**Supplementary Materials**

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| **Table S1. Characteristics of excluded and included participants**   |
| Variables | Analytical sample (N=16,733) | Excluded participants (N=6,330) |
| Age (years) | 62.3 (7.4) | 64.2 (8.4) |
| Male, N (%) | 7638 (45.7) | 2930 (46.3) |
| Current smoker, N (%) | 3011 (18.0) | 1207 (19.5) |
| Current drinker, N (%) | 3692 (22.1) | 1222 (19.3) |
| Dietary intake, > 4 times per week (%) |  |  |
|  Meat and poultry | 5604 (33.5) | 2133 (33.7) |
|  Soy products | 5376 (32.1) | 2165 (34.2) |
|  Vegetables | 16002 (95.6) | 6017 (95.1) |
|  Fruits | 9206 (55.0) | 3506 (55.4) |
|  Eggs | 6941 (41.5) | 2693 (42.5) |
|  Fish | 1773 (10.6) | 771 (12.2) |
| Education a, N (%) | 1669 (10.0) | 767 (12.5) |
| Married, N (%) | 15135 (90.5) | 5530 (87.4) |
| Physical activity, N (%) | 14975 (89.5) | 5478 (86.5) |
| Good sleep quality, N (%) | 5940 (35.5) | 2205 (35.3) |
| Midday napping, median (95%CI), hour | 0.7 (0.7,1.0) | 0.5 (0.5,0.7) |
| TSBS, hour | 8.0 (7.5,8.5) | 8.0 (7.5,9.0) |
| BMI, kg/m2 | 24.6 (3.3) | 24.4 (3.5) |
| eGFR, ml/min/1.73 m2 | 79.9 (15.4) | 77.7 (17.1) |
| Hypertension, N (%) | 7355 (44.0) | 3010 (47.6) |
| Hyperlipidemia, N (%) | 8660 (51.8) | 2940 (46.5) |
| Diabetes, N (%) | 2966 (17.7) | 1156 (18.3) |
| CHD, N (%) | 2054 (15.0) | 1056 (16.7) |
| Stroke, N (%) | 575 (3.4) | 347 (5.5) |
| Usage of aspirin, N (%) | 2339 (14.0) | 950 (15.0) |
| Usage of sleeping pills, N (%) | 561 (3.4) | 275 (4.3) |
| Abbreviations: TSBS: Time spent in bed attempting to sleep; BMI: Body mass index; eGFR: estimated glomerular filtration rate; CHD: Coronary heart disease; CI: confidence interval. Continuous variables were presented as means (standard deviation, SD) or medians (95% CI). Categorical variables were presented as numbers (percentages). a College or above. |

**Table S2. Sensitivity analysis of TSBS and rapid renal function decline**

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| --- | --- | --- | --- | --- | --- |
| Category of TSBS, h | Persons at risk | Persons with rapid renal function decline | Model 1 | Model 2 | Model 3 |
| < 7 | 616 | 81 | 1.33 (1.01,1.74) | 1.30 (0.97,1.74) | 1.28 (0.95,1.72) |
| 7 –< 8 | 2198 | 223 | Ref | Ref | Ref |
| 8 –< 9 | 3172 | 345 | 1.11 (0.92,1.35) | 1.11 (0.91,1.34) | 1.11 (0.92,1.35) |
| ≥ 9 | 1553 | 183 | 1.23 (0.98,1.55) | 1.23 (0.98,1.55) | 1.23 (0.98,1.55) |
| P for quadratic trend |  |  | 0.985 | 0.799 | 0.834 |

\*After excluding individuals with hypertension, diabetes, coronary heart disease (CHD) and stroke.

Model 1, adjusted for age, sex.

Model 2, adjusted for the variables in model 1 plus smoking status, drinking status, dietary habits, education, marriage, physical

activity, BMI, baseline eGFR, hypertension, hyperlipidemia, diabetes, CHD, stroke, usage of aspirin.

Model 3, adjusted for the variables in model 2 plus sleep quality, usage of sleeping pills and midday napping.