Supplemental Material

Propensity Score Model

To eliminate the potential bias due to the participants’ demographics and medical history, we employed a propensity score matching with the Mahalanobis metric (PSM-MM), a strategy that can balance the unequal distribution of health status and demographics between patients with psoriasis and controls at baseline. We calculated the propensity score for each participant and performed PSM-MM to select the controls without psoriasis (4 matched controls per participant with psoriasis). For the propensity score calculation, we considered the NHANES survey cycle, age, sex, poverty income ratio (PIR), race/ethnicity, body mass index (BMI) and medical history of hypertension, diabetes, coronary heart disease and depression in the logistic regression model. The propensity score distribution was displayed in Supplementary Figure 1

Measurement of Covariates

The study participants’ demographic characteristics and previous medical history, including age, sex, BMI, race/ethnicity (categorized into five groups: non-Hispanic white, non-Hispanic black, Mexican American, other Hispanic, other ethnicity), PIR, smoking status, alcohol use, hypertension, diabetes, coronary heart disease and depression were all considered in the models. Those participants who self-reported that they had been told at some point that they had diabetes by physicians/health professionals or had taken medications for diabetes were identified as diabetes cases. In addition, participants who self-reported that they had ever been diagnosed with hypertension or coronary heart disease by physicians were defined as hypertension and coronary heart disease cases, respectively. Furthermore, participants were defined as having depression if their Patient Health Questionnaire-9 score was ≥10.
Supplementary Figure 1. Propensity score distribution between two groups