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**Identifying Potential Targets for a Mass Media Campaign to Reduce Youth and Young Adult Smoking Behavior**

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## Introduction

Anti-smoking mass media campaigns play an important role in efforts to reduce the prevalence of smoking among youth (12 – 17 year olds) and young adults (18 – 25 year olds) (hereafter collectively referred to as *young people*). In the recently published Surgeon General's Report on *Preventing Tobacco Use Among Youth and Young Adults*, the reviewers determined that there was sufficient evidence to conclude that mass media campaigns can prevent the initiation of tobacco use and reduce its prevalence among young people (U.S. Department of Health and Human Services, 2012).

There are at least three broad approaches that can be taken when developing a mass media campaign to reduce the prevalence of smoking among young people. First, a campaign may try to directly influence individual-level predictors of smoking behavior, such as knowledge about the ingredients in tobacco products or the negative health effects of tobacco use, or tobacco-related beliefs (e.g., impact of smoking on sport participation), self-efficacy (e.g., refusal efficacy), or perceived social norms (e.g., approval of smoking among peers) (individual route of effects). Alternatively, a campaign may try to indirectly influence an individual's behavior by targeting others within the individual's social environment (societal route of effects). A third approach for mass media campaigns is to work to create environments that are less conducive to smoking (institutional route of effects).

In a first step towards identifying promising targets for a mass media campaign to reduce smoking behaviour among young people, in this Working Paper we have documented a list of factors that are associated with smoking among young people (ages 12 – 25), and have specified whether each of these factors is expected to influence smoking behavior through an individual, societal, or institutional route of effects. We developed this list by extracting information from the recently published Surgeon General's Report on *Preventing Tobacco Use Among Youth and Young Adults* (U.S. Department of Health and Human Services, 2012) and three other recent reviews of the literature regarding predictors of youth smoking (Australian Government Department of Health and Ageing, 2005; Freedman et al., 2012; Goldade et al., 2012). Several additional factors were identified during a review of the literature on the effectiveness of tobacco control communication campaigns among young people, and through our own brainstorming. Through this process, we generated more than 80 factors.

We then created a shortlist of factors that we believe are amenable to being targeted in a tobacco control communication campaign that focuses on young people as the direct target audience. This shortlist contains factors that are expected to operate through an individual or a societal route of effects. Within the group of individual factors, we have further grouped factors as being related to: Knowledge; Beliefs & Attitudes; Self-Efficacy; Perceived Social Norms; or Social Influences. Factors not included in the shortlist were: those for which a communication campaign would not focus on youth as the target audience; those for which the communication campaign would not focus specifically on tobacco use; and those factors that we did not believe were amenable to being changed by a communication campaign.

## Factors Associated with Smoking Among Young People

### Shortlisted Factors

#### **Knowledge [individual route of effects]**

- Knowledge of the health consequences of tobacco use [P]
- Knowledge that youth are just as susceptible to the health consequences of smoking as adults [P]
- Knowledge of the addictive nature of smoking [P]
- Knowledge of ingredients in tobacco products [P]
- Knowledge that smoking can endanger others [P]
- Knowledge of the negative effects of smoking on cosmetics [P]
- Knowledge of the impact of smoking on sports [P]
- Knowledge of the mood benefits of smoking [R]
- Knowledge that smoking is expensive [P]
- Knowledge that there are better ways to spend money than on tobacco products [P]
- Knowledge of the tobacco industry's manipulative practices [P]

#### **Beliefs & Attitudes [individual route of effects]**

- Belief in the health consequences of smoking [P]
- Belief that youth are just as susceptible to the health consequences of smoking as adults [P]
- Belief in the addictive nature of smoking [P]
- Belief that smoking can endanger others [P]
- Belief in the negative effects of smoking on cosmetics [P]
- Belief in the impact of smoking on sports [P]
- Belief in the mood benefits of smoking [R]: (*†Belief that contrary to widespread assumptions, smoking doesn't offer any actual alleviation from stress, depression, or any other mood-related conditions in the long-term [P]*)

- Belief that smoking is expensive [P]
- Belief that there are better ways to spend money than on tobacco products [P]
- Belief that NOT smoking is an assertion of independence [P]
- Belief that smoking is an assertion of independence [R]: (*†Belief that smoking has nothing to do with independence and that it is rather proof of immaturity [P]*)
- Anti-industry attitudes (e.g., beliefs in tobacco industry manipulative practices; desire to take a stand against the industry) [P]

#### **Self-efficacy [individual route of effects]**

- Firm commitment not to smoke [P]
- Self-efficacy to refuse smoking [P]

#### **Perceived Social Norms [individual route of effects]**

- Perceived (or actual) disapproval of smoking among peers [P]
- Perceived (or actual) approval of smoking among peers [R]: (*†Belief that peers who approve of your smoking aren't concerned with your health, but just want someone to smoke with [P]*)
- Perceived disapproval of smoking among parents, or perception that parents have a negative attitude towards smoking [P]
- Perceived approval of smoking among parents, or perception that parents have a positive attitude towards smoking [R]: (*†Belief that parents are actually concerned with your health and that if given the opportunity, they would discourage your smoking; Belief that regardless of their approval, you must take care of your own health [P]*)

- Perceptions of high smoking prevalence among peers [R]: (*†Knowledge that smoking levels among other youths are not as high as people think and that smoking is not a majority-group activity [P]*)
- Perception that smoking leads to social popularity (e.g., including more dates with romantic partners) [R]: (*†Belief that popularity is not determined by smoking, and that non-smokers can be equally popular; Belief that non-smokers prefer to date non-smokers [P]*)
- Perception that attractive people smoke [R]: (*†Belief that it's not smoking that makes anyone attractive, and that actually, smoking makes them less attractive; Belief that there are plenty of attractive people who don't smoke [P]*)

#### **Social Influences [social route of effects]**

- Direct peer pressure to smoke [R]: (*†Belief that pressuring others to smoke is a violation of their rights to choose whether or not to smoke for themselves [P]*)
- Having received cigarette offers from friends [R]: (*†Belief that offering friends cigarettes is not a caring behavior and is detrimental to their friends' health [P]*)
- Exposure to smoking by older siblings [R]: (*†Belief that smoking in front of younger siblings may drive them to imitate the behavior, therefore causing them to damage their health from an early age [P]*)

[R] – Risk factor; [P] – Protective factor

†Example belief to be targeted by a tobacco-control communication campaign. In the case of risk factors, the campaign message would reframe the target belief in order to have a protective effect

### **Factors not included in the shortlist**

#### **Factors amenable to a communication campaign, but that would NOT focus on youth as the target audience**

##### **[Individual or social route of effects]**

- Smoking outcome expectancies [R/P ^]\*
- Positive beliefs about quitting smoking [P]\*
- Maternal smoking during pregnancy [R]
- Boredom and stress while serving in the military [R]
- Home smoking policy [P]
- Exposure to parental smoking [R]
- Tolerance of smoking activity (among students and teachers) on school grounds [R]
- Perception of lenient school rules if caught smoking [R]
- Familiarity with tobacco advertisements and brands [R]
- Access to spending money from either work or parents [R]
- Parental disapproval of smoking [P]
- Parental approval of smoking [R]
- Parental monitoring of child's activities, whereabouts and friends [P]
- Authority disapproval (other than parents) [P]

##### **[Institutional route of effects]**

- Clean indoor air laws [P]
- Smoking in movies [R]
- Cigarette design (e.g., menthol, flavors, filters) [R]
- Plain packaging [P]
- Pictorial health warnings on cigarette packages [P]
- Tobacco marketing [R]
- Point-of-sale tobacco displays [R]

- High price of tobacco [P]
- Availability of tobacco [R]
- High retailer density [R]
- Regulations on youth access to tobacco [P]

#### **Factors amenable to a communication campaign, but that do not focus specifically on tobacco use**

- Alcohol and drug use [R]
- Involvement in extracurricular and organized group activities (especially sports) [P]

#### **Factors NOT amenable to a communication campaign**

- Perceptions of high smoking prevalence in school environment [R]
- Perceptions of close friends' smoking behavior [R]
- Genetics [ ]
- Gender [ ]
- Age [ ]
- Sensation seeking [R]
- Impulsiveness [R]
- Positive first smoking experience [R]
- Negative affect/stress/depression [R]
- Negative self-image/self-esteem (including weight dissatisfaction) [R]
- Poor coping skills [R]
- Low general self-efficacy in early adolescence [R]
- Stronger attachment to peers [R]
- Having friends who smoke [R]
- Greater social popularity [R]
- Belonging to a social group [P]
- Belonging to the "deviants" group at school [R]
- Connectedness with school [P]
- Low academic achievement [R]

- Academic lifestyle orientation (school grades, educational aspirations, personal and professional plans and expectations) [P]
- Low level of parental education [R]
- Low socioeconomic status [R]
- Family structure [ ]
- Family conflict [R]
- Low quality of parent-adolescent relationship [R]
- Authoritative parenting style [P]
- Urban/rural location [ ]
- Neighborhood of residence [ ]
- Demographic characteristics of school [ ]
- Unemployment [R]
- Greater number of hours at work [R]
- Cultural norms within specific ethnic groups [ ]
- Perception of race/ethnicity-based discrimination [R]
- Ethnic pride and strong ethnic identity [P]
- Acculturation to the US among immigrants [R]
- Social expectations of religion [P]
- Sense of community belonging [P]
- Affiliation with an anti-tobacco brand [P]

[R] – Risk factor; [P] – Protective factor; [ ] – Direction of association with youth smoking (risk or protective) varies according to specific individual characteristics (e.g., age is a protective factor for younger teenagers but a risk factor for older youth)

^ Positive smoking outcome expectancies are a risk factor for smoking behavior, while negative smoking outcome expectancies are a protective factor

\*Although a campaign could foreseeably target specific smoking outcome expectancies / positive beliefs about quitting, the broad category of "outcome expectancies"/ "positive beliefs about quitting" is too general to be addressed in a campaign

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