

Supplementary Table 1. Characteristics of participants who agreed to participate and those who did not agree to participate

	Did not agree to participate	Agreed to participate	p
Participants	506	1394	
Women, n (%)	334 (66.3)	733 (52.6)	<0.001
Age, mean (SD)	77.6 (27.2)	77.7 (5.0)	0.91
<i>Education, n (%)</i>			<0.001
Primary education	44 (9.0)	71 (5.2)	
Lower education	241 (49.1)	560 (40.9)	
Intermediate education	145 (29.5)	447 (32.7)	
Higher education	61 (12.4)	291 (21.3)	
<i>BMI, n (%)</i>			0.53
Normal weight	156 (31.3)	409 (29.4)	
Overweight	217 (43.5)	646 (46.4)	
Obese	126 (25.3)	338 (24.3)	
<i>Smoking, n (%)</i>			0.008
Non smoker	195 (38.7)	473 (34.0)	
Former smoker	268 (53.2)	842 (60.5)	
Current smoker	41 (8.1)	77 (5.5)	
<i>Alcohol use, n (%)</i>			0.002
Never drinks alcohol	104 (20.6)	213 (15.3)	
Drinks 1-4 times per month	160 (31.7)	400 (28.7)	
Drinks 2-4 times per week	240 (47.6)	779 (56.0)	
<i>Health status</i>			<0.001
Not disabled	177 (35.1)	632 (45.4)	
Disabled	116 (23.0)	258 (18.5)	
Severely disabled	211 (41.9)	502 (36.1)	
Prevalent CVD, DM or cancer, n (%)	266 (52.6)	734 (52.7)	1.00
Living with partner, n (%)	269 (53.4)	904 (64.9)	<0.001

Abbreviations: BMI, body mass index; CVD, cardiovascular disease; DM, diabetes mellitus; n, number; SD, standard deviation. Body mass index was calculated as weight in kilograms divided by height in meters squared. Categories were defined as normal weight: $18.5 < 25 \text{ kg/m}^2$, overweight: $25 < 30 \text{ kg/m}^2$ and obese: $\geq 30 \text{ kg/m}^2$.

Total N varies due to variation in the amount of missing data for different covariates.

Supplementary Table 2. Characteristics of men and women included in the study

	Men	Women	p
n	582	628	
Age, mean (SD)	77.4 (4.8)	77.7 (5.1)	0.28
<i>Education, n (%)</i>			<0.001
Primary education	22 (3.8)	41 (6.7)	
Lower education	46 (25.5)	337 (54.7)	
Intermediate education	224 (39.2)	163 (26.5)	
Higher education	180 (31.5)	75 (12.2)	
<i>BMI, n (%)</i>			0.001
Normal weight	167 (28.7)	183 (29.2)	
Overweight	298 (51.2)	265 (42.3)	
Obese	117 (20.1)	179 (28.5)	
<i>Smoking, n (%)</i>			<0.001
Non smoker	127 (21.9)	282 (44.9)	
Former smoker	425 (73.3)	310 (49.4)	
Current smoker	28 (4.8)	36 (5.7)	
<i>Alcohol use, n (%)</i>			<0.001
Never drinks alcohol	66 (11.4)	123 (19.6)	
Drinks 1-4 times per month	128 (22.0)	217 (34.6)	
Drinks 2-4 times per week	387 (66.6)	288 (45.9)	
<i>Health status, n (%)</i>			<0.001
Not disabled	302 (52.0)	243 (38.8)	
Disabled	87 (15.0)	139 (22.2)	
Severely disabled	192 (33.0)	245 (39.1)	
Prevalent CVD, DM or cancer, n (%)	350 (60.1)	292 (46.5)	<0.001
Living with partner, n (%)	481 (82.8)	319 (50.8)	<0.001

Abbreviations: BMI, body mass index; CVD, cardiovascular disease; DM, diabetes mellitus; n, number; SD, standard deviation. Body mass index was calculated as weight in kilograms divided by height in meters squared. Categories were defined as normal weight: $18.5 < 25 \text{ kg/m}^2$, overweight: $25 < 30 \text{ kg/m}^2$ and obese: $\geq 30 \text{ kg/m}^2$.

Total N varies due to variation in the amount of missing data for different covariates.

Supplementary Table 3. Objectively assessed moderate and vigorous intensity physical activity in women
(n=628)

	n	Moderate PA (min/day), mean (SD)	Vigorous PA (min/day), median (interquartile range)	Total sedentary time (h/day)*
Total	628	61.3 (19.2)	8.8 [17.1, 17.1]	20.0 (0.9)
<i>Age group</i>				
70-74	200	68.6 (19.8)	10.9 [20.3, 20.3]	19.8 (0.9)
75-79	226	61.4 (17.8)	9.2 [16.7, 16.7]	20.0 (0.9)
80-84	130	56.2 (16.5)	7.9 [14.4, 14.4]	20.2 (0.9)
≥85	72	49.9 (18.4)	6.2 [11.5, 11.5]	20.5 (1.0)
p		<0.001	<0.001	<0.001
<i>Education</i>				
Primary education	41	53.3 (19.8)	7.1 [15.6, 15.6]	20.4 (0.9)
Lower education	337	61.0 (18.3)	9.2 [17.1, 17.1]	20.0 (0.9)
Intermediate education	163	60.6 (19.1)	8.3 [16.3, 16.3]	20.1 (0.9)
Higher education	75	66.9 (20.5)	10.2 [19.0, 19.0]	19.8 (1.0)
p		0.003	0.02	0.006
<i>Season</i>				
Spring	163	61.1 (18.8)	13.0 [9.1, 17.5]	20.0 (1.0)
Summer	74	63.4 (20.4)	13.0 [9.8, 18.2]	20.0 (1.0)
Autumn	206	60.0 (20.5)	11.9 [8.0, 16.1]	20.1 (1.0)
Winter	182	61.7 (17.5)	12.9 [9.0, 16.7]	20.0 (0.9)
p		0.60	0.19	0.73
<i>BMI</i>				
Normal weight	183	68.3 (19.1)	10.9 [19.7, 19.7]	19.7 (0.9)
Overweight	265	61.6 (19.1)	8.7 [17.2, 17.2]	20.0 (1.0)
Obese	179	54.0 (16.6)	8.1 [14.4, 14.4]	20.4 (0.8)
p		<0.001	<0.001	<0.001
<i>Smoking</i>				
Non smoker	282	62.7 (19.1)	8.8 [17.4, 17.4]	20.0 (0.9)
Former smoker	310	60.5 (19.2)	8.8 [16.6, 16.6]	20.1 (0.9)
Current smoker	36	57.5 (20.0)	8.4 [16.6, 16.6]	20.3 (1.0)
p		0.19	0.48	0.05
<i>Alcohol consumption</i>				
Never drinks alcohol	123	59.3 (17.7)	8.4 [15.9, 15.9]	20.1 (1.0)
Drinks 1-4 times per month	217	58.7 (18.8)	8.3 [16.0, 16.0]	20.2 (0.9)
Drinks 2-4 times per week	288	64.2 (19.8)	9.3 [18.2, 18.2]	19.9 (0.9)
p		0.003	0.02	0.005
<i>Health status</i>				
Not disabled	243	65.9 (19.0)	10.1 [19.4, 19.4]	19.9 (0.9)

Disabled	139	62.9 (18.2)	9.8 [17.3, 17.3]	20.0 (0.9)
Severely disabled	245	55.8 (18.8)	7.7 [15.5, 15.5]	20.2 (1.0)
p		<0.001	<0.001	<0.001
<i>Prevalent CVD, DM or cancer</i>				
Not present	336	64.6 (19.1)	13.5 [9.8, 18.1]	19.9 (0.9)
Present	292	57.5 (18.7)	11.9 [8.1, 15.8]	20.2 (1.0)
p		<0.001	<0.001	<0.001
<i>Marital status</i>				
Living alone	309	57.2 (19.0)	11.6 (7.8, 15.3)	20.2 (1.0)
Living with partner	319	65.3 (18.6)	13.7 (9.9, 18.6)	19.9 (0.9)
p		<0.001	<0.001	<0.001

Abbreviations: BMI, body mass index; CVD, cardiovascular disease; DM, diabetes mellitus; n, number; SD, standard deviation. Body mass index was calculated as weight in kilograms divided by height in meters squared. Categories were defined as normal weight: $18.5 < 25 \text{ kg/m}^2$, overweight: $25 < 30 \text{ kg/m}^2$ and obese: $\geq 30 \text{ kg/m}^2$.

Data are mean (SD) or median (interquartile range).

Total N varies due to variation in the amount of missing data for different covariates.

* Total sedentary time is the sum of sedentary time while awake and sleep time.

Supplementary Table 4. Objectively assessed moderate and vigorous intensity physical activity in men
(n=582)

	n	Moderate PA (min/day), mean (SD)	Vigorous PA (min/day), median (interquartile range)	Total sedentary time (h/day)*
Total	582	58.3 (18.6)	8.7 [16.8, 16.8]	20.4 (0.9)
<i>Age group</i>				
70-74	201	61.1 (18.9)	10.4 [18.8, 18.8]	20.3 (0.9)
75-79	203	60.9 (17.8)	9.8 [17.0, 17.0]	20.3 (0.9)
80-84	130	54.3 (17.6)	7.5 [13.9, 13.9]	20.5 (0.9)
≥85	48	46.2 (17.4)	5.9 [10.1, 10.1]	20.8 (0.9)
p		<0.001	<0.001	0.001
<i>Education</i>				
Primary education	22	51.3 (15.2)	7.5 [12.6, 12.6]	20.6 (0.9)
Lower education	146	57.9 (18.2)	8.3 [17.8, 17.8]	20.4 (0.8)
Intermediate education	224	58.0 (18.9)	8.5 [16.2, 16.2]	20.4 (0.9)
Higher education	180	59.4 (19.1)	9.1 [17.6, 17.6]	20.3 (0.9)
p		0.28	0.13	0.59
<i>Season</i>				
Spring	140	55.4 (17.9)	11.5 [7.6, 15.8]	20.5 (0.8)
Summer	64	62.2 (20.4)	13.8 [10.4, 19.3]	20.2 (1.0)
Autumn	163	59.5 (18.9)	12.4 [8.7, 16.6]	20.3 (0.9)
Winter	213	58.2 (18.2)	11.8 [8.9, 16.9]	20.4 (0.9)
p		0.073	0.057	0.065
<i>BMI</i>				
Normal weight	167	62.7 (20.0)	8.8 [19.5, 19.5]	20.2 (0.9)
Overweight	298	58.5 (17.1)	9.4 [16.5, 16.5]	20.3 (0.9)
Obese	117	51.4 (18.6)	6.8 [14.0, 14.0]	20.7 (0.9)
p		<0.001	<0.001	<0.001
<i>Smoking</i>				
Non smoker	127	58.6 (18.1)	9.4 [16.8, 16.8]	20.4 (0.9)
Former smoker	425	58.6 (18.7)	8.8 [17.0, 17.0]	20.3 (0.9)
Current smoker	28	51.3 (20.0)	6.2 [13.6, 13.6]	20.6 (1.1)
p		0.13	0.11	0.31
<i>Alcohol consumption</i>				
Never drinks alcohol	66	59.3 (22.8)	7.4 [15.7, 15.7]	20.2 (1.0)
Drinks 1-4 times per month	128	56.0 (17.4)	8.9 [16.1, 16.1]	20.5 (0.9)
Drinks 2-4 times per week	387	58.8 (18.2)	9.0 [17.0, 17.0]	20.3 (0.9)
p		0.30	0.48	0.09
<i>Health status</i>				
Not disabled	302	62.8 (18.0)	10.5 [18.7, 18.7]	20.2 (0.9)

Disabled	87	53.9 (17.5)	7.0 [14.2, 14.2]	20.5 (0.9)
Severely disabled	192	53.1 (18.3)	7.4 [14.5, 14.5]	20.6 (0.9)
p		<0.001	<0.001	<0.001
<i>Prevalent CVD, DM or cancer</i>				
Not present	232	62.1 (17.1)	13.5 [10.3, 18.5]	20.2 (0.8)
Present	350	55.8 (19.2)	11.0 [7.7, 15.4]	20.5 (0.9)
p		<0.001	<0.001	0.001
<i>Marital status</i>				
Living alone	100	55.0 (19.7)	10.5 (7.3, 13.6)	20.4 (0.9)
Living with partner	481	58.9 (18.4)	12.7 (9.1, 17.1)	20.3 (0.9)
p		0.05	0.001	0.36

Abbreviations: BMI, body mass index; CVD, cardiovascular disease; DM, diabetes mellitus; n, number; SD, standard deviation. Body mass index was calculated as weight in kilograms divided by height in meters squared. Categories were defined as normal weight: $18.5 < 25 \text{ kg/m}^2$, overweight: $25 < 30 \text{ kg/m}^2$ and obese: $\geq 30 \text{ kg/m}^2$.

Data are mean (SD) or median (interquartile range).

Total N varies due to variation in the amount of missing data for different covariates.

* Total sedentary time is the sum of sedentary time while awake and sleep time.

Supplementary Table 5. Objectively assessed physical activity subcomponents and sedentary time in women, expressed in percentages of awake time (n=628)

	n	Sedentary	Light PA	Moderate PA	Vigorous PA	Moderate-to-vigorous PA
Total	628	77.6 (5.6)	14.9 (3.3)	6.2 (2)	1.3 [0.9, 1.7]	7.5 (2.6)
<i>Age group</i>						
70-74	200	76.7 (5.4)	15.0 (3.0)	6.7 (1.9)	1.5 [1.1, 2.0]	8.3 (2.6)
75-79	226	77.6 (5.3)	14.9 (3.2)	6.2 (1.8)	1.3 [0.9, 1.7]	7.6 (2.4)
80-84	130	78.0 (5.4)	15.0 (3.4)	5.8 (1.8)	1.1 [0.8, 1.5]	7.0 (2.3)
≥85	72	79.5 (6.7)	14.2 (4.0)	5.3 (2.2)	0.9 [0.7, 1.2]	6.3 (2.8)
p		0.003	0.37	<0.001	<0.001	<0.001
<i>Education</i>						
Primary education	41	79.8 (6.1)	13.7 (3.5)	5.4 (2.2)	0.9 [0.7, 1.4]	6.6 (2.8)
Lower education	337	77.6 (5.3)	14.9 (3.2)	6.2 (1.8)	1.3 [0.9, 1.7]	7.5 (2.4)
Intermediate education	163	77.7 (5.7)	14.8 (3.3)	6.1 (2.0)	1.2 [0.9, 1.7]	7.5 (2.7)
Higher education	75	76.4 (6.0)	15.5 (3.5)	6.6 (2.1)	1.4 [1.0, 1.9]	8.1 (2.7)
p		0.02	0.04	0.02	0.01	0.02
<i>Season</i>						
Spring	163	77.6 (5.7)	14.8 (3.3)	6.2 (2.0)	1.3 [0.9, 1.8]	7.6 (2.6)
Summer	74	77.5 (5.5)	14.8 (3.3)	6.3 (2.0)	1.3 [1.0, 1.7]	7.7 (2.6)
Autumn	206	77.5 (6.1)	15.0 (3.6)	6.2 (2.1)	1.2 [0.8, 1.6]	7.5 (2.8)
Winter	182	77.9 (4.9)	14.7 (2.9)	6.1 (1.7)	1.3 [0.9, 1.7]	7.4 (2.3)
p		0.89	0.80	0.87	0.45	0.82
<i>BMI</i>						
Normal weight	183	75.3 (5.2)	16.2 (3.0)	7.0 (1.9)	1.5 [1.1, 2.0]	8.6 (2.6)
Overweight	265	77.5 (5.6)	14.9 (3.3)	6.2 (2.0)	1.3 [0.9, 1.7]	7.6 (2.6)
Obese	179	80.1 (4.8)	13.5 (3.0)	5.3 (1.6)	1.1 [0.8, 1.4]	6.5 (2.1)
p		<0.001	<0.001	<0.001	<0.001	<0.001
<i>Smoking</i>						
Non smoker	282	76.9 (5.4)	15.3 (3.2)	6.4 (1.9)	1.3 [0.9, 1.8]	7.8 (2.5)
Former smoker	310	78.1 (5.5)	14.5 (3.2)	6.1 (1.9)	1.2 [0.9, 1.7]	7.4 (2.6)
Current smoker	36	79.0 (6.7)	14.0 (3.8)	5.8 (2.3)	1.2 [0.8, 1.7]	7.1 (3.0)
p		0.01	0.004	0.08	0.25	0.12
<i>Alcohol consumption</i>						
Never drinks alcohol	123	78.1 (5.3)	14.7 (3.2)	6.0 (1.8)	1.2 [0.9, 1.6]	7.3 (2.3)
Drinks 1-4 times per month	217	78.4 (5.6)	14.4 (3.3)	5.9 (1.9)	1.2 [0.8, 1.6]	7.2 (2.5)
Drinks 2-4 times per week	288	76.8 (5.6)	15.3 (3.3)	6.4 (2.0)	1.3 [0.9, 1.8]	7.9 (2.7)
p		0.005	0.009	0.007	0.02	0.006
<i>Health status</i>						

Not disabled	243	76.8 (5.1)	15.2 (3.0)	6.6 (1.8)	1.4 [1.0, 1.9]	8.1 (2.5)
Disabled	139	77.0 (5.2)	15.3 (3.1)	6.4 (1.8)	1.3 [1.0, 1.7]	7.8 (2.5)
Severely disabled	245	78.8 (6.0)	14.3 (3.6)	5.7 (2.0)	1.1 [0.8, 1.6]	6.9 (2.6)
p		<0.001	0.006	<0.001	<0.001	<0.001
<i>Prevalent CVD, DM or cancer</i>						
Not present	336	76.8 (5.5)	15.2 (3.2)	6.5 (1.9)	1.4 [1.0, 1.8]	8.0 (2.6)
Present	292	78.5 (5.6)	14.4 (3.3)	5.8 (1.9)	1.2 [0.8, 1.6]	7.1 (2.5)
p		<0.001	0.002	<0.001	<0.001	<0.001
<i>Marital status</i>						
Living alone	309	78.6 (6.0)	14.3 (3.5)	5.8 (2.0)	1.2 (0.8, 1.6)	7.1 (2.7)
Living with partner	319	76.7 (5.0)	15.4 (2.9)	6.5 (1.8)	1.4 (1.0, 1.8)	8.0 (2.4)
p		<0.001	<0.001	<0.001	<0.001	<0.001

Abbreviations: BMI, body mass index; CVD, cardiovascular disease; DM, diabetes mellitus; n, number; SD, standard deviation. Body mass index was calculated as weight in kilograms divided by height in meters squared. Categories were defined as normal weight: $18.5 < 25 \text{ kg/m}^2$, overweight: $25 < 30 \text{ kg/m}^2$ and obese: $\geq 30 \text{ kg/m}^2$.

Data are mean (SD) or median (interquartile range).

Total N varies due to variation in the amount of missing data for different covariates.

Supplementary Table 6. Objectively assessed physical activity subcomponents and sedentary time in men, expressed in percentages of awake time (n=582)

	n	Sedentary	Light PA	Moderate PA	Vigorous PA	Moderate-to-vigorous PA
Total	582	79.1 (5.3)	13.9 (3.2)	5.7 (1.8)	1.2 [0.9, 1.7]	7.0 (2.4)
<i>Age group</i>						
70-74	201	79.2 (5.3)	13.5 (3.1)	5.9 (1.9)	1.3 [1.0, 1.8]	7.3 (2.5)
75-79	203	78.4 (5.0)	14.2 (3.0)	6.0 (1.7)	1.2 [1.0, 1.7]	7.4 (2.3)
80-84	130	79.5 (5.2)	13.9 (3.3)	5.5 (1.7)	1.0 [0.8, 1.4]	6.6 (2.2)
≥85	48	80.5 (5.9)	13.9 (3.9)	4.8 (1.9)	0.8 [0.5, 1.0]	5.6 (2.3)
p		0.05	0.15	<0.001	<0.001	<0.001
<i>Education</i>						
Primary education	22	79.9 (6.1)	13.8 (4.3)	5.3 (1.7)	1.0 [0.7, 1.3]	6.3 (2.1)
Lower education	146	79.2 (4.7)	13.8 (2.8)	5.7 (1.7)	1.1 [0.9, 1.7]	7.0 (2.3)
Intermediate education	224	79.1 (5.5)	13.9 (3.4)	5.8 (1.9)	1.2 [0.9, 1.6]	7.0 (2.4)
Higher education	180	79.0 (5.3)	13.9 (3.2)	5.8 (1.9)	1.2 [0.9, 1.7]	7.2 (2.5)
p		0.89	1.00	0.61	0.27	0.49
<i>Season</i>						
Spring	140	79.9 (4.9)	13.5 (2.9)	5.5 (1.7)	1.2 [0.8, 1.5]	6.7 (2.3)
Summer	64	77.5 (5.7)	14.7 (3.5)	6.3 (2.0)	1.4 [1.1, 1.8]	7.8 (2.6)
Autumn	163	78.4 (5.6)	14.3 (3.5)	6.0 (1.9)	1.2 [0.9, 1.7]	7.3 (2.5)
Winter	213	79.5 (4.9)	13.6 (3.0)	5.6 (1.7)	1.2 [0.9, 1.6]	6.9 (2.2)
p		0.005	0.01	0.005	0.01	0.006
<i>BMI</i>						
Normal weight	167	77.8 (5.4)	14.5 (3.2)	6.2 (2.0)	1.3 [0.9, 1.9]	7.6 (2.6)
Overweight	298	78.9 (5.0)	14.0 (3.1)	5.8 (1.7)	1.2 [0.9, 1.6]	7.1 (2.2)
Obese	117	81.3 (5.2)	12.7 (3.1)	5.0 (1.8)	1.0 [0.7, 1.4]	6.0 (2.3)
p		<0.001	<0.001	<0.001	<0.001	<0.001
<i>Smoking</i>						
Non smoker	127	79.2 (4.9)	13.7 (2.8)	5.8 (1.8)	1.2 [0.9, 1.7]	7.1 (2.4)
Former smoker	425	78.9 (5.3)	14.0 (3.3)	5.8 (1.8)	1.2 [0.9, 1.7]	7.1 (2.4)
Current smoker	28	81.2 (5.9)	12.7 (3.5)	5.0 (2.0)	1.0 [0.6, 1.4]	6.1 (2.5)
p		0.07	0.07	0.11	0.09	0.10
<i>Alcohol consumption</i>						
Never drinks alcohol	66	78.3 (5.9)	14.5 (3.3)	5.9 (2.3)	1.1 [0.7, 1.7]	7.2 (3.0)
Drinks 1-4 times per month	128	80.1 (4.9)	13.2 (3.1)	5.5 (1.7)	1.2 [0.9, 1.6]	6.7 (2.2)
Drinks 2-4 times per week	387	78.9 (5.2)	14.0 (3.2)	5.8 (1.8)	1.2 [0.9, 1.7]	7.1 (2.3)
p		0.05	0.02	0.17	0.42	0.26
<i>Health status</i>						

Not disabled	302	78.2 (4.9)	14.2 (2.9)	6.1 (1.7)	1.3 [1.0, 1.8]	7.6 (2.3)
Disabled	87	79.6 (5.7)	13.8 (3.6)	5.4 (1.9)	1.0 [0.7, 1.4]	6.6 (2.4)
Severely disabled	192	80.1 (5.4)	13.4 (3.4)	5.3 (1.8)	1.1 [0.7, 1.4]	6.4 (2.4)
p		<0.001	0.03	<0.001	<0.001	<0.001
<i>Prevalent CVD, DM or cancer</i>						
Not present	232	78.2 (4.9)	14.3 (2.9)	6.1 (1.7)	1.3 [1.1, 1.8]	7.5 (2.3)
Present	350	79.7 (5.4)	13.6 (3.3)	5.5 (1.9)	1.1 [0.8, 1.5]	6.7 (2.4)
p		0.001	0.02	<0.001	<0.001	<0.001
Marital status						
Living alone	100	79.5 (5.6)	13.9 (3.4)	5.5 (2.0)	1.0 (0.7, 1.5)	6.7 (2.6)
Living with partner	481	79.0 (5.2)	13.9 (3.1)	5.8 (1.8)	1.2 (0.9, 1.7)	7.1 (2.3)
p		0.42	1.00	0.12	0.002	0.07

Abbreviations: BMI, body mass index; CVD, cardiovascular disease; DM, diabetes mellitus; n, number; SD, standard deviation. Body mass index was calculated as weight in kilograms divided by height in meters squared. Categories were defined as normal weight: $18.5 < 25 \text{ kg/m}^2$, overweight: $25 < 30 \text{ kg/m}^2$ and obese: $\geq 30 \text{ kg/m}^2$.

Data are mean (SD) or median (interquartile range).

Total N varies due to variation in the amount of missing data for different covariates.

Supplementary Table 7. The association between physical activity measures and demographic and health factors in participants aged less than 80 years (n=760)

Variable	n	Acceleration (mg/day)		Awake sedentary time (h/day)		Light PA (min/day)		Moderate-vigorous PA (min/day)		Sleep time (accelerometer) (h/day)	
		$\beta \pm SE$	p	$\beta \pm SE$	p	$\beta \pm SE$	p	$\beta \pm SE$	p	$\beta \pm SE$	p
<i>Age group</i>											
70-74	378	Referent		Referent		Referent		Referent		Referent	
75-79	382	-0.78 ± 0.38	0.04	-0.04 ± 0.10	0.67	1.81 ± 2.21	0.42	-3.81 ± 1.75	0.03	0.06 ± 0.08	0.44
<i>Sex</i>											
Men	372	Referent		Referent		Referent		Referent		Referent	
Women	388	1.92 ± 0.44	<0.001	-0.49 ± 0.11	<0.001	11.92 ± 2.56	<0.001	8.42 ± 2.02	<0.001	0.03 ± 0.10	0.79
<i>Education</i>											
Primary education	27	Referent		Referent		Referent		Referent		Referent	
Lower education	310	0.46 ± 1.03	0.66	-0.27 ± 0.26	0.31	3.71 ± 5.98	0.54	3.09 ± 4.73	0.51	0.14 ± 0.22	0.54
Intermediate education	238	0.29 ± 1.04	0.78	-0.21 ± 0.27	0.43	1.79 ± 6.07	0.77	1.89 ± 4.80	0.69	0.12 ± 0.23	0.59
Higher education	185	0.55 ± 1.07	0.60	-0.10 ± 0.27	0.72	5.26 ± 6.20	0.40	3.78 ± 4.90	0.44	-0.06 ± 0.23	0.78
<i>Season</i>											
Spring	193	Referent		Referent		Referent		Referent		Referent	
Summer	96	1.46 ± 0.64	0.02	0.10 ± 0.16	0.55	2.68 ± 3.70	0.47	4.36 ± 2.93	0.14	-0.24 ± 0.14	0.09
Autumn	241	0.98 ± 0.49	0.046	0.02 ± 0.13	0.86	4.41 ± 2.85	0.12	2.69 ± 2.26	0.23	-0.12 ± 0.11	0.28
Winter	230	0.61 ± 0.50	0.22	0.12 ± 0.13	0.36	2.95 ± 2.88	0.31	1.83 ± 2.28	0.42	-0.19 ± 0.11	0.08
<i>BMI</i>											
Normal weight	198	Referent		Referent		Referent		Referent		Referent	
Overweight	365	-1.54 ± 0.45	<0.001	0.30 ± 0.12	0.01	-5.05 ± 2.64	0.0557	-6.63 ± 2.08	0.002	-0.05 ± 0.10	0.62
Obese	197	-2.95 ± 0.53	<0.001	0.90 ± 0.14	<0.001	-12.37 ± 3.09	<0.001	-13.25 ± 2.45	<0.001	-0.41 ± 0.12	0.001
<i>Smoking</i>											
Non smoker	257	Referent		Referent		Referent		Referent		Referent	
Former smoker	455	0.46 ± 0.42	0.27	0.03 ± 0.11	0.78	0.92 ± 2.42	0.70	2.42 ± 1.91	0.21	-0.08 ± 0.09	0.36
Current smoker	48	-1.81 ± 0.82	0.03	0.30 ± 0.21	0.16	-6.48 ± 4.77	0.17	-7.88 ± 3.77	0.04	-0.11 ± 0.18	0.55

<i>Alcohol consumption</i>											
Never drinks alcohol	110	Referent		Referent		Referent		Referent		Referent	
Drinks 1-4 times per month	206	0.24 ± 0.60	0.69	-0.03 ± 0.16	0.83	-2.10 ± 3.5	0.55	1.25 ± 2.77	0.65	0.12 ± 0.13	0.36
Drinks 2-4 times per week	444	0.61 ± 0.56	0.27	0.03 ± 0.14	0.83	1.38 ± 3.23	0.67	1.92 ± 2.56	0.45	-0.02 ± 0.12	0.89
<i>Health status</i>											
Not disabled	385	Referent		Referent		Referent		Referent		Referent	
Disabled	136	-0.83 ± 0.52	0.11	0.00 ± 0.13	0.99	-3.31 ± 3.01	0.27	-4.52 ± 2.38	0.06	0.13 ± 0.11	0.26
Severely disabled	239	-1.80 ± 0.43	<0.001	0.24 ± 0.11	0.03	-9.43 ± 2.51	<0.001	-10.23 ± 1.98	<0.001	0.05 ± 0.09	0.60
<i>Prevalent CVD, DM or cancer</i>											
Not present	389	Referent		Referent		Referent		Referent		Referent	
Present	371	-1.28 ± 0.38	<0.001	0.18 ± 0.1	0.07	-4.69 ± 2.19	0.03	-4.4 ± 1.73	0.01	-0.05 ± 0.08	0.56
<i>Marital status</i>											
Living alone	199	Referent		Referent		Referent		Referent		Referent	
Living with partner	561	1.64 ± 0.45	<0.001	-0.18 ± 0.12	0.120	9.17 ± 2.62	<0.001	7.23 ± 2.07	<0.001	-0.07 ± 0.10	0.47
<i>Sleep medication</i>											
Not using	636	Referent		Referent		Referent		Referent		Referent	
Using	124	0.00 ± 0.51	1.00	0.02 ± 0.13	0.90	-0.42 ± 2.96	0.89	-0.92 ± 2.34	0.70	-0.07 ± 0.11	0.52

Supplementary Table 8. The association between physical activity measures and demographic and health factors in participants aged equal or greater than 80 years (n=360)

Variable	n	Acceleration (mg/day)		Awake sedentary time (h/day)		Light PA (min/day)		Moderate-vigorous PA (min/day)		Sleep time (accelerometer) (h/day)		
		$\beta \pm SE$	p	$\beta \pm SE$	p	$\beta \pm SE$	p	$\beta \pm SE$	p	$\beta \pm SE$	p	
<i>Age group</i>												
80-84	251	Referent		Referent		Referent		Referent		Referent		
≥85	109	-2.05 ± 0.55	<0.001	0.51 ± 0.16	<0.001	-8.18 ± 3.79	0.03	-10.68 ± 2.57	<0.001	-0.15 ± 0.15	0.30	
<i>Sex</i>												
Men	171	Referent		Referent		Referent		Referent		Referent		
Women	189	0.58 ± 0.58	0.31	-0.41 ± 0.16	0.01	4.57 ± 4.00	0.25	2.18 ± 2.70	0.42	0.16 ± 0.16	0.30	
<i>Education</i>												
Primary education	33	Referent		Referent		Referent		Referent		Referent		
Lower education	141	-0.23 ± 0.86	0.79	0.17 ± 0.24	0.48	0.30 ± 5.94	0.96	-2.41 ± 4.02	0.55	-0.17 ± 0.23	0.47	
Intermediate education	128	0.01 ± 0.87	0.99	0.33 ± 0.25	0.18	-0.21 ± 6.07	0.97	-1.34 ± 4.11	0.74	-0.29 ± 0.24	0.22	
Higher education	58	-0.05 ± 1.02	0.96	0.59 ± 0.29	0.04	-1.08 ± 7.11	0.88	-2.09 ± 4.81	0.66	-0.47 ± 0.28	0.09	
<i>Season</i>												
Spring	78	Referent		Referent		Referent		Referent		Referent		
Summer	20	0.93 ± 1.10	0.40	0.27 ± 0.31	0.39	4.09 ± 7.66	0.59	4.14 ± 5.18	0.42	-0.35 ± 0.30	0.24	
Autumn	128	0.60 ± 0.64	0.35	-0.21 ± 0.18	0.26	5.85 ± 4.43	0.19	3.72 ± 3.00	0.22	-0.03 ± 0.17	0.84	
Winter	134	0.17 ± 0.64	0.79	-0.19 ± 0.18	0.30	4.30 ± 4.45	0.33	0.90 ± 3.01	0.77	0.07 ± 0.17	0.68	
<i>BMI</i>												
Normal weight	122	Referent		Referent		Referent		Referent		Referent		
Overweight	160	-2.22 ± 0.54	<0.001	0.44 ± 0.15	0.005	-12.58 ± 3.75	<0.001	-9.38 ± 2.53	<0.001	-0.16 ± 0.15	0.28	
Obese	78	-4.14 ± 0.67	<0.001	0.90 ± 0.19	<0.001	-24.97 ± 4.67	<0.001	-18.58 ± 3.16	<0.001	-0.25 ± 0.18	0.17	
<i>Smoking</i>												
Non smoker	123	Referent		Referent		Referent		Referent		Referent		
Former smoker	225	-0.74 ± 0.52	0.16	0.18 ± 0.15	0.23	-2.75 ± 3.62	0.45	-4.10 ± 2.45	0.09	-0.06 ± 0.14	0.69	
Current smoker	12	-4.79 ± 1.36	<0.001	0.49 ± 0.39	0.20	-34.4 ± 9.43	<0.001	-23.42 ± 6.38	<0.001	0.53 ± 0.37	0.15	

<i>Alcohol consumption</i>												
Never drinks alcohol	67	Referent		Referent		Referent		Referent		Referent		
Drinks 1-4 times per month	119	-0.54 ± 0.69	0.43	0.10 ± 0.19	0.59	-7.69 ± 4.76	0.11	-1.87 ± 3.22	0.56	0.05 ± 0.18	0.78	
Drinks 2-4 times per week	174	-0.20 ± 0.66	0.76	0.04 ± 0.19	0.83	-0.17 ± 4.55	0.97	0.89 ± 3.08	0.77	-0.03 ± 0.18	0.87	
<i>Health status</i>												
Not disabled	124	Referent		Referent		Referent		Referent		Referent		
Disabled	70	-1.05 ± 0.67	0.12	0.07 ± 0.19	0.70	2.03 ± 4.66	0.66	-4.81 ± 3.15	0.13	-0.08 ± 0.18	0.67	
Severely disabled	166	-1.23 ± 0.57	0.03	0.22 ± 0.16	0.17	-0.45 ± 3.92	0.91	-4.94 ± 2.65	0.06	-0.12 ± 0.15	0.43	
<i>Prevalent CVD, DM or cancer</i>												
Not present	134	Referent		Referent		Referent		Referent		Referent		
Present	226	-1.68 ± 0.50	<0.001	0.18 ± 0.14	0.20	-9.14 ± 3.47	0.01	-8.39 ± 2.35	<0.001	0.15 ± 0.13	0.28	
<i>Marital status</i>												
Living alone	180	Referent		Referent		Referent		Referent		Referent		
Living with partner	180	-0.24 ± 0.54	0.66	0.06 ± 0.15	0.687	0.36 ± 3.75	0.9237	0.79 ± 2.53	0.75	-0.12 ± 0.15	0.42	
<i>Sleep medication</i>												
Not using	298	Referent		Referent		Referent		Referent		Referent		
Using	62	-0.57 ± 0.63	0.36	0.29 ± 0.18	0.10	-3.90 ± 4.36	0.37	-2.14 ± 2.95	0.47	-0.18 ± 0.17	0.28	

Supplementary Table 9. The association between physical activity measures and demographic and health factors in participants with body mass index less than 27 (n=554)

Variable	n	Acceleration (mg/day)		Awake sedentary time (h/day)		Light PA (min/day)		Moderate-vigorous PA (min/day)		Sleep time (accelerometer) (h/day)		
		$\beta \pm SE$	p	$\beta \pm SE$	p	$\beta \pm SE$	p	$\beta \pm SE$	p	$\beta \pm SE$	p	
<i>Age group</i>												
70-74	175	Referent		Referent		Referent		Referent		Referent		
75-79	185	-0.97 ± 0.58	0.09	0.07 ± 0.13	0.62	0.84 ± 3.32	0.80	-5.18 ± 2.62	0.048	0.03 ± 0.11	0.80	
80-84	130	-1.39 ± 0.65	0.03	0.03 ± 0.15	0.84	0.98 ± 3.74	0.79	-8.36 ± 2.95	0.005	0.11 ± 0.13	0.41	
≥85	64	-3.11 ± 0.86	<0.001	0.68 ± 0.20	<0.001	-4.29 ± 4.98	0.39	-17.88 ± 3.93	<0.001	-0.23 ± 0.17	0.18	
<i>Education</i>												
Primary education	17	Referent		Referent		Referent		Referent		Referent		
Lower education	207	-1.03 ± 1.35	0.45	0.63 ± 0.32	0.05	-1.82 ± 7.78	0.82	-5.29 ± 6.14	0.39	-0.41 ± 0.27	0.12	
Intermediate education	188	-0.85 ± 1.35	0.53	0.61 ± 0.32	0.05	-1.40 ± 7.79	0.86	-4.67 ± 6.14	0.45	-0.45 ± 0.27	0.09	
Higher education	142	-0.65 ± 1.38	0.64	0.79 ± 0.32	0.01	0.45 ± 7.98	0.96	-3.89 ± 6.29	0.54	-0.63 ± 0.28	0.02	
<i>Season</i>												
Spring	131	Referent		Referent		Referent		Referent		Referent		
Summer	61	1.60 ± 0.82	0.05	0.18 ± 0.19	0.36	1.57 ± 4.74	0.74	4.36 ± 3.74	0.24	-0.25 ± 0.16	0.12	
Autumn	171	0.58 ± 0.62	0.34	-0.04 ± 0.14	0.77	5.11 ± 3.55	0.15	2.09 ± 2.80	0.45	-0.09 ± 0.12	0.48	
Winter	191	0.04 ± 0.61	0.95	0.22 ± 0.14	0.13	1.51 ± 3.50	0.67	-0.64 ± 2.76	0.82	-0.22 ± 0.12	0.07	
<i>Sex</i>												
Men	276	Referent		Referent		Referent		Referent		Referent		
Women	278	1.58 ± 0.55	0.005	-0.43 ± 0.13	0.001	9.80 ± 3.19	0.002	6.99 ± 2.52	0.006	0.00 ± 0.11	0.98	
<i>Smoking</i>												
Non smoker	206	Referent		Referent		Referent		Referent		Referent		
Former smoker	318	-0.51 ± 0.50	0.31	0.29 ± 0.12	0.01	-4.24 ± 2.89	0.14	-2.52 ± 2.28	0.27	-0.19 ± 0.10	0.06	
Current smoker	30	-3.93 ± 1.08	<0.001	0.46 ± 0.25	0.07	-19.73 ± 6.24	<0.001	-19.19 ± 4.92	<0.001	0.12 ± 0.22	0.58	
<i>Alcohol consumption</i>												
Never drinks alcohol	100	Referent		Referent		Referent		Referent		Referent		

Drinks 1-4 times per month	134	0.05 ± 0.70	0.95	0.00 ± 0.16	1.00	-3.27 ± 4.05	0.42	0.53 ± 3.19	0.87	0.07 ± 0.14	0.62
Drinks 2-4 times per week	320	0.19 ± 0.62	0.76	-0.05 ± 0.15	0.73	-1.39 ± 3.59	0.70	0.75 ± 2.83	0.79	0.12 ± 0.12	0.35
<i>Health status</i>											
Not disabled	300	Referent		Referent		Referent		Referent		Referent	
Disabled	85	-0.31 ± 0.66	0.64	-0.02 ± 0.15	0.88	-1.21 ± 3.79	0.75	-2.83 ± 2.99	0.34	0.06 ± 0.13	0.62
Severely disabled	169	-1.45 ± 0.53	0.01	0.12 ± 0.12	0.34	-6.69 ± 3.04	0.03	-7.64 ± 2.39	0.002	0.05 ± 0.11	0.62
<i>Prevalent CVD, DM or cancer</i>											
Not present	276	Referent		Referent		Referent		Referent		Referent	
Present	278	-1.78 ± 0.46	<0.001	0.08 ± 0.11	0.48	-8.27 ± 2.66	<0.001	-6.57 ± 2.1	0.002	0.16 ± 0.09	0.08
<i>Marital status</i>											
Living alone	185	Referent		Referent		Referent		Referent		Referent	
Living with parnter	369	0.53 ± 0.55	0.34	0.08 ± 0.13	0.53	3.60 ± 3.19	0.26	2.81 ± 2.52	0.26	-0.17 ± 0.11	0.13
<i>Sleep medication</i>											
Not using	457	Referent		Referent		Referent		Referent		Referent	
Using	97	-0.28 ± 0.61	0.65	0.02 ± 0.14	0.87	-2.77 ± 3.49	0.43	-2.51 ± 2.75	0.36	-0.02 ± 0.12	0.84

Supplementary Table 10. The association between physical activity measures and demographic and health factors in participants with body mass index equal or higher than 27 (n=566)

Variable	n	Acceleration (mg/day)		Awake sedentary time (h/day)		Light PA (min/day)		Moderate-vigorous PA (min/day)		Sleep time (accelerometer) (h/day)		
		$\beta \pm SE$	p	$\beta \pm SE$	p	$\beta \pm SE$	p	$\beta \pm SE$	p	$\beta \pm SE$	p	
<i>Age group</i>												
70-74	203	Referent		Referent		Referent		Referent		Referent		
75-79	197	-0.60 ± 0.46	0.20	-0.16 ± 0.14	0.25	2.10 ± 3.06	0.49	-2.48 ± 2.21	0.26	0.12 ± 0.12	0.33	
80-84	121	-2.33 ± 0.55	<0.001	0.06 ± 0.17	0.73	-5.07 ± 3.65	0.16	-11.26 ± 2.63	<0.001	0.08 ± 0.15	0.58	
≥85	45	-3.70 ± 0.82	<0.001	0.22 ± 0.24	0.36	-9.40 ± 5.37	0.08	-18.42 ± 3.87	<0.001	0.14 ± 0.22	0.53	
<i>Education</i>												
Primary education	43	Referent		Referent		Referent		Referent		Referent		
Lower education	244	0.62 ± 0.76	0.42	-0.33 ± 0.23	0.15	3.62 ± 5.04	0.47	2.61 ± 3.64	0.47	0.13 ± 0.20	0.52	
Intermediate education	178	0.42 ± 0.79	0.60	-0.15 ± 0.24	0.52	0.97 ± 5.21	0.85	1.31 ± 3.76	0.73	0.09 ± 0.21	0.69	
Higher education	101	0.68 ± 0.87	0.44	-0.16 ± 0.26	0.54	4.66 ± 5.75	0.42	3.46 ± 4.15	0.40	-0.02 ± 0.23	0.93	
<i>Season</i>												
Spring	140	Referent		Referent		Referent		Referent		Referent		
Summer	55	0.74 ± 0.73	0.31	0.08 ± 0.22	0.71	2.39 ± 4.81	0.62	2.76 ± 3.47	0.43	-0.22 ± 0.19	0.25	
Autumn	198	1.19 ± 0.50	0.02	-0.08 ± 0.15	0.61	4.88 ± 3.31	0.14	4.16 ± 2.39	0.08	-0.07 ± 0.13	0.59	
Winter	173	0.67 ± 0.52	0.20	-0.14 ± 0.16	0.36	3.71 ± 3.42	0.28	2.43 ± 2.47	0.33	0.03 ± 0.14	0.81	
<i>Sex</i>												
Men	267	Referent		Referent		Referent		Referent		Referent		
Women	299	1.39 ± 0.46	0.003	-0.44 ± 0.14	0.001	9.6 ± 3.00	0.002	5.92 ± 2.16	0.006	0.08 ± 0.12	0.51	
<i>Smoking</i>												
Non smoker	174	Referent		Referent		Referent		Referent		Referent		
Former smoker	362	0.32 ± 0.44	0.47	-0.02 ± 0.13	0.88	1.98 ± 2.87	0.49	1.79 ± 2.07	0.39	-0.01 ± 0.12	0.91	
Current smoker	30	-0.99 ± 0.91	0.28	0.27 ± 0.27	0.32	-4.85 ± 6.01	0.42	-3.56 ± 4.33	0.41	-0.11 ± 0.24	0.65	
<i>Alcohol consumption</i>												
Never drinks alcohol	77	Referent		Referent		Referent		Referent		Referent		

Drinks 1-4 times per month	191	-0.09 ± 0.61	0.89	-0.01 ± 0.18	0.94	-3.76 ± 4.02	0.35	0.12 ± 2.90	0.97	0.13 ± 0.16	0.43
Drinks 2-4 times per week	298	0.51 ± 0.60	0.40	0.06 ± 0.18	0.75	3.25 ± 3.95	0.41	2.48 ± 2.85	0.38	-0.10 ± 0.16	0.53
<i>Health status</i>											
Not disabled	209	Referent		Referent		Referent		Referent		Referent	
Disabled	121	-1.36 ± 0.53	0.01	0.12 ± 0.16	0.45	-2.34 ± 3.49	0.50	-6.24 ± 2.52	0.01	0.05 ± 0.14	0.73
Severely disabled	236	-2.01 ± 0.46	<0.001	0.37 ± 0.14	0.01	-8.04 ± 3.00	0.01	-10.33 ± 2.16	<0.001	-0.04 ± 0.12	0.74
<i>Prevalent CVD, DM or cancer</i>											
Not present	247	Referent		Referent		Referent		Referent		Referent	
Present	319	-1.13 ± 0.40	0.005	0.32 ± 0.12	0.01	-4.94 ± 2.61	0.06	-5.05 ± 1.88	0.008	-0.17 ± 0.11	0.12
<i>Marital status</i>											
Living alone	194	Referent		Referent		Referent		Referent		Referent	
Living with parnter	372	1.60 ± 0.44	<0.001	-0.33 ± 0.13	0.012	9.97 ± 2.90	<0.001	7.44 ± 2.09	<0.001	0.03 ± 0.12	0.77
<i>Sleep medication</i>											
Not using	477	Referent		Referent		Referent		Referent		Referent	
Using	89	-0.21 ± 0.53	0.69	0.18 ± 0.16	0.25	-0.32 ± 3.52	0.93	-0.34 ± 2.54	0.89	-0.19 ± 0.14	0.18

Supplementary Figure 1. Self-reported proportion of participants by physical activity type

