

Supplemental Material

Supplemental Table I. Baseline characteristics of participants by Black Carbon

Variable	Overall summary statistics		Summary statistics by thirds of BC						z value
	No of subjects	Mean (SD) or %	Bottom Third		Middle Third		Top Third		
			n	Mean (SD) or %	n	Mean (SD) or %	n	Mean (SD) or %	
BC (abs)	1717	1.17 (0.12)	602	1.06 (0.04)	574	1.16 (0.03)	541	1.32 (0.10)	
Age (years)	1717	59 (8)	602	59 (7)	574	59 (8)	541	60 (8)	0.057
Female	1717	1129 (66%)	602	363 (60%)	574	397 (69%)	541	369 (68%)	0.021
Race - Black	1717	773 (45%)	602	181 (30%)	574	311 (54%)	541	281 (52%)	<0.000
Race - White	1717	902 (53%)	602	404 (67%)	574	253 (44%)	541	245 (45%)	1
Smoker	1713	192 (11%)	601	55 (9%)	572	76 (13%)	540	61 (11%)	0.42
Diabetes	1710	177 (10%)	601	60 (10%)	570	59 (10%)	539	58 (11%)	0.32
HTN	1715	757 (44%)	602	241 (40%)	572	264 (46%)	541	252 (47%)	0.0037
Systolic BP	1715	137 (20)	601	136 (19)	573	137 (20)	541	137 (20)	0.55
Diastolic BP	1714	81 (10)	600	81 (10)	573	81 (10)	541	81 (10)	0.089
Glucose (mg/dl)	1711	99 (26)	600	98 (26)	571	99 (26)	540	101 (27)	0.046
BMI (Kg/M ²)	1701	30 (6)	594	29 (6)	569	31 (7)	538	30 (7)	0.16
WHR	1584	0.89 (0.09)	553	0.90 (0.09)	533	0.89 (0.08)	498	0.88 (0.09)	0.13
fRHI	1232	0.74 (0.46)	449	0.77 (0.45)	397	0.71 (0.46)	386	0.73 (0.46)	0.48
Log-hsCRP (log-mg/l)	1611	0.37 (1.24)	566	0.29 (1.23)	532	0.39 (1.29)	513	0.43 (1.18)	0.16
Log-IL6 ((log-pg/ml)	1585	0.53 (0.75)	558	0.46 (0.74)	521	0.54 (0.77)	506	0.60 (0.72)	0.0027
TC (mg/dL)	1705	213 (42)	596	212 (39)	571	214 (44)	538	213 (44)	0.67
HDL (mg/dL)	1705	58 (15)	596	56 (15)	571	58 (15)	538	59 (15)	0.012
Log-TG (mg/dL)	1704	4.67 (0.49)	596	4.72 (0.50)	571	4.66 (0.48)	537	4.63 (0.49)	0.028
Income < \$10K	1554	93 (6.0)	549	22 (4.0)	517	41 (7.9)	488	30 (6.2)	
Income - \$10K-20K	1554	201 (12.9)	549	44 (8.0)	517	70 (13.5)	488	87 (17.8)	
Income - \$20K-40K	1554	451 (29.0)	549	148 (27.0)	517	162 (31.3)	488	141 (28.9)	<0.000
Income - \$40K-80K	1554	515 (33.1)	549	194 (35.3)	517	159 (30.8)	488	162 (33.2)	1
Income > \$80K	1554	294 (18.9)	549	141 (25.7)	517	85 (16.4)	488	68 (13.9)	
Education < HS	1713	42 (2.5)	602	11 (1.9)	571	12 (2.1)	540	19 (3.5)	
Education- HS+	1713	844 (49.3)	602	266 (44.2)	571	299 (52.4)	540	279 (51.7)	0.0093
Education- Bachelor+	1713	827 (48.3)	602	325 (54.0)	571	260 (45.5)	540	242 (44.8)	

BC – black carbon, HTN- hypertension, BP – blood pressure, BG – blood glucose, BMI – body mass index, WHR – waist-hip ratio, fRHI - Framingham reactive hyperemia index, Hx – history, hsCRP –high sensitivity C-reactive protein, IL6 – interleukin-6, TC – total cholesterol, HDL-c – high-density lipoprotein cholesterol, TG – triglycerides.

Supplemental Table II. Baseline characteristics of participants by race

Variable	White		Black		p-value
	No of subjects	Mean (SD) or N %	No of subjects	Mean (SD) or %	
PM _{2.5}	902	15.7 (0.73)	773	16.1 (0.75)	<0.0001
BC	902	1.16 (0.13)	773	1.19 (0.11)	<0.0001
Age (years)	1095	60 (7)	854	58 (8)	<0.0001
Female	1095	687 (63%)	854	593 (69%)	0.002
Current smoker	1093	89 (8%)	851	125 (15%)	<0.0001
Diabetes	1089	60 (6%)	850	139 (16%)	<0.0001
Hypertension	1093	342 (31%)	853	484 (57%)	<0.0001
Systolic BP	1094	133 (19)	853	141 (20)	<0.0001
Diastolic BP	1093	79 (10)	853	83 (10)	<0.0001
Glucose (mg/dl)	1091	96 (18)	852	103 (34)	<0.0001
BMI (Kg/M ²)	1084	29 (6)	844	32 (7)	<0.0001
Waist-hip ratio	1012	0.89 (0.09)	797	0.89 (0.09)	0.77
fRHI	835	0.80 (0.46)	579	0.66 (0.44)	<0.0001
Log-hsCRP	1039	0.16 (1.19)	790	0.63 (1.26)	<0.0001
Log-IL6	1025	0.36 (0.74)	775	0.75 (0.69)	<0.0001
TC (mg/dL)	1091	216 (41)	846	209 (44)	0.0001
HDL-c (mg/dL)	1091	57 (15)	846	58 (15)	0.14
Log-trig_vap	1090	4.76 (0.51)	845	4.58 (0.47)	<0.0001
Education < HS	1091	17 (2%)	853	27 (3%)	<0.0001
Education - HS+	1091	446 (41%)	853	521 (61%)	
Education – Bachelor+	1091	628 (58%)	853	305 (36%)	
Income < \$10K	974	29 (3%)	787	79 (10%)	<0.0001
Income - \$10K-20K	974	71 (7%)	787	145 (18%)	
Income - \$20K-40K	974	248 (25%)	787	257 (33%)	
Income - \$40K-80K	974	338 (35%)	787	247 (31%)	
Income > \$80K	974	288 (30%)	787	59 (7%)	

PM_{2.5} – particulate matter with median aerodynamic diameter < 2.5 µm, HTN- hypertension, BP – blood pressure, BMI – body mass index, WHR – waist-hip ratio, fRHI - Framingham reactive hyperemia index, Hx – history, BP – blood pressure, hsCRP –high sensitivity C-reactive protein, IL6 – interleukin-6, TC – total cholesterol, HDL-c – high-density lipoprotein cholesterol, TG – triglycerides.

Supplemental Table III. Association of environmental exposure to BC (per 0.5 abs higher concentration) with continuous variables

Outcome	Adjustment	N	Beta (95% CI)	p-value
SBP	Unadjusted	1710	1.16(-2.58,4.91)	0.54
	Age & sex	1710	0.59(-3.06,4.24)	0.75
	Above + smoking	1707	0.61(-3.04,4.26)	0.74
	Above + race	1665	-2.04(-5.68,1.59)	0.27
	Above + income	1505	-3.18(-6.98,0.62)	0.10
	Above + education	1505	-3.19(-6.98,0.61)	0.10
Glucose	Unadjusted	1706	5.05(0.04,10.06)	0.05
	Age & sex	1706	5.40(0.39,10.41)	0.03
	Above + smoking	1702	5.36(0.34,10.37)	0.04
	Above + race	1660	3.61(-1.53,8.76)	0.17
	Above + income	1499	2.69(-2.73,8.10)	0.33
	Above + education	1499	2.69(-2.73,8.10)	0.33
BMI	Unadjusted	1696	0.93(-0.22,2.08)	0.11
	Age & sex	1696	1.00(-0.15,2.15)	0.09
	Above + smoking	1694	1.04(-0.11,2.19)	0.08
	Above + race	1652	-0.08(-1.21,1.05)	0.89
	Above + income	1495	-0.41(-1.61,0.79)	0.50
	Above + education	1495	-0.41(-1.61,0.78)	0.50
fRHI	Unadjusted	1229	-0.04(-0.14,0.07)	0.47
	Age & sex	1229	-0.06(-0.16,0.05)	0.27
	Above + smoking	1228	-0.06(-0.16,0.05)	0.28
	Above + race	1196	-0.01(-0.11,0.10)	0.89
	Above + income	1076	0.00(-0.11,0.11)	0.99
	Above + education	1076	0.00(-0.11,0.11)	1.00
Log-hsCRP	Unadjusted	1608	0.17(-0.07,0.41)	0.17
	Age & sex	1608	0.12(-0.12,0.36)	0.31
	Above + smoking	1605	0.12(-0.12,0.35)	0.35
	Above + race	1566	-0.03(-0.27,0.21)	0.81
	Above + income	1413	-0.06(-0.31,0.20)	0.67
	Above + education	1413	-0.06(-0.31,0.20)	0.66
Log-IL6	Unadjusted	1582	0.22(0.08,0.37)	0.00
	Age & sex	1582	0.20(0.06,0.35)	0.01
	Above + smoking	1578	0.20(0.06,0.35)	0.01
	Above + race	1538	0.10(-0.04,0.25)	0.15
	Above + income	1386	0.09(-0.06,0.24)	0.26
	Above + education	1386	0.09(-0.06,0.24)	0.26

BC – black carbon, SBP – systolic blood pressure, BMI – body mass index, fRHI - Framingham reactive hyperemia index, hsCRP –high sensitivity C-reactive protein, IL6 – interleukin-6