Nut-8.1. Data sources and measurements: describe the dietary assessment method(s) (e.g., portion size estimation, number of days and items recorded, how it was developed

and administered, and how quality was ensured); report if and how supplement intake was assessed.

Example 1. “Individual food intake is reported through a semiquantitative FFQ covering the preceding 12-mo period. Between 1992 and 1996, the FFQ included 84 food items, such as edible fats, fruit, vegetables, milk and milk products, bread, potatoes, rice, pasta, fish, meat and meat products, chicken, traditional dishes, hot and cold beverages, sweets, sugar and jam, and snacks. From 1996, this was reduced to 66 food items by deleting entire foods (e.g., liver and kidney) or by merging similar foods (e.g., merging the 2 groups “apples, pears, peaches” and “oranges, mandarines, grapefruit” into one group “apples, pears, peaches, oranges, mandarines, grapefruit”). The 2 data sources have been harmonized and combined into 1 file for the purpose of the food pattern analysis. Portion sizes for the 3 categories of potato/rice/pasta, meat/fish, and vegetables are indicated by participants through comparison with color photos of 4 plates with increasing portion sizes. Frequency of dietary intake is reported on a 9-level scale from none to $4 times daily. For the analysis, these frequencies were transformed to a daily frequency”

Explanation.

Because each method has different characteristics and utility, clear descriptions of the specific dietary assessment method and the procedure to collect and to analyze dietary data are needed. In addition, factors such as the location and time frame of the study (see Nut-5), as well as the mode of collecting dietary data, could potentially influence both the actual diet and the reports of the habitual diet. It is therefore helpful to describe whether the intake information was reported by participants themselves, by participants with assistance from another person, or by proxy. The mode of administration (e.g., face to face interview, telephone interview, questionnaire by mail, Web formula) should also be reported. Furthermore, reporting procedures for quality control, how the quality of collected data were ensured, or both, add clarity. Because dietary assessment is subject to random error and repeated assessments could substantially reduce this error, it is important to clarify whether and how repeated dietary assessments were performed and handled in the dietary analyses, particularly in cohort studies. FFQs typically include a list of food items with questions about how often these are habitually consumed during a given time span (e.g., the previous 12 mo; for details). Because there are many varieties of FFQs, each questionnaire needs to be judged for its ability to provide the intended dietary intake information of the specific population. Essential information includes the number of food items and frequency-response categories, as well as how portion sizes were handled. Details of food items should be described, including how they were aggregated and classified, because these are questionnaire- or study specific. If possible, the FFQ should be provided as supplementary material to the article. Additional details of the FFQ that may be helpful are any control questions included (e.g., number of fish meals consumed per week when the FFQ includes several different items on fish consumption), descriptions of cooking procedures including type of fat used, as well as clear descriptions of questions on dietary supplement use. If the FFQ was intended to capture only certain aspects of the diet (e.g., a short screening questionnaire) or developed for a specific population, this should be clearly stated, and particulars with regard to the validation study should be reported (see also Nut-8.6).

Similar to the FFQ, the dietary history method was originally developed to describe the usual habitual diet of individuals. Because the method has had many adaptations and exists in a variety of combinations, it is helpful to describe the methodology and the data collection carefully. The 24-h recall is a retrospective interview method, aiming to capture the individual’s consumption the preceding day without any previous warning. Any deviation from the original method, such as if the participants were aware of which day of the interview would be carried out or whether the method was a self-instructiveWeb-questionnaire, should be stated. The number of recall days included and the days of the week (i.e., weekday or weekend) should also be stated. How portion sizes were assessed should also be reported. The instructions given to participants before the interview need to be reported, and whether interview aids were provided and if an established interview

format was followed. Food records are collected prospectively, usually by the participants. The number of recorded days (consecutive or not) and the days of the week (i.e., weekday or weekend) should be stated (see also Nut-5). Whether portion sizes were estimated should be reported (e.g., by using photographic aids) or whether foods were weighed or measured (i.e., by using household scales or measurements). It is helpful to include information on the level of detail of the written or oral instructions given (e.g., handling of foods easily forgotten such as water, decomposition of recipes), and if any aids were provided. Dietary assessment is an area in which considerable methodologic work and development have taken place. Combinations and hybrids of the common assessment methods, and new techniques for recording and reporting (e.g., the Internet and mobile phones), have been developed. When new or combinations of procedures and techniques are used, these should be described in sufficient detail and provide further science-based evidence of their specific validity.