COMMUNITY-BASED SOCIAL MARKETING

Why current recycling program designs may be based on faulty assumptions about human behavior, leading to mediocre participation instead of those that foster major change.

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SUCCESS of any recycling program hinges on the support of local residents. Whether the program is aimed at collecting biomass, household plastics, used motor oil, or any of the other many types of materials that can be recycled, building and running a successful program depends on the behavior of residents. Recycling programs, and more generally, programs promoting sustainable alternatives, all require that people *do* something. Without behavior change on the part of community residents, the program will fail.

Given the centrality of behavior to program success, it is surprising that so little attention is paid to the "people" aspect of recycling programs. Instead, we tend to focus on the technical aspects of the program, like trucks for hauling, bins for storage, or post-collection processing. When it comes to outreach, we tend to rely on "established" methods of education and raising awareness. Unfortunately, these approaches have substantial limitations and can even produce boomerang effects that are opposite to what is intended. In this article, we discuss the limitations of these traditional approaches, and then offer a promising alternative approach that has proven to be effective at increasing participation and involvement among local residents.

EDUCATION CAMPAIGNS

By far, the most widely used approach to changing behavior is the information (education) campaign. These campaigns distribute information (such as brochures or fact sheets) to educate the community about a particular problem or behavior. Information campaigns are built on the assumption that lack of behavior results from a lack of knowledge, i.e., "if people only knew about a program, or knew what to do, they would surely do the right thing." In this vein, there are thousands of print, radio, and television advertisements nationwide that are intended to educate residents about environmentally responsible behaviors. Many of these outreach materials are crafted around themes such as "FYI," "Did You Know," or "1-2-3." Unfortunately, scientific research has been clear in showing that behavior is not a direct result of knowing more. The primary problem with this *knowledge deficit* assumption is that it ignores the motivations for behavior. People engage in behaviors for reasons — external pressures, financial motives, personal inconvenience, to name a few. But simply knowing what to do, or when to do it, is not a motivation — it is not a reason to take action.

It is important to note that while knowledge is not sufficient by itself to motivate behavior, lack of knowledge can be a barrier to action. For example, if individuals are motivated to use their curbside collection program, but don't know how, when, or where to do it, that motivation (no matter how strong) will not translate into action. As such, there are a few select situations where an education-based campaign can be effective:

1. When a substantial change is made to an existing program (such as change in collection days or types of materials that are collected);
2. When the program is being introduced for the first time; or
3. When no marketing materials have been provided in a long time, and there is *evidence* to substantiate the fact the people really don't know about it.

AWARENESS CAMPAIGNS

The second type of behavior change approach that is commonly used is the awareness campaign. This approach is designed to highlight the seriousness of a particular problem by presenting incidence rates. The assumption is that presenting alarmingly high severity statistics (e.g., 80 percent of what Americans throw away is recyclable) will lead to heightened concern and subsequently to a change in behavior. Indeed, people are strongly influenced by what other people are doing. For example, if an individ-

ual believes that a lot of other people are composting, they are more likely to do it themselves. People follow the social norm.

It has been well-documented that normative beliefs (beliefs about what other people do) are strongly correlated with behavior, and that that these normative beliefs can be changed by providing information about what other people are doing. The existing research is also clear in showing that changing normative beliefs can cause a change in behavior. But, it is important to point out that the change in behavior occurs in the direction of the norm, so if you tell people that no one is doing it, they will be less likely to do it themselves.

The greatest limitation of awareness campaigns is that they tend to focus on the high percentage of people who do the wrong thing, or the very small percentage that do the right thing (only 10 percent of Americans compost organics from their kitchen). Focusing on these statistics promotes the wrong social norm. As a result, awareness campaigns not only fail to motivate the desired behavior, but they can produce boomerang effects and work in the opposite direction. Program planners need to be careful about how they convey information about what other people do so that they do not undermine an otherwise well-intentioned program.

Although information and awareness campaigns can positively increase knowledge, awareness and attitudes about a specific behavior or problem, they are largely ineffective at creating lasting changes in behavior (Schultz, 2002; Schultz & Tabanico, in press). Despite the research showing the ineffectiveness of these traditional approaches, however, they continue to be widely implemented. Fortunately, there are more effective alternatives.

COMMUNITY-BASED SOCIAL MARKETING

Community-Based Social Marketing (CBSM) has recently emerged as an alternative to traditional information-based campaigns (McKenzie-Mohr, 1999, 2000, 2002). CBSM is unique in that it packages basic principles of psychology with applied research methods in a way that provides a usable framework for practitioners working to promote behavior change across a variety of settings. Community-Based Social Marketing begins with the selection of a specific target behavior and then uses a four-step process to foster sustainable behavior change. These four steps are 1) Identifying the barriers to a targeted behavior; 2) Using behavior change tools to overcome the barriers; 3) Piloting the selected tools using empirical research methodology and a control group; and 4) Evaluating the project once it has been widely implemented. Below, we briefly elaborate on each step.

Selecting a behavior. The first, and perhaps most important, decision that is made at the outset of a CBSM program is selecting a target behavior. Here, it is essential to choose a behavior that is linked with the desired outcome. For example, if the goal is to increase the diversion rate of plastic recyclables by 50 percent, it is important to determine what specific behaviors are most strongly linked to this overall goal. In other words, if every resident was motivated by the outreach message to recycle 100 percent of their recyclable plastics, would this behavior change lead to any measurable reduction in plastics in the landfill? Or, is there some other behavior (i.e. restaurant or school recycling practices) that would produce a larger impact?

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In addition to choosing a behavior that is associated with the desired outcome, it is helpful to focus on a single specific behavior. Focusing on a single behavior is much more likely to result in behavior change compared to providing laundry lists of things to do (i.e., *Time Magazine*'s "51 Ways to Save the Planet"). Similarly, broad or diffuse messages such as "do your bit, compost it" or "be a super recycler" are too vague and do not give a specific action. Such messages can promote positive attitudes and awareness of the program, but they do not provide people with an action — what *exactly* do you want people to do?

Step 1: Identifying barriers. Changing a behavior is *not* like selling a product. While some of the concepts can be applied, behavior change programs require an understanding of the reasons that people *don't* use the program. Unlike traditional forms of marketing, *community-based* social marketing recognizes that barriers to engaging in sustainable behaviors vary depending on the population, context and behavior of interest, and that multiple barriers can exist simultaneously for each behavior. These "barriers" can be either internal to the individual (i.e., motivation) or external to the individual (i.e., structural elements of the program). Uncovering barriers is a hallmark feature of the CBSM approach, and an essential first step in creating an effective outreach campaign or improving an existing program.

There are several ways to identify barriers for a target behavior. Focus groups and surveys are often the most ideal methods of identifying barriers, but these can be expensive. There are however, viable alternatives including literature reviews, analysis of customer feedback, and existing technical reports. The important point is that identification of barriers is not based on intuition or a hunch. Too often, program planners base their campaigns on what they think would motivate them personally. The problem with this approach is that we (program planners) already care and are already motivated to take action. Similarly, surveying people at an environmental fair or Earth Day event would also generate opinions of people who are qualitatively different from those in the target population. It is essential to

focus on the barriers and motivations perceived by the people who *don't* already do the right thing.

A number of barriers (both structural and motivation) can exist simultaneously. As such, it is important to prioritize which barriers to target in terms of both their feasibility and their likelihood to effect change. For example, if the goal of a particular program is to get people to take their used fluorescent bulbs to a hazardous waste collection facility and there are serious structural barriers in the way (i.e. limited facility hours, distance to the facility, etc), then there is unlikely to be a single marketing message that can be developed to overcome this barrier. That is, people might be motivated to act, but they will not engage in the desired behavior due to the larger structural barrier. With the CBSM approach, such barriers are identified at the outset and dollars can be spent on removing these structural barriers (i.e., increasing household hazardous waste facility hours or providing more local pick ups) rather than on media messages aimed at motivating participation.

Step 2: Tools of behavior change. The greatest strength of CBSM as an alternative to information campaigns is that it draws heavily on the behavioral science research literature to identify tools for overcoming barriers. The second step in the CBSM approach is to select the behavior change tool(s) that address the identified barriers, and to use these tools to develop intervention and program materials that will overcome these barriers and change behavior. There are a myriad of tools that, when used appropriately, can successfully change behavior. A full discussion of these techniques is beyond the scope of this article, but below we highlight some of the most common approaches.

- *Reciprocity.* As humans, we have a basic tendency to repay what another person provides for us. Reciprocating reduces the uncomfortable feeling of indebtedness, and often the person will agree to a larger request as repayment for a small favor. Reciprocity is most often invoked with giveaways or incentives (e.g., free composting bin, free oil container, inserting a $1 bill with a mail survey).
- *Commitment and consistency.* Individuals have a basic desire to remain consistent in their thoughts and actions. To maintain this consistency, we will often change our beliefs or attitudes to match our behaviors, or alter our behaviors to be consistent with our earlier actions. This principle can be invoked by obtaining an initial commitment (either verbal or written) to engage in the target behavior or by asking residents to take a small first step (put a small sticker in their window) and then follow with a larger request.
- *Social proof.* People use the behavior of others as a guide for their own actions. Seeing other people doing something (such as utilizing a curbside collection program), or even just having the perception that other people are doing it, legitimizes the behavior and increases its frequency. As mentioned earlier, providing information about what other people do (normative information) can be a very powerful tool for changing behavior. This information can be provided in the form of testimonials or messages that focus on the large percentages of people that are doing the right thing or by making the behavior public (visible recycling bins).

Steps 3 and 4: Piloting and evaluating the strategy. Once the behavior change program has been designed, the third step is to pilot the intervention strategy on a small scale. Based on the CBSM approach, the program should be piloted with a small portion of the community using an intervention and a control group. If the pilot is not successful, the strategy should be refined and then piloted again. If the pilot is successful at changing behavior, the strategy can be implemented more broadly. Once the successfully piloted program is in place, the fourth step of CBSM requires that the program be evaluated by comparing baseline measures of behavior to behavior at several points following the intervention. Wherever possible, the large-scale evaluation should also include a control group.

APPLICATIONS OF COMMUNITY-BASED SOCIAL MARKETING

The Community-Based Social Marketing approach has been used successfully to change a wide range of environmentally responsible behaviors, including energy conservation, reduction of CO_2 emissions, water conservation, recycling, and use of public transportation. CBSM methods have also been used to address activities contributing to poor air quality, such as improper automobile maintenance and engine idling.

In our own work, we have successfully used the CBSM approach to increase proper tire maintenance among California motorists in an effort to reduce the number of waste tires generated. In a pilot intervention conducted with local gas stations, the CBSM intervention produced a 46 percent increase in the number of motorists who reported checking their tire pressure in the past month, and a 17 percent decrease in the number of vehicles with one or more improperly inflated tires. In contrast to traditional marketing campaigns that were already in place (e.g., local billboards and radio advertisements), the *community-based* approach ensured that the strategies were designed to target specific barriers and motivations as well as a specific behavior (Schultz, 2005).

More recently, we used the CBSM approach to increase used oil recycling in three California counties (CIWMB, 2006). The specific barriers to oil recycling by res-

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idents of the three counties were identified through a phone survey. Based on findings from the barrier study, three strategies were designed to target the specific barriers identified by each region and to increase motivation. Across counties, the CBSM approach was more effective than the existing campaigns:

- In Napa County, providing residents with printed testimonials from people in the community who utilized the curbside oil collection program (normative information) led to a significant increase in the size of the program and the volume of oil collected compared to control areas where residents did not receive the normative information.
- In Los Angeles County, providing do-it-yourself oil changers with a free oil container combined with a motivational sticker ("Take the Last Step") produced a substantial increase in the amount of oil collected. Importantly, the CBSM message resulted in more oil collected than when the state's standard informational sticker was affixed to the container.
- In Madera County, do-it-yourself oil changers who received a funnel affixed with a signed pledge sticker reported stronger intentions to recycle in the future than those who received either a funnel or information alone (no commitment element).

ADVANTAGES OF COMMUNITY-BASED SOCIAL MARKETING

The CBSM approach is rapidly gaining acceptance across the United States and internationally (see www.cbsm.com for hundreds of notable examples). The strengths of the CBSM approach are fourfold: 1) The decisions made at each step of the program development process, from design to implementation, are based on empirical data. This is a substantial improvement over intuition, or historical precedence, and it offers a solid foundation for developing an effective program. 2) The program is pilot tested on a small-scale *before* large-scale implementation. This can be a cost-saving mechanism that allows the development team to try out different approaches until they are confident that their approach will work. 3) The CBSM approach uses program evaluation. Ongoing evaluation ensures that at the conclusion of the program, there is data to substantiate the effectiveness (or lack thereof) of the program. This data can be invaluable in informing subsequent outreach campaigns, changing or proposing new local policies, or compliance efforts with political mandates (e.g., diversion rates). 4) CBSM focuses on behavior. In recent years, many applied areas of research have focused more on intention or attitude as outcomes, rather than on behavioral outcomes. However, there is evidence that attitudes and intentions can change without a corresponding change in behavior, and it appears that attitudes are more malleable to outreach messages than is behavior. While behavior change resulting from an outreach message can be mediated by changes in attitudes or intention, focusing on these as primary outcomes does not substitute for measurements of behavior. ■

REFERENCES

California Integrated Waste Management Board. (2006). *Community Based Social Marketing pilot to increase do-it-yourself oil recycling rates*. Sacramento, CA. Report available online at: http://www.ciwmb.ca.gov/Publications/default.asp?pubid=1168.

McKenzie-Mohr, D. (2000). Promoting sustainable behavior: An introduction to community-based social marketing. *Journal of Social Issues, 56*, 543-554.

McKenzie-Mohr, D. (2002). The next revolution: Sustainability. In P. Schmuck & P. Schultz (Eds.), *Psychology of sustainable development* (pp. 19-36). Boston: Kluwer.

McKenzie-Mohr, D., & Smith, W. (1999). *Fostering sustainable behavior: An introduction to community-based social marketing*. Gabriola Island B.C.: New Society Publishers.

Schultz, P. W. (2002). Knowledge, education, and household recycling: Examining the knowledge-deficit model of behavior change. In T. Dietz & P. Stern (Eds.), *Education, information, and voluntary measures in environmental protection* (pp. 67-82). National Academy of Sciences.

Schultz, P. W. (2005). *Community-based social marketing pilot to increase proper tire maintenance*. Sacramento, CA: California Integrated Waste Management Board.

Schultz, P. W., & Tabanico, J. (in press). If you build it, will they come? In A. Cabaniss (Ed.), *Handbook on Household Hazardous Waste*. Lanham, MD: Rowan and Littlefield.

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