

# Smoking Recognition by Family Physicians

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Family physicians have an essential, unique, and vital role to play in preventive health care. However, the actual practice of and emphasis upon preventive medicine varies widely. Cigarette smoking is the leading preventable cause of illness and high medical costs in the United States today. This study examined the recognition of smoking patients by family physicians. The results show that physicians fail to recognize large numbers of their patients who smoke and that physician behavior is disease oriented rather than preventive. A modest educational program was very successful in improving physician awareness and recognition of smoking patients. This study suggests that family physicians can and need to become better prevention specialists and they must document the smoking habits of all their patients before attempting to counsel or intervene with smoking cessation programs.

Cigarette smoking is the single most important preventable cause of illness, disability, and death in the United States today.<sup>1</sup> Cigarette produced illnesses result in more than 350,000 deaths annually and directly generate \$5 to \$8 billion in excess health care costs.<sup>2</sup>

The concern for preventive health care is one of the fundamental premises of family practice,<sup>3</sup> but many family physicians are more committed to the concept than to the actual practice of preventive medicine. Blum<sup>4</sup> and others have exhorted family physicians to become more effective prevention specialists through active and direct participation with personalized and well-informed discussions with patients about the dangers of smoking and the benefits of not smoking.

Previous studies have attempted to measure the effectiveness of physician advice and counseling in smoking cessation programs.<sup>5,6</sup> These studies appear to have tacitly assumed that physicians

routinely recognize and document the smoking habits of their patients and have an intimate knowledge of their patients' specific health risks. This study was designed to evaluate this assumption by examining the recognition of smoking patients by family physicians.

## Methods

The information for this study was obtained from more than 700 charts of active patients in the family medicine center at the University of Colorado, Denver. All 22 family practice residents and ten faculty members were included in this two-part study, which was initiated in the fall of 1979. The charts of 187 patients who had been seen at the A.F. Williams Family Medicine Center within the previous year were randomly selected and reviewed by the authors. In reverse alphabetical order, every third consecutive patient chart was removed for review. The charts of children aged one to ten years were excluded from analysis in the study design. From each chart, the patient's name, age, sex, smoking status, diagnosis, and family physician were recorded. From the information on the chart health history questionnaire, each pa-

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Table 1. Study Populations by Age, Sex, and Smoking Status

Age Group	1979			1980		
	Smoker F/M*	Nonsmoker F/M*	Unknown F/M*	Smoker F/M*	Nonsmoker F/M*	Unknown F/M*
11-20	11/7	14/15	17/21	13/5	9/10	6/24
21-30	41/38	40/33	44/38	42/37	44/23	45/44
31-40	25/29	24/24	14/22	23/26	25/29	15/4
41-50	12/7	6/7	8/7	10/11	3/0	9/12
51-60	7/8	7/11	6/10	8/11	6/15	9/0
61-70	3/7	4/4	5/0	2/5	8/5	3/12
71+	1/4	5/6	6/2	2/5	5/18	12/4
<b>Total</b>	100/100	100/100	100/100	100/100	100/100	100/100

\*Percent female/percent male

Table 2. Summary and Comparison of the Smoking Studies

	1979		1980
	Percent (Number)		Percent (Number)
Smokers	36 (67/187)		40 (202/505)
Nonsmokers	33 (62/187)		39 (197/505)
Smoking status unknown	31 (58/187)		21 (106/505)
Smokers recognized	18 (12/67)	P<0.001	51 (103/202)
Males	26 (5/19)		49 (42/85)
Females	15 (7/48)		54 (63/117)
Smokers recognized by residents			
Class of 1980	17 (4/23)		34 (10/29)
Class of 1981	27 (3/11)		43 (29/68)
Class of 1982			59 (43/71)
Smokers recognized by faculty	43 (3/7)		62 (21/34)
Smokers recognized with associated diagnoses		P<0.05	56 (76/136)
without associated diagnoses			41 (27/66)

tient was categorized as a smoker, nonsmoker, or smoking status unknown. For each smoker, the amount smoked and whether the smoking habit was recognized by the physician was also determined. For the purposes of this study, a smoking patient was considered recognized by his or her family physician if any reference was made to smoking in the progress notes and/or if smoking was listed on the temporary or permanent problem list in the front of the patient's chart. Those smoking patients without any of the aforementioned features were considered unrecognized by their physicians.

With the results of the initial study, an educational program was presented to all of the residents and faculty. This program consisted of two consecutive one-hour noon conferences presented by one of the authors. The conferences included presentation of the initial study results, discussion of the health consequences of smoking, and physician attitudes toward smoking patients and prevention. Following the educational conferences, antismoking and smoking cessation literature was placed throughout the family medicine center and made available to both patients and physicians.

One year after the initial study and educational

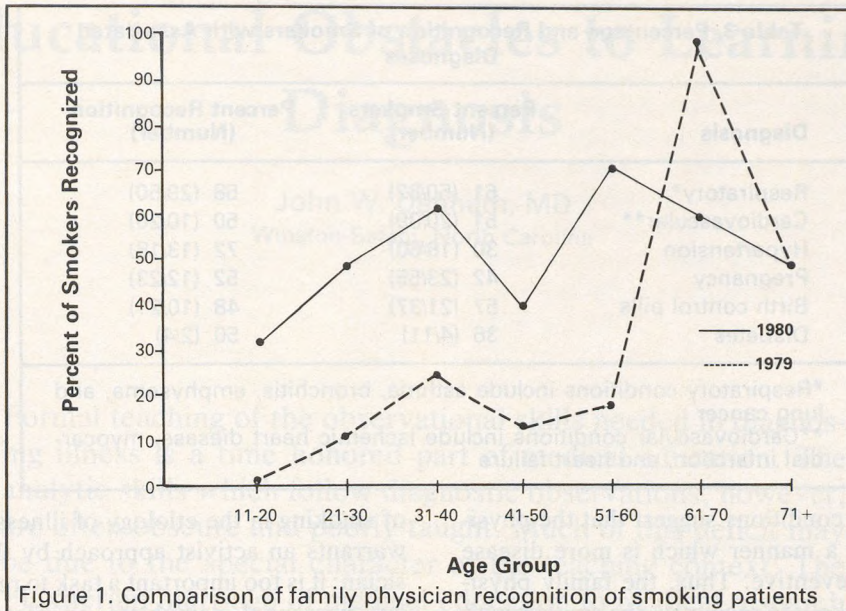


Figure 1. Comparison of family physician recognition of smoking patients

program, a larger follow-up study was done. A total of 505 charts of active patients were randomly selected and reviewed to validate the findings of the initial study and also to determine the possible effectiveness of the educational program in altering physician behavior. Effectiveness was measured by the changing recognition rate of smoking patients by the family physicians.

## Results

Table 1 is a comparison of the demographic features of the study populations by age, sex, and smoking status. There was a predominance of women and younger patients in both studies and a similar age and sex distribution for each smoking classification.

Table 2 summarizes the statistical data from both smoking audits. The percentage of smokers and nonsmokers was comparable in the two studies conducted one year apart. There was a large number of patients (31 percent in 1979 and 21 percent in 1980) whose smoking status could not be determined from the information available on the health history questionnaire or in the remainder of the chart.

Although the initial smoking recognition rate by the family physicians was very low (18 percent), there was a dramatic and statistically significant improvement in the follow-up study (51 percent). Table 2 shows an increase in the recognition rate by all classes of the residents as well as the fac-

ulty, who achieved the highest recognition rates (62 percent).

Figure 1 illustrates that the increase in physician awareness and recognition of smoking patients from 1979 to 1980 was quite dramatic and most impressive for the younger age groups.

Table 2 also demonstrates higher recognition rates for smokers with underlying medical conditions which are known to predispose them to higher morbidity and mortality. These associated diagnoses included respiratory and cardiovascular conditions as well as hypertension, diabetes, pregnancy, and use of birth control pills.

Table 3 displays the percentage of smokers and physician recognition for patients with these associated diagnoses. More than one half of the study population with respiratory and cardiovascular conditions were smokers, as were the women using birth control pills. The fact that the physicians failed to even recognize one half of the female smokers who were pregnant or using birth control pills was cause for great concern.

## Discussion

Previous studies have demonstrated the failure of physicians to routinely counsel and advise their smoking patients.<sup>7,8</sup> Despite the marked improvement from 1979 to 1980, the study suggests that family physicians fail to even recognize, much less counsel, large numbers of their patients who smoke. The higher recognition rates for smokers

**Table 3. Percentage and Recognition of Smokers with Associated Diagnoses**

Diagnosis	Percent Smokers (Number)	Percent Recognition (Number)
Respiratory*	61 (50/82)	58 (29/50)
Cardiovascular**	51 (20/39)	50 (10/20)
Hypertension	30 (18/60)	72 (13/18)
Pregnancy	42 (23/55)	52 (12/23)
Birth control pills	57 (21/37)	48 (10/21)
Diabetes	36 (4/11)	50 (2/4)

\*Respiratory conditions include asthma, bronchitis, emphysema, and lung cancer  
 \*\*Cardiovascular conditions include ischemic heart disease, myocardial infarction, and heart failure

with underlying conditions suggest that the physicians behave in a manner which is more disease oriented than preventive. Thus, the family physician was more likely to recognize the smoker with symptoms or disease caused by his smoking.

The results of this study do not explain why the smoker recognition rate was so low. It is possible that chart documentation of physician recognition is invalid and that the family physician may recognize and even counsel patients who smoke without mentioning it anywhere in the chart or recording it on the problem list. However, discussions with the residents and faculty suggest otherwise and seem to support the validity of the findings.

Counseling patients to either stop or not to start smoking can be difficult and time consuming, and it has no guarantee of success. Pincherle found variation in success rates of 17 to 35 percent among physicians giving advice against smoking to their patients.<sup>9</sup>

A recent Gallup survey showed that 75 percent of all current smokers would like to quit and 70 percent of all heavy smokers say they would try to stop if their physician urged them to.<sup>10</sup> Russel et al examined the impact of physician advice to smokers during routine office visits and found that nearly 20 percent of the group given both advice and a pamphlet had stopped smoking at the end of one year compared to 10 percent of the control group.<sup>11</sup>

The dramatic results of this study's modest education program suggest that family physicians can and need to do much more to become better prevention specialists. The overriding importance

of smoking in the etiology of illness and disability warrants an activist approach by the family physician; it is too important a task to relegate to ancillary personnel, pamphlets, or referral clinics.<sup>12</sup>

The failure to recognize patients who smoke precludes any attempt to counsel or intervene with smoking cessation programs. Family physicians need to explicitly determine and document the smoking habits of all their patients before they can begin to help curb this single most important and preventable cause of illness, disability, death, and high medical costs.

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