nut-17. Report Any Sensitivity Analysis (E.g., Exclusion of Misreporters or Outliers) and Data Imputation, If Applicable

Example 1. “Individuals with dietary change in the pas are suspected to have unstable food habits. Dietary change in the past (yes or no) was derived from the questionnaire item: “Have you substantially changed your eating habits because of illness or for some other reason? All analyses were performed in 1) all individuals, 2) individuals reporting adequate energy intake (i.e., nonadequate reporters were excluded), and 3) individuals reporting stable dietary habits (i.e., individuals reporting dietary change were excluded)”.

Explanation.

Misreporting of dietary intake is common and a major challenge to nutritional epidemiology, especially underreporting, which is likely related to personal characteristics and may be associated with health outcome. Depending on the study design and available data, researchers may select different approaches to examine the robustness of study findings and thus enhance the understanding of the impact of measurement errors.

Individuals may have changed their diets before the start of the study due to ill health (e.g., diagnosed with diabetes or hyperlipidemia) or other reasons. In such cases, the reported diet may not be relevant for the outcome assessed, and therefore it may be sensible to repeat analysis excluding subgroups of the study sample It is often helpful to compare the reported energy intake with the TEE calculated from estimates of the resting energy expenditure and the PAL (see Text Boxes 3 and 8). This will enable readers to evaluate if under- or overestimation of dietary energy is present. Although studies often exclude individuals with high or low reported energy intakes, this may not always be appropriate due to excluding some true intakes. Alternative solutions could include a separate assessment of these groups. If individuals with extreme values (i.e., clearly not compatible with biologica function) are excluded, the allowable range for those included should be stated.Another concern is missing values in FFQs, especially when dietary information is combined in nutrient intake calculations or in indexes. Some missing values in an FFQ may represent random mistakes, whereas others reflect nonconsumption). To understand the procedure and enable replication of the study, details of any imputation and the statistical handling need to be provided.