Web Table 1. Population characteristics according to hours of daytime napping or nighttime sleeping

	Hours of daytime napping			Hours of nighttime sleeping			
	0	<1	≥ 1	<5	5-6	7-8	≥ 9
No. participants	111, 801	85, 622	17, 210	5, 345	66, 442	136, 128	7, 143
Age (years)	61.8±5.3	63.6±5.1	63.6±5.2	62.3±5.4	62.3±5.4	62.8±5.3	63.5±5.1
Male (%)	52.1	63.9	65.6	48.0	56.0	59.2	57.2
Race (%)							
Caucasians	94.1	93.2	88.1	84.9	90.2	94.9	95.2
Others	5.1	5.8	10.6	13.5	8.6	4.2	3.9
Missing	0.9	1.0	1.3	1.7	1.1	0.8	0.9
Cigarette smoking (%)							
Never smokers	40.3	37.8	31.6	39.4	38.5	38.7	37.0
Past smokers	50.0	52.1	52.1	46.0	49.9	51.6	53.2
Current smokers	8.7	8.9	14.8	12.7	10.5	8.6	8.5
Missing	1.0	1.2	1.6	1.9	1.2	1.1	1.3
Daily caffeine intake (mg)	362.7±364.1	352.5±366.9	362.8±390.7	364.8±410.3	369.0±382.2	354.5±358.8	332.7±352.9
Physical activity (hours/week)							
Never or rare	12.0	12.6	20.6	19.5	13.6	12.0	19.1
≤ 1	9.9	10.2	11.0	10.1	10.6	9.9	10.4
1-3	25.3	25.3	24.0	23.1	25.3	25.3	23.4
4-7	26.9	26.5	22.8	20.7	25.4	27.3	23.1
>7	25.0	24.3	20.1	24.5	23.9	24.6	23.1
Missing	0.9	1.1	1.5	2.1	1.2	0.9	0.9
General health status (%)							
Excellent	23.3	16.4	10.7	11.1	17.1	21.1	17.9
Very good	39.5	37.2	29.0	26.6	36.2	39.1	34.5
Good	29.7	35.4	39.6	37.0	35.2	31.4	32.8
Fair	5.8	9.0	16.4	19.0	9.3	6.6	11.7
Poor	0.5	0.9	2.9	4.5	1.0	0.6	2.0
Missing	1.1	1.2	1.5	1.8	1.3	1.2	1.2
Depression							
No	83.3	81.4	75.7	73.6	81.7	82.7	76.3
Yes	8.6	9.5	14.6	16.3	9.8	8.8	14.6
Missing	8.0	9.1	9.7	10.1	8.5	8.5	9.1
Hours of daytime napping per day (%)							
0				42.9	48.1	54.2	51.3
<1				39.0	41.8	39.2	33.3
≥ 1				17.8	9.9	6.3	15.1
Missing				0.4	0.3	0.3	0.4
Hours of nighttime sleeping per day (%)							
<5	2.1	2.4	5.5				
5-6	28.6	32.4	38.1				
7-8	66.0	62.3	49.9				
≥ 9	3.3	2.8	6.3				
Missing	0.1	0.1	0.3				

Means and standard deviation (Sd) are provided for continuous variables, and proportions for categorical variables. Gender, race, smoking, caffeine intake, and general health status were from the dietary survey (1995-1996); age, physical activity and napping/ sleeping duration were from the risk factor survey (1996-1997); depression was from the follow-up survey (2004-2006).

Web Table 2. Daytime napping in relation to Parkinson disease at different stages (Data for

Figure 1)

	Established		Recent		Prediagnostic
	OR (95% CI)		OR (95% CI)		OR (95% CI)
Adjusted for age, sex, race, physical activity, smoking status and caffeine intake					
None (ref)	1.0		1.0		1.0
< 1 hour	1.9 (1.4-2.6)		1.1 (0.9-1.3)		1.2 (1.0-1.3)
≥ 1hour	3.9 (2.8-5.6)		2.2 (1.7-3.0)		1.5 (1.2-1.9)
P for trend	< 0.0001		< 0.0001		0.0003
Further adjusted for health status					
None (ref)	1.0		1.0		1.0
< 1 hour	1.6 (1.2-2.1)		1.0 (0.8-1.3)		1.1 (1.0-1.3)
≥ 1hour	2.4 (1.7-3.5)		2.0 (1.5-2.7)		1.4 (1.1-1.8)
P for trend	< 0.0001		< 0.0001		0.0022

OR: odds ratio; CI: confidence interval

Web Table 3. Nighttime sleeping in relation to Parkinson disease at different stages (Data for Figure 2)

	Established OR (95% CI)		Recent OR (95% CI)		Prediagnostic OR (95% CI)
Adjusted for age, sex, race, physical activity, smoking status and caffeine intake					
< 5 hours	4.9 (3.0-7.9)		0.9 (0.4-1.8)		0.7 (0.4-1.3)
5-6 hours	2.0 (1.5-2.6)		0.7 (0.6-0.9)		1.0 (0.9-1.2)
7-8 hours (Ref)	1.0		1.0		1.0
≥ 9 hours	1.6 (0.9-3.0)		1.5 (1.0-2.3)		1.2 (0.8-1.7)
Further adjusted for health status					
< 5 hours	2.9 (1.8-4.8)		0.8 (0.4-1.6)		0.7 (0.4-1.2)
5-6 hours	1.7 (1.3-2.2)		0.7 (0.6-0.9)		1.0 (0.9-1.2)
7-8 hours (Ref)	1.0		1.0		1.0
≥ 9 hours	1.3 (0.7-2.5)		1.4 (0.9-2.2)		1.1 (0.8-1.6)

OR: odds ratio; CI: confidence interval