

Wisconsin Physicians Advising Smokers to Quit: Results from the Current Population Survey, 1998-1999 and Behavioral Risk Factor Surveillance System, 2000

Anne M. Marbella, MS; Amanda Riemer; Patrick Remington, MD, MPH;
Clare E. Guse, MS; Peter M. Layde, MD, MSc

ABSTRACT

Introduction: Physicians advising their patients to quit smoking has been recognized as an effective component of smoking cessation treatment, yet evidence suggests that physicians are not consistently providing this type of counseling.

Methods: Data from both the Current Population Survey's (CPS) Tobacco Use Supplements administered September 1998, January 1999, and May 1999 and from the 2000 Behavioral Risk Factor Survey System (BRFSS) were analyzed and compared. The weighted proportions and 95% confidence intervals of Wisconsin and US smokers who had seen a physician in the past year and reported receiving advice from them to quit smoking were calculated. Proportions were analyzed for the total population as well as for subgroups of gender, age, race, educational level, and income level.

Results: CPS data showed that Wisconsin smokers who had seen a physician in the past year were significantly more likely to receive smoking cessation advice from their physician (64%) compared to US smokers (59%). Though not significant, a similar trend was seen in the BRFSS data. There were no consistent significant differences in rates analyzed by gender, age, race, educational level, or income level.

Conclusions: Data from the CPS and BRFSS show that less than two thirds of Wisconsin smokers are receiving smoking cessation advice from their physicians. In-

creasing physician counseling of patients who smoke continues to be a priority public health goal for decreasing morbidity and mortality from tobacco-related illnesses.

INTRODUCTION

Physician advice to quit smoking is now widely recognized among researchers and in practice guidelines as an effective component in smoking cessation treatment.¹⁻³ Research has shown that even brief smoking cessation advice from a physician can increase patients' success rates 2- to 6-fold.¹ Other research has proven that physician counseling is at least as cost effective per year-of-life saved as other accepted preventive medical practices.² Healthy People 2000 and Healthier People in Wisconsin both have a goal to increase the proportion of smokers' receiving cessation advice from physicians.⁴⁻⁵

Despite the evidence and the recommendations, physicians are not uniformly providing smoking cessation advice to their patients who smoke, and their advice varies with the patient's age, race, sex, and insurance status.⁶⁻⁷ The objective of this study is to use data from two different population surveys, the Current Population Survey (CPS) and the Behavioral Risk Factor Survey System (BRFSS), to determine the proportion of Wisconsin smokers whose physicians have advised them to quit. We also determine rates by gender, age, race, educational level, and income level, and compare overall rates to US rates.

METHODS

Current Population Survey

The CPS is a national survey of about 50,000 households, conducted annually by the Bureau of the Census for the Bureau of Labor Statistics.⁸ The sample is scientifically selected to represent the US civilian non-insti-

Ms Marbella and Ms Guse are at the Department of Family and Community Medicine, Medical College of Wisconsin and Dr Layde is a professor at the Department of Family and Community Medicine, Medical College of Wisconsin. Ms Riemer is a graduate student in the Population Health Program, Department of Population Health Sciences and Dr Remington is an Associate Professor, Department of Population Health Sciences at the University of Wisconsin-Madison.

Table 1. Among Smokers Who Have Seen a Physician in the Past Year, Percent Who Were Given Advice to Quit Smoking, by Gender, Age, Race, Income, and Educational Level, Current Population Survey, Tobacco Use Supplement, 1998-1999

	Wisconsin		United States	
	Percent Given Advice to Quit	95% CI	Percent Given Advice to Quit	95% CI
Total	63.7	59.1, 68.4	58.9	58.3, 59.5
Men	61.8	55.3, 68.3	56.5	55.6, 57.5
Women	65.8	59.2, 72.4	61.1	60.2, 61.9
Age				
18-24	50.7	37.6, 63.8	50.1	48.3, 51.8
25-44	64.7	58.3, 71.2	57.6	56.7, 58.6
45-64	68.5	59.8, 77.3	63.7	62.6, 64.8
65+	66.1	48.3, 84.0	66.6	64.5, 68.7
Race				
White	63.4	58.6, 68.3	60.0	59.3, 60.7
Black	64.9	45.9, 83.8	55.6	53.7, 57.5
Income				
\$0-14,999	55.4	44.2, 66.6	59.2	57.8, 60.5
\$15,000-24,999	69.4	57.5, 81.4	57.0	55.3, 58.7
\$25,000-49,999	64.6	56.9, 72.4	58.7	57.6, 59.8
\$50,000 +	65.1	56.2, 74.0	59.7	58.5, 60.9
Unknown	64.3	45.1, 83.5	60.1	57.7, 62.4
Education				
<High School	65.0	55.0, 75.1	59.2	57.8, 60.6
High School or GED	62.7	55.6, 69.8	58.7	57.7, 59.8
Some College	66.6	57.8, 75.3	59.6	58.4, 60.8
Bachelor's or higher	56.9	40.9, 73.0	57.6	55.9, 59.4

tutional population. Interview surveys are conducted both within households and by telephone. While the main purpose of the survey is to collect information on employment, supplemental questions are periodically added to the CPS. We analyzed data from the Tobacco Supplements of September 1998, January 1999, and May 1999. The Tobacco Use Supplement was sponsored and developed by the National Cancer Institute as part of the American Stop Smoking Intervention Study (ASSIST). Any CPS household member 15 years and older was eligible to answer the Tobacco Use Supplement questions. Information gathered in the supplement included cigarette smoking prevalence and history, cigarette smoking quit attempts and intentions to quit, other tobacco use, workplace smoking policies, smoking rules in the home, attitudes towards smoking in public places, opinions about youth access to tobacco, attitudes towards advertising and promotion of tobacco products, and dental and medical advice to quit smoking.

For this analysis, we focused on two questions. First, the respondents were asked if they had seen a physician in the past year. If they answered yes, the respondents were then asked if any physician advised them to quit smoking in that past year. While some of

the questions in the Tobacco Use Supplement could be answered by a proxy respondent, this particular set of questions was self-response only.

Weighted counts and percentages were calculated using a survey method that accounted for household clusters. Percentages of those who had seen a medical doctor in the past year were calculated for US and Wisconsin overall and by gender, age, race, educational level, and income level. Of the subset that had seen a physician, percentages of those who had been advised to quit were calculated for the same groups. Ninety-five percent confidence intervals were calculated using weighted totals, standard error parameters, and state factors provided by the US Census Bureau.

Behavioral Risk Factor Surveillance System

The Wisconsin BRFSS is administered by the Wisconsin Department of Health and Family Services as part of the national Behavioral Risk Factor Surveillance System, which is coordinated by the Centers for Disease Control and Prevention. The target population is civilian, non-institutionalized adults over 18 who live in a household with a telephone. The instrument consists of questions on various behavioral risk factors and preventive health measures, including questions on tobacco

Table 2. Among Smokers Who Have Seen a Physician in the Past Year for a Routine Visit, Percent Who Were Given Advice to Quit Smoking, by Gender, Age, Race, Income, and Educational Level, Behavioral Risk Factor Surveillance System, 2000

	Wisconsin		United States	
	Percent Given Advice to Quit	95% CI	Percent Given Advice to Quit	95% CI
Total	56.4	50.5, 62.4	53.6	52.0, 55.1
Men	54.4	44.6, 64.4	49.4	46.9, 51.9
Women	57.6	50.3, 65.0	57.2	55.3, 59.0
Age				
18-24	39.0	24.0, 54.1	43.1	38.6, 47.6
25-44	58.2	49.9, 66.5	52.2	50.0, 54.5
45-64	61.8	52.5, 71.2	60.3	57.7, 62.9
65+	74.2	57.6, 90.7	54.9	50.0, 59.8
Race				
White	58.8	52.2, 65.3	55.1	53.4, 56.8
Black	34.8	19.4, 50.2	49.2	44.8, 53.6
Income				
\$0-14,999	72.8	58.1, 87.5	56.0	51.7, 60.2
\$15,000-24,999	49.9	36.7, 63.0	51.5	48.0, 55.0
\$25,000-49,999	56.9	47.6, 66.1	54.0	51.3, 56.7
\$50,000 +	57.8	45.1, 70.5	56.5	53.4, 59.7
Unknown	49.0	28.7, 69.4	47.4	42.5, 52.2
Education				
<High School	44.6	30.2, 59.0	51.3	47.2, 55.5
High School or GED	59.9	50.4, 69.4	52.7	50.2, 55.2
Some College	61.1	50.6, 71.7	55.3	52.4, 58.2
Bachelor's or higher	52.1	37.2, 66.9	55.3	51.7, 59.0

use.^{9,10} This survey employs a stratified random sample representative of the state's population. The results were weighted to account for non-response, sample design, and the age-sex distribution of Wisconsin's population.

The BRFSS questions used for this analysis were "Did you see a physician in the past year for a routine visit?" and "Did you receive advice to quit [smoking] from a physician in the past 12 months?" Data from 2000 was analyzed to assess the proportion of smokers receiving advice to quit from their physicians. A current smoker was defined as a participant who smoked 100 cigarettes in his/her lifetime and now smokes either every day or some days. Confidence intervals were calculated using the SAS SURVEYMEANS procedure, version 8.2, which allows for calculation of standard error for clustered data.

RESULTS

CPS data showed that 73% of US smokers and 68.3% of Wisconsin smokers saw a physician in the past year. According to the BRFSS, 63.6% of US smokers and 54.3% of Wisconsin smokers saw a physician in the past year for a routine visit.

Both CPS and BRFSS data show that among smokers who had seen a physician in the past year, Wisconsin

smokers were more likely to have received advice to quit (Tables 1 and 2). This difference is significant at the $P<.05$ level in the CPS data.

In both the CPS and BRFSS data, there were no consistent significant differences in the rates of advice to quit among different gender, age, race groups, or by educational level or income level within Wisconsin (Tables 1 and 2), with the exception of a significant racial difference in the BRFSS data showing that white smokers are getting advice to quit at a higher rate than black smokers ($P=0.05$). Moreover, there were no significant differences between Wisconsin and US rates in any of these subgroups, with the exception of the age group 25-44 years in the CPS data, which shows Wisconsin smokers in that age group being advised to quit smoking by their physicians at a significantly higher rate than US smokers of the same age ($P<0.04$).

Overall, more women than men smokers were receiving advice to quit from their physicians, but these differences were not significant. Stratified analysis by age and gender show that in general, younger smokers, both male and female, received less advice to quit compared to older smokers, with the exception of women in the CPS data (Figure 1).

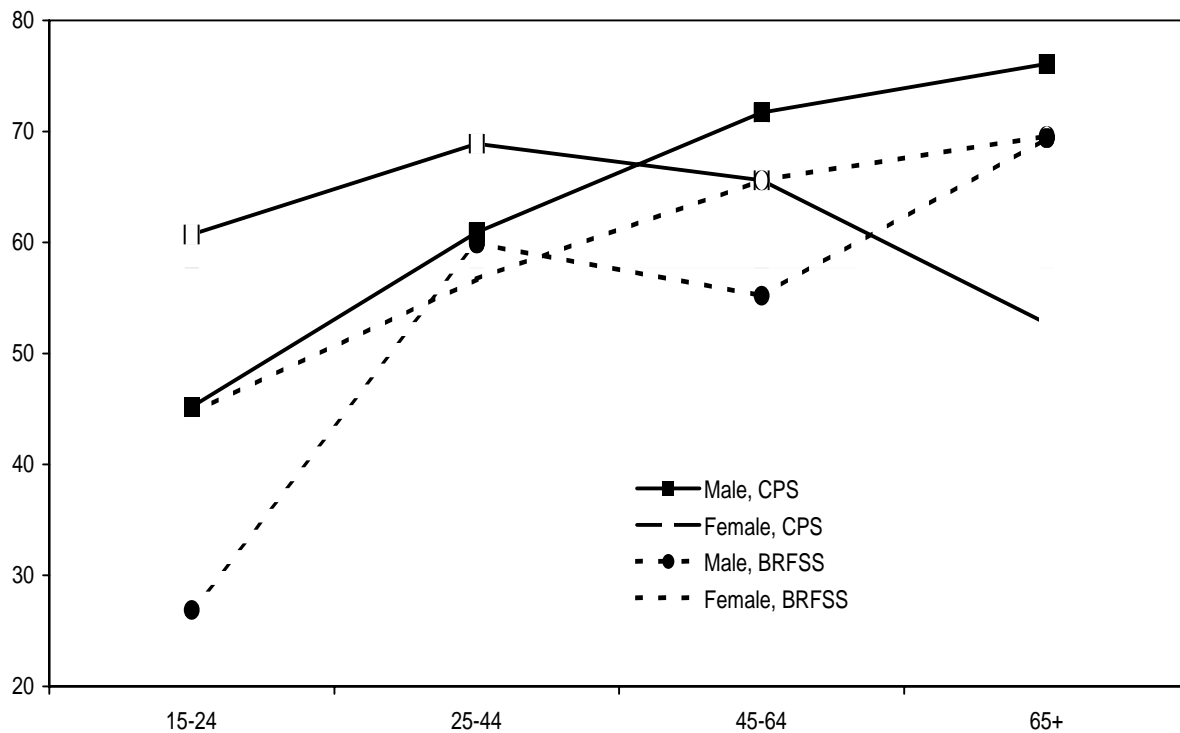


Figure 1. Among smokers who have seen a physician in the past year, percent receiving advice to quit from physician, by gender and age, Current Population Survey, 1998-1999 and Behavioral Risk Factor Surveillance System, 2000.

DISCUSSION

Wisconsin physicians more frequently advise their patients who smoke to quit than US physicians overall, but there is still room for improvement. Healthy People 2000 and Healthier People in Wisconsin both include objectives to increase to at least 75% the proportion of health care providers who routinely advise cessation and provide assistance and follow-up for all of their tobacco-using patients. These surveys show that physicians on both the national and state levels are not yet reaching these goals.

While the CPS and BRFSS showed similar trends in overall rates for Wisconsin and the United States and in Wisconsin gender rates, the BRFSS rates were consistently lower than the CPS rates. This is consistent with other studies that have compared telephone-only interview data with data collected in-person.^{11,12} The CPS interview system that includes some in-person home interviews is able to capture more low-income individuals who may not have telephones and who may have more high-risk health behaviors. Also, individuals may be more likely to underreport high-risk health behaviors over the phone as compared to an in-person household interview. Another reason that the rates in the CPS are slightly higher than those in the BRFSS may be due to

the different wordings of the questions about seeing a physician in the past year. The BRFSS asked about routine visits in the past year, while CPS asked about seeing any physician in the past year. Seeing any physician in the past year could potentially include seeing a specialist for a tobacco-related condition; a visit of this type would more likely involve the physician offering smoking cessation advice.

When stratified analyses were conducted on rates by gender and age, the similarities between the CPS and BRFSS data disappeared. These discrepancies may be attributed to the small sub-population sample sizes since more detailed analyses were conducted. Other research has shown that smoking rates are higher among persons with less education and lower incomes.¹³ Interestingly, this study did not demonstrate any relationship between these socioeconomic factors and the receipt of advice to quit smoking. Thus, physicians appear to be delivering this preventive service to patients regardless of their education or income level. Efforts to promote office-based cessation will be likely to reach patients who might otherwise be hard to reach.

Less than two thirds of Wisconsin smokers are receiving smoking cessation advice from their physicians. Yet research has shown that physician-provided smoking

cessation advice can be both simple and cost-effective. Increasing physician counseling continues to be a priority public health goal for decreasing morbidity and mortality from tobacco-related illnesses.

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