

For this study, we recoded each low-fat option to the higher fat standard (eg, low-fat cottage cheese was recoded to regular cottage cheese) and reanalyzed the FFQs. The mean number of low-fat diet practices was  $13.7 \pm 2.7$ . We found positive associations between low-fat diet practices and education, income, body mass index, and being white and married (all  $P < 0.001$ ). Absolute increases (and the percentage of increases) for nutrient measures of reanalyzed high-fat FFQs were 187 kcal (11%), 22 g fat (35%), 8.3% energy from fat (25%), and 10 g saturated fat (43%). Correlations between the reanalyzed FFQs and the standard FFQ were 0.99 for energy, 0.92 for fat, 0.81 for percentage of energy from fat, and 0.88 for saturated fat (all  $P < 0.001$ ). Analysis of the results according to food group revealed that the largest contributors to the nutrient changes were dairy foods (especially consumption of nonfat and low-fat milk), meats (especially trimming fat), and added fats (especially the use of nonfat and low-fat salad dressings). Nonfat and low-fat snacks and desserts were not important. We conclude that low-fat diet practices are widespread among older women and that FFQ items must reflect these eating patterns.

**KEY WORDS** Low-fat diet, food-frequency questionnaire, women, fat intake, nonfat food product, low-fat food product

#### **Adaptation of the Block food-frequency questionnaire to obtain adult lifetime dietary patterns from Alzheimer patients' surrogates, control subjects, and control subjects' surrogates**

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Dietary patterns throughout adult life are being investigated as part of a 5-y case-control study of risk factors for Alzheimer disease (AD). We are in the third year of data collection from 257 AD patients and 386 friend and neighbor control subjects. A self-administered life-history questionnaire was developed to obtain demographic, medical, occupational, intellectual, education, smoking, and diet histories from surrogates of patients and from control subjects. A substudy is being conducted to compare control and surrogate responses. Important issues to be considered in this kind of study are reliance on older persons' memories of earlier lifestyle factors, the use of surrogates for patients, the validity of surrogate reports, and the relation of the surrogate to the patient. The food-frequency portion of the Block Health Habits and History Questionnaire has been adapted to elicit food-intake patterns for three separate periods of adult life: age 20–39 y (P1), age 40–59 y (P2), and  $\geq 60$  y until 5 y before onset of AD (P3). Frequencies of consumption of 98 foods per day, week, month, rarely, or never are reported for each age period. For analysis, all portions are assumed to be "medium." The Block software is being used to calculate daily nutrient intake and weekly consumption patterns of foods and food groups that are important contributors of antioxidant nutrients. On completion of the case-control study, data on the intake of nutrients, foods, and food groups will be analyzed for percentile rankings. The mean percentage of energy from fat for the first 50 case subjects and 50 control subjects were, respectively, P1: 41.0 and 42.8; P2: 40.0 and 40.0; and P3: 37.5 and 34.1. This downward trend over time is

consistent with food-consumption patterns of US populations surveyed over the same time periods, thereby providing a measure of validity of the questionnaire. Vitamin A (IU) consumption per 1000 kcal for cases and controls, respectively, was P1: 5696 and 6115; P2: 5473 and 6324; and P3: 5769 and 7728. Ascorbic acid (mg) consumption per 1000 kcal for cases and controls, respectively, was P1: 78 and 79; P2: 78 and 83; and P3: 86 and 100. Use of supplements will be analyzed when the study is completed. Analyses of paired differences of control and surrogate reports for percentage of energy from fat showed no consistent patterns of underreporting or overreporting.

**KEY WORDS** Dietary pattern, Alzheimer disease, life-history questionnaire, surrogates, food-frequency questionnaire

#### **Nutritional behavior of elderly persons in private households: times of food consumption and food choice**

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The aim of this project was to obtain data on nutritional behavior, especially the frequency of warm and cold meals, courses, and combinations of these, and on the kind, frequency, and combination of foods served. The data will serve as the basis for menu planning in private households, according to individual requirements and at favorable costs. A total of 181 one- and two-person households of people aged 65–75 y agreed to participate in the project (whole-day protocols) for two periods of 6 wk each. Household types were selected according to the statistical distribution of comparable households in Land Baden-Württemberg, Germany. In addition to the protocols, subjects completed a questionnaire on the following topics: times of food or drink consumption (traditional meals such as breakfast, lunch, dinner, and snacks consumed in the mornings, afternoons, and later in the evenings on Mondays through Fridays and on Saturdays and Sundays), initial material for food preparation, shopping habits, household appliances available and their frequency of use, the kind of food purchased, and its convenience degree. Traditional meals (breakfast, lunch, and dinner) were of primary importance. Coffee or tea in the afternoon placed fourth ( $\approx 60\%$ ) and other food in the evening placed fifth ( $\approx 50\%$ ). Surprisingly,  $\approx 18\%$  of participants ate or drank something before breakfast. In the distribution of rankings of food-consumption times, differences among the various groups (men, women, and persons in two-person households) existed only in places 7–10. However, there were differences among the groups in the number of consumption times/d for both traditional meals and snacks. Fresh products were the most often preferred initial materials for food preparation, although the kind of initial material used varied according to food group.

**KEY WORDS** Household, questionnaire, food consumption, shopping, meals, snacks, appliances

#### **Patterns of change in food consumption observed during a household-based prospective study of dietary change**

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