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Physician Awareness and Referral to National Smoking Cessation Quitlines and Web-Based Resources

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Dear Editor

We are writing to describe current levels of awareness of and referral to national quitlines, and a Web-based cessation service among primary care physicians. Smokers who use telephone counseling are more likely to achieve long-term cessation compared to those who do not [1]. Quitlines can assist in forming a quit plan, offer nicotine replacement therapy, and schedule follow-up contact [2]. We analyzed data from the National Survey of Primary Care Physicians' Recommendations and Practice for Breast, Cervical, Colorectal, and Lung Cancer Screening [3] to assess awareness and referral to the National Network of Tobacco Cessation Quitlines' 1-800-QUIT-NOW, the National Cancer Institute's quitline 1-877-44U-QUIT, and the National Cancer Institute and Centers for Disease Control and Prevention Web site smokefree.gov.

The survey was fielded September 2006 to May 2007 as a mailed questionnaire. A systematic stratified random sample of non-Federal, office-based family physicians, general practitioners, general internists, and obstetrician/gynecologists aged 75 or younger was selected from the American Medical Association's Physician Masterfile. A total of 1,266 physicians completed the survey resulting in an absolute response rate of 69.3%. Further detail on sampling and survey methodology is published elsewhere [3].

Respondents were asked "Are you aware of, and have you ever referred a patient to, any of the following smoking cessation services: 1-800-QUIT-NOW; 1-877-44U-QUIT; smokefree.gov?" Physician and clinical practice characteristics included: physician race; average time per month spent teaching; number of physicians in practice; practice type

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(private, health system, or university); medical school affiliation; and percentage of African American patient population.

We used SUDAAN version 9.0.1 to calculate weighted percentages, odds ratios (OR), and 95% confidence intervals (CI). Respondents who reported awareness of at least one of the resources were coded as aware ($n=474$). Respondents who reported referral to at least one resource were coded as having made a referral ($n=332$). A multivariable logistic regression, including variables significantly associated (at $p<0.05$) with awareness or referral in bivariate analyses was conducted.

Respondents were predominantly male (68.8%), less than age 50 (50.8%), non-Hispanic White (72.1%), board-certified (80.2%) physicians practicing family medicine (45.2%), general internal medicine (36.9%), and obstetrics/gynecology (17.9%). Only 23.3% of physicians reported awareness of and referral to 1-800-QUIT-NOW. Awareness and referral to 1-877-44U-QUIT was 6.6%. Only 14.1% of physicians were aware of and reported referral to www.smokefree.gov. Nearly half of the physicians were aware of at least one national quitline or Web-based cessation service (43.6%); among these physicians, referral was 72.4%.

Awareness of at least one national quitline or Web-based cessation service was significantly associated with practice location ($\chi^2=9.37$, $p=0.01$), percentage of African American patient population ($\chi^2=11.42$, $p=0.03$), medical school affiliation ($\chi^2=4.35$, $p=0.03$), provider race ($\chi^2=8.99$, $p=0.04$), and average time spent teaching ($t=2.28$, $p=0.03$). These variables were included in a multivariable logistic regression model of awareness (Table 1). Compared to university-based practices, physician-owned practices were significantly less likely (OR=0.70, CI=0.50–0.99) to be aware of national smoking cessation resources. Consistent with research documenting, lower receipt of smoking cessation services among minority populations, [4–6] physicians in practices with a majority White patient population were more likely (OR=12.3, CI=2.4–64.0) to be aware of national cessation resources. Consistent with prior research documenting, higher awareness of smoking cessation resources among racial/ethnic minority physicians, [7] awareness of national quitlines and Web-based cessation services was higher among non-Hispanic Black providers (OR=2.6, CI=1.1–6.3) and providers categorized as “non-Hispanic other” (OR=1.5, CI=1.1–2.1) compared to non-Hispanic White providers.

Efforts are needed to promote national quitlines and Web-based cessation services. Our results suggest that promotion efforts may target physician-owned practices and clinical practice settings with large minority populations.

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Table 1
Factors associated with awareness of a national smoking cessation resource

Practice and physician characteristics (n=1,145)	Awareness OR (95% CI)
Practice type	
Physician-owned practice	.70 (.50–.99)
Health care system practice	.72 (.48–1.10)
University-based practice	1.00
% of African American patients	
0%–5%	9.67 (1.76–53.25)
6%–25%	12.16 (2.27–65.05)
26%–50%	12.25 (2.35–63.98)
51%–75%	4.96 (0.84–29.28)
76%–100%	1.00
Affiliation with medical school	
Yes	1.18 (0.87–1.60)
No	1.00
Race of provider	
Non-Hispanic Black	2.60 (1.07–6.30)
Hispanic	0.66 (0.33–1.32)
Non-Hispanic Other	1.52 (1.10–2.10)
Non-Hispanic White	1.00
Average amount of time spent teaching during a typical month	1.01 (.99–1.03)
Model Adjusted Wald $F=5.55$, $df=12$, $p=0.0000$	