

Supplementary data

**Supplemental Table 4** Association between ultra-processed food intake and incident depressive symptoms using other cut-off values to define depressive symptoms, NutriNet-Santé study <sup>a</sup>

	Quartile 1	Quartile 2	Quartile 3	Quartile	P-trend	Continuous <sup>b</sup>	P <sup>c</sup>
<b>Cut-off value of 16</b>							
UPF, range	0%-10%	10%-14%	14%-18%	18%-76%			
UPF, median (IQR)	7% (3%)	12% (2%)	16% (2%)	23% (7%)			
n	5,909	5,910	5,910	5,910		23,639	
Number of cases	827	796	902	1,082		3,607	
Model 1 <sup>d</sup>	1 (ref)	0.94 (0.85; 1.04)	1.06 (0.96; 1.17)	1.22 (1.11; 1.34)	<0.0001	1.15 (1.10; 1.20)	<0.0001
Model 2 <sup>e</sup>	1 (ref)	0.95 (0.86; 1.05)	1.07 (0.98; 1.18)	1.22 (1.11; 1.35)	<0.0001	1.14 (1.09; 1.19)	<0.0001
Model 3 <sup>f</sup>	1 (ref)	0.95 (0.86; 1.05)	1.07 (0.97; 1.19)	1.22 (1.10; 1.35)	<0.0001	1.15 (1.10; 1.20)	<0.0001
Model 4 <sup>g</sup>	1 (ref)	0.95 (0.86; 1.05)	1.07 (0.97; 1.18)	1.22 (1.11; 1.35)	<0.0001	1.14 (1.09; 1.19)	<0.0001
Model 5 <sup>h</sup>	1 (ref)	0.91 (0.83; 1.01)	1.01 (0.91; 1.11)	1.13 (1.02; 1.24)	0.002	1.10 (1.05; 1.14)	<0.0001
Model 6 <sup>i</sup>	1 (ref)	0.93 (0.84; 1.02)	1.05 (0.95; 1.16)	1.21 (1.10; 1.33)	<0.0001	1.14 (1.09; 1.19)	<0.0001
Model 7 <sup>j</sup>	1 (ref)	0.91 (0.82; 1.00)	1.00 (0.91; 1.10)	1.13 (1.03; 1.25)	0.002	1.10 (1.05; 1.15)	<0.0001
<b>Cut-off value of 19</b>							
UPF, range	0%-10%	10%-14%	14%-19%	19%-76%			
UPF, median (IQR)	7% (3%)	12% (2%)	16% (2%)	23% (8%)			
n	6,400	6,400	6,400	64,00		25,600	
Number of cases	634	580	697	888		2,799	
Model 1 <sup>d</sup>	1 (ref)	0.89 (0.80; 1.00)	1.05 (0.94; 1.17)	1.28 (1.15; 1.42)	<0.0001	1.20 (1.14; 1.25)	<0.0001
Model 2 <sup>e</sup>	1 (ref)	0.91 (0.81; 1.02)	1.07 (0.96; 1.19)	1.28 (1.14; 1.42)	<0.0001	1.18 (1.13; 1.23)	<0.0001
Model 3 <sup>f</sup>	1 (ref)	0.90 (0.80; 1.01)	1.06 (0.95; 1.19)	1.26 (1.12; 1.41)	<0.0001	1.18 (1.13; 1.24)	<0.0001
Model 4 <sup>g</sup>	1 (ref)	0.91 (0.81; 1.02)	1.06 (0.95; 1.19)	1.28 (1.14; 1.42)	<0.0001	1.18 (1.13; 1.23)	<0.0001
Model 5 <sup>h</sup>	1 (ref)	0.87 (0.78; 0.98)	1.01 (0.90; 1.13)	1.16 (1.04; 1.30)	0.0004	1.14 (1.08; 1.19)	<0.0001
Model 6 <sup>i</sup>	1 (ref)	0.88 (0.79; 0.99)	1.04 (0.93; 1.17)	1.26 (1.13; 1.41)	<0.0001	1.18 (1.13; 1.24)	<0.0001
Model 7 <sup>j</sup>	1 (ref)	0.86 (0.77; 0.97)	1.01 (0.90; 1.12)	1.17 (1.05; 1.30)	0.0002	1.14 (1.09; 1.19)	<0.0001

<sup>a</sup> Values are hazard ratios (95% confidence intervals). *CDS* Cognitive Difficulties Scale; *CES-D* Center for Epidemiologic Studies Depression Scale; *IQR* Interquartile Range; *UPF* Proportion of ultra-processed food intake

<sup>b</sup> Hazard ratios for 10% increase in the proportion of ultra-processed food intake

<sup>c</sup> P for continuous variable

<sup>d</sup> Adjusted for age, sex and body mass index

<sup>e</sup> Adjusted for all variables in model 1 + marital status, educational level, occupational categories, household income per consumption unit, residential area, number of 24h-dietary records, inclusion month, energy intake without alcohol, alcohol intake, smoking status and physical activity (main model)

<sup>f</sup> Adjusted for all variables in model 2 + dietary patterns derived from the factor analysis (“Healthy” and “Western” dietary pattern) and intakes of lipids, sodium, and carbohydrates

<sup>g</sup> Adjusted for all variables in model 2 + health events during follow-up (cancer, Type 2 diabetes, hypertension and cardiovascular events)

<sup>h</sup> Adjusted for all variables in model 2 + use of antidepressants during follow-up and baseline CES-D score

<sup>i</sup> Adjusted for all variables in model 2 + CDS score

<sup>j</sup> Adjusted for all variables in model 2 + use of antidepressants during follow-up, baseline CES-D score and CDS score