Supplementary Materials

Serum albumin and hypertension: The mediating roles of BMI, C-reactive protein and extracellular fluid

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Supplementary Table 1. Dietary intake trends across NHANES cycles (1999–2004)

Dietary Component	Total (n = 19507)	NHANES 1999-2000 (n = 6201)	NHANES 2001-2002 (n = 6844)	NHANES 2003-2004 (n = 6462)	*p* value
Sodium intake (mg/d), Mean (SD)	3324 (1849)	3272 (1841)	3321 (1873)	3377 (1831)	0.007**
Potassium intake (mg/d), Mean (SD)	2584 (1347)	2587 (1387)	2595 (1367)	2571 (1286)	0.592
Fat intake (g/d), Mean (SD)	80.2 (46.4)	76.8 (45.4)	81.1 (47.2)	82.5 (46.3)	< 0.001***
TSFA intake (g/d), Mean (SD)	26.6 (16.8)	25.9 (16.8)	26.5 (17.0)	27.2 (16.7)	< 0.001***
Carbohydrate intake (g/d), Mean (SD)	277 (141)	273 (141)	281 (142)	278 (140)	0.006**
Protein intake (g/d), Mean (SD)	79.1 (42.7)	77.3 (42.1)	79.5 (43.8)	80.4 (42.0)	< 0.001***
Energy intake (kcal/d), Mean (SD)	2171 (1046)	2113 (1031)	2191 (1056)	2205 (1046)	< 0.001***

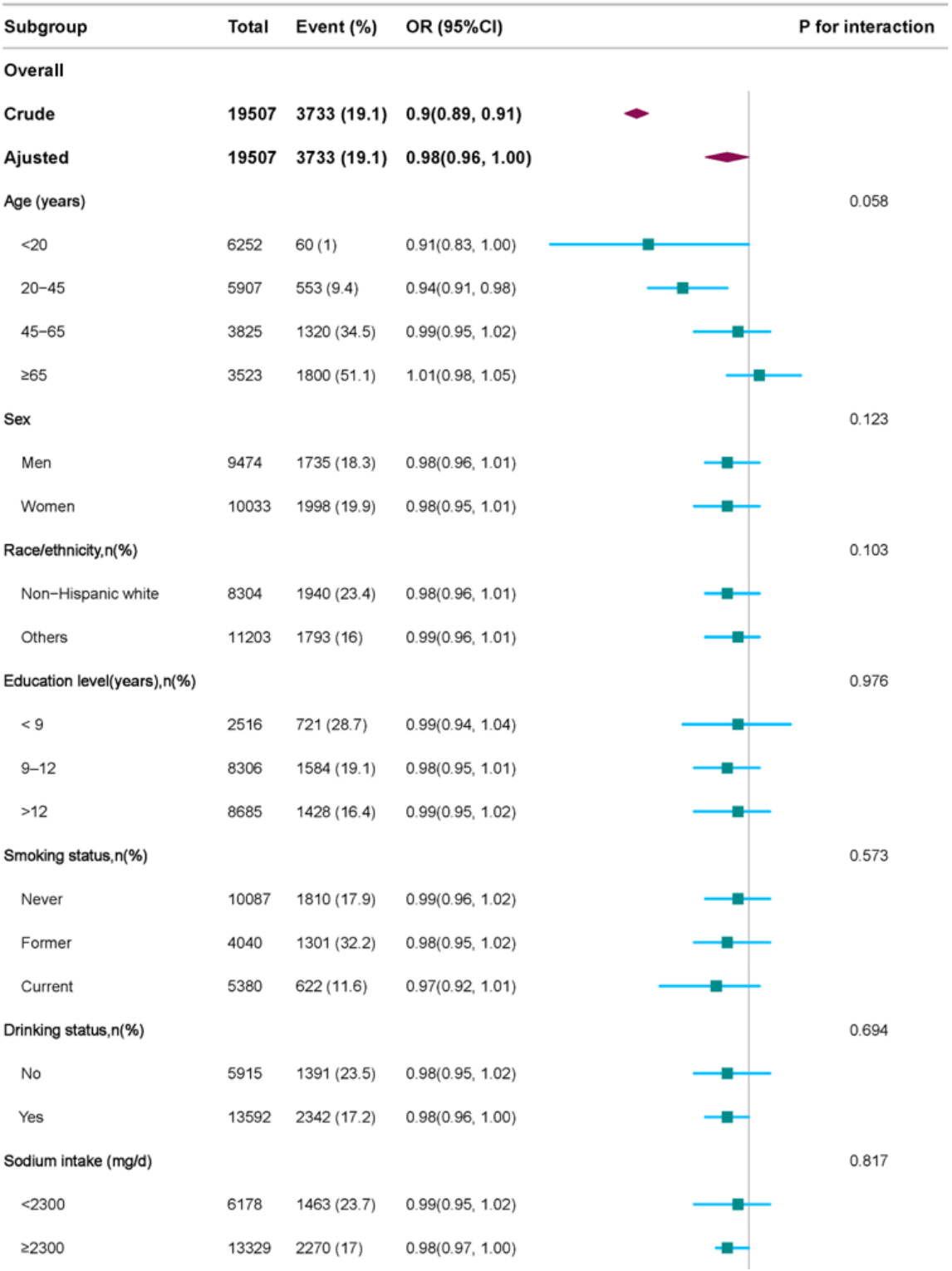
TSFA, total saturated fatty acids.
*p<0.05, **p<0.01, ***p<0.001.

Supplementary Table 2. Association between albumin and hypertension after excluding participants with hypoproteinemia

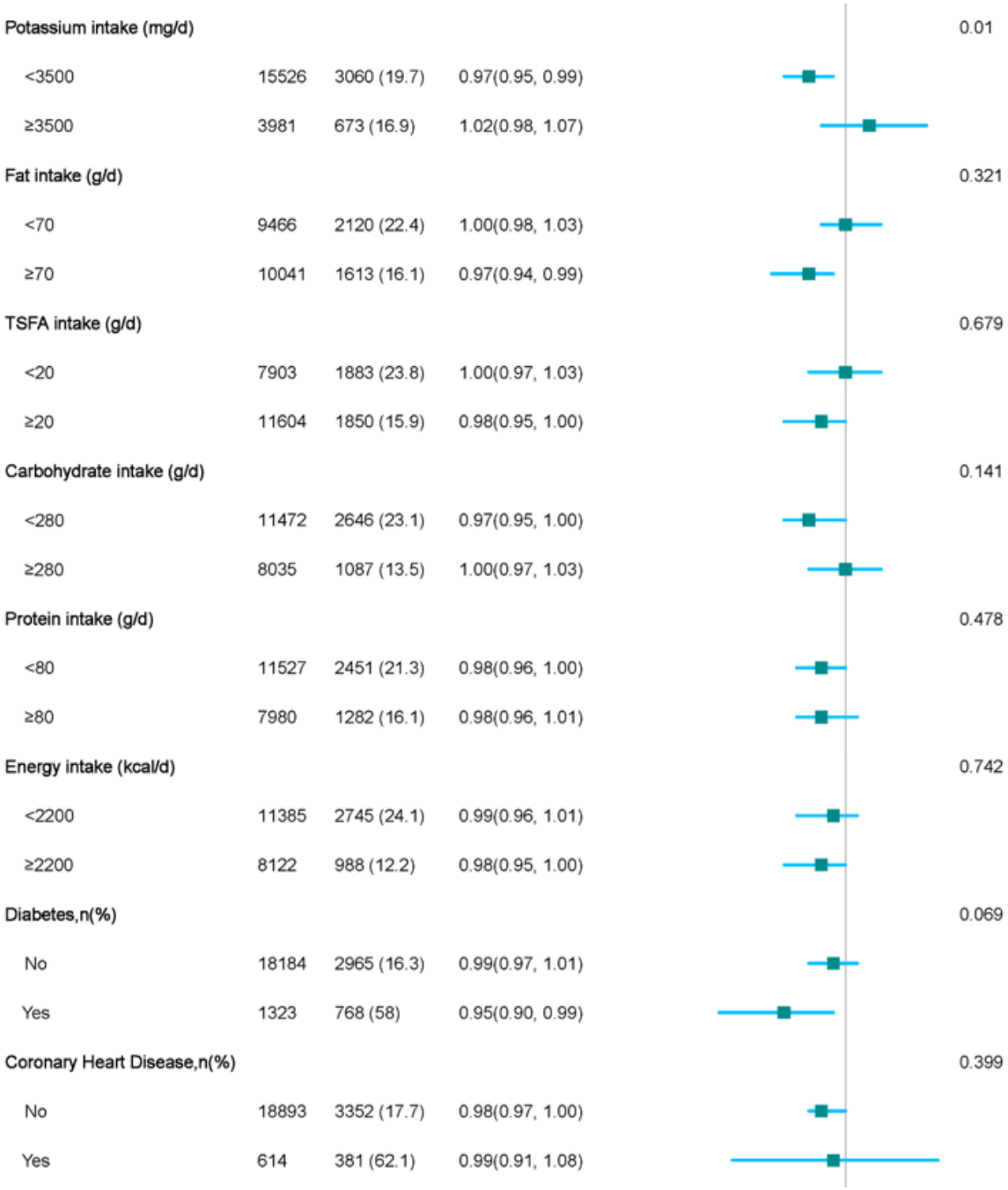
Variable	Total	Event (%)	Non_adjusted model		Model 1	
			OR (95%CI)	*p* value	OR (95%CI)	*p* value
Albumin	19438	3719 (19.1)	0.90 (0.89,0.91)	<0.001***	0.96 (0.95,0.98)	<0.001***
Albumin (Quartiles)						
Q1 (<41)	3745	1074 (28.7)	1 (Ref)		1 (Ref)	
Q2 (41-44)	5815	1330 (22.9)	0.70 (0.61,0.80)	<0.001***	0.77 (0.64,0.92)	0.007**
Q3 (44-46)	4498	764 (17.0)	0.50 (0.42,0.60)	<0.001***	0.70 (0.58,0.85)	<0.001***
Q4 (≥46)	5380	551 (10.2)	0.35 (0.29,0.41)	<0.001***	0.69 (0.56,0.86)	0.001**
Trend.test				<0.001***		0.002**

Variable	Model 2		Model 3	
	OR (95%CI)	*p* value	OR (95%CI)	*p* value
Albumin	0.96 (0.95,0.98)	<0.001***	0.98 (0.96,1.00)	0.024*
Albumin (Quartiles)				
Q1 (<41)	1 (Ref)		1 (Ref)	
Q2 (41-44)	0.76 (0.63,0.92)	0.008**	0.84 (0.69,1.02)	0.071
Q3 (44-46)	0.70 (0.57,0.85)	0.001**	0.78 (0.64,0.96)	0.019*
Q4 (≥46)	0.69 (0.56,0.86)	0.002**	0.80 (0.65,0.99)	0.037*
Trend.test		0.002**		0.037*

ALT, alanine aminotransferase; TSFA, total saturated fatty acids.
†Model 1 was adjusted for age, sex, race/ethnicity, education level, smoking status, drinking status, and NHANES cycle.
‡Model 2 was adjusted for age, sex, race/ethnicity, education level, smoking status, drinking status, sodium intake, potassium intake, fat intake, TSFA intake, carbohydrate intake, protein intake, energy intake, and NHANES cycle.
§Model 3 was adjusted for age, sex, race/ethnicity, education level, smoking status, drinking status, sodium intake, potassium intake, fat intake, TSFA intake, carbohydrate intake, protein intake, energy intake, diabetes, coronary heart disease, creatinine, ALT, and NHANES cycle.
*p<0.05, **p<0.01, ***p<0.001



Supplementary Figure 1. Association between albumin and hypertension according to basic features
†Except for the stratification component itself, each stratification factor was adjusted for all other variables, including age, sex, race/ethnicity, education level, smoking status, drinking status, sodium intake, potassium intake, fat intake, TSFA intake, carbohydrate intake, protein intake, energy intake, diabetes, coronary heart disease, creatinine, and ALT.
ALT, alanine aminotransferase; TSFA, total saturated fatty acids



Supplementary Figure 1. (cont.) Association between albumin and hypertension according to basic features
†Except for the stratification component itself, each stratification factor was adjusted for all other variables, including age, sex, race/ethnicity, education level, smoking status, drinking status, sodium intake, potassium intake, fat intake, TSFA intake, carbohydrate intake, protein intake, energy intake, diabetes, coronary heart disease, creatinine, and ALT.
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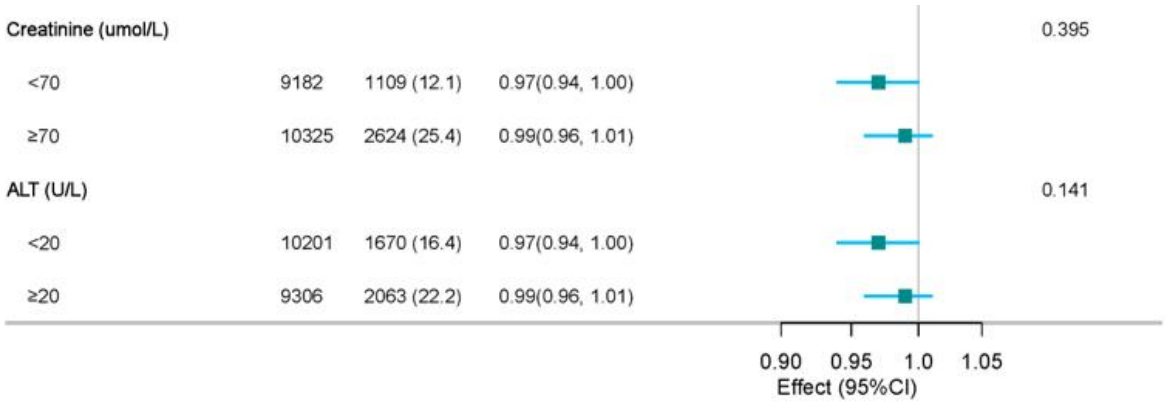

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