

Health Status, Health Insurance, and Health Care Utilization Patterns of Immigrant Black Men

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The recent growth in research on racial and ethnic health disparities in the United States has led to an increasing awareness of the substantial heterogeneity within large racial/ethnic populations. For example, health status varies widely across subgroups within Hispanic and Asian populations.^{1–4} Within the Black population, 1 of the largest clearly defined subgroups is the immigrant population. As the public health community begins to identify the health patterns of Black men, it is important to assess the specific health characteristics of foreign-born men of African descent. The Black immigrant population is a growing subgroup of the Black population, and the health status of these foreign-born Blacks may differ substantially from that of US-born Blacks. The public health community must know more about the health characteristics of immigrant Blacks for policy and planning purposes.

The total US immigrant population has increased by more than 50% within the last decade,⁵ and foreign-born individuals now account for approximately 11% of the US population, the largest percentage since the 1930s.^{5,6} Although a small flow of Black immigrants into the US began as early as the late 1800s, that flow decreased for several decades beginning in the late 1920s, after the passage of restrictive immigration laws and the onset of the Great Depression. However, the flow of Black immigrants increased substantially following the liberalization of immigration laws in 1965.^{7,8} Between 1970 and 1990, the percentage of foreign-born Black Americans increased more than fourfold (from 1.1% to 4.9%), whereas the percentage of foreign-born White Americans remained stable, at approximately 5%.⁹

By 2000, 2.2 million foreign-born Blacks resided in the United States (6.3% of the total Black population), and another 1.4 mil-

Objectives. This study sought to describe the health status, health insurance, and health care utilization patterns of the growing population of immigrant Black men.

Methods. We used data from the 1997–2000 National Health Interview Survey to examine and then compare health variables of foreign-born Black men with those of US-born Black and White men. Logistic regression analyses were used to examine health outcomes.

Results. Foreign-born Black men were in better overall health than their US-born Black counterparts and were much less likely than either US-born Black or White men to report adverse health behaviors. Despite these health advantages, foreign-born Black men were more likely than either US-born Black or White men to be uninsured.

Conclusions. In the long term, immigrant Black men who are in poor health may be adversely affected by lack of health care coverage. (*Am J Public Health.* 2003;93:1740–1747)

lion Blacks (3.9%) had at least 1 foreign-born parent. Thus, 10.1% of non-Hispanic Blacks in the United States were either foreign born or had at least 1 foreign-born parent. However, 10.9% of non-Hispanic Whites were either foreign born (7.0 million persons; 3.6%) or had at least 1 foreign-born parent (14.1 million persons; 7.3%).⁶ Although the majority of Black immigrants have historically come from the West Indies, in recent years the number of immigrants from Africa has grown significantly.¹⁰

In general, foreign-born populations in the United States are healthier than their US-born counterparts,^{11–14} and the extant literature suggests a pattern of better health for foreign-born Black men compared with their US-born counterparts.^{15–19} By some measures, the health of foreign-born Black men is comparable to or better than that of US-born White men; however, little is known about the health insurance coverage or the health care utilization patterns of Black immigrant men. Our analysis describes general health and functional status patterns, health insurance patterns, and health care utilization patterns of foreign-born non-Hispanic Black men, and we compare these patterns with those of US-born non-Hispanic Black and White men.

METHODS

Data Source

Our study was based on data from the 1997–2000 National Health Interview Survey (NHIS).²⁰ The NHIS is a national household survey of the civilian noninstitutionalized population of the United States that is conducted annually by the National Center for Health Statistics. Data are collected on the personal, socioeconomic, and health variables of family members and unrelated individuals in surveyed households. The NHIS followed a multistage probability design with continuous weekly sampling; areas with larger populations of Black and Hispanic households were oversampled.

In 1997, the NHIS implemented a major redesign of the survey, the focus of which was to increase the reliance on self-reported data and to improve the measurement of health status and chronic conditions.²¹ In the years 1997 to 2000, the total sample consisted of 172 129 interviewed households and gathered data on 398 938 persons. The overall response rate among eligible households was 89% to 92%. Because of the distinctive health, demographic, and cultural characteristics of Hispanic populations in the United States, we restricted the sample for this study to non-Hispanic foreign-born Black men,

non-Hispanic US-born Black men, and non-Hispanic US-born White men. We also excluded men aged 17 years and younger, resulting in a total sample size of 97 345 men.

General Health and Functional Status

General respondent-assessed health status was based on a standard NHIS question that asks the respondent to rate his or her general health as excellent, very good, good, fair, or poor (proxy reporting of health status was allowed when a household member was unavailable). In our analyses, we dichotomized the responses as fair or poor health versus excellent, very good, or good health. The response to this question has been shown to be predictive of mortality and future disability, even after control for standard demographic, socioeconomic, and health risk variables.^{22–27} A recent study found that respondent-assessed health may be less predictive of mortality for less-acculturated persons²⁸; nevertheless, the response to this question is an important overall summary measure of health and functional status.

We analyzed 1 measure of functional status as defined by the NHIS. An overall measure of functional limitations (having any limitation in an activity) was based on affirmative responses to several questionnaire items, including limitations due to difficulty with memory; difficulty walking without the use of special equipment; being unable to work, or being limited in the amount of work that can be accomplished, because of a physical, mental, or emotional problem; and difficulty handling the routine needs/activities of daily living.²⁹ The summary variable was dichotomized as limited and not limited.

Health Behaviors

We examined data on 3 health behaviors for adult men: smoking status, physical activity, and alcohol use. The NHIS questions were asked of sample adult respondents aged 18 years and older. Smoking status at the time of the interview was categorized as current smoker, former smoker, never smoker, or smoker—current status unknown. A second dichotomous measure of smoking status (current smoker or current nonsmoker) also was used in the logistic regression analyses.

The physical-activity measure was based on the NHIS questions that asked about the

duration, intensity, and frequency of leisure-time physical activity.³⁰ A single dichotomous measure was used to assess participation in physical activity: persons who engaged in no physical activity and persons who engaged in at least some leisure-time physical activity. Adults were classified as not engaging in any physical activity if they reported never participating in light-to-moderate or vigorous physical activity for 10 minutes or more at a time. Adult respondents were classified as having engaged in at least some leisure-time physical activity if they reported engaging in light-to-moderate or vigorous physical activity for at least 10 minutes at a time, regardless of frequency.

Finally, alcohol use was assessed by asking a series of questions about the quantity and the frequency of alcohol use during a 12-month reference period.³¹ We used the measure current drinking status, which classified adult men according to 5 levels of alcohol use: nondrinkers (lifetime abstainers and former drinkers), current infrequent drinkers, light drinkers, moderate drinkers, and heavy drinkers. Because of sample size constraints, the infrequent, light, and moderate groups were combined into a single group for the bivariate analyses, and a dichotomous measure of current drinker (heavy, moderate, light, and infrequent combined) versus nondrinker was used in the logistic regression analyses.

Health Insurance

The 1997–2000 NHIS asked respondents about type and source of their health insurance coverage. Questionnaire items on type of insurance coverage included insurance plans such as fee-for-service, health maintenance organization, and preferred provider organization plans, as well as other types of insurance coverage. The questions also included items on reasons that people lacked health insurance coverage and the length of periods without coverage. Our analyses coded the health insurance data in 2 ways. First, a recode was created to group types of health insurance coverage as private; public or other government insurance; other types of insurance coverage, including military insurance plans; and uninsured. A second, dichotomous variable was created to code respondents as

insured or uninsured. Because of sample size limitations, we were unable to estimate health insurance coverage separately for those aged 65 years or older versus those aged younger than 65 years.

Health Care Utilization

Two measures of health care utilization were included in our analyses: interval since the last visit to a doctor or other health care professional and number of overnight hospital episodes during the past year. The interval since last visit to a doctor or other health care professional was asked of a subset of adult respondents, and the respondents could choose from 4 categories to describe the length of time: 6 months or less, more than 6 months but less than a year, more than a year but less than 3 years, and more than 3 years. Number of hospitalizations was coded as a dichotomous variable (yes/no to having been hospitalized during the past year).

Sociodemographic Factors

The sociodemographic measures included in our study were age (18–44, 45–64, and 65 years and older), marital status (married, divorced/separated/widowed, and never married), education (less than high school, high school graduate/general equivalency diploma, some college, and college graduate or more), and income. The household income variable was based on a recode of income data that categorized total household income as at or above \$20 000 versus below \$20 000. Income was defined as total household income in the 12-month period preceding the interview and included wages, salaries, government payments, pensions, rent from properties, and help from relatives, as well as other sources. Additional questions with more detailed categories for household income followed the first question; however, because the rate of nonresponse to these questions exceeded 20%, the more detailed income data were not included in our analyses.

Finally, a measure of employment status was included in our analyses. Information on employment was asked of respondents aged 18 years and older and was categorized as currently employed, currently unemployed, not in the labor force, and unknown employment status.

Race and ethnicity were assessed with responses to a series of questions. Two questions about Hispanic ethnicity asked respondents first to self-identify as Hispanic/Latino or not and then to indicate type of Hispanic origin (e.g., Cuban, Mexican, Puerto Rican).³² Another question about race allowed a response to 14 categories, including Native American, Asian, and Pacific Islander population subgroups, in accordance with the 1997 standards issued by the Office of Management and Budget.³⁰ These analyses were restricted to non-Hispanic/Latino persons who self-identified as either Black/African American or White.

Nativity Status

Nativity status was determined by answers to questions about place of birth. Men were classified as US born if they were born in one of the 50 United States, the District of Columbia, or one of the US dependencies; otherwise, they were classified as foreign born.

We also included a question about length of residence in the United States as an explanatory variable. This measure was based on the following response categories: less than 1 year; 1 year to less than 5 years; 5 years to less than 10 years; 10 years to less than 15 years; and 15 or more years. This question was asked only of the sample adult respondents in the 1997 NHIS (as opposed to all persons); therefore, we used data from the 1998–2000 NHIS to allow inclusion of this information for all adults. In our analyses, only 1998–2000 NHIS data were used in tables and models that included this variable. Additionally, a combined measure of race and length of time in the United States was used in the logistic regression analyses as a control variable. Sample size limitations required us to simplify length of time in the United States to less than 5 years and 5 years or more, because foreign-born persons must reside in the United States for at least 5 years before they are eligible for US citizenship.

Statistical Analysis

All of our statistical analyses were conducted using SUDAAN software (Research Triangle Institute, Research Triangle Park, NC) to produce estimates and standard errors that incorporate the complex survey design of

the NHIS and to produce the sample weights. The sample weights were used in the analyses to adjust for differential selection probabilities, non-response, undercoverage, and post-stratification to census population totals.³³ Statistically significant differences in adjusted sociodemographic and health characteristics were estimated with *t* tests. Logistic regression analysis was used to estimate the equations that predicted the dichotomous variables. Variables with missing observations were coded to a separate category and were not included in these analyses.

RESULTS

Table 1 shows the sociodemographic characteristics of US-born and foreign-born non-Hispanic Black men and US-born White men. Foreign-born Black men were younger than both US-born Black and White men. Foreign-born Black men also had higher levels of education than did US-born Black men; comparable proportions of foreign-born Black men and US-born White men had obtained a college degree or higher. Although foreign-born Black men were more likely than US-born Black men to be currently employed, they still had lower employment rates compared with US-born White men.

Similar numbers of foreign-born and US-born Black men reported an annual household income greater than \$20 000 (64.7% vs 62.0%), but foreign-born Black men were less likely to report an income greater than \$20 000 compared with US-born White men (78.7%). Foreign-born Black men also were more likely than either US-born Black or White men to live in larger households. Although foreign-born Black men were more likely than either US-born Black or White men to live in the Northeast, their concentration in central cities of metropolitan statistical areas was closer to that of US-born Black men. More than half of foreign-born Black men (55.2%) had lived in the United States for at least 15 years.

Table 2 shows the health status, functional limitation status, and health behavior variables of the study populations. In terms of general health status and functional limitations, foreign-born Black men were in substantially better health than their US-born

Black counterparts. Foreign-born Black men were about 40% less likely to report fair or poor health and 46% less likely to report a functional limitation compared with US-born Black men. Although foreign-born Black men reported similar rates of fair or poor health compared with US-born White men (10.9% and 10.0%, respectively), their rate of functional limitations was much lower than that of US-born White men (10.1% vs 14.3%). Foreign-born Black men were much less likely than either US-born Black or White men to report being current smokers (14.4% vs 29.8% or 26.2%). Similarly, foreign-born Black men were much less likely than either US-born Black or US-born White men to report being heavy drinkers (0.8% vs 5.1% or 5.8%). However, both foreign-born and US-born Black men were less likely than US-born White men to report engaging in at least some type of leisure-time physical activity.

Table 3 shows the health care utilization and health insurance coverage characteristics of the study populations. Foreign-born Black men were less likely than US-born Black or US-born White men to report having seen a physician within the past 6 months or having been hospitalized within the past year. In terms of health insurance coverage, the most notable finding was that despite higher rates of employment and higher education, foreign-born Black men were substantially more likely than either US-born Black or US-born White men to be uninsured. Foreign-born Black men were about 33% more likely than US-born Black men to be uninsured (27.1% vs 20.3%) and more than twice as likely as US-born White men to be uninsured (27.1% vs 12.7%). Although foreign-born and US-born Black men had about the same rate of private health insurance (57.4% and 58.9%, respectively), US-born Black men were significantly more likely than foreign-born Black men to have public insurance, which included Medicaid, Medicare, and other types of state-sponsored coverage.

Table 4 shows the adjusted odds ratios for general health status, activity limitation, insurance, and health behavior measures, after control for demographic and socioeconomic variables including age, marital status, education, income, and geographic region. Odds ratios for foreign-born Black men are shown for

TABLE 1—Age-Adjusted Percentages and Standard Errors of Demographic Variables for Men, by Race and Nativity: United States, 1997–2000

Characteristic	Age-Adjusted % (Standard Error)		
	US-Born Non-Hispanic Blacks (n = 13 921)	Foreign-Born Non-Hispanic Blacks (n = 1486)	US-Born Non-Hispanic Whites (n = 81 938)
No. males	44.0 (0.29)	48.9 (0.81)	48.3 (0.09)
Mean age, y (not adjusted)	41.3 (0.20)	39.6 (0.46)	45.3 (0.11)
Education			
< High school	26.5 (0.58)	20.8 (1.36)* †	14.1 (0.25)
High school graduate/GED	33.6 (0.50)	25.4 (1.48)* †	30.9 (0.27)
Some college	24.9 (0.51)	25.3 (1.28)	27.4 (0.21)
College graduate or higher	11.6 (0.40)	23.6 (1.40)*	25.6 (0.32)
Employment status			
Currently employed	62.8 (0.44)	69.7 (1.19)* †	72.9 (0.18)
Currently unemployed	3.9 (0.18)	4.0 (0.57)†	1.6 (0.05)
Not in labor force	32.2 (0.41)	25.2 (1.07)*	24.9 (0.17)
Family income, \$			
< 20 000	28.6 (0.68)	20.7 (1.62)* †	14.3 (0.24)
≥ 20 000	62.0 (0.69)	64.7 (2.07)†	78.7 (0.29)
Not known	9.5 (0.38)	14.6 (1.74)* †	7.0 (0.17)
Family size			
1–3	69.1 (0.54)	59.0 (1.89)* †	71.8 (0.25)
4–5	24.0 (0.50)	30.5 (1.65)* †	24.9 (0.23)
≥ 6	6.9 (0.31)	10.5 (1.17)* †	3.3 (0.09)
Geographic region			
Northeast	13.9 (0.61)	47.5 (2.65)* †	19.9 (0.36)
Midwest	19.4 (0.85)	7.1 (1.17)* †	29.0 (0.41)
South	57.9 (1.17)	37.0 (2.65)*	34.3 (0.45)
West	8.7 (0.43)	8.4 (1.02)†	16.8 (0.35)
Urban residence			
MSA, central city	51.3 (1.44)	53.6 (3.12)†	21.0 (0.58)
MSA, not central city	33.7 (1.27)	44.8 (3.12)* †	54.0 (0.74)
Non-MSA	15.0 (1.45)	1.6 (0.47)* †	25.0 (0.55)
Time in US, y			
< 1	...	0.9 (0.30)	...
1 to < 5	...	13.9 (1.31)	...
5 to < 10	...	15.3 (1.37)	...
10 to < 15	...	14.6 (1.32)	...
≥ 15	...	55.2 (1.86)	...

Note. MSA = Metropolitan Statistical Area.

* $P \leq .05$ for t test on difference between foreign-born non-Hispanic Black males and US-born non-Hispanic Black males.

† $P \leq .05$ for t test on difference between foreign-born non-Hispanic Black males and US-born non-Hispanic White males.

the total subgroup and stratified into those who have been in the United States less than 5 years and those who have been in the United States 5 years or more. After adjustment for these variables, the odds ratio for foreign-born Black men to report fair or poor health was significantly lower than for US-born Black and White men. However, the

odds for foreign-born Black men who had been in the United States 5 years or more were similar to the odds for US-born White men, whereas the odds for foreign-born Black men who had been in the United States less than 5 years remained significantly lower. The lower odds of reporting some kind of functional limitation compared with US-born

Black and White men persisted even after adjustment for demographic and socioeconomic variables.

Significantly lower odds of being a current smoker among foreign-born Black men compared with US-born White men also remained after adjustment for sociodemographic variables, although the odds of smoking for US-born Black men were similar to those for foreign-born Black men. For foreign-born Black men, the risk of smoking rose with increased length of time in the United States, although it remained significantly lower than that for US-born White men. Foreign-born Black men and US-born Black men also showed similar patterns of alcohol use, both groups having significantly lower odds of being current drinkers compared with US-born White men (net of all other factors in the models). Length of time in the United States did not appear to affect the odds of being a current drinker for foreign-born Black men. Foreign-born Black men and US-born White men had similar patterns of physical activity, although foreign-born Black men were more likely to report never participating in any type of physical activity.

Finally, the higher odds of being uninsured among foreign-born Black men compared with either US-born Black or White men remained after adjustment for demographic and socioeconomic variables as well as employment status and overall health status. Length of time in the United States appeared to cut the odds of being uninsured by almost 50%, foreign-born Black men who had been in the United States 5 years or longer being less likely to be uninsured than were those who had been in the United States less than 5 years, relative to US-born White men. Still, the odds of being uninsured for foreign-born Black men remained twice as high as those of US-born Black men, who were comparable to US-born White men in their insurance status.

DISCUSSION

Our study demonstrated that foreign-born Black men report substantially better health than do US-born Black men and that their health status is similar to or slightly better than that of US-born White men across a number of health behaviors and health mea-

TABLE 2—Age-Adjusted Percentages and Standard Errors of Health Variables for Men, by Race and Nativity: United States, 1997–2000

Variable	Age-Adjusted % (Standard Error)		
	US-Born Non-Hispanic Blacks	Foreign-Born Non-Hispanic Blacks	US-Born Non-Hispanic Whites
Respondent-assessed health status ^a : fair to poor	18.1 (0.43)	10.9 (1.07)*	10.0 (0.16)
Activity limitation status ^a : limited	18.7 (0.42)	10.1 (0.96)* †	14.3 (0.17)
Current smoking status ^b			
Current smoker	29.8 (0.73)	14.4 (1.38)* †	26.2 (0.31)
Former smoker	20.7 (0.57)	15.8 (2.01)* †	29.5 (0.24)
Never smoked	48.1 (0.76)	66.5 (2.34)* †	43.6 (0.32)
Alcohol use ^b			
Lifetime abstainer	21.5 (0.71)	31.5 (2.29)* †	12.4 (0.27)
Former drinker	20.8 (0.62)	12.0 (1.70)* †	15.6 (0.23)
Current infrequent or light/moderate drinker	50.4 (0.79)	50.4 (2.40)†	64.6 (0.34)
Heavy drinker	5.1 (0.33)	0.8 (0.32)* †	5.8 (0.14)
Physical activity ^b			
Never/unable to do physical activity	44.3 (0.79)	39.2 (2.76)†	32.1 (0.41)
At least some physical activity	54.0 (0.78)	56.8 (2.57)†	66.5 (0.41)

^aEstimates based on data collected from all adult male respondents to the 1997–2000 National Health Interview Surveys.

^bEstimates based on data collected from sample adult male respondents to the 1997–2000 National Health Interview Surveys.

* $P \leq .05$ for t test on difference between foreign-born non-Hispanic Black males and US-born non-Hispanic Black males.

† $P \leq .05$ for t test on difference between foreign-born non-Hispanic Black males and US-born non-Hispanic White males.

(1979–1989) and found that foreign-born Black men had a mortality risk 47% lower than those of US-born Black men.¹⁸ Furthermore, among those older than 65 years, the mortality risk for foreign-born Black men was almost 60% lower than that for US-born White men.¹⁹

At least some of the better health of foreign-born Black men when compared with US-born Black men in our study may be attributed to higher levels of education, which is an important component of socioeconomic status. However, our findings are consistent with those of other studies that have found the health advantage of foreign-born Black men to remain significant even when the analyses controlled for various measures of socioeconomic status.^{18,19} The research findings on the relative socioeconomic status of foreign-born Blacks are complex, but in general, studies on the socioeconomic status of foreign-born Blacks have found that, according to measures such as employment rates, occupational status, and education, foreign-born Black men enjoy higher socioeconomic status than US-born Black men, though this status is usually lower than that of US-born White men.^{35–39} However, the findings for earnings differences have not consistently shown a large gap between US-born and foreign-born Black men. Furthermore, the socioeconomic advantage may not be present for all Black immigrant groups. In particular, Black immigrants from non-English-speaking countries generally have not done as well economically as those from the former British colonies.⁴⁰

The patterns of better health status and higher socioeconomic status among foreign-born Black men compared with US-born Black men also may be explained by selective migration of healthier persons and those of higher socioeconomic status to the United States.⁴¹ A greater understanding of the role that selection plays in explaining the patterns of health and socioeconomic status that have been described in the United States ultimately will require data on the population that did not migrate, and these populations were outside the scope of our study. However, an analysis of data on infant mortality rates among women of Puerto Rican ethnicity within the continental United States found that Puerto Rican women born in Puerto Rico

tures, including overall health status. Foreign-born Black men were much less likely to report being in fair or poor health compared with both US-born Black and White men, and they also were much less likely to report having any kind of functional limitation. In regard to the health behaviors examined, we found that foreign-born Black men were far less likely to be smokers than either US-born Black or White men. This finding is consistent with the results of King et al., who published 1 of the few studies on the health risk behaviors of Black immigrants.³⁴ Examining data from the 1990–1994 NHIS, they found that foreign-born Black men were substantially less likely to smoke compared with US-born Black men. They also found that more recent immigrants (those who had been in the United States for less than 15 years) were less likely to smoke than were immigrants who had been in the United States for longer periods.

The health variables examined in this study—self-assessed *fair or poor* overall health status, smoking, alcohol use, and functional limitations—have been associated with negative health outcomes, including excess mortal-

ity, and the favorable patterns observed in our analyses for foreign-born Blacks lead us to expect corresponding health advantages for foreign-born Blacks in mortality data. Indeed, our findings are consistent with those of a number of studies that have looked at differences in mortality for US-born and foreign-born populations. A series of studies that analyzed mortality data for New York City described a consistent pattern of lower mortality rates for foreign-born Black men and women compared with US-born Blacks, and in some cases foreign-born Black men and women had lower mortality rates than US-born Whites.^{15–17} These studies found that the all-cause mortality rate for Caribbean-born men and women was about equal to that for White men and women who were born in the northeastern United States. Compared with White men born in the Northeast, Black men from the Caribbean had about a 25% lower rate of death from cardiovascular disease and a 50% lower rate of death from coronary heart disease but higher rates of death from stroke and hypertension.¹⁵ Singh and Siahpush analyzed national data from the National Longitudinal Mortality Study

TABLE 3—Age-Adjusted Percentages and Standard Errors of Health Care Utilization and Types of Health Insurance Coverage for Men, by Race and Nativity: United States, 1997–2000

Variable	Age-Adjusted % (SE)		
	US-Born Non-Hispanic Blacks	Foreign-Born Non-Hispanic Blacks	US-Born Non-Hispanic Whites
Interval since last physician/health professional contact ^a			
Never	0.7 (0.12)	2.1 (0.68)* †	0.5 (0.05)
< 6 months	58.2 (0.74)	51.5 (2.20)* †	61.0 (0.29)
≥ 6 months, < 1 year	15.8 (0.56)	22.2 (1.94)* †	15.9 (0.21)
≥ 1 year	23.8 (0.61)	22.3 (1.80)	21.6 (0.26)
No. of hospital stays in past year ^b			
0	91.0 (0.29)	92.9 (0.85)	92.1 (0.10)
≥ 1	8.5 (0.29)	6.7 (0.81)	7.6 (0.10)
Health insurance coverage ^b			
Private ^c	58.9 (0.65)	57.4 (1.73)†	78.0 (0.23)
Public ^d	16.2 (0.40)	13.2 (1.02)* †	7.2 (0.13)
Other types ^e	3.0 (0.16)	1.0 (0.36)*	1.3 (0.06)
Uninsured	20.3 (0.44)	27.1 (1.45)* †	12.7 (0.17)

^aEstimates based on data collected from sample adult male respondents to the 1997–2000 National Health Interview Surveys.

^bEstimates based on data collected from all adult male respondents to the 1997–2000 National Health Interview Surveys.

^cIncludes private insurance from employer, private insurance purchased directly, and Medi-Gap.

^dIncludes Medicaid and Medicare coverage, Children's Health Insurance Program (CHIP), and other government-sponsored health plans.

^eIncludes military coverage.

* $P \leq .05$ for t test on difference between foreign-born non-Hispanic Black males and US-born non-Hispanic Black males.

† $P \leq .05$ for t test on difference between foreign-born non-Hispanic Black males and US-born non-Hispanic White males.

had lower infant mortality rates than did Puerto Rican women born on the mainland.⁴² Additional analysis of data on infant mortality rates among Puerto Rican women who did not migrate to the mainland suggested that selective migration might account for some of the differences in infant mortality rates that were observed among Puerto Rican women on the mainland.

Although advantages in socioeconomic status and selective emigration provide plausible explanations for the favorable health outcomes of foreign-born Black men, other factors also might account for these differences. Several studies have suggested that sociocultural variables may strongly influence the health and the health behaviors of foreign-born persons.^{18,19,34,43} For example, cigarette smoking is less prevalent among African- and Caribbean-born Blacks than among US-born Blacks, which may be attributable to a strong cultural attitude toward smoking that is retained despite migration outside the country of birth.³⁴ Additional variables, including life-

style factors, dietary habits, social support networks, and cultural affiliations, also might play a role in explaining why foreign-born Black men appear to enjoy health advantages that their US-born counterparts do not.

The pattern of higher levels of education among Black immigrant men makes their higher rates of uninsurance especially noteworthy. Most Americans receive health insurance from their place of employment. The higher rates of uninsurance among Black immigrant men in our study remained even after we controlled for employment status, income, and overall health status. Given the patterns of type of insurance among foreign-born Black men versus US-born Black and White men, the higher rates of uninsurance for foreign-born Black men may be at least partly related to difficulty qualifying for government-sponsored insurance. However, the availability of health insurance through employment, given the types of occupations held by foreign-born Blacks (and the likelihood of insurance coverage being available for these

types of jobs), may play a role in the higher rates of uninsurance.

Other studies have found that immigrants are among the US residents with the highest rates of uninsurance.⁴⁴ An analysis of data from the 1998 Current Population Survey found that immigrants in general were much less likely to receive employer-sponsored health insurance and that immigrants who were not citizens were less likely to have public insurance.⁴⁵ Among immigrants from Central America and the Caribbean, two major regions of origin for Black immigrants, the higher rates of uninsurance were largely explained by lack of employer coverage.

Limitations to the data analyzed in our study should be taken into consideration in interpreting these findings. Limited sample sizes of foreign-born Black men were available, especially after the data were stratified by several variables. More extensive health care utilization variables were not available to describe in more detail the utilization patterns of the study participants. Although we did examine in the logistic regression analyses the role that length of time in the United States plays in health outcomes of foreign-born Black men, the sample size of foreign-born Black men was too small to be able to examine more fully how health status and health behaviors were affected by length of time in the United States. We also did not have more direct measures of acculturation available for use in these analyses.

Information on items such as language spoken in the home, adherence to cultural customs in health behaviors, and affiliation with cultural organizations might help us to better understand the nonsocioeconomic dimensions of the differences between US-born and foreign-born Black men. High levels of missing data on the detailed income variable required us to use a more broadly defined income variable in our analyses. Foreign-born Black men had the largest proportion of missing data on income, and this proportion was significantly higher than for US-born Black and White men. These missing data limited our ability to fully assess the relationship between income and health outcomes for the foreign-born men in our study. Finally, we had minimal information on immigration status (documented vs undocumented), which

TABLE 4—Adjusted Odds Ratios and Confidence Intervals of Health Outcomes for Men, by Race and Nativity: United States, 1997–2000

Outcome	Adjusted Odds Ratio (95% Confidence Interval)				
	US-Born Non-Hispanic Whites ^a	US-Born Non-Hispanic Blacks	Foreign-Born Non-Hispanic Blacks, Total	Foreign-Born Non-Hispanic Blacks in US < 5 y	Foreign-Born Non-Hispanic Blacks in US ≥ 5 y
Activity limitation status (1 = limited)					
Model 1 ^b	...	1.26 (1.19, 1.34)	0.50 (0.40, 0.62)	...	...
Model 2 ^c	...	0.93 (0.88, 0.99)	0.42 (0.33, 0.52)	...	...
Model 3 ^d	...	0.95 (0.89, 1.01)	0.44 (0.34, 0.55)	...	...
Model 4 ^e	...	0.92 (0.86, 1.00)	...	0.22 (0.09, 0.54)	0.41 (0.30, 0.55)
Health status (1 = fair/poor)					
Model 1	...	1.98 (1.85, 2.12)	0.93 (0.75, 1.16)	...	...
Model 2	...	1.41 (1.32, 1.51)	0.77 (0.61, 0.98)	...	...
Model 3	...	1.35 (1.26, 1.44)	0.82 (0.65, 1.05)	...	...
Model 4	...	1.31 (1.22, 1.42)	...	0.28 (0.11, 0.75)	0.80 (0.59, 1.07)
Smoking (1 = current smoker)					
Model 1	...	1.05 (0.97, 1.13)	0.47 (0.37, 0.59)	...	...
Model 2	...	0.87 (0.80, 0.94)	0.47 (0.37, 0.60)	...	...
Model 3	...	0.75 (0.69, 0.82)	0.40 (0.32, 0.52)	...	...
Model 4	...	0.72 (0.66, 0.79)	...	0.24 (0.12, 0.51)	0.41 (0.29, 0.58)
Alcohol use (1 = current drinker)					
Model 1	...	0.50 (0.46, 0.54)	0.43 (0.35, 0.53)	...	...
Model 2	...	0.59 (0.54, 0.64)	0.45 (0.36, 0.55)	...	...
Model 3	...	0.62 (0.56, 0.67)	0.38 (0.31, 0.48)	...	...
Model 4	...	0.63 (0.57, 0.69)	...	0.34 (0.20, 0.58)	0.36 (0.27, 0.48)
Physical activity (1 = never/unable)					
Model 1	...	1.64 (1.52, 1.76)	1.41 (1.14, 1.74)	...	...
Model 2	...	1.30 (1.21, 1.40)	1.35 (1.08, 1.69)	...	...
Model 3	...	1.18 (1.09, 1.28)	1.37 (1.10, 1.70)	...	...
Model 4	...	1.19 (1.09, 1.30)	...	1.30 (0.75, 2.26)	1.19 (0.90, 1.58)
Health insurance (1 = uninsured)					
Model 1	...	1.57 (1.47, 1.67)	2.42 (2.06, 2.84)	...	...
Model 2	...	1.16 (1.09, 1.23)	2.25 (1.91, 2.66)	...	...
Model 3	...	1.08 (1.01, 1.15)	2.33 (1.98, 2.75)	...	...
Model 4A ^f	...	1.05 (0.99, 1.12)	2.28 (1.93, 2.69)	...	...
Model 5 ^g	...	1.09 (1.01, 1.17)	...	3.95 (2.58, 6.03)	2.17 (1.77, 2.65)
Model 6 ^h	...	1.07 (1.00, 1.16)	...	4.06 (2.65, 6.20)	2.19 (1.79, 2.68)

^aReference group.^bModel 1 = family size, age, marital status, and nativity.^cModel 2 = model 1 plus education and income.^dModel 3 = model 2 plus geographic region and metropolitan statistical area.^eModel 4 = model 3 plus race/length of time in the United States.^fModel 4A = model 3 plus employment.^gModel 5 = model 4A plus race/length of time in the United States.^hModel 6 = model 5 plus health status.

might have prevented us from understanding more clearly the persistent differences in health insurance coverage between foreign-born Black men and US-born Black and White men.

Despite these limitations, our findings make a significant contribution to the growing body of literature that addresses the health characteristics of Black immigrants. Additional research is needed to explore the reasons for the patterns we found, including how the outcomes examined in our study might differ for foreign-born Black women compared with US-born Black and White women. Future studies of the foreign-born Black population also might explore how the region of birth (e.g., Africa, Caribbean) might be related to overall health status, health behaviors, and health insurance coverage. As the foreign-born Black population in the United States continues to grow, it will become increasingly important to understand how foreign-born Blacks contribute to the health of the overall Black population and whether their short-term health advantages remain over the long term. ■

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Contributors

J.W. Lucas and R.S. Kington designed the study, prepared the interpretation of the analyses, and wrote the manuscript. J.W. Lucas performed the statistical analyses of the data. D. Barr-Anderson participated in data preparation and management, as well as in the literature review.

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