

### Justification

Health communication interventions can be powerful tools for preventing smoking initiation, promoting and facilitating cessation, and shaping social norms related to tobacco use. Effective messages that are targeted appropriately can stimulate public support for tobacco control interventions and create a supportive climate for

policy and programmatic community efforts. The independent Task Force on Community Preventive Services' Guide to Community Preventive Services strongly recommends sustained media campaigns, combined with other interventions and strategies, as an effective strategy to decrease the likelihood of tobacco initiation and promote smoking cessation.<sup>2</sup>

### Background

Billions of dollars are spent annually by tobacco companies to make tobacco use appear to be attractive as well as an accepted and established part of American culture. These tobacco advertising and promotion activities do much more—substantial evidence indicates that the tobacco manufacturers compete vigorously with each other for a share of the youth market.<sup>3-5</sup> For more than two decades, the three most heavily advertised brands (Marlboro, Newport, and Camel) have accounted for more than 80% of brands smoked by adolescents. 6-9

Social norms play a significant role in shaping beliefs and behaviors in healthy and unhealthy ways. 10 For example, survey data from California indicate that adult smokers with strong attitudes about the health effects and restriction of secondhand smoke are more than twice as likely to have made a recent quit attempt and to have the intention to quit in the next six months. 11 Adult smokers who demonstrated strong anti-tobacco industry beliefs were 65% more likely to have made a recent quit attempt and 85% more likely to have the intention to quit in the next six months.11

Adolescents and young adults are very sensitive to perceived social norms and media presentations of smoking behavior. 12,13 Nonsmoking adolescents exposed to tobacco advertising and promotional campaigns are significantly more likely to become young adult smokers. 14,15 Because adolescents and young adults have been and continue to be so heavily exposed to images of smoking in the media, tobacco advertising, and promotional campaigns, public health counter-marketing campaigns are needed to focus on preventing initiation and promoting cessation.

In 1998, the tobacco industry settled a lawsuit with 46 states to recoup funding from Medicaid expenses resulting from the treatment of tobacco-related illness, after having settled with four states individually. This multi-state Master Settlement Agreement (MSA) included specific tobacco industry restrictions related to youth access, marketing, lobbying, and some types of outdoor advertising. After the settlement, tobacco marketing expenditures more than doubled over the next five years. In 2005, tobacco companies spent \$13.4 billion to market cigarettes and smokeless tobacco, outspending the nation's total tobacco prevention and cessation efforts by a ratio of more than 22 to 1.16,17 Although the majority of current tobacco marketing consists of price discounts (which offset the anticipated impact of excise tax increases on tobacco consumption and on youth and adult prevalence), tobacco company traditional advertising budgets still exceed spending on public healthsponsored anti-tobacco campaigns. 16-20 Since the MSA, tobacco promotions have shifted away from traditional media (e.g., billboards and magazines) and moved toward retail outlets.<sup>21</sup> Research indicates that point-of-sale advertising is associated with encouraging youth, particularly younger teens, to try smoking and that cigarette promotions are more influential with youth already experimenting with cigarettes as they progress to regular smoking.<sup>20</sup> Furthermore, youth- and parent-focused anti-tobacco advertising campaigns sponsored by the tobacco industry have been shown to actually increase youth tobacco use. 22,23 Youth exposed to these ads are more likely to report greater intention to smoke in the future and more positive feelings toward the tobacco industry than those who were not exposed.<sup>22,23</sup>

### **Efficacy of Tobacco Counter-Marketing**

The Fairness Doctrine campaign of 1967–1970 the first sustained nationwide tobacco control media effort—documented that an intensive mass media campaign can produce significant declines in smoking rates among both adults and youth.24 A 1999-2000 survey of youth from across the continental United States found that mean exposure to at least one state-sponsored anti-tobacco advertisement in the past four months was associated with greater anti-smoking attitudes and beliefs, such as the perception that smoking is harmful to health and the intention to not smoke in the future.<sup>25</sup> In 2000, the American Legacy Foundation launched truth®, a national campaign to discourage tobacco use among youth, with funding from the MSA. An evaluation of this campaign, which demonstrated the health effects of smoking with graphic images and revealed tobacco industry marketing practices, found it was associated with significant declines in youth smoking prevalence.<sup>26</sup> This evaluation also demonstrated a dose-response relationship between exposure to the truth® campaign and youth smoking, with higher levels of exposure being related to lower prevalence of youth smoking.26

Statewide programs—such as those in California, Massachusetts, and Florida—that have featured a variety of interventions, including paid media campaigns, have had the most success in slowing initiation among youth, reducing tobacco use among adults, and protecting the public from the harmful effects of secondhand smoke exposure. 1,27 In the three years after Massachusetts' implementation of a cigarette price increase and robust countermarketing campaign, adult smoking prevalence decreased 9% (from 23.5% to 21.3%).28 In just one year, a comprehensive prevention program financed by state settlement dollars and anchored by an aggressive mass media campaign produced significant declines in tobacco use among Florida middle and high school students.<sup>29</sup>

As part of its comprehensive tobacco prevention and control campaign, California has targeted

media and local efforts to reach Asian, Hispanic, African American, and American Indian and Alaska Native populations. For example, the state provides targeted promotions of the California Smokers' Helpline, which offers cessation services and information in a variety of languages including English, Spanish, Mandarin, Cantonese, Vietnamese, and Korean. The state has demonstrated success in recruiting target populations to the quitline; in fact, some ethnic minorities are particularly well represented.<sup>30</sup> California's anti-tobacco program has also led to significant reductions in smoking across ethnic groups. For instance, from 1990 to 2005, smoking rates among Asian men dropped from 20% to less than 15%; among Hispanic men, from 22% to 16%; and among African American men, from 28% to 21%.31

From 2000 to 2003, Minnesota ran a successful anti-tobacco youth prevention program that featured a continual, high-profile media campaign. However, within six months of the program being dismantled, awareness of the message had eroded and the likelihood of youth to initiate smoking increased from 43% to 53%, providing evidence that sustained media efforts are important.<sup>32</sup>

Beginning in 2002, New York City implemented a multi-pronged, phased initiative to reduce adult and youth smoking rates that included increasing the state's tobacco excise tax, making workplaces smoke-free, expanding cessation services, providing tobacco education, and implementing an extensive television-based media campaign. Ads were broadcast at varying levels for 10 months, with a total exposure over the full campaign of approximately 6,500 gross rating points (GRPs)\* (see note at end of section). The state conducted a simultaneous anti-tobacco campaign that resulted in an additional 4,400 GRPs over 12 months for New York City. From 2002 to 2006, adult smoking rates in the city declined 19% overall. Among young adults aged 18 to 24 years, smoking declined 17% in the year after the implementation of the media campaign and 35% from the start of the initiative in 2002.33

### Recommendations

An effective state health communication intervention should deliver strategic, culturally appropriate, and high-impact messages in sustained and adequately funded campaigns integrated into the overall state tobacco program effort.<sup>27</sup> Traditional health communication interventions and counter-marketing strategies employ a wide range of efforts, including paid television, radio, billboard, print, and web-based advertising at the state and local levels; media advocacy through public relations efforts, such as press releases, local events, media literacy, and health promotion activities; and efforts to reduce or replace tobacco industry sponsorship and promotions. Innovations in health communication interventions include targeting specific audiences through personal communication devices (e.g., text messaging) and online networking environments, as well as fostering message development and dissemination by target audience through innovative channels (such as web logs or "blogs").

Behavior theory, audience research, market research, and counter-marketing surveillance are grounded in communication science and are used to develop interventions that target specific audiences (e.g., adults, youth, and disparate populations) with tailored messages that can result in knowledge, attitude, and behavior change. These methods are often used to identify key strategies, influential messages, and the most effective communication channels and media options to reach specific audiences, including diverse and higher-risk populations.

Although the relative effectiveness of specific message concepts and strategies varies by target audience, research from all available sources

shows that counter-marketing and other media must have sufficient reach, frequency, and duration to be successful.34-36 The goal is to reach a defined target audience with fresh and attention-getting messages as efficiently and economically as possible. Media buys are an integral part of an overall strategy. Effective media planning works within the total framework of the campaign's goals. It is estimated that ads should reach 75% to 85% of the target audience each quarter of the year during a media campaign, with an average of 1,200 targeted rating points (TRPs)\* (see note at end of section) per quarter during the introduction of a campaign and 800 TRPs per quarter thereafter.<sup>35</sup> While some very well-financed campaigns have exceeded these benchmarks, a campaign should be expected to run at least six months to affect awareness of the issue, 12 to 18 months to have an impact on attitudes, and 18 to 24 months to influence behavior.35 Campaigns need to overcome pro-tobacco marketing influences, and so reasonable expectations of effectiveness should be set.

The experience of tobacco control campaigns in many states, including Arizona, California, Florida, Massachusetts, Minnesota, and Oregon, as well as the national American Legacy Foundation campaign, suggests that message content is very important. Messages that elicit strong emotional response, such as personal testimonials and viscerally negative content, produce stronger and more consistent effects on audience recall.<sup>36</sup> Aggressive state and national counter-marketing campaigns that have more directly confronted the tobacco industry's marketing tactics have also demonstrated effectiveness but have often become targets for budget cuts.<sup>37</sup>



In addition to providing sufficient reach, frequency, and duration, effective media and health communication intervention efforts should include:

- Audience research to define the thematic characteristics and execution of messages and to develop campaigns that are influential, have high impact, and engage specific audiences
- Market research to not only identify the knowledge, attitudes, and behaviors of target audiences but also the behavioral theory that best motivates specific audiences to change
- Counter-marketing surveillance to understand pro-tobacco messaging, media analysis, and marketing tactics
- Grassroots promotions, local media advocacy, event sponsorships, and other community tie-ins to support and reinforce the statewide campaign and to counter pro-tobacco influences
- Technologies such as viral marketing, social networks, personal web pages, and blogs to generate messages that are then disseminated by the target audience
- Process and outcome evaluation of a comprehensive communication effort as well as specific evaluations of new and innovative approaches
- Promotion of available services, including the state's telephone cessation quitline number or the national portal number (1-800-QUIT NOW)

Planning tools, such as CDC's tobacco control version of CDCynergy and Designing and Implementing an Effective Tobacco Counter-Marketing Campaign, can be used to systematically plan communication within the larger context of a comprehensive tobacco control program.<sup>27,38</sup> In addition, Tobacco Counter-Marketing Paid Media Evaluation Manual (in press) provides evaluators of paid media campaigns with tools to help refine counter-marketing activities and supply results to stakeholders for program accountability and maintenance. Tobacco Use Prevention Media Campaigns: Lessons Learned from Youth in Nine Countries provides guidance on the elements of paid media campaigns that have demonstrated effectiveness among young people.35

\* Reach and frequency are the fundamental building blocks for planning and measuring the success of advertising campaigns. *Reach* refers to the number of unduplicated homes/people exposed at least once to a particular ad. *Frequency* is the average number of times a home or individual is exposed to an ad during a given period of time. A rating represents the percent of a specific population group that is exposed to a television or radio program. Each rating point represents 1% of the population the campaign is trying to reach. *Gross rating points* (GRPs) are a measure of the total intensity of a media plan. *Targeted rating points* (TRPs) are used when a specific subpopulation such as 12–17 year olds or 18–44 year olds are targeted.

Reach x Frequency = GRPs. For example, if a campaign reaches 50% of the audience three times (50 x 3) or 75% of the audience two times (75 x 2), either would equal 150 GRPs.

### **Budget**

Health communication efforts need to be adequately funded, sustained over time, and integrated with other program activities in order to counter tobacco industry marketing and effectively reduce tobacco use initiation and increase cessation. Campaigns of longer duration and higher intensity are associated with greater declines in smoking rates. 26,39-41 Currently, no sustained federal funding is available for national campaigns. The American Legacy Foundation's truth® and other national campaigns are made possible by the MSA, but future funding for these campaigns remains uncertain. Thus, in the current situation, states need to provide the primary budget for health communication interventions addressing youth prevention, adult cessation, and protection from secondhand smoke to ensure that all state residents will be exposed to messages that address the multiple goals of the comprehensive tobacco control program.

Budget recommendations should be sufficient to conduct a health communication campaign in the state's major media markets addressing cessation (including promotion of the state's quitline), general education about the health hazards of tobacco use and secondhand smoke exposure and youth prevention. Funds should be competitively awarded to firms that understand a state's media markets, have experience in reaching culturally diverse audiences, and have the ability to do market research and counter-marketing surveillance. Additional guidance on selecting contractors for health communication interventions is available in Designing and Implementing an Effective Tobacco Counter-Marketing Campaign.<sup>27</sup>

Recommendations for funding Health Communication Interventions are based on the 1999 funding formula for Counter-Marketing. This range of funding was adjusted for changes in inflation and applied to states according to the cost and complexity of their media markets, in part measured by the quantity and coverage provided by a state's designated market areas (DMAs). AC Nielsen cost estimates for buying televised air time in 2006

by state were provided to CDC on November 20, 2006. The specific state-recommended level of investment within the funding range was determined on the basis of the state's relative cost for purchasing 1,200 TRPs per quarter to reach youth aged 12 to 17 years. Comparable relative costs are expected for campaigns that reach other target audiences. This relative cost was then adjusted up or down to reflect the state's effectiveness in reaching 80% of the target population through their recommended DMAs. For example, in Hawaii, all of the target audience lives within one media market and can be reached by purchasing television air time in the local DMA. However, many states have counties that fall outside their primary DMAs, and they may need to consider purchasing media in a neighboring state to reach the minimum recommended level of the target audience. Also, budgeting for effective media campaigns is more complicated for states having media markets that share major metropolitan areas with neighboring states.

Programs of greater intensity using a range of media formats may be needed to tailor the campaign to specific population groups. The cost of audience research, message development, and ad placement will vary significantly across states and media markets. Additional funds may also be required to develop new advertising materials. However, states can lower program development costs by using existing television, radio, print, and outdoor ads from CDC's Media Campaign Resource Center (MCRC), a clearinghouse of high-quality materials produced by states and other organizations. 42 Alternative forms of advertising—such as direct mail; Internet or textmessaging; working through healthcare providers, other government organizations, or media advocacy—can extend the reach of a message, as can recruiting audiences to produce, place, and promote messages themselves through social networks and other web-based technologies.



### Core Resources

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