BRIEF REPORT

Dissemination of Information About the US Preventive Service Task Force Guidelines

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We assessed the familiarity of family physicians with the US Preventive Service Task Force guidelines and targeted groups for interventions to increase the practice of recommended preventive services. A national random sample of 480 family physicians were mailed a survey consisting of demographic items and a question regarding their level of exposure to the guidelines. The association of demographic factors with the level of exposure was assessed. Of the 263 responding physicians, 37% reported that they had not read any of the recommendations. Physicians who had read at least some of the recommendations were younger, more recently graduated from medical school, less likely to be in solo practice, more likely to be residency trained, and more likely to be white. Only year of graduation and race remained significantly associated with exposure to the guidelines in a logistic regression model. Additional dissemination efforts should focus on solo practitioners, less recent graduates, and nonwhite physicians. *(Arch Fam Med. 1994;3:1006-1008)*

Recent concerns about the quality of care and the appropriateness of specific clinical procedures have led to the development of many practice guidelines.[1-4] Among the guidelines for clinical preventive services, the evidence-based report of the US Preventive Services Task Force (USPSTF)[5] is rapidly becoming a consensus practice recommendation.[6]

Guidelines do little good if they do not reach the clinicians who are intended to implement them. Given the time and cost invested in the development of recent guidelines for clinical prevention, it is important to focus attention on the dissemination of the information to family physicians, who are uniquely situated to provide clinical preventive services to a large number of patients. Understanding the pattern of dissemination of the USPSTF recommendations is particularly timely, since revised recommendations are scheduled for release late in 1994.

The original USPSTF report was published as a book in 1989. Five thousand prepublication copies were distributed, and approximately 50 000 copies of the report have been sold by the publisher (Dan Donahue, oral communication, July 14, 1994). In addition, for 18 months following the publication of the guidelines, serialized articles were published in the journal *American Family Physician*, with a reference to the USPSTF next to the title and in the Table of Contents. All members of the American Academy of Family Physicians (AAFP), Kansas City, Mo, receive this journal. Task force recommendations were also disseminated through articles published in *JAMA* in 1988 and 1989.

The current study assesses the level of exposure to the USPSTF guidelines among family physicians and addresses strategies for targeting groups for interventions to increase familiarity with the guidelines.

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METHODS

In the fourth quarter of 1992, a survey and two follow-up mailings were sent to a national random sample of 480 practicing family physician members of the AAFP.

The survey consisted of demographic items and a question with four response categories regarding their level of experience with the USPSTF guidelines. The association of the level of exposure to the guidelines with each of the demographic items was tested by use of the Mantel-Haenszel test of linear association for categorical variables and analysis of variance for continuous variables. The independent contribution of each univariately significant variable was tested using logistic regression. For the logistic regression modeling, respondents were categorized into one of the following two groups, based on their experience with the guidelines: those who had read at least some of the recommendations, and those who had not read any. All data analyses were performed using SPSS/PC+.[7]

RESULTS

Of the original 480 family physicians contacted, 263 returned usable surveys, a 55% response rate. To evaluate the representativeness of the study sample, the sample demographics were compared with demographic data on all members of the AAFP. The study sample was similar in mean age (sample, 43 years; AAFP, 45 years), gender (sample, 17% female; AAFP, 15% female), and rural location of practices (sample, 23%; AAFP, 27%). Physicians in the sample were more likely to be residency trained (sample, 76%; AAFP, 58%) and less likely to be in solo practice (sample, 27%; AAFP, 40%).

Table 1 displays the verbatim item and four response categories assessing experience with the USPSTF guidelines. The distribution of reported exposure by the respondents was as follows: about one quarter of the sample had never heard of the guidelines; nearly one third had heard or read about some of the recommendations, and almost another third had seen and read at least a portion of the report.

Table 2 displays the association of experience with the guidelines and the demographic variables. Individuals who had seen and read the guidelines were on the average younger ($P<.01$) and had graduated from medical school more recently ($P<.01$). These two variables are highly correlated ($r=.95$; $P<.001$). Those who had seen and read the guidelines were less likely to be in solo practice ($P<.01$) and more likely to be residency trained ($P=.03$) and white ($P<.01$). Our sample contained 22 (8%) nonwhite physicians (eight Hispanic, six Asian, four black, and four other). Gender and practice location were not significantly associated with exposure to the guidelines.

The following variables were included in a logistic regression model: year of graduation, type of practice, residency training, and race. Physicians who graduated more recently were 1.6 (confidence interval [CI], 1.25 to 2.05) times more likely per 10-year increment to have read some of the recommendations. In addition, white physicians were 3.7 (CI, 1.44 to 9.24) times more likely than nonwhite physicians to have read some of the recommendations. The type of practice and residency training were not significantly associated with exposure to the guidelines in the multivariable model.

Table 1. Responses to Survey Question*

No. (%) of Respondents	Response Category†
64 (24)	I have never heard of them.
34 (13)	I have heard of them but not read any specific recommendations.
81 (31)	I have read some of the recommendations through various sources.
84 (32)	I have seen and read at least a portion of the book describing them.

**The survey question read, "What is your experience with the US Preventive Services Task Force Guidelines?"*
†Respondents selected one of the following categories.

Table 2. Characteristics of Physicians by Level of Experience With the US Preventive Services Task Force Guidelines

	Experience With Guidelines*				
Demographic Characteristics	None (n=64)	Heard (n=34)	Read Some (n=81)	Read Report (n=84)	P†
Mean age, y	47	42	41	40	<.01
Mean year of graduation	1972	1976	1978	1979	<.01
Solo practice, %	47	18	27	17	<.01
Residency-trained, %	67	74	78	82	.03
White, %	84	88	94	96	<.01
Practice in rural community, %	30	12	26	21	NS
Male, %	89	82	79	82	NS

**Categories of experience are given in Table 1.*
†P values are derived from analysis of variance for continuous variables and Mantel-Haenszel test of linear categorical variables. NS indicates not significant.

COMMENT

This study has two important findings. First, 37% of our national sample of family physicians reported that they had not read any of the USPSTF recommendations through any source. This is discouraging, given the appearance of multiple articles on the guidelines in widely distributed journals. Second, the two independent contributors to explaining physician exposure to the guidelines were the number of years since graduation from medical school and race. The number of years since graduation is associated with our other demographic variables in the following way: recent graduates were younger, more likely to be residency trained, and less likely to be in solo practice. The association of these characteristics with physicians' greater exposure to the guidelines may be a result of the use of the USPSTF guidelines as a teaching tool in residency training,[8] contact with colleagues, and/or exposure to an opinion leader within a group practice or an academic setting.[1,9]

The association of race with exposure to the guidelines is intriguing. Nonwhite physicians were twice as likely to be in solo practice, and it was suspected that race was a proxy for solo practice. However, after controlling for solo practice status, race remained significantly

associated with the level of exposure to the guidelines. This finding raises questions about the degree to which minority physicians are integrated into the usual information sources for disseminating practice guidelines. Because of the small numbers of minority physicians in the sample, however, this finding must be interpreted with caution.

THE MODERATE response rate and small numbers of minority physicians are potential limitations of the study. It is possible that the physicians who completed the survey may be more likely to have an interest in prevention issues. In comparison with the AAFP membership demographics, residency-trained and group practitioners appear to be overrepresented in our sample. These two characteristics are also significantly associated with exposure to the guidelines. Thus, our estimation of exposure, 37% of family physicians having not read any of the recommendations, may actually be an underestimation. In addition, our survey did not include detailed questions about how physicians learned about the USPSTF guidelines, eg, through which sources, what roles colleagues played in spreading knowledge of the guidelines, or what prompted physicians to read the task force report.

The literature suggests that dissemination must be an active process, using a combination of efforts, and that social involvement appears to be the most persuasive method to employ change in practice behavior.[1,9,10] Dissemination that is aimed at opinion leaders and active members of medical associations and engages their support to further spread the information on a local level has been suggested to improve dissemination of information.[1,9,10] Stimulating support from community opinion leaders and medical association leaders may lead to increased awareness of the guidelines and their content. Involving older physicians and minority physicians could be a useful strategy to increase dissemination to these groups. Furthermore, continuing medical education about the USPSTF guidelines and their content specifically targeted to appeal to solo practitioners and older and non–residency-trained physicians may be another avenue to increase familiarity with the guidelines.

In addition to awareness of recommendations for clinical prevention, many factors influence the clinical preventive policies of individual practitioners, such as barriers, incentives, and lack of incentives.[2,11-14] A previous study[15] reported a high overall agreement with the USPSTF recommendations. The average family physician agreed with 88% of the recommendations, and those who reported having read a portion of the task force report agreed with significantly more recommendations. Therefore, effective dissemination appears to be the first step in changing physician attitudes and perhaps behavior.

In conclusion, our data suggest that the current methods for disseminating the task force recommendations are inadequate. Efforts to increase dissemination should particularly target less recent graduates, racial minority physicians, and solo practitioners.

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