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Physician Nonprofessional Cancer Experience and Ovarian Cancer Screening Practices: Results from a National Survey of Primary Care Physicians

Margaret Ragland, MD, MS¹, Katrina F. Trivers, PhD, MSPH², C. Holly A. Andrilla, MS³, Barbara Matthews, MBA³, Jacqueline Miller, MD⁴, Denise Lishner, MSW², Barbara Goff, MD³, Laura-Mae Baldwin, MD, MPH³

¹Department of Medicine, Division of Pulmonary Sciences and Critical Care Medicine, University of Colorado, Aurora, Colorado

²Divisions of Health Informatics and Surveillance, Centers for Disease Control and Prevention, Atlanta, Georgia

³Department of Family Medicine, University of Washington, Seattle, Washington

⁴Divisions of Cancer Prevention and Control, Centers for Disease Control and Prevention, Atlanta, Georgia

Abstract

Objective: Routine ovarian cancer screening is ineffective; therefore, no professional organization recommends this screening in asymptomatic patients. However, many physicians have recommended screening, exposing patients to unnecessary risk. Little research exists on how nonprofessional experience with cancer influences physicians' screening practices. This study examines the association between physicians' nonprofessional experience with cancer and reported adherence to ovarian cancer screening guidelines.

Materials and Methods: A mail questionnaire with an annual examination vignette and questions about cancer screening recommendations was sent to a random sample of 3,200 U.S. family physicians, general internists, and obstetrician-gynecologists. This analysis included 497 physicians who received a vignette of a woman at average ovarian cancer risk and weighted results to represent these physician groups nationally. The outcome measure was adherence to ovarian cancer screening guidelines. Stepwise multivariate logistic regression estimated adjusted risk ratios for guideline adherence.

Results: In unadjusted analyses, 86.0% of physicians without nonprofessional cancer experience reported adherence to ovarian cancer screening guidelines compared with 69.2% of physicians with their own history of cancer, or a family member or close friend/coworker with cancer ($p = 0.0045$). In adjusted analyses, physicians with cancer themselves or in a family member or close

Address correspondence to: *Laura-Mae Baldwin, MD, MPH, Department of Family Medicine, University of Washington, Seattle, WA 98195, lmb@uw.edu.*

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friend/coworker were 0.82 times less likely (CI: 0.73–0.92) to report adhering to ovarian cancer screening recommendations than those without nonprofessional cancer experience.

Conclusions: Despite recommendations to the contrary, many physicians reported recommending ovarian cancer screening in low-risk women. Physicians with nonprofessional cancer experience were more likely to report offering or ordering nonrecommended screening than physicians without this experience.

Keywords

physician cancer experience; cancer screening; guideline adherence; ovarian neoplasms; survey

Introduction

ROUTINE OVARIAN CANCER screening is not recommended for the general population.^{1–4} The United States Preventive Services Task Force (USPSTF) has assigned routine screening for ovarian cancer a “D” grade, which indicates that there is fair evidence that routine screening is ineffective, or that the harms outweigh benefits. This assessment is based on the low positive predictive value and high false positive rates of existing tests—transvaginal ultrasound (TVU) and cancer antigen 125 (CA125)—and the lack of evidence that screening with these tests has significantly improved morbidity or mortality from ovarian cancer.^{5,6} Despite recommendations against screening, a sizable proportion of physicians have reported ordering or offering ovarian cancer screening to patients in the general population, and a third of physicians have reported that they believe in TVU or CA125 as an effective screening test.⁷

A substantial literature has examined the patient and physician demographic characteristics, as well as practice characteristics associated with cancer screening,^{8–13} but little research has examined the relationship between physicians’ nonprofessional experience with cancer, and their cancer screening and treatment practices. One study by Armstrong et al.¹⁴ surveyed primary care physicians, and found that physicians with a family member with breast cancer are 2.5 times more likely than those without to prescribe tamoxifen for breast cancer prevention,¹⁴ suggesting that physicians’ nonprofessional experience with cancer can impact their practice patterns.

This study seeks to contribute to this literature by examining the association between physicians’ nonprofessional experience with cancer and their reported ovarian cancer screening practices. We hypothesized that physicians who had had cancer themselves or whose family members, close friends, or coworkers had had cancer would be more likely to report offering or ordering nonrecommended ovarian cancer screening than those without this nonprofessional cancer experience. Results from this study can increase physician awareness of and improve training about factors that may unintentionally influence their clinical practices.

Materials and Methods

Women's Healthcare Survey

This study conducted a cross-sectional survey of U.S. physicians providing primary care to women. The Women's Healthcare Survey included a 12-page mail questionnaire that examined several aspects of women's healthcare services, with special emphasis on ovarian cancer screening, diagnosis, and management. It included items about physician demographics, practice characteristics, and training. One question asked whether any immediate family members; extended family members, close friends, or coworkers; or the physician him or herself had been diagnosed with cancer. The questionnaire also included three clinical vignettes, one assessing provision of women's preventive care services at a woman's annual examination visit. Demographic characteristics of the woman were varied by age (35 or 51 years), race (African American or Caucasian), and insurance status (Medicaid or private). In addition, characteristics determining the woman's ovarian cancer risk varied, including medical and family history (high risk: paternal grandmother had ovarian cancer, paternal first cousin had premenopausal breast cancer, woman had breast cancer at age 30; medium risk: mother had ovarian cancer at age 62; and low risk: mother had breast cancer at age 70). The questionnaire also varied whether the woman requested ovarian cancer screening (request—"She requests cancer screening, especially for ovarian cancer...", no request—"She wants to be sure she is up to date on all appropriate cancer screening tests"). The different combinations of these factors resulted in 48 unique vignette versions. After presenting the vignette, physicians were asked how often they would offer or order specific tests and studies (almost never, sometimes, or almost always) for that patient at that visit.

Survey sample and administration

The study sample included 3,200 U.S. physicians under the age of 65 practicing in office- or hospital-based settings. We randomly sampled an equal number of physicians practicing in family medicine, general internal medicine, and obstetrics-gynecology from each of the lists of 72,241 family physicians, 77,007 general internists, and 28,929 obstetrician-gynecologists in the August 2008 American Medical Association (AMA) Masterfile.

Of the 3,200 physicians in the original study sample, 200 participated in a pilot test of the questionnaire. The pilot test used a single questionnaire version to compare the response rates with a shorter 8-page and the full 12-page questionnaire. The shorter version omitted questions about physician risk taking and fear of malpractice, and included only two of three vignettes. The annual examination vignette and the variables used in this study were measured in both questionnaire versions. The pilot test found equivalent response rates to the shorter and full-length questionnaires; thus, the 12-page questionnaire was used in the final survey.

The 3,000 physicians in the final survey were randomized equally to the 48 vignette versions. The questionnaire was administered in fall 2008 using a modified Tailored Design Method, with 2-day priority mailings, a US\$20 bill included in the initial mailing, a

reminder postcard sent halfway through the survey period, and a handwritten thank you/encouragement note from the principal investigator with the second mailing.

Study sample development

Of the 3,200 questionnaires sent to physicians, we excluded 33 duplicates, 95 undeliverable questionnaires, 19 retired, disabled, or deceased respondents, and 11 not currently practicing, leaving 3,042 questionnaires. The survey's overall response rate was 61.7% (1,878 questionnaires returned). An additional 304 were excluded (200 did not currently provide outpatient care to women, 71 did not currently work in outpatient primary care settings, 10 worked in a specialty other than the three of interest, and 23 were current residents or fellows). To provide nationally representative results, this final study sample (591 family physicians, 414 general internists, and 569 obstetrician-gynecologists) was weighted to the representative number of the three specialties practicing in the U.S. using data from the AMA Masterfile.

This study's analysis includes data only from those 504 physicians in the final sample who were presented with an annual examination vignette of a woman at average risk of ovarian cancer (mother had breast cancer at age 70, lifetime risk, 1.5%). All professional organizations recommend against ovarian cancer screening in these women.¹⁻⁴ After excluding the seven questionnaires missing our primary independent variable (physician experience with cancer) or outcome (screening recommendation), the total sample size for this analysis was 497.

Study variables

Independent variable of interest.—This study's primary variable of interest is physician experience with cancer in a nonprofessional setting (none; self; immediate family member; extended family member, close friend, or coworker). Because of the small number of physicians with nonprofessional cancer experience, we created a dichotomous variable (any or no nonprofessional cancer experience).

Outcome variable.—The outcome measure was reported adherence to ovarian cancer screening guidelines, defined as almost never ordering or offering ovarian cancer screening tests (TVU or CA125) to an asymptomatic patient at average risk of ovarian cancer in the questionnaire vignette.

Covariates.—This study's covariates included the patient characteristics that were varied in the annual examination vignette: age, race, insurance type, and ovarian cancer testing request. These characteristics have been associated with cancer screening recommendation and use in other studies.

Physician and practice characteristics that might predict ovarian cancer screening practices based on the Theory of Reasoned Action and the Theory of Planned Behavior¹⁵⁻¹⁷ were also included in this study: age; sex; years in practice; specialty; geographic location (urban, large rural, or small/isolated small rural area [based on Rural Urban Commuting Area (RUCA) codes linked by physician mailing ZIP code]^{18,19}); census division; primary

practice setting (e.g., office practice, community health center); group/solo practice type; involvement in clinical teaching; average number of outpatients seen weekly; board certification; belief about the effectiveness of cancer screening tests; measures of attitude toward risk-taking and malpractice concern^{20,21}; and whether the physician listed the USPSTF, the American College of Obstetrics and Gynecology (ACOG), the National Institutes of Health (NIH)/National Cancer Institute (NCI), or the American Cancer Society (ACS) within the top three organizations influencing his or her cancer screening recommendations.

Analysis

We first described the study sample characteristics, then compared physicians' unadjusted rates of reported adherence to ovarian cancer screening recommendations overall and by patient, physician, and practice characteristics, using $p = 0.01$ to denote statistical significance in the table due to multiple comparisons (two-sided test). We constructed a multivariate logistic regression model with reported adherence to ovarian cancer screening recommendations as the outcome variable and physician's nonprofessional cancer experience as the independent variable of interest. This stepwise multivariate logistic regression analysis included all patient characteristics, and tested those physician and practice characteristics that were significantly associated with reported guideline adherence at the $p = 0.05$ level (two-sided test) in the unadjusted analysis. The final model includes all patient characteristics (age, race, insurance status, and request for ovarian cancer testing), and those physician and practice characteristics that significantly improved the fit of the regression model and were significantly associated with the study outcome (reported belief in TVU or CA125 as effective for ovarian cancer screening, listed USPSTF among top three sources of cancer screening information). We tested those variables that were significantly associated with reported guideline adherence in the final regression model for significant interactions with physician nonprofessional cancer experience, and found none. We used SUDAAN 10.0 (RTI International, Research Triangle Park, NC) to account for the survey's sampling strategy and to produce estimates that represented a national population of family physicians, general internists, and obstetrician-gynecologists. This study was approved by the University of Washington Human Subjects Division.

Results

The majority of physicians in our sample (Table 1) were male (58.5%), Caucasian (71.1%), and practicing in an urban location (82.0%). Most (82.1%) reported practicing in an office-based setting or freestanding clinic. Because we adjusted our findings using weights to represent the practicing U.S. physician population, the weighted specialty distribution was 43.2% family physicians, 38.5% general internists, and 18.3% obstetrician-gynecologists.

In unadjusted analyses, 69.2% of physicians with nonprofessional experience with cancer reported adhering to ovarian cancer screening recommendations compared with 86.0% of physicians without nonprofessional cancer experience ($p = 0.0045$) (Table 2). Physicians were more likely to report adhering to ovarian cancer screening guidelines for a patient who did not specifically request ovarian cancer screening (79.7%) than for a patient who

requested ovarian cancer screening (63.9%, $p = 0.001$) (Table 3). Physicians in solo practice were significantly less likely to report adhering than physicians in group practice (57.4% and 75.8%, respectively; $p = 0.001$). Physicians who listed the USPSTF as one of the top three organizations influencing their cancer screening recommendations were significantly more likely to report adhering to ovarian cancer screening guidelines than those who did not (79.6% vs. 62.7%, $p = 0.001$). Last, physicians who believed that either TVU or CA125 was a clinically effective screening test for ovarian cancer were less likely to report adhering to evidence-based recommendations against ovarian cancer screening than those who did not believe in these as effective screening tests (47.7% vs. 82.9%, $p = 0.001$).

In adjusted analysis (Table 4), physicians' nonprofessional cancer experience remained a strong predictor of reported adherence to recommendations against ovarian cancer screening—physicians with nonprofessional cancer experience were 0.82 times less likely to report adhering to these recommendations than physicians without this experience (CI: 0.73–0.92). This analysis adjusted for patient age, race, insurance status, and request for ovarian cancer testing, and two physician characteristics—belief in TVU or CA125 as effective for ovarian cancer screening, and USPSTF listed among top three sources of cancer screening information. Other significant predictors of reported adherence to ovarian cancer screening recommendations included patient insurance (physicians presented with a privately insured vs. Medicaid-insured patient, RR 0.86 [CI: 0.78–0.96]), patient request for screening (physicians presented with a patient who requested screening vs. one who did not, RR 0.82 [CI: 0.74–0.92]), belief in either TVU or CA125 as a clinically effective screening test for ovarian cancer (yes vs. no, RR 0.61 [CI: 0.51–0.73]), and listing the USPSTF as one of the top three organizations influencing their cancer screening recommendations (yes vs. no, RR 1.15 [CI: 1.03–1.28]).

Discussion

Physicians with their own cancer or experience with cancer among family, close friends/ coworkers were significantly more likely to report recommending unwarranted screening for ovarian cancer than physicians without this experience. This suggests that physicians' nonprofessional experiences, in this case with cancer, are associated with clinical practice patterns that can have potential detrimental impacts on patients. For example, ovarian cancer screening, with its high false positive and low positive predictive value, is known to result in unnecessary and costly surgeries and their complications.^{5,22}

This study contributes to a scarce literature on the association between healthcare providers' personal health experiences, or the health experiences of those close to them and their clinical practices. Armstrong et al.'s¹⁴ finding that primary care physicians with a family member with breast cancer are more likely to prescribe tamoxifen suggests that they may be more sensitized to women's breast cancer risk, or more comfortable with their knowledge about breast cancer prevention strategies like tamoxifen. Zerzan et al.'s qualitative interviews of primary care physicians, hospitalists, geriatricians, oncologists, and palliative care specialists suggest that physician opioid prescribing patterns are impacted by personal experiences, both positive and negative.²³ Physicians reported being influenced to use both more opiates because of a relative who experienced severe pain at end of life and fewer

opiates because of a parent who was addicted to prescription medications. Finally, Faundes et al.'s analysis of a national survey of Brazilian obstetrician-gynecologists found that physicians who had personal experience with the emergency contraceptive pill (among women physicians or the partners of male physicians) reported greater willingness to provide information about the emergency contraceptive pill and to prescribe it. They²⁴ also found that those physicians who had experienced an unwanted pregnancy and had had an abortion, either themselves or with their partner, reported greater willingness to help a woman obtain an abortion if she requested one.²⁵

There is also evidence that physicians' nonmedical beliefs influence their medical decisions. Ramondetta et al.²⁶ analyzed survey results from 273 gynecologic oncologists to evaluate the association between their religious and spiritual beliefs and their clinical practice patterns. Nearly half of the physician respondents to this survey reported that their religious and spiritual beliefs play a role in their medical decisions. This was confirmed in a series of scenarios examining the association between religious and spiritual beliefs, and the treatments that the physicians offered theoretical patients.²⁶

Further research is needed to understand why physicians with cancer experience outside the professional setting were more likely to report offering or ordering nonrecommended ovarian cancer screening. In the 1980s, Weinstein²⁷ found that adults with medical illness experience believed that these conditions are more prevalent in the population, were more serious, and caused more worry than those without this experience. Adults with close friends or relatives with medical illness had similar beliefs but to a lesser degree.²⁷ If physicians experienced similar responses to their nonprofessional cancer experience, this might result in both overestimation of patients' cancer risk and greater emphasis on cancer prevention and screening. Analysis of physicians' ability to accurately estimate cancer risk from the Women's Health Survey suggests that physicians with a history of cancer may overestimate cancer risk, but the analysis was limited by low numbers of physician cancer survivors (unpublished data).

This study's reliance on survey methods results in measures of self-reported practices, which may not reflect true practice. In addition, survey results reflect only respondents. This survey had a solid response rate of 62%, but we do not know if physicians with cancer experience were proportionately reflected in this sample. We do not have information on the types and severity of cancer (*e.g.*, ovarian vs. other cancer types) that the physicians or their family, close friends, and coworkers experienced, nor did our survey question differentiate first-degree relatives from others such as close friends and coworkers, all of which could have influenced the physicians' reported screening practices. We also did not ask whether physicians had the capacity to provide TVU in their offices, which could influence their screening practices. Exploring factors such as these in a future study could help elucidate the reasons behind the association between physicians' nonprofessional experience with cancer and nonrecommended ovarian cancer screening. Finally, since the time this survey was conducted, the USPSTF updated its recommendations, confirming its assignment of a "D" grade to routine screening for ovarian cancer,²⁸ and the FDA released a Safety Communication recommending against using currently offered tests to screen for ovarian cancer.²⁹ It is possible that differences in reported rates of ovarian cancer screening between

physicians with and without nonprofessional cancer experience may have changed in response to these recommendations. However, this does not change our study's finding that physicians' nonprofessional cancer experience has the potential to affect practice behavior.

Conclusion

Physicians' nonprofessional experience with cancer was associated with their reported ovarian cancer screening practices. In this study, physicians with nonprofessional cancer experience reported higher rates of nonrecommended screening among low-risk women, which carries potential risk for these women. Given the important impacts that physicians' nonprofessional cancer experiences can have on patient care, further work is needed to understand this unintended phenomenon, to increase medical providers' awareness of these influences, and to develop strategies to ensure that these providers' practices reflect evidence-based practices that are truly appropriate for their patients.

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Table 1.**DEMOGRAPHIC, PERSONAL, AND PRACTICE CHARACTERISTICS OF STUDY PHYSICIANS**

Characteristics	% n = 497
Nonprofessional cancer experience	
Self	4.0
Family member, close friend, or coworker	80.3
None	15.6
Age	
30–39	23.1
40–49	34.6
50–64	42.3
Race	
Caucasian	72.0
Asian/Pacific Islander	16.2
African American	4.9
Other, including American Indian/Alaska	6.8
Native, mixed race, and missing race	
Hispanic ethnicity	4.5
Female sex	41.5
Primary specialty	
Family medicine	43.2
General internal medicine	38.5
Obstetrics-gynecology	18.3
Board certified	90.1
Years in practice	
0–10	18.7
11–20	36.3
21+	45.0
Primary practice setting	
Office practice or freestanding clinic	82.0
Urgicenter	1.8
Hospital outpatient department	4.8
Health maintenance organization or other prepaid practice	1.2
Community health center, nonfederal government clinic, tribal health center/Indian Health Service	4.9
Federal government-operated clinic	2.6
Other, including institutional setting, family planning clinic	2.5
Practice type	
Solo practice	23.9
Group practice	72.7
Other	3.4
Weekly average number of patients	
1–60	28.2

Characteristics	% n = 497
61–90	30.4
91+	41.5
Involved in clinical teaching	41.2
Geographic location	
Urban	82.0
Large rural	9.6
Small/remote rural	8.4
Census division	
New England	3.4
Middle Atlantic	14.9
East North Central	17.0
West North Central	7.0
South Atlantic	15.6
East South Central	6.8
West South Central	8.3
Mountain	8.1
Pacific	18.9
Level of risk taking	
Low (6–17)	59.0
Medium (18–24)	34.0
High (25+)	6.9
Fear of malpractice	
Low (2–4)	11.2
Medium (5–7)	31.0
High (8+)	57.8
Listed USPSTF among top three sources of cancer screening information	53.8
Listed NIH/NCI among top three sources of cancer screening information	34.9
Listed ACOG among top three sources of cancer screening information	32.2
Listed ACS among top three sources of cancer screening information	64.6
Reported believing TVU as clinically effective in screening for ovarian cancer	27.8
Reported believing CA125 as clinically effective in screening for ovarian cancer	18.6
Reported believing either TVU or CA125 as clinically effective in screening for ovarian cancer	31.4

Missing data—based on unweighted respondents: Race (11); Hispanic ethnicity (3); board certification (1); primary practice setting (3); weekly average number of patients (4); involved in clinical teaching (2); level of risk taking (8); fear of malpractice (6); believed TVU clinically effective in screening (10); believed CA125 clinically effective in screening (11); and believed TVU or CA125 clinically effective in screening (8).

Missing data for race are included in the “other” category.

Results were adjusted using weights to represent the specialty distribution of the practicing U.S. physician population of family physicians, general internists, and obstetrician-gynecologists.

ACOG, American College of Obstetricians and Gynecologists; ACS, American Cancer Society; CA125, cancer antigen 125; NCI, National Cancer Institute; NIH, National Institutes of Health; TVU, transvaginal ultrasound; USPSTF, United States Preventive Services Task Force.

Table 2.

UNADJUSTED RATE OF PHYSICIAN-REPORTED ADHERENCE TO RECOMMENDATIONS AGAINST OVARIAN CANCER SCREENING BY PHYSICIAN NONPROFESSIONAL CANCER EXPERIENCE

<i>Physician nonprofessional cancer experience</i>	<i>Rate of adherence to recommendations (%) (n = 497)</i>
None (<i>n</i> = 73) ^a	86.0
Any experience (<i>n</i> = 424)	69.2

^a*p* = 0.01.

Results were adjusted using weights to represent the specialty distribution of the practicing U.S. physician population of family physicians, general internists, and obstetrician-gynecologists.

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Table 3.

UNADJUSTED RATE OF PHYSICIAN-REPORTED ADHERENCE TO RECOMMENDATIONS AGAINST OVARIAN CANCER SCREENING BY PATIENT, PHYSICIAN, and PRACTICE CHARACTERISTICS

<i>All physicians (n = 497)</i>	
Total	71.8
Patient characteristics	
Age (years)	
35	72.4
51	71.3
Race	
African American	72.6
Caucasian	70.1
Insurance type ^a	
Private	67.8
Medicaid	76.5
Requested ovarian cancer screening ^b	
Yes	63.9
No	79.7
Physician and practice characteristics	
Age (years)	
30–39	78.7
40–49	73.4
50–64	66.7
Sex	
Female	73.8
Male	70.4
Specialty ^c	
Family medicine	72.8
Obstetrics-gynecology	60.5
General internal medicine	76.0
Board certification	
Yes	73.1
No	58.3
Years in practice	
0–10	75.2
11–20	72.7
21+	69.6
Practice type ^b	
Solo practice	57.4
Group practice or other practice type	76.3
Weekly average number of patients	

<i>All physicians (n = 497)</i>	
1–60	76.9
61–90	75.6
91+	65.5
Involved in clinical teaching	
Yes	72.9
No	70.8
Geographic location	
Small rural/remote rural	66.8
Large rural	69.0
Urban	72.6
Census division	
New England	59.5
Middle Atlantic	65.5
East North Central	80.8
West North Central	67.8
South Atlantic	76.2
East South Central	68.0
West South Central	63.4
Mountain	64.2
Pacific	77.0
Level of risk taking	
Low (6–17)	71.8
Medium (18–24)	71.7
High (25+)	71.8
Fear of malpractice	
Low (2–4)	73.5
Medium (5–7)	77.2
High (8+)	68.8
USPSTF among top three sources of cancer screening information ^b	
Yes	79.6
No	62.3
NIH/NCI among top three sources of cancer screening information ^a	
Yes	65.9
No	75.0
ACOG among top three sources of cancer screening information	
Yes	67.4
No	73.9
ACS among top three sources of cancer screening information	
Yes	70.6
No	74.0
TVU is clinically effective in screening for ovarian cancer ^b	

<i>All physicians (n = 497)</i>	
Agree	48.1
Disagree	81.0
CA125 is clinically effective in screening for ovarian cancer ^{<i>b</i>}	
Agree	40.2
Disagree	79.3
Either TVU or CA125 is clinically effective in screening for ovarian cancer ^{<i>b</i>}	
Agree	47.7
Disagree	82.9

^{*a*}
p 0.05

^{*b*}
p 0.001

^{*c*}
p 0.01.

Results were adjusted using weights to represent the specialty distribution of the practicing U.S. physician population of family physicians, general internists, and obstetrician-gynecologists.

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Table 4.

RISK OF PHYSICIAN-REPORTED ADHERENCE TO RECOMMENDATIONS AGAINST OVARIAN CANCER SCREENING BY PATIENT AND PHYSICIAN CHARACTERISTICS, UNADJUSTED and ADJUSTED MODELS^a

	Unadjusted risk ratios (95% CI)	Adjusted risk ratios (95% CI)
Nonprofessional cancer experience		
None	(Ref.)	(Ref.)
Any	0.80 (0.71–0.90)	0.82 (0.73–0.92)
Patient characteristics		
Patient age		
35	(Ref.)	(Ref.)
51	0.99 (0.88–1.11)	1.00 (0.90–1.11)
Screening requested		
No	(Ref.)	(Ref.)
Yes	0.80 (0.71–0.90)	0.82 (0.74–0.92)
Patient race		
White	(Ref.)	(Ref.)
Black	1.02 (0.91–1.15)	1.03 (0.93–1.15)
Patient insurance		
Medicaid	(Ref.)	(Ref.)
Private	0.89 (0.79–1.00)	0.86 (0.78–0.96)
Physician characteristics		
Reported belief in TVU or CA125 as effective for ovarian cancer screening		
No	(Ref.)	(Ref.)
Yes	0.58 (0.48–0.70)	0.61 (0.51–0.73)
Listed USPSTF among top three sources of cancer screening information		
No	(Ref.)	(Ref.)
Yes	1.27 (1.12–1.44)	1.15 (1.03–1.28)

Results were adjusted using weights to represent the specialty distribution of the practicing U.S. physician population of family physicians, general internists, and obstetrician-gynecologists.

^a Adjusted model includes all variables in the table.

USPSTF, U.S. Preventive Services Task Force.