

Smoking Control and the COMMIT Experience—Summary and Overview

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INTRODUCTION Tobacco use, especially the practice of cigarette smoking, remains the largest preventable cause of death and disability in the United States, producing more than \$50 billion in health care costs in 1993 (Bartlett et al., 1994). This continuing disease burden overshadows the substantial progress made in reducing the prevalence of smoking in the past 40 years (Burns et al., in preparation; Shopland, 1995). In 1955, nearly 60 percent of adult men and nearly 30 percent of adult women were regular cigarette smokers (Haenszel et al., 1956). Currently, 25 percent of adults in the United States are cigarette smokers, but only 20.4 percent, one in every five, report they smoke on a daily basis (Centers for Disease Control and Prevention, 1994).

Changes in smoking behavior have occurred with, and been partially driven by, gradually evolving efforts to influence smoking behavior (U.S. Department of Health and Human Services, 1991). Initial efforts in public information and education were followed by the development of behavioral and pharmacologic approaches to assist smokers to achieve and maintain a nonsmoking status. The limited success of these efforts with individual smokers eventually led to an understanding of smoking as an addictive process in which social forces played a critical role in both initiation and maintenance of the behavior. The potential of broadly structured community-based interventions providing persistent and inescapable messages to quit smoking was recognized and formed the scientific foundation for the Community Intervention Trial for Smoking Cessation (COMMIT) discussed in this volume.

As the content of this monograph clearly demonstrates, a great deal has been learned about mobilizing communities and organizing their efforts to change smoking behavior. The impact of COMMIT's community organization approach on smokers' behavior was modest, at least for the first 4 years of the intervention. Although no change was noted in the target group of heavy smokers, there was a statistically significant difference in the quit rates between intervention and comparison communities among light-to-moderate smokers (COMMIT Research Group, 1995a and 1995b). Light-to-moderate smokers, it should be emphasized, comprise 80 percent of the U.S. adult smoking population (Giovino et al., 1994).

Although COMMIT did not accelerate the quit rate among heavy smokers, the larger-than-expected percentage of smokers who quit throughout the communities demonstrated that many aspects of the national effort were working. It remains to be determined the extent to which broad policy-based interventions, other alternative tobacco control strategies, or a longer duration

of community-based interventions will substantially alter smoking behavior, particularly among heavy smokers.

One clear result of the approaches described in this volume was successful mobilization and organization of communities around an externally defined public health objective. All the communities were successful in developing an organizational structure and using that structure to accomplish a defined set of objectives contained in the COMMIT protocol. This success is the focus of this monograph. A better understanding of what works and what does not work in efforts to mobilize a community around a public health goal is one of the most valuable results of COMMIT.

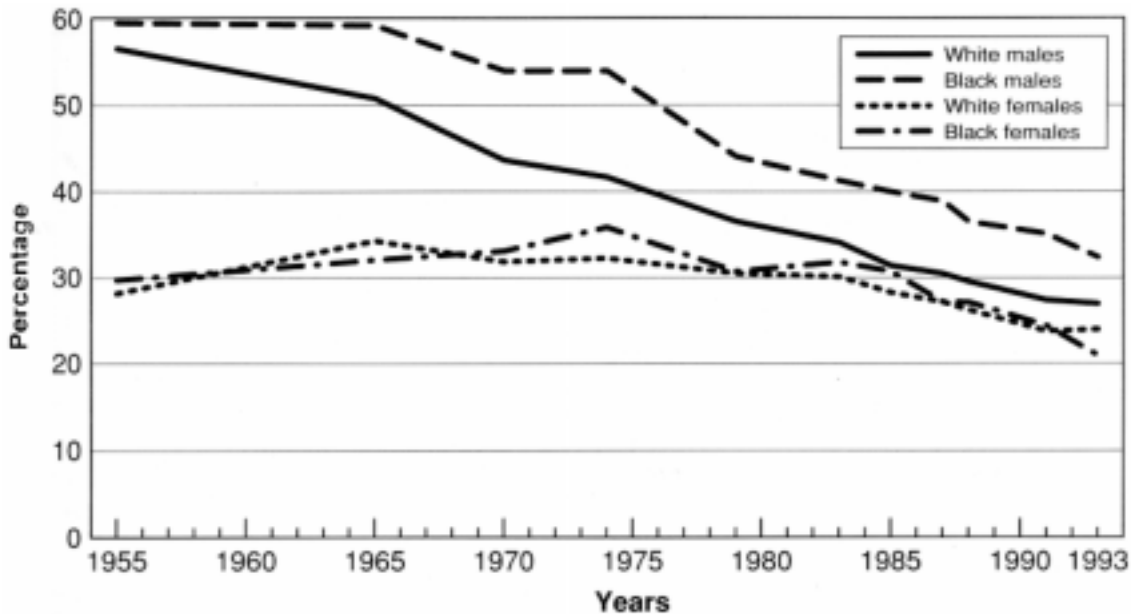
The findings in the intervention vs. comparison communities in COMMIT need to be placed in an appropriate perspective. There was no difference between intervention and comparison communities among smokers consuming 25 or more cigarettes daily (heavy smokers), but 18 percent of those smokers in both communities quit smoking during the 4 years of the trial. Similarly, 30.6 percent of smokers of fewer than 25 cigarettes per day (light-to-moderate smokers) quit smoking in the intervention communities vs. only 27.5 percent in the comparison communities (COMMIT Research Group, 1995a and 1995b). These data clearly demonstrate that substantial rates of cessation occurred among light-to-moderate and heavy smokers. The results of the trial do not demonstrate that it is difficult to get smokers to quit; large numbers of both light-to-moderate and heavy smokers did so. The results of the trial do demonstrate that it is difficult to use many of the traditional public health approaches to tobacco control, delivered by means of a community organization structure, to dramatically accelerate the already high rates of cessation occurring in the population.

In addition, the intervention approach did demonstrate an effect that has significant public health implications among the light-to-moderate smokers in the trial, especially compared with the general difficulty in changing other addictive behaviors. Furthermore, this effect was greatest among those smokers with a high school education or less, a group in which cessation rates have been relatively low and on whom other intervention approaches have had little effect. This effort, produced by means of a public health mode of delivery, shows the great potential of such prevention efforts to provide additional years of quality life to the population in a more cost-effective fashion than disease treatments by the health care delivery system.

**TRENDS IN THE
MAGNITUDE OF
SMOKING AS A
PUBLIC HEALTH
PROBLEM**

The focus of any public health intervention should be reduction of incidence and prevalence rates in the entire population, and it is useful to measure tobacco control efforts by this yardstick. Figure 1 demonstrates that during the past 40 years the prevalence of smoking among white males has been cut in half, from nearly 60 percent in 1955 to less than 30 percent in 1993 (Haenszel et al., 1956; Centers for Disease Control and Prevention, 1994). The figure shows that the change in prevalence among white females is more modest, dropping from approximately 30 percent in 1955 to 22.5 percent in 1993, but the absolute prevalence remains lower among females than among males.

Figure 1
Prevalence of cigarette smoking among adults by race and gender, United States, 1955-93



Source: Shopland, 1995.

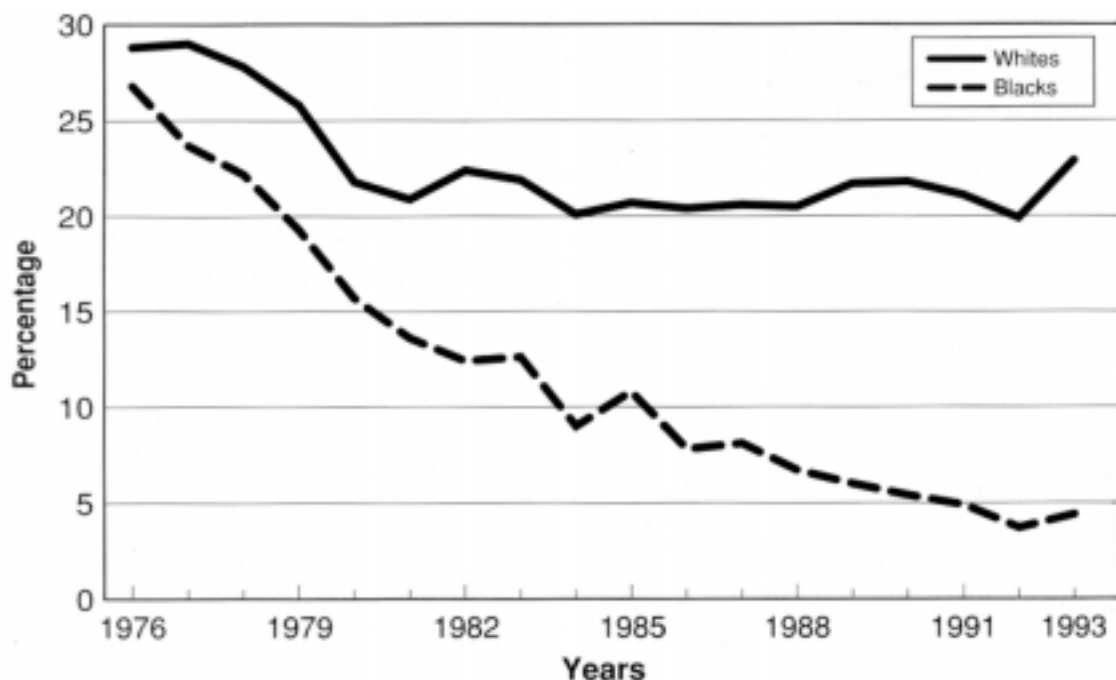
Figure 1 shows that the change in smoking prevalence among blacks is only slightly less successful, with rates among black males falling from 60 percent in 1955 to 32.4 percent in 1993. Smoking prevalence changes among black females are nearly identical to those in white females.

Slowing the rate at which adolescents become smokers has proven more difficult than convincing older smokers to quit. About one-third of high-school-age adolescents use some form of tobacco (Giovino et al., 1994). Initiation rates among older adolescents have declined steadily (Burns et al., in press; Pierce et al., 1994), but changes among younger adolescents have been far less positive (Cummings et al., 1995).

Initiation rates among younger age adolescents (14 to 17 years old) decreased slightly from 1980 to 1984 but increased between 1985 and 1989 (Cummings et al., 1995). The largest annual increase occurred in 1988, the year the R.J. Reynolds Tobacco Company introduced its now famous "Joe the Camel" cartoon character. Had initiation rates from 1985 to 1989 remained at the 1984 level, there would have been more than 500,000 fewer adolescent smokers in the United States during this time. In comparison, among young adults (ages 18 to 21), initiation rates decreased slightly during the 1980's (Cummings et al., 1995).

Smoking prevalence rates among black adolescents have declined (Institute of Medicine, 1994), whereas rates among white adolescents have

Figure 2
Prevalence of daily smoking among white and black high school seniors in the United States



Source: Johnston et al., 1994.

changed little (Figure 2). Although current estimates of smoking initiation rates for adolescents are not available, smoking prevalence increased among 8th- and 10th-grade students nationally between 1991 and 1993 (Johnston et al., 1994). These trends coincided with aggressive new marketing practices by the cigarette industry, many of which are reaching children (U.S. Department of Health and Human Services, 1994).

The effort to alter the public health problem of tobacco use has clearly made substantial progress over the past 40 years; however, we have had greater success in aiding smokers to break their addiction than we have had in preventing children from becoming addicted. In understanding this differing response by adults who are already addicted and children who have not yet become smokers, it is critical to examine the activities of the tobacco industry during the period of these tobacco control efforts.

ACTIVITIES OF THE TOBACCO INDUSTRY

Over the past four decades, the tobacco industry has aggressively responded to each major public health initiative directed at reducing smoking with a combination of efforts intended to undermine these initiatives. The industry introduced a series of new product modifications, including filtered cigarettes in the 1950's and low-tar cigarettes in the 1970's, to allay the public's concern about the health risks of smoking and to convince people that whatever risks existed had been either reduced

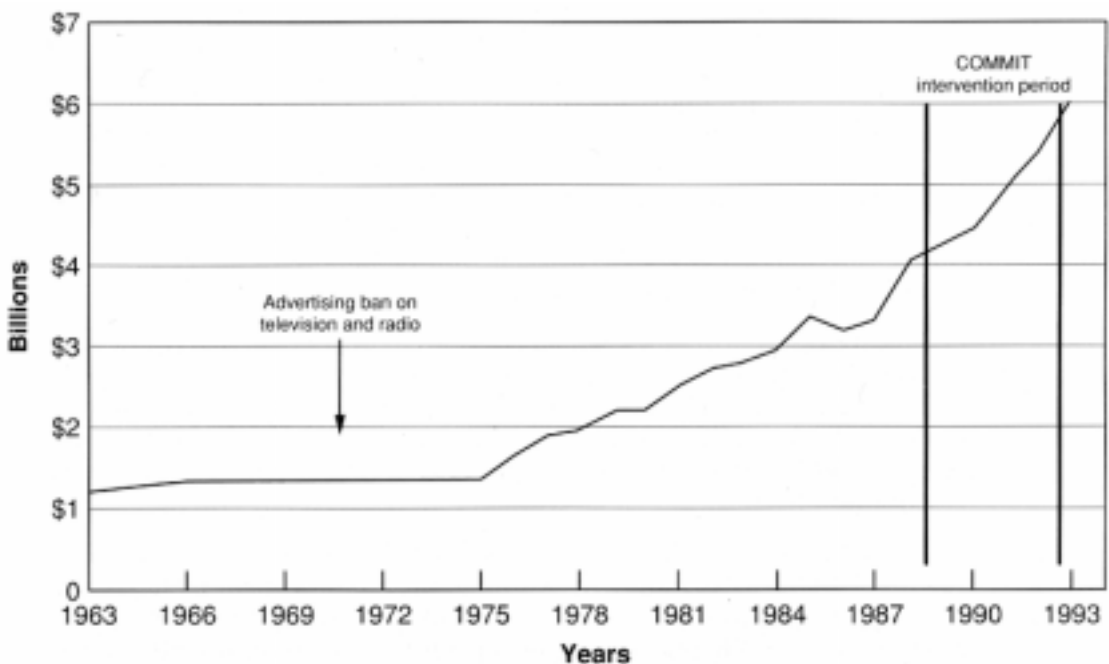
drastically or eliminated. More important, during the past 40 years, cigarette manufacturers have conducted massive, annual, multibillion dollar advertising campaigns to convince smokers and potential smokers to smoke.

During the time COMMIT interventions were in the field (midfall 1988 through 1992), outlays for all cigarette advertising and promotional expenditures *almost equaled the amount spent the previous 10 years* (Federal Trade Commission, 1995). Expenditures increased 60 percent during the relatively brief COMMIT intervention period, from \$3.28 billion in 1988 to more than \$5.3 billion in 1992 (unadjusted for inflation) (Figure 3).

The most recent data from the Federal Trade Commission show that cigarette manufacturers spent more than \$6 billion for advertising and promotional expenditures in 1993, the last year complete data are available (Federal Trade Commission, 1995). This represents more than a 15-percent increase over 1992 (Table 1).

Significant changes also have occurred in the types and categories of advertising and promotional activities conducted. When the U.S. Congress banned cigarette advertising on electronic media in 1971, the bulk of cigarette advertising shifted to print media and outdoor and transit advertising. Until the early 1980's, these categories accounted for the preponderance of all cigarette advertising and promotional expenditures.

Figure 3
Domestic cigarette advertising and promotional expenses, 1963-93*



* All expenditures were converted to 1993 dollars.

Source: Federal Trade Commission, 1995.

Table 1

Domestic cigarette advertising and promotional expenditures, by type and category, United States 1992 and 1993 (in thousands of dollars)

Type of Advertising	1992 (\$)	% of Total	1993 (\$)	% of Total	% Change From 1992
Newspapers	35,467	.7	36,204	.6	+2.0
Magazines	237,061	4.5	235,195	3.9	-.08
Outdoor	295,657	5.7	231,450	3.8	-21.7
Transit	53,293	1.0	39,113	.6	-26.6
Point of Sale	366,036	7.0	400,909	6.6	+9.5
Promotional Allowances	1,514,026	28.9	1,557,505	25.8	+2.9
Sampling Distribution	49,315	.9	40,190	.7	-18.5
Specialty Item Distribution	339,997	6.5	755,761	12.5	+122.0
Public Entertainment	89,739	1.7	84,275	1.4	-6.1
Direct Mail	34,345	.7	31,463	.5	-8.3
Coupons and Retail Value-Added Promotions	2,175,373	41.6	2,559,170	42.4	+15.0
All Others	41,608	.8	63,915	1.2	+53.6
Total	5,231,917	100.0	6,034,915	100.0	+15.4

Source: Federal Trade Commission, 1995.

However, from the early 1980's onward, the cigarette industry increasingly began to emphasize promotional activities, and each year the industry has committed a larger share of its total advertising and promotional budgets to these types of activities. Promotional allowances and coupons and retail value added accounted for nearly 70 percent of all expenditures in 1993. Less than 10 percent of all expenditures were devoted to advertising in newspapers, magazines, and outdoor and transit advertising. Nonetheless, the dollar amount allocated for these categories was nearly \$542 million for 1993, a sum that exceeded the total spent for all domestic cigarette advertising in 1975 (unadjusted for inflation) (Federal Trade Commission, 1995).

Promotional allowances, which accounted for approximately one-quarter of the \$6 billion spent in 1993, are various incentives and fees paid by a manufacturer to wholesalers and retailers to stock and promote a company's products. By far the single largest amount spent in 1993 was for coupons and value-added promotions—more than \$2.5 billion—an increase of nearly \$400 million from the previous year.

Specialty item distribution accounted for more than \$755 million in expenditures for 1993—more than double the amount spent in 1992—and now accounts for nearly 12 percent of all advertising expenditures. This category includes the practice of putting a brand's logo on such things as T-shirts, caps, sunglasses, sporting goods, and so forth that either are sold

to the consumer or can be ordered from catalogs in exchange for package premiums or coupons. Recent studies have shown that tobacco company advertising of promotional activities is reaching adolescents. Among persons ages 12 to 17 in 1992, 25 percent of nonsmoking adolescents reported having received promotional items from tobacco companies; nearly 50 percent of smoking teens reported having received such items (U.S. Department of Health and Human Services, 1994). Another study (Biener et al., 1994) found 52 percent of Boston 12- to 17-year-olds reported having seen a tobacco company catalog, and 54 percent reported knowing someone younger than 18 years who owned a tobacco promotional item.

During the interval that public health efforts to reduce tobacco use have been increasing, there has been a disproportionate increase in advertising and promotional activity by the tobacco industry, and this increased activity has been accompanied by a shift to promotional activities that may have a greater attraction for adolescents than for adults (Institute of Medicine, 1994). This enormous allocation of resources by the tobacco industry undoubtedly has slowed the rates of positive changes in smoking behavior over the past 40 years, and all current and future tobacco control efforts should be examined in the context of this growing industry effort to keep smokers smoking and recruit adolescents to the smoking ranks.

**COMMIT AND THE
EVOLUTION OF THE
NATIONAL CANCER
INSTITUTE'S SMOKING
AND TOBACCO
CONTROL PROGRAM**

Tobacco use research at the National Cancer Institute (NCI) began in the early 1950's when cigarette smoking was first linked with lung cancer (U.S. Congress, 1957). Over the next decades, NCI funded hundreds of millions of dollars in basic and applied research on smoking and health (U.S. Department of Health and Human Services, 1990). NCI's early research concentrated on the areas of tobacco use epidemiology; the chemistry, pharmacology, and toxicology of tobacco and tobacco smoke; autopsy studies; and experimental tobacco carcinogenesis. During the early 1970's, NCI shifted its research focus to identify hazardous substances in tobacco smoke and ways to reduce or eliminate their presence (National Cancer Institute and National Heart, Lung, and Blood Institute, 1978). In the late 1970's, NCI's smoking research focus shifted again to include an examination of behavioral issues related to why people smoked.

In 1982, coincident with the release of the Surgeon General's report on cancer (U.S. Department of Health and Human Services, 1982), NCI began a major planning effort to reduce the national prevalence of tobacco use and thereby attain a significant reduction in those cancers most associated with tobacco consumption. NCI initiated a research program to identify effective approaches to reach individual smokers and persuade them to quit and to encourage adolescents not to start.

Priorities for targeting intervention research were identified from a systematic approach that used consensus development involving hundreds of scientists and other experts (Greenwald et al., 1987). The resulting consensus was a two-pronged strategy, the first of which included:

- physician and dentist interventions to reduce patient smoking prevalence;
- self-help and minimal interventions to provide materials and strategies to individuals who wish to quit on their own; and
- mass media interventions using electronic and print media to encourage cessation and prevention of tobacco use initiation.

The second prong of the strategy targeted populations with needs for specific interventions or (as with youth) primary targets for prevention of initiation. These strategies included:

- population interventions, including people of color, women, and ethnic populations, to develop appropriate smoking prevention and cessation programs;
- school-based programs to develop curricula to prevent the onset of tobacco use among adolescents; and
- interventions to prevent the initiation of spitting tobacco use and promote cessation.

Results from nearly 60 controlled trials helped guide the COMMIT effort and efforts by other Institutes within the National Institutes of Health as well as other Public Health Service (PHS) and non-PHS agencies. For example, the National Heart, Lung, and Blood Institute has funded community risk-factor-reduction projects (Farquhar et al., 1984; Lasater et al., 1984; Blackburn et al., 1984) as well as clinical interventions directed at individuals considered at high risk for heart disease (Multiple Risk Factor Intervention Trial Research Group, 1982), all involving adult smokers. These efforts, like COMMIT, were designed during the 1970's and early 1980's and were based on what, at that time, was considered the state of the art in smoking cessation interventions, especially for reaching heavy smokers. Cessation results from U.S.-based cardiovascular risk reduction trials, although mixed generally, have been positive. For example, the Stanford Five-City Project observed a greater decline in smoking prevalence in their treatment communities than in controls, based on their cohort survey, with a larger treatment effect in men than women (Fortmann et al., 1993); the Minnesota Heart Health Program reported a modest intervention effect on prevalence of smoking among women but not men in their cross-sectional analysis but reported no effect for either in their cohort sample (Lando et al., 1995; Luepker et al., 1994); and the Pawtucket Heart Health Program reported no significant intervention effect (Carleton et al., 1995). Similar findings have been observed from studies in other countries. (See Chapter 2 for further discussion.)

Recently, it has become clear that policy interventions aimed at changing the social context and general environment in which tobacco is purchased and consumed are as or more important than delivery of cessation and prevention services (U.S. Department of Health and Human Services, 1991). Smoking control policy interventions need to be integrated with

community-based service delivery efforts if they are to be considered comprehensive, and many of these policy changes often require change at a higher social and political level than the local community (e.g., tax increases).

COMMIT did not attempt to change communitywide policies but rather worked within the policy framework that existed within each community at the time the interventions were implemented. Although it was not the intent of the COMMIT protocol to change communitywide laws and regulations, effort was put into increasing the influence of existing policies and economic factors that discourage smoking (COMMIT Research Group, 1995a and 1995b). COMMIT actively emphasized the benefits of policies such as smoke-free environments for worksites, health care facilities, and other community organization sites, but these policies were accomplished primarily through individual consultations or group seminars. No systematic effort was made to implement change throughout the community either through communitywide ordinances or regulations.

Scientific evidence continues to accumulate to demonstrate the potential for policy interventions to modify cigarette smoking behavior among adults and children (U.S. Department of Health and Human Services, 1991; Tobacco Control, 1992; Institute of Medicine, 1994). Implementation of tobacco policy change is best accomplished at the State and local levels through community and coalition support for policies in several important areas: smoke-free indoor air, implementation and enforcement of laws and ordinances limiting minors' access to tobacco products, cigarette tax increases, and reduction or elimination of certain cigarette advertising and promotional activities.

PURPOSE OF THIS MONOGRAPH The purpose of this monograph is to present a synthesis of the operational and process lessons learned from COMMIT. The monograph is specifically intended to provide detailed information about the COMMIT intervention process in a manner not possible in scientific journals. The writers and editors have attempted to distill this information in a format that is particularly useful to individuals interested in a community-based approach to smoking control and that describes how to effectively organize, develop, and implement a comprehensive program aimed at adult smokers at the local level.

The overall lessons learned from the COMMIT field experience are discussed in more detail in Chapter 14. Briefly, they include these findings:

- It is possible to establish a partnership with communities so that they will organize around a community problem.
- It is possible to promote a research agenda even when that agenda is not the primary problem facing a community.
- Community volunteers are willing and able to plan intervention activities that are congruent with an intervention protocol.
- Community volunteers are willing to implement intervention activities.

- The COMMIT model of community organization and structure of Boards and task forces was well received and is relevant for use with other community problems.
- Community volunteers would have liked outcome data during the trial so that they could make midcourse corrections, if necessary.
- Communities were interested in continuing tobacco control activities. An earlier planning period for transition and assistance in obtaining additional resources would have been useful.
- Resources are important in maintaining tobacco control; however, organized groups can effectively take on tobacco control with few external resources.

Operational experience with what works and does not work at the programmatic level frequently provides the core for interventions tested in controlled scientific investigations. Current concepts of what constitutes effective approaches to tobacco control frequently outstrip both the tools needed to evaluate them and the data needed to definitively prove their impact.

The focus of this monograph is a description of how COMMIT was conducted rather than the outcome results. While the experience is fresh, the monograph attempts to present to the larger public health community the best judgments of the COMMIT research team about what constitutes a comprehensive, community-based approach to tobacco control for reaching adult smokers. It is hoped that this description will aid both those currently designing and implementing programs and those creating the next generation of scientific studies in tobacco control.

The monograph is organized to follow the research channels used in the COMMIT communities. Each chapter contains a brief rationale for intervening through a particular channel and then describes experiences across the trial. The monograph is intended to be descriptive. Toward that end, chapters conclude with a section on lessons learned or what could have been done differently.

The monograph may be read as a unit or in sections of particular interest. Chapters 2 through 4 provide descriptions of the project and are included for those who wish to understand the research aspects as well as applications from the field. Chapter 2 provides a context for community studies. Chapter 3 describes COMMIT and the evaluation plan for the trial, and Chapter 4 focuses on the development of the intervention.

Chapter 5 describes the process of understanding communities and mobilizing them to participate in tobacco control.

Chapters 6 through 13 cover individual channels of intervention used in COMMIT. Chapter 6 focuses on public education in COMMIT and includes information on media campaigns, communitywide campaigns, and contests to help smokers quit. Chapter 7 describes public policy changes in COMMIT

communities and how community Boards and task forces worked for such changes. Chapter 8 describes how COMMIT sought to build the capacity of communities' cessation resources and services. Chapter 9 reviews the tobacco control activities of health care providers. Chapter 10 specifies how worksites were brought into intervention activities and encouraged to make policy changes. Chapter 11 reviews attempts made to draw community organizations into participating in intervention activities. Chapter 12 describes interventions conducted in schools, and Chapter 13 demonstrates how youth can become involved in tobacco control outside the school. Finally, Chapter 14 presents the overall lessons learned and the implications for future community-based tobacco control initiatives.

COMMIT INTERVENTION MATERIALS

The authors especially would like to call the readers' attention to the numerous samples of COMMIT resource materials located throughout the monograph. These materials represent a mere fraction of all intervention materials used and are presented to provide a better understanding of the range of materials developed. Of note is the variation of materials across the 11 geographically and ethnically diverse communities. Although the COMMIT sites implemented a standard protocol, the diversity of materials—from unique logos to culturally specific materials—reflects the adaptation of the protocol by individual communities. The community-specific aspect of the intervention materials also is an important indicator of the true community ownership of the COMMIT project.

Unfortunately, it was never the intention of NCI or the COMMIT research team to produce sufficient quantities of these materials for general distribution. *We regret that we are unable to honor requests for COMMIT resource materials.*

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