Fostering Sustainable Behavior

Doug McKenzie-Mohr and William Smith

When members of a community use resources wisely, for example by recycling or taking mass transit, a community moves toward sustainability. To promote sustainability, then, it is essential to have a firm grasp of how to encourage individuals and businesses effectively to adopt behaviors that are resource efficient.

Most initiatives to foster sustainable behavior rely upon large-scale information campaigns that utilize education and/or advertising to encourage behavior change. While education and advertising can be effective in creating public awareness and in changing attitudes, numerous studies show that behavior change rarely occurs as a result of simply providing information (see Chapter 1). Community-based social marketing is an attractive alternative to information-based campaigns. Community-based social marketing is based upon research in the social sciences that demonstrates that behavior change is most effectively achieved through initiatives delivered at the community level, which focus on removing barriers to an activity while simultaneously enhancing the activities benefits.

Community-based social marketing involves four steps: 1) Identifying the barriers and benefits to an activity, 2) Developing a strategy that utilizes “tools” that have been shown to be effective in changing behavior, 3) Piloting the strategy, and 4) Evaluating the strategy once it has been implemented across a community.

IDENTIFYING BARRIERS

Research indicates that each form of sustainable behavior has its own set of barriers. For example, the factors that impede individuals from composting are quite different from those that preclude more sustainable forms of transportation. Even with apparently closely associated activities such as recycling, composting and source reduction, different sets of barriers and benefits have been found to be important.

Barriers to a sustainable behavior may be internal to an individual, such as one's lack of knowledge, non-supportive attitudes or an absence of motivation. On the other hand, barriers may reside outside the individual, as in changes that need to be made in order for the behavior to be more convenient (e.g., providing curbside organic collection) or affordable (e.g., subsidizing public transit or compost units). Multiple barriers may exist for any form of sustainable behavior. As a result, community based social marketers begin the development of their marketing plan by identifying these barriers.

Uncovering barriers involves three steps (see Chapter 2). Begin by reviewing relevant articles and reports. Next, obtain qualitative information through focus groups and observation to explore in-depth attitudes and behavior of residents regarding the activity. Finally, conduct a survey with a random sample of residents.

Before conducting a literature review, ensure that you have a clear mandate. That is, you need to know exactly what behavior(s) you are to promote. For example, a mandate to promote waste reduction is too general, while a mandate to promote curbside recycling and backyard composting has the level of detail you need to focus your literature search. In conducting the literature review consult four sources: 1) Trade magazines and newsletters; 2) Reports, 3) Academic articles, and 4) Authors of reports and articles that you found particularly useful.

The literature review will assist you in identifying issues to explore further with residents of your community through focus groups, observation and the surveys. Limit the size of each of your focus groups to 6 to 8 people and make it easy for people to participate by providing services such as childcare and transportation. Come to the focus groups with a set of clearly defined questions that have been informed by your literature review. The facilitator of the focus groups must clearly steer the discussion and ensure that all participants feel comfortable in participating. Have an assistant who takes notes during the group. Don't provide information about your program prior to the focus groups as this information will influence the information you receive from participants. When the focus groups are completed, tabulate the responses that you received and identify barriers that are mentioned by significant numbers of participants.

Focus groups are useful in obtaining in-depth information but are limited by the small number of participants and the influence that the group itself has upon what each member feels comfortable saying. Surveys overcome these two limitations.
Observational studies of specific behaviors are another valuable tool. By directly observing what people do, you can more easily identify skill and incentives that are already at work to reward existing behaviors. Observational studies help reduce the problems of self-report data and get the researcher much closer to the community and the behavior. Observation is also useful in evaluating behavioral compliance, particularly for behaviors where people are being asked to learn and maintain new skills.

Conducting a survey consists of seven steps.

First, begin by clarifying the objective of the survey. Do this by creating a survey objective statement which indicates the purpose of the survey. This statement can be used to ensure that you have the support of your colleagues before proceeding. This statement can also act as a reference when later deciding upon the relevance of potential survey items.

Second, list the items which are to be measured. Note that at this point you are not concerned with writing the questions, but rather with identifying the "themes" or "topics" that will be covered in the questionnaire.

Third, write the survey. In writing the survey avoid "open-ended" questions since they are difficult to analyze and extend the length of the survey. Further, limit yourself to using only a few types of scales for "closed-ended" questions, as this will speed conducting of the survey. When selecting how many options to provide on the scale, use six- or seven-point scales as they provide a broader range of answers than scales with fewer options. Whether you select six- or seven-point scales, stay with your choice throughout the survey. As you write your survey ask four questions of each item: 1) Is this a question that can be asked exactly as written? 2) Is this a question that will mean the same thing to everyone? 3) Is this a question that people can answer and 4) Is this a question that people will be willing to answer?

Fourth, when the survey is completed, take the time to pilot it with 10 to 15 people. Piloting the survey allows you to scrutinize the wording of the questions and the length of the survey. Don't include the data you obtain from the pilot with the data you obtain from the actual survey.

Fifth, select the sample. Surveys are most useful when the respondents are randomly selected from your community. A sample has been randomly selected when each adult in the community has an equal chance of being asked to participate. When this criteria is met, you can generalize your results back to the whole community with confidence.

Sixth, conduct the survey. If you are conducting the survey in-house, see the set of instructions for interviewers provided in Chapter 2. If the survey is being conducted for you by a research firm you can expect that it will take approximately a week to two weeks for the survey to be completed.

Seventh, analyze the data. Unless you have someone on staff with a statistical background, you will want to have the survey data analyzed for you. In having the data analyzed, ask for a thorough description of those individuals who are engaging in the activity, as well as for those that are not (descriptive statistics). Also, ask for the factors that distinguish people who are doing the behavior, such as composting, from those who are not, and the relative importance of these factors (multivariate statistics).

Significant pressures, such as time and staffing constraints, and increased project costs often result in this first step, the identification of barriers, being skipped. While these pressures are real and important, failure to identify barriers will often result in a program that either has a diminished impact or no impact at all. The identification of barriers is an essential first step to the development of a sound community-based social marketing strategy. By conducting a literature review, focus groups, observation and a survey you will be well positioned to develop an effective strategy.

**TOOLS OF BEHAVIOR CHANGE**

Community-based social marketing draws upon research in the social sciences, and particularly psychology, that has identified a variety of effective "tools" for promoting behavior change. Keep in mind that these tools are often most effective when used in combination with one another.

These tools are as follows:

**Commitment**

In a wide variety of settings people who have initially agreed to a small request, such as to wear a button saying they support the purchase of products with recycled-content, have subsequently been found to be far more likely to agree to a larger request, such as actually purchasing these products.

Why does seeking commitment to an initial small request work? There are likely two reasons. First, when people go along with an initial request, it often alters the way they perceive themselves. That is, they come to see
themselves, for example, as the type of person who believes it is important to purchase products that have recycled content. Second, we have a strong desire to be seen as consistent by others. Indeed, our society emphasizes consistency and people who are inconsistent are often viewed negatively. As a result, if we agree to wear a button supporting the purchase of recycled-content products, it would be inconsistent not to purchase these products when we shop.

Commitment as a behavior change tool has been utilized in a variety of studies with often dramatic results (see Chapter 3). In considering using commitment, follow these guidelines:

- **Emphasize written over verbal commitments.** Written commitments have been found to be more effective in bringing about long-term change.

- **Ask for public commitments:** When commitments are made public, such as by having names advertised in a newspaper, behavior change is more likely.

- **Seek commitments in groups:** If possible, seek commitments from groups of people that are highly cohesive, such as a church group. The close ties of these individuals, coupled with the importance of being consistent, make it more likely that people will follow through with their commitment.

- **Actively involve the person.** When people are actively involved - for instance, asked to peer into an attic or hold a container to measure the flow-rate of a shower they are more likely to see themselves as committed to the activity.

- **Use existing points of contact to obtain commitments:** Wherever natural contact occurs, look for opportunities to seek a commitment. For example, when people purchase paint ask them to sign a commitment that they will dispose of any left-over paint properly, or, better yet, take it to a paint exchange if one exists.

- **Help people to view themselves as environmentally concerned.** We can help people to see themselves as environmentally concerned, and therefore more committed to other sustainable activities, by commenting on their past actions. For example, when someone comes to pick up a poster, ask them if they recycle. If they do, note that their recycling is evidence of their concern for the environment and that beginning composting is a natural way to reduce waste even more.

**Don't use coercion.** In order for this behavior change tool to be effective, the commitment has to be freely volunteered. That is, only ask for commitments when people appear to be interested in an activity.

**Prompts**

Numerous behaviors that support sustainability are susceptible to the most human of traits: forgetting. People have to remember to turn off lights, check the air pressure in car tires, turn off the engine when waiting to pick someone up, turn down the thermostat, select items that have recycled-content, etc. Fortunately, prompts can be very effective in reminding us to perform these activities (see Chapter 4). Prompts are visual or auditory aids which remind us to carry out an activity that we might otherwise forget. In using prompts you will want to ensure that you follow these guidelines:

- **Make the prompt noticeable.** In order for a prompt to be effective it has to be noticed first. Make sure that your prompt is vivid (a bright color) and eye-catching.

- **Make the prompt self-explanatory.** All the information that is needed for someone to take the appropriate action should be conveyed in the prompt. For example, if you were using a prompt to increase the likelihood that people with odd numbered street addresses would water their lawns only on odd numbered calendar days (and vice versa), the prompt that you attach to an outside faucet could read "water your lawn only on odd numbered calendar days."

- **Present the prompt in as close proximity as is possible to where the action is to be taken.** If you want to encourage people to turn off lights upon leaving a room, for example, affix the prompt beside or directly on the light switch plate.

- **Use prompts to encourage people to engage in positive behaviors.** It is important, when possible, to encourage positive behaviors. If you want people to purchase environmentally friendly products when shopping, place prompts throughout a store that bring attention to those items rather than bringing attention to items that should be avoided. Not only is the encouragement of positive behaviors more likely to be supported by retail
outlets (few would let negative prompts be posted), but positive behaviors also make people feel good about their actions, which increases the likelihood that the actions will be carried out in the future.

**Norms**

To date, few programs have emphasized the development of community norms which support people engaging in sustainable behavior. This lack of attention to norms is unfortunate, given the impact they can have upon behavior (see Chapter 5). Norms guide how we should behave. If we observe others acting unsustainably, for instance using water inefficiently, we are more likely to act similarly. In contrast, if we observe members of our community acting sustainably, we are more likely to do the same.

When considering including norms in programs you develop, keep the following guidelines in mind:

*Make the Norm Visible.* For norms to influence the behavior of others they have to be aware of the norm. The very act of taking recyclables to the curbside, for example, communicates a community norm about the importance of recycling. Most sustainable activities, however do not have the community visibility which recycling has, and norms that support the activity, therefore, have to be promoted more actively. Find ways to publicize involvement in sustainable activities, such as providing ongoing community feedback on the amount of water that has been saved by homes using water efficiently.

*Use Personal Contact to Reinforce Norms.* Research suggests that internalization of norms is more likely to occur as a result of personal contact. As a consequence, use personal contact as an opportunity to reinforce norms that support sustainable behavior.

**Communication**

All programs to foster sustainable behavior include a communication component. The impact of communications upon behavior can vary dramatically based upon how the communication is developed (see Chapter 6). To develop effective communications, include the following elements:

*Use Captivating Information.* All persuasion depends upon capturing attention. Without attention, persuasion is impossible. Communications can be made more effective by ensuring that they are vivid, personal and concrete.

*Know your Audience.* All communications should be developed with your audience in mind. Before developing communications, you should have a firm sense of the attitudes, beliefs and behavior of your intended audience(s).

*Use a Credible Source.* The individual or organization that presents your message can have a dramatic impact upon how it is received and subsequent behavior. Ensure that whoever delivers your message is seen as credible. Individuals or organizations tend to be viewed as credible when they have expertise, or are seen as trustworthy.

*Frame your Message.* How you present or "frame" your activity can impact upon the likelihood that people will engage in it. In general; you should emphasize the losses that occur as a result of inaction (e.g., from not insulating) rather than the savings that occur from action (e.g. insulating).

*Carefully Consider Threatening Messages.* While environmental issues lend themselves easily to the use of threatening or fearful messages, do so with caution. While the public needs to understand the implications of such serious issues as global warming, toxic waste, or ozone depletion, they also need to be told what positive action they can take if threatening information is to be useful. In short, whenever you contemplate using a threatening message consider whether you can at the same time present concrete actions that individuals can take to reduce the threat.

*Decide on a One-Sided versus Two-Sided Message.* One-sided communications are usually more persuasive with audiences who have little or no comprehension of an issue. As knowledge increases, however, two-sided messages are generally more persuasive.

*Make Your Message Easy to Remember.* All sustainable activities depend upon memory. People have to remember what to do, when to do it, and how to do it. Use prompts (Chapter 4) to assist people in remembering. Also develop messages that are clear and specific.

*Provide Personal or Community Goals.* Providing targets for a household or community to achieve can help to provide motivation for sustainable behavior.
Emphasize Personal Contact. Research on persuasion documents that the major influence upon our attitudes and behavior is not the media, but rather the people with whom we interact. Create opportunities for people to talk to one another through programs such as block leaders, in which individuals who already have experience in a sustainable activity, such as composting, speak to others from their neighborhood. Through personal contact, provide opportunities for people to model sustainable behavior for one another, such as installing weather-stripping, and facilitate ongoing discussions in your community to allow social diffusion of new behaviors to occur.

Provide Feedback. Remember to provide members of your community with feedback about the effectiveness of their actions. Feedback has been found to have a positive impact upon the adoption and maintenance of sustainable behaviors.

Incentives

Incentives have been shown to have a substantial impact on a variety of sustainable activities including waste reduction, energy efficiency and transportation. They are particularly useful when motivation to engage in action is low, or people are not doing the activity as effectively as they could. Gardner and Stern (1996) suggest the following guidelines in using incentives:

Closely Pair the Incentive and the Behavior. The closer in time the incentive is presented to the behavior it is meant to affect, the more likely that it will be effective.

Use Incentives to Reward Positive Behavior. Where possible, use incentives to reward people for taking positive actions, such as returning beverage containers, rather than fining them for engaging in negative actions, such as littering.

Make the Incentive Visible. For incentives to be effective, you need to draw people's attention to them. Consider using vivid techniques to make incentives noticeable (see Chapter 6). Also, incentives can be made more visible by closely associating them with the behavior they are meant to effect, such as having people attach tags to their garbage bags in order to have them picked up in a user pay garbage disposal program.

Be Cautious about Removing Incentives: Incentives can be powerful levers to motivate behavior, but they can also undermine internal motivations that people have for engaging in an activity. If you plan to use an incentive to encourage a sustainable behavior, remember that if you elect to remove the incentive at a later time the level of motivation that existed prior to the introduction of the incentive may no longer exist.

Prepare for People's Attempts to Avoid the Incentive. Incentives such as separate laneways for multiple occupant vehicles can have a significant impact upon behavior. However, because these incentives powerfully reward one behavior (car pooling) and strongly punish another (single occupant driving), there is strong motivation to try to "beat" the incentive. In preparing incentives, give careful consideration to how people may try to avoid the incentive and plan accordingly.

Carefully Consider the Size of the Incentive. In arriving at what size of incentive to use, study the experience of other communities in applying incentives to motivate the same behavior.

Use Non-Monetary Incentives. While most incentives are monetary, non-monetary incentives, such as social approval, can also exert a strong influence upon behavior. Consider ways that social approval and other non-monetary incentives can be integrated into your program.

Removing External Barriers

The behavior change strategies presented in this book can have a significant influence upon the adoption and maintenance of behavior. However, they will be ineffectual if significant external barriers exist to the behavior you wish to promote. It is important to identify these barriers and plan for how you will overcome them. Study other communities to see how they have managed to overcome similar obstacles. Assess whether you have the resources to overcome the external barriers you identify. If you do not, carefully consider whether you wish to implement a program.

DESIGN AND EVALUATION

The design of a community-based social marketing strategy begins with identifying the barriers to the activity you wish to promote. Knowledge of barriers is particularly important. Without this information it is impossible to design an effective program. In identifying barriers, be sure to conduct statistical analysis that allows you to prioritize the barriers. Knowing the
relative importance of barriers will allow you to use limited resources to
their greatest benefit. Once you have identified and prioritized your
barriers, select behavior change tools that match the barriers you are trying
to overcome. When you have arrived at a design for your program, obtain
feedback on your plans from several focus groups. Look for recurring
themes in their comments as they may indicate areas in which your
planned program needs to be redesigned. Once you are confident that you
have a program that should affect behavior, pilot the program. In
conducting the pilot, ensure that you have at least two groups; one that
receives the intervention and another that serves as a comparison or control
group. Randomly assign households or individuals into either group to
ensure that the only difference between the groups is whether or not they
received the intervention. In evaluating the effectiveness of your pilot,
focus on behavior change rather than measures of awareness or attitude
change. If your pilot is not successful in altering behavior, revise
your strategy and pilot it again. Assuming that you know why a pilot
did not work, and that you now have the information you need to go
straight to community-wide implementation, can be a very expensive
mistake. When your pilot is effectively changing behavior you are
ready to implement your strategy across the community. Evaluate the
community-wide implementation by obtaining information on
baseline involvement in the activity prior to implementation, and at
several points afterward.