

## **The Use Of A Food Frequency Questionnaire In An Adolescent Population: « Les Yeux Plus Grands Que Le Ventre »**

D. Paulus, A. Saint-Remy, G.Rorive, M.Jeanjean

Association Interuniversitaire pour la Prévention des maladies cardio-vasculaires, Clos Chapelle-Aux-Chanips, 30153 1200 Bruxelles

**PURPOSE OF THE RESEARCH:** to assess the reliability of the dietary information collected in an adolescent population by the analysis of the outliers' answers to a food frequency questionnaire (FFQ).

**METHODS:** cardiovascular risk factors were measured in 1526 adolescents issued from a MONICA high cardiovascular risk population (Province of Luxembourg, Belgium, 1994). Detailed dietary data were obtained from a random sub-sample of 249 participants by trained interviewers. The FFQ was completed by a photo-album and samples of alimentary products for the portion sizes.

**RESULTS:** the mean daily caloric intakes for boys and girls were respectively 4525 ( $\pm 3593$ ) and 2542 ( $\pm 1279$ ) kcal, with P90 values at 8358 and 4391 kcal/day. Comparisons with the recommended intakes show that boys' reports are far higher than the means usually published. The answers of the outliers (defined as  $> P 90$  for the caloric intakes) were therefore compared with those of the male population whose intake was less than 8358 kcal/day. Age (mean = 15y), BMI (mean = 20.1) and total cholesterolemia (mean = 155 mg/dl) were similar. The nutrients intakes as percentages of the total caloric intake did not differ for the lipids, carbohydrates and their components; protein consumption was slightly lower in the outliers' group but their alcohol consumption was three times that of the other boys. All nutrients means expressed in absolute quantities were three to ten times (for alcohol) higher in the outliers' group. For each food item a threshold value was defined as a -Very substantial amount which can be daily ingested by an adolescent. All outliers report larger daily portions for at least two food items, mainly high fat content foods.

**CONCLUSION:** Comparability studies have found FFQ to be valid instruments to measure the usual food intakes in epidemiological studies. However their use in young populations requires caution in the interpretation of the results some adolescents over report out of proportion their dietary consumption, leading to an overestimation of the whole population ingest.