

Supplementary Material

Association between the triglyceride to high-density lipoprotein cholesterol ratio and the risk of type 2 diabetes mellitus among Chinese elderly: the Beijing Longitudinal Study of Aging

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Supplementary Table S1-Adjusted HRs and SHRs (95% CI) for incidence of T2DM by TG/HDL-C ratio groups in the regression analyses with time-dependent TG/HDL-C ratio and covariates based on data in the surveys of 8 years follow-up from 1992 to 2000

	TG/HDL-C ratio (mmol/L/ mmol/L)				P_{trend}
	< 0.87	0.87-1.30	1.31-1.74	≥ 1.75	
Cox regression					
Model 1	1.00	1.76 (0.91-3.39)	3.33 (1.72-6.45)	3.11 (1.65-5.88)	< 0.001
Model 2	1.00	1.68 (0.87-3.26)	2.93 (1.49-5.76)	2.64 (1.37-5.09)	0.002
Model 3	1.00	1.65 (0.85-3.20)	2.82 (1.43-5.58)	2.57 (1.33-4.96)	0.003
Model 4	1.00	1.59 (0.82-3.10)	2.70 (1.36-5.34)	2.49 (1.29-4.81)	0.004
Fine-Gray model					
Model 1	1.00	1.89 (0.98-3.64)	3.36 (1.74-6.51)	3.34 (1.77-6.32)	< 0.001
Model 2	1.00	1.77 (0.91-3.43)	2.87 (1.46-5.65)	2.76 (1.43-5.33)	0.001
Model 3	1.00	1.72 (0.89-3.34)	2.75 (1.39-5.45)	2.67 (1.38-5.17)	0.002
Model 4	1.00	1.66 (0.85-3.23)	2.64 (1.33-5.24)	2.58 (1.33-5.01)	0.003

Model 1: Adjusted for age, sex, district, educational level, cigarette consumption, drinking status and physical activity level.

Model 2: Included variables in Model 1 and further adjusted for body mass index, systolic blood pressure and diastolic blood pressure.

Model 3: Adjusted for factors in Model 2 plus total cholesterol and low-density lipoprotein cholesterol.

Model 4: Model 3 plus fasting plasma glucose.

HDL-C, high-density lipoprotein cholesterol; T2DM, type2 diabetes mellitus; TG, triglyceride.

Supplementary Table S2-Adjusted HRs and SHRs (95% CI) for incidence of T2DM with variables in time-dependent Cox regression and time-dependent Fine-Gray model

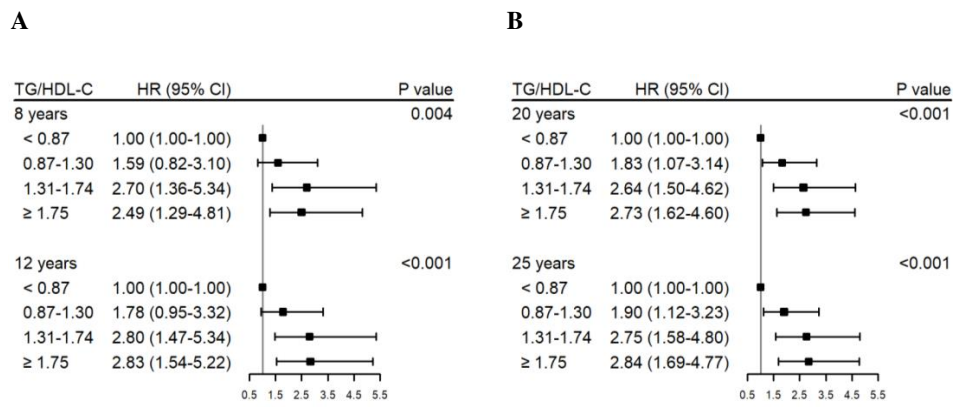
Variable	HR (95% CI)	SHR (95% CI)
Age (years)	0.96 (0.93-0.99)	0.97 (0.94-1.00) ^a
Sex (Ref. Female)		
Male	1.24 (0.79-1.95)	1.37 (0.88-2.15)
Educational level (Ref. Secondary or higher)		
Primary or lower	0.82 (0.50-1.35)	0.72 (0.44-1.18)
Residence (Ref. Rural)		
Urban	0.83 (0.50-1.37)	0.84 (0.51-1.36)
Cigarette consumption	1.03 (1.01-1.06)	1.04 (1.01-1.06)
Alcohol intake (Ref. No)		
Yes	0.96 (0.50-1.87)	1.04 (0.54-2.01)
Physical activity, hours/per week,		
> 10	Ref.	Ref.
3-10	1.18 (0.73-1.91)	1.01 (0.62-1.63)
< 3	1.23 (0.74-2.05)	0.95 (0.57-1.58)
BMI (kg/m ²)	1.07 (1.01-1.13)	1.08 (1.03-1.14)
SBP (mmHg)	1.00 (0.99-1.01)	1.00 (0.99-1.01)
DBP (mmHg)	1.02 (1.00-1.05) ^a	1.02 (1.00-1.04) ^b
TC (mmol/L)	0.92 (0.67-1.28)	1.28 (0.97-1.69)
LDL-C (mmol/L)	1.13 (0.79-1.61)	0.84 (0.62-1.13)
Baseline FPG (mmol/L)	1.37 (1.08-1.75)	1.32 (1.05-1.66)
TG/HDL-C (mmol/L/ mmol/L)		
< 0.87	Ref.	Ref.
0.87-1.30	1.90 (1.12-3.23)	1.98 (1.16-3.37)
1.31-1.74	2.75 (1.58-4.80)	2.67 (1.53-4.68)
≥ 1.75	2.84 (1.69-4.77)	3.02 (1.80-5.08)

^a, *p*-value < 0.05; ^b, *p*-value > 0.05.

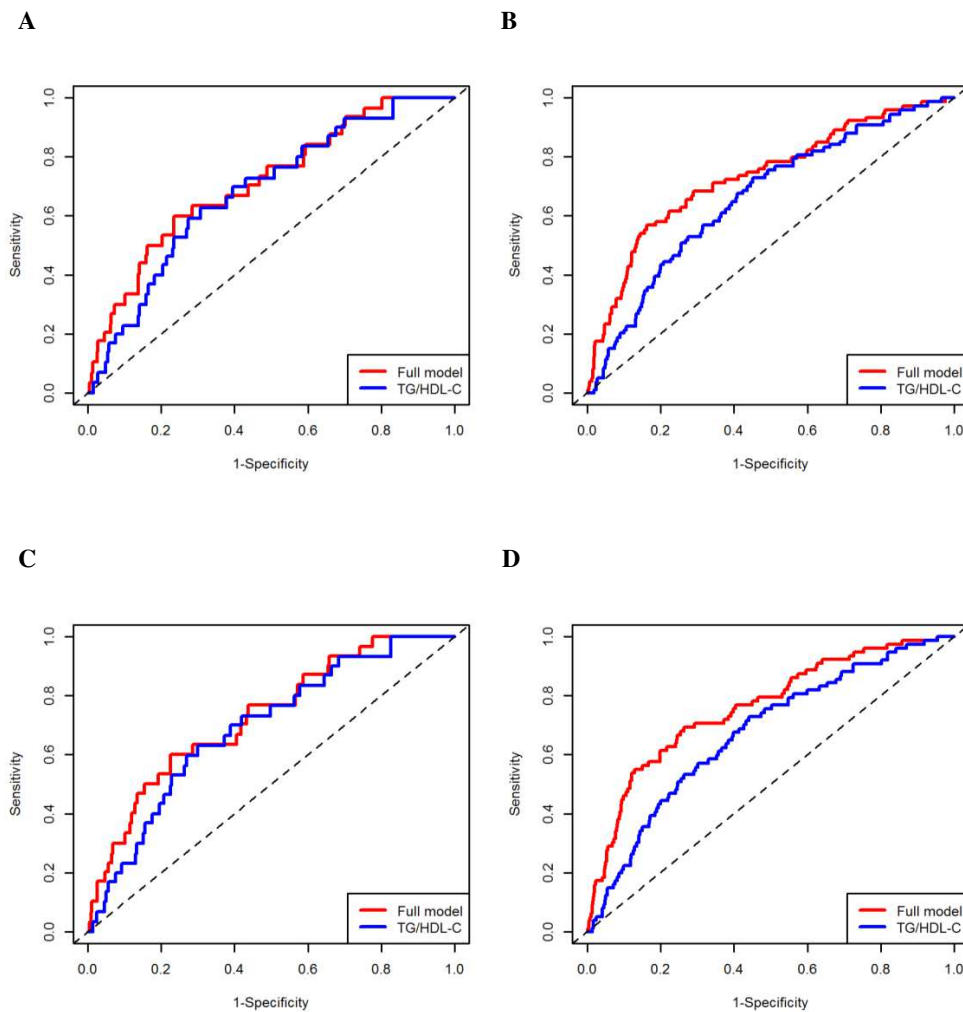
BMI, body mass index; DBP, diastolic blood pressure; FPG, fasting plasma glucose;

HDL-C, high-density lipoprotein cholesterol; LDL-C, low-density lipoprotein cholesterol;

SBP, systolic blood pressure; TC, total cholesterol; T2DM, type2 diabetes mellitus; TG, triglyceride.



Supplementary Figure S1. Association between TG/HDL-C ratios and the risk of T2DM incidence by different durations of the surveys. (A) 8-year and 12-year durations. (B) 20-year and 25-year durations. HDL-C, high-density lipoprotein cholesterol; T2DM, type2 diabetes mellitus; TG, triglyceride.



Supplementary Figure S2. ROC curves for prediction models of the T2DM risk at 5-year and 10-year. **(A).** Score based on Cox regression analysis for prediction of 5-year risk. **(B).** Score based on Cox regression analysis for prediction of 10-year risk. **(C).** Score based on Fine-Gray model analysis considering the death as the competing event for prediction of 5-year risk. **(D).** Score based on Fine-Gray model analysis considering the death as the competing event for prediction of 10-year risk. HDL-C, high-density lipoprotein cholesterol; ROC, Receiver Operating Characteristic; T2DM, type2 diabetes mellitus; TG, triglyceride.