Supplementary material for the Results





Figure S2. Distribution of biological age in study population



Figure S3. The association between proBNPage tertials and all-cause, and

cardiovascular mortality visualized by Kaplan-Meier analysis.



Outcome type	Group	tertial 1	tertial 2
All-cause mortality	tertial 1	NA	1.52 (1.51-1.53) *
	tertial 3	2.30 (2.29-2.32) *	3.51 (3.46- 3.57) *
Cardiovascular	tertial 1	NA	1.63 (1.61-1.64) *
mortality	tertial 3	2.72 (2.69-2.75) *	4.55 (4.47- 4.63) *
* <i>P</i> < 0.05			

Table S1. The difference between groups according to proBNPage tertials

Table S2. Nonlinearity addressed through two-piecewise Cox model of proBNPage and all-cause mortality.

Outcome	Model	Model 1	Model 2	Model 3
	Threshold value	30.50	44.21	41.21
All-cause	< Threshold value	0.57 (0.25-1.30)	0.57 (0.25-1.30)	0.82 (0.60-1.12)
mortality	> Threshold value	1.01 (1.01-1.02) #	1.33 (1.27-1.39) #	1.33 (1.23-1.45)#

Model 1 adjusted for Chronological age, sex, ethnicity, BMI, education level, eGFR, CRP, UA, smoking status, poverty to income index, NT-proBNP, self-report hypertension, hyperlipidemia, diabetes mellitus, cardiovascular disease, and cancer. Model 2 adjusted for KDM and NT-proBNP. Model 3 adjusted for PhenoAge and NT-proBNP.

#*P*<0.001

and cardiovascular mortality.					
Outcome	Model	Model 1	Model 2	Model 3	
	Threshold value	59.12	56.67	54.21	
Cardiovascular	< Threshold value	1.37 (0.73-2.53)	0.82 (0.64-1.04)	0.87 (0.66-1.14)	
mortality	> Threshold value	$1.22(1.17-1.27)^{\#}$	1.42 (1.36-1.48) [#]	$1.40(1.27-1.54)^{\#}$	

Table S3. Nonlinearity addressed through two-piecewise Cox model of proBNPage and cardiovascular mortality.

Model 1 adjusted for Chronological age, sex, ethnicity, BMI, education level, eGFR, CRP, UA, smoking status, poverty to income index, NT-proBNP, self-report hypertension, hyperlipidemia, diabetes mellitus, cardiovascular disease, and cancer. Model 2 adjusted for KDM and NT-proBNP. Model 3 adjusted for PhenoAge and NT-proBNP.

#*P*<0.001