Appendix 1: Supplementary tables [posted as supplied by author]

Table A. Sample sizes before and after baseline exclusions in the NHS and HPFS cohorts

	NHS	HPFS
Year of baseline	1980	1976
Baseline sample	98,712	51,529
Baseline exclusion		
Cancer	3972	2160
Cardiovascular diseases	2308	3996
Missing BMI	591	1032
Missing physical activity	12307	2237
Missing smoking	142	1664
Missing FFQ (AHEI and alcohol)	4810	1156
Sample size for study population	74,582	39,284

The Nurses' Health Study (NHS) began in 1976, when 121,701 female nurses responded. In 1980, 98,712 nurses response the long questionnaire including questions with detail food items (FFQ) and physical activities, which was treated as the baseline for NHS in the current study.

Table B: The number of deaths, person years and crude incident rate (IR) according to joint classifications of body mass index and healthy lifestyle scores[*]

	BMI (kg/m^2)				
	<18.5	18.5-22.4	22.5-24.9	25.0-29.9	>=30
	Case (crude incident rate)				
All-cause mortality					
None healthy lifestyle	266 (2971)	2163 (1497)	2257 (1471)	3302 (1566)	1561 (1566)
One healthy lifestyle	237 (1752)	2485 (871)	3091 (965)	4633 (1090)	2089 (1163)
Two healthy lifestyles	92 (992)	1307 (573)	1746 (682)	2217 (756)	791 (866)
Three healthy lifestyles	19 (578)	385 (413)	547 (516)	536 (529)	116 (603)
Four healthy lifestyles	1 (216)	43 (284)	62 (322)	61 (399)	7 (457)
Cancer mortality					
None healthy lifestyle	69 (771)	765 (529)	804 (524)	1132 (537)	478 (479)
One healthy lifestyle	70 (518)	913 (320)	1207 (377)	1633 (384)	672 (374)
Two healthy lifestyles	22 (237)	518 (227)	702 (274)	817 (279)	272 (298)
Three healthy lifestyles	5 (152)	156 (167)	238 (224)	227 (224)	38 (198)
Four healthy lifestyles	1 (216)	17 (112)	24 (125)	20 (131)	2 (131)
CVD mortality					
None healthy lifestyle	36 (402)	424 (293)	484 (316)	863 (409)	460 (461)
One healthy lifestyle	45 (333)	466 (163)	680 (212)	1230 (289)	590 (328)
Two healthy lifestyles	20 (216)	248 (109)	412 (161)	594 (203)	241 (264)
Three healthy lifestyles	0 (0)	75 (80)	125 (118)	129 (127)	25 (130)
Four healthy lifestyles	0 (0)	9 (59)	19 (99)	15 (98)	3 (196)
	Person years				
None healthy lifestyle	8953	144535	153398	210840	99699
One healthy lifestyle	13525	285415	320339	425010	179695
Two healthy lifestyles	9274	228238	255868	293228	91357
Three healthy lifestyles	3289	93172	106103	101323	19237
Four healthy lifestyles	463	15138	19272	15302	1531

[*]Low risk lifestyles include never-smoking, exercise ≥30 min/d at moderate or vigorous intensity, the Alternate Healthy Eating Index score in the upper two fifth (quintiles), and moderate alcohol consumption (moderate: 5 to 15 g alcohol/d in women, 5–30 g alcohol/d in men). Each factor was coded as 0 or 1 and sum three scores together, so the healthy lifestyles scores were 0, 1, 2, 3 or 4 (healthiest).

Table C: Age-adjusted baseline Characteristics according to BMI categories in the Nurses' Health Study (NHS, 1980) and Health Professions' Follow-up Study (HPFS, 1986)

BMI (kg/m^2)	< 18.5	18.5- 22.4	22.5- 24.9	25.0- 27.4	27.5- 29.9	30.0- 34.9	35.0- 39.9	>= 40
NHS, 1980								
n	1492	29125	19105	11563	5362	5552	1724	659
Age, years[*]	44.1	44.6	46.4	47.3	47.4	47.1	46.3	46.7
BMI, kg/m^2	17.7	20.9	23.7	26.2	28.8	32.0	37.0	43.6
Alternate Healthy Eating Index	30.6	31.3	31.2	30.9	30.6	30.2	29.8	29.5
Physical activity, hours/week	3.8	4.2	3.9	3.7	3.5	3.3	2.9	2.7
Current smoking, %	45.6	32.1	28.5	26.9	25.2	21.9	21.2	18.2
Alcohol consumption, gram/day	7.6	7.6	6.7	5.7	4.8	3.8	2.8	2.6
Caucasian, %	97.9	98.0	97.6	97.3	96.8	96.9	97.4	96.0
Post-menopausal, %	46.2	42.3	42.8	43.2	43.2	43.3	42.1	40.7
Aspirin use, %	57.9	55.0	53.1	51.5	51.3	49.3	48.1	44.4
Multivitamin use, %	61.4	63.5	66.1	67.8	69.1	70.5	73.4	71.8
Family history of diabetes, %	21.2	24.1	28.1	30.6	33.5	38.1	40.2	39.8
Family history of MI, %	22.8	22.9	24.7	25.5	27.0	27.2	27.1	27.9
Family history of cancer, %	14.2	13.8	13.8	13.5	13.2	13.6	13.0	14.2
HPFS, 1986								
n	139	5639	13092	12585	4805	2564	339	121
Age, years[*]	55.3	52.2	52.6	53.2	53.3	53.0	51.6	52.5
BMI, kg/m^2	17.4	21.5	23.8	26.1	28.6	31.7	36.7	47.5
Alternate Healthy Eating Index	45.1	47.9	47.5	46.2	45.5	45.1	43.4	47.1
Physical activity, hours/week	2.2	3.3	3.2	2.7	2.2	1.7	1.2	2.1
Current smoking, %	24.1	11.2	8.9	9.9	10.4	9.8	8.9	9.7
Alcohol consumption, gram/day	12.5	10.6	11.6	11.6	11.8	10.4	9.6	10.9
Caucasian, %	89.3	92.8	94.2	94.5	94.5	94.6	96.0	93.8
Aspirin use, %	76.7	75.3	73.5	71.4	70.5	70.2	71.3	72.2
Multivitamin use, %	34.4	33.6	36.7	39.8	42.1	43.8	45.5	37.2
Family history of diabetes, %	12.6	18.2	19.6	21.7	22.7	26.6	28.9	23.4
Family history of MI, %	31.1	31.9	31.3	32.2	32.5	33.6	33.3	43.5
Family history of cancer, %	31.3	34.4	34.8	34.3	33.8	34.2	28.9	23.6

BMI: Body Mass Index; MI: Myocardial Infarction

Table D: Distribution proportion of low-risk lifestyle factors (%) according to the BMI categories

BMI	Number of low-risk factors (PYs, %)				
(kg/m^2)	None	One	Two	Three	Four
NHS					
<18.5	26.0	38.2	25.6	9.0	1.1
18.5-22.4	20.3	38.7	29.2	10.5	1.3
22.5-24.9	21.2	40.7	28.2	8.9	1.1
25.0-27.4	22.6	43.3	26.3	7.2	0.7
27.5-29.9	24.1	44.9	25.0	5.6	0.5
30.0-34.9	25.5	46.8	23.2	4.3	0.2
35.0-39.9	27.0	49.3	20.6	3.0	0.1
>=40	30.5	47.4	19.3	2.7	0.1
Total	22.2	41.9	26.9	**8.0**	**0.9**
HPFS					
<18.5	21.5	36.7	28.3	10.7	2.8
18.5-22.4	11.9	28.8	32.5	21.2	5.6
22.5-24.9	11.9	31.2	33.2	19.1	4.6
25.0-27.4	15.3	35.2	31.5	15.0	3.0
27.5-29.9	18.2	37.8	30.1	12.0	2.0
30.0-34.9	22.8	40.1	27.1	8.8	1.2
35.0-39.9	25.8	43.0	23.8	6.7	0.7
>=40	25.6	34.3	27.0	11.8	1.3
Total	14.9	33.9	31.6	**16.1**	**3.5**