

SUPPLEMENTARY DATA

Supplementary Table 1. Baseline characteristics of CARDIA participants according to Diet Quality Index (DQI) score, 1985-86*

Characteristic	Blacks (n=2155)					Whites (n=2226)				
	<40	40-50	50-60	>60	<40	40-50	50-60	>60		
Number	1007	591	328	229	490	517	504	715		
DQI score	31.4 (5.9)	44.8 (2.8)	54.7 (2.8)	67.9 (6.7)†	32.9 (5.4)	45.1 (2.8)	54.8 (3.0)	70.9		
Age, years	24.0 (3.7)	24.6 (3.7)	24.4 (3.8)	25.3 (3.7)†	24.9 (3.5)	25.5 (3.4)	25.4 (3.3)	25.8		
Education, years	12.8 (1.7)	13.2 (1.8)	13.4 (1.9)	13.9 (1.9)†	13.8 (2.4)	14.5 (2.4)	14.8 (2.3)	15.3		
Physical activity score	378 (297)	379 (306)	357 (294)	390 (285)	416 (274)	446 (280)	458 (287)	473		
BMI, kg/m ²	24.8 (5.6)	25.5 (5.8)	26.2 (5.7)	26.4 (5.9)†	24.1 (4.4)	23.7 (4.0)	23.8 (4.2)	23.3		
Male, %	50.4	41.8	30.5	25.3†	65.7	56.1	45.4	28.9†		
Current smokers, %	36.4	32.8	23.5	16.6†	41.0	29.2	25.2	13.1†		
Income <\$25,000, %	50.3	43.8	42.7	38.0†	29.0	27.3	24.0	24.5†		
Income >\$50,000, %	10.5	17.3	16.2	19.7†	25.5	30.6	32.5	35.7†		
Average daily intake										
Total energy, kcal	3319 (1367)	2915 (1463)	2400	2091	3228	2948	2508	2081		
Total fat, % of energy	41.2 (4.5)	37.1 (5.3)	35.3 (5.4)	31.5	41.0 (4.5)	39.0 (5.2)	37.1 (4.6)	32.7		
Saturated fat, % of energy	15.7 (2.4)	13.8 (2.4)	12.9 (2.3)	10.7(2.1)†‡	16.1 (2.5)	15.0 (2.5)	14.1 (2.2)	11.8		
Total carbohydrates, % of energy	42.8 (5.8)	47.1 (6.8)	49.8 (7.4)	55.0	41.3 (5.8)	43.3 (6.5)	45.7 (5.6)	50.8		
Cholesterol, mg/1000 kcal	201 (74)	168 (57)	154 (58)	131 (50)†	185 (61)	162 (55)	152 (46)	131 (55)†		
Dairy, reduced-fat§	0.1 (0.2)	0.2 (0.3)	0.4 (0.5)	0.5 (0.6)†‡	0.3 (0.4)	0.5 (0.5)	0.7 (0.6)	0.8 (0.7)†		
Vegetables, total§	1.0 (0.5)	1.2 (0.6)	1.4 (0.9)	2.0 (1.4)†‡	1.2 (0.6)	1.4 (0.7)	1.7 (1.0)	2.4 (1.7)†		
Sugar-sweetened beverages§	0.6 (0.6)	0.8 (0.8)	0.7 (0.8)	0.6 (0.7)†‡	0.6 (0.6)	0.5 (0.7)	0.4 (0.5)	0.2 (0.5)†		
Candies, added sweeteners§	0.8 (0.7)	0.8 (0.8)	0.8 (0.9)	0.6 (0.7)†	0.9 (1.0)	0.7 (0.8)	0.6 (0.7)	0.5 (0.6)†		
Fruit, total§	0.8 (0.6)	1.3 (0.9)	1.8 (1.0)	2.7 (1.4)†‡	0.6 (0.4)	0.9 (0.6)	1.3 (0.8)	1.9 (1.1)†		
100% fruit juices§	0.5 (0.5)	0.8 (0.7)	1.1 (0.9)	1.6 (1.3)†‡	0.3 (0.3)	0.5 (0.5)	0.6 (0.6)	0.8 (0.8)†		
Grains, total§	2.6 (0.8)	2.6 (0.8)	2.5 (0.8)	2.5 (1.0)†‡	2.5 (0.7)	2.6 (0.8)	2.7 (0.8)	2.8 (0.9)†		
Whole grains§	0.3 (0.4)	0.5 (0.5)	0.6 (0.5)	0.8 (0.7)†‡	0.4 (0.3)	0.5 (0.5)	0.7 (0.6)	1.1 (0.7)†		
Sodium, g/1000 kcal	1.5 (0.3)	1.4 (0.3)	1.4 (0.3)	1.3 (0.3)†‡	1.6 (0.3)	1.6 (0.3)	1.5 (0.3)	1.5 (0.3)		

*The DQI is based on the 2005 Dietary Guidelines for Americans. Scores range from 0-100, higher scores indicate a diet more consistent with the guidelines. Values are means (SD) or percent.

†Indicates statistically significant difference (Chi2 or ANOVA, $\alpha=0.05$) across DQI categories within each race group.

‡Indicates significant difference in food intake between Blacks and Whites with high DQI score (>60)

§Servings/1000 kcal.

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Supplementary Table 2. Adjusted mean change in cardio-metabolic risk factors from 1992-93 to 2005-06 according to DQI score categories*

	Diet Quality Index Quartiles				P for trend
	1 st	2 nd	3 rd	4 th	
Diastolic blood pressure, mm HG [†]	5.15 (4.51, 5.78)	4.42 (3.79, 5.05)	2.51 (1.89, 3.13)	1.29 (0.67, 1.91)	0.01
Systolic blood pressure, mm HG [†]	7.91 (6.74, 8.33)	7.54 (6.74, 8.33)	6.50 (5.71, 7.28)	4.42 (3.63, 5.21)	0.03
HDL cholesterol, mg/dL [‡]	-0.62 (-1.32, 0.08)	0.29 (-0.40, 0.98)	0.89 (0.21, 1.57)	3.86 (3.19, 4.54)	0.02
Triglycerides, mg/dL [‡]	15.4 (11.1, 19.8)	26.1 (21.8, 30.4)	25.4 (21.1, 29.6)	20.3 (16.1, 24.5)	0.90
Fasting glucose, mg/dL [§]					
Blacks	8.80 (7.09, 10.51)	8.74 (6.85, 10.63)	12.18 (9.86, 14.51)	10.46 (7.15, 13.78)	0.14
Whites	8.34 (5.85, 10.83)	5.48 (3.36, 7.61)	6.47 (4.70, 8.24)	4.87 (3.32, 6.42)	0.08
HOMA-insulin resistance					
Blacks	0.70 (0.47, 0.92)	0.86 (0.59, 1.11)	1.35 (1.01, 1.69)	1.20 (0.77, 1.66)	0.01
Whites	0.59 (0.28, 0.93)	0.52 (0.23, 0.78)	0.52 (0.28, 0.75)	0.48 (0.29, 0.69)	0.08

*Values are means (95% confidence intervals). Estimates are from regression models adjusted for change in smoking from 1992-93 (year 7) to 2005-06 (year 20) and for the following trait values at the year 7 examination: age, gender, race, years of education, income, clinic of recruitment, physical activity score, and energy intake. The average of year 0 and year 7 diet data was used to calculate DQI scores and energy intake values.

[†]On the basis of 3,700 participants. Models further adjusted for blood pressure at year 7, family history of high blood pressure, and use of medications to control blood pressure.

[‡]On the basis of 3,627 participants. Models further adjusted for year 7 values of triglycerides or HDL cholesterol and use of medications to control cholesterol.

[§]On the basis of 3,320 participants. Models further adjusted for glucose at year 7, family history of diabetes, and use of medications to control blood glucose.

^{||}On the basis of 3,116 participants. Models further adjusted for BMI and HOMA insulin resistance at year 7, family history of diabetes, and use of medications to control blood glucose.