Power calculation

As was done in a previous study of ours,(49) a power analysis of one of the main multiple logistic regression models was done, taking into account the following: (A) The mean correlations between predictor variables (assuming R2=0.2), (B) The proportion with EDS among men and women in the uppermost tertile of n3 PUFA (18.5% among women and 20.8% among men) and (C) The observed odds ratio point estimates [Table 2 (0.52 among women and 1.40 among men)], (D) An alpha level of 0.05 and (E) an equal balance between referent group and index group (i.e. lowest vs. uppermost tertile). A power curve was obtained based on those parameters and for a power of 0.80, the sample size needed to detect the OR observed among women was n=164, when the actual one was n=991 and thus was adequate. Similarly, among men, the minimum sample size needed for a power of 0.80 to detect the odds ratio that was observed was n=538 whereas the actual sample size available was only n=755. When R² between predictors was made to range from 0.10 to 0.40, the minimal sample size was still adequate among both men and women.