

**Supplementary material 6. Subgroup analysis of Cox proportional hazards models by sex**

Subgroups	All-cause mortality			Cancer mortality		Cardiovascular mortality	
	No. of participants	No. of deaths	HR (95% CI)	No. of deaths	HR (95% CI)	No. of deaths	HR (95% CI)
<b>Men</b>							
Linear	98,462	2,133	0.84 (0.81 to 0.88)	1,138	0.83 (0.79 to 0.88)	395	0.88 (0.80 to 0.97)
Categories							
0-2	23,769	571	1.00 (ref)	303	1.00 (ref)	104	1.00 (ref)
3	30,575	695	0.82 (0.73 to 0.92)	361	0.76 (0.65 to 0.89)	131	0.87 (0.69 to 1.12)
4	31,311	634	0.68 (0.60 to 0.76)	339	0.63 (0.54 to 0.74)	111	0.69 (0.52 to 0.91)
5 (healthiest)	12,807	233	0.58 (0.50 to 0.68)	135	0.57 (0.47 to 0.71)	49	0.73 (0.52 to 1.04)
HR for trend			0.83 (0.79 to 0.87)		0.82 (0.77 to 0.87)		0.87 (0.79 to 0.97)
PAF (%)		24.9 (15.6 to 33.3)		21.9 (8.9 to 33.1)		10.2 (-16.6 to 30.8)	
<b>Women</b>							
Linear	148,336	1,130	0.84 (0.78 to 0.90)	606	0.82 (0.74 to 0.90)	214	0.80 (0.68 to 0.93)
Categories							
0-2	11,166	99	1.00 (ref)	51	1.00 (ref)	23	1.00 (ref)
3	36,592	282	0.76 (0.60 to 0.95)	157	0.81 (0.59 to 1.11)	59	0.69 (0.41 to 1.08)
4	72,908	586	0.77 (0.62 to 0.96)	314	0.77 (0.57 to 1.04)	100	0.60 (0.38 to 0.95)
5(healthiest)	27,670	163	0.52 (0.40 to 0.67)	84	0.49 (0.35 to 0.70)	32	0.47 (0.27 to 0.81)
HR for trend			0.85 (0.79 to 0.91)		0.82 (0.74 to 0.90)		0.81 (0.69 to 0.95)
PAF (%)		29.2 (19.1 to 38.0)		33.1 (19.6 to 44.4)		23.8 (-3.3 to 43.8)	
<i>P</i> for interaction			0.10		0.17		0.61

All analyses were adjusted for age, CKD, hypertension, diabetes mellitus, hypercholesterolemia, history of myocardial infarction, history of stroke, and study site.

HR for trend indicates the change in HR by one lifestyle category change towards healthiest.

*P* for interaction shows the results of fitting an interaction term between the healthy lifestyle score category and sex.

PAF, population attributable risk fraction.