Supplementary Table S1. The results of the collinearity screening (Log PHR as independent variable).

Variables	VIF
Age	1.3
Sex	1.98
Marital status	1.11
Education level	1.47
Residence place	1.06
Smoking status	1.57
Alcohol consumption	1.32
TC	1.13
TG	1.2
BMI	1.09
Hypertension	1.1
Diabetes mellitus	1.08
Lipid-lowering drugs	1.04
Chronic lung disease	1.02
Chronic kidney disease	1.01

Supplementary Table S2. The results of the collinearity screening (Log cumulative PHR as independent variable).

Variables	VIF
Age	1.27
Sex	2.04
Marital status	1.1
Education level	1.44
Residence place	1.05
Smoking status	1.59
Alcohol consumption	1.34
TC	1.15
TG	1.21
BMI	1.09
Hypertension	1.1
Diabetes mellitus	1.08
Lipid-lowering drugs	1.04
Chronic lung disease	1.02
Chronic kidney disease	1.01

Supplementary Table S3. The C-index of the two model [(baseline model+Log PHR) vs baseline model], along with NRI and IDI analysis of the new model versus the baseline model in predicting CVD.

Reference Model	C-Index (95%CI)	C-Index (95%CI) of baseline model+Log PHR	P value for C-Index	NRI	P value for NRI	IDI	P value
baseline	0.636	0.638	0.200	0.1002	<0.001	0.0022	<0.001
model	(0.620-0.652)	(0.622-0.654)	0.389	0.1093	<0.001	0.0022	< 0.001

Supplementary Table S4. The C-index of the two model [baseline model+ Log (cumulative PHR) vs baseline model], along with NRI and IDI analysis of the new model versus the baseline model in predicting CVD.

Reference Model	C-Index (95%CI)	C-Index (95%CI) of baseline model+ Log (cumulative PHR)	P value for C-Index	NRI	P value	IDI	P value
baseline model	0.634	0.638	0.231	0.1163	0.011	0.0012	0.053
	(0.609-0.0.660)	(0.613-0.663)					

Supplementary figure 1. The Forest plot showed the correlation between Log (cumulative PHR) and the risk of CVD (OR 95%).

Stratification variables	OR per1-unit increase in Log (cumulative PHR) (95% CI)	P value ir	P for nteraction
Age	i		0.56
<65	1.445(1.105,1.896)	0.008	
≥65	1.248(0.826,1.893)	0.295	
Sex	!		0.371
Female	1.214(0.902,1.639)	0.203	
Male	1.495(1.060,2.118)	0.023	
BMI	İ		0.768
<28	1.261(0.989,1.612)	0.063	
≥28	1.396(0.747,2.641)	→0.300	
Smoking status			0.508
No	1.274(0.979,1.662)	0.073	
Yes	1.512(0.983,2.340)	→ 0.061	
Alcohol consumption			0.646
No	1.286(0.974,1.702)	0.077	
Yes	1.438(0.978,2.125)	0.066	
Hypertension			0.507
No	1.190(0.874,1.626)	0.272	
Yes	1.388(0.999,1.939)	0.052	
Diabetes			0.094
No	1.198(0.936,1.536)	0.153	
Yes	2.005(1.159,3.502)	→0.013	
CLD	!		0.048
No	1.506(1.180,1.926)	0.001	
Yes	0.797(0.447,1.424)	0.440	
CKD	i		0.62
No	1.370(1.087,1.729)	0.008	
Yes	1.063(0.405,2.846)	0.901	
	0.6 1	2.2	
	← — — low risk High ris	 k	