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Obesity Among U.S.- and Foreign-Born Blacks by Region of Birth

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Abstract

Introduction—Large, recent migration streams from the non-Hispanic Caribbean islands and Africa have increased the share of U.S. blacks born outside of the U.S. Little is known about health patterns in these foreign-born populations. The purpose of this study was to compare obesity levels among self-identified U.S. blacks across birth regions and examine potential explanations for subgroup differences.

Methods—Data were from the 2000–2013 National Health Interview Survey. Three birthplace subgroups were examined: U.S.-, Caribbean/South American-, and African-born individuals aged 25–59 years. Data were analyzed in 2013–2014.

Results—Compared to U.S.-born participants, foreign-born participants had significantly lower obesity (BMI ≥ 30) odds. The AORs were 0.51 (Caribbean/South American-born, 95% CI=0.44, 0.58) and 0.41 (African born, 95% CI=0.34, 0.50) with reference to U.S.-born individuals. Education, income, and cigarette smoking did not explain the favorable weight pattern of the foreign born. Among the foreign born, those residing in the U.S. for ≥ 15 years had a 51% (95% CI=10%, 108%) higher obesity odds compared with those residing <5 years. No statistically significant differences in obesity odds between the Caribbean/South American and African born were detected.

Conclusion—Foreign-born blacks generally had lower obesity levels compared to their U.S.-born counterparts, which was not explained by SES or smoking behaviors. Despite this advantage, obesity prevalence among foreign-born black women was around 30%, suggesting that obesity poses a significant health risk this population.

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Introduction

In the U.S., foreign-born populations enjoy better health and longer life than U.S. born.^{1,2} Most research on U.S. foreign-born health focuses on Hispanics.^{2,3} Since the mid-1960s, large migrations from the non-Hispanic Caribbean and Africa have led to an increasing number of foreign-born U.S. blacks. In 2010, 9% of blacks were foreign born, up from <1% in 1960.^{4,5} In 2005, approximately 70% of blacks born in the Caribbean or South America were born in four countries: Jamaica, Haiti, Trinidad and Tobago, and Guyana.⁴ African-born blacks originate from a wider range of countries, with 30% born in Nigeria, Ethiopia, or Ghana.⁶

Despite the growth of these populations, there is limited research into their health status.^{1,6–8} We investigated obesity among U.S. blacks by birthplace in the 2000–2013 period using the National Health Interview Survey (NHIS). Few studies have examined obesity patterns among blacks by birthplace. Bennett et al.⁹ reported that foreign-born blacks had approximately 30% lower obesity odds compared to U.S.-born blacks in a Massachusetts sample. Other national-level studies reported similar differentials.^{10–12} These studies were based on earlier data and may not be currently representative of this rapidly growing population.

Importantly, no prior national-level study has examined differences between U.S. blacks born in the Caribbean (or other parts of the Americas) and with those born in Africa. Obesity levels may differ between these two subpopulations because of their distinct migration histories. Compared to the Caribbean born, the African born are on average more recent arrivals, more highly educated, and generally live in less segregated communities with a higher socioeconomic context.^{4,6,13} We additionally sought explanations for obesity patterns among blacks by birthplace, both between Caribbean and African born, and between U.S.- and foreign-born generally.

Methods

We pooled the 2000–2013 NHIS. Analyses were based on University of Minnesota's Integrated Health Interview Series.¹⁴ Our secondary analysis of publicly available de-identified data was conducted in 2013–2014 and deemed exempt from IRB oversight. We included adults aged 25–59 years who self-identified as black/African American. The three subgroups were: (1) U.S. ($n=33,771$); (2) Caribbean/South American ($n=2,520$); and (3) African born ($n=1,435$). Available birthplace data grouped the Caribbean born with those born in Mexico or Central America; therefore, we could not directly disaggregate these groups, though it might be beneficial to do so because the migration history and characteristics of those born in Mexico/Central America may differ from those born in the Caribbean islands. Using a separate question on Hispanic ethnicity, we removed 419 Hispanic respondents who reported Mexican or Central/South American ethnicity. Preliminary analyses revealed that obesity patterns among these Hispanics were statistically indistinguishable from the analyzed Caribbean/South American-born sample (findings available upon request). Two-hundred seventy-four non-Hispanic respondents reported being born in South America, and many were likely born in Guyana, a leading sending

country of foreign-born blacks and a country that shares similar cultural and migration patterns with many Caribbean island nations. We therefore combined those born in the Caribbean with those born in South America. However, it is likely that a small number of non-Hispanic respondents born in Central and South America (other than Guyana) were included in this category.

Self-reported height/weight were corrected for self-reporting error.^{15,16} Multivariable logistic regression models were used predicting obesity (BMI ≥ 30 kg/m²). Model 1 included age, U.S. census region, and year. Because education and income levels differ by birthplace among blacks^{4,17} and are often associated with obesity,^{18–20} we included these variables to examine whether they explained birthplace differences (Model 2). We included an additional adjustment for cigarette smoking in Model 2 because there may be differences in smoking behaviors across subgroups. Model 3 was restricted to the foreign born and included duration of U.S. residence.

Results

African-born blacks were the most highly educated (Appendix). The U.S. born were three times as likely to be current smokers (26% vs 7%–9% among foreign-born blacks). Compared to the Caribbean/South American born, the African born were more recent U.S. arrivals (<5 years, 19% vs 7%).

Table 1 provides BMI/obesity characteristics by sex because there are considerable sex differences among blacks.^{21–23} Within each birthplace group, absolute sex differences in obesity were similar, with women having about a 10 percentage point higher prevalence of obesity compared with men. Among both sexes, obesity prevalence was higher for the U.S.-born compared with foreign-born individuals. A striking difference was at the obese class II/III level (BMI ≥ 35): 26% of U.S.-born women were in this category compared to 15% of Caribbean/South American-born women and 10% African-born women. U.S.-born men were more than three times as likely to be class II/III obese relative to the foreign-born men (17% vs 3%–5%). Despite lower levels of class II/III obesity relative to U.S.-born women, about 30% of Caribbean/South American- and African-born women were obese. Caribbean/South American-born men were almost twice as likely to be obese (BMI ≥ 30) compared with their African-born counterparts (19% vs 11%).

Table 2 presents regression results with both sexes combined. In Model 1, minimally adjusted, the ORs were 0.51 (95% CI=0.44, 0.58) and 0.41 (95% CI=0.34, 0.50) for the Caribbean/South American and African born, respectively (ref, U.S. born). Model 2 indicated that inclusion of education, income, and smoking did not appreciably affect the OR. Among the foreign born, a higher duration was associated with higher obesity odds, with those residing ≥ 15 years having an OR of 1.51 (95% CI=1.10, 2.08) compared with those residing <5 years. Model 3 highlighted no difference between the Caribbean/South American and African born.

Discussion

Foreign-born black women and men experience lower obesity levels than their U.S.-born counterparts. A healthier weight pattern among the foreign born is consistent with findings in other U.S. race/ethnic groups, including Hispanics^{24–26} and Asians.^{24,26,27} As in most studies of foreign-native health differentials, our findings underscore that characteristics often available in health surveys (e.g., SES) fail to completely explain foreign-born health advantages.^{2,28} We did not detect differences between the Caribbean and African born, despite their distinct migration and educational profiles. Among all groups, women had a higher obesity prevalence than men.

A body of literature highlights obesity as a function of multiple individual- and societal-level features operating throughout the lifecourse.^{29–33} Among the foreign born, features in both sending and receiving countries likely relate to obesity levels during adulthood. Behavioral preferences, including those diet related, are likely established early in life, and adult migrants may bring with them a set of longer-term dietary preferences conducive to maintaining healthy body weight. Obesity in Western and Eastern Africa are particularly low relative to other regions.^{34,35}

Many studies, including ours, suggest that the foreign-born advantage in healthy weight diminishes with increasing time spent in the U.S.^{11,36,37} This convergence may be due to multiple factors including increased consumption of calorie-dense foods, time constraints preventing traditional meal preparation, and physical activity changes.^{38–44}

Limitations

A limitation is the inability to observe BMI at U.S. arrival time and follow cohorts as they age.^{45,46} We were unable to examine patterns by Hispanic ethnicity, and prior research suggests that Hispanic blacks have distinct health patterns compared with non-Hispanic blacks.^{6,47}

Conclusions

Despite the fact that the Caribbean/South American and African born display lower obesity levels compared to U.S.-born blacks, obesity prevalence among foreign-born women from these populations are comparable to that of U.S. women as a whole.⁴⁸ In addition, one-fifth of Caribbean/South American-born men are obese. These figures indicate that obesity is a health risk among large portions of U.S. foreign-born blacks.

Supplementary Material

Refer to Web version on PubMed Central for supplementary material.

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References

1. Dupre ME, Gu D, Vaupel JW. Survival differences among native-born and foreign-born older adults in the United States. *PloS One*. 2012; 7(5):e37177. <http://dx.doi.org/10.1371/journal.pone.0037177>. [PubMed: 22615929]
2. Jasso G, Massey DS, Rosenzweig MR, Smith JP. Immigrant health: selectivity and acculturation. *Critical Perspectives on Racial and Ethnic Differences in Health in Late Life*. 2004:227–266.
3. Argeseanu Cunningham S, Ruben JD, Narayan VKM. Health of foreign-born people in the United States: A review. *Health Place*. 2008; 14(4):623–635. <http://dx.doi.org/10.1016/j.healthplace.2007.12.002>. [PubMed: 18242116]
4. Kent MM. Immigration and America's Black Population. *Popul Bull*. 2007; 62(4):1–16.
5. U.S. Census Bureau. The Black Alone Population in the United States: 2010. 2011. www.census.gov/population/race/data/ppl-ba10.html
6. Elo IT, Mehta NK, Huang C. Disability Among Native-born and Foreign-born Blacks in the United States. *Demography*. 2011; 48(1):241–265. <http://dx.doi.org/10.1007/s13524-010-0008-x>. [PubMed: 21369873]
7. Elo IT, Culhane JF. Variations in health and health behaviors by nativity among pregnant Black women in Philadelphia. *Am J Public Health*. 2010; 100(11):2185–2192. <http://dx.doi.org/10.2105/AJPH.2009.174755>. [PubMed: 20864725]
8. Cabral H, Fried LE, Levenson S, Amaro H, Zuckerman B. Foreign-Born and US-Born Black Women: Differences in Health Behaviors and Birth Outcomes. *Am J Public Health*. 1990; 80:70–72. <http://dx.doi.org/10.2105/AJPH.80.1.70>. [PubMed: 2293806]
9. Bennett GG, Wolin KY, Askew S, Fletcher R, Emmons KM. Immigration and obesity among lower income blacks. *Obesity*. 2007; 15(6):1391–1394. <http://dx.doi.org/10.1038/oby.2007.166>. [PubMed: 17557975]
10. Barrington DS, Baquero MC, Borrell LN, Crawford ND. Racial/Ethnic Disparities in Obesity Among US-born and Foreign-born Adults by Sex and Education. *Obesity*. 2010; 18(2):422–424. <http://dx.doi.org/10.1038/oby.2009.212>. [PubMed: 19590501]
11. Goel MS, McCarthy EP, Phillips RS, Wee CC. Obesity Among US Immigrant Subgroups by Duration of Residence. *JAMA*. 2004; 292(23):2860–2867. <http://dx.doi.org/10.1001/jama.292.23.2860>. [PubMed: 15598917]
12. Singh G, Siahpush M, Hiatt R, Timsina L. Dramatic Increases in Obesity and Overweight Prevalence and Body Mass Index Among Ethnic-Immigrant and Social Class Groups in the United States, 1976–2008. *J Community Health*. 2011; 36(1):94–110. <http://dx.doi.org/10.1007/s10900-010-9287-9>. [PubMed: 20549318]
13. Logan, J. Who are the other African Americans? Contemporary African and Caribbean Immigrants in the United States. In: Tuch, SA.; Shaw-Taylor, Y., editors. *The Other African Americans: Contemporary African and Caribbean Immigrants in the United States*. Rowman & Littlefield; 2007. p. 49-68.
14. Minnesota Population Center, State Health Access Data Assistance Center. Integrated Health Interview Series: Version 5.0. 2012. www.ihis.us
15. Cawley J. An instrumental variables approach to measuring the effect of body weight on employment disability. *Health Serv Res*. 2000; 35(5):1159–1179. [PubMed: 11130815]
16. Connor Gorber S, Shields M, Tremblay MS, McDowell I. The feasibility of establishing correction factors to adjust self-reported estimates of obesity. *Health Rep*. 2008; 19(3):71–82. [PubMed: 18847148]
17. Hamilton TG. Selection, language heritage, and the earnings trajectories of black immigrants in the United States. *Demography*. 2014; 51(3):975–1002. <http://dx.doi.org/10.1007/s13524-014-0298-5>. [PubMed: 24854004]

18. Mehta NK, House JS, Elliott M. Dynamics of Health Behaviors and Socioeconomic Differences in Mortality in the United States. *J Epidemiol Community Health*. In press.
19. Jackson CL, Szklo M, Yeh H-C, et al. Black-White Disparities in Overweight and Obesity Trends by Educational Attainment in the United States, 1997–2013; *J Obes*. 2013; 2013:e140743. <http://dx.doi.org/10.1155/2013/140743>.
20. Chang VW, Lauderdale DS. Income Disparities in Body Mass Index and Obesity in the United States, 1971–2002. *Arch Intern Med*. 2005; 165(18):2122–2128. <http://dx.doi.org/10.1001/archinte.165.18.2122>. [PubMed: 16217002]
21. Robinson WR, Gordon-Larsen P, Kaufman JS, Suchindran CM, Stevens J. The female-male disparity in obesity prevalence among black American young adults: contributions of sociodemographic characteristics of the childhood family. *Am J Clin Nutr*. 2009; 89(4):1204–1212. <http://dx.doi.org/10.3945/ajcn.2007.25751>. [PubMed: 19190069]
22. Wang Y, Beydoun MA. The obesity epidemic in the United States--gender, age, socioeconomic, racial/ethnic, and geographic characteristics: a systematic review and meta-regression analysis. *Epidemiol Rev*. 2007; 29:6–28. <http://dx.doi.org/10.1093/epirev/mxm007>. [PubMed: 17510091]
23. Ogden CL, Carroll MD, Kit BK, Flegal KM. Prevalence of childhood and adult obesity in the United States, 2011–2012. *JAMA*. 2014; 311(8):806–814. <http://dx.doi.org/10.1001/jama.2014.732>. [PubMed: 24570244]
24. Bates LM, Acevedo-Garcia D, Alegria M, Krieger N. Immigration and generational trends in body mass index and obesity in the United States: results of the National Latino and Asian American Survey, 2002–2003. *Am J Public Health*. 2008; 98(1):70–77. <http://dx.doi.org/10.2105/AJPH.2006.102814>. [PubMed: 18048787]
25. Buttenheim A, Goldman N, Pebley AR, Wong R, Chung C. Do Mexican immigrants “import” social gradients in health to the U.S? *Soc Sci Med*. 2010; 71(7):1268–1276. <http://dx.doi.org/10.1016/j.socscimed.2010.06.025>. [PubMed: 20692753]
26. Sanchez-Vaznaugh EV, Kawachi I, Subramanian SV, Sanchez BN, Acevedo-Garcia D. Do Socioeconomic Gradients in Body Mass Index Vary by Race/Ethnicity, Gender, and Birthplace? *Am J Epidemiol*. 2009; 169(9):1102–1112. <http://dx.doi.org/10.1093/aje/kwp027>. [PubMed: 19299405]
27. Lauderdale DS, Rathouz PJ. Body mass index in a US national sample of Asian Americans: effects of nativity, years since immigration and socioeconomic status. *Int J Obes*. 2000; 24(9):1188–1194. <http://dx.doi.org/10.1038/sj.ijo.0801365>.
28. Model S. West Indian Prosperity: Fact or Fiction? *Soc Probl*. 1995; 42(4):535–553. <http://dx.doi.org/10.2307/3097045>.
29. Heraclides A, Brunner E. Social mobility and social accumulation across the life course in relation to adult overweight and obesity: the Whitehall II study. *J Epidemiol Community Health*. 2010; 64(8):714–719. <http://dx.doi.org/10.1136/jech.2009.087692>. [PubMed: 19737739]
30. Power C, Kuh D, Morton S. From Developmental Origins of Adult Disease to Life Course Research on Adult Disease and Aging: Insights from Birth Cohort Studies. *Annu Rev Public Health*. 2013; 34(1):7–28. <http://dx.doi.org/10.1146/annurev-publhealth-031912-114423>. [PubMed: 23514315]
31. Thorpe, RJ.; Kelley, E.; Bowie, JV.; Griffith, DM.; Bruce, M.; LaVeist, T. Explaining Racial Disparities in Obesity Among Men Does Place Matter?; *Am J Mens Health*. 2014. p. 1557988314551197 <http://dx.doi.org/10.1177/1557988314551197>
32. Smith LH, Holm L. Obesity in a life-course perspective: An exploration of lay explanations of weight gain. *Scand J Public Health*. 2011; 39(4):396–402. <http://dx.doi.org/10.1177/1403494810395819>. [PubMed: 21270139]
33. Ben-Shlomo Y, Kuh D. A life course approach to chronic disease epidemiology: conceptual models, empirical challenges and interdisciplinary perspectives. *Int J Epidemiol*. 2002; 31(2):285–293. <http://dx.doi.org/10.1093/ije/31.2.285>. [PubMed: 11980781]
34. Prentice AM. The emerging epidemic of obesity in developing countries. *Int J Epidemiol*. 2006; 35(1):93–99. <http://dx.doi.org/10.1093/ije/dyi272>. [PubMed: 16326822]
35. Finucane MM, Stevens GA, Cowan MJ, et al. National, regional, and global trends in body-mass index since 1980: systematic analysis of health examination surveys and epidemiological studies

- with 960 country-years and 9.1 million participants. *The Lancet*. 2011; 377(9765):557–567. [http://dx.doi.org/10.1016/s0140-6736\(10\)62037-5](http://dx.doi.org/10.1016/s0140-6736(10)62037-5).
36. Creighton MJ, Goldman N, Pebley AR, Chung CY. Durational and generational differences in Mexican immigrant obesity: Is acculturation the explanation? *Soc Sci Med*. 2012; 75(2):300–310. <http://dx.doi.org/10.1016/j.socscimed.2012.03.013>. [PubMed: 22575698]
 37. Oza-Frank R, Cunningham SA. The weight of US residence among immigrants: a systematic review. *Obes Rev*. 2010; 11(4):271–280. <http://dx.doi.org/10.1111/j.1467-789X.2009.00610.x>. [PubMed: 19538440]
 38. Tovar A, Must A, Metayer N, et al. Immigrating to the US: What Brazilian, Latin American and Haitian Women Have to Say About Changes to Their Lifestyle That May be Associated with Obesity. *J Immigr Minor Health*. 2013; 15(2):357–364. <http://dx.doi.org/10.1007/s10903-012-9665-8>. [PubMed: 22736266]
 39. Lee S-K, Sobal J, Frongillo EA Jr. Acculturation and Dietary Practices Among Korean Americans. *J Am Diet Assoc*. 1999; 99(9):1084–1089. [http://dx.doi.org/10.1016/S0002-8223\(99\)00258-8](http://dx.doi.org/10.1016/S0002-8223(99)00258-8). [PubMed: 10491677]
 40. Salant T, Lauderdale DS. Measuring culture: a critical review of acculturation and health in Asian immigrant populations. *Soc Sci Med*. 2003; 57(1):71–90. [http://dx.doi.org/10.1016/S0277-9536\(02\)00300-3](http://dx.doi.org/10.1016/S0277-9536(02)00300-3). [PubMed: 12753817]
 41. Sanou D, O'Reilly E, Ngnie-Teta I, et al. Acculturation and nutritional health of immigrants in Canada: a scoping review. *J Immigr Minor Health Cent Minor Public Health*. 2014; 16(1):24–34. <http://dx.doi.org/10.1007/s10903-013-9823-7>.
 42. Akresh IR. Dietary assimilation and health among hispanic immigrants to the United States. *J Health Soc Behav*. 2007; 48(4):404–417. <http://dx.doi.org/10.1177/002214650704800405>. [PubMed: 18198687]
 43. Lee S, O'Neill AH, Ihara ES, Chae DH. Change in Self-Reported Health Status among Immigrants in the United States: Associations with Measures of Acculturation. *PLoS ONE*. 2013; 8(10) <http://dx.doi.org/10.1371/journal.pone.0076494>.
 44. Berrigan D, Dodd K, Troiano RP, Reeve BB, Ballard-Barbash R. Physical activity and acculturation among adult Hispanics in the United States. *Res Q Exerc Sport*. 2006; 77(2):147–157. <http://dx.doi.org/10.1080/02701367.2006.10599349>. [PubMed: 16898271]
 45. Antecol H, Bedard K. Unhealthy Assimilation: Why do Immigrants Converge to American Health Status Levels? *Demography*. 2006; 43(2):337–360. <http://dx.doi.org/10.1353/dem.2006.0011>. [PubMed: 16889132]
 46. Park J, Myers D, Kao D, Min S. Immigrant obesity and unhealthy assimilation: Alternative estimates of convergence or divergence, 1995–2005. *Soc Sci Med*. 2009; 69(11):1625–1633. <http://dx.doi.org/10.1016/j.socscimed.2009.09.008>. [PubMed: 19811864]
 47. LaVeist-Ramos TA, Galarraga J, Thorpe RJ, Bell CN, Austin CJ. Are black Hispanics black or Hispanic? Exploring disparities at the intersection of race and ethnicity. *J Epidemiol Community Health*. 2012; 66(7):e21. <http://dx.doi.org/10.1136/jech.2009.103879>. [PubMed: 21378000]
 48. Ogden CL, Carroll MD, Curtin LR, McDowell MA, Tabak CJ, Flegal KM. Prevalence of overweight and obesity in the United States, 1999–2004. *J Am Med Assoc*. 2006; 295(13):1549–1555. <http://dx.doi.org/10.1001/jama.295.13.1549>.

Table 1

Age-Standardized BMI and BMI Classifications by Sex and Place of Birth; Self-Reported Blacks/African Americans Ages 25–59

Characteristic	U.S.-born (<i>n</i> =33,771)	Caribbean/South American-born (<i>n</i> =2,520)	African-born (<i>n</i> =1,435)
Women			
Mean BMI	30.8 (30.7, 31.0)	28.3 (27.8, 28.9)	28.0 (27.3, 28.6)
BMI classifications, %			
Normal (18.5–24.9 kg/m ²)	22.6 (21.6, 23.6)	31.7 (27.6, 35.8)	32.8 (27.7, 37.9)
Overweight (25–29.9)	28.7 (27.7, 29.7)	35.5 (31.6, 39.4)	37.5 (31.8, 43.2)
Obese class I (30–34.9)	22.8 (21.9, 23.8)	18.1 (15.4, 20.9)	20.2 (15.2, 25.1)
Obese class II/III (35.0+)	25.9 (25.0, 26.9)	14.7 (11.9, 17.5)	9.6 (6.1, 13.0)
Men			
Mean BMI	29.3 (29.1, 29.5)	26.6 (26.2, 27.1)	25.9 (25.5, 26.4)
BMI classifications, %			
Normal (18.5–24.9)	24.1 (22.9, 25.4)	37.3 (31.7, 42.8)	41.4 (36.3, 46.5)
Overweight (25–29.9)	37.2 (35.7, 38.7)	43.6 (38.5, 48.7)	46.7 (41.8, 51.6)
Obese class I (30–34.9)	22.2 (21.1, 23.3)	14.1 (10.9, 17.2)	9.3 (6.3, 12.3)
Obese class II/III (35.0+)	16.5 (15.3, 17.6)	5.0 (2.8, 7.3)	2.6 (0.9, 4.4)

Notes: 95% CI shown in parenthesis. Sample sizes were for both sexes combined. Age standardization was achieved using the direct method (with 5 year age intervals). The mean age distribution of the birthplace subgroups with the sexes combined was used as the standard population. Those underweight (BMI<18.5) were excluded from the table and represented less than 1% of the original sample. Those born in U.S. territories were classified as U.S. born. Missing income data was multiply imputed. Sample weights were used to produce estimates.

Source: National Health Interview Survey (NHIS), 2000–2013

Table 2

ORs From Logistic Regression Models Predicting Obesity (BMI ≥ 30.0 Kg/M²); Self-Reported Blacks/African Americans Ages 25–59

Characteristics	Model 1	Model 2	Model 3 (FB Only)
Women (ref: Men)	1.77 (1.67, 1.88)	1.75 (1.64, 1.85)	2.73 (2.23, 3.35)
Place of birth/ethnicity			
U.S.-born	Ref.	Ref.	-
Caribbean/South American-born	0.51 (0.44, 0.58)	0.47 (0.41, 0.55)	Ref.
African-born	0.41 (0.34, 0.50)	0.41 (0.34, 0.50)	1.07 (0.83, 1.37)
Duration of U.S. residence			
< 5 years	-	-	Ref.
5 to <15 years	-	-	1.29 (0.96, 1.75)
15+ years	-	-	1.51 (1.10, 2.08)

Notes: Boldface indicates statistical significance ($p < 0.05$).

FB, foreign-born; Ref, Reference

95% CIs shown in parenthesis. Those underweight (BMI < 18.5) were excluded from the table and represented less than 1% of the original sample. Those born in U.S. territories were classified as U.S. born. Missing income data was multiply imputed. Sample weights were used to produce estimates.

Model 1: Adjusted for age (in single years), U.S. region of residence, and categorical survey year (2001–2004, 2005–2008, 2009–2013)

Model 2: Model 1 + SES (education, family income) + smoking status (current, former, never)

Model 3: Restricted to the foreign born; adjusted for age (years), SES (education, family income), smoking status, and U.S. region of residence, and categorical survey year (2001–2004, 2005–2008, 2009–2013)

Source: National Health Interview Survey (NHIS), 2000–2013