Supplemental Material 6. Hazard ratio (95% CI) of cognitive decline\* by social activities and living arrangements stratified by age group and education levels†

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Age <65 years |  | Age ≥ 65 years |  | Interaction |
|  | HR (95% CI) | p-value | HR (95% CI) | p-value | p-value |
| Socially active | 1 |  | 1 |  |  |
| Social inactive | 1.20 (0.94-1.53) | 0.135 | 1.36 (1.10-1.68) | 0.004 | 0.475 |
| Living with others | 1 |  | 1 |  |  |
| Living alone | 0.91 (0.57-1.46) | 0.707 | 1.10 (0.82-1.47) | 0.542 | 0.399 |
|  |  |  |  |  |  |
|  | High education level | | Low education level | | Interaction |
|  | HR (95% CI) | p-value | HR (95% CI) | p-value | p-value |
| Socially active | 1 |  | 1 |  |  |
| Social inactive | 0.92 (0.65-1.30) | 0.626 | 1.44 (1.20-1.73) | <0.001 | 0.021 |
| Living with others | 1 |  | 1 |  |  |
| Living alone | 0.94 (0.54-1.64) | 0.825 | 1.07 (0.81-1.40) | 0.647 | 0.575 |

\*Definition of cognitive decline: MMSE score ≥4 decrease over 2 years.

†Adjusted for sex, age group, education levels, annual household income, smoking, alcohol consumption, comorbidity, depression.