

**ESM Table 4:** HRs and 95% CIs for incident type 2 diabetes according to updated 4-year changes in coffee and tea intake and excluding cases of cardiovascular disease and cancer during follow-up

Changes in frequency of coffee and tea consumption						
COFFEE						
Intake/study	Moderate to large decrease (>1 cup/day)	Small to moderate decrease (1 cup/week-1 cup/day)	No change ( $\pm 1$ cup/week) <sup>a</sup>	Small to moderate increase (1 cup/week-1 cup/day)	Moderate to large increase (>1 cup/day)	HR per 1 serving
<b>Coffee</b>						
<b>HPFS</b>						
<i>n</i>	4238	3410	13868	3081	3162	
Cases/Person-Years	279/55130	167/44803	724/181884	161/41049	168/42199	
Multivariable adjusted 1 <sup>b</sup>	1.27 (1.08, 1.50)	0.85 (0.71, 1.01)	1.00	0.92 (0.76, 1.10)	0.96 (0.80, 1.15)	0.93 (0.89, 0.98)
Multivariable adjusted 2 <sup>c</sup>	1.26 (1.08, 1.49)	0.87 (0.72, 1.04)	1.00	0.92 (0.77, 1.10)	0.92 (0.77, 1.10)	0.93 (0.88, 0.97)
<b>NHS</b>						
<i>n</i>	9344	6317	23185	4569	5049	
Cases/Person, Years	593/129517	394/87789	1592/322369	318/64056	270/70978	
Multivariable adjusted 1 <sup>b</sup>	1.19 (1.07, 1.33)	0.96 (0.85, 1.07)	1.00	1.05 (0.93, 1.19)	0.85 (0.75, 0.98)	0.94 (0.91, 0.98)
Multivariable adjusted 2 <sup>c</sup>	1.18 (1.06, 1.32)	0.97 (0.86, 1.09)	1.00	1.07 (0.95, 1.21)	0.88 (0.77, 1.00)	0.95 (0.92, 0.98)
<b>NHS II</b>						
<i>n</i>	7089	5197	25553	4802	4868	
Cases/Person, Years	260/76790	221/57207	1139/283183	185/53991	160/54804	
Multivariable adjusted 1 <sup>b</sup>	1.17(0.99, 1.37)	0.97 (0.82, 1.14)	1.00	0.85 (0.72, 1.01)	0.84 (0.70, 1.00)	0.93 (0.89, 0.98)
Multivariable adjusted 2 <sup>c</sup>	1.11(0.94, 1.31)	0.94 (0.80, 1.11)	1.00	0.89 (0.75, 1.05)	0.87 (0.73, 1.05)	0.96 (0.91, 1.00)
<b>Pooled<sup>d</sup></b>						
Multivariable adjusted 1 <sup>b</sup>	1.20 (1.11, 1.30)	0.93 (0.86, 1.02)	1.00	0.95 (0.83, 1.08)	0.88 (0.80, 0.96)	0.94 (0.91, 0.96)
Multivariable adjusted 2 <sup>c</sup>	1.18 (1.09, 1.28)	0.94 (0.86, 1.02)	1.00	0.97 (0.86, 1.10)	0.89 (0.81, 0.97)	0.94 (0.92, 0.97)
<b>Tea</b>						
<b>HPFS</b>						
<i>n</i>	1355	3468	18786	3020	1130	
Cases/Person-years	71/17720	205/45582	984/246699	165/40100	74/14965	

Multivariable adjusted 1 <sup>b</sup>	0.97 (0.74, 1.28)	1.14 (0.93, 1.39)	1.00	1.04 (0.88, 1.23)	1.27 (0.99, 1.64)	1.04 (0.97, 1.13)
Multivariable adjusted 2 <sup>c</sup>	0.92 (0.70, 1.21)	1.14 (0.94, 1.39)	1.00	1.05 (0.88, 1.24)	1.22 (0.95, 1.57)	1.04 (0.96, 1.12)
<b>NHS</b>						
<i>n</i>	3420	7091	29115	5989	2848	
Cases/Person-years	235/47512	493/98598	1898/405306	353/83517	188/39777	
Multivariable adjusted 1 <sup>b</sup>	1.07 (0.90, 1.26)	1.04 (0.92, 1.18)	1.00	0.90 (0.80, 1.01)	1.05 (0.90, 1.23)	0.98 (0.93, 1.02)
Multivariable adjusted 2 <sup>c</sup>	1.02 (0.86, 1.21)	1.00 (0.88, 1.13)	1.00	0.90 (0.80, 1.01)	1.01 (0.86, 1.18)	0.98 (0.93, 1.02)
<b>NHS II</b>						
<i>n</i>	4541	8957	23266	7402	3345	
Cases/Person-years	215/49907	409/98719	897/257366	304/82728	140/37255	
Multivariable adjusted 1 <sup>b</sup>	1.21 (0.98, 1.49)	1.22 (1.05, 1.41)	1.00	1.07 (0.93, 1.23)	0.99 (0.82, 1.20)	0.96 (0.91, 1.01)
Multivariable adjusted 2 <sup>c</sup>	1.16 (0.94, 1.42)	1.21 (1.04, 1.40)	1.00	1.06 (0.93, 1.22)	0.98 (0.81, 1.18)	0.96 (0.92, 1.01)
<b>Pooled<sup>d</sup></b>						
Multivariable adjusted 1 <sup>b</sup>	1.09 (0.97, 1.23)	1.12 (1.01, 1.24)	1.00	0.99 (0.88, 1.11)	1.07 (0.95, 1.21)	0.98 (0.94, 1.02)
Multivariable adjusted 2 <sup>c</sup>	1.04 (0.93, 1.18)	1.10 (0.97, 1.25)	1.00	0.99 (0.88, 1.11)	1.03 (0.92, 1.16)	0.98 (0.95, 1.02)

<sup>a</sup>Reference category

<sup>b</sup>Adjusted for age, family history of diabetes (yes/no), race (white/non-white), postmenopausal hormone use (premenopausal, postmenopausal current user, postmenopausal never/past user, missing), physical exam in the previous cycle (yes/no), change in smoking status (never to never, never to current, current to current, current to past, past to current, past to past) baseline alcohol intake (0, 0.1-4.9, 5-9.9, 10-14.9,  $\geq 15$  g/d), change in alcohol intake (quintiles), baseline physical activity (<3, 3-8.9, 9-17.9, 18-26.9,  $\geq 27$  METS/week), change in physical activity (quintiles), history of hypertension and hypercholesterolemia (yes/no), baseline and 4-year changes in beverage intake (quintiles or tertiles; beverages include sugar-sweetened beverages, artificially sweetened beverages, punch, milk, tea, caffeinated coffee/decaffeinated coffee depending on the model), baseline alternate healthy eating index score, change in alternate healthy eating index score, and physical exam in last cycle (yes/no)

<sup>c</sup>Multivariable model 1 + baseline BMI (<21, 21-22.9, 23-24.9, 25-26.9, 27-29.9, 30-34.9, 35-39.9,  $\geq 40$  kg/m<sup>2</sup>) and change in body weight (quintiles)

<sup>d</sup>The results across the 3 cohorts were pooled using an inverse variance-weighted, random-effects meta-analysis.