design messages appropriate to the audience preferences, media usage, and abilities.

There are three major types of audiences. "Focal segments" are audiences grouped by levels of risk or illness, readiness, income and education, and other factors such as sensation seeking. "Interpersonal influ-

encers" are opinion leaders, media advocates, and peer and role models who can mediate the campaign (positively or negatively) and help set the public agenda. "Societal policymakers" affect the legal, political, and resource infrastructure, such as through regulations on media messages, environmental conditions, or safety standards, and social action such as community-based campaigns, federal allocations (such as the gasoline or tobacco tax), and insurance and health care programs. Atkin (2001) argues that campaigns may want to develop a "product line" or continuum of intended outcomes, so that audiences with different levels of receptivity or resistance can find their comfortable location in the campaign mix.

One way of understanding the audience is the sense-making methodology, which aims to "ensure as far as possible that dialogue is encouraged in every aspect of communication campaign research, design, and implementation" (Dervin & Frenette, 2001, p. 72). This method helps participants communicate about their attempts to move through discontinuities (gaps in meaning across time, people, and space) in their life experiences by means of making sense, internally and externally, in the context of the intersection of past, present, and future. Cognitions, attitudes, beliefs, emotions, and narratives serve as bridges—or obstacles—across these gaps. The primary interviewing approach is called the micromoment time line, whereby participants are asked to describe a situation and how they experienced it through time, identifying both how they saw themselves as stopped or moving at a particular moment on the time line and how various utilities helped them move through time and space. Examples of campaigns using this approach include assessing antismoking messages from adolescents' perspectives (for example, showing how such messages did or did not acknowledge their needs, or unfairly portrayed young smokers in their social contexts), identifying the poor fit between traditional AIDS campaign issues and those mentioned by health care center patients, designing messages to encourage blood donors to donate again, and reducing stress in cancer clinic patients.

The concept of "two-way symmetrical campaigns" derived from public relations theory is, surprisingly, quite similar to some of the main goals of the sense-making approach (Dozier, Grunig, & Grunig, 2001). It emphasizes negotiating with an activist public, using conflict resolution in dealing with publics, helping management understand the opinions of particular publics, and determining how publics react to the organization. In particular, Dozier et al. highlight the significance of "invisible clients," those organizations that employ public relations activities to influence audiences without being explicitly identified as associated with the message. Examples include the tobacco industry, political ideologies (see Proctor, 2001), and the milk industry (through its "Got Milk?" campaigns—see Butler, 2001).

### APPLY APPROPRIATE THEORY

After assessing the factors described, the campaign strategist should identify appropriate theoretical approaches. Although campaigns are typically viewed as merely applied communication research, the most effective campaigns carefully review and apply relevant theories; further, campaign results can be used to extend and improve theories about media effects and social change. Atkin (2001) advocates using informed diversification of campaign approaches and channels rather than a single strategy.

Variants to the straightforward communication/persuasion matrix (McGuire, 2001) include the following:

*Elaboration likelihood model* (Petty & Cacioppo, 1986): Messages have greater or longer term effect or are more strongly rejected if the individual is motivated to cognitively process (called elaboration) the message. This is the "central" route to persuasion. Messages may also have modest short-term attitudinal or behavioral effects without knowledge change if the individual is not motivated to cognitively process the message. This is the "peripheral" route.

*Self-persuasion*: Rather than relying solely on new, external messages, persuasion attempts may also turn to activating information already accepted, but perhaps without great salience. Thus, resistance to persuasion may be increased by providing prior exposure to threatening messages. Or, internal values may be changed by causing the individual to confront those values, to inspect associated issues, or to evoke new arguments (McGuire, 1960).

*Alternate causal chains*: Rather than the simple sequence that knowledge changes attitudes that in turn change behavior, it may well be that changed behavior alters one's attitudes, which then causes one to seek out supportive knowledge (Bem, 1970). Both cognitive dissonance and self-perception theories support this altered causal path.

Theories most commonly invoked to guide successful campaigns include the following:

*Social learning* (Bandura, 1977b; Flora, 2001): Individuals are likely to exhibit behavior similar to that of role models who are credible, who explicitly model intended behaviors, and who receive appropriate negative or positive reinforcements.

*Social comparison* (Festinger, 1954; Flora, 2001): People compare the salience and outcomes of others' behavior, which, along with social norms, attitudes, and intentions, influence one's subsequent behavior.

*Reasoned action* (Ajzen & Fishbein, 1980): A combination of one's personal attitudes, perceived norms of influential others, and motivation to comply provides a parsimonious model of predictors of intended behavior. This model is derived from *expectancy-value* theory, which postulates

that one's beliefs about the likelihood that a given behavior leads to certain consequences, multiplied by one's evaluation of those consequences, is likely to predict attitudes and behavior.

*Instrumental learning* (Hovland, Janis, & Kelley, 1953): The classic model of persuasion combines characteristics of the source (such as attractiveness and credibility), incentives of the message appeal (such as fear, social acceptance, correct knowledge), and repetition and placement of the message to predict changes in knowledge, attitude, and behavior.

*Self-efficacy* (Bandura, 1977a): The extent to which one feels one has control over one's actions, or can in fact accomplish a task, affects the extent to which one engages in changing one's own attitudes and behaviors. Thus an intermediary goal of a campaign would be to improve the self-efficacy of the at-risk group, such as those attempting to stop smoking or adolescents attempting to learn and practice behaviors that reduce their risk of AIDS. Crucial to increasing self-efficacy is providing explicit strategies through role models (for children, peers are especially influential) and social comparisons to admired others.

The *extended parallel process model* (EPPM) (Stephenson & Witte, 2001): People both under- and overestimate their own health risks and overestimate risks to others relative to their own vulnerability, partially due to cognitive processing limits, denial, and attraction to risks (including sensation seeking; see Palmgreen, Donohew, & Harrington, 2001). Fear appeals, through arousal, perceived susceptibility and vulnerability, awareness of likelihood of a hazard, framing of messages in terms of potential gains or losses, and perceived threat, can be effective in changing risky attitudes and behaviors. However, there are two, parallel, responses to fear: a cognitive process involving ways to control or avert a danger, which may take advantage of the health message using a fear appeal, and an emotional process that attempts to control the fear, often by denial or coping, which will generally reject the message due to the fear appeal. (The third possible response is to ignore the message if it's deemed irrelevant or insignificant to the respondent.) The EPPM argues that perceived threat influences the strength of a danger or fear control response, whereas perceived efficacy influences whether danger or fear control responses are elicited. So a fear appeal must successfully convey both that the threat is salient and significant and that the audience member can do something about it, probably by emphasizing efficacy before threat.

*Diffusion and influence through social networks* (Piotrow & Kincaid, 2001; Rice, 1993; Rogers, 1981): Ideas, norms, and practices are diffused through—or rejected by—interpersonal networks because of the strong influence that evaluations and behavior of others—especially opinion leaders—have on network members. For example, students' estimates of

their peers' drinking behaviors are typically significantly higher than the peers' actual behaviors; these inaccurate social projections encourage students to engage in excessive drinking until campaigns such as the RU Sure? Project (Lederman et al., 2001) provide accurate evidence from the individuals' own peer networks. Thus, perceived network influence is an important goal as well as a mechanism of campaigns taking social network theory seriously.

*Integrative theory of behavior change* (Cappella, Fishbein, Hornik, Ahern, & Sayeed, 2001): This model, developed to guide the evaluation of the National Youth Anti-Drug Media Campaign (NYADMC), integrates three major theories: Health Belief Model, social cognitive theory, and the theory of reasoned action. Outcome behaviors are influenced by skills, environmental constraints, and intentions. Intentions are influenced by attitudes, norms, and self-efficacy. Attitudes are influenced by behavioral beliefs and their evaluative aspects. Norms are influenced by normative beliefs and motivations to comply (such as with network members or opinion leaders or enforcement threats). Self-efficacy is influenced by efficacy beliefs. All the beliefs are influenced by a variety of external variables (situational, institutional, and infrastructural), demographics, attitudes, personality traits, and other individual differences, such as gender, race, and culture). This model highlights several crucial aspects, such as whether a given behavioral intention is more influenced by attitudinal, normative, or self-efficacy control. For example, fear appeal messages received by people with high perceived vulnerability but low self-efficacy are likely to avoid, deny, or displace the promoted healthy behaviors. Further, identifying what audience segments hold what beliefs or what social groupings are more influenced by social norms helps campaign implementers focus their efforts.

A particular use of this model is to determine how messages about some behaviors may be used to *prime* or cue other behaviors by affecting "the relative weights for criteria used in determining an attitude, opinion, or behavior induced by a message" (Cappella et al., 2001, p. 222), which is different than traditional persuasion through the message itself, as its main effect is achieved through increasing cognitive processing and accessibility of the message. At the social level, raising an issue's location on the public agenda, as Paisley (2001) discussed, is one way to prime related campaign messages.

The *trans-theoretical model* (Buller et al., 2001; Prochaska, DiClemente, & Norcross, 1992): This model identifies subaudiences on the basis of their stage in the process of behavior change. The five stages, with respect to a specific health behavior, are precontemplation, contemplation, preparation, action, or maintenance. Progression along these stages is influenced by a variety of processes: consciousness raising, dramatic relief, self-

reevaluation, environmental reevaluation, self-liberation, helping relationships, counterconditioning, contingency management, stimulus control, and social liberation. Thus, based on the audience's stage, a campaign should emphasize different processes, behaviors, and messages. This is an ideal challenge for interactive Web sites, as users can first assess their own stage and then be provided material and activities appropriate for that stage and the associated processes, such as in the Consider This Web-based smoking cessation and prevention program for children (Buller et al., 2001), or children's interactive CD-ROMs and video games (Lieberman, 2001).

The *Health Communication-Behavior Change Model* (CBC), the basis of the Stanford Three-Community Campaign to reduce cardiovascular disease through integrated community-wide projects, outlines three major project components: communication inputs (media, face-to-face, and community programs), communication functions for the receiver (attention, information, incentives, models, training, cues to action, support, self-management) and behavior objectives for the receiver (awareness, knowledge, motivation, skills, action, practice self-management skills, social network members) (Flora, 2001).

### APPLY THE COMMUNICATION/PERSUASION MATRIX TO MESSAGE DESIGN

It is important to understand the role of and interaction among communication input variables and output variables. Communication *input variables* include source, message, channel, audience, and outcomes. Campaign *output variables* include the 13 possibly sequential persuasion steps of exposure, attention, liking, comprehension, generating related cognitions, acquiring skills, attitude change, storing, retrieving, decision to act in accord with retrieved position, action, cognitive integration of behavior, and encouraging others to behave similarly (McGuire, 2001).

Typical source (or messenger) variables include credibility, attractiveness, and power. However, their effect may covary with other factors, such as attractiveness with formality of dress and credibility with sameness of gender or ethnicity between source and audience. Interesting message variables include credibility, attractiveness, relevance, understandability, argument structure, evidence, one-sided vs. two-sided content, types of arguments, types of appeals, style (humor, clarity), and amount. More effective appeals associate (a) some valued (positive/negative) incentive(s) with (b) a sufficient probability of (c) the (healthy/unhealthy) goal behaviors. Typical incentives relate to health, time/effort, economics, aspirations, social acceptance, and status. For

The communication inputs and the output response steps—creating what is typically called the communication/persuasion matrix—interact to mediate the persuasive response, so all the stages must work together to identify the appropriate campaign components and timing. This matrix helps to identify some common campaign fallacies (McGuire, 1989):

1. Overestimating the likelihood of achieving the final outcomes (*attenuated effects*): because each of the outcome steps is likely to be only partially attained, the net multiplicative effect is likely to be quite low.
2. Not clarifying the temporal nature of the outcome (*distal measure*): is it immediate exposure, liking the message, short-term knowledge change, moderate-term attitude change, or long-term behavioral change?
3. Ignoring interactions among communication inputs (*neglected mediator*): For example, production standards may predominate in making the source credible and familiar (such as Smokey Bear), but submerge the message content (as Smokey really doesn't tell us how to prevent forest fires; Rice, 2001).
4. Overlooking contrasting effects (*compensatory principle*): Different variables may affect behavior outcome in opposite directions; for example, if the audience is aware of the persuasive intent of the source, perceived trustworthiness may decrease, but clarification of the message may increase.
5. Overemphasizing communication inputs: Because of some of the other principles and interactions among stages, the eventual outcome may be highest at middle levels of several inputs (*golden mean*).

### CONDUCT FORMATIVE EVALUATION

As part of campaign management, information and feedback systems should be implemented because campaigns are complex and longitudinal projects. They must be monitored for ongoing administration, scheduling, delivery of materials, effectiveness, diagnosis, and improvement.

An important part of this campaign planning and design is *formative evaluation*, which provides data and perspectives to improve messages during the course of creation (Atkin & Freimuth, 2001; Flora, 2001) and helps avoid unintended outcomes such as boomerang effects or shifting unhealthy behaviors to other domains.

A general goal of formative evaluation is to understand what McGuire calls the "sociocultural situation," the situational circumstances, whether

example, well-designed fear appeals can increase the perceived probability of social rejection by continued smoking even though they may not bring the distant likelihood of lung cancer to salient levels. Atkin (2001) feels that probability is more effective than valence when both cannot be achieved, and that multiple appeals are a more efficient as well as effective strategy. Evidence is more important for forming beliefs when the source lacks complete credibility or when the audience is more involved. Other message variables include stylistic, modality, and production factors, which should be appropriately matched to the nature of the argument, audience, and desired outcomes.

Channel variables include different media's reach, specialization, informativeness, interactivity (receiver involvement), modalities, decodability (cognitive effort), effect on agenda setting, accessibility, homogeneity of audience, efficiency of production and dissemination, and context in which the audience uses the medium (Atkin, 2001; McGuire, 2001). Challenging audience variables include risk, cognitive development, education, and susceptibility to social influence (affected by anxiety, peer norms and behaviors, self-efficacy, and compensatory mechanisms such as threat-avoiding coping habits). Central outcomes include beliefs, attitudes, behavior, persistence of outcome, and resistance to persuasion. McGuire (2001) discusses how each of these may be moderated by, or interact with, other factors.

Potentially valuable output or persuasion variables to consider include audience choices and social settings of media use; whether there may be different paths to persuasion; the actual sequence of these 13 steps for different people or settings; the role that liking, comprehension, and recall play in affecting behavioral outcomes; and whether the goal is to promote positive behaviors and attitudes or reduce or prevent negative ones. This latter issue, for example, raises questions of whether fear appeals, countering, or social benefits from alternative behaviors are most appropriate.

Atkin (2001) points out that depending on the nature of the campaign goal and type of message—awareness, instruction, or persuasion—different input and output variables would be emphasized. For example, messages intended to create awareness need to stimulate and facilitate audience members to seek additional information or sensitize or prime them to note particular kinds of messages. Some messages are designed to instruct or educate, such as procedures to use to resist peer pressure to engage in unhealthy behaviors, or to inoculate audiences against misleading advertisements. Finally, persuasion messages create or change attitudes through the promise, or association, of positive or negative incentives, located in the present or the future, in one's person or one's social interactions. Crucial to successful persuasion messages is activating or creating the salience and likelihood of positive outcomes.

economic, cultural, political, or psychological, that instigate and maintain the undesirable target behavior or that sustain the desired target behavior. This understanding is obtained through *preproduction research*. Messages are then revised based on *production testing* (pretesting).

Atkin and Freimuth (2001) identified these stages in preproduction research:

1. *Identify the target audiences:* Who is at risk, who is accessible through communication channels, who can influence others at risk, and who is most and least persuasible? The Stanford project also involved community stakeholders such as health agencies, commercial organizations (restaurants and workplaces), and community leaders, so its formative evaluation included an *organizational needs analysis* (Flora, 2001).
2. *Specify the target behavior:* Insofar as most global behaviors consist of component behaviors that are influenced by contextual factors, campaign messages should focus on specific effective component behaviors. For example, formative evaluation of weight-loss messages in the Stanford Community Studies found that whereas women were aware of their weight problems and motivated to change, men greatly underestimated their weight problem, were not generally motivated to change, and had low self-efficacy about their ability to lose weight (Flora, 2001).

3. *Elaborate intermediate responses:* As the hierarchy-of-effects model suggests, there is a long causal chain between exposure and integrated behavior. Formative evaluation can identify how these steps are linked and what intermediate steps are most amenable to campaign efforts. Some of the intermediate responses include knowledge and lexicon, beliefs and images, attitudes and values, salience priorities, and efficacy and skills. For example, Cialdini (2001) argued that campaigns must avoid unintentionally providing persuasive models of undesirable but popular norms while explicitly concentrating on desirable but unpopular prescriptive norms.

4. *Ascertain channel use:* Using any kind of media without knowing which media the target audience uses, at what times, for how long or how many times, and in what combination is an ineffective use of campaign resources. Formative evaluation can identify media exposure and attitudes toward the different media.

There are many useful database resources for preproduction, such as Prizm Lifestyle Segmentation data, American Healthstyles data, American Youthstyles data, Nielsen Media Research, and Simmons Teenage Research Study data.

The Stanford project (Flora, 2001) used extensive preproduction research, involving data sources such as community media analysis, audience use information, baseline population measures of cognitions, attitudes and health behaviors, and unstructured interviews.

Then these stages of production testing or pretesting research can be applied:

1. *Develop the concept:* Test audiences can suggest and amplify more-appropriate message ideas or more-relevant message sources (e.g., should the source be a doctor or a celebrity?). Words, phrases, or descriptions used by target audiences in their discussions about the campaign topic can also be incorporated into message content.
2. *Create the test message:* Rough, preliminary versions of messages can be tested for the following attributes: attention, comprehensibility, strong and weak points, relevance, or controversial aspects.

Several methods are useful in pretesting messages, including focus group interviews, in-depth interviews, central-location intercept interviews, self-administered questionnaires, theater testing, day-after recall, media gatekeeper review, and physiological response analysis.

### ENGAGE THE MEDIA

Campaigns must make their messages available through a variety of communication channels that are appropriate for the target audience. The message must also communicate specific information, understandings, and behaviors that are actually accessible, feasible, and culturally acceptable (Rice & Atkin, 1989).

We have seen that the communication/persuasion matrix, along with formative evaluation, can be used to design or identify persuasive and informational attributes of source, message, and channel. A social marketing perspective also emphasizes the need to understand the competition, particularly alternative messages and behaviors. Any mass media message competes with hundreds of other messages. Any concept competes with dozens of related mental concepts. So there is a need to identify the "competitive advantage" of the particular campaign objective. For example, exercising as a means of preventing heart disease can also be advertised as a social activity.

### Approaches to Media Use: Placement, Data, Services

Alcalay and Taplin (1989) highlighted the importance and utility of *public relations* ("news about an issue, service, client, or product," p. 116) and *public affairs* ("lobbying and working on regulatory or legislative issues with administrators and legislators," p. 122). Because it has "third-party" credibility, public relations can be very useful in not only

increasing public awareness of a campaign, but also in deterring opposition to an otherwise controversial issue, such as family planning. Public affairs is important not only in shaping legislation that may affect campaign objectives, but also in gaining support for resources and spokespersons. Editorials, press releases, and hard news coverage may be powerful media modes when managed properly.

It is common practice to request local and sometimes national media to place *public service announcements* (PSAs). The practice of broadcasting PSAs was in large part an outgrowth of Federal Communication Commission requirements that stations using the broadcasting frequencies serve the public interest and necessity. With the increase in media outlets and the movement toward deregulation of the media, opportunities to broadcast PSAs have declined. It can be argued that PSAs are typically of limited value anyway, because they cannot be scheduled for times when the specific target audience is most likely to be watching or listening or in known amounts of exposure. Nevertheless, PSAs can be placed in specialized outlets such as local radio stations or print media that are more likely to reach a target audience, such as teenagers or retired people.

Commercial *broadcast rating* services such as Nielsen can help identify the most-effective and efficient channels. Similar data are available for newspapers, magazines, billboards, mailing lists, and even bus posters. By providing figures to calculate the percentage of the target audience exposed to the program or channel at specific time periods, as well as the extent to which audiences change across time periods or are consistent, campaign implementers can determine the *reach* (number of different individuals in the audience) or *frequency* (number of times any individual may be exposed). Different campaign objectives would be achieved through increased reach or increased frequency. For example, increasing awareness about a common issue by the public at large could be achieved more cost effectively through using a specific time/channel combination to maximize reach. However, achieving and maintaining learning or attitude change in a specific at-risk audience would require increased frequency, which may involve a different time/channel mix. A jazz or classical music station, for example, may have high frequency but low reach.

The Advertising Council provides in-kind creative and agency services to support approximately 36 public communication campaigns a year in the United States. Further, in-place commercial distribution channels can be used to support delivery of campaign messages and materials. For example, getting 7-Eleven or Sears stores involved in a campaign would provide immediate delivery channels across the United States.

### Education-Entertainment Approaches

Some campaigns have engaged in cooperative efforts with the entertainment industry to produce attractive music videos and PSAs, to insert themes in popular TV programs, or to create prosocial television series such as *Freestyle* in the United States (LaRose, 1989), *Sun City* in South Africa (Singhal & Rogers, 2001), and the seatbelt campaign in television programs (Winsten & DeJong, 2001). This form of campaign, sometimes called *infotainment* or *edumentainment*, consciously mixes theories of social modeling (providing role models for behavior and attitudes), parasocial interaction (getting the audience personally involved in the characters and content), and expectancy value (combining perceived social norms with beliefs about the source's normative expectations concerning those norms) with commercial entertainment values, media personalities, and wide-scale distribution. Celebrities often provide credible and influential sources, especially for certain at-risk populations who distrust or are not otherwise exposed to traditional authority figures. This campaign approach also generates revenues through successful programming that allows sustainability, improvement, and expansion over time.

However, Singhal and Rogers (2001) note a variety of ethical issues in such campaigns, including (a) how well the social change goals match the moral and values guidelines of the campaign, (b) who establishes just exactly what is or is not "prosocial," (c) the extent to which all audience segments receive the positive and helpful messages equally or eventually, (d) whether the entertaining message is somehow indirect or even subliminal rather than an explicit communication campaign, (e) how socio-cultural equality—inclusion of all relevant voices—can be achieved through entertainment-education, and (f) how to avoid unintended negative effects.

### New Media

Researchers are examining the potential roles of *new communication media*, such as electronic mail, voice response systems, interactive video, DVD and CD-ROM, and computer games, in reaching particular at-risk populations and in influencing learning, attitudes, and behaviors (Buller et al., 2001; Lieberman, 2001; Piotrow & Kincaid, 2001; Rice and associates, 1984; Rice & Katz, 2001). Lieberman (2001) recommends that campaign designers take advantage of the interactive, multimedia, networked, personalized, and portable aspects of these new media. This allows computer-mediated campaigns to apply young people's media and genres, use characters that appeal to that age group, support information seeking,

incorporate challenges and goals, use learning-by-doing, create functional learning environments, facilitate social interaction, allow user anonymity when appropriate, and involve young people in product design and testing.

### Media Advocacy

Finally, a different and complementary approach to campaign implementation is *media advocacy* (Piotrow & Kincaid, 2001; Wallack & Dorfman, 2001). In line with the critique that most campaigns emphasize individual blame and responsibility, this approach emphasizes the wide range of social forces that influence public health, particularly the salient and consequential policy issues that are ignored by most communication campaigns.

Although the media are key vehicles for communication campaigns, certain types of media content can also produce a wide variety of contradictions for public communication campaigns (Wallack, 1989). A wide variety of unhealthy behaviors and antisocial attitudes is shown in both programs and commercials on television. Stereotypes of gender roles, race relations, age-specific behaviors, behavior by medical personnel, and treatments of physical and mental problems are all developed and reinforced through media portrayals that overwhelm attempts by other messages to reduce such stereotypes. It is difficult for family planning or AIDS prevention campaigns to compete with regular program and advertising content that portrays and glamorizes irresponsible or promiscuous sexual behaviors. In the media, health and social problems are also seen as individually caused and individually solved, avoiding discussion of the social and economic causes.

Instead, successful campaigns must be linked to broader community action (see Bracht, 2001; Dervin & Frenette, 2001; Dozier et al., 2001; Flora, 2001). As the systems model proposed by Rice and Foote (2001) indicates, there are many broad and pervasive prestate conditions that can overwhelm or prevent any campaign intentions or messages. Thus, populations, policy, and public agendas should be the primary targets of health campaigns—the salient audiences are the stakeholders and potential participants in any social change process.

This requires a media advocacy approach—"the strategic use of mass media in combination with community organizing to advance healthy public policies" (Wallack & Dorfman, 2001, p. 393). It explicitly attempts to associate social problems with social structures and inequities, change public policy rather than individual behavior, reach opinion leaders and policymakers, work with groups to increase involvement in the communication process, and reduce the power gap instead of simply providing

more information. (Note the overlap in philosophy and actions between the media advocacy, sense-making, and two-symmetric public relations approaches.) The four primary activities involved in media advocacy include (a) develop an overall strategy that involves formulating policy options, identifying the stakeholders that have power to create relevant change and apply pressure to foster change, and developing messages for these stakeholders; (b) set the agenda, including gaining access to the news media through stories, news events, and editorials; (c) shape the debate, including framing the public health problems as policy issues salient to significant audiences, emphasizing social accountability, and providing evidence for the broader claims; and (d) advance the policy, including maintaining interest, pressure, and coverage over time. According to Wallack and Dorfman, "Media advocacy approaches designed to change policy must be integrated into public health interventions" (2001, p. 398).

### ENGAGE THE COMMUNITY

A related means of integrating media and interpersonal communication is to conduct and involve campaign activities at and by the community level (Bracht, 2001). Indeed, many funding agencies now require community involvement as part of the design and implementation protocol. Bracht (2001) outlines five key stages in organizing community campaigns.

1. Conduct a community analysis, including identifying the community's assets and history; defining the community according to geographic, population, and political jurisdiction; collecting data with community participation; and assessing community capacity and readiness for change.
2. Design and initiate the campaign, including developing an organizational structure for collaboration, increasing community participation and membership in the organization, and developing an initial intervention plan.
3. Implement the campaign, including clarifying the roles and responsibilities of all partners, providing orientation and training to citizens and volunteers, refining the intervention plan to accommodate local contexts, and generating broad citizen participation.
4. Consolidate program maintenance, including maintaining high levels of volunteer effort and continuing to integrate intervention activities into community networks.

5. Disseminate results and foster sustainability of the community campaign, including reassessing campaign activities and outcomes, refining the sustainability plan, and updating the community analysis.

Community-level approaches were emphasized in the Stanford heart disease prevention programs (Flora, 2001). Three models of community mobilization were applied as appropriate: (a) *consensus development*, or participation by diverse community members; (b) *social action*, or mobilizing the community to create new social structures and engage in the political process; and (c) *social planning*, or using expert data to propose and plan systemwide change. Campaign messages, resources, and activities were developed and implemented through media, training instructors, workplace contests and workshops, schools, restaurants and grocery stores, health professionals, and contests or lotteries.

The exceptional success of HIV/AIDS prevention campaigns in San Francisco is largely attributable to the *social ecology* approach taken there. Dearing (2001, p. 305) observes that "social change occurs because of complementary and reinforcing information circulating through social and organized systems that constitute a community . . . [by means of] multiple positively related interventions at multiple levels of impact with a given geographic area." Note that although we list community engagement late in the list of campaign components, a truly community-based campaign would engage stakeholders right from the start.

### CONDUCT SUMMATIVE EVALUATION

Proper summative evaluation can distinguish between *theory failure*, the extent to which underlying causal chains are rejected by the evaluation results, and *process or program failure*, the extent to which the implementation of the campaign was inadequate or incorrect, thus allocating blame, credit, and lessons for future campaigns accordingly. Note that theory drives the design of messages and interventions, as theory is required to specify the causal processes and temporal sequence of inputs and outcomes. *Summative evaluation* consists of identifying and measuring answers to question about six campaign aspects: the *audience* (e.g., size, characteristics), *implementation* of the planned campaign components (e.g., as exposure of the audience to messages and/or services), *effectiveness* (e.g., influence on attitudes, behaviors, and health conditions), *impacts* or effects on larger aggregations (e.g., families or government agencies), *cost* (e.g., total expenditures, and cost effectiveness), and *causal processes* (e.g., isolating the reasons why effects occurred or not) (Flay & Cook, 1989).

### A Systems Perspective

Rice and Foote (2001) suggested a *systems-theoretical* approach to planning campaign evaluation, with particular application to health communication campaigns in developing countries. The approach includes these stages: (a) specifying the goals and underlying assumptions of the project; (b) specifying the model at the project level; (c) specifying prior states, system phases, and system constraints; (d) specifying immediate as well as long-term intended post states, and guarding against unintended outcomes (boomerang effects), such as normalizing the unhealthy behavior, psychological reactance, and generating anxiety through fear appeals to those with low self-efficacy (Atkin, 2001); (e) specifying the model at the individual and the social (e.g., community network) levels; (f) choosing among research approaches appropriate to the system; and (g) assessing implications for design.

Concerning research design, Valente (2001) summarizes classical study designs that help reduce threats to validity due to selectivity, testing, history and maturation, and sensitization. Levels and timing of interventions and outcomes influence whether cross-sectional, cohort, panel, time-series, or event-history designs are most appropriate and whether interventions occur at the individual, group, or community level. Other factors to consider are the roles of self-selection, treatment diffusion across communities, and communication and influence through interpersonal and mediated networks.

The basic assumption underlying this systems approach is that campaign inputs intended to alter prior states are mediated by a set of system constraints and enter into a process whereby some inputs are converted into outputs, thus evolving into a new poststate and altering system constraints. Further, this dynamic system occurs at the global project level, the community level, and the individual level of analysis. Campaign evaluation planning must match the timing and nature of inputs (such as media channels, messages, and material resources) and measurements with relevant phases of the system. As a part of a process evaluation, Rice and Foote (2001) distinguished between *planned*, *real*, and *engaged* inputs. For example, only 75% of planned radio spots may actually be broadcast on a particular station, only 40% of the audience may have the radio turned on during the day, and only 60% of those listeners may be able to recall any campaign messages. Informed campaign evaluations should measure and analyze these kinds of inputs separately. For example, Snyder's (2001) meta-analysis of 48 U.S. health campaigns found that an average of only 40% of people in intervention communities reported being exposed to their particular campaign. The Stanford Five-Community Study collected extensive data on message objectives, content, reach, and

exposure so it could explicitly evaluate the quantity of programming, broadcasting and interpersonal delivery, and engagement of a broad range of communication interventions.

Similarly comprehensive programs of systems planning and integrated campaigns have been applied to complex problems such as rat control in grain-producing countries and communitywide issues such as adolescent drinking (Adhikarya, 2001; Bracht, 2001).

#### Assessing Effectiveness and Effects

Assessing campaign effectiveness is not easily achieved, even with sophisticated summative evaluation designs. This is because "effects" are not the same as "effectiveness," and what constitutes "effectiveness" itself is controversial and often ambiguous (Salmon & Murray-Johnson, 2001). There are at least six kinds of "effectiveness" that determine what are considered to be the central measures of effectiveness.

1. *Definitional effectiveness* is somewhat political: it is the extent to which various stakeholders attain success in having a social phenomenon defined as a social problem. As noted previously, Paisley (2001) considered this problem in terms of getting the problem on the public agenda—just how important is this health problem, anyway?—and defining campaign interests as first-party or second-party advocacy. For example, Butler (2001) shows how the "Got Milk?" campaign was fraught with issues of industry sponsorship and lack of evaluation in spite of federal regulations and counterindicative research.

2. *Ideological effectiveness* concerns whether the problem is defined as primarily individual or social; that is, should alcohol abuse be seen, and treated as, primarily an issue of individual responsibility (as in the "designated driver" television campaign—see Winsten & Dejong, 2001), or should it be considered as embedded in extensive advertising and mediated portrayals of drinking?

3. *Political effectiveness* is the extent to which a campaign creates visibility or symbolic value for some stakeholder, regardless of other outcome measures.

4. *Contextual effectiveness* assesses the extent to which the intervention achieved its goals within a particular context. For example, education, enforcement, or engineering approaches are differently appropriate for different problems (Paisley, 2001), so it would be unfair to evaluate (and probably unwise to implement) an attitude-change campaign if engineering approaches are the most suitable (such as reducing automobile exhaust).

5. *Cost-effectiveness* concerns the trade-offs between different inputs and outputs over time. For example, prevention campaigns may in fact

save more money over time than treatment campaigns, but the outcomes are harder to measure and occur over different time spans. Further, treating some problems (such as those with low prevalence or those that generate widespread fear) may generate increased costs in other areas, thus lowering health effectiveness overall.

6. Finally, *programmatic effectiveness* is probably the most familiar approach, whereby campaign performance is assessed relative to its stated goals and objectives.

As discussed elsewhere in this chapter, this form of effectiveness requires an explicit statement of measurable goals and outcomes and explicit distinctions between theory and process evaluation. In the end, Salmon and Murray-Johnson (2001) show that campaigns should be assessed on two dimensions: whether or not there were effects and whether or not the campaign was effective. The resulting four conditions lead to very different overall evaluations. Public service announcements for local health agencies are a good example of a highly effective campaign (high and measurable exposure) with no effect (no measurable evidence of increased referrals or visits or reduced illness).

Regarding degree of effects, a meta-analysis of 48 mediated health campaigns (Snyder, 2001) showed 7 to 10% more overall behavior change by people in intervention communities than in control communities, representing a correlation of .09. Promoting new behaviors seems more effective than stopping old behaviors or preventing new behaviors (12% compared to 5% and 4%), and enforcement strategies and provision of new information both noticeably increased outcomes (17% and 14% change).

#### CONSIDER ONGOING CHALLENGES

We would like to end simply by noting that a variety of theoretical and practical challenges and tensions continue to exist in the design, implementation, and evaluation of public communication campaigns. Here are some issues to consider:

- Many important social problems involve *collective benefits* (such as reducing littering), yet most campaigns have succeeded only when they promote *individual benefits*. How can campaigns increase the salience of collective benefits (see Liu, 2001, for experiences with China's large-scale collective benefit campaigns)?
- What is the proper mix of *education* and *entertainment*? Will or should new "infotainment" campaigns be embedded in the commercial media mainstream (Singhal & Rogers, 2001)?

- How can campaigns, which generally use the mass media, overcome the *simultaneous pervasive negative influence of the mass media* on the campaign issue (such as alcoholism or violence) (Wallack & Dorfman, 2001)?
- Few theories or campaign designs explicitly distinguish *short-term* from *long-term* effects and objectives. What should be the relative emphasis on each, and how can campaigns achieve longer-term outcomes (McGuire, 2001; Valente, 2001)?
- What is the proper mix of *interpersonal, mass media* and *new, more interactive media* communication for specific campaign goals (Cappella et al., 2001; Rice & Foote, 2001; Rice & Katz, 2001)?
- How can campaigns successfully promote a *prevention* approach in order to avoid the generally more expensive and less-effective *treatment* approach typically favored by organizations, government agencies, and the electorate (Dervin & Frenette, 2001; Rice, 2001; Wallack & Dorfman, 2001)?
- What are the relative influences of *individual differences* versus *social structure* on the problems targeted by communication campaigns (Piotrow & Kincaid, 2001; Rice & Foote, 2001)?
- How can campaigns *communicate effectively with young people*, who have fundamentally different evaluations of risk and future consequences, who are using radically different interactive and personal media, and who are deeply embedded in peer networks (Piotrow & Kincaid, 2001)?

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