**Table S1**—Baseline characteristics of the analytical sample and excluded subjects

| Variable | Analytical sample (n=14399) | Excluded subjects (n=12610) | P value[a] |
|---|---|---|---|
| Age (y) | 62.5 (7.4) | 64.9 (8.0) | <0.001 |
| Sex (female; %) | 56.5 | 54.2 | <0.001 |
| Nighttime sleep duration, h | 8.0 (1.0) | 8.1 (1.0) | <0.001 |
| Sleep quality (%) | | | <0.001 |
|     Good | 36.6 | 32.2 | |
|     Fair | 53.3 | 54.2 | |
|     Poor | 10.1 | 13.6 | |
| Use of hypnotics (%) | 2.6 | 5.5 | <0.001 |
| Midday napping, min | 44.1 (40.0) | 45.5 (40.8) | 0.003 |
| Waist circumference, cm | 82.5 (9.4) | 84.1 (9.6) | <0.001 |
| Triglycerides, mmol/l | 1.43 (1.14) | 1.51 (1.15) | <0.001 |
| HDL cholesterol, mmol/l | 1.45 (0.40) | 1.43 (0.42) | 0.017 |
| Systolic blood pressure, mmHg | 128.3 (18.3) | 131.9 (19.1) | <0.001 |
| Diastolic blood pressure, mmHg | 77.5 (10.7) | 78.4 (11.0) | <0.001 |
| Fasting blood glucose, mmol/l | 6.0 (1.6) | 6.2 (1.9) | <0.001 |

Values are mean (standard deviation) or percentage

[a] $t$-test for continuous variables and Chi-square test for categorical variables

HDL = high-density lipoprotein

**Table S2**—Odds ratios for the 5-y incidence of metabolic syndrome components by midday napping

| Variables | Midday napping, min | | | | |
|---|---|---|---|---|---|
| | 0 | 1- < 30 | 30- < 60 | 60- < 90 | ≥ 90 |
| **Central obesity (n=8898)** | | | | | |
| N(yes/no) | 1008/2639 | 69/164 | 308/832 | 604/1616 | 410/1248 |
| Incidence rate (%) | 27.64 | 29.61 | 27.02 | 27.21 | 24.73 |
| Adjusted OR (95% CI) | 1.03 (0.74-1.44) | Reference | 0.98 (0.68-1.39) | 1.04 (0.74-1.46) | 0.96 (0.68-1.37) |
| **Hypertriglyceridemia (n=8500)** | | | | | |
| N(yes/no) | 554/2980 | 32/195 | 161/905 | 314/1845 | 227/1287 |
| Incidence rate (%) | 15.68 | 14.10 | 15.10 | 14.54 | 14.99 |
| Adjusted OR (95% CI) | 1.18 (0.79-1.75) | Reference | 1.16 (0.76-1.76) | 1.13 (0.76-1.70) | 1.22 (0.81-1.84) |
| **Reduced HDL cholesterol (n=8249)** | | | | | |
| N(yes/no) | 464/2930 | 23/191 | 149/913 | 210/1862 | 194/1313 |
| Incidence rate (%) | 13.67 | 10.75 | 14.03 | 10.14 | 12.87 |
| Adjusted OR (95% CI) | 1.38 (0.87-2.18) | Reference | 1.45 (0.89-2.34) | 1.04 (0.65-1.67) | 1.50 (0.93-2.41) |
| **Elevated blood pressure (n=6692)** | | | | | |
| N(yes/no) | 1455/1481 | 87/92 | 442/422 | 820/781 | 605/507 |
| Incidence rate (%) | 49.56 | 48.60 | 51.16 | 51.22 | 54.41 |
| Adjusted OR (95% CI) | 0.98 (0.71-1.37) | Reference | 1.02 (0.72-1.44) | 0.97 (0.69-1.36) | 1.12 (0.80-1.58) |
| **Impaired fasting glucose (n=7121)** | | | | | |
| N(yes/no) | 1052/1994 | 69/141 | 295/639 | 554/1136 | 416/825 |
| Incidence rate (%) | 34.54 | 32.86 | 31.58 | 32.78 | 33.52 |
| Adjusted OR (95% CI) | 1.08 (0.79-1.47) | Reference | 0.96 (0.69-1.33) | 1.00 (0.73-1.37) | 1.04 (0.75-1.44) |

Adjusted for age, sex, body mass index, education, smoking status, drinking status, physical activity, nighttime sleep duration (continuous), sleep quality, use of hypnotics, and diet frequency (times per week, for eggs, meat, fish, fruits, vegetables, and beans).
CI = confidence interval; HDL = high-density lipoprotein; OR = odds ratio.

**Table S3**—Odds ratios for the 5-y reversion of metabolic syndrome components by midday napping

| Variables | Midday napping, min | | | | |
|---|---|---|---|---|---|
| | 0 | 1- < 30 | 30- < 60 | 60- < 90 | ≥ 90 |
| **Central obesity (n=4111)** | | | | | |
| N(yes/no) | 323/1317 | 108/429 | 194/891 | 125/408 | 63/253 |
| Reversion rate (%) | 19.70 | 20.11 | 17.88 | 23.45 | 19.94 |
| Adjusted OR (95% CI) | 0.95 (0.72-1.26) | Reference | 0.81 (0.60-1.09) | 1.05 (0.75-1.46) | 0.88 (0.59-1.31) |
| **Hypertriglyceridemia (n=3918)** | | | | | |
| N(yes/no) | 646/932 | 219/310 | 413/597 | 199/302 | 127/173 |
| Reversion rate (%) | 40.94 | 41.40 | 40.89 | 39.72 | 42.33 |
| Adjusted OR (95% CI) | 0.98 (0.79-1.20) | Reference | 0.93 (0.74-1.16) | 0.87 (0.67-1.13) | 0.93 (0.69-1.25) |
| **Reduced HDL cholesterol (n=3576)** | | | | | |
| N(yes/no) | 833/641 | 269/207 | 539/408 | 223/192 | 146/118 |
| Reversion rate (%) | 56.51 | 56.51 | 56.92 | 53.73 | 55.30 |
| Adjusted OR (95% CI) | 0.99 (0.80-1.22) | Reference | 1.00 (0.79-1.25) | 0.84 (0.64-1.11) | 0.92 (0.67-1.26) |
| **Elevated blood pressure (n=4429)** | | | | | |
| N(yes/no) | 137/1564 | 48/545 | 66/1122 | 40/553 | 21/333 |
| Reversion rate (%) | 8.05 | 8.09 | 5.56 | 6.75 | 5.93 |
| Adjusted OR (95% CI) | 0.91 (0.64-1.30) | Reference | 0.66 (0.44-1.01) | 0.81 (0.52-1.27) | 0.70 (0.41-1.21) |
| **Impaired fasting glucose (n=4138)** | | | | | |
| N(yes/no) | 340/1236 | 117/419 | 235/897 | 120/448 | 54/272 |
| Reversion rate (%) | 21.57 | 21.83 | 20.76 | 21.13 | 16.56 |
| Adjusted OR (95% CI) | 1.01 (0.79-1.28) | Reference | 0.95 (0.74-1.23) | 0.96 (0.72-1.29) | 0.73 (0.51-1.05) |

Adjusted for age, sex, body mass index, education, smoking status, drinking status, physical activity, nighttime sleep duration (continuous), sleep quality, use of hypnotics, and diet frequency (times per week, for eggs, meat, fish, fruits, vegetables, and beans). CI = confidence interval; HDL = high-density lipoprotein; OR = odds ratio.

**Table S4**—Odds ratios for the 5-y incidence of metabolic syndrome and its individual components by total sleep time

| Variables | Total sleep time, h | | | | |
|---|---|---|---|---|---|
| | < 7.5 | 7.5- < 8.5 | 8.5- < 9.5 | 9.5- < 10.5 | ≥ 10.5 |
| MetS (n=9275) | | | | | |
| N(yes/no) | 303/830 | 684/1937 | 782/2289 | 461/1210 | 217/562 |
| Incidence rate (%) | 26.74 | 26.10 | 25.46 | 27.59 | 27.86 |
| Adjusted OR (95% CI) | 0.99 (0.84-1.18) | Reference | 0.98 (0.86-1.11) | 1.16 (1.00-1.35) | 1.27 (1.05-1.55) |
| Central obesity (n=8898) | | | | | |
| N(yes/no) | 312/727 | 687/1806 | 751/2185 | 448/1222 | 201/559 |
| Incidence rate (%) | 30.03 | 27.56 | 25.58 | 26.83 | 26.45 |
| Adjusted OR (95% CI) | 1.23 (1.00-1.51) | Reference | 0.93 (0.80-1.09) | 1.13 (0.94-1.36) | 1.35 (1.06-1.71) |
| Hypertriglyceridemia (n=8500) | | | | | |
| N(yes/no) | 166/869 | 374/2054 | 399/2408 | 244/1286 | 105/595 |
| Incidence rate (%) | 16.04 | 15.40 | 14.21 | 15.95 | 15.00 |
| Adjusted OR (95% CI) | 1.01 (0.82-1.24) | Reference | 0.93 (0.79-1.08) | 1.07 (0.90-1.29) | 1.05 (0.83-1.34) |
| Reduced HDL cholesterol (n=8249) | | | | | |
| N(yes/no) | 135/872 | 291/2042 | 347/2387 | 177/1305 | 90/603 |
| Incidence rate (%) | 13.41 | 12.47 | 12.69 | 11.94 | 12.99 |
| Adjusted OR (95% CI) | 1.02 (0.82-1.28) | Reference | 1.05 (0.89-1.24) | 1.01 (0.82-1.24) | 1.18 (0.91-1.54) |
| Elevated blood pressure (n=6692) | | | | | |
| N(yes/no) | 422/425 | 975/988 | 1115/1101 | 613/520 | 284/249 |
| Incidence rate (%) | 49.82 | 49.67 | 50.32 | 54.10 | 53.28 |
| Adjusted OR (95% CI) | 1.07 (0.88-1.30) | Reference | 0.99 (0.85-1.14) | 1.12 (0.94-1.33) | 1.01 (0.81-1.27) |
| Impaired fasting glucose (n=7121) | | | | | |
| N(yes/no) | 313/617 | 677/1366 | 807/1518 | 421/866 | 168/368 |
| Incidence rate (%) | 33.66 | 33.14 | 34.71 | 32.71 | 31.34 |
| Adjusted OR (95% CI) | 1.00 (0.82-1.21) | Reference | 1.10 (0.95-1.27) | 1.01(0.85-1.20) | 0.89 (0.71-1.13) |

Adjusted for age, sex, body mass index, education, smoking status, drinking status, physical activity, sleep quality, use of hypnotics, and diet frequency (times per week, for eggs, meat, fish, fruits, vegetables, and beans). CI = confidence interval; HDL = high-density lipoprotein; MetS = metabolic syndrome; OR = odds ratio.

**Table S5**—Odds ratios for the 5-y reversion of metabolic syndrome and its individual components by total sleep time

| Variables | Total sleep time, h | | | | |
|---|---|---|---|---|---|
| | < 7.5 | 7.5- < 8.5 | 8.5- < 9.5 | 9.5- < 10.5 | ≥ 10.5 |
| **MetS (n=5124)** | | | | | |
| N(yes/no) | 180/402 | 397/962 | 497/1207 | 285/772 | 103/319 |
| Reversion rate (%) | 30.93 | 29.21 | 29.17 | 26.96 | 24.41 |
| Adjusted OR (95% CI) | 1.14 (0.91-1.42) | Reference | 1.00 (0.85-1.18) | 0.82 (0.68-0.99) | 0.70 (0.54-0.91) |
| **Central obesity (n=4111)** | | | | | |
| N(yes/no) | 87/391 | 223/866 | 275/1120 | 173/661 | 55/260 |
| Reversion rate (%) | 18.20 | 20.48 | 19.71 | 20.74 | 17.46 |
| Adjusted OR (95% CI) | 0.99 (0.72-1.35) | Reference | 0.86 (0.69-1.08) | 0.90 (0.69-1.16) | 0.69 (0.48-0.99) |
| **Hypertriglyceridemia (n=3919)** | | | | | |
| N(yes/no) | 176/257 | 437/605 | 562/775 | 294/465 | 136/212 |
| Reversion rate (%) | 40.65 | 41.94 | 42.03 | 38.74 | 38.90 |
| Adjusted OR (95% CI) | 0.91 (0.72-1.16) | Reference | 0.98 (0.82-1.16) | 0.83 (0.68-1.02) | 0.78 (0.60-1.01) |
| **Reduced HDL cholesterol (n=3576)** | | | | | |
| N(yes/no) | 231/180 | 525/451 | 714/470 | 381/325 | 159/140 |
| Reversion rate (%) | 56.20 | 53.79 | 60.30 | 53.97 | 53.18 |
| Adjusted OR (95% CI) | 1.08 (0.85-1.38) | Reference | 1.31 (1.10-1.56) | 0.93 (0.76-1.14) | 0.91 (0.69-1.19) |
| **Elevated blood pressure (n=4429)** | | | | | |
| N(yes/no) | 42/467 | 82/1062 | 116/1364 | 53/877 | 19/347 |
| Reversion rate (%) | 8.25 | 7.17 | 7.84 | 5.70 | 5.19 |
| Adjusted OR (95% CI) | 1.14 (0.77-1.71) | Reference | 1.13 (0.83-1.52) | 0.78 (0.54-1.12) | 0.76 (0.45-1.28) |
| **Impaired fasting glucose (n=4138)** | | | | | |
| N(yes/no) | 116/345 | 232/843 | 277/1096 | 165/706 | 76/282 |
| Reversion rate (%) | 25.16 | 21.58 | 20.17 | 18.94 | 21.23 |
| Adjusted OR (95% CI) | 1.28 (0.99-1.67) | Reference | 0.94 (0.77-1.14) | 0.86 (0.69-1.09) | 1.00 (0.74-1.34) |

Adjusted for age, sex, body mass index, education, smoking status, drinking status, physical activity, sleep quality, use of hypnotics, and diet frequency (times per week, for eggs, meat, fish, fruits, vegetables, and beans). CI = confidence interval; HDL = high-density lipoprotein; MetS = metabolic syndrome; OR = odds ratio.