

Methods: An existing database with 7 day food record data from 341 Flemish teenagers was used as the basis for this scenario research. Guidelines on n-3 intake – expressed as energy percentage – were applied to caloric needs on individual level and were translated to necessary individual daily intakes of fat from different types of fish. These data were then linked to fish contamination data for dioxins and dioxin-like PCB's on the basis of probabilistic techniques (Monte Carlo simulations).

Results: Under conditions of observed fish intake, less than 20% of the adolescents had dioxin intakes from fish above 1 pg TEQ/kgBW/d and less than 25% had overall intakes above 4 pg TEQ/kgBW/d (WHO upper limit). Under simulated conditions, taking into account recommended fish intake for n-3 FA needs, over 90% of the population had intakes above 1 pg TEQ/kgBW/d from fish leading to an overall intake above 4 pg in 55% of the population. These figures increased further to 100%, respectively 70% if fatty fish was entered as the main source of n-3 long chain PUFA's.

Conclusions: It is concluded from these data that – in view of the current contamination data – intake of fish as a source of n-3 long chain PUFA's can lead to intakes of dioxins above safety limits in a substantial part of the population.

Nr. A 0382

PS.C12

Trends in Meal Patterns in Germany – Comparison of Surveys from 1995 till 2003

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Food and beverage intakes have spatio-temporal structures. Main events of eating are called meals. Their distribution over the time of the days has relations to culture and life-style, but also to physiology and health.

Objectives: The knowledge of meal patterns in Germany is scanty. There is no current national dietary survey in Germany on this topic. Food marketing studies report on disintegration of traditional meals, our study tries to verify it.

Method: The same questions on meals were part of three omnibus-surveys in Germany. The first one was carried out in September 1995 (N = 1,250), the second one in November 1997 (N = 2,000) and the third one in November 2002 (N = 2,002) in representative samples for German population.

Results: Despite of observable tendency towards disaggregation of meal patterns most of the Germans still have at least three main meals per day: first breakfast, lunch and dinner. As a fourth meal, afternoon tea or coffee is the most common occasion, especially on weekends. During working days for the working population a second breakfast on the working place is common. Snacking is not regular in average, but in certain segments of the population. The evening meal (supper/dinner) is the most regularly meal. But asking people what is for them *the main* meal, the answer is: Lunch is *the main* meal for the average German, especially on weekends.

PS.C13

Explaining the Discrepancy Between Nutritional Recommendations and Food Practices: A Contribution of Risk Sociology

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The persistence of malnutrition problems in developing countries and the outbreak of food-related diseases in the world attest the limited impact of the political measures. The gap between experts' recommendations in nutrition and food practices does not seem to be due to a lack of knowledge, in most cases. Therefore, other hypotheses have to be found. Our article explores two paths of potential explanation.

Our first explanatory hypotheses are to be found in the analysis of the relationships between risk and behaviour. For instance, some individuals would not perceive risk caused by inadequate diet or would be overly optimistic about their risk control potential: this overconfidence could block the risk awareness process. Conversely, some consumers would be conscious of the risk but would accept it because of socio-cultural or hedonic factors; they also might have to because of economic constraints. Consequently, attitudes to nutrition would not lead to changes in behaviour. Furthermore, it would appear that the subjects may build a mental protection against risk: this means that they associate the risk to another group than theirs, considering themselves not exposed to the risk. It is a form of risk deny.

The second explanatory path we explore concerns the study of risk perception divergences between risk management experts and the profanes. Scientists generally qualify the public perception of risk as 'irrational', as it differs from their own probabilistic and 'objective' perception. But the integration in risk perception evaluation of individual perceptions, which are social, heavily influenced by beliefs and subjectivity, would seem to offer a means of improving risk food management.

On the basis of these analyses, new paths as regards to nutritional politics can be put forward.

PS.C14

Vegetable Consumption and Number of Main Meals at Findiet 2002 Study

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Aim: We studied meal patterns and food selection in main meals and snacking in Finnish adults. The aim was to probe connections between consumption of vegetables and pattern of main meals per day.

Material and Methods: A dietary survey was introduced to 2007 Finnish adults in the national dietary survey. Dietary data was collected with a computer-assisted 48-h recall interview. Data collection for every meal started with definition of meal, time and place of the meal and continued with details of food descriptions and amounts consumed. Meal pattern was determined with count of main meals per day, and energy content of meals.