Smoking Cessation and Tobacco Control*

An Overview

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Cigarette smoking is an intractable public health problem and the single largest risk factor for a variety of malignancies, including lung cancer. Worldwide, about 3 million people die each year of smoking-related disease, and this is expected to increase to >10 million deaths per year. The Agency for Health Care Policy and Research has published a clinical practice guideline detailing available outcome data for various smoking cessation strategies. In particular, it has been recommended that all patients be screened for smoking status on every health-care visit, and that all patients who smoke be strongly advised to quit and offered assistance to do so. Health-care providers play a vital role in the effort to reduce the prevalence of smoking by delivering smoking cessation advice, supporting community-based efforts to control tobacco, and becoming involved in the tobacco control debate.

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Abbreviations: AHCPR = Agency for Health Care Policy and Research; FDA = U.S. Food and Drug Administration

Tobacco Control: A Historical Perspective

In 1906, the first federal food and drug law was passed. A drug was defined as any medicine listed in the U.S. Pharmacopoeia at the time of the law’s passage. Tobacco was included in the U.S. Pharmacopoeia until 1905, and thus escaped regulation and set a precedent related to the protection of tobacco from regulation. For example, in 1938, the U.S. Food and Drug Administration (FDA) was given jurisdiction over food, drugs, medicinal devices, and cosmetics. This provided the FDA with jurisdiction over only those tobacco products for which specific medicinal claims were made. Although claims were made about some products, changes in advertising strategies and brand products maintained the virtually regulation-free status of tobacco. Tobacco has generally escaped strong government regulation; when laws have been passed, they have frequently been accompanied by compromises that weakened the public health effects of the legislation and ultimately benefited the tobacco industry.1,2 The late 1990s, however, have presented a very different scenario, and for the first time in U.S. history, it appears likely that tobacco will be regulated in some manner.

Smoking Prevalence

In 1965, approximately 60% of men and 30% of women in the United States smoked; in 1996, 24% of the U.S. population were smokers.3 Although the gender gap in smoking prevalence has narrowed considerably, men still smoke at a slightly but significantly higher rate than women. Smoking prevalence is highest among individuals categorized as American Indian or Alaskan Native; overall, smoking prevalence is virtually equivalent among whites and African Americans. However, sex and race interactions have also been observed, with smoking prevalence being higher among African American than white men, and lower among African American than white women. Education level is the primary predictor of smoking;4 35.6% of individuals with 9 to 11 years of education smoke, compared with 16.5% of those with a college degree.3

Although the prevalence of cigarette smoking has decreased in the United States and much of the developed world during the past two decades, it is increasing in many developing countries. There are an estimated 1.1 billion smokers worldwide. The changes in social norms regarding smoking and the accompanying changes in policies that have provided widespread access to smoke-free environments in the United States have not been observed in other countries. However, the socioeconomic disparity in smoking status observed in the United States is also seen worldwide. Estimates suggest that by 2025, only 15% of the world’s smokers will live in developed countries.

Health Consequences of Smoking

Smoking is a major contributor to preventable morbidity and mortality. Worldwide, about 3 million people die each year of smoking-related diseases.6 By 2025, this figure is expected to increase to >10 million deaths per year. In 1990, >430,000 smokers in the United States alone died of smoking-related diseases, accounting for 26% of all deaths among men and 17% of deaths among women.6 Lung cancer has now replaced breast cancer as the leading cancer killer of women. In 1993, the estimated smoking-attributed costs for medical care, lost work, and productivity exceeded $97 billion. If these costs were...
borne by smokers in the form of cigarette taxes, the price of each pack of cigarettes would have to rise to $4 (from the current price of $2.49).7

**FACTORS INFLUENCING SMOKING**

It is clear that smoking results from multiple determinants, including physiologic, psychological, social, and community factors (Fig 1).8–11 Social factors have typically been considered of most importance in the initiation of smoking. However, recent evidence focusing on smoking among lower income populations, where smoking prevalence remains the highest, suggests that social factors are also very important in the maintenance of smoking behavior. Community factors include access to material resources as well as smoking cessation services. At the psychological level, the habitual aspects of smoking are well-documented. Research in the past decade has also examined the relationship between smoking and psychological factors, most notably depression.12,13 

The physically addictive properties of nicotine are also well known. The nicotine withdrawal syndrome, which is now well characterized,15 includes nicotine craving, irritability, anxiety, difficulty concentrating, restlessness, and increased appetite. Nicotine addiction is pervasive among smokers and can be a key barrier to long-term abstinence. This is an area in which health-care providers can play a critical role in assisting patients to evaluate and use pharmacologic aids for smoking cessation, including nicotine replacement and newer non-nicotine products. Pharmacotherapy for smoking cessation represents a key innovation in tobacco control during the past decade.16

**Table 1** — **AHCPR Clinical Practice Guideline on Smoking Recommendations**

| Institute screening systems to identify smoking status. |
| Include smoking status as a vital sign. |
| Strongly advise all patients who smoke to quit. |
| Assess patients for appropriateness of nicotine replacement therapy. |
| Repeatedly and consistently deliver smoking cessation advice to patients who smoke. |

**Table 2** — **The “4 As” for Practice-Based Smoking Cessation Counseling**

| Ask about smoking status. |
| Advise every smoker to quit smoking. |
| Assist patients with quitting. |
| Arrange follow-up. |

**SMOKING CESSATION COUNSELING BY HEALTH-CARE PROVIDERS**

The Agency for Health Care Policy and Research (AHCPR) has published a clinical practice guideline on smoking that details available outcome data for various smoking cessation strategies.16 The smoking cessation guideline makes several recommendations that are relevant to all types of health-care providers (Table 1). In particular, it has been recommended that all patients be screened for smoking status on every health-care visit, and that all patients who smoke be strongly advised to quit and offered assistance to do so. Consideration of smoking status as a vital sign would ensure that this assessment is uniformly conducted (Fig 2). It is further recommended that providers use the “4 As” model for delivery of brief smoking cessation counseling (Table 2). The AHCPR guideline provides a compendium of evidence demonstrating that smoking cessation counseling should be part of standard medical practice, and further makes recommendations for how to implement counseling strategies.

**SUMMARY**

We are at a historic crossroads in tobacco control. Never before has there been as much attention focused on this very important public health issue, particularly from forces that span legislative, regulatory, federal, local, and state interests. In this climate, there is an unprecedented opportunity to reduce the prevalence of smoking in this country to historic lows. Health-care providers play a vital role in this effort by delivering smoking cessation advice and counseling to their patients, supporting community-based efforts at tobacco control, and becoming involved in the tobacco control debate at the national level.
REFERENCES