MOTIVATING THE PUBLIC: APPLICATION OF LESSONS LEARNED TO INCREASING ORGAN DONATION

Elaine Bratic Arkin, Health Communications Consultant, Arlington, VA

INTRODUCTION

The understanding of how to influence individual behaviors and societal norms has increased dramatically over the past 20 years. Social and health change agencies, marketers, and political image makers now use far more sophisticated techniques and technologies. As a result, strategies designed to influence, or "manipulate," are increasingly successful. And competition for the public's attention and interest is fierce. The opportunity exists for the organ donor community to take advantage of these advances in techniques and technologies.

Although the issue of organ donation is unique in many ways, there are some factors inherent to educating and motivating the public that transcend the subject matter. Some of these have emerged from behavioral, communication, and educational research. Others have arisen through trial and failure--lessons learned through Federal and other programs designed to produce behavioral change. The behavioral intent of these programs ranges from the relatively simple (immunization), to complex and difficult (breaking nicotine addiction). Others require individuals to confront their own vulnerability to disease and death (wearing condoms to prevent AIDS; seeking early detection of dreaded cancers). Beyond a lack of awareness and needed skills, many of these programs also have had to confront issues of denial, distaste, cultural taboos, and breaking with closely held traditions. There are many examples to prove that such change is difficult; there also is evidence that change is possible.

The purpose of this paper is to provide background information and to identify issues related to the potential value of educational campaigns to increase organ donation. This paper consists of four sections: the implications of selected theories, models, and disciplines for organ donation programs; recommendations emerging from analytic studies of mass media and other communication programs and community-based research; selected case studies demonstrating different approaches to motivating behavior change, and lessons learned from these programs; and recommendations for the design of a program to increase individual and social support of organ donation.

THE APPLICATION OF MODELS, THEORIES, AND DISCIPLINES TO MOTIVATING ORGAN DONATION

Programs designed to promote behavior change are based on a number of models, theories, and disciplines. Behavioral change models and theories outline the complex process of individual change; diffusion theories explain how change moves through society. Other models examine the factors that ease or block this process.

For example, trial of a new behavior, such as family discussion and acceptance of organ donation intentions, follows awareness, understanding, interest, acceptance, personalization, and decision making related to the issue (1). The behavior change begins with awareness and requires that an individual proceed through this series of stages that culminates in behavior trial and change. Strategies to motivate behavior change must address each of these stages in turn, as the individual progresses toward the behavioral goal.

Public awareness of organ donation, which is very high (2), and favorable attitudes toward donation, also widespread (3,4), are only the beginning. Public response to the need for donated organs is still minimal. In 1987, Gallup reported that only 20 percent of those aware of organ transplants (84 percent of adults) had completed an organ donor card (2). For an individual to take positive action, he or she must become interested in organ donation, be convinced not only of its value but also of personal relevance, and know what to do about it. According to several studies, the public is still ambivalent about organ donation (2,3,4).

For organ donations to increase, there must be a supportive environment, in addition to acceptance and action by individuals. No one acts in isolation. If a person chooses to act, there must be positive support for that action to "take." That requires a positive family response to raising the issue of prospective donation, family acquiescence at the time of donation, and health system support and utilization of the decision (1). Therefore, increasing organ donations will require strategies that extend beyond educating and motivating individuals. Concomitant strategies to assure that social support and health system support exist to reinforce individual decision making also are necessary (5).

A large body of literature examines the diffusion of innovations, and how these new ideas (innovations) affect individuals (their knowledge, attitudes, and behavior) and social systems. Diffusion studies (6) look at what happens to an innovation such as donating organs. Whether the innovation is accepted (the new behavior adopted) depends upon whether individuals perceive it as beneficial, see it as in accordance with their needs and values, find it easy or difficult to understand or adopt, try the behavior, and find peer acceptance of it (6).

Information about an innovation can be communicated in different ways: through the mass media; community routes (e.g., schools, employers, religious institutions); or through interpersonal contact (e.g., family, friends, teachers, health care providers). Different means of communication are appropriate at different stages of the adoption process. For example, the mass media reach broad audiences quickly, an effective way to introduce new information or influence public attitudes. Community routes may be more credible. And, at the point of trial, interpersonal discussions are more influential (6). This means that a combination of the use of mass media to increase public understanding and support of organ donation with the credibility of community programs and interpersonal communication to provide motivation, skills, and support, is more likely to increase public response to organ donation than the use of mass media alone.

Communication of all types plays a necessary but not necessarily sufficient role in producing societal change. Other factors such as community linkages, regulations, social support, and incentives have an effect on the rate of acceptance of innovation (7). Some of the factors that are influential in facilitating or blocking behavior changes include an individual's knowledge, attitudes, behavior, beliefs, and values that affect willingness to change; the structure of the environment (community) and an individual's situation that facilitates or presents obstacles to change; and the positive or negative effects of adopting the behavior (including social acceptance and support) (7). For organ donation, an example of a barrier is religious beliefs that may predispose an individual against donation. One structural ("environmental") barrier might be a lack of clear hospital policies about organ donation, or lack of health care provider knowledge of the policies. Convenient access to donor cards is one example of a factor that can facilitate a behavior change.

Research indicates certain predictable patterns lead to large scale behavior change. The behavior change moves through a population in "waves," as adoption occurs first among "innovators," then "early adopters."

A new behavior is first adopted by a small segment of the population (who are referred to as "innovators"), and then by "early adopters" (8). These two segments of the population are likely to be well educated, affluent, and keyed into emerging trends through the media and in other ways. They are the individuals who are most likely to be able to "afford" change, both psychologically and financially. Organ donation appears to be attracting this population segment: those most likely to donate are white, younger, more educated, and more affluent (2,4).

It is the subsequent adoption of new behaviors by the "early" and "late majority" that transforms the idea or behavior from an innovation to the social norm. Organ

donation has yet to reach this status. This middle, majority group tends to respond to interpersonal influences as much as or more than the mass media -- another indication that a combination of motivational strategies is called for at this point (6).

The remaining population segment, "late adopters," are those individuals who lag farthest behind in change. Often referred to as the "hard-to-reach" within the public health community, this group is more likely to be socially or economically disadvantaged, underserved and/or isolated (8). While many public health programs target this last, most difficult to influence group, organ donor efforts should first seek to persuade individuals who are more likely, rather than less likely, to participate.

Health education (8) and social marketing (9) both call for careful delineation of target audiences, and a thorough understanding of the individual and the community systems that either support or block change. Behavior change strategies must appeal to what the target audience perceives as needed, valued, and desired, and must be modified to be appropriate for different population groups. Building strategies on the intrinsic value of organ donation, or the "public good," is not likely to be perceived as personally relevant for most people.

Health education strategies follow a continuum that culminates in behavior change and reinforcement to perpetuate that change. Because health education programs target different population groups and a range of precursors to change, a planned mix of methods and strategies is employed. Intermediate strategies leading to a goal of behavior change address what must occur as prerequisites. For organ donation, as for many other behavior change issues, interactions between (at least) several people are required for the goal to be met. This suggests that there should be coordinated strategies that target the different groups that must act for change to occur. For example:

- the potential donor, because expressing one's desires to donate to family members, and signing a donor card, may increase the likelihood that a family member will later agree to the donation (2,3,4).

- bereaved family members, because donation depends, in most cases, on the action taken by a family member at the time of death.

- the health care provider, because the donation transaction depends upon the capacity of the system to respond.

Programs addressing each target group require very different activities, routes of communication, and messages.

Social marketing practice has been broadly adopted by health and social change agencies over the past 20 years. In addition to target audience segmentation, it advocates the use of market research, message (product) testing, identifying and addressing barriers and opportunities for change, planned communications, and the use of incentives and/or the demonstration of benefits to stimulate acceptance of behavior change (9). The focus for developing effective motivational strategies is on identifying and relating to the needs, wants, and values of the target population, rather than on the intrinsic values of the behavioral goal.

A recent turn-about in the commercial marketing field is "guerilla marketing" (10). Guerilla marketing takes into account the vast number of advertising messages bombarding consumers, especially through the mass media, and the proliferation of mass media choices that have become available to consumers in the past few years. This multitude of media choices has made reaching consumers through the mass media more of a challenge. Therefore, guerilla marketing offers a broad range of "new," creative, non-media opportunities to expose consumers to marketing messages, such as point-of-purchase (ads on grocery carts), promotion at events (health fairs), or at other sites (product sampling at malls). Many of these "nontraditional" methods have been the mainstay of nonprofit programs over the years, especially community-based programs with small budgets and no option to buy mass media time or space. Seasoned marketers recognize that there is intense competition for the public's attention, that message repetition through many media carries the best chance of breaking through the information "clutter," and for repetition to work, the message must be the same no matter the medium. These lessons are as important for increasing attention to organ donation as for other topics (9).

It also is useful to review how public relations influences public opinion about an organization, a program, or an issue. An informed, supportive public is the first step toward increasing the number of organ donors. Public relations strategies are designed to influence the public to support an issue, program, or organization. Its practitioners continually monitor public knowledge and attitudes, recognizing that public opinion is subject to continuing shifts, and that public perceptions of an issue are not automatically accurate, or supportive, even if an issue is intrinsically "good" (11). Public relations strategies that can influence public opinion include actively seeking, in a planned way, to attract positive attention for an issue such as organ donation, to build confidence in the sponsor (organization), to lend credibility to the issue, and to gain governmental cooperation, or influence policies and laws, as well as gain public support.

One final field, health communications, is founded on a combination of behavioral and communication sciences, health education and social marketing. Health communications, as practiced by U.S. Public Health Service (PHS) and other national agencies, extends beyond information dissemination to include a variety of

proactive strategies. Generally, these programs focus on what communications can contribute to broad health and social issues, including to:

-raise awareness
-increase knowledge
-influence attitudes
-demonstrate benefits of behavior change
-reinforce knowledge, attitudes, and behaviors
-demonstrate skills
-suggest an action
-increase support and or demand for services (12).

Because communications strategies alone usually are not sufficient to produce behavior change, these programs are frequently components of interventions that address other contributing factors. One example, the National High Blood Pressure Education Program, is included as one case study in this paper.

Several PHS agencies include "media advocacy" as one of several communication strategies. Media advocates focus on using the mass media as an arena for influencing social and public policy (13). Very often, media advocacy messages and strategies are designed to negate a nonsupportive or opposing force. Media advocacy can be used to promote a point of view, and frequently is used to counter alcohol and tobacco advertising and marketing. Media advocacy also can be used to identify and counter misleading information. This attention-getting, confrontational approach is generally paired with more positive public relations strategies that are designed to seek media cooperation, and to prevent, or lessen, negative media coverage, including misinformation.

Behavioral, communication, and other change theories and models, as well as relevant practices, provide guidance for increasing organ donation.

1. Public awareness of organ donation is clearly insufficient to produce an increase in donations. Knowledge, attitudes, interest, social support, and skills must be increased to motivate organ donation.

2. Behavior change is the final stage in a continuum that begins with awareness. To motivate behavior change, each stage in the process must be addressed. Affecting changes in knowledge and attitudes is a prerequisite to behavior change, but is not sufficient to cause change.

3. Effective motivation begins with the identification of each target group (e.g., individuals matching the profile of most likely donors) and designing strategies based upon that group's values, needs, and desires, rather than broader perceptions of organ donation as the "right thing to do."

4. Market research is necessary to understand what will motivate a specific population group, what barriers to organ donation must be addressed, and how best to reach a target group with an organ donor message.

5. Appeals based on research findings should be tested with the target audience to assure relevance to their perceptions, values, and interests.

6. Tracking the public's knowledge, attitudes, and behaviors also is needed to assess whether and what changes are occurring, and to permit modifications to motivational strategies as public views change.

7. For organ donation rates to increase, multiple target audiences (e.g., the potential donor, family members, health care providers) must be addressed, motivated, and provided with the skills and services needed.

8. Change strategies are needed to increase social support for organ donation and decrease institutional barriers. Strategies directed at individual behavioral change alone are insufficient to increase the supply of donated organs.

9. Planned strategies and consistent interaction with the mass media are needed to increase supportive media coverage and decrease negative images and misinformation, and reduce the attitudinal barriers that these create.

10. For organ donation to be repositioned from an "innovation" to a social norm, a combination of mass media, community, and interpersonal communication strategies is needed.

In practice, the application of these theories and models does appear to strengthen program effectiveness. The next section reviews how this application works.

CONCLUSIONS REGARDING THE DESIGN OF MOTIVATIONAL PROGRAMS FROM SELECTED STUDIES

Summarized here are the findings from five selected analytic studies that cumulatively reviewed dozens of communication and/or motivational and behavior change programs focussing on a channel (mass media), or a topic (smoking, safety belts), or audience (youth). Several of these studies included extensive interviews with diverse experts. The conclusions reported here were commonly reached by most of these researchers. Each reported many additional findings not included here, but yielding a rich source of information for planning behavioral change programs (14,15,16,17,18). Also summarized are the findings from the landmark Stanford Three City Study (19).

The Role of the Mass Media

Uses of the mass media (television, radio, newspapers, and magazines) include public service announcements (PSAs); news; message placement in entertainment programming and films; production of television programming; paid advertising; and publishing targeted magazines. Other options include newspaper supplements, editorials and letters to the editor, media-sponsored events, and call-in talk shows.

One author concludes that the "...mass media can play an important but limited role" (14). Among the functions that the mass media can serve is helping establish awareness and knowledge of an issue, or helping establish broader school and/or community-based programs (e.g., by raising public awareness of a program, helping to recruit volunteers, promoting materials and events, reinforcing educational messages, and generating support for changes in public policy). The mass media also can stimulate interpersonal discussion and information seeking behavior.

Therefore, these authors see mass media strategies as one component of broader programs designed to influence change. However, they point out that the use of the media is vital to introduce a new program, quickly raise awareness, knowledge, and interest among the population; coalesce organizational interest to expand community-based involvement; influence public attitudes and maintain public and leadership support, and reinforce interpersonal and community-based behavior change strategies.

Planning a Campaign

A number of conclusions have been drawn about what makes a motivational campaign effective. These conclusions address issues of theoretical foundations for programs, planning and evaluation considerations, program context and program duration.

Programs that utilize the principles of behavior change are likely to be more effective, as are those that set realistic goals based on what a campaign can be expected to accomplish. A social marketing influence is present in these more successful campaigns, which focus on carefully selected target audiences and use market research in planning. In addition, these programs use other formative evaluation methods including materials pretesting with target audiences. Tracking and other evaluation methods also are used to monitor progress and demonstrate results.

One aspect of successful planning is the inclusion of key "power figures" and groups. Advantages to this approach include access to a broader resource base, a broader base of program support, and continued support. Including key leaders

and groups also is essential to assure consistency on the same topic; to address social, community, and institutional factors that interrelate to the success or failure of the campaign; and to access the expertise of professionals from many disciplines. Establishing linkages with community-based organizations, the health care delivery system, and governmental agencies also is an important contributor to success.

Timing is another key campaign planning factor, including timing program release to avoid conflicts with similar or competing events. These authors recommend planning for the long term, with intermediate objectives that contribute to an ultimate behavior change goal. They also note that it is not realistic to expect changes as a result of brief interventions.

Designating Target Audiences

The era of designing campaigns for the general public is long past. Segmenting broader populations into narrower groups (target audiences) and basing program design on knowledge of these groups is now the norm. Target audiences most often are the individuals among whom the behavioral change is sought, but those who can influence the primary target group(s) also should be considered as targets. These "influence agents" might include parents, friends, employers, or physicians. Segmentation into groups solely by demographics is not considered to be as effective as also considering psychosocial variables. For organ donation, for example, people who are more materialistic appear to be more likely to consider their organs as central to their self image (3). Target audiences are prioritized according to their potential for affecting the issue, accessibility, likelihood of change, and ability to influence others.

Campaign objectives and strategies may vary for each group targeted. Communications routes may also differ, depending upon the lifestyles and habits of each targeted group.

Developing Motivational Messages

A number of integral factors contribute to the effectiveness of a message, including credibility, appeal, personal relevance, and intent. Messages that are based on the target group's knowledge, attitudes, values, and behavior, that are tested, and that offer a direct benefit, are more likely to be effective.

Style and production quality are important for attracting attention to a message. Celebrities also can be helpful in attracting attention, but these authors caution that celebrities also may not be perceived as credible or relevant to the target group's personal experience, thereby detracting from message effectiveness.

Target audience perceptions about the credibility of a spokesperson or message sponsor affects message acceptance. People tend to trust sources similar to themselves, one reason why testimonials by individuals from the target group often are compelling.

In addition to testimonials, these authors review other kinds of message appeals. Rational appeals are most effective when used to respond to an acknowledged need, and with more sophisticated audiences. Emotional appeals are often more motivational, especially for individuals who have not acknowledged a need. Threats of harm (moderate fear appeals) can motivate; strong fear appeals can produce rejection of the message. Fear works best when the message includes a simple action that can alleviate the anxiety, when the target audience does not perceive themselves as vulnerable, and when the source of the message is very credible. However, the appropriate use of fear remains controversial and these authors generally caution against its use.

Rather, they urge the use of more positive appeals such as the rewards of taking an action as opposed to the consequences of not doing so. Emphasizing immediate, personal rewards and benefits is seen as more relevant to most people than more distant, intangible effects. For organ donation, some studies have suggested that patients may be more likely to donate when appeals are based on benefits to them, rather than to others (3). These authors also recommend the use of incentives that build on the existing motives, needs, and values of the target group.

There are two important criteria for messages to motivate: the message must be effective -- that is, be clear, comprehensible, appealing, relevant, and motivational to the target audience. And the target group must be exposed to the message.

Promoting the Campaign

Repeated exposure to a message generally increases its effects with the targeted population. Exposure to a concentrated cluster of message repetitions appears to work better than dispersion over a longer period of time.

Different mass media (television, radio, newspapers, magazines) attract different audiences, with television attracting the broadest audience and radio tending to attract more specific kinds of listeners. The choice of media format (print or broadcast) and outlets should match the message purpose and the media habits of the target population. Different people have different media habits (such as preferences for television over radio, or prime time over afternoon viewing). Public service announcements (PSAs) alone generally are not effective in bringing about behavior change; they must be combined with other approaches. The authors recommend using multiple media outlets, in combination with promotion through

community, small group, and individual activities. The authors also recommend considering selected purchase of media time and space, developing an understanding of, and personal, ongoing relationships with the media. Localizing the issue to relate to the needs of the community also is viewed as important.

Other Findings

Many of the campaigns reviewed by these authors were federally-sponsored. Others were sponsored by national nonprofit organizations, and still others were community-based. Several authors offered additional observations about Federal campaigns.

Many Federal programs with limited resources have chosen a highly visible, agenda-setting, nationwide, ongoing mass media program as the most appropriate contribution to an issue. This can be an effective strategy when the mass media campaign is backed by collaboration with other organizations better positioned to offer leadership and services within the community. An example of this approach is included as a case study in this paper (Office on Smoking and Health).

In other cases, Federal agencies have positioned a mass media campaign as a "quick fix" to a public health problem or response to an issue. Characteristics of these programs include insufficient planning; political pressure (to respond quickly, use specified messages, and/or to use a political figure in the campaign); unrealistic expectations (for example, behavior change) of mass media programs by leadership or policy makers; inadequate resources and short term commitments. These are characteristics that contribute to failure.

Other shortcomings of public service campaigns observed by these authors include a small number of PSAs, of uneven quality, and scattered exposure. They note that PSA campaigns can be effective given certain conditions, including effective messages, widespread usage, high saturation, and endurance.

Findings from Community-Based Research

In addition to the findings from analytic studies, it is important to note the comparable findings from landmark community-based research. The Stanford Three Communities study, conducted in the 1970s, demonstrated that the use of the mass media could positively affect the health of a community, and that a combination of mass media, interpersonal contact and social support is even more effective. In one community, where only mass media was used to communicate how to reduce personal risks of cardiovascular disease, a 17 percent reduction in the targeted risk factors (smoking, blood cholesterol, blood pressure, and weight) was noted. In a second community a more intensive intervention was undertaken,

adding personal instruction about risk factor reduction and strategies to increase social support to mass media messages. In this community, a 30 percent reduction in cardiovascular risk factors was found in one subpopulation. In a third community where there was no program, measures of risk factors found a 6 percent increase (19).

Follow up community-based research and demonstration field trials have been sponsored by the National Heart, Lung, and Blood Institute for the past 10 years (the Stanford Five City Study, the Minnesota Heart Health Program, and the Pawtucket Heart Health Program). These programs blend principles from health promotion, psychology, community theory, and social marketing, and all are designed as behavior change models. Some of the multiple strategies used by these community programs that have broad applicability include the involvement of community leaders and organizations; use of incentives and environmental change strategies; health professional education use of programs easily adaptable to fit the interests and needs of a specific target group; the use of volunteers for community acceptance and cost effectiveness; and media partnerships with media outlets, business, and the medical/insurance community (20).

CASE STUDIES: APPLICATION OF LESSONS LEARNED

To illustrate how the theories, models, and applied research findings summarized here have been incorporated into national programs, six case studies are described:

- The National High Blood Pressure Education Program -- which serves as a model for many other health behavior change programs.
- The National Eye Health Education Program -- a new program that is applying lessons learned from the high blood pressure model.
- The Office on Smoking and Health mass media program -- an example of effective use of limited educational resources.
- The National Highway Traffic Safety Administration (NHTSA) passenger safety programs -- a model that includes information, education, legislation, and enforcement strategies.
- The Healthy Mothers, Healthy Babies and Healthy Older People Coalitions -- two health promotion programs that chose coalition building as the primary focus.
- The National Blood Donor Experience -- a review of parallel issues with relevant lessons about what motivates donors.

A Long-Term Multifaceted Approach -- The National High Blood Pressure Education Program

By 1972, results had accumulated from several clinical studies showing that reducing high blood pressure reduced the risk of cardiovascular disease. Congress passed the National Heart, Blood Vessel, Lung and Blood Act, which called for (among other things) providing risk reduction information for the public and health professionals (21).

As one result, the National High Blood Pressure Education Program (NHBPEP) was established as a cooperative program between the National Heart, Lung, and Blood Institute (NHLBI), one of the National Institutes of Health, and other national health-related organizations. A coordinating committee now consisting of representatives of more than 35 national voluntary, professional, and public health agencies was established. Nearly 20 years later, the program continues to follow a program development process based on consensus-building. The program includes three interrelated components -- a health care provider program, a mass media program, and community-based activity models.

For the mass media program, the target audiences and messages change as changes in knowledge, attitudes, and behavior occur. Messages and motivational strategies are based on communication research and extensive pretesting. Public service announcements and media programming are developed for community "tagging" (identification) and ongoing news media relations promote coverage to keep high blood pressure visible to the public (22). About $900,000 is budgeted for the mass media components of all NHLBI programs each year, with NHLBI staff support of two professionals (23).

Almost 20 years after this program started, nearly everyone knows that high blood pressure increases the risk of heart disease (91 percent) and that it cannot be cured, but can be controlled by staying on treatment (92 percent). More important, the age-adjusted stroke mortality rate has declined by more than 52 percent since 1972 (22).

Replication of NHBPEP -- The National Eye Health Education Program

The National Eye Health Education Program is an example of how the NHBPEP model is being applied to another health issue. The National Eye Institute is another of the National Institutes of Health. In fiscal year 1988 new language in the National Eye Institute's (NEI) appropriation from Congress called for a large-scale national public and health professional education program, and designated approximately $1.5 million per year for this purpose (24).

In 1989, the Institute sponsored a national planning conference bringing together representatives from 35 public and private sector organizations to set priorities for information and education related to two designated eye health issues: diabetic eye disease and glaucoma. Conference participants recommended target audiences needs and priorities, as well as information and education strategies to meet these needs. These groups have since agreed to become part of the National Eye Health Education Program (NEHEP) Partnership to establish an ongoing, interactive relationship between the NEI and other organizations concerned with eye health (25).

The NEI coordinates the Partnership program, and facilitates communications between the Partnership members; develops and distributes mass media and other materials; and identifies program strategies and policies. The Program "belongs" to the NEHEP Partnership -- health professional associations, voluntary, health, civic, and other public sector organizations. These organizations provide endorsement, resources, and linkages to community-level health care providers and organizations to promote eye health messages. Drug companies, equipment manufacturers, and other corporations also are being invited to participate.

An advisory committee representing the Partnership members reviews all draft messages for accuracy and appropriateness, and a formal health communications model (26) is followed to plan, test, implement, and evaluate the program.

In early 1991, the NEHEP again sponsored a national conference to share the results of target audience research, to introduce plans for the release of results of a national public knowledge, attitudes, and behavior baseline survey cosponsored by one Partner (Lions Clubs International), and to seek endorsement for prototype materials for national mass media campaigns and health education programs with community support. Recommendations of the Partnership members are being incorporated into the program, and long range strategic planning has begun (24).

Use of the Mass Media -- The Office on Smoking and Health

The Office on Smoking and Health (OSH), Centers for Disease Control, serves as the focal point for Federal tobacco control activities. One significant function of the Office is the communication program, mandated by 1984 legislation. A staff of four is responsible for press relations, mass media campaign development, development of other educational materials, marketing and distribution, and public inquiry response; in addition, an advertising agency contract averages about $700,000 per year (27).

A number of organizations have a long history and an established role in tobacco control. Therefore, the challenge to OSH was to carve out an appropriate, effective, and affordable communication function. Because no national agency

was committed to maintaining a relationship with the mass media on this topic, OSH chose this function.

Plans for new campaigns are reviewed by representatives of national agencies and organizations with an interest in tobacco control and State health departments. The Office frequently co-produces public service announcements (PSAs) and related materials for distribution by other national organizations or Federal agencies; materials are offered once a year to State health departments for distribution with their own credit lines.

OSH has a reputation for creative, high-quality PSAs. Together with a concerted PSA marketing program (including personal delivery to television stations in large media markets and follow-up telemarketing), OSH has been able to keep a fair share of the available PSA time, even with very strong competition from issues including drug abuse and AIDS (28).

Broadcast Advertisers Reports (BAR), a service that monitors the airing of commercials on television, estimates that between 1983 and 1987, when OSH released twelve television PSAs, these spots were shown more than 48,900 times, about one-third in prime time. This is comparable to an advertising expenditure of $9 million, or about $1.8 million per year. It is estimated that up to 64 percent of the total population in these markets was exposed to OSH antismoking PSAs in any month of a given year (28).

However, BAR reports also show that the amount of public service time available from stations is decreasing. OSH is turning to alternative strategies including reaching youth through classrooms, coaches, and gym boards (locker room advertising); placement in specialty magazines; and regional and community-level strategies including media advocacy. (Because of tobacco advertising in newspapers and magazines, opportunities for the promotion of antismoking messages through the print media are extremely limited.)

The Office selects three target audiences for the three waves of media materials released each year -- for example, youth (to prevent uptake of smoking), pregnant women and new parents (to encourage smoking cessation), and middle-aged smokers (also to encourage cessation). Within each of these broad demographic categories, more specific groups are targeted; for example, campaigns produced this year will focus on African Americans (29). New strategies will address building support for tobacco control within African American communities.

OSH routinely commissions market research to identify changes in tobacco-related habits, specific motivational appeals, and changes in media habits of the target audiences. Appeals and selection of media outlets are tailored to fit each target audience. All educational materials are pretested with target audiences. Market

research findings are summarized as principles to guide the development of messages and materials. For example, OSH follows these principles to target youth:

- the use of celebrities to appeal to teens is troublesome because of the risk of inappropriate behaviors on the part of the celebrities, and the very rapid shifts in celebrity popularity among teens; spokespersons who are perceived as "like me" are the most acceptable to adolescents.

- teens say that they want to be "scared," but message pretesting has demonstrated that they are more likely to respond to positive appeals.

- peer acceptance and peer approval are strong motivators.

- lighthearted appeals, animation, and humor must not appear juvenile or the messages will be rejected.

- appeals to adolescents vary according to the specific group targeted (e.g., as segmented by age, interest, ethnicity, gender, or "clique").

- teenagers can be very critical of appeals and production values they consider out-of-style -- often by the time mainstream America accepts a teenage fad or style, it is considered outmoded by its originators.

- production values must "stand up" to the strict and constantly shifting standards of teenagers who are accustomed to MTV.

- anti-smoking appeals must compete in the marketplace with tobacco advertising supported by millions of dollars in market research and purchased space. (27)

OSH has found that television stations are very eager to receive PSAs appropriate for children and teens which they can use in the non-prime time slots (e.g., afternoons and Saturday morning) when a large proportion of the viewing audience falls within this age range.

The Office on Smoking and Health, given limited resources to communicate and a national mandate, chose to concentrate primarily on the use of mass media. Because other health agencies and voluntary organizations have community-level outreach capabilities, OSH materials are often integrated into broader, local programs. OSH considers this strategy to be cost effective, but foresees a need to move away from a reliance on dwindling public service time in the future.

Coalition Building -- Healthy Mothers, Healthy Babies, and Healthy Older People

Summarized here are two Public Health Service programs that emphasize coalition building as a primary strategy to educate the public about health. These programs offer a different model for program development from the NHBPEP model, based on the same behavior change and communication principles.

Participants at the Surgeon General's Workshop on Maternal and Infant Health held in December 1980 identified a need to form strong linkages between individuals and groups concerned about maternal and infant health in order to increase public awareness and support for policies and programs. A small planning group representing the Public Health Service and several national voluntary and health professional organizations met to outline strategies for establishing a coalition for this purpose. A planning conference was held to identify needs, coalition functions, and priorities; as a result of the conference, 35 national organizations -- governmental, voluntary, and health professional -- agreed to work together and the Healthy Mothers, Healthy Babies Coalition was begun (30).

From the beginning, it was apparent that there would be scant financial support for this effort; one strong motivation for coalescing was a need to increase support for maternal and infant policies, funding, and programs. Therefore, the functions of the Coalition (which, 10 years later, counts more than 90 national organizations as members) are to share information, identify issues that can be addressed by all or clusters of member organizations, and provide a network to facilitate organizational sharing and collaboration. Many of the national organizations involved have community or State-based chapters, and an early Coalition initiative fostered the formation of independent but related State-level coalitions. Almost all States now have such coalitions; each with a different structure and function.

The national coalition is informal; it was not incorporated until 1989. It was managed by the Public Health Service for the first 5 years, with an annual budget of $75,000 supplemented by staff and funding support from several PHS agencies (identifying that participation would benefit their own programs). Since the mid-1980s the coalition has been maintained by a staff of two, housed within the American College of Obstetricians and Gynecologists and supported by a small Health Resources and Services Administration (HRSA) grant (through HRSA's Bureau of Maternal and Child Health) averaging about $130,000 a year (31). No media activities are developed by the Coalition; instead, the materials and programs of its members are promoted (32).

The Healthy Older People program was sponsored from 1985 through 1989 by the Office for Disease Prevention and Health Promotion to encourage health promotion among older adults (33). During a 3-1/2 year campaign, approximately

$1 million and two professional staff (part-time) were assigned to this program. A primary focus was the establishment of State-level coalitions to link the health and aging networks that have traditionally been funded and operated separately. Of the more than 40 States that participated in the health promotion program, which included both mass media and community activities, 35 developed Healthy Older People Coalitions. Each developed their own activities; some have continued past the end of the national campaign.

Lessons have been learned about coalition building from these efforts, including the importance of investing in the development of the coalition structure, and in coalition support. Support may include the development of mass media and other educational materials, or other activities that offer an incentive for widespread involvement.

Each of these coalitions was founded in cooperative priority-setting and planning, with the Public Health Service offering support and initial leadership. Also important were the establishment of minimum standards and guidelines, early agreement that credit and ownership would be shared, and agreement regarding the role of private sector support.

Important benefits have resulted from the investment in coalition building, including ongoing linkages between organizations, broad "ownership" of and sponsorship for programs, and leveraged resources, including broad use of volunteers to support program activities. Most significantly, these coalitions have provided a level of attention to and involvement in their issues, over a longer period of time, than could have resulted from Federal sponsorship alone.

The Role of Legislation -- Safety Belt and Child Restraint Programs

Fewer than 12 percent of drivers, and approximately 20 percent of children under age 5 were using safety restraints in motor vehicles in 1982 (34). The National Highway Traffic Safety Administration, U.S. Department of Transportation (DOT), estimated that approximately half of all highway fatalities could be prevented if all passengers were properly restrained, and called for a combination of public information, education, incentive, and use requirement programs to be implemented by a network of organizations to significantly increase the number of restraint users. Criteria for these efforts included specific audience targeting; comprehensive programs designed to reach large numbers of people; conducted over a substantial period of time (34).

Reasons and excuses given by the public for not wearing belts include inconvenience, discomfort, laziness, fear of entrapment, and forgetfulness. Factors believed to underlie these reasons include a perceived lack of vulnerability,

lack of understanding of the efficacy of use, misinformation, lack of established habit, and negative attitudes toward use (34).

In 1984, DOT recommended the passage of State laws mandating the use of restraints as the most cost effective measure. At the same time, DOT recognized that neither legislation nor increased usage would likely occur without public information, education, and incentive programs; the greatest attitudinal obstacle to legislation was identified as "intrusion into the family." Since 1985, all 50 States and the District of Columbia have enacted laws requiring that young children ride in safety seats or belts. The combined effects of these laws, law enforcement, and public eduction has resulted in a child safety seat use rate of 84 percent (1990) (35).

By 1990, overall safety belt use had risen to 49 percent. Safety belt use in cities with belt use laws was 52 percent; in cities without laws, 36 percent. The safety belt usage rates in States with laws in effect ranges from 33 to 80 percent. This variation reflects factors such as differences in public attitudes, enforcement practices, legal provisions (penalties), and the availability of public information/education programs (35). The Department has set a national goal to reach 70 percent safety belt usage by 1992 (35).

To reach this goal, NHTSA has developed a comprehensive program including media messages, educational and incentive efforts with other organizations, encouragement of organizational use policies, and research, development, and evaluation. The types of national-level organizations involved have included education, health, medical, civic, safety, and media. NHTSA also works through State offices of highway safety, providing technical assistance and materials. In turn, these State offices develop networks within their States (35).

Program components include a public service mass media campaign of long duration, promotional events such as an annual "Buckle Up America!" week, collaboration with national organizations, coordination through State highway departments, and intensive efforts to support organization and activities at the community level.

At the community level, involvement of law enforcement agencies is strongly promoted both to enforce laws, and to conduct educational activities. Involvement of a wide range of others within the community is encouraged, including school administrators and teachers, physicians, judges, legislators and other public officials, parents, employers, media, tavern and restaurant owners, pharmacists, and attorneys. Many communities develop committees or task forces representing these sectors. Recommended strategies for community-based programs include using a mix of public information and mass media, education and incentive programs, with requirement policies or law enforcement. Principles underlying

community efforts include identifying, integrating, and coordinating the roles and resources of all community sectors. Public information, education, enforcement, and prosecution should be interdependent parts of an operating community system addressing the issue; establishing programs that are comprehensive, coordinated, and sustained are necessary to assure a lasting effect. Social norms must change to ensure long-range success. Such change can be accomplished through a comprehensive community-wide approach over a long period of time (36).

The NHTSA program demonstrates the value of including policy change strategies in programs that ultimately aim for behavior change by individuals. This program also shows that no one strategy, including laws that mandate behavior, can guarantee that change will occur.

Understanding the Public -- Blood Donors and Their Motivations

The National Research Council (NRC) recently completed a review of the U.S. blood supply, as one part of a larger study to look at the effects of HIV/AIDS on our society (37). Summarized here are findings from that report, related to who donates blood, motivation and barriers to donation, and special efforts to recruit minority donors. This case study is presented to demonstrate the value of identifying and conducting research to understand potential donors. Although there are obvious differences between blood and organ donation, some of the donor motivations and barriers identified here could be investigated for relevance to organ donation.

There are two separate blood collection systems in the United States. A commercial system pays donors for plasma, and a voluntary system collects whole blood. An all-volunteer system for whole blood collection has been nearly universal in this country since 1975 "...to prevent the intrusion of undesirable factors (e.g., financial remuneration) into motivations to donate blood" (37). The American Red Cross collects about half of the whole blood; the American Association of Blood Banks, members of the Council of Community Blood Centers, and independent hospital blood banks account for the rest. About 80 percent of blood is collected at mobile sites. Blood drive recruitment is through high schools and colleges, and worksites (including businesses, local government offices, and public sector organizations) (37).

It is estimated that about half of the adult population should be eligible to give blood (37). According to a 1984 survey, about 8 percent of men and 5 percent of women reported that they had given blood in the past 12 months (38). Most blood comes from repeat donors. Women predominate among first time givers; men are far more likely to be repeat donors. Less than one-third of those who

have given a gallon or more are women. It is possible that the fewer numbers of women donors in the repeat donor category may be related to physical condition (e.g., low hemoglobin levels) rather than a lack of motivation (37).

Most donors are between 20 and 40 years old; adults in their 60s account for only 2-3 percent of all who donate (37). Apparently whites (41 percent of whom said that they have donated at least once) are more likely to donate than are blacks (32 percent) based on self-reported information (38). In response to one recent survey, 4 percent of blacks in comparison with 7 percent of whites said that they had donated within the last 12 months (38).

Frequent donors tend to have higher incomes than nondonors, and higher educational levels than occasional or nondonors. Blue collar and clerical workers are less likely to donate than those with managerial, professional, and technical job titles.

Reasons given for donating include altruism (e.g., emotional satisfaction, heroic feelings, heightened self-esteem); social pressure (e.g., worksite drive, personal or telephone request); a need within their community (strongest when there is community support for donation); personal experience with a need for transfused blood (friend or family member); getting a "medical exam," and blood typing or cholesterol testing (sometimes offered) (37).

The motivational force of altruism is not clear, but altruism alone may not be sufficient to motivate individuals to donate. Research (37) suggests that additional incentives (e.g., competition, discount coupons, raffles) result in greater donation rates. However, one researcher concluded that "only some people report donating for a reward, such as money, or time off from work; for most donors, reward does not appear to be a major motivational factor" (39).

Interestingly, one study found that respondents did not consider mass media appeals as "having been asked" to donate (40). Additional research would be needed to identify to what extent combining mass media and personal interaction strengthens motivational appeals.

Factors that appear to inhibit blood donation include medical ineligibility (actual, perceived, or rationalized); fear (e.g., of pain, needles); physical reactions from previous donation experience; apathy; and inconvenience (time, delays, inconvenient collection hours or location, lack of privacy) (37). Similarly, apathy (3) and fear also appear to be barriers for organ donation (4).

One study (41) reviewed in the NRC report describes a four-stage process to increase the number of blood donors. First, identifying negative attitudes among potential donors and developing messages to shift or neutralize those attitudes.

Second, developing motivational appeals based on internalized motives, focussing on "self concepts" of potential donors. Then, working to achieve behavioral intentions to donate as a next stage towards behavior change related to donation. Finally, encouraging donation as a habit, to reinforce and reward donation behavior.

Recommendations are included in the NRC report for increasing the number of blood donors. These recommendations are based upon research findings of barriers and incentives to donate and reflect the principles of effective program design (as summarized earlier in this paper). Recommendations for increasing the number of black blood donors, for example, include using community-based social networks, appropriate role models, and convenient donation locations. More specifically, this report recommends :

- recruiting at worksites employing large numbers of minorities; use of minority volunteers.
- recruiting on college campuses through a black fraternity and/or a black caucus.
- making donation relevant to blacks (e.g., point out blood needs among the African American population).
- tying in with Black History Month or other pertinent events.
- offering sickle-cell screening at the donation site.
- involving African American community leaders in planning and as spokespersons (37).

Although there are salient differences between blood and organ donation, some of the motivations, and barriers to motivation, may be similar. A more thorough review of motivational studies related to blood donation would identify strategies that could be tested for application to increasing the number of organ donors.

Application of Lessons Learned

These model practices add to the lessons learned for application to organ donation programs:

1. In addition to broad program goals, focusing on achievable intermediate objectives such as public knowledge or community capacity-building, helps direct program activities. Including evaluation measures to track progress permits revision of program strategies as objectives are met.

2. More successful programs commit significant resources to program planning and development and plan campaigns of extended duration; many have long range strategic plans.

3. A prerequisite to developing a successful program is market research to help identify target audiences. Additional market research with those audiences is needed to explore barriers and incentives to behavior change (organ donation). Motivational strategies and messages are built upon these perceptions of the target audience.

4. Formative evaluation (message and materials testing) is essential to producing messages and motivational strategies that will work.

5. Stronger programs result from working with other organizations or systems that can contribute complementary strengths (such as ties to and credibility with target audiences); coordination begins at the earliest program development stages.

6. Despite heavy competition for a finite amount of television public service time, it is possible to access sufficient time to reach significant numbers of viewers. To be effective, programs must produce high quality PSAs, market them to stations, localize (through local tagging and hand delivery) where possible, and target PSAs to audiences that can be reached when public service time is available. Many programs combine PSAs with other strategies (e.g., news relations) to increase message exposure through the mass media.

7. Legislation to mandate a behavior may be one useful strategy, in context with programs to build and maintain public support, educate and provide skills to target audiences. Legislation alone, without supportive strategies, such as incentives, penalties, and enforcement, is not likely to change behavior.

8. Coalition building can contribute to establishing a broad base of program support (at national, State, and community levels), leverage limited resources, assure consistent messages and strategies, and help assure attention to an issue over time.

9. Comprehensive, multifaceted, long-term programs, addressing individual change and those factors that support or block that change (including health care provider behavior) are more likely to produce significant changes in behavior.

SUMMARY OF RECOMMENDATIONS: THE DESIGN OF A CAMPAIGN TO INCREASE THE NUMBER OF ORGAN DONORS

Based on studies reported in the literature and the experiences of other public health and safety programs, it appears that information and education programs can contribute to increasing the number of organ donors given sufficient resources, longer term commitment, and adequate campaign planning and development.

Such a program should engage the mass media, community, and interpersonal communications (especially within the family). A communications program should be positioned within a broader program that addresses other essential components of change such as health care provider behavior, social norms, supportive policies, and systems that block or support behavior change.

Recommendations for developing such a program include:

1. Strategic Planning:

Planning for an organ donor campaign should begin with a longer term commitment and strategic decision making that includes:

- measurable objectives representing intermediate progress towards program goals.

- multiple strategies based on behavior change and other relevant models and theories, lessons learned from previous organ donor, blood donor, and other health and safety campaigns.

2. Role of the Mass Media:

Use of the mass media can be one way to effectively support increased organ donation:

- mass media strategies can increase and maintain individual and societal support for organ donation and can promote other program components.

- mass media campaigns should focus on media outlets matching the habits of target audiences, and be integrated with community outreach and health systems support.

- the use of public service announcements should be considered as part of a mix of mass media strategies.

- competition for media time and space, target audience attention, changes occurring both within the media industry and in the media habits of the public should be considered when making decisions about the most appropriate uses of the mass media.

3. Target audiences:

Decisions about which specific population groups will be targeted are a prerequisite to the development of effective motivational strategies:

- once defined, market research should be conducted with them to build upon what is more generally known about barriers and incentives to organ donation, and to research motivational appeals with the most potential for promoting change.

- in addition to current knowledge, attitudes, and behavior, other contextual issues must be considered in designing motivational appeals for specific audiences, including family and cultural traditions, socioeconomic factors that affect an individual's willingness and capability to accept change, community customs and social norms, religious and political influences, and perceptions of the health care system.

4. Message and Strategy Development:

The practice of social marketing, as applied by other health programs, will help guide effective message and strategy development:

- developing motivational messages and strategies should be based on the findings of market research conducted with target audiences.

- developing strategies to increase social support for organ donation and health care provider behavior are needed in addition to strategies to motivate individual and family change.

- communications strategies should be interwoven with strategies to address institutional, policy, and other barriers to donation.

- pilot studies or other tests of new programs can help identify needs for refinement before more extensive resources are committed.

5. Program Promotion and Marketing:

In order to produce change, programs must be carefully developed and tested, but effective promotion and marketing of those strategies are equally necessary:

- marketing strategies should be planned to assure adequate target audience exposure to messages through the mass media and through community programs.

- adequate message exposure is a prerequisite to having an effect; both repeated exposures and exposure over time are needed.

6. Evaluation:

While the most critical measure of success is an increase in the number of donated organs, intermediate measures are needed to track progress and make any program adjustments needed to reach that goal:

- formative (message and materials pretests) evaluation should be an integral component of program development.

- process measures are both affordable and necessary.

- some outcome measures (such as tracking changes in target audience knowledge, attitudes, behavioral intentions, and behaviors) also are needed.

- evaluation measures are most useful if the results are used to refine program strategies.

7. Coalition Building:

To help assure optimal program success, collaboration and coordination at the national and community levels should be given serious consideration:

- consider including health professional associations, health service organizations, government agencies, national organizations with a community focus (social, fraternal, civic, and religious) that have credibility, access, and influence with potential donors.

- involve relevant organizations in the planning process and focus on establishing and nurturing linkages at national, State, and local levels.

- include mechanisms to facilitate information sharing between participating organizations to help maintain networks.

- consider appropriate roles for the for-profit sector (such as major employers, medical services, drug and equipment manufacturers).

8. Legislative Initiatives:

Legislation can contribute in several ways, including:

- giving a mandate and resources to the Federal government to develop programs to motivate and support increased donation.

- mandating certain behaviors, which can be useful as one of many change strategies, given related educational, incentive, and enforcement efforts.

9. Localization:

Both national leadership and community involvement are needed:

- nationally developed programs can be cost effective, but should be flexible to permit local tailoring to fit specific audience needs, as well as the religious, cultural, and other traditions and ethnic patterns of the community.

- policy makers, health care providers, and others who can facilitate or hinder the donation process can be the target of both national and local efforts.

- changing social norms in support of organ donation will require community involvement.

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