

Appendix Part 1

Physical Activity Questions at First Health Assessment

In a typical week during the past 12 months, how many hours did you spend on each of the following activities? (Put '0' if none)

Walking, including walking to work and during leisure time

In summer ___ hours per week

In winter ___ hours per week

Cycling, including cycling to work and during leisure time

In summer ___ hours per week

In winter ___ hours per week

Other physical exercise such as keep fit, aerobics, swimming, jogging

In summer ___ hours per week

In winter ___ hours per week

Appendix Part 2

Table A1: Baseline characteristics (first health assessment) of the cohort (n=22,450) by all- cause, cardiovascular and cancer mortality outcomes; values are mean (SD) unless otherwise indicated

Baseline Characteristics	All-cause mortality		Cardiovascular mortality		Cancer mortality	
	Deceased (n=4380)	Survivor (n=18,070)	Deceased (n=1379)	Survivor (n=21071)	Deceased (n=1639)	Survivor (n=20811)
Follow-up years	10.5 (4.6)	16.5 (1.3)***	10.2 (4.7)	15.7 (2.9)***	10.0 (4.4)	15.8 (2.8)***
Male, N (%)	2395 (54.7)	7746 (42.9)***	782 (56.7)	9359 (44.4)***	914 (55.8)	9227 (44.3)***
Age (years)	66.1 (7.7)	56.1 (8.5)***	67.7 (6.7)	57.5 (9.0)***	63.6 (8.2)	57.6 (9.2)***
Education Level, N (%)						
No formal qualification	2049 (46.8)	5957 (33.0)	671 (48.7)	7335 (34.8)	695 (42.4)	7311 (35.1)
GCSE or equivalent	353 (8.1)	2017 (11.2)	105 (7.6)	2265 (10.8)	148 (9.0)	2222 (10.7)
A-Level or equivalent	1617 (36.9)	7511 (41.6)	495 (35.9)	8633 (41.0)	654 (39.9)	8474 (40.7)
Degree or equivalent	361 (8.2)	2585 (14.3)***	108 (7.8)	2838 (13.5)***	8.7 (142)	2804 (13.5)***
Social class, N (%)						
Professional	220 (5.0)	1354 (7.5)	77 (5.6)	1497 (7.1)	79 (4.8)	1495 (7.2)
Managerial / technical	2310 (52.7)	9570 (53.0)	719 (52.1)	11161 (53.0)	834 (50.9)	54.1 (11046)
Skilled / partially skilled labour	1642 (37.5)	6568 (36.4)	502 (36.4)	7708 (36.6)	648 (39.5)	7562 (36.3)
Unskilled labour	208 (4.8)	578 (3.2)***	81 (5.9)	705 (3.4)***	78 (4.8)	708 (3.4)***
Family history of CVD, N (%)	2257 (51.5)	2123 (50.2)	756 (54.8)	10570 (50.2)**	797 (48.6)	10529 (50.6)
Family history of cancer, N (%)	1706 (39.0)	7039 (39.0)	901 (65.3)	12799 (60.8)**	709 (43.3)	38.6 (8036)***
Smoking Status, N (%)						
Current	651 (14.9)	1991 (11.0)	205 (14.9)	2437 (11.6)	281 (17.1)	2361 (11.3)
Former	2181 (49.8)	7137 (39.5)	706 (51.2)	8612 (40.9)	802 (48.9)	8516 (40.9)
Never	1548 (35.3)	8942 (49.5)***	468 (33.9)	10022 (47.6)***	556 (33.9)	9934 (47.7)***
Hypertensive Medication (yes)	1278 (29.2)	2396 (13.3)***	517 (37.5)	3157 (15.0)**	360 (22.0)	11279 (78.0)***
Lipid Medication (yes)	58 (1.6)	191 (1.1)	28 (2.0)	221 (1.1)**	15 (0.9)	234 (1.1)
Total energy intake (kj/day)	8736.4 (2527.9)	8611.4 (2513.5)**	8744.4 (2547.8)	8628.5 (2514.6)	8809.5 (2552.9)	8621.9 (2513.4)**
Units of alcohol (units/wk)	7.1 (10.6)	7.2 (9.2)	6.7 (10.0)	7.2 (9.5)*	8.0 (11.5)	7.1 (7.0)

*p < 0.05; **p < 0.005; ***p < 0.001

Table A2: Descriptive characteristics of participants [N (%)] at second health assessment (n=13346) by cycling (yes, no)

Baseline Characteristics	Commuter Cycling			All Utility Cycling			Leisure-time Cycling		
	None	Some	OR (95% CI)	None	Some	OR (95% CI)	None	Some	OR (95% CI)
Sex									
Male	5395 (93.0)	405 (7.0)	1	4424 (76.3)	1376 (23.7)	1	4555 (78.5)	1245 (21.5)	1
Female	7089 (93.9)	457 (6.1)	0.77 (0.66, 0.89)	6038 (80.19)	1508 (20.0)	0.83 (0.76, 0.91)	5858 (83.3)	1258 (16.7)	0.63 (0.56, 0.70)
Age (yrs)									
40 – 54	3138 (87.3)	456 (12.7)	1	2624 (73.07)	970 (27.0)	1	2534 (70.5)	1060 (29.5)	1
55 – 64	4253 (92.9)	325 (7.1)	0.50 (0.42, 0.58)	3524 (77.0)	1054 (23.0)	0.94 (0.84, 1.04)	3651 (79.8)	927 (20.3)	0.63 (0.25, 0.34)
≥65	5093 (98.4)	81 (1.6)	0.10 (0.08, 0.13)	4314 (83.4)	860 (16.6)	0.90 (0.79, 1.03)	4658 (90.0)	516 (10.0)	0.29 (0.25, 0.34)
Education Level									
Degree or equivalent	1807 (92.7)	143 (7.3)	1	1487 (76.3)	463 (23.7)	1	1493 (76.6)	457 (23.4)	1
A-Level or equivalent	5237 (93.8)	349 (6.3)	0.81 (0.66, 1.00)	4404 (78.8)	1182 (21.2)	0.90 (0.79, 1.03)	4440 (79.5)	1146 (20.5)	0.94 (0.82, 1.07)
GCSE or equivalent	1394 (93.9)	91 (6.1)	0.78 (0.59, 1.00)	1196 (80.5)	289 (19.5)	0.82 (0.69, 0.98)	1196 (80.5)	289 (19.5)	0.86 (0.72, 1.03)
No formal qualification	4046 (93.6)	279 (6.5)	1.01 (0.79, 1.29)	3375 (78.0)	950 (22.0)	1.05 (0.91, 1.22)	3714 (85.9)	611 (14.1)	0.75 (0.64, 0.88)
Social Class									
Professional	932 (93.1)	69 (6.9)	1	764 (76.3)	237 (23.7)	1	775 (77.4)	226 (22.6)	1
Managerial / technical	6990 (95.2)	350 (4.8)	0.72 (0.54, 0.95)	5927 (80.8)	1413 (19.3)	0.78 (0.66, 0.93)	5973 (81.4)	1357 (18.6)	0.85 (0.72, 1.05)
Skilled / partially skilled labour	4147 (91.2)	400 (8.8)	1.36 (1.01, 1.82)	3438 (75.6)	1109 (24.4)	1.03 (0.87, 1.23)	3708 (81.6)	839 (18.5)	0.86 (0.72, 1.04)
Unskilled labour	415 (90.6)	43 (9.4)	1.60 (1.05, 2.45)	333 (72.7)	125 (27.3)	1.25 (0.96, 1.63)	387 (84.5)	71 (15.5)	0.79 (0.58, 1.08)
Paid Employment									
Yes	6306 (88.0)	6178 (100.0)	n/a	5148 (71.8)	2020 (28.2)	1	5118 (76.0)	1617 (24.0)	1
No	862 (12.0)	0 (0)		5314 (86.0)	864 (14.0)	2.33 (2.09, 2.60)	5037 (86.9)	757 (13.1)	1.14 (1.02, 1.28)

Table A3: Associations between demographic characteristics of participants at the first health assessment (n=22,450) and all-cause, cardiovascular disease and cancer mortality

Demographic characteristics		N (%)	All-cause mortality		CVD mortality		Cancer mortality	
			No. deaths	Crude mortality rate (95%CI)	No. deaths	Crude mortality rate (95%CI)	No. deaths	Crude mortality rate (95%CI)
Sex	Male	10,141 (45.2)	2395	1.0	782	1.0	914	1.0
	Female	12,309 (54.8)	1985	0.62 (0.58, 0.66)	597	0.61 (0.55, 0.68)	725	0.63 (0.57, 0.70)
Age (years)	40 – 54	9043 (40.3)	462	1.0	90	1.0	270	1.0
	55 – 64	6936 (30.9)	1044	3.29 (2.94, 3.7)	249	3.7 (2.9, 4.7)	537	2.7 (2.3, 3.2)
	≥65	6471 (28.8)	2874	14.8 (13.4, 16.5)	1040	19.0 (15.3, 23.7)	832	4.8 (4.2, 5.5)
Education Level	Degree or equivalent	8006 (35.7)	8006	1.0	671	1.0	695	1.0
	A-level	2370 (10.6)	2370	0.51 (0.45, 0.58)	105	0.51 (0.41, 0.63)	148	0.70 (0.58, 0.84)
	GCSE	9128 (40.7)	9128	0.63 (0.58, 0.67)	495	0.63 (0.56, 0.71)	654	0.81 (0.73, 0.91)
	No formal qualification	2946 (13.1)	2946	0.41 (0.36, 0.46)	108	0.42 (0.34, 0.10)	142	0.53 (0.44, 0.64)
Social Class	Professional	1574 (7.0)	220	1.0	77	1.0	79	1.0
	Managerial / technical	11880 (52.9)	2310	1.49 (1.28, 1.73)	719	1.25 (0.98, 1.59)	834	1.42 (1.13, 1.81)
	Skilled / partially skilled labour	8210 (36.6)	1642	1.54 (1.32, 1.79)	502	1.27 (0.99, 1.62)	648	1.62 (1.28, 2.06)
	Unskilled labour	786 (3.5)	208	2.21 (1.79, 2.74)	81	2.23 (1.61, 3.09)	78	2.08 (1.51, 2.89)
Paid employment	No	10958 (48.8)	3421	1.0	1161	1.0	1125	1.0
	Yes	11492 (51.2)	959	0.20 (0.19, 0.22)	218	0.16 (0.14, 0.19)	514	0.41 (0.37-0.46)

*p <.05, **p < .01, ***p<.001

CVD: Cardiovascular disease; 95% CI: 95% Confidence intervals