Published in final edited form as:

Am J Prev Med. 2017 January ; 52(1 Suppl 1): S56–S62. doi:10.1016/j.amepre.2016.09.019.

A Comparison of Black and White Racial Differences in Health Lifestyles and Cardiovascular Disease

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Abstract

Introduction—This study examines the health lifestyles of a cohort of blacks and whites in relation to cardiovascular disease (CVD). The link between health lifestyles and CVD is well established, but most of the focus has been on SES and more research is needed on racial differences.

Methods—Data were from the Coronary Artery Risk Development in Young Adults study of black ($n=2,451$) and white ($n=2,351$) men and women. Data were analyzed from baseline examinations in 1985–1986 when the participants were aged 18–30 years and any fatal or nonfatal CVD event that occurred over approximately the next 28 years (until August 2013). The first stage of the analysis used latent class models to identify distinct health lifestyles on the basis of race. The second stage used multinomial logit regression models to analyze specific characteristics in relation to the health lifestyles classes, followed by the third stage in which Cox proportional hazards models analyzed associations of the lifestyle classes with CVD risk.

Results—Four separate health lifestyle patterns for blacks and four for whites were identified, with the “unhealthy” lifestyle among blacks (hazard ratio, 1.60) and “most unhealthy” lifestyle among whites (hazard ratio, 3.12) showing an elevated risk of CVD. An important difference is that, in every lifestyle class, blacks showed a higher probability of excessive energy intake than whites—indicative of the potential for obesity.

Conclusions—Health lifestyles differ by race and support the exploratory hypothesis that distinct classes of healthy–unhealthy lifestyles exist within each racial group.

INTRODUCTION

The purpose of this paper is to examine health lifestyle practices—smoking, alcohol use, exercise, and diet—of a sample of American blacks and whites in relation to cardiovascular disease (CVD). Health lifestyles are collective patterns of health-related behavior based on choices from options available to people according to their life chances.^{1,2} The term “life

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This article is part of a supplement issue titled Social Determinants of Health: An Approach to Health Disparities Research.

chances” was introduced by the classical German sociologist Max Weber to describe the chances or probabilities a person has in life to realize his or her needs and desires.³ Such chances are largely determined by a person’s SES and either constrain or empower lifestyle choices. That is, a person can choose from among what is available, but the range of possible options is shaped by class standing and other social determinants such as race, gender, age, social networks, religion, and living conditions.^{1,2}

One of the most important social determinants of health is race. This results from racial differences in discrimination, stress, neighborhoods, housing, access to quality health care, and other factors.^{4–6} Whereas race is often associated with SES, SES is unable to completely explain racial differences in health and disease.^{2,7} Nevertheless, when it comes to studies of lifestyles and CVD, most of the focus has been on SES rather than the practices of different racial groups.^{2–5} Existing comparisons show that whites generally exercise and eat healthier diets more than blacks but drink more alcohol, while male blacks smoke more than male whites and female whites smoke more than female blacks.^{8–11} Also, CVD mortality rates are historically higher for blacks than whites, with Centers for Disease Control and Prevention data showing non-Hispanic death rates per 100,000 of 289.6 for blacks and 222.0 for whites in 2014.¹² Though one could infer that healthy lifestyles are generally more positive for whites compared with blacks, an exploratory hypothesis is that there are separate classes of healthy–unhealthy lifestyles within each group that have yet to be articulated.

METHODS

Data were from the Coronary Artery Risk Development in Young Adults (CARDIA) study. This prospective multicenter cohort study examined the development of CVD and its risk factors, including lifestyles. A total of 5,115 black and white men and women were recruited from four field centers (Birmingham, AL; Chicago, IL; Minneapolis, MN; and Oakland, CA). The participants were selected to achieve approximately equal numbers per center by race (black and white); gender; age (18–30 years); and education (high school or less, greater than high school) subgroup. The analysis was focused on the health behaviors and lifestyles of young adults who have been understudied in relation to risk factors for CVD. Details of the CARDIA study design and methodology are published elsewhere.¹³ This study is based on data collected during the baseline examinations in 1985 and 1986 and any fatal or nonfatal CVD event that occurred up until August 2013.^a The CVD events are based on self-reports during semi-annual interviews matched with medical records for verification.

The sample consisted of 2,451 black and 2,351 white participants with non-missing data for all variables. Some 313 participants (6%) were deleted owing to missing data. The small amount of missing data for the indicators of health lifestyles (43 participants were missing data for at least one indicator) was addressed using a case-wise maximum likelihood estimator for the latent class component of the analysis.

^aCVD events were myocardial infarction; stroke; intracerebral hemorrhage; subarachnoid hemorrhage; ischemic stroke; hypertensive CVD; angina; cardiac revascularization; atrial fibrillation; congestive heart failure; carotid artery disease; transient ischemic attack (mini-stroke); peripheral artery disease; or venous thromboembolism.

Measures

The first stage of analysis investigated the four most common indicators of health lifestyles from the baseline CARDIA data:

1. energy intake as an indicator of diet;
2. physical activity;
3. alcohol consumption; and
4. smoking (Table 1 lists descriptive statistics).

The measure of high energy intake was 2,534 kcal/day for women and 3,879 kcal/day for men, which is beyond that needed to maintain BMI in a normal range ($<25 \text{ kg/m}^2$) for most people. This measure is based on the upper tertiles of energy intake in women and men, corresponding to the approximately one third of CARDIA participants who were overweight or obese at baseline. For physical activity, a total intensity score with 300 as a threshold based on a CARDIA constructed variable was used.¹³ Scores were a weighted sum of 14 activities that typically involve heavy or moderate exertion by the amount of time participants spent engaged in these activities.

For alcohol consumption, the authors constructed a three-category measure with values of:

1. do not drink (never);
2. drink 14 drinks per week for men or seven or fewer drinks per week for women (moderate); and
3. drink >14 drinks per week for men or more than seven drinks per week for women (substantial) based on the total number of drinks in a week.

One drink was defined as 5 ounces of wine, 12 ounces of beer, or 1.5 ounces of hard liquor. For smoking, this study used a three-category measure with values of:

1. never smoked;
2. smoked in the past but not a current smoker; and
3. current smoker at the baseline examination.^b

Preliminary analyses examined alternative thresholds and operationalizations of the indicators of the health lifestyles, but none resulted in better fitting models.

The second stage explored whether age; gender; education (years of schooling); work status (unemployed, employed part-time, and employed full-time); and the participant's self-reported history of heart problems, diabetes, hypertension, hypercholesterolemia, and cancer are associated with the different health lifestyles identified previously. Data on income were not available. The final stage analyzed whether health lifestyles are associated with the risk of a fatal or nonfatal CVD event. There were no respondents with documented CVD at baseline. As of the most recent CARDIA endpoint data (August 2013), 68 whites (or 3% [51 men and 17 women]) and 124 blacks (or 5% [61 men and 63 women]) had experienced a

^bThe use of pack-years for smoking was explored as an alternative operationalization and found to produce similar outcomes.

fatal or nonfatal CVD event. These low percentages likely reflect the age distribution of the participants—the oldest were aged 58 years in 2013. Nevertheless, the results provide an indication of early CVD.

Statistical Analysis

The first stage of the analysis used latent class models to identify different health lifestyles among whites and blacks.¹⁴ Latent class analysis treats specific health behaviors (e.g., exercise) as indicators of broader, unobserved “health lifestyles.” Health lifestyles are considered a categorical latent variable, with the categories representing different classes (lifestyles) of participants across the indicators of health behaviors. As such, the method identifies clusters of people sharing similar propensities to engage in the specific health behaviors. For this analysis, models that allow for between two and five distinct health lifestyles among whites and blacks were explored and overall model fit statistics used to determine which has the best fit with the data. The health lifestyles that emerge based on the patterns of responses for the individual health behaviors associated with each type of lifestyle were then characterized. The chi-square test statistic was used as a measure of overall fit and the Akaike information criterion was used to compare across models.

For the second stage, participants were assigned to the lifestyle profile that latent class analysis showed they have the highest estimated probability of belonging to, and multinomial logit regression models were then used to analyze correlates of membership in a given health lifestyle.¹⁴ Finally, for the third stage, Cox proportional hazard models (unadjusted and fully adjusted) analyzed the associations of health lifestyles with the risk of experiencing a fatal or nonfatal CVD event.¹⁵ All analyses are stratified by race owing to the known differences in health behaviors between whites and blacks.^{2,8–11} Parameter estimates and *p*-values (text) along with 95% CIs (tables) are reported. The latent class analysis was performed using Mplus, version 7, and the remaining analyses were performed using Stata, version 14.

RESULTS

The first step in the analysis was to estimate distinct health lifestyle patterns for whites and blacks using latent class analysis. The model fit statistics indicated that a model allowing for four distinct health lifestyles had the best fit with the data among whites—the chi-square test statistic was non-significant (chi-square=9.44 with 8 df, *p*=0.307) and the Akaike information criterion had the minimum value for the four-lifestyle model. Among blacks, the model fit statistics were less conclusive. Both three- and four-lifestyle models had an adequate, though not ideal, fit with the data. In the interest of parsimony and comparability with whites, the four-lifestyle model (chi-square=21.57 with 8 df, *p*=0.006) was selected.

Table 2 shows the patterns of responses for each of the health behavior measures (conditional item response probabilities) that were associated with the four different health lifestyles that emerged for whites and blacks. These patterns provided a characterization of each lifestyle. Beginning with blacks, the modal health lifestyle (representative of 1,303 participants or 53.2% of the black sample) was characterized by a relatively moderate probability (pr) of high energy intake (pr=0.30) and being physically active (pr=0.44). This

lifestyle was additionally associated with very low substantial drinking ($pr=0.00$) and current smoking ($pr=0.05$). It represented the healthiest of the four lifestyles for blacks and was referred to as “most healthy.”

The remaining three health lifestyles for blacks featured moderate to high probabilities of current smoking ($pr=0.52$, $pr=0.67$, and $pr=0.85$, respectively) and consequently were all rated unhealthy to varying degrees. The distinction between the second and third lifestyles primarily lies in the differing levels of physical activity ($pr=1.00$ for the second lifestyle compared with $pr=0.00$ for the third), as both were associated with moderate probabilities of high energy intake ($pr=0.52$ and $pr=0.44$, respectively) and moderate levels of drinking. Thus, the second lifestyle—characteristic of 25.3% of the sample—was “less healthy” and the third lifestyle—characteristic of 18.4% of the sample—was “unhealthy.” The final lifestyle, which was characteristic of only 3.2% of the sample, captured an extremely unhealthy lifestyle with a high probability of current smoking ($pr=0.85$); substantial drinking ($pr=0.88$); and overeating energy intake ($pr=1.00$). This lifestyle, however, was also associated with a relatively high probability of being physically active ($pr=0.89$). Nevertheless, this lifestyle was labeled as “most unhealthy” because of the high energy intake and levels of excessive drinking and smoking.

Among whites, the modal lifestyle (representative of 1,176 participants or 50.0% of the white sample) was characterized by a relatively low probability of high energy intake ($pr=0.19$) coupled with a high probability of being physically active ($pr=1.00$); a drinking profile of either never ($pr=0.39$) or moderate ($pr=0.61$); and a relatively low probability of current smoking ($pr=0.10$). This lifestyle for whites was characterized as “most healthy.” It is notable that this health lifestyle among whites was healthier than the modal health lifestyle (“most healthy”) among blacks, as it was characterized by a lower probability of high energy intake ($pr=0.19$ vs $pr=0.30$) and a much higher probability of being physically active ($pr=1.00$ vs $pr=0.44$).

The second lifestyle among whites—characteristic of 19.2% of the sample—had a profile similar to the “most healthy” lifestyle with the distinct exception of not being physically active ($pr=0.00$). This lifestyle was “moderately healthy.” The last two health lifestyles among whites captured two potentially different forms of unhealthy behaviors. The third health lifestyle—characteristic of 11.3% of the sample—was associated with a high probability of physical activity ($pr=1.00$). This lifestyle, however, also had the highest probability of substantial drinking ($pr=0.52$) among whites, as well as moderate probabilities of high energy intake ($pr=0.36$) and current smoking ($pr=0.35$). This lifestyle was labeled as “somewhat unhealthy.” By contrast, the fourth lifestyle—representative of 19.5% of the white sample—had the highest probabilities of being a current smoker ($pr=0.61$) and high energy intake ($pr=0.41$) among whites, along with some substantial drinking ($pr=0.25$). This lifestyle was characterized as “most unhealthy.”

Table 3 reports relative risk ratios (RRRs) from multinomial logistic regression models predicting membership in a given health lifestyle relative to the ref “most healthy” lifestyle for black and white participants. Among blacks, older age was associated with increased likelihoods of all other lifestyles ($RRR=1.09$, $RRR=1.15$, and $RRR=1.10$, respectively)

relative to a “most healthy” lifestyle, whereas being male was associated with substantially increased likelihoods of “less healthy” (RRR=3.36) and “most unhealthy” (RRR=8.77) lifestyles. In addition, years of schooling was associated with a decreased likelihood of other lifestyles (RRR=0.84, RRR=0.73, and RRR=0.62, respectively) relative to a “most healthy” lifestyle and, similarly, being married was associated with a decreased likelihood of “less healthy” and “unhealthy” (RRR=0.68 and RRR=0.62, respectively) lifestyles. Working part-time was associated with a decreased likelihood of all other lifestyles (RRR=0.54, RRR=0.70, and RRR=0.41, respectively), but working full-time was associated with a decreased likelihood of “less healthy” and “unhealthy” (RRR=0.70 and RRR=0.73, respectively) lifestyles. So, blacks who were well educated, married, and worked full-time tended to shun unhealthy lifestyles, whereas less educated and unmarried black men without a job did not. The medical history measures lacked statistical significance.

Among whites, being male was associated with a decreased likelihood of adopting a “moderately healthy” or “most unhealthy” lifestyle (RRR=0.52 and RRR=0.58, respectively) relative to a “most healthy” lifestyle. The number of years of schooling was associated with a decreased likelihood of either a “somewhat unhealthy” (RRR=0.92) or “most unhealthy” lifestyle (RRR=0.75) relative to a “most healthy” lifestyle. Finally, current marriage was associated with a likelihood of both a “moderately healthy” lifestyle (RRR=1.73) and “somewhat unhealthy” lifestyle (RRR=0.65), as was working full-time (RRR=1.67) with “somewhat unhealthy” lifestyle and part-time with “moderately healthy” (RRR=0.64) lifestyles. Similar to blacks, there were no statistically significant associations for any of the medical history measures.

Table 4 reports hazard ratios (HRs) from Cox proportional hazard models for CVD. Model 1 for blacks and whites included indicators for health lifestyles with the modal “most healthy” lifestyle as the ref group. Model 2 added all of the sociodemographic and medical history measures. Among blacks, the “unhealthy” lifestyle was associated with an increased risk of a fatal or nonfatal CVD event relative to the “most healthy” lifestyle. There was no significant association between the “most unhealthy” lifestyle and the risk of a CVD event. The increased risk associated with the “unhealthy” lifestyle (HR=1.58) remained statistically significant even after adjusting for the sociodemographic and medical history measures. Age and diabetes were associated with CVD for blacks and whites, along with part-time work and high blood pressure for blacks and male sex and education (low) for whites.

Among white participants, however, a “most unhealthy” lifestyle was associated with a higher risk of a CVD event than the “most healthy” lifestyle. This difference remained statistically significant (HR=3.12) for “most healthy” after adjusting for the sociodemographic and medical history measures. Also significant for whites and CVD risk were age (HR=1.24); male gender (HR=4.30); years of schooling (HR=0.86); and diabetes (HR=29.22) relative to the “most healthy” lifestyle.

DISCUSSION

This analysis identifies four distinct lifestyles among both blacks and whites that are not universally healthy or unhealthy, but show variation within their respective classes. That is,

both healthy and unhealthy behavioral practices were mixed in the same configuration and there were intermediate lifestyle classes between the most healthy and most unhealthy. Consequently, health lifestyles do not have a simple binary (either good or bad) character and support the hypothesis that there are separate classes of healthy–unhealthy lifestyles within each racial group. For example, among whites, the “moderately healthy” appeared similar to the “most healthy” except for exercise. The “somewhat unhealthy,” by contrast, maintained the physical activity of the “most healthy” lifestyle but with a much higher likelihood of substantial drinking and smoking. These two intermediate health lifestyles thus represent two different profiles between the most healthy and unhealthy.

Limitations

As for the study’s limitations, latent class analysis is an exploratory method that is not ideally suited to hypothesis testing but excels in identifying patterns in the data. The reported estimates should not be treated as causal effects. Although the analysis addresses important confounders of the link between health lifestyles and CVD, it is possible that additional confounders remain (e.g., genetic factors, discrimination). Further research is needed to assess these possibilities. Finally, it should be noted that this is a static picture of health lifestyles and likely to evolve over time. It was beyond the scope of this study to examine health lifestyles in a longitudinal perspective, but this would be a promising strategy for future studies along with research on older populations with higher rates of CVD events.

CONCLUSIONS

Overall, these results show that the “unhealthy” lifestyle among blacks and “most unhealthy” lifestyle among whites have a noticeably elevated risk of early fatal or nonfatal CVD events relative to “most healthy” lifestyles by middle age. The “most unhealthy” lifestyle among blacks, as noted, does not show a significant relationship with CVD but this class has considerably fewer people than that of whites. Thus, the CVD events accrued in the “unhealthy” class. An important difference in health lifestyles between blacks and whites is that, in every lifestyle class, blacks showed a higher probability of excessive energy intake than whites—indicative of the potential for obesity.

Acknowledgments

Publication of this article was supported by the National Institutes of Health. The findings and conclusions in this article are those of the authors and do not necessarily represent the official position of the National Institutes of Health.

This study was supported by a grant from the National Institute of Minority Health and Health Disparities (US54MD008176). The Coronary Artery Risk Development in Young Adults Study is conducted and supported by the National Heart, Lung, and Blood Institute in collaboration with the University of Alabama at Birmingham (HHSN268201300025C and HHSN26820130 0026C); Northwestern University (HHSN268201300027C); University of Minnesota (HHSN268201300028C); Kaiser Foundation Research Institute (HHSN268201300029C); and Johns Hopkins University School of Medicine (HHSN268200900041C).

No financial disclosures were reported by the authors of this paper.

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Table 1

Baseline Characteristics of the Coronary Artery Risk Development in Young Adults (CARDIA) Study Participants by Race

Characteristic	Black, % (n=2,451)	White, % (n=2,351)
Cardiovascular disease	5.1	2.9
Health behaviors		
Energy intake: normal	58.8	74.8
Energy intake: overeat	41.2	25.2
Physically active: no	47.7	34.9
Physically active: yes	52.3	65.1
Drink: never	46.2	31.3
Drink: moderate	44.4	53.1
Drink: substantial	9.4	15.6
Smoke: never	57.8	55.3
Smoke: past	8.8	17.9
Smoke: current	33.5	26.8
Sociodemographics		
Age, M (SD)	24.27 (3.81)	25.43 (3.38)
Male	44.2	47.5
Years of school: M (SD)	13.01 (1.82)	14.59 (2.37)
Marriage: never	71.4	66.8
Marriage: past	9.6	7.4
Marriage: current	19.0	25.8
Work status: not working	31.8	15.7
Work status: part-time	20.1	20.0
Work status: full-time	48.1	64.3
Medical history		
High blood pressure	10.2	7.4
High cholesterol	2.6	1.6
Heart problems	5.9	6.1
Diabetes	1.1	0.5
Cancer	2.7	2.8

Note: All health behaviors, sociodemographic measures, and medical history measures are based on the baseline CARDIA (1985–1986) examination. A total of 313 participants were not included because of missing value(s).

Results of Latent Class Analysis by Race From the Coronary Artery Risk Development in Young Adults (CARDIA) Study Baseline Data: Conditional Item Response Probabilities

Table 2

Lifestyle components	Blacks (n=2,451)				Whites (n=2,351)			
	Most healthy, % (n=1,303; 53.2%)	Less healthy, % (n=619; 25.3%)	Unhealthy, % (n=451; 18.4%)	Most unhealthy, % (n=78; 3.2%)	Most healthy, % (n=1,176; 50.0%)	Moderately healthy, % (n=451; 19.2%)	Somewhat unhealthy, % (n=266; 11.3%)	Most unhealthy, % (n=458; 19.5%)
Energy intake: normal	0.70	0.48	0.56	0.00	0.81	0.94	0.64	0.59
Energy intake: overeat	0.30	0.52	0.44	1.00	0.19	0.06	0.36	0.41
Physically active: no	0.56	0.00	1.00	0.11	0.00	1.00	0.00	0.62
Physically active: yes	0.44	1.00	0.00	0.89	1.00	0.00	1.00	0.38
Drink: never	0.71	0.25	0.25	0.00	0.39	0.51	0.00	0.27
Drink: moderate	0.29	0.66	0.56	0.12	0.61	0.48	0.48	0.48
Drink: substantial	0.00	0.10	0.19	0.88	0.00	0.02	0.52	0.25
Smoke: never	0.88	0.37	0.24	0.05	0.70	0.74	0.43	0.28
Smoke: past	0.07	0.12	0.09	0.10	0.19	0.20	0.23	0.12
Smoke: current	0.05	0.52	0.67	0.85	0.10	0.06	0.35	0.61

Table 3

Latent Class Analysis–Derived Health Lifestyle Membership in Relation to Sociodemographic Factors and Medical History

Covariates	Black (n=2,451)			White (n=2,351)		
	Less healthy	Unhealthy	Most unhealthy	Moderately healthy	Somewhat unhealthy	Most unhealthy
Age	1.09*** (1.05, 1.12)	1.15*** (1.11, 1.19)	1.10** (1.03, 1.19)	0.97 (0.93, 1.01)	1.00 (0.96, 1.05)	1.03 (0.99, 1.07)
Male	3.36*** (2.72, 4.13)	0.84 (0.66, 1.07)	8.77*** (4.74, 16.22)	0.52*** (0.42, 0.65)	0.95 (0.72, 1.24)	0.58*** (0.46, 0.73)
Years of schooling	0.84*** (0.79, 0.89)	0.73*** (0.68, 0.78)	0.62*** (0.53, 0.73)	0.99 (0.94, 1.04)	0.92** (0.86, 0.98)	0.75*** (0.71, 0.80)
Marriage: past	1.17 (0.80, 1.70)	1.17 (0.80, 1.71)	2.21* (1.06, 4.60)	0.65 (0.37, 1.14)	1.42 (0.87, 2.31)	1.55* (1.02, 2.34)
Marriage: current	0.68** (0.51, 0.91)	0.62** (0.46, 0.85)	0.51 (0.23, 1.14)	1.73*** (1.34, 2.25)	0.65* (0.45, 0.94)	1.16 (0.88, 1.54)
Work: part-time	0.54*** (0.40, 0.73)	0.70* (0.51, 0.97)	0.41* (0.20, 0.84)	0.64* (0.44, 0.93)	1.14 (0.68, 1.92)	0.76 (0.53, 1.08)
Work: full-time	0.70** (0.55, 0.90)	0.73* (0.55, 0.95)	0.71 (0.40, 1.25)	0.91 (0.66, 1.25)	1.67* (1.06, 2.62)	0.72 (0.53, 0.98)
High blood pressure	1.10 (0.78, 1.56)	1.32 (0.93, 1.88)	1.10 (0.49, 2.44)	1.31 (0.87, 1.99)	0.95 (0.55, 1.64)	1.12 (0.73, 1.72)
High cholesterol	0.97 (0.43, 2.18)	0.87 (0.35, 2.17)	0.75 (0.09, 6.09)	1.29 (0.66, 2.49)	0.93 (0.38, 2.28)	1.20 (0.61, 2.38)
Heart problems	0.92 (0.59, 1.45)	1.1 (0.70, 1.72)	1.44 (0.54, 3.87)	1.02 (0.63, 1.65)	1.16 (0.67, 2.03)	1.30 (0.83, 2.03)
Diabetes	1.69 (0.67, 4.25)	0.92 (0.29, 2.88)	4.45 (0.88, 22.54)	0 (0.00, -)	0.67 (0.08, 5.73)	0.7 (0.17, 2.83)
Cancer	1.49 (0.80, 2.77)	1.07 (0.56, 2.04)	1.03 (0.07, 10.06)	1.23 (0.62, 2.46)	1.41 (0.63, 3.21)	1.81 (0.96, 3.42)

Note: Boldface indicates statistical significance (***) $p < 0.001$; ** $p < 0.01$; * $p < 0.05$, two-tailed tests). Values are adjusted relative risk ratio estimates (95% CIs) calculated against the reference category “Most healthy”.

Table 4

Cardiovascular Disease Development in Relation to Healthy Lifestyle Class, Sociodemographic Factors, and Medical History

Independent variables	Black (n=2,451)		White (n=2,351)	
	Model 1	Model 2	Model 3	Model 4
Moderately healthy	—	—	1.08 (0.52, 2.26)	1.44 (0.68, 3.05)
Less healthy	1.28 (0.83, 1.99)	1.05 (0.66, 1.66)		
Somewhat unhealthy	—	—	1.51 (0.68, 3.36)	1.54 (0.68, 3.49)
Unhealthy	1.95** (1.28, 2.99)	1.58* (1.01, 2.47)	—	—
Most unhealthy	0.95 (0.30, 3.05)	0.73 (0.22, 2.37)	2.91*** (1.67, 5.06)	3.12*** (1.73, 5.62)
Age	—	1.12*** (1.06, 1.18)	—	1.24*** (1.13, 1.36)
Male	—	1.46 (1.00, 2.12)	—	4.30*** (2.39, 7.73)
Years of schooling	—	0.94 (0.85, 1.04)	—	0.86** (0.77, 0.95)
Marriage: past		0.97 (0.54, 1.74)		0.83 (0.35, 1.98)
Marriage: current		1.14 (0.72, 1.80)		1.1 (0.64, 1.89)
Work: part-time		0.76 (0.44, 1.30)		1.06 (0.37, 3.05)
Work: full-time		0.75 (0.49, 1.14)		1.58 (0.68, 3.65)
High blood pressure		1.87** (1.19, 2.97)		0.96 (0.42, 2.17)
High cholesterol		0.84 (0.20, 3.46)		0.96 (0.23, 4.01)
Heart problems		0.88 (0.41, 1.90)		1.14 (0.48, 2.71)
Diabetes		4.15** (1.51, 11.43)		29.22*** (7.82, 109.22)
Cancer		0.51 (0.13, 2.11)		0.78 (0.19, 3.23)

Note: Boldface indicates statistical significance (*** $p < 0.001$; ** $p < 0.01$; * $p < 0.05$, two-tailed tests). Values are adjusted relative risk ratio estimates (95% CIs) calculated against the reference category “Most healthy”.