**Supplementary materials**

**Supplemental Table 1** Baseline characteristics of study sample included and excluded for the prospective analysis

|  |  |  |  |
| --- | --- | --- | --- |
|  | Included(n=10,692) | Excluded(n=4,953) | P-value  |
| Birth year  |  |  |  |
|  <1940 | 6.5 | 2.1 | <0.0001 |
|  1940-1949 | 66.2 | 71.2 |  |
|  1950-1959 | 27.4 | 26.7 |  |
| Race/ethnicity |  |  |  |
|  Caucasian- Australian/New Zealander  | 45.5 | 65.9 | <0.0001 |
|  Caucasian- European  | 32.3 | 22.3 |  |
|  Caucasian- American  | 9.6 | 3.3 |  |
|  Japanese  | 2.3 | 0.1 |  |
|  African American/Black | 5.1 | 1.3 |  |
|  Other | 5.3 | 7.1 |  |
| Education level |  |  |  |
|  ≤10 years | 42.1 | 47.4 | <0.0001 |
|  11-12 years | 17.6 | 17.0 |  |
|  >12 years | 40.3 | 35.7 |  |
| Body mass index |  |  |  |
|  Normal weight (<25 kg/m2) | 49.1 | 45.9 | 0.0003 |
|  Overweight (25-29.9 kg/m2) | 30.3 | 31.1 |  |
|  Obese (≥30 kg/m2) | 20.6 | 22.9 |  |
| Smoking status  |  |  |  |
|  Never  | 55.2 | 53.8 | 0.0012 |
|  Past smoker  | 28.5 | 27.5 |  |
|  Current smoker  | 16.3 | 18.7 |  |
| Menopausal status  |  |  |  |
|  Hysterectomy/oophorectomy  | 18.6 | 25.1 | <0.0001 |
|  Unknown due to hormone use  | 14.6 | 16.6 |  |
|  Premenopause | 20.3 | 20.2 |  |
|  Perimenopause  | 30.1 | 24.2 |  |
|  Natural postmenopause  | 16.3 | 13.9 |  |
| Current use of menopausal hormone therapy  |  |  |  |
|  No | 79.7 | 75.9 | <0.0001 |
|  Yes  | 20.3 | 24.1 |  |
| Frequency/severity of sleep difficulties |  |  |  |
|  Never  | 40.1 | 34.9 | <0.0001 |
|  Rarely/mild  | 23.1 | 19.1 |  |
|  Sometimes/moderate | 24.0 | 29.8 |  |
|  Often/severe | 12.8 | 16.2 |  |
| Frequency/severity of vasomotor symptoms |  |  |  |
|  Never  | 44.9 | 42.2 | <0.0001 |
|  Rarely/mild  | 20.4 | 17.1 |  |
|  Sometimes/moderate | 20.7 | 24.7 |  |
|  Often/severe | 14.0 | 16.1 |  |
| Frequency/severity of depressed mood |  |  |  |
|  Never  | 51.8 | 51.7 | 0.0009 |
|  Rarely/mild  | 25.2 | 23.1 |  |
|  Sometimes/moderate | 16.6 | 18.8 |  |
|  Often/severe | 6.4 | 6.4 |  |



**Supplemental Figure 1** Forest plot of study-specific effect estimates of the cross-sectional association between vasomotor symptoms and depressed mood at baseline. Odds ratios (ORs) were presented on a log scale. Effect estimates were fully adjusted for menopausal status, concurrent use of menopausal hormone therapy, race/ethnicity, education, smoking status, and BMI. Data for SWAN were additionally adjusted for study site.