

**Reducing the  
Health Consequences  
of Smoking**

**25 YEARS OF  
PROGRESS**

*a report of the  
Surgeon General*

**1989**

**U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES**

**Public Health Service**

**Centers for Disease Control**

**Center for Chronic Disease Prevention and Health Promotion**

**Office on Smoking and Health**

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## **Highlights of Conclusions and Findings**

### **Major Conclusions**

As the present Report documents, knowledge of the health consequences of smoking has expanded dramatically since 1964, and programs and policies to combat the hazards of smoking have proliferated. The essential chapter-specific conclusions relating to these and other topics of this Report are presented at the end of each chapter and are reproduced in the final Section of this introductory Chapter. The major conclusions of the entire Report, immediately following, address fundamental developments over the past quarter century in smoking prevalence and in mortality caused by smoking. The first two conclusions highlight important gains in preventing smoking and smoking-related disease in the United States. The last three conclusions emphasize sources of continuing concern and remaining challenges.

1. The prevalence of smoking among adults decreased from 40 percent in 1965 to 29 percent in 1987. Nearly half of all living adults who ever smoked have quit.
2. Between 1964 and 1985, approximately three-quarters of a million smoking-related deaths were avoided or postponed as a result of decisions to quit smoking or not to start. Each of these avoided or postponed deaths represented an average gain in life expectancy of two decades.
3. The prevalence of smoking remains higher among blacks, blue-collar workers, and less educated persons than in the overall population. The decline in smoking has been substantially slower among women than among men.
4. Smoking begins primarily during childhood and adolescence. The age of initiation has fallen over time, particularly among females. Smoking among high school seniors leveled off from 1980 through 1987 after previous years of decline.

5. Smoking is responsible for more than one of every six deaths in the United States. Smoking remains the single most important preventable cause of death in our society.

### **Key New Findings**

While this Report is designed to provide a retrospective view of smoking and health over the past 25 years, several findings never previously documented in a report of the Surgeon General emerged during the process of reviewing and analyzing the voluminous materials consulted for the study. Discussed in detail throughout the Report, key new findings include the following:

- Cigarette smoking is a major cause of cerebrovascular disease (stroke), the third leading cause of death in the United States.
- By 1986, lung cancer caught up with breast cancer as the leading cause of cancer death in women. Women smokers' relative risk of lung cancer has increased by a factor of more than four since the early 1960s and is now comparable to the relative risk identified for men in that earlier period. Gender differences in smoking behavior are disappearing; consistent with this, gender differences in the relative risks of and mortality from smoking-related diseases are narrowing.
- Cigarette smoking is associated with cancer of the uterine cervix.
- To date, 43 chemicals in tobacco smoke have been determined to be carcinogenic.
- In 1985, approximately 390,000 deaths were attributable to cigarette smoking. This figure is greater than other recent estimates of smoking-attributable mortality, reflecting the use of higher relative risks of smoking-related diseases for women and, especially in the case of lung cancer, for men. These higher relative risks were derived from the largest and most recent prospective study of smoking and disease, conducted by the American Cancer Society.
- Disparities in smoking prevalence, quitting, and initiation between groups with the highest and lowest levels of educational attainment are substantial and have been increasing. Educational attainment appears to be the best single sociodemographic predictor of smoking.
- There is growing recognition that prevention and cessation interventions needed to target specific populations with a high smoking prevalence or at high risk of smoking-related disease. These populations include minority groups, pregnant women, military personnel, high school dropouts, blue-collar workers, unemployed persons, and heavy smokers.
- One-quarter of high school seniors who have ever smoked had their first cigarettes by sixth grade, one-half by eighth grade. Associated with knowledge of this fact is a growing consensus that smoking prevention education needs to begin in elementary school.
- Whereas past smoking control efforts targeting children and adolescents focused exclusively on prevention of smoking, the smoking control community has identified the need to develop cessation programs for children and adolescents addicted to nicotine.

- As of mid-1988, more than 320 local communities had adopted laws or regulations restricting smoking in public places. This compares with a total of about 90 as of the end of 1985, a more than threefold increase in 3 years. The number of new State laws restricting smoking in public places in 1987 exceeded the number passed in any preceding year.
- A growing body of evidence on the role of economic incentives in influencing health behavior has contributed to increased interest in and use of such incentives to discourage use of tobacco products. These include excise taxation of tobacco products, workplace financial incentives, and insurance premium differentials for smokers and nonsmokers.
- In marked contrast to the trends in virtually all other areas of smoking control policy, the number of legal restrictions on children's access to tobacco products has decreased over the past quarter century. Studies indicate that vendor compliance with minimum-age-of-purchase laws is the exception rather than the rule.
- The marketing of a variety of alternative nicotine delivery systems has heightened concern within the public health community about the future of nicotine addiction. The most prominent development in this regard was the 1988 test marketing by a major cigarette producer of a nicotine delivery device having the external appearance of a cigarette and being promoted as "the cleaner smoke."
- While over 50 million Americans continue to smoke, more than 90 million would be smoking in the absence of the changes in the smoking-and-health environment that have occurred since 1964.
- Quitting and noninitiation of smoking between 1964 and 1985, encouraged by changes in that environment, have been or will be associated with the postponement or avoidance of almost 3 million smoking-related deaths. That figure reflects the three-quarters of a million deaths noted in conclusion 2 above, and an additional 2.1 million deaths estimated to be postponed or avoided between 1986 and the year 2000.