Figure S1. Funnel plot for HDL-C. The funnel plot shows the publication bias of HDL-C. The majority of the studies were concentrated at the top of the funnel plot, and each study was symmetrically distributed. There was no obvious publication bias. HDL-C, high density lipoprotein-cholesterol; MD, mean difference; SE, standard error.



Figure S2. Funnel plot for HOMA-B. The funnel plot shows the publication bias of HOMA-B. Three of the studies were distributed at the top of the funnel plot. Two of the studies were scattered, showing the existence of publication bias. HOMA-B, homeostasis model assessment of β -cell function; MD, mean difference; SE, standard error.



Figure S3. Funnel plot for HOMA-IR. The funnel plot shows the publication bias of HOMA-IR. Most of the studies were concentrated at the top of the funnel plot, and each study was symmetrically distributed. There was no obvious publication bias. HOMA-IR, homeostasis model assessment of insulin resistance; MD, mean difference; SE, standard error.



Figure S4. Funnel plot for LDL-C. The funnel plot shows the publication bias of LDL-C. Most of the studies were concentrated at the top of the funnel plot, and each study was symmetrically distributed. There was no obvious publication bias. LDL-C, low density lipoprotein-cholesterol; MD, mean difference; SE, standard error.



Figure S5. Funnel plot for total cholesterol. The funnel plot shows the publication bias of total cholesterol. Most of the studies were concentrated on one side, showing the existence of publication bias. MD, mean difference; SE, standard error.



Figure S6. Funnel plot for total testosterone: The funnel plot shows the publication bias of total testosterone. Each study was symmetrically distributed. There was no obvious publication bias. MD, mean difference; SE, standard error.



Figure S7. Funnel plot for triglycerides. The funnel plot shows the publication bias of triglycerides. Three of the studies were distributed at the top of the funnel plot. Two of the studies were concentrated on one side, showing the existence of publication bias. MD, mean difference; SE, standard error.



Figure S8. Funnel plot for BMI. The funnel plot shows the publication bias of BMI. Each study was symmetrically distributed. There was no obvious publication bias. BMI, body mass index; MD, mean difference; SE, standard error.



Figure S9. Funnel plot for DHEAs. The funnel plot shows the publication bias of DHEAs. Each study was symmetrically distributed. There was no obvious publication bias. DHEA, dehydroepiandrosterone sulfate; MD, mean difference; SE, standard error.

