Challenges in Tobacco Use Prevention among Minority Youth

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Introduction
Approximately 80% of smokers began using tobacco products before 18 years of age (1). Between 1990 and 2000, the population growth rate (shown in parentheses) within each of the following racial/ethnic minority populations increased more rapidly than that for whites (5%): Asian Americans (48%); Hispanics (47%); blacks (15%); American Indians/Alaska Natives (15%); and Native Hawaiian/other Pacific Islanders (9%; Ref. 2). Proportionally, more racial/ethnic minorities smoke cigarettes than whites (3). Therefore, an important challenge is prevention of tobacco use initiation among minority youth. What might appear to be a simplistic response (not initiating tobacco use) is challenging to implement and requires specially targeted efforts.

Overview of Minority Tobacco Use
An example of a successful youth tobacco control program is the highly publicized Florida’s Pilot Program on Tobacco Control (4). Initially, no statistically significant declines in cigarette smoking were observed among non-Hispanic black and Hispanic students. Subsequently, due to initiatives targeting minority students, a decline in smoking rates was observed (5). However, no significant reductions were detected specifically for Asian-American and Pacific Islander youth, perhaps due to their small sample sizes. Furthermore, the 2000 National Youth Tobacco Survey of the American Legacy Foundation reported that Asian-American high school students had the highest smoking initiation rate (42.5%) among all racial/ethnic groups, despite the societal perception that Asian Americans and Pacific Islanders were considered the “model” minority groups (6). In comparison, the smoking initiation rates for African-American, white, and Hispanic youth were 31.5%, 33.2%, and 33.9%, respectively (7). This article addresses challenges in a traditional epidemiological paradigm, focusing on why tobacco use is of concern, who/what (the nature of tobacco), and when/where (settings of high risk to tobacco use initiation). Finally, suggestions are made for tobacco use prevention among minority youth.

Why Tobacco Use is of Concern
Tobacco use is responsible for more than 440,000 annual deaths in the United States (8) and approximately $157 billion in direct and indirect medical costs per year (8). More individuals die of tobacco use than any other cause, including the cumulative total of deaths due to accidents, AIDS, alcohol use, illegal drugs, injury, fire, guns, homicide, motor vehicles, and suicide (9). Tobacco use has been etiologically linked to heart disease, stroke, chronic bronchitis, and emphysema, as well as cancers of the bladder, cervix, esophagus, kidney, larynx, lung, mouth, pancreas, and pharynx (10, 11). The American Cancer Society estimates that 87% of lung cancer deaths are attributable to tobacco use (12). Tobacco use is undeniably the most preventable cause of death (13), contributing to over 20% of deaths due to all causes (9). Tobacco use is also projected to be the main cause of an estimated 5 million future deaths among those presently under the age of 17 years (14). Despite accumulated data and findings (3, 11, 13, 15, 16), an estimated 6,000 youths presently initiate smoking, 3,000 become addicted to tobacco, and 1,200 subsequently die daily from tobacco use.

Challenges in Tobacco Use Prevention
Four challenges are encountered regarding the prevention of tobacco use among minority youth: (a) who uses tobacco—the theory that youth are recruited to tobacco use through psychosocial influences (and hence, recruitment to tobacco-free lifestyles would require appropriate counterdoses to tobacco’s attraction); (b) what addictive substance is used (nicotine)—after youth have been recruited to tobacco use, they continue using tobacco through the pharmacological effects of nicotine addiction (and hence, counteracting these effects will require extraordinary efforts); (c) when tobacco is used—data suggest certain vulnerable ages or school grades when youth consider initiating tobacco use (and hence, factoring in intervention strategies to prevent tobacco use is critical); and finally, (d) how tobacco is used—applying prevention strategies that have empirically been demonstrated to be effective. Each of these challenges is detailed below.

A Descriptive Paradigm of Tobacco Use
Challenge 1: Who Uses Tobacco? Psychosocial and pharmacological factors and their interaction have been shown to impact youth tobacco use initiation (17). These factors may also serve as a major obstacle to smoking cessation among youth (18). Youth may smoke because their parents have not communicated disapproval (19) or because their friends smoke (13). This latter statement may be internationally relevant as well, particularly among youth in Southeast Asia (20). Youth from socioeconomically disadvantaged families, who have lower self-esteem and lower scholastic achievement, are more likely to use tobacco than their peers (13). Therefore, a profile of minority youth who use tobacco may include being from socially disadvantaged families, having lower self-esteem, and having poorer scholastic achievement. Youth may also smoke because they seek social acceptance or because they may be rebellious and counter adult or mainstream societal norms. Intensive advertising that appeals to youth may allure them through the images and illusions of social attractiveness (16).

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Challenge 2: What They Use—What Is the Nature of Tobacco? Once enticed to try tobacco in any form (cigarettes (1), chewing tobacco or snuff (1), cigars (1), bidis (21), and so forth), the pharmacological effects created by nicotine insidiously, progressively, and chronically addict the user (13, 15). Nicotine in tobacco is one of the most pharmacologically efficient drugs. The NIH and the National Institute on Drug Abuse have concluded that “nicotine has met all of the criteria of a highly addictive drug and that cigarettes maximize addictive effects” (22). Both cigarettes and smokeless tobacco products are “highly engineered” to maximize the addictive effects of nicotine (22). Nicotine can enter the bloodstream within 10 s and affect the brain. Once a tobacco product is tried several times, the user can tolerate nicotine. Nicotine dependence is analogues to cocaine and heroin addiction (23), making withdrawal or cessation physiologically very difficult (15). Whereas psychosocial factors contribute to tobacco use initiation, the addictive and pharmacological characteristics of nicotine retain and reinforce the use of tobacco.

Challenge 3: When Do Youth Start Using Tobacco? The 2000 Centers for Disease Control and Prevention and the American Legacy Foundation’s National Youth Tobacco Survey report on a nationally representative study of Asian-American, African-American, and Hispanic students from grades 6 through 12. Data on 35,828 students suggest that tobacco use (smoking) initiation is more likely to occur between grade school and middle school for all minorities except Asian Americans, who are more likely to begin smoking during high school (Ref. 6; Table 1)

<table>
<thead>
<tr>
<th>Grade level</th>
<th>Asian American</th>
<th>Hawaiian/Pacific Islander</th>
<th>African American</th>
<th>Hispanic</th>
<th>White</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grade school</td>
<td>18.1%</td>
<td>31.1%</td>
<td>20.9%</td>
<td>20.3%</td>
<td>19.0%</td>
</tr>
<tr>
<td>Middle school</td>
<td>39.5%</td>
<td>44.0%</td>
<td>47.6%</td>
<td>45.8%</td>
<td>47.2%</td>
</tr>
<tr>
<td>High school</td>
<td>42.5%</td>
<td>24.9%</td>
<td>31.5%</td>
<td>33.9%</td>
<td>33.2%</td>
</tr>
</tbody>
</table>

Challenge 4: How Can We Prevent Tobacco Use among Minority Youth? We recommend a tobacco prevention model that comprises five settings: (a) home; (b) community; (c) classroom; (d) clinic; and (e) computer. At home, all tobacco use should be prohibited. Parents should role model tobacco abstinence and express strong disapproval as well as punishment for use. Sargent and Dalton (19) have found that parents can influence children by strongly disapproving of and using punishment for tobacco use.

The public should advocate smoking control policies, including smoking prohibition in enclosed public places, restrictions on the sale of tobacco products (especially to minors), and appropriate taxation policies (24). The Task Force has determined that raising the unit price of tobacco products is among the most effective deterrents to youth tobacco use (25).

Schools should use evidence-based curricula and adhere to guidelines promulgated by the Centers for Disease Control and Prevention. Teachers should be properly trained to use the curricula and should also model non-tobacco use. School programs are more effective when combined with mass media and other community-based efforts (16, 26, 27).

Health care providers should take time during clinical encounters with minority youth to inquire about their tobacco use and emphasize abstinence from tobacco use. Currently, far too few health care providers reinforce the benefits of never initiating tobacco use.

Computers should be used as a tool to prevent minority youth from tobacco use. Software and professionally staffed “chat” rooms should be considered to support nonsmoking as a norm.

Counteradvertising such as the Truth Campaign appears to be making some impact in de-normalizing tobacco use among youth (28). More aggressive, youth-oriented advertising may be responsible for a decline in smoking among youth.

California has instituted a multipronged approach that has resulted not only in a decline in tobacco use consumption but also in a decline in lung cancer rates (29). This exemplary model consists of a variety of efforts, including funding ethnic networks, public education, legislative advocacy, and telephone help lines. Additionally, the curtailing of advertising that glamorizes tobacco use is encouraged. California’s model is worth emulating.

In conclusion, preventing tobacco use among minority youth requires a multipronged and relentless approach, beginning in the home and extending to the community, classroom, clinic, computer, and counteradvertisements. These prevention efforts must be comprehensive. Although the struggle may be challenging, tobacco use among youth can be reduced and prevented.

References
2. www.census.gov.


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