

## SUPPLEMENTARY METHODS

## Details on the Korean National Health Insurance Service datasets

The Korean National Health Insurance Service (KNHIS) database has been described in previous reports [13-15]. All Korean residents are covered by the KNHIS, a nationwide single-insurer, operated by the Korean government. Information on demographics, monthly household income status, primary and secondary diagnoses encoded according to the International Classification of Diseases-10th Revision (ICD-10), prescriptions, and hospitalizations of all Korean residents are compiled into the KNHIS claims datasets. Furthermore, the KNHIS recommends standardized health examinations at least every 2 years, and these health examination results are assembled into the KNHIS datasets of preventive health examinations, representing the largest-scale, nation-wide cohort database with anthropometric and laboratory measurements [13,16]. The health examination results include smoking and alcohol history, physical activity, waist circumference, height, weight, blood pressure, and laboratory tests including fasting plasma glucose and lipid profiles.

## Supplementary Table 1. Definitions of ovariates

| Variable                          | Definition   |
|-----------------------------------|--|
| Heavy alcohol consumption [21,22] | An average alcohol ingestion of ≥30 g/day  |
| Regular exercise [16,21]          | High-intensity physical activity causing extreme shortness of breath for $>$ 20 min/session, $\ge$ 3 days/week, and/or moderate-intensity physical activity that causes a substantial shortness of breath for $>$ 30 minutes/session, $\ge$ 5 days/week  |
| Low-income status                 | The lowest quartile based on the monthly household income  |
| Body mass index                   | Body weight in kilograms divided by the height in meters squared (kg/m²)   |
| Statin users                      | Individuals who were taking statins at the time of low-density lipoprotein cholesterol measurement during health examination based on the information on prescription (dates of statin prescription and how many days of medication prescribed), considering that the prescribed statins were taken daily for all participants |