**Supplementary Appendix 1.** Data collection methods for covariates

**Covariates**

Body height and body weight was measured to the nearest 0.1 cm and 0.1 kg, respectively. Body mass index (BMI) was calculated as weight (kg) divided by height squared (m2). Blood pressures were assessed with an automated sphygmomanometer (BP-203RV III; Colin, Tokyo, Japan) in a sitting position after a 5-min rest. The high-density lipoprotein cholesterol (HDL-C) and low-density lipoprotein cholesterol (LDL-C) levels were measured by the direct method. The triglyceride levels were measured by the enzyme method. The plasma glucose was measured by the glucose oxidase peroxidative electrode method. HbA1c was measured by high-performance liquid chromatography.

Hypertension was defined as systolic blood pressure ≥140 mmHg, diastolic blood pressure ≥90 mmHg, or use of antihypertensive medications. Diabetes was defined as HbA1c≥6.5 % (48 mmol/mol), fasting blood glucose≥126 mg/dl (7.0 mmol/l), or receiving medical treatment for diabetes. Cardiovascular disease was defined as a self-reported history of myocardial infarction, angina, or stroke. Dyslipidemia was defined as triglyceride level ≥150 mg/dl, low-density lipoprotein cholesterol level ≥140 mg/dl, high-density lipoprotein cholesterol level <40 mg/dl, or receiving medical treatment for dyslipidemia. Hyperuricemia was defined as uric acid>7 mg/dl or receiving medical treatment for hyperuricemia.

Data on medical history, work-related factors, including job position, overtime work, and shift work, primary commuting mode, smoking, alcohol use, and sleep duration were ascertained by a standardized, self-administered questionnaire. The job position was categorized as high (department chief, department director, or higher position) or low (others). Monthly overtime work in the past 2–3 months was assessed with 1 question with 5 responses (<45, 45 to <60, 60 to <80, 80 to <100, or ≥100 h). Shift work was self-reported by using 1 question with 3 response options (shift work, nightshift work only, or no shift work). The primary commuting mode to work was self-reported according to 4 response options (walking, bicycling, train or bus, and car or motorbike). The total amount of alcohol consumption was estimated by using data on the frequency (number of days per week) and the amount of alcohol consumption of common beverages per day, as indicated by an equivalent amount of 1 unit (*go*) of Japanese sake. One *go* of Japanese sake contains approximately 23 g of ethanol. Sleep duration was measured with 1 question with 4 response options (<5, 5 to<6, 6 to<7, or ≥7 h per day).