

Supplementary Table 1. Baseline characteristics of participants in the TCLSIH Cohort Study (n=7,745) ^a

Characteristics	All	Men (57.6%)	Women (42.4%)
No. of participants	7,745	4,460	3,285
Age (years)	37.3 (31.5, 45.8)	38.4 (32.2, 47.0)	35.8 (31.0, 44.3)
BMI (kg/m ²)	24.2 (21.7, 26.8)	25.5 (23.3, 27.8)	22.2 (20.4, 24.6)
WC (cm)	82.0 (74.0, 90.0)	88.0 (81.0, 94.0)	73.0 (68.0, 80.0)
TC (mmol/L)	4.63 (4.09, 5.24)	4.70 (4.15, 5.30)	4.54 (4.03, 5.14)
TG (mmol/L)	1.07 (0.75, 1.63)	1.31 (0.92, 1.95)	0.84 (0.63, 1.17)
LDL-C (mmol/L)	2.69 (2.20, 3.23)	2.80 (2.31, 3.33)	2.54 (2.10, 3.05)
HDL-C (mmol/L)	1.32 (1.10, 1.60)	1.20 (1.02, 1.41)	1.54 (1.30, 1.81)
FBG (mmol/L)	5.00 (4.70, 5.30)	5.10 (4.80, 5.40)	4.80 (4.60, 5.10)
SBP (mmHg)	120.0 (110.0, 130.0)	125.0 (115.0, 135.0)	115.0 (105.0, 125.0)
DBP (mmHg)	75.0 (70.0, 85.0)	80.0 (70.0, 85.0)	70.0 (65.0, 80.0)
PA (MET × hour/week)	11.6 (4.60, 24.1)	13.6 (5.50, 27.8)	10.4 (3.90, 20.6)
Total energy intake (kcal/day)	2288.7 (1796.9, 2904.3)	2421.0 (1914.4, 3040.1)	2111.4 (1664.6, 2661.4)
Staple food intake (g/1000 kcal per day)	241.2 (190.2, 312.3)	250.9 (197.3, 325.5)	230.1 (181.3, 293.2)
Vegetable intake (g/1000 kcal per day)	121.4 (91.2, 164.6)	120.3 (90.9, 163.5)	122.7 (91.6, 166.9)
Fruit intake (g/1000 kcal per day)	141.9 (91.4, 209.3)	132.3 (84.7, 199.1)	152.9 (102.1, 221.7)
Sea food intake (g/1000 kcal per day)	13.4 (8.12, 21.7)	14.0 (8.48, 23.0)	12.5 (7.63, 20.1)
Red meat intake (g/1000 kcal per day)	21.5 (13.0, 32.9)	24.8 (15.1, 37.1)	17.8 (10.7, 27.4)
Total animal offal intake (g/1000 kcal per day)	1.59 (0.00, 3.66)	1.90 (0.00, 4.17)	1.26 (0.00, 2.89)

Animal liver intake (g/1000 kcal per day)	1.29 (0.00, 2.44)	1.48 (0.00, 2.83)	1.09 (0.00, 2.05)
animal offal (except for animal liver) intake (g/1000 kcal per day)	0.00 (0.00, 1.47)	0.00 (0.00, 1.62)	0.00 (0.00, 1.23)
cholesterol intake (mg/1000 kcal per day)	220.0 (173.6, 279.9)	224.7 (176.1, 287.1)	213.9 (170.5, 270.3)
saturated fat intake (g/1000 kcal per day)	4.60 (3.61, 5.93)	4.78 (3.71, 6.26)	4.40 (3.50, 5.56)
Smoking status (%)			
Current smoker	18.0	30.8	0.71
Ex-smoker	5.45	9.09	0.56
Non-smoker	76.6	60.1	98.7
Drinking status (%)			
Everyday	3.10	4.99	0.56
Sometime	61.4	76.5	41.2
Ex-drinker	8.94	8.74	9.21
Non-drinker	26.6	9.78	49.0
Married (%)	85.4	86.3	84.1
Living alone (%)	7.32	8.16	6.16
Education level (college or higher, %)	80.7	81.2	80.0
Occupation (%)			
Managers	51.8	51.9	51.6
Professionals	18.6	22.1	14.0
Other	29.6	26.1	34.4
Visiting friends (%)	56.1	51.3	62.6

Household income ($\geq 10,000$ Yuan, %)	46.3	46.2	46.5
Healthy sleep pattern (%)			
Healthy	57.0	52.4	63.2
Immediate	31.3	33.8	27.8
Poor	11.7	13.8	9.00
Individual history of disease (%)			
Hypertension	21.5	30.0	10.0
Hyperlipidemia	43.1	51.1	32.4
Diabetes	4.82	6.64	2.34
Family history of disease (%)			
CVD	33.9	33.5	34.5
Hypertension	55.5	55.3	55.9
Hyperlipidemia	0.46	0.44	0.49
Diabetes	29.3	27.9	31.3

^a Continuous variables are expressed as medians (P25, P75) and categorical variables are expressed as percentages. BMI, body mass index; CVD, cardiovascular disease; DBP, diastolic blood pressure; FBG, fasting blood glucose; HDL-C, high-density lipoprotein cholesterol; LDL-C, low-density lipoprotein cholesterol; MET, metabolic equivalent; PA, physical activity; SBP, systolic blood pressure; TC, total cholesterol; TG, triglycerides; WBC, white blood cell; WC, waist circumference.

Supplementary Table 2. Comparison of included and excluded participants (n=13,600) ^a

Characteristics	Excluded participants	Included participants	P value ^b
No. of participants	5,855	7,745	-
Age (years)	41.8 (32.5, 52.6)	37.3 (31.5, 45.8)	<0.0001
Men (%)	52.4	57.9	<0.0001
BMI (kg/m ²)	24.5 (22.0, 27.1)	24.2 (21.7, 26.8)	<0.0001
WC (cm)	83.0 (75.0, 92.0)	82.0 (74.0, 90.0)	<0.0001
TC (mmol/L)	4.73 (4.17, 5.38)	4.63 (4.09, 5.24)	<0.0001
TG (mmol/L)	1.14 (0.79, 1.72)	1.07 (0.75, 1.63)	<0.0001
LDL-C (mmol/L)	2.77 (2.27, 3.36)	2.69 (2.20, 3.23)	<0.0001
HDL-C (mmol/L)	1.32 (1.10, 1.60)	1.32 (1.10, 1.60)	0.75
FBG (mmol/L)	5.00 (4.70, 5.40)	5.00 (4.70, 5.30)	<0.0001
SBP (mmHg)	120.0 (110.0, 135.0)	120.0 (110.0, 130.0)	<0.0001
DBP (mmHg)	75.0 (70.0, 85.0)	75.0 (70.0, 85.0)	<0.0001
PA (MET × hour/week)	11.6 (3.30, 24.0)	11.6 (4.60, 24.1)	<0.001
Total energy intake (kcal/day)	2227.0 (1699.4, 2899.4)	2288.7 (1796.9, 2904.3)	<0.001
Staple food intake (g/1000 kcal per day)	239.5 (184.7, 310.1)	241.5 (189.7, 311.4)	0.01
Vegetable intake (g/1000 kcal per day)	120.5 (88.1, 165.4)	122.4 (91.3, 166.3)	<0.001
Fruit intake (g/1000 kcal per day)	144.9 (87.1, 225.1)	142.1 (91.0, 210.7)	0.15
Sea food intake (g/1000 kcal per day)	13.7 (7.60, 23.7)	13.4 (8.12, 21.7)	0.13
Red meat intake (g/1000 kcal per day)	20.1 (10.9, 32.0)	21.5 (13.0, 32.9)	<0.0001

Total organ meat intake (g/1000 kcal per day)	1.3 (0, 3.62)	1.56 (0, 3.66)	<0.0001
Animal liver intake (g/1000 kcal per day)	0 (0, 2.37)	1.27 (0, 2.44)	<0.0001
animal offal (except for animal liver) intake (g/1000 kcal per day)	0 (0, 1.48)	0 (0, 1.47)	0.78
cholesterol intake (mg/1000 kcal per day)	217.3 (167.5, 283.3)	220.3 (173.4, 280.6)	0.02
saturated fat intake (g/1000 kcal per day)	4.46 (3.39, 5.88)	4.60 (3.60, 5.95)	<0.0001
Smoking status (%)			<0.0001
Current smoker	22.5	18.0	
Ex-smoker	6.10	5.45	
Non-smoker	71.4	76.6	
Drinking status (%)			<0.0001
Everyday	5.88	3.10	
Sometime	53.4	61.4	
Ex-drinker	9.71	8.94	
Non-drinker	31.0	26.6	
Married (%)	81.3	85.4	<0.0001
Living alone (%)	8.32	7.32	<0.001
Education level (college or higher, %)	60.1	80.7	<0.0001
Occupation (%)			<0.0001
Managers	39.6	51.8	
Professionals	15.2	18.6	
Other	45.2	29.6	

Visiting friends (%)	58.0	56.1	<0.001
Household income ($\geq 10,000$ Yuan, %)	35.3	46.3	
Healthy sleep pattern (%)			<0.001
Healthy	57.1	66.7	
Immediate	31.2	23.8	
Poor	11.7	9.47	
Individual history of disease (%)			
Hypertension	27.6	21.5	<0.001
Hyperlipidemia	47.4	43.1	<0.0001
Diabetes	7.48	4.82	<0.0001
Family history of disease (%)			
CVD	30.0	33.9	<0.0001
Hypertension	48.7	55.5	<0.0001
Hyperlipidemia	0.33	0.46	0.05
Diabetes	24.6	29.3	<0.0001

^a Continuous variables are expressed as medians (P25, P75) and categorical variables are expressed as percentages. BMI, body mass index; CVD, cardiovascular disease; DBP, diastolic blood pressure; FBG, fasting blood glucose; HDL-C, high-density lipoprotein cholesterol; LDL-C, low-density lipoprotein cholesterol; MET, metabolic equivalent; PA, physical activity; SBP, systolic blood pressure; TC, total cholesterol; TG, triglycerides; WBC, white blood cell; WC, waist circumference.

^b P values are based on Wilcoxon signed-rank test or chi-square test.

Supplementary Table 3. Association between animal offal intake and risk of depressive symptom in the TCLSIH Cohort Study (n=7,745)

	Quartiles of animal offal intake (g/day)				<i>P</i> for trend ^a
	Almost never	Tertile 1	Tertile 2	Tertile 3	
Median (min, max) intake	0.00 (0.00, 0.00)	3.55 (2.84, 3.55)	7.10 (5.68, 7.15)	14.3 (8.56, 150)	
No. of depressive symptom	410	205	213	273	
Person years	7,378	4,016	3,766	3,914	
Incidence per 1000 person years	55.57	51.05	56.56	69.75	
Model 1	1.00 (reference)	0.93 (0.79, 1.11) ^b	1.05 (0.89, 1.24)	1.32 (1.12, 1.55)	<0.001
Model 2	1.00 (reference)	0.96 (0.81, 1.14)	1.08 (0.91, 1.28)	1.33 (1.13, 1.57)	<0.001
Model 3	1.00 (reference)	0.97 (0.82, 1.15)	1.07 (0.90, 1.28)	1.32 (1.11, 1.57)	<0.001

^a Obtained by using multivariable Cox regression model.

^b Hazard ratios (95% confidence interval) (all such values).

Model 1 was adjusted for age (continuous: years), sex (men or women), and body mass index (continuous: kg/m²).

Model 2 was additionally adjusted for smoking status (current, former, or never), alcohol drinking status (everyday drinker, sometime drinker, ex-drinker, or non-drinker), married (yes or no), education level (college graduate or not), occupation (managers, professionals, or other), visiting friends (yes or no), living alone (yes or no), household income (\leq or $>$ 10,000 Yuan), physical activity (continuous: MET-hour/week), healthy sleep pattern (healthy, immediate, or poor), family history of disease (including cardiovascular disease, hypertension, hyperlipidemia, and diabetes [each yes or no]), hypertension (yes or no), hyperlipidemia (yes or no), diabetes (yes or no), total energy intake (continuous: kcal/day).

Model 3 was additionally adjusted for staple food intake (continuous: g/1000 kcal per day), vegetable intake (continuous: g/1000 kcal per day), fruit intake (continuous: g/1000 kcal per day), red meat intake (continuous: g/1000 kcal per day), and seafood intake (continuous: g/1000 kcal per day).

Supplementary Table 4. Association between energy-adjusted animal offal intake and risk of depressive symptom in the TCLSIH Cohort Study (n=7,745)

	Categories of energy-adjusted animal offal intake (g/1000 kcal per day)						□	P for trend ^a
	Almost never	Q1	Q2	Q3	Q4	Q5		
Median (min, max) intake	0.00 (0.00, 0.00)	1.36 (0.93, 1.63)	2.06 (1.63, 2.64)	3.12 (2.64, 3.73)	5.20 (3.73, 9.31)	13.4 (9.33, 30.7)		
No. of depressive symptom	410	117	124	136	145	169		
Person years	7,378	2,387	2,410	2,296	2,305	2,298		
Incidence per 1000 person years	55.57	49.02	51.45	59.23	62.91	73.54		
Model 1	1.00 (reference)	0.89 (0.72, 1.09) ^b	0.94 (0.77, 1.15)	1.10 (0.91, 1.34)	1.18 (1.01, 1.40)	1.57 (1.26, 1.96)		<0.001
Model 2	1.00 (reference)	0.95 (0.77, 1.18)	0.97 (0.79, 1.19)	1.13 (0.93, 1.38)	1.16 (0.98, 1.38)	1.54 (1.23, 1.93)		<0.001
Model 3	1.00 (reference)	0.96 (0.77, 1.19)	0.98 (0.80, 1.20)	1.13 (0.93, 1.39)	1.16 (0.98, 1.38)	1.52 (1.22, 1.90)		<0.001

^a Obtained by using multivariable Cox regression model.

^b Hazard ratios (95% confidence interval) (all such values).

Model 1 was adjusted for age (continuous: years), sex (men or women), and body mass index (continuous: kg/m²).

Model 2 was additionally adjusted for smoking status (current, former, or never), alcohol drinking status (everyday drinker, sometime drinker, ex-drinker, or non-drinker), married (yes or no), education level (college graduate or not), occupation (managers, professionals, or other), visiting friends (yes or no), living alone (yes or no), household income (\leq or $>10,000$ Yuan), physical activity (continuous: MET-hour/week), healthy sleep pattern (healthy, immediate, or poor), family history of disease (including cardiovascular disease, hypertension, hyperlipidemia, and diabetes [each yes or no]), hypertension (yes or no), hyperlipidemia (yes or no), diabetes (yes or no), total energy intake (continuous: kcal/day).

Model 3 was additionally adjusted for staple food intake (continuous: g/1000 kcal per day), vegetable intake (continuous: g/1000 kcal per

day), fruit intake (continuous: g/1000 kcal per day), red meat intake (continuous: g/1000 kcal per day), and seafood intake (continuous: g/1000 kcal per day).