

Supplementary Material

Long-Term Exposure to PM_{2.5} and Cognitive Decline: A Longitudinal Population-Based Study

Supplementary Table 1. Baseline characteristics of included and excluded participants

	Included participants (N=2,253)	Excluded participants (N=750)
Age (y, mean±SD)	72.1±9.9	76.2±11.2
Female, n (%)	1430 (63.5)	452 (60.3)
Education, n (%)		
Elementary (≤8 y)	292 (13.0)	160 (21.3)
High school or above (>8 y)	1959 (87.0)	584 (77.9)
Smoking, n (%)		
Never smoker	1059 (47.0)	316 (42.1)
Former smoker	881 (39.1)	282 (37.6)
Current smoker	299 (13.3)	139 (18.5)
Physical activity, n (%)		
No or moderate	384 (68.09)	487 (65.0)
High	76 (13.48)	98 (13.1)
Early retirement, n (%)	1727 (76.7)	649 (86.5)
SES status, n (%)		
Blue collar workers	439 (19.5)	213 (28.4)
White collar workers	1809 (80.3)	526 (70.1)
Stroke, n (%)	419 (18.6)	67 (8.9)
MMSE (mean± SD)	28.9±1.3	28.3±1.7
PM _{2.5} (µg/m ³ , mean± SD)	8.7±0.7	8.7±0.7
IQR: 0.6 µg/m ³		

MMSE, Mini-Mental State Examination; SD, standard deviation; PM_{2.5}, Particulates matter with a diameter of 2.5 µm or less; µg/m³, micrograms per cubic meter; IQR, interquartile range.

Supplementary Table 2. Odds Ratios (ORs) and 95% confidence interval (CI) of fast cognitive decline by levels of PM_{2.5} during the 5 years before baseline by cerebrovascular diseases and by age groups

	OR (95%CI) of fast cognitive decline (per 0.6 µg/m ³ PM _{2.5})	
	PM _{2.5} ≤8.6 µg/m ³	PM _{2.5} >8.6 µg/m ³
<80 y		
No cerebrovascular diseases	1.20 (0.85-1.69)	0.81 (0.64-1.03)
Yes cerebrovascular diseases	1.30 (0.92-1.83)	0.83 (0.61-1.14)
p for interaction	<0.001	0.892
80+ y		
No cerebrovascular diseases	2.01 (1.17-3.47)	0.88 (0.71-1.09)
Yes cerebrovascular diseases	2.15 (1.24-3.72)	0.65 (0.42-1.02)
p for interaction	<0.001	0.229

All models adjusted for sex, education, smoking, socio-economic status, early retirement, and physical activity.