

# The truth<sup>®</sup> Campaign: Using Countermarketing to Reduce Youth Smoking

Jane A. Allen, MA  
Donna Vallone, PhD, MPH  
Ellen Vargyas, JD  
Cheryl G. Heaton, DrPH  
American Legacy Foundation

## OBJECTIVES

After reading this chapter, you should

- Understand the evidence base for using countermarketing to prevent and reduce tobacco use
- Understand the importance of branding in developing an effective public health campaign
- Understand how a variety of evaluation tools can be combined to develop a clear assessment of a countermarketing campaign
- Understand key barriers to effective countermarketing, particularly the tobacco industry

## KEY TERMS

Brand  
Countermarketing  
Sensation seeking

Tobacco industry  
truth<sup>®</sup> campaign  
Youth smoking

## Introduction to the truth<sup>®</sup> Campaign

The **truth<sup>®</sup> campaign** is a branded, national smoking prevention campaign designed to reach at-risk youth, ages 12 to 17 years, primarily through edgy television advertisements with an antitobacco-industry theme (Farrelly et al.,

2002a; Farrelly, Davis, Haviland, Messeri & Healton, 2005). Young adults, ages 18 to 24 years, compose an important secondary audience.

The truth<sup>®</sup> campaign features fast-paced, hard-edged ads that present facts about the addictiveness of smoking, the number of deaths and amount of disease attributed to smoking, the ingredients in cigarettes, and the marketing practices of the tobacco industry. Market research experts have long asserted that the “just say no” approach to public health messaging is counterproductive (McKenna, Gutierrez & McCall, 2000; Reputation Management, 1998). For this reason, truth<sup>®</sup> campaign ads do not tell youth what to do or what not to do. They do not preach, and they are not disrespectful of smokers. Rather, the ads convey factual information and encourage young people to make up their own minds about smoking and the **tobacco industry**. The campaign features youth spokespersons with personal characteristics often associated with smoking, such as rebelliousness, independence, and risk taking. The truth<sup>®</sup> campaign co-opts these stereotypical social images to change norms about not smoking (Evans, Price, & Blahut, 2005).

The television component of the truth<sup>®</sup> campaign is supplemented by radio ads, a robust and growing presence on the Internet, and an annual, grass roots “truth<sup>®</sup> tour.” The truth<sup>®</sup> tour is a summer bus tour that brings “crew members” to cities across the nation and provides an opportunity for youth to encounter the campaign in a dynamic setting. American Legacy Foundation launched the truth<sup>®</sup> campaign in 2000; it was and still is the only national **youth smoking** prevention campaign in the United States not sponsored by the tobacco industry.

---

## Evidence for the Effectiveness of Countermarketing Campaigns

**Countermarketing** is a mass-media communication strategy that has been used by public health organizations in recent years to counter tobacco industry advertising and promotion and other protobacco media influences, such as smoking imagery in movies (Centers for Disease Control and Prevention [CDC], 2003). There is excellent evidence from state, national, and international studies that tobacco countermarketing campaigns are an effective way to reduce youth smoking prevalence (CDC 2003; National Cancer Institute, 2008). As a result, countermarketing is one of the CDC’s recommended “best practices” for tobacco control (CDC, 2007). Effective countermarketing campaigns are those that focus youth attention on the business practices of the tobacco industry, have “edgy” youth spokespersons, and have good visibility among the intended audience (Flay, 1987; Goldman & Glantz, 1998; Hornik, 2002; McKenna et al., 2000; Warner, 2001; Siegel, 1998). The impact of a countermarketing campaign can be enhanced by the presence of other antitobacco influences, such as high state cigarette taxes, smoke-free

policies, and school or community-based prevention and cessation programs (CDC, 2007; Hersey et al., 2005).

Three state and two national countermarketing campaigns can be considered model programs because they have been rigorously evaluated and found to be associated with reduced youth smoking rates. These programs include the campaigns of Florida, California, Massachusetts, and the 1967–1971 U.S. campaign that took place under the Fairness Doctrine. The final model program is American Legacy Foundation's national truth<sup>®</sup> campaign.

**Florida** The Florida truth campaign focused entirely on youth, with media as one component of a comprehensive campaign. The media was considered intensive and novel; an antitobacco industry approach was used as a primary message strategy. A variety of studies demonstrated that the campaign reduced smoking, reduced the risk of initiation, and reduced the likelihood of progressing to established smoking. Nearly all youth in Florida (92% of 12- to 17-year-olds) could accurately describe one of the campaign advertisements in the year after the campaign launched (Zucker et al., 2000). From 1998 to 2000, smoking prevalence declined significantly among students in Florida, from 18.5% to 11.1% among middle school students and from 27.4% to 22.6% among high school students (Bauer, Johnson, Hopkins, & Brooks, 2000). A longitudinal study showed that exposure to the campaign lowered the risk of smoking initiation and, among current smokers, the likelihood of progressing to established smoking (Sly, Hopkins, Trapido & Ray, 2001). Moreover, the campaign had a dose-response effect; higher levels of campaign exposure were associated with lower likelihood of smoking initiation and progression to established smoking (Sly et al., 2001; Sly, Trapido & Ray, 2002).

**California** The California Tobacco Control Program is a comprehensive program primarily focused on adults; however, it is designed so that youth are also exposed to campaign media. An anti-industry approach is among several message strategies employed. Most published studies focus on the campaign's positive impact on adult smoking rates, per capita consumption, and cessation (Fichtenberg & Glantz, 2000); however, there is evidence that the campaign also reduced youth smoking rates and increased the proportion of youth who report never having smoked. Among youth aged 12 to 17 years, the proportion who had never smoked increased from 1990 to 1999. Respondents were more likely to be "never smokers" if they were 12 years or younger in 1990, when most program components were put in place (Chen, Li, Unger, Liu, & Johnson, 2003). Although adolescent smoking increased from 1993 to 1996, this trend began to change in 1996. From 1996 to 1999 the proportion of youth reporting established smoking declined from 9.9% to 8.0% (Gilpin et al., 2001). The California Department of Public Health reports declines in youth smoking from 1996 to 2002 (California Department of Health Services Tobacco Control Section, 2004).

The national truth<sup>®</sup> campaign may have been a factor in the decline in youth smoking during this period.

**Massachusetts** The Massachusetts antismoking media campaign consisted of television, radio, and billboard advertising, designed to reach youth and adults. Campaign advertisements focused largely on tobacco industry practices and the health effects of tobacco use. The media campaign was considered emotionally arousing, was fairly intense (costing \$8 per capita over 4 years), and took place in the context of newly established state taxes on cigarettes (L. Biener, personal communication, 2006; Siegel & Biener, 2000). A large proportion of youth (71%) reported exposure to the television component of the media campaign. A longitudinal study showed that 12- and 13-year-old youth who were exposed to the campaign in 1993 were 50% less likely to progress to established smoking over the next 4 years. These youth were also less likely to have an inflated perception of peer smoking rates—a perception associated with an increased likelihood of smoking (Siegel & Biener, 2000).

**The Fairness Doctrine Campaign** From 1967 through 1971, the Federal Communication Commission (FCC) Fairness Doctrine required broadcasters to show approximately 1 public service antitobacco ad for every 3 tobacco ads they aired (U.S. Department of Health and Human Services [DHHS], 1989). Although the advertisements were not designed specifically for youth and represented a variety of messages, during the period of the campaign, per capita cigarette sales decreased by 7%, youth smoking decreased by 3%, and youth who reported watching more television during this period were found to be less likely to smoke (DHHS, 1989; Lewit, Coate & Grossman, 1981). Another study concluded that smoking rates among adults would have been significantly higher from 1964 to 1978 had it not been for the campaign (Warner & Murt, 1982). These ads went off the air when Congress prohibited all broadcast media advertising of cigarettes. Studies reported a notable increase in smoking rates shortly thereafter (Warner, 1986).

---

## The Development of the truth<sup>®</sup> Campaign

**The Master Settlement Agreement** In 1998, 46 state attorneys general and other state officials and all of the major tobacco companies signed the Master Settlement Agreement (MSA) to resolve the states' legal claims against the tobacco companies. The MSA prohibits the marketing of cigarettes and other tobacco products to youth; prohibits the use of cartoon characters, such as Joe Camel, in tobacco advertising; eliminates tobacco industry sponsorship of sporting events and restricts the number and type of other events the industry can sponsor; eliminates all outdoor advertising, such as billboards and transit ads; bans free samples for youth; and bans all industry-branded merchandise (Office of Attorney General, 1998). The MSA also altered tobacco industry corporate practice. It restricted lobbying; dissolved the Tobacco Institute, the Council for Tobacco

Research, and the Center for Indoor Air Research; and prohibited companies from entering agreements with one another to limit or suppress tobacco-related research. The MSA made internal industry documents public. Finally, the MSA provided a substantial amount of money to the signing states and to a national foundation (to be created). The states were awarded \$206 billion as a result of the settlement (Office of Attorney General, 1998). It was expected, although not required, that at least some of this money would be used to fund smoking prevention and cessation programs, thereby reducing the financial and human cost of tobacco to states. Although some states did implement programs to reduce smoking rates, particularly in the period immediately following the settlement, most states have used their MSA funds for other purposes (Campaign for Tobacco Free Kids, 2006).

### **The Establishment of the American Legacy Foundation**

The MSA provided \$150 million over 10 years for the establishment of a national foundation and another \$1.45 billion to the foundation from 2000 through 2003 for the purpose of educating the public about the dangers of tobacco use (Office of Attorney General, 1998). The purpose of the national foundation was to “support (1) the study of and programs to reduce youth tobacco products usage and youth substance abuse in the states and (2) the study of and educational programs to prevent disease associated with the use of tobacco products in the states” (Office of Attorney General, 1998, p. 25). The foundation was later named the American Legacy Foundation.

### **Key Elements of the truth<sup>®</sup> Campaign**

The truth<sup>®</sup> campaign was based in substantial part on the now defunct Florida truth campaign, which effectively reduced rates of youth tobacco use in Florida (Bauer et al., 2000). Both the Florida truth campaign and Legacy’s national truth<sup>®</sup> campaign have intellectual roots in the work of a panel of youth marketing experts convened in 1996 by the Columbia School of Public Health and funded by the CDC (Columbia Marketing Panel, 1996; McKenna et al., 2000). The Columbia expert panel identified three critical elements for a successful youth tobacco prevention media campaign. First, noting teens’ extreme brand-consciousness and the pervasiveness of tobacco brands, it called for the creation of a teen-focused non-smoking—or “counter” tobacco—brand. Second, it recognized that a teen-focused campaign must talk to teens in their own voice and not talk 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 (Columbia Marketing Panel, 1996; McKenna et al., 2000). These became key elements of Legacy’s national truth<sup>®</sup> campaign.

### **The truth<sup>®</sup> Campaign is Grounded in Behavior Change Theory and Media Research**

Effective campaigns are based on behavior change theory. They have a clearly defined target audience and feature messages that are designed to influence knowledge, beliefs, social norms, and attitudes that are statistically associated with the behavior the campaign seeks to change (Fishbein, 1967; Flay & Burton, 1990; Rosenstock, Strecher, & Becker, 1988). Some theoretical models

assert that self-efficacy is strongly linked to successful change for certain behaviors (Bandura, 1986; Rosenstock et al., 1988). Behavior change theories posit that shifts in knowledge, beliefs, and self-efficacy precede changes in attitudes and behavior (Bandura, 1986; Fishbein, 1967; Rosenstock et al., 1988). Messages should be pretested, with particular attention paid to the possible differential effectiveness of campaign messages by race–ethnicity and socioeconomic status (Niederdeppe, Fiore, Baker & Smith, 2008; Val-lone, Allen, Clayton, & Xiao, 2007). The truth<sup>®</sup> campaign was developed, implemented, and evaluated in conjunction with this evidence base. For example, one of the first tests of campaign effectiveness was whether campaign exposure was associated with statistically significant change in specific beliefs and attitudes that were linked with intention not to smoke in the coming year (Farrelly et al., 2002a).

Message delivery is as important as message development. Advertisements should be novel or provocative to gain and hold the attention of the audience (Flay, 1987; Hornik, 2002). The intensity and duration of the campaign must be sufficient for it to generate substantial exposure within the target audience, though optimal levels of exposure have not been identified (Flay, 1987; Flay & Burton, 1990; Hornik, 2002). Recent research shows that the effects of media exposure can be short lived, suggesting that campaign effectiveness can be increased by airing ads at regular intervals (Wakefield et al., 2008). Insufficient exposure is one possible reason that some promising, evidence-based campaigns have been unable to demonstrate behavior change (Hornik, 2002).

Comprehensive campaigns that include a media component—and media campaigns that operate in a context of other tobacco control initiatives—have shown greater or longer lasting effects as compared with media-only campaigns (National Cancer Institute, 2008). This is likely because comprehensive campaigns activate or encourage a “complex process of change in social norms” that supports individual efforts to quit (Hornik, 2002, p. 16). However, research shows that tobacco industry marketing, including industry-sponsored antismoking advertisements, can undercut the effectiveness of public health campaigns (Farrelly et al., 2002a; National Cancer Institute, 2008; Wakefield et al., 2006).

### **truth<sup>®</sup> is a Brand**

One of the greatest strengths of truth<sup>®</sup> is that it has been positioned as a **brand** (Evans, Wasserman, Bertoletti, & Martino, 2002; Evans et al., 2004; Evans, Price & Blahut, 2005). Brands are often used as a means of self-expression, and youth are particularly sensitive to the messages they convey to peers through their brand choices. The tobacco industry has some of the most well-known brands in the world; one study of tobacco brand awareness among youth showed that, among 8th grade students, 95% recognized Joe Camel and 55% recognized the Marlboro Man (as cited in Evans et al., 2005). The truth<sup>®</sup> campaign was designed to compete directly with tobacco industry brands; in essence, truth<sup>®</sup> was designed to “take market share from the tobacco industry” (Evans, Wasserman, Bertoletti, & Martino, 2002, p.17). The truth<sup>®</sup> campaign

looked to popular teen brands such as Nike and Mountain Dew as examples of how to effectively reach youth. Studies of the effectiveness of the truth<sup>®</sup> brand show that it generated a high level of brand equity among the target audience and that “internalizing” the brand was associated with greater reductions in smoking uptake than was simple campaign exposure (Evans et al., 2002; Evans et al., 2005). In other words, truth<sup>®</sup> campaign ads should be effective when experienced as discrete units, but they are more powerful when the viewer places them in the context of the larger body of messages and images that constitute the truth<sup>®</sup> brand.

### The truth<sup>®</sup> Audience

The truth<sup>®</sup> campaign has always been designed to reach and influence those youth at greatest risk of smoking. In the earliest years of the campaign, advertisements were pretested with youth who were “open to smoking”—youth who had never smoked but who would not rule out trying a cigarette sometime in the next year or if a friend offered them one. More recently, campaign designers (and evaluators) have made use of a trait called “sensation seeking” to efficiently develop and deliver truth<sup>®</sup> advertisements. **Sensation seeking** is measured using one of several scales, an example of which is the Brief Sensation Seeking Scale IV (BSSS-4), which consists of four questions: I would like to explore strange places; I like to do frightening things; I like new and exciting experiences, even if I have to break the rules; and I prefer friends who are exciting and unpredictable (Stephenson, Hoyle, Palmgreen & Slater, 2003).

Sensation seeking has been linked repeatedly to a variety of youth risk behaviors, including cigarette smoking (Martin et al., 2002; Slater, 2003; Zuckerman, Ball & Black, 1990). A number of studies demonstrate that sensation seeking can be used to segment the audience in an effort to more effectively produce and deliver public health messages that will resonate with those at greatest risk (Palmgreen et al., 1991; Palmgreen et al., 1995; Palmgreen, Donohew, Lorch, Hoyle, & Stephenson, 2001). For example, campaign messages and advertising executions can be tested within focus groups composed of individuals who score high on a sensation-seeking scale to help ensure that these communication vehicles resonate with this target population. Those most at risk, high sensation seekers, have been found to respond to messages that are high in “message sensation value”—“the degree to which a message elicits sensory, affective, and arousal responses” (Palmgreen, Stephenson, Everett, Baseheart & Francies, 2002, p. 404). To more effectively reach the target audience, advertising executions can be placed within the context of television programming found to be popular with high sensation-seeking youth. Thus, media buys that embed high-sensation value messages in high-sensation value programming have the best chance of reaching populations segmented on this psychographic variable. The designers of the truth<sup>®</sup> campaign have capitalized on this emerging body of research to increase the reach and impact of the truth<sup>®</sup> campaign.

A word of caution: a recent study based on Legacy Media Tracking Survey (LMTS) data suggests that the BSSS-4 is less reliable and valid for



African-American youth than other youth (Vallone, Allen, Clayton, & Xiao, 2007). Furthermore, African-American youth who are open to smoking or have experimented with cigarettes have statistically significantly lower mean sensation-seeking scores than their White and Hispanic counterparts (Vallone, Allen, Clayton, & Xiao, 2007). Taken together, these findings suggest that the BSSS-4 performs less than optimally among African-American youth, particularly those at greatest risk of progressing to established smoking. For this reason, the American Legacy Foundation and others who use sensation seeking as a segmenting variable must be cautious in placing too great a degree of confidence in the ability of this measure to determine whether campaigns are reaching and influencing the desired target audience. While we await further research to identify a sensation-seeking measure that functions equally well across race-ethnicity, sensation seeking should be considered a useful, but not perfect, campaign development and evaluation tool.

---

## Evaluation Tools

### **The LMTS and Legacy Media Tracking Online (LMTO)**

The LMTS is a nationally representative, random-digit-dial (RDD), cross-sectional telephone survey of youth and young adults ages 12 to 24 years. It was developed to track awareness of, and receptivity to, Legacy's truth<sup>®</sup> campaign. It also measures tobacco-related beliefs, attitudes and behaviors, sensation seeking, openness to smoking among youth who are not current smokers, exposure to secondhand smoke, and exposure to pro and anti-tobacco influences in the home, the school, and the mass media. Eight waves of LMTS data (including a baseline wave) were collected from December 1999 through January 2004. African-American, Hispanic, and Asian youth were oversampled in each survey wave to ensure that sample sizes would be large enough to produce accurate estimates for these populations. Response rates ranged from 60% in 2001 to 30% in 2004 (Vallone, Allen & Xiao, in press). The decline in response rates over time reflects a pattern that has been observed throughout the field in recent years, possibly because of the increase in the numbers of sales and survey calls (Curtin, Presser, & Singer, 2005). Legacy has used the LMTS over the years as a tool to assess audience exposure to the truth<sup>®</sup> campaign, with particular focus on how exposure is influenced by changes in the media purchasing plan, and to assess audience reactions to groups of ads with a unified theme and style. In this way, the LMTS has enabled Legacy to capitalize on successful media strategies and to minimize those that appear to be less robust.

In 2005, in response to declining telephone response rates and the cost of telephone survey data collection, Legacy shifted to an online media tracking survey called Legacy Media Tracking Online (LMTO) (Wunderink, et al., 2007). There were drawbacks and benefits to the move to an online survey. Perhaps the greatest drawback was that the change in the method of survey administration meant that data collected prior to 2005 could not be directly



compared with data collected afterward. For example, LMTS data had often been used to determine how well a new group of ads resonated with youth relative to earlier, successful ads. Because Legacy's analysis of the data suggested that the mode of survey administration influenced the magnitude of youth responses to a certain degree, comparing an ad flight from 2006 (collected using LMTO) with one from 2002 (collected using LMTS) would be potentially misleading. A second drawback was that LMTO data was not considered rigorous enough for publication in a peer-reviewed journal, because it was based on a convenience sample rather than one that had been randomly drawn. These drawbacks were offset by several important benefits, the most important being that online data collection was substantially less expensive than telephone data collection. As a result, Legacy could have surveys in the field more frequently than it would have had it continued to use phone surveys, particularly as Foundation funds were in decline. Although the new data collections were not comparable to those collected using the LMTS, they were comparable to one another, and they appropriately fulfilled the primary goal of Legacy's media tracking—monitoring youth exposure and reactions to the truth<sup>®</sup> campaign. The LMTO has been used, as was the LMTS, to assess the ongoing health of the campaign. Eight waves of LMTO data have been collected to date.

### Biochemical Validation Study

Legacy conducted a biochemical validation study to assess whether the truth<sup>®</sup> campaign could have created a social context that elevated social desirability response bias on surveys, as measured by an increase in underreporting of smoking (Messeri et al., 2007). This could give rise to data that falsely suggests a campaign-induced decline in youth smoking, or it could exaggerate campaign effects. Data was obtained from a national sample of 5,511 students from 48 high schools that were matched to schools sampled for the 2002 National Youth Tobacco Survey (NYTS) (Messeri et al., 2007). Self-reported smoking was compared with biochemical indicators of smoking, measured using saliva cotinine. The study showed the overall rate of underreporting was 1.3%, and the level of truth<sup>®</sup> exposure was not related to underreporting (Messeri et al., 2007). This study suggests that the truth<sup>®</sup> campaign was not an important cause of social desirability responses on surveys among high school students and that, in general, underreporting smoking is not a major source of error in school-based surveys.

---

## Outcomes

### Awareness of and Receptivity to the Campaign

A 2002 study based on LMTS data showed that in the first 9 months of the campaign, 75% of all 12- to 17-year-olds nationwide could accurately describe at least 1 truth<sup>®</sup> ad (Farrelly et al., 2002a). This finding was based on a conservative measure of awareness called *confirmed awareness*. Confirmed

awareness is documented in the following way. The interviewer first asks the respondent if they are aware of any of the truth<sup>®</sup> campaign ads. If the respondent reports general truth<sup>®</sup> awareness, the interviewer then describes the beginning of a truth<sup>®</sup> ad currently or recently on the air. The youth is then asked to describe the end of the ad in his or her own words. The interviewer, who has been trained by viewing videos of the ads in question, then determines whether the youth has accurately described the ad. This measure of confirmed awareness ensures that youth do not provide false awareness responses to the interviewers.

The same 2002 study showed that during the first 9 months of the campaign, truth<sup>®</sup> influenced key youth attitudes toward tobacco in the expected direction and was associated with lower intention to smoke, though this latter finding was marginally statistically significant at  $p = 0.09$  (Farrelly et al., 2002a). Change in relevant attitudes, and to an even greater degree, change in intention to behave in a particular way are excellent predictors of actual behavior change down the line. Furthermore, a second study published the same year showed that truth<sup>®</sup> was equally appealing across race-ethnicity (Farrelly et al., 2002b). For these reasons, in the first year of the campaign, Legacy was optimistic that truth<sup>®</sup> would prove to be effective at the national level and that it would influence behavior of at-risk youth regardless of race-ethnicity.

A more recent study indicates that, from 2000-2004, females had lower levels of confirmed awareness of the truth<sup>®</sup> campaign as compared with males, and youth who lived in lower education zip codes were less likely to have confirmed campaign awareness as compared with those in higher education zip codes (Vallone, Allen & Xiao, in press). These findings suggest that the effectiveness of the truth<sup>®</sup> campaign may be enhanced by developing strategies to increase campaign awareness among females and youth from lower education zip codes.

### Changing Smoking Behavior

One study to date has explored the effect of the campaign by race/ethnicity (Cowell, Farrelly, Chou & Vallone, 2009). That study showed that while exposure to the truth<sup>®</sup> campaign was statistically significantly associated with intention not to smoke in the future among youth who had never smoked (OR = 2.02,  $p = 0.001$ ), the results were more robust among African American youth (OR = 5.39,  $p = 0.001$ ) as compared with white (OR = 1.76,  $p = 0.062$ ) or Hispanic youth (OR = 2.00,  $p = 0.064$ ) (Cowell, Farrelly, Chou & Vallone, 2009). Among youth who had tried smoking, but were not current smokers, the association was strong and statistically significant among youth overall (OR = 5.70,  $p = 0.000$ ) and across all racial ethnic groups: African American (OR = 6.11,  $p = 0.002$ ); white (OR = 6.53,  $p = 0.000$ ); Hispanic (OR = 5.83,  $p = 0.000$ ) (Cowell, Farrelly, Chou & Vallone, 2009).

A 2005 study used Monitoring the Future (MTF) and media delivery data (gross ratings points, or GRPs) to demonstrate a dose-response relationship

between campaign exposure and smoking prevalence among youth in grades 8 through 12, so that youth with greater exposure to the campaign were less likely to be current smokers (Farrelly et al., 2005). The study concluded that the truth<sup>®</sup> campaign was responsible for an estimated 22% of the nationwide decline in youth smoking from 1999 to 2002 (Farrelly et al., 2005). A more recent, longitudinal study, based on data collected during annual interviews with a cohort of youth from 1997 through 2004, indicated that exposure to the truth<sup>®</sup> campaign was associated with a decreased risk of smoking initiation (relative risk = 0.80,  $p = 0.001$ ). Based on these results, the authors estimate that 450,000 youth were prevented from smoking between 2000 and 2004 as a result of the truth<sup>®</sup> campaign (Farrelly, Nonnemaker, Davis, Hussin, 2009).

**Cost Effectiveness**

A cost-effectiveness study indicates that the truth<sup>®</sup> campaign was economically efficient (Holtgrave, Wunderink, Vallone & Heaton, 2009). Using methods established by the U.S. Panel on Cost-effectiveness in Health and Medicine, the authors estimate that the campaign recovered its costs, and saved between \$1.9 billion and \$5.4 billion in medical costs for society (Holtgrave, Wunderink, Vallone & Heaton, 2009). An additional analysis uses a conservative method that takes into account the argument that individuals who never smoke or who quit smoking live longer than smokers, and thus incur additional medical costs due to their longer lifespan; in this analysis the authors estimate that the cost per Quality Adjusted Life Year (QALY) saved is \$4,302 (Holtgrave, Wunderink, Vallone & Heaton, 2009).

---

**Barriers to Effective Countermarketing****The Tobacco Industry    Litigation**

The tobacco industry has sought to end or obstruct effective countermarketing campaigns, including through litigation. Lorillard Tobacco Company (with the support of the other major tobacco manufacturers) attempted to shut down the American Legacy Foundation through litigation, based on the claim that the truth<sup>®</sup> campaign “vilified” and “personally attacked” them, which was in violation of the MSA (Vargyas, 2007). In 2006, almost exactly 5 years after the Foundation’s dispute with Lorillard began, the Delaware Supreme Court unanimously held that none of the Foundation’s advertisements violated the MSA (*Lorillard Tobacco Company v. American Legacy Foundation*, 903 A.2d 728 [Del Supr. 2006]). Nevertheless, the long legal battle significantly burdened the Foundation, consuming financial and human resources that could have been otherwise spent on the public health mission of the organization. In another unsuccessful but lengthy legal attack on a successful countermarketing campaign (*R.J. Reynolds v. Shewry*), Lorillard and R.J. Reynolds challenged the California antitobacco advertisements on a number of grounds.

### Industry-Sponsored Youth Smoking Prevention Campaigns

The tobacco industry has sponsored several national youth smoking prevention campaigns, the most prominent examples of which are Philip Morris' Think. Don't Smoke and Talk. They'll Listen. Think. Don't Smoke featured a "just say no" type message for youth, while Talk. They'll Listen was ostensibly targeted to parents. The same 2002 study that showed a marginally statistically significant association between truth<sup>®</sup> campaign exposure and lower likelihood of intending to smoke within the next year also showed that exposure to Think. Don't Smoke was associated with a *greater* likelihood of intending to smoke within the next year ( $p = 0.05$ ; Farrelly, et al., 2002a). Shortly after the publication of this study, and a public call from American Legacy Foundation for them to take the ads off the air, Philip Morris ended the ad campaign.

Striking evidence that tobacco industry-sponsored media campaigns are ineffective or counterproductive also comes from a recent study that looked at the effects of tobacco industry-sponsored youth prevention campaigns on over 100,000 youth (Wakefield et al., 2006). The study showed a dose-response relationship between campaign exposure and tobacco-related attitudes, so the greater number of industry-sponsored ads a youth saw the more likely they were to have lower perceived harm of smoking (odds ratio = 0.93), stronger approval of smoking (odds ratio = 1.11), stronger intentions to smoke in the future (odds ratio = 1.12), and stronger likelihood of having smoked in the past 30 days (odds ratio = 1.12; Wakefield et al., 2006). These findings suggest that industry-sponsored campaigns may have no effect or a counterproductive effect on youth tobacco use.

The Lorillard campaign, Tobacco is Wacko! If You're a Teen, never had the media weight to reach even a small segment of U.S. youth (Allen & Xiao, 2009), but if it had, it is likely that it also would have had a counterproductive effect on youth smoking. The campaign slogan Tobacco is Wacko! If You're a Teen suggests that smoking is only unwise for teens but that it might be appropriate for adults. This particular message may well increase the appeal of smoking among young people who want to emulate adult behavior. Indeed, now public Lorillard documents show that internal concerns had been voiced about the slogan, particularly the "if you're a teen" language, but, as explained by the company's general counsel, Lorillard's president had made it clear that Lorillard "made the decision based on legitimate business concerns and we [Lorillard] must stick by it" (V. Lindsey, e-mail to Ronald Milstein, Lorillard Tobacco Company (Bates No.: 97011359), 2000; R. Milstein, e-mail to Victor Lindsley, Lorillard Tobacco Company (Bates No. 99282955, 2000).

### New Products that Appeal to Youth

Despite the MSA's prohibition of marketing to youth, the tobacco industry routinely brings new tobacco products to the market, many of them designed and/or marketed to appeal to young smokers. For example, in 1999, R.J. Reynolds Tobacco Company began heavily promoting Camel Exotic

Blends—flavored cigarettes packaged in colorful tins of a distinctive size and shape. These Camel cigarettes were offered in seasonal, limited-time-only flavors such as Twista Lime and Kauai Kolada during the summer and Warm Winter Toffee and Winter MochaMint in the winter. In 2004, Brown and Williamson Tobacco Company launched a line of their popular cigarette brand, Kool, in flavored varieties called Mocha Taboo, Caribbean Chill, Midnight Berry, and Mintrigue.

There was substantial public health concern about the appeal of these cigarettes to youth who have never smoked or to those who are light and/or intermittent smokers. Flavors sweetened the taste of tobacco, making these cigarettes easier for younger smokers to tolerate, and they were sold in bright, striking packaging. Internal tobacco company documents strongly suggest that flavored cigarettes were designed to appeal primarily to young adults (Carpenter, Wayne, Pauly, Koh, & Connolly, 2005; Lewis & Wackowski, 2006; Wunderink et al., 2007). This is of particular concern because 18- to 24-year-olds, who are of legal age and not protected by the MSA, serve as role models for youth.

In addition to the flavored cigarettes, in 2004, Brown and Williamson sponsored a hip-hop oriented Kool Mixx campaign, targeted at urban youth. Most recently, R.J. Reynolds launched a new brand, Camel No. 9, with significant appeal to young girls and women. Not only does the brand name evoke the famous Chanel No. 5 perfume but it is packaged in a distinctive black box with a hot pink or teal green (for menthol) camel logo and edging and has been promoted with a line of branded items that include rubber bracelets, sequined cell phone jewelry, lip gloss, compact mirrors, and novelty purses, all of which appeal to a young audience. The brand has been heavily advertised in women's fashion magazines.

The state attorneys general have been active in enforcing the MSA provisions against youth targeting. They filed actions and reached settlements under which flavored cigarettes were taken off the market and Brown and Williamson stopped the Kool Mixx campaign. However, at the time this chapter went to press, no formal action had been taken with regard to Camel No. 9.

### **Smoking in the Movies and on TV**

There is a growing body of literature on the prevalence of tobacco use in movies and the association between exposure to tobacco use in movies and youth smoking (National Cancer Institute, 2008; Sargent, 2005). Recent research indicates that images of tobacco use in movies are common, including in youth-rated movies, and that youth are exposed to and recall these tobacco images (Charlesworth & Glantz, 2005; Dalton et al., 2002; Goldstein, Sobel, & Newman, 1999; Mekemson et al., 2004; CDC, 2005; Sargent, Worth, & Tanski, 2006; Thompson & Yokota, 2001). Images of smoking in televised movie trailers are also common (Healton et al., 2006).

A number of studies have documented the relationship between exposure to movie stars' use of tobacco in films and youth smoking initiation or susceptibility to tobacco use (Distefan, Gilpin, Sargent, & Pierce, 1999; Distefan, Pierce, & Gilpin, 2004; Pechmann & Shih, 1999; Tickle, Sargent, Dalton,

Beach, & Heatherton, 2001). Pechmann and Shih demonstrated that 9th grade nonsmokers who watched a movie in which the lead characters smoke were more likely to report intentions to smoke in the future, compared with their peers who watched the same movie from which the smoking images had been removed (Pechmann & Shih, 1999). This study showed that seeing an antitobacco ad prior to viewing the movie eradicated this association. A 1999 survey of more than 6,000 youth by Distefan, Gilpin, Sargent, and Pierce found tobacco use of favorite movie stars to be associated with youth smoking status (Distefan et al., 1999). A longitudinal study expanding on this research demonstrated that, among girls who did not smoke at baseline, having a favorite movie star who smoked in 1996 doubled the risk of smoking by 1999 (Distefan et al., 2004.)

Frequency of exposure to tobacco use in movies also plays a role in susceptibility to smoking. Sargent et al. demonstrate a positive, dose-response association between exposure to tobacco use in movies and susceptibility to smoking (2002). A longitudinal follow-up of these students more than a year later indicated that 17% of those in the highest quartile of exposure had begun smoking, compared with 3% of those in the lowest. Multivariate analysis indicated that 52% of these initiations were a result of having seen tobacco use in movies (Dalton et al., 2003). A recent national cross-sectional study confirmed these results (Sargent et al., 2005).

Major public health organizations in the United States and worldwide have called upon the film industry to take 4 steps to reduce the impact of these images on youth smoking: (1) certify that no one involved with the production received anything of value from anyone in exchange for using or displaying tobacco; (2) require that strong antismoking ads be aired prior to movies that depict tobacco use; (3) stop identifying specific tobacco brands; and (4) rate movies that include smoking “R” (National Cancer Institute, 2008). Recently, 41 state attorneys general called upon the heads of all film industry studios to pair classic truth<sup>®</sup> campaign ads with any DVD or downloaded movie that includes smoking imagery.

### **Weakness in the Master Settlement Agreement**

Although the MSA imposes restrictions on marketing tobacco to youth, the tobacco companies have continued to reach youth through new communication channels, such as the Internet, purported smoking prevention campaigns, and new products such as flavored cigarettes. The attorneys general have taken action to enforce the MSA, but as one inappropriate practice is addressed, others emerge.

---

## **The Future of truth<sup>®</sup>**

### **Decline of Funding for the American Legacy Foundation and truth<sup>®</sup>**

A major weakness of the MSA is a “sunset clause” specifying that after 2003 the participating tobacco companies are obligated to contribute to the Foundation’s public education fund only in years in which their collective industry market share represents 99.05% of the U.S. tobacco market. The MSA

public education funds are the major source of funding for the Foundation and have supported the truth<sup>®</sup> campaign and most of its other activities. The failure to reach this extremely high market share threshold has resulted in markedly reduced funding available for truth<sup>®</sup> in the coming years (Vargyas, 2007). At least one state level study suggests that defunding successful tobacco use prevention campaigns may signal a rise in pro-tobacco beliefs and attitudes, and an increase in youth intention to smoke. (Sly et al., 2005).

### **truth<sup>®</sup> or Consequences**

In 2000, 70% of the truth<sup>®</sup> media purchase was on network television; in 2007, 70% was on cable television. This shift from network to cable TV was prompted by changes in the media environment, such as the increase in the number of television channels available and the associated splintering of the audience, and by an internal analysis showing that Legacy could reach the vast majority of the truth<sup>®</sup> audience more cost effectively through cable television. Overall, the new media strategy has worked well for Legacy and the truth<sup>®</sup> campaign; however, because of uneven nationwide cable penetration, a segment of the truth<sup>®</sup> target audience was receiving less campaign exposure than their peers. These youth tended to live in more rural areas, which already placed them at higher risk for smoking (Johnston, O'Malley, Bachman, & Schulenberg, 2007). Legacy was concerned that these youth especially were being underserved by the truth<sup>®</sup> campaign. As a result, Legacy applied for and received funding from the CDC to implement a program called truth<sup>®</sup> or consequences. The truth<sup>®</sup> or consequences campaign involves purchase of local network airtime for truth<sup>®</sup> in 41 designated media markets across the United States. The media campaign is supplemented by a grants program to develop and implement local programs for open-to-smoking youth.

## **CONCLUDING REMARKS**

The truth<sup>®</sup> campaign is an evidence-based, countermarketing campaign that has been demonstrated to prevent smoking initiation among at-risk youth. The success of the campaign is attributed largely to three key characteristics: (1) its peer-to-peer message strategy; (2) the use of branding; and (3) its antitobacco industry theme. Campaign evaluation studies have been rigorous and ongoing and have been published in the peer-reviewed literature. Results of these analyses have been used to ensure awareness and receptivity to the campaign's message among the target audience, and thus, to increase the efficacy of the campaign.

Despite the campaign's success, there remain substantial barriers to the successful implementation of this youth smoking prevention initiative. We urge the public health community to continue to develop and implement strong countermarketing campaigns regardless of threats from the tobacco industry or other entities; to continue to fund and conduct research related to the impact of youth exposure to pro- and antitobacco



media messages; and to work to effect policy change to enhance and complement countermarketing efforts. An effective countermarketing campaign should be considered the centerpiece of any comprehensive effort to reduce youth smoking in the United States as recommended by the CDC and the IOM (CDC, 2007; IOM, 2007).

## DISCUSSION QUESTIONS

1. How strong is the evidence in support of using countermarketing to reduce youth tobacco use?
2. What strategies did the truth<sup>®</sup> campaign use to effect behavior change?
3. How and why did evaluators combine research tools to assess the truth<sup>®</sup> campaign?
4. What are the barriers to effective tobacco countermarketing?

## REFERENCES

- Allen, J & Xiao, H. (2009). Legacy Media Tracking Data. Unpublished raw data.
- Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Englewood Cliffs, NJ: Prentice Hall.
- Bauer, U. E., Johnson, T. M., Hopkins, R. S., & Brooks, R. G. (2000). 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*, 284(6), 723-728.
- Biener, L. (2000). Adult and youth response to the Massachusetts anti-tobacco television campaign. *Journal of Public Health Management and Practice*, 6(3), 40-44.
- California Department of Health Services Tobacco Control Section Update. (2004). Available at <http://www.dhs.ca.gov/tobacco/documents/pubs/2004TCSupdate.pdf>. Accessed December 13, 2007.
- Campaign for Tobacco Free Kids. (2007). *A broken promise to our children: The 1998 state tobacco settlement seven years later*. Washington, DC: Campaign for Tobacco Free Kids.
- Carpenter, C. M., Wayne, G. F., Pauly, J. L., Koh, H. K., & Connolly, G. N. (2005). New cigarette brands with flavors that appeal to youth: Tobacco marketing strategies. *Health Affairs*, 24(6), 1601-1610.
- Centers for Disease Control and Prevention. (2003). *Designing and implementing an effective tobacco counter-marketing campaign*. Atlanta, GA: CDC, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health.
- Centers for Disease Control and Prevention. (2005). Tobacco use, access, and exposure to tobacco in media among middle and high school students—United States, 2004. *Morbidity and Mortality Weekly Report*, 54(12), 297-301.
- Centers for Disease Control and Prevention. (2007). *Best practices for comprehensive tobacco control programs—2007*. Atlanta, GA: CDC, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health.

- Charlesworth, A., & Glantz, S. A. (2005). Smoking in the movies increases adolescent smoking: A review. *Pediatrics*, 116(6), 1516–1528.
- Chen, X., Li, G., Unger, J. B., Liu, X., & Johnson, C. A. (2003). Secular trends in adolescent never smoking from 1990 to 1999 in California: An age-period-cohort analysis. *American Journal of Public Health*, 93(12), 2099–2104.
- Columbia Marketing Panel. (1996). *Tobacco counter-marketing strategy recommendations* [draft report].
- Cowell, A. J., Farrelly, M. C., Chou, R., & Vallone, D. M. (2009). Assessing the impact of the national ‘truth’ antismoking campaign on beliefs, attitudes, and intent to smoke by race/ethnicity. *Ethnicity and Health*, 14(1), 75–91.
- Curtin, R., Presser, S., & Singer, E. (2005). Changes in telephone survey nonresponse over the past quarter century. *Public Opinion Quarterly*, 69, 87–98.
- Dalton, M. A., Sargent, J. D., Beach, M. L., Titus-Ernstoff, L., Gibson, J., Ahrens, M. B., Tickle, J., & Heatherston, T. F. (2003). Effect of viewing smoking in movies on adolescent smoking initiation: A cohort study. *Lancet*, 362(9380), 281–285.
- Dalton, M. A., Tickle, J. J., Sargent, J. D., Beach, M. L., Ahrens, M. B., & Heatherston, T. F. (2002). The incidence and context of tobacco use in popular movies from 1988 to 1997. *Preventive Medicine*, 34, 516–523.
- Distefan, J. M., Gilpin, E. A., Sargent, J. D., & Pierce, J. P. (1999). Do movie stars encourage adolescents to start smoking? Evidence from California. *Preventive Medicine*, 28, 1–11.
- Distefan, J. M., Pierce, J. P., & Gilpin, E. A. (2004). Do favorite movie stars influence adolescent smoking initiation? *American Journal of Public Health*, 94(7), 1239–1244.
- Evans, W. D., Wasserman, J., Bertoletti, E., & Martino, S. (2002). Branding behavior: The strategy behind the truth campaign. *Social Marketing Quarterly*, 8(3), 17–29.
- Evans, W. D., Price, S., Blahut, S., Hersey, J., Niederdeppe, J., & Ray, S. (2004). Social imagery, tobacco dependence and the truth campaign. *Journal of Health Communication*, 9, 425–441.
- Evans, W. D., Price, S., & Blahut, S. (2005). Evaluating the truth brand. *Journal of Health Communication*, 10, 181–192.
- Farrelly, M. C., Nonnemaker, J., Davis, K. C., & Hussin, A. (2009). The influence of the national truth<sup>®</sup> campaign on smoking initiation. *American Journal of Preventive Medicine*, Feb 9. [Epub ahead of print].
- Farrelly, M. C., Healton, C. G., Davis, K. C., Messeri, P., Hersey, J. C., & Haviland, M. L. (2002a). Getting to the truth: Evaluating national tobacco countermarketing campaigns. *American Journal of Public Health*, 92(6), 901–907.
- Farrelly, M. C., Davis, K. C., Yarsevich, J., Haviland, M. L., Hersey, J. C., Girlando, M. E., & Healton, C. G. (2002b). *Getting to the truth: Assessing youths’ reactions to the truth<sup>®</sup> and “Think. Don’t Smoke” tobacco countermarketing campaigns* [First Look Report 9]. Washington, DC: American Legacy Foundation.
- Farrelly, M. C., Davis, K. C., Haviland, M. L., Messeri, P., & Healton, C. G. (2005). Evidence of a dose-response relationship between “truth” antismoking ads and youth smoking prevalence. *American Journal of Public Health*, 95(3), 425–431.
- Fichtenberg, C. M., & Glantz, S. A. (2000). Association of the California Tobacco Control Program with declines in cigarette consumption and mortality from heart disease. *New England Journal of Medicine*, 343(24), 1772–1777.

- Fishbein M. (1967). A consideration of beliefs and their role in attitude measurement. In M Fishbein (Ed.), *Readings in attitude theory and measurement* (p. 257–266). New York, NY: Wiley.
- Flay, B. R. (1987). Mass media and smoking cessation: A critical review. *American Journal of Public Health*, 77(2), 153–160.
- Flay, B. R., & Burton, D. (1990). Effective mass media communication strategies or health campaigns. In C. Atkin and L. Wallack (Eds.), *Mass communication and public health: Complexities and Conflicts* (p. 129–146). Newbury Park, CA: Sage.
- Gilpin, E. A., Emery, S. L., Farkas, A. J., Distefan, J. M., White, M. M., & Pierce, J. P. (2001). *The California Tobacco Control Program: A Decade of Progress, Results from the California Tobacco Surveys, 1990-1998*. La Jolla, CA: University of California, San Diego.
- Goldman, L. K., & Glantz, S. A. (1998). Evaluation of antismoking advertising campaigns. *Journal of the American Medical Association*, 279(10), 772–777.
- Goldstein, A. O., Sobel, R. A., & Newman, G. R. (1999). Tobacco and alcohol use in G-rated children's animated movies. *Journal of the American Medical Association*, 28(12), 1131–1136.
- Healton, C. G., Watson-Stryker, E. S., Allen, J. A., Vallone, D. M., Messeri, P. A., Graham, P. R., Stewart, A. M., Dobbins, M. D., & Glantz, S. A. (2006). Televised movie trailers: Undermining restrictions on advertising tobacco to youth. *Archives of Pediatric and Adolescent Medicine*, 160(9), 885–888.
- Hersey, J. C., Niederdeppe, J., Ng, S. W., Mowery, P., Farrelly, M., & Messeri, P. (2005). How state counter-industry campaigns help prime perceptions of tobacco industry practices to promote reductions in youth smoking. *Tobacco Control*, 14(6), 377–383.
- Holtgrave, D.R., Wunderink, K.A., Vallone, D.M. & Healton, C.G. (2009). Cost-Utility Analysis of the National truth<sup>®</sup> Campaign to Prevent Youth Smoking. *American Journal of Preventive Medicine*, Feb 9. [Epub ahead of print]
- Hornik, R. (Ed.). (2002). *Public health communication: Evidence for behavior change*. London, NJ: Lawrence Erlbaum Associates, Publishers.
- Institute of Medicine. (2007). *Ending the tobacco problem: A blueprint for the nation*. Washington, DC: The National Academies Press.
- Johnston, L. D., O'Malley, P. M., Bachman, J. G., & Schulenberg, J. E. (2007). *Monitoring the Future national survey results on drug use, 1975-2006: Volume I, Secondary school students* (NIH Publication No. 07-6205). Bethesda, MD: National Institute on Drug Abuse.
- Lewis, M. J., & Wackowski, O. (2006). Dealing with an innovative industry: A look at flavored cigarettes promoted by mainstream brands. *American Journal of Public Health*, 96(2), 244–251.
- Lewit, E. M., Coate, D., & Grossman, M. (1981). The effects of government regulation on teenage smoking. *Journal of Law and Economics*, 24(3), 545–569.
- Lorillard Tobacco Company v. American Legacy Foundation*, 903 A.2d 728 (Del Supr. 2006).
- Martin, C. A., Kelly, T. H., Rayens, M. K., Brogli, B. R., Brenzel, A., Smith, W. J., & Omar, H. A. (2002). Sensation seeking, puberty, and nicotine, alcohol, and marijuana use in adolescence. *Journal of the American Academy of Child and Adolescent Psychiatry*, 41, 1495–1502.
- McKenna, J., Gutierrez, K., & McCall, K. (2000). Strategies for an effective youth counter-marketing program: Recommendations from commercial marketing experts. *Journal of Public Health Management and Practice*, 6(3), 7–13.

- Mekemson, C., Glik, D., Titus, K., Myerson, A., Shaivitz, A., Ang, A., & Mitchell, S. (2004). Tobacco use in popular movies during the past decade. *Tobacco Control*, 13(4), 400–402.
- Messeri, P. A., Allen, J. A., Mowery, P. D., Healton, C. G., Haviland, M. L., Gable, J. M., & Pedrazzani, S. D. (2007). Do tobacco countermarketing campaigns increase adolescent under-reporting of smoking? *Addictive Behavior*, 32(7), 1532–1536.
- National Cancer Institute. (2008). *The role of the media in promoting and reducing tobacco use* (Tobacco Control Monograph No. 19; NIH Pub No. 07-6242). Bethesda, MD: U.S. Department of Health and Human Services, National Institutes of Health, National Cancer Institute.
- Niederdeppe, J., Fiore, M. C., Baker, T. B., & Smith, S. S. (2008). Smoking-cessation media campaigns and their effectiveness among socioeconomically advantaged and disadvantaged populations. *Am J Public Health*, 98(5), 916–924.
- Office of Attorney General, California Department. (1998). *Master Settlement Agreement*. Available at <http://ag.ca.gov/tobacco/pdf/1msa.pdf>. Accessed December 13, 2007.
- Palmgreen, P., Donohew, L., Lorch, E. P., Hoyle, R. H., & Stephenson, M. T. (2001). Television campaigns and adolescent marijuana use: Tests of sensation seeking targeting. *American Journal of Public Health*, 91, 292–296.
- Palmgreen, P., Donohew, L., Lorch, E. P., Rogus, M., Helm, D., & Grant, N. (1991). Sensation seeking, message sensation value, and drug use as mediators of PSA effectiveness. *Health Communication*, 3, 217–227.
- Palmgreen, P., Lorch, E. P., Donohew, L., Harrington, N. G., D'Silva, M., & Helm, D. (1995). Reaching at-risk populations in a mass media drug abuse prevention campaign: Sensation seeking as a target variable. *Drugs and Society*, 8, 27–45.
- Palmgreen, P., Stephenson, M. T., Everett, M. W., Baseheart, J. R., & Francies, R. (2002). Perceived message sensation value (PMSV) and the dimensions and validation of a PMSV scale. *Health Communication*, 14, 403–428.
- Pechmann, C., & Shih, C. (1999). Smoking scenes in movies and antismoking advertisements before movies: Effects on youth. *Journal of Marketing*, 63, 1–13.
- Reputation Management. (1998). Why Just Say No Won't Do. *Reputation Management*, 26–40.
- R.J. Reynolds Tobacco Company; Lorillard Tobacco Company; R. J. Reynolds Smoke Shop, Inc. v. Sandra Shewry, Director of the California Department of Health Services; Dileep G. Bal, Acting Chief of the Tobacco Control Section of the California Department of Health Services; State of California*. United States District Court, Eastern District of California. September 28, 2004.
- Rosenstock, I. M., Strecher, V. J., & Becker, M. H. (1988). Social learning theory and the Health Belief Model. *Health Education Quarterly*, 15(2), 175–183.
- Sargent, J. D. (2005). Smoking in movies: impact on adolescent smoking. *Adolescent Medicine Clinics*, 16(2), 345–370.
- Sargent, J. D., Beach, M. L., Adachi-Mejia, A. M., Gibson, J. J., Titus-Ernstoff, L. T., Carusi, C. P., Swain, S. D., Heatherton, T. F., & Dalton, M. A. (2005). Exposure to movie smoking: Its relation to smoking initiation among U.S. adolescents. *Pediatrics*, 116(5), 1183–1191.
- Sargent, J. D., Dalton, M. A., Beach, M. L., Mott, L. A., Tickle, J. J., Ahrens, M. B., & Heatherton, T. F. (2002). Viewing tobacco use in movies. Does it shape attitudes that mediate adolescent smoking? *American Journal of Preventive Medicine*, 22(3), 137–145.

- Sargent, J., Worth, K., & Tanski, S. (2006). *Legacy First Look Report 16. Trends in top box office movie tobacco use 1996-2004*. Washington, DC: American Legacy Foundation.
- Siegel, M. (1998). Mass media antismoking campaigns: A powerful tool for health promotion. *Annals of Internal Medicine*, 129(2), 128–132.
- Siegel, M., & Biener, L. (2000). The impact of an antismoking media campaign on progression to established smoking: results of a longitudinal youth study. *American Journal of Public Health*, 90(3), 380–386.
- Slater, M. D. (2003). Sensation-seeking as a moderator of the effects of peer influences, consistency with personal aspirations, and perceived harm on marijuana and cigarette use among younger adolescents. *Substance Use and Misuse*, 38, 865–880.
- Sly, D. F., Arheart, K., Dietz, N., Trapido, E. J., Nelson, D., Rodriguez, R., McKenna, J., & Lee, D. (2005). The outcome consequences of defunding the Minnesota youth tobacco-use prevention program. *Preventive Medicine*, 41(2), 503–510.
- Sly, D. F., Hopkins, R. S., Trapido, E., & Ray, S. (2001). Influence of a counteradvertising media campaign on initiation of smoking: The Florida “truth” campaign. *American Journal of Public Health*, 91(2), 233–238.
- Sly, D. F., Trapido, E., & Ray, S. (2002). Evidence of the dose effects of an anti-tobacco counteradvertising campaign. *Preventive Medicine*, 35, 511–518.
- Stephenson, M. T., Hoyle, R. H., Palmgreen, P., & Slater, M. D. (2003). Brief measures of sensation seeking for screening and large-scale surveys. *Drug and Alcohol Dependence*, 72, 279–286.
- Thompson, K. M., & Yokota, F. (2001). Depiction of alcohol, tobacco, and other substances in G-rated animated feature movies. *Pediatrics*, 107(6), 1369–1374.
- Tickle, J. J., Sargent, J. D., Dalton, M. A., Beach, M. L., & Heatherton, T. F. (2001). Favorite movie stars, their tobacco use in contemporary movies, and its association with adolescent smoking. *Tobacco Control*, 10(10), 16–22.
- U.S. Department of Health and Human Services. (1989). *Reducing the health consequences of smoking: 25 years of progress. A report of the Surgeon General* [DHHS Publication No. 89-8411] Washington, DC: U.S. Department of Health and Human Services, Public Health Service, Centers for Disease Control, Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health.
- Vallone, D., Allen, J. A., & Xiao, H. Is Socioeconomic status associated with awareness of and receptivity to the truth<sup>®</sup> campaign? In press at *Drug and Alcohol Dependence*.
- Vallone, D., Allen, J. A., Clayton, R. R., & Xiao, H. (2007). How reliable and valid is the brief sensation seeking scale (BSSS-4) for youth of various racial/ethnic groups? *Addiction*, 102(2S), 71–78.
- Vargyas, E. (2007). Opposition to effective social marketing: Lorillard Tobacco Company's failed attempt to shut down the American Legacy Foundation. *Cases in Public Health Communication and Marketing*. Available at <http://www.gwumc.edu/sphhs/departments/pch/phcm/casesjournal/index.cfm>. Accessed December 13, 2007.
- Wakefield, M., Terry-McElrath, Y., Emery, S., Saffer, H., Chaloupka, F. J., Szczypka, G., Flay, B., O'Malley, P. M., & Johnston, L. D. (2006). Effect of televised, tobacco company-funded smoking prevention advertising on youth smoking-related beliefs, intentions, and behavior. *American Journal of Public Health*, 96(12), 2154–2160.

- Wakefield, M. A., Durkin, S., Spittal, M. J., Siahpush, M., Scollo, M., Simpson, J. A., Chapman, S., White, V., & Hill, D. (2008). Impact of tobacco control policies and mass media campaigns on monthly adult smoking prevalence. *American Journal of Public Health, 12*, 1443-1450.
- Warner, K. E. (1986). Selling health: A media campaign against tobacco. *Journal of Public Health Policy, 7*(4), 434-439.
- Warner, K. E. (2001). Related tobacco control policy: From action to evidence and back again. *American Journal of Preventive Medicine, 20*(2S), 2-5.
- Warner, K. E., & Murt, H. A. (1982). Impact of the antismoking campaign on smoking prevalence: A cohort analysis. *Journal of Public Health Policy, 3*(4), 374-390.
- Wunderink, K., Allen, J. A., Xiao, H., Duke, J., Green, M., & Vallone D. (2007). *American Legacy First Look Report 17. Cigarette preferences among youth: Results from the 2006 Legacy Media Tracking Online (LMTO)*. Washington, DC: American Legacy Foundation.
- Zucker, D., Hopkins, R. S., Sly, D. F., Urich, J., Kershaw, J. M., & Solari, S. (2000). Florida's "truth" campaign: A counter-marketing, anti-tobacco media campaign. *Journal of Public Health Management and Practice, 6*(3), 1-6.
- Zuckerman, M., Ball, S., & Black, J. (1990). Influences of sensation seeking, gender, risk appraisal, and situational motivation on smoking. *Addictive Behavior, 5*, 209-220.

