1.15.1 Diet study

Mobile Clinic Health Examination Survey

A modified dietary history method was used to collect data on habitual food consumption over the year preceding the interview (Seppänen et al. 1973, Koskinen 1975, Järvinen 1996). The interview was guided by a preformed questionnaire (AK24 Dietary interview) listing more than a hundred food items and mixed dishes commonly used in Finland at the time of the baseline study. Food items eaten at breakfast were reported separately. The respondents gave the amounts of foods per day, week, month or year as they chose themselves. Artificial food models, pieces of real food and spoons, plates, cups and glasses of different size were available to assist in estimating the amounts of food. The method of food preparation was specified. The same questionnaire form with slight modifications in some details was used throughout the field study. Consumption of coffee and tea was not asked in the survey. Use of alcoholic beverages was systematically enquired only in the three last municipalities.

Food consumption data were directly coded on the questionnaire form. The coded data were double punched and transferred to computation. The intakes of different food items and mixed dishes reported in the interview were computed per day. The ingredients of mixed food dishes were broken down into their component foods utilizing a recipe file based on contemporary Finnish cookery books and information collected in the present and previous food consumption studies. After that the intakes of different food items reported in the interview and those derived from mixed foods were calculated per day and the intakes of nutrients and other food components were computed over all food items. The nutrient composition database used initially was founded on the Finnish food composition tables (Turpeinen and Roine 1967), which data were completed with values from foreign sources and for fatty acids with values from analyses carried out at the Department of Nutrition, University of Helsinki.

During late eighties, the nutrient composition database was updated and the coding of foods was revised overall to correspond to the new coding system of foods used in the Mobile Clinic Surveys. The overlapping food codes appearing in the original data were recognized based on municipal identification and recoded. Original local codes for breads and sausages were combined by items. In updating sweet wheat breads for which there also was municipal specific codes, other pastries, cooked rice, cooked macaroni, cooked meat and cooked fish which were originally coded as food items were treated as mixed dishes and their recipes were added in the recipe file.

For updating, a new nutrient composition database was compiled based on the food composition tables published by the Finnish Social Insurance Institution (Rastas et al. 1989). Data on tocopherols and tocotrienols (Piironen 1986), carotenoids and retinoids (Heinonen 1990), carbohydrates and fiber (Varo et al. 1984a, 1984b) and fatty acids (Hyvönen et al. 1993, Hyvönen Lea, unpublished data) were completed utilizing the values of Finnish foods analyzed at the Department of Food Chemistry and Technology, University of Helsinki during eighties. Meat fat quantities were taken up from the food composition table used initially, but their fatty acid composition data were adapted according to the new analyzed values. Analyzed values from late sixties were used for liver vitamin A. The impact of food fortification on nutrient content was determined according to prevailing practices at the time of the baseline study. The potential loss of nutrients during food preparation was not taken into account.

The intakes of foods are mainly shown as eatable stuffs. The intake of potatoes, several root vegetables and fruits is shown unpeeled, egg consumption is reported with shell and the intake of small fish (Baltic herring,

vendace) and pork chop is given with bones. The mean values and other calculated food variables were formed according to those principles used originally. Important remarks concerning the variables as well as description of the calculated variables are found in additional information (1.15.2 Dietary variables, comments). The composition of main groups (9) and subgroups (23) of food items formed based on the origin and nutrient content of food items is presented in the list of variables.

No minimum or maximum limits have been set for the intakes of food items or nutrients. It remains in the decision of the user which data he or she accepts.

During updating, the original punch card file was checked by comparing the occurrence of food codes and the intakes of energy nutrients with selected limits. When needed the data in the punch card file was revised based on checking the questionnaire form. However, all questionnaire forms were not available.

The interview included also questions about family size, the number of children, special diet, time of getting up, type and timing of meals, eating outside of home and about the use of iron and vitamin supplements. These data have not gone through logical checkup.

More details of the processing of dietary data can be found in additional information (1.15.3 Dietary data processing, 1.15.4 Dietary data processing, the appendix).