Supplemental Table 1: Patient Characteristics Stratified by Distance to Major Roadway Categories

Characteristics	Residential Distance to a Major Roadway											
	<50 m (n=1,104)			50-<200 m (n=1,265)			200-<400 m (n=1,114)			400-<1000 m (n=1,273)		
Age at CT Scan (years)	56.8	±	13.1	54.9	±	12.4	56.1	±	12.0	56.2	±	12.5
Male Sex, %	547		(50)	636		(50)	566		(51)	638		(50)
Offspring, %	528		(48)	514		(41)	518		(47)	574		(45)
First CT round, %	597		(54)	720		(57)	599		(54)	700		(55)
Education (Years)												
Some College	378		(34)	411		(32)	343		(31)	400		(31)
College Graduate	439		(40)	547		(43)	492		(44)	613		(48)
Median Census Value Owner Occupied Housing , $	223,667	±	124,356	216,666	±	100,172	220,212	±	90,339	228,709	±	91,691
Current Smokers, %	118		(11)	162		(13)	104		(9)	115		(9)
Former Smokers, %	446		(40)	519		(41)	445		(40)	502		(39)
Pack-years												
Current Smokers	34.4	±	16.8	30.2	±	12.9	30.8	±	14.4	30.8	±	15.4
Former Smokers	17.2	±	16.8	17.7	±	18.3	17.6	±	16.8	18.9	±	18.3
Alcohol (average drinks per week)	4.7	±	7.6	4.5	±	6.8	4.7	±	6.8	5.0	±	7.9
Physical Activity Index	37.1	±	7.3	36.8	±	6.6	36.6	±	6.7	37.0	±	7.2
Menstrual periods stopped[*], %	363		(65)	378		(60)	384		(70)	405		(64)
Diabetes History, %	88		(8)	85		(7)	88		(8)	93		(7)
Clinically apparent CVD at CT scan, %	99		(9)	88		(7)	89		(8)	113		(9)
Body Mass Index (kg/m^2)	28.4	±	5.3	28.2	±	5.5	28.2	±	5.2	27.8	±	5.1
Hypertension medications, %	337		(31)	334		(26)	323		(29)	360		(28)
Systolic Blood Pressure (mm Hg)	123	±	16	122	±	16	123	±	17	122	±	16
Diastolic Blood Pressure (mm Hg)	75	±	10	75	±	10	75	±	9	75	±	9

Lipid medications, %	287		(26)	327		(26)	291		(26)	347	(27)
Triglycerides (mg/dL)	128	±	96	125	±	85	123	±	85	124 ±	87
Total cholesterol/HDL	3.8	±	1.3	3.8	±	1.3	3.8	±	1.2	3.7 ±	1.3
10-year predicted risk of CVD[†], %	0.07	±	0.09	0.06	±	0.08	0.06	±	0.07	0.06 ±	0.09
MDCT Scan Results											
TAC>0, %	162		(27)	156		(22)	147		(25)	182	(26)
TAC, among those with TAC>0[‡]	182.3		(1,007.6)	176.9		(910.4)	112.5		(441.2)	163.7	(599.5)
AAC>0, %	690		(63)	721		(57)	704		(63)	787	(62)
AAC, among those with AAC>0[‡]	728.0		(3,213.9)	561.9		(2,470.9)	567.6		(2098.2)	658.9	(2,676.5)

[*]Among women.

[†]American College of Cardiology/American Heart Association 2013 10-year predicted risk of atherosclerotic CVD; Median, interquartile range.[56]

[‡]Median, interquartile range.

Data calculated from 4,756 observations, from 3,122 participants with a TAC measurement or at least one AAC measurement.

Number of missing observations: TAC: 40; AAC: 13; alcohol: 3; physical activity index: 43; diastolic blood pressure: 3; triglycerides: 10; total cholesterol/HDL: 15; 10-year predicted CVD risk: 1,099.

Supplemental Table 2: Associations of Distance to Major Roadway and PM$_{2.5}$ with TAC and AAC: Subgroups*

TAC

	Log of Distance to a Major Road[†]				2003 PM$_{2.5}$(µg/m^3)[‡]			
	TAC>0[§]		Linear Regression (among those with TAC>0)[‖]		TAC>0[§]		Linear Regression (among those with TAC>0)[‖]	
	Odds Ratio	95% CI	Percent Difference	95% CI	Odds Ratio	95% CI	Percent Difference	95% CI
≤65 years	1.11	(0.92, 1.35)	-3.9	(-29.2, 26.0)	0.91	(0.79, 1.06)	2.9	(-19.3, 30.6)
>65 years	0.94	(0.69, 1.30)	-1.0	(-21.2, 24.0)	0.85	(0.65, 1.11)	2.0	(-19.0, 27.4)
Men	1.29	(1.01, 1.66)	9.3	(-18.2, 43.2)	0.89	(0.74, 1.08)	16.0	(-10.7, 50.2)
Women	0.91	(0.73, 1.13)	-10.2	(-30.4, 12.3)	0.90	(0.75, 1.08)	-8.1	(-24.2, 12.8)
Offspring	1.00	(0.82, 1.21)	-6.3	(-22.9, 12.2)	0.89	(0.76, 1.05)	5.8	(-11.6, 25.7)
Third Generation	1.22	(0.90, 1.65)	28.0	(-21.0, 147.7)	0.90	(0.72, 1.11)	-15.7	(-47.2, 34.9)

AAC

	Log of Distance to a Major Road[†]				2003 PM$_{2.5}$(µg/m^3)[‡]			
	AAC>0[§]		Linear Mixed Effects Regression (among those with AAC>0)[‖]		AAC>0[§]		Linear Mixed Effects Regression (among those with AAC>0)[‖]	
	Odds Ratio	95% CI	Percent Difference	95% CI	Odds Ratio	95% CI	Percent Difference	95% CI
≤65 years	NA[††]		0.1	(-10.5, 8.8)	NA[††]		3.2	(-2.5 13.7)
>65 years			-1.3	(-8.7, 11.0)			-0.2	(-9.4 9.3)
Men	1.13	(0.95, 1.35)	3.8	(-7.9, 14.7)	0.99	(0.88, 1.13)	6.2	(-1.0, 16.6)
Women	1.05	(0.89, 1.25)	-4.9	(-14.6, 7.1)	0.98	(0.86, 1.13)	-2.3	(-10.2, 7.8)
Offspring	1.16	(0.93, 1.45)	1.7	(-6.6, 11.9)	0.96	(0.79, 1.16)	6.4	(-1.4, 16.2)
Third Generation	1.06	(0.92, 1.23)	-3.8	(-18.6, 8.7)	1.00	(0.90, 1.11)	-2.0	(-9.1, 8.5)
10-year risk of atherosclerotic CVD[‡‡]								
0.1–1.6%	0.96	(0.80, 1.14)	-15.3	(-32.2, 1.0)	1.04	(0.91, 1.19)	5.9	(-11.1, 24.9)
1.6–5.3%	1.08	(0.91, 1.28)	6.1	(-9.9, 17.1)	0.88	(0.77, 1.01)	-1.9	(-10.3, 14.7)
5.3–81.3%	1.45	(1.10, 1.90)	5.8	(-5.1, 22.4)	1.03	(0.80, 1.31)	-0.8	(-12.1, 11.2)

[*]Adjusted for age at scan (age, age^2), body mass index, sex, cohort, smoking status (current, former, never), pack-years, individual-level education (high school or less, some college, college graduate), median census-tract value of owner-occupied housing (quartiles), date of scan, number of days between scan and examination at which individual-level covariates reported. For AAC, also adjusted for CT scan (first or second round).

[†]Natural Log of proximity to a major road scaled to the difference between living at the 75th (417.9 m) vs the 25th (58.0 m) percentile from a major road.

[‡]PM$_{2.5}$ scaled to the IQR for the 2003 average (1.4 µg/m^3).

[§]For TAC, distance to roadway includes 2,576 observations (647 TAC>0). PM$_{2.5}$ includes 2,900 observations (716 with TAC>0). For AAC, distance to roadway includes 4,743 observations (2,902 AAC>0). PM$_{2.5}$ includes 5,312 observations (3,212 AAC>0).

[‖]For linear regression of log$_e$(TAC), distance to roadway includes 647 observations and PM$_{2.5}$ 716 observations. For linear mixed effects regression of AAC, distance to roadway includes 2,902 observations and PM$_{2.5}$ 3,212 observations. Percentile bootstrapped confidence intervals (n=1,000 clustered bootstrap samples).

[††]Due to sparse data, we did not assess for heterogeneity by 10-year atherosclerotic CVD risk for the outcomes of detectable TAC or log$_e$(TAC) or by age for the outcome of detectable AAC.

[‡‡]For assessing for heterogeneity by 10-year risk of atherosclerotic CVD with the outcome of AAC, distance to roadway includes 3,652 observations (2,262 AAC>0) and PM$_{2.5}$ includes 4,098 observations (2,499 AAC>0).