Supplementary Material

Data collection

Self-reported data on general demographic and socioeconomic information (age, sex, ethnicity, residence, marital status, education level, and annual household income), health-related behaviors (smoking tobacco, weekly alcohol consumption, tea consumption, beverage consumption, consumption of various foods, sleep duration, and physical activity), and personal and family medical history (coronary heart disease, stroke, hypertension, diabetes, hyperlipidemia, and cancer) were collected by an interviewer-administered laptop-based questionnaire for each participant. Smokers were defined as people who had smoked at least 100 cigarettes during the lifetime, and they were classified as never, former, or current smokers. Participants who reported that they consumed alcohol at least once per week during the past year were defined as having a weekly alcohol drinking frequency. Participants who consumed teas or beverages at least once per week during the past half year were defined as drinking teas or beverages weekly. The total energy intake (kcal/week) was estimated by summing the number of servings per week of alcohol, tea, oil, beverages, rice, cooked wheat-based food, vegetables, fruits, meat, etc., which covered the most commonly consumed food groups in Southwest China, in the following manner: (1) we calculated the unit energy of each type of food based on the China food exchange lists, China Food Composition Tables (2018), and food consumption of Guizhou Province; (2) we further obtained the consumption per week of each type of food based on data from the food frequency questionnaire; and (3) we performed matrix multiplication based on the above two steps. Sleep duration referred to average sleep duration (hours) every night. We converted the levels of total physical activity to metabolic equivalent tasks-hours/day (METs-h/d) based on job-related physical activity, transportation physical activity, leisure-time physical activity, and housework.

Well-trained examiners performed the anthropometric and laboratory measurements. We instructed all participants to wear light clothing, no shoes, and for the examiners to measure twice when measuring body weight and height. The means of these measurements were used in the analysis. We calculated body mass index (BMI) as weight (kg) divided by height (m^2). Blood pressure was measured three times with a 30-s interval using an electronic sphygmomanometer (HEM-7136AFuzzy, Omron, Kyoto, Japan), with participants in a seated position after 5 min of rest, and we used the mean of these three measurements in the analysis.

We collected venous blood in the morning after an overnight fast of at least 8 h, in one tube of serum and two tubes of ethylenediaminetetraacetic acid anticoagulant. We transported the blood samples under cold chain logistics (−80℃) to Guizhou KingMed Diagnostics Group Co., Ltd. A fully automated biochemical analyzer (Hitachi 7180, Tokyo, Japan) was used to measure biochemical indicators, including fasting plasma glucose (FPG), total cholesterol (TC), triglycerides (TG), high-density lipoprotein-cholesterol (HDL-C), low-density lipoprotein-cholesterol (LDL-C), and serum uric acid (SUA). We used the hexokinase method to measure FPG, the cholesterol oxidase method to measure TC, the enzymatic method to measure TG, and the direct method to measure HDL-C and LDL-C. Strict quality control measures were applied at all stages of the blood biochemical collection and testing based on national standard operational procedures, such as the training of staff, calibration verification of experimental instruments, and data verification (5% of data were randomly selected for a recheck, and retests were carried out for abnormal data), to ensure the precision, repeatability, stability, and reliability of laboratory measurement data.

Supplementary Table 1: Baseline characteristics of total participants by CVDs status.

Variables	Non-CVDs	CVDs	*P* value
Number of participants	18,051	738	

Age and socioeconomic factors

Age (years)	51.41 (44.03–60.26)	61.51 (54.20–67.83)	<0.001
Men	6190 (34.29)	322 (43.63)	<0.001
Ethnicity			0.262
Dong	6939 (38.44)	300 (40.65)	
Miao	5347 (29.62)	212 (28.73)	
Bouyei	5765 (31.94)	226 (30.62)	
Rural	14,325 (79.52)	540 (73.17)	<0.001
Marital status			0.002
Married/cohabitating	15,820 (87.64)	594 (80.49)	
Widowed	1497 (8.29)	117 (15.85)	
Separated/divorced	569 (3.15)	25 (3.39)	
Never married	165 (0.91)	2 (0.27)	
Education level			0.004
No formal/Primary school	11,013 (61.01)	492 (66.67)	
Middle/High school	5264 (29.16)	185 (25.07)	
Technical school/College or above	1774 (9.83)	61 (8.27)	
Annual household income (CNY)			0.631
<12,000	5415 (30.03)	241 (32.66)	
12,000–19,999	3688 (20.45)	136 (18.43)	
20,000–59,999	5331 (29.57)	193 (26.15)	
60,000–99,999	2052 (11.38)	85 (11.52)	
≥100,000	1544 (8.56)	83 (11.25)	
Lifestyle factors			
Tobacco smoking status			0.791
Never	14,367 (79.60)	564 (76.42)	
Former	626 (3.47)	67 (9.08)	
Current	3055 (16.93)	107 (14.50)	
Alcohol drinking weekly	631 (3.50)	33 (4.47)	0.159
Tea consumption weekly	2396 (13.28)	111 (15.04)	0.167
Beverage consumption weekly	569 (3.15)	26 (3.52)	0.574
Total physical activity (METs-h/d)	24.45 (13.37–37.57)	14.63 (6.10–28.35)	<0.001
Sleep duration (h/day)	7.00 (6.00–8.00)	7.00 (6.00–8.00)	<0.001
Total energy intake (kcal/week)	10442.75 (8137.57–13425.07)	9485.06 (7538.85–12394.77)	<0.001

Anthropometry and blood pressure

BMI (kg/m^2)	24.05 (21.75–26.47)	24.81 (22.24–26.74)	<0.001
SBP (mmHg)	122.00 (110.67–136.33)	132.33 (117.67–147.33)	<0.001
DBP (mmHg)	80.00 (73.00–88.00)	83.33 (75.67–92.17)	<0.001
FPG (mmol/L)	5.21 (4.90–5.61)	5.32 (5.00–5.80)	<0.001
Lipid concentration (mmol/L)			
TC (mmol/L)	4.90 (4.31–5.54)	4.96 (4.31–5.70)	0.124
TG (mmol/L)	1.45 (1.03–2.12)	1.60 (1.18–2.30)	<0.001
HDL-C (mmol/L)	1.47 (1.27–1.70)	1.43 (1.24–1.64)	<0.001
LDL-C (mmol/L)	2.72 (2.21–3.30)	2.78 (2.24–3.49)	0.007
SUA (μmol/L)	315.00 (260.00–381.00)	348.50 (289.50–423.00)	<0.001

Data are number (%) or median (interquartile range). BMI: Body mass index; CNY:

Chinese Yuan; CVDs: Cardiovascular diseases; DBP: Diastolic blood pressure; FPG:

Fasting plasma glucose; HDL-C: High-density lipoprotein-cholesterol; LDL-C:

Low-density lipoprotein-cholesterol; METs-h/d: Metabolic equivalent tasks-hours/day;

SBP: Systolic blood pressure; SUA: Serum uric acid; TC: Total cholesterol; TG:

Triglycerides.

Supplementary Table 2: Baseline characteristics of Dong, Miao, and Bouyei ethnicities by CVDs status.

Variables	Dong ethnicity (n = 7239)			Miao ethnicity (n = 5559)			Bouyei ethnicity (n = 5991)		
	Non-CVDs	CVDs	P value	Non-CVDs	CVDs	P value	Non-CVDs	CVDs	P value
Age and socioeconomic factors									
Age (years)	52.26 (45.04–61.02)	61.95 (54.61–68.24)	<0.001	50.65 (42.73–59.89)	62.26 (53.89–68.67)	<0.001	51.00 (43.92–59.12)	60.41 (53.02–66.96)	<0.001
Men	2455 (35.38)	139 (46.33)	<0.001	1980 (37.03)	87 (41.04)	0.236	1755 (30.44)	96 (42.48)	<0.001
Rural	5439 (78.67)	238 (76.00)	0.271	3855 (72.25)	127 (59.91)	<0.001	5031 (87.27)	185 (81.86)	0.018
Marital status			0.102			0.074			0.030
Married/cohabitating	6130 (88.34)	247 (82.33)		4649 (86.95)	168 (79.25)		5041 (87.44)	179 (79.20)	
Widowed	590 (8.50)	46 (15.33)		441 (8.25)	34 (16.04)		466 (8.08)	37 (16.37)	
Separated/divorced	173 (2.49)	7 (2.33)		191 (3.57)	9 (4.25)		205 (3.56)	9 (3.98)	
Never married	46 (0.66)	NA		66 (1.23)	1 (0.47)		53 (0.92)	1 (0.44)	
Education level			0.174			0.354			0.004
No formal/Primary school	4423 (63.74)	201 (67.00)		3083 (57.66)	131 (61.79)		3507 (60.83)	160 (70.80)	
Middle/High school	1735 (25.00)	72 (24.00)		1611 (30.13)	56 (26.42)		1918 (33.27)	57 (25.22)	
Technical school/College or above	781 (11.26)	27 (9.00)		653 (12.21)	25 (11.79)		340 (5.90)	9 (3.98)	
Annual household income (CNY)			0.970			0.057			0.292
<12,000	2149 (31.03)	103 (34.33)		1388 (25.98)	49 (23.11)		1878	89 (39.38)	

(32.59)

12,000–19,999	1458 (21.05)	57 (19.00)		889 (16.64)	36 (16.98)		1341 (23.27)	43 (19.03)	
20,000–59,999	1874 (27.06)	70 (23.33)		1737 (32.52)	60 (28.30)		1720 (29.85)	63 (27.88)	
60,000–99,999	759 (10.96)	35 (11.67)		789 (14.77)	35 (16.51)		504 (8.75)	15 (6.64)	
≥100,000	685 (9.89)	35 (11.67)		539 (10.09)	32 (15.57)		320 (5.55)	16 (7.08)	
Lifestyle factors									
Tobacco smoking status			0.172			0.561			0.536
Never	5462 (78.73)	217 (72.33)		4156 (77.73)	165 (77.83)		4749 (82.40)	182 (80.53)	
Former	259 (3.73)	31 (10.33)		194 (3.63)	14 (6.60)		173 (3.00)	22 (9.73)	
Current	1217 (17.54)	52 (17.33)		997 (18.65)	33 (15.57)		841 (14.59)	22 (9.73)	
Alcohol drinking weekly	219 (3.16)	15 (5.00)	0.077	236 (4.41)	9 (4.25)	0.907	176 (3.05)	9 (3.98)	0.428
Tea consumption weekly	962 (13.87)	48 (16.00)	0.296	711 (13.30)	34 (16.04)	0.251	723 (12.55)	29 (12.83)	0.899
Beverage consumption weekly	189 (2.72)	10 (3.33)	0.528	244 (4.56)	8 (3.77)	0.588	136 (2.36)	8 (3.54)	0.256
Total physical activity (METs-h/d)	24.54 (13.76–36.95)	16.80 (7.30–29.31)	<0.001	24.98 (13.03–38.78)	11.72 (5.60–25.21)	<0.001	23.85 (13.16–37.17)	13.93 (6.10–28.33)	<0.001
Sleep duration (h/day)	7.00 (6.00–8.00)	7.00 (6.00–8.00)	0.028	8.00 (6.00–8.00)	7.00 (6.00–8.00)	0.038	7.00 (6.00–8.00)	7.00 (5.00–8.00)	0.005
Total energy intake (kcal/week)	10201.75 (8128.59–12929.89)	9201.46 (7322.35–11867.47)	<0.001	10595.78 (8115.42–13632.79)	9928.91 (7920.90–12353.33)	0.025	10653.29 (8159.56–13815.32)	9923.73 (7435.59–12839.71)	0.003
Anthropometry and blood pressure									
BMI (kg/m^2)	23.67 (21.38–26.11)	24.40 (21.82–26.14)	0.121	24.78 (22.51–27.10)	25.44 (22.93–27.80)	0.072	23.83 (21.58–26.23)	24.96 (22.22–27.05)	<0.001

SBP (mmHg)	121.67 (110.33–135.67)	129.67 (115.33–144.00)	<0.001	122.67 (111.00–137.00)	134.33 (118.33–147.67)	<0.001	121.67 (110.67–136.33)	134.67 (120.50–151.17)	<0.001
DBP (mmHg)	79.00 (72.33–87.00)	81.00 (75.00–91.00)	<0.001	80.33 (73.33–88.33)	83.33 (75.33–92.00)	0.002	80.67 (74.00–88.67)	85.33 (78.17–93.33)	<0.001
FPG (mmol/L)	5.28 (4.95–5.67)	5.30 (4.94–5.76)	0.304	5.21 (4.90–5.61)	5.42 (5.06–5.88)	<0.001	5.14 (4.86–5.51)	5.29 (5.02–5.72)	<0.001
Lipid concentration								
TC (mmol/L)	4.86 (4.28–5.51)	4.88 (4.15–5.59)	0.824	4.96 (4.35–5.61)	5.03 (4.42–5.97)	<0.001	4.87 (4.31–5.52)	4.99 (4.39–5.71)	0.074
TG (mmol/L)	1.50 (1.08–2.22)	1.60 (1.18–2.39)	0.041	1.43 (1.02–2.12)	1.59 (1.20–2.28)	0.004	1.38 (1.00–2.02)	1.59 (1.16–2.15)	0.002
HDL-C (mmol/L)	1.46 (1.22–1.73)	1.37 (1.15–1.64)	<0.001	1.45 (1.25–1.67)	1.42 (1.25–1.60)	0.184	1.49 (1.32–1.68)	1.48 (1.32–1.67)	0.550
LDL-C (mmol/L)	2.92 (2.37–3.50)	2.98 (2.28–3.67)	0.671	2.81 (2.29–3.41)	2.91 (2.32–3.58)	0.055	2.45 (2.03–2.93)	2.55 (2.15–3.14)	0.016
SUA (μmol/L)	322.00 (266.00–392.00)	359.00 (293.00–439.00)	<0.001	322.00 (268.00–387.00)	343.00 (292.00–436.00)	<0.001	301.00 (250.00–364.00)	346.50 (276.00–403.00)	<0.001

Data are number (%) or median (interquartile range). BMI: Body mass index; CNY: Chinese Yuan; CVDs: Cardiovascular diseases; DBP: Diastolic blood pressure; FPG: Fasting plasma glucose; HDL-C: High-density lipoprotein-cholesterol; LDL-C: Low-density lipoprotein-cholesterol; METs-h/d: Metabolic equivalent tasks-hours/day; NA: Not applicable; SBP: Systolic blood pressure; SUA: Serum uric acid; TC: Total cholesterol; TG: Triglycerides.

Supplementary Table 3: Baseline characteristics of total participants by coronary heart disease status.

Variables	Non-CHD	CHD	*P*-value
Number of participants	18,314	475	
Age and socioeconomic factors			
Age (years)	51.56 (44.12–60.50)	61.97 (54.48–68.50)	<0.001
Men	6332 (34.57)	180 (37.89)	0.133
Rural	14,530 (79.49)	335 (70.53)	<0.001
Marital status			0.076
Married/cohabitating	16,025 (87.50)	389 (81.89)	
Widowed	1544 (8.43)	70 (14.74)	
Separated/divorced	579 (3.16)	15 (3.16)	
Never married	166 (0.91)	1 (0.21)	
Education level			0.197
No formal/Primary school	11,200 (61.16)	305 (64.21)	
Middle/High school	5321 (29.05)	128 (26.95)	
Technical school/College or above	1793 (9.79)	42 (8.84)	
Annual household income (CNY)			0.145
<12,000	5509 (30.12)	147 (30.95)	
12,000–19,999	3741 (20.45)	83 (17.47)	
20,000–59,999	5393 (29.48)	131 (27.58)	
60,000–99,999	2079 (11.37)	58 (12.21)	
≥100,000	1571 (8.59)	56 (11.79)	
Lifestyle factors			
Tobacco smoking status			0.133
Never	14,550 (79.46)	381 (80.21)	
Former	658 (3.59)	35 (7.37)	
Current	3103 (16.95)	59 (12.42)	
Alcohol drinking weekly	643 (3.51)	21 (4.42)	0.289
Tea consumption weekly	2439 (13.32)	68 (14.32)	0.529
Beverage consumption weekly	580 (3.17)	15 (3.16)	0.990
Total physical activity (METs-h/d)	24.30 (13.18–37.45)	14.98 (7.20–28.10)	<0.001
Sleep duration (h/day)	7.00 (6.00–8.00)	7.00 (6.00–8.00)	<0.001
Total energy intake (kcal/week)	10431.85 (8123.92–13409.38)	9391.20 (7440.86–12436.20)	<0.001
Anthropometry and blood pressure			
BMI (kg/m^2)	24.07 (21.76–26.47)	24.91 (22.29–26.85)	<0.001
SBP (mmHg)	122.00 (110.67–136.67)	131.00 (117.33–146.00)	<0.001
DBP (mmHg)	80.00 (73.33–88.00)	82.33 (75.67–91.00)	<0.001
FPG (mmol/L)	5.21 (4.90–5.61)	5.29 (5.00–5.79)	<0.001
Lipid concentration			
TC (mmol/L)	4.90 (4.31–5.54)	4.97 (4.33–5.67)	0.144

TG (mmol/L)	1.45 (1.03–2.12)	1.60 (1.18–2.30)	<0.001
HDL-C (mmol/L)	1.47 (1.27–1.70)	1.43 (1.24–1.62)	0.001
LDL-C (mmol/L)	2.72 (2.21–3.30)	2.84 (2.22–3.52)	0.014
SUA (μmol/L)	316.00 (260.00–382.00)	345.00 (291.00–416.00)	<0.001

Data are number (%) or median (interquartile range).BMI: Body mass index; CHD: Coronary heart disease; CNY: Chinese Yuan; DBP: Diastolic blood pressure; FPG: Fasting plasma glucose; HDL-C: High-density lipoprotein-cholesterol; LDL-C: Low-density lipoprotein-cholesterol; METs-h/d: Metabolic equivalent tasks-hours/day; SBP: Systolic blood pressure; SUA: Serum uric acid; TC: Total cholesterol; TG: Triglycerides.

Supplementary Table 4: Baseline characteristics of Dong, Miao, and Bouyei ethnicities by coronary heart disease status.

Variables	Dong ethnicity (*n* = 7239)		*P* value	Miao ethnicity (*n* = 5559)		*P* value	Bouyei ethnicity (*n* = 5991)		*P* value
	Non-CHD	CHD		Non-CHD	CHD		Non-CHD	CHD	
Number of participants	7046	193		5420	139		5848	143	
Age and socioeconomic factors									
Age (years)	52.38 (45.16–61.17)	62.42 (54.55–68.33)	<0.001	50.74 (42.82–60.17)	62.77 (55.22–70.06)	<0.001	51.11 (44.00–59.44)	60.27 (53.74–67.56)	<0.001
Men	2514 (35.68)	80 (41.45)	0.099	2017 (37.21)	50 (35.97)	0.765	1801 (30.80)	50 (34.97)	0.287
Rural	5518 (78.59)	149 (77.20)	0.642	3907 (72.23)	75 (53.96)	<0.001	5105 (87.29)	111 (77.62)	0.001
Marital status			0.558			0.205			0.201
Married/cohabitating	6215 (88.21)	162 (83.94)		4706 (86.83)	111 (79.86)		5104 (87.28)	116 (81.12)	
Widowed	608 (8.63)	28 (14.51)		454 (8.38)	21 (15.11)		482 (8.24)	21 (14.69)	
Separated/divorced	177 (2.51)	3 (1.55)		193 (3.56)	7 (5.04)		209 (3.57)	5 (3.50)	
Never married	46 (0.65)	NA		67 (1.24)	NA		53 (0.91)	1 (0.70)	
Education level			0.326			0.960			0.169
No formal/Primary school	4495 (63.80)	129 (66.84)		3133 (57.80)	81 (58.27)		3572 (61.08)	95 (66.43)	
Middle/High school	1761 (24.99)	46 (23.83)		1627 (30.02)	40 (28.78)		1933 (33.05)	42 (29.37)	
Technical school/College or above	790 (11.21)	18 (9.33)		660 (12.18)	18 (12.95)		343 (5.87)	6 (4.20)	
Annual household income (CNY)			0.732			0.002			0.332
<12,000	2190 (31.14)	62 (32.12)		1410 (26.04)	27 (19.42)		1909 (32.65)	58 (40.56)	
12,000–19,999	1478 (21.02)	37 (19.17)		904 (16.69)	21 (15.11)		1359 (23.25)	25 (17.48)	
20,000–59,999	1894 (26.93)	50 (25.91)		1757 (32.45)	40 (28.78)		1742 (29.80)	41 (28.67)	
60,000–99,999	772 (10.98)	22 (11.40)		797 (14.72)	27 (19.42)		510 (8.72)	9 (6.29)	

≥100,000	698 (9.93)	22 (11.40)		547 (10.10)	24 (17.27)		326 (5.58)	10 (6.99)	
Lifestyle factors									
Tobacco smoking status			0.894			0.052			0.485
Never	5531 (78.51)	148 (76.68)		4205 (77.58)	116 (83.45)		4814 (82.35)	117 (81.82)	
Former	274 (3.89)	16 (8.29)		201 (3.71)	7 (5.04)		183 (3.13)	12 (8.39)	
Current	1240 (17.60)	29 (15.03)		1014 (18.71)	16 (11.51)		849 (14.52)	14 (9.79)	
Alcohol drinking weekly	224 (3.18)	10 (5.18)	0.121	241 (4.45)	4 (2.88)	0.374	178 (3.04)	7 (4.90)	0.206
Tea consumption weekly	980 (13.91)	30 (15.54)	0.518	725 (13.38)	20 (14.39)	0.730	734 (12.56)	18 (12.59)	0.991
Beverage consumption weekly	193 (2.74)	6 (3.11)	0.757	246 (4.54)	6 (4.32)	0.901	141 (2.41)	3 (2.10)	0.809
Total physical activity (METs-h/d)	24.38 (13.60–36.86)	17.41 (8.40–29.17)	<0.001	24.80 (12.73–38.68)	11.84 (5.70–22.73)	<0.001	23.66 (13.00–37.00)	15.41 (7.49–28.64)	<0.001
Sleep duration (h/day)	7.00 (6.00–8.00)	7.00 (5.75–8.00)	0.013	8.00 (6.00–8.00)	7.00 (6.00–8.00)	0.045	7.00 (6.00–8.00)	7.00 (5.00–8.00)	<0.001
Total energy intake (kcal/week)	10183.68 (8113.74–12910.44)	9016.29 (7132.71–11904.53)	<0.001	10580.68 (8104.96–13616.74)	9707.85 (8015.86–12353.33)	0.098	10651.15 (8151.98–13809.39)	9763.63 (7303.49–12692.03)	0.006
Anthropometry and blood pressure									
BMI (kg/m^2)	23.68 (21.39–26.10)	24.55 (21.62–26.23)	0.059	24.78 (22.51–27.11)	25.52 (23.10–27.55)	0.086	23.85 (21.60–26.25)	24.92 (22.04–27.06)	0.011
SBP (mmHg)	121.67 (110.33–136.00)	129.33 (114.00–143.33)	0.001	122.67 (111.00–137.00)	131.00 (118.00–144.33)	<0.001	121.67 (110.67–136.67)	133.00 (119.67–153.00)	<0.001
DBP (mmHg)	79.17 (72.67–87.00)	80.33 (75.00–90.33)	0.055	80.33 (73.33–88.50)	82.00 (74.50–89.33)	0.367	80.67 (74.00–88.67)	85.33 (78.67–92.67)	<0.001

FPG (mmol/L)	5.28 (4.95–5.67)	5.24 (4.90–5.74)	0.782	5.21 (4.90–5.61)	5.39 (5.08–5.91)	<0.001	5.15 (4.86–5.52)	5.29 (5.03–5.73)	<0.001
Lipid concentration									
TC (mmol/L)	4.86 (4.27–5.51)	4.91 (4.22–5.56)	0.855	4.96 (4.35–5.62)	4.94 (4.32–5.91)	0.726	4.87 (4.31–5.52)	5.13 (4.42–5.75)	0.029
TG (mmol/L)	1.50 (1.08–2.22)	1.63 (1.23–2.41)	0.040	1.44 (1.03–2.13)	1.56 (1.15–2.18)	0.129	1.39 (1.00–2.02)	1.61 (1.14–2.25)	0.015
HDL-C(mmol/L)	1.46 (1.22–1.73)	1.36 (1.13–1.65)	0.001	1.45 (1.25–1.67)	1.42 (1.25–1.58)	0.118	1.49 (1.32–1.68)	1.48 (1.34–1.66)	0.861
LDL-C(mmol/L)	2.92 (2.37–3.50)	3.03 (2.26–3.66)	0.607	2.81 (2.30–3.41)	2.87 (2.24–3.57)	0.282	2.45 (2.03–2.93)	2.65 (2.15–3.21)	0.009
SUA (µmol/L)	322.00 (267.00–392.00)	356.00 (300.00–443.00)	<0.001	322.00 (268.00–387.00)	338.00 (294.00–422.00)	0.001	301.00 (250.00–365.00)	332.00 (271.00–394.00)	0.001

Data are number (%) or median (interquartile range).BMI: Body mass index; CHD: Coronary heart disease; CNY: Chinese Yuan; DBP: Diastolic blood pressure; FPG: Fasting plasma glucose; HDL-C: High-density lipoprotein-cholesterol; LDL-C: Low-density lipoprotein-cholesterol; METs-h/d: Metabolic equivalent tasks-hours/day; NA: Not applicable; SBP: Systolic blood pressure; SUA: Serum uric acid; TC: Total cholesterol; TG: Triglycerides.

Supplementary Table 5: Baseline characteristics of total participants by stroke status.

Variables	Non-stroke	Stroke	*P*-value
Number of participants	18,499	290	
Age and socioeconomic factors			
Age (years)	51.67 (44.18–60.66)	61.38 (53.62–67.26)	<0.001
Men	6358 (34.37)	154 (53.10)	<0.001
Rural	14,640 (79.29)	225 (77.59)	0.477
Marital status			0.005
Married/cohabitating	16,186 (87.50)	228 (78.62)	
Widowed	1564 (8.45)	50 (17.24)	
Separated/divorced	583 (3.15)	11 (3.79)	
Never married	166 (0.90)	1 (0.34)	
Education level			0.002
No formal/Primary school	11,301 (61.09)	204 (70.34)	
Middle/High school	5383 (29.10)	66 (22.76)	
Technical school/College or above	1815 (9.81)	20 (6.90)	
Annual household income (CNY)			0.142
<12,000	5550 (30.04)	106 (36.55)	
12,000–19,999	3767 (20.39)	57 (19.66)	
20,000–59,999	5456 (29.53)	68 (23.45)	
60,000–99,999	2106 (11.40)	31 (10.69)	
≥100,000	1599 (8.65)	28 (9.66)	
Lifestyle factors			
Tobacco smoking status			0.007
Never	14,731 (79.64)	200 (68.97)	
Former	656 (3.55)	37 (12.76)	
Current	3109 (16.81)	53 (18.28)	
Alcohol drinking weekly	650 (3.51)	14 (4.83)	0.229
Tea consumption weekly	2458 (13.29)	49 (16.90)	0.073
Beverage consumption weekly	583 (3.15)	12 (4.14)	0.342
Total physical activity (METs-h/d)	24.24 (13.11–37.33)	14.00 (5.60–28.38)	<0.001
Sleep duration (h/day)	7.00 (6.00–8.00)	7.00 (6.00–8.00)	0.633
Total energy intake (kcal/week)	10420.80 (8114.89–13393.26)	9626.08 (7615.73–12557.19)	0.001
Anthropometry and blood pressure			
BMI (kg/m^2)	24.08 (21.76–26.48)	24.62 (22.25–26.67)	0.021
SBP (mmHg)	122.00 (110.67–136.67)	136.50 (120.33–150.00)	<0.001
DBP (mmHg)	80.00 (73.33–88.00)	85.33 (76.00–95.67)	<0.001
FPG (mmol/L)	5.22 (4.90–5.61)	5.38 (5.02–5.83)	<0.001
Lipid concentration (mmol/L)			
TC (mmol/L)	4.90 (4.31–5.54)	4.90 (4.27–5.73)	0.392
TG (mmol/L)	1.45 (1.04–2.12)	1.62 (1.20–2.34)	0.001
HDL-C (mmol/L)	1.47 (1.27–1.70)	1.44 (1.24–1.64)	0.067
LDL-C (mmol/L)	2.73 (2.21–3.31)	2.72 (2.27–3.45)	0.136
SUA (μmol/L)	316.00 (261.00–382.00)	358.50 (290.00–436.00)	<0.001

Data are number (%) or median (interquartile range). BMI: Body mass index; CNY: Chinese Yuan; DBP: Diastolic blood pressure; FPG: Fasting plasma glucose; HDL-C: High-density lipoprotein-cholesterol; LDL-C: Low-density lipoprotein-cholesterol; METs-h/d: Metabolic equivalent tasks-hours/day; SBP: Systolic blood pressure; SUA: Serum uric acid; TC: Total cholesterol; TG: Triglycerides

Supplementary Table 6: Baseline characteristics of Dong, Miao, and Bouyei ethnicities by stroke status.

Variables	Dong ethnicity (*n* = 7239)		*P*-value	Miao ethnicity (*n* = 5559)		*P*-value	Bouyei ethnicity (*n* = 5991)		*P*-value
	Non-stroke	Stroke		Non-stroke	Stroke		Non-stroke	Stroke	
Number of participants	7123	116		5476	83		5900	91	
Age and socioeconomic factors									
Age (years)	52.45 (45.23–61.30)	61.73 (55.06–68.13)	<0.001	50.89 (42.93–60.46)	61.64 (52.94–68.74)	<0.001	51.15 (44.03–59.66)	60.56 (52.88–66.17)	<0.001
Men	2531 (35.53)	63 (54.31)	<0.001	2026 (37.00)	41 (49.40)	0.020	1801 (30.53)	50 (54.95)	<0.001
Rural	5579 (78.60)	88 (75.86)	0.476	3926 (71.84)	56 (67.47)	0.380	5135 (87.03)	81 (89.01)	0.577
Marital status			0.050			0.162			0.136
Married/cohabitating	6285 (88.24)	92 (79.31)		4752 (86.78)	65 (78.31)		5149 (87.27)	71 (78.02)	
Widowed	616 (8.65)	20 (17.24)		461 (8.42)	14 (16.87)		487 (8.25)	16 (17.58)	
Separated/divorced	176 (2.47)	4 (3.45)		197 (3.60)	3 (3.61)		210 (3.56)	4 (4.40)	
Never married	46 (0.65)	NA		66 (1.21)	1 (1.20)		54 (0.92)	NA	
Education level			0.228			0.110			0.006
No formal/Primary school	4545 (63.81)	79 (68.10)		3158 (57.67)	56 (67.47)		3598 (60.98)	69 (75.82)	
Middle/High school	1779 (24.98)	28 (24.14)		1648 (30.09)	19 (22.89)		1956 (33.15)	19 (20.88)	
Technical school/College or above	799 (11.22)	9 (7.76)		670 (12.24)	8 (9.64)		346 (5.86)	3 (3.30)	
Annual household income (CNY)			0.419			0.242			0.572
<12,000	2206 (31.03)	46 (39.66)		1412 (25.81)	25 (30.12)		1932 (32.76)	35 (38.46)	
12,000–19,999	1495 (21.03)	20 (17.24)		908 (16.60)	17 (20.48)		1364 (23.13)	20 (21.98)	
20,000–59,999	1921 (27.02)	23 (19.83)		1774 (32.43)	23 (27.71)		1761 (29.86)	22 (24.18)	
60,000–99,999	780 (10.97)	14 (12.07)		814 (14.88)	10 (12.05)		512 (8.68)	7 (7.69)	
≥100,000	707 (9.95)	13 (11.21)		563 (10.29)	8 (9.64)		329 (5.58)	7 (7.69)	
Lifestyle factors									
Tobacco smoking status			0.006			0.116			0.904
Never	5605 (78.70)	74 (63.79)		4265 (77.89)	56 (67.47)		4861 (82.42)	70 (76.92)	

Former	274 (3.85)	16 (13.79)		199 (3.63)	9 (10.84)		183 (3.10)	12 (13.19)	
Current	1243 (17.45)	26 (22.41)		1012 (18.48)	18 (21.69)		854 (14.48)	9 (9.89)	
Alcohol drinking weekly	228 (3.20)	6 (5.17)	0.234	240 (4.38)	5 (6.02)	0.470	182 (3.08)	3 (3.30)	0.908
Tea consumption weekly	991 (13.91)	19 (16.38)	0.447	729 (13.31)	16 (19.28)	0.113	738 (12.51)	14 (15.38)	0.412
Beverage consumption weekly	195 (2.74)	4 (3.45)	0.643	249 (4.55)	3 (3.61)	0.685	139 (2.36)	5 (5.49)	0.053
Total physical activity (METs-h/d)	24.33 (13.58–36.83)	16.43 (6.10–29.96)	<0.001	24.63 (12.60–38.56)	11.00 (5.60–30.25)	<0.001	23.66 (12.97–37.00)	12.51 (5.60–28.00)	<0.001
Sleep duration (h/day)	7.00 (6.00–8.00)	7.00 (6.00–8.00)	0.758	8.00 (6.00–8.00)	7.00 (6.00–8.00)	0.580	7.00 (6.00–8.00)	7.00 (6.00–8.00)	<0.001
Total energy intake (kcal/week)	10175.76 (8102.07–12903.62)	9223.47 (7422.02–11579.58)	0.007	10578.77 (8112.39–13607.35)	9987.61 (7824.37–12567.07)	0.110	10623.90 (8144.37–13809.39)	10150.37 (7665.22–13001.65)	0.165
Anthropometry and blood pressure									
BMI (kg/m^2)	23.71 (21.39–26.12)	24.08 (21.99–25.90)	0.825	24.80 (22.52–27.12)	24.93 (22.73–28.02)	0.474	23.85 (21.60–26.25)	25.29 (22.83–27.06)	0.001
SBP (mmHg)	121.67 (110.33–136.00)	133.67 (118.67–145.00)	<0.001	123.00 (111.17–137.00)	141.17 (122.83–154.67)	<0.001	122.00 (110.67–136.67)	137.67 (123.33–149.33)	<0.001
DBP (mmHg)	79.00 (72.67–87.00)	84.67 (75.33–93.33)	<0.001	80.33 (73.33–88.33)	87.00 (77.33–94.00)	<0.001	80.67 (74.00–88.67)	87.33 (77.00–97.33)	<0.001
FPG (mmol/L)	5.28 (4.95–5.67)	5.41 (5.03–5.89)	0.027	5.22 (4.90–5.61)	5.46 (5.01–5.85)	0.006	5.15 (4.86–5.52)	5.27 (5.02–5.72)	0.005
Lipid concentration									
TC (mmol/L)	4.86 (4.28–5.51)	4.86 (4.09–5.67)	0.794	4.96 (4.35–5.61)	5.09 (4.47–6.01)	0.098	4.87 (4.31–5.52)	4.87 (4.34–5.65)	0.839
TG (mmol/L)	1.51 (1.08–2.23)	1.61	0.284	1.44	1.66	0.006	1.39 (1.00–2.02)	1.60	0.038

		(1.17–2.38)		(1.03–2.12)	(1.27–2.48)			(1.17–2.18)	
HDL-C (mmol/L)	1.46 (1.22–1.72)	1.39 (1.17–1.61)	0.052	1.45 (1.25–1.67)	1.45 (1.27–1.60)	0.899	1.49 (1.32–1.68)	1.50 (1.26–1.69)	0.466
LDL-C (mmol/L)	2.93 (2.36–3.50)	2.88 (2.35–3.78)	0.706	2.81 (2.29–3.41)	2.98 (2.45–3.64)	0.078	2.45 (2.03–2.94)	2.48 (2.16–3.04)	0.490
SUA (µmol/L)	323.00 (267.00–393.00)	369.00 (288.00–436.00)	0.002	323.00 (268.00–387.00)	352.00 (291.00–472.00)	0.001	301.00 (250.00–365.00)	365.00 (294.00–430.00)	<0.001

Data are number (%) or median (interquartile range). BMI: Body mass index; CNY: Chinese Yuan; DBP: Diastolic blood pressure; FPG: Fasting plasma glucose; HDL-C: High-density lipoprotein-cholesterol; LDL-C: Low-density lipoprotein-cholesterol; METs-h/d: Metabolic equivalent tasks-hours/day; NA: Not applicable; SBP: Systolic blood pressure; SUA: Serum uric acid; TC: Total cholesterol; TG: Triglycerides.

Supplementary Table 7: Baseline characteristics of total participants by hypertension duration.

Variables	Hypertension duration (years)			*P*-value
	0	>0 to ≤5	>5	
Number of participants	15,566	1762	1461	
Age and socioeconomic factors				
Age (years)	50.21 (43.09–57.55)	56.48 (50.67–66.24)	61.80 (54.61–68.52)	<0.001
Men	5112 (32.84)	781 (44.32)	619 (42.37)	<0.001
Ethnicity				0.008
Dong	5932 (38.11)	713 (40.47)	594 (40.66)	
Miao	4595 (29.52)	556 (31.56)	408 (27.93)	
Bouyei	5039 (32.37)	493 (27.98)	459 (31.42)	
Rural	12,370 (79.60)	1429 (81.33)	1066 (73.26)	<0.001
Marital status				<0.001
Married/cohabitating	13,737 (88.25)	1492 (84.68)	1185 (81.11)	
Widowed	1159 (7.45)	222 (12.60)	233 (15.95)	
Separated/divorced	519 (3.33)	34 (1.93)	41 (2.81)	
Never married	151 (0.97)	14 (0.79)	2 (0.14)	
Education level				<0.001
Noformal/Primary school	9326 (59.91)	1213 (68.84)	966 (66.12)	
Middle/High school	4657 (29.92)	428 (24.29)	364 (24.91)	
Technical school/College or above	1583 (10.17)	121 (6.87)	131 (8.97)	
Annual household income (CNY)				<0.001
<12,000	4483 (28.84)	663 (37.65)	509 (34.89)	
12,000–19,999	3195 (20.55)	364 (20.67)	265 (18.16)	
20,000–59,999	4726 (30.40)	456 (25.89)	342 (23.44)	
60,000–99,999	1800 (11.58)	155 (8.80)	182 (12.47)	
≥100,000	1343 (8.64)	123 (6.98)	161 (11.03)	
Lifestyle factors				
Tobacco smoking status				0.005
Never	12,490 (80.24)	1318 (74.84)	1123 (76.92)	
Former	480 (3.08)	109 (6.19)	104 (7.12)	
Current	2595 (16.67)	334 (18.97)	233 (15.96)	
Alcohol drinking weekly	520 (3.34)	84 (4.77)	60 (4.11)	0.009
Tea consumption weekly	1928 (12.39)	290 (16.47)	289 (19.79)	<0.001
Beverage consumption weekly	502 (3.23)	50 (2.84)	43 (2.95)	0.383
Total physical activity (METs-h/d)	25.01 (14.00–38.00)	22.14 (10.54–35.53)	16.09 (7.49–30.08)	<0.001
Sleep duration (h/day)	7.00 (6.00–8.00)	7.00 (6.00–8.00)	7.00 (6.00–8.00)	<0.001
Total energy intake (kcal/week)	10435.92 (8145.20–13427.80)	10530.67 (8115.17–13361.27)	10004.43 (7691.34–12752.36)	<0.001
Anthropometry and blood pressure				

BMI (kg/m²)	23.83 (21.56–26.18)	24.15 (22.87–27.62)	25.61 (23.29–27.95)	<0.001
SBP (mmHg)	119.00 (109.00–131.00)	142.33 (130.67–156.67)	144.67 (131.83–158.00)	<0.001
DBP (mmHg)	78.33 (72.33–85.67)	90.00 (82.67–98.00)	90.33 (81.33–99.00)	<0.001
FPG (mmol/L)	5.19 (4.89–5.56)	5.37 (4.99–5.88)	5.46 (5.06–6.12)	<0.001
Lipid concentration (mmol/L)				
TC (mmol/L)	4.86 (4.28–5.50)	5.05 (4.45–5.78)	5.08 (4.43–5.75)	<0.001
TG (mmol/L)	1.41 (1.01–2.05)	1.72 (1.19–2.53)	1.66 (1.20–2.51)	<0.001
HDL-C (mmol/L)	1.48 (1.27–1.70)	1.43 (1.23–1.66)	1.42 (1.23–1.62)	<0.001
LDL-C (mmol/L)	2.70 (2.20–3.28)	2.88 (2.32–3.50)	2.87 (2.29–3.49)	<0.001
SUA (μmol/L)	309.00 (257.00–372.00)	351.50 (286.00–426.00)	365.00 (303.00–442.00)	<0.001

Data are number (%) or median (interquartile range). BMI: Body mass index; CNY: Chinese Yuan; DBP: Diastolic blood pressure; FPG: Fasting plasma glucose; HDL-C: High-density lipoprotein-cholesterol; LDL-C: Low-density lipoprotein-cholesterol; METs-h/d: Metabolic equivalent tasks-hours/day; SBP: Systolic blood pressure; SUA: Serum uric acid; TC: Total cholesterol; TG: Triglycerides. *P*-value comparing 0 years, >0 to ≤5 years, and >5 years.

Supplementary Table 8: Baseline characteristics of Dong ethnicity by hypertension duration.

Variables	Hypertension duration (years)			P-value
	0	>0 to ≤5	>5	
Number of participants	5932	713	594	
Age and socioeconomic factors				
Age (years)	50.86 (44.05–59.09)	57.74 (51.31–66.41)	62.23 (55.15–68.77)	<0.001
Men	2020 (34.05)	317 (44.46)	257 (43.27)	<0.001
Rural	4638 (78.38)	589 (83.19)	440 (74.70)	0.546
Marital status				0.017
Married/cohabitating	5278 (88.98)	616 (86.40)	483 (81.31)	
Widowed	451 (7.60)	85 (11.92)	100 (16.84)	
Separated/divorced	159 (2.68)	10 (1.40)	11 (1.85)	
Never married	44 (0.74)	2 (0.28)	NA	
Education level				<0.001
Noformal/Primary school	3703 (62.42)	513 (71.95)	408 (68.69)	
Middle/High school	1530 (25.79)	139 (19.50)	138 (23.23)	
Technical school/College or above	699 (11.78)	61 (8.56)	48 (8.08)	
Annual household income (CNY)				<0.001
<12,000	1758 (29.70)	285 (39.97)	209 (35.30)	
12,000–19,999	1237 (20.90)	160 (22.44)	118 (19.93)	
20,000–59,999	1654 (27.94)	158 (22.16)	132 (22.30)	
60,000–99,999	670 (11.32)	58 (8.13)	66 (11.15)	
≥100,000	601 (10.15)	52 (7.29)	67 (11.32)	
Lifestyle factors				
Tobacco smoking status				0.100
Never	4705 (79.33)	529 (74.19)	445 (74.92)	
Former	188 (3.17)	47 (6.59)	55 (9.26)	
Current	1038 (17.50)	137 (19.21)	94 (15.82)	
Alcohol drinking weekly	179 (3.02)	32 (4.49)	23 (3.87)	0.066

Tea consumption weekly	786 (13.25)	105 (14.73)	119 (20.03)	<0.001
Beverage consumption weekly	165 (2.78)	20 (2.81)	14 (2.36)	0.608
Total physical activity (METs-h/d)	25.18 (14.01–37.37)	22.80 (11.70–35.51)	16.80 (8.40–30.10)	<0.001
Sleep duration (h/day)	7.00 (6.00–8.00)	7.00 (6.00–8.00)	7.00 (6.00–8.00)	0.326
Total energy intake (kcal/week)	10172.67 (8116.55–12890.98)	10286.19 (8056.30–13137.24)	9879.59 (7791.71–12544.86)	0.053
Anthropometry and blood pressure				
BMI (kg/m^2)	23.40 (21.17–25.74)	24.81 (22.66–27.21)	25.38 (22.75–27.78)	<0.001
SBP (mmHg)	118.33 (108.33–130.33)	141.33 (130.50–155.00)	143.00 (130.67–156.33)	<0.001
DBP (mmHg)	77.67 (71.67–84.33)	89.00 (82.00–97.67)	87.67 (80.00–96.67)	<0.001
FPG (mmol/L)	5.25 (4.93–5.63)	5.41 (5.01–5.90)	5.47 (5.08–6.11)	<0.001
Lipid concentration (mmol/L)				
TC (mmol/L)	4.82 (4.25–5.46)	4.98 (4.44–5.71)	5.09 (4.39–5.74)	<0.001
TG (mmol/L)	1.46 (1.06–2.12)	1.81 (1.21–2.73)	1.68 (1.23–2.61)	<0.001
HDL-C (mmol/L)	1.48 (1.23–1.74)	1.37 (1.15–1.65)	1.38 (1.17–1.65)	<0.001
LDL-C (mmol/L)	2.90 (2.35–3.47)	3.00 (2.46–3.66)	3.08 (2.43–3.76)	<0.001
SUA (μmol/L)	314.00 (261.00–382.00)	363.00 (294.00–445.00)	375.00 (312.50–449.00)	<0.001

Data are number (%) or median (interquartile range). BMI: Body mass index; CNY: Chinese Yuan; DBP: Diastolic blood pressure; FPG: Fasting plasma glucose; HDL-C: High-density lipoprotein-cholesterol; LDL-C: Low-density lipoprotein-cholesterol; METs-h/d: Metabolic equivalent tasks-hours/day; NA: Not applicable; SBP: Systolic blood pressure; SUA: Serum uric acid; TC: Total cholesterol; TG: Triglycerides.*P*-value comparing 0 years, >0 to ≤5 years, and >5 years.

Supplementary Table 9: Baseline characteristics of Miao ethnicity by hypertension duration.

| Variables | Hypertension duration (years) | | | P-value |
	0	>0 to ≤5	>5	
Number of participants	4595	556	408	
Age and socioeconomic factors				
Age (years)	49.37 (41.69–57.09)	56.11 (50.15–66.56)	61.99 (54.45–68.92)	<0.001
Men	1632 (35.52)	263 (47.30)	172 (42.16)	<0.001
Rural	3310 (72.19)	413 (74.28)	259 (63.64)	0.007
Marital status				0.122
Married/cohabitating	4017 (87.42)	467 (83.99)	333 (81.62)	
Widowed	348 (7.57)	67 (12.05)	60 (14.71)	
Separated/divorced	172 (3.74)	15 (2.70)	13 (3.19)	
Never married	58 (1.26)	7 (1.26)	2 (0.49)	
Education level				<0.001
Noformal/Primary school	2593 (56.43)	368 (66.19)	253 (62.01)	
Middle/High school	1413 (30.75)	148 (26.62)	106 (25.98)	
Technical school/College or above	589 (12.82)	40 (7.19)	49 (12.01)	
Annual household income (CNY)				0.467
<12,000	1141 (24.86)	181 (32.55)	115 (28.19)	
12,000–19,999	772 (16.82)	93 (16.73)	60 (14.71)	
20,000–59,999	1526 (33.25)	166 (29.86)	105 (25.74)	
60,000–99,999	688 (14.99)	70 (12.59)	66 (16.18)	
≥100,000	463 (10.09)	46 (8.27)	62 (15.20)	
Lifestyle factors				
Tobacco smoking status				0.121
Never	3607 (78.50)	402 (72.30)	312 (76.47)	
Former	150 (3.26)	36 (6.47)	22 (5.39)	
Current	838 (18.24)	118 (21.22)	74 (18.14)	

Alcohol drinking weekly	194 (4.22)	32 (5.76)	19 (4.66)	0.280
Tea consumption weekly	556 (12.10)	96 (3.96)	17 (4.17)	<0.001
Beverage consumption weekly	213 (4.64)	22 (3.96)	17 (4.17)	0.489
Total physical activity (METs-h/d)	25.55 (13.59–39.14)	21.83 (9.78–37.07)	16.80 (7.38–31.45)	<0.001
Sleep duration (h/day)	8.00 (6.00–8.00)	8.00 (6.00–9.00)	7.00 (6.00–8.00)	0.011
Total energy intake (kcal/week)	10605.08 (8187.65–13605.30)	10541.07 (7960.28–13562.54)	10306.97 (7620.11–13288.39)	0.145
Anthropometry and blood pressure				
BMI (kg/m^2)	24.61 (22.32–26.90)	25.59 (23.37–28.33)	26.09 (24.13–28.39)	<0.001
SBP (mmHg)	119.67 (109.33–131.67)	142.83 (129.67–157.33)	144.83 (131.67–158.00)	<0.001
DBP (mmHg)	78.67 (72.33–86.00)	90.33 (82.67–98.00)	91.33 (82.00–100.33)	<0.001
FPG (mmol/L)	5.18 (4.89–5.56)	5.34 (4.97–5.95)	5.50 (5.06–6.14)	<0.001
Lipid concentration (mmol/L)				
TC (mmol/L)	4.93 (4.33–5.57)	5.14 (4.47–5.89)	5.09 (4.45–5.88)	<0.001
TG (mmol/L)	1.40 (1.00–2.05)	1.75 (1.18–2.58)	1.70 (1.20–2.56)	<0.001
HDL-C (mmol/L)	1.46 (1.26–1.68)	1.43 (1.24–1.62)	1.40 (1.23–1.61)	0.001
LDL-C (mmol/L)	2.80 (2.29–3.39)	2.92 (2.37–3.64)	2.88 (2.32–3.54)	0.001
SUA (μmol/L)	317.00 (265.00–379.00)	351.00 (288.00–424.00)	360.00 (300.00–448.00)	<0.001

Data are number (%) or median (interquartile range). BMI: Body mass index; CNY: Chinese Yuan; DBP: Diastolic blood pressure; FPG: Fasting plasma glucose; HDL-C: High-density lipoprotein-cholesterol; LDL-C: Low-density lipoprotein-cholesterol; METs-h/d: Metabolic equivalent tasks-hours/day; SBP: Systolic blood pressure; SUA: Serum uric acid; TC: Total cholesterol; TG: Triglycerides.P-value comparing 0 year, >0 to ≤5 years, and >5 years.

Supplementary Table 10: Baseline characteristics of Bouyei ethnicity by hypertension duration.

Variables	Hypertension duration (years)			P-value
	0	>0 to ≤5	>5	
Number of participants	5039	493	459	
Age and socioeconomic factors				
Age (years)	50.12 (43.10–56.83)	55.71 (50.63–65.55)	61.01 (53.57–67.91)	<0.001
Men	1460 (28.97)	201 (40.77)	190 (41.39)	<0.001
Rural	4422 (87.76)	427 (86.61)	367 (79.96)	<0.001
Marital status				0.011
Married/cohabitating	4442 (88.15)	409 (82.96)	369 (80.39)	
Widowed	360 (7.14)	70 (14.20)	73 (15.90)	
Separated/divorced	188 (3.73)	9 (1.83)	17 (3.70)	
Never married	49 (0.97)	5 (1.01)	NA	
Education level				0.007
No formal/Primary school	3030 (60.13)	332 (67.34)	305 (66.45)	
Middle/High school	1714 (34.01)	141 (28.60)	120 (26.14)	
Technical school/College or above	295 (5.85)	20 (4.06)	34 (7.41)	
Annual household income (CNY)				0.007
<12,000	1585 (31.46)	197 (40.04)	185 (40.31)	
12,000–19,999	1186 (23.54)	111 (22.56)	87 (18.95)	
20,000–59,999	1546 (30.69)	132 (26.83)	105 (22.88)	
60,000–99,999	442 (8.77)	27 (5.49)	50 (10.89)	
≥100,000	279 (5.54)	25 (5.08)	32 (6.97)	
Lifestyle factors				
Tobacco smoking status				0.144
Never	4178 (82.91)	387 (78.66)	366 (79.91)	
Former	142 (2.82)	26 (5.28)	27 (5.90)	
Current	719 (14.27)	79 (16.06)	65 (14.19)	

Alcohol drinking weekly	147 (2.92)	20 (4.06)	18 (3.92)	0.108
Tea consumption weekly	586 (11.63)	89 (18.09)	77 (16.81)	<0.001
Beverage consumption weekly	124 (2.46)	8 (1.63)	12 (2.62)	0.786
Total physical activity (METs-h/d)	24.55 (14.00–37.69)	20.63 (9.17–34.23)	15.37 (7.00–28.73)	<0.001
Sleep duration (h/day)	7.00 (6.00–8.00)	7.00 (6.00–8.00)	7.00 (6.00–8.00)	0.004
Total energy intake (kcal/week)	10675.01 (8148.66–13889.36)	10796.71 (8293.66–13665.67)	9959.58 (7672.72–12429.82)	0.001
Anthropometry and blood pressure				
BMI (kg/m^2)	23.62 (21.42–25.97)	24.95 (22.57–27.31)	25.50 (23.25–27.83)	<0.001
SBP (mmHg)	118.67 (109.00–131.00)	143.67 (132.00–157.67)	147.33 (133.00–161.00)	<0.001
DBP (mmHg)	79.33 (73.00–86.33)	90.33 (84.00–99.33)	92.00 (83.33–101.00)	<0.001
FPG (mmol/L)	5.12 (4.84–5.47)	5.35 (4.96–5.75)	5.39 (5.03–6.08)	<0.001
Lipid concentration (mmol/L)				
TC (mmol/L)	4.84 (4.28–5.48)	5.05 (4.45–5.78)	5.06 (4.43–5.71)	<0.001
TG (mmol/L)	1.34 (0.98–1.96)	1.61 (1.15–2.25)	1.60 (1.16–2.33)	<0.001
HDL-C (mmol/L)	1.50 (1.32–1.69)	1.48 (1.33–1.71)	1.46 (1.31–1.61)	0.008
LDL-C (mmol/L)	2.42 (2.01–2.89)	2.56 (2.15–3.16)	2.62 (2.18–3.12)	<0.001
SUA (μmol/L)	295.00 (246.00–356.00)	337.00 (275.00–406.00)	362.00 (294.00–424.00)	<0.001

Data are number (%) or median (interquartile range). BMI: Body mass index; CNY: Chinese Yuan; DBP: Diastolic blood pressure; FPG: Fasting plasma glucose; HDL-C: High-density lipoprotein-cholesterol; LDL-C: Low-density lipoprotein-cholesterol; METs-h/d: Metabolic equivalent tasks-hours/day; NA: Not applicable; SBP: Systolic blood pressure; SUA: Serum uric acid; TC: Total cholesterol; TG: Triglycerides. P-value comparing 0 year, >0 to ≤5 years, and >5 years.

Supplementary Table 11: Multivariate logistic regression analysis on the risk of CVDs according to hypertension duration by sex and residence.

Variables	Hypertension duration (years)			*P* for trend	Per 1-year increase
	0	>0 to ≤5	>5		
Total					
Men	Reference	2.69 (1.93–3.75)	3.72 (2.68–5.16)	<0.001	1.04 (1.03–1.06)
Women	Reference	2.09 (1.50–2.91)	3.99 (2.99–5.33)	<0.001	1.06 (1.04–1.07)
Urban residents	Reference	2.57 (1.59–4.16)	4.04 (2.69–6.06)	<0.001	1.05 (1.03–1.07)
Rural residents	Reference	2.33 (1.78–3.05)	3.78 (2.92–4.89)	<0.001	1.05 (1.04–1.06)
Dong ethnicity					
Men	Reference	2.57 (1.54–4.28)	2.73 (1.62–4.59)	0.001	1.02 (1.00–1.04)
Women	Reference	1.91 (1.13–3.24)	2.51 (1.54–4.09)	<0.001	1.03 (1.00–1.05)
Urban residents	Reference	1.79 (0.77–4.15)	2.33 (1.18–4.59)	0.021	1.03 (1.00–1.06)
Rural residents	Reference	2.33 (1.55–3.50)	2.71 (1.79–4.10)	<0.001	1.03 (1.01–1.05)
Miao ethnicity					
Men	Reference	2.13 (1.12–4.04)	4.68 (2.50–8.74)	<0.001	1.07 (1.03–1.10)
Women	Reference	1.66 (0.87–3.18)	4.87 (2.89–8.22)	<0.001	1.08 (1.05–1.12)
Urban residents	Reference	2.44 (1.15–5.16)	5.72 (3.05–10.72)	<0.001	1.09 (1.05–1.13)
Rural residents	Reference	1.66 (0.94–2.93)	3.94 (2.32–6.68)	<0.001	1.06 (1.04–1.09)
Bouyei ethnicity					
Men	Reference	3.51 (1.86–6.64)	4.13 (2.26–7.57)	<0.001	1.06 (1.03–1.10)
Women	Reference	2.78 (1.54–4.99)	6.19 (3.68–10.43)	<0.001	1.08 (1.05–1.12)
Urban residents	Reference	5.03 (1.73–14.63)	5.82 (2.17–15.58)	0.001	1.05 (1.00–1.10)
Rural residents	Reference	2.87 (1.79–4.61)	5.12 (3.31–7.91)	<0.001	1.08 (1.05–1.11)

BMI: Body mass index; CVDs: Cardiovascular diseases; FPG: Fasting plasma glucose; HDL-C: High-density lipoprotein-cholesterol; SBP: Systolic blood pressure; SUA: Serum uric acid; TC: Total cholesterol.Adjusted for age, sex, ethnicity, residence, marital status, education level, annual household income, tobacco smoking currently, alcohol drinking weekly, tea consumption, beverage consumption, total energy intake, sleep duration, total physical activity, family history of CVDs, BMI, and SBP, FPG, TC, HDL-C, and SUA levels, except for stratified variables.

Supplementary Table 12: Hypertension duration and multi-adjusted ORs (95% CI) for CVDs by age group.

| Variables | Hypertension duration (years) | | | *P* for trend | Per 1-year increase |
	0	>0 to≤5	>5		
Total					
Age less than median	Reference	2.07 (1.12–3.84)	6.45 (3.62–11.51)	<0.001	1.15 (1.10–1.20)
Age greater than or equal to median	Reference	2.45 (1.90–3.15)	3.83 (3.05–4.82)	<0.001	1.05 (1.04–1.06)
Dong ethnicity					
Age less than median	Reference	2.94 (1.21–7.15)	4.44 (1.61–12.26)	0.004	1.11 (1.03–1.20)
Age greater than or equal to median	Reference	2.23 (1.51–3.30)	2.79 (1.93–4.05)	<0.001	1.03 (1.01–1.05)
Miao ethnicity					
Age less than median	Reference	2.36 (0.61–9.15)	8.26 (2.16–31.61)	0.002	1.13 (1.04–1.23)
Age greater than or equal to median	Reference	1.86 (1.16–2.98)	4.51 (3.00–6.78)	<0.001	1.08 (1.05–1.10)
Bouyei ethnicity					
Age less than median	Reference	1.32 (0.28–6.33)	10.11 (3.68–27.79)	<0.001	1.30 (1.18–1.43)
Age greater than or equal to median	Reference	3.33 (2.11–5.25)	4.67 (3.06–7.14)	<0.001	1.07 (1.04–1.09)

BMI: Body mass index; CVDs: Cardiovascular diseases; CIs: Confidence intervals; CVDs: Cardiovascular diseases; FPG: Fasting plasma glucose; HDL-C: High-density lipoprotein-cholesterol; ORs: Odds ratios; SBP: Systolic blood pressure; SUA: Serum uric acid; TC: Total cholesterol. Adjusted for sex, ethnicity, residence, marital status, education level, annual household income, tobacco smoking currently, alcohol drinking weekly, tea consumption, beverage consumption, total energy intake, sleep duration, total physical activity, family history of CVDs, BMI, and SBP, FPG, TC, HDL-C, and SUA levels, except for stratified variables. Median age among total participants, Dong ethnicity, Miao ethnicity, and Bouyei ethnicity were 52 years old, 53 years old, 51 years old, and 51 years old, respectively.

Supplementary Table 13: Multivariate logistic regression analysis on the risk of CVDs according to hypertension duration in sensitivity analyses.

| Variables | Hypertension duration (years) | | | *P* for trend | Per 1-year increase |
	0	>0 to ≤5	>5		
Total					
Excluding current smokers and alcohol drinkers weekly	Reference	2.31 (1.78–3.00)	3.60 (2.83–4.57)	<0.001	1.05 (1.04–1.06)
Further excluding people with diabetes, hyperlipidemia, or cancer	Reference	2.26 (1.69–3.03)	3.34 (2.53–4.40)	<0.001	1.04 (1.03–1.06)
Dong ethnicity					
Excluding current smokers and alcohol drinkers weekly	Reference	1.92 (1.26–2.92)	2.45 (1.64–3.66)	<0.001	1.03 (1.01–1.05)
Further excluding people with diabetes, hyperlipidemia, or cancer	Reference	1.91 (1.19–3.07)	2.49 (1.57–3.95)	<0.001	1.02 (1.00–1.05)
Miao ethnicity					
Excluding current smokers and alcohol drinkers weekly	Reference	2.13 (1.31–3.48)	4.49 (2.88–7.00)	<0.001	1.07 (1.05–1.10)
Further excluding people with diabetes, hyperlipidemia, or cancer	Reference	1.75 (0.99–3.09)	4.57 (2.77–7.53)	<0.001	1.07 (1.04–1.10)
Bouyei ethnicity					
Excluding current smokers and alcohol drinkers weekly	Reference	3.04 (1.92–4.81)	4.58 (2.99–7.02)	<0.001	1.07 (1.04–1.09)
Further excluding people with diabetes, hyperlipidemia, or cancer	Reference	3.24 (1.98–5.31)	3.52 (2.15–5.77)	<0.001	1.06 (1.03–1.09)

BMI: Body mass index; CVDs: Cardiovascular diseases; FPG: Fasting plasma glucose; HDL-C: High-density lipoprotein-cholesterol; SBP: Systolic blood pressure; SUA: Serum uric acid; TC: Total cholesterol. Adjusted for age, sex, ethnicity, residence, marital status, education level, annual household income, tobacco smoking currently, alcohol drinking weekly, tea consumption, beverage consumption, total energy intake, sleep duration, total physical activity, family history of CVDs, BMI, and SBP, FPG, TC, HDL-C, and SUA levels.

Supplementary Table 14: Hypertension duration and multi-adjusted ORs (95% CI) for coronary heart disease.

| Variables | Hypertension duration (years) | | | *P* for trend | Per 1-year increase |
	0	>0 to≤5	>5		
Total					
All participants	Reference	1.79 (1.32–2.43)	3.51 (2.71–4.56)	<0.001	1.04 (1.03–1.05)
Men	Reference	1.82 (1.15–2.88)	2.90 (1.91–4.41)	<0.001	1.03 (1.01–1.05)
Women	Reference	1.77 (1.17–2.66)	3.96 (2.83–5.53)	<0.001	1.05 (1.03–1.07)
Urban residents	Reference	2.91 (1.66–5.07)	3.88 (2.40–6.26)	<0.001	1.04 (1.02–1.06)
Rural residents	Reference	1.49 (1.03–2.14)	3.33 (2.43–4.55)	<0.001	1.04 (1.03–1.06)
Excluding current smokers and alcohol drinkers weekly	Reference	1.75 (1.25–2.44)	3.30 (2.48–4.39)	<0.001	1.04 (1.03–1.05)
Further excluding people with diabetes, hyperlipidemia, or cancer	Reference	1.55 (1.06–2.28)	2.87 (2.06–4.01)	<0.001	1.03 (1.02–1.05)
Dong ethnicity					
All participants	Reference	2.02 (1.29–3.15)	2.41 (1.57–3.72)	<0.001	1.02 (1.00–1.04)
Men	Reference	1.70 (0.87–3.33)	2.09 (1.07–4.06)	0.047	1.02 (0.99–1.04)
Women	Reference	2.28 (1.24–4.18)	2.70 (1.52–4.82)	0.002	1.03 (1.00–1.06)
Urban residents	Reference	2.54 (0.89–7.25)	3.71 (1.59–8.63)	0.004	1.03 (0.99–1.06)
Rural residents	Reference	1.92 (1.17–3.17)	2.00 (1.20–3.36)	0.016	1.02 (0.99–1.04)
Excluding current smokers and alcohol drinkers weekly	Reference	1.90 (1.14–3.17)	2.48 (1.53–3.99)	0.001	1.02 (1.00–1.05)
Further excluding people with diabetes, hyperlipidemia, or cancer	Reference	1.68 (0.93–3.01)	2.26 (1.30–3.94)	0.008	1.02 (1.00–1.05)
Miao ethnicity					
All participants	Reference	1.36 (0.74–2.47)	3.94 (2.45–6.33)	<0.001	1.06 (1.04–1.09)
Men	Reference	1.72 (0.70–4.18)	4.40 (1.97–9.82)	<0.001	1.06 (1.03–1.10)
Women	Reference	1.15 (0.48–2.73)	3.81 (2.06–7.05)	<0.001	1.06 (1.03–1.10)

Urban residents	Reference	2.50 (1.08–5.75)	3.83 (1.87–7.87)	0.001	1.06 (1.02–1.10)
Rural residents	Reference	0.79 (0.32–2.00)	4.06 (2.12–7.76)	<0.001	1.06 (1.03–1.10)
Excluding current smokers and alcohol drinkers weekly	Reference	1.55 (0.83–2.90)	3.70 (2.21–6.21)	<0.001	1.06 (1.03–1.09)
Further excluding people with diabetes, hyperlipidemia, or cancer	Reference	1.29 (0.61–2.70)	3.79 (2.10–6.83)	<0.001	1.06 (1.03–1.09)
Bouyei ethnicity					
All participants	Reference	1.74 (0.96–3.16)	5.04 (3.15–8.05)	<0.001	1.06 (1.04–1.09)
Men	Reference	1.95 (0.77–4.95)	3.50 (1.58–7.78)	0.003	1.04 (1.00–1.08)
Women	Reference	1.61 (0.74–3.52)	6.38 (3.56–11.45)	<0.001	1.09 (1.05–1.12)
Urban residents	Reference	4.18 (1.30–13.50)	4.74 (1.58–14.24)	0.010	1.04 (0.99–1.09)
Rural residents	Reference	1.32 (0.64–2.74)	5.24 (3.09–8.86)	<0.001	1.07 (1.04–1.10)
Excluding current smokers and alcohol drinkers weekly	Reference	1.66 (0.87–3.15)	4.40 (2.64–7.34)	<0.001	1.06 (1.03–1.08)
Further excluding people with diabetes, hyperlipidemia, or cancer	Reference	1.51 (0.73–3.10)	3.12 (1.70–5.73)	<0.001	1.05 (1.01–1.09)

BMI: Body mass index; CIs: Confidence intervals; CVDs: Cardiovascular diseases; FPG: Fasting plasma glucose; HDL-C: High-density lipoprotein-cholesterol; ORs: Odds ratios; SBP: Systolic blood pressure; SUA: Serum uric acid; TC: Total cholesterol. Adjusted for age, sex, ethnicity, residence, marital status, education level, annual household income, tobacco smoking currently, alcohol drinking weekly, tea consumption, beverage consumption, total energy intake, sleep duration, total physical activity, family history of CVDs, BMI, and SBP, FPG, TC, HDL-C, and SUA levels, except for stratified variables.

Supplementary Table 15: Hypertension duration and multi-adjusted ORs (95% CI) for stroke.

Variables	Hypertension duration (years)			*P* for trend	Per 1-year increase
	0	>0 to ≤5	>5		
Total					
All participants	Reference	3.64 (2.60–5.09)	4.31 (3.07–6.04)	<0.001	1.04 (1.03–1.06)
Men	Reference	4.49 (2.86–7.06)	4.61 (2.87–7.41)	<0.001	1.04 (1.03–1.06)
Women	Reference	2.77 (1.65–4.65)	3.93 (2.42–6.38)	<0.001	1.04 (1.02–1.07)
Urban residents	Reference	2.28 (1.03–5.05)	3.72 (1.91–7.24)	<0.001	1.04 (1.01–1.07)
Rural residents	Reference	4.18 (2.87–6.09)	4.53 (3.05–6.71)	<0.001	1.05 (1.03–1.06)
Excluding current smokers and alcohol drinkers weekly	Reference	3.48 (2.37–5.11)	3.94 (2.68–5.80)	<0.001	1.04 (1.03–1.06)
Further excluding people with diabetes, hyperlipidemia, or cancer	Reference	3.55 (2.32–5.42)	3.88 (2.51–6.01)	<0.001	1.04 (1.02–0.06)
Dong ethnicity					
All participants	Reference	2.78 (1.62–4.79)	3.07 (1.78–5.29)	<0.001	1.03 (1.01–1.05)
Men	Reference	4.48 (2.16–9.30)	3.86 (1.78–8.34)	0.007	1.03 (1.00–1.06)
Women	Reference	1.38 (0.55–3.48)	2.33 (1.05–5.16)	0.039	1.02 (0.99–1.06)
Urban residents	Reference	1.13 (0.29–4.38)	1.01 (0.32–3.18)	0.998	1.02 (0.98–1.07)
Rural residents	Reference	3.57 (1.92–6.63)	4.55 (2.42–8.56)	<0.001	1.03 (1.01–1.06)
Excluding current smokers and alcohol drinkers weekly	Reference	2.18 (1.13–4.18)	2.41 (1.25–4.62)	0.017	1.03 (1.00–1.05)
Further excluding people with diabetes, hyperlipidemia, or cancer	Reference	2.54 (1.23–5.22)	2.75 (1.30–5.84)	0.006	1.02 (0.99–1.05)
Miao ethnicity					
All participants	Reference	3.22 (1.73–6.01)	5.23 (2.82–9.71)	<0.001	1.06 (1.03–1.09)
Men	Reference	3.59 (1.53–8.42)	4.53 (1.78–11.52)	0.005	1.04 (1.00–1.09)
Women	Reference	2.72 (1.07–6.97)	6.18 (2.65–14.42)	<0.001	1.08 (1.03–1.12)
Urban residents	Reference	4.57 (1.16–17.98)	15.31 (4.51–52.01)	<0.001	1.08 (1.03–1.14)
Rural residents	Reference	2.87 (1.38–5.94)	3.08 (1.35–7.04)	0.019	1.05 (1.01–1.08)
Excluding current smokers and alcohol drinkers weekly	Reference	3.78 (1.84–7.79)	5.59 (2.71–11.52)	<0.001	1.06 (1.03–1.10)
Further excluding people with diabetes, hyperlipidemia, or cancer	Reference	2.62 (1.13–6.08)	5.26 (2.39–11.55)	<0.001	1.07 (1.03–1.10)
Bouyei ethnicity					

All participants	Reference	5.99 (3.25–11.02)	5.27 (2.80–9.92)	<0.001	1.06 (1.03–1.09)
Men	Reference	6.08 (2.64–13.98)	4.61 (1.96–10.84)	0.006	1.06 (1.03–1.10)
Women	Reference	6.17 (2.43–15.69)	6.75 (2.61–17.43)	0.001	1.06 (1.02–1.11)
Urban residents	Reference	3.53 (0.28–44.22)	8.92 (1.20–66.49)	0.036	1.07 (0.98–1.16)
Rural residents	Reference	6.34 (3.34–12.06)	5.25 (2.67–10.36)	<0.001	1.07 (1.04–1.10)
Excluding current smokers and alcohol drinkers weekly	Reference	5.28 (2.71–10.30)	4.86 (2.47–9.57)	<0.001	1.05 (1.02–1.09)
Further excluding people with diabetes, hyperlipidemia, or cancer	Reference	6.13 (3.03–12.38)	4.05 (1.88–8.71)	0.001	1.06 (1.02–1.10)

BMI: Body mass index; CIs: Confidence intervals; CVDs: Cardiovascular diseases; FPG: Fasting plasma glucose; HDL-C: High-density lipoprotein-cholesterol; ORs: Odds ratios; SBP: Systolic blood pressure; SUA: Serum uric acid; TC: Total cholesterol. Adjusted for age, sex, ethnicity, residence, marital status, education level, annual household income, tobacco smoking currently, alcohol drinking weekly, tea consumption, beverage consumption, total energy intake, sleep duration, total physical activity, family history of CVDs, BMI, and SBP, FPG, TC, HDL-C, and SUA levels, except for stratified variables.

Supplementary Table 16: Hypertension duration and multi-adjusted ORs (95% CI) for coronary heart disease and stroke by age group.

Variables	Hypertension duration (years)			*P* for trend	Per 1-year increase
	0	>0 to ≤5	>5		
CHD					
Total					
Age less than median	Reference	1.17 (0.44–3.12)	5.99 (2.77–12.96)	<0.001	1.13 (1.07–1.20)
Age greater than or equal to median	Reference	1.96 (1.42–2.70)	3.64 (2.77–4.78)	<0.001	1.05 (1.03–1.06)
Dong ethnicity					
Age less than median	Reference	3.88 (1.36–11.06)	2.52 (0.51–12.41)	0.183	1.09 (0.98–1.21)
Age greater than or equal to median	Reference	1.92 (1.18–3.14)	2.64 (1.68–4.14)	<0.001	1.02 (1.00–1.04)
Miao ethnicity					
Age less than median	Reference	NA	8.91 (1.23–64.36)	0.027	1.16 (0.99–1.35)
Age greater than or equal to median	Reference	1.48 (0.81–2.72)	4.08 (2.51–6.61)	<0.001	1.07 (1.05–1.10)
Bouyei ethnicity					
Age less than median	Reference	NA	14.29 (4.22–48.44)	<0.001	1.29 (1.15–1.44)
Age greater than or equal to median	Reference	1.95 (1.05–3.61)	4.45 (2.68–7.38)	<0.001	1.06 (1.03–1.08)
Stroke					

Total					
Age less than median	Reference	3.77 (1.68–8.45)	6.84 (2.90–16.13)	<0.001	1.15 (1.08–1.21)
Age greater than or equal to median	Reference	3.46 (2.40–4.97)	3.92 (2.74–5.59)	<0.001	1.04 (1.03–1.06)
Dong ethnicity					
Age less than median	Reference	1.92 (0.41–9.00)	7.70 (1.88–31.59)	0.004	1.17 (1.04–1.31)
Age greater than or equal to median	Reference	2.86 (1.61–5.09)	2.98 (1.68–5.31)	0.001	1.03 (1.01–1.05)
Miao ethnicity					
Age less than median	Reference	4.10 (0.82–20.47)	8.04 (1.30–49.69)	0.023	1.11 (1.00–1.23)
Age greater than or equal to median	Reference	3.05 (1.55–6.02)	4.73 (2.46–9.08)	<0.001	1.05 (1.03–1.08)
Bouyei ethnicity					
Age less than median	Reference	6.22 (0.93–41.82)	5.33 (0.74–38.57)	0.122	1.27 (1.10–1.47)
Age greater than or equal to median	Reference	6.49 (3.35–12.56)	5.25 (2.67–10.31)	<0.001	1.05 (1.02–1.08)

BMI: Body mass index; CHD: Coronary heart disease; CIs: Confidence intervals; CVDs: Cardiovascular diseases; FPG: Fasting plasma glucose; HDL-C: High-density lipoprotein-cholesterol; NA: Not applicable; ORs: Odds ratios; SBP: Systolic blood pressure; SUA: Serum uric acid; TC: Total cholesterol. Adjusted for sex, ethnicity, residence, marital status, education level, annual household income, tobacco smoking currently, alcohol drinking weekly, tea consumption, beverage consumption, total energy intake, sleep duration, total physical activity, family history of CVDs, BMI, and SBP, FPG, TC, HDL-C, and SUA levels, except for stratified variables. Median age among total participants, Dong ethnicity, Miao ethnicity, and Bouyei ethnicity were 52 years old, 53 years old, 51 years old, and 51 years old, respectively.

Supplementary Table 17: Hypertension duration and multi-adjusted ORs (95% CI) for CVDs among hypertensive patients.

| Variables | Hypertension duration (years) | |
	≤5	>5
CVDs		
Total	Reference	1.77 (1.38–2.26)
Dong ethnicity	Reference	1.26 (0.85–1.87)
Miao ethnicity	Reference	2.38 (1.48–3.81)
Bouyei ethnicity	Reference	2.00 (1.29–3.10)
CHD		
Total	Reference	2.08 (1.51–2.85)
Dong ethnicity	Reference	1.18 (0.72–1.92)
Miao ethnicity	Reference	2.95 (1.57–5.53)
Bouyei ethnicity	Reference	3.54 (1.93–6.52)
Stroke		
Total	Reference	1.27 (0.91–1.79)
Dong ethnicity	Reference	1.32 (0.73–2.37)
Miao ethnicity	Reference	1.44 (0.77–2.70)
Bouyei ethnicity	Reference	1.02 (0.56–1.86)

BMI: Body mass index; CHD: Coronary heart disease; CIs: Confidence intervals; CVDs: Cardiovascular diseases; FPG: Fasting plasma glucose; HDL-C: High-density lipoprotein-cholesterol; ORs: Odds ratios; SBP: Systolic blood pressure; SUA: Serum uric acid; TC: Total cholesterol. Adjusted for age, sex, ethnicity, residence, marital status, education level, annual household income, tobacco smoking currently, alcohol drinking weekly, tea consumption, beverage consumption, total energy intake, sleep duration, total physical activity, family history of CVDs, BMI, and SBP, FPG, TC, HDL-C, and SUA levels, except for stratified variables.

Supplementary Table 18: Hypertension duration and multi-adjusted ORs (95% CI) for CVDs by use of antihypertensive drugs among hypertensive patients.

Variables	≤5	>5
	Hypertension duration (years)	
With use of antihypertensive drugs		
CVDs		
Total	Reference	1.66 (1.28–2.15)
Dong ethnicity	Reference	1.17 (0.78–1.75)
Miao ethnicity	Reference	2.64 (1.55–4.50)
Bouyei ethnicity	Reference	1.79 (1.12–2.88)
CHD		
Total	Reference	1.90 (1.36–2.64)
Dong ethnicity	Reference	1.10 (0.67–1.80)
Miao ethnicity	Reference	3.63 (1.74–7.58)
Bouyei ethnicity	Reference	3.00 (1.57–5.74)
Stroke		
Total	Reference	1.21 (0.84–1.74)
Dong ethnicity	Reference	1.23 (0.67–2.28)
Miao ethnicity	Reference	1.38 (0.69–2.77)
Bouyei ethnicity	Reference	0.96 (0.51–1.82)
Without use of antihypertensive drugs		
CVDs		
Total	Reference	1.57 (0.69–3.59)
Dong ethnicity	Reference	NA
Miao ethnicity	Reference	0.87 (0.20–3.73)
Bouyei ethnicity	Reference	4.17 (0.73–23.86)
CHD		
Total	Reference	2.04 (0.60–6.98)
Dong ethnicity	Reference	NA
Miao ethnicity	Reference	0.25 (0.02–3.43)
Bouyei ethnicity	Reference	NA
Stroke		
Total	Reference	1.19 (0.41–3.47)
Dong ethnicity	Reference	NA
Miao ethnicity	Reference	2.53 (0.34–18.88)
Bouyei ethnicity	Reference	0.10 (0.003–3.30)

BMI: Body mass index; CHD: Coronary heart disease; CIs: Confidence intervals; CVDs: Cardiovascular diseases; FPG: Fasting plasma glucose; HDL-C: High-density lipoprotein-cholesterol; NA: Not applicable; ORs: Odds ratios; SBP: Systolic blood pressure; SUA: Serum uric acid; TC: Total cholesterol. Adjusted for age, sex, ethnicity, residence, marital status, education level, annual household income, tobacco smoking currently, alcohol drinking weekly, tea consumption, beverage consumption, total energy intake, sleep

duration, total physical activity, family history of CVDs, BMI, and SBP, FPG, TC, HDL-C, and SUA levels, except for stratified variables.

Supplementary Table 19: Hypertension duration and multi-adjusted ORs (95% CI) for CVDs by hypertension control among hypertensive patients.

	Hypertension duration (years)	
Variables	**≤5**	**>5**
Controlled blood pressure		
CVDs		
Total	Reference	1.88 (1.28–2.76)
Dong ethnicity	Reference	2.16 (1.13–4.09)
Miao ethnicity	Reference	2.01 (0.94–4.29)
Bouyei ethnicity	Reference	1.19 (0.59–2.38)
CHD		
Total	Reference	2.17 (1.34–3.52)
Dong ethnicity	Reference	1.96 (0.88–4.37)
Miao ethnicity	Reference	2.78 (0.97–7.98)
Bouyei ethnicity	Reference	1.41 (0.60–3.30)
Stroke		
Total	Reference	1.27 (0.73–2.20)
Dong ethnicity	Reference	1.81 (0.65–5.08)
Miao ethnicity	Reference	1.38 (0.49–3.84)
Bouyei ethnicity	Reference	0.95 (0.34–2.64)
Uncontrolled blood pressure		
CVDs		
Total	Reference	1.38 (0.92–2.06)
Dong ethnicity	Reference	0.69 (0.36–1.31)
Miao ethnicity	Reference	2.24 (1.03–4.88)
Bouyei ethnicity	Reference	2.65 (1.13–6.24)
CHD		
Total	Reference	1.50 (0.88–2.57)
Dong ethnicity	Reference	0.71 (0.32–1.58)
Miao ethnicity	Reference	2.34 (0.81–6.82)
Bouyei ethnicity	Reference	8.25 (1.43–47.66)
Stroke		
Total	Reference	1.21 (0.72–2.06)
Dong ethnicity	Reference	0.86 (0.36–2.06)
Miao ethnicity	Reference	1.49 (0.55–4.06)
Bouyei ethnicity	Reference	1.46 (0.51–4.14)

BMI: Body mass index; CHD: Coronary heart disease; CIs: Confidence intervals; CVDs: Cardiovascular diseases; FPG: Fasting plasma glucose; HDL-C: High-density lipoprotein-cholesterol; ORs: Odds ratios; SBP: Systolic blood pressure; SUA: Serum uric acid; TC: Total cholesterol. Adjusted for age, sex, ethnicity, residence, marital status, education level, annual household income, tobacco smoking currently, alcohol drinking weekly, tea consumption, beverage consumption, total energy intake, sleep duration, total physical

activity, family history of CVDs, BMI, and SBP, FPG, TC, HDL-C, and SUA levels, except for stratified variables.
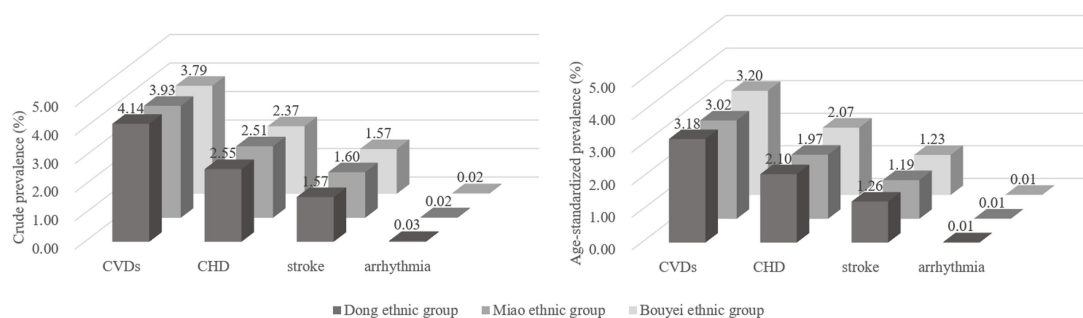
Supplementary Figure 1: The crude and age-standardized prevalence of CVDs. CHD: Coronary heart disease; CVDs: Cardiovascular diseases.