Excluded obese subjects, n=1813

Obese Subjects n=528

TLGS, Survey 3 (2006-8, n=12523)

Obese Subjects n=419

TLGS, Survey 4 (2008-2011, n=12823)

Obese Subjects n=286

TLGS, Survey 5 (2011-14, n=12362)

1000 obese subjects randomly selected

Excluded subjects with history of weight loss or gain
Pregnancy or lactation
Taking drugs affect weight

880 obese subjects included and pair matched with random control

Excluded subjects lacking DNA purification
Under- or over-reporting of energy intake

Data of 627 pairs (1254 persons) were analyzed.

Figure. Flowchart of study participants

TLGS: Tehran Lipid and Glucose Study
MetS: Metabolic Syndrome