

## The Design, Implementation, and Evaluation of Social Marketing Campaigns in Nutrition

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### ABSTRACT

Over the past two decades in the United States, social marketing has become an increasingly popular means of delivering nutrition education for the purpose of eliciting a specific behavior change. This manuscript defines social marketing via traditional marketing concepts and jargon, as well as through a communications strategy that can be used to guide message and campaign development. Research and evaluation strategies necessary to support the development and assessment of campaign promotions, is discussed. Four campaigns implemented in the United States, and one campaign implemented in Indonesia, are discussed in terms of the strategies presented. These campaigns illustrate how this educational technique and an array of assessment approaches have been applied to varied nutritional issues across diverse target audiences and settings. Practical recommendations, as well as discussion of issues regarding the advantages and disadvantages of using social marketing as an educational strategy, campaign sustainability, and philosophical considerations regarding the use of this educational approach, are addressed. (*J Community Nutrition* 5(4) : 218~229, 2003)

**KEY WORDS :** social marketing · nutrition · target audience · behavior change.

### 1. Moving from knowledge-based to behaviorally-focused nutrition education

The traditional approach to nutrition education has been to convey dietary recommendations based upon scientific findings related to health and disease states. This approach assumes that people will then choose to modify their eating patterns accordingly. This type of thinking is based on a model with philosophical undertones suggesting that people behave rationally and predictably when it comes to food. However, most health professionals now recognize that the process of changing behavior is not as simple as understanding the need to do so. Nutrition education is successful, only if people adapt their behavior according to what they have learned. Social marketing is one educational means of focusing on specific behavior change.

### 2. What is social marketing?

In 1971 Kotler and Zaltman defined "social marketing"

as the "design, implementation, and control of programs calculated to influence the acceptability of social ideas, and involving considerations of product, planning, pricing, communication, distribution and marketing research." (Kotler, Zaltman 1971). In other words, social marketing meets public health objectives by utilizing marketing principles to change specific behaviors. Critics of the terminology "social marketing" equate it with the financial profit goals of commercial marketing agencies. However, although social marketing uses marketing techniques, its goal differs radically from commercial marketing in that it is not to profit the agent of change, but rather to benefit individuals and society (Alcalay, Bell 2000 ; Braus1995 ; Walsh 1993).

Social marketers build their strategies upon the traditional marketing concepts known as the "Four P's" : *product*, *price*, *place* and *promotion*. The *product* is the behavior change to be adopted by the target audience, e.g., increasing consumption of fruits and vegetables, increasing amount of exercise, or lowering salt consumption. The *price* refers to the sacrifice necessary for behavior change adoption. The *price* of making healthful behavior changes may be financial, but is often more subjective in nature, e.g., making time to exercise, maintaining the motivation

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and discipline needed for sustaining healthful eating practices, or withstanding peer pressure in food selection. In general, the *price* is the effort that one needs to make in order to achieve the *product*. The *place* refers to how the product will be delivered, distributed or made available to the target audience (Alcalay, Bell 2000 ; [www.greencom.org](http://www.greencom.org) ; [www.tamu.edu/market/training/access.html](http://www.tamu.edu/market/training/access.html)). Examples of *place* include articles placed in magazines commonly subscribed to by the target audience, shelf-talkers at supermarkets in target communities, church bulletin boards, messages from the pulpit, or posters placed in facilities highly accessible to the target audience. *Promotion* refers to how the *product* is framed in a positive way so it will “sell,” i.e., so the target audience will want to adopt the behavior change (Alcalay, Bell 2000). Determining an effective *promotion* depends upon the characteristics and values of the target audience. For example, children may respond favorably to a promotion to increase fruit and vegetable consumption done via a puppet show where puppets who increase consumption are better athletes than those who do not ; whereas, adults may respond better to a brochure portraying people who increase consumption as more energetic and less tired.

Some social marketers have added a fifth “P” to represent *positioning*, i.e., what needs to be done to position the desired behavior against the price, or competing less desirable attitudes or behaviors, e.g., exercise may be repositioned as a form of relaxation rather than an activity requiring extra work; or, serving low-fat meals to one’s family may be viewed as an act of love, rather than as a means of reducing caloric intake or lowering cholesterol levels (Alcalay, Bell 2000). Others speak of another “P” as *partnership*, in reference to all individuals, groups, and funding sources who act together on behalf of the campaign, or policy referring to environmental support or policy changes made to support the behavior, or finally, *politics* addressing complex issues in need of support from community organizations, such as campaigns for decreased use of soft drink vending machines in schools ([www.tamu.edu/market/training/access.html](http://www.tamu.edu/market/training/access.html)). Despite any differences in definitions, the importance of recognizing other “Ps” is to ensure the above are considered in the design of social marketing campaigns.

### 3. How are campaigns developed?

To develop successful social marketing campaigns, effective communication strategies must be employed. In 1995,

Sutton described a process for developing effective messages (Sutton et al. 1995). This process, termed consumer-based health communication strategies, can guide efforts to address marketing’s “P’s.” The questions that must be answered to guide this process are : 1) What is the purpose? ; 2) Who is the target audience? ; 3) What is the promise? ; 4) What support will be used? ; 5) What is the execution? ; and, 6) What is the aperture?

To illustrate how these questions are answered, the research and formation of the National 5-a-Day social marketing campaign will be used as an example. This campaign was the extension of a campaign begun in 1988, aimed at increasing fruit and vegetable consumption among educated, English-speaking adults in California, with plans to later diffuse the message to other target audiences throughout the state (Foerster et al. 1995). In 1991, the campaign was adopted at the National level, and has been recognized worldwide as the largest public/private partnership for nutrition education. Involved in the efforts are the National Cancer Institute (NCI), the Produce for Better Health Foundation, the American Cancer Society, the Centers for Disease Control and Prevention, the United States Department of Agriculture (USDA), the United Fresh Fruit and Vegetable Association, the Produce Marketing Association, and the National Alliance for Nutrition and Activity ([www.5aday.gov/index-about.shtml](http://www.5aday.gov/index-about.shtml)).

#### 1) What is the purpose?

The *purpose* must be action-oriented and focus on the goal of persuading people to do something, i.e., it must address behavior change, not an increase in knowledge, or a change in attitude or motivation. In 1988, Patterson documented that American consumption of fruits and vegetables averaged 2.8 servings per day, 2.2 servings less than NCI recommendations (Patterson, Block 1988). The 5-a-Day campaign purpose was for people to consume at least 5 servings of fruit and vegetables daily (Sutton et al. 1995). In thinking back to the marketing’s “P’s”, this behavioral goal would be part of the marketing concept referred to as the *product*.

#### 2) Who is the target audience?

*Target audience* selection for social marketing campaigns often considers, yet goes beyond the typical variables used for audience selection in public health interventions e.g.,

gender, ethnicity, education level, socioeconomic status and risk for certain disease states (Heimendinger, Van Duyn 1993). Other factors accounted for include the number of people the campaign is trying to reach; the extent to which the behavior change could potentially affect the audience, which may be based on morbidity and mortality data; how accessible the audience is; and, how likely they are to respond to the communications (Sutton et al. 1995). A variety of formative research techniques are often used to assess these constructs. Using data from focus groups, national surveys, and mall intercept interviews, the target audience selected for the 5-a-Day national campaign was defined as “people who were trying to eat more fruits and vegetables and were currently eating two to three servings a day” (Loughrey et al. 1997). Demographically, this group was comprised mostly of very busy mothers from middle to upper middle-income households. This audience was selected because they already knew that fruits and vegetables were good for them, and they were predisposed to adopt this behavior and influence others to do the same. These attributes made this audience an ideal choice based on the diffusion of innovations theory that suggests the rate at which a message spreads within a community is related to the early adopters’ attitudes (Heimendinger, Van Duyn 1995; Rogers 1962). Based on this theory, the audience selected would be considered momentum for impact of other audiences. Since the target audience selected was characterized as being the most likely to adopt the desired behavior, campaign success, that would ultimately result in program viability, was considered to be optimized (Sutton et al. 1995). In marketing’s “P’s” the target audience is defined within the product.

### 3) What is the promise?

If possible, the promise should be stated as: If I (adopt the desired behavior), then I (receive the reward or promise). The reward or promise is a future, subjective benefit that is not necessarily directly stated, but that will be drawn from campaign communication(s). The promise needs to be important enough to the target audience that they will be prompted to change their behaviors to receive the benefit. To address this question, campaign planners must research the target audience, competing behaviors, barriers to the desired behavior, and most importantly, the future subjective

reward that will be used as an incentive for change (Sutton et al. 1995). This research can be done either directly or through a review of the literature. In the 5-a-Day campaign, research conducted to determine factors that would motivate change indicated that this audience would be motivated by weight control, good looks, health, and being more virtuous and in control of their time. Researchers lauded fruits and vegetables since they were: low in fat and calories, void of cholesterol, a good source of fiber, appealing to the appetite, wholesome, and protective against many diseases (Sutton et al. 1995). However, the results from focus group research suggested that although fruits and vegetables were regarded as “healthy choices,” the benefit of decreasing risk of cancer by 50% was rejected as not believable or valid (Balch et al. 1997). The results from focus group research also indicated that perceived benefits included good taste, convenience and sensory appeal. Perceived barriers included the perishable nature of fruits, variable quality, and price and preparation time. Taste was noted to be a barrier to the consumption of cruciferous vegetables (Heimendinger, Van Duyn 1995). Overall, convenience and control of one’s time were of paramount importance to this audience (Balch et al. 1997). The 5-a-Day campaign planning team needed to strategize on the best way to intertwine the motivators and advantages of change with the attributes of action and ultimate reward. Since this audience was already eating 2–3 servings of fruits and vegetables per day, campaign planners decided to address the behavior change accordingly. The promise designed to guide this campaign became: “If I add two servings of fruits and vegetables each day the “easy way” instead of making it hard, I will feel relieved and more in control of my life.” (Sutton et al. 1995). This promise was devised based on the goal and the consumer research that suggested that this segment of the American population’s perceived barrier to fruit and vegetable consumption was that it was hard, and that what they valued most in their lives was being in control of their lives, i.e., less harried. This communication strategy, relates to the *price* and *positioning* concepts of marketing’s “P’s”. Other barriers, e.g., the price or perishable nature of fruits, and benefits, e.g., good taste, were not used in the promise to guide the campaign’s overall flavor, but were addressed in campaign materials to enhance the campaign message.

#### 4) What support will be used?

This portion of the communication strategy should consider the support that will make the message believable. Scientific facts, celebrity endorsement, and emotional support can all be used. In the 5-a-Day campaign, scientific support came from the NCI ; celebrity endorsement included Olympic Athletes and Washington Officials (Heimendinger, Van Duyn 1995). Emotional support included messages that caused the consumers to feel that they could master the new behavior. Marketers ensured spokespersons were credible and appealing, sometimes mirroring the target audience's image, so they would believe they could easily and conveniently prepare and add two servings a day to what they were already eating (Sutton et al. 1995). This communication strategy would relate to the *promotion* "P" of marketing, as well as *partnerships* that might need to be forged to ensure the campaign's viability.

#### 5) What is the execution?

The execution is the type of image or personality the campaign will have. The image is the essence of the campaign. A saying used by American marketers that illustrates this concept is : "don't sell the steak, sell the sizzle." Focus groups and reviews of the literature are good ways to determine the best campaign image. It may be determined by tempering the image the target audience associates with those who currently perform the behavior with the image that they have of themselves in relation to the desired behavior. Therefore, questions posed to assess how the target audience sees themselves are useful to ensure the campaign image(s) are relevant. In the 5-a-Day campaign, the target audience was concerned with healthfulness, sensory appeal, and convenience. In focus groups, they defined the image of people who ate five a day as : smart, disciplined, healthy, fit, concerned about their families', as well as their own health, and self-righteous. They indicated that people who ate 5-a-Day would not necessarily be dependable, gentle, friendly, or easy-going. When asked how they saw themselves, they described themselves as dependable, gentle, friendly, and easy going, i.e., not the type of people who ate 5-a-Day. The campaign image was created to temper these images and address the target audience's values. The image portrayed people who ate 5-a-Day as responsible, balanced and warm, and not neurotic or crazed. It suggested that good mothers could eat 5-a-Day if they did it

the easy way; fruits and vegetables were, after all, the original fast food (Sutton et al. 1995). In other words, it was determined that this audience would respond to an image promoting self-efficacy and confidence, as well as control over one's life without inconvenience (Heimendinger, Van Duyn 1995). Campaign execution is part of the promotion marketing concept. It is important to emphasize that social marketing campaigns are consumer-driven, i.e., they are founded upon the target audience's beliefs, attitudes, values, opinions and perceived realities. The audience is segmented because these constructs vary according to many variables, e.g., psychological, socioeconomic, geographic, cultural, and ethnic variables. It is imperative that social marketers understand these needs to achieve successfully the desired behavioral change.

#### 6) What is the aperture?

The aperture(s) for the campaign define how, where, and when to place social marketing messages to ensure optimal consumer reach in situations where and when consumers will be receptive to the message and willing to consider the behavior change. Focus group research indicated the target audience was most open to the 5-a-Day health message when they : shopped for food ; and, were in transit, i.e. thinking about dinner preparation while commuting from work (Sutton et al. 1995). Researchers speculated they would also be open to the message when creating their shopping lists, but through focus group research learned that this busy population seldom created lists. This illustrates how speculation could result in ineffective communication strategies, e.g., including the message on shopping list pads. Target audience research is imperative to campaign development and should address all components necessary for its development. This communication strategy encompasses both the *place* and *promotion* marketing concepts. In the case of the 5-a-Day campaign, promotional apertures used were supermarkets via placement of promotional materials in the produce section and extensive media coverage in magazines commonly read by the target audience. Communication channels and strategic concepts need to be carefully tailored to the target audience (Sutton et al. 1995).

In reference to the "P's" added by some social marketer's, a federal un-funded *policy* mandate was established to ensure 5-a-Day programming in every state. Also, national

policy and community environmental efforts continue to increase the accessibility of fruits and vegetables in areas where availability is limited, e.g., the addition of farmer's markets in low-income urban areas and salad bars in schools. Also, farmer's market vouchers are offered through the government's federal Supplemental Program for Women and Children (WIC).

#### 4. Campaign evaluation

Evaluation common to the development and implementation of successful educational interventions contribute as well to the success of social marketing campaigns, i.e., formative evaluation, process evaluation and outcome evaluation. Formative evaluation includes extensive research prior to the campaign, again, to: determine campaign purpose; segment the target audience based on factors such as being "at risk" for particular disease states, readiness to learn and make changes, and/or accessibility; and, gain insights into barriers, motivators and benefits, etc. Formative evaluation also includes assessing language, reading level and access to media such as television or radio to ensure that program activities, materials, and messages developed are appropriate for the target audience and will be well received. Formative evaluation should always begin with a review of the literature. Additional research, more specific to the target audience, the specific behavior to be addressed, and relevant to the time period during which the campaign will be launched can be accomplished via focus groups, interviews or surveys performed with the target audience and/or educators or others very familiar with the target audience regarding information pertinent to the campaign (Balch et al. 1997; Carroll et al. 2000; Loughrey et al. 1997). When funds are limited, less specific yet valuable information can be obtained from the review of the literature and/or telephone and informal conversations with key informants.

Process evaluation includes research and feedback mechanisms designed to ensure that the program and/or campaign materials are implemented correctly and revised, as needed (Alcalay, Bell 2000). Initial process evaluation, via pilot tests, is very important to ensure the launch of effective campaigns and the viability of campaign materials. Process evaluation also includes activities to assess the campaign timeline, budget, participation rates, etc. Process evaluations vary according to campaign specifics

since every campaign is unique (Carroll et al. 2000).

Campaign success needs to be measured to demonstrate its impact. This is accomplished through outcome evaluation. Measures may include both quantitative and qualitative assessments and may be gathered at the individual, organizational and/or community level. They typically measure reported behavior change, clinical measures, and/or environmental change(s) (Carroll et al. 2000). Instruments used for behavior change assessment should report any corresponding reliability and validity measures available. When previously developed instruments are not available, triangulation of data collection methodologies serve in this capacity, i.e., self-report measures may be compared to food purchasing data or direct observation. Market saturation measures are also important as process and outcome measures.

With regards to the 5-a-Day campaign, formative research performed prior to the launch of the national campaign has been discussed extensively above with regards to how the information obtained influenced campaign development. Process evaluation was implemented to re-evaluate the scientific basis for the campaign, to examine implementation methods and their accomplishments, and to assess the degree to which strategies implemented achieved the campaign goals and objectives. Process evaluation also included examination of national and local media trend data, media communication message content, and public response to the NCI message. Additionally, survey research examined national intake trends, psychosocial factors related to increased fruit and vegetable intake, state-level campaign implementation intensity, and randomized trials and other studies related to campaign intervention performed in a variety of settings and within diverse populations. Based on this data, the evaluation group that was assembled by the NCI Director, made recommendations for: future implementation strategies; media and message delivery and strategies; resource allocation; message design; and, other potential communication efforts. Specific recommendation strategies for industry, states, minorities, and the underserved were also made. Process evaluation further addressed areas for future evaluation research and surveillance ([dccps.nci.nih.gov/5ad\\_exec.html](http://dccps.nci.nih.gov/5ad_exec.html)).

Outcome assessments that were done with regards to the national 5-a-Day campaign included: an NCI survey performed specific to the campaign, USDA's Continuing Sur-

veys of Food Intakes by Individuals (CSFII), and participation data gathered from national reports ([www.5aday.gov/index-about.shtml](http://www.5aday.gov/index-about.shtml)). Some of the data collected via the NCI survey included measures of : self-efficacy, knowledge of the 5-a-Day dietary recommendation, taste preferences, perceived barriers, and perceived norms. Some findings gleaned from this survey suggested: self-efficacy was key to behavior change ; and, the percentage of adults aware that they should consume at least 5 servings of fruits and vegetables daily increased from 8 to 36 percent since 1991. Data from the CSFII indicated that during the initial launch of the program (1989–1991) adults ate an average of 3.9 servings of fruits and vegetables per day. Between 1994 and 1996, this number increased to approximately 4.6 servings. National data indicated the campaign was implemented in fifty-five states and U.S. territories via statewide coalitions of : state and county health agencies; state departments of education ; state departments of agriculture ; cooperative extensions ; voluntary agencies ; businesses ; hospitals; and, state dietetics associations.

### **5. An overview of a variety of social marketing campaigns**

In the past four decades, social marketing campaigns have become increasingly popular as a means of improving nutrition-related behaviors. Campaigns have been designed and implemented in a variety of settings, and have ranged from low-budget, small-scale grassroots efforts to well-funded national endeavors, like the multi-million dollar 5-a-Day campaign. This section will review a variety of recognized campaigns.

Another campaign that promoted fruit and vegetable consumption, but was designed to address a different target audience, was the Pick a better snack (tm) campaign. This campaign was developed and implemented by the Iowa Nutrition Education Network, which receives financial support from USDA Food Stamp Nutrition Education funds. All information regarding this campaign was obtained via an interview with D. Montgomery, M.S., R.D. on November 14, 2003. In 1999, network members agreed to support campaign development for use across USDA programs throughout Iowa. Funding was to be shared among partner programs, i.e., the Iowa Department of Education that administered USDA Child Nutrition Programs ; the Iowa Department of Public Health that administered the Food

Stamp Nutrition Education Program Network and WIC ; and, the Iowa State University Extension. A Team Nutrition grant allowed the campaign to proceed in 2000.

The Network vision was to help Iowa's low-income families with children adopt healthy eating and exercise behaviors consistent with the Dietary Guidelines for Americans. The campaign was developed from formative research, based on focus group findings from fifteen focus groups : seven held with mothers, three with fathers, and five held with childcare providers. Among the dominant themes from the focus groups were the following : 1) healthful behavior was associated with immediate rather than delayed reward, i.e., there was no mention of reduced risk for chronic diseases, but rather association with energy, happiness, and vitality, 2) mothers and childcare providers thought good health was time-consuming, 3) participants had strong positive attitudes toward healthful behaviors, e.g., eating fruits and vegetables and being physically active, but most did not see themselves or their friends and neighbors as being able to adopt them, 4) children more readily accept foods with which they had personal involvement, 5) healthful snacks for children needed to be easy, simple, and require little or no time investment, 6) a strong preference for fresh over canned or frozen fruits and vegetables was expressed, 7) preferred messages offer a clear idea of what to do and how to do it and were communicated via bold, simple, colorful, happy, encouraging messages, and showed children and adults preparing food together; and, 8) preferred communication channels were medical and education professionals, recipe cards and coupons, and posters in places where people wait.

The campaign purpose was refined to : 1) increase awareness of the Pick a better snack (tm) logo and the campaign's supporting messages, 2) improve attitudes about eating fruits and vegetables as snacks, and 3) increase fruit and vegetable consumption among low-income children and their families. The target audience included children aged 2–12, and their parents and childcare providers. A secondary audience chosen was providers of early childhood education.

The support for this campaign was that according to the Behavioral Risk Factor Surveillance Survey, Iowa ranked forty-eight out of fifty-one in terms of fruit and vegetable consumption, in comparison to the 50 states and the District of Columbia. Also, scientific facts supported increased

fruit and vegetable consumption.

Based on the formative research findings, it was determined that the campaign should capitalize on the target audience's already-existing strong positive attitude toward eating fruits and vegetables. It was clear that the campaign did not need to convince the audience that fruits and vegetables were good for their health. Instead, it needed to offer specific tips on how to include them in meals and snacks through a positive, you-can-do-it approach, via simple and attainable behavioral recommendations that required minimal efforts or time investments. A marketing and research firm was hired for theme development and testing. The *campaign* promise became : If the children I am responsible for and I choose easy-to-prepare fruits and vegetables instead of high-fat, empty-calorie snacks, we will eat better, which according to the focus group findings implied immediate health, energy and vitality.

The two most effective messages developed were "Pick a better snack" and "Go for the good stuff." The state advisory team selected the former and worked with the firm to develop campaign components. The key campaign message *promotion* included the following messages with an *execution* that conveyed simplicity and empowerment :

Wash. Bite. How easy is that?

Peel. Eat. How easy is that?

Dip. Eat. How easy is that?

Zero to snack in one second!

The original campaign "kicked off" in March of 2000 with twenty-seven coalitions using the campaign materials the following year. Thirteen coalitions participated in a 2001 process evaluation of the Pick a better snack™ campaign. Three key recommendations from the process evaluation were implemented for the second campaign development phase : 1) develop print-ready materials, lessons, and activities for project directors and coalition members to use, 2) develop an evaluation tool ; and, 3) provide campaign materials in Spanish. In August, 2002, a peer-evaluation was also performed. Recommendations were to develop a more-defined core strategy for campaign execution and maintain the original campaign design when creating complementary components. The recommendations allowed network staff to better use the contracted services of a new marketing company hired to revise campaign components.

*Apertures* used for campaign delivery included : ready-

to-print and editable campaign components such as certificates, bookmarks, and snack cards on a CD-ROM ; newspaper articles ; billboards ; grocery store campaign kits ; recipes available in both English and Spanish ; BINGO cards in English and Spanish with accompanying classroom available via a CD-ROM or a resource notebook for three age groups from grades Kindergarten-5th grades ; and pre and post questionnaires for children, parents and adults. Other media support included: public service radio announcements, including one in Spanish ; weekly newspaper features ; recipes translated into Spanish for use in newspapers/newsletters ; and, a community resource kit.

Outcome evaluation was performed in two pilot-test cities using triangulation. Surveys (n = 600) were conducted in food stamp offices to determine if the campaign was effective in reaching the targeted audience. Preliminary results indicated that half of those surveyed (51%) had heard of Pick a better snack™ or had seen the accompanying messages. Campaign messages were most frequently reported as being seen or heard from the following : billboards (48%) ; TV (36%) ; WIC offices (34%) ; grocery stores (29%), and schools (28%). Of the survey respondents who heard or saw the campaign, 73% knew the campaign purpose, 25% stated they were starting to eat more fruits and vegetables, and 36% were thinking about it because of the campaign.

Surveys (n = 500) were conducted with customers in the front of four participating grocery stores in the same communities to determine the effectiveness of the retail interventions and overall awareness of the campaign. Sixty four percent of the respondents who were surveyed had heard or seen Pick a **better** snack™ without being aided with the logo picture. The top three locations where respondents had heard or seen Pick a **better** snack™ messages were : grocery stores (65%), billboards (38%), and schools (19%).

Eleven community coalitions successfully involved their local grocery stores (n = 29) in the promotion of campaign. Surveys were sent to the produce managers of the stores. Eleven of 15 who responded indicated the retail promotion kits had made a difference in sales. Respondents were all confident they would use Pick a better snack™ promotional kits in the future.

Finally, surveys were performed in elementary schools to examine the effect of classroom campaign promotions (n = 1455). They examined campaign recognition, as well

as students' attitudes regarding eating fruits and vegetables for snacks. Improvement in logo recognition was statistically significant across grades ( $p < .01$ ). The number of children who selected smiles, to represent "liking" six fruits and six vegetables for snacks increased significantly pre to post-campaign implementation in grades K-2 ( $p < .01$ ).

The "Sisters Together : Move More Eat Better" obesity prevention campaign was designed with the purpose of obesity prevention through improved healthful eating practices and increased physical activity. The target *audience selected* was black women, aged 18–35, from three inner-city Boston neighborhoods. Information regarding the development and assessment of this campaign, published by Rudd, supports the information found below (Rudd et al. 1999). The target audience for this campaign was selected based on interviews with local community nutritionists and community health center representatives, suggesting that : 1) this was where the strongest need for such intervention existed, and 2) this was the target where new resources would be most welcomed. Findings from the Massachusetts Behavioral Risk Factor Surveillance Survey (BRFSS) documented the high prevalence of obesity among African American women ; and, cultural factors supporting the consumption of a high fat diet coupled with issues regarding insufficient physical activity, affirmed the decision. Formative research to support campaign development was done via triangulation, i.e., analysis of existing survey data, literature reviews, interviews with health and communication experts, and focus group discussions. The campaign *promise* ran along the lines of : If my sisters and I engage in more healthful eating practices and increased physical activity, our collective action will keep us strong. An extensively tested campaign logo was developed in which three Black women walked together depicting their culture in terms of hairstyle, size and shape of the figures and colors. The corresponding campaign slogan was "Move More, Eat Better." As all components of the campaign were developed formative research was done. All formative research sought to answer the following questions :

- Do the contents address key thematic issues, key information, and needed skills?
- Do the design components reflect the culture and preferences of the target audience?
- Are the language and style appropriate and readable?

The *support* used to sustain the campaign was predo-

minated by figures that were familiar and considered to be trustworthy information sources to the target audience. Support used for campaign viability included : a radio personality well known to the target audience, an athlete/entrepreneur, a dance instructor, and a health center nutritionist. Role models were used to promote the message through many of the educational venues listed below.

The *execution* to address the "Move More" portion of the campaign, stressed target audience cultural traditions and activity preferences. It focused on the "togetherness" of the culture, as the audience preferred to address issues through collective action rather than individually. "Sisterhood" was prevalent throughout the campaign execution. Support materials and activities used to sustain the campaign addressed food choices, menu planning, ethnic cooking, market tours, and exercise through various promotional activities, all within a cultural context.

A wide range of *apertures* was used to forward the Sisters Together campaign. Promotional efforts included media coverage by local radio and television stations, and distribution of print materials, e.g., monthly thematic message promotion. Participation in community and neighborhood events, as well as distribution of materials at local farmer's markets and parks, e.g., walking brochures and calendar menus, were used as educational venues. The "Sisters Together" team also participated in events, e.g., festivals and carnivals, and sponsored family picnics and walk-a-thons. Exercise programs included walking and aerobic groups to name a few. Most activities included process assessments via exit interviews at events and follow-up telephone interviews designed to evaluate perceptions. Proximal outcomes assessed via follow-up telephone interviews evaluated intentions to change and self-reported behavioral changes made, which served as the campaign's outcome measures. Campaign promotional efforts were extensive throughout the community and generated strong community agency involvement.

Campaign partners and developers heavily focused on survival of the campaign after its initial funding. Sustainability was included in strategic planning efforts. Because this campaign focused on sustained activity through partnership and coalition development, the program was maintained beyond the limited budget period through in-kind services, volunteers, and donations (Rudd et al. 1999).

The National Institute of Child Health and Human Deve-



lopment and the Public Welfare Foundation funded the "Navajo Breastfeeding Promotion Program," as we describe based on an article by Wright, 1997. This was an intervention that employed many social marketing techniques. Its *purpose* was to increase the duration of breastfeeding among a *target audience* of post-partum women from three southwestern United States Navajo communities. This group was selected because, although 81% of the target audience surveyed reported having breastfed their infants, 71% of those who did began formula feeding after the first week of infant life and many had stopped completely after two months. These rates were comparable with National figures ; however, the rate of infant mortality due to illnesses that are lessened by breastfeeding was much higher in this population than the national average, which elevated concern regarding breastfeeding's importance.

Formative research, to support the development of the campaign and culturally-sensitive hypotheses, was conducted via ethnographic interviews performed with a small sample of target audience members, as well as older Navajo women. Interviews assessed breastfeeding practices and perceptions. This research was followed by the assessment of a larger sample of post-partum women via structured open-ended questionnaires designed to examine factors associated with feeding practices and demographic correlates of breastfeeding. Direct observation at local health care sites and informal interviews with staff, assessed their current influence and the educational practices they used with their clients.

Target audience research suggested that combination feeding was the primary contributor leading to early breastfeeding cessation. Thus the goal of the promotion became to increase the duration of breastfeeding exclusively, from one week to one month. Post-partum women indicated that factors influencing their decisions to reduce breastfeeding included: barriers associated with returning to work or school ; fear that their milk supply was insufficient and lack of knowledge that increased breastfeeding resulted in an increased milk supply; nursing problems ; and, the baby's preference for the bottle over the breast. Relatives were identified as supportive and appeared to be knowledgeable about breastfeeding practices, but grandmothers, who were most knowledgeable, were seldom called upon to assist with nursing problems. Through interviews with older Navajo women, developers learned that traditional

perceptions regarding breastfeeding were : Holy People presented it as the proper way to feed infants, it was an activity that defined infants as human; it was nutritious; it was an act that promoted love, security and a better life ; and, it was a way to pass on some of the mother's attributes to the child. Health care site research indicated that many health care practices and policies were not supportive of breastfeeding, e.g., practices at Indian Health Service hospitals resulted in most infants not nursing until hours after birth and spending minimal time with their mothers while in the hospital, and little to no maternal education regarding breastfeeding or nursing problems other than literature provided by formula companies; policies at WIC had, in the past, resulted in higher rewards in the form of food and formula for mothers who combination fed.

This data led to the development of a campaign *promise* that suggested : If, as is the Navajo tradition, I only feed my baby through breastfeeding for one month or more instead of one week, I will give my happy baby the best start I can.

Based on the formative research, campaign developers believed it was important to create a promotion that reframed currently held beliefs that : 1) traditional beliefs encouraged breastfeeding, 2) "expert" opinions were responsible for increased formula use ; and, 3) breastfeeding was too difficult for working mothers. The campaign promotion featured advice grounded in Navajo traditions, experts expressing favorable opinions with regards to breastfeeding, and images suggesting that breastfeeding was not too difficult for working mothers, e.g., one billboard featured a calm mother breastfeeding a happy baby alongside a harried mother who heated a bottle to the wailing of an unhappy infant. A three-day conference was held for physicians, nurses, local health care workers, and WIC staff to involve them in the development of new policies and educational strategies to support the initiative, e.g., WIC provided campaign incentives in the form of infant T-shirts given to mothers who did not use formula during their infant's first 6 weeks of life.

*Support* used for this campaign included the recognized support of the tribal Foster Grandparent program ; additionally, the strong support from the local health community, i.e., physicians, nurses, WIC employees, etc., robustly supported campaign viability.

The campaign execution was delivered via promotional

materials tailored to the culture, e.g., brochures designed at approximately a 6<sup>th</sup> grade reading level, foster grandmothers recruited at hospitals to talk to new mothers, artwork by local artists used on billboards, shirts, etc. It, again, portrayed breastfeeding as traditional, supported by local experts, and “doable,” even for those returning to work or school.

*Apertures* at the community level included : billboards, a booth at a local fair, literature distribution via multiple venues, radio messages, and a 3-segment video tape that was distributed to the target audience. A task force assisted health care facilities in the development of new policies and procedures to enhance breastfeeding education and support efforts. This led to hospitals, health clinics and WIC becoming key apertures for campaign message delivery. When new efforts were initiated at WIC, informal process evaluations, in the form of staff sharing, resulted in the incorporation of new ways to enhance their results.

Outcome evaluation showed both an increase in breastfeeding initiation and duration. Breastfeeding initiation rose from 64.2% to 77.8%, and the mean number of days at which infants began receiving formula increased from 11.7 days to 48.5 days. This campaign, which took into account all aspects necessary for the development of optimal campaign implementation, is one example of strong success regarding a measurable outcome (Wright et al. 1997).

The previous examples featured campaigns done in the United States, but it is important to note that social marketing campaigns are being launched worldwide to improve nutrition-related behaviors. In 1996, due to a high prevalence of vitamin A deficiency, a social marketing campaign was launched in Central Java, Indonesia, for the *purpose* of promoting increased dark-green leafy vegetable and egg consumption. The *target audience* was comprised of mothers, and infants less than two years of age. The project was supported financially by UNICEF Indonesia. Data collected quarterly from December 1995 through January 1997, via a nutritional surveillance system, tracked campaign success. The questionnaire collected general information, e.g., education, income, possession of a home garden, livestock owned, etc., data regarding knowledge about vitamin A, anthropometric data, biochemical data, and vitamin A consumption data. The campaign slogan was : “One egg and a bowl of vegetables are healthy foods for every day : they will make under-fives healthy and clever and stimulate breast milk production.” Therefore, the

*promise* was : if my children under age five and I eat one egg and a bowl of green, leafy vegetables each day instead of relying on high-dose vitamin A capsules to meet our needs, my children will be healthy and clever and my breast milk will be ample. Banners, billboards, posters, radio, and individual contact by friends or healthcare workers were strategies used to promote the message to the audience, or the apertures used. Healthcare workers and friends comprised the support used for campaign viability. The campaign image, or *execution*, was one of simplicity, i.e., simply eat a bowl of green, leafy vegetables and an egg each day. This action was “doable.” The paper used to summarize this campaign did not note the use of formative or process research to support campaign development and implementation; however, in consideration of the limited time frame, it is likely that these assessments were not completed. Despite the potential absence of these assessments, impact data indicated statistically significant increases in egg and vegetable consumption and blood retinal vitamin A status. Campaign implementers determined that improved vitamin A status was primarily due to increased egg consumption, and concluded that the social marketing campaign was a success (de Pee et al. 1998).

## 6. Benefits and drawbacks to using social marketing campaigns

As is the case with any educational approach, there are both benefits and drawbacks to using social marketing campaigns and techniques to deliver nutrition education. As is evidenced above, communications are consumer-driven and empowering since they are developed “using a problem solving process from which behavior-change strategies are formulated and translated into discrete and integrated tactics aimed at specific behavior change” (Lefebvre et al. 1995). As such, communications are relevant and messages developed are likely to be effective since they are highly dependent on the target, rather than “experts.” Those who favor social marketing believe that teaching “information is necessary, but not sufficient to bring about and sustain desired behavior changes” (Lefebvre et al. 1995). Social marketing includes aspects of the Health Belief Model, Social Learning Theory, and the Diffusion of Innovations that predict enhanced outcomes as a result of campaign implementation. Social marketing approaches generally bring all applicable community agencies and

communication venues into action, and thus build community support for behavior change, as well as a force that can be applied to message reinforcement and sustainability (Rudd et al. 1999). This community support results in one of the primary advantages of this educational model, i.e., the dissemination of a consistent message with repeated exposures via a variety of venues to a large number pertinent, of people.

The primary drawbacks to the use of social marketing techniques are primarily philosophical and financial in nature. Philosophically, some believe that social marketing is not empowering, since it does not include, as a goal, teaching learners : to think, to become responsible for their nutrition decisions, or, to be able to transfer knowledge to other situations. It promotes a specific behavior change, as opposed to focusing on consumer understanding. The approach has been called, "narrow and reductionist because it places the burden for resolving health problems solely on individuals, through personal behavior change" (Heede et al. 1995). This draws attention to another philosophical drawback, i.e., weighting education heavily on a single behavior, rather than using on a whole-diet approach. Budgetary constraints are often a drawback to social marketing campaigns. Social marketers must usually rely on small budgets to achieve their goals (Alcalay, Bell 2000). In the absence of strong financial support, a great deal of professional and volunteer assistance is needed to ensure a successful campaign. With traditional marketing for tangible products, there is a cycle of sale of product, investing in more marketing, and selling more product ; in the case of social marketing, healthful behavior change may ultimately generate cost savings for the healthcare system, but additional funding, beyond start-up is rarely supplied. Finally, even large-scale, well-funded campaigns that have evaluated massive population-wide change in dietary behavior have reported only marginal success. This is the expectation of this approach, which favors smaller changes over a larger population over the type of change that is frequently observed in other types of educational ventures, i.e., larger changes in smaller populations.

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## Conclusions

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Social marketing has become an increasingly popular approach for nutrition education delivery. The techniques

embodied by this educational paradigm are applicable not only to large-scale campaigns, but to smaller, lesser-funded interventions as well. Regardless of the campaign or intervention size, budget, or timeline ; successful message development, implementation, and assessment requires the expertise of nutrition education practitioners and researchers, and may be enhanced by multi-disciplinary participation. Social marketing provides a unique opportunity for partnership, both within professional and academic communities, as well as the community at large. Successful ventures can be implemented using a variety of approaches that push the nutrition education profession forward in terms of our ability to : understand consumer behavior, use an array of educational venues, negotiate new partnerships, apply diverse research methodologies, and gain insights regarding effective means for eliciting behavior change.

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