Supplemental Table 1. Descriptive Data for Individual CVDRFs

CVDRFs domain	Measurement	Mean	Range	Cutoff score for abnormal group	N of participants (%)
Abdominal obesity (Adults, 2001)	• Waist circumference, cm	99.66 (16.04)	64 – 266	Male: >102 Female: >88	475 (63.6%)
	• BMI			≥ 30	
Hypertension (Pearson et al., 2002)	• Sitting systolic blood pressure, mmHg, OR	134.48 (17.10)	85 – 191	≥ 130	487 (65.2%)
	• Sitting diastolic blood pressure, mmHg, OR	75.84 (10.54)	48 – 114	≥ 85	
	• Currently taking antihypertensive treatment	-	-	yes	
Hypercholesterolemia (Adults, 2001)	• Blood total cholesterol, mg/dL, OR	188.83 (41.29)	91 - 439	≥200	383 (51.3%)
	• Blood HDL mg/dL	52.97 (16.45)	19 – 115	<40	
Hypertriglyceridemia (Pearson et al., 2002)	• Blood triglycerides, mg/dL	147.05 (158.02)	34 - 3299	≥150	252 (33.7%)
Diabetes [a]	• Blood hemoglobin A1c, %, OR	6.08 (0.97)	3.80 – 15.20	≥7	98 (13.1%)
	• Self-reported history of DM in past 12 mon	-	-	yes	
Smoker (Pearson et al., 2002)	• Smoking status	-	-	Current smoker	103 (13.8%)

Note. [a] fasting glucose level was not available in this study.

Supplemental Table 2. Model Fit and Estimates of Direct and Indirect Effect between CVDRFs, Leisure Activities, Inflammatory Markers, and Cognitive Function in Baseline Models

	Total sample (N = 747)	Middle-age group (n = 405)	Old-age group (n = 342)
Model fit	X^2 = 26.94, df = 6, p < 0.001; CFI = 0.973; RMSEA = 0.068; SRMR = 0.017.	X^2 = 19.47, df = 6, p = 0.004; CFI = 0.960; RMSEA = 0.074; SRMR = 0.022.	X^2 = 17.41, df = 6, p = 0.008; CFI = 0.964; RMSEA = 0.075; SRMR = 0.019.
Direct effect			
• CVDRFs – IL-6	**0.144**	**0.136**	**0.164**
• CVDRFs – CRP	**0.300**	**0.330**	**0.291**
• CVDRFs – EM	-0.024	0.043	**-0.107**
• CVDRFs – EF	-0.059	-0.011	**-0.113**
• IL-6 – EM	-0.020	-0.003	-0.034
• IL-6 – EF	0.000	0.084	-0.091
• CRP – EM	0.006	0.035	-0.034
• CRP – EF	-0.005	-0.037	0.021
• Mental activities – IL-6	0.008	0.002	0.002
• Mental activities – CRP	0.122	**0.163**	0.104
• Mental activities – EM	**0.134**	**0.128**	**0.151**
• Mental activities – EF	**0.276**	**0.267**	**0.297**
• Physical activities – IL-6	**-0.061**	-0.046	**-0.068**
• Physical activities – CRP	**-0.114**	**-0.115**	**-0.108**
• Physical activities – EM	0.024	0.039	-0.005
• Physical activities – EF	0.014	0.013	0.008
• Social activities – IL-6	-0.033	-0.014	-0.062
• Social activities – CRP	-0.065	-0.090	-0.053
• Social activities – EM	-0.026	0.040	-0.091
• Social activities – EF	0.010	0.025	-0.007
Interaction with CVDRFs			
• Mental activities – IL-6	-0.035	0.043	**-0.102**
• Mental activities – CRP	0.026	0.115	-0.059
• Mental activities – EM	-0.042	-0.089	-0.038
• Mental activities – EF	0.049	0.022	0.060
• Physical activities – IL-6	0.003	-0.031	0.032
• Physical activities – CRP	0.008	0.030	0.048
• Physical activities – EM	0.033	-0.051	**0.117**
• Physical activities – EF	-0.035	-0.047	-0.038
Indirect effect			
• CVDRFs – EM (via IL-6)	-0.003	0	-0.006
• CVDRFs – EF (via IL-6)	0	0.011	-0.015
• CVDRFs – EM (via CRP)	0.002	0.012	-0.010
• CVDRFs – EF (via CRP)	-0.002	-0.012	0.006

Note. Note. Age and sex were covariates of inflammatory markers and cognitive function; education and depression were covariates of cognitive function. Bold data indicate significant estimates. EM = Episodic mem EF = Executive function.