

Breast and Cervical Cancer Screening Among Latinas and Non-Latina Whites

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Various studies document disparities between Latina and non-Latina Whites in survival and mortality rates for breast and cervical cancer. Relative to non-Latina Whites, Latinas have a lower mortality rate from breast cancer (27.7 vs 15 deaths per 100 000) but a higher mortality rate from cervical cancer (2.5 vs 3.4 deaths per 100 000).¹ However, breast cancer is the leading cause of cancer death among Latinas. Moreover, the 5-year survival rate for breast cancer is 85% for non-Latina White women but only 76% for Latinas. Although the 5-year survival rate for cervical cancer is 94% for both populations, the cervical cancer incidence rate is twice as high among Latinas than among non-Latina Whites.¹

Hypotheses concerning these disparities have centered on ethnic differences in risk factors, psychosocial and cultural factors, knowledge of cancer, and stage of cancer diagnosis.¹⁻⁴ A growing body of literature is focused on differences between the ethnic groups in use of cancer screening tests. Studies have found that compared with non-Latina Whites, Latinas are less likely to ever have had a Papanicolaou (Pap) test, clinical breast examination, or mammogram.⁵⁻⁸ These findings are consistent with evidence that Latinos are diagnosed at later stages of cancer. For example, the percentages of breast and cervical cancer diagnosed in situ are lower among Latinas than among non-Latina Whites.^{1,9}

Differences in screening rates between Latinas and non-Latina Whites may owe to a lack of access to or quality of preventive health care. Compared with non-Latina Whites, Latinas are less likely to be insured^{10,11} or to have a regular health care provider,¹² both of which are strong predictors of breast and cervical cancer screening.^{12,13} Relatively little is known about the extent to which other indexes of quality of preventive health care are associated with screening. High-quality medical care may

Objectives. We examined whether Latinas differ from non-Latinas in having undergone recent mammography, clinical breast examination, or Papanicolaou testing, as well as the contribution of sociodemographic and health care variables to screening.

Methods. We used data from the 1991 National Health Interview Survey Health Promotion and Disease Prevention supplement.

Results. Latinas were less likely than non-Latina Whites to have undergone mammography (odds ratio [OR]=0.71; 95% confidence interval [CI]=0.57, 0.88), but this difference was attenuated when we controlled for socioeconomic factors (OR=0.90; 95% CI=0.70, 1.15). Latinas did not differ from Whites on Papanicolaou tests or clinical breast examinations. Quality of and access to health care predicted screening.

Conclusions. Latina ethnicity does not predict breast and cervical cancer screening behavior independent of sociodemographic and structural factors. (*Am J Public Health.* 2004;94:1393-1398)

translate into greater rates of screening through physician recommendations, increased duration and frequency of contact with patients, and better communication. In this study, the quality of preventive health care was assessed by examining the source of health care and by a proxy measure, the extent to which respondents received a comprehensive physical examination. Because a thorough physical examination is an indicator of good quality medical care, comprehensive examinations are hypothesized to be associated with a greater incidence of screening.

Less favorable cancer screening behaviors among Latinas than among non-Latinas are not found consistently and require further study. Some recent studies report no differences in screening between Latinas and non-Latina Whites.¹² A remaining empirical question is whether differences in screening correspond with disparities in socioeconomic status (SES), quality of care, and access to health care. This study examines the effects of these factors on 3 cancer screening behaviors: having had a Pap test in the past year, a clinical breast examination over the past year, and a mammogram over the past 2 years. The following research questions were addressed: (1) Are Latinas less likely than non-

Latina Whites to receive cancer screening tests? (2) If so, do differences remain after control for SES and other demographic variables? (3) What is the additional impact of quality of health care on screening behaviors? (4) What is the effect of having private health insurance on screening behaviors?

METHODS

Data Source

We analyzed data from the 1991 Health Promotion and Disease Prevention (HPDP) supplement of the National Health Interview Survey (NHIS).¹⁴ Conducted annually through the National Center for Health Statistics, the NHIS is a nationwide, personal interview, household survey, the sample of which is representative of the civilian, noninstitutionalized population of the United States. The NHIS uses a complex multistage design with oversampling for minority populations. Although the HPDP supplement is in English, bilingual NHIS interviewers are used by the National Center for Health Statistics. Areas that tend to need interviews administered in Spanish are very well known, and this is considered in making field assignments of bilingual interviewers. To ensure standardization, interviewers are provided with

a Spanish translation of core questions in the NHIS interview. However, in cases in which respondents speak only Spanish and the interviewer is not bilingual, other family members or neighbors are used as interpreters.

The sample for the 1991 NHIS-HPDP supplement consisted of 43 732 respondents. Some evidence suggests that, among Latinos, cancer mortality rates vary by race¹⁵ (Latinos are an ethnic group, and may be of any race). To eliminate the potentially confounding effects of race, only White Latinas and non-Latinas were included in the analyses for the present study. (We performed the identical analyses using the full sample of Latinas, and results remained essentially unchanged.) The 1991 NHIS-HPDP supplement provided information on various health behaviors, including cancer screening. For the analyses on Pap test screening, the sample consisted of 20 379 women aged 18 years or older, of whom 1389 were Latinas (Mexican-American, 53.2%; Puerto Rican, 9.5%; Cuban, 9.2%; and Central/South American or other Latina, 27.7%). Breast cancer screening questions, which were only asked of women aged 40 years or older, included 11 744 women.

Dependent Variables

Outcome measures included Pap test, clinical breast examination, and mammogram screenings. Respondents aged 18 years and older were asked, "During the past 12 months, did you have a Pap smear or Pap test to check for cancer of the cervix?" Women aged 40 years and older were asked 2 questions regarding breast examinations: "During the past 12 months, have you had a breast physical exam in which a medical doctor or health professional checked your breasts for lumps?" and "During the past 2 years, have you had a mammogram?" Each of these 3 outcomes was coded as a dichotomous variable (0=no and 1=yes).

Independent Variables

Age was coded as a continuous variable. Socioeconomic status (SES) was assessed as family income and education, and both were treated as continuous variables in the analyses. Family income ranged from 0 (<\$1000) to 26 (≥\$50 000). Highest level of education completed had a possible range of 0 (no edu-

cation or kindergarten only) to 6 (>bachelor's degree).

Race and ethnicity were based on respondents' self-reports. A dichotomous variable was created for Latina ethnicity. A code of 1 for Latina was assigned to respondents who listed their national origin or ancestry as Puerto Rican, Cuban, Mexican/Mexicana, Mexican American, Chicana, other Latin American, or other Spanish. All others were coded 0 for non-Latina.

Two variables were used to measure quality of health care: source of health care and extent of last physical examination. For the first measure, respondents were asked, "Is there a particular clinic, health center, doctor's office, or other place that you usually go to if you are sick or need advice about your health?" Respondents who answered yes were then asked to specify their usual place of health care. From these data, we created a source of health care variable, with higher scores approximating greater quality of care (i.e., 1=none, 2=emergency room, 3=hospital outpatient clinic, 4=health center or clinic, and 5=physician's office).

For the second quality of care measure, we created a 9-item scale to approximate the extent of the respondent's last physical examination. The 1991 NHIS-HPDP supplement included several questions regarding the respondent's last checkup: whether 5 routine tests were performed (cholesterol level, blood pressure, weight measured, blood test, and urine test) (1=no and 2=yes) and whether the patient was asked 4 questions about her health behaviors (diet/eating habits, amount of exercise, smoking, and alcohol use) (1=no and 2=yes). Responses to each of these 9 questions were summed, yielding a continuous scale with a possible range of 9 to 18. Those who never had a physical examination were coded as "no" for each of these items, rather than missing, to reflect their lack of health care. Both quality of health care variables were treated as continuous variables in the analyses.

Whether respondents had private insurance coverage was used as a proxy measure of access to health care. Although access to health care involves a broader range of issues than is encapsulated by private insurance coverage, these analyses were limited by the data available in the 1991 NHIS-HPDP public use

data set. Respondents who reported being employed by a private company or federal, state, or local government were asked, "Not counting Medicare or Medicaid, are you now covered by a health insurance plan which pays any part of hospital or doctor bills?" Those respondents who were unemployed, self-employed, or insured through public programs were excluded. Although this limits the generalizability of our findings, the effect of private insurance on cancer screening nonetheless provides a useful assessment of health care access.

Statistical Analyses

To account for the NHIS survey design, we used Stata to adjust all analyses for clustering, stratification, and oversampling using survey estimation techniques.¹⁶ Initial analyses of crude odds ratios were conducted to determine whether Latinas are less likely than non-Latina Whites to receive cancer screening tests. We use multivariate logistic regression analyses to examine cancer screening behaviors among Latinas compared with non-Latina Whites after controlling for age, education, and family income. The impact of quality of health care on screening was also assessed with logistic regression. Finally, among the subsample of employed women, we repeated the above analysis to examine the effect of private health insurance on screening. All analyses of crude and adjusted odds ratios (ORs) were conducted with survey procedures in Stata, which allow for sampling weights and multi-stage sampling adjustments.

RESULTS

Demographic and other data of the study respondents are shown in Table 1, stratified by screening and ethnicity. Analyses on Pap test screening included 1389 (6.8%) Latinas and 18 990 (93.2%) non-Latina Whites. The sample for the analyses of mammograms and clinical breast examinations consisted of 535 (4.6%) Latinas and 11 209 (95.4%) non-Latinas.

Table 2 displays the crude ORs for screening in relation to ethnicity. Latinas were less likely than non-Latina Whites to have had a mammogram (OR=0.71), but no differences

TABLE 1—Characteristics of Study Samples

	Pap Test, Women ≥ 18 Years of Age (n = 20 379)		Mammogram and Clinical Breast Examination, Women ≥ 40 Years of Age (n = 11 744)	
	Latina	Non-Latina	Latina	Non-Latina
No. (%)	1389 (6.8)	18990 (93.2)	535 (4.6)	11 209 (95.4)
Mean age, y ±SD ^a	38.2 ±15.6	46.3 ±18.4	54.6 ±11.8	59.2 ±13.4
Education level (median) ^a	(HS graduate)	(HS graduate)	(Some HS)	(HS graduate)
Elementary or less, %	26.8	6.7	38.4	10.8
Some high school, %	17.8	10.8	13.0	12.6
HS graduate, %	30.0	40.9	26.8	41.6
Some college, %	16.5	22.3	11.9	18.4
Bachelor's degree or more, %	9.0	19.1	9.9	16.4
Median income, \$5000 range, \$ ^a	20 000–25 000	30 000–35 000	20 000–25 000	30 000–35 000
Source of health care ^a				
None, %	25.4	12.4	19.6	9.3
Emergency room, %	0.7	0.3	0.9	0.3
Hospital outpatient clinic, %	7.2	2.8	5.4	2.4
Health center or company/industry clinic, %	5.0	2.9	3.0	2.0
Physician's office, %	61.7	81.5	71.1	86.0
Mean extent of last physical examination ^{a,b}	13.26	13.03	13.69	13.24

Source. National Center for Health Statistics, National Health Interview Survey, 1991.¹⁴

Note. HS = high school.

^aThe differences between Latinas and non-Latina Whites in age, education, income, source of care, and extent of last physical examination are significant at $P \geq .05$.

^bScale range is 9–18.

TABLE 2—Latinas' and Non-Latina Whites' Report of Cancer Screening Testing

Test	No. (%) Who Reported Having Obtained Test		Crude Odds Ratio (95% Confidence Interval)
	Latina	Non-Latina	
Pap test	796 (56.8)	10 360 (56.6)	1.01 (0.88, 1.14)
Mammogram	247 (47.4)	5980 (56.0)	0.71 (0.57, 0.88)
Clinical breast examination	314 (59.4)	6447 (59.7)	0.99 (0.79, 1.24)

Source. National Center for Health Statistics, National Health Interview Survey, 1991.¹⁴

by ethnicity were found for Pap tests (OR = 1.01) or clinical breast examinations (OR = 0.99). The adjusted odds of obtaining screening tests after control for age, education, and family income are shown in the top half of Table 3. As in the unadjusted analyses, the multivariate analyses showed no effect of ethnicity on having Pap tests or clinical breast examinations. For mammogram screening, Latinas were less likely than non-Latina Whites to have had a mammogram, but the

difference was no longer significant after control for age, education, and family income.

We then assessed whether quality of health care had an effect on screening behaviors. A greater proportion of Latinas than non-Latina Whites reported not having a regular source of health care (Table 1). Although Latinas had slightly higher mean scores relative to non-Latinas on extent of the last physical examination, the differences were quite small. The lower half of Table 3 shows that adjusting for

age, education, family income, and ethnicity, both source of care and extent of the last physical examination were related to greater odds of having undergone all 3 cancer screening tests. In these analyses, ethnicity was not associated with participation in screening tests after adjustment for the other factors.

We repeated the above analyses to examine the effect of having private health insurance on screening behaviors. In the 1991 NHIS-HPDP public use file, data on health insurance coverage were available for employed women only. Pap test analyses consisted of 598 (6.4%) Latinas and 8736 (93.6%) non-Latina Whites. Analyses of mammograms and clinical breast examinations of women aged 40 years and older included 208 (5.1%) Latinas and 3857 (94.9%) non-Latina Whites. Among this subsample of employed women, 72.8% of Latinas reported having private health insurance, compared with 86.1% of non-Latina Whites. Relative to non-Latina Whites, Latinas were significantly less likely to have private health insurance (OR = 0.66; 95% confidence interval = 0.51, 0.85) after adjustment for age, education, and family income.

As shown in Table 4, after adjustment for age, education, family income, quality of health care, and ethnicity, having private health insurance was associated with greater odds of having had all 3 screening tests. Most notably, employed women with private health insurance were more than twice as likely (OR = 2.42) to have had a mammogram than their uninsured counterparts.

We also conducted analyses (results not shown) to assess the effects of possible confounders: marital status (married/not married), current employment status (currently employed/not currently employed), region of the United States (Northeast, West, Midwest, and South), and years lived in the United States (<15 years or ≥15 years in the United States or born in the United States). The findings regarding quality of care and health insurance were essentially unaffected with the inclusion of these confounders. (Analyses of potential confounders in the relationship between health insurance and screening did not include employment status because all respondents in these analyses were employed.) The ORs for source of health care, extent of

TABLE 3—Adjusted Odds Ratios (ORs) and 95% Confidence Intervals (CIs) for Having Obtained Cancer Screening Tests, Including Age and Socioeconomic Status (Model 1) and Effects of Source of Care and Extent of Last Physical Examination (Model 2)

	Pap Test, Adjusted OR (95% CI)	Mammogram, Adjusted OR (95% CI)	Clinical Breast Examination, Adjusted OR (95% CI)
Model 1			
Age ^a	0.98 (0.97, 0.98)	0.99 (0.99, 1.00)	1.00 (0.99, 1.00)
Education level ^b	1.19 (1.16, 1.23)	1.29 (1.25, 1.34)	1.21 (1.17, 1.26)
Family income ^c	1.02 (1.01, 1.03)	1.02 (1.02, 1.03)	1.02 (1.01, 1.02)
Latina ethnicity	1.02 (0.88, 1.17)	0.90 (0.70, 1.15)	1.21 (0.94, 1.56)
Model 2			
Age ^a	0.97 (0.97, 0.98)	0.99 (0.99, 1.00)	0.99 (0.99, 1.00)
Education level ^b	1.18 (1.14, 1.22)	1.28 (1.23, 1.33)	1.19 (1.14, 1.24)
Family income ^c	1.02 (1.01, 1.03)	1.02 (1.02, 1.03)	1.02 (1.01, 1.02)
Latina ethnicity	1.10 (0.95, 1.27)	0.93 (0.69, 1.24)	1.28 (1.01, 1.63)
Source of health care ^d	1.22 (1.18, 1.25)	1.27 (1.22, 1.32)	1.33 (1.28, 1.39)
Extent of last physical examination ^e	1.14 (1.12, 1.17)	1.21 (1.18, 1.24)	1.21 (1.18, 1.24)

Source. National Center for Health Statistics, National Health Interview Survey, 1991.¹⁴

Note. Odds ratios for each variable are adjusted for all other variables in the model. Odds ratios for continuous independent variables denote change in the odds of screening per unit change in the independent variable.

^aAge is a continuous variable, assessed in years.

^bEducation level range is 0 (no education or kindergarten only) to 6 (> bachelor's degree).

^cFamily income range is 0 (<\$1000) to 26 (≥\$50 000).

^dSource of health care range is 1 (none) to 5 (physician's office), with higher scores denoting greater quality of care.

^eExtent of last physical examination range is 9–18.

TABLE 4—Adjusted Odds Ratios (ORs) and 95% Confidence Intervals (CIs) for Having Obtained Cancer Screening Tests, Including Effects of Private Health Insurance

	Pap Test, Adjusted OR (95% CI)	Mammogram, Adjusted OR (95% CI)	Clinical Breast Examination, Adjusted OR (95% CI)
Age ^a	0.98 (0.97, 0.98)	1.02 (1.00, 1.03)	1.01 (0.99, 1.02)
Education level ^b	1.16 (1.10, 1.21)	1.23 (1.14, 1.33)	1.18 (1.08, 1.27)
Family income ^c	1.02 (1.01, 1.03)	1.04 (1.02, 1.05)	1.03 (1.01, 1.05)
Latina ethnicity	1.10 (0.86, 1.40)	1.25 (0.83, 1.87)	1.56 (1.02, 2.36)
Source of health care ^d	1.20 (1.16, 1.25)	1.24 (1.16, 1.32)	1.27 (1.20, 1.34)
Extent of last physical examination ^e	1.12 (1.08, 1.15)	1.15 (1.09, 1.20)	1.14 (1.09, 1.19)
Private health insurance	1.27 (1.06, 1.51)	2.42 (1.84, 3.17)	1.39 (1.11, 1.74)

Source. National Center for Health Statistics, National Health Interview Survey, 1991.¹⁴

Note. Odds ratios for each variable are adjusted for all other variables in the model. Odds ratios for continuous independent variables denote change in the odds of screening per unit change in the independent variable.

^aAge is a continuous variable, assessed in years.

^bEducation level range is 0 (no education or kindergarten only) to 6 (> bachelor's degree).

^cFamily income range is 0 (<\$1000) to 26 (≥\$50 000).

^dSource of health care range is 1 (none) to 5 (physician's office), with higher scores denoting greater quality of care.

^eExtent of last physical examination range is 9–18.

quality of and access to health care on breast and cervical cancer screening behaviors. In all analyses concerning having had a recent Pap test, Latinas did not differ from non-Latina Whites. Latinas were less likely than non-Latinas to have had a mammogram over the past 2 years. However, this difference attenuated after adjustment for age and socioeconomic factors. Notably, after adjusting for age, socioeconomic factors, and quality of care, Latinas were actually more likely than non-Latina Whites to have had a clinical breast examination during the past year.

Our findings are inconsistent with previous reports that Latinas are less likely than non-Latina Whites to undergo breast and cervical cancer screening tests.^{5–8,17} Inconsistencies may result from methodological differences between studies, as several studies did not adjust for socioeconomic differences between Latinas and non-Latina Whites.^{6,8,17} Our findings are consistent with a growing number of recent studies showing similar cancer screening rates between Latinas and non-Latina Whites, once adjustments are made for sociodemographic factors. Moreover, when adjusting for confounders, evidence suggests that the gap in screening rates between Latinas and non-Latina Whites narrows.¹⁸ In an analysis of the 1987 and 1992 NHIS Cancer Control Supplements,¹⁹ rates in 1987 adjusted for age, education, and income revealed various disparities between Latinas and non-Latina Whites in ever having had a Pap test, mammogram, and clinical breast examination. However, in 1992 there were fewer gaps. Recent studies of large community samples also report similar breast and cervical cancer screening rates between Latinas and non-Latina Whites,¹² especially after controlling for sociodemographic confounders,²⁰ and rates of recent screening that are similar to those found in the present study.¹³ Combined, these results indicate that the gap in screening rates between Latinas and non-Latinas may be narrowing.

Results of the present study indicate that SES and other variables that are confounded with ethnicity predict screening. Education was associated with all 3 screening tests. With each unit increase in education, there was a nearly 30% increase in mammograms

physical examination, and health insurance either increased, remained unchanged, or decreased negligibly and remained significant for all screening outcomes.

DISCUSSION

We examined the effects of ethnicity, socioeconomic and demographic variables, and

and an approximately 20% increase in having had a Pap test and clinical breast examination, after control for age, income, and ethnicity.

Quality of health care was significantly associated with cancer screening behaviors. Both source of health care and extent of physical examination predicted a greater likelihood of having a recent mammogram, clinical breast examination, and Pap test. Previous research also indicates that the absence of quality health care, such as lacking a usual care provider, is associated with decreased cancer screening.^{13,21,22} The findings concerning the extent of physical examination suggest that women receiving less than optimal care are not being screened for breast and cervical cancer. In other studies, women cite lack of physician recommendation as the major reason for not obtaining cancer screening tests.⁶ Our findings concerning quality of health care suggest that factors in the health care setting predict cancer screening.

Having private health insurance was associated with an increased likelihood of obtaining cancer screening tests, especially mammograms. In this study, the health insurance variable was limited to employed women and excluded those receiving Medicaid and Medicare. Thus, the effect of health insurance on screening among *unemployed* women was not assessed, nor was the impact of “public” health insurance on screening. However, it is important to note that in a recent analysis of the 1998 NHIS, private health insurance—not Medicaid—predicted mammogram and Pap test screening among Latinas.²² Furthermore, only about 20% of Latinos have public health insurance. A significant number of Latinos work for employers who do not provide health insurance coverage. Approximately 1 of every 3 employed Latinos (30%) works in a setting that does not offer health insurance. Furthermore, less than half of Latinos (43%) compared with almost three fourths of non-Latino Whites (73%) receive employer-sponsored health insurance.¹⁰ Few studies have specifically examined the impact of lack of insurance on screening among employed Latinas and non-Latinas. Our findings, which complement recent evidence on the effect of private health insurance on screening,²² indicate that even

among employed women, private health insurance makes a difference.

Other limitations of the present study should be noted. Use of the NHIS is advantageous for generalizability of findings. However, analyses on national data may obscure regional differences in screening. Recent ecological analyses of the 1990 NHIS showed that areas characterized by high concentrations of Latinos and low SES have low rates of breast and cervical cancer screening.²³

There is a pressing need to collect richer and more extensive data on Latinas. Despite the nature of the NHIS-HPDP, a large, nationally representative data set, stratification by age group or SES results in small sample sizes and large confidence intervals. As a consequence, there is a limited understanding of cancer screening behaviors among upper-SES minority women.^{5,19} Analyzing cancer screening behaviors by birthplace, language use, or Latina subgroups using existing national surveys is also extremely difficult, as stratification results in limited sample sizes of proportionately smaller groups of Latinos (e.g., Cubans). These issues are important, as there are differences between Latino groups in sociodemographic factors and health insurance coverage.

A number of unanswered questions must be addressed in future research. First, the results of this study suggest that, after controlling for sociodemographic and other factors, Latinas and non-Latinas do not differ in screening behaviors. Whether this will result in the future elimination of disparities in cancer survival rates between the groups is unknown. Most likely, disparities will continue unless the underlying fundamental causes of health disparities between the groups,²⁴ such as differences in education and access to health care, are eliminated.

Second, there is limited research on delay in receiving diagnosis and treatment. Latinas are more likely than Whites to experience a longer delay in receiving a diagnosis after noticing symptoms,^{25,26} but a hospital-based study found no evidence that this delay accounted for ethnic differences in survival.²⁶ Whether delay in receiving a diagnosis is attributable to limited access to health care or other factors remains unknown.²⁵

Third, structural factors merit more research attention, as suggested by our findings on quality of health care. It is reasonable to hypothesize that, given an abnormal result from a cancer screening test, women may be lost to follow-up if they lack a regular health care provider or attend overcrowded clinics that are strained by the current health care crisis. There is limited research on ethnic differences in delay or failure to follow-up after receiving an abnormal test result, and studies on this issue have yielded inconsistent findings.²

Finally, we encourage future research to adopt a more theoretical approach toward understanding cancer screening behaviors among Latinas (and non-Latinas) (see, for example, the work of Stein et al.²⁷). Obtaining screening tests encompasses a complex set of behaviors. Social, psychological, structural, and cultural factors may all play a role. The development of theoretical models that test the mechanisms by which these factors affect screening may greatly advance our understanding of breast and cervical cancer screening behaviors among Latinas.

Our analyses indicate that mammogram screening rates are lower among Latinas than among non-Latina Whites, a finding that may be attributable to between-group differences in SES and health care coverage. Findings on the effects of SES, quality of health care, and health insurance coverage have implications for health care policy. Social inequalities and lack of health insurance may create barriers to health care for Latinas,²⁸ and health care reform proposals have not adequately addressed the needs of Latinos and other people of color—especially women—who are disproportionately represented among the poor and working poor.²⁹ As Zambrana and colleagues have argued, there is a tendency to hold individuals accountable for behaviors that are greatly influenced by broader institutional and societal factors.³⁰ The percentage of breast cancer diagnosed in situ is lower among Latinas than among non-Latina Whites.^{9,25,31,32} This difference in diagnosis of breast cancer—a disease that can be detected early—suggests that social inequalities and lack of health insurance coverage may be placing Latinas at a considerable disadvantage.^{28,33} ■

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Human Participant Protection

The institutional review board of the Columbia University Medical Center approved this research as exempt from review.

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