ON THE USE OF MASS COMMUNICATIONS TO PROMOTE THE PUBLIC HEALTH

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A key to continuing the improvement in Americans' health is the public's adoption of healthier lifestyles. Changes in lifestyle can be made only by a well-informed and motivated public. As a result, the mass media, as never before, have a vital role to play in advancing the public health.

Even in the case of diseases with a known biological cause, such as AIDS, choices in lifestyle and behavior can mean the difference between living and dying. Thus, when confronted in the 1980s by the menace of the AIDS epidemic, U.S. public health officials turned to the mass media as a means of quickly educating the American general public about the disease and appropriate prevention measures (DeJong & Winsten, 1991).

Beyond promoting changes in individual behavior, the mass media have an equally vital role to play in directing the public agenda to important health issues, reinforcing community-based programs, and building support for changes in institutional structures, public policy, or law that will support and sustain the efforts of individuals to alter their behavior.

Learning from both the successes and failures of past mass communication campaigns, public health advocates begin the 1990s with a renewed enthusiasm for using the mass media to promote the public health. Such enthusiasm will be heard at the Surgeon General's Workshop as participants debate how our nation can increase the number of organ transplantation donors. To help inform this debate, this background paper explores in general how public health advocates can effectively harness the power of the mass media.

THE ROLE OF MASS COMMUNICATIONS IN ADVANCING PUBLIC HEALTH: AN EVOLVING VIEW

When the broadcast media emerged after World War II as a major force in American society, and as commercial advertising brought new sophistication to satisfying post-war consumer appetites, many public health advocates assumed that the presentation of factual information through mass communication campaigns would automatically result in changed attitudes and improved health behavior (Atkin, 1979; Griffiths & Knutson, 1960).

Subsequently, when several mass media campaigns produced disappointing results (e.g., Hyman & Wheatsley, 1947; Star & Hughes, 1950), this boundless optimism was replaced in the 1950s and 1960s by a decidedly more pessimistic view that the strategic use of mass media is doomed to failure (Atkin, 1979, 1981). It was recognized that mass communication campaigns could reinforce existing attitudes and behavior (Alcalay, 1983; Schlinger, 1976), but this outcome was viewed as being the most that could be achieved (Klapper, 1960). Little more could be done, it was argued, because the audience will choose to attend to and retain information that supports existing opinions (Bauer, 1964; Cartwright, 1949), and because it will employ various psychological defenses to fend off ego-threatening information (Bauer, 1964)[1].

Skeptics noted that the apparent success of commercial advertising provided a misleading example, for the simple reason that influencing people's health-related behavior presents a far greater challenge than influencing their brand preferences (Griffiths & Knutson, 1960; Rehony, Frederiksen, & Solomon, 1984). Several considerations supported this skeptical view.

First, because of the widespread behavioral changes needed to bring about significant improvements in public health, health promotion campaigns must establish more ambitious objectives, even while usually having fewer financial resources. In contrast, commercial marketing campaigns are considered a tremendous economic success when they result in even a 1 percent increase in market share (Rosenstock, 1960; Schlinger, 1976).

Second, the behaviors that public health advocates seek to change are often ingrained habits or have accrued a cultural meaning or emotional significance that fortifies a resistance to change (Robertson & Wortzel, 1971). In contrast, commercial advertising is seldom designed to inculcate new attitudes or patterns of behavior, but to heighten and give direction to already existing attitudes and preferences (Lazarsfeld & Merton, 1971; Rosenstock, 1960; Wiebe, 1951). Moreover, while many of the benefits of health maintenance and disease prevention are delayed and uncertain, product consumption affords tangible and immediate gratification (Lefebvre, Harden, & Zompa, 1988; Schlinger, 1976).

Third, the very people who would be most responsive to a public health campaign may have already made the desired changes, leaving a target group of so-called

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[1] *For addressing some health problems, however, the reinforcement of existing attitudes and behavior is precisely what is needed (Bauman, Brown, Bryan et al., 1988). When they are on the threshold of junior high school, nearly all children express a strong disliking for alcohol, tobacco, and other drugs and indicate that they do not intend to use them (DeJong, 1987). A key to prevention strategies, therefore, is to find ways to bolster those behavioral intentions as the children grow older.*

"late adopters" that is much more difficult to persuade (Bloom & Novelli, 1981; Green, Kreuter, Deeds, & Partridge, 1980; Green & McAlister, 1984; Kasl, 1980). In many cases, that target group enjoys good health, at least currently, and this too diminishes their motivation to change, especially when such change is difficult to accomplish, painful, inconvenient, or expensive (Rosenstock, 1960). In contrast, commercial marketers try to reach consumers who are likely to want their product and can afford it (DeJong, 1989).

Finally, Wallack (1981, 1990a) notes that U.S. health campaigns often take place in a relatively hostile environment created by strong economic interests. For example, tobacco and alcohol advertisements encourage consumer indulgence, which undermines the less appealing messages of prudence and restraint offered by prevention education (Jacobson, Atkins, & Hacker, 1983)[2]. Beyond that, tobacco and alcohol companies, abetted by a financially vulnerable media, have limited the public's exposure to information about the long-term consequences of alcohol and tobacco use (Gerbner, 1990; Hacker, Collins, & Jacobson, 1987; Warner, 1985; Warner & Goldenhar, 1989; Weis & Burke, 1986) and sometimes exert political pressure to disrupt prevention campaigns (e.g., Wallack & Barrows, 1982-83).

This restricted vision of what mass communication campaigns can accomplish was reluctantly embraced by most public health advocates. One reason is that it contravenes the common wisdom that the mass media, especially television, exert enormous influence over our ideas, values, and behavior (Gerbner, 1987; Roberts & Maccoby, 1985). Moreover, both broadcast and print media are a cost-efficient way of reaching millions of people with health messages (Gerbner, 1987; Warner, 1987). Indeed, previous studies that were said to support a circumspect view of mass communication campaigns often focused on proportional success rates without taking into account the large audiences that mass media can have (Flay & Sobel, 1983; Warner, 1987).

By the 1980s a new view had evolved. The current perspective on mass communication campaigns is more balanced, based on the growing recognition that when long-term mass communication campaigns are designed and executed according to certain principles, they can play a meaningful role in changing health-related behavior and lifestyles (DeJong & Winsten, 1990a). The power of the mass media to effect behavior change is less dramatic than once hoped (or feared),

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[2] *In several foreign countries (e.g., Austria, Norway, Greece), all forms of cigarette advertising have been banned, and the governments have launched vigorous anti-smoking campaigns (e.g., Doxiadis, Trihopoulos, & Phylactou, 1985). This absence of opposing information achieves what Lazarsfeld and Merton (1971) call a condition of "monopolization." As Flay (1986) has noted, the chances of achieving a total ban on tobacco promotion in the U.S., coupled with an aggressive anti-smoking campaign, are extremely remote.*

but it is real. Mass communication campaigns can keep health-related problems and policy options at the top of the public's agenda and help bind community resources into a cohesive force for change; inform citizens about their community's attack on the problem and inspire their full participation; shift the meaning of health-related behaviors and thereby facilitate a shift in social norms; and motivate the adoption and maintenance of healthy lifestyle behaviors. The obstacles to changing health-related behaviors and lifestyles through mass communications are substantial but not insurmountable.

Public health advocates have a better understanding of what mass communication campaigns can and cannot do as a result of several important studies conducted during the past 20 years. Two successful campaigns, both focused on promoting changes in individual behavior, were especially influential: the Stanford Three Community Study, focused on cardiovascular risk reduction (Farquhar, Maccoby, Wood, et al., 1977; Maccoby, Farquhar, Wood, & Alexander, 1977; Meyer, Nash, McAlister, et al., 1980; Stern, Farquhar, Maccoby, & Russell, 1976); and the North Coast "Quit for Life" smoking cessation campaign in Australia (Egger, Fitzgerald, & Frape, 1983).

Failures were instructive too (e.g., Robertson, Kelley, O'Neill, et al., 1974; Vdry, 1974). A review of these campaigns made evident that the long period of skepticism about the strategic use of mass communications was strongly influenced by findings from short-term studies that were seriously flawed due to poor planning, inappropriate messages, or deficiencies in research design.

Thus, studying both the successes and failures of past campaigns, public health advocates have developed a more sophisticated understanding of how mass communication campaigns can change health-related behaviors and lifestyles. The remainder of this background paper reviews several important lessons that have been learned.

LESSON 1: ESTABLISH A LONG-TERM COMMITMENT

The potential of the mass media for stimulating and reinforcing widespread changes in behavior can typically be realized only over a long period of time (Flay & Burton, 1990). Seduced by the apparent ease by which commercial marketers influence consumer brand preferences, public health advocates have frequently launched short-term advertising campaigns that have little chance of success (Bandy & President, 1982; Maccoby, 1987). For example, one well-known study evaluated an anti-drug television and radio campaign that lasted only 8 weeks (Hanneman, Eisenstock, Hunt, & Weinbeck, 1977). Not surprisingly, the campaign was found to have no effect. While this example is extreme, in general, past

efforts have often ignored the fact that attitude and behavior change in response to mass communications is "usually characterized by a slow process of erosion and accretion rather than by one of sudden upheaval and conversion," (Roberts & Maccoby, 1985, p. 547). Commercial marketers know this too: brand loyalty (or "goodwill") in fact takes years to nurture and develop (Bovee & Arens, 1986).

The value of a long-term perspective is evident when we consider the role of mass media in the evolution of U.S. social norms regarding the acceptability of tobacco smoking. Once viewed as a sexy, glamorous habit, smoking today is seen as a sign of poor self-discipline; to be a smoker now is to carry the weight of stigma (Cooke, 1989; "All Fired Up," 1988). This evolutionary change, which began with the Surgeon General's widely publicized report in 1964, has had a dramatic effect on public health. While 43 percent of the U.S. adult population smoked in 1964, under 30 percent did so in 1985; between 1964 and 1985, reduced tobacco consumption resulted in the avoidance of an estimated 789,200 premature smoking-related deaths (Warner, 1989). Through news reports, anti-smoking advertising, and fewer portrayals of cigarette smoking in entertainment programming (Signorielli, 1990), the mass media played a major role in stimulating, amplifying, and sustaining this gradual, and eventually radical, shift in smoking norms and behavior (DeJong & Winsten, 1990a).

LESSON 2: APPLY A BEHAVIOR CHANGE MODEL TO IDENTIFY INTERMEDIATE OBJECTIVES

Very few mass communication campaigns can be expected to produce an immediate change in behavior (McGuire, 1984, 1985; Roberts & Maccoby, 1985; Skirrow, 1987). Whether a campaign can achieve that objective depends largely on the specific problem being tackled -- its complexity; the level of public concern about it; at what stage in the behavior change process the target audience can be found; whether early or late adopters are being targeted; and the personal, interpersonal, institutional, and societal barriers to change (Atkin, 1981; Wallack, 1990a). Hence, rather than focusing on immediate behavior change, it is often more realistic and appropriate to concentrate on achieving intermediate objectives that set the stage for or otherwise contribute to behavior change in the long-term (Farquhar, Maccoby, & Solomon, 1984; Flora, Maibach, & Maccoby, 1989).

A useful framework for understanding these intermediate objectives is the communication/behavior change model developed for the Stanford Three Community Study (Maccoby & Alexander, 1980)[3]. This model elaborates a series

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[3] *This framework was inspired by Cartwright's (1949) description of the three stages of change that a campaign must achieve in order to influence behavior -- an increase in awareness and knowledge (cognitive structure); a change in attitudes, leading to a heightened motivational*

of steps in the behavior change process which can be addressed through various mass communications channels. Specifically, mass communication campaigns can accomplish the following objectives: 1) increase awareness of a health problem and establish it as a priority concern; 2) increase knowledge and change beliefs that impede the adoption of health-promoting attitudes; teach new behavioral skills; and 4) provide supports for sustaining behavior change.

Increase awareness of a health problem and establish it as a priority concern. Mass communications can be used to get the public thinking about a health issue, a function commonly referred to as "setting the agenda" (Roberts & Maccoby, 1985). The objective at this stage is to present information that makes an issue interesting, understandable, and personally meaningful, leading ultimately to self-appraisal and a consideration of possible action (Bandy & President, 1982; Griffiths & Knutson, 1960; McGuire, 1984, 1985; Roberts & Maccoby, 1985; Skirrow, 1987).

Increase knowledge and change beliefs that impede the adoption of health-promoting attitudes. Roberts and Maccoby (1985) argue that changes in cognitions are a necessary precursor to eventual changes in attitudes and behavior: ". . . any influence of mass media content depends on how people interpret messages relative to previously established conceptualizations of the world -- fundamentally a cognitive effect," (p. 547). Attitude and behavior change, they assert, can eventually follow, making changes in knowledge and beliefs important outcomes in and of themselves (Fishbein & Ajzen, 1975).

Demonstration of a campaign's impact on knowledge, beliefs, and attitudes is often dismissed as unimportant because of the often-cited inconsistency between attitudes and behavior (Bandy & President, 1982). In fact, attitudes are good predictors of behavior when the attitude and behavior are measured at corresponding levels of specificity (Ajzen & Fishbein, 1977). Thus, general attitudes toward drugs will not necessarily predict whether a person will try a marijuana cigarette at a particular time and place. To be predictive, the attitude measurement should be equally specific. Attitude-behavior consistency is also more likely when social norms support the behavior (Fishbein & Ajzen, 1975).

At the same time, it must also be remembered that attitude change is not a necessary precursor to behavior change (Bem, 1970), in contrast to past assumptions about the absolute primacy of attitudes in the behavior change

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state (motivational structure); and engagement in the actual behavior (behavioral structure). The key to inducing a given behavior, according to Cartwright, is having an appropriate cognitive and motivational system "gain control of the person's behavior at a particular point in time," (p. 264).

process. Indeed, a persuasive communication may induce curiosity to engage in new, low-risk behaviors on a trial basis, with a change in attitudes emerging later in consequence (Flay & Burton, 1990; O'Keefe & Mendelsohn, 1984).

It is important to note here that when detailed, complicated, or politically controversial information must be communicated, television and radio spots, billboards, and print advertisements can stimulate further information-seeking by promoting information hotlines (Pierce, Dwyer, Frape et al., 1986; Stein, 1986) or the availability of pamphlets and other written materials (Mendelsohn, 1973; Schlinger, 1976). It is critical that people not be merely exhorted to obtain additional information but that specific strategies be explained or modeled (Solomon, 1983). This has been a central feature of several public health campaigns, including national AIDS campaigns in the U.S. (DeJong & Winsten, 1991).

Teach new behavioral skills. Important behavioral skills can be taught through modeling or step-by-step instruction (Alcalay, 1983; Bandura, 1977). Until recently, behavior change was most often conceived in terms of altering existing patterns of behavior; that is, certain unwanted behaviors were to be suppressed, and other behaviors, already in the behavioral repertoire were to be brought forth. As a result, the power of the mass media to expand people's behavioral repertoire was frequently overlooked (Alcalay, 1983).

The performance of newly acquired behaviors can be enhanced by demonstrating how various barriers to behavior change can be overcome, thus increasing perceptions of "self-efficacy" (Bandura, 1984). Self-efficacy is not a global concept like self-esteem, but deals with a person's perceptions about his ability to act out a specific behavior at a particular time and place. Whether a person holds such a belief is predictive of subsequent behavior change, whether it is the suppression of existing behaviors or the acquisition of new ones (Strecher, DeVellis, Becker, & Rosenstock, 1986). Vicarious experience is an important source of information for efficacy expectations; thus, mass communications can be employed to change self-efficacy by modeling determined effort that leads to success. Performance of newly acquired behaviors can also be enhanced suggesting so-called "cues to action" in the physical and social environment that can stimulate a person to call up and apply a particular behavioral repertoire in the appropriate circumstances (Maiman & Becker, 1974).

Provide supports for sustaining behavior change. Learning and maintaining a new pattern of behavior requires that people know how to monitor their behavior, apply self-reinforcement strategies, and anticipate, eliminate, or cope with environmental or social stimuli that trigger unwanted or competing behaviors. Mass communications can be used to teach these self-management techniques (Bandura, 1977; Flay, DiTecco, & Schlegel, 1980).

Social support is also important for maintaining new behaviors. Mass communications can help here too by: 1) communicating the fact that others have also adopted new behaviors and are facing the same struggles in trying to maintain them (Mogielnicki, Neslin, Dulac et al. 1986); 2) stimulating the social support of opinion leaders, family, and peers (Green & McAlister, 1984; Rogers, 1983); and 3) teaching people how to elicit from others the support they need.

Application of the communication/behavior change model first requires that campaign planners establish where in the behavior change process the target audience can presently be found. From there, the campaign can try to move the audience sequentially through the remaining steps[4]. Consider the case of AIDS prevention. Presently, most American adolescents and adults know a great deal about what is required to prevent AIDS, thanks in part to national public awareness campaigns. At this point, the successful promotion of condoms requires moving beyond basic factual information about AIDS prevention to motivating messages that address the various psychological barriers that impede condom use and that present the personal and social benefits that their use can bring if approached in the right way (Solomon & DeJong, 1986, 1989; DeJong & Winsten, 1991).

With this model in mind, campaign planners should develop a strategic plan that divides the campaign into distinct phases, each with realistic, specific, and measurable objectives (DeJong & Winsten, 1990a; Green & McAlister, 1984; Maccoby & Alexander, 1980). Once the planning phase is over and measurable objectives are set, campaign organizers will have a framework that can be used to guide media selection, message development, and campaign evaluation (Maccoby & Solomon, 1981; Solomon, 1982).

While this point seems obvious, reviewers of mass communication campaigns have frequently noted that campaigns often have unrealistic goals, because the objectives are vague or defy valid and reliable measurement, because the use of mass media to effect the desired change is unfeasible, or because insufficient time and resources have been committed to the campaign (Bandy & President, 1982; McGuire, 1984; Mendelsohn, 1973; Schlinger, 1976; Solomon, 1982; Wallack, 1980, 1981).

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[4] *It should be remembered, however, that people do not always go through this sequence of steps in exact order, especially if the choices among behavioral alternatives are unimportant to them, or if they have somehow been induced to perform the behavior in the absence of prior attitude change (McGuire, 1989; Solomon, 1989).*

LESSON 3: APPLY THE "CONSUMER" ORIENTATION OF SOCIAL MARKETING

By the late 1970s, several reviewers of mass communication campaigns had noted that the public health community knew too little about modern marketing (e.g., Schlinger, 1976). In recent years, however, Federal health officials and other public health advocates have become increasingly sophisticated in designing and executing campaigns, primarily as a result of the "consumer" orientation that characterizes Madison Avenue's approach to marketing. This section describes the central tenets of this so-called "social marketing" approach[5].

All campaign messages should be directed to a well-defined target audience. In the argot of marketing, a target audience should be "segmented" into subgroups with similar geographic, demographic, psychological, and problem-relevant characteristics (Flay & Burton, 1990; Maccoby & Alexander, 1980; Solomon, 1983). With this information, campaign planners can develop strategies that are appropriate for each segment (Simon, 1974). The target audience can be members of the general public or business and government leaders.

Commercial marketers rely on a variety of market segmentation techniques. At a minimum, markets are typically divided according to geographic location (e.g., urban, suburban, or rural residence) and consumers' demographic characteristics (e.g., gender, age, race/ethnicity, education, occupation, income, religion). More recently, so-called "geo-demographic" techniques have been developed whereby an individual is classified into one of 40 lifestyle categories defined by the social class and consumer spending patterns of that person's postal "zip code" area (Townsend, 1985).

"Psychographics" classifies consumers on the basis of their psychological make-up and lifestyle. As defined by Mitchell (1983), psychographics describes "the entire constellation of a person's attitudes, beliefs, opinions, hopes, fears, prejudices, needs, desires and aspirations that, taken together, govern how one behaves," (p. vii). The most popularly used system for adults is the Values and Lifestyles (VALS) typology developed in 1978 by SRI International (Mitchell, 1983). A new version of this typology, designed to correct deficiencies in the original system, was released in the mid-1980s.

For any mass media campaign designed to change health behavior, it is important to have a "psychographic" system for segmenting the audience. Typically,

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[5] *Social marketing is defined by Kotler and Zaltman (1971) as "the design, implementation, and control of programs calculated to influence the acceptability of social ideas and involving considerations of product planning, pricing, communications, distribution, and marketing research," (p. 3). In short, social marketing is the application of commercial marketing and distribution strategies to the promotion of social goals (Kotler, 1984; Solomon, 1989).*

however, commercially available systems, with their focus on consumer spending, will be inadequate to the task. Thus, campaign planners often "customize" their own typology based on problem-specific research, beginning with focus group or one-on-one interviews and moving on to formal survey research (e.g., Lastovicka, Murry, Joachimsthaler et al., 1987; Slater & Flora, 1991).

U.S. "market segments" that deserve special consideration are non-English speakers. Too often, English-language campaign materials are translated for minority group audiences, with cultural nuances ignored (Farquhar, Fortmann, Maccoby et al., 1985a; McAlister, Ramirez, Amezcua et al., 1987). There are distinct subcultures within these groups, each with its own history, customs, dialect, and patterns of health-related behavior. Because it will often be impractical to develop materials for each subgroup, care must be taken to create materials that transcend these differences and "ring true" to the largest number of persons possible.

There should be extensive use of formative research to develop a rich understanding of the target audience (Atkin & Freimuth, 1989; OCC, 1989). Focus groups are the qualitative method most frequently used by advertising researchers (Basch, 1987; Folch-Lyon & Trost, 1981). With this technique, a small group of eight to 12 individuals is interviewed in depth by a trained moderator. The moderator, following a previously developed agenda, creates a non-threatening, accepting atmosphere to draw out each participant and strives to facilitate discussion among the participants. Success is highly dependent on the skills of the moderator. Sessions are usually conducted at a facility that permits observers to watch from behind a one-way mirror.

The focus group technique is often viewed skeptically. The research usually involves a relatively small number of respondents. They are recruited to meet certain selection criteria and do not know one another, but they are not selected at random, so there is no guarantee that they are truly representative of the population as a whole. Moreover, the technique can be inappropriate for gleaning information about highly charged or embarrassing topics.

Some marketing researchers claim that the technique is largely ineffective with adolescents because of their heightened self-consciousness and sensitivity to peer pressure. Other researchers disagree, noting that a moderator with sufficient skill can work successfully with adolescents (Greenbaum, 1988). A type of focus group that seems especially effective with teens is the so-called phenomenological focus group; the respondents do not respond to direct questions, but are given an appropriate task to accomplish as a group without the moderator's help (Basch,

1987). With elementary school children, because of their more limited communication skills and attention spans, role-playing, fantasy play, drawing, and other experiential techniques are usually necessary to elicit useful information (Greenbaum, 1988).

In favor of focus group research, it can provide large amounts of rich, detailed information in a short period of time and at relatively little cost. Especially important is information on the target audience's speech patterns, body language, and style of dress. These observations can provide valuable clues as to how a product, service, or idea can be "positioned" and marketed.

An alternative technique is a series of private, one-on-one interviews conducted by a trained moderator or clinical psychologist. The interviewer follows a prepared protocol, but detailed follow-up questions may also be asked. There are several advantages of this technique. Issues can be probed in greater depth. Respondents are typically more willing to share highly personal information, and group dynamics do not bias the subjects' responses. Special facilities are not needed. On the other hand, this method is more expensive and time-consuming than focus group interviews. Moreover, clients or other members of the project team do not observe the interviews so that respondents will speak more freely.

The use of clinical psychologists for these interviews is intriguing. Recognizing that people's self-reports concerning the reasons for their behavior are frequently inaccurate (Nisbett & Ross, 1980), those who employ this method note that clinical psychologists have a range of projective techniques at their disposal to assess the psychological or emotional benefits that a product offers, benefits which are often not consciously acknowledged. Moreover, psychological methods or theories can be readily applied to explaining consumer behavior and generating advertising ideas. For example, products might be seen as answering basic ego needs, such as a need for self-esteem or dependency needs[6].

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[6] *Another useful framework for generating campaign ideas is provided by McGuire (1989). By his scheme, general theories of human motivation are organized into four broad categories. Cognitive stability theories: According to this set of theories, human behavior is motivated by a need to maintain beliefs and attitudes that are consistent. A strategy suggested here is to focus on the inconsistency between the target audience's values and their behavior. Cognitive growth theories: By these theories, human behavior is motivated by certain needs that are cognitive, rather than affective, such as a need for stimulation, or a need to believe in one's capacity to maintain control over the environment. Affective stability theories: By these theories, human behavior is motivated by a need to maintain a stability of affect. Fear appeals, for example, seek to induce a tension or stress that the target audience would then be motivated to eliminate. Affective growth theories: These theories, also emphasizing growth, deal with the realm of emotions, such as the need for love and acceptance.*

Qualitative research is especially valued for the new insights it can generate (Bovee & Arens, 1986). Marketing researchers typically propose that this research be followed with surveys and other quantitative methods to test the hypotheses generated, but commercial clients often skip this step because of time or financial constraints or because they find the insights provided through the qualitative research to be especially compelling or at least consistent with their past experience (Szybillo & Berger, 1979). Public health advocates are likely to do the same, but whenever resources and time permit, findings from qualitative research should be validated through surveys or other more rigorous methods (e.g., Lastovicka, et al., 1987).

Once the development of campaign materials is underway, extensive pretesting must be conducted to ensure that they are appropriate for and appeal to the target group (Atkin & Freimuth, 1989; OCC, 1989). Many design options are available to campaign designers, and each has its strengths and weaknesses, as evidenced by both the findings of social psychological research and the successes and failures of past campaigns. Because the research on persuasion has revealed so many complex interactions among source, message, and channel variables, and because the results depend in part on the audience and the specific issue at hand, making a reasoned decision about which option to select is extremely difficult (McGuire, 1985, 1989)[7].

As a result, it is common to find disagreement among the experts about how campaign messages should be designed. For example, consider the "style" of the campaign. Atkin (1979) notes that public communication campaigns are often dry recitations of factual information, with little attention to style or production values, and he urges that campaigns designers build in "excitement, drama, and humor" to buttress entertainment value. In contrast, Bauman et al. (1988) deliberately avoided a "flamboyant" style of advertising in their anti-smoking spots, based on a consultant's critique of previous anti-smoking messages as "self-conscious

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[7] *McGuire (1989) presents a "communication-persuasion matrix" as a framework for reviewing the possible effects of various message design and implementation options. The matrix emerges from a cross-tabulation of "input variables" and "output factors." Input variables include source variables, such as communicator credibility and attractiveness; message variables, such as type of appeal (e.g., celebrity endorsement, humor, fear) or presentation of alternative viewpoints; channel (medium) variables, including the number and type of media used; receiver variables, including demographic and psychographic characteristics; and target variables, or specific features of the problem behavior itself. Output factors are the sequence of processes that mediate the impact of a persuasive communication on behavior, which Atkin and Freimuth (1989) have categorized in five stages: exposure, information-processing, cognitive learning, yielding, and utilization.*

imitations" of commercials. They also noted that, while such advertisements might increase attention and even earn public accolades, they might fail in their mission if the audience is distracted from attending to or remembering the message (Benn, 1978)[8].

As noted, these considerations are also confounded by the nature of the audience and the specific issue involved. For example, a "two-sided" approach, which acknowledges ideas or arguments in opposition to the advocated position, but then refutes them, is superior -- but only when members of the audience are highly sophisticated and well-educated, when they are initially opposed to the advocated position, and when they will later be exposed to information that supports that opposing perspective (Atkin, 1979).

Even when there is general agreement about which approach is best, it must be remembered that no "rule" of advertising works all the time and that widely successful strategies can be rendered ineffective through overuse. Cinematic techniques, formats, and styles that command attention and have strong audience appeal today can eventually become part of the background clutter that is ignored tomorrow. Audience values change over time, too. For example, appeals developed in the 1980s that drew on baby-boomers' need for self-fulfillment may not work in the 1990s as that generation moves on to other concerns, such as the need to build warm and nurturing relationships (Flay & Burton, 1990).

Past campaigns and research findings should be used, therefore, not as a blueprint, but as a source of ideas that need to be pretested within the context of a new campaign (Solomon, 1983). For this reason, with each step of campaign development, planners should conduct formative research involving representatives of the target group to double-check the appropriateness and potential effectiveness of campaign materials (Maccoby & Alexander, 1980). Unfortunately, careful formative research of this type is often not done (Palmer, 1981).

A formative research plan should also include television and radio managers and print editors -- the "gatekeepers" who control access to the media. These individuals will have their own ideas about what is appropriate and effective (Hammond, Freimuth, & Morrison, 1987). They also have responsibility for making sure that all advertising, including public service announcements, meet their station's standards of propriety and will not alienate important segments of their

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[8] *A further complication: Research suggests that if the distraction from a persuasive message is only enough to prevent silent rehearsal of counter-arguments to the message but not enough to interfere with message reception, such advertisements might actually be more effective (Festinger & Maccoby, 1964).*

audience (DeJong & Winsten, 1991; Flay & Burton, 1990). Therefore, they should be involved early on in planning and be given the opportunity to react to materials during each phase of the development process (Flay, 1986).

The principle method used in formative research at this stage is focus group interviews. One use of this research technique, to learn basic information about the target audience, was described earlier. This technique is also used to evaluate message concepts (that is, brief summaries of key benefits or "promises"), preliminary media executions, and finished products. Issues that can be explored through such research include the material's ability to command attention; audience comprehension and recall; aesthetic appeal; and the message's credibility, relevance, and acceptance by the target group.

How frequently campaign planners conduct this type of formative research obviously depends on the resources they have at their disposal. At a minimum, focus groups should be conducted to test preliminary executions, such as scripts, storyboards, and mock-ups of print advertisements. Tests of finished products are generally less critical[9]. Often, tests of preliminary message concepts can be incorporated into initial focus group research being conducted to learn about the target audience.

Mass communication messages should address the target audience's existing knowledge and beliefs. In order for a persuasive communication to succeed, it must anticipate the audience's points of resistance and then address them (Lefebvre, Harden, & Zompa, 1988). In the Health Belief Model (HBM) (Maiman & Becker, 1974; Janz & Becker, 1984), those resistance points are defined in terms of the target audience's underlying beliefs about a particular health problem and its prevention or cure.

These beliefs concern the following: the person's perceived susceptibility to the disease or health problem; the seriousness of the disease or problem if it is encountered, including health, social, and financial consequences; the effectiveness of the prescribed course of action in reducing the threat to health; and the barriers to executing that behavior, such as financial cost, inconvenience, pain, and lost time (Bloom & Novelli, 1981; Solomon, 1989). Also important is the person's perceptions of popular opinion and normative perceptions for the roles

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[9] *In some cases, however, this type of testing is essential. One example illustrates this point: the California Prevention Demonstration Program, a mass communication campaign aimed at reducing problems related to alcohol abuse. For an interim evaluation, those survey respondents who had seen each television commercial being aired were asked to say what they remembered about it and its message. Across the commercials, between 35% and 44% of the respondents misinterpreted them to be pro-drinking rather than pro-moderation messages (Wallack & Barrows, 1982-83).*

and behaviors that are appropriate to members of the society (Fishbein & Ajzen, 1975). Messages emphasizing that others have adopted a desired behavior can be especially persuasive (Farquhar, 1984).

The HBM framework is useful for organizing formative research and then guiding message content (Solomon & DeJong, 1986). For example, in designing messages for an anti-smoking campaign, Bauman et al. (1988) discovered that adolescents' expectations of certain positive and negative consequences to smoking was a good predictor of their later smoking initiation. They then designed their campaign to address these beliefs. Messages focused on short-term consequences of smoking, such as bad breath and loss of concentration and appetite; possible loss of friends; possible trouble with adults; and the supposed "fun" and "relaxation" of smoking.

Mass communication campaigns should communicate incentives or benefits for adopting the desired behavior that build on the existing motives, needs, and values of the target group (El-Ansary & Kramer, 1973; Lefebvre & Flora, 1988), a process that Lazarsfeld and Merton (1971) have called "canalization." The failure to do this is at the heart of many campaign disappointments.

Commercial marketers have long understood that people are more likely to attend to and remember messages that meet their needs or support values they believe in (Flay, 1986; Rehony et al., 1984). Accordingly, product advertising often plays on people's insecurities, desires, and aspirations, and then "positions" the advertised product or service as a means of meeting those needs immediately (Solomon, 1989). The key, therefore, is to establish the benefits of the product or service (Lefebvre & Flora, 1988; Ogilvy, 1985).

The experience of commercial advertisers makes clear that, in many cases, a health promotion campaign should emphasize benefits that are not related to health per se, but to universal and more salient human desires for beauty, acceptance, love, security, status, or wealth (Bonaguro & Miaoulis, 1983; McGuire, 1984; Roberto, 1972; Schlinger, 1976). In the past, health advocates focused too narrowly on trying to motivate people to change their behavior for the sake of their health rather than in response to other motives, a strategy that proved to be limiting and self-defeating. Instead, as explained by Cartwright (1949), people must be encouraged to "see the action as a path to an existing goal," (p. 261).

Commercial advertisers often play on young people's insecurity about their place in the world and their growing desire for autonomy. Health campaigns can do the same. To take one example, a campaign to discourage alcohol, tobacco, and other drug use can: provide accurate information on the actual level of substance use among preteens and adolescents, thereby showing that far from "everyone" uses these substances; urge young people to encourage one another to refrain from experimenting with and using these substances (Bauman et al., 1988); present

peer role models -- older adolescents who are independent, mature, and popular without drinking, smoking, or using other drugs (McAlister, Perry, & Maccoby, 1979); and illustrate peer approval for refusing or stopping substance use (Liepold, 1986; Worden, Flynn, Geller et al., 1988). Moreover, such campaigns can encourage young people to select a peer group or clique that does not use these substances and helps bring out their best qualities (McLeroy, Bibeau, Steckler, Glanz, 1988). A good example is the "Be Smart. Don't Start!" campaign sponsored in the mid-1980s by the National Institute on Alcohol Abuse and Alcoholism (Atkin, 1989a).

Because of the importance of social influences in substance use, campaigns aimed at preteens and adolescents should also focus on the important role of social pressure, both direct and indirect, from peers, family, and the media; ways in which tobacco and beer advertisers try to persuade people to use their products (Atkin & Arkin, 1990; Flay & Sobel, 1983); specific counterarguments to refute arguments made by others in favor of substance use (McGuire, 1985); and alternative strategies for refusing various offers of alcohol, tobacco, and drugs from peers or family members (Polich, Ellickson, Rueter, & Kahan, 1984; DeJong, 1987). The underlying message is that refusing to give into pressure to experiment with and use alcohol, tobacco, and other drugs is a true demonstration of independence and freedom.

Commercial advertising experience also makes clear that, whenever possible, the target audience's attention should be drawn to the immediate consequences of behavior that have a high probability of occurring. This is especially true for campaigns directed to preteens and adolescents.

Again consider the case of preventing alcohol, tobacco, and other drug use by youth. Young people need to be taught the facts about the long-term impact that substance use might have on their health and well-being. This is most important when there is a cloud of mythology and misinformation about the addictive potential and long-term effects of a particular drug, as was the case for cocaine before the National Institute on Drug Abuse (NIDA) began its public awareness campaign, "Cocaine: The Big Lie" (Johnston, O'Malley, & Bachman, 1988). But while an awareness of long-term risks will dissuade many young people from substance use, the deterrent effect will be far from universal. By age 12, for example, children have been told repeatedly that tobacco use is dangerous, but a large number still begin to smoke anyway (Evans, Rozelle, Maxwell et al., 1981).

It is important to understand why information about the long-term sequelae of substance use have limited effect. First, even when the credibility of factual information is accepted, people might question whether it really applies to them (Atkin, 1979). Most young people take good health for granted, and many view the dire, long-term consequences of substance use as too distant and too unlikely

to be of concern to them. Second, their own observations may lead young people to conclude that experimentation does not necessarily result in addiction, and that regular use does not necessarily result in severe health consequences. Because many people do not understand the probabilistic nature of risk, this uncertainty is an opening for denial (DeJong, 1987). Third, for most young people, substance use is occasional, not daily, and typically occurs in social situations. As a result, they might overestimate their own capacity to control the extent of their substance use, believing that they are fundamentally different from those who develop a drug dependency. In fact, in some cases this belief might even stimulate curiosity about a substance and lead to experimentation (Polich et al., 1984).

In trying to dissuade young people from smoking cigarettes, for example, an emphasis on long-term risks of heart disease and cancer will have little apparent effect in delaying experimentation or reducing use. Instead, the emphasis should be placed on immediate consequences that have a high probability of occurrence (Flay & Sobel, 1983; Job, 1988). With greater impact, prevention programs now emphasize readily noticeable effects such as discoloration of the teeth, body and mouth odor, loss of concentration and appetite, and the deterioration of physical performance (Bauman et al., 1988; Evans et al., 1981). This strategy is also reflected in a recent public service campaign, "Nic, A Teen," by the federal Office on Smoking and Health, which portrays smoking as being unattractive to desirable members of the opposite sex.

Health campaigns should explore the use of "image" or "lifestyle" advertising to promote an active, healthy lifestyle. Commercial advertising of this sort allows consumers to envision the transformation of a less desirable past to a more desirable future by manipulating images of the consumer as a person with intelligence, power, status, and popularity (Chapman & Egger, 1980; Graham & Hamdan, 1987). In essence, image advertising associates product consumption with the "good life," as defined by the target audience. It rarely seeks to elicit an immediate behavioral response, but instead tries to evoke an emotional response that can catalyze later changes in behavior (Schwartz, 1983). As a result, such advertising needs to be repeated more frequently than advertising that uses a more direct sales pitch (Benn, 1978).

Image advertising is commonly used to promote cigarettes, especially in women's and youth-oriented publications (Altman, Slater, Albright, & Maccoby, 1987). Advertising for Virginia Slims cigarettes is illustrative. The launch of this brand coincided with the woman's movement, and the advertising copy has always stressed women's emancipation and growing freedom as an appeal to "liberated" women (Benn, 1978; Rehony et al., 1984). At the same time, the ads have a distinctly feminine aura, suggesting that Virginia Slims smokers can compete with men without sacrificing their femininity. This juxtaposition is apparent in the campaign slogan "You've Come a Long Way, Baby."

Another example is provided by malt liquor advertising directed to low-income black male consumers. A great deal of such advertising emphasizes the extra "power" of the drink, which does have a higher alcohol content than beer, and ties its use to promises of sexual power and conquest (Postman, Nystrom, Strate, & Weingartner, 1987). In contrast, ads for cognac and other liquors, which are designed to appeal to upwardly mobile and economically successful blacks, portray the product as a sign of elegance (Hacker et al., 1987).

Other image advertising associates a product with stories, vignettes, themes, or characters that tap into cultural myths. In so doing, these ads evoke the culture's ideals and give expression to profound and universal emotions (Schwartz, 1983; Chapman, 1986). Most important, by evoking particular myths, these ads communicate the essence of those people who use the product and their place in the world (Chapman & Egger, 1980). As a result, consumers see aspects of their real or desired image portrayed in the advertising, and the product becomes a vehicle for expressing or gaining that identity. The quintessential example of this type of advertising is the campaign for Marlboro cigarettes, which exploits the American myth of the "frontier," a free, open space where a resourceful and self-sufficient man can start fresh and make his way in the world. The "Marlboro Man" is a man of inner-strength -- self-confident, tough, straightforward, and independent; he is portrayed, essentially, as the embodiment of American individualism and potency.

Chapman and Egger (1980) assert that anti-smoking appeals directed at preteens and adolescents also need to use "image" advertising. One strategy they suggest is to present a mythical character with whom this group can identify, a character who demonstrates his power and independence by choosing not to smoke. A similar strategy was applied in a drunk-driving prevention campaign just pilot-tested in California, "The Driver," which was designed to promote the designated driver concept (SYSTAN, 1987). "The Driver" is portrayed in television spots as a classic American hero, the handsome loner who thinks and acts apart from others, but is also willing to take charge when others must be rescued from themselves.

Image advertising can be used more broadly to promote a health-enhancing lifestyle, one that is incompatible with substance use and other behaviors that put health at risk. For example, the Alberta Alcohol and Drug Abuse Commission (AADAC) in Canada has operated its "Make the Most of You" campaign since 1981 with a focus on encouraging and assisting teens to adopt a healthy lifestyle. Through a combination of print and electronic media and school- and community-based programs, the campaign shows that adolescents, with peer support, must take an active role in their own growth and development by involving themselves in fun yet healthful activities. In this context, substance use and other high-risk behaviors are portrayed as impediments to teens' achieving their own goals and

aspirations. An evaluation incorporating a quasi-experimental research design, with Manitoba used as a comparison area, has produced encouraging results (Thompson, 1988).

A variation of this general strategy is to label members of the target audience as "winners" and to present the desired behavior as an integral part of that image (e.g., Wallack & Barrows, 1982-1983). Labels provided by others can influence a person's subsequent behavior (DeJong, 1979), though their impact is far greater when they are based on observations of past behavior (Kraut, 1973) or are otherwise personalized (e.g., Strenta & DeJong, 1981), conditions that cannot be met easily, if at all, through mass communication channels (DeJong, 1988). Still, this approach might be valuable in certain cases. Alternatively, Schwartz (1983) suggests that mass communication campaigns can use "shame" to motivate desired behaviors, essentially by confronting members of the target audience with any discrepancy between their self-image and their actual behavior (see also, Ball-Rokeach, Rokeach, & Grube, 1984).

Fear appeals should be used only under limited circumstances. A continuing controversy in the U.S. concerns the use of fear appeals. Most experts have concluded that fear campaigns are extremely difficult to execute and rarely succeed (Atkin, 1981; Bandy & President, 1982; Boster & Mongeau, 1984; Job, 1988). Indeed, they argue that there is a real risk that fear appeals will backfire, making the problem behavior even more resistant to change (Kleinot & Rogers, 1982; Rogers & Mewborn, 1976).

To work, the onset of fear should precede an explication of the simple, concrete steps that people can take, and fear onset should then reinforce the desired behavior to confirm its effectiveness. This is harder to do than it sounds. If the appeal is too mild, or if the threatened punishment seems too unlikely or remote in time, people will not be motivated by it. If the threat is too strong, or if the behavioral prescription being offered as an alternative is inadequate to alleviate the induced fear, people might tune out the message, deny its validity, derogate the source's credibility, or adopt a fatalistic attitude (Job, 1988; Solomon & DeJong, 1986).

The central difficulty is the impossibility of anticipating or modulating in advance the level of fear that will be generated by a particular set of campaign materials or to judge whether the fear reduction or other benefits resulting from the prescribed action will be adequate to motivate behavior change (Bandura, 1986). Moreover, the target audience's response to the fear appeal will also vary according their perceptions of their own vulnerability. If the audience has low anxiety, a fear appeal might serve to raise concern about the problem and motivate action. But if the audience is already anxious about the problem, this type of appeal might interfere with comprehension or a rational consideration of options (Bandy &

President, 1982). A complicating factor is that members of the same target audience will vary on this dimension, again making the appropriate strength of the fear message difficult to establish.

Despite these considerations, fear appeals continue to have strong intuitive appeal and are frequently used by advertising professionals in health promotion campaigns. One reason for this is that focus group participants usually rate strong fear appeals as highly motivating and effective. But this is true even when subsequent experimental studies show those appeals to be ineffective (Job, 1988). The reason for their continuing allure is clear: In general, the threat of punishment is relied upon to control behavior when its causes are insufficiently understood or those causes are difficult to change (Bandura, 1986).

Compounding the confusion is the lack of definitional clarity about what constitutes a "fear appeal." In their zeal to promote alternative approaches, some experts extend their concerns about fear appeals to any message that focuses on the negative consequences of certain behaviors. Further adding to the confusion, of course, is that such campaigns do occasionally work (e.g., Advertising Council, 1991; Chu, 1966). As noted before, however, this is usually the case when the audience has low awareness or anxiety about a problem (Flay & Sobel, 1983). In 1987, for example, an annual survey of high school seniors found a decline in reported cocaine use; the investigators attributed this decline to a heightened awareness of cocaine's potential to kill even first-time users, due to the widely publicized death of basketball star Len Bias and the mass media campaigns that followed (Johnston et al., 1988)[10]. On the other hand, once people are already aware of a problem, other means of influencing their behavior, such as modeling appropriate skills and demonstrating the benefits of alternative behaviors, must be found.

The use of celebrity spokespersons should be approached cautiously. A celebrity is often used in product advertising as a means of drawing attention to the product or to show that the it is "in fashion" (Graham & Hamdan, 1987). Many public service campaigns have used this tactic as well. A celebrity's involvement will typically include public service announcements and other educational materials,

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[10] *It should be noted that when school-based programs were started in the 1960s, educators believed that the key to effective prevention was to warn young people about the dangers of substance abuse. It is now recognized that programs which only emphasize consequences are of limited value. First, investigators found evidence that, among some youth, such programs might stimulate curiosity about drugs and a rise in experimentation (Bandy & President, 1982; Polich et al., 1984). Second, such programs often resorted to exaggerated "scare tactics," which adolescents detected and discounted.*

publicity events, promotional tours, and fund-raisers. If the spokesperson's association with the message becomes strong enough, his or her presence alone can evoke recall of the message (Benn, 1978).

Even so, there are risks to using this strategy. First, the message may be overwhelmed by the celebrity's presence and ultimately forgotten (Atkin, 1979; Ogilvy, 1985) Second, celebrities can lose their lustre; among adolescent fans in particular, perceptions of entertainment and sports stars often change very quickly (Graham & Hamdan, 1987). Third, celebrities can suddenly become newsworthy in ways that directly undermine the campaign or are otherwise inappropriate[11].

In selecting a celebrity spokesman, the watchword is caution. A celebrity should be selected whose public image fits the underlying strategy of the campaign, not just because he or she is available (Bandy & President, 1982). Available data on the celebrity's popularity among different demographic groups should be examined, and formative research should be undertaken to test the target audience's perceptions of the celebrity's trustworthiness[12], credibility[13], and attractiveness (McGuire, 1985). Most important, people who know the celebrity, and whose judgment can be trusted, should be consulted for their advice whenever possible.

Campaign planners should seek opportunities to promote a product or service whose use is consistent with the campaign's health theme (Rehony et al., 1984). Perhaps the classic example of this approach is the promotion of condoms as part of family planning or AIDS prevention programs (Altman & Piotrow, 1984; DeJong, 1989; Sherris, Lewison, & Fox, 1982): The central benefit of this approach is that it allows the direct application of commercial marketing and advertising strategies (Black & Harvey, 1976).

Campaign planners can often develop a new product or service that can be promoted as part of their program (Lefebvre & Flora, 1988). A good example of

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[11] *In the case of substance abuse prevention messages, there is also a fourth consideration: Adolescents often view celebrity messages skeptically, because they suspect the celebrity was paid to deliver the message or because they believe that many stars are substance users (Harvard Business School, 1987).*

[12] *Perceptions of trustworthiness will be undermined if the source of the message is seen as lacking good will or having manipulative intent. As a result, young people, especially those who are rebellious against adult authority, may view any adult spokesperson with suspicion (Bauman et al., 1988).*

[13] *Because of the documented importance of credibility, it is tempting to rely on scientific experts to provide health promotion messages. In some cases this will backfire. Schlegel (1977) cautions, for example, that adolescents who see themselves as relatively sophisticated about drugs may view all others, including scientific "experts," as less credible than their friends (see Smart & Fejer, 1972).*

this strategy is provided by the Pawtucket Heart Health Program, which is focused on cardiovascular risk reduction (Lasater, Lefebvre, & Carleton, 1988; Lefebvre, Peterson, McGraw et al., 1986). Commodities publicized through the mass media include a cookbook and a "Four Heart" restaurant program through which eateries offer low-fat, low-salt menu options. Another possibility is to promote coupon books that offer free or discounted products and services whose use is consistent with the public health campaign (Bollier, 1989). It should also be recalled that community-based intervention programs (e.g., self-help groups, screening/ counseling events, smoking cessation programs) can also be promoted (Lefebvre et al., 1988).

A related tactic is contest sponsorship (Graham & Hamdan, 1987). For example, as part of their radio-based anti-smoking campaign, Bauman et al. (1988) included a special promotion, the "I Won't Smoke" Sweepstakes, as a means of encouraging peer involvement and interpersonal communication about the campaign. Entrants sent in an entry form with their name and address; at their option, they could sign a pledge not to smoke. Entrants could enroll friends in the drawing in return for cash awards. During the drawing itself, the prize doubled in value to $2,000 if the winner's entry form indicated that he or she was a non-smoker.

Another possibility is for a health promotion campaign to establish links with commercially available products or services. In this strategy, called "cause-related" marketing, advertising for the product or service also carries a public health message (Moses, 1988). While it is ideal for there to be a direct link between the commodity and the health message (e.g., life insurance with drunk-driving prevention, physical fitness equipment with smoking prevention), such a connection is not strictly necessary. For example, the Frito-Lay Corporation, one of the country's largest makers of potato chips and other snack foods, agreed to donate money to the non-profit Just Say No Foundation with each customer purchase, a promotion announced in advertising and on its packaging with a brief anti-drug message.

Public health advocates can also emulate a strategy used by tobacco and beer companies -- the official sponsorship of sporting events, concerts, and other cultural or youth-oriented activities. For example, Canada's "Break Free" campaign became the official sponsor for the Arctic Winter Games and the Student Regional Games and distributed "Break Free" toques and headbands as part of those events (Liepold, 1986). Because such events are often financially dependent on the fees paid by their sponsors, use of this strategy by public health advocates will be limited unless they can negotiate with a product or services company to co-sponsor the event.

LESSON 4: STIMULATE INTERPERSONAL COMMUNICATION

Stimulating interpersonal channels of communication can enhance a mass communication campaign in several ways (Flay & Burton, 1990; Rogers, 1983). First, communication through a social network ensures that the message is spread beyond the original audience. If discussion of a topic is frequent, then any new information provided through the mass media is more likely to be attended to and remembered. Second, interpersonal communication is generally very effective for delivering complex information and persuasive messages. Third, interpersonal communication can increase the likelihood of new behaviors being tried, adopted, and maintained (Flay, 1986).

In using a mass communication campaign to stimulate this process, it is important to target messages to a community's opinion leaders or "trend-setters" (Black & Farley, 1977; Rogers & Shoemaker, 1971). Katz and Lazarsfeld (1955) describe this as a two-step flow of communication, from the sources of mass communications to informal opinion leaders, and then from these leaders to others.

The importance of this approach is underscored by studies on the impact of mass media on youth at high-risk for drug abuse. In their review of the literature, Bandy and President (1982) noted that the more often students use drugs, the less likely they are to believe information conveyed through the mass media. One study they reviewed found that non-users rely primarily on the mass media to learn about drugs, whereas drug users rely primarily on information from their friends and their own experience.

LESSON 5: USE A VARIETY OF MASS COMMUNICATION CHANNELS

A variety of communication channels should be used to provide a clear and consistent message, thereby reinforcing one another (Atkin & Arkin, 1990; DeJong, 1989). Particular channels should be selected according to the target audience's media preferences and the objectives of the campaign (Alcalay & Taplin, 1989).

Television is an attractive medium because of its large and diverse audience, which creates the capacity for bringing immediate attention to an important issue or concern. On the other hand, television programming is passively consumed, which limits the type of information that can be conveyed (Atkin, 1979). In general, television is excellent for providing short, uncomplicated messages, evoking emotional reactions, establishing evidence of new social norms, and modeling behaviors that can be easily taught.

Because each television show's audience varies in its demographic profile, narrowly defined audiences can be targeted. Current trends toward the "fractionalization" of television, caused primarily by stronger independent stations, cable channels, and syndication of first-run shows, also provide opportunities for targeting specific audiences such as young people (Atkin & Arkin, 1990; Graham & Hamdan, 1987). On the other hand, use of these media greatly increases the logistical demands on campaign planners.

The potential of radio, especially for reaching adolescent audiences, has not been fully appreciated by public health campaign organizers. Radio shares many of television's advantages, but obviously does not carry the impact of the visual medium. On the other hand, radio calls upon the imagination more than television, which may be an advantage for certain types of messages. Radio is also much less expensive, which allows greater repetition of the messages. Moreover, the variety of stations on the air facilitates the targeting of messages to very narrowly defined groups, which can be identified through marketing reports used by the industry. For a national campaign, a major disadvantage of radio is the large number of independently owned stations that need to be approached, even with a focus on major markets. For certain audiences, such as adolescents, nationally syndicated programs with celebrity "disk jockeys" might provide a more feasible venue.

The print media are less able to command attention than the broadcast media, but they can be used to reach finely differentiated target groups. And because print advertisements, brochures, and feature articles can be reread and invite reflection, they are better suited for presenting rational arguments or detailed information (McGuire, 1989).

A media plan should rely on audience rating systems and formative research to identify which specific stations, programs, or print media are the best vehicles for reaching the target audience at the lowest cost per contact. Obviously, the right "media mix" varies according to the particular audience being addressed.

An issue that cannot be satisfactorily answered is what does, in fact, constitute "adequate" exposure. Public communication specialists have not extensively studied this issue in health campaigns because, historically, they have relied on public service time or have had small budgets to work with. Only two broad generalizations can be offered as guidance. First, repetition helps draw attention to the message (Solomon, 1983), facilitates learning, and increases liking for the message. However, repetition can be counterproductive if it is excessive and turns the message into a cloying annoyance (Bornstein, 1989). Second, airing ads in high-frequency bursts (or "flights") is superior to having the same number of ads drawn out over a longer period (Atkin, 1979).

Precise guidance is lacking, however, since the right amount of exposure depends on too many variables -- the nature of the target group, the precise objective, the complexity and entertainment value of the message, the nature and extent of competing messages, and so forth. Because there is no valid way to measure advertising effectiveness, even commercial advertising agencies do not always know which media should be selected or how frequently they should be used to achieve a particular advertising objective (Sissors & Surmanek, 1987). Audience tracking studies can be executed as the campaign is launched to gauge audience exposure to the campaign message. In general, such studies will not be a priority for health campaigns operating on limited budgets. But if severe doubts about the media plan develop, focus groups could be used in lieu of a formal audience survey to see how the plan might be modified (Solomon, 1989).

While public health advocates typically turn to the traditional media -- television, radio, and print -- for mass communications campaigns, there is, in fact, a diversity of media venues to be considered, including billboards, transit cards, newsletters, videotapes, and booklets. New advertising venues will continue to emerge. The Whittle Corporation developed several new venues during the 1980s, including commissioned books distributed free to the nation's opinion leaders; message boards for school gyms; and, with much controversy, daily news programming beamed to high schools via satellite. Other new developments include screen advertising in movie theaters (Atkin & Arkin, 1990) and the use of "dial-in" phone messages, which are promoted in billboard and print advertisements (OSAP, 1990).

LESSON 6: TAKE STEPS TO ENSURE AUDIENCE EXPOSURE TO THE CAMPAIGN

Many public service campaigns that use television and radio simply fail to reach their intended audience (Flay, 1986; Flay & Sobel, 1983; Warner, 1987). Public service advertising developed by the Advertising Council and others is typically used by broadcast stations as "filler" and is often aired at off-hours with small audiences. Of particular concern, television public service ads are infrequently aired during prime time when preteens and adolescents are viewing (Hanneman, McEwan, & Coyne, 1973). This has been a long-standing problem, but it has been worsened by the loosening of broadcasters' public service obligations during the 1980s (Atkin & Arkin, 1990)[14].

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[14] *In response to this concern, there were calls at the December 1988 Surgeon General's Workshop on Drunk Driving for commensurate time for "responsible drinking" messages as a counterweight to beer and wine advertisements (OSG, 1989). A similar lift was given to the anti-smoking movement in the late 1960s when the Federal Communications Commission (FCC) applied the fairness doctrine to tobacco advertising on radio and television and required stations to provide anti-smoking groups with free time to air their views (Flay, 1987). When tobacco advertising was*

Because campaign organizers want to ensure audience exposure to their campaign, the competition for donated time is fierce. A public service campaign's success in winning donated time depends in part on the issue involved and its perceived importance to media "gatekeepers" who establish public service priorities for each broadcast station. The Centers for Disease Control's AIDS campaign, for example, received more than $28 million in donated air time from October 1987 through February 1989. A 1989 survey showed that 22 percent of U.S. adults recalled seeing or hearing during the past month a public service announcement with the slogan "America Responds to AIDS" (Dawson, 1989). It has also been observed that local gatekeepers will respond more favorably to public service spots that are "creative" and that have local program or agency taglines or allow a local station to add their own (Freimuth & Van Nevel, 1981; Hammond et al., 1987; Goodstadt & Kronitz, 1977).

Public health advocates have responded to the intensified competition for public service time by trying to build relationships with the media gatekeepers (Maccoby & Alexander, 1980). For example, in implementing the Asbestos Awareness Campaign, the project staff made special efforts to persuade the gatekeepers in 16 target communities to air the public service announcements, including personal contact, press kits, and fact sheets (Freimuth & Van Nevel, 1981). At the national level, the Harvard Alcohol Project was able to secure the cooperation of the three major networks to produce and air prime-time advertising to promote the "designated driver" concept (DeJong & Winsten, 1990b).

Some recent campaigns have purchased air time, using it exclusively or in combination with public service time (Bauman et al., 1988; Wallack & Barrows, 1982-83; Worden et al., 1988). This strategy is controversial within the public health community. While some health advocates focus on the need to get their messages on the air in the best time slots, others express concern that paying for media time will cause the broadcasters to demand payment for other public service advertising (Bloom & Novelli, 1981; Dessart, 1990).

Clearly, however, the restricted financial resources of nearly all public health agencies limit the extent to which this approach can be used, especially with television. Even the U.S. Department of Health and Human Services, which sponsors numerous health promotion campaigns through the Public Health Service, generally does not have funding for buying airtime (Warner, 1987). Some local stations have recently received publicity for selling air time for public service campaigns at greatly reduced rates (Meyers, 1989), but the cost still remains too

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banned from the broadcast media in 1971, the mandate for anti-smoking advertisements ended as well (Wallack, 1981). Similar action by the FCC on alcohol advertising now appears to be extremely unlikely (Colford, 1989).

high for most public health programs. Radio, billboards, and transit cards represent more realistic alternatives for paid public health advertising (Arkin, Denniston, & Romano, 1990).

Corporate sponsorship might provide a partial answer to this funding problem. For example, anti-drug spots developed by the Media-Advertising Partnership for a Drug-Free America are frequently aired through a combination of donated time, both nationally and locally, and corporate sponsorship.

Another possibility is to work directly with broadcasters to develop a new campaign. In local communities, a broadcast station might want to develop an exclusive, station-sponsored campaign, one that focuses the station's energy on a single problem of public concern (Wishnow, 1983). Occasionally, a major network will undertake such a campaign as well, as evidenced by CBS's involvement in the "Be Smart. Don't Start!" campaign (Atkin, 1989a).

In station-sponsored campaigns, newscasts, documentaries, talk shows, public service announcements, and editorials work in sync to inform and motivate the public and to offer solutions, either in the form of individual/collective action or a change in public policy. For some campaigns, the station or network will work in partnership with business, government, and voluntary organizations to create a direct intervention, such as print materials, smoking cessation kits (Sallis, Flora, Fortmann et al., 1985), and special events. Station managers find that such campaigns serve the station's needs by bringing community recognition and acclaim, which in turn increase ratings for local programs. Corporate sponsors can be asked to provide funding in return for on-air mention of their involvement.

For certain issues, such campaigns provide a unique opportunity for public health advocates to achieve their health promotion objectives. For example, in Washington, D.C., WRC-TV sponsored a prenatal health care campaign, "Beautiful Babies: Right from the Start," which featured a series of news reports, documentaries, public service announcements, and editorials. Most notably, local obstetricians participated in distributing coupon books that offered a variety of products and services at reduced cost, many of them directly related to prenatal and child care. As a result of the campaign, more than 60,000 coupon books were distributed. After 18 months, prenatal visits to public health clinics had increased 22 percent and infant deaths had declined 6 percent (Bollier, 1989), although campaign organizers acknowledge that the campaign's contribution to these changes cannot be proven.

LESSON 7: INCORPORATE THE STRATEGIC USE OF TELEVISION ENTERTAINMENT AND NEWS PROGRAMMING

Mass communication campaigns have traditionally involved the use of public service advertising, including radio and television spots, print ads, billboards, posters, and printed literature. More recently, several public health advocates have argued that campaign planners should think more expansively about how the mass media can be used to reach the public, moving beyond the realm of public service announcements to include news and entertainment programming as part of a single, unified campaign (Atkin & Arkin, 1990; Mendelsohn, 1973). The failure to use such programming as vehicles for health education represents a missed opportunity. Beyond that, however, this failure frequently results in the public being exposed to conflicting messages that undermine the campaign (Atkin, 1979). The advantages and limitations of using entertainment and news programming are reviewed here.

Television Entertainment Programming

As the "most effective purveyor of language, image, and narrative in American culture," (Marc, 1984), television is an important influence in shaping cultural norms, public opinion, and behavior. Television programming not only mirrors social reality but helps shape it, by communicating what constitutes popular opinion and by influencing people's perceptions of the roles and behaviors that are appropriate to members of a culture (Roberts & Maccoby, 1985; Signorielli, 1990). For many people, and for children and adolescents especially, television programming is a key source of information about how the world works and how one should behave in that world (Atkin, 1989b; Roberts, 1989).

Unfortunately, because plots and script lines are selected primarily for their entertainment and artistic value, a great deal of the health-related information that is presented on television is inaccurate, misleading, or antithetical to good health (Atkin, 1979; NIMH, 1982). For example, recent data show that, while drug and tobacco use is infrequently shown on television, the portrayal of alcohol use averages several "acts" per hour, far more often than several other more popular beverages, including water (Signorielli, 1990). In combination with beer and wine advertising, this barrage overwhelms the message from infrequently aired public service advertising that urges preteens and young adolescents to abstain (Wallack, 1990a).

As a result, public health advocates have pursued two strategies for working with the entertainment industry to promote lifestyle changes and healthier behavior: 1) consulting with producers, writers, and directors concerning the content of regular entertainment programming (Breed & DeFoe, 1982; Montgomery, 1989, 1990),

and 2) collaborating in the production of special programming around health promotion themes (Mendelsohn, 1973).

Consultation with the Entertainment Industry. While lobbying the U.S. entertainment industry has been common over the last 20 years, this strategy has been given new impetus by the highly publicized Harvard Alcohol Project, a university-based campaign designed to prevent drunk driving through promotion of the designated driver concept via entertainment programming and network-sponsored public service announcements (DeJong & Winsten, 1990a, 1990b; Winsten, 1990). After three television seasons, messages consistent with the project's agenda have appeared in over 100 shows, including both dialogue and the display of a designated driver poster developed by the project. While several would-be imitators have been inspired by the Harvard project, several facts about it point to its limitations as a model for other health promotion efforts.

The director of the Harvard project was afforded access to top executives of major Hollywood production studios through the direct intervention of Dr. Frank Stanton, former president of CBS and, at the time, a member of Harvard's Board of Overseers. As Montgomery (1989) notes, producers in general have sought to keep outside lobbyists at arms length. As a result, "Hollywood lobbyists" usually devoted a number of years to building a small network of supporters in the industry, largely through hosting seminars, panel discussions, or lectures. In more recent years, however, the most successful lobbying efforts have been set up by industry insiders or greatly assisted by them and have used those personal connections as a basis for private discussions with individual producers (Stevenson, 1990). Obviously, few public health advocates can rely on that kind of insider support and will find access extremely difficult to achieve.

The designated driver concept itself has several important features that distinguish it from other public health topics and make it a more attractive theme for producers and network executives. First, Mothers Against Drunk Driving (MADD) and other advocacy groups had already aroused public concern about the drunk driving problem. Because shifts in social norms regarding the acceptability of driving after drinking had already begun, the role of the television industry could be accurately described as one of reinforcing an emerging trend rather than "engineering" a new one. This fact helped deflect criticism that a systematic effort to influence public opinion and behavior through entertainment programming was an abuse of concentrated media power.

Second, the designated driver message could be easily incorporated into programming on a routine basis, especially since scenes involving alcohol use are a staple of television programming (Breed & DeFoe, 1981; Gerbner, 1990). The introduction of other public health topics -- drug abuse, AIDS, teenage pregnancy, organ transplantation -- represents a more radical departure from standard

programming fare. Many of these health issues lend themselves to dramatic treatment, but only as a special episode or program. Such programs might be worthwhile for drawing attention to an issue, but they should not be seen a tool for bringing about substantial change over the long-term.

Third, the designated driver message, by emphasizing individual responsibility to prevent the drunk driving, meets the television industry's need to do something positive while not alienating the alcohol industry, on whom broadcasters depend for a significant portion of their advertising revenue ("Advertiser Report," 1990; Wallack, 1990a). Indeed, many public health experts worry that the Harvard campaign has taken the pressure off the television networks to modify alcohol advertising practices that appeal to minors. In general, the television industry is more likely to focus on politically non-controversial subjects or solutions -- an important limitation (Montgomery, 1990).

A restriction commonly shared by any effort to use television entertainment programming to communicate a public health message is the inability of outside organizations to control programming content. For example, guidelines developed by the Harvard Alcohol Project emphasize that promotions of the designated driver concept should not imply that it is socially acceptable or even expected that the driver's companions will drink to excess (DeJong & Winsten, 1990b). Even so, a few television episodes that mentioned the designated driver concept did so in a way that directly violated this important guideline.

Development of Special Programming. A second option for working with the entertainment industry is to collaborate in developing special health-related programming. While programs aired nationally are an occasional possibility (Montgomery, 1989), true collaboration is more likely to occur at the local level. As one example, the ongoing Stanford Five Community Project initiated its education program with the airing of a locally produced hour-long documentary ("Heart Health Test") that provided general information on cardiovascular risk reduction (Farquhar et al., 1985a). Development of special programming is particularly useful for audiences that are not well-served by the major networks, such as Latinos (McAlister et al., 1987; Mendelsohn, 1973).

News Programming

Public health advocates have long recognized the importance of obtaining favorable news coverage to support the objectives of a health campaign designed to promote behavior change. Especially valued is the greater visibility and the "third-party endorsement" of campaign messages that news stories can bring (Alcalay & Taplin, 1989; Goldman, 1984).

In recent years, this strategy has been given renewed prominence by public health advocates wanting to promote changes in public policy. What they call the "media advocacy" approach features a variety of public relations strategies to stimulate media coverage that will serve to reframe how the general public and opinion leaders conceptualize a public health problem, and to promote a consideration of public policy options (NCI, 1988; Wallack, 1990b). This strategy is especially important when the policy changes being urged threaten commercial advertisers who financially support the media.

A number of guidelines should be followed in seeking news coverage. First, it is important to have clear objectives for what is to be achieved through news coverage. Publicity for its own sake is an insufficient reason. In 1988, for example, the Harvard Alcohol Project issued a press release announcing that the major television production studios had agreed to introduce the designated driver concept in entertainment programs. The resulting page-one story in The New York Times (Rothenberg, 1988) served several purposes: giving additional visibility to the issue of alcohol-impaired driving, directly promoting the designated driver concept, and establishing the institutional identity and stature of the Harvard Alcohol Project itself. But the principal rationale for issuing the press release was to solidify the production studios' commitments through public exposure, an objective which was achieved.

There are other considerations to using this strategy successfully. Foremost, the press announcement must present information that has real news value[15]. Public health advocates too often assume that all of their activities, because they are important, are also "newsworthy" (DeJong & Winsten, 1990a). Instead, public health advocates must understand how news institutions define the "news," the incentives to which reporters and editors respond, and their preferences for how news information is packaged and presented (Atkin & Arkin, 1990; Bantz, McCorkie, & Baade, 1980; Stuyck, 1990).

Generally, for health-related information to be defined as news it must be more than new. The story must also have aspects that make it especially attention-grabbing. Meyer (1990) lists several factors that contribute to a story's appeal: timeliness, geographical proximity, prominence of the people involved, human (emotional) interest, controversy, novelty, and potential impact on people's lives. Stuyck (1990) adds another important factor: the story's potential for creating more informed health consumers. Thus, campaign planners must think creatively about how they can get reporters interested in their message or story.

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[15] *As explained by Alcalay and Taplin (1989), press releases can announce an upcoming event and invite the press to cover it; issue a public statement on a news development or issue; or provide background information that gives perspective on late-breaking news.*

There are several standard ways of achieving this. One is to issue a survey report or other research findings that give new insight into a health problem and its solutions (Wallack, 1990b). For local news coverage, national data have to be given a local perspective (NCI, 1988). Another is to announce upcoming program events. Indeed, when deciding what steps to take next in a program or campaign, planners should take into consideration the public relations value of the various alternatives (Goldman, 1984). The American Cancer Society, for example, found a powerful idea in its Great American Smokeout, which continues to generate news coverage year after year (Flay, 1987). Yet another means of generating news coverage is to create "media events" such as receptions, speeches, policy debates, awards ceremonies, or special fund-raising events (Player, 1986; Wallack, 1990b; Warner, 1987). Staging events for television is especially important, as stories with a strong visual element are given higher priority (Klaidman, 1990).

Another consideration is that the press announcement must be timed properly so that it does not compete with other stories (DeJong & Winsten, 1990a). While campaign planners cannot fully anticipate the flow of world and national events, certain days are typically "slower" news days than others. Knowing this, staff for the Harvard Alcohol Project issued its aforementioned press release in late August, when Congress is typically in recess and many news-making organizations are enjoying a vacation lull.

To maximize its serious consideration, a press release is best addressed to reporters with whom the campaign planners have established credibility over time, perhaps by serving as a background source for other stories. On occasion, relationships with the press can be nurtured by offering periodic exclusives, although it must be cautioned that overusing this strategy might eventually alienate those relationships. Relationships with print reporters are especially critical, since local broadcast media often rely on area newspapers when determining what stories to cover.

A relatively new means of generating press coverage is the distribution of so-called "video news releases," which are professionally produced program segments suitable for use on evening news programs, TV magazine shows, or documentaries. Unfortunately, production expenses do not make this a reasonable alternative for many public health agencies (Kleiner, 1989; Davis, 1988). On the other hand, "audio news releases" for use on radio might be an effective alternative, especially if only a limited number of radio stations are targeted.

In considering the advantages and disadvantages of trying to generate supportive news coverage, public health advocates must recognize that the news media are an imperfect instrument for communicating health messages (Stuyck, 1990). First, because broadcast news programming thrives on political controversy, it provides limited opportunities for providing clear and consistent messages health messages.

This fact was amply demonstrated by press coverage of New York City's announcement of its 1987 AIDS campaign aimed at promoting condom use among heterosexuals. Several television reports aired the campaign's spots as part of their news coverage, thereby furthering the objectives of the campaign. On the other hand, these reports also featured interviews with a clerical spokesman for the Catholic Archdiocese of New York, who objected strongly to the "graphic" portrayals in the campaign's television spots and their implicit endorsement of "promiscuity." In further support of his attack on the campaign, this spokesman asserted that the condom's high failure rate made it a poor choice in AIDS prevention efforts. This claim, which failed to account for consumers' sometimes improper or inconsistent use of condoms (Sherris et al., 1982), was not challenged in any of the news reports.

Second, the competitive pressures on news reporters frequently resulted in incomplete investigative reporting and the sensationalized treatment of tentative scientific findings, both of which contributed to public confusion and panic. In one especially important case, a study reported in a 1983 issue of the Journal of the American Medical Association hinted that "routine contact" among household members might be sufficient for AIDS transmission to occur. Although subsequent studies showed that the disease was not spread through casual transmission, and although these studies were covered in turn by the news media, the initial stories nevertheless had a residual effect (Milavsky, 1988). This residual effect was sustained in the mid-1980s by continuing coverage of public hysteria about AIDS, as manifested in the boycotts of schools attended by AIDS victims, public arrests of AIDS patients by police wearing protective gloves, and so forth.

Recognizing the inherent limitations in using news coverage to carry forth a health promotion message, some health advocates have begun to create their own publications, a strategy also used in the commercial sector. The Philip Morris tobacco company, for example, publishes Philip Morris, a "lifestyle" magazine that is distributed free to self-identified smokers. At one level, the magazine serves as a company-controlled venue for its standard print advertising, but the magazine also reinforces the reader's self-definition as a smoker by publishing articles, features, and consumer advertising that associate this identity with an active, upscale lifestyle. The magazine also presents a political agenda that portrays smokers as an "oppressed" minority; direct mail solicitations sent to subscribers encourage them to put pressure on State and local politicians to defeat anti-smoking ordinances and legislation (Sylvester, 1989). A public health counterpart to Philip Morris is Zoot, a slick and highly popular "lifestyle" magazine distributed free to teens by the Alberta Alcohol and Drug Abuse Commission (AADAC) in Canada as part of its general campaign to promote healthy lifestyles that exclude alcohol, tobacco, and drug use ("Unique Magazine," 1988-89).

LESSON 8: DEVELOP MASS COMMUNICATION STRATEGIES THAT WORK IN SYNC WITH COMMUNITY-BASED PROGRAMS

Both the Stanford and North Coast studies suggest that mass communications alone, when properly designed and executed, can produce behavior change. Even so, both sets of investigators later turned to demonstration projects that used mass media in tandem with community-based programs -- the Stanford Five Community Study (Farquhar et al., 1985a), and the "Quit for Life" campaign in Sydney, Australia (Dwyer, Pierce, Hannam, & Burke, 1986; Pierce, et al., 1986).

It has long been recognized that a media-driven health promotion campaign is more likely to succeed in changing behavior when other program components are in place, a condition that Lazarsfeld and Merton (1971) have called "supplementation." Accordingly, many researchers emphasize that media approaches should work in sync with community-based program components that involve long-term, face-to-face education and community reorganization (Alcalay & Taplin, 1989; Flay, 1986; Solomon, 1983; Wallack, 1980). Media can support these local programs in several ways. In turn, these programs can reinforce a media effort by giving shape to an audience that is primed to attend to the media campaign (Flay, Hansen, Johnson et al., 1988; LaRose, 1989) and by helping link the media campaign to local concerns and issues (O'Keefe & Mendelsohn, 1984).

Those who favor using mass communications with community-based programs note that many problems, such as cancer prevention and cardiovascular risk reduction, involve altering long-standing habits and complex behavior patterns. The Stanford study described earlier showed that a media campaign alone, while producing an reduction in overall risk, had a demonstrable impact only on fat consumption but no long-lasting effect on smoking or leisure-time physical activity. The same issue arises with substance abuse. While some have endorsed using mass communication campaigns to reach high-risk youth whose profile makes their abuse of drugs more likely (Worden et al., 1988; Wallack, 1986), most investigators do not endorse this approach, since a person's psychological make-up is a product of life experience and is extremely difficult to change even with direct, intensive intervention. As a result, many programs try to induce members of target audience to participate in programs with face-to-face intervention or to use specially crafted self-help programs (Lefebvre et al., 1988).

In other cases, standard mass communications approaches will be thwarted because of political controversy. For example, to encourage condom use for AIDS prevention, there is a need for motivating messages that focus on how condom use can bring sexual pleasure; failure to do so means ignoring the principal psychological barrier that impedes condom use by U.S. consumers (Solomon & DeJong, 1986, 1989). Reacting to widespread public sentiment against contraception, and wanting to avoid the political or economic pressures that would

ensue, television broadcasters have established standards that make it impossible to use paid or public service advertising for this purpose (DeJong & Winsten, 1991)[16]. With these restrictions in view, health advocates would better focus on community-based education programs that stress condom promotion or local social marketing programs (DeJong, 1989; DeJong & Winsten, 1991). Local broadcast media could support these programs by publicizing them and directing people to information hotlines.

Mass media campaigns can be used in several ways to enhance the effectiveness of community-based programs (Flay, 1986; Wallack, 1980, 1981). First, mass communications can be used to enroll new program participants, recruit volunteers, or win financial support. Second, mass communications can announce the availability of self-help materials, ongoing program activities, and special events (Flay, 1986; Mendelsohn, 1973). Third, mass communications can reinforce the instruction provided by school-, worksite-, or other community-based programs, including skill development, self-monitoring, and other maintenance activities (Flay, 1986). In this case, the mass media materials should also work on their own, since many of those who are most in need of prevention education attend school irregularly (Worden et al., 1988) or are not reached by community programs working under limited budgets. At a minimum, messages from the mass communications campaign and these other components should be consistent; ideally, their activities should be guided by an integrated campaign strategy.

While having mass media and community-based programs work together is, in principal, a sound idea, the issue of cost-effectiveness and other practical concerns should not be forgotten. Hornik (1989, p. 312) expresses strong reservations about the widely held view that interpersonal channels should predominate: ". . . from the point of view of cost, of feasibility, and of sustainability, organizing a face-to-face network is rarely possible." In his own study of a Swaziland program to promote oral rehydration therapy (ORT), Hornik found that a series of radio programs, given their broad reach among the target audience, were a much more effective strategy than using interpersonal channels such as clinic-based health care professionals, health extension agents, and trained community volunteers.

Warner (1987) makes a similar point, noting that a mass communication campaign needs only a small success rate to produce change among a far group of people than can be reached through conventional community-based programs that have much higher success rates. Cost-effectiveness is therefore a more suitable

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[16] *Television entertainment programming offers greater leeway for introducing motivating messages, but they cannot be incorporated into programming often enough to make a critical difference and must be "balanced" by the inclusion of opposing viewpoints (Montgomery, 1990). News programming, because of its focus on political controversy, is similarly limiting.*

criterion for judging health promotion strategies. Even so, major health promotion projects have devoted very little attention to assessing per unit costs (McGuire, 1984).

LESSON 9: USE MASS COMMUNICATIONS TO FOCUS ATTENTION ON THE SOCIAL, ECONOMIC, AND CULTURAL FACTORS THAT IMPACT HEALTH-RELATED BEHAVIOR

So far we have examined campaigns from the standpoint of trying to effect change in the knowledge, attitudes, and behavior of individuals. An increasing number of public health experts have argued that a number of health problems, especially those resulting from lifestyle behaviors, can only be understood and dealt with by focusing on the social, economic, and cultural context in which they occur (Atkin & Arkin, 1990; Alcalay, 1983; Gerbner, 1990; McLeroy et al., 1988; Wallack, 1984, 1986, 1990a).

In their view, it is inappropriate and self-defeating for prevention campaigns to put the onus on the individual for changing his behavior while failing to change the business and legal environment in which that behavior occurs. Ultimately, changes in institutional structures, public policy, or law can lead to greater resources being allocated to a problem and to environmental and social changes that will support and sustain the efforts of individuals to alter their behavior. In the case of adolescent substance abuse, for example, there is a need for increased public debate on issues related to the cost, availability, and promotion of alcohol and tobacco (Mosher & Jernigan, 1989), and on policy changes that might discourage substance use, such as stricter enforcement of laws prohibiting alcohol sales to minors, the elimination of cigarette vending machines, and increased excise taxes to provide funding for school- or community-based programs that provide direct, high-intensity interventions for high-risk youth (Tobacco Education Oversight Committee, 1991).

In this context, the agenda-setting function of mass communications can be more broadly conceived to include targeted messages to official policymakers (Wallack, 1986) or community opinion leaders (Black & Farley, 1977; Rogers & Shoemaker, 1971). Directing awareness campaigns to business and civic leaders, what Schwartz (1973, 1983) calls "narrowcasting," can be an especially powerful way of moving a problem to the top of a community or national agenda. As one example, the first phase of a Swedish campaign to promote condoms was to sell national opinion leaders on the importance of combatting venereal disease and to improve the condom's image as an acceptable, even respectable contraceptive (Ajax, 1974). Having established the need for concerted action, campaign organizers were able to move ahead with a marketing effort that included

introducing new condom brands and specialty retail outlets[17]. Importantly, business and civic leaders can be reached through radio and newspapers whose lower advertising rates make a paid campaign feasible (Alcalay & Taplin, 1989; NCI, 1988).

An important role for social marketing approaches is to promote citizen involvement in community-based efforts to promote social, institutional, environmental change. As one example, parents of preteens and adolescents can recruited to participate in local parents' groups that sponsor alcohol- and drug-free parties, cooperate with police in monitoring local conditions, and advocate changes in public policy, such as the development and enforcement of stricter school policies, more conscientious enforcement of existing laws on the sale and distribution of alcohol to minors, and new legislation setting a legal limit of .00 percent BAC for underage drivers or imposing driver's license sanctions for the purchase or possession of alcohol by minors.

In the end, once legislation or other policy changes have been implemented, mass communications provide a superb vehicle for publicizing them -- not just through news coverage, but also through special advertising and promotions. In drunk driving prevention, for example, widespread publicity of "sobriety checkpoints" and other law enforcement measures has proven to be essential. In the absence of such publicity, such efforts have no discernible impact (Ross, 1988).

LESSON 10: INCLUDE PROCESS AND OUTCOME EVALUATIONS AS PART OF THE CAMPAIGN

Early program planning should incorporate both process and outcome evaluation activities to monitor progress and demonstrate project impact (Lau, Kane, Berry, et al., 1980; Wallack, 1984). Unfortunately, the common failure to evaluate mass communication campaigns has impeded progress in understanding what works and what does not (Arkin et al., 1990).

The behaviorist tradition of most campaign evaluations (Gitlin, 1978; Wallack, 1984) has failed to capture the diversity and complexity of mass media effects,

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[17] *On occasion, a mass communications campaign will need to focus on convincing opinion leaders and the public at large that a particular institution should take responsibility for addressing a health problem. A substance abuse prevention campaign by the Alberta Alcohol and Drug Abuse Commission (AADAC) began in this way. Because the AADAC had been associated in the public mind with efforts to control and treat derelict alcoholics, the first step of the campaign was to use advertising to position the AADAC as an innovative, forward-looking agency that was concerned about youth and alcohol while not being "neo-Prohibitionist" (Skirrow, 1987).*

many of which, as noted before, set the stage for or otherwise promote behavior change in the long term. Evaluations should be designed to capture these effects. As one example, if a campaign's objective is to move an issue to the top of the public agenda, the project's success can be established by tracking the number of news stories before and during the campaign, the number of legislative proposals submitted and passed, the number and size of grassroots advocacy groups, and so forth (Roberts & Maccoby, 1985; Wallack, 1980).

In most cases, evaluators will rely on the collection of survey data. Researchers often express concern about the honesty of self-reports, especially when they concern socially undesirable or criminal behavior such as illicit drug use. Even with respondents remaining anonymous, however, their answers to survey questions are known to be influenced by a desire to give socially acceptable answers. Moreover, the data's validity might change over time, perhaps in response to the very campaign being investigated, if admission to the behavior in question becomes more or less socially acceptable (DeJong & Winsten, 1991; Wallack, 1986).

These concerns are important, but certain precautions can be taken to minimize them. Respondents are likely to provide valid and reliable information if they are reassured that their answers will be kept in confidence (Rouse, Kozel, & Richards, 1985). In addition, the survey instrument can be carefully constructed to build in reliability cross-checks. Also, questions that measure respondents' propensity to give socially desirable answers, such as the Marlowe-Crowne scale (Crowne & Marlowe, 1964) can be included to factor out that source of bias.

To complement these survey data, program evaluations can also collect community-level data on product sales or other objective indicators that would be expected to change in response to the campaign. Doing so only makes sense, of course, when the campaign is of sufficient intensity and duration to reach a sizable proportion of the community.

Local or Regional Campaigns

To test the impact of a long-term local or regional campaign, the research design of choice is a "quasi-experimental" design in which the knowledge, attitudes, behaviors, and health outcomes of people in experimental communities exposed to the campaign are compared to those in similar control communities (Farquhar et al., 1984; Flay & Cook, 1989). Fiscal limitations often restrict the use of each experimental condition to just one community (Flay & Cook, 1989). The design is called "quasi-experimental" because the communities are not randomly assigned to experimental conditions.

A pre-campaign survey, conducted either by telephone or face-to-face, is typically administered to establish baselines in both experimental and control communities.

Subsequent surveys are conducted during and after the campaign with the same respondents to assess change (these are called "cohort" or "panel" surveys). Subsequent data analyses often focus on those persons at greatest health risk, when they can be identified (Flay & Cook, 1989). To control for the effects of repeated testing, companion surveys are often done that involve a new, independently drawn sample ("cross-sectional" surveys). Ideally, that sample should be drawn at random from the target population[18]. Depending on the project, physiological measures might also be recorded.

The later surveys typically include questions that assess each individual's exposure to the campaign. The most conservative approach to analyzing the data is to include all respondents, regardless of their exposure. But it is useful in some cases to conduct post hoc analyses that compare those who have been exposed to the campaign with those who have not, recognizing that the lack of random assignment to these subgroups makes the meaning of such differences ambiguous (Lau et al., 1980). Brown, Bauman, and Padgett (1990) have identified another significant drawback: Respondents often cannot report accurately whether they have been exposed to a campaign, especially when the campaign's materials do not stand out from those of similar campaigns.

The principal difficulty with this quasi-experimental design is that the communities will differ in important ways before or during the study (Flay & Cook, 1989; Lau et al., 1980). Even when efforts are made to match the two sets of communities on a score of relevant variables, there is always the possibility that other unmeasured differences between the communities will contribute to or masking any differences in outcome. Only the random assignment of very large numbers of communities to treatment conditions can obviate this problem, but that is fiscally impossible in most cases.

Another threat to the validity of this design is the occurrence of events that affect one community more than another (Campbell & Stanley, 1983; Cook & Campbell, 1979). Concern over this potential problem has promoted organizers of the Pawtucket Heart Health Program to conduct content analyses of the major newspapers in each of its test communities and to conduct yearly interviews with health agency officials to learn about other interventions and their participation rates (Assaf, Banspach, Lasater et al., 1987; Lefebvre, Lasater, Carleton, & Peterson, 1987).

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[18] *The highly touted Media-Advertising Partnership for a Drug-Free America (Black, 1988) conducted both a benchmark and one-year follow-up studies using matched samples of children ages 9 to 12, teenagers ages 14 to 17, college students, and adults. So that respondents would remain anonymous, the evaluators used a "mall-intercept" procedure to recruit questionnaire respondents. Unfortunately, this procedure results in the selection of non-random samples.*

A final limitation is that the mass media interventions themselves are complex, which makes it impossible to derive definitive inferences about what each individual component adds to the campaign. For this reason, the quasi-experimental research design employed by Bauman et al. (1991) is especially noteworthy. In this study, three different campaign variations were tested in different communities: radio spots alone; radio spots, plus a sweepstakes; and radio spots, a sweepstakes, and television spots.

National Campaigns

Testing the impact of a national campaign is extremely difficult, for with use of the national media, it is usually impossible to create meaningful comparison groups. An exception is when the intensity of the campaign can be varied across media markets. The Media-Advertising Partnership for a Drug-Free America reported, for example, that greater change in negative attitudes toward drugs was found in ten U.S. media markets that received a 50 percent greater exposure to the campaign materials (Black, 1988). Unfortunately, the high-exposure areas were not selected at random and may have differed in important ways from other areas of the country.

A good alternative is to collect time-series data on attitudes and self-reported behavior. A good example is the work by Warner (1989) on the impact of the anti-smoking crusade that began with the Surgeon General's report in 1964 and that included extended news coverage, anti-smoking public service announcements, and other media elements. Warner's strategy was to develop mathematical models that described trends in per capita cigarette consumption in the United States before 1964, to project post-1964 consumption based on those models (that is, as if the intensive anti-smoking campaign had never occurred), and then to compare those projections to actual consumption[19]. Warner (1977) notes several deficiencies in this commonly used measure of tobacco consumption, particularly that it masks changes in the composition of the smoking population and that it does not distinguish changes in smoking status from a mere reduction in smoking.

There are limitations to the time-series method. First, time-series modeling requires that reliable and valid data are available for an extended period of time. In many cases, the only data available will be broad indicators, such as statistics on alcohol-related traffic fatalities, rather than specific indicators of project objectives,

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[19] *The predictive mathematical models include the following variables for each year studied beginning in 1947: the value of the cigarette price index; the natural logarithm of the last two digits of the year, which reflects a natural increase over time in the smoking population, primarily due to more widespread use by women and increased consumption by existing smokers; and the per capita consumption for the previous year, which reflects the contribution of "habit."*

such as greater use of designated drivers. Such measures must often come from survey data. Unfortunately, many projects will find that detailed surveys on their topic area have not been done before.

A second limitation of the time-series method is the extreme difficulty of disentangling a mass communication campaign's contribution from that of other programs or even from broader historical trends or events. For the purposes of program evaluation, the time-series technique requires that there be a signal event whose occurrence can be precisely defined in time, such as the beginning of a new anti-smoking campaign in a government-controlled media environment (e.g., Doxiadis et al., 1985) or the introduction of a new concept such as designated driver (DeJong & Winsten, 1990b). In the field of public health, however, the occurrence of such events at the national level is rare.

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