



## PUBLIC EDUCATION CAMPAIGNS REDUCE TOBACCO USE

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The scientific evidence is substantial and clear: public education campaigns reduce the number of youth who start smoking, increase the number of smokers who quit, and make tobacco industry marketing less effective, saving lives and health care dollars. The 2012 Report of the Surgeon General, *Preventing Tobacco Use Among Youth and Young Adults*, concluded specifically and unequivocally: mass media campaigns “prevent the initiation of tobacco use and reduce its prevalence among youth.”<sup>1</sup> The 2014 Surgeon General’s Report, *The Health Consequences of Smoking—50 Years of Progress*, affirms this conclusion and recommends, among other actions, “high impact national media campaigns...at a high frequency level and exposure for 12 months a year for a decade or more.”<sup>2</sup>

Mass media campaigns are particularly important because the tobacco industry spends \$9.1 billion annually marketing and advertising its products, and this marketing increases the number of kids who try smoking and become regular smokers.<sup>3</sup> The 2012 Surgeon General’s report concludes that tobacco marketing causes kids to start and continue using tobacco products and finds that the scientific evidence “consistently and coherently points to the intentional marketing of tobacco products to youth as being a cause of young people’s tobacco use.”<sup>4</sup> The Report also concludes that more than 80% of young smokers smoke one of the three most heavily advertised brands of cigarettes,<sup>5</sup> which results from a deliberate strategy on the part of tobacco companies to attract the youth market.<sup>6</sup> The scientific evidence is clear that one of the best ways to reduce the power of tobacco marketing is an aggressive public education campaign.<sup>7</sup>

Mass media campaigns that provide information about how to get help with quitting can be particularly effective in promoting quit attempts. In 2012, the U.S. Centers for Disease Control and Prevention (CDC) conducted the first ever federally-funded national media campaign aimed at reducing smoking. The campaign, *Tips From Former Smokers (Tips)*, depicted former smokers coping with devastating diseases and disabilities caused by their tobacco use. Studies demonstrate that the *Tips* campaign is not only effective at reducing tobacco use, but is also extremely cost-effective. Between 2012 and 2018, CDC estimates that the *Tips* campaign has motivated more than 16.4 million smokers to make a quit attempt, helped approximately one million smokers to quit for good and saved at least 50,000 lives.<sup>8</sup> A recent cost-effectiveness analysis found that over the same timeframe, *Tips* saved an estimated \$7.3 billion in smoking-related health care costs.<sup>9</sup>

- A 2020 analysis which modeled the impact of anti-tobacco mass media campaigns found that sustained national media campaigns like *Tips* can result in cost savings for all payers (private payers, Medicare and Medicaid) within ten years. Cost savings could occur after just two years for Medicaid and Medicare programs.
  - Based on an estimate that the campaign will produce results similar to *Tips* (a 12% increase in successful quits), researchers estimate that running a sustained media campaign like *Tips* would reduce Medicaid spending by \$3.6 billion, Medicare spending by \$1.37 billion, and private insurer spending by \$180 million over 10 years.<sup>10</sup>
- A study published in *The Lancet* estimated that, as a result of the 12 week campaign in 2012, 1.6 million smokers tried to quit smoking and more than 100,000 likely quit smoking permanently. Researchers estimate that by quitting, former smokers added more than a third of a million years of life to the U.S. population.<sup>11</sup> In addition, the 2012 campaign inspired millions of nonsmokers to encourage friends and family members to quit smoking.<sup>12</sup>
- A 2014 study published in the *American Journal of Preventive Medicine* found that in its first year (2012), the *Tips* campaign helped 100,000 smokers to quit and saved about 17,000 people from a premature death. The campaign, with a modest budget of \$48 million, spent only \$480 per smoker who quit and \$393 per year of life saved. According to the study’s authors, these costs

are far below the benchmark of \$50,000 per year of life saved that is a commonly accepted threshold for measuring cost-effectiveness of public health interventions.<sup>13</sup>

- The 2013 *Tips* campaign, which aired on a one week on, one week off basis for the first 12 weeks of the 16 week campaign also had a substantial impact on public health, generating more than 150,000 additional calls to 1800-QUIT-NOW (there were 353,000 total calls) and almost 2.8 million additional unique visitors to [www.smokefree.gov](http://www.smokefree.gov). The campaign's pulsing strategy clearly shows that calls to the quitline increased sharply when the campaign was on the air, suggesting that the campaign motivated many smokers to try to quit.<sup>14</sup> These numbers likely underrepresent the number of people who tried to quit smoking as a result of the campaign because the number of people who seek help quitting is a small fraction of the people who actually make quit attempts. Previous experience from state and local media campaigns that promote quitlines indicate that at least five to six smokers try to quit on their own for every person who calls a quitline.<sup>15</sup>

In addition, a recent study published in the *American Journal of Preventive Medicine* found that anti-smoking ads which feature highly emotional and graphic content, similar to the themes used in the *Tips* campaign, are very effective at motivating smokers to try to quit. Researchers found that both the amount and type of ads seen by New York State smokers affected their likelihood of quitting, with greater exposure to emotional or graphic ads having the greatest impact on quit attempts. The impact of the ads was similar across income and education levels, as well as for smokers with varying desires to quit.<sup>16</sup>

### Scientific Conclusions on Public Education Campaigns

The evidence that public education campaigns are effective at reducing tobacco use is solid and extensive.

- The recently released **Surgeon General's report, *Preventing Tobacco Use Among Youth and Young Adults***, concluded that adequately funded anti-tobacco media campaigns reduce tobacco use among youth, and that there is a dose-response relationship between exposure to antismoking media messages and reduced youth smoking, i.e., the greater the exposure the less likely youth are to smoke. The report also found that teens respond most to ads that evoke strong negative emotions such as those that demonstrate how smoking and secondhand smoke harm health. Further, ads designed for adults can also reduce smoking among young people.<sup>17</sup>
- A comprehensive report released in June 2008 by the National Cancer Institute (NCI), ***The Role of the Media in Promoting and Reducing Tobacco Use***, concluded that anti-tobacco media campaigns are effective in reducing smoking among youth and adults. Particularly, advertisements that evoke strong emotions have the most impact on viewers, and youth also react positively to anti-tobacco advertisements aimed at adults.<sup>18</sup>
- A **systematic review of the literature on the impact of mass media campaigns, published in 2012**, concluded that these campaigns can promote quitting among adults and reduce adult smoking rates. Messages that used graphic images and/or testimonials to portray the negative health consequences of smoking were found to be most effective at generating increased knowledge, positive beliefs, and quitting behavior. Ads depicting negative health consequences appear to work particularly well with lower socioeconomic smokers. Television was found to be the most effective communication channel in which to reach and influence adult smokers.<sup>19</sup>
- The **Community Preventive Services Task Force**, an independent expert advisory committee created by CDC, found "strong evidence" that mass-reach media interventions are effective in decreasing tobacco use, increasing cessation and the use of available services like quitlines, and decreasing tobacco use initiation among youth. The evidence also indicates that mass-reach media interventions are cost-effective, and savings from averted healthcare costs exceed intervention costs.<sup>20</sup>
- The **CDC's *Best Practices for Comprehensive Tobacco Control Programs*** concluded that public education (counter-marketing) campaigns are an integral part of efforts to both prevent initiation of tobacco use and to encourage tobacco cessation.<sup>21</sup>
- The **2000 Surgeon General's report, *Reducing Tobacco Use***, suggests that counter-marketing efforts that include pro-health messages and messages about the tobacco industry's marketing and

promotional tactics are required to counter the tobacco industry's efforts to promote misleading messages and images about tobacco to young people and adults.

### **Public Education Campaigns Encourage Smokers to Quit and Discourage Nonsmokers from Starting to Smoke**

Research demonstrates that tobacco prevention media campaigns are an effective way to encourage smoking cessation and are also effective at preventing initiation.

- A 2017 study of the impact of the Tips campaign from 2012 to 2015 found that exposure to higher levels of Tips TV advertising was associated with increased odds of making a quit attempt in the past three months and increased odds of intending to quit in the next 30 days.<sup>22</sup>
- Earlier research found that the quit attempt rate for smokers in media markets with higher doses of the *Tips* campaign was 11 percent higher than that of smokers in standard dose media markets. The higher dose media markets also impacted non-smokers, who had greater knowledge of smoking health risks and were more likely to talk with friends and family about the dangers of smoking.<sup>23</sup>

FDA's "The Real Cost" campaign, the nation's first federally funded youth tobacco education campaign, is aimed at preventing smoking initiation among at-risk teens (those at risk for smoking or those who have already experimented with smoking). Results demonstrate that the campaign is cost-effective and resonates with youth.

- A 2017 study that examined the impact of The Real Cost campaign on youth smoking initiation estimates that the campaign prevented nearly 350,000 young people ages 11-18 from starting to smoke between 2014 and 2016. A high level of exposure to the campaign was associated with a 30 percent decrease in the risk of starting to smoke. Recall of campaign ads was associated with greater perceptions of serious health consequences of cigarette smoking and more negative attitudes toward tobacco products.<sup>24</sup>
- A 2018 study published in the *American Journal of Preventive Medicine* found that by preventing more than 175,000 youth from becoming established smokers, The Real Cost Campaign resulted in a cost-savings of \$1.4 billion. According to the analysis, the campaign saved \$4 for every \$1 spent to implement the campaign. The cost savings are even higher when costs incurred directly by the smoker are included.<sup>25</sup>
- The campaign effectively reached youth – nearly 9 out of 10 youth (89%) were aware of at least one campaign ad 6 to 8 months after campaign launch and awareness was extremely high among two target audiences, susceptible nonsmokers (90.5%) and experimenters (94.6%).<sup>26</sup>

A number of states have undertaken public education campaigns as part of comprehensive tobacco prevention and cessation programs. The evidence demonstrates that the public education component is a critical piece driving the success of comprehensive tobacco prevention programs. When implemented with adequate funding, these programs have reduced smoking and other tobacco use, and the public education campaigns have been instrumental in these reductions.

- In 2005, the New York Tobacco Control Program implemented an aggressive anti-smoking media campaign that included graphic images and emotional portrayals to depict the health consequences of smoking and smoking-related suffering. Smokers' exposure to antismoking advertisements increased significantly as a result of this campaign and corresponded with changes in key smoking-related outcomes. For example, among adult smokers, both intentions to quit and quit attempts increased significantly between 2003 and 2009. Additionally, adult smoking among New Yorkers declined 18 percent between 2003 and 2009; nationally, adult smoking declined just 5 percent over this same time period. Researchers suggest that the sustained implementation of New York's media campaign contributed to these changes.<sup>27</sup>
- In 2007, Florida implemented a statewide tobacco prevention and cessation program, Tobacco-Free Florida, which combines a public awareness media campaign with community-based interventions and help and encouragement for smokers to quit. The program's public education campaign uses emotional and graphic advertising to demonstrate the adverse health effects of tobacco use and also

offers information about how to get help with quitting. As the program aired Rick Stoddard ads, which deliver a highly emotional message, calls to the program's quitline soared – 19,132 people called the quitline in January 2011 compared to 9,941 in January 2010. In addition, since the program was implemented, Florida has seen an 18.6 percent decline in adult smoking rates and the percentage of smokers who have tried to quit smoking has increased from 44 percent to 57 percent.<sup>28</sup>

- An evaluation of California's Tobacco Education and Media Campaign concluded that the campaign contributed to significant reductions in smoking prevalence among both youth and adults. Researchers also found that the campaign encouraged adult smokers to quit and deterred smoking initiation among youth.<sup>29</sup> An earlier study found that California's anti-tobacco media campaign reduced cigarette consumption. In its early years, the California tobacco control program produced a 10-percent to 13-percent decline in cigarette consumption, with about a fifth of the decline caused by the media campaign alone.<sup>30</sup>
- A 2012 study published in the *American Journal of Public Health* found that greater exposure to state-sponsored anti-tobacco advertisements was associated with less smoking and with current smokers' intention to quit, even when controlling for potential confounding state tobacco control policies. Researchers noted that exposure to state-funded anti-tobacco advertisements was far below the levels recommended by the CDC's Best Practices recommendations and that if states had followed CDC's recommendations, there would be more than 600,000 fewer smokers.<sup>31</sup>
- A 2005 study published in the *Archives of Pediatric and Adolescent Medicine* found strong associations between exposure to state-sponsored TV anti-tobacco advertisements and general recall of anti-tobacco advertising, anti-smoking attitudes and beliefs, and smoking prevalence. Specifically, only 19 percent of students with greater exposure to state-sponsored anti-tobacco advertisements reported smoking in the past 30 days, compared to 27 percent of students in markets with no exposure to state-sponsored anti-tobacco ads. Additionally, students that had greater exposure to state-sponsored anti-tobacco ads were significantly less likely to report most or all of their friends were smokers, were less likely to say they would never get addicted to cigarettes, were more likely to perceive the harms of smoking one or more packs a day, and were more likely to report that they definitely would not be smoking in five years, compared to students with less exposure to the ads.<sup>32</sup>
- A study published in the June 2006 issue of *Health Education Research* found that increased exposure to state sponsored anti-tobacco media campaigns increases smoking cessation rates, even after controlling for other factors that may affect smoking cessation. Specifically, researchers found that the quit rate among adult smokers increased by about ten percent in communities exposed to higher levels of state anti-tobacco advertising (about two additional exposures per person per month).<sup>33</sup>

A few additional studies regarding the effectiveness of public education campaigns are summarized below.

- A 2009 study published in the *American Journal of Public Health* found that smokers who had greater exposure to anti-smoking ads were more likely to have quit smoking at 24 months follow-up. On average, smokers were exposed to more than 200 anti-smoking ads during a two-year period, and the odds of having quit at follow-up increased by 11 percent with each ten additional ad exposures. The effect was greater among lower and middle socioeconomic populations than among smokers in higher socioeconomic groups.<sup>34</sup>
- Studies published online in the *American Journal of Prevention Medicine* found that **truth**®, the national youth smoking prevention campaign conducted by the American Legacy Foundation, has been both highly effective and cost-effective in preventing America's youth from starting to smoke. One study found that **truth**® was directly responsible for keeping 450,000 teens from starting to smoke during its first four years, while a second study found that the campaign resulted in savings of between \$1.9 billion and \$5.4 billion in health care costs in just its first two years.<sup>35</sup>

Research has also shown that the FCC-required antismoking messages during the late 1960s resulted in a decline in per capita cigarette consumption of at least five percent, and a reduction in the prevalence of teenage smoking of three percentage points.<sup>36</sup> Anti-smoking ads were so effective that tobacco companies agreed to take their own ads off television in order to have these ads removed.

**The scientific evidence demonstrates that the most effective public education campaigns include the following characteristics.**

- They are grounded in rigorous research on effectiveness and include messages found to be effective with target audience(s)
- They use multiple channels to reach the target audience, including a variety of paid media efforts (television, radio, print, web-based, etc.) and are complimented by earned media (press releases, local events and promotions) and other efforts.
- They are well-funded and sustained so the media component can achieve the reach necessary to be effective.

**Campaign for Tobacco-Free Kids, February 1, 2021**

<sup>1</sup> HHS, *Preventing Tobacco Use Among Youth and Young Adults, A Report of the Surgeon General*, 2012 <http://www.cdc.gov/Features/YouthTobaccoUse/>.

<sup>2</sup> HHS, *The Health Consequences of Smoking: 50 Years of Progress. A Report of the Surgeon General*. 2014. <http://www.surgeongeneral.gov/library/reports/50-years-of-progress/index.html>

<sup>3</sup> U.S. Federal Trade Commission (FTC). *Cigarette Report for 2014, 2016*. [https://www.ftc.gov/system/files/documents/reports/federal-trade-commission-cigarette-report-2014-federal-trade-commission-smokeless-tobacco-report/ftc\\_cigarette\\_report\\_2014.pdf](https://www.ftc.gov/system/files/documents/reports/federal-trade-commission-cigarette-report-2014-federal-trade-commission-smokeless-tobacco-report/ftc_cigarette_report_2014.pdf); FTC, *Smokeless Tobacco Report for 2014, 2016*, [https://www.ftc.gov/system/files/documents/reports/federal-trade-commission-smokeless-tobacco-report/ftc\\_smokeless\\_tobacco\\_report\\_2014.pdf](https://www.ftc.gov/system/files/documents/reports/federal-trade-commission-smokeless-tobacco-report/ftc_smokeless_tobacco_report_2014.pdf) [Data for top 5 manufacturers only]. See also, National Cancer Institute, *The Role of the Media in Promoting and Reducing Tobacco Use*, Smoking and Tobacco Control Monograph No. 19, NIH Pub. No. 07-6242, June 2008, [http://cancercontrol.cancer.gov/tcrb/monographs/19/m19\\_complete.pdf](http://cancercontrol.cancer.gov/tcrb/monographs/19/m19_complete.pdf).

<sup>4</sup> HHS, *Preventing Tobacco Use Among Youth and Young Adults, A Report of the Surgeon General*, 2012.

<sup>5</sup> Substance Abuse and Mental Health Services Administration (SAMHSA), *Results from the 2005 National Survey on Drug Use and Health (NSDUH): Detailed Tables*, 2006, <http://www.oas.samhsa.gov/2k5/nsduh/tabs/Sect7peTabs58to67.pdf>.

<sup>6</sup> RJR Industry documents released January 15, 1998, as reported in *Washington Post*, *New York Times*, *Wall Street Journal*.

<sup>7</sup> Flynn, BS, et al., "Mass media and school interventions for cigarette smoking prevention: Effects 2 years after completion," *American Journal of Public Health (AJPH)* 84:1148-50, 1994; Wakefield, M et al., "Use of Mass Media Campaigns to Change Health Behaviour," *The Lancet* 376(9748):1261-71, October 9, 2010; See also, National Cancer Institute, *The Role of the Media in Promoting and Reducing Tobacco Use*, Smoking and Tobacco Control Monograph No. 19, NIH Pub. No. 07-6242, June 2008; HHS, *Preventing Tobacco Use Among Youth and Young Adults, A Report of the Surgeon General*, 2012 <http://www.cdc.gov/Features/YouthTobaccoUse/>.

<sup>8</sup> Murphy-Hoefer R, Davis KC, King BA, Beistle D, Rodes R, Graffunder C. Association between the Tips From Former Smokers Campaign and Smoking Cessation Among Adults, United States, 2012–2018. *Preventing Chronic Disease* 2020;17:200052.; CDC, <https://www.cdc.gov/tobacco/campaign/tips/about/impact/campaign-impact-results.html>; Centers for Disease Control and Prevention (CDC), FY 2017 Justification of Estimates for Appropriations Committees <http://www.cdc.gov/budget/documents/fy2017/fy-2017-cdc-congressional-justification.pdf>; see also, Murphy-Hoefer, Rebecca, "Impact of the Tips from Former Smokers Campaign on Population-Level Smoking Cessation 2012-2015," *Preventing Chronic Disease* Volume 15, E71, May 2018;

<sup>9</sup> Shrestha SS, et al., "Cost Effectiveness of the Tips From Former Smokers Campaign—US, 2012–2018. *American Journal of Preventive Medicine*. 2020 Dec 23.

<sup>10</sup> Maciosek, Michael V., et al., "Budgetary impact from multiple perspectives of sustained antitobacco national media campaigns to reduce the arms of cigarette smoking," *Tobacco Control*, April, 2020.

<sup>11</sup> McAfee, T, et al., "Effect of the first federally funded US antismoking national media campaign," *The Lancet* September 9, 2013. During the 12 week campaign, calls to the toll-free number that provides help to smokers trying to quit (1800-QUIT-NOW) more than doubled and the number of hits to [www.smokefree.gov](http://www.smokefree.gov), the government's website offering quit assistance, more than tripled. Specifically, calls to the toll-free quitline number increased 132 percent, or 207,519 additional calls, and the number of unique visitors to the cessation website increased 428 percent, or 510,571 additional unique visitors, compared to the same time period in 2011.

<sup>12</sup> McAfee, T, et al., "Effect of the first federally funded US antismoking national media campaign," *The Lancet* September 9, 2013.

<sup>13</sup> Xu, Xin, et al., "Cost-Effectiveness Analysis of the First Federally Funded Antismoking Campaign," *American Journal of Preventive Medicine*, 2014.

<sup>14</sup> CDC, "Impact of a National Tobacco Education Campaign on Weekly Numbers of Quitline Calls and Website Visitors – United States, March 4–June 23, 2013," *MMWR* 62(37), September 20, 2013. [http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6237a3.htm?s\\_cid=mm6237a3.htm\\_w](http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6237a3.htm?s_cid=mm6237a3.htm_w)

<sup>15</sup> CDC, Office on Smoking and Health, "Calls to Quitline hit record high after CDC national tobacco ad campaign launch," Press release April 2, 2012. [http://www.cdc.gov/media/releases/2012/p0402\\_quitline.html](http://www.cdc.gov/media/releases/2012/p0402_quitline.html)

<sup>16</sup> Farelly, MC, et al., "Promotion of Smoking Cessation with Emotional and/or Graphic Antismoking Advertising," *American Journal of Preventive Medicine*, 43 (5) 2012.

<sup>17</sup> HHS, *Preventing Tobacco Use Among Youth and Young Adults, A Report of the Surgeon General*, 2012 <http://www.cdc.gov/Features/YouthTobaccoUse/>.

<sup>18</sup> National Cancer Institute, *The Role of the Media in Promoting and Reducing Tobacco Use*, Smoking and Tobacco Control Monograph No. 19, NIH Pub. No. 07-6242, June 2008. See also, Biener, L. et al., "How Broadcast Volume and Emotional Content Affect Youth Recall of Anti-Tobacco Advertising," *American Journal of Preventive Medicine* 35(1):14-19, July 2008.



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