

## SUPPLEMENTARY TABLE

**Supplementary Table 1. Association of changes in self-reported sleep duration with mild cognitive impairment in the elderly, stratified by age, gender, sleep time and sleep quality at baseline.**

| Characteristics                        | Groups          | OR (95% CIs)     |                  |                  |                  |
|--|-----------------|------------------|------------------|------------------|------------------|
|  |                 | Model 1          | Model 2          | Model 3          | Model 4          |
| Age at baseline, 65-79 years           | Decreased >2 h  | 1.52 (1.15-2.01) | 1.56 (1.17-2.09) | 1.53 (1.14-2.06) | 1.34 (0.97-1.84) |
|  | Decreased 0-2 h | 1.01 (0.78-1.30) | 1.03 (0.79-1.33) | 1.04 (0.80-1.35) | 0.99 (0.75-1.29) |
|  | Stable          | 1 (Ref.)         | 1 (Ref.)         | 1 (Ref.)         | 1 (Ref.)         |
|  | Increased 0-2 h | 0.98 (0.76-1.26) | 1.00 (0.77-1.29) | 0.99 (0.76-1.28) | 1.03 (0.79-1.34) |
|  | Increased >2 h  | 1.48 (1.12-1.96) | 1.54 (1.15-2.05) | 1.43 (1.06-1.93) | 1.61 (1.17-2.21) |
| Age at baseline, 80-89 years           | Decreased >2 h  | 1.12 (0.90-1.38) | 1.13 (0.91-1.40) | 1.12 (0.90-1.40) | 1.05 (0.83-1.32) |
|  | Decreased 0-2 h | 0.99 (0.81-1.20) | 0.98 (0.80-1.20) | 0.97 (0.79-1.19) | 0.95 (0.77-1.17) |
|  | Stable          | 1 (Ref.)         | 1 (Ref.)         | 1 (Ref.)         | 1 (Ref.)         |
|  | Increased 0-2 h | 1.05 (0.86-1.28) | 1.04 (0.85-1.27) | 1.06 (0.86-1.29) | 1.09 (0.88-1.34) |
|  | Increased >2 h  | 1.31 (1.06-1.62) | 1.32 (1.07-1.63) | 1.27 (1.02-1.58) | 1.37 (1.09-1.72) |
| Age at baseline, ≥ 90 years            | Decreased >2 h  | 1.24 (0.99-1.56) | 1.24 (0.99-1.57) | 1.24 (0.98-1.56) | 1.15 (0.90-1.46) |
|  | Decreased 0-2 h | 1.03 (0.83-1.27) | 1.01 (0.81-1.25) | 1.04 (0.84-1.30) | 1.01 (0.81-1.26) |
|  | Stable          | 1 (Ref.)         | 1 (Ref.)         | 1 (Ref.)         | 1 (Ref.)         |
|  | Increased 0-2 h | 1.07 (0.86-1.32) | 1.08 (0.87-1.34) | 1.08 (0.87-1.35) | 1.12 (0.90-1.40) |
|  | Increased >2 h  | 1.63 (1.32-2.03) | 1.62 (1.30-2.02) | 1.62 (1.29-2.03) | 1.78 (1.41-2.24) |
| Male                                   | Decreased >2 h  | 1.46 (1.18-1.80) | 1.48 (1.19-1.83) | 1.43 (1.14-1.78) | 1.32 (1.04-1.66) |
|  | Decreased 0-2 h | 1.12 (0.92-1.37) | 1.12 (0.92-1.37) | 1.10 (0.90-1.36) | 1.07 (0.87-1.32) |
|  | Stable          | 1 (Ref.)         | 1 (Ref.)         | 1 (Ref.)         | 1 (Ref.)         |
|  | Increased 0-2 h | 1.16 (0.95-1.40) | 1.16 (0.96-1.41) | 1.18 (0.96-1.44) | 1.24 (1.01-1.51) |
|  | Increased >2 h  | 1.67 (1.36-2.04) | 1.70 (1.38-2.09) | 1.58 (1.27-1.95) | 1.80 (1.43-2.26) |
| Female                                 | Decreased >2 h  | 1.12 (0.94-1.35) | 1.13 (0.94-1.36) | 1.14 (0.95-1.38) | 1.05 (0.86-1.28) |
|  | Decreased 0-2 h | 0.95 (0.81-1.12) | 0.94 (0.80-1.11) | 0.95 (0.81-1.13) | 0.93 (0.78-1.10) |
|  | Stable          | 1 (Ref.)         | 1 (Ref.)         | 1 (Ref.)         | 1 (Ref.)         |
|  | Increased 0-2 h | 0.97 (0.82-1.14) | 0.97 (0.82-1.14) | 0.96 (0.81-1.14) | 0.99 (0.83-1.17) |
|  | Increased >2 h  | 1.36 (1.14-1.61) | 1.35 (1.13-1.61) | 1.32 (1.10-1.58) | 1.41 (1.17-1.70) |
| Short sleep time at baseline, ≤ 6 h    | Decreased >2 h  | 1.57 (0.44-5.59) | 1.45 (0.40-5.24) | 1.62 (0.44-5.92) | 1.65 (0.45-6.01) |
|  | Decreased 0-2 h | 1.22 (0.78-1.91) | 1.19 (0.75-1.89) | 1.11 (0.69-1.77) | 1.11 (0.69-1.78) |
|  | Stable          | 1 (Ref.)         | 1 (Ref.)         | 1 (Ref.)         | 1 (Ref.)         |
|  | Increased 0-2 h | 0.92 (0.63-1.34) | 0.90 (0.61-1.32) | 0.87 (0.59-1.28) | 0.87 (0.59-1.29) |
|  | Increased >2 h  | 1.13 (0.79-1.61) | 1.08 (0.75-1.56) | 0.94 (0.65-1.37) | 0.95 (0.65-1.39) |
| Moderate sleep time at baseline, 6-8 h | Decreased >2 h  | 1.49 (1.19-1.87) | 1.53 (1.22-1.93) | 1.55 (1.23-1.95) | 1.55 (1.23-1.95) |
|  | Decreased 0-2 h | 1.17 (0.99-1.39) | 1.18 (0.99-1.40) | 1.20 (1.01-1.43) | 1.20 (1.01-1.43) |
|  | Stable          | 1 (Ref.)         | 1 (Ref.)         | 1 (Ref.)         | 1 (Ref.)         |
|  | Increased 0-2 h | 1.12 (0.95-1.32) | 1.14 (0.96-1.34) | 1.15 (0.97-1.35) | 1.15 (0.97-1.35) |
|  | Increased >2 h  | 1.87 (1.56-2.24) | 1.88 (1.57-2.26) | 1.83 (1.52-2.21) | 1.83 (1.52-2.20) |
| Long sleep time at baseline, > 8 h     | Decreased >2 h  | 0.94 (0.76-1.16) | 0.93 (0.75-1.15) | 0.92 (0.74-1.14) | 0.92 (0.74-1.14) |
|  | Decreased 0-2 h | 0.75 (0.60-0.93) | 0.73 (0.59-0.92) | 0.73 (0.58-0.92) | 0.73 (0.58-0.92) |
|  | Stable          | 1 (Ref.)         | 1 (Ref.)         | 1 (Ref.)         | 1 (Ref.)         |
|  | Increased 0-2 h | 1.12 (0.86-1.45) | 1.10 (0.85-1.43) | 1.11 (0.85-1.45) | 1.11 (0.85-1.46) |
|  | Increased >2 h  | 2.17 (1.54-3.06) | 2.23 (1.57-3.16) | 2.22 (1.54-3.19) | 2.23 (1.55-3.21) |
| High sleep quality at baseline         | Decreased >2 h  | 1.24 (1.05-1.47) | 1.26 (1.07-1.50) | 1.25 (1.05-1.48) | 1.17 (0.98-1.40) |
|  | Decreased 0-2 h | 0.95 (0.82-1.12) | 0.95 (0.81-1.11) | 0.94 (0.80-1.11) | 0.92 (0.78-1.08) |
|  | Stable          | 1 (Ref.)         | 1 (Ref.)         | 1 (Ref.)         | 1 (Ref.)         |
|  | Increased 0-2 h | 1.07 (0.91-1.26) | 1.07 (0.91-1.26) | 1.08 (0.92-1.28) | 1.12 (0.95-1.32) |
|  | Increased >2 h  | 1.64 (1.37-1.95) | 1.64 (1.37-1.96) | 1.62 (1.35-1.95) | 1.77 (1.46-2.14) |

Low sleep quality at baseline

|                 |                  |                  |                  |                  |
|-----------------|------------------|------------------|------------------|------------------|
| Decreased >2 h  | 1.33 (1.03-1.73) | 1.34 (1.02-1.75) | 1.28 (0.97-1.68) | 1.10 (0.82-1.47) |
| Decreased 0-2 h | 1.19 (0.95-1.49) | 1.19 (0.95-1.50) | 1.19 (0.94-1.51) | 1.16 (0.91-1.47) |
| Stable          | 1 (Ref.)         | 1 (Ref.)         | 1 (Ref.)         | 1 (Ref.)         |
| Increased 0-2 h | 1.00 (0.81-1.24) | 1.01 (0.81-1.25) | 1.01 (0.81-1.26) | 1.05 (0.84-1.32) |
| Increased >2 h  | 1.37 (1.11-1.69) | 1.37 (1.11-1.70) | 1.29 (1.04-1.61) | 1.42 (1.13-1.79) |

Abbreviations: CIs: confident intervals; OR: odds ratio.

Model 1: adjusted for age, sex, and enrollment year; Model 2: model 1 + further adjusted for province, residence, ethnic, marriage status, occupation, education; Model 3: model 2 + further adjusted for ADL score, physical performance score, food diversity score, social activity score, and chronic disease score; Model 4: model 3 + further adjusted for sleep time and sleep quality at baseline.