

# RECOMMENDED ADOLESCENT HEALTH CARE UTILIZATION: HOW SOCIAL MARKETING CAN HELP

NIHCM FOUNDATION ISSUE BRIEF  
MARCH 2009



NIHCM  
FOUNDATION

## INTRODUCTION

An annual clinical preventive services visit (also known as an adolescent well-care visit) is recommended for all adolescents, and health plans are assessed on their adherence to this recommendation via the Healthcare Effectiveness Data and Information Set (HEDIS) each year. Despite the importance of these visits, however, fewer than half of adolescents receive their recommended annual visit according to HEDIS.<sup>1</sup> This underutilization of services yields missed opportunities for prevention, early detection, and treatment; therefore increasing routine adolescent utilization is an important health care objective. Social marketing, the use of commercial marketing strategies to promote socially beneficial ideas, attitudes and behaviors, can contribute to achieving this objective by using proven techniques to promote adolescent use of health care services.<sup>2</sup>

Social marketing began as a discipline in the 1970s and differs from commercial marketing mainly with respect to the objectives of the marketer and his or her organization. Kotler and Andreasen explain that "social marketing seeks to influence social behaviors not to benefit the marketer, but to benefit the target audience and the general society."<sup>3</sup> In the health arena, social marketing attempts to increase healthy behaviors in a population. Andreasen refers to social marketing as it relates to the health sector as "the application of proven concepts and techniques drawn from the commercial sector to promote changes in diverse socially important behaviors such as drug use, smoking, sexual behavior." He further concludes, "this marketing approach has an immense potential to affect major social problems if we can only learn how to harness its power."<sup>4</sup>

The aim of this paper is to examine ways in which social marketing can help to promote adolescent use of recommended health care services. In this issue brief we explore the following topics:

- Application of Social Marketing Theory and Techniques to Health Care;
- Social Marketing to Change Adolescent Behavior;
- Examples of Successful Social Marketing Campaigns for Adolescents; and
- Social Marketing Challenges and Opportunities to Promote Adolescent Health Care Utilization.

## APPLICATION OF SOCIAL MARKETING THEORY AND TECHNIQUES TO HEALTH CARE

### Social Marketing Wheel: A Framework for Social Marketing

The basic elements or stages of social marketing can be summarized in Figure 1, which represents the "Social Marketing Wheel" concept and is excerpted from the U.S. National Cancer Institute's (NCI) influential "Pink Book" for health communication planning.<sup>5</sup> There are 6 basic stages:

1. Planning and strategy development using behavioral theory;
2. Selecting communication channels and materials based on behavior change objectives and knowledge of the target audience (e.g., using extant data on consumer health status or behavior);
3. Developing and pretesting of materials, typically using qualitative methods (e.g., focus group testing of potential health messages);

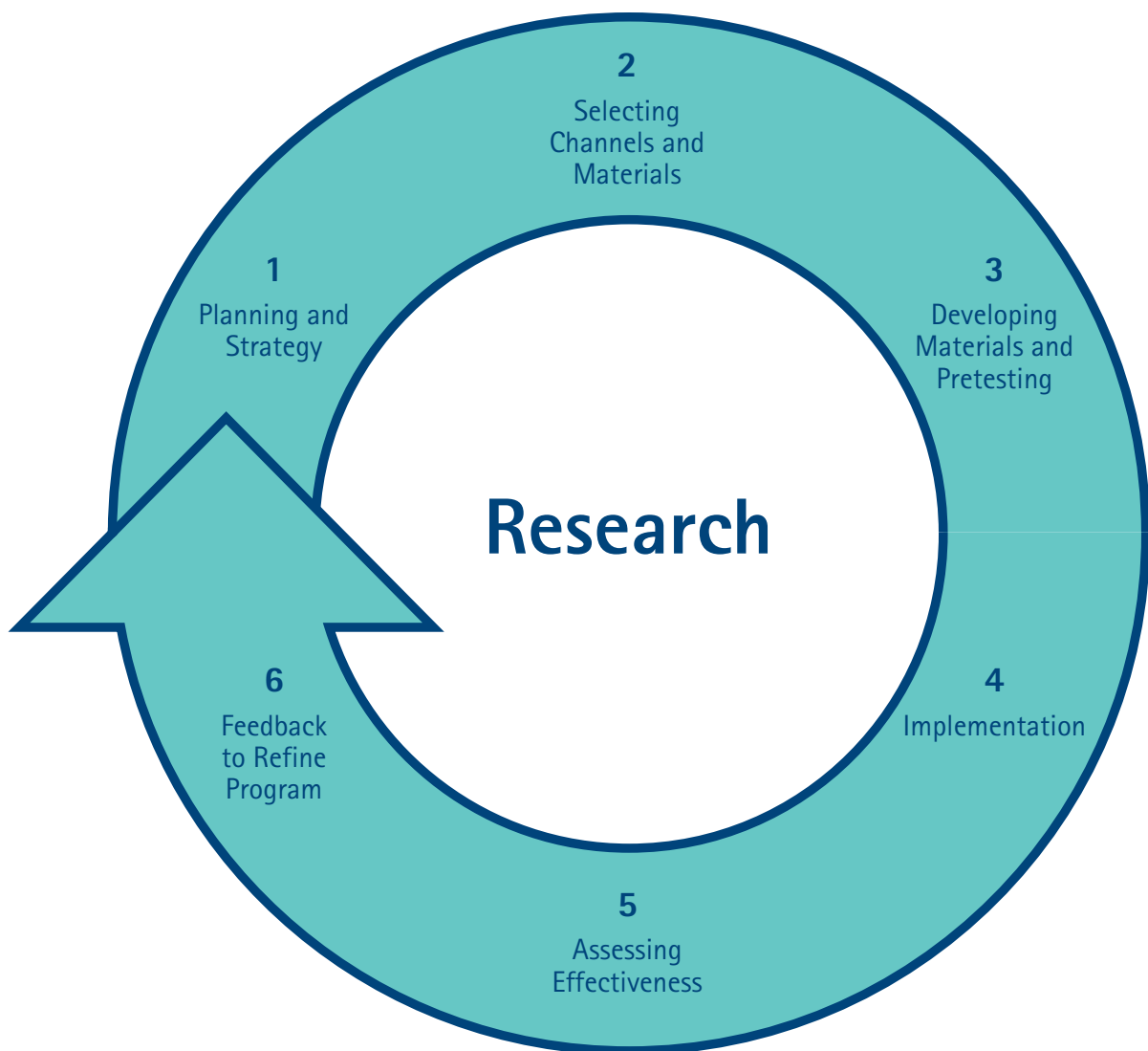
4. Implementing the communication program or "campaign" (e.g., a mass media campaign, or a planned program of one-on-one communication about preventive behavior by a health care practitioner);
5. Assessing effectiveness in terms of audience exposure, awareness, reactions to messages and behavioral outcomes (e.g., evaluation research on extent of improved diet or continued non-smoking status); and

6. Refining the materials for future communications.

The stages constitute a circular process in which the last stage feeds back into the first to create a continuous loop of planning, implementation and improvement.

Concepts underlying the "Social Marketing Wheel" offer opportunities to health plans, health care practitioners and consumers. For example, health care providers have substantial information about their

FIGURE 1: SOCIAL MARKETING WHEEL



Source: National Cancer Institute (NCI). *Making Health Communication Programs Work: A Planner's Guide*. Bethesda, MD:NCI, 2002.

patients (Step 2, target audience knowledge), have the ability to deliver messages such as improved diet or smoking cessation that are specific to patients' needs (Step 4, implementation), and can assess outcomes of message delivery in subsequent visits (Step 5, assessing effectiveness). Moreover, these steps can be followed in concert with existing population-level social marketing campaigns. For example, the Centers for Disease Control and Prevention's (CDC) VERB: It's What You Do campaign has heightened awareness and interest in physical activity and afforded pediatricians the opportunity to counsel pre-adolescents and adolescents to increase physical activity.<sup>6</sup> The VERB campaign is discussed in greater detail later in this brief.

## Audience Segmentation

One of the key decisions in social marketing that guides most health communication planning is whether to deliver messages to a general audience or to "segment" into target audiences. Audience segmentation is generally based on socio-demographic, cultural, or behavioral characteristics that may be associated with intended behavior change. For example, the NCI's "5-A-Day for Better Health" campaign developed specific messages aimed at Hispanic consumers, recognizing that national data suggest they consume fewer fruits and vegetables than other groups and may have cultural norms about cooking and nutrition that tend to discourage consuming locally available produce.<sup>7</sup>

The broadest approach to audience segmentation includes both group-targeted messages and "personalized" messages. In targeted communications messages are prepared using information about population groups. For example, commercial marketers aim messages at specific customer profiles (e.g., upper middle income women with children living in suburban locations). "Personalized" materials use a person's name to draw attention to a generic message (as used in marketing by mass mail).

## Messages Tailored to Individuals

Kreuter and colleagues (2000) define tailored health communications as "any combination of information

and behavior change strategies intended to reach one specific person, based on characteristics that are unique to that person, related to the outcome of interest, and derived from an individual assessment."<sup>8</sup> Because they address very specific cognitive and behavioral patterns as well as individual demographic characteristics, tailored materials are more precise than targeted ones but are, by nature, more limited in population reach and more expensive to develop and implement.<sup>9</sup>

Over the last 10 to 15 years, "tailored health communications" has emerged as a widely used approach to addressing public health issues. Tailored communications use individual-level data (e.g., about an individual's lifestyle, where they live, what they buy, health behaviors) to develop messages and materials aimed specifically at the individual. This approach derives from commercial marketing practices utilizing product purchase and other market research data that can specify likely consumer reaction to product or service promotions. Tailoring allows marketers to generate customized messages that are aligned with individuals' needs and interests. In the following sections, we discuss some examples of tailored marketing to adolescents, such as use of text messaging in the CDC's VERB campaign, and how it can potentially be applied to promote adolescents' use of recommended health care.

## Branding and Social Modeling

Public health branding is the application of commercial branding strategies to promote health behavior change.<sup>10</sup> Public health brands use well-known techniques such as modeling socially desirable behaviors (i.e., being socially accepted by not smoking) and imagery (e.g., being hip or cool by exercising) to encourage emulation of healthy behaviors. Social modeling plays a central role in social learning and social cognition, or the formation of knowledge, attitudes, and beliefs.<sup>11</sup> Social models embody the ideals promised by an advertisement or larger marketing campaign. Social images are perceptions about what is typical of a behavior, or socially desirable, and of the attributes of those who engage in a behavior (e.g., BMW drivers may be perceived as more affluent, sporty or sexy).<sup>12</sup> One of the main uses of imagery in

brand marketing is to create the external ideal (e.g., a figure, image or symbol that embodies socially desirable, idealized characteristics). The individual aspires to close the gap between his or her own self-image and the idealized external image. For example, the Marlboro Man provided an appealing social model for the Marlboro cigarette's target audience. Branding strategies have also been used effectively to promote adoption of health behaviors among adolescents, such as condom use, where the "product" is a lifestyle or set of behavioral choices rather than a physical product or service.<sup>13</sup>

### **Evidence about the Efficacy of Social Marketing to Change Health Behaviors**

There is substantial evidence that social marketing is effective in changing health behaviors on a population level. Evidence from mass communication indicates that social marketing has been effective in changing health behavior and behavioral mediators, though often with small effect sizes.<sup>14</sup>

In a study of 48 U.S. social marketing campaigns based on mass media, Snyder and Hamilton found that the average campaign accounted for about 9 percent of the variation in health risk behavior outcomes (i.e., decrease in risk behaviors like smoking and increases in health promoting behaviors like condom use), but with heterogeneous results.<sup>15</sup> The subset of "non-coercive" campaigns (i.e., the subset of the 48 simply delivering health information, as opposed to campaigns that attempted to persuade and advocate a behavior), accounted for about 5 percent of observed variation (i.e., 5 percent behavior change among campaigns in the subset, as compared to 9 percent for all 48 campaigns reviewed).

Additionally, some studies have shown that single or occasional behaviors can be easier to promote than behavior requiring repetition and maintenance over time.<sup>16,17</sup> Campaigns promoting behaviors that simply require adoption (i.e., making a choice that does not require additional decision making or action) such as switching to 1% milk have shown greater effect sizes than those observed on average for all social marketing campaigns.<sup>18</sup>

## **SOCIAL MARKETING TO CHANGE ADOLESCENT BEHAVIOR**

### **Audience Segmentation: Focus on Adolescents**

Adolescents are an important audience for social marketing in the health care arena. Due to both social and physical developmental processes, adolescence is a time when risky health behaviors first develop.<sup>19</sup> Adolescents experience tremendous social influences due to media and marketing exposure that can promote health risk behavior.<sup>20</sup> Social marketing has a unique opportunity to counter these influences and promote healthy behaviors and use of health care, especially since youth in adolescence are more likely to have health insurance than in young adulthood.<sup>21</sup> Prevention of risk behaviors and the development of healthy habits, including normalizing health care utilization, are best accomplished during the "tween" (9–12 year old) and adolescent (12–18 year old) period. The distinction between "tween" and older adolescents is important for social marketing because of social and physical developmental differences, and distinctions in terms of social influence from family, peers and media.<sup>22</sup> Parents can serve to reinforce social marketing for health care utilization, more so among "twens" and younger adolescents, since adolescence is typically a time of decreasing parental influence.<sup>23</sup> Adolescents are increasingly less subject to parental influence and more subject to peer and media influence.<sup>24</sup>

### **Branding and Social Modeling to Change Adolescent Behavior**

The social environment, especially the influence of parents among pre-adolescent children, and peers among older adolescents, is a powerful influence on health behavior that can be utilized in social marketing. The associations teens form among their immediate social environment, social images, and exposure to media and marketing can explain adoption of health behaviors.<sup>25</sup> For example, tobacco brand marketing portrays smokers as cool, popular, and being blessed with many friends.<sup>26</sup> Moreover, because adolescents typically value these traits, they may be likely to at least experiment with smoking.<sup>27</sup>

One key insight from social marketing to adolescents is that providing positive social models and appealing imagery is typically more effective than negative (“don’t do *this* behavior”) messages.<sup>28, 29</sup> One reason behind this finding may be adolescents’ need to establish personal independence and control, which leads them to react positively to peers who appear popular or are engaging in independent behavior.<sup>30</sup> Similarly, adolescents have a need to rebel against external restrictions on their independence and self-control, potentially leading to opposing reactions to negative – “don’t do it” – messages.<sup>31</sup> The importance of positive messaging to adolescents is further enforced by the concept of positive youth development (PYD), which supports programming for youth that encompass the following goals:<sup>32</sup>

- Promoting positive relationships with peers,
- Emphasizing youths’ strengths,
- Providing opportunities to learn healthy behaviors,
- Connecting youth with caring adults,
- Empowering youth to assume leadership roles in programs, and
- Challenging youth in ways that build their competence.

Social marketing should incorporate these goals into messages and images, encouraging healthy behavior choices during this critical time period, in order to support the positive development of youth into healthy adults.

In the recent years, many social marketing campaigns have applied the above referenced principles to encourage adoption of health behaviors and avoidance of risk behaviors among adolescents. Table 1 summarizes some recent campaigns. We discuss several of these campaigns as case studies in the next section.

## EXAMPLES OF SUCCESSFUL SOCIAL MARKETING CAMPAIGNS FOR ADOLESCENTS

### The *truth* campaign

In February 2000, the American Legacy Foundation (Legacy) launched the national *truth* tobacco countermarketing campaign, the largest social-marketing effort to prevent and control youth smoking ever undertaken in the United States. In its first year, *truth* had a budget of more than \$100 million and aired tobacco prevention advertising spots in major metropolitan “demographic market areas” (DMAs) across the country. An effort of that scale requires substantial planning and development.

The *truth* campaign was based on the Florida TRUTH campaign, which reduced rates of youth tobacco use in Florida.<sup>33</sup> The intellectual roots of both the Florida TRUTH campaign (which ended in 2004 due to lack of funding) and Legacy’s national *truth* campaign are in the work of a panel of youth marketing experts convened in 1996 by the Columbia School of Public Health and funded by the Centers for Disease Control and Prevention (CDC).<sup>34, 35</sup> The Columbia panel identified three critical elements for a successful youth tobacco prevention media campaign. First, noting adolescents’ extreme brand-consciousness and the pervasiveness of tobacco brands, it called for the creation of a teen-focused nonsmoking, or “countermarketing,” brand. Second, it recognized that a teen-focused campaign must talk to adolescents in their own voice rather than talking down to them. Third, the panel recommended that the counter-brand highlight the actions of the tobacco industry in marketing cigarettes, including its failures to be truthful about cigarettes’ addictiveness and health effects.<sup>36</sup> These recommendations became key elements of Legacy’s national *truth* campaign.

The primary objectives of the *truth* campaign were to (1) expose youth to *truth* messages and promote positive reactions to those messages, (2) change attitudes and beliefs toward tobacco use and the tobacco industry, and (3) reduce tobacco use among youth. These three objectives formed the road map for an evaluation plan that first aimed to develop measures of youth exposure to the campaign; then to assess the relationship between campaign exposure and related knowledge, attitudes and

TABLE 1. SUMMARY OF RECENT MAJOR SOCIAL MARKETING CAMPAIGNS FOR ADOLESCENTS

Campaign	Topic Area	Research Design	Location	Target Audience
<i>Jalan Sesama</i>	Educational entertainment	None	Indonesia	Pre-adolescents & adolescents
<i>Sisimpur</i>	Educational entertainment	None	Bangladesh	Pre-adolescents & adolescents
Know HIV/AIDS	HIV/AIDS awareness & prevention	Observational	U.S.	Adolescents & young adults
<i>loveLife</i>	HIV/AIDS awareness & prevention	Observational	South Africa	Adolescents & young adults
<i>Salama</i>	HIV/AIDS awareness & prevention	Observational	Tanzania	Adolescents & young adults
<i>Trust</i>	HIV/AIDS awareness & prevention	Observational	Kenya	Adolescents & young adults
VERB: It's What You Do	Physical activity promotion	Quasi-experimental	U.S.	Pre-adolescents & adolescents
Parents Speak Up National Campaign	Reproductive health	Experimental	U.S.	Parents & adolescents
Florida TRUTH	Tobacco countermarketing	Quasi-experimental	Florida	Adolescents & young adults
Massachusetts anti-tobacco campaign	Tobacco countermarketing	Quasi-experimental	Massachusetts	Adolescents (prevention) & young adults (cessation)
Stand	Tobacco countermarketing	Quasi-experimental	Ohio	Adolescents & young adults
<i>truth</i> campaign	Tobacco countermarketing	Quasi-experimental	U.S.	Adolescents & young adults

beliefs; and finally to assess whether the campaign was associated with reduced youth smoking prevalence.

There have been several published studies demonstrating the effectiveness of *truth* in achieving these three objectives.<sup>37, 38, 39</sup> For example, Farrelly and colleagues found that from 2000–2002 U.S. adolescent smoking prevalence declined from 25.3 percent to 18.0 percent and that *truth* accounted for approximately 22 percent of that decline.<sup>40</sup> This study demonstrated that the campaign had a large and statistically significant impact on adolescent smoking, above and beyond an independent secular trend of declining smoking among this population. It also showed that while, as noted earlier, most social marketing

campaigns have modest effect sizes by clinical standards, some campaigns can achieve relatively large effects. The campaign-attributable decline in smoking prevalence represents some 300,000 fewer adolescent smokers during the study period.<sup>41</sup>

Evans and colleagues found that adolescents had positive reactions to the *truth* advertising and to the branded messages.<sup>42</sup> This study demonstrated that the *truth* brand mediated campaign effects on youth smoking. The *truth* campaign reduced adolescent smoking by building adolescent identification with the *truth* brand, which then contributed to behavior change – preventing smoking initiation among adolescents.

## ***Trust, Salama, and loveLife* campaigns**

Three branded HIV/AIDS prevention social marketing campaigns that illustrate strategies for reaching adolescents and young adults have recently been conducted in Africa: *Trust* in Kenya, *Salama* in Tanzania, and *loveLife* in South Africa.<sup>43</sup> *Trust*, conducted by the U.S.-based Population Services International (PSI), promoted the social desirability of condom use to make using a condom seem cool. Special events such as concerts were part of the campaign. *Salama*, also developed by PSI, targeted high-risk groups including young people aged fifteen to twenty-four and also operated on the principle that young people are open to behavior change communication messages. *Salama* relied heavily on community outreach such as concerts, cultural shows, Mobile Video Units, and sport tournaments.

The *loveLife* campaign was the most comprehensive of the three. It aimed to reduce by half the rate of HIV infection among 15- to 20-year-olds, as well as to reduce other sexually transmitted diseases and the incidence of teenage pregnancy. It promoted a lifestyle choice valuing abstinence, delayed initiation of sexual activity, fewer sexual partners among already sexually active teenagers, and condom use. It was supported by nationwide adolescent-centered reproductive health services in government clinics and a network of youth outreach and support.

Studies show that each of the campaigns increased adolescent and young adult awareness of these HIV/AIDS prevention brands – *Trust*, *Salama*, and *loveLife*, and also increased awareness of HIV/AIDS health risks and intentions to use condoms.<sup>44, 45, 46</sup> Effects of the campaigns included delayed onset of sexual activity and increased condom use among those with repeated exposure to these brands. No comparable interventions, however, have been conducted in the United States.

## **VERB: It's What You Do campaign**

The Centers for Disease Control and Prevention (CDC) turned to commercial marketing to design and implement VERB™ It's what you do, a communication campaign based on social marketing principles that promoted the benefits of daily physical activity to children aged 9–13

years (tweens).<sup>47</sup> Launched in June 2002, VERB initially had an annual budget of \$125 million. CDC chose to focus the campaign on physical activity because of the substantial evidence for the physical and psychological benefits to children of being physically active, and because of concern for the growing appeal to children of screen-dominated sedentary pursuits.<sup>48, 49, 50, 51</sup>

The creative team hired by CDC to design the campaign advised unequivocally to build the campaign messages and the advertising around a brand. The plan that they produced for the campaign followed the road map that they used for brands, such as McDonald's, Verizon, and Nickelodeon, including extensive formative (qualitative) research with tweens to inform the development of the brand, the testing of all advertisements and promotions, the continuous gauging of the brand's performance, and refreshing the brand in response to feedback.<sup>52</sup>

Throughout the campaign, all aspects of the advertising and promotional materials, the products for schools and communities, and the Internet were affixed with the VERB logo. The brand emerged from the combination of the VERB logo and the images, colors, text, and emotions that the advertising was eliciting. The advertising was essential to build understanding about what the brand meant, but eventually the brand took on the intended meanings of a bundle of benefits of being physically active—doing something that was fun, cool, and an opportunity to be with friends.<sup>53</sup>

The VERB advertising and promotions reached tweens in their homes, in school, and in their communities. The primary vehicle was paid advertising in the general market and in ethnic media channels. The VERB commercials aired on TV and on radio channels that were popular with children and print advertising was placed in dozens of youth publications. A website, VERBnow, was created where children could get ideas about active games, watch tutorials from sports celebrities, and record their physical activity that made them eligible to win prizes for being active.<sup>54</sup>

VERB also reached kids in school through advertising shown on Channel One in thousands of middle school classrooms and through classroom-based activity kits that included instructions, posters, rewards, and activity incentives such as pedometers. Beginning in 2003,

1,500 schools across the United States participated in the school promotions during each semester. In addition, book covers, day planners, and customized lesson plans that incorporated physical activities were sent to schools across the country.<sup>55</sup>

VERB reached children in their communities through activity-promotional kits sent to recreational centers, camps and day care centers. Community-based events (e.g., cultural festivals, powwows, and fairs) and guerrilla marketing (e.g., using college-aged young adults to engage tweens in being physically active at events and tween hangouts) spread the awareness of VERB.<sup>56</sup>

Marketing activities evolved with changes in the tweens' media uses as the campaign progressed.<sup>57</sup> For example, in Summer 2005 "Cell phone 8372" was the focus of commercials about a cell phone that magically becomes active and leads its owner to the park to play. The numbers 8372 spell VERB on a phone keypad and the call to action in the ads was for the tweens to go to the 8372 website to find places in their community to be active and to sign up to receive text messages prompting them to be active. Techniques like this were used to keep the VERB brand fresh and relevant for tweens.

The evaluation of VERB had two main components: 1) a panel study of 3,120 baseline parents and their children to evaluate outcomes of campaign exposure on physical activity behaviors and behavioral precursors (knowledge, attitudes, beliefs and intentions); 2) an ongoing media tracking study to assess exposure and reactions to the campaign. Huhman and colleagues found that campaign exposure was associated with more median weekly sessions of free-time physical activity among children 9–10 years of age, girls, children whose parents had less than a high school education, children from urban areas that were densely populated, and children who had low levels of activity at baseline.<sup>58</sup> Also, as these same children became more aware of VERB, they engaged in more freetime physical activity sessions. The average 9- to 10-year old youth who were aware of VERB engaged in 34 percent more free-time physical activity sessions per week than did 9- to 10-year-old youths who were unaware of the campaign.<sup>59</sup>

The *truth* and VERB campaigns provide several valuable lessons about social marketing, and specifically about

the effectiveness of media campaigns to influence adolescent health behavior. First, targeted messages aimed at a particular subgroup, such as messages specific to tweens or to adolescents, can be highly effective. Targeted and tailored messaging is the norm in commercial marketing, and these large and successful campaigns demonstrate that such techniques work well in social marketing. Second, they illustrate the power of branded messages that convey positive behavioral alternatives for young people. Both campaigns used a branding strategy and built youth associations around the positive behavioral messages that embodied the brand. Finally, the campaigns advanced the state of evaluation methodology in social marketing and point the way to future rigorous evaluations of campaigns in other subject areas such as health care utilization.

### **SOCIAL MARKETING CHALLENGES AND OPPORTUNITIES TO PROMOTE ADOLESCENT HEALTH CARE UTILIZATION**

#### **Barriers to Adolescent Health Care Utilization**

Increasing routine adolescent utilization of health visits is an important objective, and social marketing can contribute to achieving this goal by lowering perceived barriers and promoting benefits of health care to adolescents and parents. There are three major factors affecting adolescents' use of recommended health care services that social marketing can potentially address: 1) access to care, 2) social and developmental factors, and 3) motivation to seek care.

Health care utilization varies among adolescent subgroups due to factors that affect their overall access to care. Insurance coverage is a large predictor of access to care, and close to 90 percent of adolescents ages 12–17 were insured anytime in the past year in 2005. Yet disparities in access to care and insurance still exist. While over 92 percent of white adolescents were covered by health insurance in 2006, only 75 percent of Hispanic adolescents were covered. Hispanic adolescents also had the lowest rate of past-year visits at a doctor's office among their same age peers in other racial/ethnic groups in 2005. Adolescents in low-income families



were less likely to have health insurance coverage than those with higher family incomes in 2005, and despite expansions of the Medicaid program and the State Children's Health Insurance Program (SCHIP) to provide more coverage for low-income adolescents, they are still less likely to receive health care services even when enrolled in public coverage.<sup>60</sup> While enrollment in health insurance is critical, there are additional non-financial barriers to care faced by adolescents, such as awareness of the need for health care, transportation, language, and other logistical barriers that must also be addressed to increase utilization.

A second key determinant of health care utilization is the social and developmental differences among adolescents, particularly by age and gender. Younger male adolescents (ages 11–15) make health care visits in relatively equal proportions to female peers, but visits by older male adolescents (ages 16–20) are significantly lower.<sup>61</sup> Male adolescent visits were lower than females at all adolescent-specific health care locations, with school-based clinics seeing the highest proportion of males. The patterns may reflect social and developmental differences, as well as differences in parental promotion of utilization and adolescent females' need for reproductive health services.<sup>62</sup>

Adolescent motivation to seek care is a third key barrier to utilization; primary motivational barriers include concerns about confidentiality and embarrassment discussing certain health topics. Adolescents cite concerns about privacy as one of their reasons for forgoing or delaying health care. Reddy and colleagues found that 59 percent of the adolescent females in their study indicated they would stop using all sexual health care services, delay testing or treatment for HIV or other STDs, or discontinue use of specific sexual health care services if their parents were informed that they were seeking prescribed contraceptives.<sup>63</sup> Ackard and colleagues found that while adolescents cited health care providers as the first person with whom they would consider discussing health risks and risk behaviors (boys 24% and girls 18%, among youth from 5th to 12th grades), only a small fraction actually reported talking to their providers about topics such as smoking and sexually transmitted diseases; the remaining adolescents frequently cited embarrassment as the reason for not talking to their providers.<sup>64</sup> Motivation

to seek care can also vary depending on the health topic. Marcell and colleagues found that adolescents consistently reported the belief that seeking care for topics such as smoking, sexual health and pneumonia was important, but differed markedly in whether they would turn to doctors, parents, friends or others for help with these issues.<sup>65</sup>

Overall, the evidence suggests that financial factors such as income and insurance coverage are important barriers to adolescent health care utilization. Yet there are also major non-financial barriers in terms of attitudes, beliefs, motivations and social barriers to utilization that can be readily addressed through social marketing strategies.

## Social Marketing Strategies to Promote Adolescent Health Care Utilization

Social marketing has been successful at changing a wide range of health behaviors, especially in the domains of tobacco use, nutrition and physical activity, and HIV/AIDS, but social marketers typically have much smaller budgets than commercial marketers and are generally "on air" only for limited periods of time. As a result, exposure is generally lower, and this has been shown to reduce the effects of social marketing messages.<sup>66</sup> Because social marketers can rarely maintain public exposure to health messages at high levels, they operate at a significant disadvantage when it comes to sustaining long-term behavior change, especially with populations such as adolescents who have many competing media, marketing, and social influences from well-funded marketers (e.g., junk and fast food industries).<sup>67</sup> How can social marketing succeed with adolescents in the long run given this comparative disadvantage?

The answer to date has been threefold:

1. Develop more socially powerful and persuasive competing messages;
2. Use multiple channels and new trends in technology including traditional and new media (e.g., the Internet, handheld devices), community outreach, and mobilization and develop social movements; and

3. Focus on social and health policies that affect individual behavior and behavioral determinants.

Tobacco countermarketing campaigns like *truth*, for example, have developed innovative public health brands and created messages based on an adolescent "consumer" orientation.<sup>68, 69</sup> At the same time, *truth* engaged communities and advocated for state and national tobacco policy changes, such as clean indoor air laws and cigarette tax increases.<sup>70</sup> The latter reflects the important role of social marketing in affecting policy makers through the media to frame public debate in support of enacting health policies.<sup>71</sup> By promoting policy change, social marketing can exert upstream environmental influence as well as downstream individual level influences on health behavior.<sup>72</sup>

The VERB campaign offers an important lesson in how to utilize new media technology, including mobile phones, text messaging and other media (e.g., TV advertisements) to promote a health brand and encourage behavior change. These represent efforts to tailor communications to adolescent lifestyles and health behaviors utilizing new media. The "cell phone 8372" campaign within VERB is a good example of how to maintain a cutting-edge consumer orientation, build brand awareness, and keep the audience engaged with the brand.<sup>73</sup> This strategy combines several of the effective social marketing strategies discussed earlier and may provide a model for promoting adolescent health care service utilization.

### Key Challenges and Opportunities to Promote Adolescent Health Care Utilization

Given the overall landscape in which social marketing operates, what are the specific communication and marketing challenges and opportunities to reach adolescents and persuade them to utilize recommended health care services? There appear to be three major challenges:

- *Competing adolescent attitudes, beliefs and behaviors (lack of motivation).* Adolescents are busy, have many attitudes and beliefs competing with health care utilization (e.g., feeling of invincibility reinforced by life experience), and have not developed a habit of seeking

health care. As they move into the teenage years, peers and social influences become primary behavioral motivations.<sup>74, 75</sup> Family and friends generally do not reinforce the importance of health care when the adolescent is healthy. There are few strong motivations in adolescents' daily lives to seek health care.

- *Media and social influences.* The media reinforce adolescents' feelings of invincibility. In mass media and advertising, adolescents are typically depicted as having fun, being social, healthy and vital.<sup>76</sup> This common depiction may be at odds with adolescents believing that they need health care. They are also inundated with messages about other things they could be doing with their time. Media messages rarely contain cues to seek health care.
- *Developmental factors.* Adolescents are in the process of maturing, and cognitive processes do not necessarily support choosing long-term preventive behaviors over other, more immediately gratifying behaviors.<sup>77, 78, 79, 80, 81</sup> Risk perception and communication skills are also typically insufficient.

Despite some significant challenges, which are in many ways deeply ingrained in adolescents' lifestyles and social environment, there are substantial opportunities and available strategies for government agencies, health care professionals and health plans to promote adolescents' use of recommended health care:

- *Providing behavioral alternatives.* Providing appealing alternatives to risk behaviors has been effective in major campaigns such as *truth* and VERB.<sup>82, 83</sup> Health plans could include messages that make an annual visit a desirable choice, something that every adolescent wants to do, in the materials sent to their members. In other words, make it a social norm that is reinforced through social modeling, as successful campaigns discussed earlier have done.
- *Social modeling and imagery.* To promote recommended services as a desirable alternative behavior, health plans could develop advertising and other imagery that depicts peer leaders (kids you want to be like) seeking health care. Health plans could also tie the behavior into other desirable goods (e.g., sports and exercise, fitness). Successful

campaigns have used social modeling to build positive associations with lifestyle choices, and this can be done with health care behavior as well.

- *Branded health behaviors and lifestyles.* Public health branding is an effective and growing strategy in social marketing.<sup>84</sup> Branding works by treating behaviors like products and by building positive associations with them. Health plans could develop a brand around the benefits of preventive care and personalize it for adolescents.
- *Create social movements.* Brands give a call to action, a message to do something or become (or be more like) something or someone. Like the *truth* campaign's effort to engage adolescents with an anti-tobacco industry movement, government agencies, working in collaboration with providers and plans, could create a social movement around why health care is good for adolescents, now and in the future.<sup>85</sup> Use peer leaders to encourage joining the movement.
- *Use of traditional and new media channels.* Adolescents use a combination of traditional media channels, including TV, radio and print, all of which can be a conduit (i.e., can raise awareness and direct adolescents) to use new Web-based media, and promote social diffusion through texting, blogs and social networking.<sup>86</sup> The "Generation Rx" study by the Kaiser Family Foundation (KFF) found that 90 percent of its 15- to 24-year-old participants had ever been online, and that 75 percent of these "online youth" had sought health information; roughly the same proportion had ever played games or downloaded music online.<sup>87</sup> This rapid growth of new media, such as the Internet, handheld computing devices, and applications such as social networking Websites, presents significant opportunities to reach tweens and adolescents with tailored health and health care messages. There are several major ways that social marketing strategies can use new media to encourage adolescents to seek recommended care:
  - Use Websites, social networking, and other new media such as sending individualized text messages and sharing videos and photos to diffuse messages.

- Create Facebook discussion groups, initiated by peer leaders. To build on messages communicated through advertisements, Websites, and other "direct to consumer" promotion, build social diffusion networks anchored by peer leaders who can attract followers. These peer leaders can serve as symbols of branded messages that promote health care utilization.
- Learn from the few published recent examples of social marketing campaigns using new media:
  - The "5th Guy" avian flu campaign used MySpace to promote health risk awareness and promote diffusion of messages about protective actions people can take;<sup>88</sup>
  - VERB campaign used VERBnow.com to allow tweens to interact and share physical activity ideas;<sup>89</sup>
  - KFF's "It's Your (Sex) Life" campaign used MySpace to share life experience, hopes & fears about sexual activity and HIV/STDs.<sup>90</sup>

To date, there has been relatively little published information on the use of social networking as a social marketing strategy.<sup>91</sup> Table 2 highlights a range of potential strategies that have been used recently and may be applicable to adolescent health care utilization. Given the transferable nature of social marketing principles, many of these strategies have potential to promote health care utilization given a strong message strategy.

## CONCLUSION

Social marketing is a behavior change approach that has proven effective across a wide range of health promotion and disease prevention subject areas. Underlying behavioral and communication theory suggests that social marketing techniques are transferable to other topics and domains, such as promoting use of recommended health care services. Indeed, many of the specific social marketing strategies have proven effective in health promotion fields such as tobacco control, nutrition and physical activity promotion, and HIV/AIDS prevention.<sup>92</sup>

Overall, it is important for health plans and promoters of adolescent utilization of recommended health care to realize the logistical and personal barriers to utilization. Adolescents have busy lives and other priorities. They are generally healthy, and their perceived risk or cost of not utilizing health care is low. Thus, seeking health care is a behavior in competition with other behaviors for which they perceive more net benefit. In other words, from a social marketing perspective, promoters of utilization need to answer some key questions: What are the short-term *and* long-term benefits of utilizing health care? Are their friends doing it? Can it help them achieve their goals of personal independence, control and social status? Developing and marketing strong answers to these questions is the foundation for social marketing in this subject area.

Finally, combining traditional and new media strategies appears promising, given its success in a limited number of other subject areas. Adolescents continue to use traditional media, especially television, and can be reached with health care messages conveyed through channels and programs that target them. New media can be combined both to brand the message through imagery and peer leadership, and to diffuse it through social networks. A multi-channel approach is generally recommended to increase exposure, and especially so for a multi-media audience, such as adolescents. Health plans and other health care professionals can utilize social marketing strategies and take advantage of new media channels to reach adolescents with positive messages that can influence their immediate use of health care services and ultimately impact their life-long health.

**TABLE 2. EXAMPLES OF RECENT ADOLESCENT SOCIAL MARKETING CAMPAIGNS THAT USED NEW MEDIA**

Campaigns	Websites					Social networking		Other new media				
	Information	Download materials	Games/ interaction	Blog/Mlog	Video	Facebook	MySpace	Flicker	YouTube	Wikipedia	Desktop agent	Texting
VERB: It's What You Do (CDC)	X		X	X	X	X	X		X		X	X
It's Your (Sex) Life (KFF)	X	X	X	X	X		X				X	
RE3.org (State of NC)	X			X	X	X	X	X	X	X		
5th Guy (State of FL)	X	X		X	X	X	X		X			
Sustainable Table (Grace)	X	X		X	X	X	X	X	X	X		

## ENDNOTES

- 1 National Committee for Quality Assurance. HEDIS Audit Means, Percentiles and Ratios: 2007. Available at: <http://www.ncqa.org/tabid/334/Default.aspx>; accessed 12/16/08.
- 2 Kotler P and Zaltman G. Social marketing: An approach to planned social change. *Journal of Marketing*, 1971;35:3-12.
- 3 Kotler P and Andreasen A. *Strategic Marketing for Nonprofit Organizations*. New York: Prentice Hall, 1996.
- 4 Andreasen A. *Marketing Social Change*. San Francisco, CA: Jossey-Bass, 1995.
- 5 National Cancer Institute (NCI). *Making Health Communication Programs Work: A Planner's Guide*. Bethesda, MD: NCI, 2002.
- 6 Huhman M, Price S, Potter L. Branding Play for Children: VERB™ It's What You Do. In *Public Health Branding: Applying Marketing for Social Change*, WD Evans and G Hastings (Eds.), London, United Kingdom: Oxford University Press, 2008.
- 7 National Cancer Institute, 2002.
- 8 Kreuter M, Farrell D, Olevitch L and Brennan L. *Tailored Health Messages: Customizing Communication with Computer Technology*. Mahwah, NJ: Lawrence Erlbaum Associates, 2000.
- 9 U.S. Department of Health and Human Services. *Healthy People 2010: Understanding and Improving Health*. 2nd ed. Washington, DC: U.S. Government Printing Office, November 2000.
- 10 Evans WD and Hastings G. Public Health Branding: Recognition, Promise, and Delivery of Healthy Lifestyles. In: Evans WD and Hastings G, eds. *Public Health Branding: Applying Marketing for Social Change*. London, United Kingdom: Oxford University Press, 2008.
- 11 Bandura A. *Social Foundations of Thought and Action: A Social Cognitive Theory*. Englewood Cliffs, NJ: Prentice Hall, 1986.
- 12 Chassin L, Presson CC, Sherman SJ, Corty E and Olshavsky RW. Self-images and cigarette smoking in adolescence. *Personality and Social Psychology Bulletin*, 1981;7:670-676.
- 13 Evans and Hastings, 2008.
- 14 Hornik RC. *Public Health Communication: Evidence for Behavior Change*. Mahwah, NJ: Lawrence Erlbaum Associates, 2002.
- 15 Snyder LB and Hamilton MA. Meta-analysis of U.S. health campaign effects on behavior: Emphasize enforcement, exposure, and new information, and beware the secular trend. In *Public Health Communication: Evidence for Behavior Change Hillsdale*. Hornik R, editor. Mahwah, NJ: Lawrence Erlbaum Associates, 2002.
- 16 Snyder LB, Diop-Sidibé N and Badiane LA. Meta-analysis of the impact of family planning campaigns conducted by the Johns Hopkins Bloomberg School of Public Health/Center for Communication Programs. Presented at the International Communication Association annual meeting, San Diego; May 2003.
- 17 Hornik RC. Public health education and communication as policy instruments for bringing about changes in behavior. In *Social Marketing*. Goldberg M, Fishbein M, Middlestadt S, editors. Mahwah NJ: Lawrence Erlbaum Associates, 1997.
- 18 Snyder and Hamilton, 2002.
- 19 Aloise-Young PA and Hennigan KM. Self-image, the smoker stereotype and cigarette smoking: Developmental patterns from fifth through eighth grade. *Journal of Adolescence*, 1996;19:163-177.
- 20 Calvert SL. Using Media to Sell: Marketing to Children and Media Campaigns. *Future of Children*, 2008;18(1):205-234.
- 21 National Adolescent Health Information Center. 2008 Fact Sheet on Health Care Access and Utilization: Adolescents and Young Adults. San Francisco, CA: University of California, San Francisco. Available at: [http://nahic.ucsf.edu/index.php/data/article/briefs\\_fact\\_sheets/](http://nahic.ucsf.edu/index.php/data/article/briefs_fact_sheets/); accessed 10/9/08.
- 22 Aloise-Young and Hennigan, 1996
- 23 Evans WD, Powers A, Hersey J and Renaud J. The Influence of Social Environment and Social Image on Adolescent Smoking. *Health Psychology*, 2006; 25(1):26-33.
- 24 Calvert, 2008;18(1):205-234.
- 25 Evans, Powers, Hersey and Renaud, 2006.
- 26 Aloise-Young and Hennigan, 1996.
- 27 Burton D, Sussma S, Hansen WB, Johnson CA and Flay BR. Image attributions and smoking intentions among seventh grade students. *Journal of Applied Social Psychology*, 1989;19:656-664.
- 28 Evans D, Blitstein J, Hersey J, Renaud J and Yaroch A. Systematic review of branded public health campaigns. *Journal of Health Communication*, 2008; 13(8):351-360.
- 29 Evans WD, Wasserman J, Bertolotti E and Martino S. Branding Behavior: The Strategy Behind the truth® Campaign. *Social Marketing Quarterly*, 2002;8(3):17-29.
- 30 Lenhart A, Madden M and Hitlin P. (2005) Teens and Technology: Youth Are Leading the Transition to a Fully Wired and Mobile Nation. Available at [http://www.pewinternet.org/pdfs/PIP\\_TeensTech\\_July2005web.pdf](http://www.pewinternet.org/pdfs/PIP_TeensTech_July2005web.pdf); accessed 10/9/08.
- 31 Evans, Blitstein, Hersey, Renaud and Yaroch, 2008.
- 32 National Conference of State Legislatures. What is Positive Youth Development? Available at: <http://www.ncsl.org/programs/cyfl/positiveyouth.htm>; accessed 10/21/08.
- 33 Bauer UE, Johnson TM, Hopkins RS and Brooks RG. Changes in youth cigarette use and intentions following implementation of a tobacco control program: Findings from the Florida Youth Tobacco Survey, 1998-2000. *Journal of the American Medical Association*, 2000; 284(6):723-728.
- 34 Columbia Marketing Panel. *Tobacco Counter-Marketing Strategy Recommendations*. New York: Columbia University, 1996.
- 35 McKenna J, Gutierrez K and McCall K. Strategies for an effective youth counter-marketing program: recommendations from commercial marketing experts. *Journal of Public Health Management and Practice*, 2000; 6(3):7-13.
- 36 Columbia Marketing Panel, 1996.
- 37 Evans WD, Price S and Blahut S. Evaluating the truth® brand. *Journal of Health Communication*, 2005;10(2):181-92.
- 38 Evans WD, Price S, Blahut S, Hersey J, Niederdeppe J and Ray S. Social Imagery, Tobacco Independence, and the truth® Campaign. *Journal of Health Communication*, 2004;9(5):425-441.
- 39 Farrelly MC and Davis KC. Case Studies of Youth Tobacco Prevention Campaigns from the USA: Truths and Half-truths. In: Evans WD and Hastings G, eds. *Public Health Branding: Applying Marketing for Social Change*, Oxford University Press. London, United Kingdom. 2008.
- 40 Farrelly MC, Davis KC, Haviland ML, Messeri P and Healtan CG. Evidence of a Dose-Response Relationship Between 'truth' Antismoking Ads and Youth Smoking. *American Journal of Public Health*, 2005;95(3):425-431.
- 41 Ibid.
- 42 Evans, Price and Blahut, 2005.
- 43 Evans WD and Haider M. Public Health Brands in the Developing World. In *Public Health Branding: Applying Marketing for Social Change*, W.D. Evans and G. Hastings (Eds.), Oxford University Press. London, United Kingdom. 2008.

- 44 Agha S. The Impact of a Mass Media Campaign on Personal Risk Perception, Perceived Self-Efficacy and on Other Behavioral Predictors. *Aids Care*, 2003;15(6):749–62.
- 45 Eloundou-Enyegue PM, Meekers D and Calves AE. From Awareness to Adoption: The Effect of AIDS Education and Condom Social Marketing on Condom Use in Tanzania (1993–1996). *Journal of Biosocial Science*, 2005; 37:257–68.
- 46 Stadler J and Hlongwa L. Monitoring and Evaluation of loveLife's AIDS Prevention and Advocacy Activities in South Africa, 1999–2001. *Evaluation and Program Planning*. 2002; 25:365–76.
- 47 Huhman M, Heitzler C and Wong F. The VERB™ campaign logic model: A tool for planning and evaluation. *Preventing Chronic Disease*. [serial online] 2004. Available from: URL: [http://www.cdc.gov/pcd/issues/2004/jul/04\\_0033.htm](http://www.cdc.gov/pcd/issues/2004/jul/04_0033.htm).
- 48 Wong F, Huhman M, Heitzler C, Asbury L, Bretthauer-Mueller R, McCarthy S, et al. VERB – a social marketing campaign to increase physical activity among youth. 9. *Preventing Chronic Disease*, 2004;1(3):A10.
- 49 Surgeon General's report on physical activity and health. From the Centers for Disease Control and Prevention. *Journal of the American Medical Association*. Aug 21, 1996;276(7):522.
- 50 Williams CL, Hayman LL, Daniels SR, et al. Cardiovascular health in childhood: a statement for health professionals from the Committee on Atherosclerosis, Hypertension, and Obesity in the Young (AHOY) of the Council on Cardiovascular Disease in the Young. *Circulation*, 2002;106:143–60.
- 51 Strong WB, Malina RM, Blimkie CJ, Daniels SR, Dishman RK, Gutin B, et al. Evidence based physical activity for school-age youth. *Journal of Pediatrics*, 2005;146(6):732–7.
- 52 Huhman, Price and Potter, 2008.
- 53 Ibid.
- 54 Ibid.
- 55 Ibid.
- 56 Ibid.
- 57 Huhman M. New Media and the VERB™ Campaign: Tools to Motivate Tweens to be Physically Active. *Cases in Public Health Communication & Marketing*. Volume 2, July 2008. Available at: <http://www.casesjournal.org/volume2>.
- 58 Ibid.
- 59 Ibid.
- 60 National Adolescent Health Information Center, 2008.
- 61 Marcell AV, Klein JD, Fische, I, Allan MJ and Kokotailo PK. Male Adolescent Use of Health Care Services: Where are the Boys? *Journal of Adolescent Health*, 2002;30:35–43.
- 62 Evans WD, Powers A, Hersey J, and Renaud J. The Influence of Social Environment and Social Image on Adolescent Smoking. *Health Psychology*, 2006; 25(1):26–33.
- 63 Reddy DM, Fleming R and Swain C. Effect of Mandatory Parental Notification on Girls' Use of Sexual Health Care Services. *Journal of the American Medical Association*. 2002;288(6):710–714
- 64 Ackard DM and Neumark-Sztainer D. Health Care Information Sources for Adolescents: Age and Gender Differences on Use, Concerns, and Needs. *Journal of Adolescent Health*, 2001;29:170–176.
- 65 Marcell AV and Halpern-Felsher BL. Adolescents' Beliefs about Preferred Resources for Help Vary Depending on the Health Issue. *Journal of Adolescent Health*, 2007;41:61–68.
- 66 Hornik, 2002.
- 67 Evans and Hastings, 2008.
- 68 Ibid.
- 69 Evans, Price and Blahut, 2005.
- 70 Holden D, Evans WD, Hinnant L and Messeri P. Modeling Psychological Empowerment Among Youth Involved in Local Tobacco Control Efforts. *Health Education and Behavior*, 2005; 32(2):264–278.
- 71 Remington PL, Houston CA and Cook LC. Media Interventions to Promote Tobacco Control Policies. In: ASSIST: *Shaping the Future of Tobacco Prevention and Control*. Tobacco Control Monograph No. 16. Bethesda, MD: U.S. Department of Health and Human Services, National Institutes of Health, National Cancer Institute. NIH Pub. No. 05-5645, May 2005.
- 72 Evans and Hastings, 2008.
- 73 Huhman, 2008
- 74 Aloise-Young and Hennigan, 1996.
- 75 Evans, Powers, Hersey and Renaud, 2006.
- 76 Calvert SL. Using Media to Sell: Marketing to Children and Media Campaigns. *Future of Children*, 2008;18(1):205–234.
- 77 Aloise-Young and Hennigan, 1996.
- 78 Evans, Powers, Hersey and Renaud, 2006.
- 79 Chassin, Presson, Sherman, Corty and Olshavsky, 1981.
- 80 Aloise-Young and Hennigan, 1996.
- 81 Burton D, Sussman S, Hansen WB, Johnson CA and Flay BR. Image attributions and smoking intentions among seventh grade students. *Journal of Applied Social Psychology*, 1989;19:656–664.
- 82 Huhman, Price and Potter, 2008.
- 83 Evans and Hastings, 2008
- 84 Ibid.
- 85 Farrelly and Davis, 2008.
- 86 Abrams LC, Schiavo R and Lefebvre RC. New Media Cases in Cases in Public Health Communication & Marketing: The Promise and Potential. *Cases in Public Health Communication & Marketing*, 2008;2:3–10.
- 87 Rideout V. *Generation Rx.com how young people use the internet for health information*. Kaiser Family Foundation, editor. Menlo Park, CA; Kaiser Family Foundation, 2001. Available at: <http://www.kff.org/entmedia/upload/Toplines.pdf>.
- 88 Williams A, Zraik D, Schiavo R and Hatz D. Raising Awareness of Sustainable Food Issues and Building Community via the Integrated Use of New Media and Other Communication Approaches. *Cases in Public Health Communication & Marketing*. Volume 2, July 2008. Available at: <http://www.casesjournal.org/volume2>.
- 89 Huhman, 2008.
- 90 Hoff T, Mishel M and Rowe I. Using New Media to Make HIV Personal: A Partnership of MTV and the Kaiser Family Foundation. *Cases in Public Health Communication & Marketing*. Volume 2, July 2008. Available at: <http://www.casesjournal.org/volume2>.
- 91 Abrams LC, Schiavo R and Lefebvre RC. New Media Cases in Cases in Public Health Communication & Marketing: The Promise and Potential. *Cases in Public Health Communication & Marketing*, 2008;2:3–10.
- 92 Evans WD. Social Marketing Campaigns and Children's Media Use. *Future of Children: Children, Media, and Technology*, 2008;18(1):181–204.

## **ABOUT THE NIHCM FOUNDATION**

The National Institute for Health Care Management Research and Educational Foundation is a non-profit organization whose mission is to promote improvement in health care access, management and quality.

## **ABOUT THIS PAPER**

This paper was produced with support from the Health Resources and Services Administration's Maternal and Child Health Bureau, Public Health Service, United States Department of Health and Human Services, under the Partners in Program Planning for Adolescent Health (PIPPAH) cooperative agreement No. U45MCO7531. This paper was created in support of the goals of the National Initiative to Improve Adolescent Health by the Year 2010 (NIAH), a collaborative effort to improve the health, safety and well-being of adolescents and young adults. Its contents are solely the responsibility of the authors and do not necessarily represent the official views of the Maternal and Child Health Bureau.

This issue brief was authored by W. Douglas Evans, PhD, Professor, Prevention & Community Health and Global Health; Director, Public Health Communication & Marketing; The George Washington University School of Public Health and Health Services. Kathryn Santoro, MA ([ksantoro@nihcm.org](mailto:ksantoro@nihcm.org)), Brigid Murphy, MHS, and Julie Schoenman, PhD, of the NIHCM Foundation, edited this brief under the direction of Nancy Chockley ([nchockley@nihcm.org](mailto:nchockley@nihcm.org)) of the NIHCM Foundation. NIHCM would like to thank the following people for their contributions to the brief: Trina Anglin, MD, PhD, MCHB, and Charles E. Irwin, Jr., MD, Professor and Vice Chairman of Pediatrics, University of California, San Francisco (UCSF), School of Medicine; Director of the National Adolescent Health Information Center.



NIHCM  
FOUNDATION

1225 19TH STREET NW  
SUITE 710  
WASHINGTON, DC 20036

202.296.4426  
202.296.4319 (FAX)

[WWW.NIHCM.ORG](http://WWW.NIHCM.ORG)