nut-8.5. Describe the Assessment of Nondietary Data (E.g., Nutritional Status and Influencing Factors) and Timing of the Assessment of These Variables in Relation to Dietary Assessment

Example 1. “BMI was calculated from weight reported on each biennial questionnaire and height reported at the first questionnaire. Smoking status and number of cigarette use, history of hypertension, aspirin use (number of tablets and frequency of use), regular intake of multivitamins, menopausal status, and use of postmenopausal hormone therapy, parity, and age at first birth were assessed every 2 y”.

Explanation. Nondietary data are essential components in studies of diet and health, either as potential confounders or as effect modifiers and intermediate risk factors, of the association between diet and disease. Such nondietary factors are physical (e.g., sex, age, BMI), socioeconomic (e.g., education), genetic, or lifestyle (e.g., physical activity, sedentary behavior, and smoking and alcohol habits) factors. Failure to consider such relevant factors may distort results and lead to incorrect conclusions. Physical activity represents a particular issue in studies of diet and disease (see Text Box 8). It may be independently associated with outcome, a potential dietary confounder, or both. Estimates of physical activity may also be required when evaluating reports of energy intake .

Physical activity may be estimated by participant selfreport with the use of questionnaires or diaries, or by means of objective methods such as pedometers, accelerometers, or heart rate monitors. Many different decisions taken during assessment and data handling will influence the estimated level of physical activity; thus, it is important to report such details. For example, it is helpful to explain how different items in a questionnaire are combined to estimate the PAL, or how estimates of the duration of activities on certain intensity levels were obtained, or how compliance with a recommendation was assessed. Information with regard to the evaluation of the procedure should be included. Descriptions of how nondietary data were assessed are helpful to enable both understanding of the study and its replication. To facilitate the interpretation of findings, readers need to know the timing of the nondietary data and biomarker collection in relation to the dietary data collection (see also Nut-9). In addition, information on the validity of the methods used should be provided. Anthropometric measurements (e.g., weight, height, and calculated BMI) are often collected because these measurements are relatively easy to obtain and can be used to evaluate both under- and overnutrition (e.g., obesity is a common risk factor for diet-related chronic diseases). Other simple measures are those related to body fat distribution: for example, waist circumference, waist-to-hip ratio, and skinfold thickness.More advanced measurements of adiposity and body composition can also be of interest. It is important to mention whether these data were obtained through self- or proxy reports or as objective measurements. When the aim of a study is to identify individuals with nutritional deficiencies, it is essential also to include an assessment of biochemical data, clinical signs of deficiency, or both, because dietary intake assessments alone can only estimate the proportion of a population at risk of nutritional deficiencies (see Nut-8.3).