
Chapter 4

Special Practice Settings

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Special Practice Settings

Editor: Ellen R. Gritz

INTRODUCTION One of the major tactics used in physician- and dentist-delivered smoking cessation advice is to tailor the risk and benefit information to the patient's present condition, to maximize the likelihood of capitalizing on a teachable moment or window of opportunity. The four papers in this chapter address specialized practice settings that provide opportunities to reach selected populations and to focus on particular disease risks associated with tobacco use. The four target populations vary substantially. Two of the groups represent essentially healthy populations who might also be seen by primary care and family practitioners—pediatric patients and their parents, and women being treated for gynecologic conditions or pregnancy. The other two populations are persons at high risk of developing potentially fatal malignancies—former chemical workers exposed to a bladder carcinogen—and individuals newly diagnosed with head and neck cancers.

The health care professionals treating these populations also vary markedly in their orientation with regard to the urgency of smoking cessation for their patients. Pediatricians are in the specialty perhaps least empowered with regard to counseling smoking prevention for children and adolescents and smoking cessation for parents. Obstetrician/gynecologists have a clear message to convey to pregnant women, but less specific advice for the gynecologic patient. Physicians and respiratory therapists who perform cancer screening for carcinogen-exposed former chemical workers can provide precisely tailored advice to their high-risk patients. Finally, the head and neck surgeons and maxillofacial prosthodontists who treat patients with cancers of the upper aerodigestive tract are delivering a tertiary prevention message, the avoidance of further disease (cancer or other conditions) caused by continued smoking. Thus, these health professionals also have an urgent mandate to deliver clear and strong cessation messages, and have likely been doing so, albeit in the absence of even the most rudimentary behavioral skills training.

Yet a third dimension useful for scaling the special populations of medical and dental patients addressed in this chapter is their stage of change, or readiness to stop smoking. Intuitively, individuals at very high risk of developing cancer or those already suffering from it should be the most ready to stop and most receptive to advice from the physician or dentist. However, strong tobacco dependence, a sense of fatalism, and external factors (such as management-labor disputes over attribution of disease risk to exposure or to personal behavior) may weight the target population toward precontemplation. About 20 percent of women in the early stage of pregnancy quit smoking (take action) because of nausea, perceived risk to the fetus, and heterogeneous other factors, including low tobacco dependence and support from significant others. Women reached later in pregnancy may be less ready

to stop because of a different constellation of reasons, including concern about excessive weight gain, past experience of having a healthy baby—in spite of smoking during pregnancy, greater tobacco dependence, and a smoking spouse/partner. Finally, parents of small children may contemplate stopping smoking to provide a role model and to avoid exposing their offspring to environmental tobacco smoke; but, on the other hand, they may perceive these not to be urgent issues if they and their families are healthy. Thus, patients in each specialty practice will encompass the range of stages of change, which the practitioner must address sensitively, with tailored advice. The goal may not always be action, but movement toward cessation, as in the case of the former chemical workers or women of childbearing age.

The examples provided in these four sections can be generalized to many medical and dental specialties in terms of both educating providers in the delivery of advice and reaching patient populations with certain characteristics and/or health problems.

Pediatricians Pediatricians have a unique opportunity to influence an entire family's smoking behavior, by practicing primary prevention with children who have not yet begun to smoke and by counseling parents to quit before either they or their children suffer any smoking-related health consequences. The surveys of Vermont pediatricians and parents reported here by Frankowski and Secker-Walker reveal the current gap in practice and define the extent of the need. The authors found that pediatricians were very unlikely to have received formal training in delivering smoking cessation advice and, while they did advise smoking parents to quit, the majority of physicians had low levels of confidence about delivering the advice. Parents, on the other hand, responded that it was the pediatrician's job to talk about passive exposure, to counsel children against smoking initiation, and even to advise smoking parents to stop. With these findings in mind, Frankowski and Secker-Walker describe the objectives of an intervention based in the pediatric practice, and they provide useful guidelines for incorporating cessation advice into clinical care.

Providers of Health Care for Women With public health and medical attention focused on the decline in smoking prevalence called for in the Year 2000 objectives, there has been voiced concern over the slower decline in women's smoking rates, compared with men's. Providers of gynecologic and obstetrical services, either in private or public settings, have a special opportunity to deliver a smoking intervention in the context of targeted risks. Surprisingly, there is little information on smoking cessation in the gynecologic setting. However, Dr. Sexton and her colleagues have extensive expertise in developing and implementing pregnancy-based interventions. They discuss interesting issues such as the smoking status of the provider, the role of nurses in the intervention, counseling materials for clients and providers, and the reconciliation of staff time with patients' expectations. The experience gained from these trials will facilitate the development and implementation

of further smoking interventions for women in a variety of practices and settings.

Head and Neck Cancer Individuals with head and neck cancer are the most seriously ill patient population addressed in this monograph. They receive care from highly specialized practitioners, surgeons (otolaryngologists) and reconstructive dentists (maxillofacial prosthodontists). Gritz and her colleagues describe the first systematic smoking intervention trial for head and neck cancer patients, featuring advice delivered by surgeons and dentists and tailored, self-help materials for patients and family members. Faced with cancer diagnosis and treatment, patients are clearly at a teachable moment with respect to smoking cessation. On the other hand, long-term, highly dependent tobacco and alcohol use characterizes many of these patients, imposing obstacles to cessation and potentially reducing the patients' readiness to change. Head and neck surgeons and maxillofacial prosthodontists are highly knowledgeable about the risks of smoking, yet they have had no prior training in behavior skills for delivering cessation advice. The research project described here pioneered the development of materials for patients, the surgeon and dentist cessation training, and the identification and recruitment of eligible patients for the trial. The issues discussed apply to a broad spectrum of seriously ill patients as well as to medical specialties heretofore not involved in smoking cessation counseling.

Chemical Workers At Risk for Bladder Cancer Counseling an individual who is at high risk for a cancer because of occupational exposure and whose risk is substantially increased by continued smoking might, at first, appear to be easier than counseling a healthy smoker. However, the work of Leviton and colleagues, with a population of former chemical workers exposed to a bladder carcinogen, outlines the complex issues related to perceived responsibility for health status, delivery of information on the risks of smoking and benefits of cessation, readiness to change, and self-efficacy. The target population consists of blue-collar workers who reside in a rural area, are not highly educated, and, in general, have little interest in quitting smoking.

The task of the physicians and respiratory therapists who conduct the periodic bladder cancer screenings is to provide smoking cessation counseling in a manner that facilitates movement toward change and increases the workers' self-efficacy. Challenges involved in recruiting members of the population to the study, training the providers in the counseling protocol, and overcoming the multiple forms of resistance to counseling provide valuable lessons that could be used in multiple settings and by a range of medical and dental providers.

Pediatricians' Role in Smoking Prevention and Cessation

Barbara L. Frankowski and Roger H. Secker-Walker

RESPONSIBILITIES OF THE PEDIATRICIAN

Prevention for Children and Adolescents

Despite public awareness of the long-term morbidity associated with initiation of cigarette smoking during childhood and adolescence, nearly 5 million teenagers (12 to 17 years old) smoke, and there are more than half a million youngsters from 8 to 11 who smoke (DiFranza and Tye, 1990). Each day, more than 3,000 U.S. children begin to use tobacco (Fiore et al., 1989).

Pediatricians should take every opportunity to promote nonsmoking among patients. It should be part of routine anticipatory guidance at all visits. Because healthy children see their pediatrician only every 2 years for health supervision, schools may perform this task better, with the pediatrician as a reinforcer or a participant.

Every effort should be made to encourage smoking parents to quit because of the negative role model they offer children. In addition, the pediatrician should support efforts to prevent advertising of all tobacco products. The pediatrician can also play a leading role in the elimination of advertising campaigns that seem likely to influence young people to start smoking.

Smoking Cessation By Children And Adolescents

Pediatricians should play a role in advising patients who are already smoking to quit. However, most pediatricians know no formal way of doing this, and thus merely tell patients, "You should quit." Although other health care professionals also care for children, pediatricians are the least likely to have received training in smoking cessation counseling. Many pediatricians are unaware of community resources to help patients with smoking cessation; however, there are few programs for adolescents at this time.

Protecting Children From Passive Smoking

Pediatricians should be aware of the effects of passive smoke on all stages of a child's growth, including the behavioral implications of having smoking parents, and physicians have an obligation to inform smoking parents of those effects. Surveys have shown that 53 to 76 percent of the homes in the United States contain at least one smoker; between 8.7 million and 12.4 million American children less than 5 years of age are exposed to cigarette smoke in their homes (Landrigan, 1986).

Between 1974 and 1987, four prospective studies and nine case-control studies examined the possible effects of exposure to parental tobacco smoke on the frequency and severity of acute respiratory illness in children (Fielding and Phenow, 1988). Although different research designs were used, the results have consistently demonstrated greater frequency of both upper and lower respiratory problems among the young children of smoking parents than

among children of nonsmoking parents. Wheezing and asthma appear to be more common among the children of smoking parents (Weiss et al., 1980). Asthmatic children of smokers reportedly experience improvement when their parents stop smoking, in contrast to children with asthma whose parents continue to smoke (Gortmalker et al., 1982). Smoking by parents has also been identified as a risk factor for persistent middle-ear effusions and otitis media in young children (Kraemer et al., 1983; Stahlberg et al., 1986).

Helping Parents With Cessation The Surgeon General has suggested that one of the pediatrician's most important educational obligations is to encourage and help parents to give up cigarette smoking (Koop, 1985). Pediatricians are in a unique position to address the issues of smoking prevention and smoking cessation at several levels. Healthy young adults who are starting a family see a pediatrician or family practitioner more often than any other health care professional.

Of the 3.6 to 3.7 million women who have given birth in the United States each year since 1980, approximately 1.0 to 1.2 million smoked while pregnant (Windsor, 1986). According to the Surgeon General, most recent estimates suggest that about 25 percent of U.S. women smoke throughout pregnancy, and the proportion of smokers who stop entirely during pregnancy is approximately 20 percent (US DHHS, 1990). The majority of women who give up smoking during pregnancy start smoking again after the baby is born (Sexton et al., 1985; US DHHS, 1990).

New parents often are motivated to make changes in their lifestyles "for the good of the baby." Each contact with the pediatrician could provide an opportunity for the physician to support a smoking mother in her efforts to quit or a recent ex-smoker in her efforts to refrain from starting again. Women who succeed in staying away from cigarettes will then model non-smoking behavior for their children. Equal influence should be directed toward fathers as well. However, most pediatricians are not aware of the literature on smoking cessation, nor do they know that there are specific methods of giving brief, effective advice.

PEDIATRICIANS' ATTITUDES AND PRACTICES In the current study, the investigators used the questionnaire developed to survey Maine pediatricians (Frankowski and Secker-Walker, 1989) with minor modifications. The questionnaire contained 50 items, including demographic questions, and addressed the pediatrician's estimate of the proportion of parents who smoke, smoke, current activities concerning smoking advice, confidence in his or her ability to offer smoking advice, perceived barriers to offering smoking advice, and opportunities to offer smoking advice. The questionnaire and a stamped, addressed return envelope were mailed to all pediatricians practicing in Vermont; nonrespondents were sent two mailings. Of the 92 pediatricians, 72 responded. After physicians who were no longer practicing pediatrics in Vermont (n=13) were excluded, the response rate was 72 of 79, or 91 percent. Of the 72 pediatricians, 10 are subspecialists and the rest deliver primary care

in 19 solo and 16 group practices. The pediatricians in the practices chosen for distribution of parent questionnaires were invited to take part in a more in-depth interview about smoking, administered by the principal investigator. That interview included questions about what the pediatrician actually said about smoking to patients and parents, where the information was recorded, and what type of further training would be of interest to the pediatrician or office staff. Eighteen pediatricians were able to take part in the in-depth interviews (5 of 6 in solo practice and 13 of 19 in group practices), representing 25 percent of the pediatricians who responded to the questionnaire.

Results

Pediatrician Demographics On average, the pediatricians, 32 percent of whom were women, were 43.5 years old and had been in practice for 13 years. Twenty-seven percent of respondents were in solo practice, 62 percent in a partnership or group, 7 percent in hospital-based practice, 1 percent in a community health center, and 3 percent in other settings. Sixty-one percent were never-smokers, 36 percent were former smokers, and 3 percent gave no response; no one reported being a current smoker.

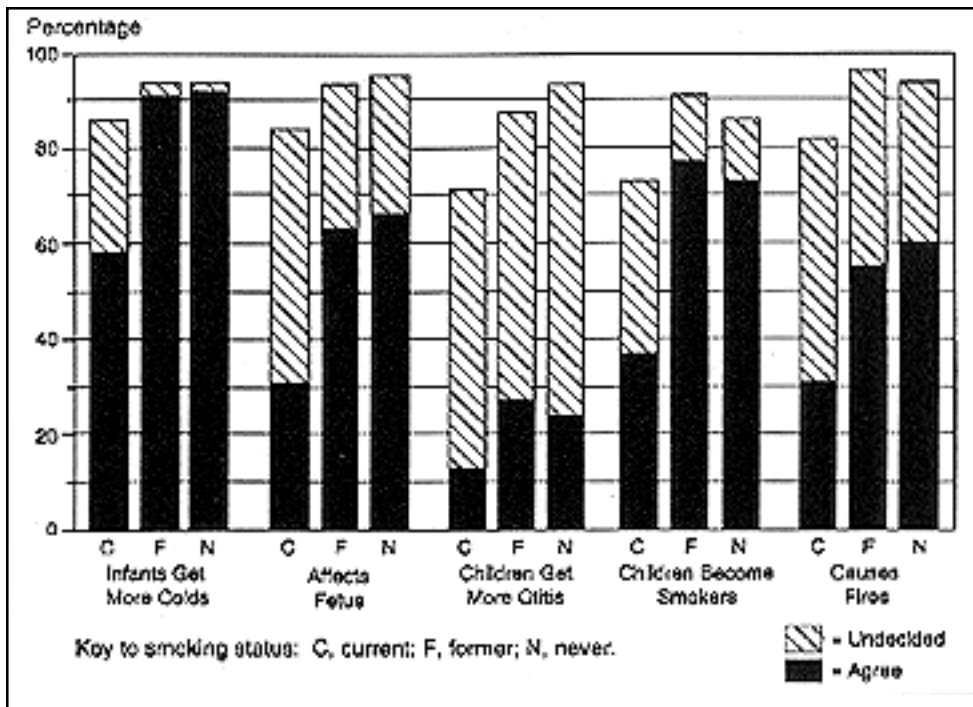
Effects of Passive Smoke on Children Fifty-seven percent of the pediatricians estimated that about one-third or fewer of their patients' parents were cigarette smokers. About 40 percent of pediatricians routinely take a smoking history from parents, but only 11 percent record the information in the child's chart. Most pediatricians (64 percent) estimated that they talk to one-half or more of smoking parents about the effects of parental smoking (passive smoke) on their children.

Pediatricians were asked, "What are the major concerns about the effects of parental smoking in children that you discuss with parents?" The percentages of responding pediatricians who checked each concern were as follows: 88 percent, more bronchitis and pneumonia in infancy and childhood; 83 percent, more exacerbation of asthma; 56 percent, parental role modeling for smoking; 53 percent, lower birth weight; 39 percent, more middle-ear infections; 17 percent, fire hazards and burns; and 7 percent, other (allergies, competition in athletics, risk of pulmonary cancer). Figure 1 shows the distribution of parents' beliefs about the effects of parental smoking. Almost all pediatricians (91 percent) felt moderately confident (39 percent) or very confident (52 percent) about addressing passive smoking issues with parents.

Most pediatricians (94 percent) reported they advise smoking parents to quit. The pediatricians estimated advising about two-thirds to quit and spent an average of 4.4 minutes per parent in that activity. The estimated successful quit rate was 12 percent.

Pediatricians were asked, "When you advise parents who smoke about their smoking, what issues do you address?" The percentages of responding pediatricians who checked each issue were as follows: 97 percent, hazards of passive smoking for children; 81 percent, hazards of smoking for smoker; 77 percent, keeping smoke away from infants and young children; 54 percent,

Figure 1
Parents' beliefs about the effects of parental smoking



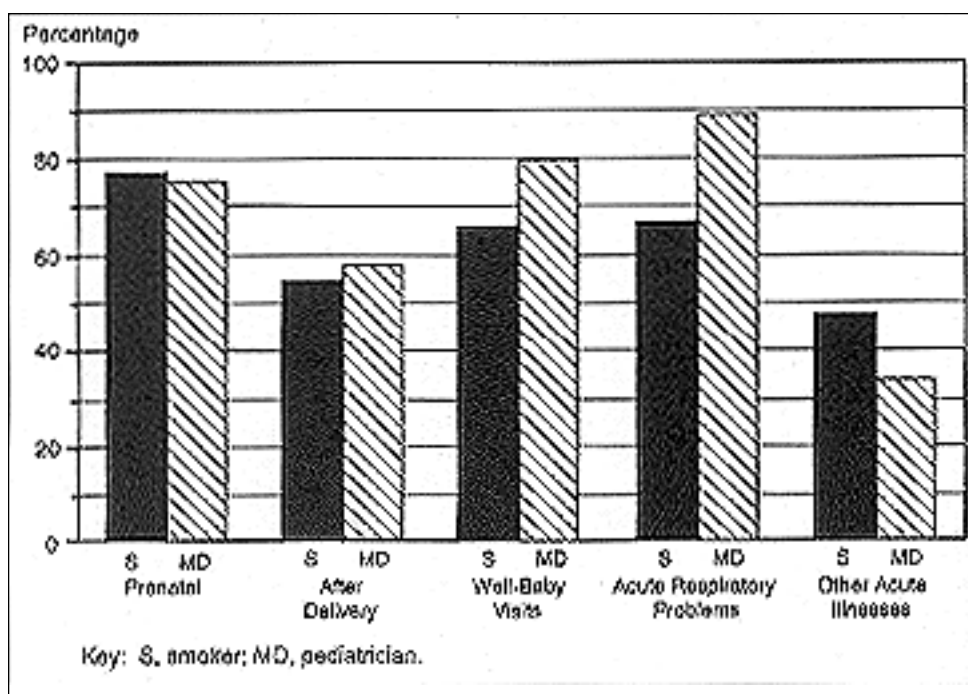
Source: Frankowski et al., in press; used with permission.

benefits of stopping smoking; 40 percent, cutting down the consumption of cigarettes; 29 percent, quitting “cold turkey”; 25 percent, prescribing nicotine chewing gum; 22 percent, setting a quit date; and 10 percent, other issues.

The pediatricians were also asked about the best opportunities to give smoking cessation advice to parents (see Figure 2). The percentages that rated various opportunities as “good or excellent” were as follows: 89 percent, visits for acute respiratory infections; 75 percent, prenatal visits; 72 percent, well-child visits; 65 percent, visits after delivery; 34 percent, visits for other acute problems. Most pediatricians (93 percent) have a no-smoking policy in their offices, 30 percent have printed materials to give smokers to help them quit, and 26 percent had lists of smoking cessation resources available in the community.

Only 45 percent of pediatricians felt moderately confident (25 percent) or very confident (20 percent) about advising parents to quit. Respondents identified several barriers to giving smoking cessation advice to parents: 42 percent cited lack of time; 25 percent said the smoking parent does not expect such advice; 25 percent feel “ill at ease” when giving advice; 7 percent noted lack of reimbursement; and 1 percent said, “none of my business.”

Figure 2

Opportunities to give parents quit-smoking advice

Source: Frankowski et al., in press; used with permission.

Learning How
To Give
Quit-Smoking
Advice

Only 8.5 percent of pediatricians had received formal training in giving smoking advice, but 87 percent would be willing to learn brief methods. Pediatricians were asked to rate opportunities to learn about brief methods for giving smoking cessation advice. The percentages rating different methods "good or excellent" were as follows: 73 percent, 1-hour videotape; 55 percent, journal article; 52 percent, 2-hour training in office; and 41 percent, one half-day continuing medical education workshop or seminar.

**PARENTS' ATTITUDES,
NEEDS, AND BEHAVIOR**

Methods

A second questionnaire was developed to assess parents' attitudes about smoking. The questionnaire contained 34 items and addressed demographics, the parents' beliefs about the effects of parental smoking on children, attitudes about pediatrician-delivered advice about smoking, reactions to pediatrician-delivered advice, smoking history, smokers' intentions to quit, and dietary habits. The questionnaire was first pretested among parents in the investigator's practice, and then it was administered by one research assistant who distributed the questionnaire and a consent form to all parents in the waiting rooms of participating pediatricians' offices. The pediatric practices were chosen randomly to include two solo and two group practices from each of three arbitrarily defined regions: Chittenden County, northern Vermont, and southern Vermont. Approximately 25 parents were surveyed for each pediatrician in each practice.

Results**Parents' Demographics**

A total of 676 parents completed questionnaires at 6 solo and 6 group pediatric practices. Several parents who received questionnaires declined participation because of time constraints. The parents, 84 percent of whom were women, had a mean age of 32 years. Six percent had not completed high school, 33 percent were high school graduates, 33 percent had some college education, and 27 percent had 4 or more years of college. The mean number of children per family was 2.0 (SD=0.9), with a mean age of 5.3 years (SD=4.2).

Almost half the responding parents were never-smokers, 30 percent were former smokers, and 21 percent were current smokers. The average number of adult smokers per household was 0.53. Parents started smoking at a mean age of 16.6 (SD=3.1) and smoked about one pack of cigarettes per day (SD=one-half pack). Smoking parents had made an average of 6.6 quit attempts (SD=18.9). The vast majority (82 percent) had tried to quit "cold turkey"; 32 percent had tried gradual reduction; 15 percent had used self-help materials; 10 percent had tried nicotine chewing gum; 9 percent had tried hypnosis; and 3 percent had tried individual or group counseling. Current smokers were significantly younger ($p < 0.0001$) and had significantly less education ($p < 0.0001$) than former smokers or nonsmokers (see Table 1).

Attitudes About Passive Smoke

All parents were asked whether they agreed, disagreed, or were undecided about several statements pertaining to the effects of parental smoking. Most (85 percent) agreed that smoking affected the fetus, 58 percent agreed that infants of parents who smoke got more colds and lung infections, 23 percent agreed that children of parents who smoke got more ear infections, 67 percent agreed that children of smoking parents were more likely to become smokers, and 52 percent agreed that cigarettes cause one-fourth of home fires. As Figure 1 shows, current smokers were less knowledgeable in all areas ($p < 0.0001$); former smokers and never-smokers were very similar in their beliefs.

Table 1

Demographic characteristics of parents, by smoking status

	Total Parents n=668	Current Smokers n=142	Former Smokers n=199	Never- Smokers n=327
Mean Age (years)	32.0	29.5	33.5	32.1
Education	Percentage (Number)			
Less than high school	6% (40)	15% (21)	3% (6)	4% (13)
High school	33 (223)	47 (67)	28 (55)	4 (13)
Some college	33 (223)	27 (38)	45 (90)	29 (95)
4-year college	27 (182)	11 (16)	24 (48)	36 (118)

The parents were asked whether they felt it was their pediatrician's job to talk about smoking. Almost all parents felt that the pediatrician should talk about the effects of passive smoke on children (87 percent) and should talk to children and teens about smoking (85 percent). About one-half the parents felt it was the pediatrician's job to advise smoking parents to quit (56 percent). Current smokers were less likely to think that the pediatrician should talk about passive smoke ($p < 0.005$) or talk to parents about quitting ($p=0.01$) (see Figure 3). Forty percent of current smokers and 21 percent of former smokers reported that their pediatricians had talked to them about the effects of their smoking (passive smoke) on their child's health.

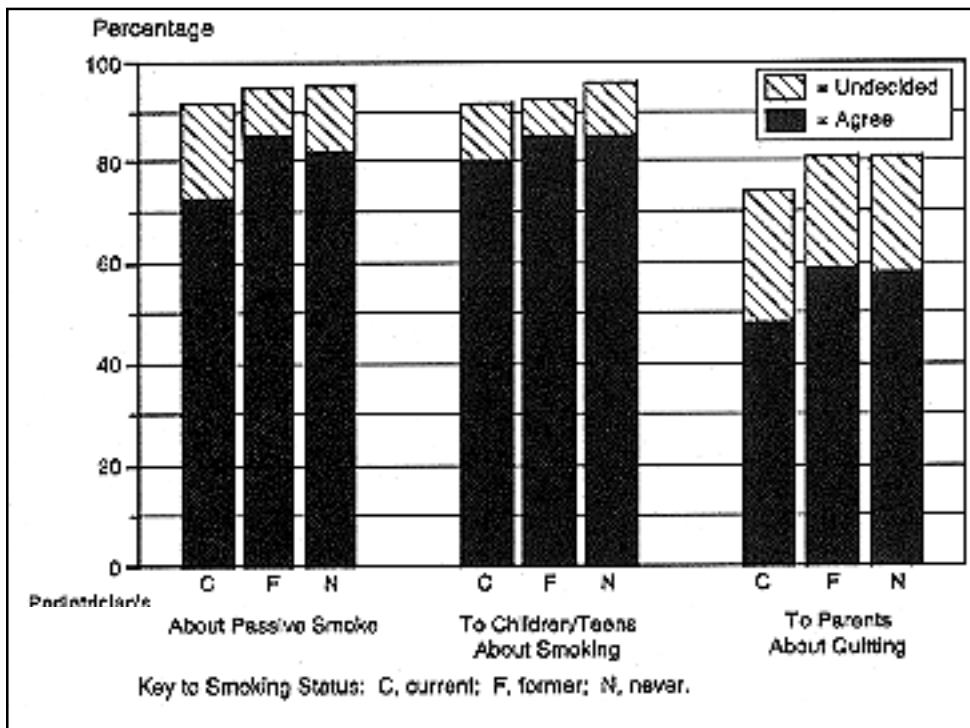
Attitudes About Advice From Pediatricians Surprisingly, 48 percent of current smokers feel it is the pediatrician's job to advise smoking parents to quit. Twenty-eight percent of current smokers said their pediatrician has talked about the effects of smoking on their own health, and 27 percent of current smokers said their pediatrician advised them to quit. Current smokers were asked how they would feel if their pediatrician advised them to quit smoking. About one-half (52 percent) said they would welcome the advice, 30 percent said it would bother them somewhat, and 15 percent said it would not matter to them. Fewer parents had more negative reactions: 11 percent claimed it was none of the pediatrician's business, 4 percent said it would make them angry, and one parent claimed she would change to another pediatric practice (some respondents checked more than one answer). Smoking parents were also asked about the best opportunities to receive quit-smoking advice from their pediatricians. The percentages that rated opportunities as "good or excellent" were as follows: 77 percent, prenatal visit; 67 percent, acute visits for respiratory infections; 66 percent, well-baby visits; 55 percent, after delivery; and 48 percent, acute visits for other problems. As Figure 2 illustrates, smokers and doctors agree closely on opportunities to talk about quitting smoking.

Smokers' Intentions To Quit Current smokers were asked, "If you decided to give up smoking completely in the next month, do you think you could do it?" Twenty-two percent responded definitely or probably, 35 percent responded maybe, and 42 percent responded definitely or probably not. When asked, "Do you intend to give up smoking in the next month?", 7 percent responded yes, 34 percent maybe, and 59 percent no. However, when asked whether they had any intentions of ever giving up smoking, 68 percent of smoking parents replied yes, 23 percent maybe, and 9 percent no.

OBJECTIVES OF PEDIATRICIAN INTERVENTION Pediatricians need to become aware of office-based smoking cessation trials that have examined the efficacy of brief methods of delivering advice to stop smoking. Pediatricians are not familiar with the smoking cessation literature, and they often refrain from giving smoking cessation advice because they think it is not worthwhile—that a

Education of Pediatricians 10- to 15-percent quit rate is unacceptably low. In fact, for a minimal intervention of brief advice and limited followup, a quit rate of 10 percent is actually what is to be expected.

Figure 3
Parents' attitudes about advice



Source: Frankowski et al., in press; used with permission.

A systematic method of training pediatric residents and practicing pediatricians should be established, using the NCI manual for physicians, *How To Help Your Patients Stop Smoking* (Glynn and Manley, 1990), and the supplement, *Clinical Interventions To Prevent Tobacco Use by Children and Adolescents* (Epps and Manley, 1991). Only 8.5 percent of Vermont pediatricians have had formal training in delivering smoking cessation advice, and only 20 percent feel very confident in advising parents to quit.

A recent study showed that residents in primary care specialties (family practice, internal medicine, and pediatrics) had positive attitudes but inadequate practice and training in smoking cessation counseling (Kenney et al., 1988). The survey of 309 residents (66 in pediatrics) showed that the pediatric residents scored significantly lower in most areas of smoking cessation counseling practices, and only 32 percent reported having any training in this area (compared with 76 percent of family practice and 53 percent of internal medicine residents, significantly different at $p < 0.001$). The pediatric residents were also more likely to cite insufficient time as a barrier. However, when pediatric residents were taught smoking cessation counseling methods, they performed as well as the other residents (Strecher et al., 1991). Thus, the need to teach both pediatric residents and practicing pediatricians

brief methods of delivering smoking cessation advice is clear. The majority of pediatricians (87 percent in Vermont and 84 percent in Maine) would be moderately or very willing to learn such techniques (Frankowski and Secker-Walker, 1989).

The above-mentioned supplement, *Clinical Interventions To Prevent Tobacco Use by Children and Adolescents*, is currently available. In addition to the four A's (*ask, advise, assist, arrange*), a fifth "A" heads up the list for pediatricians: *Anticipate* the risk for tobacco use at each developmental stage. The guide is divided into three sections: infancy and early childhood, late childhood, and adolescence and young adulthood.

An effort should be made in each pediatric office to identify additional personnel (for instance, a nurse or nurse practitioner) to receive training. Although a brief message from the physician is a key element, other personnel can be used to answer the patient's questions, help with followup, and even counsel smokers on ways to quit (Solberg et al., 1990). Kottke and colleagues (1988) have shown that advice from both a physician and a nonphysician is more effective than from either alone. The dual approach may not be practical for pediatricians practicing solo or in small groups, but it should be considered in other settings. It could alleviate some of the time constraints that concern many pediatricians.

Dealing With Barriers

"Not Enough Time"

Pediatricians should be aware that the anticipatory guidance for prevention of smoking onset and the advice for smoking cessation are brief and meant to be delivered in a few minutes once the methods are learned. There is a growing body of literature indicating that brief advice (less than 10 minutes) can be successful (Pederson, 1982). A 1985 survey of 441 Iowa physicians indicated that almost all (95 percent) said they advise patients to stop; most said they spend less than 10 minutes giving such advice (median, 5 minutes; range, 1 minute to 30 minutes) (Ferguson, 1985). The median success rate for this advice was 10 percent, with a range of 0 to 100 percent. Success rates of this order after physician-delivered smoking cessation advice have been reported from a number of studies. In a meta-analysis of 39 trials of cessation advice or counseling carried out in physicians' offices, the average reported quit rate in the intervention groups was 8.4 percent higher than in the control groups (Kottke et al., 1988). Although some may consider such rates unacceptably low, it should be remembered that facilitating even a quit attempt is significant, because the actual success rate among individuals is related to the number of quit attempts. Even a quit rate as low as 5 percent, as reported by Russell and colleagues for brief (2-minute) smoking cessation advice, would produce a large number of quitters if all primary care practitioners provided such advice (Russell et al., 1979).

“Parents Don’t Expect This Advice” Pediatricians should be aware that one-half of a sample of smoking parents said they would welcome the advice to quit and fewer than 10 percent would react negatively. In fact, 68 percent of smoking parents claim they intend to quit sometime. It has been estimated that up to 80 percent of smokers want to quit (Mason and Lindsay, 1983), and only about 7 percent of current smokers in 1986 predicted they would “definitely” be smoking in 5 years (US DHHS, 1990). However, in a 1987 survey of patients seen in various university-based, outpatient clinic settings, only 58 percent of healthy smokers and 50 percent of smokers with smoking-related symptoms noted that they had been advised by their physicians to stop smoking (Ockene et al., 1987). A survey of 5,875 Michigan adults showed that, of smokers who had seen a physician in the previous year, only 44 percent reported they had ever been told by a physician to quit smoking (Anda et al., 1987). Physicians should not underestimate their influence: The single most important reason people have for quitting smoking is concern for their health. Those who quit for health reasons or in response to physician advice are more likely to make repeated attempts and to maintain abstinence from cigarettes (Orleans, 1985).

“Feel Ill at Ease Giving Advice” Pediatricians will feel more confident about giving the advice when they have had formal training and when they are made aware that parents feel it is part of the pediatrician’s job to offer advice.

Incorporating Smoking Advice Into Office Visits In the authors’ survey of Vermont pediatricians, about 40 percent reported they routinely take a smoking history from parents of each patient, but only 11 percent record the information in the child’s chart. In a national mail survey of 779 pediatricians in 1987, about 65 percent reported asking about smoking at the 0- to 5-year well-child visits, and as many as 80 percent reported asking about smoking if the child is 13 or older (Nader et al., 1987). The same survey showed that only 50 percent of pediatricians felt that cigarette smoking was a “very important” topic to discuss at well-child visits from 0 to 5 years. In family practice and internal medicine, flagging a smoker’s chart in some way increases the chances that the physician will remember to provide followup smoking cessation advice at subsequent visits (Cohen et al., 1989; Solberg et al., 1990).

New Baby, Smoking Parents Because pediatricians come in contact with a great number of young adults who may not be routinely seeking health care for themselves and because parental smoking directly affects their children, the argument is strong for pediatricians to deliver brief smoking cessation advice to parents. Perry and Silvis (1987) have outlined methods pediatricians can use to promote nonsmoking or encourage attempts to quit for parents, children, and adolescents; they stress that pediatricians need to learn the skills involved and need to motivate themselves to use these skills. Perry and Silvis suggest encouraging parents to quit smoking and/or refrain from smoking near the child. The pediatricians should (1) ask about parents’

smoking habits; (2) motivate themselves to promote cessation and a consistent no-smoking message; (3) motivate parents to quit smoking through discussion of immediate risks to the child; and (4) reinforce ex-smokers to stay away from cigarettes.

The methods that these authors suggest are very similar to the “four A’s” method recommended in the NCI manual. The pediatrician should:

- *Ask* parents about smoking in the household, the car, or in day care settings. At sick visits, ask about tobacco exposure. Remember that silence by the physician may be interpreted by parents to mean that smoke exposure is not a significant health risk.
- *Advise* all parents who smoke to stop. Talk about the effects of passive smoke.
- *Assist* interested smoking parents in developing an effective smoking cessation strategy. Set a quit date and provide self-help materials or referrals.
- *Arrange* followup for parents, which can take place at the child’s next regularly scheduled well visit. Mark the child’s chart with the parents’ smoking status as a reminder to ask at all visits.

Respiratory
Problems
And Smoking
Parents

Although it may be more difficult because visits are sporadic, the pediatrician is obligated to inform parents that cigarette smoke is usually one of the causative factors in a child’s respiratory illness. It is especially appropriate to emphasize passive smoke issues for infants and children who have problems with recurrent upper or lower respiratory infections, recurrent ear infections, or reactive airway disease. In many cases, the parent who does not accompany the child to the office is the smoker, and a simple phone call from the pediatrician to give information and make a direct plea to the parent to quit smoking may be a powerful motivator. If the parent can be coaxed into setting a quit date, the pediatrician can schedule a followup visit for the child at about the same time to check on child and parent simultaneously. If available, other office personnel can spend more time with the parents.

Child or
Adolescent
Who Smokes

There is a unique opportunity for the pediatrician because frequently children and adolescents who smoke do not receive proper health care. An extra effort should be made to *ask, advise, assist, and arrange*:

- *Ask* about tobacco use at every visit. It may be easier to use a previsit questionnaire.
- *Advise* all tobacco users to stop. Inform smokers that it is easier to stop now than later. Personalize the message and mention reduced athletic capability, cost, odor, and fire hazard.

- *Assist* tobacco users in stopping. Help set a quit date and provide self-help materials. Plan a way to enlist friends to help. Consider having the child or adolescent sign a contract to quit. Rehearse how to say no. Encourage participation in programs that promote the development of skills to solve problems, set goals, make decisions, and counter negative peer pressure. Encourage exercise and social activities incompatible with tobacco use.
- *Arrange* a followup visit within 1 to 2 weeks after the patient's planned quit date; discuss progress and problems. Arrange a second followup visit within 1 to 2 months.

**Anticipatory
Guidance**

Perry and Silvis (1987) suggest that physicians promote nonsmoking by emphasizing (1) harmful physical consequences, (2) the habit-addictive nature of cigarette smoking, (3) advertising techniques that mask the real effects of smoking, and (4) smoke-free environments at home and at the doctor's office. For adolescents, Perry and Silvis suggest promoting nonsmoking by emphasizing (1) immediate physiological and social consequences, (2) ways to deal with pressures to smoke, (3) commitment to nonsmoking, and (4) the use of alternatives.

The NCI pediatricians' supplement suggests that the following ideas may be appropriate for well-child visits of patients aged 5 through 12:

- *Anticipate*. Include the children in discussions about smoking and tobacco use. Remind parents that tobacco use often begins in grade school.
- *Ask* the child whether smoking is being discussed in school or among friends. Ask whether the child smokes or whether friends, parents, or other important adults in the child's environment smoke.
- *Advise* the child about immediate negative effects of tobacco use. Remind the child that most adolescents do not smoke. Advise smoking adults about passive smoke and their image as role models. Discourage use of candy cigarettes.
- *Assist* the child in assuming increasing responsibility for his or her health and behavior. Compliment the child on nonsmoking behavior and discuss refusal skills.
- *Arrange* more frequent followup visits for children experimenting with tobacco products.

For adolescents, the NCI manual suggests the following:

- *Anticipate*. Adolescents who are deviance-prone, who show a relative lack of interest in conventional goals, and who overestimate smoking prevalence among adults and teens are at greater risk for tobacco use.

Adolescent females are particularly vulnerable. Peer modeling is one of the most important factors in choosing to use tobacco.

- *Ask* adolescents at every visit whether they smoke and whether their friends use tobacco.
- *Advise*. Congratulate non-users and advise them to resist using tobacco. Discuss the benefits of not smoking.
- *Assist*. When appropriate, encourage participation in programs that promote the development of skills to solve problems, set goals, make decisions, and counter negative peer pressure. Give adolescents information about smoking cessation that they can share with smoking friends.
- *Arrange* followup at appropriate intervals for health care maintenance; make yourself available at other times if necessary.

CONCLUSION Pediatricians should come to view smoking cessation advice as part of the routine anticipatory guidance delivered at all health supervision visits. For this to happen, pediatricians first need to learn the techniques that have been shown to be helpful. Second, they need to overcome their personal barriers to offering the advice. Pediatricians need to know that most smoking parents consider it the pediatrician's job to offer such advice and would actually welcome this help from their children's physicians. The barrier of time becomes less of an issue when the pediatrician learns the brief yet effective method of *ask, advise, assist, arrange*. When possible, other office personnel can be trained to offer further advice on stopping smoking. When other office personnel are not available, the pediatrician can provide appropriate written materials for smoking parents and patients.

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Smoking Intervention by Providers of Health Care for Women¹

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ROLE OF THE PROVIDER Health care practitioners can significantly reduce cigarette smoking among women. In addition to initiating health care contacts related to medical problems, healthy women are urged to seek even more preventive health care and on a more regular basis than are men; so the number of health care contacts during which it is possible for providers to address smoking is quite high.

During the course of a year, women seek obstetrical and gynecological services that include prenatal care, family planning, and screening for cervical and breast cancers, from family physicians, gynecologists, and other providers. For example, there are 56 million contacts a year by obstetricians and gynecologists (Nelson and McLemore, 1988). Clearly, obstetrical and gynecological practices represent a special opportunity for impact on smoking among women, particularly pregnant women. Yet, obstetricians and gynecologists have not availed themselves of the smoking intervention training provided by the National Cancer Institute. Only 3 percent of 1,568 physicians who have been trained by NCI are obstetricians or gynecologists (Marc Manley, personal communication). The physician's participation in formal training is a step that can lead to the development of office-based smoking intervention.

Not only do health care practices represent an opportunity to reach smokers, but the increasing health risks of women dictate an obligation to do so. Most providers already give a brief message with one or more specific health risks of smoking. The message usually centers on the health of the baby if the woman is pregnant. What is often missing, though, is a standardized protocol that goes beyond giving a health message and that systematically follows the patient's progress at each visit.

The provider can and should adopt the same view and attention toward smoking as toward other medical risks. This focus would convey to the woman a deep and continuing concern over the increased risk that the provider recognizes and would set the framework for development of a treatment plan. In treating acute or chronic disease problems, the provider clearly sees an obligation to give the best medical advice and treatment possible,

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regardless of how the patient might respond, and the same clarity of professional obligation can be extended easily to treatment consisting of antismoking counseling for smokers.

Patients believe that providers should actively address and discuss the issue of smoking. This was borne out by the authors' recent experience in the Smoking Cessation and Reduction in Public Prenatal Clinics project. As part of the development of the antismoking intervention approach for the project, focus groups of clients seen in prenatal public health clinics were assembled early in the project to delineate key issues about smoking and quitting. The women emphasized the importance to them of the clinic staff's actively giving support to decisions and efforts to quit. After intervention was completed, a survey of the project participants was conducted (regardless of whether they had quit or continued to smoke). Again, the importance of the staff's involvement emerged from the responses. When asked what would help smokers, the women most often suggested that the staff talk with and support clients in their efforts to quit.

With trained physicians implementing a standardized protocol for smoking intervention for their patients, it should be possible to achieve a greater impact on female smokers. The effectiveness may be even greater than reported thus far because of the greater pervasiveness and continuity of the intervention when conducted in health care settings as part of patient care rather than as part of research and demonstration activities.

EFFECTIVENESS OF ANTISMOKING INTERVENTION Although there is an absence of published information on antismoking intervention for nonpregnant smokers in the gynecological care setting, the effectiveness of antismoking intervention for pregnant smokers has been assessed in diverse health care settings. Table 2 shows that antismoking interventions can produce a significant increase in the percentage of pregnant smokers who quit.

Not all the intervention studies shown, however, nor others reported in the literature, have achieved a statistically significant difference in quit rates. Furthermore, not all studies have included biochemical validation (the cotinine values for the public prenatal clinics project mentioned above are not yet available), and validation results could diminish the reported quit rates and reduce the differences achieved. Nevertheless, the studies, taken as a whole, clearly indicate that quitting by female smokers can be increased. Among studies reporting significant increases, the differences achieved vary by as much as twofold. In the study by Windsor and colleagues (1985), in which a 12-percent difference in quit rates was observed, for example, the intervention consisted of one brief message from a health educator and instruction on the use of a self-help booklet.

In the Sexton and Hebel study (1984), in which a 23-percent difference was observed, the intervention consisted of personal contacts and followup by phone and mail over the entire course of the pregnancy (Nowicki et al., 1984).

Table 2
Quit rates from randomized clinical trials for pregnant smokers

	Quit Rates	
	Experimental Group	Control Group
Public Clinic		
Alabama (Windsor et al., 1985)	14%	2%
Maryland ^a	24	18
Private Setting		
Maryland (Sexton and Hebel, 1984)	43	20
Health Maintenance Organization		
California (Ershoff et al., 1989)	26	17
National Health Care Setting		
England (MacArthur et al., 1987)	9	6

^a SCIP (three-state research and demonstration project). Preliminary data without biochemical validation.

Smokers from both the private sector and the public clinic sector were included. Smokers from the public clinic had quit rates as high as those receiving services from private providers, which suggests that when smokers are given assistance, they will respond, in spite of substantially disadvantaged life circumstances. It is worth noting that by the time they register for prenatal care, about one-fourth of the smokers have already stopped, leaving the heavier and more addicted smokers continuing the behavior. Even so, the provision of assistance after the woman registers for prenatal care results in higher rates of cessation. The importance of reaching female smokers through their health care contacts increases when the considerable postpartum relapse of smokers who quit during pregnancy is taken into account. A continuing focus on the problem of smoking by all providers might assist women in sustaining the quitting they achieve on their own or with assistance during pregnancy.

A broad range of smoking intervention approaches and resources have been used, as illustrated in Table 3. Published information on the specifics of each intervention has been used as a basis for the description, which should be viewed with some caution since it may have been incompletely described. All studies have included some type of materials, and almost all have provided for one-to-one counseling. Most have reported having more than one intervention contact.

A clear picture of the amount of time spent on smoking intervention does not emerge from the information. Somewhat surprisingly, only one study has reported explicit involvement of the physician to assist with the intervention,

Table 3
Description of interventions, by published study

	Provider Message ^a	Materials ^b	Type of Counseling ^c	Number of Contacts	Time (hr) ^d	Quit Rate Difference ^e	Number in Study
Ershoff et al., 1989	HE	P,S,O	I	1	< 1	14%	242
Windsor et al., 1985	HE	S,O	I	1	< 1	12	309
Nowicki et al., 1984	HE	P,O	I	> 1	> 1	23	935
MacArthur et al., 1987	MD, N	P	I	1	NR	3	982
Loeb et al., 1983	HE	P,O	I,G	> 1	> 1	1	963
Aaronson et al., 1985	HE	S,O	I	1	NR	–	58
Langford et al., 1983	N	P	I	1	< 1	0	116
Danaher et al., 1978	HE	P	G	> 1	> 1	–	11

^a MD, physician; N, nurse; HE, health educator.

^b P, pamphlet; S, self-help guide; O, other.

^c I, individual; G, group.

^d NR, not reported.

^e Percentage difference between intervention and control groups; no control group reported in Aaronson et al. and Danaher et al.

beyond what he or she “usually” does. The information suggests that, in the future, the intervention for pregnant smokers could be strengthened by medical personnel’s assuming a more prominent role in its implementation.

CONSTRAINTS ON OFFICE-BASED INTERVENTION

The routine of a medical office usually has little free time or flexibility. The procedures for patient care fall into a well-defined set of interlocking activities. The introduction of a new or expanded activity, such as a standardized antismoking protocol, must take into account the constraints that the office routine and staff impose. The ones that are most likely to be faced are described below.

Office Time

The experience with the project in public prenatal clinics showed that several factors impinged on the intervention’s being implemented. A balance had to be forged between maintaining a predictable office routine and spending time in counseling patients. As part of the project planning process, the project staff met with prenatal care nurses in public clinics. The nurses were quick to point out that the intervention should be developed with the realization that only a small amount of staff time would be given, since other activities were already extremely demanding. Emerging from the focus groups of patients, on the one hand, was a message that the staff relationship was an important one to patients in quitting. On the other hand, the reality was that staff time was limited. Thus, the project intervention had to focus on the patient’s taking a lot of responsibility for her own plan of cessation activities.

Interval Between Visits The infrequency of clinic visits, even for prenatal patients, meant that the staff could not be available on an as-needed basis or even weekly during the time that smokers would be quitting. During the time when the smoker prepares to quit and during the early process of withdrawal from smoking, the individual can benefit most from very frequent contact—daily or even more often—with a support person. It was thus important for the clinic staff to get the patient to find support beyond that which the staff could give.

Skills The public prenatal clinic nurses consistently expressed that training would be needed to enhance their overall counseling skills; in particular, they wanted guidance on how to deal with resistant clients. Most of the staff felt the need for reassurance that they could successfully fulfill the responsibilities given. The authors have met few staff members who felt sufficiently trained and experienced in antismoking intervention.

The public prenatal clinic project intervention was developed within the constraints outlined above. In recognition of limited staff time, the time required by the clinic staff was about 5 to 10 minutes for the initial contact and about 3 minutes for the followup contacts. The intervention itself had a substantial self-help component, in which the patient assumed responsibility for the development and implementation of a specific and personal plan for quitting smoking and avoiding relapse. The patients were told that the self-help materials should be used at home, and they were given guidance by the nurses in how to do that. To address the issue of sustained support, the self-help booklet included a section on how the smoker could develop the skills to achieve ongoing support from family and friends. To reinforce the self-help material, an audiotape and posters for the refrigerator were developed. To address the need for upgrading counseling skills, formal training was provided to the clinic staff.

TRAINING PRENATAL CARE NURSES Essential steps in the successful implementation of an office-based intervention for the Smoking Cessation and Reduction in Public Prenatal Clinics project included not only the development of an intervention that could actually be implemented in a busy prenatal clinic, but also gaining the staff's cooperation in implementing it. The project staff believed that time spent in training would build confidence in and familiarity with the intervention protocol as well as enhance the cooperation of the staff. While in the majority of sites the antismoking intervention was conducted by the prenatal care nurses, some clinics had very dedicated health educators who did most of the counseling. For simplicity, though, the following discussion refers to nurses as the recipients of the training. The project training may have been more of a challenge than would usually be expected because of the large number of nurses involved, and even more so because the decision to implement the intervention had come from the top down, and in a few instances the clinic nurse had little input to that decision.

Since the nurses had expressed uncertainties about their interactions with the smoker or recent quitter, the intervention encounters were designed to be highly structured and predictable. The training itself focused on a standardized, minimal intervention protocol with the understanding that there was opportunity for expansion. All materials needed for implementation were provided and included those for the exclusive use of the staff. *A Nurses Guide* (State of Maryland, 1989), described below, was developed, as was a form, part of which was used to record smoking status and part of which was a checklist to record specific intervention activities.

**Training
Structure**

There were five participating intervention counties in the project, with the larger ones having multiple prenatal care sites. Since the end of the project, public prenatal care nurses in all the Maryland counties have been trained with essentially the same intervention protocol, but with fewer followup contacts after the initial training session. Training for the Smoking Cessation and Reduction project was arranged for each county separately, to minimize travel time for the staff, and took place as regularly scheduled in-service meetings to prevent disruption of clinic schedules. Because the public prenatal clinics study was a research and demonstration project conducted with some support from the Centers for Disease Control, it was possible to provide several training contacts. The initial training was for one-half day with a followup session scheduled after the staff had time to gain experience with the intervention. Clinics were phoned each month and visited quarterly during the 2-year project. At those times, any problems the staff experienced with intervention could be discussed.

At the initial training session for the project, some background information was provided. An overview of the scientific evidence of the risks of smoking for the fetus during pregnancy, the newborn, and the child was presented, and examples of possible clinical problems seen in smokers were discussed. A summary of reported quit rates achieved in intervention studies was presented. After the introductory material, the rest of the training session was focused on the study intervention.

The smoker's self-help booklet had discrete modules that explicitly considered the patient's stage of readiness to quit, using a Prochaska and DiClemente (1983) approach with different modules on precontemplation, contemplation, and relapse. The training of the nurses emphasized how the booklet could be used with *all* smokers, regardless of their interest or readiness to quit. A separate self-help booklet with almost identical content was developed for recent quitters; it emphasized maintenance of the nonsmoking behavior.

The training of the nurses centered on interaction with the smokers (and recent quitters), using the self-help booklet as the focal material. This focus was to provide consistency of messages and approaches between the nurse's interactions and those in the self-help booklet used at home. Moreover, the nurse's use of the self-help booklet to organize the interaction provided a transition to its use by the client.

To further provide guidance to the counseling exchange, nurses were given a *Nurses Guide*, the content of which was the same self-help booklet provided the patient but expanded to include a brief supplemental section. The added section contained general counseling techniques, a step-by-step standardized counseling protocol for the nurses to follow if they wished, and responses to reasons commonly given for not quitting smoking.

The first two pages of the *Nurses Guide* contained material on how to build a positive relationship with the client, most of which was given as examples of listening and supportive techniques for maximizing the provider/client relationship, such as the one on how to increase confidence and expectations for success:

Technique	Purpose	To Achieve Purpose	Examples
Expressing confidence	To increase confidence and expectations	Express confidence. Be sincere and understanding; avoid "if, maybe, might," or "I think you can quit."	"With your husband's support, I believe you will quit smoking."

Just as the self-help guide provided modules to be used by the smoker, depending on her stage in the cessation process, so the *Nurses Guide* included examples of three standardized protocols (for women who do not want to quit, for women who want to quit, and for recent quitters). Each protocol had the same five counseling steps:

- Assess the level of current smoking and interest in quitting.
- Give strong *advice* to quit, along with one or more benefits of cessation.
- *Problem-solve* by identifying potential problems and seeking feasible solutions.
- *Contract* by summarizing the stage the smoker is in with regard to quitting and getting the patient to agree to one or two concrete behaviors (goal), regardless of how simple.
- *Follow up* by assuring the patient that there will be followup at the next appointment.

Specific information was given under each counseling step. For women who do not want to quit, under step 3, "Problem-Solve," the nurse following the steps would (a) identify potential problems and (b) seek "do-able" solutions. A list of possible solutions was given as examples: "Read the self-help manual, listen to the audiotape, put up the posters, think about quitting." The nurse could suggest these or substitute others, as appropriate.

The third short section of the supplement included specific reasons the smoker might give for not quitting, along with specific responses that the nurse could use. If the smoker said, “I get pleasure from smoking,” the nurse could respond, “You will get pleasure from quitting, too—improved taste and smell, and better smelling breath, clothes, and hair. But you get more than pleasure; you are freed of any concern over how smoking could harm you and your baby.”

The *Nurses Guide* included references to specific pages of the booklets as illustrations or further examples of the messages that the nurse could give for each step of the counseling protocol. The client could follow along in her own self-help booklet as the nurse pointed out the specific content. The nurse could embellish the content of the intervention booklet as much or as little as desired, while maintaining the core protocol, and could always turn to the *Nurses Guide* for further multiple and specific messages and directions. Thus, the materials and approach developed for use by the nurse could be used throughout all the prenatal care sites, regardless of the different levels of skills and motivations found in the staffs from clinic to clinic.

In addition to the *Nurses Guide*, a one-page form was developed and given to the nurses so that a simple but consistent record of the patient’s smoking status and intervention could be maintained. At each visit the nurse was expected to record the number of cigarettes the patient had smoked in the preceding 24 hours, the patient’s status with respect to willingness to quit (if still smoking), the intervention topics discussed at the visit, the problems or barriers to achieving the goal, and the goal for the next visit. This form provided a continuous record that could be used at successive visits even if a different nurse saw the patient.

As a part of the nurses’ training, role-playing was demonstrated by two trainers. Volunteers were then asked to participate to further illustrate how the counseling protocol could be implemented. The role-playing showed how resistance could be addressed. It was emphasized that the provider should always leave the door open for future counseling by avoiding an argumentative approach and acknowledging that people change their minds, and that if the client became interested, there would be a chance to discuss quitting techniques in the future.

The training concluded with a discussion of the smoking status of the nurses and how that might affect their effectiveness in counseling smokers. No one was asked individually about smoking status, but often the nurses would volunteer whether they were current smokers, quitters, or never-smokers. The discussion not only led to suggestions, such as using another behavior—for instance, weight control—around which to identify personal involvement in making changes, it also engaged the nurses in envisioning how they would interact with smokers. It proved to be a very lively and fruitful part of the training session.

POSSIBLE BARRIERS TO EFFECTIVENESS There are a number of issues that may present barriers to the development and implementation of an effective office-based intervention. These barriers are not necessarily overcome through developing or choosing a strong intervention protocol and training staff to use it.

Reimbursement All medical office staffs, but especially those in the private sector, have to be mindful of the cost of patient services. The amount of time and effort that providers spend on antismoking counseling will depend, to some extent, on whether reimbursement is available and specifically linked to that counseling.

Provider Attitudes And Characteristics The authors' experience suggests that reimbursement is not the primary barrier to office-based intervention. The attitude of providers sometimes produces a stumbling block to assisting the smoker, even when reimbursement is not an issue. It has been observed that, for a number of reasons, some providers do not enthusiastically embrace the idea of counseling, even when the intervention is minimal. Some of their own characteristics get in the way of assisting the smoker, as described below:

- *Futility of effort.* Patient compliance is a general problem for the health care practitioner, regardless of what the provider recommends. In reality, some smokers will not change within any given timeframe, and it cannot be predicted with much certainty which individual smokers will change. Most experienced interventionists view smoking cessation as a process and assume that any assistance is one more input to move the smoker along in a progression of changing behavior that has the ultimate goal of an achievement of quitting. Nevertheless, a significantly higher proportion of smokers will stop smoking when assistance is given; according to current information, a 10- to 20-percent increase in quit rates can be achieved from intervention. As techniques improve, the effect may be even larger. Even very modest increases in quit rates are enough to make a significant impact on smoking-related morbidity and mortality. To avoid disappointment and feelings of futility, the provider should accept the reality that antismoking counseling will not be effective with every smoker but will be effective enough overall to improve health. It is helpful to set realistic expectations of success and avoid the feeling that the effort is meaningless.
- *Burnout.* A few prenatal care providers have expressed that an effort to change the smoker's behavior is wasted time because the smokers "are not going to change." Some nurses in training sessions were burned out with their jobs. Just as some patients will not respond to assistance, some few providers will not be responsive to opportunities to increase their counseling effectiveness. For those unusual individuals, the mind set prevents even a reasonable consideration of what is proposed. Where it is possible, staff members who believe they cannot make an impact and who resent having to provide counseling should not have direct

counseling contact and responsibility, but should be asked to contribute to antismoking intervention only in indirect ways.

- *Ambivalence.* Some health care providers are ambivalent about smoking cessation counseling because smoking falls outside traditional medical problems, and it is, in the end, the patient who controls the success of the outcome. The provider is unable to apply to smoking the familiar technical skills and knowledge that define medical expertise. Since the highly skilled training from which the provider's prestige and professional standing stem is of little applicability, the health task itself is given less worth, despite evidence to the contrary. Such ambivalence can be addressed with training and a consistently applied antismoking protocol that is viewed as an integral and essential component of good patient care.
- *Smoking status.* The provider who smokes is especially likely to be in conflict and be defensive about the importance and effectiveness of antismoking intervention. Included in the prenatal clinics training described above was an explicit discussion of how a provider's smoking status, regardless of what it is, might influence his or her attitude and effectiveness as a smoking cessation counselor. This broader approach was a good way to take the spotlight off staff members who smoke. For example, current smokers themselves said that patients might perceive that providers who smoke are not credible. These providers were encouraged to consider the appropriateness of their being actively involved in the intervention and to exercise the option of no direct responsibility if they could not overcome their barriers.

Most providers of prenatal care, however, even smokers, felt they could seriously and sincerely work with pregnant smokers, quite possibly because of the open discussion in training and because their peers supported their involvement. The providers who had never smoked found that they should be prepared to address the client's challenge to the provider's lack of empathy. These providers were encouraged to think of other behaviors that required them to make significant lifestyle changes. The provider who had successfully quit could draw on the experience but, at the same time, needed to avoid becoming overzealous and personalizing the change process too much.

The trainers found it helpful to identify and discuss barriers during the planning and training phases of the intervention and felt that more time should have been given to the discussion. Often the staff expressed helpful suggestions, and the group interaction helped build staff commitment to the intervention and overcome some of the attitudes. Overcoming barriers can be a real challenge, but if the barriers remain, they weaken or completely undermine the intervention efforts.

COMPONENTS IN OBSTETRICAL OFFICES From the experience in Maryland with three large antismoking programs for (a) about 1,000 prenatal patients in private practice, (b) about 2,000 smokers in State-funded maternity clinics, and (c) about 1,000 smokers in a high-risk university clinic, giving attention to several components appears to be important in the development of an effective antismoking intervention in an obstetrical/gynecological setting. The points highlighted below relate more to structuring the setting and the intervention than to the content of the intervention. The reason is not that the content is unimportant, but that examples of content can be more readily found than can guidelines for how to structure the intervention. While some points are overlapping, the components identified are those relating to structuring the office and those that concern structure of the intervention.

Office Structure Components of the medical office structure for smoking intervention are as follows:

- *Have a smoke-free office.* The message that health and smoking are incompatible should be conveyed by behavior as well as word. When members of the office staff smoke or condone patients' smoking in the office, it undermines the strength of the health message.
- *Include the physician.* A message from the physician is seen as a credible one and sets the stage for a systematic and serious approach to antismoking intervention from all of the office staff.
- *Include as many other staff members as possible.* All of the office staff can contribute to intervention efforts, and it is important that they do so. Even indirect support, such as adhering to a no-smoking office policy, gives a consistent message in words and behavior from one staff member to the next.
- *Prepare the staff.* Professional consulting skills should be sought and utilized maximally. Nutritionists, social workers, and health educators, while seldom available in other ambulatory settings, are often resources in HMO and public clinic settings. Staff members from human service disciplines, such as these, usually have formal training in the knowledge, skills, and techniques of behavioral change, which enables them to provide more intensive antismoking intervention to patients. They are also a valuable resource for training other staff members; they are often eager to accept the primary responsibility for developing antismoking intervention in the office setting. If no trained staff is available, smoking intervention training can be obtained from outside agencies such as NCI, health voluntary organizations, and State agencies.
- *Use chart notes.* Chart notes about the assessment of smoking and recommendations to the patient should be routine and should become part of the patient's medical record.

Intervention Structure Components of the intervention structure are as follows:

- *Use a standardized protocol.* In some settings, services are organized so that the patient may see not only different physicians but also different nurses over the course of several visits. Many guidelines for use by the provider have been developed. As part of implementing the smoking intervention, choosing a specific guide, such as NCI's *How To Help Your Patients Stop Smoking* (Glynn and Manley, 1990), will assure that a uniform core approach is taken with every smoker and recent quitter. After gaining experience, the office staff will be able to tailor the approach to individual smokers. The chart notes on the assessment and treatment progress of the smoker provide a history of activities and may be the only means of tracing the course of the medical risk factor of smoking, and of the patient's progress in quitting.
- *Address smoking at every visit.* Smoking should be systematically addressed by the provider at every visit. Encourage any progress on the part of the patient. Expressing optimism that she will one day be ready to quit precludes a completely negative message.
- *Assess smoking status.* Smoking status of the patient is almost always included at least once in the chart notes. The provider should determine and record the amount of smoking at the initial visit and at *every subsequent visit*, just as for any other risk factor. It is the continuity of assessment that most providers can improve. If the smoking status of the patient is routinely assessed and recorded, the patient will be aware of this effort, and the importance that the physician attaches to this risk factor will be elevated. At the same time, the patient's awareness level regarding her behavior is increased. Assessment of the risk factor can itself be an intervention activity (Mahoney et al., 1979) and is certainly necessary for a systematic approach to intervention.
- *Reinforce the message to quit.* The provider message can be reinforced in ways that take only a small amount of personnel time: by self-guided booklets, by audiotapes, videos, posters, and a no-smoking office policy. The more systematic, pervasive, and varied the antismoking intervention is, the more likely that quit rates will increase.

A minimal approach, consisting of (1) assessment and recording of smoking status and intervention activities at every visit, (2) a brief smoking message from the provider at every visit, (3) provision of self-help materials, and (4) referrals to already existing community programs, takes few resources. Voluntary agencies (e.g., American Lung Association, American Cancer Society, American Heart Association) or even hospitals can be found that will provide additional services if needed, and to which smokers or recent quitters can be referred. Training of staff members can usually be obtained from some of these same agencies. If it is not feasible to arrange

training by outside agencies, self-training can be developed because of the vast array of materials now available. Beginning with a minimal approach and expanding it as resources warrant would seem to be possible for any office providing health services to women and would greatly increase the number of female smokers who are reached.

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A Physician- and Dentist-Delivered Smoking Cessation Intervention for Head and Neck Cancer Patients²

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PURPOSE OF THE PROJECT The research described in this paper differs from the other studies reported in this monograph with respect to both the patient population and the health care providers. Although the great majority of smoking cessation interventions for physicians and dentists have been designed for primary care practitioners, who see generally healthy patients, there have been no systematic trials with specialized surgeons and dentists treating cancer patients. In general, quit-smoking rates of medical patient populations have increased with severity of disease (US DHHS, 1984). Thus, one would predict a high cessation rate in a cancer patient population with smoking-related tumors. Indeed, a 2-year continuous abstinence rate of 47 percent was recently reported for patients with stage I non-small-cell carcinoma of the lung (Gritz et al., 1991b).

Patients with squamous cell carcinomas of the head and neck present a natural group for intervention. In many cases, surgery and/or radiation therapy can provide definitive treatment, and the 5-year relative survival rate is approximately 51 percent for malignancies of the oral cavity and pharynx and 67 percent for larynx cancers (US DHHS, 1990). The period of diagnosis and treatment of smoking-related tumors is an optimal time for smoking intervention, presenting a teachable moment when motivation for cure and prevention of further disease is heightened. Head and neck surgeons and maxillofacial prosthodontists who treat this cancer patient population have not previously been involved in smoking cessation research, so there is an opportunity to extend training into new areas of specialty.

The study described here is part of the UCLA Cancer Control Science Program, a program project grant with the theme of enhancing adherence to cancer control regimens. Recently completed, the prospective, randomized trial developed, implemented, and evaluated a provider-delivered smoking cessation intervention for patients with head and neck cancers (Gritz et al., 1990 and 1991a). The main goal of the study was to compare the smoking cessation rates of treatment and control groups at 1 year after the intervention.

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The study intervention was designed to maximize the likelihood of behavioral change as a result of the cancer diagnosis and treatment and to capitalize on doctor-patient bonding to reinforce and sustain the smoking cessation effort (Becker, 1974; Burling et al., 1984; Burt et al., 1974). The structure and components of the study intervention were modeled after methods established as effective in NCI-sponsored physician smoking cessation trials (Glynn and Manley, 1990). Delivering personalized, face-to-face advice in multiple interactions and using multiple intervention modalities (e.g., a target quit-date contract signed by both provider and patient, in addition to repeated advice) comprised the most successful components of smoking cessation interventions in medical practice (Kottke et al., 1988). In addition to patient behavior, the provider's own beliefs and attitudes, smoking status, motivation and efforts in patient counseling, and adherence to the cessation protocol were important influences on outcome (American Cancer Society, 1981; Ewart et al., 1983). The current study assessed these provider beliefs and behaviors and, through a standardized training module, attempted to develop, enhance, and sustain effective provider counseling skills.

TARGET AUDIENCE Providers in this study consisted of 103 head and neck surgeons and 7 maxillofacial prosthodontists (26 attending physicians and 84 residents). Subjects were accrued from 10 clinics at participating southern California sites: 3 university hospitals (including both the head and neck and the maxillofacial clinics at UCLA, the main site); 3 Veterans Administration Medical Centers; 2 Los Angeles County hospitals; 1 health maintenance organization; and 1 armed services hospital.

PRACTICE OR CLINICAL SETTING A total of 389 eligibility checklists were completed on patients with newly diagnosed squamous cell carcinomas of the head and neck. The study sites represented a broad spectrum of facilities providing surgical and followup care to this patient population in the southern California region.

Study subjects had varying treatment regimens that entailed medical care by multiple providers—head and neck surgeons, maxillofacial prosthodontists, and radiation oncologists—in as many different clinics. The three most typical paradigms for treatment were surgery only, surgery followed by radiation therapy, and radiation therapy only. Subjects were also seen by different providers within the same clinic, particularly at university and VA hospitals. Much of the subjects' care was provided by residents under the supervision and guidance of attending physicians.

RECRUITMENT OF PATIENTS Patients older than 18 with newly diagnosed squamous cell carcinomas of the head and neck were eligible for the study. Participating providers completed an eligibility checklist on each patient to determine whether a second tier of enrollment criteria was met: (1) life expectancy of more than 1 year; (2) tobacco use within the past year; (3) absence of gross

psychopathology; (4) medical followup by local providers; (5) ability to speak and read English; and (6) agreement to undergo treatment.

Study interviewers reviewed medical records and operating room schedules and attended morning rounds and tumor conferences to ensure that all eligible patients were identified. After confirming a diagnosis of squamous cell carcinoma, providers introduced the study to eligible patients. All patients willing to participate were contacted by a study interviewer, who arranged a baseline interview prior to the start of medical treatment. Patients provided written, informed consent to participate in the project at the start of the baseline interview.

Approximately 57 percent of the 389 patients with newly diagnosed squamous cell carcinomas of the head and neck identified were eligible for enrollment (n=221), and 84.2 percent of those were randomized (n=186). Not using tobacco in the 12 months preceding diagnosis was the predominant basis for exclusion from enrollment, accounting for 57.1 percent (n=96) of the 168 ineligible patients. Sixty-three (65.6 percent) of these 96 ineligible patients had stopped smoking more than 1 year prior to diagnosis, and the remaining 33 (34.4 percent) were classified as nonsmokers. The smoking histories of seven of the latter were unknown, and so they were conservatively assumed to be nonsmokers. Thus, the overall rate of current tobacco use among both eligible and ineligible subjects was 75.3 percent (n=293), and the overall rate of ever-use of tobacco was 91.5 percent (n=356).

The 186 randomized patients were predominantly male (73.7 percent) and in the sixth decade of life or older (average age was 58.5 years). Whites constituted 72.6 percent of the sample; 18.8 percent were black, 6.5 percent Latino, 1.1 percent Asian, and 1.0 percent other. Approximately one-third of subjects (33.9 percent) had not completed high school; 14 percent were college graduates. Although 57.8 percent had an annual family income under \$15,000, 17.3 percent fell into the \$40,000-and-over category. Finally, 51 percent were married or living with someone.

The primary site of disease was the oral cavity or pharynx for 60.9 percent and the larynx for 39.1 percent of patients. At diagnosis, 31.1 percent had early stage disease (stages I and II). Total laryngectomies were performed on 24.7 percent of patients; 28.5 percent were treated with radiation only; and 46.8 percent had surgery other than total laryngectomy (which was followed by radiation in some cases).

At diagnosis, 12 percent of patients were former smokers (had quit 1 to 11 months earlier) and 88 percent were current smokers (had smoked within the past month). Overall, this was a moderately addicted group of long-term, heavy smokers; they had been smoking an average of 39.7 years and had a mean score on the Fagerstrom tolerance scale of 6.6 (11 maximum).

PROTOCOL FOR ADVICE The research protocol defined delivery of smoking cessation advice in both usual care and experimental intervention conditions. As Table 4 shows, there was a range of conditions in which advice (initial advice to stop smoking, initial advice to maintain abstinence, or booster session advice) was given. Algorithms were developed for delivery of advice in each condition. Each of these advice algorithms, detailed in Appendix B, could be completed in the course of a provider-patient discussion lasting approximately 7 minutes. Providers learned and practiced delivering advice (see “Nature of the Training Program,” below).

Initial advice was delivered to surgical patients 2 to 3 days prior to hospital discharge and to radiation patients prior to the start of treatment by attending (faculty) and chief resident physicians and dentists.

The *usual care* condition consisted solely of the delivery of the standardized usual care initial advice—risks of smoking behavior and benefits of cessation during continuing medical care. Providers were told to follow their usual practices.

The *experimental intervention* was designed to be integrated into regular medical care, as well. The initial advice session, as in usual care, consisted of standardized, strong advice to quit smoking. This advice was enhanced by greater interaction in determining the patient’s receptivity to attempting cessation; expressing confidence in the patient’s ability to stop; discussing craving and the withdrawal syndrome; negotiating the target quit date and joining the patient in signing the written contract; and assuring the patient of ongoing support for smoking cessation during treatment and followup care (Appendix B). The initial advice was further reinforced with targeted, written, self-help and social support materials for the patient and spouse or caregiver, and the formal smoking cessation contract (see “Products of the Project,” below). For the first year after treatment, head and neck cancer patients return monthly for followup visits. Six monthly booster sessions for smoking cessation were administered during these followup medical appointments. In addition, six postcards with smoking cessation maintenance tips were mailed monthly to intervention subjects from the office of their provider.

Table 4
Classification of smoking cessation advice sessions

Initial Advice (All Patients)	Booster Sessions (Intervention Patients Only)
Current and former smokers—usual care group	Abstainers and slippers
Current smokers—intervention group	New relapsers (since last visit)
Former smokers—intervention group	Reduced- and full-consumption smokers

NATURE OF THE TRAINING PROGRAM Training was conducted at the provider's site, often as part of a tumor conference. Providers included faculty and house staff. Training was conducted in a single 2-hour session and included a baseline questionnaire, a didactic presentation about the study, a videotape of advice, and role-playing. Training began with administration of a baseline questionnaire eliciting providers' knowledge, attitudes, and beliefs about smoking behavior (their own and patients') and about smoking cessation in head and neck cancer patients. Behavioral and pharmacological aspects of tobacco dependence, study aims, and the methodology of the randomized trial were then explained. Providers were encouraged to ask questions about their individual roles and theoretical and methodological aspects of the study, or to express concerns about implementation of the research protocol at their facility.

To become familiar with the contents of the smoking cessation advice that was to be delivered in usual care and experimental intervention conditions, providers were shown videotaped vignettes in which a surgeon delivers smoking cessation advice across the range of conditions. The videotapes were constructed to be direct models for providers to replicate, exemplifying application of an algorithm to each advice condition. Algorithm outlines preceded and followed each vignette on the videotape.

After the videotaped vignettes were shown, printed advice algorithms were distributed, and providers were asked to break into dyads for role-play of delivery of advice to "patients" (see Appendix B for usual care and experimental, advice-giving algorithms). Each dyad member was asked to enact the role of both provider and patient, in turn, giving and receiving advice in as many conditions as possible. Although a few providers were initially hesitant to engage in the unfamiliar task of role-play, nearly all became engaged in the process quite rapidly. Project staff members observed the dyads and provided feedback. Training concluded with a discussion of the role-play, involving all providers and offering an opportunity to raise final questions.

Additional training sessions were conducted for new residents, typically at 1-year intervals. Continual monitoring of audiotaped provider-patient interactions allowed the research staff to identify providers who needed brushup training. Such supplemental training was also provided on rare occasions when providers themselves requested it.

SPECIAL RESOURCES AND PROCEDURES Creation of training videotapes required special resources. Preproduction work consisted of scripting, casting and recruitment, and rehearsal. For the sake of simplicity, economy, and the intended feeling of the video vignettes

Videotapes (realistic yet light), it was desirable to have a considerable amount of improvisation. To this end, no formal scripts were created. Instead, advice algorithms were used as the basis for improvising vignettes spanning the range of advice conditions. This approach simplified rehearsals and ensured that video vignettes were faithful to what providers themselves would do when

delivering advice to real patients: express themselves as naturally as possible while following a particular advice algorithm.

Casting required one provider and a small number of persons willing to role-play patients. Real patients were not used because of logistical complications—contacting them, screening for suitability, obtaining consent—and because of the ready availability of research staff and other volunteers. The director of the university video laboratory was enthusiastic about playing a patient and was extremely supportive and helpful in producing the tape. Other “patients” were recruited from the project staff. The provider delivering advice on the videotape is a UCLA faculty member and a colleague of many providers at other study sites. He was selected because of his demeanor and his interest in the project.

All six vignettes were taped in one 3-hour session. Editing was done by university video lab staff in consultation with the research team. Videographics displaying algorithm outlines were inserted before and after each vignette.

- Guidelines And Reminders For Advice** Special procedures were aimed primarily at making it easy for providers to implement their tasks with patients and/or to assure that they did so in accordance with requirements of the study. Provider training has already been described. Providers were encouraged to keep copies of advice algorithms. Self-help booklets (described below) relieved providers of any need for detailed knowledge of quitting or abstinence strategies. Special stickers were designed and printed, and these were placed on the covers of hospital charts of participating patients. Project staff members reminded providers immediately before and during clinics about which patients required advice. Providers were also reminded when telephone boosters were required. Provider-patient interviews were audiotaped for several reasons: (1) to provide documentation that providers were actually giving advice according to protocol (e.g., to document that intervention advice was not contaminating usual care); (2) to ensure that providers experienced a degree of motivation-accountability in their advice-giving (especially useful with residents); and (3) as noted above, to allow the research staff to identify providers who were in need of brushup training.
- Patient Tracking** Special procedures were also required to follow some research subjects. Some patients, especially those living out of state, and those in low socioeconomic groups, had addresses that were difficult to obtain (or that frequently changed) or had no phones and were otherwise difficult to track, contact, and interview. Project interviewers developed impressive persistence and ingenuity in obtaining data from these patients.
- PRODUCTS OF THE PROJECT** The components of the smoking cessation intervention are designed to be individually and collectively exportable. The components include standardized, strong advice to stop smoking; targeted, written, self-help and social support materials; a contracted quit date; booster advice sessions; and postcards with maintenance tips. Written materials include three

booklets: the first for stopping smoking (*Team Up To Stop Smoking*); the second for maintaining abstinence (*Team Up To Stay Off*); and the third a social support booklet for the patient's spouse, family member, or other caretaker (*Team Up To Help a Friend*).

The booklets are written specifically for head and neck cancer patients and contain smoking cessation information that takes into account patients' medical, physical, and psychological condition. The two smoking cessation booklets feature illustrated descriptions of the connection between patients' smoking and their cancers; the value of quitting and special opportunity to quit now; simple, direct instructions on how to stop smoking; information about coping with high-risk situations for relapse; a discussion of alcohol use and the relapse risk associated with drinking; and a supportive discussion of the stress that smoking cessation creates for the patient. The social support booklet, directed to patients' significant others, describes effective strategies to aid the patients in their effort to stop smoking and stay off cigarettes.

These materials are grounded in the premise that, during this critical period of cancer treatment and recuperation, positive social support must be delivered to the patient in a variety of interpersonal contexts in which smoking is likely to occur. Psychological issues relating to head and neck cancer and disturbances of affect and physical functioning are empathically addressed.

The stop-smoking and stay-quit contract is printed on an official-looking document. It consists of a pledge to quit or stay off cigarettes as of an agreed-on date and spaces for both the patient's and the provider's signatures, and it is embossed with two hands clasped in a symbolic gesture of support between the provider and patient. The contract is a three-part, no-carbon-required form, with one copy each for the patient, the provider, and the study staff.

The six monthly postcards, which give tips for stopping smoking and maintaining abstinence, are signed by a member of the provider's staff. The postcards are mailed in conjunction with monthly booster sessions.

The training videotape described above is completely self-explanatory and could be used in any medical or dental setting where patients with head and neck cancers are treated. It is 30 minutes long but can be shown in segments consisting of the initial advice session and the three types of followup sessions (abstinence, relapse, and continuing smoker).

BARRIERS AND PROBLEMS OVERCOME A number of unanticipated administrative, provider, and subject barriers prevented easy implementation of the protocol. Administrative barriers included the lack of participation by radiation oncologists and difficulty in maintaining continuity of care. The protocol originally was designed to include radiation oncologists among the providers. Resistance to participation was encountered at two sites, principally because of infrequent contact between radiation oncologist and patient and the lack of regular followup once radiation therapy is completed. Therefore,

the protocol was adapted to have smoking cessation advice delivered to radiation-only patients by the referring surgeon or, when appropriate, by a participating dentist.

Continuity of care is frequently a problem in tertiary care facilities. Patients are often treated or followed concurrently by multiple providers, including head and neck surgeons, radiation oncologists, and maxillofacial prosthodontists. As a consequence of resident rotations, VA patients and clinic patients at university hospitals frequently have multiple providers within the same clinic as well. Thus, the provider-patient bond becomes more tenuous than in a private-practice setting. In our study, this was disadvantageous because provider-patient bonding was hypothesized to be important for maximizing the impact of the smoking cessation intervention.

Although study providers as a group were very helpful, a few were not willing to follow the research protocol closely. Contrary to protocol, some attending physicians wanted to routinely delegate advice-giving to residents and necessary paperwork to project interviewers. Persistent explanations of the rationale for these aspects of the protocol were helpful with those providers. Surgical residents are oriented primarily toward learning complex operating techniques and amassing experience with disease diagnosis and treatment. Because of the psychosocial nature of this study, it was often perceived as their lowest priority. Thus, constant supportive urging by attending physicians and study staff was necessary.

Patient adherence to trial procedures exceeded our expectations. In addition to participating in advice-delivery sessions, patients were interviewed at baseline and at 1, 6, and 12 months after the initial advice session. Surviving patients then participated in annual interviews thereafter. However, there was a small segment of subjects who were very difficult to follow. The reasons included mobility, mostly among the Veterans Administration patients; homelessness, applying not only to VA but also to county hospital subjects; and family interference. Occasionally, relatives on whom the subjects were dependent, either for communication (because they were speech impaired) or for transportation, thwarted access to the subjects such that further participation was precluded. It was difficult to discern, in these situations, how closely the protectiveness of relatives reflected a subject's lack of interest in study participation.

**WHAT WORKED
AND WHY**

**Understanding
The Milieu**

The study staff made every effort to understand thoroughly the timing, implications, and impact of medical treatment delivered to head and neck cancer patients. Project staff members attended rounds and tumor conferences to become immersed in the providers' milieu; tracked patient movement from clinic entry (and from previous physician referral, when appropriate) through treatment and followup; and interviewed patients, providers, and staff at participating clinics. These activities facilitated the design of an intervention that was easily integrated into standard medical care, as well as tailoring the smoking

cessation materials to the needs and concerns of head and neck cancer patients.

Two important adjustments to the intervention were made because of this groundwork. First, the timing of the smoking cessation advice was moved from the second clinic appointment, usually when patients were informed of their cancer diagnosis, to 2 or 3 days prior to hospital discharge for surgical patients. After being informed of their cancer diagnosis, most patients were so absorbed in their cognitive and emotional efforts to begin to cope with their situation that they were unable to assimilate smoking cessation advice. As a part of standard care, surgeons warned all of their patients of complications that can result from continuing to smoke prior to anesthesia. Most patients stopped smoking, at least briefly, for that reason, or because of hospital policy. When they had recovered sufficiently from their surgery and were ready to leave the nonsmoking hospitals, patients were able to attend to long-term concerns, including smoking cessation and its health implications.

Second, patients receiving radiation therapy as the initial treatment modality were often not seen by their primary surgical provider for at least 6 weeks. This could have allowed those patients to return to their routines, including smoking, without the benefit of smoking cessation advice. Thus, the advice was delivered to these patients prior to the first radiation therapy appointment.

Quality Control

Study interviewers took many precautions to ensure that all head and neck cancer patients with newly diagnosed squamous cell carcinomas were identified as potential subjects. They attended tumor conferences and hospital rounds; reviewed operating room schedules for types of surgery that are specific to head and neck cancer; checked medical records of clinic patients; and maintained as much of a presence as possible in the participating clinics. Although the protocol called for providers to identify eligible patients through eligibility checklists, the research staff often assumed the responsibility for screening clinic records of new patients and completing the checklists in consultation with physicians. Additional paperwork was deemed burdensome to the providers.

Delivery of control and intervention advice by participating providers was persistently monitored to ensure protocol adherence and to prevent subject contamination. First, a subject's file was marked with a sticker once he or she was randomized. Second, intervention materials (including advice guidelines, three smoking cessation booklets, and a quit-smoking/stay-off contract) were presented by a staff interviewer to each provider just prior to delivery of intervention advice. Third, providers were asked to audiotape the delivery of initial advice in both conditions and the delivery of the intervention booster sessions. The study staff reviewed the tapes for adherence to the advice guidelines and gave feedback to providers. Finally, all subjects were asked to complete exit checklists after the initial advice was delivered.

Provider Training And Involvement Perhaps the single most important factor predisposing to success in provider involvement was the leadership role taken by the Chief of Head and Neck Surgery and the Chief of Maxillofacial Prosthodontics at UCLA. Although participation in this research was technically not required of all faculty and residents, the enthusiastic support and continuous encouragement of those two prominent clinicians clearly facilitated acceptance and support of the study. Without the sponsorship and collegial stance taken by those two individuals, the project probably would not have sustained the involvement and interest of the other providers. It is noteworthy in this regard that not a single surgeon or dentist (faculty or resident) refused to participate in the trial.

Success with respect to provider involvement included several additional dimensions: suitability of intervention and supplementary materials to the clinical environment; education of providers with respect to behavioral research strategies and designs (which may differ significantly from biomedical research strategies); receptivity of providers to training in delivery of smoking cessation interventions; and motivation of providers to follow research guidelines in implementing the experimental smoking cessation intervention and the usual care condition.

As described earlier, providers were trained to deliver a cogent smoking cessation message (Appendix B) in a timeframe quite compatible with a typical provider-patient interaction, usually 7 minutes or less. Dispensing supplementary materials (contract, booklets, and postcards) proved to be easy and required little time.

Education of providers included orientation to the overall research strategy and to providers' roles and tasks. Providers responded well to training sessions, often participating energetically in the dyadic role-plays. Responses to questionnaires administered during training sessions indicated that providers were well aware of the morbidity associated with patients' continued use of tobacco. Providers saw themselves as important and practical sources of advice to quit smoking.

Provider behavior after training was generally consistent with the impression that they were motivated to assist patients' smoking cessation efforts and to conform to the requirements of the research protocol. The house staff and attending surgeons and dentists worked cooperatively with research staff, integrating aspects of the protocol with their clinical routines. Tape recordings of control and experimental interventions indicated that providers succeeded in avoiding contamination across conditions. This was particularly important because the design of the study required all providers to administer both types of intervention (only patients were randomized). Overall it seems clear that, in the context of a sharply and economically presented rationale and training, and when equipped with appropriately designed materials, even very busy providers will function effectively as sources of a behavioral intervention in smoking cessation research.

Patient Participation Experience gained in this trial suggests that intervention with head and neck carcinoma patients, a potentially difficult patient population (with long-term histories of tobacco and alcohol use), is quite feasible. Nearly 85 percent of eligible patients were successfully enrolled. The patients proved to be cooperative participants, even during periods of illness and hospitalization, in this long-term research effort. As an example of the altruism expressed by many patients, about 10 participation checks were returned with explicit directions to donate the funds to the research study.

WHAT DID NOT WORK AND WHY Provider training required more time than the physicians and dentists wanted to devote to that activity. Multiple training sessions were necessary at some sites because large numbers of providers were unable to attend preplanned sessions, even though these coincided with tumor conferences. Future training sessions should be shorter and more compatible with provider schedules.

Booster sessions and followup interviews were timed to coincide with medical followups to minimize subject burden. Frequently, the standardized scheduling was not maintained, and study interviewers had to adjust followup schedules accordingly. It was desired that all patients receive smoking cessation advice at designated times, that is, a fully standardized intervention. However, diversity of treatment regimens and nonstandardized medical followup required that flexible scheduling and telephone boosters be introduced into the protocol. Thus, it proved difficult to maintain the planned schedule for booster sessions. Telephone boosters were instituted to ameliorate the problem, especially for radiation patients who were also being treated by the dentists. Providers were asked to limit the number of telephone boosters to two of the six prescribed sessions.

WHAT WOULD BE DONE DIFFERENTLY NOW This section discusses how the current research paradigm would be adapted to a nonresearch, clinical environment. Modifications fall into two categories: (1) the physician and dentist training and counseling role, and (2) the patient intervention.

The importance of support from the most senior and powerful clinicians (“top down”) has been discussed, but it was important also to engage co-operation from the interns and residents on the medical-dental teams (“bottom up”). The latter, young physicians and dentists, were responsible for delivering much of the counseling. They had to be convinced of the intervention’s importance (both biomedically and behaviorally), of their own effectiveness (self-efficacy), and of the value of acquiring such skills in their surgical or dental residency (rather than detracting from their development of operating technique or basic scientific research).

In the present study, providers’ cooperation was won with time and the repeated exhortation and example of the senior clinicians. Counseling skills should be framed as valuable contributions to well-rounded dental and surgical training during the training session. As one of the division chiefs often states, “We want to be physicians as well as surgeons.”

Head and neck surgeons and maxillofacial prosthodontists are extremely busy clinicians who, in hospital settings, see many patients in the course of half-day clinics. Thus, the fact that the counseling interventions were time-limited (7 minutes or less, on the average) was very appealing. However, paperwork, such as determining patient eligibility for the intervention, tracking smoking status, remembering to schedule return appointments, and sending reminder postcards, was perceived as too burdensome. Nurses or medical clerks could easily assume these tasks. Second, compressing training sessions into a single hour, as was done eventually out of necessity, fits the tumor conference paradigm better than the original 2-hour structure. Repeated and individual review of counseling algorithms, as appropriate patient interviews arose, led to better provider retention and performance. Finally, the number and spacing of booster advice sessions can easily be accommodated to the actual scheduling of medical or dental followup appointments and need not occur on a set monthly basis for 6 months.

The patient intervention would benefit from several modifications. The first involves emphasizing the usefulness and importance of the targeted self-help booklets. Patients tended to dissociate the receipt of these materials during their time as inpatients from their home recovery activities, which was certainly not the intent of the intervention. For example, it is unclear how many significant others ever received the third item, the social support booklet. It would be better for clinicians to be certain to hand the booklet directly to a family member or caretaker and to deliver the advice and the two patient booklets in the presence of that support person.

Consequent to initial advice, booklets should be actively used in booster sessions. Mailed followup support material, such as postcards, should be tailored to the patient's current smoking status so as to be maximally relevant and personalized. The intervention developed in this study was designed with the direct collaboration of clinicians, specifically with these providers and their patients in mind. Because of this close working relationship, relatively few modifications would be required for a generalized dissemination of the intervention.

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Medical Advice as a Communication About Risks of Smoking and Benefits of Quitting

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INTRODUCTION To gain maximum effect from medical advice to quit smoking, it is important to understand the process by which medical advice causes smokers to consider cessation and to take actions to quit (Evans, 1986). A medical or dental professional's advice to quit can provide motivation, whereas an intervention (on-site counseling, referrals to other resources) can provide the patient with tools and skills to quit. A study sponsored by the National Cancer Institute is focusing on three elements of this process: making the health risks personal, emphasizing the benefits of quitting, and increasing patients' perceptions that they are capable of quitting. Although other aspects of medical advice may also facilitate smoking cessation, these seem to be key aspects.

PURPOSE OF THE PROJECT The project was implemented in a rural area of Pennsylvania and originated as an effort to provide a service to a cohort of former chemical workers who have been exposed to a bladder carcinogen (Leviton et al., 1991; Marsh et al., 1991). Because of the chemical workers' increased risk of bladder cancer, both the risks of smoking and benefits of quitting are greater for these smokers than they are for smokers in the general population. However, the workers were not uniformly aware of this fact before the study started.

Access to the cohort members presented an important opportunity to study the combined effects of several forces. Medical or dental advice in this context should have greater importance for patients because the professional is giving essential information about patients' personal risk for smoking-related disease, in combination with information about patients' self-efficacy, or their ability to quit smoking and thus avoid disease. Although the cohort's situation is unique, the same kinds of intervention could be given by medical and dental professionals to different kinds of smokers who run increased risk of disease because of the combination of smoking and other factors.

The major outcome measure in this study is not smoking cessation but *progress toward* smoking cessation (Horn, 1976; Leventhal and Cleary, 1980; Pechacek and Danahey, 1979). Even when medical advice does not lead to immediate smoking cessation, it may well lead to progress along the road to quitting and may help to tip the balance in favor of quitting. In fact, the guidelines provided by NCI explicitly tailor medical advice about smoking

cessation to the smoker's stage of self-change. Smokers proceed through at least five such stages: (1) precontemplation, in which they do not seriously consider quitting and or even give it much thought; (2) contemplation, in which they begin to consider quitting; (3) short-term quitting, in which smokers have recently quit but may yet relapse; (4) relapse, in which quitters have returned to smoking but may try cessation again; and (5) long-term maintenance of cessation (DiClemente, 1986; DiClemente and Prochaska, 1985; DiClemente et al., 1985; Prochaska et al., 1988). In recent research, a preparation stage is added, in which smokers are getting ready to take action (Prochaska et al., 1992).

The project differs from the larger studies in this volume, in that it was mounted to test several hypotheses about health professionals' advice. The authors predict that advice to quit has different effects on progress toward quitting, depending on the participants' level of health risk attributable to smoking and the way in which each smoker interprets risks and benefits. The level of risk is varied through comparison of smokers at high risk of bladder cancer because of occupational exposure with other smokers residing in the same area who are at relatively low risk. The interpretation of the risks and benefits is varied through different types of counseling for smokers, one of which is aimed at increasing self-efficacy, that is, improving the smokers' perceptions that they are capable of quitting.

Hypothesis 1 The investigators predict that a medical professional's advice will, on average, lead to greater progress toward cessation among high-risk smokers than among smokers at lower risk. Health messages that imply greater danger are generally more effective in changing behavior and attitudes than messages that do not (Leventhal, 1970; Sutton, 1982). However, when people know they are vulnerable to a health threat, various negative reactions can result (Leventhal and Watts, 1966). The health message may induce feelings of helplessness, anger, and other reactions that impede the adoption of healthful behavior (Leventhal et al., 1980). Such reactions are likely to impede progress through the stages of smoking cessation. Smokers may be less likely to seek out new information on quitting or to take actions to quit. People perceive themselves to be vulnerable to cancer and other smoking-related diseases for many reasons. A secondary goal of this project is to discover whether any negative effects of medical advice emerge, especially for smokers at higher risk, and how those might be avoided.

High-risk smokers are more likely than others to feel vulnerable to disease. Although high-risk smokers are more likely than others to quit after receiving medical advice, most of them do not do so (Burt et al., 1974; Pechacek, 1979; Pederson, 1982; Rose and Hamilton, 1978). Some of them may be defeated by barriers such as nicotine addiction, but others may not even try to quit or think about quitting. The more sensitive measures of progress toward smoking cessation can give us this information.

Hypothesis 2 Second, the investigators predict that, although smokers may not progress all the way to long-term quitting, medical or dental advice to quit will move them along in the process. Medical advice can move smokers from precontemplation to contemplation of quitting by encouraging a reevaluation of personal health risks and benefits of quitting. If high-risk smokers start to contemplate quitting, the perceived benefits of quitting will be greater than those for smokers at lower risk, and therefore high-risk smokers are more likely to decide to quit.

Medical advice can also assist in moving the smoker from contemplation to action by providing a rationale or motivation to act (Rogers, 1975). If high-risk smokers have reached the stage of action, they have greater motivation and a stronger rationale for quitting (Leventhal et al., 1980; Rogers, 1975; Sutton, 1982).

Setting a quit date and providing nicotine gum give the smoker cues to action (Eraker et al., 1985). Whether the smoker quits for the long term or relapses depends less on medical advice, as such, and more on factors such as the development of coping skills (Shiffman, 1985) and overcoming nicotine addiction (Fagerstrom, 1982). In the medical and dental practice settings, advice to quit can be followed by counseling on these factors.

Hypothesis 3 Third, the investigators predict that smokers who receive self-efficacy counseling will make greater progress toward cessation than those who do not receive such counseling. The latest generation of medical advice protocols often includes efforts to increase self-efficacy (e.g., Janz et al., 1987). Self-efficacy has been found to be an important predictor of lifestyle changes in general (Bandura, 1990b) and of smoking cessation in particular (DiClemente, 1986; Prochaska et al., 1985). Most important, research has revealed that it is possible to instill greater perceived self-efficacy through counseling in a variety of settings (Bandura, 1990a and 1990b; Gilchrist and Schinke, 1983; Maddux and Stanley, 1986).

TARGET AUDIENCE The study is being conducted in a 50-mile radius around Lock Haven, Pennsylvania, a community of approximately 12,000 people in the Allegheny Mountains of rural north central Pennsylvania. Two groups participated: former chemical workers at high risk of bladder cancer and similar smokers, resident in the same area, who are at lower risk of bladder cancer. The former chemical workers participate in a program sponsored jointly by the National Institute on Occupational Safety and Health, the Agency for Toxic Substances and Disease Registry, and the Pennsylvania Department of Health. The plant at which these workers were exposed began operation in 1944 and went bankrupt in 1981. The workers come to the Lock Haven Hospital for screening at least once per year, more often if screening reveals a suspicious or positive result. As of this writing, 82 percent of the living cohort members have enrolled in screening and more than 90 percent have returned for repeat screening (Marsh et al., 1991).

The workers were exposed to beta-naphthylamine (BNA), one of the most powerful chemical carcinogens. The resulting increased risk of bladder cancer, which persists for many years after exposure, ranges up to 87 times the risk in the general population (Case et al., 1954; Schulte et al., 1985). Preliminary evidence suggests that smoking and BNA exposure have a multiplicative effect on risk (Schulte et al., 1985). Quitting smoking would presumably lower future risk for developing bladder cancer, regardless of the relation to BNA.

More than 80 percent of the former workers still reside within a 50-mile radius of Lock Haven. Of these, 48 percent are current smokers, and 68 percent have a high school education or less. The majority are blue-collar workers and have lived in rural communities most of their lives. As with the rest of the community, they generally have little interest in quitting smoking.

The project recruited smokers at lower risk who were similar in background to the worker cohort members through visits to 14 blue-collar worksites. The coordinator of the screening program approached the worksites and convinced management to offer the intervention on site. Workers signed up for appointments on specific days.

SETTING OF THE STUDY Medical advice and counseling components were provided in two settings: at a small hospital in Lock Haven and at 14 worksites in the same general area. The hospital is the setting for the bladder cancer screening program for the former chemical workers. Worksites at which lower risk smokers were recruited included roadwork and home construction sites and a variety of factories and mills. The entire team, including the medical professional, clinic coordinator, interviewer, and counselor, visited the sites on given days. Intervention took place in areas set aside for that purpose, and workers signed up for prearranged times to receive advice and counseling.

Medical advice was provided by three physicians and one respiratory therapist. Their participation was based on their availability at the time of the participants' appointments. A respiratory therapist was included to increase the investigators' flexibility in implementing the study, and because her expertise in smoking-related disease carried some professional authority that was somewhat similar to that of the physicians. An important element for the analysis of outcomes will be to compare participants who received advice from physicians with those who received advice from the respiratory therapist, to examine whether professional identification made a difference.

Counselors included an elementary school teacher trained in the American Lung Association's smoking cessation program, a social worker, and four psychology students from the nearby college. In this rural area, professional cessation counselors were not available; however, all counselors participating in the study were carefully trained and supervised by an experienced smoking

cessation counselor. We believe that the diversity of counselors is a strength of the counseling intervention. If individuals with minimal experience can be trained to administer self-efficacy intervention, the method is more easily transportable to medical settings in the community.

Training of the counselors was done in several stages. The supervisor conducted all training from his base in Pittsburgh during the course of five visits to Lock Haven. The initial orientation to the counseling sessions was geared to changing the counselors' mindset about counseling. All of the counselors had been taught that counseling meant giving an individual whatever he or she needed to assist the process. However, it was necessary to make the distinction between such counseling and adherence to a research protocol based on certain prescribed methods—in this case, a focus on enhancing self-efficacy, or an attention placebo. The trainer pointed out to counselors that departures from the self-efficacy material would actually dilute the expected effects of intervention.

The concept of self-efficacy was presented to the counselors and discussed at length. They were introduced to the sequence of steps in the counseling session (see below). Finally, the trainer and counselors role-played the various counseling protocols. They role-played both the counselor and the smoker being counseled.

Counselors then practiced the self-efficacy intervention on friends who smoked, and they tape-recorded the sessions. The tapes were then mailed to the trainer and were brought into the next training session for group supervision and feedback. When the trainer and the counselors were confident that they had mastered the counseling method, each trainee counseled a pilot participant, and the sessions were videotaped. The group of counselors then critiqued the videotapes, together with the supervisor.

When they were judged to be proficient in the counseling protocols, the trainees began counseling the study participants. Each session was tape-recorded and mailed to Pittsburgh. The supervisor monitored the recordings to guard against departures from the protocol. When necessary, the supervisor telephoned the counselors to point out departures from the protocol or to point to missed opportunities to reinforce participants' feelings of self-efficacy.

RECRUITMENT PROCEDURE AND RESULTS From the start, the project team was aware of the difficulty of generating interest in smoking cessation among little-educated, rural, blue-collar workers. Recruitment yielded 255 current smokers, short of the project's goal of 300. Participants were 75.1 percent men and 24.9 percent women. The mean age of participants was 42 years, and mean of education was 12.7 years. Married participants constituted 74.5 percent of the sample.

For the former chemical workers (higher risk smokers), medical advice and counseling were to be given at the time of their screening for bladder cancer. However, many were not interested in hearing what a medical

professional had to say about smoking. Although the coordinator of the bladder cancer screening program had developed good relationships with the workers and had successfully recruited them into bladder cancer screening, her efforts to recruit them into a smoking cessation intervention were less successful. We projected that 108 of the workers residing in the area would take part; of these, 43 men participated in the smoking intervention. At various worksites we recruited 5 additional men who had been exposed to BNA at another nearby plant, accruing a total of 48 smokers at higher risk of bladder cancer. The remaining 207 participants, or 81.6 percent, were smokers at lower risk of bladder cancer than the chemical workers.

There may be several explanations for the meager participation among the worker cohort. To be in the study, workers had to sign a separate consent form, which provided them with an opportunity to say no to the project. Although the screening program gets good participation, it still requires effort from the screening coordinator to cajole the workers into getting their repeat screenings. In many cases, the screening coordinator was fairly sure she would lose a worker from the screening program if she pushed too hard for the smoking program.

This project was less successful in recruiting precontemplators than in recruiting smokers at the stages of contemplation or action. Because precontemplators do not choose to expose themselves to information about the dangers of smoking and benefits of quitting—for example, to listen to what a medical professional has to say—it is likely that they would refuse to participate. A higher percentage of precontemplators might be encountered in usual medical and dental practice settings because all smokers visiting the setting can be exposed to such advice, whether or not they choose to participate in a study. The dentist or physician has a foot in the door already.

In surveys of the general population, a fairly large percentage of smokers are at the stage of precontemplation. Prochaska and colleagues found that, across studies and populations, 50 to 60 percent of smokers are precontemplators, 30 to 40 percent are contemplators, and only 10 to 15 percent are ready to quit (Prochaska et al., 1992). There is no reason to believe that Lock Haven smokers differ much from the national trend, and some reason to believe that a higher percentage are precontemplators, because of local norms and a high smoking prevalence. Nevertheless, only 43 of the participants, or 16 percent, were precontemplators; that is, they reported that they had not given any serious thought to quitting smoking (17.3 percent of the high-risk smokers and 15.7 percent of low-risk smokers). Contemplators were defined as those who reported that they seriously thought about quitting before the intervention but had not quit for longer than 24 hours during the previous year. They constituted 105, or 39 percent, of the participants (42.0 percent of the high-risk smokers and 38.4 percent of low-risk smokers). The remaining 120 smokers, or 45 percent, had quit for more than 24 hours at some time during the previous year (40.7 percent of

high-risk smokers and 45.9 percent of low-risk smokers); that is, they had been short-term quitters and had relapsed recently. Clearly this intervention has attracted primarily the smokers who were thinking about quitting and were seeking help.

A third explanation for the workers' lack of participation relates to the history of their common health problem. Strong political pressure from the workers was necessary to create the bladder cancer screening program (Leviton et al., 1991). In the course of that struggle, some opponents told the chemical workers that they did not deserve a screening program because they contributed to their own problems by smoking. Many former workers still recall this altercation with anger and would resist participating for that reason.

NATURE OF MEDICAL ADVICE GIVEN The three physicians and the respiratory therapist had received brief training in the use of medical advice to quit smoking. All had seen a training videotape developed by investigators at Stanford University (Cummings et al., 1989a and 1989b). The tape presented examples of physician advice interventions, tailored to the needs of smokers who were at the precontemplation, contemplation, and action stages of quitting. All had access to a flowchart developed by the University of North Carolina's Faculty Development Program, which indicates how to tailor advice to the smoker's stage of change. (See Figure 1 in Chapter 3.) The nature of physician advice was kept deliberately simple. Each element and its role in the study are outlined here.

Personalizing Risks and Benefits The physician or respiratory therapist was informed in advance of each participant's risk status and readiness to quit smoking. The professional first gave a brief description of the effects of smoking on health and the benefits of quitting. If a participant was identified as a high-risk smoker, the professional added that smoking increased the risk for bladder cancer and that quitting smoking increased the chances of staying healthy.

Protocol

Comment One goal of the study was to examine whether advice by a medical professional causes smokers to reassess their own personal risk for health problems. For many years, it has been clear that knowledge alone is not sufficient to induce people to change their behavior (McGuire, 1985). Although smokers may understand in general the risks of smoking and benefits of quitting, they may not yet have come to believe that they run a personal health risk. In contrast to nonsmokers, smokers tend to underestimate the health risks of smoking and to discount their personal risk (Shiffman, 1987).

A medical professional's advice is likely to affect smokers by personalizing the health risks and benefits (Weinstein, 1988). When smokers quit, they often cite health concerns, and these are often precipitated by a specific circumstance, such as having an acute illness or knowing someone who has cancer (Shiffman, 1987). In a similar fashion, advice from a medical professional may constitute a precipitating event for the smoker.

Averting Dysfunctional Reactions The medical professionals were urged not to use scare tactics, to avoid any form of fear imagery, and to speak with participants in the same way that they would with their other patients. For higher risk smokers, all members of the project team checked for anxious or fearful reactions that could affect participants' ability to use the counseling that followed. The study coordinator was careful to ask about anxiety in a followup phone call within 48 hours. If individuals expressed anxiety, the study coordinator was to spend time with them to discuss the meaning of the information that the physician and counselor had given.

Protocol

Comment The high-risk smokers in the study are not similar to the kind of patient that may walk into any office practice. They are vulnerable to disease because of exposure to a potent chemical carcinogen. They may be especially likely to experience dysfunctional reactions as a result of receiving information about their risk. Each of the dysfunctional reactions could impede progress toward smoking cessation. A helpless reaction is especially likely if smokers perceive quitting as too difficult or if they take a fatalistic attitude toward their risk for disease (Peterson and Seligman, 1984). Also, smokers could avoid thinking about the risk information, as they have done when faced with other bad news about health (Folkman and Lazarus, 1980). Smokers do avoid information on the dangers of smoking (Brock and Balloun, 1967), and those who quit and then relapse into smoking discount their personal risk of health problems (Gibbons et al., 1991). Finally, some smokers may respond by coping with emotions rather than problem-solving or planning to eliminate the feared consequence (Leventhal, 1970). Such reactions may explain smokers' resistance to medical advice. To minimize such reactions, improvements in risk communication are needed.

Making Progress Toward Cessation If smokers were ready to quit, the medical professional set a quit date and indicated that the study coordinator would telephone the participant within 48 hours. If participants were not ready to set a quit date, the medical professionals nevertheless urged them to set a quit date when the study coordinator called in 48 hours.

Protocol

Finally, the medical professional checked for contraindications for nicotine gum and, if none were found, offered a prescription for the gum (under supervision of a physician), regardless of the participant's readiness to quit. Participants were told that they would see a counselor in a few minutes who would show them how to use the gum.

Comment As mentioned above, setting a quit date can move the smoker to the stage of action; other smokers are at the preceding stages. Research on the stages of change indicates that there may be a brief window of time in which a person is ready to make a change. If circumstances interfere, the opportunity passes. Moreover, we have no reason to expect that the opportunity will be available for all smokers at the time they receive medical or dental advice to quit. However, providing nicotine gum and other resources to help the smokers quit will help them to follow through, if and when the opportunity occurs.

Recommendations For Advice Medical and dental professionals should stress the benefits of quitting as well as the risks of smoking; it always helps to emphasize the positive. People interpret health risks in a positive or a negative way, depending on how the issue is framed (Fischhoff, 1988; Nisbett and Ross, 1980). The smoker's cup may be described as half full (you can prevent illness by quitting) or half empty (you run a risk of disease by smoking). The medical or dental professional can influence the way the patient interprets risk.

Professionals who provide advice to quit smoking need to distinguish between communication about risks and benefits and communication that arouses fear. The former is positive, because it provides information about a danger that can be avoided through smoking cessation. However, information about a danger may or may not induce the emotional reaction of fear.

The best means of avoiding negative reactions to medical advice is to provide concrete means to overcome or avoid the danger (Leventhal et al., 1980; Rogers and Mewborn, 1976). Giving the smoker increased skills to quit, and confidence to use those skills, will help greatly. Simply providing a prescription for nicotine gum, without a demonstration of its use, is less likely to impart needed skills. Simply referring a patient to counseling resources is even less likely to ensure that the patient will come to possess skills to quit smoking.

Personal contact and continued communication are often found to be essential when communicating with people about increased health risks (Leviton et al., 1991). Misconceptions can be corrected, and anxiety alleviated, through such contact. In the same way, a physician's or dentist's communication about the risks of smoking and benefits of quitting would ideally be followed by contact between the smoker and other staff, who could assess anxiety and alleviate it if needed.

NATURE OF COUNSELING INTERVENTION The counseling intervention consisted of three components: (1) instruction on the use of nicotine gum (if the participant was interested in the gum); (2) use of a self-efficacy intervention, an attention placebo, or no special counseling; and (3) directing participants' attention to self-help materials. After intervention, counselors left the room, permitting participants to independently select self-help materials; choice of these materials (as a behavioral measure of information-seeking) constitutes one of the dependent variables of the study.

Nicotine Gum Demonstration Protocol The counselor explained the use of nicotine gum and used ordinary chewing gum to demonstrate, because experience suggests that patients do not generally receive appropriate training in how to use the gum. Participants received a sheet of simple instructions and practiced, again with a piece of regular gum. The counselor reinforced each participant's mastery of using the gum and emphasized that, should the participants decide to quit, they now possessed an important resource to help the process.

Comment The nicotine gum constitutes a central feature of the intervention, in that it is a tool provided to smokers to assist them in avoiding the dangers of smoking and achieving the benefits of quitting outlined in the medical advice component. A prescription is provided even to those who may not be ready to quit, on the assumption that providing a tool for quitting will hasten the day when they may take action.

Self-Efficacy Counseling The second phase constituted the comparison of self-efficacy intervention, attention placebo, or no special counseling. Participants were randomly assigned to these three conditions, and counselors were blind to the condition to which participants were randomized, up to this point. The self-efficacy intervention and attention placebo occurred in the context of assessing participants' past experience in attempting to quit. These two conditions were identical in terms of counselor questions for the participant and differed only in that the self-efficacy counseling gave participants feedback about their ability to quit smoking.

Protocol

An outline of the self-efficacy counseling is given in Appendix D. Overall, the counselors asked questions about the participants' past experience in quitting and in other behavior changes. They reinforced coping strategies that participants had applied successfully. They reinforced other skills and abilities that could be transferred to the smoking cessation task. They pointed to barriers the participants mentioned, suggested other strategies the participants might use to overcome those barriers, and emphasized that participants had the ability to use those skills.

Participants were first asked about their most recent attempt to quit and then about their most successful attempt to quit. If the participants had never attempted to quit, they were asked about the last time they had simply coped with not smoking (when it was prohibited or a cigarette was not available). If they had not coped well, they were asked about attempts to change other behaviors related to health.

For each of these experiences, the counselors strongly emphasized the participants' success in refraining from smoking (or otherwise changing behavior). The counselors noted the strategies the participants had used at the time. They then asked participants to identify, in each experience, the barriers that prevented them from quitting for good.

Throughout, the counselors strongly reinforced the fact that participants possessed the coping skills and abilities they needed to quit smoking. These abilities were evidenced by their prior attempts to quit, previous health behavior changes, or experience in refraining from smoking.

Counselors summarized these experiences and reframed them as success experiences, indicating that the participants had the abilities required to quit. The counselors then summarized the barriers to quitting that smokers had identified as situations that would make it difficult to resist smoking. The counselor then turned to pamphlets that addressed those barriers (see below).

Comment Smokers may have reason to doubt their ability to quit when they are offered medical advice. The quitting situation may not be familiar, and self-efficacy is relatively low under these conditions (Bandura, 1977 and 1986). In addition, smokers may have tried to quit smoking in the past and perceive their relapse as a failure caused by lack of ability. Finally, a medical professional's information about the dangers of smoking may cause some fear or alarm. Emotional arousal contributes to doubts about self-efficacy (Maddux and Stanley, 1986).

Fortunately, self-efficacy perceptions can be changed. People can be persuaded that they have the ability to change health-related behaviors, and this does encourage them to change (Maddux and Rogers, 1983). People who provide models of effective behavior (all those smokers who needed several attempts to quit) can also instill greater self-efficacy and enhance behavior change (Bandura, 1990b; Gilchrist and Schinke, 1983). Personal experience of success also enhances self-efficacy, and skills training to maintain cessation increases the likelihood that personal efforts will meet with success (Maddux and Stanley, 1986). Reframing the prior attempts to quit as successes, rather than failures, will work as long as the smokers are directed to overcoming the barriers that caused them to relapse.

Self-Help Materials In the third phase, counselors directed participants' attention to self-help materials. Some of the self-help materials were of a general nature, including both American Lung Association and American Cancer Society self-help books. In addition, however, there were eight pamphlets that focused directly on the barriers participants were likely to identify: urges and temptations; withdrawal symptoms; stress; crisis situations; family members, friends, and coworkers who smoke; weight gain; social situations; and boredom.

Comment The pamphlets on barriers related directly to the situations that had prevented participants from quitting in the past. Participants' self-efficacy in quitting smoking should be directly enhanced by knowledge that skills are available to help them succeed (Maddux and Stanley, 1986). Taking and reading the relevant pamphlets can set the stage for further contemplation or for action to quit smoking.

Self-Efficacy Counsel Appendix E is a transcript from a self-efficacy counseling session, which is used to give practitioners a feeling for the types of information that smokers provide and the kinds of feedback that counselors give to reinforce self-efficacy. In practice, it is preceded by training in the use of nicotine gum and followed by access to self-help materials specifically focused on barriers to quitting that the patients identify. The transcript also affords a glimpse of the kinds of participants seen in this study.

Recommendations For Counseling In the context of medical advice, counseling by other staff can follow on the actual communication about health risks and benefits of quitting. When smokers doubt their ability to quit smoking,

they may not try. Yet their own experience provides the raw material for changing perceptions. Smokers tend to view relapses as failures, reflecting their inability to quit. Counseling can help them to view relapses as learning experiences, which can help them to refrain from smoking on their next try.

Letting smokers know that other people require more than one try at quitting helps to reinforce this message. Identifying the barriers to quitting helps smokers to take a problem-solving approach and points the way to skills they will require to succeed in quitting for good.

**WHAT DID
NOT WORK
AND WHY**

A major disappointment in this study was the failure to recruit a larger proportion of the smokers who were at increased risk of bladder cancer because of their smoking. It is notable that the screening coordinator, so trusted and liked by cohort members, simply could not get them to take part. A very large proportion of the cohort was likely to be smokers at the precontemplation stage of quitting. It is unlikely that they would be more favorable to advice to quit, even if they received the advice from their own physicians. Low education and the local norms in favor of smoking may offer explanations for their resistance to hearing medical advice.

We have observed this problem at an anecdotal level in two other worker cohorts: another group at risk of bladder cancer and a cohort exposed to asbestos. Both groups were blue-collar or low-income groups; both had been subject to accusations that they contributed to their health problems more by smoking than by their occupational exposure.

However, participation in smoking cessation among work-exposed groups does not have to be low. Li and colleagues screened 1,231 smokers who worked at a Navy shipyard and who had been exposed to asbestos (Li et al., 1984). Eighty-seven percent of the smokers agreed to participate in a minimal smoking intervention, and 84 percent of eligible candidates did take part. However, the investigators had secured a consent to participate at the time of the first medical screening, and the intervention took place 1 month later, at the time the smokers received their test results. It may be that the combination of events was sufficient to motivate a large percentage of smokers in this context. Clearly, the workers had an incentive both to find out all they could at the time of initial screening and to return for their test results and the smoking intervention. By contrast, in the examples studied by these authors, smoking cessation is provided as a later service, after a health surveillance program has been in place for some time and the workers have a fairly good idea of their state of health. The authors also conclude that recruitment of such workers into smoking cessation must be a major intermediate outcome and that careful planning and design are imperative to carry it out.

Generally, the training and supervision of the counselors was successful. The continued feedback on tape-recorded sessions was an important feature, however. The recruitment of participants occurred in fits and starts, and

therefore counselors did not have routine, consistent experience in delivering the self-efficacy intervention. The most common problem was that they occasionally missed key things that the participants said that provided opportunities to reinforce a feeling of self-efficacy. The authors suggest that supervision be continual, that monitoring of samples of counseling sessions be continued, and that feedback to counselors be given promptly.

WHAT WORKED AND WHY This study is at the preliminary stage of analysis. While some hypotheses may not be supported, a key finding is the quit rate of 22.7 percent at 1 year. However, experience in implementing the study leads the authors to suggest improvements for smoking interventions in medical and dental settings. First, health risks and benefits were communicated effectively, even for those patients who are at increased risk of bladder cancer because of conditions other than smoking. Enhancing self-efficacy is apparently a useful way to guard against misinterpretation of the advice and dysfunctional reactions to it. Only one high-risk smoker in this study displayed a negative emotional reaction to the information. The study coordinator worked with the subject in person and by telephone until she was satisfied that he correctly understood the risk and benefit information and was no longer acutely anxious about the role of smoking in his risk for contracting bladder cancer.

It might be argued that the precontemplators, who did not take part in great numbers, may well be anxious about the role of smoking in their risk for bladder cancer. For this reason, they avoided exposure to the information that the physician had to provide. It will be interesting to examine the interview responses of the precontemplators who did participate in the study, to find whether they were more anxious or fearful about the risk information than were other participants.

This study is pertinent to the issue of whether more extended counseling to quit smoking can feasibly be delegated to other staff members in the physician's office. The authors' experience indicates that it is feasible to train people to administer a self-efficacy intervention, even if they possess little prior counseling experience. Continuing supervision and training for this purpose is needed, however, as the quality of counseling was found to be uneven. The counseling protocol was adaptable to 14 work settings as well as the hospital setting. These are important conclusions, because availability of experienced counselors is likely to vary greatly among medical and dental practice settings.

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APPENDIX A
Smoking Materials for Pediatricians

American Cancer Society. *Special Delivery Smoke Free: Stop Smoking Book*.
American Cancer Society, 1988. 88-1C-No. 2422.01LE.

Strecher, V.J. *A Healthy Beginning: The Smoke-Free Family Guide for New Parents*.
American Lung Association and American Academy of Pediatrics, 1988.

Strecher, V.J., Rimer, B. *Freedom From Smoking for You and Your Family*.
American Lung Association, 1987.

APPENDIX B

Algorithms for Delivery of Smoking Cessation Advice

Part 1

Contents of initial advice—usual care patient

1. Provide information concerning the *risks* of continuing to smoke and benefits of cessation—smoking increases probability of recurrence, second primary cancers, delayed and compromised healing, more illness of other types.
2. Deliver strong advice to stop smoking or stay off cigarettes.

Part 2

Contents of initial advice—current smoker, experimental patient

1. Review smoking history.
2. Provide information concerning the risks of continuing to smoke and *benefits* of cessation—quitting decreases risk of recurrence, second primary cancers, more illnesses of other types, and promotes healing.
3. Identify patient's receptivity to smoking cessation.
4. Deliver strong advice to stop smoking.
5. State confidence in patient's ability to stop smoking.
6. Provide self-help booklets on stopping smoking and maintaining abstinence.
7. Provide booklet to spouse/other person providing care on social support for the patient stopping smoking.
8. Mention withdrawal symptoms and craving for cigarettes.
- 9 A. If [patient is] willing to quit, set target quit date and obtain patient's signature on smoking cessation contract.
- 9 B. If [patient is] unwilling to quit, suggest reduced consumption.
10. State continuing support and reassurance that you are available during followup visits to help patient in effort to stay off cigarettes.

Part 3

Contents of initial advice—former smoker, experimental patient

1. Review smoking history—quit date.
2. Provide information concerning the risks of continuing to smoke and *benefits* of cessation—quitting decreases risk of recurrence, second primary cancers, more illnesses of other types, and promotes healing.

3. State confidence in patient's ability to stay quit.
4. Provide self-help booklets on stopping smoking and maintaining abstinence.
5. Provide booklet to spouse/other person providing care on support for the patient in remaining abstinent.
6. Ask about problems—refer to booklets.
7. Obtain patient's signature on staying-quit contract.
8. State continuing support and reassurance that you are available during followup visits to help patient in effort to stay off cigarettes.

Part 4

**Booster session—experimental patients:
Problem-solving guide, abstainers and slippers**

1. How long has patient been off cigarettes?
2. Ask about problems—has patient slipped or is patient currently having any problems staying quit?
3. YES NO
What are their problems (debrief)? (Go to #4)
 - A. Withdrawal—discuss duration of symptoms and craving.
 - B. Mention abstinence violation effect (AVE): accepting slips as normal occurrence triggered by “high-risk” situation; explain that person feels like a failure after slip and gives up entirely (relapses) instead of continuing to cope; person expects cigarette to be a “reward.”
 - C. Discuss avoiding relapse situations/triggers.
4. State confidence in patient's ability to stay quit.
5. Remind patient to refer to booklets on staying quit and social support for questions regarding effective maintenance of abstinence.
6. State your continuing support and reassurance that you are available during followup visits to help patient in effort to stay off cigarettes.

Part 5

Booster session—experimental patients:

Problem-solving guide, new relapsers (since last visit)

1. How long was patient quit and when did he/she go back to smoking?
2. Review circumstances of relapse situation and acknowledge difficulty.
3. Determine patient's willingness to stop smoking again.

WILLING	UNWILLING
(Go to #6)	(Go to #4)
4. Ask patient to state reasons for unwillingness. Counter arguments.
Is patient willing to quit?

WILLING	UNWILLING
(Go to #6)	(Go to #5)
5. Discuss reducing consumption. (Go to #9)
6. Mention abstinence violation effect (AVE), accepting slips as normal occurrence triggered by "high-risk" situation; explain that person feels like a failure after slip and gives up entirely (relapses) instead of continuing to cope; person expects cigarette to be "reward."
7. Provide guidelines for effective cessation and long-term abstinence:
 - A. Refer to self-help booklets and social support booklet.
 - B. Discuss need for more intensive methods/aids such as referral to smoking cessation clinic or prescription for nicotine replacement pharmacotherapy. If requested, provide referral and/or Rx.
8. Obtain patient's commitment to stop smoking. Set new target quit date and sign new contract. Express confidence in patient's ability to stop smoking.
9. State your continuing support and reassurance that you are available during followup visits to help patient in effort to stop smoking cigarettes.

Part 6

Booster session—experimental patients:

Problem-solving guide, reduced-consumption and full-consumption smokers

1. Has patient cut down at all on smoking (number of cigarettes, tar and nicotine content of brand)?

YES (REDUCED CONSUMPTION)

NO (FULL CONSUMPTION)

(Go to #3)

2. Review techniques used by patient to reduce smoking.
3. Review benefits of quitting/risks of continuing to smoke.
4. Determine patient's willingness to stop smoking completely.

WILLING

UNWILLING

(Go to #7)

(Go to #5)

5. Ask patient to state reasons for unwillingness. Counter arguments.
Is patient willing to quit?

WILLING

UNWILLING

(Go to #7)

(Go to #6)

6. Suggest reduced consumption. (Go to #9)
7. Provide guidelines for effective quitting methods.
 - A. Refer patient to self-help and social support booklets.
 - B. Discuss need for more intense methods/aids such as referral to smoking cessation clinic or prescription for nicotine replacement pharmacotherapy. If requested, provide referral and/or Rx.
8. Obtain patient's commitment to stop smoking. Set new target quit date and sign new contract. Express confidence in patient's ability to quit.
9. State your continuing support and reassurance that you are available during followup visits to help patient in effort to stop smoking cigarettes.

APPENDIX C

Protocol Developed by University of North Carolina Faculty Development Program

1: Prescribing Nicotine Gum

RATIONALE: Nicotine gum supplies nicotine (the possible basis of addiction) without carbon monoxide or carcinogenic tars. Nicotine from gum is released slowly (if gum is chewed slowly) without sharp nicotine boli produced through cigarette smoking.

GUIDELINES FOR USE OF GUM:

- Quit smoking before using gum.
- Chew gum slowly (about one chew for every normal puff interval), keeping taste and tingle at minimal level.
- Use for craving, about 10 to 15 pieces per day.
- Taper from gum and stop using gum after 3 months (withdrawal from gum has been difficult for some patients).

2-4: Obstacles to Quitting

2. FEAR OF WEIGHT GAIN:

- Two-thirds of quitters gain weight; only one-third gain weight and keep a significant amount of weight.
- Weight gain can be prevented by a modest diet and exercise.
- Patient may crave sweets; warn about this.
- Compulsive eating may suggest nicotine withdrawal; patient may respond to nicotine gum.

3. FAILED IN PRIOR ATTEMPTS TO QUIT:

- Most successful quitters require several tries.
- Circumstances of relapse should be studied to prepare for next try.

4. NERVOUSNESS:

- May be a sign of nicotine withdrawal (see #1).
- Tranquilizers are not effective in breaking smoking habit.

RELAPSE

Indicate that most successful quitters required several tries; many people need to **LEARN HOW TO QUIT.**

Analyze relapse experience (“When and where did you smoke your cigarette?”). Have smoker develop strategy for coping with that experience.

Recycle smoker into new quit date and schedule followup.

APPENDIX D

Self-Efficacy Intervention

(preceded by nicotine gum demonstration)

1. Most folks are surprised to learn that it often takes three or more tries before a smoker finally quits for good. Have you tried to quit smoking?

IF NO, GO TO 1-C

IF YES, CONTINUE TO 1-A

- 1-A. Think about the most recent time you tried to quit smoking. How long were you able to stay off cigarettes this last time?

EMPHASIZE SUCCESS

What did you do when you had the urge to smoke but didn't?

RECORD EFFICACY INDICATORS ON LAST PAGE

AND

REINFORCE SELF-EFFICACY

What happened that got you started again?

RECORD BARRIERS ON LAST PAGE

- 1-B. Think about your most successful try at quitting smoking. How long were you able to stay off cigarettes that time?

EMPHASIZE SUCCESS

What did you do when you had the urge to smoke but didn't?

RECORD EFFICACY INDICATORS ON LAST PAGE

AND

REINFORCE SELF-EFFICACY

What happened that got you started again?

RECORD BARRIERS ON LAST PAGE

IF GOOD DATA ARE RETRIEVED, GO TO 1-D; IF NOT, CONTINUE

- 1-C. Think about a time when you really craved a cigarette, but decided not to have one. What happened?

RECORD EFFICACY INDICATORS ON LAST PAGE

AND

REINFORCE SELF-EFFICACY

Point out that they were successful in handling that craving . . . they have what it takes to control all desires to smoke.

- 1-D. Review and summarize all EFFICACY INDICATORS for the participant. Reiterate how useful/helpful those qualities/abilities will be when participant tries to quit (again).

1-E. Let's consider some of the things that might be holding you back from quitting now. If you were to quit smoking today, which of these situations would make it really hard for you to resist having a smoke?

CHECK OFF BARRIERS IDENTIFIED:

- urges/temptations
- withdrawal symptoms
- stress
- crisis situations
- family member/friend/coworker smokes
- weight gain
- social situations
- boredom, pass time

DIRECT PARTICIPANT TO PAMPHLETS.

APPENDIX E

Transcript From a Self-Efficacy Counseling Session

- Counselor:** Most people are surprised to learn that it often takes three times or more to finally quit smoking. Have you ever tried to quit?
- Patient:** When you say three times . . .
- Counselor:** You may have tried twice before, you know, not necessarily in this program—any time in your life. Have you ever tried to stop smoking?
- Patient:** Yeah, I tried “cold turkey,” and I think the very first time right after dinner, and I might have gone a couple of months. Oh, some crisis or something happened, you know, and, whizzzt.
- Counselor:** OK. So, in thinking about that first time you tried to quit, about how long did you stay off the cigarettes at that time?
- Patient:** I think I was off maybe 6 or 7 weeks, something like that.
- Counselor:** Oh, that’s very good.
- Patient:** But you know, like I told the doctor, the biggest thing I could do is to change my habits, because every time I get a cup of coffee I get a cigarette.
- Counselor:** So, what did you do when you had the urge to smoke, but didn’t at that time, during those 6 or 7 weeks?
- Patient:** Boy, I tell you, that’s 25 years ago.
- Counselor:** You say that’s 25 years? OK. You don’t remember what you did.
- Patient:** No, I didn’t smoke.
- Counselor:** There wasn’t anything you did instead?
- Patient:** No, I didn’t have anything like this or . . .
- Counselor:** OK, but you still were motivated, and you were coping with that craving at that point.
- Patient:** Yes, because I had smoked from the time I got out of high school, through the service and everything else.
- Counselor:** But for 6 or 7 weeks—that’s quite a while. You were doing something else, ignoring it or just using self-discipline.
- Patient:** Yeah, just using, probably more self-discipline than anything else.

- Counselor:** Well, you did it, you know, and habits, you know, that's what it is, a habit. As you said, you want to change that habit. You said there was just some sort of crisis that happened that caused you to start again.
- Patient:** Yeah, something probably, if I remember right it's when Jenny's mother fell and broke her leg, and we were running back and forth between the hospital, we had the young one, and one thing probably brought on another.
- Counselor:** All right. Think about your most successful try at quitting smoking. Was it only that one time that you had tried? Was that the most successful time?
- Patient:** Yeah, I said to myself many times "I'm going to quit now, stop for a day," or something like that . . .
- Counselor:** But the 6 to 7 weeks was the most successful time?
- Patient:** That's the most successful time.
- Counselor:** And again you just—something motivated you at that point—there was obviously something important enough in your mind that you were thinking that you wanted to quit smoking at that point.
- Patient:** Probably so, but like I say at this point in time I can't—
- Counselor:** Can't remember what it was? Well, perhaps you will be able to remember. So, you did the same thing, you don't really remember 25 years ago what you did when you had the urge to smoke. Now the last time when you tried to quit smoking—if you can remember—when you really craved a cigarette, but decided not to have one, what happened?
- Patient:** You mean like when I quit for a day or so?
- Counselor:** Even for a day, yes.
- Patient:** Oh . . ., most of the time it would just be getting a cracker or celery or something.
- Counselor:** So, you replaced it with something else? So, you realized that you needed to replace it with something else in order to make yourself more comfortable at that time when you were having that craving.
- Patient:** Right.
- Counselor:** That's good. Again, you have been successful, you tried about 6 or 7 weeks, and you've done it for a couple days—a day here, a day there?
- Patient:** Yeah, I was able to do that.

Counselor: So, it does prove that you can do it, if you really want.

Patient: I'm going to use the gum no matter what, anyway.

Counselor: OK, Dennis, we had talked before, it sometimes does take someone three or more times to quit smoking. That's because there's a lot of barriers when you want to quit. There's all kinds of situations, crises, things that just get in the way when you want to quit smoking. What are some of the things that you feel hold you back from quitting smoking? I mean, such as withdrawal symptoms; what are some of the things that hold you back the most? The hardest, toughest times for you to handle.

Patient: Well, like I say, in the morning I always, the first thing, I come down, I have coffee. It's just the idea that you just crave it, you want it, you know, and I think—or as you're saying, a crisis. You got to sit down and do something.

Counselor: Do you feel your stress might be related to that?

Patient: Yeah, sometimes stress would do it, you know, you're having an odd day, a bad day, something doesn't go right, you know, and you say, oh, the heck with it and go over here and have a cigarette. You can just as soon say in reality I'm going to go over here and have a glass of water, you know.

Counselor: You just kind of stop caring.

Patient: It's a crutch.

Counselor: Now remember what I said to you before, that a lot of situations and things can happen that lead us, that stop us from being able to give up smoking. Right over here I have all kinds of helpful information and I'd like you to look at them, help yourself, take as many as you like, anything that's especially helpful for you. Go ahead, help yourself, we have plenty more.

Patient: OK, no problem.

Counselor: This is the same booklet right here. But I really think it sounds to me like you've thought, put it together.

Patient: I guess I know what I want to do.

Counselor: I guess it's just going to take you to make up your mind.

Patient: Yes, make up my mind.

Counselor: Like all of us. I want to thank you, and go ahead help yourself to the brochures.

