Supplemental table 1. The prevalence of hyperuricemia* and association of GGT level and hyperuricemia in the participants.

GGT	Prevalence		OR (95% CI)	*P*	*P* for trend
Model 1					<0.0001
Q1	412 (10.6)	X^2 = 2295.7	Reference		
Q2	934 (19.8)	*P* <0.0001	2.09 (1.84, 2.36)	<0.0001	
Q3	1386 (31.0)		3.78 (3.36, 4.27)	<0.0001	
Q4	1839 (41.1)		5.89 (5.23, 6.63)	<0.0001	
Q5	2403 (53.8)		9.81 (8.72, 11.04)	<0.0001	
Model 2					<0.0001
Q1			Reference		
Q2			1.33 (1.16, 1.53)	<0.0001	
Q3			1.71 (1.49, 1.96)	<0.0001	
Q4			2.06 (1.79, 2.37)	<0.0001	
Q5			2.93 (2.54, 3.38)	<0.0001	
Model 3					<0.0001
Q1			Reference		
Q2			1.32 (1.15, 1.52)	<0.0001	
Q3			1.68 (1.46, 1.93)	<0.0001	
Q4			2.03 (1.76, 2.34)	<0.0001	
Q5			2.76 (2.38, 3.21)	<0.0001	

*Hyperuricemia is defined as serum uric acid above 5.6 mg/dL.

Model 1: unadjusted.

Model 2: adjusted for age, sex, BMI, ethnicity, education, smoking status, drinking habits, hypertension, hyperglycemia, TG, LDL-c, HDL-c and serum creatinine.

Model 3: adjusted for age, sex, BMI, ethnicity, education, smoking status, drinking habit, hypertension, hyperglycemia, TG, LDL-c, HDL-c, serum creatinine, daytime napping duration, therapy for hypertension or other cardiovascular diseases, ALT and AST.

Supplemental table 2. The prevalence of hyperuricemia* and association of GGT level and hyperuricemia in the participants among different age groups or gender groups.

GGT	Prevalence		OR (95% CI)	*P*	*P* for trend
Age					
< 45 y					<0.0001
Q1	107 (8.2)	X^2 = 720.8	Reference		
Q2	250 (19.6)	*P* <0.0001	1.50 (1.15, 1.96)[1]	0.003	
Q3	244 (28.6)		1.74 (1.31, 3.31)	<0.0001	
Q4	312 (243.0)		2.35 (1.74, 3.12)	<0.0001	
Q5	443 (57.8)		2.88 (2.08, 3.99)	<0.0001	
45~59 y					<0.0001
Q1	183 (9.7)	X^2 = 1147.4	Reference		
Q2	385 (17.7)	*P* <0.0001	1.28 (1.04, 1.58)	0.02	
Q3	628 (28.4)		1.60 (1.30, 1.96)	<0.0001	
Q5	903 (39.6)		2.11 (1.72, 2.60)	<0.0001	
Q5	1195 (52.0)		2.67 (2.14, 3.33)	<0.0001	
> 59 y					<0.0001
Q1	122 (17.2)	X^2 = 417.2	Reference		
Q2	299 (23.6)	*P* <0.0001	1.13 (0.86, 1.48)	0.37	
Q3	514 (36.5)		1.66 (1.28, 2.16)	<0.0001	
Q4	624 (42.5)		1.66 (1.28, 2.16)	<0.0001	
Q5	765 (54.4)		2.57 (1.94, 3.39)	<0.0001	
Gender					
Males					<0.0001
Q1	128 (40.3)	X^2 = 368.6	Reference		
Q2	475 (46.8)	*P* <0.0001	1.21 (0.91, 1.59)	0.18	
Q3	818 (53.3)		1.35 (1.03, 1.76)	0.03	
Q4	1273 (63.8)		1.83 (1.40, 2.39)	0.02	
Q5	1796 (75.5)		2.83 (2.13, 3.74)	<0.0001	
Females					<0.0001
Q1	284 (8.0)	X^2 = 451.2	Reference		
Q2	459 (12.4)	*P* <0.0001	1.29 (1.09, 1.53)	0.003	
Q3	568 (19.3)		1.81 (1.53, 2.14)	<0.0001	
Q4	566 (22.8)		1.98 (1.66, 2.36)	<0.0001	
Q5	607 (29.0)		2.41 (2.00, 2.90)	<0.0001	

*Hyperuricemia is defined as serum uric acid above 5.6 mg/dL.

[1]Adjusted for age (as appropriate), sex (as appropriate), BMI, ethnicity, education, smoking status, drinking habit, hypertension, hyperglycemia, TG, LDL-c, HDL-c, serum creatinine, daytime napping duration, therapy for hypertension or other cardiovascular diseases, ALT and AST.

Supplemental table 3. The prevalence of hyperuricemia* and association of GGT level and hyperuricemia in the participants among different ethnic groups.

GGT	Prevalence		OR (95% CI)	*P*	*P* for trend
Ethnic group					
Han ethnicity					<0.0001
Q1	240 (13.3)	X^2 = 1157.8	Reference		
Q2	551 (25.4)	*P* <0.0001	1.40 (1.16, 1.69)[1]	<0.0001	
Q3	807 (37.7)		1.81 (1.50, 2.18)	<0.0001	
Q4	964 (48.8)		2.13 (1.75, 2.59)	<0.0001	
Q5	1200 (61.0)		2.91 (2.37, 3.59)	<0.0001	
Yi ethnicity					<0.0001
Q1	110 (10.9)	X^2 = 618.8	Reference		
Q2	201 (16.0)	*P* <0.0001	0.92 (0.70, 1.21)	0.54	
Q3	294 (25.2)		1.14 (0.87, 1.50)	0.33	
Q5	467 (37.8)		1.56 (1.19, 2.04)	0.001	
Q5	672 (50.6)		2.15 (1.61, 2.86)	<0.0001	
Bai ethnicity					<0.0001
Q1	62 (5.8)	X^2 = 589.8	Reference		
Q2	182 (14.2)	*P* <0.0001	1.74 (1.23, 2.45)	0.002	
Q3	285 (24.3)		2.04 (1.45, 2.87)	<0.0001	
Q4	408 (32.3)		2.25 (1.60, 3.16)	<0.0001	
Q5	531 (45.2)		2.74 (1.92, 3.91)	<0.0001	

*Hyperuricemia was defined as serum uric acid above 5.6 mg/dL.

[1]Adjusted for age, sex, BMI, education, smoking status, drinking habit, hypertension, hyperglycemia, TG, LDL-c, HDL-c, serum creatinine, and daytime napping duration, therapy for hypertension or other cardiovascular diseases, ALT, AST.