Supplementary Table 1. Fit statistics for the models of cognitive scores over 6-year follow-up period (n=4,926)

Cognitive score	Type of adjustment	-2 Log Likelihood	Likelihood Ratio Chi-Square test p-value *	AIC**
Global composite score [a]	Basic[b]	27304.5		27348.5
	Multivariable[c]	27028.9	<0.001	27288.9
TICS	Basic[b]	83670.1		83714.1
	Multivariable[c]	83397.8	<0.001	83657.8
Verbal memory [a]	Basic[b]	34354.7		34398.7
	Multivariable[c]	34125.9	<0.001	34385.9
Category fluency	Basic[b]	101067.7		101111.7
	Multivariable[c]	100844.1	<0.001	101104.1
Digit Span Backward	Basic[b]	73471.7		73515.7
	Multivariable[c]	73309.0	<0.001	73569.0

* -2 Log Likelihood ratio chi-square tests comparing the model fit between the basic-adjusted versus the multivariable models (nested models) with 108 degrees of freedom

**Akaike's Information Criterion (AIC): smaller values indicate better model fit

[a] Global composite score is the average of the z-scores of the TICS, delayed recall of the TICS 10-word list, immediate and delayed recalls of the East Boston Memory Test, category fluency and digit span backward; verbal memory composite score is the average of the z-scores of the immediate and delayed recalls of both the TICS 10-word and the East Boston Memory Test

[b] Basic-adjusted as indicated in footnote b of Table 3; the number of fixed effects parameters is 18

[c] Multivariable-adjusted as indicated in footnote c of Table 3; the number of fixed effects

parameters is 126

Supplementary Table 2. Select fixed effects (95% confidence intervals) estimates in the multivariable-adjusted model[a] of the global composite score[b] over 6-year follow-up period (n=4,926)

Fixed Effect	Estimate (95% CI)	p-value
Intercept	2.330 (1.490, 3.169)	<0.001
Time	0.359 (0.179, 0.539)	<0.001
Worse QOL at retirement	-0.037 (-0.099, 0.024)	0.24
Same QOL at retirement	0 (Ref)	-
Better QOL at retirement	0.013 (-0.020, 0.047)	0.43
Worse QOL at retirement*Time	0.006 (-0.007, 0.02)	0.37
Same QOL at retirement*Time	0 (Ref)	-
Better QOL at retirement*Time	0.011 (0.004, 0.019)	0.002

[a] Multivariable-adjusted as indicated in footnote c of Table 3

[b] Global composite score is the average of the z-scores of the TICS, delayed recall of the TICS 10-word list, immediate and delayed recalls of the East Boston Memory Test, category fluency and digit span backward