

## Sleep and olfaction among older adults: Supplementary Material

**Table S1.** Demographics of the NSHAP Wave 2 Olfaction-Sleep subsample and full age eligible population

Characteristic	Olfaction-Sleep Subsample		Age eligible sample (non-Olfaction-Sleep Subsample)		p-value
	Weighted Value	N	Weighted Value	N	
<b>Age, mean (sd)</b>	71.7 (7.5)	354	72.4 (7.4)	2,842	0.10
<b>Female</b>	53.6%	354	52.2%	2,842	0.63
<b>Race</b>		354		2,830	<0.01
White	82.3%		81.5%		
African American	6.2%		9.7%		
Hispanic	6.3%		6.7%		
Other	5.2%		2.3%		
<b>Modified Charlson Comorbidity</b>		354		2,842	0.36
0	48.1%		42.4%		
1	25.4%		26.1%		
2	14.0%		15.8%		
3+	12.4%		15.6%		
<b>Montreal Cognitive Assessment – Survey Adapted, 0-20 scale, mean (sd)</b>	14.2 (3.5)	354	13.8 (4.0)	2,842	0.07
<b>Body Mass Index, mean (sd)</b>	29.1 (5.50)	345	29.4 (6.8)	2,672	0.27
<b>Current Smoker</b>	13.6%	354	13.2%	2,842	0.87
<b>CES-D<sup>1</sup>, mean (sd)</b>	7.3 (3.3)	354	7.8 (3.5)	2,841	0.02
<b>Medication Usage</b>					
Antidepressants	17.4%	334	15.4%	2,679	0.39
Sleep Aids	8.7%	334	7.4%	2,679	0.42
<b>Actigraph-Measured Sleep</b>		354		426	
WASO <sup>2</sup> (minutes), mean (sd)	37.5 (22.6)		39.2 (21.7)		0.31
Total Sleep Time (hours), mean (sd)	7.2 (1.4)		7.2 (1.2)		0.47
Less than 5 hours, %	5.5%		4.2%		
5 to 8 hours, %	70.2%		72.5%		
More than 8 hours, %	24.3%		23.4%		
Fragmentation, mean (sd)	14.2 (5.9)		14.3 (5.8)		0.68
<b>Self-Reported Sleep Duration (hours), mean (sd)</b>	7.4 (1.3)	287	7.4 (1.3)	379	0.81
<b>Troubled Sleep Scale<sup>3</sup>, mean (sd)</b>	2.7 (2.1)	354	2.9 (2.1)	438	0.05
<b>Olfactory Function Field Exam</b>					
Odor Identification (score) <sup>4</sup>		354		1,740	0.12
0	2.9%		3.2%		
1	1.3%		2.9%		
2	6.0%		6.1%		
3	7.8%		11.4%		

**Table S1.** Demographics of the NSHAP Wave 2 Olfaction-Sleep subsample and full age eligible population

4	30.7%		32,5%		
5	51.3%		43.9%		
Odor Sensitivity (score) <sup>5</sup>		354		1,740	0.33
0	7.1%		9.5%		
1	8.5%		7.7%		
2	12.4%		11.9%		
3	15.9%		18.2%		
4	23.8%		25.3%		
5	25.3%		19.3%		
6	7.1%		8.3%		

P-values are from t-test or  $\chi^2$  test

<sup>1</sup>CES-D (range:0-22): Center for Epidemiologic Study Depression Scale

<sup>2</sup>Wake after sleep onset

<sup>3</sup>Troubled Sleep Scale (range:0-8) is a combined metric (0 = Never/rarely, 1 = Sometimes, 2 = Most of the time) from four questions: feeling rested in the morning, trouble falling asleep, trouble waking during the night and trouble waking too early

<sup>4</sup>Odor identification (range: 0-5) is measured via correct identification of five odorants: rose, leather, orange, fish, and peppermint.

<sup>5</sup>Odor sensitivity (range: 0-6) is assessed by participants' capacities to detect n-butanol.