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Editorial

The Vital Diversity of Tobacco Control Research

We are all familiar with the statistics: 434 000 deaths in 1988 in the United States[1]; about 2 million deaths annually in developed countries[2]; higher rates of initiation and lower rates of cessation among less educated populations[3]; 3000 new users a day in the United States,[4] primarily among teenagers, whom the industry behind the product purports not to target[3]; and increasing targeting to, and usage among, previously unexposed women and youth around the world—particularly in developing countries, which are the least able to deal with the tragic medical and social ramifications associated with the addiction.[5–7]

Clearly, these frightful statistics are all attributable to tobacco use, the greatest single preventable cause of premature mortality in our nation.[3] These facts have not fallen on deaf ears, however. Public opinion strongly supports our public health efforts to prevent tobacco-related morbidity and mortality. For example, three of four US smokers want to quit,[8] and five of six state that they would not start smoking if they had the chance to choose again.[9] The deleterious effects of active[3] and involuntary smoking[10] are widely acknowledged.[3,8,9,11] Seventy percent of adult smokers state that they are addicted to cigarettes,[8] 96% of adults state that smoking is harmful to one's health,[9] and 81% of US adults state that environmental tobacco smoke (ETS) is dangerous to the nonsmokers' health.[3] The overwhelming majority of Americans favor measures designed to reduce or eliminate public exposure to ETS.[8,12] Equally strong support is seen for measures designed to prevent smoking initiation, such as the enactment and enforcement of minors' access laws and the provision of quality school health education.[12,13]

This issue of the Journal features a number of articles on tobacco usage, each investigating a different aspect of the discipline of tobacco control. These articles demonstrate the richness of tobacco research, ranging from an article by DiFranza and Brown on the ineffectiveness of the Tobacco Institute's voluntary compliance effort to restrict youth access to tobacco[14] to a report by Salive et al. on cessation patterns in an elderly population.[15]

By providing a broad view of tobacco control research, these articles also speak directly to the *Healthy People 2000* national tobacco objectives.[16] The types of articles contained in this issue of the Journal will help us assess our progress toward meeting these objectives and determine what additional efforts may be required.

The national health objectives for the year 2000 include not only those calling for the prevention of tobacco-related diseases, such as heart disease, lung cancer, and chronic obstructive pulmonary disease, but also those supporting behavioral, programmatic, and policy objectives corresponding to some of the articles in this issue. For example, Objective 3.13 calls for the enactment and enforcement of laws prohibiting the sale and distribution of tobacco products to youths younger than age 19 and states that vending machine sales should not be allowed.[16] DiFranza and Brown,[14] in showing the ineffectiveness of industry-initiated voluntary compliance, provide further evidence in support. Forster et al. address another frequently proposed compromise, the use

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Editor's Note. See related articles by Perry et al. (p 1210), Forster et al. (p 1217), Bailey (p 1220), Jarvis et al. (p 1225), Covey et al. (p 1230), Simon et al. (p. 1235), Pirie et al. (p 1238), Salive et al. (p 1268), and DiFranza and Brown (p 1271) in this issue.

of locking devices on vending machines in lieu of a ban on vending machine sales in a community.[17] Their data demonstrate less-than-adequate compliance and a greater rate of vending machine sales than would be expected under a complete ban.

Objective 3.5 calls for a reduction in smoking initiation.[16] Indirect but powerful support appears in Bailey's data describing the frequent use of alcohol and other substances by those teenagers who smoke at least 10 cigarettes per week.[18] These findings support the prediction that those who continue to smoke in the 1990s and beyond are likely to also be heavier users of other substances.[19] The work of Perry and colleagues[20] strengthens the call of the *Healthy People 2000* objectives[16] for both individual and communitywide interventions. Their results suggest that reductions of cigarette-smoking initiation among adolescents may be accelerated if school-based prevention programs are complemented by health-promotion activities in the surrounding community. Focusing on an even younger at-risk group, the work of Jarvis and colleagues[21] highlights the theme of Objective 3.8[16]: the need to protect children from ETS exposure in the home.

Other articles focus on smoking among adults. Blue collar workers are targeted in Objective 3.4.[16] Also the object of recent industry attention,[22] they have made little progress against smoking in recent years.[23] The work of Covey et al. suggests that blue collar men are more likely than white collar men to be nicotine dependent.[24]

Salive et al. emphasize the need for health care providers to advise their patients who smoke to stop before, not just when, disease conditions develop.[15] These themes are common to Objective 3.16.[16] Simon and colleagues point out the need for supportive cessation interventions for hospitalized patients.[25] The National Cancer Institute has provided information[26,27] and training on smoking cessation to some 40 000 health care providers throughout the nation (personal communication, C. Husten, National Cancer Institute, June 12, 1992) and continues to offer such training (call 1-800-4-CANCER, for details).

Concerns about weight gain following quitting may decrease the frequency and success of cessation attempts.[28,29] The work of Pirie et al. addresses the need for research aimed at minimizing such weight gain.[30] The data suggest that the inclusion of weight control components will enhance recruitment efforts. However, the report does not dispel the cautionary note raised by Hall et al.,[31] in a recent issue of the Journal, which recommended that weight gain interventions not interfere with attempts to quit. As those authors suggest, the right blend of weight control interventions and the adjustment of attitudes regarding optimal weight is needed.

Progress in attaining the national objectives for the year 2000 will be accelerated by studies such as those reported here. We have observed considerable progress recently as well as noted some areas requiring renewed public health efforts. On the positive side, in 1990, cigarette smoking prevalence in the United States among those at least 18 years old was the lowest (25.5%)[32] reported since nationally representative federal surveys were begun in 1955.[33–35] Although smoking prevalence among women aged 20 to 24 years with 12 or fewer years of education was essentially unchanged between 1965 and 1985,[3] between 1985 and 1990, prevalence dropped from 44%[3] to 33%.[32] Among Black adolescents, too, smoking prevalence in the United States has declined sharply over the last decade,[3,36,37] and this progress appears to be extending into young adulthood.[32,35]

On the negative side, the decline in the overall prevalence of smoking in the United States (from 42.3% in 1965[34] to 25.5% in 1990[32]) is not reflected in a corresponding decline in the actual number of adult smokers. Because of increasing population, numbers declined only slightly, from 50 million in 1965 (as corroborated by unpublished data from the 1965 National Health Interview Survey [personal communication, J. Peddicord, July 1992]) to 46 million in 1990.[32] Also, the decline in prevalence has not been sustained in all groups, particularly high school seniors and the Whites and males among them, as well as educated 20- to 24-year-old men. Among high school seniors, the overall prevalence of those who smoke at least one cigarette daily has not continued to decline in the last decade, as it did for several years in the late 1970s.[3,36] Prevalence among White high school seniors was marginally higher in 1991 (21%)[36] than in 1981 (20%).[3] Among male high school seniors, the prevalence has risen from 16.4% in 1987[38] to 18.8% in 1991 and was higher than the female prevalence of 18.0% in 1991.[36] The lack of progress among men aged 20 to 24 years with 13 or more years of education also causes concern; in 1983 and 1990, cigarette smoking prevalence in this group was 16.2%[3] and 16.1%,[32] respectively.

Clearly, the 8 years remaining in the millennium are a critical period for tobacco control in the United States and worldwide. The *Healthy People 2000* objective for adult cigarette smoking prevalence in the United States is 15%.[16] To achieve that goal, the average rate of decline observed between 1987 and 1990 (1.1 percentage points each year) must be sustained.[32]

The Environmental Protection Agency is expected soon to designate ETS as a Group A (known human) carcinogen, in the same category as asbestos and benzene.[39] This action may increase public pressure on the Occupational Safety and Health Administration to regulate ETS exposure in the workplace and add to the growing, but still incomplete, level of protection from ETS in public places that has been achieved through state and local ordinances.[3,40]

Heightened concern about the harmful effects of cigarette marketing on youth has spurred a petition to the Federal Trade Commission to further restrict tobacco advertising and promotions (according to a letter from F. DuMelle, SD Ballin, and AC Davis to the Federal Trade Commission, December 10, 1991.) A recently enacted federal statute will require states requesting funds for alcohol and drug treatment programs to have in place and enforce laws that prevent the sale of tobacco products to any individual under the age of 18 years.[41] Similarly, increasing concern about the easy availability of addictive products has led to petitions requesting the Food and Drug Administration to begin regulating tobacco as a drug.[42,43] The price of cigarettes is another important factor in usage, particularly among youth.[3] State and federal efforts to increase the cost of cigarettes may be enacted in the coming years to reduce the toll of tobacco use.[44]

These and other emerging issues offer unprecedented opportunities for accelerated progress against tobacco use. Stern challenges can be expected from the tobacco industry, which doubtless will continue to develop and promote aggressive public relations campaigns such as "Tobacco: Helping Youth Say No," a program that DiFranza and McAfee[45] argue actually influences young people to say "yes" to the "adult decision" to smoke cigarettes, in part because the campaign does not accurately cover the health consequences[3] and addictive nature[33] of cigarette smoking. The industry will also continue to attempt to defeat or weaken public health measures that would restrict smoking and protect nonsmokers.[46] But the vitality of tobacco control research, demon-

strated so well in this issue of the Journal, augurs well for continuing gains in promoting the public's health. □

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