

# Labeling Smokers' Charts with a "Smoker" Sticker

## Results of a Randomized Controlled Trial Among Private Practitioners

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**We randomly assigned private practitioners ( $n = 393$ ) to receiving, by mail, a box of "Smoker" stickers and a recommendation to label smokers' charts with these stickers, or to no intervention. Twenty percent of the physicians reported using the stickers and applying them on 43% of their smoking patients' charts. The intervention had no impact on physician reports of the proportion of smokers advised to quit smoking, but physicians who reported using the stickers stated that they advised more smokers to quit after the intervention (89%) than before (80%,  $P = .02$ ). Thus, self-reports by physicians indicated that use of the stickers was associated with an increased proportion of smokers advised to quit. However, overall, the intervention did not modify physicians' behavior.**

**KEY WORDS:** smoking, prevention and control; delivery of health care; counseling; physicians' practice patterns; randomized controlled trials.

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Physician counseling against smoking is both effective<sup>1-3</sup> and cost-effective in terms of years of life saved.<sup>4</sup> However, many patients who smoke do not receive advice to stop smoking from their physician.<sup>5-9</sup>

Labeling the smokers' charts with a sticker is a simple and inexpensive intervention that can increase the proportion of smokers who receive smoking cessation advice during the medical visit, as well as smoking cessation rates.<sup>10,11</sup> Previous studies of this strategy were implemented in teaching hospitals and university-based clinics,<sup>10-13</sup> or combined this intervention with physician training.<sup>3,14-16</sup> Thus the acceptability and effectiveness of mailing "Smoker" stickers to private practitioners, with a recommendation to label their smoking patients' charts, but without further education, remains untested. We conducted a randomized trial to test this intervention.

### METHODS

A baseline questionnaire covering the frequency of smoking counseling activities was sent in 1997 to all ( $n =$

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929) private practitioners in Geneva, Switzerland, excluding pediatricians and psychiatrists. The 542 physicians (58%) who returned the questionnaire were randomly assigned to receiving the intervention ( $n = 272$ ) or not ( $n = 270$ ). Intervention materials were mailed in April 1998. The follow-up questionnaire was mailed to baseline participants 1 month later. Further analyses include the 393 participants who returned the follow-up questionnaire (73% of baseline participants and 42% of the intended sample).

### Intervention

Physicians in the intervention group received a box containing 500 "Smoker" stickers (diameter, 22 mm) and a letter presenting arguments in favor of systematically labeling the smokers' charts and counseling smokers.<sup>2,10,11</sup> The box also contained a form to order smoking prevention materials and to register for a workshop on smoking counseling (the workshop took place after the follow-up survey).

### RESULTS

Participating physicians were on average 51 years old, 78% were men, 29% were general practitioners and 71% were specialists, 11% were daily smokers, 16% were occasional smokers and 73% were nonsmokers.

Most (82%) of the participants in the intervention group acknowledged receipt of the stickers, and 20% reported using the stickers. When they used the stickers, physicians reported applying them on average to 43% of their smoking patients' charts (median, 29%; SD, 39%).

Reasons for not using the stickers were that physicians judged it unacceptable to label the smokers' charts this way (27% of physicians), that they were not accustomed to using stickers (22%), and that the stickers were considered useless (14%). Answers to an open-ended question ( $n = 51$ ) indicated that some physicians had already recorded patients' smoking status on the charts (25 comments), and that others were reluctant to label smokers' charts (10 comments, such as "Anti-smoker racism," or "It alters the relationship with the patient").

Overall, physicians did not change their reported smoking prevention activities between baseline and follow-up surveys. However, physicians in the intervention group who reported using the stickers also stated that they advised more smokers to quit after the intervention (89%) than before the intervention (80%,  $P = .02$ ) (Table 1).

In the intervention group, the reported proportion of smokers' charts on which the smoking status was written in an "immediately visible way" decreased by 14%, but re-

mained unchanged in the control group (between-group difference,  $P = .001$ ). This decrease occurred only among physicians in the intervention group who said that they did not use the stickers (Table 1).

In a retrospective assessment made in the follow-up survey, the proportion of physicians who reported advising more of their smoking patients to quit smoking than at baseline was similar in the 2 study groups (Table 2).

Self-reported use of the stickers was not associated with specialist/generalist status, or with age or gender. Physicians who smoked reported using the stickers less often than nonsmokers, but the difference was not statistically significant (15% vs 30%,  $P = .14$ ).

## DISCUSSION

Only a minority of private practitioners who received by mail an unsolicited box containing "Smoker" stickers reported using these stickers. Overall, the intervention had no impact on smoking prevention activities as reported by physicians. However, physicians who reported using the stickers also reported a 9% increase in the proportion of smokers whom they advised to quit smoking, between baseline and follow-up. This result is congruent with published data on the effectiveness of sticking a label on smokers' charts,<sup>10,11</sup> but the observational nature of this result does not enable us to conclude that it was caused by the intervention.

Reasons for not using the stickers were that the smoking status was already written in the chart and that

this way of labeling the charts was judged unacceptable or useless. More discreet ways of indicating smoking status on the chart may be more acceptable.

Several explanations can be given for the absence of impact of this intervention. First, only a minority of physicians reported using the stickers, and we could not expect any change among physicians who did not. In previous studies of the effectiveness of flagging the smokers' charts, research assistants systematically affixed stickers, and physicians received training on smoking cessation.<sup>10,11</sup> The intervention tested in this study was less intensive but closer to a real-life situation. Recruiting large numbers of private practitioners in workshops is not realistic, as only 4 (1.5%) of 272 physicians in our study participated in the workshop. Similarly, few Australian physicians (4.5%) accepted an invitation to a smoking-counseling workshop.<sup>17</sup>

Second, any impact of the intervention would have been difficult to detect because the self-reported frequency of smoking counseling was probably overestimated at baseline. Direct observation shows that only 32% to 54% of smokers are identified by physicians,<sup>5,6</sup> much less than the self-reported figures in our study. Further studies of prevention activities performed by physicians should probably rely more on direct observation than on self-reports.

Selection bias may also explain the high frequency of smoking prevention activities reported in this study, if respondents to the survey were more involved in smoking prevention than nonrespondents.

**Table 1. Change in Smoking Prevention Activities Self-Reported by Physicians Who Received "Smoker" Stickers and Used Them to Label Their Patients' Charts, and in Physicians Who Received the Stickers but Did Not Use Them**

Physician Self-reported Activity	Used the Stickers			Did Not Use the Stickers			Between-Group Difference P Value
	Baseline	Follow-up	P Value on Change	Baseline	Follow-up	P Value on Change	
Proportion of patients asked whether they smoked	86.2	83.3	.36	78.1	80.3	.29	.22
Proportion of smokers' charts on which the smoking status was written in an immediately visible way	62.2	60.5	.89	61.4	38.7	<.001	.03
Proportion of smokers advised to quit smoking	79.7	88.5	.02	72.8	71.1	.51	.07
Among smokers who were ready to attempt to quit, proportion that were given							
Nicotine replacement prescription (e.g., patch)	22.0	21.1	.83	18.1	21.4	.45	.55
Recommendation to visit a specialist in smoking cessation	26.2	26.4	.80	19.3	14.4	.06	.24
Complete support for smoking cessation	25.0	14.1	.10	24.6	22.1	.67	.24
Brochure on how to quit	—	24.8	—	—	17.0	—	.23
Compared with March 1998, do you advise now more smokers to quit?, % answering yes	—	21.1	—	—	11.9	—	.17
Decided to give more smoking cessation advice from now on, %	—	48.6	—	—	28.4	—	.06

**Table 2. Impact of Mailing a Box of "Smoker" Stickers to Physicians on the Self-reported Smoking Prevention Activities Performed by Private Practice Practitioners**

Physician Self-reported Activity	Intervention Group			Control Group			Between-Group Difference P Value
	Baseline	Follow-up	P Value on Change	Baseline	Follow-up	P Value on Change	
Proportion of patients asked whether they smoked	79.6	80.9	.44	76.8	74.5	.15	.12
Proportion of smokers' charts on which the smoking status was written in an immediately visible way	58.4	44.4	<.001	61.4	65.6	.45	.001
Proportion of smokers advised to quit smoking	73.6	72.6	.49	72.7	72.8	.80	.76
Among smokers who were ready to attempt to quit, proportion that were given							
Nicotine replacement prescription (e.g., patch)	22.1	24.0	.64	19.6	24.9	.052	.30
Recommendation to visit a specialist in smoking cessation	18.7	16.7	.21	18.2	17.9	.61	.57
Complete support for smoking cessation	26.5	19.6	.051	24.8	24.3	.40	.42
Brochure on how to quit	—	21.3	—	—	15.8	—	.12
Compared with March 1998, do you advise now more smokers to quit?, % answering yes	—	12.9	—	—	13.0	—	.92
Decided to give more smoking cessation advice from now on, %	—	29.6	—	—	27.5	—	.92

Our response rate was near the average of 54% observed in mail surveys of physicians,<sup>18</sup> but we have no reason to believe that the intervention would be more effective among nonrespondents. Further telephone interviews could have improved participation.

Physicians in the intervention group who did not use the stickers reported a decrease in the labeling of their smoking patients' charts. The most convincing explanation for this result is that at follow-up, these physicians understood that the question concerned their use of the stickers, whereas at baseline, they understood that it concerned any labeling of the charts.

Even though our disappointing results may not apply to other countries, we believe that simply making stickers available will not improve smoking cessation counseling in doctors' offices. Further research should strive for a better compromise between feasibility and intensity of interventions aimed at changing physician behavior.<sup>19</sup>

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