What Factors Hinder Women of Color From Obtaining Preventive Health Care?

This commentary examines how women of color fare on the use of preventive care. Logistic regression models of women's use of preventive care were computed with data from the 1994 Commonwealth Fund Minority Health Survey. It was found that having a regular doctor was the most consistent predictor of the use of preventive care, irrespective of the women's racial/ethnic background, socioeconomic circumstances, or place of residence.

These findings reinforce the importance of physicians in the delivery of preventive care. Suggestions for improving the use of preventive services by women of color are provided. (*Am J Public Health.* 2002; 92:535–539)

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SINCE THE 1950S, researchers have consistently provided evidence that health disparities exist between Whites and other Americans in infant mortality and in mortality due to diabetes, heart disease, cerebrovascular disease, and malignant neoplasms.[1,2] However, it was the landmark 1985 *Report of the Secretary's Task Force on Black and Minority Health*[3] that highlighted the array of factors contributing to disparities in health care among people of color. This report suggested that such disparities resulted from a lack of access to health care providers, differences in healthy behaviors (e.g. diet, smoking, exercise), socioeconomic differences, and other environmental factors. Moreover, the report suggested that interventions to reduce disparities among persons of color should emphasize the full continuum of screening, detection, treatment, and follow-up care.

Within the arena of preventive health care, recent studies have highlighted the importance of maintaining healthy eating habits, stopping smoking, and drinking sufficient water; adhering to a rigorous regular exercise regimen; obtaining regular prevention screenings or examinations; and detecting risks for disease as ways to reduce the risk of death due to breast cancer, lung cancer, cervical cancer, cardiovascular problems, asthma, diabetes, pneumonia, and influenza.[4–13] In spite of the known merits of these preventive measures, women of color have historically been less likely than Whites to receive preventive health services and to engage in healthy behaviors.[14–19] In this commentary we examine the barriers to receipt of preventive care for African American, Asian American, and Latina women.

METHODS

The data for this study come from the 1994 Commonwealth Fund Minority Health Survey (CMHS).[20] The 1994 CMHS was a national probability sample of 3789 adults 18 years and older. The CMHS sample was weighted to reflect the minorities' proportionate representation in the US population as reflected in the Census Bureau's March 1994 Current Population Survey.

The variables used in the analyses for this article were as follows:

1. *Race and ethnicity.* Classification by ethnic/racial background was based on information reported for each household member. Respondents were asked if their racial background was best described as African American, Black, Asian or Pacific Islander, Native American or Alaskan Native, White, or another race. All respondents were also asked whether their main national origin or ancestry was among the following Hispanic American subpopulations, regardless of racial background: Puerto Rican, Cuban, Mexican, Dominican, Costa Rican, or other Hispanic American.

Respondents who described themselves as Asian or Pacific Islander were asked if they were of Chinese, Vietnamese, Korean, or other Asian heritage. The categories of White, Asian/Pacific Islander, Vietnamese, Korean, Chinese, and African American excluded those with Hispanic ancestry.

2. *Location (urban, rural, suburban) and region of residence.*

3. *Insurance status.* Respondents were asked whether they were covered by health insurance provided through the respondent's work or union, health insurance through someone else's work or union, health insurance purchased directly by the respondent or the respondent's family, health insurance obtained through some other group insurance, Medicare, Medicaid, or public aid. Respondents who did not have any of these types of insurance were defined as being uninsured.

4. *Income level.* Income level was based on the respondent's total 1993 household income.

5. *Education level.*

6. *Perceived health status.* Perceived health status was based on self-reported responses to the question "In general, how would you describe your own health—excellent, good, fair or poor?"

8. *Perceived discrimination.* Perceived discrimination was defined according to the respondent's answer of yes or no to the question of whether she had felt uncomfortable or felt that she had been treated badly because

of her race or ethnicity, sex, age, health or disability, income level, or any other characteristic.

7. *Regular doctor.* Regular doctor was defined according to the respondent's answer of yes or no to the question of whether she had a doctor she would usually go to when sick or in need of health care.

9. *Receipt of preventive care.* Receipt of preventive care was defined as a response of yes to the question of whether the respondent had "received preventive care (such as blood pressure tests, pap smears, or cholesterol level readings)."

Eight logistic regression models (one for each racial/ethnic group: African Americans; all Latinas; Mexican Americans; Puerto Ricans; all Asians/Pacific Islanders; and Vietnamese, Korean, and Chinese Americans) were computed. The dependent variable for each model was whether or not the respondent received preventive care in 1994. Each model included demographic characteristics (region and location of residence, education level, income), perceived health status, insurance status, and perceived discrimination. Odds ratios (ORs) were reported for each of the logistic regression models. The Student *t* statistic was used to report the statistical significance of the coefficients in these models. The Stata statistical package[21] was used for the analyses because it adjusts for the multistage sampling strategy used in CMHS.

RESULTS

Table 1 shows a logistic regression model of correlates of receipt of any preventive care for women of color. By far the most consistent predictors of the decision to seek preventive care were having a regular doctor and having a high school education. Women who had a regular doctor were at least twice as likely as those who did not have a regular doctor to have received preventive care in 1994 ($P<.05$). (For Puerto Rican women, this relationship was close to being statistically significant [$P=.08$].) Women who had a high school education were more than twice as likely as other women to have received preventive care in 1994 ($P<.05$). Neither perceived discrimination nor location of residence (urban, rural, or suburban) made a difference in whether the women received preventive care.

African American women with a high school education were more than twice as likely as other African American women to have received preventive care. Among Latinas taken as a group, having a regular doctor, having insurance, having a high school education, and perceived fair or poor health were correlated with receipt of preventive care ($P<.05$). Living in a low-income household was a nearly statistically significant ($P=.08$) barrier to the receipt of preventive care for Latinas. There were, however, differences between Latina subpopulations. Having insurance was correlated with receipt of preventive care for Puerto Ricans, but not for Mexican Americans. Living in the Northeast was a barrier to the receipt of preventive care for Mexican Americans, but not for Puerto Ricans.

For Asian/Pacific Islander Americans taken as a group, having a high school education and having a regular doctor were correlated with receipt of preventive care. However, educational level was a significant correlate for Chinese Americans but not for Vietnamese or Korean Americans.

DISCUSSION

This study found that regardless of race and ethnicity, women of color who had a regular doctor were at least twice as likely as those who did not to receive preventive care. None of these women saw perceived discrimination as a barrier to receiving preventive care. Living in a rural location did not, per se, pose a barrier to receipt of preventive care. Being uninsured was a barrier to receipt of preventive care for Puerto Rican women, while being poor was a barrier to the receipt of preventive care for all Latinas.

These findings suggest that ensuring access to a regular physician is an important part of addressing the preventive health needs of all women of color. At the same time, we may need to develop educational interventions to help these women meet their preventive health needs. The findings of this study regarding education level, income level, and having a regular doctor support other studies that have examined the relationship between these factors and the receipt of preventive care.[15,21–26]

This study also suggests that women of color may have needs that vary within and among ethnic populations. For example, insurance status was significant for Puerto Ricans but not for Mexican Americans. Perceived health status was a significant correlate of receipt of preventive care for African Americans and Latinas, but not for Asian/Pacific Islanders. These factors suggest that we may need different interventions to target different racial or ethnic groups.

There was one finding that contradicted previous literature. This study did not find differences in receipt of preventive care between urban, suburban, and rural women of color. Other studies have reported that rural and inner-city residents are typically less likely than others to have access to health care providers and that they have to travel further to seek medical care.[27–30] It may be that the barrier to receipt of preventive care by rural women of color is the unavailability of health care providers. One study reported that there was almost a 2-fold difference in the overall population–physician ratio between nonmetropolitan areas (1117 persons per physician) and metropolitan areas (579 persons per physician) in the 399 counties that constitute Applachia. The same study found that there was almost a 3-fold difference in the availability of registered dieticians between metropolitan areas (1009 persons per dietician) and nonmetropolitan areas (2923 persons per dietician).[31]

While it is encouraging to report that having a regular doctor facilitated the receipt of preventive care among women of color, other studies suggest that having a regular doctor is a necessary but not sufficient criterion for ensuring access to preventive care, because some physicians do not provide preventive screenings during office visits. In one study, "physicians reported offering counseling about physical activity during 19.1 percent of the office visits, diet during

TABLE 1—Odds Ratios for Correlates of Receipt of Preventive Health Care by Women of Color 18 Years and Older, by Race/Ethnicity: United States, 1994

	African Americans (n = 444)	All Latinas (n = 494)	Mexican Americans (n = 261)	Puerto Ricans (n = 80)	All Asian/Pacific Islander Americans (n = 313)	Vietnamese Americans (n = 94)	Korean Americans (n = 108)	Chinese Americans (n = 103)
Location								
Urban	1.07	0.89	0.77	0.31	2.70	. . .[a]	. . .[a]	. . .[a]
Rural	0.55	0.77	0.62	0.31	. . .	. . .[a]	. . .[a]	. . .[a]
Suburban	1.00	1.00	1.00	1.00	1.00	. . .[a]	. . .[a]	. . .[a]
Region								
Northeast	0.71	0.66	0.13*	0.55	1.06	1.86	0.49	1.32
Midwest	1.40	0.57	0.82	2.32	1.22	2.16	0.42	2.96
South	1.04	0.93	0.94	0.43	0.85	1.18	0.31	1.31
West	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Insurance status								
Uninsured	0.57	0.56*	0.58	0.04*	0.81	1.11	0.76	0.27
Insured	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
1993 Household income, $								
<15 000	1.26	0.55†	0.89	1.44	0.54	0.49	0.24	0.84
15 000–25 000	1.35	0.78	1.01	0.79	0.82	0.56	0.63	1.05
25 000–50 000	0.77	0.91	1.02	0.67	0.91	0.96	1.20	0.61
>50 000	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Education								
<High school	0.41*	0.39***	0.30**	0.06**	0.91	0.86	4.04	0.47
High school	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
>High school	0.44**	0.38***	0.32**	0.32	0.46*	0.39	0.76	0.24*
Perceived health								
Fair/poor	2.25*	2.05**	1.62	2.70	1.35	1.36	1.35	2.88
Good/excellent	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Regular doctor								
Yes	2.58**	2.74***	3.41***	3.90†	2.76***	3.13*	3.39*	3.08*
No	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Perceived discrimination								
Yes	0.69	0.89	0.71	0.69	1.40	1.74	1.89	0.76
No	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
χ^2	42.24	76.26	51.83	26.80	33.98	11.25	21.49	19.75
df	14	14	14	14	13	12	12	12
P	<.001	<.001	<.001	<.05	<.01	.5078	<.05	.072

Source. 1994 Commonwealth Fund Minority Health Survey.[20]
[a]Coefficients could not be computed for these variables because of small cell sizes.
*$P < .05$; **$P < .01$; ***$P < .001$; †$P = .08$.

22.8 percent, and weight reduction during 10.4 percent."[32(p741)] A second study reported that fewer than half of the patients surveyed received screening for hypertension and diabetes.[18] A third study reported that only 18% of office visits focused on dietary counseling and that internists were consistently more likely than general practitioners and family physicians to check blood pressure.[33]

These studies show that we need to do more than just ensure that women of color have access to a regular doctor. There are a multitude of things that can be done in the areas of policy, practice, and research to meet the preventive health needs of women of color.

Policy

• Target physicians through graduate medical education programs showing the importance of health prevention activities during office visits as a way to reach the Healthy People 2010[34] goals.

• Address differences in coverage for preventive exams by insurance status (private and public insurance).

• Evaluate the time spent during office visits for preventive

care relative to other activities to assess costs and benefits.

• Decrease the number of women of color who are uninsured.

• Examine the rate of underinsurance for preventive health care.

• Infuse funding to increase the supply of health care providers in inner-city and rural communities through mechanisms such as section 330 of the US Public Health Act (community health centers), and assure funding to the Health Research and Services Administration to increase the number of providers in medically underserved areas.

• Increase funding for community-based health promotion projects and community involvement in local health decisionmaking activities.

• Provide funding for dietary outreach efforts in communities.

Practice

• Develop and implement cultural competency training for health care providers.

• Work with professional associations to set and implement standards for routine preventive screening activities.

• Develop curriculums for medical and allied health education that are gender sensitive and that factor psychosocial issues into the treatment process.

Research

• Evaluate the effectiveness of information dissemination activities relating to Healthy People 2010 objectives for preventive health.

• Evaluate the effectiveness of knowledge, attitude, and behavior interventions as they relate to Healthy People 2010 objectives for preventive health.

• Advocate the funding of large-scale, quantitative, localized studies of ethnic populations and of rural populations to examine within-group differences in preventive health care practices.

• Advocate the funding of qualitative evaluations to complement quantitative studies examining the context of patient–provider interactions and health decisionmaking activities.

Like all studies, this study has limitations that constrain our ability to generalize its findings. First, the data obtained from the CMHS are based on self-report and may under- or overreport health behaviors. This is important from a cultural point of view, since people of color tend to vary in their reporting of the severity of their health problems. Second, the small sample size limited our ability to examine certain subpopulations or to detect statistically significant findings for some of the racial and ethnic groups studied. ■

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Note. *This commentary reflects the views of the authors and no official endorsement by the University of Maryland is intended or should be inferred.*

Contributors

L.J. Cornelius was responsible for formulating and implementing the analytic plan, writing up the data analysis and discussion sections, and revising and editing the paper. P.L Smith was responsible for the initial draft of the literature review. G.M. Simpson was responsible for the initial draft of the methods section.

References

1. *Health United States, 1983.* Hyattsville, Md: National Center for Health Statistics; 1983.

2. *Health United States.* Hyattsville, Md: National Center for Health Statistics; 1986.

3. *Report of the Secretary's Task Force on Black and Minority Health.* Washington, DC: US Dept of Health and Human Services; 1985.

4. American Cancer Society. The importance of nutrition in cancer prevention. Available at: http://www2.cancer.org/prevention/NutritionandPrevention.cfm. Accessed July 24, 2001.

5. Decklebaum RJ, Fisher EA, Winston M, et al. Summary of a scientific conference on preventive nutrition: pediatrics to geriatrics. *Circulation.* 1999; 100:450–456.

6. Luder E, Melnick TA, DiMaio M. Association of being overweight with greater asthma symptoms in inner city black and Hispanic children. *J Pediatr.* 1998;132: 699–703.

7. Winkleby MA, Robinson TN, Sundquist J, Kraemer HC. Ethnic variation in cardiovascular disease risk factors among children and young adults: findings from the Third National health and Nutrition Examination Survey, 1988–1994. *JAMA.* 1999;281:1006–1013.

8. Resnick HE, Valsania P, Halter JB, Lin X. Differential effects of BMI on diabetes risk among black and white Americans. *Diabetes Care.* 1998;21: 1828–1835.

9. Cohen RA, Bloom B, Simpson G, Parsons PE. Access to health care, part 3: older adults. *Vital Health Stat 10.* 1997;No. 198.

10. National Cancer Institute. Highlights of NCI's cancer prevention and control programs. Available at: http://cis.nci.nih.gov/fact4_5.htm. Accessed July 24, 2001.

11. Celano M, Geller RJ, Phillips KM, Ziman R. Treatment adherence among low-income children with asthma. *J Pediatr Psychol.* 1998;23:345–349.

12. Jones DW. What is the role of obesity in hypertension and target organ injury in African Americans? *Am J Med Sci.* 1999;317:147–151.

13. Harris MI. Diabetes in America: epidemiology and scope of the problem. *Diabetes Care.* 1998;21(suppl):C11–C14.

14. Mark T, Paramore LC. Pneumococcal pneumonia and influenza vaccination: access to and use by US Hispanic Medicare beneficiaries. *Am J Public Health.* 1996;86:1545–1550.

15. Jennings KM. Getting a Pap smear: focus group responses of African American and Latina women. *Oncol Nurs Forum.* 1997;24:827–835.

16. Kerner JF. Breast cancer prevention and control among the medically underserved. *Breast Cancer Res Treat.* 1996;40:1–9.

17. Yi JK. Acculturation and Pap smear screening practices among college-aged Vietnamese women in the United States. *Cancer Nurs.* 1998;21:335–341.

18. Cooper RJ, Cutler P, Desvigne-Nickens SP, et al. Trends and disparities in coronary heart disease and other cardiovascular diseases in the United States: findings of the National Conference on Cardiovascular Disease Prevention. *Circulation.* 2000;102:3137–3147.

19. Bernstein J, Mutschler P, Bernstein E. Keeping mammography referral appointments: motivation, health belief, and access barriers experienced by older minority women. *J Midwifery Womens Health.* 2000;45:308–313.

20. *Health Care Services and Minority Groups: A Comparative Survey of Whites, African-Americans, Hispanics, and Asian-Americans.* New York, NY: Lou Harris & Associates; 1994.

21. *Stata, Release 6* [computer program]. College Station, Tex: Stata Corp; 1999.

22. Miller AM, Champion VL. Attitudes about breast cancer and mammography: racial, income, and educational differences. *Women Health.* 1997;26:41–63.

23. Shakoor-Abdullah B, Kotchen JM, Walker WW, Chelius TH, Hoffman RG. Incorporating socio-economic and risk factor diversity into the development of an African-American community blood pressure control program. *Ethn Dis.* 1997;7:175–183.

24. Mandelblatt JS, Gold K, O'Malley AS, et al. Breast and cervix cancer screening among multiethnic women: role of age, health and usual source of care. *Prev Med.* 1999;28:418–425.

25. Wismer BA, Moskowitz JM, Chen AM, et al. Rates and independent correlates of Pap smear testing among Korean-American women. *Am J Public Health.* 1998;88:656–660.

26. O'Malley AS, Mandelblatt J, Gold K, Cagney KA, Kerner J. Continuity of care and the use of breast and cervical cancer screening services in a multiethnic community. *Arch Intern Med.* 1997; 157:1462–1470.

27. *Securing Access to Health Care: The Ethical Implications of Differences in the Availability of Health Services. Vol 1: Report.* Washington, DC: The President's Commission for the Study of Ethical Problems in Medicine and Biomedical and Behavioral Research; 1983. GPO publication 0-401-553 QL3.

28. Mueller KJ, Patil K, Boilesen E. The role of uninsurance and race in healthcare utilization by rural minorities. *Health Serv Res.* 1998;33: 597–610.

29. Skaer TL, Robinson LM, Sclar DA, Harding GM. Cancer screening determinants among Hispanic women using migrant health clinics. *J Health Care Poor Underserved.* 1996;7:338–354.

30. Peters RK, Bear MB, Thomas D. Barriers to screening for cancer of the cervix. *Prev Med.* 1989;18:133–146.

31. Barnett E, Halverson JA, Elmes GA, Bratham VE. Metropolitan and non-metropolitan trends in coronary heart disease mortality within Appalachia, 1980–1987. *Ann Epidemiol.* 2000;10:370–379.

32. Centers for Disease Control and Prevention. Missed opportunities in preventive counseling for cardiovascular disease—United States, 1995. *JAMA.* 1998;279:741–742.

33. Stafford RS, Saglam D, Causino N, et al. Trends in adult visits to primary care physicians in the United States. *Arch Fam Med.* 1999;8:26–32.

34. *Healthy People 2010: Understanding and Improving Health.* Washington, DC: US Dept of Health and Human Services; 2001. Also available at: http://web.health.gov/healthypeople/document/. Accessed February 3, 2002.