
Chapter 6

Interdependence and Synergy Among Smoking Control Activities

CONTENTS

Introduction	269
Conceptual Framework	270
Studies of Environmental Change	272
Synergistic Effects Among Selected Interventions	272
Media Coverage of Antitobacco Activities	273
Worksite Policies for Smoking Control.	274
Physician Actions for Tobacco Control	275
Current Intervention Research	276
Approaches to Tobacco Companies' Targets	276
Smoking Among Women	277
Smoking Among Blacks	278
Smoking Among Hispanics	285
Conclusions	289
References	290

BLANK PAGE

Chapter 6

Interdependence and Synergy Among Smoking Control Activities

INTRODUCTION

Efforts to control tobacco use have employed a wide range of tactics and techniques to reduce the prevalence of smoking. Traditional approaches to smoking control have focused on the individual, with less attention to the broad social context within which the individual acts.

More recently, a number of researchers have recognized that local values, norms, and behavior patterns are significant in shaping an individual's attitudes and behaviors (Abrams et al., 1986; Farquhar et al., 1977; McAlister et al., 1982; Puska et al., 1985). Rather than emphasizing changes by individuals, the newer approach argues that permanent, large-scale behavioral change is best achieved through changing standards of acceptable behavior; that is, through adoption of different norms for health-related behavior (Abrams et al., 1986; Farquhar, 1978; Farquhar et al., 1985a; Syme and Alcala, 1982; Van Parijs and Eckhardt, 1984).

In the past 15 years, a number of major health-promotion initiatives have used a community approach to change behavior (Abrams et al., 1986; Elder et al., 1986; Farquhar et al., 1985b; McAlister et al., 1982; Mittelmark et al., 1986; Puska et al., 1985; Tarlov et al., 1987). Most of these efforts addressed multiple risk factors in cardiovascular disease, with goals of changing individual subjects' behavior with regard to smoking, diet, and screening for health problems. The majority of such projects reflected the need to change the social context of their communities, recognizing that the environment has a significant role in facilitating or inhibiting the adoption of new behaviors (Farquhar et al., 1977; Farquhar et al., 1985b; McAlister et al., 1982; Puska et al., 1985). Some researchers also have discussed the importance of changing community norms. Planning interventions that capitalize on the inherent interdependence and synergy of a system is likely to yield a maximum effect.

In this chapter, (1) a conceptual framework for a comprehensive, synergistic approach to smoking control is presented; (2) pertinent data in support of such an approach are reviewed; (3) examples are presented to illustrate how interventions have built and can build on the interdependence and synergy

among them; and (4) synergistic approaches for three specific target populations—women, black Americans, and Hispanic Americans—are reviewed.

CONCEPTUAL FRAMEWORK

Individuals do not act in a vacuum; rather, they are greatly influenced by the social environment in which they act. A smoker often responds to environmental cues when deciding to smoke or not smoke. For instance, a work break, the end of a meal, and exiting from a no-smoking facility are situations that provide the smoker with cues to smoke; while attending a religious service and working in designated no-smoking areas are examples of cues that inhibit the smoker's behavior. Many cues have their origins in rules about acceptable behaviors—norms (Robertson, 1977). Changing the environment that surrounds the smoker involves changing the prevailing norms.

In concept, the social environment may be considered a system with related and interdependent parts that serve to maintain the whole. The system includes many components, or subsystems, that carry out the activities required to keep the system viable; among these subsystems are the political, economic, and educational institutions that ensure governance of, resources for, and socialization into the system. The system is not a simple aggregation of its component parts; rather, it is a unique structure that includes all the parts and the interdependencies that connect the parts (Von Bertalanffy, 1962). The system also provides the context for all activities, including making choices about behaviors. The social environment system is based on some degree of cooperation and consensus on social norms (Ashby, 1958; Boulding, 1978), and individuals generally act within the parameters of the system.

Social norms change along with the system to provide new rules of conduct to help maintain the reformed system (Robertson, 1977). An example of this can be seen in the emerging norms related to tobacco use. Technical changes—recognition of the dangers of smoking cigarettes and of inhaling secondhand smoke—have led to restrictions on public smoking, and as this secular trend accelerates, smokers find it is no longer appropriate to light up in all settings.

Factors that promote continued tobacco use are still found at many levels in the system, though. The political subsystem provides price supports for tobacco growers and thus affects the economic subsystem. Together, the political and economic subsystems contribute to the development of public and private resources that expand the tobacco industry's capability to further promote its products. In addition, tobacco industry representatives are adept at using the communication subsystem to relay messages that promote acceptability for tobacco use (Leventhal et al., 1987; Tye et al., 1987; Warner, 1986a;

White, 1988). An important factor is the addictive nature of tobacco (US DHHS, 1988), which helps to maintain a high level of demand for the product.

Conversely, there are system factors that inhibit the use of tobacco. The political sector has publicly endorsed and supported some restrictions on certain tobacco industry activities, most notably in the area of distribution and promotion of products to minors (DiFranza et al., 1987; Tobacco-Free America Project, 1988; US DHHS, 1989). Excise taxes on tobacco products have some effect in the economic sector. When cigarette taxes are portrayed as "sin" taxes (Harris, 1982; Tobacco Institute, 1988), a message about smoking behavior is disseminated through the system. The economics of such taxation also may affect the prevalence of smoking: estimates indicate a drop of about 2 percentage points in the prevalence of adult smoking for every 8-cent increase per package of cigarettes (Harris, 1982; Lewit and Coate, 1982; Warner, 1986b). Another subsystem, the scientific sector, has published thousands of studies linking ill effects to tobacco use, thereby providing yet another force against smoking.

The net environmental effect of the forces influencing tobacco use has been a gradual move away from the free use of tobacco and toward restrictions on its use. In the past 20 years, tobacco advertising has been restricted to media other than radio and television (Whiteside, 1971); 41 states have implemented restrictions on smoking in public places (US DHHS, 1986); all states have enacted cigarette taxes (US DHHS, 1989); and many other restrictions on tobacco sales and use have been legislated (Pertschuk and Shopland, 1989).

There is little doubt that environmental changes have an effect on the smoking habits of individuals. The 1964 Surgeon General's Report, for example, led to a significant change in smoking prevalence (US DHEW, 1964; Warner, 1985). A similar effect was seen when the Federal Communications Commission required "equal time" for antismoking messages on radio and TV to match the time allotted for cigarette commercials (Warner, 1985). "Clean air" laws, enacted recently around the country, also may have had an effect on prevalence as smokers find it more difficult to smoke in public places.

As the forces working toward restrictions on tobacco use multiply, a type of synergy—beneficial cooperation among various sectors of the system—develops. To the extent that relations among the sectors are harmonious and oriented toward a common goal, the synergy that develops produces a net effect of the combined forces that is greater than the sum

of their separate effects. Ultimately, the synergy of multiple forces supporting tobacco restrictions should lead to a societal norm in which tobacco use is not acceptable.

STUDIES OF ENVIRONMENTAL CHANGE

Empirical research addressing how various changes in tobacco control relate to the social environment and to the prevalence of tobacco use has been largely retrospective and observational. Few experiments have been conducted in which the multiple social forces that promote tobacco restrictions have been manipulated.

The Stanford Three-Community Study (Farquhar et al., 1977) used the communication sector (media) to deliver messages about smoking cessation. Although success was limited, there appeared to be some synergy between the media messages and intensive assistance with smoking cessation provided to individuals at high risk for cardiovascular disease (Meyer et al., 1980). In another community, media messages alone were used, and the observed effect was not significantly greater than the change seen in a control community that received neither media messages nor face-to-face intervention (Farquhar et al., 1981).

Investigators of the Australian North Coast study found significant smoking reduction among all smokers through a combination of media programs with community programs (Egger et al., 1983); again, that effect was not seen in a community that received only media interventions. Similarly, the Finnish North Karelia Project showed a significantly greater decrease in smoking in a community that received multichannel stop-smoking activities than in a control community that received no intervention (Puska et al., 1983). A Swiss national study used media, public policy changes, and a community organization approach to achieve significantly higher rates of smoking cessation in intervention communities than in the control communities (Gutzwiller and Schweizer, 1983). Three ongoing community studies—the Minnesota Heart Health Project (Jacobs et al., 1986), the Pawtucket Heart Health Program (Elder et al., 1986), and the Stanford Five-City Project (Farquhar et al., 1985)—are projects similar to those above; however, their results have not yet been reported.

SYNERGISTIC EFFECTS AMONG SELECTED INTERVENTIONS

Additional examples of the effectiveness of multiple intervention subsystems and the effects of synergy can be seen in at least three specific areas: media coverage of antitobacco events, policy changes at worksites, and antismoking messages conveyed by physicians. The following paragraphs briefly describe the interactions and interdependencies that lead to a presumably synergistic result.

**Media Coverage
Of Antitobacco
Activities**

Several advocacy techniques have been used in efforts to obtain media coverage of antitobacco events in two major areas: promotional activities and cessation activities. A small but influential group of advocates has developed simple techniques to attempt to gain media attention. A common tactic is to borrow some aspect of a prosmoking promotion and endow it with an antismoking message; for example, the "Emphysema Slims" tennis tournament was hosted to counter a "Virginia Slims" tournament (US DHHS, 1988). Similarly, the media are attracted to conflicts. In a "monster truck" rally, one of the drivers chose to decorate her truck with no-smoking symbols; she was prevented from driving her decorated truck because the event was sponsored by a tobacco company (Doctors Ought to Care, 1990).

The media also respond to the positioning of an issue around another extant issue. Several recent news events, for example, were amenable to reframing in terms of tobacco information. When cyanide was found in Chilean grapes in March 1989, news releases related the fact that cyanide is present in tobacco smoke (DeNelsky, 1989). Advocates of smoking control also noted the apparent contradiction in a tobacco company's support of a dance troupe (Smoking Control Advocacy Resource Center, 1989). Similarly, a number of editorials pointed out that the amount of benzene in Perrier water taken off the market was only a fraction of the amount of benzene in tobacco (Smoking Control Advocacy Resource Center, 1990).

It is difficult to determine whether such media coverage has any effect on smokers. It is likely, however, that such coverage reinforces and helps to solidify a nonsmoking norm that already has substantial support.

It is easier to draw conclusions from media coverage of cessation activities. Some investigators (Bettinghaus, 1988; Flay, 1987) have examined the efficacy of media promotions for use of a smoking cessation hotline (Anderson et al., 1989), use of self-help cessation materials (Jason et al., 1988), and participation in other smoking cessation programs (Cummings, 1987; Danaher et al., 1984). Although the results vary, there is a strong trend for increased participation in smoking cessation activities when media messages are available; similarly, evidence suggests that smokers are more likely to stop smoking when the two activities are combined than when each activity is presented alone (Flay, 1987).

Media control and smoking control activities are interdependent in that media cannot operate without activities and events to cover, and cessation activities and motivation messages to stop smoking make significant news only rarely (e.g.,

when new research findings are released). When tobacco-related issues are framed in a newsworthy manner, both media and smoking control groups benefit. Furthermore, smokers benefit because they are made aware not only of their habit and the opportunity for changing that habit but also of the ways in which they are manipulated into tobacco use. Such insights may motivate them to look more carefully at their smoking.

Over time, the antismoking messages may be adopted into the normative structure of society, and notions about the impropriety of tobacco vendors' promoting cultural, political, sporting, and other events will become norms.

Worksite Policies For Smoking Control

Restrictive smoking policies are being implemented increasingly in both public and private workplaces. All Federal workplaces are now subject to policies that restrict smoking to designated areas (US DHHS, 1989). In addition, 31 states have laws restricting smoking in public workplaces, and many other states have similar restrictions through executive actions (US DHHS, 1989). The numbers are equally impressive for private workplaces: almost 300 cities and counties have mandated formal policies about smoking in public and private workplaces. Surveys reported in 1986 (Bureau of National Affairs) and 1987 (US DHHS) placed the prevalence of restrictive smoking policies in private workplaces at 30 percent and rising rapidly, since the majority of workplaces surveyed that did not have a policy had at least a plan to institute one in the near future (US DHHS, 1986 and 1989).

The effect of worksite smoking policies on the attitudes of smoking employees provides important information on the acceptance or nonacceptance of this normative change. Results from a number of studies (Brown et al., 1988; Thompson et al., 1987; US DHHS, 1987) showed that smokers as well as non-smokers responded well to smoking restrictions at work. Both groups reacted more favorably to the policy after it was implemented than before (Petersen et al., 1988; Rigotti et al., 1986; Rosenstock et al., 1986), suggesting that conversion to the new norm was accomplished easily.

Although data are somewhat equivocal, experts are becoming more convinced that worksite smoking policies have some effects on employees' smoking (Petersen et al., 1988; Rosenstock et al., 1986). Studies of employee participation in workplace smoking cessation programs that are offered along with implementation of a smoking control policy indicate that, for at least some workplaces, policy implementation increases enrollment in cessation activities (Martin, 1982; Walsh and McDougall, 1988).

The interdependence of worksite policies and smoking cessation activities is clear: when workplace policies restrict smoking, smokers will reduce the amount they smoke during the workday. Employers benefit in the long run by increased productivity and decreased costs for cleaning and insurance. Nonsmoking employees benefit by reduced exposure to environmental tobacco smoke, whereas smokers benefit in terms of health (if they achieve cessation) and support in stopping their habit. Where restricted smoking policies are implemented, worksite norms are likely to change to advocate nonsmoking, thus offering smokers an ongoing incentive to quit and to stay abstinent.

The synergistic effect between worksite policies and the smoker is that the employer action may propel the smoker toward cessation. Nonsmoking employees are also likely to support nonsmoking and may provide repeated and continuing impetus for smokers to quit. Smokers may benefit because some of the cues for smoking are controlled, making it easier for them to avoid the practice. Over time, the new nonsmoking norm may become entrenched in the workplace, providing smokers with yet another prompt to stop smoking.

Physician Actions For Tobacco Control

Physicians have regular, recurring opportunities to offer smoking cessation messages to their patients, because most smokers (70 percent) visit a physician annually (Ockene, 1987). Smokers listen to their physicians, and a sizeable number of smokers report that their physicians have advised them to stop smoking (Ockene et al., 1987).

The advice of a physician is particularly effective when it is part of a general office system that provides regular messages about quitting smoking and offers assistance with cessation efforts (Ockene, 1987; Wilson et al., 1987). Chart identification, use of an office coordinator who asks about smoking status, and a regular plan for advising the patient on the specifics of smoking cessation are more effective in helping patients achieve cessation than simply asking about smoking. The regular physician messages may be enhanced also by the environment of health care offices: a no-smoking office policy, amplified by posters, cessation information, and other cues for nonsmoking, provide strong normative support for cessation.

In addition to physicians' having an ability to affect individual smokers, they are powerful lobbyists for smoking control activities. Through their professional associations (American Medical Association, American Academy of Family Physicians, and others), physicians present a formidable lobby to persuade policymakers to control the use of tobacco. Historically, the professional associations have worked toward tobacco

control in a number of areas, especially in smoke-free environments and control of advertising directed to youth. Physician organizations such as Doctors Ought to Care provide regular lobbying at the national, state, and local levels to restrict tobacco use.

As with the other examples, the synergistic effect of physicians' messages and other smoking control activities is found in the repeated and pervasive messages to smokers to modify their behavior. In addition, the health care environment for the smoker promotes nonsmoking as the acceptable behavior.

**Current
Intervention
Research**

In each of the three examples above, there appears to be an interdependence and synergy between the sector employed for control of tobacco use and the other societal subsystems. In addition, each sector seems to be contributing toward the development of increasingly stronger nonsmoking norms. Although empirical substantiation for such assertions is weak, a number of current research efforts in smoking control (for example, the Community Intervention Trial for Smoking Cessation [COMMIT] and the American Stop Smoking Intervention Study for Cancer Prevention [ASSIST]) are expecting synergy in planning interventions, and they may provide more information on the empirical validity of this approach.

**APPROACHES TO
TOBACCO
COMPANIES'
TARGETS**

While the overall prevalence of smoking has gone down significantly over the past 20 years, the prevalence is still high among those in our society who are most disadvantaged—women of all races, black people, and Hispanics who have the lowest education level and incomes. This is not accidental. The cigarette industry spends \$2.5 billion per year to convince minority groups, women, and young people that nicotine—an addictive drug—is their ticket to “elegance, power, confidence, maturity, and desirability” (Tuckson, 1989). Tobacco companies spend \$1.4 million per year on advertising in Hispanic communities, and in black communities they spend \$5 million per year on billboards alone (Davis, 1987). Surveys in low-income communities have shown that they are saturated with billboards promoting cigarettes (Tuckson, 1989).

The presence of the tobacco industry in the lives of minorities and women of all races goes well beyond advertising. The industry is an important funder of minority organizations, publications, and events, and it has even managed to ally itself with civil rights issues by equating freedom to smoke with the civil freedoms guaranteed by the Bill of Rights. The National Cancer Institute has funded projects that aim directly at these groups, and communities are beginning to build coalitions to combat the cigarette companies when their targeting of particular populations becomes apparent.

Following are discussions of the magnitude of the problem for each of three groups (women, blacks, and Hispanics), as well as a consideration of barriers that racial minority groups and women must confront in smoking cessation.

Smoking Among Women
Magnitude of the Problem

Before World War II, smoking was primarily a male behavior. In the late 1930's and 1940's, women began to take up cigarette use until the prevalence of smoking among women peaked at 32 percent from the mid-sixties to the mid-seventies (US DHHS, 1989). Since that time, smoking rates have declined for both sexes, but the rate of decline among women has been slower than that among men. In 1986, 28 percent of adult women smoked compared with 33 percent of adult men (Morbidity and Mortality Weekly Report, 1987). If the differential rate of decline among men and women continues, by the end of the century more women than men may be smokers.

While fewer males have taken up smoking in recent years, the rate of initiation has remained fairly constant among females (Fiore et al., 1989). The situation among disadvantaged women, however, is even worse. From 1979 to 1985, the smoking prevalence among women who were less educated and had lower socioeconomic status (SES) actually increased from 40 percent to 44 percent.

Barriers to Smoking Cessation

Women tend to underestimate the health risks that they incur because of cigarette smoking (Sorenson and Pechacek, 1987). It has been speculated that the more rapid decline in smoking among men relative to women in the 1960's was due to the Surgeon General's Report linking smoking with lung cancer and heart disease. At the time, these diseases were seen as more relevant for men than for women. Since that time, the disease rates for women have increased markedly. While mortality from breast cancer has not changed in recent years, mortality from lung cancer among women has risen dramatically. Lung cancer now exceeds breast cancer as the largest cause of cancer deaths among women (American Cancer Society, 1990).

Concern about physical appearance may be another barrier to smoking cessation by women. Quitting smoking is often accompanied by significant weight gain (Rodin and Wack, 1984), and women are more likely than men to report that fear of weight gain keeps them from giving up cigarettes (US DHHS, 1980; Waldron, 1988).

Female adolescents who smoke have been shown to be more self-confident, socially skilled, and outgoing than those who do not. Girls seem to adopt smoking not because they are pressured to, but because they seek to identify themselves as independent, successful, and glamorous—precisely the image

projected by cigarette advertisers. Finally, smoking is one of the significant ways that women cope with stress, particularly the stress of being a mother of small children (Biener, 1987).

Channels for Reaching Women

The health care system is a good channel for smoking cessation efforts, as women tend to be high utilizers of health services. The fact that many women quit smoking during pregnancy suggests that the prenatal period provides a good opportunity for intervention. Public health clinics and neighborhood health centers that serve disadvantaged groups should make a special effort to convey the importance of quitting to their clients.

There are many magazines directed to women specifically. Counteradvertising (i.e., advertising designed to undermine the goals of tobacco advertising) in such magazines and/or convincing them to refuse to advertise cigarettes would reduce the association between attractiveness and smoking that is so prevalent in the media. At least two magazines, *Ms.* and *Good Housekeeping*, refuse to take cigarette advertisements. When tobacco companies are found to be targeting women, as in the recently revealed campaign to market Dakota cigarettes to a specific subgroup of women, influential groups such as the National Organization of Women may be willing to mobilize to counter the tobacco industry's promotional activity.

Many supermarkets and food stores have become involved in efforts to promote healthy choices by labeling foods that are low in cholesterol and/or high in fiber. These stores are often willing to disseminate information about the health risks of smoking (Hunkeler, et al., 1990). Efforts could be made by community organizers to discourage sales of cigarettes by food stores and sales of cigarettes to minors.

Content of Messages

Three messages about smoking may be particularly relevant in campaigns directed to women: (1) smoking is as much of a health risk for women as it is for men; (2) quitting smoking promotes the health of children; and (3) the possibility of being slimmer is not important enough to risk the health dangers of smoking. Messages about how to acquire social support from family members, friends, and coworkers may also help women to quit smoking.

Smoking Among Blacks Magnitude of the Problem

Black Americans have the highest smoking prevalence rates: 35.4 percent of black adults smoke—40.6 percent of black men and 31.5 percent of black women (Fiore et al., 1989; US DHHS, 1988). Blacks suffer the Nation's highest rates of morbidity and mortality from smoking-related diseases, including cardiovascular disease and lung cancer (Cooper and Simmons, 1985; US DHHS, 1985 and 1988). Cigarette smoking is a major contributor to the short life expectancy of inner-city black men (McCord and Freeman, 1990; Rivo et al., 1989).

Sociodemographic factors associated with smoking among black people are similar to those for the U.S. population as a whole. They include lower income, less education, blue-collar occupations, unemployment, male gender, and unmarried status (Orleans et al., 1989b; US DHHS, 1988; Warnecke et al., 1978.)

Although the rate of smoking initiation is decreasing, and the ratio of quitting is increasing at similar rates for blacks and whites, blacks currently have a lower quit ratio (defined as the proportion of smokers who have quit). Quit ratio estimates range from 32.9 percent to 38.8 percent for blacks and from 47.1 percent to 49.3 percent for whites (Fiore et al., 1989; US DHHS, 1990). Past survey data suggest that black smokers may try to quit as often as whites, but they succeed less often (US DHHS, 1985).

Among blacks, several high-risk groups deserve special attention: (1) black women, because of the unique risks associated with smoking during childbearing years, and because their smoking rate is declining more slowly than that of black men (Fiore et al., 1989; Marcus and Crane, 1987); (2) smokers with less than a high school education because they are quitting at the slowest rates (Pierce et al., 1989); and (3) black men in blue-collar and service occupations because their smoking rates may exceed 50 percent (US DHHS, 1985). Special efforts are needed also to reach the chronically unemployed, who have high rates of smoking and may not be active in church and community groups (Lemann, 1986).

Barriers to Smoking Cessation

For black people, barriers to quitting smoking include reliance on cigarettes as a way of coping with the life stress and social disadvantage related to low SES and pervasive discrimination, limited access to health care in general and to smoking-related services and resources in particular, and limited confidence in their ability to quit (Hunkeler et al., 1990). A study of smoking among black people in Richmond, California, showed that more than 90 percent knew that smoking was harmful to health, but only 27 percent thought they could quit within the year (Hunkeler et al., 1990). Norms in black communities may actually encourage smoking. Many blacks regard other problems such as drugs, unemployment, and crime as having a higher priority than smoking. Powerful advertising tailored to black consumers not only glamorizes and legitimizes smoking but also downplays the health risks (Blum, 1989).

Fewer blacks (54 percent) than whites (70 percent) report a physician's office as their usual source of care. Twice as many blacks as whites say they receive their regular medical care from hospitals, public health clinics, and emergency rooms. Fewer

blacks than whites receive medical advice to stop smoking (Marcus and Crane, 1987; US DHHS, 1985).

Stronger smoking norms and tobacco advertising influences in black communities help to sustain a high smoking rate. Black-targeted tobacco advertising has become increasingly predatory and pervasive. The tactics include extensive cigarette advertising in black print media; increased billboard and point-of-purchase cigarette advertising in inner-city neighborhoods; tobacco company sponsorship of sports, civic events, and entertainment and cultural events important to the black community; and well-publicized philanthropic support of black causes and organizations (Blum, 1989; Cummings et al., 1987; Tuckson, 1989).

Channels for Reaching Black Smokers

Lasting change in individual smoking behavior requires changing the social and cultural context in which smoking occurs by integrating program components into many existing communication channels (Hunkeler et al., 1990). These communication channels include the health care system, black-focused mass media, churches, voluntary health organizations, fraternal and mutual aid organizations, workplaces, unemployment offices, job training programs, retail establishments, families, and neighborhood and tenants' organizations (Orleans et al., 1989b).

These channels include two types of organizations that might be mobilized to reduce black smoking—those that reach black populations easily, such as black churches, black fraternal and mutual aid organizations, and neighborhood and tenants' organizations; and those that have health and smoking on their agendas already, but are not focused on the black population, such as voluntary health organizations (e.g., American Cancer Society, American Heart Association, American Lung Association). To involve both types of organizations in the reduction of smoking among black people requires convincing black organizations to take up smoking as an issue (despite their other pressing priorities) and convincing the voluntary health organizations to produce materials that focus on blacks. Any successful effort to reduce smoking among blacks requires strong black leadership. Unfortunately, at this time many of the organizations in black communities do not have the resources to add smoking to their list of priorities. Enlisting the aid of those organizations requires time. Many of the organizations that deal with smoking, such as the lung association and the cancer society, are just beginning to focus more heavily on low-income and minority smokers.

If quitting smoking can be linked to other difficult problems faced by black communities, such as unemployment, quitting smoking might be more of a priority. For example, if

it could be shown that nonsmokers are more attractive job candidates, people might be more motivated to quit. If job training programs and unemployment offices distributed self-help materials and/or offered a smoking cessation component to their training, unemployed black smokers might be more interested in quitting.

Health professionals can play a key role in educating individual smokers and community groups about the hazards of smoking (Ockene, 1987), but they should be practitioners in emergency rooms and public health clinics as well as regular physicians so that the low-SES groups with the highest proportion of smokers are reached. Medical-based programs should be offered in the hospital and public health clinics and emergency rooms where black smokers receive a disproportionate amount of their medical care (Orleans et al., 1989b). The National Medical Association could play a critical role by training its members to offer brief counseling and self-help materials as part of routine medical care (e.g., Glynn and Manley, 1989).

Influential members of important nonmedical organizations also should be involved to raise consciousness about smoking as a health and social issue in black communities. The key spokespersons in Philadelphia's successful campaign against Uptown cigarettes included health professionals, public health officials, political leaders, and clergy from the black community (Robinson et al., 1990).

Communications aimed at black children and adolescents should include peer education. Recent focus groups indicate that information about smoking risks for blacks may be more credible coming from black than from white sources, and that information about other quitting benefits may be most convincing when the sources are "everyday" people instead of celebrities (James et al., 1990). Communications aimed at families and social networks have the potential to increase social support for quitting smoking and to mobilize efforts to curtail cigarette use among black children and adolescents. Widespread community concern to protect black children from a lifetime of nicotine addiction was a major tactic in the successful grassroots campaign against Uptown cigarettes in Philadelphia (Robinson et al., 1990). Interventions that target youth may reach both young people and their families; for instance, the making of a rap video, "Stop Before You Drop," by the Richmond Quits Smoking Project in Richmond, California, was a mobilization tactic that reached families as well as over 300 young people involved in the production at various levels.

Many effective health education campaigns combine formal and informal interpersonal communications, such as personal medical advice and social support from one's primary social group (McDill, 1975; Warnecke et al., 1978). This may be especially true within the black community because of its strong self-help tradition. Recruiting and training volunteers from churches, neighborhood councils, and community organizations to talk with family members, friends, coworkers, and neighbors about smoking was one strategy used by the Richmond project to extend formal programming to informal social networks (Hunkeler et al., 1990).

Community-based motivation or education campaigns should employ black-focused media (e.g., newspapers, magazines, and radio) to the greatest extent possible. The need to reach blacks with the lowest SES and educational levels requires that print materials be suitable for low-literacy populations (Doak et al., 1987) and that alternative audiovisual media also be available.

Videotaped or televised quit-smoking programs are useful complements to print materials, especially to reach low-literacy groups. Minimal counseling might be provided to smokers using self-help materials by means of toll-free telephone quitlines, like the nationwide Cancer Information Service (1-800-4-CANCER), although few black smokers may avail themselves of this service.

Briefly trained lay leaders (Lando et al., 1990) can provide quit-smoking assistance through organizations and institutions already established in the black community. The project in Richmond, California, recruited volunteers through churches, neighborhood councils, and community organizations to encourage, support, and assist quitters. Schoenbach and colleagues (1988) trained life insurance agents to deliver self-help quitting guides to interested policyholders nationwide.

Interventions aimed at groups and organizations, not just individuals, are needed. Self-help programs, workshops, and clinics can be offered in churches, medical settings, schools, workplaces, and community organizations. The Richmond project distributed stop-smoking materials in more than 100 community sites, including restaurants, barber shops, youth organizations, recreational centers, senior centers, grocery stores, churches, the public library, and unemployment offices (Hunkeler et al., 1990).

Voluntary health organizations, particularly the American Cancer Society and the American Lung Association, are the major providers of self-help materials and quit-smoking clinics in the United States (US DHHS, 1989). Their multiracial quitting guides are designed for wide appeal to blacks and other

minorities and are written at reading levels suitable for low-literacy smokers (American Cancer Society, 1988; Strecher and Rimer, 1987). The community and worksite-based clinics of both organizations achieved similar, relatively modest outcomes (Lando et al., 1990). Both programs can be led by facilitators recruited and trained from the target community.

An issue at present is the role of generic stop-smoking materials versus black-focused materials. Both have their place. The experience of the Richmond project was that blacks were very receptive to both black-focused motivational materials and black-focused quit-smoking guides. Examples of black-focused stop-smoking literature include *A Guide to Quitting Smoking*, created by the Richmond project, and North Carolina Mutual Insurance Company's *Quit for Life* guide, designed as a companion to the multiracial guide, *Freedom from Smoking for You and Your Family*, from the American Lung Association (Strecher and Rimer, 1987).

It is noteworthy that offers of standard counseling, groups, and self-help materials will reach only a small group of black smokers. However, the experience of the Richmond project was that, while the program had to offer these services to gain credibility and to accommodate the few who used them, most black smokers who were interested in cessation needed more innovative approaches to quitting.

Content of Messages

Messages about smoking for black Americans should contain clear information about the health consequences of smoking, the health benefits and other potential gains from quitting smoking, suggestions for how to quit smoking, and information to combat the cigarette companies' message that smoking is glamorous. Information about the health risks of secondhand smoke exposure should be included to exploit the altruistic quitting motives commonly cited by black ex-smokers (Orleans et al., 1989a).

Because health is the primary motivation for quitting among black smokers, as among all U.S. smokers (Orleans et al., 1989a) and because blacks do not receive messages about the health risks of smoking as often as do whites (US DHHS, 1987), black-focused antismoking campaigns should clearly state the health risks and the benefits of not smoking. Messages should emphasize the fact that while quitting smoking is not easy, it can be done, and that there are individuals interested in helping others quit. Other benefits, not strictly health-related, such as freedom from addiction and inconvenience, saving money, greater self-esteem, and more social acceptability, should be stressed. Reassurance about overcoming common quitting barriers, for example, concerns about weight gain and the loss of smoking as an all-purpose coping tactic, also is important.

The smoking issue should be framed in ways relevant to the concerns of blacks, particularly with regard to family life, for instance, emphasizing the economic burden of smoking-related illness for black families and the hazardous effects of secondhand smoke on children (Hunkeler et al., 1990; James et al., 1990). Family themes like these are emphasized in the American Lung Association's new motivational brochure (1990) developed specifically for black smokers. These messages are similar to those meant for all other racial or ethnic groups, but there is a difference in tone and emphasis. Many blacks are already well aware of the problems they face (unemployment, higher mortality rates, drug abuse, etc.), including smoking. What is needed is more information on how blacks can combat smoking personally, in their families, and in the wider community by organizing to decrease the advertising of cigarettes (Hunkeler et al., 1990).

Counteradvertising has become an essential antismoking strategy in minority communities. Its goals are to expose the tactics used by the tobacco industry to recruit new smokers, especially minority women, children, and adolescents. Counteradvertising can deglamorize smoking through images and slogans that mock the themes of power, attractiveness, escape, popularity, and pleasure that are used now to promote cigarettes (Blum, 1989; Tuckson, 1989). One of the successful tactics in the campaign against the new Uptown cigarettes was to expose the tobacco industry strategy of marketing more highly addictive, high-nicotine and high-menthol cigarettes to black smokers (Robinson et al., 1990).

Counteradvertising strategies can involve everyone, non-smokers and smokers alike. Recently, the City Council of the predominantly black city of Richmond, California, in a preliminary vote, passed an ordinance that prohibits billboard advertising of alcohol and cigarettes within 500 feet of each school. Thus, whole communities can be mobilized against smoking.

The community-based project in Richmond portrayed smoking as "unhip," "uncool," and socially undesirable behavior (Hunkeler et al., 1990). Counteradvertising can also include (1) political action and legislation to regulate the billboard cigarette advertising that is two to three times more prevalent in black than in white communities; (2) strategies to reduce point-of-purchase advertising and curtail minors' access to tobacco products in community retail establishments and to prohibit the distribution of free samples of cigarettes; (3) stopping patronage of events sponsored by tobacco companies; and (4) the refusal of philanthropy from tobacco companies (Tuckson, 1989).

Smoking Among Hispanics

Magnitude of the Problem

The proportion of current smokers among Hispanic men varies from 31 percent to 41 percent, and among Hispanic women from 21 percent to 33 percent, in national and regional surveys (Escobedo and Remington, 1989; Escobedo et al., 1990; Marcus and Crane, 1985). Rates for Hispanic men are similar to or greater than those for white men, but a substantially lower proportion of Hispanic women than white women are smokers. Smoking rates for the three major Hispanic subgroups, Mexican Americans, Cuban Americans, and Puerto Ricans, were compared in the Hispanic Health and Nutrition Examination Survey (HHANES) conducted between 1982 and 1984 (Escobedo and Remington, 1989). Similar gender differences were observed among Mexican Americans and Cuban Americans, but the gap was much less striking among Puerto Ricans. Puerto Rican women report smoking at a much higher rate than either of the other Hispanic subgroups examined as part of HHANES. In addition, birth cohort analyses based on HHANES data estimated that, although the prevalence of smoking appears to be decreasing among Hispanic men, smoking rates actually increased among successive cohorts of Hispanic women (Escobedo and Remington, 1989).

Barriers to Smoking Cessation

Acculturation to the U.S. mainstream is a complex, multi-dimensional phenomenon that has an important but poorly understood role in many health-related behaviors. In a telephone survey of smoking behavior, completed with 1,669 Hispanic residents of San Francisco in 1986-1987 (Marín et al., 1989b), smoking rates were higher for the more acculturated Hispanic women but lower for the more acculturated men. These data suggest that smoking behavior among Hispanics becomes more like that of whites with increasing levels of acculturation and, as a consequence, smoking may become an increasingly serious problem for Hispanics as they merge with mainstream U.S. society.

A consistent finding in surveys (Marcus and Crane, 1985; Marín et al., 1989b) has been that Mexican-American smokers report smoking fewer cigarettes per day than the average reported by white or black smokers. Although a lower proportion of highly acculturated men smoke, they report a greater number of cigarettes per day than less acculturated men. Among women, a high proportion smoke and report smoking more cigarettes as acculturation increases. Among a sample of 547 Mexican-American smokers participating in HHANES, comparison of self-reported smoking behavior with levels of serum cotinine (a specific metabolite of nicotine) showed that approximately 20 percent of men and 24 percent of women reported smoking fewer than 10 cigarettes per day, and that estimated underreporting of cigarette consumption ranged from 2 to 17 cigarettes per day (Pérez-Stable et al., 1990). These

observations have important implications for cessation strategies, because light smokers are much more likely to successfully quit smoking on their own with appropriate motivational messages and self-help methods.

Unemployment, little education, and little or no awareness of cessation services also contribute to the barriers that Hispanics face in attempting to quit smoking. Less educated persons are more likely to smoke and less likely to quit, and Hispanics have the fewest average years of education of any ethnic group in the United States. Up to 50 percent of adolescents from all subgroups do not graduate from high school. In addition, many Hispanic immigrants have little formal education and at least 25 percent speak little or no English; thus, smoking prevention and cessation services are less accessible to them.

With regard to barriers at the individual level, cigarette smoking remains a socially acceptable behavior among Hispanics. Few Hispanics question whether it is permissible to smoke at a private home and many consider offering a cigarette a polite gesture (Marín et al., 1989a). Smokers attempting to quit may confront situations in which they must politely refuse a cigarette in a culturally appropriate manner. Smoking among Hispanic men is perceived also as part of the machismo culture. The tobacco industry has exploited these cultural traits in advertising campaigns aimed at Spanish-speaking people.

Channels for Reaching Hispanics

Providing services to Hispanic Americans, whether at the individual level, in a clinical setting, or for an entire community, requires a working knowledge of social and cultural issues. Financial access to health care, immigrant documentation status, reasons for emigration from Latin America, and SES in the United States are all essential issues that persons planning to work with Hispanics must recognize. Because the proportion of Hispanic health professionals in the United States does not come close to the proportion of Hispanics in the population, non-Hispanics will be providing a substantial number of services; awareness of specific cultural issues may help to reduce the known barriers.

On average, Hispanics are younger, less educated, and have an SES level intermediate between that of whites and blacks who are not Hispanic. More than 80 percent of Hispanics reside in urban areas and nearly 90 percent live in New York, Florida, Illinois, New Jersey, and five Southwestern states (California, Texas, New Mexico, Arizona, and Colorado). Although Hispanics are a racially diverse group, with each country of origin imparting unique characteristics, there are more similarities than differences among Hispanic subgroups in this country. For example, Spanish is the language preferred

for use at home by 60 percent of Hispanic adults, which creates a bonding among subgroups (Pérez-Stable, 1987).

To promote smoking cessation and prevent smoking initiation among Hispanics, interventions must incorporate culturally appropriate information about why and how to quit smoking. Standard use of broadcast Spanish that avoids regional idioms should be used in all of the media components. Hispanic physical types that represent the national groups in the area also should be used as models and communicators.

The Spanish-language media can play an important role in promoting nonsmoking. Television and radio public service announcements can be produced at low cost and aired on the major Spanish-language stations in a specific area. These public service announcements can include culturally appropriate messages about smoking and how to quit, with community leaders talking about the disadvantages of smoking and former smokers talking about why they quit and what benefits they have gained. Less acculturated Hispanics are more likely to listen to radio, and discussions of smoking and health by Hispanic experts on locally popular radio talk shows can be an effective way of reaching Hispanics. The call-in talk show format allows for listener participation, lively discussions, and testimonials by former smokers.

There are Spanish-language newspapers publishing weekly or monthly in most U.S. areas that have a significant Hispanic population. In some urban areas (e.g., Los Angeles, Miami, and New York), a prominent daily newspaper is widely read by Hispanics, but in many areas the absence of a daily newspaper in Spanish means that Hispanics read English language newspapers (Alcalay et al., 1987-1988). Newspapers and magazines are susceptible to influence by the tobacco industry's advertising dollars and thus may be less amenable than radio and television to promoting nonsmoking; however, other printed media in Spanish may have an important role in promoting smoking cessation. For example, posters showing a family quitting cigarettes, flyers with motivational messages, pamphlets with information on how to help a smoker quit, and billboards promoting the no-smoking message can all be part of a Hispanic-focused program of smoking control. The messages in printed media should be aimed at nonsmoking family members as well as smokers, in order to make the most of the powerful characteristic of familial regard among Hispanics.

Content of Messages

Hispanics tend to have a collective loyalty to the extended family that ranks higher than individual needs (*familialismo*), and this quality may be useful in an effort to change smoking behavior. For example, motivating fathers or mothers to quit

smoking in order to prevent their children's smoking and to decrease the likelihood of harm to their children is an appropriate and effective strategy to use among Hispanics. The extended family network remains much more intact among Hispanics in general when compared with whites, even after several generations have passed since immigration (Sabogal et al., 1987). The family network can be used also to persuade smokers to quit. An example of a vignette related to real-life issues in the community is a television public service announcement showing a delighted Hispanic mother reading a letter from her son, who writes that he has quit smoking on Mother's Day because of his children.

Hispanic people often will establish relationships with health professionals and other authority figures out of a paternalistic dependence. Because of this cultural trait of respect for authority figures, physicians and other health professionals in a clinical setting may be especially effective in counseling Hispanic smokers about quitting. Physicians need to implement a more authoritative style, use standard counseling techniques to promote cessation, and order adjunctive pharmacologic methods as needed. Authoritative experts have enhanced credibility in promoting nonsmoking among Hispanics both at an individual encounter and through a public health campaign. This relationship, however, depends on maintenance of respect for the individual regardless of social standing, and it can disintegrate if non-Hispanics are not aware of these cultural scripts. For example, Triandis and colleagues (1984) described the cultural script of *simpatía* that differentiates Hispanics from whites; this script means that Hispanics are more likely than whites to expect a high frequency of positive social interaction and a low frequency of neutral or negative social interactions. Inattention to the presence of this script may lead to misunderstandings when Hispanics and people of other cultures interact in any social setting.

Although Hispanics report having less awareness than that of other groups about where to obtain information on smoking cessation services, they state also that they need less help in quitting and feel more capable of quitting on their own. In fact, the most frequently cited method by Hispanic smokers in helping them to quit is *voluntad propia*, or willpower. Promotion of willpower with self-help methods, such as the *Guía para Dejar de Fumar* (Sabogal et al., 1988), is an effective strategy to use among Hispanic smokers.

Compared to white smokers, Hispanics perceive their smoking to be less dependent on situational cues and more dependent on social cues. The importance of cigarette smoking with a group of friends or at a social gathering is greater for Hispanics than for whites. Thus, antismoking messages must

include culturally appropriate ways to resist social pressures to smoke. Hispanics were more concerned also about the effects of smoking on interpersonal relationships and about smoking making their clothes and their breath smell bad. This also should be incorporated into antismoking messages. Finally, Hispanics report a greater concern about the effects of smoking on their health and the health of their children. Thus, graphic presentations of the adverse health effects of smoking on smokers and their loved ones may be effective if presented within a context that offers ways to quit smoking.

Helping smokers quit with the more traditional cessation group approach has not been widely accepted by Hispanic smokers, even when offered free of charge at convenient hours and locations. Use of a series of Spanish-language audiotapes that include professionally enacted vignettes to illustrate the principles of relapse prevention, relaxation techniques, and assertiveness when coping with social temptations to smoke may be widely applicable through radio programs. One approach to complement the standard group cessation is to offer counseling sessions for smokers over the telephone. It has the advantage of being time-efficient, allows for a much wider dissemination of quitting techniques, and should be cost-effective.

CONCLUSIONS

- In the limited number of settings where interactions between the multiple components of a smoking control program have been examined, there appears to be a synergistic effect.
- Interaction between the multiple components of the environmental system and the multiple message channels that compose a comprehensive strategy for smoking control is expected, in light of current social behavior theory, and the anticipated interaction has been incorporated into most recent comprehensive, community-based, smoking control approaches, such as COMMIT and ASSIST.
- The targeting of women by tobacco advertising has been associated with a dramatic rise in the number of women who smoke and who develop smoking-related diseases.
- Approaches toward blacks include programs to counter targeted advertising within black neighborhoods, increasing the priority and resources available for smoking control within black groups, and encouraging the dissemination of programs and materials developed for use in the black community.
- The recognition of the importance of acculturation and Hispanic social and cultural issues is essential in implementing smoking control programs in Hispanic communities. Approaches that emphasize family impact may be particularly useful.

REFERENCES

Abrams, D.B., Elder, J.P., Carleton, R.A., Lasater, T.M., Artz, L.M. Social learning principles for organizational health promotion: An integrated approach. In: *Health and Industry: A Behavioral Medicine Perspective*, M.F. Cataldo and T.J. Coates (Editors). New York: Wiley-Interscience Publications, 1986, pp. 28-51.

Alcalay, R., Sabogal, F., Marín, G., Pérez-Stable, E., Marín, B.V., Otero-Sabogal, R. Patterns of mass media use among Hispanic smokers: Implications for community interventions. *International Quarterly of Community Health Education* 8(4): 341-350, 1987-1988.

American Cancer Society. *Cancer Facts & Figures—1990*. New York: American Cancer Society, 1990.

American Cancer Society. *Special Delivery*. New York: American Cancer Society, 1988.

American Lung Association. *Don't Let Your Dreams Go Up in Smoke*. New York: American Lung Association, 1990.

Anderson, D.M., Meissner, H.I., Portnoy, B. Media use and health information acquisition process: How callers learned about the NCI's Cancer Information Service. *Health Education Research: Theory and Practice* 4(4): 419-427, 1989.

Ashby, W.R. General systems theory as a new discipline. *General Systems* 3: 1-6, 1958.

Bettinghaus, E.P. Using the mass media in smoking prevention and cessation programs: An introduction to five studies. *Journal of Preventive Medicine* 17: 503-509, 1988.

Biener, L. Gender differences in the use of substances for coping. In: *Gender and Stress*, R. Barnett, L. Beiner, and G. Baruch (Editors). New York: The Free Press, 1987.

Blum, A. The targeting of minority groups by the tobacco industry. In: *Minorities and Cancer*, L.A. Jones (Editor). New York: Springer-Verlag, 1989, pp. 153-163.

Boulding, K.E. General systems theory—The skeleton of science. In: *Classics of Organization Theory*, J. Shafritz and P. Whitbeck (Editors). Oak Park, IL: Moore, 1978, pp. 121-131.

Brown, E.R., McCarthy, W.J., Marcus, A., Baker, D., Froines, J.R., Dellenbaugh, C., McQuiston, T. Workplace smoking policies: Attitudes of union members in a high-risk industry. *Journal of Occupational Medicine* 30(4): 312-320, 1988.

Bureau of National Affairs. *Where There's Smoke: Problems and Policies Concerning Smoking in the Workplace*. Washington, DC: Bureau of National Affairs, 1986.

Cooper, R., Simmons, B.E. Cigarette smoking and ill health among Black Americans. *New York State Journal of Medicine* 85: 344-350, 1985.

Cummings, K.M., Sciandra, R., Markello, S. Impact of a newspaper mediated quit smoking program. *American Journal of Public Health* 77(11): 1452-1453, 1987.

Danaher, B.G., Berkanovic, E., Gerber, B. Mass media based health behavior change: Televised smoking cessation program. *Addictive Behaviors* 9: 245-253, 1984.

Davis, R.M. Current trends in cigarette advertising and marketing. *New England Journal of Medicine* 316(2): 725-732, 1987.

DeNelsky, G.Y. Letter to the editor. *Los Angeles Times*, March 14, 1989.

DiFranza, J.R., Norwood, B.D., Garner, D.W., Tye, J.B. Legislative efforts to protect children from tobacco. *Journal of the American Medical Association* 257(24): 3387-3389, 1987.

Doak, C.C., Doak, L.G., Root, J.J. *Teaching Patients with Low Literacy Skills*. Philadelphia: J.B. Lippincott, 1987.

Doctors Ought to Care. Washington—DOC sponsors monster truck momma with a message. *DOC News and Views*, Spring 1990.

Egger, G., Fitzgerald, W., Frape, G., Monaem, A., Rubenstein, P., Tyler, C., McKay, B. Result of large scale media anti-smoking campaign in Australia: North Coast "Quit for Life" Programme. *British Medical Journal* 286: 1125-1128, 1983.

Elder, J.P., McGraw, S.A., Abrams, D.B., Ferreira, A., Lasater, T.M., Longpre, H., Peterson, G.S., Schwertfeger, R., Carleton, R.A. Organizational and community approaches to communitywide prevention of heart disease: The first two years of the Pawtucket Heart Health Program. *Preventive Medicine* 15: 107-117, 1986.

Escobedo, L.G., Anda, R.F., Smith, P.F., Remington, P.L., Mast, E.E. Sociodemographic characteristics of cigarette smoking initiation in the United States: Implications for smoking prevention policy. *Journal of the American Medical Association* 264: 1550-1555, 1990.

Escobedo, L.G., Remington, P.L. Birth cohort analysis of prevalence of cigarette smoking among Hispanics in the United States. *Journal of the American Medical Association* 261(1): 66-69, 1989.

Farquhar, J.W. The community-based model of life style intervention trials. *American Journal of Epidemiology* 108: 103-111, 1978.

Farquhar, J.W., Fortmann, S.P., Maccoby, N., Haskell, W.L., Williams, P.T., Flora, J.A., Taylor, C.D., Brown, B.W., Jr., Solomon, D.S., Hulley, S.D. The Stanford Five-City Project: Design and methods. *American Journal of Epidemiology* 122: 323-334, 1985b.

Farquhar, J.W., Wood, P.D., Breitrose, H., Haskell, W.L., Meyer, A.J., Maccoby, N., Alexander, J.K., Brown, B.W., McAlister, A.L., Nash, J.D., Stern, M.P. Community education for cardiovascular health. *Lancet* 1(8023): 1192-1195, 1977.

Farquhar, J.W., Magnes, P.F., Maccoby, N. The role of public information and education in cigarette smoking controls. *Canadian Journal of Public Health* 72(6): 412-420, 1981.

Farquhar, J.W., Maccoby, N., Wood, P.D. Education and communication studies. In: *Oxford Textbook of Public Health* (volume 3), W.W. Holland, R. Detels, and G. Knox (Editors). Oxford, UK: Oxford University Press, 1985a, pp. 207-221.

Fiore, M.C., Novotny, T.E., Pierce, J.P., Hatziandreu, E.J., Patel, K.M., Davis, R.M. Trends in cigarette smoking in the United States: The changing influence of gender and race. *Journal of the American Medical Association* 261(1): 49-55, 1989.

Flay, B.R. Mass media and smoking cessation: A critical review. *American Journal of Public Health* 77(2): 153-160, 1987.

Glynn, T., Manley, M.W. *How to Help Your Patients Stop Smoking: A National Cancer Institute Manual for Physicians*. U.S. Department of Health and Human Services, Public Health Service, National Institutes of Health, National Cancer Institute. NIH Publication No. 90-3064, 1989.

Gutzwiller, F., Schweizer, W. Intervention on smoking: An individual and collective challenge. In: *Atherosclerosis: Proceedings of the Sixth International Symposium*, F.G. Schettler, A.M. Getto, G. Middethoff, A.J.R. Haberniehr, and A.R. Jurutle (Editors). New York: Springer-Verlag, 1983.

Harris, J.E. Increasing the federal excise tax on cigarettes. *Journal of Health Economics* 1: 117-120, 1982.

Hunkeler, E.F., Davis, E.M., McNeil, B., Powell, J.W., Polen, M.R. Community mobilization for smoking cessation: Program development in a predominantly black city. In: *Health Promotion at the Community Level*, N.J. Bracht (Editor). Newbury Park, CA: Sage Publications, 1990.

Jacobs, D.R., Jr., Leupker, R.V., Mittelmorle, M.B., Folsom, A.R., Pirie, P.L., Macsioli, S.R., Hannan, P.J., Pechacek, T.F., Bracht, N.S., Carlaw, R.W., Kline, F.G., Blackburn, H. Community-wide prevention strategies: Evaluation design of the

Minnesota Heart Health Program. *Journal of Chronic Diseases* 39: 775-788, 1986.

James, D., Robinson, R., Orleans, C.T. Summary of focus groups conducted with African-American smokers, ex-smokers and never smokers. Unpublished paper, Fox Chase Cancer Center, Philadelphia, PA, 1990.

Jason, L.A., Tait, E., Goodman, D., Buckenberger, L., Gruder, C.L. Effects of a televised smoking cessation intervention among low-income and minority smokers. *American Journal of Community Psychology* 16(6): 863-876, 1988.

Lando, H.A., McGovern, P.G., Barrios, F.X., Etringer, B.D. Comparative evaluation of American Cancer Society and American Lung Association smoking cessation clinics. *American Journal of Public Health* 80: 554-559, 1990.

Lemann, J. The origins of the underclass. *Atlantic* 258: 54-66, 1986.

Leventhal, H., Glynn, K., Fleming, R. Is the smoking decision an informed choice? Effect of smoking risk factors on smoking beliefs. *Journal of the American Medical Association* 257(24): 3373-3376, 1987.

Lewit, E., Coate, D. The potential for using excise taxes to reduce smoking. *Journal of Health Economics* 1(2): 121-145, 1982.

Marcus, A.C., Crane, L.A. Smoking behavior among U.S. Latinos: An emerging challenge for public health. *American Journal of Public Health* 75: 169-172, 1985.

Marcus, A.C., Crane, L.A. Current estimates of adult cigarette smoking by race/ethnicity. Invited paper presented at the Interagency Committee on Smoking and Health, Washington, DC, 1987.

Marín, G., Marín, B.V., Otero-Sabogal, R., Sabogal, F., Pérez-Stable, E.J. The role of acculturation on the attitudes, norms, and expectancies of Hispanic smokers. *Journal of Cross-Cultural Psychology* 20(4): 399-415, 1989a.

Marín, G., Pérez-Stable, E.J., Marín, B.V. Cigarette smoking among San Francisco Hispanics: The role of acculturation and gender. *American Journal of Public Health* 79: 196-199, 1989b.

Martin, M.J. Smoking control—Policy and legal methods (letter). *Western Journal of Medicine* 148(2): 199, 1982.

McAlister, A., Puska, P., Salonen, J.T., Toumilehto, J., Koskela, K. Theory and action for health promotion: Illustrations from the North Karelia Project. *American Journal of Public Health* 72: 43-50, 1982.

McCord, C., Freeman, H.P. Excess mortality in Harlem. *New England Journal of Medicine* 322: 173-177, 1990.

McDill, M.S. Structure of social systems determining attitudes, knowledge, and behavior toward disease. In: *Applying Behavioral Science to Cardiovascular Risk*, A. Enelow and J. Henderson (Editors). New York: American Heart Association, 1975, pp. 18-33.

Meyer, A.J., Nash, J.D., McAlister, A.I., Maccoby, N., Farquhar, J.W. Skills training in a cardiovascular health education campaign. *Journal of Consulting and Clinical Psychology* 48(2): 129-142, 1980.

Mittelmark, M., Luepker, R.V., Jacobs, D., Bracht, N.F., Carlaw, R.W., Crow, R.S., Finnegan, J., Kline, F.G., Mullis, R.H., Murray, D.M., Pechacek, T.F., Perry, C.L., Pirie, P.L., Blackburn, H. Education strategies of the MHHP. *Preventive Medicine* 15: 1-17, 1986.

Morbidity and Mortality Weekly Report. Progress in chronic disease prevention: Cigarette smoking in the United States, 1986. *Journal of the American Medical Association* 258: 1877-1881, 1987.

Ockene, J.K. Physician-delivered interventions for smoking cessation: Strategies for increasing effectiveness. *Preventive Medicine* 16: 723-737, 1987.

Ockene, J.K., Hosmer, D.W., Williams, J.W., Goldberg, R.J., Ockene, I.S., Biliouris, T., Dalen, J.E. The relationship of patient characteristics to physician delivery of advice to stop smoking. *Journal of General Internal Medicine* 2: 337-340, 1987.

Orleans, C.T., Schoenbach, V.J., Salmon, M.A., Strecher, V.J., Kalsbeek, W., Quade, D., Brooks, E.F., Konrad, T.R., Blackmon, C., Watts, C.D. A survey of smoking and quitting patterns among black Americans. *American Journal of Public Health* 79(2): 176-181, 1989a.

Orleans, C.T., Strecher, V.J., Schoenbach, V.J., Salmon, M.A., Blackmon, C. Smoking cessation initiatives for black Americans: Recommendations for research and intervention. *Health Education Research* 4: 13-25, 1989b.

Pérez-Stable, E.J. Issues in Latino health care. *Western Journal of Medicine* 146: 213-218, 1987.

Pérez-Stable, E.J., Marín, B.V., Marín, G., Brody, D.J., Benowitz, N.L. Apparent underreporting of cigarette consumption among Mexican-American smokers. *American Journal of Public Health* 80(9): 1057-1061, 1990.

Pertschuk, M., Shopland, D.R. (Editors). *Major Local Smoking Ordinances in the United States: A Detailed Matrix of the Provisions of Workplace, Restaurant, and Public Places Smoking Ordinances*. U.S. Department of Health and Human Services, Public Health Service, National Institutes of Health, National Cancer Institute. NIH Publication No. 90-479, 1989.

Petersen, L.R., Helgerson, S.D., Gibbons, C.M., Calhoun, C.R., Ciacco, K.H., Pitchford, K.C. Employee smoking behavior changes and attitudes following a restrictive policy on worksite smoking in a large company. *Public Health Reports* 103(2): 115-120, 1988.

Pierce, J.P., Fiore, M.C., Novotny, T.E., Hatziandreu, E.J., Davis, R.M. Trends in cigarette smoking in the United States: Educational differences are increasing. *Journal of the American Medical Association* 261(1): 56-60, 1989.

Puska, P., Nissinen, A., Salonen, J.T., Twomilehto, J. Ten years of the North Karelia Project. Results with community-based prevention of coronary heart disease. *Scandinavian Journal of Social Medicine* 11(3): 65-68, 1983.

Puska, P., Nissinen, A., Toumilehto, J., Salonen, J.T., Koskela, K., McAlister, A., Kottke, T.E., Maccoby, N., Farquhar, J.W. The community-based strategy to prevent coronary heart disease: Conclusions from the ten years of the North Karelia Project. *Annual Review of Public Health* 6: 147-193, 1985.

Rigotti, N.A., Hill Pikl, B., Cleary, P., Singer, D.E., Mulley, A.G. The impact of banning smoking on a hospital ward: Acceptance, compliance, air quality and smoking behavior. *Clinical Research* 34(2): 833, 1986.

Rivo, M.L., Kofie, V., Schwartz, E., Levy, M.E., Tuckson, R.V. Comparisons of black and white smoking-attributable mortality, morbidity and economic costs in the District of Columbia. *Journal of the National Medical Association* 81: 1125-1130, 1989.

Robertson, I. *Sociology*. New York: Worth Publishers, 1977.

Robinson, R.G., Brown, J., Mansfield, C. Victory over Uptown: The Philadelphia experience. Paper presented at the Annual Meeting of the American Public Health Association, New York, 1990.

Rodin, J., Wack, J.T. The relationship between cigarette smoking and body weight: A health promotion dilemma? In: *Behavioral Health: A Handbook of Health Enhancement and Disease Prevention*, J.D. Matarazzo, S.M. Weiss, J.A. Herd, N.E. Miller, and S.M. Weiss (Editors). New York: Wiley, 1984.

Rosenstock, I.M., Stergachis, A., Heaney, C. Evaluation of smoking prohibition policy in a health maintenance organization. *American Journal of Public Health* 76(8): 1014-1015, 1986.

Sabogal, F., Marín, B., Marín, G., Otero-Sabogal, R., Pérez-Stable, E.J. *Guía para Dejar de Fumar*. U.S. Department of Health and Human Services, Public Health Service, National Institutes of Health. NIH Publication No. 88-3001, 1988.

Sabogal, F., Marín, G., Otero-Sabogal, R., Marín, B.V., Pérez-Stable, E.J. Hispanic familism and acculturation: What changes and what doesn't? *Hispanic Journal of Behavioral Sciences* 9(4): 397-412, 1987.

Schoenbach, V.J., Orleans, C.T., Salmon, M.A. A self-help quit smoking program for Black Americans. Paper presented at the 116th Annual Meeting of the American Public Health Association, Boston, 1988.

Smoking Control Advocacy Resource Center. *Summary of the Utica COMMIT Alvin Ailey Protest*. Washington, DC: The Advocacy Institute, Smoking Control Advocacy Resource Center, August 1989.

Smoking Control Advocacy Resource Center. *Action Alert: The Perrier Benzene Scare*. The Advocacy Institute, Smoking Control Advocacy Resource Center, Washington, DC, February 14, 1990.

Sorenson, G., Pechacek, T.F. Attitudes toward smoking cessation among men and women. *Journal of Behavioral Medicine* 19: 129-137, 1987.

Strecher, V.J., Rimer, B. *Freedom from Smoking for You and Your Family*. New York: American Lung Association, 1987.

Syme, L.S., Alcalay, R. Control of cigarette smoking from a social perspective. *Annual Review of Public Health* 3: 179-199, 1982.

Tarlov, A.R., Kehrer, B.H., Hall, D.P., Samuels, S.E., Brown, G.S., Felix, M.R., Ross, J.A. Foundation work: The health promotion program of the Henry J. Kaiser Family Foundation. *American Journal of Health Promotion* Fall: 74-80, 1987.

Thompson, B., Sexton, M., Sinsheimer, J. Smoking policy at the worksite: Employee reactions to policy changes. In: *Advances in Cancer Control: The War on Cancer—15 Years of Progress*. New York: Alan R. Liss, 1987.

Tobacco-Free America Project. *State Legislated Actions on Tobacco Issues*. Washington, DC: Tobacco-Free America Project, 1988.

Tobacco Institute. *The Tax Burden on Tobacco* (volume 23). Washington, DC: Tobacco Institute, 1988.

Triandis, H.C., Marín, G., Lisansky, J., Benacourt, H. *Simpatía* as a cultural script of Hispanics. *Journal of Personality and Social Psychology* 47: 1363-1375, 1984.

Tuckson, R. Race, sex, economics and tobacco advertising. *Journal of the National Medical Association* 81: 1119-1124, 1989.

Tye, J., Warner, K., Glantz, S. Tobacco advertising and consumption: Evidence of a causal relationship. *Journal of Public Health Policy* 8(4): 492-508, 1987.

U.S. Department of Health and Human Services. *The Health Consequences of Smoking for Women: A Report of the Surgeon General*. U.S. Department of Health and Human Services, Public Health Service, Office on Smoking and Health, 1980.

U.S. Department of Health and Human Services. *Report of the Secretary's Task Force on Black and Minority Health* (volume 1). U.S. Department of Health and Human Services, Public Health Service, National Institutes of Health, 1985, p. 239.

U.S. Department of Health and Human Services. *The Health Consequences of Involuntary Smoking. A Report of the Surgeon General*. U.S. Department of Health and Human Services, Public Health Service, Centers for Disease Control. DHHS Publication No. (CDC) 87-8398, 1986.

U.S. Department of Health and Human Services. *Cancer Prevention Awareness Survey Wave II: Management Summary*. U.S. Department of Health and Human Services, Public Health Service, National Institutes of Health, National Cancer Institute. NIH Publication No. (NIH) 87-2908, 1987.

U.S. Department of Health and Human Services. *The Health Consequences of Smoking: Nicotine Addiction. A Report of the Surgeon General, 1988*. 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. DHHS Publication No. (CDC) 88-8406, 1988.

U.S. Department of Health and Human Services. *Reducing the Health Consequences of Smoking: 25 Years of Progress. A Report of the Surgeon General*. 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. DHHS Publication No. (CDC) 89-8411, 1989.

U.S. Department of Health and Human Services. *The Health Benefits of Smoking Cessation: A Report of the Surgeon General*. U.S. Department of Health and Human Services, Public Health Service, Centers for Disease Control, Center for Health Promotion and Education, Office on Smoking and Health. DHHS Publication No. (CDC) 90-8416, 1990.

U.S. Department of Health, Education, and Welfare. *Smoking and Health: Report of the Advisory Committee to the Surgeon General of the Public Health Service*. U.S. Department of Health, Education, and Welfare; Public Health Service; Center for Disease Control. PHS Publication No. 1103, 1964.

Van Parijs, L.G., Eckhardt, S. Public education in primary and secondary cancer prevention. *Hygie* 3(3): 1984.

Von Bertalanffy, L. General systems theory: A critical review. *General Systems* 7: 1-20, 1962.

Waldron, I. Gender and health related behavior. In: *Health Behavior: Emerging Research Perspectives*, D.S. Gochman (Editor). New York: Plenum Press, 1988.

Walsh, D.C., McDougall, V. Current policies regarding smoking in the workplace. *American Journal of Industrial Medicine* 13: 181-190, 1988.

Warnecke, R.B., Graham, S., Rosenthal, S., Manfredi, C. Social and psychological correlates of smoking behavior among black women. *Journal of Health and Social Behavior* 19: 397-410, 1978.

Warner, K.E. Cigarette advertising and media coverage of smoking and health. *New England Journal of Medicine* 312: 384-388, 1985.

Warner, K.E. *Selling Smoke: Cigarette Advertising and Public Health*. Washington, DC: American Public Health Association, 1986a.

Warner, K.E. Smoking and health implications of a change in the Federal cigarette excise tax. *Journal of the American Medical Association* 255(8): 1028-1032, 1986b.

White, L. *Merchants of Death: The American Tobacco Industry*. New York: Beech Tree Books, William Morrow, 1988.

Whiteside, T. *Selling Death: Cigarette Advertising and Public Health*. New York: Liveright, 1971.

Wilson, D.M.C., Lindsay, E.A., Best J.A., Gilbert, J.R., Willms, D.G., Singer, J. A smoking cessation intervention program for family physicians. *Canadian Medical Association Journal* 1(7): 613-619, 1987.