



**National Consumption Surveys –
National Action Plans**

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Abstracts

Max Rubner-Institut
Federal Research Institute for Nutrition and Food

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Overview: “Consumption surveys in different European countries” on the basis of the European Nutrition and Health Report 2004- 14 countries

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In 2004 the first European Nutrition and Health Report, funded by the European Commission, was published. It was the first report combining health and nutrition data from 14 European Countries (Austria, Belgium, Denmark, Finland, France, Germany, Greece, Italy, Norway, Portugal, Spain, Sweden, the United Kingdom and Hungary). The main goals of the report were

- The compilation of available food and nutrient intake and health data,
- The identification of major nutrition and health problems in the participating countries and the EU regions,
- The identification of inadequacies of data collected in the participating countries which would make a comparability of the collected data difficult.

The final report consisted of 4 main parts

- Food supply at population level, calculated from FAO food balance sheets (FBS)
- Food availability at household level, calculated from household budget surveys (HBS), data from the DAFNE databank
- Nutrient intake at individual level, calculated from national individual nutrition surveys
- Health Indicators and Status in the EU (before expansion from January 2005).

Main results:

The average availability of fruits and vegetables was low whereas the availability of meat and meat products and sugared soft drinks was high.

Intake levels of energy, fat, saturated fatty acids, sugar, cholesterol and sodium exceeded the guidelines, intake levels of carbohydrates, dietary fibres, vitamin D, folate, calcium, iodine and iron (in women) were too low.

The prevalence of overweight and obesity was high, and a general low level of physical activity and a low proportion of persons who exercise regularly were observed. The proportion of smokers was high and showed in most countries an increasing trend.

Recommendations for Future Europe Wide Monitoring Projects:

- Standardized methods for the assessment of food and nutrient intake
- Uniform age groups and cut-offs for the classification of overweight and obesity
- Standardized method for physical activity assessment
- Uniform educational levels
- European wide valid reference values should be updated

In September 2008 the work on the European Nutrition and Health Report 2009 started with 24 project partners representing 25 countries. Additionally to the 14 countries participating in the first European Nutrition and Health Report, the Czech Republic, Cyprus, Estonia, Ireland, Latvia, Lithuania, Luxembourg (represented by Belgium), Poland, Romania, Slovenia and The Netherlands joined the project. A questionnaire on available data from participating countries showed similar problems in terms of inhomogeneity. For example Nutrient Intake data of adults were assessed by 24-h-recall (12 countries), repeated 24-h-recall (6 countries), estimated food records (3 countries), weighed food records (3 countries), diet history (1 country), Food Frequency Questionnaire (17 countries) and other methods (11 countries).

Thus, data on Nutrition and Health in Europe are still very inhomogeneous, therefore comparison of data is difficult and interpretation limited. Further actions to harmonize data collection in Europe are desirable.

Food consumption in Germany – Results of the second German National Nutrition Survey

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The second German National Nutrition Survey (NVS II) is a cross-sectional study and its aims are to provide information on current food consumption, energy and nutrient intake as well as on lifestyle and eating behaviour of the German population. 15,371 participants aged 14 to 80 years were asked about their usual food consumption of the past 4 weeks (dietary history interview). Data collecting started in November 2005 and ended in November 2006. Data were weighted with regard to the data of the official representative statistics.

In Germany, the daily average consumption of fruit is 270 g for women and 222 g for men. The recommendation to eat 250 g fruit per day, as it is given by the German Nutrition Society (DGE), is (nearly) reached on the average. Nevertheless 59 % of the German population eat less fruit as recommended. Only a little more than a half of the recommended amount of vegetables (three servings = 400 g per day) is consumed, if dishes based on vegetables are included. Bread is an important food in the nutrition of the German population. On the average men eat 3-4 slices and women 2-3 slices of bread daily. The daily consumption of milk, dairy products and cheese including dishes based on milk is 265 g for men and 244 g for women. From these amounts milk and mixed milk drinks have a proportion of nearly 49 % (men) and 40 % (women), respectively.

Men eat the double amount of meat and sausages as women. Including dishes based on meat, the average consumption is 160 g for men and 84 g for women. In particular, the given recommendation by the DGE is clearly exceeded by men. On the average about one portion fish per week is eaten. 16 % of the participants did not eat fish or fish dishes during the last four weeks before the interview.

The total amount of non-alcoholic beverages is 2.4 l for men and 2.3 l for women. Thereof one half is water and one quarter coffee and tea (black/green). The average intake of beverages is adequate in comparison with the recommendation. Men drink four times more alcoholic beverages than women (308 and 81 ml/d, respectively). Men prefer to drink beer (80 % of the alcoholic beverages) and women drink beer as well as wine in equal amounts (proportion of about 50 % for each). For 25 % of men and 16 % of women a too high alcohol intake was assessed.

Regarding the relation between food consumption and region, there are differences in the consumption behaviour between western and eastern Germany. Fruit as well as butter/margarine and sausages were eaten in higher amounts from people in eastern Germany. However, grain products as well as coffee and tea are consumed less in eastern Germany.

In the NVS II five groups of socio-economic status were classified by school education of the participants as well as by income and professional classification of their household. Women and men with lower socio-economic status eat less food with a more favourable nutrient composition like vegetables, fruit and fish in comparison to people belonging to the upper classes. By contrast more fatty and sweet food like meat, sausages, butter/margarine and sweets is eaten by people with a low socio-economic status.

In conclusion, the German population doesn't eat enough foods of plant origin e.g. vegetables in comparison to the recommendations of the DGE. Furthermore, men eat too much meat and sausages. Our results indicate that there are differences in the consumption behaviour in dependency on socio-economic status and region.

The German Nutrient Database - the national nutrient database as basis for the calculation of the energy and nutrient intake

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The German Nutrient Database (BLS) is the basis to determine the energy and nutrient intake for nutrition surveys in Germany. Since May 2004, the BLS has been hosted at the Max Rubner-Institute (MRI) in Karlsruhe, who is responsible for its further maintenance and development. In the upcoming BLS version II.4, the database comprises about 14,000 foods available in the German market including fresh foods, composite foods, processed foods and dishes, which are all described by 133 components. Nutrient data are based on analyses conducted at the MRI and at national partner institutions. These data are completed by data published in the scientific literature.

Regarding these 14,000 foods, analytical values of approximately 1300 non-processed and primary processed foods are available. Analyzing ready-to-eat dishes is preferable but this is also expensive and time consuming. Hence, nutrient values of these dishes are calculated on the basis of ingredient data. For those calculations, weight yield and nutrient retention factors must be precisely known. These factors describe the changes of nutrient content occurring during food preparation depending on the cooking method, including temperature and time. Calculations based on analytical values derived from primary ingredients are performed for composite foods, processed foods and dishes.

Accordingly, the database has been technically improved, including a new online computation and cooperation platform for data generation and networking. The computation platform is the central software of the BLS, which comprises analytical data as well as nutrient retention factors and weight yield factors. Each nutrient value is combined with the required information for corresponding documentation (metadata). Also, every nutrient value has its own archive, including its origin and record of changes. This is in accordance with standards being carried out within the European Food Information Resource Network (EuroFIR, www.eurofir.net). The cooperation area of the platform supports the BLS network. The BLS network associates partners with the aim to develop the national and international food composition data pool for the BLS. At present, the national BLS network consists of federal institutes, state departments of food control and analysis, research facilities and the German food industry. The German food industry provides nutrient data within the BLS cooperation platform using their own password-protected area. Data transfer is voluntary, thus ensuring its confidentiality and feasibility. After generation and assessment, the BLS data are transferred and published online (www.blsdb.de) providing a user-friendly access for customers. Therefore, the BLS consists of two separate online platforms: on the one hand, the computation/ cooperation platform for data generation and, on the other hand, the gateway for data presentation and marketing.

The over all BLS aims are compilation of coherent nutrient data, development of flexible data structures, application of state of the art data software and cooperation with nutrient data networks.

Back, Proceedings and Future Development of the European Food Information Resource Network of Excellence (EuroFIR)

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The variability, incomparability and incompatibility in food composition data can lead to many misinterpretations and heterogeneity in, and between, European food composition databases and tables. This is the cause of the most common errors when comparing food composition and nutrient intake data over the European borders.

The EuroFIR network has grown to 48 partners from 25 countries, comprising of nearly 200 researchers and PhD students. Further collaborative links have been made to national food database compiler organizations from Hungary, Estonia, Croatia, Slovenia, Czech Republic and Romania, and other interested organizations from outside Europe. The network has made good progress towards establishing a sustainable European association of national food database compilers, and much progress has been made at strengthening scientific and technological excellence in food composition research in Europe for the benefit for a wide variety of users and stakeholders from academia, regulators and industry.

The primary aim of EuroFIR is to develop and implement a food composition databank system, which uses the same methods of food description and component description for all the European food composition datasets on nutrients, as well as specialized datasets on, for example, bioactive components. The presentation will describe some of the ways the EuroFIR project will be use to harmonize and standardize European food composition data including:

- Standardized food description
- Standardized component and value description
- Development of standard data interchange formats
- Development of search functions and facilities
- Investigations of new food composition data interfaces

Furthermore, the presentation will describe the current status of the development of the EuroFIR food composition data platform, the work on the CEN standard, and the EuroFIR web services. Finally the talk will outline our future activities and role of the newly to be created EuroFIR AISBL (*Association Internationale Sans But Lucratif*; International, Non-Profit Association based in Belgium).

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Energy and nutrient intake in Germany – Results of the second German National Nutrition Survey

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Within the second German National Nutrition Survey food consumption was assessed by dietary history interviews. These interviews were carried out with 15,371 women and men all over Germany. Nutrient intake was calculated by using a preliminary version of the German Nutrient Database II.4. In the following selected results of nutrient intake by food consumption and intake of dietary supplements are shown.

The average energy intake is 1833 kcal/day for women and 2413 kcal/day for men. This corresponds to the guiding value for energy intake valid for *low* physical activity. One third of the women and men even exceed the guiding values of the German, Austrian and Swiss (D-A-CH) reference values for energy intake valid for *moderate* physical activity. Percentage of energy intake from carbohydrates is below the guiding value of >50 % for both sexes (women 49 % and men 45 %). About three-quarter of men and half of the women don't reach the guiding value for carbohydrates. Percentage of energy intake from fat is still too high (women 35 % and men 36 %). 76 % of women and 80 % of men are above the guiding value of 30 %. Percentage of energy intake from protein is 14 % for both women and men. In Germany food with dietary fibre is consumed insufficiently: 75 % of women and 68 % of men are below the guiding value for dietary fibre of at least 30 g/day. The average intake is 23 g/day for women and 25 g/day for men.

In general the German population is well provided with vitamins and minerals. But critical nutrients are folate and calciferols for all age groups as well as calcium and iron for some age groups. 86 % of women and 79 % of men don't reach the recommended intake of folate equivalents. In total 91 % of women and 82 % of men are below the recommendations for calciferol intake. Thereby the proportions of adolescents and young adults as well as older people are the highest. In addition female adolescents as well as older women and men are below the recommended intake for calcium. Therefore these age groups present risk groups regarding the prevention of osteoporosis. Especially women of childbearing age don't reach the recommendations for iron. For the evaluation of iodine intake iodized salt should be considered.

About 31 % of women and 24 % of men take vitamin and mineral supplements. Dietary supplements are used most frequently by subjects at the age between 35 and 50 years.

Regarding mineral supplements magnesium and calcium supplements are most frequently used (15 % and 11 % of the population, respectively). Both minerals are taken more often by women than by men. Regarding vitamin supplements ascorbic acid ranks first (13 %) followed by tocopherol (11 %), thiamin, riboflavin, pyridoxine and cobalamin (10 %) and folic acid (10 %). Thereby only little differences are found between women and men.

It can be shown that on average recommended intake levels of ascorbic acid, tocopherol equivalents, thiamin as well as Magnesium are already reached by food consumption. However subjects who take folic acid supplements on average don't reach the reference value by food consumption (women 66 % and men 74 % of the reference value). But intake of folate equivalents increases to about 150 % of the reference value by use of dietary supplements.

Food and nutrient intake of children and adolescents in Germany – Results of EsKiMo

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As a module of the German Health Interview and Examination Survey for Children and Adolescents (KiGGS) a nutrition survey was conducted by the Robert Koch Institute together with the University of Paderborn, among 6-17-year-old participants. The module is called EsKiMo (Eating study as a KiGGS Module) and is funded by the Ministry of Food, Agriculture and Consumer Protection. It provides national representative information on food and nutrient intake of 2506 children and adolescents in Germany.

From January to December 2006, the food and nutrient intakes of 2506 participants, randomly selected from 150 KiGGS sample points, were assessed. As children and adolescents may differ in their recall abilities, knowledge and awareness of food intake as well as eating out behaviour, different dietary assessment methods were used.

Parents of children aged 6-11 years were asked to conduct a 3-day estimated food diary. This diary, including instructions and a picture booklet was provided by mail. Standard household measures and the picture booklet, adapted from the EPIC study, were used to quantify portion sizes. Additional information about the foods consumed, such as brand name, nutrient enrichment, packing material and preparation method was also collected. During the days of recording, support was given by telephone. After recording, the foods were coded using the Eat 2006 software.

Participants aged 12-17 years were interviewed at home or in a mobile interview unit (van) about their usual food intake during the past four weeks, according to a modified diet history method, using the dietary assessment software DISHES. A previous version of DISHES was applied in the German Nutrition Survey 1998 and was updated for use in the second German National Nutrition Survey. Portion sizes were estimated with models of cups, glasses, plates and bowls as well as the picture booklet. Up to 7 % of the participants preferred to be interviewed in the car.

Additional relevant information, for instance supplement use was also obtained for both age groups. In the main survey KiGGS, information on many other aspects, like health status, physical activity and socioeconomic status was assessed. The overall participation rate was 63 %.

Children and adolescents consume less fruit and vegetables but more meat, sausages, candy and soft drinks than recommended. Whereas adolescents drink enough fluids, about half of the children aged 6-11 years do not. The average intake of energy, fat and carbohydrates is in line with the reference values. The ratio of saturated to polyunsaturated fatty acids as well as the proportion of mono- and disaccharides to polysaccharides is not optimal. The average supply of vitamins and minerals is predominantly sufficient. However, the intake of vitamin D and folate in general, of calcium, vitamin A and E among 6 - to 11-year olds and of iron among girls is insufficient.

Results of the National Diet and Nutrition Surveys in Great Britain

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The National Diet and Nutrition Survey (NDNS) programme, in its original form, was a series of cross-sectional surveys covering the general population of Great Britain. Each survey examined a nationally representative sample drawn from four age groups; children aged 1½ - 4½ years (fieldwork 1992/93), young people aged 4 – 18 years (1997), adults aged 19 – 64 years (2000/01) and older adults aged 65+ years (1994/95). The programme did not cover infants aged under 18 months, pregnant and lactating women or people living in institutions, although the survey of older adults also included a sample of adults living in residential and nursing homes as well as in private households. The 2000/01 survey of adults completed the cycle of surveys, repeating an earlier comparable survey of this age group carried out in 1986/87. Each survey collected detailed quantitative information on food consumption and nutrient intake, physical measurements, nutritional status indices and socio-economic, demographic and lifestyle characteristics.

There is some evidence of positive dietary changes in the population, especially lower intakes of fat and saturated fat in the 2000/01 survey compared with the 1986/87 adults survey, but the findings from surveys of these and the other age groups highlight a number of areas for concern. Consumption of fruit and vegetables is below the recommendation in all age groups, especially young adults and people in lower socio-economic groups. There is evidence of low intakes and status for some vitamins and minerals, particularly in older children, young adults and older people living in institutions. The proportion of energy intake derived from non-milk extrinsic sugars (NMES) exceeds the recommendation in most age groups, particularly for children and young adults. There is also evidence of marked differences in diet and nutritional status associated with socio-economic status. These findings indicate a need to improve the balance of the diet for the population as a whole with the focus on children and young adults.

The Food Standards Agency has set up a new rolling programme for future NDNS, whereby the survey runs continuously and so generates data more rapidly than under the current system. This strengthens the ability to track changes over time and gives more flexibility to respond to policy needs. The programme continues to cover people of all ages from 1½ years upwards and is designed to be representative of the UK population (including Northern Ireland). Following pilot work in 2007, fieldwork for the rolling programme began in April 2008. Headline results from the first year of fieldwork are expected at the end of 2009.

Results of the Dutch National Food Consumption Surveys.

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Introduction. In the Netherlands, food consumption surveys are in place since 1987. After three nationwide surveys with 5-year intervals (1987/1988, 1992, 1997/1998), a new dietary survey system was developed. The main aim of the system is to provide data on intake distributions of food groups, energy, nutrients, and potentially hazardous substances of the Dutch population and important target groups.

Methods. The new dietary monitoring system consists of various modules of which three are implemented. The core of the system comprises a continuous collection of data pertaining to the general population aged from 7 to 69 years. The core survey started in 2007, after a pilot study among 750 young adults (19-30 y) in 2003. Food consumption is assessed using two non-consecutive 24-h dietary recalls in combination with a self-administered questionnaire; subjects are recruited from consumer panels. The second module is aimed at specific target groups: young children, ethnic groups, pregnant and lactating women, and (institutionalized) elderly people. As part of this module, 1279 children 2-6 years of age were studied in 2005/2006 using structured food records. At present, a survey among elderly people is in preparation. The third module is aimed at nutritional status. The studies in this module are specifically targeted at nutrients for which intake cannot be assessed well using food consumption surveys (sodium and iodine excretion in 2006), and to evaluate signals of possible inadequate intake (among children in 2008). The main results of the pilot study among young adults, the food consumption survey among young children, and urinary sodium excretion by adults (to estimate salt intake) are presented here.

Results.

Young adults. None of the 750 young adults consumed 200 g of vegetables daily and less than 10% of the population consumed the recommended 200 g of fruit per day. Over half the respondents (53% of the women and 58% of the men) consumed a diet containing less than 35% energy fat. The recommendation to use a diet with less than 10% energy from saturated fatty acids was met by few: 11% of the men and 6% of the women. Almost 60% of the men and 28% of the women used a diet that contained less than 1% energy from trans fatty acids.

Young children. The diet was adequate in terms of the proportions of total fat, carbohydrates and protein. However, the fatty acid composition of the diet was unfavorable, because fish consumption (rich in fish fatty acids) is low, and saturated fatty acid intake especially in 4 to 6 year-old children is high. Only a small proportion of children met the recommended vegetable intake. For fruit the situation was slightly more favorable (one in four). Furthermore, one in seven children was found to be overweight or obese, indicating a positive energy balance in the period prior to the study. Intakes of most vitamins and minerals were shown to be adequate, with the exception of vitamin D and folate.

Salt intake in adults. The salt intake among 333 men and women aged 19 to 70 years from the town of Doetinchem and surroundings was above the recommended 6 g per day, with an average of 8.8 g per day. The highest mean intake was for men aged 19 to 49 years, 10.1 g salt per day, but also among older men and among women mean intake was considerably higher than recommended.

Conclusions. Food consumption data are essential to underpin a policy that will provide adequate healthy nutrition and food safety. In line with other countries, several aspects of the Dutch diet deserve attention. These are the high energy intake in relation to low energy expenditure, the unhealthy fatty acid composition of the diet, the low consumption of vegetables, fruits, fiber-rich cereals, and fish, and high intake of salt. Moreover intake of dietary folic acid is inadequate, as well as intake of vitamin D among young children, the elderly, and some ethnic groups.

The Danish National Survey of Dietary Habits and Physical Activity

An overview and some results focusing on food consumption and nutrient intake

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Aim: To monitor status and trends of the food consumption and nutrient intake and the level of physical activity in the Danish population. Focus is to identify potential food and nutrition-related health problems, including dietary exposure of contaminants and additives. Further aims are to analyse determinants of dietary habits and physical activity and identify effects of health promotion initiatives.

Material and methods: The survey is cross-sectional and comprises a simple random sample from the Danish Civil Registration System. Data has been collected continuously since year 2000 for more than 7.000 participants (4-75 y). Information about social and cultural variables is obtained through a face-to-face interview and dietary data is collected by a 7-d pre-coded food diary. Physical activity is assessed by a modified version of the IPAQ instrument. The response rate for dietary data was 52 % in 2000-2006.

Results

The major health problems related to the Danish diet are the low intake of fruit and vegetables and other fibre-rich foods, and the high intake of fat, especially saturated fat, added sugar and alcohol. In the period 2003-2006, 84 % of adults (>10 y) and 67 % of children (4-10 y) had an intake of fruit and vegetables lower than the guidelines. Mean intake was 398 g/d and 353 g/d for adults and children respectively. Intake of fat was higher than recommended for almost 80 % of all children and adults. Mean percentage of energy from fat was 35 for adults (>14 y) and 34 for children (4-14 y). Sixty-four percent of children had an intake of added sugar beyond the recommended level, (mean intake: 12 E %), while 42 % of adults had an intake of alcohol beyond the recommended level (>15 y: 6 E %).

Trends in Danish dietary habits showed an increase of consumption of fruit and vegetables in the period 1995-2006, and a decrease in intake of fat, added sugar and alcohol. Results indicate that the positive development from 1995 to 2000-2002 has been followed by stagnation.

Conclusion

The composition of the Danish diet has improved since 1995, but results indicate that the positive development has been followed by stagnation since 2002. The majority of Danish children and adults are still eating a diet with too little fruit and vegetables and too many energy dense foods.

Results of the National Nutrition Surveys in Austria

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The Austrian Study on Nutritional Status (ASNS) was established in 1991. Since then several cross-sectional surveys relating to diet, nutrition and lifestyle have been carried out in selected population groups. The results have been documented in five nutrition reports (national reports in 1998 and 2003; regional reports for Vienna in 1994 and 2004). For the upcoming Austrian Nutrition Report 2008, recent nationally representative nutrition surveys have been carried out, using a modular concept, in selected population groups, including school children (6-15 y), adults (18-65 y), older adults (56-100 y), and pregnant women. In addition, representative surveys to assess eating habits, drinking behaviour, nutrient intake from dietary supplements, and to quantify physical activity/energy expenditure have been carried out in adults (18-65 y).

Depending on the objectives and available resources for the different surveys, appropriate methods and sample-sizes were defined. In order to get representative samples, different sampling strategies were used. Diet was assessed by means of a 3-day estimated food record in school children and older adults and by means of a single 24-hour recall in adults and pregnant women. Nutrient intake from dietary supplements was assessed by means of an adapted quantitative food-frequency questionnaire. Physical activity was assessed by means of the International Physical Activity Questionnaire (long format). The final sample sizes for the surveys assessing energy and nutrient intake were 780 (school children), 2123 (adults), 423 (older adults), and 570 (pregnant women). Selected results are presented for energy and nutrient intake in three population groups.

Reported daily energy intake was low in all age groups and decreased compared to 2003. Mean daily energy intake was 1660 kcal (boys) and 1467 kcal (girls) in school children, 1790 kcal (women) and 2147 kcal (men) in adults, and 1730 kcal (women) and 1876 (men) in older adults.

Mean daily energy expenditure in adults as assessed by the IPAQ was 3000 kcal in adult men and 2150 kcal in adult women.

A high daily intake of fat was observed in all age groups ranging from 34 %energy (school children) to 35 %energy in adults, and 38 %energy (older adults). Saturated fatty acids were the major contributor to daily fat intake (14 to 16 %energy). Conversely, low daily intakes were observed for carbohydrates (43, 44, 52 %energy in adults, older adults, and school children, respectively). Rather low were also mean daily intakes of dietary fibre with 2.3 g/MJ (girls) and 2.2 g/MJ (boys), and 2.7 g/MJ (women) and 2.2 g/MJ (men) in adults, and 2.4 g/MJ (women) and 2.2 g/MJ (men) in older adults. Regarding micronutrients mean daily intakes of vitamin D, folate, and calcium were well below the respective dietary reference intakes (DRI) in all population groups. In addition, mean daily intakes well below DRIs were observed for iodine in school children and for magnesium in older adults.

All surveys have been carried out within the “Austrian Nutrition Report 2008” project, commissioned by the Austrian Federal Ministry of Health, Family and Youth.

The presented data on energy and nutrient intake of different Austrian population groups can be used for possible public health nutrition strategies as well as for international comparisons.

Global strategies to prevent obesity

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Obesity was recognised as a global problem by the World Health Organization in the mid-1990s, with the expert committee report on the issue published first as a manuscript in 1998 and then as a WHO technical report in 2000. The difference between a global problem and a series of national problems is in the actions of the key players which raise the risk of obesity – i.e. the globalising economy which transfers risk factors around the world, with little regard for national borders.

The key issues identified in the WHO report included the most proximal, biological causes of obesity – the lack of balance between energy intake and energy expenditure – but also considered the more distal causes of obesity – the changes in the environment which lead to changes in food intake and physical activity behaviour. These have been occurring in some economies ahead of others, but crucially they are now affecting all economies, with virtually all nations showing a rise in obesity prevalence in the last two decades, among both adults and children.

Obesogenic environments are now the subject of much discussion. How did we create them and how will we control them? Many strategies to combat obesity are being proposed, and they apply at local, national and global level. Locally, we see changes in the physical environment to encourage safe and enjoyable physical activity. We see changes in the school environment to control access to vending machines selling fatty and sweet snacks and soft drinks. We see regulations at city level to require fast food stores to display the calorie content of foods.

At national level we see food labelling initiatives, controls on advertising to children, the promotion of fruit and vegetables in schools, proposals to change the prices of food through taxation and subsidy, proposals to control the numbers and types of retail food outlets.

At global level we still have some way to go. Getting a grip on the multinational corporations that encourage soft drink consumption, fast food, processed fats, oils, starches and sugars, encourage the use of cars and the building of roads, encourage TV watching and video game-playing – will prove very difficult. A start is being made with a WHO initiative to draft a Code of Marketing to children which will limit the promotion of soft drinks and fatty, sugary foods. But there is a long way to go if we are to challenge the right of companies in a 'free market' to sell us anything they can, using all the psychological skills and techniques they have available, even if it causes a health risk. A few ideas for legitimately intervening to control the free market will be suggested.

IN FORM – Germany’s Initiative for a Healthier Diet and More Physical Activity

Ursula Horzetzky

Federal Ministry of Food, Agriculture and Consumer Protection (BMELV)

Overweight and obesity and the associated diseases of modern society constitute a global problem. In Germany, too, 66 % of men and 51% of women from 18 to 80 years of age as well as 15 % of children and adolescents (under 18 years of age) are either overweight or obese with the inevitable consequences for individuals as well as for society.

Therefore, the BMELV has together with the Federal Ministry of Health (BMG) drawn up a **National Action Plan on the prevention of unhealthy eating, a lack of exercise, overweight, and related diseases** entitled "**IN FORM – Germany's Initiative for a healthy diet and more exercise**" that was adopted by the Federal Cabinet on 25 June 2008.

The National Action Plan aims to

- bring about lasting improvements in dietary and exercise habits of the population by 2020;
- stop the increase in diet-related illnesses.

"IN FORM" is designed to build up networks between actors and measures, standardize recommendations on dietary and exercise habits, publicize exemplary projects as well as to create permanent structures to facilitate a healthy lifestyle on one's own responsibility. The aim is to provide everybody, if possible, with the relevant information and same knowledge base. Bearing this in mind, the focus of the measures was enlarged beyond children and adolescents and now comprises the public at large, starting with pregnant women and young parents via day-care centres for children, schools, training establishments and workplaces to senior citizens. We must keep on directing concrete information towards specific target groups in the future as well.

The following basic principle applies: no lecturing, no discrimination, no multiplicity of dictates and prohibitions. What matters is to provide support and motivation, change structures and circumstances so as to make healthy lifestyle choices easier. The fundamental message must be: a healthy diet and more physical activity enhance the zest for life, self-confidence and fitness.

This is new about IN FORM: the first global strategy of the Federal Government; the aim is to create a large "dietary movement" covering all spheres of life instead of selective motivation and information here and there; adults are added as a target group; alongside day-care centres for children and schools the workplace becomes a key location for improving dietary and exercise habits; more and better possibilities to engage in physical exercise in everyday life and spare time are brought into the spotlight; the family is seen as the central place to improve dietary and exercise habits; promising approaches are identified, networked and pooled; uniform dietary recommendations and standards are elaborated and disseminated and finally: there is a central campaign room under which the actors can join forces.

Numerous measures and projects launched by the BMELV to promote healthy eating and more exercise that had been united within the scope of "IN FORM" will contribute to this.

Healthy Weight, Healthy Lives: a Cross Government Strategy for England.

Ailsa McGinty

Department of Health, England

Obesity provides one of the most significant and complex public health challenges for England and many other countries for the 21st century. Projections by the UK's Government Office for Science suggest that without clear action almost nine out of ten adults and two thirds of children in Britain will be either overweight or obese by 2050. In order to address this growing epidemic a strategy *Healthy Weight, Healthy Lives: a Cross Government Strategy for England* was put in place in January 2008. This presentation will focus on the action and approach set out in the strategy that will be taken forward collectively by government, industry and other agencies to address the issues and the key part played by nutrition and food policy. It will also share the national communications campaign that will be launched early next year to drive both societal and individual behaviour change to help the UK's Government achieve its ambition *to reverse the tide of obesity* and in particular *to have reduced the proportion of overweight and obese children to 2000 levels by 2020*.

Nordic Plan of Action on better Health and Quality of Life through Diet and Physical Activity 2006-2011

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Nordic co-operation is one of the world's most extensive forms of regional collaboration, involving Denmark, Finland, Iceland, Norway, Sweden, and the three autonomous areas: The Faroe Islands, Greenland and Åland. Nordic cooperation play an important role in European and international collaboration, and aims at creating a strong Nordic community in a strong Europe. Nordic cooperation seeks to safeguard Nordic and regional interests and principles in the European and global community.

It is the overall ambition of the Nordic Council of Ministers to ensure better health and quality of life on equal terms for all Nordic citizens. In order to pursue this goal the Nordic Council of Ministers in 2006 published the Nordic Plan of Action on better health and quality of life through diet and physical activity. The Nordic working group on diet, food and toxicology will coordinate the implementation of this action plan.

The plan formulated goals for the year 2011 within the areas of diet, physical activity, overweight and social inequality. To reach these goals the consumption of fruits, vegetables and whole-grain bread and cereals has been increased and the intake of fat, especially saturated fat and trans fatty acids, and added sugar has been reduced. Furthermore, the intake of salt has been maintained or reduced. According to physical activity the current trend, where an increasing proportion of adults and children are physically inactive, has been brought to a halt and at best reversed and the continuing increase in the proportion of the overweight and obese has been stopped and at best reversed. Finally, social inequality in health in the Nordic countries with regard to overweight, unhealthy diet, and physical inactivity must not have deepened further and at best have been reduced.

All of the Nordic countries have health promotion initiatives in a wide range and areas. Many of the initiatives focus on the areas diet and physical activity and are targeted at different age groups, socially disadvantaged groups. All of the Nordic countries have special focus on children and youth.

To follow up on the development in these areas, the Nordic Council of Ministers decided to develop a common Nordic monitoring. Nordic surveys on diet, physical activity, and overweight provide crucial information for the formulation of policies. It is the ambition that data will be collected every second year and in a representative way cover gender, predefined age groups (among children and adults), and social strata. The common monitoring will provide the general public and decision-makers with adequate and updated information on status and trends within the areas of diet, physical activity, and overweight and promote Nordic cooperation in achieving common ambitions.

A large-scale practical initiative that supports the 2011-goals is the common Nordic signposting (green keyhole), which will be put into effect in Sweden, Denmark and Norway from spring 2009. The green keyhole will guide the consumer to the most healthy food products within different groups of food.