Treatment Options for Smoking in the '90s

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Smoking remains the most important public health issue facing our nation. As clinicians, we will be challenged to help our patients stop smoking. A very simple, user-friendly model to accomplish this task is described.

C. Everett Koop, former Surgeon General, emphasized the importance of this issue when he said, "Cigarette smoking is the chief single avoidable cause of death in our society and the most important public health issue of our time." It is fitting that this conference is being held on inauguration day; a time of great hope and promise. It is also an opportunity for each of us to recommit ourselves to the goal that Surgeon General Koop set out to accomplish: to create a smoke-free society by the year 2000. There is much to do to achieve this goal.

It is important to review the success that has already been achieved. In 1964, the first Surgeon General's report on cigarette smoking was released. At that time, smoking was an incredibly common behavior practiced by all segments of society. Cigarette smoking was often equated with sophistication, sex appeal, and success. Hollywood glamorized smoking, and Americans took up the habit with gusto. It was an acceptable (and in some circles required) behavior, and the statistics reflected that phenomenon. In 1964, more than 40% of all adults smoked, including more than 50% of all adult men.[1]

Let us now review smoking behavior during this century so that we can appreciate all of our accomplishments, and the steps remaining to achieve a smoke-free environment by the year 2000.

At the turn of the century, smoking was a distinctly uncommon behavior; it first became popular around 1910 (Figure 1). This event coincided with the first machine-made production of cigarettes and the outbreak of World War I, exposing our first generation of young men to tobacco products on a wide-scale basis. The use of tobacco continued to increase, peaking in the 1940s during World War II. During WWII, cigarettes were made part of the meal rations for our soldiers. Each received three cigarettes with each meal, a practice that continued through the Korean War and in fact through part of the Vietnam War.

The release of the Surgeon General's report in the early 1960s began the slow decline of smoking in the United States. The overall rate of smoking has decreased from more than 40% of all adults in the early 1960s to approximately 25% of all adults in the United States today. If this trend continues, by the year 2000, the rate of smoking will decrease to approximately 20% of all adults. Smoking rates based on gender demonstrated that tobacco was predominately a male behavior in the 1960s. In concert with the women's movement, the tobacco industry began to target women at that time by presenting cigarettes as a behavior associated with beautiful, tall, and thin women. This advertising contributed to a whole generation of women in our country becoming addicted to tobacco. If the current trends continue, by the mid-1990s, the rate of smoking between the sexes will equalize and thereafter women will be smoking at a higher rate than men (Figure 2). In terms of racial difference, blacks have consistently smoked at a higher rate than whites, although the gap between the races is narrowing.

Finally, educational level has become the most important predictor of cigarette smoking, with the highest rates of smoking observed among the least educated members of our society. In contrast, college-educated members of our society tend not to smoke (Figure 3). As we move through the 1990s, cigarette smoking will increasingly be a behavior practiced by the most socially and demographically disadvantaged members of our society, including the least educated, the poor, minorities, and women. Therefore, programs need to target these groups to be most effective in helping people to quit.

In fact, although significant progress has been made, 45 million Americans continue to smoke. Moreover, because of population changes, approximately 42 million American smokers still will be smoking in the year 2000. And, all of them of course will be at risk of the health consequences of smoking.

A review of previous data indicates that cigarette smoking is the chief avoidable cause of illness and death in our society.[1] Today one out of every five

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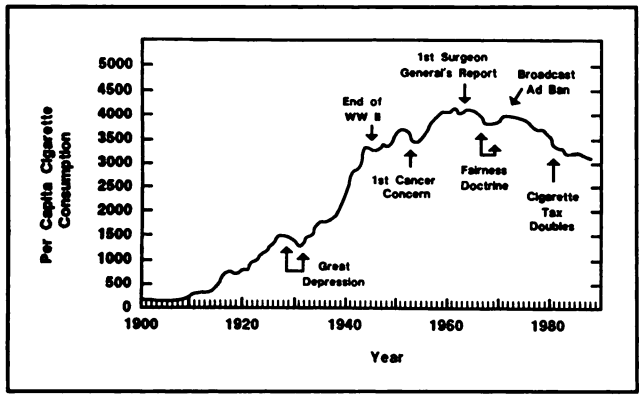

Figure 1. Adult per capita cigarette consumption related to major smoking policy events in the United States. (From US Department of Health and Human Services, Public Health Services, Centers for Disease Control: Smoking Control Policies. In Reducing the Health Consequences of Smoking: 25 Years of Progress. A Report of the Surgeon General. Rockville, MD, DHHS Publication No (CDC) 87-8411, 1989.)

deaths in the United States is caused directly by cigarette smoking. This translates into approximately 1200 Americans dying every day, including 30% of all heart disease deaths, 90% of all lung cancer victims, and approximately 90% of all chronic obstructive pulmonary disease deaths, all caused directly by cigarette smoking.

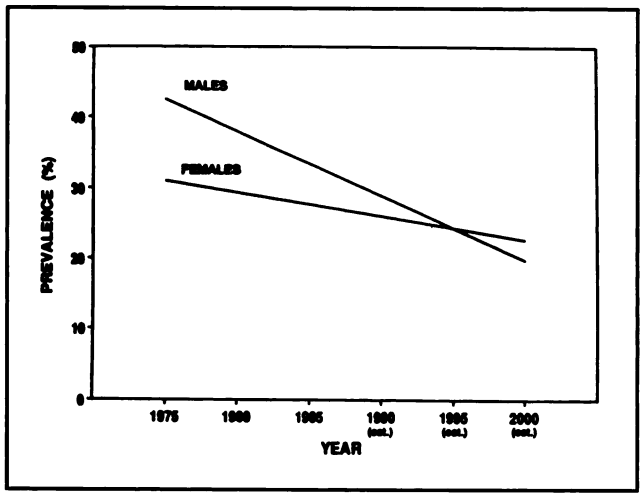

Figure 2. Trends in the prevalence of cigarette smoking for men and women aged 20 years and older, with projections to the year 2000, United States. (From Reducing the health consequences of smoking: 25 Years of Progress. A Report of the Surgeon General, 1989. Rockville, MD, US Department of Health and Human Services, Public Health Service, DHHS Publication no. [CDC] 89-8411, 1989.)

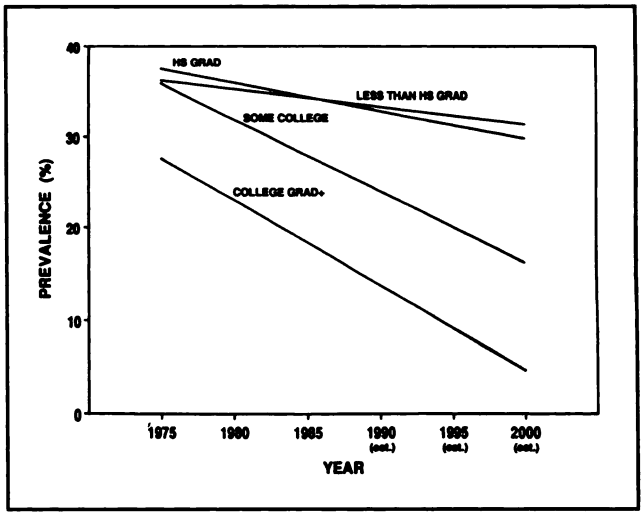

Figure 3. Trends in the prevalence of cigarette smoking by educational status among adults aged 20 and older, with projections to the year 2000, United States. (From Reducing the Health Consequences of Smoking: 25 Years of Progress. A Report of the Surgeon General, 1989. Rockville, MD, US Department of Health and Human Services, Public Health Service, DHHS publication no. [CDC]

A final point about the health impact is the clearly documented dose–response effect. The more an individual smokes, the greater their risk of illness and death. An important point, however, is that there is no safe threshold for cigarettes. Studies have demonstrated that smoking as few as one to five cigarettes per day results in a demonstrable increase in risk.

With these compelling health statistics, why would anyone in 1993 continue to smoke? Well, a convincing argument was made previously that people continue to smoke because cigarettes contain nicotine and nicotine is a highly addictive substance. In fact, cigarettes are as addictive as heroine or cocaine.

Tobacco addiction is a multi-faceted dependence including psychosocial and physiological aspects of the dependence. The fact that cigarette smoking is linked with a cup of coffee in the morning, or while reading the morning newspaper, or while driving the car are examples of the psychosocial dependence of smoking. Therefore, when physicians treat patients they must address both the psychosocial and physiologic components of tobacco dependence.

The recent release of the nicotine patch by the FDA provides a new and effective means to treat the physiologic aspects of tobacco dependence. Put simply, the nicotine patch provides a window of opportunity by blunting the physical withdrawal symptoms while the patient focuses on breaking the habitual and psychological aspects of the tobacco dependence. The patch is effective in modulating the physi-

TABLE

Synopsis for Physicians: How to Help Your Patients Stop Smoking

Ask about smoking at every opportunity
- a. "Do you smoke?"
- b. "How much?"
- c. "How soon after waking do you have your first cigarette?"
- d. "Are you interested in stopping smoking?"
- e. "Have you ever tried to stop before?" If so, "What happened?"

Advise all smokers to stop
- a. State your advice clearly, for example: "As your physician, I must advise you to stop smoking now."
- b. Personalize the message to quit. Refer to the patient's clinical condition, smoking history, family history, personal interests, or social roles.

Assist the patient in stopping
- a. Set a quit date. Help the patient pick a date within the next 4 weeks, acknowledging that no time is ideal.
- b. Provide self-help material. The smoking cessation coordinator or support staff member can review the material with patient if desired.
- c. Consider prescribing the nicotine patch, especially for highly addicted patients (those who smoke one pack a day or more or who smoke their first cigarette within 30 minutes of waking).
- d. Consider signing a stop-smoking contract with the patient.
- e. If the patient is not willing to quit now
  Provide motivating literature
  Ask again at the next visit.

Arrange followup visits
- a. Set a followup visit within 1–2 weeks after the quit date.
- b. Have a member of the office staff call or write the patient within 7 days after the initial visit, reinforcing the decision to stop and reminding the patient of the quit date.
- c. Set a record followup visit in 1–2 months. For patients who have relapsed, discuss the circumstances of the relapse and other special concerns.

ologic withdrawal syndrome, thereby increasing the likelihood that a smoker can successfully quit.

The National Cancer Institute (NCI) has developed a simple model for clinicians to assist their patients with smoking cessation[2] (Table I). This model helps to answer questions of clinicians who say, "I just do not have the time or the background to deal with smoking cessation." The National Cancer Institute claims that in only a 3-minute intervention, we can enormously impact our patients who smoke and assist them in breaking their tobacco addictions.

How does this model work? First, the advice of a physician is one of the most important predictions that the patient will make an attempt to quit. Also, smoking patients are a captive audience because more than 70% see a physician every year. They are captured in our office, poised for intervention.

Moreover, physicians and clinicians trained in simple smoking cessation techniques, such as the NCI program, result in higher rates of sustained cessation by their patients. In fact, there is more than a doubling of the success rate with physicians who have been trained. This program is built around four words: Ask, Advise, Assist, and Arrange.

The first step is to ask every patient if they smoke each and every clinical encounter. The disappointing news is that fewer than 50% of smoking patients, when exiting their physician's offices nationwide, report that they were never asked if they smoke. One simple way to identify all of our smoking patients is to make smoking status part of the vital signs. Currently, patients get their blood pressure and their pulse checked, usually by a medical assistant or a nurse, before we even see them. What we have done at the University of Wisconsin is to expand the vital signs to include smoking status. All progress note paper is pre-stamped with the vital signs, including whether they are a current, former, or never smoker. In this way, every patients' smoking history is clearly documented on each encounter.

This simple, zero-cost, institutional change can really impact the identification of smokers so that we can proceed to the next step, which is to advise all of our patients to stop smoking. We can no longer give a mixed message such as, "Joe, you need to think about cutting down." Rather, we need to say, "Joe, as your physician, I am going to tell you that you have got to quit smoking and I am here to give you some advice on how to do it successfully." The advice should be personalized. It is very helpful, for example, to tie it to the patient's work setting, or if they have children, with the increasing concern about environmental tobacco smoke. Most of all, tie it to their presenting clinical condition, because in most cases, the illness will be related to cigarette smoking. In summary, personalize the advice message and make it clear and unequivocal. The next step is to assist our patients in quitting.

The assistance takes three forms: first, set a quit date. Data have shown that approximately 70% of patients say they want to quit and should be viewed as "contemplators." The goal is to move this segment of smokers who are thinking about quitting into taking action. The most effective means of taking action is by setting a quit date. Although it is appealing to say to your patient, "O.K., you have quit, let's pull out your pack of cigarettes and throw them into our garbage can here in the office," this probably is not

the most effective way to do it. A greater success rate will be achieved if the patient takes a couple of days to prepare for their quit date. We recommend a quit date be from a couple of days to no more than a couple of weeks into the future. During this period, the patient is to spend time preparing for quitting using self-help materials, and to get their family members and co-workers on board to help them succeed. One strategy to consider is to set a quit date on the patient's garbage day. The night before, they can put all of the cigarette paraphernalia, the ashtrays, matches, and cigarettes, and ceremoniously put them in the garbage.

The second component of the assistance is to provide self-help materials. In a 3-minute intervention, one cannot review all of the patient's concerns: how to deal with urges, what about weight gain, what do I do if I have a relapse? There are wonderful, powerful, reader-level and culturally specific materials available today. Every physician should obtain these materials from The American Cancer Society, The American Lung Association, or The National Cancer Institute and have them readily available. In this way, a quit date is made with the patient and you can provide them with the materials right in your office. Additionally, for patients starting on the patch, it may be helpful to provide them with the starter kits provided by the four patch manufacturers.

So let us review the three components of assisting the patient. The first is to set a quit date, the second is to provide self-help materials, and the third is to consider prescribing nicotine replacement. Because most smokers are physiologically addicted to nicotine, to maximize the likelihood of success, physicians must consider the use of nicotine replacement as part of a complete smoking cessation program. In 1993, I recommend the patch as the first-line nicotine replacement therapy. The patch is easy to use and results in greater compliance than nicotine gum.

Although the patch is the best nicotine replacement product available in 1993, a key issue is patient selection. At the University of Wisconsin, a very simple three-question assessment has been developed. There is one absolute requirement: the patient must be motivated to quit. If he or she is, and they answer yes to any one of the three questions, we prescribe the patch as part of a comprehensive program. The three questions are: first, if they smoke 20 or more cigarettes per day; second, do they report that they smoke their first cigarette within one half hour of awakening (suggesting that during the night, blood nicotine level had fallen and they awaken in nicotine withdrawal); and finally, if on previous quit attempts they experienced strong physiologic withdrawal symptoms during the first few days after stopping. This simple three-question clinical assessment can be used to identify patients who will probably benefit from the patch.

The fourth "A" of the NCI program is to arrange follow-up visits. Dr. Jack Henningfield indicated that 50% of smokers who relapse do so within the first week after quitting. Therefore, follow-up visits should be scheduled within the first 1 to 2 weeks after quitting. A follow-up visit only needs to last 5 to 10 minutes to evaluate where the patient is and if they have succeeded and to reinforce this success. If they are relapsing, an assessment of the circumstances of the relapse is helpful as well as advice on how to restart the program. Follow-up is the key component of helping our patients to successfully quit. Recent data have shown that telephone follow-up is also very effective. Follow-up does not need to be completed by a physician but can be done by one of the nurses or even a well-trained medical assistant. Follow-up visits can more than double your sustained success rate, so incorporate them into your cessation program.

In essence, we have described a 3-minute intervention that includes:

Asking every patient about their smoking history at every clinic visit
Advising smokers to quit
Assisting smokers by setting a quit date, providing self-help materials, and evaluating them for nicotine replacement
Arranging a follow-up visit

Why is intervention with our smoking patients necessary? Approximately 80 to 90% of smokers want to quit, and many have already tried and have failed. Therefore, we face a highly motivated population with limited previous success now turning to their clinicians for assistance.

There is no evidence that people who are using the patches are having a higher incidence of acute coronary vascular events. There has been a tremendous amount of misinformation about the risk of myocardial infarctions. We need to stress to our patients that the most important thing they can do to protect themselves from heart attacks and strokes is to quit smoking. It is highly unlikely that they will have an adverse event by using the patch.

A study from Nebraska in press identified more than 200 individuals with documented coronary artery disease based on angiograms. They placed these individuals on either nicotine and placebo patches as part of a quit smoking program. They found no increase incidence of anginal attacks or major atherosclerotic events among these high-risk patients.

Side effects of the patch are primarily local skin reactions. Approximately one third of the patients will get a local erythematous, sometimes pruritic skin reaction. In rare instances, individuals stop using the patch. A simple treatment is over-the-counter 1% hydrocortisone cream, three times a day for 3 days at the patch site.

Lastly, there are important issues about dose and length of therapy. If you look at the four currently available patches, each of them provide different recommendations. In an article we recently published in *JAMA*,[3] we recommended that most patients begin with a 6- to 8-week course of patch therapy. I think we need more data to determine what is optimal in terms of the length of therapy and dose.

In my opinion, current research supports the idea that the most effective intervention for our patients who smoke includes counseling and nicotine replacement. A psychology degree is not required to do effective smoking cessation counseling; just as with patients with other chronic diseases such as diabetes or hypertension or hyperlipidemia, we need to become comfortable providing simple advice about how to quit smoking successfully. Counseling is probably maximized when it is paired with nicotine replacement therapy, and, in my opinion, the patch is the most effective nicotine replacement therapy available in 1993.

I urge clinicians to view cigarette smoking for what it is: a chronic disease. It is not an acute upper respiratory tract infection in which a couple days of penicillin will wipe it out. Rather, it is a chronic disease, with periods of remission and, for many patients, periods of relapse. Just as we would not expect our hypertensive or hyperlipidemic patients to automatically become cured after one visit, we need to have a similar mind set for our patients who smoke. We need to stand by them, work with them, try different strategies, and hang in there with them so that they can achieve their goal, which is to successfully quit smoking.

Regarding the prevention of tobacco use, since the early 1980s, there has been virtually no progress in decreasing the rate of smoking initiation among young people. Although 1.3 million Americans quit smoking each year, they are being replaced by 1 million young people: three thousand adolescents who start to smoke every day. It is not surprising given a 4 billion dollar tobacco industry advertising campaign that presents smoking as an athletic, successful, macho, and sexy behavior. As clinicians and community leaders, we must take a clear and unequivocal role to eliminate this problem. We have the power of moral persuasion in our communities, and we need to be leaders in advocacy activities such as decreasing second-hand smoke exposure through smoke-free ordinances and increasing cigarette excise taxes, because by increasing the taxes, consumption declines. We need to protect our children by banning vending machines, outlawing sales to children, and strengthening clean indoor air laws. We have a responsibility both to our patients on an individual basis, and to society to help eliminate this public health problem.

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