

Supplemental Tables

Table S1: Comparing baseline characteristics of participants with and without missing TyG-related parameters in the first wave (2011-2012) of CHARLS.

	Complete group	Missing group	Standardized difference, % (95% CI)
No. of subjects	6979	5748	
Age, years	58.00 (51.00-65.00)	56.00 (49.00-64.00)	0.07 (0.03, 0.10)
Glucose, mmol/L	102.24 (94.14-112.86)	101.88 (94.27-112.86)	0.02 (-0.04, 0.08)
Cr, mg/dL	0.76 (0.64-0.88)	0.77 (0.66-0.89)	0.04 (-0.02, 0.10)
TC, mg/dL	190.21 (167.01-214.95)	185.57 (163.15-211.86)	0.12 (0.06, 0.18)
TG, mg/dL	102.66 (73.45-149.56)	107.08 (77.00-158.41)	0.06 (-0.00, 0.12)
HDL-C, mg/dL	49.87 (40.98-60.31)	48.33 (38.66-58.38)	0.13 (0.07, 0.19)
LDL-C, mg/dL	113.66 (92.78-136.47)	111.73 (90.08-134.15)	0.10 (0.04, 0.15)
hs-CRP, mg/L	0.99 (0.54-2.09)	0.97 (0.51-2.04)	0.02 (-0.04, 0.07)
HbA1c, %	5.24 (0.79)	5.20 (0.84)	0.05 (-0.01, 0.11)
UA, mg/dL	4.31 (3.58-5.16)	4.39 (3.65-5.24)	0.09 (0.03, 0.14)
Height, m	1.58 (0.09)	1.59 (0.09)	0.09 (0.05, 0.13)
Weight, kg	57.20 (50.60-64.95)	57.00 (50.60-64.90)	0.00 (-0.04, 0.04)
WC, cm	83.51 (12.26)	83.12 (12.22)	0.03 (-0.01, 0.08)
Gender, n (%)			0.10 (0.07, 0.14)
Male	3367 (48.24%)	3069 (53.41%)	
Female	3612 (51.76%)	2677 (46.59%)	
Marital status, n (%)			0.03 (-0.00, 0.07)
Married	6164 (88.32%)	5001 (87.26%)	
Other	815 (11.68%)	730 (12.74%)	
Living Place, n (%)			0.24 (0.20, 0.27)
Village	4640 (66.49%)	3162 (55.01%)	
City	2339 (33.51%)	2586 (44.99%)	
Education, n (%)			0.24 (0.21, 0.28)
Below primary	3388 (48.57%)	2348 (41.08%)	
Primary schools	1527 (21.89%)	1118 (19.56%)	
Middle school	1402 (20.10%)	1296 (22.68%)	
High school and above	658 (9.43%)	953 (16.68%)	
Kidney disease, n (%)			0.02 (-0.02, 0.05)
No	6618 (95.47%)	5424 (95.78%)	
Yes	314 (4.53%)	239 (4.22%)	
Hypertension, n (%)			0.25 (0.22, 0.29)
No	3908 (56.22%)	3878 (68.37%)	
Yes	3043 (43.78%)	1794 (31.63%)	
Diabetes, n (%)			0.24 (0.20, 0.27)
No	5979 (86.56%)	5293 (93.58%)	
Yes	928 (13.44%)	363 (6.42%)	
Drinking status, n (%)			0.02 (-0.01, 0.06)
No	4520 (64.81%)	3619 (63.69%)	
Yes	2454 (35.19%)	2063 (36.31%)	
Smoking status, n (%)			0.05 (0.01, 0.08)
No	4730 (67.99%)	3635 (70.12%)	
Yes	2227 (32.01%)	1549 (29.88%)	

Abbreviations as in Table 1.

Table S2: Comparing baseline characteristics of participants with and without missing TyG-related parameters in the third wave (2015) of

CHARLS.			
	Complete group	Missing group	Standardized difference, % (95% CI)
No. of subjects	6812	5915	
Age, years	61.00 (55.00-67.00)	61.00 (53.00-69.00)	0.07 (0.04, 0.11)
Glucose, mmol/L	95.50 (88.29-106.31)	95.50 (90.09-115.32)	0.13 (-0.03, 0.28)
Cr, mg/dL	0.76 (0.66-0.89)	0.76 (0.65-0.88)	0.01 (-0.16, 0.17)
TC, mg/dL	181.08 (159.46-205.02)	183.01 (161.00-202.90)	0.06 (-0.11, 0.23)
TG, mg/dL	111.50 (80.53-166.37)	123.01 (89.38-187.61)	0.11 (-0.05, 0.28)
HDL-C, mg/dL	50.58 (43.63-58.30)	49.81 (41.31-58.30)	0.14 (-0.02, 0.31)
LDL-C, mg/dL	100.39 (82.63-118.92)	99.61 (82.63-121.43)	0.09 (-0.07, 0.26)
hs-CRP, mg/L	1.40 (0.70-2.60)	1.60 (0.85-3.05)	0.14 (-0.03, 0.30)
HbA1c, %	5.97 (1.00)	5.84 (0.60)	0.15 (0.00, 0.31)
UA, mg/dL	4.80 (3.90-5.70)	5.05 (4.10-5.80)	0.12 (-0.04, 0.28)
Height, m	1.58 (0.08)	1.57 (0.09)	0.07 (0.02, 0.13)
Weight, kg	57.90 (51.27-65.50)	56.50 (49.60-65.00)	0.08 (0.03, 0.14)
WC, cm	84.49 (13.05)	85.00 (13.31)	0.04 (-0.02, 0.09)
Gender, n (%)			0.08 (0.04, 0.11)
Male	3320 (48.74%)	3116 (52.70%)	
Female	3492 (51.26%)	2797 (47.30%)	
Marital status, n (%)			0.03 (-0.01, 0.07)
Married	5869 (86.16%)	3008 (84.97%)	
Other	943 (13.84%)	532 (15.03%)	
Living Place, n (%)			0.08 (0.04, 0.12)
Village	4526 (66.44%)	2221 (62.55%)	
City	2286 (33.56%)	1330 (37.45%)	
Education, n (%)			0.14 (0.10, 0.18)
Below primary	3136 (46.04%)	1603 (45.14%)	
Primary schools	1535 (22.53%)	682 (19.21%)	
Middle school	1474 (21.64%)	769 (21.66%)	
High school and above	667 (9.79%)	497 (14.00%)	
Kidney disease, n (%)			0.01 (-0.03, 0.05)
No	6163 (92.15%)	3167 (91.93%)	
Yes	525 (7.85%)	278 (8.07%)	
Hypertension, n (%)			0.24 (0.19, 0.28)
No	3499 (51.93%)	2189 (63.49%)	
Yes	3239 (48.07%)	1259 (36.51%)	
Diabetes, n (%)			0.28 (0.24, 0.32)
No	5590 (83.52%)	3161 (92.51%)	
Yes	1103 (16.48%)	256 (7.49%)	
Drinking status, n (%)			0.02 (-0.03, 0.06)
No	4323 (63.54%)	2255 (64.26%)	
Yes	2481 (36.46%)	1254 (35.74%)	
Smoking status, n (%)			0.01 (-0.03, 0.05)
No	4771 (70.09%)	2443 (69.52%)	
Yes	2036 (29.91%)	1071 (30.48%)	

Abbreviations as in Table 1.

Table S3: The missing number and rate of covariates.

Variables	Non- Missing	Missing
Education	3884	1
Kidney disease	3853	32
Drinking status	3882	3
Smoking status	3875	10
Cr	3884	1
LDL-C	3878	7
HbA1c	3872	13

Abbreviations as in Table 1.

Table S4: Methods, coefficients of variation and limits of detection for laboratory parameters in the CHARLS wave 1 national survey

Biomarkers	Method	Coefficient of variation		Detection limits
		Within assay	Between assay	
TC, mg/dL	Enzymatic colormetric test	0.80%	1.70%	3-800 mg/dL
HDL-C, mg/dL	Enzymatic colormetric test	1.00%	1.30%	3-120 mg/dL
LDL-C, mg/dL	Enzymatic colormetric test	0.70%	1.20%	3-400 mg/dL
TG, mg/dL	Enzymatic colormetric test	1.50%	1.80%	4-1000 mg/dL
FPG, mg/dL	Enzymatic colormetric test	0.90%	1.80%	2-450 mg/dL
HbA1C, %	Boronate affinity HPLC	1.90%	2.10%	0-40%
hs-CRP, mg/L	Immunoturbidimetric assay	<1.3%	<5.7%	0.1-20 mg/L
Cr, mg/dL	Rate-blanked and compensated Jaffe creatinine method	<1.6%	<2.1%	0.1-25 mg/dL
UA, mg/dL	UA Plus method	1.10%	1.90%	Upto20 mg/dL

Abbreviations as in Table 1.

Table S5: Methods, coefficients of variation and limits of detection for laboratory parameters in the CHARLS wave 3 national survey

Biomarkers	Method	Coefficient of variation		Detection limits
		Within assay	Between assay	
TC, mmol/L	Oxidase method	<0.70	<3.18	0.13–18.18
HDL-C, mmol/L	Direct method	<0.67	<3.14	0.09–3.08
LDL-C, mmol/L	Direct method	<1.38	<2.90	0.22–14.14
TG, mmol/L	Oxidase method	<0.41	<3.64	0.12–9.78
FPG, mmol/L	Hexokinase	<0.40	<2.50	0.13–39.58
HbA1C, %	High performance liquid chromatography	<1.16	<1.27	3.85–17.80
hs-CRP, mg/L	Immunoturbidimetric assay	<2.94	<2.09	0.1–20 mg/L
UA, μ mol/L	Uricase, catalase	<0.25	<2.32	0.10–140.00
Cr, μ mol/L	Picric acid method	<1.87	<4.34	22.85–2151.70

Abbreviations as in Table 1.

Table S6: Predictive Performance of the TyG index versus TyG-obesity indices model.

	IDI	<i>P</i> -value	NRI	<i>P</i> -value
TyG index vs TyG-BMI	0.07 (0.01, 0.12)	0.03	0.07 0.08 (0.01, 0.13)	0.03
TyG index vs TyG-WC	0.08 (0.03, 0.14)	<0.01	0.08 (0.03, 0.14)	<0.01
TyG index vs TyG-WHtR	0.09 (0.03, 0.14)	<0.01	0.09 (0.03, 0.14)	<0.01
TyG index vs TyG-WWI	0.04 (-0.01, 0.10)	0.14	0.04 (-0.01, 0.10)	0.14
TyG index vs TyG-ABSI	0.01 (-0.03, 0.06)	0.63	0.01 (-0.03, 0.06)	0.63
TyG index vs TyG-BRI	0.07 (0.01, 0.14)	0.03	0.07 (0.01, 0.14)	0.03
TyG index vs TyG-CVAI	0.08 (0.03, 0.15)	<0.01	0.08 (0.03, 0.15)	<0.01
TyG index vs CumTyG index	0.04 (-0.01, 0.08)	0.13	0.04 (-0.01, 0.08)	0.13
TyG index vs CumTyG-BMI	0.05 (-0.02, 0.11)	0.16	0.05 (-0.02, 0.11)	0.16
TyG index vs CumTyG-WC	0.07 (0.01, 0.13)	0.01	0.07 (0.01, 0.13)	0.01
TyG index vs CumTyG-WHtR	0.06 (-0.00, 0.12)	0.06	0.06 (-0.00, 0.12)	0.06
TyG index vs CumTyG-WWI	0.04 (-0.02, 0.10)	0.20	0.04 (-0.02, 0.10)	0.20
TyG index vs CumTyG-ABSI	0.06 (-0.00, 0.12)	0.06	0.06 (-0.00, 0.12)	0.06
TyG index vs CumTyG-BRI	0.07 (0.01, 0.14)	0.03	0.07 (0.01, 0.14)	0.03
TyG index vs CumTyG-CVAI	0.08 (0.02, 0.14)	0.02	0.08 (0.02, 0.14)	0.01

AUC: area under the curve; NRI: net reclassification improvement; other abbreviations as in Table 1.

Table S7 (Sensitivity Analysis 1): Association between TyG-related parameters (Baseline value and cumulative exposure value) with CMM events in gender subgroups.

	HR Per SD increase (95% CI)	
	Male	Female
TyG index	1.15 (0.93, 1.43)	1.23 (1.00, 1.51)
TyG-BMI	1.27 (1.03, 1.58)	1.35 (1.15, 1.58)
TyG-WC	1.35 (1.09, 1.68)	1.41 (1.17, 1.70)
TyG-WHtR	1.37 (1.09, 1.73)	1.36 (1.13, 1.64)
TyG-WWI	1.30 (1.04, 1.62)	1.21 (1.00, 1.47)
TyG-ABSI	1.25 (1.01, 1.53)	1.14 (0.94, 1.37)
TyG-BRI	1.37 (1.09, 1.73)	1.27 (1.09, 1.48)
TyG-CVAI	1.45 (1.09, 1.92)	1.35 (1.14, 1.59)
Cumulative TyG index	1.20 (0.96, 1.49)	1.31 (1.08, 1.60)
Cumulative TyG-BMI	1.27 (1.02, 1.58)	1.37 (1.16, 1.61)
Cumulative TyG-WC	1.32 (1.06, 1.63)	1.49 (1.24, 1.79)
Cumulative TyG-WHtR	1.34 (1.07, 1.69)	1.44 (1.20, 1.73)
Cumulative TyG-WWI	1.29 (1.03, 1.62)	1.34 (1.11, 1.62)
Cumulative TyG-ABSI	1.24 (1.01, 1.53)	1.26 (1.05, 1.52)
Cumulative TyG-BRI	1.34 (1.06, 1.68)	1.33 (1.14, 1.56)
Cumulative TyG-CVAI	1.41 (1.07, 1.86)	1.41 (1.19, 1.66)

Abbreviations: HR, Hazard ratios; CI, confidence interval; SD, standard deviations; CMM, cardiometabolic multimorbidity; other abbreviations as in Table 1.

Adjusted for age, education, living place, kidney disease, hypertension, smoking status, drinking status, LDL-C, HDL-C, Cr, HbA1c, hs-CRP.

Table S8 (Sensitivity Analysis 1): Association between TyG-related parameters (Baseline value and cumulative exposure value) with CMM events in age subgroups.

	HR Per SD increase (95% CI)	
	Under 60 years old	Age over 60 years old
TyG index	0.94 (0.75, 1.18)	1.40 (1.14, 1.70)
TyG-BMI	1.18 (0.98, 1.42)	1.44 (1.21, 1.71)
TyG-WC	1.24 (1.02, 1.52)	1.50 (1.24, 1.83)
TyG-WHtR	1.18 (0.96, 1.46)	1.52 (1.25, 1.85)
TyG-WWI	1.07 (0.85, 1.34)	1.37 (1.14, 1.65)
TyG-ABSI	1.05 (0.85, 1.31)	1.27 (1.06, 1.52)
TyG-BRI	1.19 (0.98, 1.44)	1.40 (1.17, 1.66)
TyG-CVAI	1.25 (1.01, 1.53)	1.47 (1.21, 1.80)
Cumulative TyG index	1.04 (0.84, 1.29)	1.44 (1.18, 1.76)
Cumulative TyG-BMI	1.22 (1.01, 1.47)	1.43 (1.20, 1.72)
Cumulative TyG-WC	1.31 (1.08, 1.59)	1.51 (1.24, 1.84)
Cumulative TyG-WHtR	1.26 (1.03, 1.55)	1.53 (1.26, 1.86)
Cumulative TyG-WWI	1.17 (0.94, 1.46)	1.42 (1.18, 1.72)
Cumulative TyG-ABSI	1.15 (0.94, 1.41)	1.33 (1.10, 1.59)
Cumulative TyG-BRI	1.26 (1.04, 1.52)	1.40 (1.18, 1.67)
Cumulative TyG-CVAI	1.28 (1.05, 1.57)	1.52 (1.25, 1.86)

Abbreviations: HR, Hazard ratios; CI, confidence interval; SD, standard deviations; CMM, cardiometabolic multimorbidity; other abbreviations as in Table 1.

Adjusted for gender, education, living place, kidney disease, hypertension, smoking status, drinking status, LDL-C, HDL-C, Cr, HbA1c, hs-CRP.

Table S9 (Sensitivity Analysis 1): Association between TyG-related parameters (Baseline value and cumulative exposure value) with CMM events in hypertension subgroups.

	HR Per SD increase (95% CI)	
	Nonhypertension	Hypertension
TyG index	1.20 (0.93, 1.54)	1.18 (0.98, 1.41)
TyG-BMI	1.30 (1.04, 1.63)	1.30 (1.12, 1.52)
TyG-WC	1.37 (1.07, 1.74)	1.37 (1.15, 1.62)
TyG-WHtR	1.45 (1.13, 1.87)	1.30 (1.09, 1.54)
TyG-WWI	1.37 (1.06, 1.77)	1.18 (0.99, 1.41)
TyG-ABSI	1.25 (0.98, 1.59)	1.15 (0.97, 1.36)
TyG-BRI	1.41 (1.12, 1.78)	1.23 (1.06, 1.43)
TyG-CVAI	1.36 (1.07, 1.74)	1.36 (1.14, 1.62)
Cumulative TyG index	1.30 (1.01, 1.65)	1.22 (1.02, 1.46)
Cumulative TyG-BMI	1.36 (1.09, 1.71)	1.30 (1.11, 1.52)
Cumulative TyG-WC	1.46 (1.15, 1.84)	1.36 (1.15, 1.61)
Cumulative TyG-WHtR	1.57 (1.23, 2.01)	1.29 (1.09, 1.53)
Cumulative TyG-WWI	1.54 (1.20, 1.97)	1.19 (1.00, 1.42)
Cumulative TyG-ABSI	1.37 (1.09, 1.73)	1.17 (0.98, 1.38)
Cumulative TyG-BRI	1.52 (1.21, 1.90)	1.23 (1.05, 1.44)
Cumulative TyG-CVAI	1.42 (1.12, 1.80)	1.37 (1.15, 1.64)

Abbreviations: HR, Hazard ratios; CI, confidence interval; SD, standard deviations; CMM, cardiometabolic multimorbidity; other abbreviations as in Table 1.

Adjusted for age, gender, education, living place, kidney disease, smoking status, drinking status, LDL-C, HDL-C, Cr, HbA1c, hs-CRP.

Table S10 (Sensitivity Analysis 1): Association between TyG-related parameters (Baseline value and cumulative exposure value) with CMM events in kidney disease subgroups.

	HR Per SD increase (95% CI)	
	Non-kidney disease	Kidney disease
TyG index	1.16 (0.99, 1.35)	1.53 (0.89, 2.63)
TyG-BMI	1.27 (1.12, 1.45)	1.46 (0.93, 2.30)
TyG-WC	1.35 (1.17, 1.57)	1.42 (0.86, 2.35)
TyG-WHtR	1.32 (1.14, 1.53)	1.46 (0.90, 2.38)
TyG-WWI	1.22 (1.05, 1.42)	1.38 (0.81, 2.35)
TyG-ABSI	1.18 (1.02, 1.36)	1.22 (0.73, 2.02)
TyG-BRI	1.26 (1.10, 1.43)	1.27 (0.85, 1.91)
TyG-CVAI	1.33 (1.14, 1.54)	1.41 (0.87, 2.30)
Cumulative TyG index	1.23 (1.06, 1.43)	1.36 (0.84, 2.23)
Cumulative TyG-BMI	1.29 (1.12, 1.48)	1.40 (0.92, 2.15)
Cumulative TyG-WC	1.38 (1.20, 1.60)	1.34 (0.85, 2.10)
Cumulative TyG-WHtR	1.35 (1.16, 1.56)	1.37 (0.89, 2.12)
Cumulative TyG-WWI	1.28 (1.10, 1.49)	1.32 (0.80, 2.19)
Cumulative TyG-ABSI	1.24 (1.07, 1.43)	1.18 (0.70, 1.97)
Cumulative TyG-BRI	1.28 (1.12, 1.47)	1.29 (0.87, 1.92)
Cumulative TyG-CVAI	1.36 (1.17, 1.57)	1.42 (0.89, 2.26)

Abbreviations: HR, Hazard ratios; CI, confidence interval; SD, standard deviations; CMM, cardiometabolic multimorbidity; other abbreviations as in Table 1.

Adjusted for age, gender, education, living place, hypertension, smoking status, drinking status, LDL-C, HDL-C, Cr, HbA1c, hs-CRP.

Table S11 (Sensitivity Analysis 2): Association between TyG-related parameters (Baseline value and cumulative exposure value) and

CMM events in the full dataset

	HR Per SD increase (95% CI)
TyG index	1.18 (1.03, 1.35)
TyG-BMI	1.30 (1.15, 1.47)
TyG-WC	1.37 (1.19, 1.57)
TyG-WHtR	1.34 (1.17, 1.54)
TyG-WWI	1.24 (1.08, 1.42)
TyG-ABSI	1.18 (1.04, 1.34)
TyG-BRI	1.28 (1.13, 1.44)
TyG-CVAI	1.35 (1.18, 1.56)
Cumulative TyG index	1.25 (1.09, 1.43)
Cumulative TyG-BMI	1.32 (1.16, 1.50)
Cumulative TyG-WC	1.39 (1.22, 1.60)
Cumulative TyG-WHtR	1.37 (1.20, 1.58)
Cumulative TyG-WWI	1.30 (1.13, 1.49)
Cumulative TyG-ABSI	1.24 (1.09, 1.41)
Cumulative TyG-BRI	1.30 (1.15, 1.48)
Cumulative TyG-CVAI	1.38 (1.20, 1.59)

Abbreviations: HR, Hazard ratios; CI, confidence interval; SD, standard deviations; CMM, cardiometabolic multimorbidity; other

abbreviations as in Table 1.

Adjusted for age, gender, education, living place, kidney disease, hypertension, smoking status, drinking status, LDL-C, HDL-C, Cr,

HbA1c, hs-CRP.

Table S12 (Sensitivity Analysis 3): Analysis of the association between TyG-related parameters and CMM events after the exclusion of CMM cases diagnosed at the fourth survey.

	HR Per SD increase (95% CI)
TyG index	1.13 (0.91, 1.38)
TyG-BMI	1.25 (1.05, 1.49)
TyG-WC	1.30 (1.07, 1.57)
TyG-WHtR	1.28 (1.05, 1.55)
TyG-WWI	1.19 (0.98, 1.45)
TyG-ABSI	1.15 (0.95, 1.39)
TyG-BRI	1.23 (1.03, 1.46)
TyG-CVAI	1.27 (1.04, 1.54)
Cumulative TyG index	1.20 (0.98, 1.46)
Cumulative TyG-BMI	1.27 (1.06, 1.52)
Cumulative TyG-WC	1.38 (1.14, 1.66)
Cumulative TyG-WHtR	1.36 (1.12, 1.65)
Cumulative TyG-WWI	1.31 (1.08, 1.59)
Cumulative TyG-ABSI	1.27 (1.05, 1.52)
Cumulative TyG-BRI	1.30 (1.09, 1.55)
Cumulative TyG-CVAI	1.35 (1.11, 1.64)

Abbreviations: HR, Hazard ratios; CI, confidence interval; SD, standard deviations; CMM, cardiometabolic multimorbidity; other abbreviations as in Table 1.

Adjusted for age, gender, education, living place, kidney disease, hypertension, smoking status, drinking status, LDL-C, HDL-C, Cr, HbA1c, hs-CRP.

Table S13 (Sensitivity analysis 4): Analysis of the association between TyG-related parameters and CMM using a competing risk model.

	SHR (Per SD increase, 95% CI)	<i>P</i> value
TyG index	1.18 (1.03, 1.15)	<0.05
TyG-BMI	1.30 (1.15, 1.47)	<0.01
TyG-WC	1.37 (1.19, 1.57)	<0.01
TyG-WHtR	1.34 (1.17, 1.54)	<0.01
TyG-WWI	1.24 (1.08, 1.42)	<0.01
TyG-ABSI	1.18 (1.04, 1.34)	<0.05
TyG-BRI	1.28 (1.13, 1.44)	<0.01
TyG-CVAI	1.35 (1.18, 1.56)	<0.01
Cumulative TyG index	1.25 (1.09, 1.43)	<0.01
Cumulative TyG-BMI	1.32 (1.16, 1.50)	<0.01
Cumulative TyG-WC	1.39 (1.22, 1.60)	<0.01
Cumulative TyG-WHtR	1.37 (1.20, 1.58)	<0.01
Cumulative TyG-WWI	1.30 (1.13, 1.49)	<0.01
Cumulative TyG-ABSI	1.24 (1.09, 1.41)	<0.01
Cumulative TyG-BRI	1.30 (1.15, 1.48)	<0.01
Cumulative TyG-CVAI	1.38 (1.20, 1.59)	<0.01

SHR: subdistribution hazard ratios; CI: confidence interval; other abbreviations as in Table 1.

Adjusted for age, gender, education, living place, kidney disease, hypertension, smoking status, drinking status, LDL-C, HDL-C,

Cr, HbA1c, hs-CRP.